

Pakistan



**Demographic and
Health Survey
2006-07**

Pakistan Demographic and Health Survey 2006-07

**National Institute of Population Studies
Islamabad, Pakistan**

**Macro International Inc.
Calverton, Maryland USA**

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This report summarizes the findings of the 2006-07 Pakistan Demographic and Health Survey (PDHS) carried out by the National Institute of Population Studies. The Government of Pakistan provided financial assistance in terms of in-kind contribution of government staff time, office space, and logistical support. Macro International provided financial and technical assistance for the survey through the MEASURE DHS programme, which is funded by the U.S. Agency for International Development (USAID) and is designed to assist developing countries to collect data on fertility, family planning, and maternal and child health. Additional support for the PDHS was received from the United Nations Population Fund (UNFPA)/Pakistan and from UNICEF/Pakistan. The opinions expressed in this report are those of the authors and do not necessarily reflect the views of the donor organisations.

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FOREWORD

The 2006-07 Pakistan Demographic and Health Survey (PDHS) is the fifth in a series of demographic surveys conducted by the National Institute of Population Studies (NIPS) since 1990. However, the PDHS 2006-07 is the second survey conducted as part of the worldwide Demographic and Health Surveys programme. The survey was conducted under the aegis of the Ministry of Population Welfare and implemented by the National Institute of Population Studies. Other collaborating institutions include the Federal Bureau of Statistics, the Aga Khan University, and the National Committee for Maternal and Neonatal Health. Technical support was provided by Macro International Inc. and financial support was provided by the United States Agency for International Development (USAID). The United Nations Population Fund (UNFPA) and United Nations Children's Fund (UNICEF) provided logistical support for monitoring the fieldwork for the PDHS.

The 2006-07 PDHS supplements and complements the information collected through the censuses and demographic surveys conducted by the Federal Bureau of Statistics. It updates the available information on population and health issues, and provides guidance in planning, implementing, monitoring and evaluating health and population programmes in Pakistan. Some of the findings of the PDHS may seem at variance with data compiled by other sources. This may be due to differences in methodology, reference period, wording of questions and subsequent interpretation. This fact may be kept in mind while analyzing and comparing PDHS data with other sources. The results of the survey assist in the monitoring of the progress made towards meeting the Millennium Development Goals (MDGs).

The 2006-07 PDHS includes topics related to fertility levels and determinants, family planning, fertility preferences, infant, child and maternal mortality and their causes, maternal and child health, immunization and nutritional status of mothers and children, knowledge of HIV/AIDS, and malaria. The 2006-07 PDHS also includes direct estimation of maternal mortality and its causes at the national level for the first time in Pakistan. The survey provides all other estimates for national, provincial and urban-rural domains. This being the fifth survey of its kind, there is considerable trend information on reproductive health, fertility and family planning over the past one and a half decades.

The survey is the result of concerted effort on the part of various individuals and institutions, and it is with great pleasure that we would like to acknowledge the work that has gone into producing this useful document. The participation and cooperation that was extended by the Technical Advisory Committee during different phases of the survey is greatly appreciated.

We would like to extend our appreciation to USAID/Pakistan for providing financial support for the survey. We extend our sincere thanks to Macro International Inc. for their technical support. The earnest effort put forth by the core team of the PDHS in the timely completion of the study is highly appreciated. We would also like to admire the ceaseless efforts of the entire staff of NIPS and their dedication in the successful completion of the 2006-07 PDHS. This report serves not only as a valuable reference but is a call for effective action both for the health and population programmes of the country.



(Nayyar Agha)
Secretary,
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Secretary,
Ministry of Health

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(Mehboob Sultan)
Project Director

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SUMMARY OF FINDINGS

The 2006-07 Pakistan Demographic and Health Survey (PDHS) is the largest household-based survey ever conducted in Pakistan. Teams visited 972 sample points across Pakistan and collected data from a nationally representative sample of over 95,000 households. Such a large sample size was required to measure the maternal mortality ratio at the national level. In fact, this is the first survey that provides direct estimates of the maternal mortality ratio at the national level. The PDHS is the fifth national survey on demographic and health issues carried out by the National Institute of Population Studies (NIPS) and the second survey as part of the worldwide Demographic and Health Survey (DHS) project. The primary purpose of the 2006-07 PDHS is to furnish policymakers and planners with detailed information on fertility, family planning, infant, child and adult mortality, maternal and child health, nutrition, and knowledge of HIV/AIDS and other sexually transmitted infections. The Woman's Questionnaire was administered to 10,023 ever-married women of reproductive age.

FAMILY PLANNING

Nearly all Pakistani women know of at least one method of contraception. Contraceptive pills, injectables, and female sterilization are known to over 85 percent of currently married women, while somewhat lower proportions report knowing about the IUD and condoms. A higher proportion of respondents report knowing a modern method than a traditional method.

Almost half of currently married women have ever used a family planning method, with most women having ever used a modern method (39 percent). The methods most commonly ever used by currently married women are condom, withdrawal, and the rhythm method.

Three in ten currently married women reported using a method of contraception at the time of survey. Nearly three-fourths of these women were using a modern method. The most widely used method is female sterilization (8 percent), followed by the condom (7 percent).

Use of male sterilization and the more recently introduced method of implants is negligible.

The use of modern contraceptive methods among currently married women increased from 9 percent in 1990-91 to 22 percent in 2006-07. The use of contraception is higher in urban areas and among women with higher levels of education. It also increases with age and parity. Contraceptive use increases from 16 percent of currently married women in the lowest wealth quintile to 43 percent of those in the highest quintile.

The government sector remains the major source of contraceptive methods, with 48 percent of users of modern methods going to a public source compared with 30 percent who use private medical sources. Government sources largely supply long-term methods such as female sterilization, IUDs, and injectables.

Half of the currently married women who were not using any family planning method at the time of the survey said they intend to use a method in the future. Among currently married nonusers who do not intend to use a method of contraception in the future, a majority cited fertility-related reasons, primarily responses like "it is up to God" or responses related to sub-fecundity or infecundity. Twenty-three percent of women cited opposition to use, especially religious opposition, while 12 percent do not intend to use because of method-related reasons, primarily fear of side effects.

In spite of an almost threefold increase in the contraceptive prevalence rate over the past 16 years, there continues to be considerable scope for increased use of family planning. Twenty-five percent of currently married women in Pakistan have an unmet need for family planning services, of which 11 percent have a need for spacing and 14 percent have a need for limiting. Overall, 55 percent of Pakistani women have a demand for family planning. In other words, only just over half of the demand for contraception is currently being satisfied.

Family planning information is largely received through the television, with limited exposure through the radio. Forty-one percent of currently married women saw a family planning message on television in the month before the survey, while 11 percent of women heard such a message on the radio. However, the vast majority of women (84 percent) who were exposed to a family planning message considered it effective.

FERTILITY

Survey results indicate that there has been a decline in the total fertility rate, from 5.4 children per woman in 1990-91 to 4.1 children in 2006-07, a drop of over one child in the past 16 years. Conspicuous differentials in fertility are found by level of women's education and wealth quintile. The TFR is 2.5 children lower among women having higher education than among uneducated women. The difference between the poorest and richest women is nearly three children per woman.

Research has demonstrated that children born too close to a previous birth are at increased risk of dying. In Pakistan, one-third of births occur less than 24 months after a previous birth, the same proportion as in 1990-91.

AGE AT MARRIAGE

In Pakistani society, where sexual activity usually takes place within marriage, marriage signals the onset of a woman's exposure to the risk of childbearing. The length of time women are exposed to the risk of childbearing affects the number of children women potentially can bear. Thus, in Pakistani society, the age at marriage is an important determinant of fertility levels.

Presently, 62 percent of women of childbearing age are currently married, one-third (35 percent) have never married and the remaining three percent are divorced, separated, or widowed. The low proportion (1 percent) of women age 45-49 who have never been married indicates that marriage is still almost universal in Pakistan. Once marriages are commenced, they tend to remain stable. Divorce and separation are socially discouraged, and hence are uncommon (1 percent). Though teenage marriages are on the decline, one out of six women age 15-19 is already married.

The median age at first marriage has increased by about half a year in the last 16 years, i.e., from 18.6 years in 1990-91 to 19.1 years in 2006-07. Important differentials in median age at first marriage are found on the basis of educational level and wealth quintile.

FERTILITY PREFERENCES

The study of fertility desires in a population is crucial, both for estimating potential unmet need for family planning and for predicting future fertility. The PDHS data show that more than half of currently married women age 15-49 (52 percent) either do not want another child at any time in the future or are sterilized. Over four in ten women want to have a child at some time in the future—21 percent want one within two years, 20 percent would prefer to wait two or more years, and 2 percent want another but are undecided as to when. Since the 1990-91 PDHS, there has been a substantial increase (12 percentage points) in the proportion of married women who want to limit childbearing (from 40 to 52 percent).

Future fertility preferences depend not only on the number of living children, but also on the sex composition of the children. Most couples want to have some children of both sexes; however, in Pakistan, there is a stronger preference for sons over daughters. For example, among women with three children, 65 percent of those with three sons want to have no more children, compared with only 14 percent of those with three daughters. Similarly, among women with five children, 85-90 percent of women with four or five sons say they want no more children, as opposed to only 65 percent of those with no sons or only one son.

The mean ideal number of children is 4.1 for both ever-married and currently married women. It increases from 3.7 children among childless women to 5.0 among women with 6 or more children, which could either be due to the fact that those who want larger families tend to achieve their goals or to the fact that women rationalize their larger families by reporting their actual number of children as their ideal number. The mean ideal number of children among ever-married and currently married women has remained the same as in 1990-91.

Substantial differences are observed across provinces, ranging from a mean ideal number of children of 3.8 in Punjab to 5.9 in Balochistan. There is a steady decrease in the mean ideal family size as the education and wealth quintile of the woman increases.

Whether a birth was planned (wanted then), mistimed (wanted later), or not wanted at all, provides some indication of the extent of unwanted childbearing. Overall, 24 percent of births in the five years preceding the survey were not wanted at the time of conception, with 13 percent wanted at a later time and 11 percent not wanted at all.

Overall, the total wanted fertility rate is 24 percent lower than the total fertility rate. Thus, if unwanted births could be eliminated, the total fertility rate in Pakistan would be 3.1 births per woman instead of 4.1 births.

INFANT AND CHILD MORTALITY

The study of infant and child mortality is critical for assessment of population and health policies and programmes. Infant and child mortality rates are also regarded as indices reflecting the degree of poverty and deprivation of a population.

For the most recent five-year period preceding the survey, infant mortality is 78 deaths per 1,000 live births and under-five mortality is 94 deaths per 1,000 live births. The pattern shows that over half of deaths under five occur during the neonatal period, while 26 percent occur during the postneonatal period. Under-five mortality has declined from 117 in 1986-90 to 94 in 2002-06, a 20 percent decline in 16 years. Differentials by place of residence show that the under-five mortality rate is 28 percent higher in rural areas than in urban areas (100 vs. 78 deaths per 1,000 live births). As might be expected, rates are lower in major cities than in other urban areas.

Female mortality is lower than that of males for the neonatal period only, while males have the advantage during the postneonatal period up to age five years. As is common in most populations, first births generally have higher mortality rates than later births.

The length of birth interval has a significant correlation with a child's chances of survival, with short birth intervals considerably reducing the chances of survival. For example, the under-five mortality rate is twice as high for children born after an interval of less than 2 years, compared with those born four or more years after a previous sibling (122 vs. 61 deaths per 1,000 live births).

Size of the child at birth also has a bearing on the childhood mortality rates. Children whose birth size is small or very small have a 68 percent greater risk of dying before their first birthday than those whose birth size is average or larger.

The major causes of death among children under five are birth asphyxia (accounting for 22 percent of deaths), sepsis (14 percent), pneumonia (13 percent), diarrhoea (11 percent), and prematurity (9 percent). As expected, causes of death are highly correlated with the age at death. Deaths during the neonatal period (first month of life) are almost entirely due to birth asphyxia, sepsis, or prematurity. Deaths in the postneonatal period (age 1-11 months) are mostly due to diarrhoea and pneumonia, while the main causes of deaths to children age 1-4 years are diarrhoea, pneumonia, injuries, measles, and meningitis. These results support a strong focus on addressing newborn deaths and a continued focus on reducing deaths from diarrhoea and pneumonia.

REPRODUCTIVE HEALTH

Promotion of maternal and child health has been one of the most important objectives of the health programme in Pakistan. Prenatal care, care at the time of delivery and postnatal care are the three important components of reproductive health. The quality of prenatal care can be assessed by the type of provider, the number of prenatal visits, and the timing of the first visit.

Sixty-one percent of mothers receive prenatal care from skilled health providers that is, from a doctor, nurse, midwife or Lady Health Visitor. Only 3 percent of women receive prenatal care from a traditional birth attendant (dai). In addition, one percent of mothers receive prenatal care from a Lady Health Worker, a dispenser or compounder, or a hakim. Thirty-five percent of women receive no prenatal care at all. There has been a significant improvement over

the past ten years in the proportion of mothers who receive prenatal care from a skilled health provider, increasing from 33 percent in 1996 to 43 percent in 2001 to 44 percent in 2003 to 61 percent in 2006-07.

The PDHS data show that more than one-fourth (28 percent) of pregnant women make four or more prenatal care visits during their entire pregnancy. Urban women (48 percent) are more than twice as likely as rural women (20 percent) to have four or more prenatal visits. Thirty-one percent of women make their first prenatal care visit before the fourth month of pregnancy. The median duration of pregnancy at the first prenatal care visit is 4.2 months.

The percentage of women who made four or more prenatal care visits during their pregnancy has increased during the last ten years, from 16 percent in 1996 to 24 percent in 2003 to 28 percent in 2006-07. Overall, there has been some improvement in the utilization and quality of prenatal care services in recent years. For example, the percentage of mothers who received at least two tetanus toxoid injections during pregnancy has nearly doubled—from 29 percent in 2001 to 53 percent in 2006-07.

Only 34 percent of births in Pakistan take place in a health facility; 11 percent are delivered in a public sector health facility and 23 percent in a private facility. Three out of five births (65 percent) take place at home, with a majority of mothers saying the main reason they did not deliver their most recent baby in a health facility is because it is not necessary. The percentage of births that take place in a health facility has doubled in the past ten years, increasing from 17 percent in 1996 to 23 percent in 2000-01 and to 34 percent in 2006-07.

Less than two-fifths (39 percent) of births take place with the assistance of a skilled medical provider (doctor, nurse, midwife, or Lady Health Visitor). Traditional birth attendants assist with more than half (52 percent) of deliveries, while friends and relatives assist with 7 percent of deliveries.

Prompt checkups following delivery are critical for monitoring complications for both the mother and the baby. In the five years preceding the survey, two-fifths (43 percent) of women

received postnatal care for their last birth, making it far less common than prenatal care (65 percent). More than one-fourth of women received postnatal care within four hours of delivery, while 6 percent received care within the first 4-23 hours, 7 percent of women received postnatal care two days after delivery and 3 percent of women were seen 3-4 days following delivery. Just over one-quarter of mothers (27 percent) received postnatal care from a skilled health provider, while 16 percent received care from traditional birth attendants.

One of the most serious injuries of child-bearing is obstetric fistula, a hole in the vagina or rectum usually caused by prolonged labour without treatment. Only 3 percent of ever-married women who have ever given birth have experienced the most common symptom of fistula, the constant dribbling of urine.

CHILD HEALTH

The status of child health in the PDHS is determined by birth weights, level of immunization among children, as well as the prevalence and treatment of a number of common childhood illnesses including diarrhoea, acute respiratory infections and fever. Babies whose birth weight is low not only have lower chances of survival but also face higher risk of morbidity and mortality. In Pakistan, because a large proportion of births occur at home, mothers were asked to report the size of the child at birth. Contrary to expectations, the proportion of births reported by the mother to be very small or smaller than average has increased from 22 percent in 1990-91 to 31 percent in 2006-07. This implies that it would be very difficult for the Government of Pakistan to achieve the targets for improving low birth weight set for 2010.

There has been a steady upward trend in the proportion of children who are fully immunized from 35 percent in 1990-91 to 47 percent in 2006-07. In 2006-07, according to information from the vaccination records and mothers' recall, 80 percent of children aged 12-23 months have received a BCG vaccination, 75 percent have received the first dose of DPT, and 93 percent have received the first dose of polio vaccine. Coverage declines for subsequent doses of DPT and polio; only 59 and 83 percent of children receive the third doses of DPT and polio,

respectively. Six percent have not received any vaccinations at all.

The PDHS data show that 14 percent of children under age five had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey and 31 percent had a fever in the same period. About two-thirds of children who showed symptoms of ARI or fever were taken to a health facility or medical provider for treatment. Half of children with ARI received antibiotics.

Twenty-two percent of children under five were reported to have had an episode of diarrhoea during the two-week period before the survey and three percent had diarrhoea with bloody stools. Of all children with diarrhoea, two in five were given fluid made from an oral rehydration salt (ORS) packet, 16 percent were given a recommended homemade fluid (RHF), and more than half (55 percent) were given ORS, RHF, or more fluids than usual. Forty-seven percent of children with diarrhoea were given some kind of pill or syrup to treat the disease, while 14 percent were given home remedies or herbs. About one in five children with diarrhoea was not treated at all.

The data show that 41 percent of children with diarrhoea were given the same quantity of fluids as usual, while 21 percent received more fluids than usual, and 34 percent received somewhat or much less fluid than usual. These results suggest that in Pakistan, about one in three mothers still curtail fluid intake when their children have diarrhoea, a very dangerous practice which should be addressed with a national educational campaign.

NUTRITION

Poor nutritional status is one of the most important health and welfare problems facing Pakistan today and particularly afflicts women and children. Poor breastfeeding and infant feeding practices have adverse consequences for the health and nutritional status of children. Fortunately, breastfeeding in Pakistan is almost universal and generally of fairly long duration. Nevertheless, only 70 percent of newborns are breastfed within one day after delivery.

According to the 2006-07 PDHS, a majority (55 percent) of children under the age of two months are exclusively breastfed. This represents a doubling from the 27 percent of children under two months who were exclusively breastfed in 1990-91, an encouraging trend. Overall, only 37 percent of infants under 6 months are exclusively breastfed, far lower than the recommended 100 percent exclusive breastfeeding for children under 6 months.

The median duration of breastfeeding among Pakistani children is 19 months, one month lower than reported in 1990-91, suggesting that during the last decade and a half the patterns have changed only slightly. The median duration of exclusive breastfeeding is estimated at a little less than one month.

Ensuring that children between 6 and 59 months receive enough vitamin A may be the single most effective child survival intervention. Survey results show that 60 percent of children age 6-59 months received a vitamin A supplement in the six months preceding the survey.

Night blindness—an indicator of severe vitamin A deficiency to which pregnant women are especially prone—is common in Pakistan. Five percent of women with a recent birth reported having had difficulty seeing only at night during the pregnancy of the last birth. Overall, only four in ten women take iron or calcium supplements during pregnancy.

MALARIA

Women who had a live birth in the five years preceding the survey were asked whether they suffered from malaria during pregnancy and if yes, whether they received any treatment. One in five women suffered from malaria during their pregnancy, the vast majority of whom received treatment for the disease. The prevalence of malaria is higher in rural areas (22 percent), in the province of Balochistan (30 percent), among women with no education (22 percent) and among those who are in the lowest (29 percent) and second lowest wealth quintiles (23 percent).

Among children under five, 31 percent are reported to have had fever in the two weeks preceding the survey. Of those, only three percent took antimalarial drugs.

Mosquito nets are not common in Pakistan; only 6 percent of households have a net.

KNOWLEDGE OF HIV/AIDS

The HIV/AIDS pandemic is one of the most serious health concerns in the world today because of its high case fatality rate and the lack of a cure. The Ministry of Health and UNAIDS estimate that approximately 80,000 people are currently living with HIV in Pakistan.

In spite of vast media campaigns, only four in ten ever-married women age 15-49 in Pakistan have heard about AIDS. Awareness of AIDS has barely increased over the last decade, from 41 percent to 44 percent of ever-married women.

Overall, only five percent of women are classified as having comprehensive knowledge about AIDS, i.e., knowing that consistent use of condoms and having just one faithful partner can reduce the chance of getting infected, knowing that a healthy-looking person can be infected, and knowing that AIDS cannot be transmitted by sharing food or by mosquito bites. This low level of knowledge should be a matter of concern to policymakers and for the National AIDS Control Programme.

ADULT AND MATERNAL MORTALITY

By collecting information to measure not only the maternal mortality ratio, but also causes of adult female deaths through verbal autopsies, the 2006-07 PDHS fulfilled a longstanding desire of reproductive health professionals in Pakistan. Most estimates of the maternal mortality ratio available before this survey were based on mathematical models or indirect estimation. Through its unique design, the 2006-07 PDHS provides a wealth of information about adult female deaths.

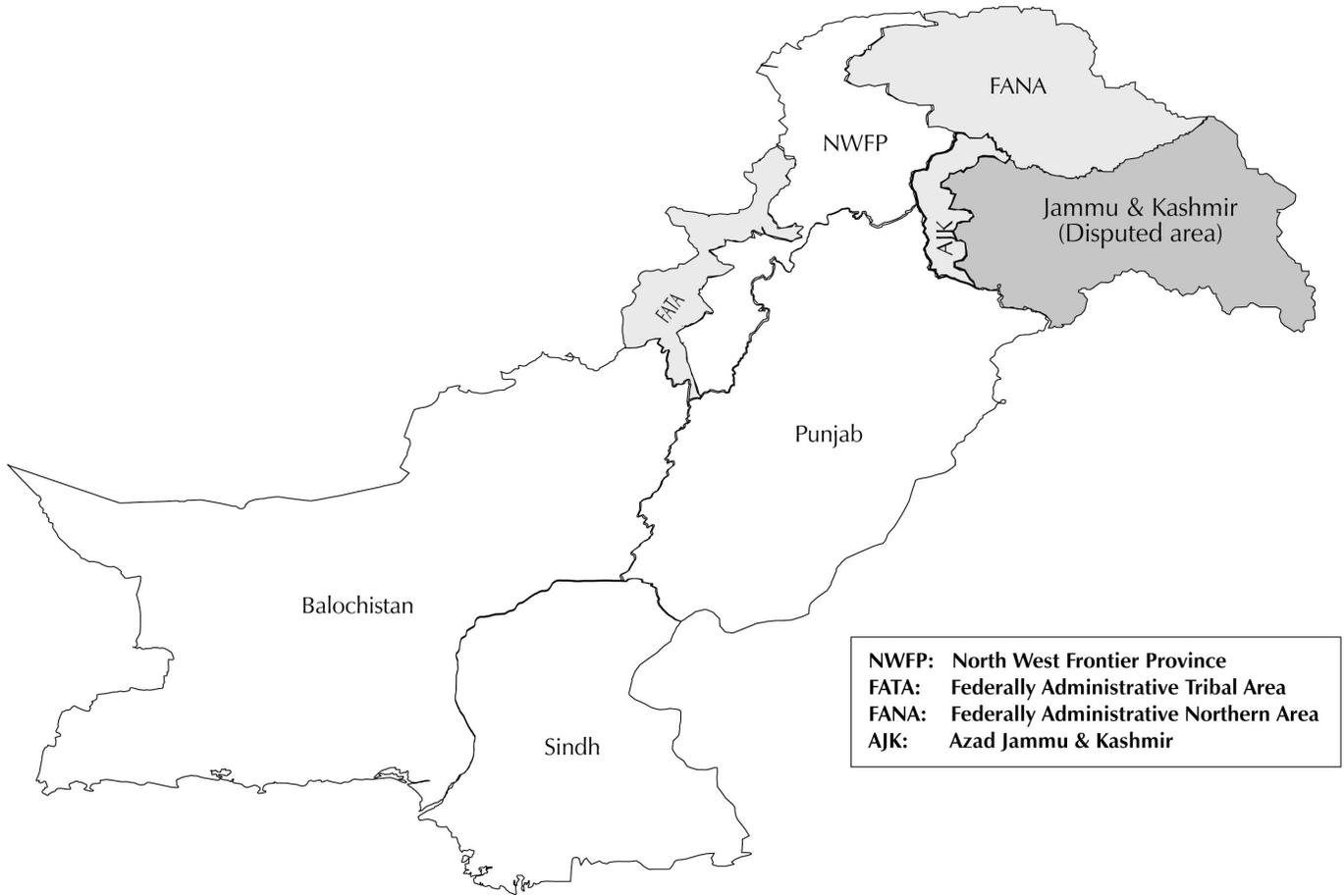
The maternal mortality ratio as measured in the survey is 276 maternal deaths per 100,000 births. This is slightly lower than the generally accepted previous estimates of around 320 maternal deaths per 100,000 births. Postpartum haemorrhage is the leading direct cause of maternal deaths, followed by puerperal sepsis and eclampsia. Obstetric bleeding (postpartum and antepartum haemorrhage) is responsible for one-third of all maternal deaths.

The data imply that roughly 1 in 89 women in Pakistan will die of maternal causes during her lifetime (lifetime risk).

Adult female and male mortality rates for ages 15-49 as measured through the survey are plausible. Among adult women, complications of pregnancy and childbirth emerge as the outstanding cause of death in the reproductive years, accounting for one-fifth of deaths to women of childbearing age in Pakistan. Cancer, tuberculosis, and other infectious diseases are the next most important causes of death among women in reproductive ages.

MAP OF PAKISTAN

(Shaded areas were not surveyed in the 2006-07 Pakistan Demographic and Health Survey.)



INTRODUCTION

Shahid Munir and Khalid Mehmood

Pakistan's first Demographic and Health Survey was undertaken in 1990-91. Since then, other surveys focusing on fertility and family planning, reproductive health, and status of women were conducted. The current demographic and health survey has special features, including maternal mortality and infant and child health, mortality, and morbidity, in addition to the conventional areas that most demographic and health surveys cover. Before deliberating on the findings of the survey, a short description of the salient features of Pakistan—including its geography, climatic conditions, history, economy, and population size and growth—as well as details regarding the sample size and field operations, is given to enable readers to place the findings of the survey in proper sociodemographic and geographic perspective.

1.1 GEOGRAPHY, CLIMATE, AND HISTORY

Pakistan is the “Land of the Indus River,” which flows through the country for 2,500 kilometres (1,600 miles) from the Himalaya and Karakoram mountain ranges to the Arabian Sea. It is a land of snow-covered peaks, hot deserts and barren land, as well as a vast area of irrigated plains. Pakistan is located between 24° and 37° N latitude and between 61° and 75° E longitudes. It occupies a strategically important position. On its east and southeast lies India, to the north and northwest is Afghanistan, to the west is Iran, and in the south is the Arabian Sea. It has a common frontier with China on the border of its Gilgit Agency in the northeast. Tajikistan, formerly in the USSR, is separated from Pakistan by a narrow strip of Afghan territory called Wakhan.

Pakistan comprises a total land mass of 796,096 square kilometres. There are three main regions: the mountainous region in North, which has three world famous mountain ranges (the Hindukush, the Karakoram, and the Himalayas); the enormous but sparsely populated plateau of Balochistan; and the Punjab and Sindh plains of the Indus River and its main tributaries. Pakistan is divided into four provinces. Balochistan province is in the southwest, and the Punjab and Sindh provinces are plains with the world's largest irrigation system. North-West Frontier Province (NWFP) is located in the northwest.

Pakistan is strategically located at the crossroads of Asia, where the road from China to the Mediterranean meets the route from India to Central Asia. For thousands of years, this junction has been a melting pot of diverse cultures, attracting warriors, traders and adventurers. Now the old Chinese trade route is reopened, providing access to the spectacular Karakorams and Pamirs, following the ancient Silk Route and entering China over the 4,733 metre (15,528 feet) Khunjerab pass, the highest asphalt border crossing in the world.

In the northeastern tip of the country, Pakistan controls about 84,159 square kilometres of the former state of Jammu and Kashmir. This area consists of Azad Kashmir (11,639 square kilometres) and most of the Northern Area (72,520 square kilometres), which includes the ruggedly mountainous and beautiful Gilgit and Baltistan. In fact, the Northern Area has five of the world's 14 highest mountain peaks, each over 8,000 metres high. It also has extensive glaciers including the Siachen glacier that it is sometimes called the “third pole.”

Pakistan enjoys a considerable variety of weather. The north and northwestern high mountain ranges are extremely cold in winter, while the summer months from April to September are very pleasant. The vast plains of the Indus Valley are hot to very hot in summer and have cold weather in winter. The coastal strip in the south has a temperate climate. Although it is in the monsoon region,

which falls late in summer, the average rainfall varies between 76 and 127 cm. The province of Balochistan is the driest, where on average only 21 cm of rain falls, mostly in winter.

Pakistan achieved independence from Britain on the 14th of August 1947 as a result of the long struggle by Muslims of India for a separate homeland of their own. In fact, its foundation was laid when Mohammad Bin Qasim—a Muslim leader of Saudi Arabia—subdued Sindh in 711 AD as a reprisal against sea pirates that had taken refuge in Raja Dahir’s kingdom. But the areas constituting Pakistan have had a historical individuality of their own even before the advent of Islam. Archaeological sites and imposing monuments scattered over the country richly illustrate Pakistan’s 4,000-year history. Brick cities like Moenjodaro and Harrapa from the Indus civilization, which flourished around 2000 BC, stand beside Buddhist ruins contemporaneous with the birth of Christianity. Magnificent Muslim tombs, mosques, and forts built by the mogul emperors from the 12th century to the 16th and 17th centuries are a common site found in this part of the world.

1.2 ECONOMY AND POPULATION

Pakistan’s economy continues to gain traction as it experiences the longest spell of its strongest growth in years. The outcomes of the 2006-07 fiscal year indicate that Pakistan’s economic momentum remains on track. Economic growth accelerated to 7 percent in 2006-07 at the back of robust growth in agriculture, manufacturing, and services. Pakistan’s growth performance over the last five years has been striking. Average real gross domestic product (GDP) growth during 2003-07 had the best performance in decades, and it now seems that Pakistan has decisively broken out of the low growth rut that it was in for more than 10 years.

Pakistan’s economy continues to perform impressively and its economic fundamentals have gained further strength in the fiscal year 2006-07. The most important achievements of this year include the following:

- Strong economic growth of 7 percent despite the pursuance of a tight monetary policy, resulting in an interest rate increase;
- Strong recovery in agricultural growth at 5 percent and major crops at 7.6 percent on the heels of the highest ever production of wheat (23.5 million tonnes) in the country’s history and an impressive 23 percent increase in sugar cane production (54.7 million tonnes);
- Continued large-scale growth (8.8 percent) in manufacturing, although this is a somewhat less torrid pace than last year;
- Continued expansion of the overall service sector at a solid pace of 8 percent; and
- Strong average economic growth of over 7.5 percent during the past four years that maintains Pakistan’s position as one of the fastest growing economies in the Asian region along with China, India, and Vietnam.

This good economic performance has resulted from a combination of generally sound economic policies, on-going structural reforms, and a benign international economic environment. Based on the performance of half a decade of strong, stable, resilient, and broad-based economic growth, it appears that Pakistan’s economy will continue to be a high mean, low variance economy over the medium-term (Government of Pakistan, 2007).

The population of Pakistan is estimated around 160 million as of mid-2007 and is growing at 1.9 percent per annum (Government of Pakistan, 2007). The population growth rate has receded from a record high of 3.7 percent per year in the 1960s. About two-thirds of the population is rural. Pakistan is the sixth most populous country in the world (PRB, 2007) and is adding around three million persons per year (NIPS, 2007b). Forty-one percent of its population is below 15 years of age,

which is indicative of high fertility in the past. Women of reproductive age constitute almost one-quarter of the total population. Marriage is universal and the fertility rate is far above replacement level. The government's population policy, promulgated in 2002, aims to reduce fertility to replacement level by 2020 (MOPW, 2002). However, population stabilization would still be two generations away even if replacement-level fertility were attained by that date.

The rapid increase in population has resulted in a quadrupling of the population over the past five decades. This has jeopardized economic gains; in spite of a 327-fold increase in the national GDP between 1960 and 2006, the per capita income has increased only nine-fold. Although the literacy rate has increased since the early 1960s, illiterates number more than 52 million. Unemployment has grown by 11 times in the past 35 years, per capita availability of water has declined to below 1,200 cubic metres per year, and an investment of over 7.4 billion US dollars is required to keep the 2006 level of per capita income of US\$847 (NIPS, 2006).

The rapid increase in population is also adversely affecting health indicators. Huge funds are required to maintain the existing ratio of population per health facility. At present, there is only one hospital available for over 170,000 persons; one rural health centre available for more than 184,000 persons living in rural areas; one basic health unit available for more than 19,000 persons in rural areas; and one maternal and child health centre available for more than 4,400 expecting mothers and newborns. There is only one doctor available for over 1,300 people and one nurse for 4,600 persons. The rapid increase in population constrains economic gains and stretches the already overburdened health facilities (Government of Pakistan, 2007).

The population welfare programme has taken a number of initiatives to reduce the rapid increase in population. The programme has been in the process of engaging different stakeholders in the public, private, and nongovernmental sectors to cater to the family planning and reproductive health needs of men and women across Pakistan. The programme aims to provide universal access to modern contraceptive methods by 2010 and reduce the unmet need for family planning.

Pakistan's national language is Urdu, which is widely understood in most parts of the country. However, in the provinces, local languages are also spoken. In northern and southern Punjab, the local languages are Punjabi and Saraiki, respectively. Sindhi is widely spoken in Sindh, except in Karachi, where Urdu is the main language. Pushto is the local language of NWFP and the Federally Administered Tribal Areas (FATA), although Hindko is also spoken in certain parts of NWFP. Balochi, Pushto, and Brahvi are widely spoken languages in Balochistan. The official language of the federal and provincial governments is English.

The vast majority of the population is Muslim (97 percent). Minorities include Christians, Hindus, Parsis, Marwaris, Mangowars, and Ahmadies.

1.3 ORGANIZATION AND IMPLEMENTATION OF THE 2006-07 PDHS

1.3.1 Objectives of the Survey

The 2006-07 Pakistan Demographic and Health Survey (PDHS) was undertaken to address the monitoring and evaluation needs of maternal and child health and family planning programmes. The survey was designed with the broad objective to provide policymakers, primarily in the Ministries of Population Welfare and Health, with information to improve programmatic interventions based on empirical evidence. The aim is to provide reliable estimates of the maternal mortality ratio (MMR) at the national level and a variety of other health and population indicators at national, urban-rural, and provincial levels.

More specifically, PDHS had the following objectives:

- Collect quality data on fertility levels and preference, family planning knowledge and use, childhood—and especially neonatal—mortality levels and awareness regarding HIV/AIDS and other indicators relevant to the Millennium Development Goals and the Poverty Reduction Strategy Paper;
- Produce a reliable national estimate of the MMR for Pakistan, as well as information on the direct and indirect causes of maternal deaths using verbal autopsy instruments;
- Investigate factors that impact on maternal and neonatal morbidity and mortality (i.e., antenatal and delivery care, treatment of pregnancy complications, and postnatal care);
- Improve the capacity of relevant organizations to implement surveys and analyze and disseminate survey findings.

1.3.2 Institutional Framework

The Ministry of Population Welfare executed the 2006-07 PDHS project, whereas the National Institute of Population Studies (NIPS) undertook the responsibility of implementing the project. A Steering Committee, chaired by the Secretary of the Ministry of Population Welfare and co-chaired by the Secretary of the Ministry of Health, included members from federal social sector ministries and provincial health and population departments. The Steering Committee provided guidance, administrative support, and facilitation during the survey process. A Technical Advisory Committee consisting of population professionals, experts, and researchers from relevant fields was formed to provide guidance and support at various stages of the survey. NIPS was responsible for planning, organizing, and overseeing the survey operations, including hosting meetings to discuss the survey with representatives from major users, technical institutions, and international bodies; recruiting, training, and supervising fieldworkers and data processing staff; and analyzing and writing this report. The Federal Bureau of Statistics (FBS) provided the sample design and household listings for the sampled areas across Pakistan.

Macro International Inc. provided technical assistance to NIPS for the design and implementation of the PDHS project. Funds for the project were provided by the United States Agency for International Development (USAID), while the United Nations Population Fund (UNFPA) and the United Nations Children’s Fund (UNICEF) provided logistic support for monitoring the survey operations.

1.3.3 Sample Design

The 2006-07 PDHS is the largest-ever household based survey conducted in Pakistan. The sample is designed to provide reliable estimates for a variety of health and demographic variables for various domains of interest. The survey provides estimates at national, urban and rural, and provincial levels (each as a separate domain). One of the main objectives of the 2006-07 Pakistan Demographic and Health Survey (PDHS) is to provide a reliable estimate of the maternal mortality ratio (MMR) at the national level. In order to estimate MMR, a large sample size was required. Based on prior rough estimates of the level of maternal mortality in Pakistan, a sample of about 100,000 households was proposed to provide estimates of MMR for the whole country. For other indicators, the survey is designed to produce estimates at national, urban-rural, and provincial levels (each as a separate domain). The sample was not spread geographically in proportion to the population; rather, the smaller provinces (e.g., Balochistan and NWFP) as well as urban areas were over-sampled. As a result of these differing sample proportions, the PDHS sample is not self-weighting at the national level.

The sample for the 2006-07 PDHS represents the population of Pakistan excluding the Federally Administered Northern Areas (FANA) and restricted military and protected areas. Although the Federally Administered Tribal Areas (FATA) were initially included in the sample, due to security and political reasons, it was not possible to cover any of the sample points in the FATA.

In urban areas, cities like Karachi, Lahore, Gujranwala, Faisalbad, Rawalpindi, Multan, Sialkot, Sargodha, Bahawalpur, Hyderabad, Sukkur, Peshawar, Quetta, and Islamabad were considered as large-sized cities. Each of these cities constitutes a stratum, which has further been sub-stratified into low, middle, and high-income groups based on the information collected during the updating of the urban sampling frame. After excluding the population of large-sized cities from the population of respective former administrative divisions, the remaining urban population within each of the former administrative divisions of the four provinces was grouped together to form a stratum.

In rural areas, each district in Punjab, Sindh, and NWFP provinces is considered as an independent stratum. In Balochistan province, each former administrative division has been treated as a stratum. The survey adopted a two-stage, stratified, random sample design. The first stage involved selecting 1,000 sample points (clusters) with probability proportional to size—390 in urban areas and 610 in rural areas. A total of 440 sample points were selected in Punjab, 260 in Sindh, 180 in NWFP, 100 in Balochistan, and 20 in FATA. In urban areas, the sample points were selected from a frame maintained by the FBS, consisting of 26,800 enumeration blocks, each including about 200-250 households. The frame for rural areas consists of the list of 50,588 villages/*mouzas/dehs* enumerated in the 1998 population census.

The FBS staff undertook the task of a fresh listing of the households in the selected sample points. Aside from 20 sample points in FATA, the job of listing of households could not be done in four areas of Balochistan due to inability of the FBS to provide household listings because of unrest in those areas. Another four clusters in NWFP could not be covered because of resistance and refusal of the community. In other words, the survey covered a total of 972 sample points.

The second stage of sampling involved selecting households. In each sample point, 105 households were selected by applying a systematic random sampling technique. This way, a total of 102,060 households were selected. Out of 105 sampled households, ten households in each sample point were selected using a systematic random sampling procedure to conduct interviews for the Long Household and the Women's Questionnaires. Any ever-married woman aged 12-49 years who was a usual resident of the household or a visitor in the household who stayed there the night before the survey was eligible for interview.

1.3.4 Questionnaires

The following six types of questionnaires were used in the PDHS:

- Community Questionnaire
- Short Household Questionnaire
- Long Household Questionnaire
- Women's Questionnaire
- Maternal Verbal Autopsy Questionnaire
- Child Verbal Autopsy Questionnaire

The contents of the Household and Women's Questionnaires were based on model questionnaires developed by the MEASURE DHS programme, while the Verbal Autopsy Questionnaires were developed by Pakistani experts and the Community Questionnaire was patterned on the basis of one used by NIPS in previous surveys.

NIPS developed the draft questionnaires in consultation with a broad spectrum of technical experts, government agencies, and local and international organizations so as to reflect relevant issues of population, family planning, HIV/AIDS, and other health areas. A number of meetings were organized by NIPS and the inputs received in these meetings were used to finalize survey questionnaires. These questionnaires were then translated into Urdu, Punjabi, Sindhi, and Pushto

languages. After the pretest, which was done in Peshawar, Rawalpindi, and Hyderabad, the questionnaires were finalized on the basis of feedback of the pretest.

The Community Questionnaire, a brief form that was filled out for each sample point in rural areas, included questions about the availability of various kinds of health and family planning facilities and services. Also, information on the availability of transportation, education, and communication facilities was recorded. The geographic coordinates were taken for each sample point using a geographic positioning system (GPS) unit.

The Short Household Questionnaire was administered in 92,340 households to list all the usual members and visitors. Likewise, the Long Household Questionnaire was used in the 9,720 households where the Women's Questionnaire was also administered. In addition to some basic information collected on characteristics like age, sex, marital status, education, and relationship to the head of the household of each person listed, another purpose of the two household questionnaires was to record births and deaths that occurred since January 2003 and, for verbal autopsies, to identify any death of child under age 5 since January 2005 and any death to a woman age 12-49 since January 2003a.

In addition, the Long Household Questionnaire collected more details, e.g., current school attendance, survivorship status of parents of children under age 18, and the registration status of each person. It also identified eligible ever-married women age 12-49 for interview with the Women's Questionnaire. The Long Household Questionnaire also collected information regarding various characteristics of the dwelling unit, such as the source of water; type of toilet facilities; type of cooking fuel; materials used for the floor, roof, and walls of the house; ownership status of various durable goods; ownership of agricultural land; ownership of livestock/farm animals/poultry; and ownership and use of mosquito nets.

As mentioned above, the Women's Questionnaire collected information from ever-married women age 12-49 years on the following topics:

- Background characteristics (education, literacy, native language, marriage characteristics, etc.)
- Reproductive history
- Knowledge and use of family planning methods
- Prenatal and postnatal care
- Child immunization, health, and nutrition
- Fertility preferences
- Breastfeeding practices
- Woman's work and husband's background characteristics
- Awareness about HIV/AIDS and other sexually transmitted infections
- Other health issues (knowledge of tuberculosis and hepatitis, experience with fistula, use of clean syringes for injections).

The Verbal Autopsy Questionnaire for deaths of women was administered in households in which a death of a woman aged 12-49 was reported since 2003. The questionnaire covered details about the woman's characteristics and the symptoms and circumstances prior to her death. A verbatim history was also recorded so as to help assign a cause of death. Questions were also asked about any treatment or health care that might have been sought before her death.

The Child Verbal Autopsy Questionnaire was administered in households in which a death of a child under age five years or a stillbirth was reported in 2005 or later. The questionnaire elicited details about the illness and causes of death from the parents and/or others who were present at the time of death of the child. Separate teams of physicians reviewed both these verbal autopsy questionnaires to assign causes of death.

1.3.5 Training of Field Staff

The main survey training was held during a three-week period in August and was attended by all interviewers, supervisors, quality control personnel, field coordinators, and data entry staff. The training included lectures, demonstrations, practice interviewing in small groups, and examinations. Separate training was arranged for interviewers selected for collecting information through verbal autopsies for women and children. All teams participated in three days of field practice.

1.3.6 Field Supervision and Monitoring

Ensuring high-quality data was a prime objective of the survey and was assured through regular supervision and monitoring of NIPS teams during fieldwork. NIPS designated six professional staff to act as field coordinators who visited the teams assigned to them on a regular basis. From the first week of data collection, all professional NIPS staff followed the field teams to support and facilitate them in using the questionnaires, understanding the sample selection procedures, conducting interviews in all five questionnaires, using field control sheets, assigning interviewers, editing the questionnaire, linking with FBS offices, observing team coordination, and ensuring efficient use of time. The field coordinators visited the teams at least once a month. The quality control interviewers accompanied these field coordinators. Quality control interviewers were deputed to work with various teams for three to four days to undertake several tasks: observe on-going interviews for delivery of questions, verify and validate information recorded by interviewers by revisiting and re-interviewing respondents, review completed interviews/questionnaires, and provide on-the-job training for weaker field staff. They also edited completed questionnaires and reviewed any errors with the team members. Finally, they assisted the teams to resolve any problems. The monitoring checklist was shared with the team members and supervisors to maintain transparency and openness in the process. Close communication was maintained at all times between the NIPS, field supervisors, and interviewers during fieldwork.

Team supervisors were responsible for the performance of their teams. Team performance was judged by team cohesion and discipline, timely arrival at primary sampling units (PSUs) and visits and revisits to households to complete all 105 questionnaires, use of supervisory control sheets, and efficient use of time by team members. For supervision of each member of a field team, the NIPS' field coordinators and quality control interviewers maintained close contact with the teams under their responsibility and with the PDHS core team.

Over the period of the survey, all teams were visited five to six times in the field. Monitoring was also undertaken by Agha Khan University colleagues in various districts to see the quality of data being recorded on child death verbal autopsies. The project director, principal investigator, and project consultant visited the field regularly and communicated to team supervisors and team members on a regular basis. A consultant from Macro visited NIPS in November 2006 to meet the PDHS core team and visit field teams across Pakistan to see their work and to review the data coding and entry processes.

A set of quality control check tables for critical indicators was produced periodically during the fieldwork using the computerized data at NIPS. Problems that appeared from review of these tables were discussed with the relevant teams and attempts made to ensure that the problems did not persist. Regular meetings of the core staff and field coordinators were held at NIPS to exchange views on progress, performance, problems, solutions, and future strategies. These meetings were helpful in resolving field problems and improving the quality of data collected from the field.

NIPS established a comprehensive system to ensure sufficient funds were transferred to team supervisors and interviewers to cover the costs of operating vehicles, communications, and per diem payments to all team members. NIPS also formed a system that ensured that the interviewing teams received necessary materials on a timely basis. Two courier services were contracted for rapid and safe delivery of material to the field and dispatch of completed questionnaires to NIPS.

1.3.7 Fieldwork and Data Processing

Twenty-nine teams collected the survey data. Most teams consisted of six female interviewers and a male supervisor. Data collection using the Short and Long Household Questionnaires, Women's Questionnaire, Child Verbal Autopsy Questionnaire, and Maternal Verbal Autopsy Questionnaire was assigned to different interviewers in each team. The fieldwork began in early September 2006 and was completed in February 2007. As mentioned earlier, senior DHS technical staff, field coordinators, and quality control teams visited teams regularly to review the work and monitor data quality.

The processing of the data entry of the 2006-07 PDHS questionnaires started shortly after the fieldwork commenced. Completed questionnaires were returned regularly from the field to NIPS headquarters in Islamabad, where they were edited and entered by the data processing teams who were specifically trained for this task. The NIPS computer programmer who attended a three-week training course in data entry and editing at Macro's headquarters in the United States, supervised the data processing. Other data processing personnel included an office coordinator who ensured that the expected number of questionnaires from each cluster was received, several office editors, 20 data entry operators working in two shifts, and secondary editors. A double-entry system was adopted for data entry. The concurrent processing of the data was an advantage because the senior PDHS technical staff and field coordinators were able to advise field teams of problems detected during the data entry. Copies of the verbal autopsies were promptly made and dispatched to the reviewing teams of doctors. Field check tables were timely generated and, as a result, specific feedback was given to the teams to improve performance. The data entry and editing phase of the survey was completed in April 2007.

1.3.8 Field Problems

A number of problems were encountered during the fieldwork. Initially, the sample design had included collecting data from the FATA. This, however, was not possible, because the FBS was unable to provide household listings for the selected clusters due to the prevailing unrest in the area. In addition, the FBS was also not able to provide household listings for four clusters in Balochistan province due to the same reasons. In NWFP, the data collection teams experienced hostilities from four communities and hence could not complete data collection or could not carry out the fieldwork in those areas. Hostility at individual households was also experienced in a few places.

In all areas of NWFP, the data collection teams had to get permission from village or area elders before starting the fieldwork. This was sometimes possible after hours of deliberations (*jirga*) with the community leaders, especially in rural areas. However, in most of the areas and especially in rural Sindh and NWFP, teams were offered food and drinks and sometimes gifts to keep up with their traditions because the team members were visiting those households for the first time.

A few members of the data collection teams got sick, were hospitalized, or were bitten by dogs. A harsh winter in parts of Balochistan and NWFP also welcomed the data collection teams and resultantly prolonged their working hours. However, the fieldwork was successfully completed in the stipulated time frame.

1.4 RESPONSE RATES

Table 1.1 presents household and individual response rates for the survey. A total of 102,037 households were selected for the sample, of which 97,687 were occupied at the time of fieldwork.¹ The main reason for the difference is that some of the dwelling units that were occupied during the household listing operation were either vacant or the household was away for an extended period at the time of interviewing. Of the occupied households, 95,441 (98 percent) were successfully interviewed.

In the 9,255 households interviewed with the Long Household Questionnaire, a total of 10,601 ever-married women aged 12-49 were identified, of whom 10,023 were successfully interviewed, yielding a response rate of 95 percent. The principal reason for non-response among eligible women was the failure to find individuals at home despite repeated visits to the household. Response rates are only slightly lower in urban areas than in rural areas.²

Table 1.1 Results of the household and individual interviews					
Number of households, number of interviews, and response rates, according to residence (unweighted), Pakistan 2006-07					
Result	Residence				Total
	Total urban	Major city	Other urban	Rural	
Household interviews (total)					
Households selected	40,827	21,297	19,530	61,210	102,037
Households occupied	39,060	20,430	18,630	58,627	97,687
Households interviewed	37,909	19,729	18,180	57,532	95,441
Household response rate	97.1	96.6	97.6	98.1	97.7
Household interviews (short questionnaire)					
Households selected	36,941	19,272	17,669	55,384	92,325
Households occupied	35,278	18,461	16,817	52,961	88,239
Households interviewed	34,223	17,822	16,401	51,963	86,186
Household response rate ¹	97.0	96.5	97.5	98.1	97.7
Household interviews (long questionnaire)					
Households selected	3,886	2,025	1,861	5,826	9,712
Households occupied	3,782	1,969	1,813	5,666	9,448
Households interviewed	3,686	1,907	1,779	5,569	9,255
Household response rate ¹	97.5	96.9	98.1	98.3	98.0
Interviews with ever-married women					
Number of eligible women	4,104	2,086	2,018	6,497	10,601
Number of eligible women interviewed	3,830	1,929	1,901	6,193	10,023
Eligible women response rate ²	93.3	92.5	94.2	95.3	94.5

¹ Households interviewed/households occupied
² Respondents interviewed/eligible respondents

¹ In a few clusters, the number of households selected was slightly fewer than the stipulated 105 for various reasons.

² Because there were only three ever-married women under age 15 (all of whom were 14), they were all made to be age 15.

Aysha Sheraz and Zafar Zahir

This chapter provides a summary of the socioeconomic characteristics of households and respondents surveyed, including age, sex, place of residence, and educational status. It also provides information on household facilities and household characteristics, such as source of drinking water, electricity, sanitation facilities, housing construction materials, possession of durable goods, and ownership of a homestead, land, and farm animals. Information was also collected on the type of treatment, if any, used to make the water safe for drinking. Information collected on the characteristics of the households and respondents is important in understanding and interpreting the findings of the survey and also provides indicators of the representativeness of the survey. The information is also useful in understanding and identifying the major factors that determine or influence the basic demographic indicators of the population.

The 2006-07 Pakistan Demographic and Health Survey (PDHS) collected information from all usual residents of a selected household (the *de jure* population) and persons who had stayed in the selected household the night before the interview (the *de facto* population). Because the difference between these two populations is very small, and to maintain comparability with other DHS reports, all tables in this report refer to the *de facto* population unless otherwise specified. A household was defined as a person or group of related and unrelated persons who live together in the same dwelling unit(s) or in connected premises, who acknowledge one adult member as head of the household, and who have common arrangements for cooking and eating.

As mentioned in Chapter 1, the PDHS used two types of Household Questionnaires: one for use in about 90 percent of households—the Short Household Questionnaire—and the other used in a 10-percent subsample—the Long Household Questionnaire. Data on the age, sex, and education distribution of household members is based on information from both types of questionnaire, *i.e.*, from all households, whereas data on current school attendance, orphanhood, and housing characteristics are derived from the long questionnaire and thus are based on a smaller number of households. Nevertheless, these indicators are representative at national, urban-rural, and provincial levels as well.

2.1 HOUSEHOLD POPULATION BY AGE AND SEX

Age and sex are important demographic variables and are the primary basis of demographic classification in vital statistics, censuses, and surveys. They are also very important variables in the study of mortality, fertility, and nuptiality. In general, a cross-classification with sex is useful for the effective analysis of all forms of data obtained in surveys.

The distribution of the household population in the 2006-07 PDHS is shown in Table 2.1 by five-year age groups, according to urban-rural residence and sex. The total population counted in the survey was 688,937, with males slightly outnumbering females. Two-thirds of the population (67 percent) reside in rural areas. Of the one-third who live in urban areas, the proportion living in a major city slightly exceeds the proportion living in smaller urban areas.

Table 2.1 Household population by age, sex, and residence

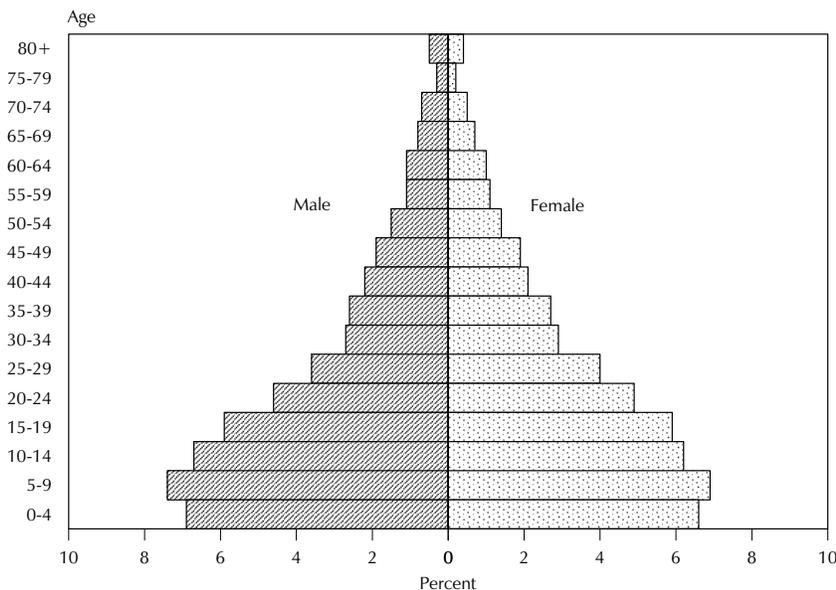
Percent distribution of the de facto household population in all households by five-year age groups, according to sex and residence, Pakistan 2006-07

Age	Residence												Total		
	Total urban			Major city			Other urban			Rural					
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	11.8	11.8	11.8	11.4	11.4	11.4	12.3	12.3	12.3	14.5	14.0	14.2	13.6	13.3	13.4
5-9	12.5	12.5	12.5	11.3	12.0	11.7	14.1	13.2	13.6	15.8	14.6	15.2	14.7	13.9	14.3
10-14	12.7	12.4	12.5	12.1	12.0	12.1	13.5	12.8	13.1	13.5	12.7	13.1	13.2	12.6	12.9
15-19	12.5	12.9	12.7	12.5	12.9	12.7	12.5	12.9	12.7	11.3	11.6	11.4	11.7	12.0	11.9
20-24	10.7	11.2	10.9	11.5	11.7	11.6	9.7	10.5	10.1	8.2	9.4	8.8	9.0	10.0	9.5
25-29	8.2	8.5	8.3	8.8	8.7	8.7	7.3	8.2	7.7	6.7	7.8	7.3	7.2	8.1	7.6
30-34	5.8	6.1	5.9	6.1	6.2	6.1	5.4	6.0	5.7	5.1	5.9	5.5	5.4	5.9	5.7
35-39	5.5	5.8	5.6	5.7	5.9	5.8	5.3	5.7	5.5	4.9	5.4	5.2	5.1	5.6	5.3
40-44	4.8	4.7	4.7	5.0	4.9	5.0	4.5	4.3	4.4	4.1	4.1	4.1	4.4	4.3	4.3
45-49	4.1	4.1	4.1	4.3	4.2	4.3	3.8	4.0	3.9	3.6	3.6	3.6	3.8	3.8	3.8
50-54	3.1	3.0	3.1	3.3	3.1	3.2	3.0	2.8	2.9	2.9	2.8	2.8	3.0	2.9	2.9
55-59	2.3	2.1	2.2	2.2	2.1	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
60-64	2.2	1.8	2.0	2.2	1.7	1.9	2.2	1.9	2.0	2.3	2.0	2.2	2.3	1.9	2.1
65-69	1.3	1.1	1.2	1.2	1.1	1.1	1.4	1.2	1.3	1.6	1.4	1.5	1.5	1.3	1.4
70-74	1.2	0.9	1.1	1.2	1.0	1.1	1.3	0.9	1.1	1.5	1.1	1.3	1.4	1.0	1.2
75-79	0.5	0.4	0.5	0.5	0.4	0.5	0.6	0.4	0.5	0.7	0.5	0.6	0.6	0.5	0.6
80 +	0.8	0.7	0.7	0.7	0.7	0.7	0.9	0.7	0.8	1.1	0.8	1.0	1.0	0.8	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	117,379	113,225	230,607	66,510	63,492	130,004	50,869	49,733	100,602	230,859	227,464	458,331	348,238	340,689	688,937

Note: Total includes 10 persons whose sex was not stated.

The age structure of the household population is typical of a society with a youthful population. The sex and age distribution of the population is shown in the population pyramid in Figure 2.1. Pakistan has a pyramidal age structure due to the large number of children under 15 years of age. It is evident that the pyramid is broad-based but slightly narrower at the lowest base (age group 0-4 years), a pattern that typically describes a high fertility but with a recent declining trend. Children under 15 years of age account for 41 percent of the population in Pakistan, a feature of populations with high fertility levels. Fifty-five percent of the population are in the age group 15-64 years and 4 percent are over 65.

Figure 2.1 Population Pyramid



PDHS 2006-07

Table 2.2 indicates that more than half of the population in Pakistan live in Punjab province (58 percent), followed by Sindh (23 percent), North West Frontier Province (NWFP) (14 percent), and Balochistan (4 percent). The age structure of the four provinces indicates that Punjab province has the lowest proportion of children compared with the other three provinces (Table 2.2). For example, the proportion of the population reported to be under age 15 varies from 39 percent in Punjab to 46 percent in Balochistan.

Table 2.2 Household population by age, sex, and province

Percent distribution of the de facto household population in all households by five-year age groups, according to sex and province, Pakistan 2006-07

Age	Province												Total		
	Punjab			Sindh			NWFP			Balochistan					
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	13.0	12.6	12.8	14.1	14.3	14.2	14.8	13.8	14.3	14.5	15.0	14.7	13.6	13.3	13.4
5-9	13.9	13.1	13.5	15.2	14.8	15.0	15.9	14.7	15.3	17.9	17.7	17.8	14.7	13.9	14.3
10-14	13.0	12.4	12.7	13.0	12.4	12.7	14.5	13.6	14.0	13.6	12.8	13.2	13.2	12.6	12.9
15-19	11.7	12.2	12.0	11.4	11.5	11.4	12.6	12.5	12.5	10.7	10.7	10.7	11.7	12.0	11.9
20-24	9.1	10.1	9.6	9.4	10.3	9.8	8.6	9.5	9.0	8.3	9.1	8.7	9.0	10.0	9.5
25-29	7.1	8.0	7.6	7.9	8.2	8.1	6.2	7.6	6.9	7.5	9.0	8.2	7.2	8.1	7.6
30-34	5.4	6.0	5.7	5.7	6.0	5.9	4.8	5.7	5.2	5.6	5.8	5.7	5.4	5.9	5.7
35-39	5.2	5.8	5.5	5.3	5.3	5.3	4.1	5.2	4.7	5.1	5.0	5.1	5.1	5.6	5.3
40-44	4.6	4.5	4.6	4.2	3.9	4.0	3.9	4.1	4.0	3.7	3.7	3.7	4.4	4.3	4.3
45-49	4.0	3.9	3.9	3.5	3.7	3.6	3.1	3.5	3.3	3.6	3.6	3.6	3.8	3.8	3.8
50-54	3.1	2.9	3.0	2.8	2.8	2.8	2.9	2.8	2.9	2.6	2.3	2.5	3.0	2.9	2.9
55-59	2.3	2.3	2.3	2.1	2.1	2.1	2.2	2.1	2.1	2.1	1.6	1.9	2.2	2.2	2.2
60-64	2.5	2.1	2.3	2.0	1.8	1.9	2.2	1.8	2.0	1.6	1.4	1.5	2.3	1.9	2.1
65-69	1.7	1.5	1.6	1.2	1.1	1.1	1.4	1.3	1.4	1.2	0.7	1.0	1.5	1.3	1.4
70-74	1.6	1.2	1.4	1.1	0.9	1.0	1.2	0.9	1.1	0.8	0.6	0.7	1.4	1.0	1.2
75-79	0.7	0.5	0.6	0.5	0.4	0.4	0.6	0.5	0.5	0.4	0.3	0.4	0.6	0.5	0.6
80 +	1.2	0.9	1.1	0.6	0.5	0.6	1.0	0.6	0.8	0.7	0.6	0.7	1.0	0.8	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	201,669	198,760	400,435	82,612	78,328	160,944	47,945	48,658	96,603	16,012	14,943	30,955	348,238	340,689	688,937

Note: Total includes 10 persons whose sex was not stated.

The results indicate an overall sex ratio of 102 males per 100 females, an implausibly high ratio that is most probably due to a tendency to underreport women. The sex ratio is higher in urban areas (104 males per 100 females) than in rural areas (101 males per 100 females). As shown in Table 2.3, the sex ratio varies by age group, being over 100 in the younger and older age groups and under 100 at ages 20-39. The lower ratios in the prime working ages may be due in part to men leaving the country to work overseas or to differential age misreporting by sex.

Despite the implausibly high sex ratio in the PDHS, it is lower than that from previous surveys (Table 2.4). Comparison of PDHS results with those from previous surveys and the census show that the reported sex ratio varies from 108 males per 100 females in 1990-91 and 1998 to the current ratio of 102 males per 100 females (Table 2.4). The narrowing of the male-female ratio could be explained by the fact that during the 2006-07 PDHS, the enumeration of household members, especially females, was done in a careful and thorough manner, thus leading to a more plausible sex ratio. Table 2.4 also shows that about half of the total female population falls into the reproductive age group (15-49 years). The fact that this segment has been increasing over the last two decades has an impact, because they are in the childbearing years and hence contribute to overall population growth.

Table 2.3 Sex ratios by age

Sex ratios for the household population by five-year age groups, Pakistan 2006-07

Age group	Sex ratio ¹
0-4	105
5-9	108
10-14	107
15-19	100
20-24	93
25-29	91
30-34	93
35-39	94
40-44	105
45-49	102
50-54	106
55-59	104
60-64	119
65 and over	128
Total	102

¹ Sex ratio = (males/females)*100

Table 2.4 Trends in age distribution of household population						
Percent distribution of household population by five-year age groups, overall sex ratio, and percent of women age 15-49, Pakistan 1990-2007						
Age group	PDHS 1990-91	PFFPS 1996-97	Census 1998	PRHFPS 2000-01	SWRHFPS 2003	PDHS 2006-07
0-4	13.4	14.4	14.8	13.8	13.1	13.4
5-9	17.4	15.4	15.7	14.3	14.2	14.3
10-14	13.7	13.3	13.0	13.2	13.5	12.9
15-19	10.2	11.4	10.4	11.9	11.5	11.9
20-24	8.1	8.6	9.0	9.3	9.3	9.5
25-29	7.1	7.4	7.4	7.4	7.2	7.6
30-34	5.4	5.6	6.2	5.8	5.6	5.7
35-39	4.6	4.7	4.8	4.9	5.4	5.3
40-44	4.0	3.6	4.4	3.9	4.1	4.3
45-49	3.0	2.9	3.5	2.8	3.5	3.8
50-54	3.2	3.2	3.2	3.6	3.6	2.9
55-59	2.4	2.7	2.2	2.4	2.4	2.2
60-64	2.7	2.6	2.0	2.5	2.5	2.1
65 and over	5.0	4.3	3.5	4.2	4.3	4.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sex ratio	108	107	108	103	106	102
Female (15-49)	42.6	44.0	46.2	46.4	47.4	49.7

PFFPS = Pakistan Fertility and Family Planning Survey
 PRHFPS = Pakistan Reproductive Health and Family Planning Survey
 SWRHFPS = Status of Women, Reproductive Health, and Family Planning Survey
 Sources: **PDHS 1990-91:** NIPS and Macro, 1992; **PFFPS 1996-97:** Hakim et al., 1998;
Census 1998: Government of Pakistan, 1998; **PRHFPS 2000-01:** NIPS 2001; **SWRHFPS 2003:** NIPS 2007a

2.2 HOUSEHOLD COMPOSITION

In the PDHS, a household was defined as a person or group of related and unrelated persons who live together in the same dwelling unit(s) or in connected premises, who acknowledge one adult member as head of the household, and who have common arrangements for cooking and eating. The household is considered to be the basic social and economic unit of society. Changes at the household level, therefore, have repercussions at the aggregate level of a country as a whole. Such changes also have an impact on the distribution of goods and services and on the planning and requirements of community institutions, schools, housing, and health infrastructure (Ekouevi et al., 1991).

Table 2.5 shows the distribution of households in the survey by the sex of the head of the household and by the number of household members in urban and rural areas. Households in Pakistan are predominantly male-headed, with 92 percent of households being headed by a male and only 9 percent being headed by a female. The proportion of female-headed households is about the same in rural (9 percent) and urban areas (8 percent). This could be attributed to out-migration of the male population from rural areas to urban areas or even overseas for employment purposes. Female headship of households is of concern to policymakers, particularly those dealing with poverty issues, because it is usually financially difficult for a woman to manage a household alone (Osaki, 1991). The proportion of female-headed households has not changed much over the last two decades (data not shown).

Households in Pakistan tend to be large because of the predominance of the extended and joint family system. Economic pressure can also force middle- and lower-income families to live with their in-laws and other relatives because they cannot afford to build or rent separate dwellings. The 2006-07 PDHS data show that the average household size observed in the survey is 7.2 persons (Table 2.5). The household size is slightly smaller in urban areas than in rural areas (7.0 persons versus 7.3 persons, respectively). It is interesting to note that the mean household size in major cities is smaller than that in other urban areas (6.9 persons compared with 7.3 persons, respectively).

The mean household size in Pakistan has increased from 6.9 in 2003 (NIPS, 2007) to the current size of 7.2 persons. The upward trend in household size could be due to two factors: first, a more complete enumeration of household population in the 2006-07 PDHS and, second, an increasing imbalance between the growth of housing stock and the growth of the population (Zahir, 2003).

Characteristic	Residence				Total
	Total urban	Major city	Other urban	Rural	
Household headship					
Male	91.8	91.2	92.6	91.3	91.5
Female	8.2	8.8	7.4	8.7	8.5
Total	100.0	100.0	100.0	100.0	100.0
Number of usual members					
1	1.3	1.3	1.3	1.1	1.2
2	3.7	4.0	3.2	4.0	3.9
3	6.1	6.3	5.8	6.3	6.2
4	9.9	10.4	9.1	9.6	9.7
5	13.6	14.5	12.4	12.1	12.6
6	15.5	16.3	14.6	13.8	14.4
7	13.8	13.4	14.5	13.2	13.4
8	10.8	10.2	11.5	11.2	11.1
9+	25.3	23.6	27.7	28.6	27.5
Total	100.0	100.0	100.0	100.0	100.0
Mean size of households	7.0	6.9	7.3	7.3	7.2
Number of households	32,547	18,779	13,767	62,894	95,441

Note: Table is based on de jure household members, i.e., usual residents.

Detailed information on children's orphanhood is presented in Table 2.6. In Pakistan, the majority of children under age 18 (95 percent) have both parents alive, 3 percent have only their mother alive, and 2 percent have only their father alive. Overall, 4 percent of children under 18 have one or both parents dead.

Differences in children's orphanhood by background characteristics are quite small, except for age. The proportion with one or both parents dead increases steadily with age, ranging from 1 percent among children 0-4 years old to 10 percent among those age 15-17.

Background characteristic	Both alive	Mother alive, father dead	Father alive, mother dead	Both dead	Missing information on father/mother	Total	Percentage with one or both parents dead	Number of children
Age								
0-4	97.7	0.5	0.5	0.0	1.2	100.0	1.1	8,760
<2	97.8	0.3	0.4	0.0	1.5	100.0	0.7	3,443
2-4	97.6	0.6	0.6	0.1	1.1	100.0	1.3	5,317
5-9	96.4	1.7	1.3	0.1	0.5	100.0	3.1	9,409
10-14	93.2	3.7	2.3	0.4	0.5	100.0	6.3	8,555
15-17	89.0	5.9	3.5	0.4	1.2	100.0	9.9	4,766
Sex								
Male	94.4	2.8	1.7	0.2	0.9	100.0	4.6	16,146
Female	95.1	2.3	1.7	0.2	0.7	100.0	4.2	15,341
Residence								
Total urban	94.4	2.8	1.7	0.2	0.9	100.0	4.7	9,847
Major city	95.5	2.3	1.3	0.2	0.7	100.0	3.8	5,207
Other urban	93.2	3.4	2.1	0.2	1.1	100.0	5.7	4,640
Rural	94.9	2.4	1.7	0.2	0.7	100.0	4.3	21,643
Province								
Punjab	94.8	2.5	1.6	0.2	0.9	100.0	4.3	17,482
Sindh	94.3	2.7	2.2	0.2	0.7	100.0	5.0	7,695
NWFP	94.9	2.6	1.3	0.4	0.7	100.0	4.3	4,792
Balochistan	95.8	2.0	1.1	0.1	0.9	100.0	3.3	1,521
Wealth quintile								
Lowest	94.8	2.7	1.8	0.2	0.5	100.0	4.7	7,049
Second	94.1	2.7	1.9	0.4	1.0	100.0	4.9	6,642
Middle	94.0	2.6	2.2	0.0	1.2	100.0	4.8	6,428
Fourth	95.3	2.6	1.3	0.1	0.6	100.0	4.0	6,039
Highest	95.8	2.0	1.2	0.2	0.7	100.0	3.5	5,331
Total <15	95.8	1.9	1.4	0.2	0.7	100.0	3.5	26,724
Total <18	94.8	2.6	1.7	0.2	0.8	100.0	4.4	31,490

Note: Table is based on de jure members, i.e., usual residents. Total includes 2 children with sex missing.

2.3 EDUCATION OF THE HOUSEHOLD POPULATION

Studies show that education is one of the major social factors that influence a person's behaviour and attitude. In general, the higher the level of education of a woman, the more knowledgeable she is about the use of health facilities, family planning methods, and the health of her children. In Pakistan, there are several levels of education. Children generally enter primary school at age 5; this level comprises Classes 1 through 5. Middle school consists of Classes 6 through 8, secondary school is Classes 9 and 10, and higher secondary is Classes 11 and 12. Class 13 and above is college and university level education.

2.3.1 Educational Attainment of Household Population

Tables 2.7.1 and 2.7.2 show the percent distribution of the de facto female and male household population age five and over by highest level of education attended, according to background characteristics.¹ Survey results show that more than half of women and about one-third of men in Pakistan have no education. Overall, females are less educated than males. Twenty-seven percent of females and 33 percent of males have attended primary school only, 8 percent of females and 13 percent of males have attended middle school only, and 7 percent of females and 14 percent of males have attended secondary education only. Overall, 6 percent of females and 10 percent of males

¹ A similar table for both sexes combined appears as Table A.1 in the appendix.

have attended higher than secondary education. The gender differentials in education could be attributed to cultural norms and the social constraints faced by women in Pakistan.

When investigating the changes in educational attainment by successive age groups, survey results show that there has been a marked improvement in the educational attainment of both women and men. For example, the proportion of women with no education has declined significantly from 94 percent among women age 65 and over to 30 percent among women age 10-14. A similar pattern is noticeable among men, with the proportion of men with no education declining from 67 percent among those age 65 and over to just 17 percent among those age 10-14.

Table 2.7.1 Educational attainment of the female household population

Percent distribution of the de facto female household population age five and over by highest level of schooling attended and median years completed, according to background characteristics, Pakistan 2006-07

Background characteristic	Education ¹						Total	Number	Median years completed
	No education	Primary	Middle	Secondary	Higher secondary+	Missing			
Age									
5-9	35.8	63.9	0.0	0.0	0.0	0.3	100.0	47,494	0.0
10-14	29.5	52.3	16.6	1.5	0.0	0.1	100.0	42,850	2.2
15-19	36.6	20.7	17.1	17.0	8.5	0.1	100.0	40,912	4.4
20-24	42.5	16.5	9.7	14.1	17.1	0.2	100.0	34,037	4.2
25-29	52.8	14.5	7.5	11.9	13.1	0.2	100.0	27,428	0.0
30-34	63.4	12.5	5.6	8.7	9.6	0.2	100.0	20,226	0.0
35-39	69.8	12.4	4.6	6.8	6.3	0.1	100.0	18,914	0.0
40-44	74.0	10.8	4.7	5.6	4.8	0.1	100.0	14,563	0.0
45-49	78.8	9.7	3.4	4.5	3.6	0.1	100.0	12,814	0.0
50-54	82.0	8.1	3.1	3.6	3.0	0.3	100.0	9,723	0.0
55-59	87.0	6.0	2.4	2.5	1.9	0.2	100.0	7,408	0.0
60-64	90.5	4.3	2.0	1.4	1.5	0.3	100.0	6,611	0.0
65+	94.2	2.9	1.1	0.9	0.5	0.4	100.0	12,404	0.0
Residence									
Total urban	32.8	28.7	11.9	13.2	13.2	0.2	100.0	99,877	3.3
Major city	28.0	27.2	13.0	15.3	16.3	0.2	100.0	56,276	4.4
Other urban	39.0	30.6	10.6	10.4	9.3	0.2	100.0	43,601	1.2
Rural	61.3	26.4	5.8	3.9	2.3	0.2	100.0	195,622	0.0
Province									
Punjab	46.0	30.2	9.1	8.1	6.5	0.2	100.0	173,732	0.0
Sindh	56.4	22.7	6.5	6.8	7.3	0.2	100.0	67,107	0.0
NWFP	61.9	24.5	6.2	4.1	3.0	0.2	100.0	41,956	0.0
Balochistan	69.5	19.1	4.9	3.5	2.6	0.5	100.0	12,704	0.0
Wealth quintile²									
Lowest	83.2	15.2	0.9	0.2	0.1	0.3	100.0	8,450	0.0
Second	70.2	24.9	3.0	1.1	0.5	0.3	100.0	9,831	0.0
Middle	55.7	32.2	7.1	3.6	1.2	0.2	100.0	9,149	0.0
Fourth	38.7	34.4	12.3	9.3	5.1	0.1	100.0	8,337	1.1
Highest	21.8	28.1	13.8	17.6	18.6	0.2	100.0	8,055	5.0
Total	51.6	27.2	7.9	7.0	6.0	0.2	100.0	295,499	0.0

¹ Primary = Class 1-5; middle = Class 6-8; secondary = Class 9-10; higher = Class 11 or more
² Data refer only to individuals in households interviewed with the Long Household Questionnaire.

As expected, the proportion of respondents with no education is much higher among the rural than the urban population. For example, 61 percent of females in rural areas have no education compared with only 33 percent of females in urban areas. Among men, the proportion with no education varies from 36 percent of those in rural areas to 20 percent of those in urban areas. The urban-rural difference in educational attainment is undoubtedly due to a lack of education facilities or their inaccessibility in rural areas.

Regarding provincial variation, the proportion of women and men with no education is highest in Balochistan (70 and 46 percent, respectively) and lowest in Punjab (46 and 28 percent, respectively). Educational attainment is strongly associated with wealth; the proportion of both

women and men with no education is highest among those in the lowest quintiles and decreases steadily with increasing wealth. Eighty-three percent of women in the lowest wealth quintile have no education compared with only 22 percent in the highest quintile. Similarly, 58 percent of men in the lowest quintile have no education compared with 10 percent in the highest quintile.

The proportion of women and men with no education has decreased significantly since the 1990-91 PDHS, while the proportions who have attended each level of education have increased.

Table 2.7.2 Educational attainment of the male household population

Percent distribution of the de facto male household population age five and over by highest level of schooling attended and median years completed, according to background characteristics, Pakistan 2006-07

Background characteristic	Education ¹						Total	Number	Median years completed
	No education	Primary	Middle	Secondary	Higher than secondary	Missing			
Age									
5-9	27.9	71.7	0.1	0.0	0.0	0.3	100.0	51,098	0.0
10-14	16.8	62.3	19.3	1.4	0.1	0.1	100.0	45,995	2.9
15-19	20.0	21.8	26.6	23.5	7.9	0.1	100.0	40,815	6.3
20-24	21.2	16.9	17.8	24.5	19.4	0.2	100.0	31,513	7.4
25-29	24.5	15.2	15.6	24.6	19.9	0.3	100.0	25,008	7.5
30-34	30.1	14.3	13.2	21.9	20.3	0.3	100.0	18,703	7.1
35-39	37.1	15.2	11.4	18.0	18.0	0.3	100.0	17,712	4.8
40-44	41.6	15.0	11.7	16.9	14.6	0.2	100.0	15,230	4.4
45-49	43.3	15.0	10.9	17.8	12.6	0.3	100.0	13,069	4.2
50-54	47.3	14.8	9.7	15.6	12.3	0.4	100.0	10,303	2.8
55-59	50.2	16.1	9.2	13.3	11.0	0.3	100.0	7,696	0.0
60-64	56.5	15.4	8.0	12.2	7.4	0.4	100.0	7,894	0.0
65+	67.4	13.3	6.6	7.5	4.6	0.5	100.0	15,834	0.0
Residence									
Total urban	20.2	30.5	14.7	17.4	17.0	0.2	100.0	103,543	4.9
Major city	18.9	28.5	14.8	18.4	19.2	0.2	100.0	58,956	5.7
Other urban	22.0	33.2	14.6	16.0	14.0	0.3	100.0	44,587	4.5
Rural	35.5	34.2	12.8	11.7	5.6	0.2	100.0	197,449	1.4
Province									
Punjab	27.8	34.1	14.7	14.7	8.4	0.2	100.0	175,516	3.5
Sindh	34.1	31.3	9.9	11.3	12.9	0.4	100.0	70,946	2.3
NWFP	28.9	33.1	15.0	14.1	8.7	0.2	100.0	40,833	2.7
Balochistan	45.7	25.0	10.0	10.3	8.6	0.4	100.0	13,697	0.0
Wealth quintile²									
Lowest	57.5	30.6	5.6	4.5	1.4	0.4	100.0	9,018	0.0
Second	40.0	36.2	11.4	8.6	3.3	0.5	100.0	9,970	0.1
Middle	30.0	37.8	13.8	12.8	5.4	0.3	100.0	9,084	2.4
Fourth	20.1	35.8	16.3	17.9	9.5	0.4	100.0	8,522	4.4
Highest	10.2	26.6	15.9	22.9	24.3	0.2	100.0	8,034	7.7
Total	30.3	32.9	13.4	13.6	9.5	0.2	100.0	300,992	2.9

¹ Primary = Class 1-5; middle = Class 6-8; secondary = Class 9-10; higher = Class 11 or more
² Data refer only to individuals in households interviewed with the Long Household Questionnaire.

2.3.2 School Attendance Ratios

Data on net attendance ratios (NARs) and gross attendance ratios (GARs) for the de facto household population by school level and sex, according to residence, province, and wealth index, are shown in Table 2.8. The NAR indicates participation in primary schooling for the population age 5-9 and in middle/secondary school for the population age 10-14. The GAR measures participation at each level of schooling among those of any age. The GAR is nearly always higher than the NAR for the same level because the GAR includes participation by those who may be older or younger than the official age range for that level.² A NAR of 100 percent would indicate that all those in the official age range for the level are attending at that level. The GAR can exceed 100 percent if there is significant over-age or under-age participation at a given level of schooling.

² Students who are over-age for a given level of schooling may have started school over-age, may have repeated one or more grades in school, or may have dropped out of school and later returned.

Table 2.8 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population by sex and level of schooling; and the gender parity index (GPI), according to background characteristics, Pakistan 2006-07

Background characteristic	Net attendance ratio ¹				Gross attendance ratio ²			
	Male	Female	Total	Gender Parity Index ³	Male	Female	Total	Gender Parity Index ³
PRIMARY SCHOOL								
Residence								
Total urban	78.4	76.4	77.4	0.97	114.4	105.1	109.8	0.92
Major city	81.9	78.7	80.3	0.96	118.0	106.8	112.4	0.90
Other urban	74.7	73.9	74.3	0.99	110.7	103.3	107.1	0.93
Rural	66.4	56.3	61.6	0.85	103.2	83.2	93.7	0.81
Province								
Punjab	76.5	73.2	75.0	0.96	112.8	102.8	108.1	0.91
Sindh	58.7	49.7	54.4	0.85	87.9	69.3	79.0	0.79
NWFP	72.0	53.0	62.3	0.74	121.5	82.9	101.7	0.68
Balochistan	46.7	37.0	42.2	0.79	86.5	73.7	80.6	0.85
Wealth quintile								
Lowest	49.2	32.2	41.5	0.65	76.8	49.9	64.6	0.65
Second	64.5	53.3	58.8	0.83	113.4	79.7	96.2	0.70
Middle	75.3	71.6	73.5	0.95	111.8	110.4	111.1	0.99
Fourth	84.4	81.1	82.9	0.96	125.9	115.1	120.8	0.91
Highest	87.7	87.8	87.8	1.00	117.5	109.4	113.5	0.93
Total	69.8	62.2	66.2	0.89	106.3	89.7	98.4	0.84
MIDDLE/SECONDARY SCHOOL								
Residence								
Total urban	35.9	40.2	37.9	1.12	62.2	68.3	65.2	1.10
Major city	38.4	43.6	40.9	1.13	65.1	70.6	67.8	1.09
Other urban	32.9	36.0	34.4	1.10	58.9	65.5	62.0	1.11
Rural	25.9	18.0	22.1	0.70	53.3	33.0	43.4	0.62
Province								
Punjab	31.9	30.6	31.2	0.96	57.4	53.3	55.5	0.93
Sindh	24.9	20.3	22.7	0.82	46.7	33.5	40.2	0.72
NWFP	28.5	17.4	22.9	0.61	67.6	32.7	50.1	0.48
Balochistan	19.4	12.6	16.1	0.65	54.1	32.8	43.8	0.60
Wealth quintile								
Lowest	12.3	4.9	8.7	0.40	25.6	7.7	16.9	0.30
Second	19.4	9.6	14.7	0.50	46.1	19.3	33.0	0.42
Middle	30.3	22.5	26.5	0.74	58.7	44.6	51.8	0.76
Fourth	37.2	40.3	38.7	1.08	70.1	74.7	72.3	1.07
Highest	50.3	54.4	52.3	1.08	86.0	84.4	85.2	0.98
Total	29.2	25.3	27.3	0.87	56.3	44.5	50.6	0.79

¹ The NAR for primary school is the percentage of the primary-school-age (5-9 years) population that is attending primary school. The NAR for middle/secondary school is the percentage of the middle/secondary-school-age (10-14 years) population that is attending secondary school. By definition the NAR cannot exceed 100 percent.

² The GAR for primary school is the total number of primary school students, expressed as a percentage of the official primary-school-age population. The GAR for middle/secondary school is the total number of middle/secondary school students, expressed as a percentage of the official middle/secondary-school-age population. If there are significant numbers of over-age and under-age students at a given level of schooling, the GAR can exceed 100 percent.

³ The Gender Parity Index for primary school is the ratio of the primary school NAR (GAR) for females to the NAR (GAR) for males. The Gender Parity Index for middle/secondary school is the ratio of the middle/secondary school NAR (GAR) for females to the NAR (GAR) for males.

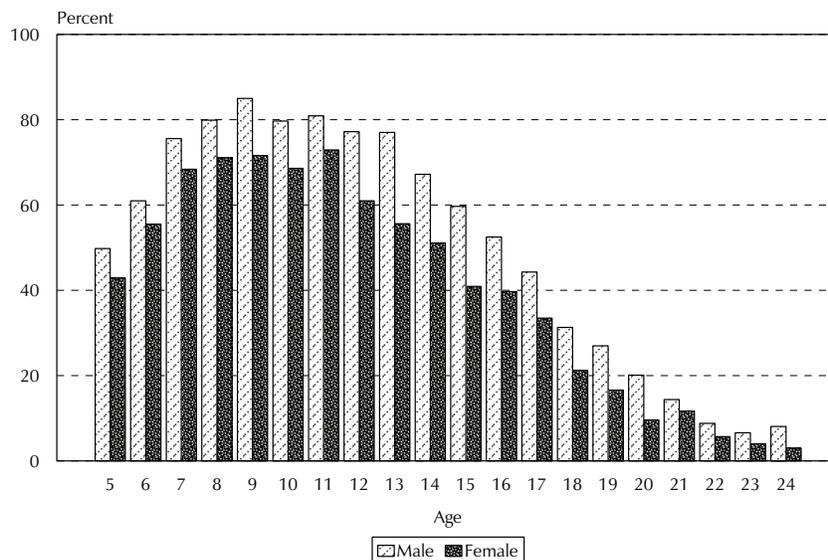
Sixty-six percent of primary-school-age children are currently attending primary school. At the same time, only 27 percent of middle/secondary-school-age youths are attending that level. The NAR is higher among males than among females at both primary and middle/secondary levels. Attendance ratios are much lower in rural than urban areas and are the lowest in Balochistan and highest in Punjab.

The GAR is higher among males than females—106 and 90, respectively, at the primary-school level and 56 and 45, respectively, at the secondary-school level—indicating higher attendance among males than among females. Although the overall GAR at the primary-school level is 98, there are significant levels of over-age and/or under-age participation in the urban areas (110) and also in Punjab (108) and NWFP (102). There is a strong relationship between household economic status and schooling that can be seen at both the primary and middle/secondary levels. For example, the primary-school NAR increases from 42 percent among the student-age population from poorer households (lowest wealth quintile) to 88 percent among those from richer households (highest wealth quintile). Similarly, the middle/secondary school NAR rises from 9 percent of those in the lowest wealth quintile to 52 percent among those in the highest wealth quintile.

The Gender Parity Index (GPI) represents the ratio of the GAR for females to the GAR for males. It is presented at both the primary and middle/secondary levels and offers a summary measure of gender differences in school attendance rates. A GPI less than one indicates that a smaller proportion of females than males attends school. In Pakistan, the GPI is less than one (0.8) for both primary and middle/secondary school attendance. There are marked differences in the GPI by place of residence and by province. The primary and middle/secondary school GPI is lower in rural areas than in urban areas, with the difference being more pronounced for middle/secondary school attendance. Looking at provinces, the GPI for both primary and middle/secondary education is highest in Punjab and lowest in NWFP.

The age-specific attendance rates for the population age 5-24 years by sex are shown in Figure 2.2. These rates indicate participation in schooling at any level, from primary to higher levels of education. The minimum age for schooling in Pakistan is five. Nevertheless, only half of boys and about four in ten girls age five are attending school, indicating that a significant proportion of children that age in Pakistan have not entered the school system. It is possible that a substantial proportion of the children age five are not attending school because they turned five after the start of the school year and were thus too young to start in that year. Between ages 5 and 11 the proportion of both males and females attending school generally increases, and then it starts declining steadily thereafter. Overall, a higher proportion of males than females attends school for all ages.

Figure 2.2 Age-Specific Attendance Rates of the De-Facto Population Age 5 to 24 Years



PDHS 2006-07

2.4 HOUSING CHARACTERISTICS

The physical characteristics and availability and accessibility of basic household facilities are important in assessing the general welfare and socioeconomic condition of the population. In the 2006-07 PDHS, respondents in the sub-sample in which the Long Household Questionnaire was administered were asked about household drinking water and household sanitation facilities that included questions on the source of drinking water, time taken to travel to the nearest source of water, the person who usually collects drinking water, water treatment before drinking, and questions on sanitation facilities.

Table 2.9 presents information on household drinking water. The majority (93 percent) of households in Pakistan have access to an improved source of drinking water with access in urban areas slightly higher than in rural areas (95 and 92 percent, respectively). The most common source of improved drinking water in urban areas is piped water, with 66 percent of households having access to this source, most commonly with a pipe directly into the house or plot. On the other hand, only 24 percent of rural households have access to piped water. The major source of improved drinking water in rural areas is a tubewell, borehole, or hand pump (62 percent).

Table 2.9 Household drinking water

Percent distribution of households and de jure population by source and time to collect drinking water; and percentage of households and the de jure population by treatment of drinking water, according to residence, Pakistan 2006-07

Characteristic	Households					Population				
	Total urban	Major city	Other urban	Rural	Total	Total urban	Major city	Other urban	Rural	Total
Source of drinking water										
Improved source ¹	94.5	92.8	96.9	91.9	92.8	94.0	92.1	96.4	91.9	92.6
Piped into dwelling/yard/plot (piped)	62.3	77.8	41.6	22.0	35.8	61.7	77.9	41.3	23.2	36.3
Public tap/standpipe (piped)	3.6	3.2	4.2	1.8	2.4	3.6	3.2	4.2	1.6	2.3
Tubewell/borehole/hand pump	25.4	8.3	48.4	62.1	49.6	25.9	8.3	48.1	61.0	49.1
Protected dug well	1.3	0.6	2.3	5.0	3.7	1.4	0.7	2.3	5.0	3.8
Protected spring/karez	0.0	0.0	0.1	0.6	0.4	0.1	0.0	0.1	0.8	0.5
Rainwater	0.1	0.0	0.1	0.3	0.2	0.1	0.0	0.1	0.3	0.2
Bottled water	1.7	2.8	0.3	0.0	0.6	1.2	2.1	0.2	0.0	0.4
Non-improved source	4.0	5.4	2.1	7.1	6.1	4.7	6.3	2.6	7.2	6.3
Unprotected dug well	0.0	0.0	0.1	1.8	1.2	0.0	0.0	0.1	1.7	1.1
Unprotected spring	0.0	0.0	0.0	1.7	1.1	0.0	0.0	0.0	1.6	1.1
Tanker truck/cart with tank	2.7	3.7	1.5	0.6	1.3	3.2	4.2	1.9	0.6	1.5
Surface water	1.2	1.8	0.5	3.1	2.5	1.4	2.1	0.6	3.3	2.7
Other	1.3	1.5	0.9	1.0	1.1	1.1	1.2	0.8	0.9	0.9
Missing	0.2	0.3	0.1	0.0	0.1	0.3	0.3	0.2	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Time to obtain drinking water (round trip)										
Water on premises	89.2	89.1	89.2	78.0	81.8	88.9	88.4	89.6	77.9	81.6
Less than 30 minutes	5.6	5.4	5.8	11.4	9.4	5.4	5.6	5.2	11.1	9.2
30 minutes or longer	3.5	3.7	3.2	9.2	7.3	3.7	3.8	3.5	9.4	7.4
Don't know/missing	1.7	1.7	1.7	1.4	1.5	2.0	2.2	1.7	1.7	1.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water treatment²										
Boiled	17.9	27.9	4.6	1.2	6.9	16.0	25.0	4.6	1.3	6.2
Bleach/chlorine	1.3	1.9	0.5	0.1	0.5	1.5	2.1	0.6	0.2	0.6
Strained through cloth	3.7	5.2	1.8	1.1	2.0	3.7	5.2	1.7	1.1	2.0
Ceramic, sand or other filter	3.3	5.0	1.2	0.3	1.3	3.1	4.7	1.1	0.3	1.3
Solar disinfection	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Let it stand and settle	1.2	1.7	0.5	0.3	0.6	1.1	1.6	0.5	0.3	0.6
Other	0.1	0.2	0.0	0.1	0.1	0.1	0.2	0.0	0.1	0.1
No treatment	74.8	61.8	92.3	96.9	89.4	76.8	64.5	92.2	96.8	90.0
Percentage using an appropriate treatment method ³	24.5	37.4	7.4	2.7	10.1	22.6	34.6	7.4	2.8	9.5
Number	3,159	1,808	1,350	6,096	9,255	22,389	12,485	9,904	43,757	66,145

¹ Households using bottled water for drinking are classified as using an improved source.

² Respondents may report multiple treatment methods so the sum of treatment may exceed 100 percent.

³ Appropriate water treatment methods include boiling, bleaching, straining, filtering, and solar disinfecting.

More than eight in ten households (82 percent) report having water on their premises. Households not having access on their premises were asked for the time taken to fetch water. About one-tenth of all households take less than 30 minutes to fetch drinking water, while 7 percent take 30 minutes or longer to do so.

In the survey, household respondents were asked whether they treat water before drinking. An overwhelming majority of households (89 percent) do not treat drinking water. Urban households (25 percent) are much more likely than rural households (3 percent) to treat drinking water, mostly by boiling. Even in major cities, only 37 percent of the households treat their drinking water appropriately. Appendix Table A.2 presents information on household drinking water by province. Data show that availability of an improved source of drinking water is highest in Punjab (96 percent) and lowest in NWFP (83 percent). On the other hand, the practice of appropriate water treatment is highest in Sindh (22 percent) and lowest in NWFP and Balochistan (3 percent each).

The sanitation situation of a household has direct implications on the hygienic and health status of household members. Absence of sanitary disposal of waste exposes people to risk of acquiring infections and other diseases. Table 2.10 presents information on household sanitation facilities by type of toilet/latrine.

Three in ten Pakistani households do not have any toilet facility, a statistic that is considerably higher among rural households (43 percent) than urban households (4 percent). Overall, half of households use improved toilets that are not shared with other households. Urban households (78 percent) are more than twice as likely as rural households (36 percent) to have improved toilet facilities. In urban areas, a flush/pour flush to piped sewer system (60 percent) is the major type of improved toilet facility, while in rural areas a flush/pour flush to septic tank facility (16 percent) is the most common type of improved facility. The seriousness of the sanitary situation is evident from the fact that only 28 percent of households have a toilet that flushes into a piped sewer system. As expected, Balochistan has the highest proportion of households with no toilet facility at all (43 percent), while Punjab and Sindh have the lowest (29 percent each; see Appendix Table A.3).

Table 2.10 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, according to residence, Pakistan 2006-07

Type of toilet/latrine facility	Households					Population				
	Total urban	Major city	Other urban	Rural	Total	Total urban	Major city	Other urban	Rural	Total
Improved, not shared facility										
Flush/pour flush to piped sewer system	59.6	77.0	36.3	11.7	28.0	59.3	77.4	36.5	12.2	28.2
Flush/pour flush to septic tank	11.2	5.1	19.4	16.3	14.6	11.5	5.3	19.3	17.3	15.4
Flush/pour flush to pit latrine	5.7	3.6	8.4	6.0	5.9	6.1	3.9	8.8	6.6	6.4
Ventilated improved pit (VIP) latrine	0.3	0.0	0.7	0.8	0.7	0.4	0.0	0.9	0.8	0.7
Pit latrine with slab	1.0	1.1	0.8	1.0	1.0	1.1	1.3	0.9	1.1	1.1
Non-improved facility										
Any facility shared with other households	9.3	10.4	8.0	4.9	6.4	8.6	9.6	7.4	4.4	5.9
Flush/pour flush not to sewer/septic tank/pit latrine	2.2	0.8	4.1	2.6	2.5	2.5	0.7	4.8	2.8	2.7
Pit latrine without slab/open pit	0.8	0.1	1.7	3.7	2.7	0.8	0.1	1.7	4.0	2.9
Bucket	0.5	0.2	0.9	1.8	1.3	0.5	0.1	0.9	1.9	1.4
Hanging toilet/hanging latrine	5.3	0.3	11.9	7.4	6.7	5.2	0.3	11.3	7.1	6.5
No facility/bush/field	3.6	0.8	7.2	43.3	29.8	3.4	0.8	6.7	41.2	28.4
Other	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.2	0.1
Missing	0.7	0.7	0.6	0.3	0.4	0.7	0.5	0.8	0.2	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	3,159	1,808	1,350	6,096	9,255	22,389	12,485	9,904	43,757	56,145

Information on housing characteristics such as availability of electricity; type of material used in the floors, roof, and walls; number of rooms used for sleeping; type of fuel used for cooking; place for cooking; and type of fire/stove is shown in Table 2.11. About nine in ten households in Pakistan have electricity, with a strong difference by place of residence. Only 84 percent of households in rural areas have access to electricity compared with 98 percent of urban households. Half of Pakistani households have earth or sand floors and three in ten have cement floors. Rural households are more likely than urban households to have earth, sand, or mud floors, while urban households are more likely than rural households to have floors made with cement.

Housing characteristic	Households					Population				
	Total urban	Major city	Other urban	Rural	Total	Total urban	Major city	Other urban	Rural	Total
Electricity										
Yes	98.3	99.6	96.7	84.4	89.2	98.5	99.7	97.0	85.2	89.7
No	1.5	0.3	3.2	15.5	10.7	1.4	0.2	2.9	14.7	10.2
Missing	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Flooring material										
Earth/sand/mud	13.0	4.2	24.9	67.9	49.2	13.6	4.3	25.3	68.1	49.6
Chips/terrazo	15.7	21.4	8.0	2.3	6.8	15.4	21.2	8.0	2.4	6.8
Ceramic tiles	2.0	2.6	1.1	0.7	1.1	1.8	2.5	1.0	0.6	1.0
Marble	5.7	7.6	3.2	0.7	2.4	5.7	7.4	3.7	0.7	2.4
Cement	49.5	53.4	44.2	19.4	29.6	49.2	54.0	43.1	19.3	29.4
Carpet	1.8	3.0	0.2	0.1	0.7	1.7	2.9	0.2	0.1	0.6
Bricks	11.9	7.1	18.2	8.4	9.6	12.2	7.4	18.3	8.2	9.6
Other/missing	0.4	0.6	0.3	0.5	0.5	0.4	0.5	0.3	0.6	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Main wall material										
Mud/stones	5.2	2.0	9.6	29.6	21.3	5.6	1.9	10.3	30.3	22.0
Bamboo/sticks/mud	2.0	0.5	3.9	11.1	8.0	2.1	0.7	3.8	11.0	8.0
Unbaked bricks/mud	2.7	1.2	4.6	6.9	5.5	2.7	1.2	4.5	7.0	5.5
Stone blocks	1.0	0.9	1.1	0.5	0.7	0.9	0.7	1.1	0.5	0.6
Baked bricks	18.7	9.2	31.3	22.2	21.0	19.3	9.4	31.8	22.2	21.2
Cement blocks/cement	70.0	85.4	49.3	28.8	42.9	69.0	85.4	48.2	28.1	41.9
Other/missing	0.5	0.8	0.2	0.9	0.7	0.5	0.7	0.3	1.0	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Main roof material										
Thatch/palm leaf	12.7	7.2	20.1	43.8	33.2	12.9	7.4	19.9	44.0	33.5
Iron sheets/asbestos	6.1	8.1	3.4	1.8	3.3	6.3	8.3	3.8	1.8	3.3
T-iron/wood/brick	30.8	17.7	48.5	40.8	37.4	31.2	18.0	47.9	40.7	37.5
Reinforced brick cement/ reinforced concrete cement	49.8	66.5	27.4	13.2	25.7	49.2	66.0	27.9	13.3	25.5
Other/missing	0.5	0.6	0.6	0.3	0.5	0.4	0.4	0.6	0.3	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Rooms used for sleeping										
One	31.6	31.9	31.2	38.1	35.9	24.5	24.9	24.0	29.7	27.9
Two	41.4	40.0	43.3	40.4	40.8	40.5	38.2	43.4	40.3	40.4
Three or more	25.9	26.6	25.0	20.8	22.6	34.1	35.5	32.3	29.4	31.0
Missing	1.0	1.5	0.4	0.7	0.8	1.0	1.5	0.4	0.7	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cooking fuel										
Electricity	0.2	0.1	0.3	0.3	0.2	0.2	0.1	0.4	0.2	0.2
Cylinder gas	6.1	3.1	10.0	3.9	4.6	5.7	3.2	8.8	3.3	4.1
Natural gas	70.0	90.2	42.9	3.9	26.5	69.2	89.9	43.1	4.3	26.3
Biogas	1.0	0.4	1.7	1.9	1.6	1.2	0.5	2.1	2.0	1.7
Charcoal	0.1	0.0	0.3	0.6	0.4	0.1	0.0	0.2	0.6	0.4
Wood	18.8	4.2	38.4	67.5	50.9	19.5	4.2	38.7	69.0	52.2
Straw/shrubs/grass	0.9	0.5	1.5	6.5	4.6	1.0	0.7	1.4	5.9	4.3
Agricultural crop	0.4	0.0	0.9	5.5	3.7	0.3	0.0	0.8	5.4	3.7
Animal dung	2.0	0.8	3.5	9.5	6.9	2.4	1.0	4.2	9.1	6.9
No food cooked in household	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0
Other/missing	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using solid fuel for cooking ¹	22.2	5.4	44.5	89.6	66.6	23.4	6.0	45.3	90.0	67.4
Number of households	3,159	1,808	1,350	6,096	9,255	22,389	12,485	9,904	43,757	66,145

¹ Includes charcoal, wood, straw/shrubs/grass, agricultural crops, and animal dung

More than two in five households use cement blocks or cement for the construction of the main walls of the dwelling, much more so in urban areas (70 percent) than in rural areas (29 percent). Furthermore, one in five households uses either mud and stones or baked bricks for the main walls.

Thirty-seven percent of Pakistani households use T-iron, wood, or brick as the main roofing material for their dwellings, while 33 percent use thatch or palm leaves and 26 percent use reinforced brick cement or reinforced concrete cement (RCC). The most commonly used material for construction of roofs in urban areas is reinforced brick cement or RCC, while in rural areas it is thatch or palm leaves.

Data were also collected on the number of sleeping rooms per household. Forty-one percent of households have two rooms for sleeping, 36 percent have only one room, and 23 percent have three or more rooms for sleeping. There are no major variations in the number of rooms used for sleeping by urban-rural residence.

Slightly over half of households (51 percent) use wood for cooking, while more than one in four (27 percent) use natural gas. Wood is the most common form of cooking fuel in rural areas (68 percent), while natural gas is the most common form of cooking in urban areas (70 percent). Sixty-seven percent of the households in Pakistan use solid fuel for cooking (e.g., charcoal, wood, straw/shrubs/grass, agricultural crops, or animal dung) that generates smoke that is unhealthy to breathe. Rural households are much more likely than urban households to use solid fuels for cooking (90 and 22 percent, respectively).

Data on housing characteristics by province are shown in Appendix Table A.4.

2.5 HOUSEHOLD POSSESSIONS

Information on ownership of durable goods and other possessions is presented in Table 2.12. In general, ownership of household effects, means of transportation, and agricultural land and farm animals is indicative of a household's social and economic well-being. The survey results show that about one-third (32 percent) of all households have a radio, more than half (56 percent) have a television, 46 percent have a telephone, and 37 percent have a refrigerator. Furthermore, 60 percent of households own a sewing machine, 43 percent own a washing machine, and 39 percent own a water pump. In general, households in rural Pakistan are much less likely to possess consumer items like televisions, telephones, refrigerators, sewing and washing machines, or water pumps than urban households.

In general, Pakistanis are not very likely to own a means of transport. Bicycles are the most common means of transport, with 41 percent of households owning a bicycle. Overall, about one-fifth (18 percent) of households own a motorcycle or scooter and 7 percent own a car, truck, or tractor. Urban households are much more likely than rural households to own a motorcycle, a scooter, or a car. A large majority of rural households, in contrast to urban households, own agricultural land (50 and 13 percent, respectively) or farm animals (71 and 17 percent, respectively).

Table 2.12 Household durable goods

Percentage of households and de jure population possessing various household effects, means of transportation, agricultural land, and livestock/farm animals, according to residence, Pakistan 2006-07

Possession	Households					Population				
	Total urban	Major city	Other urban	Rural	Total	Total urban	Major city	Other urban	Rural	Total
Radio	28.8	27.4	30.6	33.2	31.7	29.5	27.8	31.6	35.6	33.5
Television	80.5	87.5	71.1	42.9	55.7	80.8	87.1	72.8	45.4	57.3
Telephone	65.9	72.4	57.2	35.2	45.7	67.2	73.3	59.5	38.7	48.3
Refrigerator	61.7	71.7	48.3	23.7	36.7	62.0	72.1	49.3	25.6	37.9
Room cooler/air conditioner	27.7	29.9	24.7	7.6	14.5	27.3	29.3	24.6	8.4	14.8
Washing machine	71.8	80.8	59.9	27.2	42.5	72.9	81.8	61.8	29.7	44.3
Water pump	53.2	53.6	52.7	31.4	38.8	54.4	55.0	53.6	32.6	40.0
Bed	83.4	83.9	82.7	69.3	74.1	83.5	83.3	83.8	71.0	75.2
Chair	66.4	67.1	65.4	48.9	54.9	66.4	67.3	65.3	49.4	55.2
Cabinet	67.8	77.4	54.9	31.2	43.7	69.3	78.4	57.8	33.8	45.8
Clock	92.2	97.2	85.6	69.3	77.1	92.9	97.6	86.9	71.4	78.7
Sofa	50.0	60.7	35.8	17.5	28.6	50.2	60.8	36.8	19.1	29.6
Sewing machine	75.6	80.2	69.5	52.5	60.4	77.8	82.3	72.2	55.9	63.3
Camera	20.1	24.1	14.9	6.1	10.9	20.6	23.5	17.0	7.2	11.7
Personal computer	18.5	24.4	10.6	2.8	8.1	18.0	23.3	11.2	3.1	8.1
Watch	88.2	90.6	85.0	76.8	80.7	89.3	91.3	86.8	79.7	83.0
Bicycle	37.5	34.6	41.2	42.4	40.7	40.6	38.3	43.5	45.1	43.6
Motorcycle/scooter	28.4	34.3	20.5	13.3	18.4	30.0	35.9	22.6	16.1	20.8
Car/truck/tractor	10.2	13.4	5.8	4.8	6.7	10.5	13.4	6.9	6.2	7.7
Animal-drawn cart	3.3	1.9	5.3	13.2	9.8	3.7	2.0	5.8	15.4	11.4
Boat with a motor	0.2	0.3	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.2
Ownership of agricultural land	13.1	8.0	19.8	49.7	37.2	14.2	9.1	20.6	51.3	38.7
Ownership of farm animals ¹	16.6	7.0	29.5	71.2	52.6	19.2	8.6	32.6	74.8	56.0
Number	3,159	1,808	1,350	6,096	9,255	22,389	12,485	9,904	43,757	66,145

¹ Buffalo, cows, bulls, camels, donkeys, mules, horses, goats, sheep, chickens

2.6 SOCIOECONOMIC STATUS INDEX

One of the background characteristics used throughout this report is an index of socio-economic status. The index used here was recently developed and tested in a large number of countries in relation to inequalities in household income, use of health services, and health outcomes (Rutstein et al., 2000). It is an indicator of the level of wealth that is consistent with expenditure and income measures (Rutstein, 1999). The economic index was constructed using household asset data including ownership of a number of consumer items ranging from a television to a bicycle or car, as well as dwelling characteristics, such as source of drinking water, sanitation facilities, and type of material used for flooring.

Each asset was assigned a weight (factor score) generated through principal components analysis, and the resulting asset scores were standardized in relation to a normal distribution with a mean of zero and standard deviation of one (Gwatkin et al., 2000). Each household was then assigned a score for each asset, and the scores were summed for each household; individuals were ranked according to the score of the household in which they resided. The sample was then divided into quintiles from one (lowest) to five (highest). A single asset index was developed for the whole sample; separate indices were not prepared for urban and rural populations.

Table 2.13 presents data on wealth quintiles by residence and provinces. Overall, by definition, equal proportions of the Pakistani population fall in each quintile (20 percent each). However, the distribution by wealth quintile varies significantly by urban-rural residence. Forty-six percent of the population in urban areas is in the highest wealth quintile in contrast to 7 percent of the rural population. On the other hand, 29 percent of the rural population fall in the lowest quintile compared with only 3 percent of the urban population. The wealth quintile distribution by province shows large variation, with a relatively higher percentage of the population in Sindh and Punjab provinces (the most urbanized provinces) in the higher wealth quintiles and a higher percentage of the population in Balochistan in the lower wealth quintiles. Interestingly, Sindh province has relatively high proportions of population in both the lowest and highest wealth quintiles, implying that the province has relatively fewer middle-class households.

Residence/region	Wealth quintile					Total	Number
	Lowest	Second	Middle	Fourth	Highest		
Residence							
Total urban	2.9	6.2	15.8	29.2	45.9	100.0	22,369
Major city	0.4	1.9	8.6	29.3	59.8	100.0	12,474
Other urban	6.1	11.6	24.8	29.0	28.4	100.0	9,895
Rural	28.7	27.0	22.2	15.3	6.7	100.0	43,718
Province							
Punjab	16.5	17.6	23.0	21.5	21.4	100.0	38,134
Sindh	29.0	15.6	12.3	19.7	23.3	100.0	15,697
NWFP	14.7	35.7	19.7	17.7	12.2	100.0	9,213
Balochistan	33.5	25.0	23.4	9.8	8.4	100.0	3,043
Total	20.0	20.0	20.0	20.0	20.0	100.0	66,088

2.7 AVAILABILITY OF SERVICES IN RURAL AREAS

The 2006-07 PDHS used a Community Questionnaire that was administered in each of the 610 selected rural sample points. It included questions about the availability of various public services, such as schools, shops, transport, and health facilities. Because the data were provided by community informants and distances were not verified, the data should be viewed with some caution. Table 2.14 shows the percent distribution of rural households by distance to various services.

There is a wide range in the distance of services from rural households. As might be expected, the vast majority of rural households are 10 or more kilometres from the district headquarters, ambulance services, ultrasound services for pregnant women, a functioning maternal and child health centre, and a hospital. Banks, rural health centres, and family welfare centres are also not likely to be close to rural households. In fact, the most available health-related personnel are *dais* (traditional birth attendants), dispensers/compounders of medicines, and hakims and homeopaths.

A large majority of rural households are in communities in which primary schools are located; however, it is interesting that primary schools for boys are more likely to be in the community than primary schools for girls.

Table 2.14 Availability of services in rural areas

Percent distribution of rural households by distance to selected services in their communities, Pakistan 2006-07

Service	Number of kilometres to service				Don't know/ missing	Total
	In community ¹	1-4 km	5-9 km	10+ km		
District headquarters	0.6	1.4	4.0	89.9	4.1	100.0
Medical store	25.4	23.2	18.6	29.1	3.7	100.0
General store or shop	65.4	7.3	8.2	15.6	3.5	100.0
Motorized public transport	63.2	14.5	6.3	11.4	4.5	100.0
Non-motorized public transport	70.2	8.9	3.7	7.8	9.4	100.0
Post office	31.7	22.7	14.3	27.8	3.5	100.0
Bank	12.2	18.0	23.0	41.8	4.9	100.0
Primary school for boys	88.5	7.0	1.2	0.8	2.6	100.0
Primary school for girls	78.2	8.5	5.2	5.6	2.6	100.0
Secondary school for boys	30.9	22.9	20.6	21.6	3.9	100.0
Secondary school for girls	21.1	20.0	21.2	32.8	5.0	100.0
Any ambulance service	8.1	8.4	16.7	60.3	6.4	100.0
Ultrasound services for pregnant women	8.4	9.4	16.2	60.5	5.5	100.0
Dai (traditional birth attendant)	60.5	14.2	8.9	11.5	4.9	100.0
Functioning basic health unit (BHU)	20.8	27.3	22.5	19.5	10.0	100.0
Rural health centre (RHC)	6.0	15.0	24.2	45.8	9.0	100.0
Government dispensary	14.4	18.6	23.5	31.9	11.7	100.0
Functioning maternal and child health (MCH) centre	5.2	9.6	17.4	56.8	10.9	100.0
Private doctor	18.1	20.6	21.3	33.9	6.2	100.0
Dispenser or compounder	54.7	15.6	9.8	13.1	6.8	100.0
Family welfare centre/source of family planning	18.7	14.0	18.5	41.0	7.9	100.0
Hakim or homeopath	39.6	14.1	14.1	27.0	5.2	100.0
Hospital	8.6	14.0	17.9	54.1	5.3	100.0

Note: Table is based on 62,894 rural households
¹ Includes responses of "0" kilometres

2.8 REGISTRATION WITH THE NATIONAL DATABASE AND REGISTRATION AUTHORITY

In March 2000, the Government of Pakistan established the National Database and Registration Authority (NADRA) to oversee the registration of the population. All children under 18 years are registered using the "Bay Form," and adults age 18 years and older are issued a computerized national identity card (NIC). These documents are compulsory for obtaining any official document such as a passport or a driver's license or for admission in schools or being hired in government jobs. In the 2006-07 PDHS, information was collected regarding the registration status of all household members. Results are shown in Table 2.15.

Overall, three in ten children under age 18 have a Bay Form, while seven in ten adults have a NIC. This means that altogether four in ten Pakistanis do not have any form of registration. Females, rural residents, people living in NWFP and Balochistan, and those in the lower two wealth quintiles are less likely to be registered with NADRA when compared with other sub-groups.

Differences in NADRA registration by sex are all due to a lower proportion of adult women with an identity card, because girls are as likely as boys to have a Bay Form. On the other hand, differences by urban-rural residence are almost entirely due to the differing proportions of children with Bay Forms; there are only minimal differences by residence in the proportion of adults with a NIC. Similarly, differences by province are largely in the registration of children with Bay Forms.

Table 2.15 Registration with NADRA

Percentage of de jure household population who are registered with NADRA, according to background characteristics, Pakistan 2006-07

Background characteristic	Among those under age 18		Among those age 18 or over		Among all ages	
	Percentage with Bay Form	Number	Percentage with NIC	Number	Percentage with neither ¹	Number
Sex						
Male	31.5	16,146	83.1	17,226	39.7	33,373
Female	31.2	15,341	63.7	17,430	48.1	32,771
Residence						
Total urban	38.8	9,847	75.5	12,542	37.1	22,389
Major city	44.6	5,207	76.7	7,278	33.0	12,485
Other urban	32.3	4,640	73.9	5,264	42.3	9,904
Rural	27.9	21,643	72.1	22,114	47.3	43,757
Province						
Punjab	39.8	17,482	74.7	20,686	38.1	38,168
Sindh	25.3	7,695	72.9	8,016	47.9	15,711
NWFP	15.7	4,792	67.7	4,429	57.4	9,221
Balochistan	13.3	1,521	73.8	1,525	54.6	3,046
Wealth quintile						
Lowest	20.2	7,049	66.4	6,184	56.4	13,233
Second	22.9	6,642	69.1	6,574	51.7	13,216
Middle	33.2	6,428	71.7	6,811	44.0	13,239
Fourth	38.7	6,039	75.2	7,198	38.1	13,237
Highest	45.8	5,331	82.1	7,890	29.3	13,221
Total	31.3	31,490	73.3	34,656	43.9	66,145

¹ Excludes those who have a document appropriate for the other age group
 NADRA = National Database and Registration Authority (see text)
 NIC = National identity card

CHARACTERISTICS OF RESPONDENTS

Zahir Hussain and Zafar Iqbal Qamar

This chapter provides a demographic and socioeconomic profile of ever-married women age 15-49 interviewed in the 2006-07 Pakistan Demographic and Health Survey (PDHS). Information on basic characteristics such as age, level of education, marital status, native language, and wealth status was collected. Literacy status was also examined, and detailed information was collected on employment status, occupation, and earnings. Such background information is important for better understanding the social and demographic findings presented in this report. Understanding how women's education and employment are related to reproductive attitudes and behaviours can be helpful in promoting change, especially in patriarchal societies like Pakistan where the status of women is generally low. The slowing of the population growth is not only affected by the direct means of fertility management (family planning, age at marriage, duration of breastfeeding, abortion), but also indirectly by motivation to control fertility, which includes many factors. Central among these factors are reduced mortality, education (particularly of women), economic development (particularly poverty reduction), and the general status of women (Ministry of Population Welfare, 2002).

3.1 CHARACTERISTICS OF SURVEY RESPONDENTS

Table 3.1 provides information on the background characteristics of the 10,023 ever-married women age 15-49 who were interviewed. This table is important in that it provides the background for interpreting findings presented later in the report.

The proportion of ever-married women increases sharply from 6 percent in the 15-19 age group to 20 percent in the 25-29 age group, and falls steadily thereafter to 12 percent for the 45-49 age group. About six in ten (59 percent) women are under age 35.

The majority of surveyed women (95 percent) are married, 3 percent are widowed, and 1 percent each are divorced or separated (Table 3.1).

Place of residence is another characteristic that determines access to services and exposure to information pertaining to reproductive health and other aspects of life. Two-thirds (67 percent) of ever-married women age 15-49 in Pakistan reside in rural areas, while one-third (33 percent) reside in urban areas. About six in ten women live in Punjab province (58 percent) and one-quarter in Sindh province (24 percent), while the remaining reside in North-West Frontier Province (NWFP) (14 percent) and Balochistan (5 percent).

Education is an important factor influencing an individual's attitude and outlook on various aspects of life. A large majority of ever-married women in Pakistan (65 percent) have no education and only 6 percent have attained Class 11 or higher.

Wealth and work status are important characteristics that shed light on the socioeconomic status of women in the society. Surveyed women are distributed almost equally among all five wealth quintiles. Looking at work status, it is important to note that six in ten ever-married women have never worked. One in four women in Pakistan is currently working.

Background characteristic	Weighted percent	Number of women	
		Weighted	Unweighted
Age			
15-19	5.7	569	578
20-24	15.0	1,499	1,560
25-29	20.0	2,006	2,010
30-34	17.8	1,786	1,716
35-39	16.5	1,654	1,649
40-44	13.0	1,301	1,282
45-49	12.1	1,208	1,228
Marital status			
Married	95.3	9,556	9,580
Divorced	0.5	53	44
Separated	1.0	98	79
Widowed	3.2	316	320
Residence			
Total urban	33.4	3,350	3,830
Major city	18.9	1,898	1,929
Other urban	14.5	1,452	1,901
Rural	66.6	6,673	6,193
Province			
Punjab	57.9	5,800	4,263
Sindh	24.0	2,410	2,716
NWFP	13.5	1,351	1,862
Balochistan	4.6	462	1,182
Education			
No education	65.0	6,511	6,665
Primary	14.2	1,423	1,344
Middle	6.3	634	589
Secondary	8.1	809	759
Higher	6.4	646	666
Wealth quintile			
Lowest	19.4	1,944	1,956
Second	20.0	2,001	2,036
Middle	19.4	1,944	1,946
Fourth	20.5	2,055	2,028
Highest	20.7	2,078	2,057
Work status¹			
Currently working	25.9	2,595	2,515
Worked only before marriage	7.5	752	749
Worked only after marriage	2.1	212	217
Worked before and after marriage	4.1	415	418
Never worked	60.2	6,037	6,113
Total 15-49	100.0	10,023	10,023

Note: Education categories refer to the highest level of education attended, whether or not that level was completed. Total includes 12 women missing work status.

¹ Categories are mutually exclusive.

3.2 EDUCATIONAL ATTAINMENT AND LITERACY

Education plays an important role in a country's development, and progress can be a good investment for improving the quality of life of the people and for human development in general. National development programmes can be successfully accomplished if the population of the country is educated and adequately provided with knowledge and skills. Islam places great emphasis on acquiring education. Generally, education provides people with new ideas and increases their potential to learn, to respond to new opportunities, to adjust to social and cultural changes occurring around the world, and to participate in the sociocultural and political activities in the country. Education also can redirect the attitudes and behaviours of the population towards improvement in the quality of life. Furthermore, education helps to overcome poverty, increase income, improve health

and nutrition, and reduce family size. Therefore, its relationship to population growth cannot be underestimated.

Table 3.2 shows variations in the level of education among ever-married women, according to background characteristics. Overall, 65 percent of women in Pakistan have no education at all, 14 percent have attended primary school only, and 6 percent have reached middle school only, while 8 percent have some secondary education (Class 9-10) and 6 percent have reached Class 11 or higher. As expected, women in the 45-49 year age group are most likely to have no education. For example, the proportion of uneducated women is 79 percent among ever-married women age 45-49 compared with 55 percent among those aged 25-29. Slightly higher proportions of ever-married women age 15-19 and 20-24 are uneducated, which can be explained by the fact that uneducated women are more likely to marry at a younger age than educated women.

Table 3.2 Educational attainment							
Percent distribution of ever-married women age 15-49 by highest level of schooling attended or completed, according to background characteristics, Pakistan 2006-07							
Background characteristic	Education					Total	Number of women
	No education	Primary (1-5)	Middle (6-8)	Secondary (9-10)	Higher (11+)		
Age							
15-19	65.7	17.8	9.8	5.5	1.2	100.0	569
20-24	57.6	18.1	9.3	9.7	5.3	100.0	1,499
25-29	54.8	16.2	7.1	12.3	9.6	100.0	2,006
30-34	62.7	12.0	6.8	8.9	9.6	100.0	1,786
35-39	70.1	14.1	4.0	5.9	5.8	100.0	1,654
40-44	72.4	11.9	4.5	6.8	4.5	100.0	1,301
45-49	79.0	10.0	4.2	3.3	3.4	100.0	1,208
Residence							
Total urban	43.1	15.5	10.3	16.1	15.0	100.0	3,350
Major city	35.0	14.6	11.4	19.8	19.1	100.0	1,898
Other urban	53.5	16.8	9.0	11.2	9.6	100.0	1,452
Rural	76.0	13.5	4.3	4.1	2.2	100.0	6,673
Province							
Punjab	59.7	16.9	7.9	8.9	6.6	100.0	5,800
Sindh	66.8	11.8	4.6	8.7	8.1	100.0	2,410
NWFP	77.4	10.1	3.9	4.9	3.8	100.0	1,351
Balochistan	85.0	4.9	2.6	4.3	3.2	100.0	462
Wealth quintile							
Lowest	95.1	4.2	0.6	0.1	0.0	100.0	1,944
Second	84.4	11.6	2.4	1.2	0.3	100.0	2,001
Middle	74.8	15.9	4.9	3.0	1.4	100.0	1,944
Fourth	50.1	22.9	10.7	11.0	5.2	100.0	2,055
Highest	23.5	15.8	12.4	24.0	24.3	100.0	2,078
Work status							
Currently working	74.6	9.6	4.5	4.6	6.7	100.0	2,595
Worked only before marriage	49.7	15.6	6.0	13.4	15.3	100.0	752
Worked only after marriage	63.1	18.8	5.4	4.6	8.2	100.0	212
Worked before and after marriage	76.3	10.5	5.2	2.4	5.7	100.0	415
Never worked	62.0	16.1	7.3	9.4	5.3	100.0	6,037
Total	65.0	14.2	6.3	8.1	6.4	100.0	10,023
Note: Education refers to the highest level attended, whether or not that level was completed. Total includes 12 women for whom work status is missing.							

As expected, the proportion of uneducated women is much lower in the urban areas than the rural areas (43 and 76 percent, respectively), while the proportion of educated women is higher in urban areas than in rural areas for all levels of education. Generally, women in major cities are better educated than those in other urban areas.

Provincial variation in educational attainment follows the national pattern of development. Punjab province, being more developed, has the lowest proportion of uneducated women (60 percent), followed by Sindh (67 percent). In comparison, 85 percent of Balochi women and 77 percent of women residing in NWFP have no education. Among ever-married women, the highest proportion of women at every education level is found in Punjab, except for Class 11 and higher, where the highest proportion is found in Sindh. The lowest proportion of women in each education category is found in Balochistan.

A clear inverse relationship exists between women's education and wealth quintile. For example, ever-married women in the lowest quintile are four times more likely to be uneducated (95 percent) than those in the highest quintile (24 percent). Moreover, nearly half the women in the highest wealth quintile have attained secondary or higher education.

When looking at the relationship between education and working status of women, it is worth noting that ever-married women who are either currently working or who worked before and after marriage are most likely to be uneducated, while those who worked only before marriage are the least likely to have no education.

The overall proportion of uneducated women has decreased significantly from 79 percent in 1990-91 to 65 percent in 2006-07. The distribution of women's education by age indicates that substantial progress has been made in all age groups since the 1990-91 PDHS.

Literacy is widely acknowledged as benefiting the individual and the society and is associated with a number of positive outcomes for health and nutrition. In the 2006-07 PDHS, literacy status was determined based on the respondents' ability to read all or part of a sentence. During data collection, interviewers carried a card on which simple sentences were printed in all of the major languages for testing a respondent's reading ability. Only those who had never been to school and those whose highest grade at school was Class 1-8 were asked to read a sentence in the language they were most likely able to read; those who had attained middle school or above were assumed to be literate. Table 3.3 presents the percent distribution of ever-married women age 15-49 by level of schooling and level of literacy, according to background characteristics.

Data show that only one-third (35 percent) of ever-married women age 15-49 in Pakistan are literate. The level of literacy increases from 32 percent among women age 15-19 to 45 percent among those age 25-29 and thereafter decreases substantially to 22 percent among women 45-49. Urban women are much more likely to be literate than rural women (58 and 24 percent, respectively), with the highest level of literacy being among women residing in a major city (66 percent). Provincial differences in literacy are marked, with literacy being highest among women in the predominantly urban Punjab province (41 percent) and lowest in the predominantly rural Balochistan province (15 percent). There is also a marked difference in literacy levels by women's wealth status, ranging from a low of 6 percent among women in the lowest wealth quintile to a high of 75 percent among women in the highest wealth quintile. By work status, the highest level of literacy is found among ever-married women who worked only before marriage (49 percent), while the lowest is among those who worked before and after marriage (26 percent) and those who are currently working (27 percent).

Table 3.3 Literacy

Percent distribution of ever-married women age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Pakistan 2006-07

Background characteristic	No schooling or primary school						Missing	Total	Percent- age literate ¹	Number
	Class 9 or higher	Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired				
Age										
15-19	6.8	18.5	6.2	67.9	0.0	0.2	0.4	100.0	31.5	569
20-24	15.0	19.3	8.2	57.2	0.1	0.2	0.1	100.0	42.4	1,499
25-29	21.9	15.9	7.3	54.5	0.0	0.1	0.2	100.0	45.2	2,006
30-34	18.5	13.1	5.9	62.2	0.0	0.1	0.2	100.0	37.5	1,786
35-39	11.7	12.9	6.4	68.7	0.0	0.1	0.2	100.0	31.0	1,654
40-44	11.3	11.6	6.4	70.5	0.1	0.0	0.1	100.0	29.3	1,301
45-49	6.8	9.4	6.0	77.4	0.2	0.1	0.2	100.0	22.1	1,208
Residence										
Total urban	31.1	19.2	7.9	41.6	0.0	0.1	0.2	100.0	58.1	3,350
Major city	39.0	20.6	6.5	33.7	0.1	0.0	0.2	100.0	66.1	1,898
Other urban	20.8	17.3	9.6	51.9	0.0	0.3	0.2	100.0	47.7	1,452
Rural	6.2	11.7	6.1	75.6	0.1	0.1	0.2	100.0	24.1	6,673
Province										
Punjab	15.5	18.1	7.3	58.9	0.0	0.1	0.1	100.0	40.9	5,800
Sindh	16.8	10.0	6.5	66.0	0.2	0.2	0.3	100.0	33.3	2,410
NWFP	8.7	9.3	5.1	76.6	0.0	0.0	0.4	100.0	23.0	1,351
Balochistan	7.5	2.5	5.0	84.6	0.1	0.0	0.4	100.0	15.0	462
Wealth quintile										
Lowest	0.1	2.8	3.0	94.0	0.1	0.0	0.1	100.0	5.9	1,944
Second	1.5	7.7	5.9	84.5	0.2	0.2	0.1	100.0	15.1	2,001
Middle	4.4	14.6	7.1	73.4	0.1	0.1	0.2	100.0	26.2	1,944
Fourth	16.2	24.2	11.2	48.1	0.0	0.1	0.1	100.0	51.6	2,055
Highest	48.3	21.0	6.1	24.2	0.0	0.1	0.3	100.0	75.3	2,078
Work status										
Currently working	11.3	10.4	5.4	72.7	0.1	0.1	0.1	100.0	27.1	2,595
Worked only before marriage	28.7	14.4	6.3	50.0	0.0	0.3	0.3	100.0	49.4	752
Worked only after marriage	12.8	21.3	6.4	59.5	0.0	0.0	0.0	100.0	40.5	212
Worked before and after marriage	8.0	13.2	4.8	72.0	0.8	0.6	0.5	100.0	26.1	415
Never worked	14.7	15.6	7.5	62.0	0.0	0.1	0.2	100.0	37.8	6,037
Total	14.5	14.2	6.7	64.2	0.1	0.1	0.2	100.0	35.4	10,023

Note: Total includes 12 women for whom work status is missing.

¹ Refers to women who completed Class 9 or higher and women who can read a whole sentence or part of a sentence

3.3 EMPLOYMENT

3.3.1 Employment Status

Participation in the labour force not only gives women an opportunity to earn income, but also exposes them to the outside world and to authority structures and networks other than kin-based ones (Dixon-Muller, 1993). The empowering effects of employment are dependant on factors such as type of occupation, the continuity of employment, and the type of income. It is generally accepted that women who have a regular job, who earn money, and who perceive that their contribution is a substantial part of total household earnings are more likely to be empowered than other women (Youssef, 1982; Mahmud and Johnston, 1994).

The 2006-07 PDHS respondents were asked a number of questions regarding their employment status, including whether they were working in the seven days preceding the survey and, if not, whether they had worked in the 12 months before the survey. Results are shown in Table 3.4.

Table 3.4 Employment status

Percent distribution of ever married women age 15-49 by employment status, according to background characteristics, Pakistan 2006-07

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Missing/ don't know	Total	Number of women
	Currently employed ¹	Not currently employed				
Age						
15-19	23.6	5.2	70.6	0.6	100.0	569
20-24	23.1	5.0	71.7	0.3	100.0	1,499
25-29	22.8	4.6	72.3	0.2	100.0	2,006
30-34	26.4	3.7	69.4	0.5	100.0	1,786
35-39	27.1	3.2	69.4	0.3	100.0	1,654
40-44	30.0	4.4	65.5	0.1	100.0	1,301
45-49	28.9	3.8	67.3	0.0	100.0	1,208
Marital status						
Married	25.1	4.1	70.5	0.3	100.0	9,556
Divorced/separated/widowed	42.6	5.1	51.9	0.5	100.0	467
Number of living children						
0	24.1	5.0	70.5	0.4	100.0	1,349
1-2	22.9	3.8	72.7	0.6	100.0	2,697
3-4	25.7	3.5	70.8	0.0	100.0	2,725
5+	29.3	4.6	65.9	0.2	100.0	3,252
Residence						
Total urban	18.9	3.9	76.8	0.3	100.0	3,350
Major city	18.3	3.7	77.9	0.2	100.0	1,898
Other urban	19.8	4.2	75.5	0.5	100.0	1,452
Rural	29.4	4.3	66.0	0.3	100.0	6,673
Province						
Punjab	26.8	3.7	69.1	0.4	100.0	5,800
Sindh	32.9	6.5	60.3	0.2	100.0	2,410
NWFP	10.6	1.4	87.9	0.1	100.0	1,351
Balochistan	22.3	6.0	71.5	0.1	100.0	462
Education						
No education	29.8	5.0	65.0	0.3	100.0	6,511
Primary	17.5	3.0	79.3	0.3	100.0	1,423
Middle	18.3	2.5	78.8	0.4	100.0	634
Secondary	14.7	1.8	82.9	0.6	100.0	809
Higher	26.8	3.2	69.9	0.0	100.0	646
Wealth quintile						
Lowest	40.8	7.1	52.0	0.2	100.0	1,944
Second	31.2	4.3	64.1	0.3	100.0	2,001
Middle	26.6	4.5	68.5	0.4	100.0	1,944
Fourth	18.8	3.3	77.5	0.4	100.0	2,055
Highest	13.2	1.9	84.8	0.1	100.0	2,078
Total	25.9	4.2	69.7	0.3	100.0	10,023

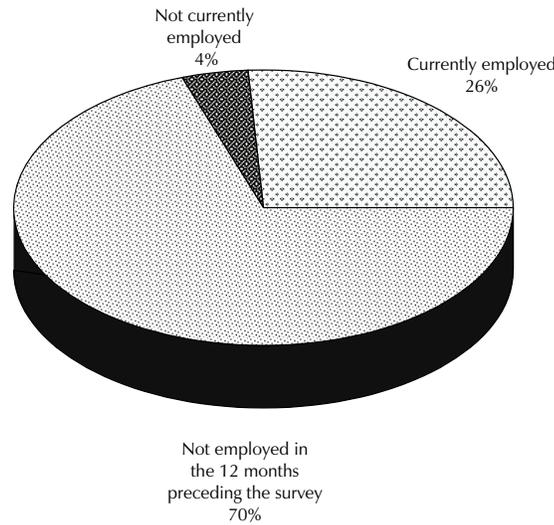
¹ "Currently employed" is defined as having done work in the past seven days, but also includes those who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

The data show that, at the time of the survey, only about one-fourth (26 percent) of ever-married women were currently employed and an additional 4 percent were not employed but had worked sometime during the preceding 12 months. An overwhelming majority—seven in ten women—were not employed in the preceding 12 months (Figure 3.1).

The proportion of women who are currently employed remains constant at 23-24 percent for age groups 15-19, 20-24, and 25-29, after which it generally increases slightly with age. A much higher proportion of the divorced, widowed, and separated women are currently employed when compared with those who are currently married (43 and 25 percent, respectively). The proportion of women who are working increases slightly with the number of children the woman has. In Pakistan, many women take up jobs because of financial constraints, which generally increase as family size increases.

There are notable variations in the proportion of women currently employed by place of residence and province. Rural women are more likely to be currently employed than urban women (29 percent and 19 percent, respectively). There is considerable variation by province in the proportion of women who are currently employed. Thirty-three percent of women residing in Sindh are currently employed compared with 11 percent among those residing in NWFP.

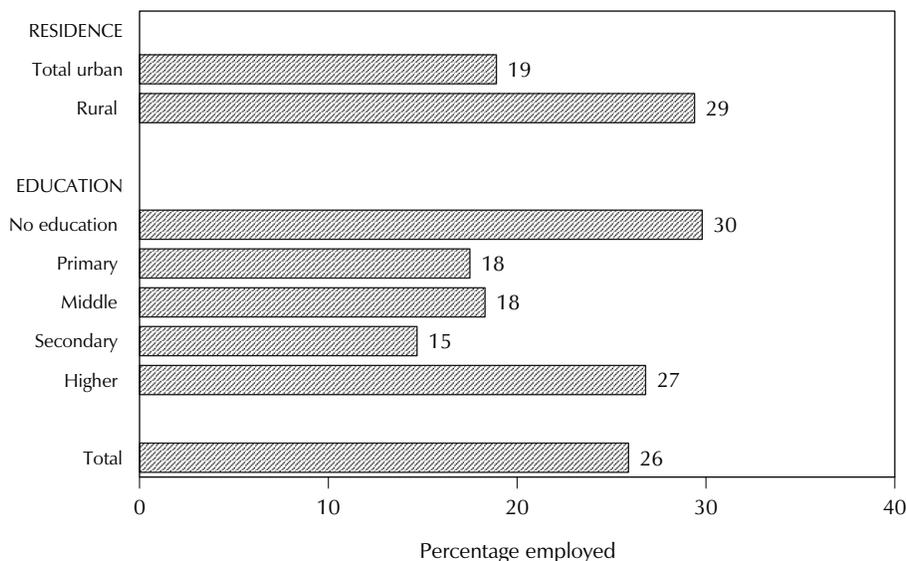
Figure 3.1 Women’s Employment Status in the Past 12 Months



PDHS 2006-07

Current employment and education have an interesting relationship (Figure 3.2 and Table 3.4). The highest proportions of currently employed women are among those with no education (30 percent) and those with higher than secondary education (27 percent), while the lowest proportion is among women with secondary education (15 percent). There is a decrease in the percentage of employed women by wealth quintile, with those in the lowest quintile much more likely to be employed than those in the highest quintile (41 percent and 13 percent, respectively).

Figure 3.2 Women's Current Employment by Residence and Education



PDHS 2006-07

When looking at trends over time, the data show that there was an increase in the proportion of ever-married women currently employed, from 17 percent in the 1990-91 PDHS to 20 percent in the 1996-97 Pakistan Fertility and Family Planning Survey (PFFPS). This was followed by a decrease to 16 percent as reported in the 2003 Status of Women, Reproductive Health, and Family Planning Survey (SWRHFPs), and a significant increase thereafter to the current level of 26 percent.

3.3.2 Occupation

Respondents who were currently employed or had worked in the 12 months preceding the survey were further asked to specify their occupation. Table 3.5 shows the distribution of employed ever-married women by occupation, according to background characteristics. Forty-two percent of working women are engaged in an agricultural occupation, with the next most common occupation being jobs in sales and services (37 percent). Only 8 percent of employed women work in professional, technical, or managerial jobs, while 6 percent are unskilled manual workers and 4 percent work in domestic service.

Table 3.5 Occupation

Percent distribution of ever-married women age 15-49 employed in the 12 months preceding the survey, by occupation, according to background characteristics, Pakistan 2006-07

Background characteristic	Professional/technical/managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Domestic service	Agriculture	Missing	Total	Number of women
Age										
15-19	3.4	0.0	33.5	1.1	5.6	0.0	56.4	0.0	100.0	164
20-24	5.6	0.0	44.9	1.0	7.5	0.6	39.9	0.4	100.0	420
25-29	7.9	0.0	40.1	2.2	7.9	3.0	38.5	0.4	100.0	550
30-34	12.2	0.0	34.3	2.8	5.9	3.3	41.2	0.2	100.0	537
35-39	8.3	0.3	38.1	2.5	6.1	3.7	40.9	0.2	100.0	501
40-44	7.8	1.9	35.7	2.8	4.3	6.9	40.4	0.1	100.0	447
45-49	6.8	0.2	31.6	2.2	5.3	7.5	46.4	0.0	100.0	395
Marital status										
Married	7.9	0.2	37.8	2.3	6.0	3.3	42.2	0.2	100.0	2,791
Divorced/separated/widowed	9.2	2.6	30.7	0.8	9.1	10.2	37.3	0.0	100.0	223
Number of living children										
0	10.8	0.0	36.2	1.6	5.8	1.9	43.6	0.0	100.0	393
1-2	11.6	0.3	39.3	1.7	7.4	1.9	37.7	0.3	100.0	722
3-4	9.8	0.1	36.0	2.7	5.7	5.6	39.6	0.4	100.0	796
5+	3.4	0.7	37.3	2.4	5.9	4.5	45.6	0.1	100.0	1,102
Residence										
Total urban	17.9	1.4	54.2	5.3	7.7	7.5	5.7	0.3	100.0	765
Major city	20.1	2.4	52.3	7.2	8.8	7.8	1.3	0.3	100.0	417
Other urban	15.3	0.3	56.4	3.0	6.4	7.2	11.1	0.3	100.0	348
Rural	4.7	0.0	31.5	1.2	5.7	2.6	54.2	0.2	100.0	2,248
Province										
Punjab	8.8	0.4	32.8	2.0	5.4	4.7	45.8	0.2	100.0	1,769
Sindh	5.4	0.3	40.7	3.2	8.1	2.6	39.4	0.3	100.0	951
NWFP	16.6	0.6	39.8	0.2	6.9	4.3	31.6	0.0	100.0	162
Balochistan	5.7	0.0	70.2	0.3	2.8	1.0	19.9	0.1	100.0	131
Education										
No education	0.7	0.0	34.8	2.1	6.6	4.5	51.1	0.2	100.0	2,262
Primary	0.6	0.0	58.2	2.1	5.1	3.7	29.8	0.5	100.0	291
Middle	7.4	5.3	65.2	4.2	6.5	2.8	8.5	0.0	100.0	132
Secondary	38.1	0.7	43.9	4.7	5.6	0.0	6.5	0.5	100.0	134
Higher	84.1	1.0	11.5	0.1	3.1	0.0	0.0	0.2	100.0	194
Wealth quintile										
Lowest	0.6	0.0	24.5	1.2	7.1	2.2	64.5	0.0	100.0	930
Second	1.5	0.0	32.9	2.7	6.9	4.3	51.4	0.2	100.0	711
Middle	4.5	0.2	46.6	1.6	4.5	5.5	36.5	0.6	100.0	605
Fourth	13.9	1.0	53.7	4.6	6.5	4.5	15.8	0.0	100.0	455
Highest	42.9	1.7	43.4	1.9	5.0	3.5	1.3	0.3	100.0	313
Total	8.0	0.4	37.3	2.2	6.2	3.8	41.9	0.2	100.0	3,013

The analysis of occupation by background characteristics suggests that the proportion of working women with jobs in sales and services, skilled manual labour, and agriculture is higher among currently married women than among those who are divorced, separated, or widowed. Residence has a strong relationship with the type of occupation. As expected, the largest urban-rural differentials are found among women working in the agricultural sector; 54 percent of women in rural areas work in agriculture compared with only 6 percent in urban areas. More than half (54 percent) of working women residing in urban areas are employed in sales and services compared with only one-third (32 percent) among their rural counterparts.

Looking at the provincial variations, 46 percent of working women in Punjab are engaged in the agricultural sector compared with only 20 percent of women in Balochistan. On the other hand, 70 percent of working women residing in Balochistan are engaged in sales and services compared with 33 percent of women residing in Punjab. Interestingly, a much higher proportion of women in NWFP are engaged in professional, technical, or managerial work (17 percent) when compared with women in Punjab (9 percent), Sindh (5 percent), and Balochistan (6 percent).

The relationship between education and type of occupation is especially strong. For example, the proportion of employed women who work in agriculture decreases significantly with education, from 51 percent among ever-married women with no education to virtually 0 percent among those with higher education. The reverse is true for women who work in professional, technical, or managerial fields; more than eight in ten (84 percent) women with higher education work in such jobs compared with less than 1 percent of women with no education or only primary education.

A large majority (65 percent) of working women in the lowest wealth quintile are engaged in the agricultural sector compared with only 1 percent of women in the highest quintile. On the other hand, the proportion of women working in professional, technical, and managerial fields or in sales and services increases with wealth.

3.3.3 Type of Earnings

Table 3.6 shows the percent distribution of ever-married, currently employed women by type of earnings (cash or non-cash), according to type of employment (agricultural or nonagricultural). Overall, 87 percent of currently employed women receive money for their work. As expected, the proportion of women who receive money for their work is much higher in the nonagricultural than in the agricultural sector (95 percent and 76 percent, respectively).

Type of earnings	Agricultural work	Nonagricultural work	Total
Receives money	76.4	94.9	86.8
Does not receive money	23.6	5.0	13.2
Total	100.0	100.0	100.0
Number of women currently employed	1,135	1,455	2,595

Note: Total includes 5 women with missing information on type of employment who are not shown separately.

3.3.4 Employment before and after Marriage

Table 3.7 presents data on the proportion of ever-married women who worked before and after marriage, according to background characteristics. The data show that 28 percent of ever-married women worked before marriage, 32 percent worked after marriage, and 21 percent worked

both before and after marriage. However, a large majority (60 percent) of women neither worked before marriage nor after marriage; in other words, they have never worked.

Younger women are somewhat more likely than older women to work before marriage, whereas older women are more likely to have worked after marriage. A much higher proportion of divorced, widowed, and separated women work either before or after marriage than currently married women. For example, 52 percent of divorced, separated, or widowed women work after marriage compared with 31 percent of those who are currently married. The proportion of women who work after marriage increases steadily with the number of children the woman has. For example, 27 percent of women with one child worked after marriage compared with 40 percent of women with six or more children. As expected, there are no major variations in the proportion of ever-married women who worked before marriage and the number of children they have.

Background characteristic	Percentage who worked				Number of ever-married women
	Before marriage	After marriage	Neither	Both	
Age					
15-19	35.0	27.9	61.4	24.3	569
20-24	31.2	28.5	61.2	20.9	1,499
25-29	30.1	28.7	61.2	19.9	2,006
30-34	27.6	32.2	60.1	19.9	1,786
35-39	24.7	32.2	63.2	20.1	1,654
40-44	26.1	37.3	57.3	20.7	1,301
45-49	26.8	38.4	57.3	22.4	1,208
Marital status					
Married	28.2	31.1	61.1	20.4	9,556
Divorced/separated/widowed	30.6	51.8	45.3	27.7	467
Number of children ever born					
0	33.5	26.6	60.9	21.0	1,223
1	29.5	26.7	63.9	20.1	1,179
2	28.0	27.3	64.0	19.3	1,306
3	27.6	29.8	61.1	18.5	1,266
4	24.4	30.1	63.3	17.8	1,244
5	27.3	36.2	58.7	22.1	1,049
6+	28.0	39.5	55.8	23.4	2,755
Residence					
Total urban	22.2	26.0	63.5	11.8	3,350
Major city	21.3	26.0	63.0	10.3	1,898
Other urban	23.4	26.1	64.2	13.8	1,452
Rural	31.3	35.2	58.8	25.2	6,673
Province					
Punjab	28.8	32.6	59.3	20.6	5,800
Sindh	37.6	42.1	48.9	28.6	2,410
NWFP	8.3	13.0	84.8	6.0	1,351
Balochistan	32.6	30.4	62.1	25.1	462
Education					
No education	31.2	36.6	57.6	25.4	6,511
Primary	20.9	23.4	68.4	12.7	1,423
Middle	17.7	23.5	69.3	10.5	634
Secondary	19.5	17.1	70.4	7.1	809
Higher	37.1	33.1	49.1	19.2	646
Wealth quintile					
Lowest	44.4	49.8	44.4	38.7	1,944
Second	31.0	36.6	57.8	25.4	2,001
Middle	27.9	32.5	60.4	20.8	1,944
Fourth	19.5	24.9	67.4	11.8	2,055
Highest	19.7	17.9	70.7	8.3	2,078
Total	28.3	32.1	60.2	20.7	10,023

There are notable variations in the proportions employed before and after marriage by place of residence and province. Rural women are more likely to have worked either before or after marriage (31 percent and 35 percent, respectively) than urban women (22 percent and 26 percent, respectively). By province, the highest proportion of women who worked either before or after marriage is among those in Sindh (38 percent and 42 percent, respectively), while the lowest is among women who reside in NWFP (8 percent and 13 percent, respectively).

Employment before and after marriage varies by education. Women with no education or with higher education are the most likely to have worked before or after marriage. On the other hand, women with middle level education are the least likely to have worked before marriage, while those with secondary level education are the least likely to have worked after marriage. The proportion of women who worked before or after marriage decreases steadily with increase in wealth.

3.4 KNOWLEDGE AND ATTITUDES CONCERNING TUBERCULOSIS

The 2006-07 PDHS collected data on women's knowledge and attitudes concerning tuberculosis (TB). Table 3.8 shows the percentage of women who have heard of TB, and among those who have heard of TB, the percentage who know that TB is spread through air by coughing, the percentage who believe that TB can be cured, and the percentage who have ever been told by a doctor or nurse that they have TB.

Background characteristic	Among all respondents		Among respondents who have heard of TB			
	Percentage who have heard of TB	Number of women	Percentage who report that TB is spread through the air by coughing	Percentage who believe that TB can be cured	Percentage who have ever been told by doctor/nurse they have TB	Number of women
Age						
15-19	78.1	569	38.6	81.2	1.7	444
20-24	86.0	1,499	47.1	87.2	2.7	1,288
25-29	88.5	2,006	51.5	89.7	2.9	1,775
30-34	87.6	1,786	55.0	89.3	3.5	1,565
35-39	88.2	1,654	55.7	91.0	3.9	1,458
40-44	89.7	1,301	57.7	90.6	4.5	1,167
45-49	90.5	1,208	57.3	87.9	4.6	1,094
Residence						
Total urban	92.9	3,350	60.4	93.0	3.6	3,111
Major city	95.0	1,898	60.7	95.1	4.4	1,803
Other urban	90.0	1,452	60.0	90.0	2.4	1,307
Rural	85.1	6,673	49.1	86.7	3.4	5,681
Province						
Punjab	86.5	5,800	49.7	86.8	2.7	5,018
Sindh	90.4	2,410	54.2	94.2	5.4	2,179
NWFP	87.2	1,351	59.4	93.3	3.8	1,178
Balochistan	90.4	462	70.2	75.3	2.8	417
Education						
No education	83.9	6,511	47.8	85.5	3.8	5,460
Primary	92.6	1,423	52.7	91.2	3.9	1,317
Middle	93.5	634	59.6	96.3	3.8	592
Secondary	97.5	809	65.2	95.8	1.9	789
Higher	98.0	646	77.9	98.5	2.0	634
Wealth quintile						
Lowest	79.1	1,944	39.9	79.1	4.4	1,538
Second	83.5	2,001	51.0	84.6	3.4	1,671
Middle	87.6	1,944	51.2	89.1	3.6	1,704
Fourth	90.7	2,055	53.7	93.5	3.9	1,864
Highest	97.0	2,078	65.9	95.7	2.4	2,015
Total	87.7	10,023	53.1	88.9	3.5	8,792

Eighty-eight percent of ever-married women in Pakistan have heard of TB. Older women, those who live in urban areas, those who reside in Sindh and Balochistan provinces, those who have secondary or higher education, and those who belong to the highest wealth quintile are more likely to have heard of TB than their counterparts in other categories.

Among women who have heard of TB, 53 percent know that TB is spread through the air by coughing. Younger women age 15-19, rural women, women living in Punjab, women with no education, and women in the lowest wealth quintiles are the least likely to know that TB is spread through coughing.

Nine in ten respondents who have heard of TB believe that TB can be cured. Among provinces, the percentage of people who believe that TB can be cured ranges from 75 percent of women in Balochistan to 94 percent of women in Sindh. The proportion of women who know that TB can be cured increases with education and wealth. Among women who have heard of TB, only 4 percent indicated that they were ever told by a doctor or nurse that they have TB.

Syed Mubashir Ali and Ali Anwar Buriro

A major objective of the 2006-07 Pakistan Demographic and Health Survey (PDHS) is to examine fertility levels, trends, and differentials in Pakistan. Fertility is one of the three principal components of population dynamics, the others being mortality and migration. In view of the fast growing population of Pakistan, the government has been trying since the 1960s to reduce the fertility rate through implementation of various population policies. However, the fertility transition in this country only started about two decades ago. Fertility levels that remained more or less constant at more than six children per woman from the 1960s to the mid-1980s started to decline in the late 1980s (Feeney and Alam, 2003; Arnold and Sultan, 1992). The 2006-07 PDHS is another effort to observe and monitor the pace of fertility transition in Pakistan.

This chapter presents an analysis of the fertility data collected in the 2006-07 PDHS. It includes a discussion on levels, trends, and differentials in fertility by selected background characteristics; data on lifetime fertility (children ever born and living); and a scrutiny of age at first birth and birth intervals. Thereafter, a brief discussion on teenage fertility, which has become critical to the issue of fertility transition, is also included in this chapter.

The fertility data were collected by asking ever-married women of reproductive age (15-49 years) to provide complete birth histories of all of their live births, including those who were currently living with them, those who were living away, and those who had died. In addition, the following information was collected for each live birth: name, sex, date of birth, survival status, current age (if alive), and age at death (if dead). Unlike the previous conventional practice of recording births in the birth history starting from the first birth, in this survey, the order was reversed and started by recording the last birth first, followed by all preceding births. In societies with poor recall of dates, this procedure is thought to result in better reporting of birth dates, because the more recent events are assumed to be recalled more accurately. This lends confidence in the accuracy of current fertility estimates that are based on the births in the three years preceding the survey. Also, during training, efforts were made to impress upon the interviewers the importance of collecting information in the birth history on all live births. However, it is important to mention here that the birth history approach has some limitations that might distort fertility levels and patterns. For instance, women may include relatives' children as their own or omit children who died at a young age, while older women may leave out grown children who have left home (UN, 1983). Accordingly, the results should be viewed with these caveats in mind.

4.1 CURRENT FERTILITY

Some current fertility measures are presented in Table 4.1 for the three-year period preceding the survey. Age-specific fertility rates (ASFRs) are calculated by dividing the number of births to women in a specific age group by the number of woman-years lived during a given period.¹ The total fertility rate (TFR) is a common measure of current fertility and is defined as the average number of children a woman would have if she went through her entire reproductive period (15-49 years)

¹ Numerators for the age-specific rates are calculated by summing the births that occurred during the 1-36 months preceding the survey, classified by the age group of the mother at the time of birth in five-year age groups. The denominators are the number of woman-years lived in each five-year age group during the 1-36 months preceding the survey. Because rates must be based on all women and Pakistan is an ever-married sample, the number of women was increased using a factor based on all de facto women listed in the household who had never been married. The "all women" factors were based on age in the household and background information available at the household level.

reproducing at the prevailing ASFR. Two additional measures of fertility reported in this table are the general fertility rate (GFR), which represents the annual number of births per 1,000 women age 15-49, and the crude birth rate (CBR), which represents the annual number of births per 1,000 population. The CBR was estimated using the birth history data in conjunction with the household schedule population data.

Table 4.1 shows a TFR of 4.1 children per woman for the three-year period preceding the survey. Fertility is considerably higher in the rural areas (4.5 children per woman) than the urban areas (3.3 children per woman), a pattern that is evident at every age. In fact, this urban-rural differential in fertility rates increases as the woman's age increases. The persistence of a disparity in fertility between urban and rural women is most probably due to factors associated with urbanization, such as better education, higher status of women, better access to health and family planning information and services, and later marriage.

On the whole, peak fertility occurs at age 25-29, a pattern that is also evident in the rural areas as well as total urban, other urban, and major cities. Fertility falls sharply after age group 35-39.

Differentials in fertility levels by urban-rural residence, province, educational attainment, and wealth quintile are shown in Table 4.2 and Figure 4.1. Fertility is slightly lower in Punjab province (3.9 children per woman) than the other three provinces (Sindh and NWFP with 4.3 each, and Balochistan with 4.1 children per woman). Except for Balochistan where estimated fertility is expected to be higher than in other provinces,² these provincial differentials in fertility are as expected and are closely associated with regional disparities in knowledge and use of family planning methods, median age at marriage, age at first birth, and the status of husbands staying elsewhere (see Tables 4.11, 5.2, 5.6, 6.2, and 6.5).

As expected, education of women is strongly associated with lower fertility. The TFR decreases consistently and dramatically from 4.8 for women with no education to 2.3 for women with higher than secondary education. Fertility is also strongly associated with wealth. Data show that the lower the wealth quintile, the higher the fertility. The difference in fertility between the poorest and the richest women is close to three children per woman.

Table 4.2 also presents a crude assessment of fertility trends in various subgroups by comparing current fertility with a measure of completed fertility—the mean number of children ever born to women age 40-49. In every category, current fertility falls substantially below lifetime fertility. This provides further evidence that fertility has fallen considerably over time for all of these subgroups. Overall, the table shows that fertility has fallen by about two children per woman in recent periods (from 5.9 to 4.1).

Table 4.1 Current fertility

Age-specific fertility rates, total fertility rate, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, Pakistan 2006-07

Age group	Residence				Total
	Total urban	Major city	Other urban	Rural	
15-19	39	36	44	58	51
20-24	152	131	178	194	178
25-29	218	213	225	248	237
30-34	161	157	167	194	182
35-39	65	46	95	127	106
40-44	24	19	33	54	44
45-49	7	0	16	23	18
TFR	3.3	3.0	3.8	4.5	4.1
GFR	113	103	127	147	135
CBR	27.6	25.6	30.2	32.3	30.7

Notes: Age-specific fertility rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation. Rates refer to the 1-36 months preceding the survey. Because rates are based on all women and Pakistan is an ever-married sample, the number of women was increased using a factor based on all de facto women listed in the household who had never been married. The "all women" factors were based on age in the household and background information available at the household level.

TFR = Total fertility rate, expressed per woman
 GFR = General fertility rate, expressed per 1,000 women
 CBR = Crude birth rate, expressed per 1,000 population

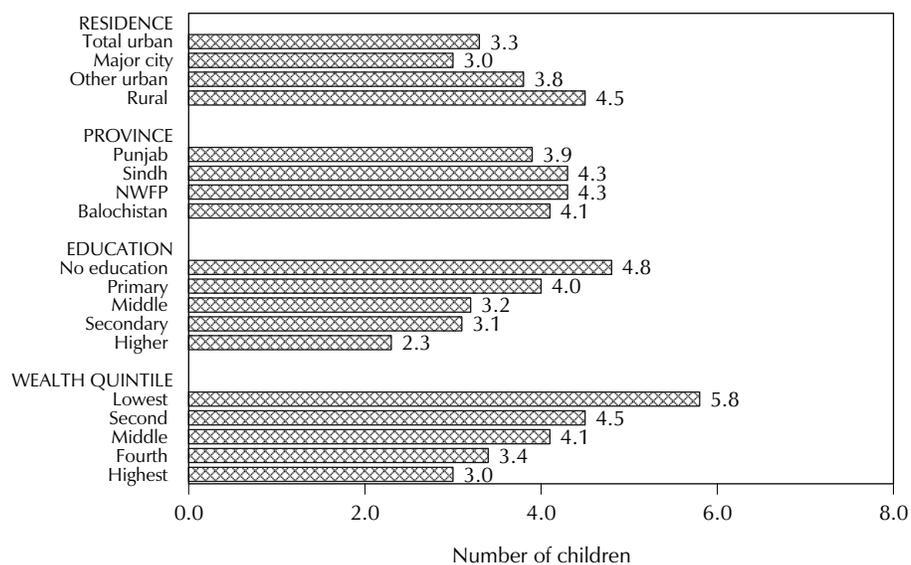
² Because of political disturbances in the province of Balochistan, the survey monitoring teams could not visit and perform their duties as frequently as desired. As a result, the data from the birth history section of the Women's Questionnaire that requires extra effort to complete—especially when the number of children born to a woman is large—was affected. Nevertheless, because Balochistan accounts for only 5 percent of the total population of Pakistan, the fertility estimates will not have any appreciable effect at the national level.

Furthermore, Table 4.2 indicates that 8 percent of women were pregnant at the time of the survey. This is likely to be an underestimate, as women in the early stages of pregnancy may be unaware or unsure that they are pregnant, while some may refuse to declare that they are pregnant. Noticeably, differentials in pregnancy levels are generally consistent with the pattern depicted by the TFR across the various subgroups, except for women in the provinces of Balochistan and NWFP and those in the highest wealth quintile.

Table 4.2 Fertility by background characteristics			
Total fertility rate for the three years preceding the survey, percentage of all women age 15-49 currently pregnant, and mean number of children ever born to all women age 40-49 years, by background characteristics, Pakistan 2006-07			
Background characteristic	Total fertility rate	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Total urban	3.3	6.6	5.6
Major city	3.0	6.0	5.3
Other urban	3.8	7.3	6.0
Rural	4.5	8.4	6.1
Province			
Punjab	3.9	7.1	5.7
Sindh	4.3	8.7	6.3
NWFP	4.3	8.0	6.3
Balochistan	4.1	11.5	6.2
Education			
No education	4.8	8.9	6.2
Primary	4.0	8.0	5.7
Middle	(3.2)	6.3	5.7
Secondary	3.1	6.2	4.1
Higher	(2.3)	4.9	3.2
Wealth quintile			
Lowest	5.8	10.7	6.8
Second	4.5	9.1	6.5
Middle	4.1	7.3	5.9
Fourth	3.4	6.1	5.7
Highest	3.0	6.5	4.9
Total	4.1	7.8	5.9

Note: Total fertility rates are for the period 1-36 months prior to interview. They are based on all women, regardless of marital status (see note on Table 4.1). Total fertility rates in parentheses are based on 500-750 unweighted women.

Figure 4.1 Total Fertility Rate by Background Characteristics



PDHS 2006-07

Table 4.3 shows age-specific marital fertility rates by residence. Marital fertility rates are calculated in the same fashion as the normal age-specific fertility rates except that they are based only on women who are currently married. The table shows a total marital fertility rate (TMFR) of 6.6 children per married woman for the three years preceding the survey. As expected, the marital fertility is slightly higher in rural as opposed to urban areas (6.8 versus 6.4 children per married woman, respectively). A lower marital fertility in urban areas may be due to better access to health and family planning facilities and/or to preferences for fewer children. The age-specific marital fertility rates show a peak at age group 20-24. There has been a decline in marital fertility; for example, the TMFR was reported as 7.6 children per married woman in 1992-96 (Hakim et al., 1998), which represents a decline of one child over the past decade.

Table 4.3 Current marital fertility

Age-specific marital fertility rates for the three years preceding the survey, by residence, Pakistan 2006-07

Age group	Residence				Total
	Total urban	Major city	Other urban	Rural	
15-19	366	385	349	280	300
20-24	353	349	356	342	346
25-29	276	270	285	296	289
30-34	178	172	187	211	199
35-39	73	51	106	138	117
40-44	27	20	38	57	47
45-49	6	0	14	26	19
Total marital fertility rate	6.4	6.2	6.7	6.8	6.6

4.2 FERTILITY TRENDS

Pakistan is blessed with a wealth of demographic data from surveys and censuses, with several organizations generating data at regular intervals. The Federal Bureau of Statistics (FBS), the National Institute of Population Studies (NIPS), the Pakistan Institute of Development Economics (PIDE), the Population Council (Pakistan), and the Population Census Organization (PCO) are a few organizations that generate demographic data at the national level. Hence, there is a wealth of data available to examine trends over time.

Table 4.4 and Figure 4.2 indicate trends in fertility during the last two decades. They show that the TFR declined slowly during the last 15 years of the 20th century, changing from a high of 6.0 children per woman in 1984 to 5.4 children in 1992-96. However, fertility began declining quickly after 1992-96 to reach 4.1 children per woman in 2004-06 (Population Welfare Division, 1986; Hakim et al., 1998).

Table 4.4 Trends in fertility

Age-specific and total fertility rates from selected surveys, Pakistan, 1984 to 2006-07

Age group	Survey and approximate calendar period						
	PCPS 1984-85	PDHS 1990-91	PCPS 1994-95	PFFPS 1996-97	PRHFPS 2000-01	SWRHFPS 2003	PDHS 2006-07
	1984	1985-90	1994	1992-96	1997-00	2001-03	2004-06
15-19	64	84	44	83	65	60	51
20-24	223	230	227	249	211	190	178
25-29	263	268	307	278	258	233	237
30-34	234	229	243	215	206	194	182
35-39	209	147	179	148	128	117	106
40-44	127	73	92	75	61	56	44
45-49	71	40	36	24	26	33	18
TFR	6.0	5.4	5.6	5.4	4.8	4.4	4.1

Note: Age-specific fertility rates are per 1,000 women, while the total fertility rate is per woman.

PCPS = Pakistan Contraceptive Prevalence Survey

PFFPS = Pakistan Fertility and Family Planning Survey

PRHFPS = Pakistan Reproductive Health and Family Planning Survey

SWRHFPS = Status of Women, Reproductive Health, and Family Planning Survey

Sources: **PCPS 1984-85**: Population Welfare Division, Ministry of Planning and Development, 1986; **PDHS 1990-91**: NIPS and Macro, 1992; **PFFPS 1996-97**: Hakim et al., 1998; **PRHFPS 2000-01**: NIPS 2001; **SWRHFPS 2003**: NIPS 2007a

Figure 4.2 Trends in Total Fertility Rates

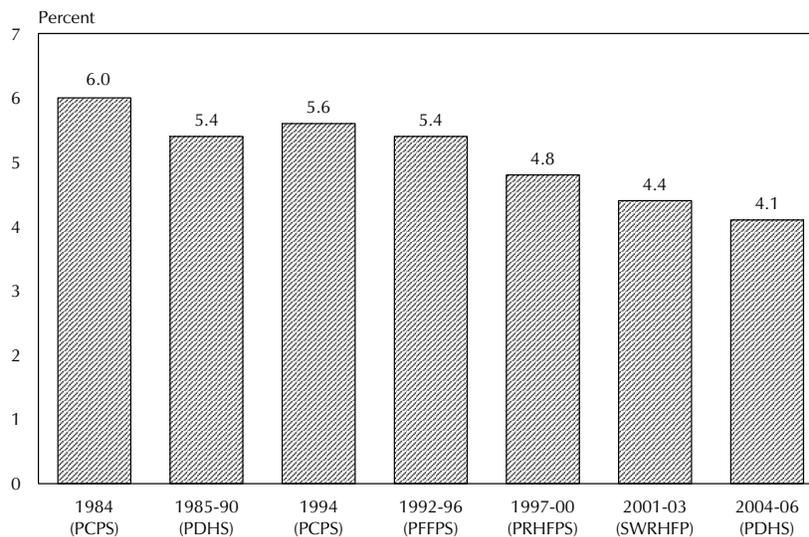


Table 4.5 shows the changes in fertility between the 1990-91 and the 2006-07 PDHS surveys by selected background characteristics. Overall, the TFR declined from 5.4 children per woman in the six years before the 1990-91 PDHS to 4.1 in the three years before the 2006-07 PDHS. Fertility decreased in all four provinces. With respect to education, the data show that fertility declined the most for women who have attained education up to middle level (through Class 8). By place of residence, the decrease in fertility is more conspicuous in urban than rural areas (decline of 33 percent and 20 percent, respectively).

Table 4.5 Trends in fertility by background characteristics

Total fertility rates and percent change according to background characteristics, Pakistan 1990-91 and 2006-07

Background characteristic	PDHS	PDHS	Percent change
	1990-91 1985-90	2006-07 2004-06	
Residence			
Total urban	4.9	3.3	-32.7
Major city	4.7	3.0	-36.2
Other urban	5.2	3.8	-26.9
Rural	5.6	4.5	-19.6
Province			
Punjab	5.4	3.9	-27.8
Sindh	5.1	4.3	-15.7
NWFP	5.5	4.3	-21.8
Balochistan	5.8	4.1	-29.3
Education			
No education	5.7	4.8	-15.8
Primary	4.9	4.0	-18.4
Middle	4.5	3.2	-28.9
Secondary +	3.6	2.7	-25.0
Total	5.4	4.1	-24.1

Note: Age-specific fertility rates are per 1,000 women, while the total fertility rate is per woman.

Table 4.6 shows the trends in age-specific fertility rates in Pakistan for five-year periods preceding the 2006-07 PDHS. The data are derived from the information on dates of birth in the birth history from the 2006-07 PDHS only. The declining trend noted earlier (Table 4.4) is also observed here over the past 20 years for all mother's age-at-birth groups.

4.3 CHILDREN EVER BORN AND CHILDREN SURVIVING

The number of children ever born and the mean number of living children is presented in Table 4.7 for all women and all currently married women age 15-49 years. The estimates for all women are based on the assumption that all births occur within marriage. Among women age 15-19, 94 percent have never given birth. However, this proportion declines rapidly to 12 percent for women age 30-34 years; only 4 percent of women at the end of their reproductive age remain childless, indicating that childbearing among Pakistani women is nearly universal. On average, Pakistani women attain a parity of 6.3 children per woman at the end of their childbearing. This number is more than two (2.2) children above the TFR (4.1 children per woman), a discrepancy that is attributable to the decline in fertility.

Table 4.6 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, Pakistan 2006-07

Mother's age at birth	Number of years preceding survey			
	0-4	5-9	10-14	15-19
15-19	55	81	111	130
20-24	187	250	273	292
25-29	241	297	309	336
30-34	190	236	265	[317]
35-39	114	158	[206]	
40-44	46	[89]		
45-49	[17]			

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates exclude the month of interview.

Table 4.7 Children ever born and living

Percent distribution of all women and currently married women by number of children ever born, mean number of children ever born, and mean number of living children, according to age group, Pakistan 2006-07

Age	Number of children ever born											Total	Number of women	Mean number of children ever born	Mean number of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
15-19	93.5	5.0	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	3,551	0.08	0.07
20-24	64.1	13.9	12.5	6.0	2.6	0.8	0.1	0.1	0.0	0.0	0.0	100.0	3,123	0.72	0.66
25-29	29.5	12.2	17.2	16.4	12.6	7.1	3.2	1.5	0.3	0.1	0.0	100.0	2,500	2.14	1.92
30-34	12.4	6.5	12.1	14.8	15.9	15.6	10.0	6.9	3.0	1.2	1.6	100.0	1,916	3.77	3.37
35-39	7.2	3.6	6.3	10.3	15.2	14.5	15.2	11.2	8.8	4.0	3.7	100.0	1,705	4.97	4.44
40-44	6.9	3.4	4.7	9.2	12.2	12.1	11.8	14.1	9.9	7.1	8.6	100.0	1,343	5.57	4.97
45-49	4.4	2.7	3.2	6.2	10.1	11.1	12.8	15.1	11.7	9.2	13.5	100.0	1,225	6.31	5.56
Total 15-49	42.7	7.7	8.5	8.2	8.1	6.8	5.5	4.8	3.2	2.0	2.4	100.0	15,362	2.53	2.25
CURRENTLY MARRIED WOMEN															
15-19	58.6	31.6	7.9	1.7	0.0	0.2	0.0	0.0	0.0	0.0	0.0	100.0	559	0.54	0.46
20-24	24.8	28.7	26.2	12.8	5.3	1.7	0.2	0.2	0.0	0.0	0.0	100.0	1,463	1.52	1.38
25-29	12.1	14.6	21.6	20.6	15.9	9.0	4.0	1.8	0.4	0.1	0.0	100.0	1,965	2.69	2.41
30-34	5.5	6.5	12.8	15.8	17.4	17.0	10.9	7.7	3.4	1.3	1.7	100.0	1,729	4.10	3.67
35-39	3.8	3.4	6.3	10.1	15.8	15.2	15.6	11.9	9.4	4.3	4.1	100.0	1,565	5.21	4.67
40-44	3.8	2.8	4.8	9.6	12.5	12.5	12.5	14.7	10.3	7.3	9.1	100.0	1,208	5.80	5.19
45-49	2.7	1.8	2.8	5.5	10.2	10.8	13.0	15.8	12.3	10.2	14.8	100.0	1,067	6.61	5.81
Total 15-49	12.1	11.5	13.2	12.6	12.5	10.5	8.4	7.4	4.9	3.0	3.8	100.0	9,556	3.88	3.47

The same pattern is replicated for currently married women, with the difference that the proportion of married women age 15-19 who have not borne a child is reduced to 59 percent. Furthermore, currently married women age 45-49 have, on average, borne 6.6 children each. The difference in childbearing between all women and currently married women can be explained by the presence of many young unmarried and widowed, divorced, and separated women in the “all women” category. As expected, women older than 40 years have much higher parities, with substantial proportions having eight or more births by the end of their childbearing years.

The overall picture that emerges from Table 4.7 is that the mean number of children ever born and mean number of living children increases with rising age of women, thus presupposing minimal or no recall lapse, which heightens confidence in the reported birth history.

Cumulative fertility for currently married women has shown a decline since the 1994-95 Pakistan Contraceptive Prevalence Survey (PCPS) in almost all age groups of women. The overall mean number of children ever born declined from 4.5 in 1994-95 to 3.9 in 2006-07. Interestingly, the declining trend in the mean number of living children is not as sharp as in the case of children ever born. This trend reflects improvement in child survival because of the improvements in the associated socioeconomic indicators that affect the child survival.

As shown in Table 4.8, there has been a modest but steady downward trend since 1990-91 in the mean number of children ever born among all women by age group. Overall, the mean has declined from 3.0 children born per woman in 1990-91 to 2.5 in 2006-07.

Table 4.8 Trends in children ever born

Mean number of children ever born by age group of woman, from selected surveys, Pakistan 1984 to 2006-07

Age group	Survey				PDHS 2006-07
	PDHS 1990-91	PFFPS 1996-97	PRHFPS 2000-01	SWRHFPS 2003	
15-19	0.2	0.1	0.1	0.1	0.1
20-24	1.0	1.0	0.9	0.7	0.7
25-29	2.6	2.8	2.4	2.2	2.1
30-34	4.3	4.6	4.3	4.0	3.8
35-39	5.5	5.6	5.3	5.1	5.0
40-44	6.3	6.5	6.4	5.8	5.6
45-49	6.4	7.2	6.7	6.6	6.3
Total	3.0	2.8	2.6	2.5	2.5

PFFPS = Pakistan Fertility and Family Planning Survey
 PRHFPS = Pakistan Reproductive Health and Family Planning Survey
 SWRHFPS = Status of Women, Reproductive Health, and Family Planning Survey
 Sources: **PDHS 1990-91:** NIPS and Macro, 1992; **PFFPS 1996-97:** Hakim et al., 1998; **PRHFPS 2000-01:** NIPS 2001; **SWRHFPS 2003:** NIPS 2007a

4.4 BIRTH INTERVALS

Previous research has demonstrated that children born too close to a previous birth are at increased risk of dying (NIPS and Macro, 1992). In the context of this finding, the examination of birth intervals is important in providing insights into birth spacing patterns and, subsequently, maternal and child health. Table 4.9 provides a glimpse into the birth intervals of children born to Pakistani women of reproductive age during the five years preceding the survey across selected subgroups. Overall, the median birth interval is 29 months. The shortest birth intervals are observed among children born to women age 15-19 (21 months) and children whose preceding sibling died (22 months). The longest intervals are among children born to women age 40-49 (36 months) and children in Balochistan (33 months). It is also interesting to note that there is a slightly shorter birth interval after the birth of a female child than after the birth of a male child.

Taken as a whole, 34 percent of Pakistani children are born less than 24 months after a previous birth, an interval perceived to be “too short.” The largest proportion (60 percent) of such children born less than 24 months after a previous birth is found among children born to mothers age 15-19.

Table 4.9 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, Pakistan 2006-07

Background characteristic	Months since preceding birth							Total	Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-54	55-59	60+			
Age										
15-19	30.3	29.4	33.3	0.9	0.3	4.0	1.9	100.0	66	20.9
20-29	20.2	20.2	36.5	14.0	4.3	1.1	3.7	100.0	3,229	26.0
30-39	14.0	15.1	31.6	18.5	6.3	3.4	11.0	100.0	3,204	31.6
40-49	9.7	12.0	28.3	19.1	6.3	3.7	21.0	100.0	700	36.0
Sex of preceding birth										
Male	14.4	16.9	34.2	16.7	5.7	2.6	9.4	100.0	3,694	29.6
Female	18.7	17.5	32.7	16.0	5.1	2.1	7.8	100.0	3,506	28.0
Survival of preceding birth										
Living	14.5	17.0	34.4	17.1	5.6	2.5	9.0	100.0	6,571	29.6
Dead	37.6	19.4	23.8	9.4	3.7	1.7	4.4	100.0	629	21.9
Birth order										
2-3	17.8	19.5	34.5	14.5	5.4	2.0	6.4	100.0	3,100	27.4
4-6	15.9	15.2	32.5	17.4	5.5	2.5	11.0	100.0	2,777	30.0
7+	14.9	16.1	33.2	18.8	5.2	3.0	8.8	100.0	1,323	30.2
Residence										
Total urban	18.0	17.9	30.0	15.5	5.1	2.2	11.4	100.0	2,058	28.7
Major city	18.2	17.5	28.6	14.6	5.6	2.3	13.2	100.0	1,061	30.0
Other urban	17.8	18.2	31.4	16.4	4.6	2.1	9.4	100.0	997	28.1
Rural	15.9	16.9	34.9	16.8	5.5	2.5	7.5	100.0	5,142	28.9
Province										
Punjab	16.6	18.3	33.7	15.8	4.9	2.3	8.3	100.0	4,005	28.2
Sindh	18.0	15.8	33.8	16.3	5.8	2.2	8.2	100.0	1,824	28.7
NWFP	14.9	16.4	32.1	17.1	6.1	2.9	10.5	100.0	1,057	30.0
Balochistan	11.9	14.3	33.3	22.7	6.7	2.4	8.7	100.0	314	33.0
Education										
No education	16.6	17.2	33.5	16.7	5.4	2.5	8.2	100.0	4,949	28.7
Primary	15.0	17.5	34.5	16.4	4.7	2.7	9.2	100.0	1,024	29.4
Middle	16.5	20.4	32.5	13.2	5.1	0.8	11.6	100.0	370	28.8
Secondary	17.3	14.9	34.1	14.9	7.3	1.2	10.3	100.0	510	29.8
Higher	19.3	17.1	30.1	17.6	5.2	3.0	7.7	100.0	346	28.0
Wealth quintile										
Lowest	16.6	16.6	35.3	16.9	4.9	2.8	6.9	100.0	1,799	28.7
Second	16.0	16.3	34.7	16.1	6.4	2.5	8.0	100.0	1,546	28.6
Middle	18.9	17.8	33.0	18.4	4.3	2.2	5.5	100.0	1,463	27.8
Fourth	13.7	18.2	33.0	16.2	5.9	1.8	11.2	100.0	1,269	30.0
Highest	17.3	17.6	30.1	13.5	5.7	2.6	13.3	100.0	1,122	29.4
Total	16.5	17.2	33.5	16.4	5.4	2.4	8.6	100.0	7,200	28.8

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

4.5 AGE AT FIRST BIRTH

The onset of childbearing has a direct bearing on fertility. Early initiation into childbearing lengthens the reproductive period, which in turn increases the chances of higher fertility. Bearing children at a young age also entails risks to the health of the mother and the child.

Table 4.10 shows the median age at first birth as well as the percentage of women who gave birth by a given exact age, by five-year age groups of women. According to this table, the median age at first birth for all women is 21.8 years, an increase of 0.5 years since the 1990-91 PDHS. The largest increase (1.7 years) since 1990-91 in the median age at first birth is among women age 25-29 years.

Table 4.10 Age at first birth

Percentage of women age 15-49 who gave birth by exact ages, percentage who have never given birth, and median age at first birth, according to current age, Pakistan 2006-07

Current age	Percentage who gave birth by exact age					Percentage who have never given birth	Number of women	Median age at first birth
	15	18	20	22	25			
15-19	0.5	na	na	na	na	93.5	3,551	a
20-24	1.3	10.2	22.5	na	na	64.1	3,123	a
25-29	2.2	14.6	30.0	45.4	61.6	29.5	2,500	22.7
30-34	3.2	20.6	37.4	53.1	70.2	12.4	1,916	21.6
35-39	3.3	19.8	39.0	56.4	75.9	7.2	1,705	21.2
40-44	2.5	18.9	36.4	54.9	73.4	6.9	1,343	21.4
45-49	2.1	18.1	35.3	54.2	74.5	4.4	1,225	21.5
20-49	2.3	16.0	31.8	a	a	27.5	11,811	a
25-49	2.7	18.1	35.2	52.0	69.9	14.3	8,689	21.8

na = Not applicable
a = Omitted because less than 50 percent of women had a birth before reaching the beginning of the age group

Among the age groups for which the median age at first birth can be measured, the age group with the highest median age is 25-29 years. This pattern is in congruence with the declining fertility, particularly among younger women (see Table 4.4). Additional insights into initiation of childbearing can be discerned by examining the percentage of women who had a first birth by the given exact ages for various age groups of women. While this percentage increases progressively by increasing exact ages as expected, the proportion having their first birth by age 18, for instance, is lower for younger women compared with older women. This observation is consistent with the rising age at first birth.

Differentials in age at first birth by socioeconomic and demographic characteristics of women age 25-49 years are shown in Table 4.11. A higher median age at first birth is observed in the major cities (22.4 years) compared with rural areas (21.5 years). Among the provinces, a higher median age at first birth is recorded in Balochistan (22.3 years) for women age 25-49, followed by Punjab province (22.1 years), and NWFP (21.2 years), while the lowest age was reported in Sindh province (21.1 years). This implies that women in Sindh and NWFP provinces, on average, have their first birth a little over one year earlier than women living in Balochistan province.

Table 4.11 Median age at first birth

Median age at first birth among women age 25-49 years, according to background characteristics, Pakistan 2006-07

Background characteristic	Age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Total urban	23.9	22.4	20.9	21.7	21.3	22.2
Major city	24.4	22.8	20.8	21.7	21.4	22.4
Other urban	23.3	22.1	20.9	21.7	21.3	22.0
Rural	22.1	21.1	21.4	21.3	21.6	21.5
Province						
Punjab	23.2	22.1	21.7	21.6	21.5	22.1
Sindh	21.6	21.0	20.1	21.2	21.2	21.1
NWFP	22.3	20.9	20.4	20.9	21.7	21.2
Balochistan	22.7	21.7	22.2	21.9	23.0	22.3
Education						
No education	21.2	20.6	20.9	21.0	21.3	21.0
Primary	22.5	21.3	21.5	21.8	21.6	21.8
Middle	24.3	23.0	20.4	20.6	(20.7)	22.3
Secondary	(23.5)	23.0	21.9	22.7	(23.1)	23.0
Higher	*	26.2	23.8	26.1	(26.4)	a
Wealth quintile						
Lowest	20.7	19.9	21.3	20.2	21.8	20.7
Second	21.5	21.4	21.3	21.2	21.2	21.3
Middle	22.7	20.8	20.9	21.6	21.7	21.5
Fourth	23.2	22.1	21.2	21.7	21.4	22.1
Highest	24.6	23.4	21.5	21.7	21.3	22.8
Total	22.7	21.6	21.2	21.4	21.5	21.8

Note: Numbers in parentheses are based on 25-49 unweighted women; an asterisk represents a figure based on fewer than 25 unweighted women that has been suppressed.

a = Omitted because less than 50 percent of the women had a birth before reaching the beginning of the age group

Clearly, the onset of childbearing is related to the education of women. According to Table 4.11, women with secondary education begin their childbearing two years (23.0 years) later than women with no education (21.0 years). Wealthier women, relative to poorer ones, also show delayed onset of childbearing of a little over two years.

4.6 TEENAGE FERTILITY

It is important to examine teenage fertility for various reasons. First, children born to very young mothers are normally predisposed to a higher risk of illness and death. Secondly, teenage mothers are more likely to experience complications during pregnancy and are less likely to be prepared to deal with them, which often leads to maternal death. Third, their early entry into reproduction denies them the opportunity to pursue academic goals. This is detrimental and harmful to their prospects for good careers, which often lowers their status in society.

Table 4.12 displays the percentage of women age 15-19 who were mothers or were pregnant with their first child at the time of the 2006-07 PDHS, by selected background characteristics. Generally, teenage fertility has declined; for example, the proportion who have begun childbearing has gone down from about 16 percent at the time of the 1990-91 PDHS to 9 percent now. The proportion of teenage mothers has also decreased from 12 percent in 1990-91 to 7 percent in 2006-07, while the proportion of women pregnant with their first child also decreased from 4 percent in 1990-91 to less than 3 percent in 2006-07. These findings suggest that there is a trend towards delayed childbearing at least until they have completed their teenage years.

The proportion of teenagers who have begun childbearing increases with age. For example, at age 15, only about 1 percent has begun childbearing. This proportion increases to 23 percent by age 19. The percentage of teenagers who have begun childbearing is highest (11 percent) in Sindh province and lowest (7 percent) in Balochistan. About 16 percent of teenage women with no education have begun childbearing compared with only 1 percent of women with higher than secondary education. This finding suggests that increasing educational level has a negative relationship with the beginning of childbearing in Pakistan. Teenagers from poorer households are more likely (16 percent) to have begun childbearing compared with those from wealthier households (4 percent).

Table 4.12 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child and percentage who have begun childbearing, by background characteristics, Pakistan 2006-07

Background characteristic	Percentage who:			Number of women
	Have had a live birth	Are pregnant with first child	Have begun child-bearing	
Age				
15	0.4	0.5	0.9	613
16	2.0	1.2	3.3	777
17	4.2	3.1	7.3	703
18	10.1	2.6	12.7	923
19	16.9	6.1	23.1	535
Residence				
Total urban	4.6	2.0	6.6	1,260
Major city	3.3	1.3	4.6	761
Other urban	5.9	2.7	8.6	556
Rural	7.6	2.9	10.5	2,289
Province				
Punjab	5.9	2.4	8.3	1,895
Sindh	8.3	2.9	11.2	875
NWFP	6.7	2.4	9.2	583
Balochistan	4.2	3.2	7.4	170
Education				
No education	11.4	4.0	15.5	1,317
Primary	6.8	1.9	8.8	698
Middle	3.6	2.4	6.0	632
Secondary	1.3	1.4	2.7	543
Higher	1.0	0.3	1.3	333
Wealth quintile				
Lowest	11.2	4.5	15.8	577
Second	8.7	2.9	11.6	705
Middle	5.9	1.9	7.8	749
Fourth	5.3	2.7	8.0	800
Highest	2.8	1.2	4.0	673
Total	6.5	2.6	9.1	3,551

Note: Because the survey was based on an ever-married sample, the number of women was increased using a factor based on all de facto women listed in the household who had never been married. The "all women" factors were based on age in the household and background information available at the household level. Women who have never married are assumed to have never been pregnant. Because the number of all women is not normalized, the weighted numbers will not necessarily sum to the "total."

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To attain a balance between resources and population, the Population Policy of Pakistan seeks to promote family planning as an entitlement based on informed and voluntary choice by motivating couples to adopt a family planning method through improved access to quality of reproductive health services. In this context, the level of knowledge about family planning methods is important because adequate information about the available methods of contraception enable couples to develop a rational approach to planning their families. An assessment of knowledge and use of contraceptive methods, therefore, constituted one of the primary objectives of this survey. This chapter describes women’s knowledge, ever use, and current use of contraceptive methods; the sources and cost of modern methods; accessibility to family planning services; contraceptive use intentions; and informed choice. Furthermore, exposure to family planning messages and level of contact of nonusers with family planning providers is also assessed. Where appropriate, comparisons are also made with findings from previous family planning surveys conducted in Pakistan.

5.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

Development of a profile regarding knowledge of family planning methods was one of the major objectives of the survey, because knowledge of methods is a prerequisite for making the decision to initiate contraceptive use. Information on knowledge of contraception was collected during the survey by asking ever-married women to name ways or methods by which a couple could delay or avoid pregnancy. If the respondent failed to mention a particular method spontaneously, the interviewer described a method and asked if the respondent recognized it. In this manner, information was collected about eight modern methods (female sterilization, male sterilization, the pill, intrauterine device [IUD], injectables, implants, male condoms, and emergency contraception) and two traditional methods (rhythm or calendar method and withdrawal). Provision was also made in the questionnaire to record any other methods named spontaneously by the respondent. Table 5.1 shows the level of knowledge of contraceptive methods among ever-married and currently married women age 15-49.

Knowledge of family planning in Pakistan is nearly universal; 96 percent of ever-married and currently married women age 15-49 know of at least one method of family planning. Modern methods are more widely known than traditional methods. For example, 96 percent of currently married women have heard of at least one modern method, while only 64 percent have heard of a traditional method.

Among currently married women, pills (92 percent), injectables (90 percent), female sterilization (87 percent), IUD (75 percent), and condoms (68 percent) are the most widely known methods of family planning. The least widely known methods are emergency contraception (18 percent), implants (32 percent), and male sterilization (41 percent). About half of currently married

Table 5.1 Knowledge of contraceptive methods

Percentage of ever-married and currently married women age 15-49 who know any contraceptive method, by specific method, Pakistan 2006-07

Method	Ever-married women	Currently married women
Any method	95.7	95.9
Any modern method	95.5	95.7
Female sterilization	86.6	86.7
Male sterilization	40.9	40.7
Pill	91.5	91.7
IUD	74.7	74.8
Injectables	89.3	89.5
Implants	31.9	32.1
Condom	67.7	68.1
Emergency contraception	17.8	18.0
Any traditional method	63.7	63.8
Rhythm	49.1	49.2
Withdrawal	48.7	48.9
Folk method	2.9	2.9
Mean number of methods known by women 15-49	6.0	6.0
Number of women	10,023	9,556

women have heard of the rhythm method (49 percent) and withdrawal (49 percent). The mean number of methods known by ever-married as well as currently married women is six.

Table 5.2 shows currently married women age 15-49 who have heard of at least one contraceptive method and at least one modern method by selected background characteristics the percentage. Differences by age group are very slight except among women age 15-19, where contraceptive knowledge is somewhat lower. These teenagers are newly weds and they are more likely to want to become pregnant as soon as possible and hence may not be as interested in contraceptive methods as older women.

Differences in the level of contraceptive knowledge between urban and rural areas are minimal. Among provinces, women in Punjab and Sindh report the highest levels of knowledge (97 percent each), followed by NWFP (92 percent) and Balochistan (88 percent). The level of contraceptive knowledge increases slightly with education and wealth quintile.

Table 5.3 presents a comparative picture of trends in contraceptive knowledge over time. It shows that the proportion of married women who had heard of a contraceptive method increased substantially in the late 1980s and early 1990s, from 62 percent in 1984-85 to 94 percent in 1996-97. Because of the high levels reached, there has been a plateau in this figure over the past decade. The same pattern—large increases in the late 1980s and early 1990s with little change since then—generally holds for knowledge of specific methods, with a few exceptions. Knowledge of male sterilization and implants has continued to increase since 2000-01, while knowledge of the IUD appears to have declined since 2000-01, particularly in the past few years. Knowledge of the rhythm method and withdrawal has increased substantially over time, although the trends for both methods are somewhat erratic.

Table 5.2 Knowledge of contraceptive methods by background characteristics			
Percentage of currently married women age 15-49 who have heard of at least one contraceptive method and who have heard of at least one modern method, by background characteristics, Pakistan 2006-07			
Background characteristic	Heard of any method	Heard of any modern method ¹	Number
Age			
15-19	87.5	87.4	559
20-24	96.0	95.8	1,463
25-29	96.9	96.6	1,965
30-34	96.4	96.1	1,729
35-39	96.7	96.5	1,565
40-44	96.3	96.2	1,208
45-49	95.8	95.6	1,067
Residence			
Total urban	98.5	98.2	3,191
Major city	99.1	99.0	1,815
Other urban	97.6	97.2	1,376
Rural	94.6	94.4	6,365
Province			
Punjab	96.9	96.7	5,495
Sindh	97.3	97.0	2,317
NWFP	91.9	91.5	1,301
Balochistan	88.2	88.0	443
Education			
No education	94.6	94.4	6,165
Primary	97.8	97.6	1,371
Middle	97.8	97.7	609
Secondary	98.4	98.4	785
Higher	99.4	99.2	626
Wealth quintile			
Lowest	92.0	91.5	1,847
Second	93.4	93.3	1,897
Middle	97.0	96.8	1,846
Fourth	97.6	97.6	1,957
Highest	99.2	99.0	2,009
Total 15-49	95.9	95.7	9,556

¹ Female sterilisation, male sterilization, pill, IUD, injectables, implants, condoms, emergency contraception, and other modern methods

Table 5.3 Trends in knowledge of contraceptive methods

Percentage of currently married women age 15-49 who know any contraceptive method, by specific method, Pakistan 1984 to 2006-07

Method	1984-85 PCPS	1990-91 PDHS	1994-95 PCPS	1996-97 PFFPS	2000-01 PRHFPS	2003 SWRHFPS	2006-07 PDHS
Any method	61.5	77.9	90.7	94.3	95.7	95.4	95.9
Any modern method	u	77.2	90.5	93.4	95.0	95.0	95.7
Female sterilization	50.5	69.7	86.2	88.5	88.8	85.9	86.7
Male sterilization	18.8	20.2	15.4	31.0	31.6	41.5	40.7
Pill	54.1	62.2	72.6	86.6	91.1	90.7	91.7
IUD	43.4	51.5	73.4	82.4	84.4	82.1	74.8
Injectables	46.7	62.2	79.4	86.0	90.2	88.2	89.5
Implants	u	u	u	14.9	19.9	26.9	32.1
Condom	28.9	35.3	46.0	61.2	69.9	65.2	68.1
Any traditional method	u	25.7	38.2	54.3	50.3	45.4	63.8
Rhythm	5.8	17.8	22.4	33.7	23.8	25.4	49.2
Withdrawal	9.0	14.3	28.4	40.7	42.4	35.7	48.9
Other	1.5	3.5	4.3	3.7	1.9	1.7	2.9
Number of women	7,405	6,364	u	7,584	u	8,427	9,556

u = Unavailable
PCPS = Pakistan Contraceptive Prevalence Survey
PFFPS = Pakistan Fertility and Family Planning Survey
PRHFPS = Pakistan Reproductive Health and Family Planning Survey
SWRHFPS = Status of Women, Reproductive Health, and Family Planning Survey
Sources: **PCPS 1984-85:** Population Welfare Division, Ministry of Planning and Development, 1986;
PDHS 1990-91: NIPS and Macro, 1992; **PFFPS 1996-97:** Hakim et al., 1998; Census 1998: Government of Pakistan, 1998; **PRHFPS 2000-01:** NIPS 2001; **SWRHFPS 2003:** NIPS 2007a

5.2 EVER USE OF FAMILY PLANNING METHODS

All women who said that they had heard of a method of family planning were asked whether they had ever used that method in order to delay or avoid getting pregnant. Table 5.4 shows the percentage of ever-married and currently married women who have ever used specific methods of family planning.

This table shows that almost half (49 percent) of currently married women have used a contraceptive method at some time in the past. Thirty-nine percent of currently married women have used a modern method, while 26 percent have used a traditional method. The methods most commonly ever used by currently married women are the condom, withdrawal, and the rhythm method, each of which has been used by 17 percent of women. These are followed by the pill (12 percent), injectables (11 percent), female sterilization (8 percent), and the IUD (8 percent). Less than 1 percent of women reported ever having used emergency contraception, implants, and male sterilization.

As expected, ever use of any contraceptive method rises steadily with age, from 16 percent among currently married women age 15-19 to 61 percent among women age 40-44, before falling slightly among those age 45-49. Female sterilization is more likely to have been used by older women, while use of condoms is more common among women age 25-39. Rhythm and withdrawal are almost equally popular among all age groups of women age 25 and older.

Table 5.4 Ever use of contraception

Percentage of ever-married and currently married women age 15-49 who have ever used any contraceptive method, by method, according to age, Pakistan 2006-07

Age	Modern method										Traditional method				Number of women
	Any method	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom	Emergency contraception	Any traditional method	Rhythm	Withdrawal	Folk method	
EVER-MARRIED WOMEN															
15-19	15.6	9.8	0.0	0.2	3.7	0.6	2.0	0.0	5.6	0.3	9.1	5.7	5.3	0.2	569
20-24	29.8	20.5	0.9	0.1	5.0	3.0	5.5	0.3	11.7	0.6	17.7	11.7	11.7	0.1	1,499
25-29	45.4	36.5	2.0	0.0	12.5	6.9	12.4	0.5	20.6	1.1	25.3	16.4	17.6	0.7	2,006
30-34	55.1	45.3	7.0	0.1	14.7	10.3	14.2	0.4	21.2	1.3	27.4	17.4	17.4	0.8	1,786
35-39	57.9	48.0	12.1	0.1	16.3	11.8	13.1	0.9	19.5	0.9	28.6	19.8	19.2	0.9	1,654
40-44	58.6	49.0	18.3	0.3	14.2	10.6	13.4	0.8	17.2	0.6	28.7	18.8	19.4	1.4	1,301
45-49	52.5	39.1	15.3	0.2	12.7	8.2	10.4	0.8	11.1	1.0	28.6	19.6	19.8	0.8	1,208
Total	47.7	38.0	8.0	0.1	12.2	8.0	11.1	0.6	16.8	0.9	25.0	16.5	16.8	0.7	10,023
CURRENTLY MARRIED WOMEN															
15-19	15.7	9.7	0.0	0.2	3.8	0.6	2.0	0.0	5.4	0.3	9.2	5.8	5.4	0.2	559
20-24	30.3	20.8	0.9	0.1	5.1	3.0	5.7	0.3	11.8	0.6	18.0	12.0	11.9	0.1	1,463
25-29	45.8	36.8	1.9	0.0	12.7	7.0	12.4	0.5	21.0	1.1	25.6	16.6	17.9	0.7	1,965
30-34	56.3	46.3	7.2	0.1	15.0	10.5	14.4	0.4	21.7	1.3	28.1	17.9	17.9	0.9	1,729
35-39	59.3	49.4	12.5	0.1	16.9	12.2	13.5	1.0	20.2	0.9	29.1	20.2	19.7	1.0	1,565
40-44	60.8	50.9	19.1	0.4	15.0	10.5	13.9	0.9	18.0	0.6	30.0	19.4	20.2	1.5	1,208
45-49	54.8	41.3	16.7	0.2	12.9	8.8	11.2	0.7	11.3	0.9	29.6	19.9	20.3	0.9	1,067
Total	48.7	38.8	8.2	0.1	12.4	8.1	11.4	0.6	17.2	0.9	25.5	16.8	17.1	0.8	9,556

5.3 CURRENT USE OF CONTRACEPTIVE METHODS

Table 5.5 shows that 30 percent of currently married women report they are currently using some method to delay or prevent pregnancy. About three-fourths of current users are using a modern method and slightly more than one-fourth are using a traditional method. The most widely used method is female sterilization (8 percent), followed by condoms (7 percent), withdrawal (4 percent), and the rhythm method (4 percent). The IUD, injectables, and pills are each used by 2 percent of married women. Use of male sterilization and the more recently introduced implant are negligible.

Table 5.5 Current use of contraception by age

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to age, Pakistan 2006-07

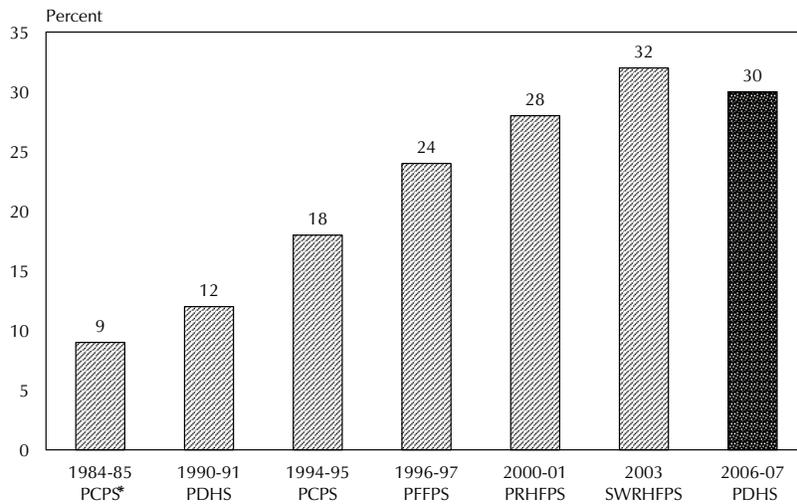
Age	Any method	Any modern method	Modern method							Any traditional method	Traditional method			Not currently using	Total	Number of women
			Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom		Rhythm	Withdrawal	Folk method			
15-19	6.7	4.2	0.0	0.0	0.8	0.5	0.3	0.0	2.6	2.5	1.2	1.3	0.0	93.3	100.0	559
20-24	15.4	10.6	0.9	0.0	1.3	1.2	2.0	0.1	5.2	4.8	2.1	2.6	0.1	84.6	100.0	1,463
25-29	24.8	17.2	1.9	0.0	2.0	2.1	2.7	0.3	8.1	7.6	3.4	4.0	0.2	75.2	100.0	1,965
30-34	35.6	26.9	7.2	0.0	3.2	3.4	3.7	0.1	9.3	8.7	3.6	5.0	0.1	64.4	100.0	1,729
35-39	39.9	29.8	12.5	0.1	2.7	3.8	2.0	0.1	8.6	10.2	4.5	5.4	0.3	60.1	100.0	1,565
40-44	41.6	31.4	19.1	0.3	2.1	1.8	2.2	0.0	5.9	10.3	4.9	5.1	0.3	58.4	100.0	1,208
45-49	31.5	23.6	16.7	0.2	1.2	1.2	1.5	0.3	2.6	7.8	4.4	3.4	0.0	68.5	100.0	1,067
Total	29.6	21.7	8.2	0.1	2.1	2.3	2.3	0.1	6.8	7.9	3.6	4.1	0.2	70.4	100.0	9,556

Note: If more than one method is used, only the most effective method is considered in this tabulation.

Use of any contraceptive method rises with age from 7 percent among married women age 15-19 to a peak of 42 percent at age 40-44 and then declines to 32 percent among women age 45-49. The most popular methods among women under age 30 are the condom, followed by withdrawal and the rhythm method. Women in their early 30s tend to use condoms and sterilization, while among women in their late 30s and 40s, female sterilization is by far the most widely used method.

As shown in Figure 5.1, there has been a substantial increase in contraceptive use since the mid-1980s, with some indication of a possible plateau in recent years. This plateau in contraceptive use could be due to various factors, including non-devolution of the programme from central control, thus leading to lack of ownership of the programme at provincial and district levels; lack of support from the health sector, especially its Lady Health Workers programme; and a disconnect between the community and facilities providing services, caused by abolishing the Village Based Family Planning Worker component.

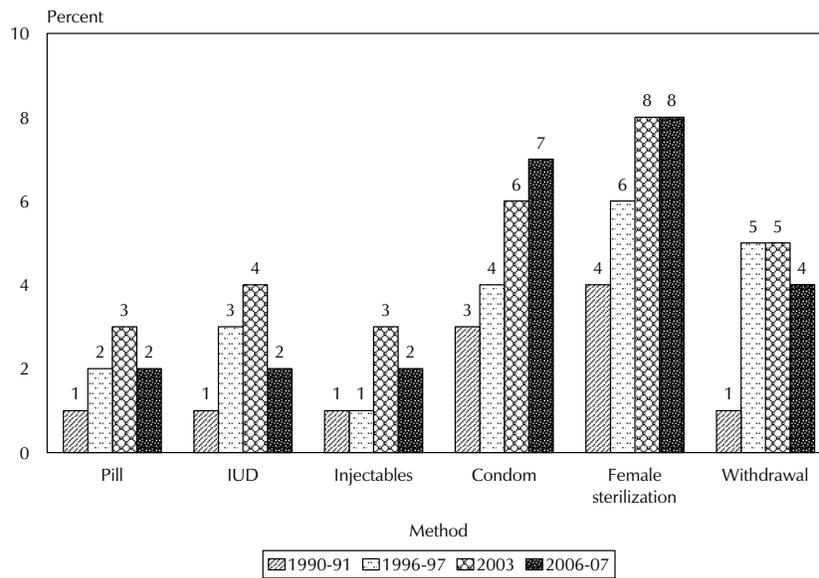
Figure 5.1 Trends in Contraceptive Use



Note: Calculated as the percentage of currently married women using any method
 * Based on currently married non-pregnant women

As shown in Figure 5.2, changes in use of specific methods over the past 16 years have been small, with a slight decline since 2003 in the use of the pill, IUD, injectables, and withdrawal, while female sterilization has remained the same and the use of condoms has increased slightly during this period.

Figure 5.2 Trends in Current Use of Specific Methods among Married Women



5.4 DIFFERENTIALS IN CONTRACEPTIVE USE BY BACKGROUND CHARACTERISTICS

As shown in Table 5.6 and Figure 5.3, some women are more likely to use contraceptives than others. Women in urban areas are more likely to use contraceptives (41 percent) than those in rural areas (24 percent), a pattern that also applies for each of the specific methods except injectables, which are used by equal proportions of urban and rural women.

Contraceptive use among currently married women is highest in Punjab province (33 percent), followed by Sindh province (27 percent) and NWFP (25 percent), and is lowest in Balochistan province (14 percent). In Punjab and Sindh, female sterilization is the most commonly used contraceptive method, followed by condoms, while in NWFP, condoms and withdrawal are the most popular methods; contraceptive use in Balochistan consists almost entirely of the pill and female sterilization.

Contraceptive use increases with women’s level of education, from 25 percent among currently married women with no education to 43 percent among those with higher education. In general, women do not begin to use contraception until they have had at least one child, after which use increases rapidly with the number of children.

It might be expected that women who are working would be more likely to use contraception than those who are not working. However, the data in Table 5.6 show that the relationship between contraceptive use and work status is more complex. Contraceptive use among married women who are currently working is about the same as among those who never worked and only slightly higher than among those who worked only before marriage and those who worked before and after marriage but not currently. Use is highest among women who worked only after marriage.

Contraceptive use increases dramatically with increasing wealth quintiles. The contraceptive prevalence rate increases from 16 percent of currently married women in the lowest quintile to 43 percent of those in the highest quintile.

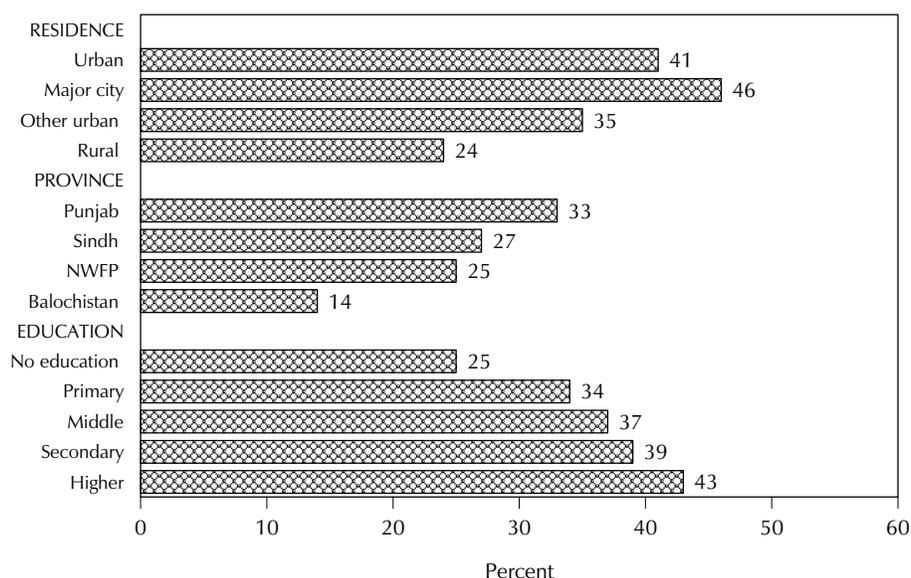
Table 5.6 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Pakistan 2006-07

Background characteristic	Any method	Any modern method	Modern method							Any traditional method	Traditional method			Not currently using	Total	Number of women
			Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom		Rhythm	Withdrawal	Folk method			
Residence																
Total urban	41.1	29.9	10.2	0.2	2.6	2.6	2.3	0.2	11.9	11.2	4.9	6.1	0.1	58.9	100.0	3,191
Major city	45.9	33.0	10.7	0.1	2.9	2.8	1.9	0.2	14.4	12.9	6.3	6.6	0.0	54.1	100.0	1,815
Other urban	34.7	25.8	9.5	0.2	2.3	2.3	2.9	0.1	8.5	8.9	3.2	5.5	0.3	65.3	100.0	1,376
Rural	23.9	17.7	7.2	0.0	1.8	2.1	2.3	0.1	4.2	6.2	2.9	3.1	0.2	76.1	100.0	6,365
Province																
Punjab	33.2	23.1	9.2	0.1	1.4	3.1	2.0	0.2	7.1	10.1	5.3	4.6	0.2	66.8	100.0	5,495
Sindh	26.7	22.0	9.0	0.0	2.3	1.0	2.3	0.1	7.2	4.7	1.5	3.1	0.0	73.3	100.0	2,317
NWFP	24.9	18.7	3.6	0.1	3.1	1.7	4.0	0.0	6.1	6.2	1.0	5.1	0.1	75.1	100.0	1,301
Balochistan	14.4	13.4	4.6	0.0	5.3	0.6	1.4	0.0	1.6	1.0	0.3	0.5	0.2	85.6	100.0	443
Education																
No education	25.3	18.9	8.6	0.0	2.0	1.9	2.1	0.2	4.1	6.4	3.0	3.2	0.2	74.7	100.0	6,165
Primary	34.4	25.8	9.0	0.1	2.0	2.6	3.7	0.1	8.4	8.6	3.5	4.9	0.1	65.6	100.0	1,371
Middle	37.2	26.5	8.1	0.0	1.8	1.8	3.2	0.0	11.5	10.8	5.5	5.1	0.2	62.8	100.0	609
Secondary	39.1	25.8	5.3	0.2	2.1	3.3	1.7	0.3	12.8	13.3	6.5	6.8	0.0	60.9	100.0	785
Higher	42.6	31.4	5.6	0.2	2.9	4.5	1.1	0.0	17.0	11.1	4.0	7.2	0.0	57.4	100.0	626
Husband's education																
No education	25.0	18.8	9.7	0.0	1.8	1.3	1.7	0.1	4.1	6.2	3.3	2.8	0.2	75.0	100.0	3,308
Primary	27.9	20.7	7.7	0.1	1.8	2.1	2.8	0.1	6.0	7.2	2.9	4.0	0.4	72.1	100.0	1,546
Middle	29.3	20.8	6.1	0.2	2.1	3.2	2.5	0.2	6.4	8.5	3.8	4.6	0.2	70.7	100.0	1,253
Secondary	32.3	23.4	7.9	0.0	1.6	2.4	2.9	0.2	8.6	8.9	4.1	4.7	0.1	67.7	100.0	1,994
Higher	38.7	28.4	7.4	0.1	3.3	3.6	2.3	0.1	11.6	10.3	4.1	6.2	0.0	61.3	100.0	1,422
Number of living children																
0	0.6	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.4	0.1	0.1	0.0	0.0	99.4	100.0	1,278
1-2	20.3	13.2	1.3	0.0	1.7	1.1	1.7	0.1	7.4	7.0	3.3	3.7	0.0	79.7	100.0	2,565
3-4	39.2	28.9	9.7	0.1	2.8	3.8	3.0	0.1	9.4	10.3	4.5	5.6	0.2	60.8	100.0	2,604
5+	41.2	31.5	15.9	0.1	2.6	2.9	3.2	0.2	6.6	9.7	4.5	5.0	0.2	58.8	100.0	3,109
Work status																
Currently working	29.2	20.9	8.9	0.1	1.8	2.8	2.1	0.0	5.2	8.4	3.9	4.3	0.3	70.8	100.0	2,397
Worked only before marriage	28.1	19.7	6.2	0.0	1.2	1.7	2.7	0.2	7.8	8.4	2.5	5.9	0.0	71.9	100.0	739
Worked only after marriage	38.0	28.8	14.5	0.0	3.7	1.9	3.2	0.0	5.6	9.2	5.5	3.7	0.0	62.0	100.0	194
Worked before and after marriage	26.6	23.3	11.3	0.0	1.0	2.8	2.1	0.0	6.1	3.3	1.4	1.9	0.0	73.4	100.0	389
Never worked	29.9	22.1	7.7	0.1	2.3	2.1	2.3	0.2	7.4	7.8	3.7	4.0	0.1	70.1	100.0	5,826
Wealth quintile																
Lowest	15.6	12.4	7.0	0.1	1.5	1.0	1.6	0.1	1.2	3.2	1.7	1.3	0.3	84.4	100.0	1,847
Second	20.8	15.5	6.0	0.0	1.8	1.5	2.5	0.1	3.6	5.3	2.5	2.7	0.0	79.2	100.0	1,897
Middle	30.1	21.9	8.3	0.0	1.9	2.8	3.2	0.1	5.6	8.1	3.6	4.4	0.1	69.9	100.0	1,846
Fourth	36.8	26.3	9.8	0.1	2.6	1.7	2.7	0.3	9.0	10.4	4.7	5.3	0.4	63.2	100.0	1,957
Highest	43.4	31.6	9.6	0.1	2.4	4.2	1.6	0.1	13.7	11.8	5.2	6.6	0.0	56.6	100.0	2,009
Total	29.6	21.7	8.2	0.1	2.1	2.3	2.3	0.1	6.8	7.9	3.6	4.1	0.2	70.4	100.0	9,556

Note: If more than one method is used, only the most effective method is considered in this tabulation. Totals include a small number of cases with missing information.

Figure 5.3 Differentials in Contraceptive Use



Note: Use of any method among currently married women

PDHS 2006-07

5.5 USE OF SOCIAL MARKETING CONTRACEPTIVE BRANDS

Social marketing plays an important role in provision of contraceptive methods in Pakistan. The “Greenstar” and “Key” programmes are the two components of contraceptive social marketing in Pakistan, working since 1991 and 1996, respectively. They provide family planning information and services to mainly urban and peri-urban residents at reduced rates. The range of activities includes advertisement/promotional campaigns; training of doctors, paramedics, and chemists; and sales of condom brands like Sathi and Touch (Greenstar), and Intense, Spark, and Hamdam (Key Social Marketing). Other contraceptives sold by Greenstar include two low-dose oral contraceptive brands, three injectables (1, 2, and 3-month options), two IUDs, and an emergency contraceptive introduced in 2003. Voluntary surgical contraception was started through Greenstar Plus clinics in 2001. In addition to the condom brands mentioned, Key-supported products also include two injectables and two low-dose oral contraceptive brands.

Table 5.7 shows by residence and province the percentage of pill and condom users who are using a social marketing brand. Because many women who are currently using pills and condoms were not able to report the brand they were using, the data are based on small numbers. This table reflects that a majority of pill users (74 percent) are using a social marketed brand (Nova, Novadol, and Famila 28). Among condom users who know the brand name, 82 percent reported that they are using Sathi, a social marketing brand.

The number of pill users who reported their brand is too small to allow any meaningful analysis by residence or province. Among women who rely on condoms, the Sathi brand is more likely to be reported by rural than by urban women, and by women in Punjab and NWFP than by women in Sindh.

Table 5.7 Use of social marketing brand pills and condoms

Percentage of pill and condom users age 15-49 using a social marketing brand, by background characteristics, Pakistan 2006-07

Background characteristic	Percentage of pill users using a social marketing brand ¹	Number of women using the pill	Percentage of condom users using a social marketing brand ²	Number of women using condoms
Residence				
Total urban	74.5	49	77.9	213
Rural	73.2	52	87.1	161
Province				
Punjab	(86.9)	32	85.9	223
Sindh	(67.0)	36	71.4	107
NWFP	(61.6)	25	86.5	43
Balochistan	(92.6)	7	*	1
Total	73.9	101	81.9	374

Note: Table excludes pill and condom users who do not know the brand name (49 percent of pill users and 43 percent of condom users). Condom use is based on women's reports. Figures in parentheses are based on 25-49 unweighted cases, while an asterisk denotes a figure based on fewer than 25 unweighted cases that has been suppressed.

¹ Greenstar distributors, Nova, Novadol, and Famila 28

² Sathi

5.6 TIMING OF STERILIZATION

Table 5.8 shows the percent distribution of currently married, sterilized women by age at the time of sterilization and median age at sterilization, according to the number of years since the operation. The table indicates more women are sterilized at age 30-34 than in any other age group, but it also indicates that almost one-third of sterilized women had the operation when they were relatively young, i.e., under age 30. The data shows that the median age at the time of sterilization has been highest among those sterilized between 6-7 years ago.

Table 5.8 Timing of sterilization

Percent distribution of currently married sterilized women age 15-49 by age at the time of sterilization, and median age at sterilization, according to the number of years since the operation, Pakistan 2006-07

Years since operation	Age at time of sterilization						Total	Number of women	Median age ¹
	<25	25-29	30-34	35-39	40-44	45-49			
<2	7.4	18.9	26.1	25.0	17.1	5.5	100.0	137	32.6
2-3	7.0	20.6	26.4	28.8	11.9	5.3	100.0	144	32.3
4-5	5.0	15.9	36.6	29.5	13.0	0.0	100.0	119	32.8
6-7	7.4	19.7	32.3	32.6	8.0	0.0	100.0	135	33.8
8-9	7.6	23.9	31.8	33.4	3.3	0.0	100.0	76	31.9
10+	12.7	40.8	37.2	9.3	0.0	0.0	100.0	169	a
Total	8.1	24.1	31.8	25.1	8.9	1.9	100.0	781	31.9

a = Not calculated due to censoring.

¹ Median age at sterilization is calculated only for women sterilized before age 40 to avoid problems of censoring.

5.7 SOURCE OF CONTRACEPTION

Information on where women obtain their contraceptives is useful for family planning programme managers and implementers for logistic planning. In the 2006-07 PDHS, women who reported using a modern contraceptive method at the time of the survey were asked where they obtained the method the last time they acquired it. Because some women may not exactly know in which category the source they use falls (e.g., government hospital, private health centre, etc.), interviewers were instructed to note the full name of the source or facility. Supervisors were instructed to verify that the name and source type were consistent, asking informants in the clusters for the names of local family planning outlets, if necessary. This practice was designed to improve the accuracy of source reporting.

Table 5.9 shows the percent distribution of users of modern contraceptive methods by the most recent source of method. It indicates that 48 percent of modern method users rely on public sector institutions, while 30 percent use the private medical sector and 12 percent use other sources. In the public sector, the most important sources of family planning services are government hospitals and reproductive health service centres (RHSC; 32 percent of users). Lady Health Workers are also an important source, supplying 8 percent of all users of modern methods. Only 3 percent of users rely on Lady Health Visitors, while 2 percent go to family welfare centres and rural health or maternal and child health (MCH) centres. The main contributors in the private medical sector are private nongovernmental organization (NGO) hospitals and clinics (16 percent of users), followed by pharmacies and chemists (9 percent of users). Ten percent of modern method users obtain their methods from shops other than pharmacies or chemists.

Table 5.9 Source of modern contraception methods

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of method, according to method, Pakistan 2006-07

Source	Female sterilization	Pill	IUD	Injectables	Condom	Total
Public sector	72.4	46.1	52.4	51.2	16.9	48.2
Government hospital/RHSC	67.5	13.0	27.5	16.1	2.7	32.4
Rural health centre/MCH centre	2.4	0.0	2.0	4.1	0.1	1.6
Family welfare centre	0.0	2.5	6.0	8.1	0.2	1.8
Mobile service camp	1.0	0.0	0.0	0.0	0.2	0.5
Lady Health Worker	0.4	28.2	6.4	13.4	10.9	8.4
Lady Health Visitor	0.7	2.5	8.3	5.9	1.9	2.6
Basic health unit	0.3	0.0	2.2	3.5	0.5	0.9
Male mobilizer	0.0	0.0	0.0	0.0	0.2	0.1
Other public	0.1	0.0	0.0	0.0	0.1	0.0
Private medical sector	25.8	31.2	41.0	41.7	27.3	30.1
Private/NGO hospital/clinic	22.8	10.5	34.6	20.5	2.1	16.2
Pharmacy/chemists	0.0	16.1	0.6	2.7	22.9	9.0
Private doctor	3.0	2.1	4.3	12.2	0.6	3.3
Dispenser/compounder	0.0	2.0	0.9	6.0	1.0	1.2
Other private medical	0.0	0.6	0.5	0.4	0.8	0.4
Other source	0.0	13.8	6.6	4.2	31.4	12.2
Shop (not pharmacy/chemist)	0.0	7.2	0.0	1.6	30.5	10.3
Friend/relative	0.0	4.3	0.0	1.3	0.2	0.6
Dai/traditional birth attendant	0.0	1.2	6.6	1.3	0.2	1.0
Other	0.0	1.0	0.0	0.0	0.6	0.3
Don't know	1.2	7.7	0.0	2.5	24.0	9.0
Missing	0.5	1.1	0.0	0.4	0.4	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	781	196	216	221	646	2,078

Note: Total includes other modern methods with too few users to show separately

RHSC = Reproductive Health Service Centre

MCH = Maternal and Child Health

As expected, government sources supply a larger proportion of users of long-term methods such as female sterilization, IUDs, and injectables, as compared to users of pills and especially condoms. For example, almost three in four women who are sterilized obtained the operation at a government facility, mostly government hospitals and RHSCs. On the other hand, almost six in ten women who rely on condoms say the method is obtained from private or other sources, mostly shops and pharmacies. The public sector also plays a lead role in providing IUDs (52 percent) and injectables (51 percent). Lady Health Workers serve as the source for more than one-quarter of pill users and more than 10 percent of users of injectables and condoms.

5.8 COST OF CONTRACEPTIVE METHODS

Table 5.10 reflects the percentage of current users of modern contraceptive methods who received the method for free and the median cost for those who paid and could report a cost. According to the table, almost one-third (32 percent) of users of modern contraceptive methods do not pay for the method. As expected, women who get their family planning methods from public (government) sources are far more likely to get them for free (58 percent) than those who use private sources (8 percent).

As far as specific contraceptive methods are concerned, more than half of female sterilization clients (59 percent) reported that it was free of cost. Thirty percent of pill users, 15 percent of IUD users, 14 percent of condom users, and 13 percent of injectable users reported getting their methods free of charge. Among those who paid, the median cost for specific methods is Rs. 9,972/- for sterilization, Rs. 12/- for one cycle of pills, Rs. 198/- for the IUD, Rs. 46/- for the injectable, and Rs. 5/- for a package of condoms. As expected, the cost of contraceptive methods is higher when the source is private than when it is a public source.

Table 5.10 Cost of modern contraceptive methods						
Percentage of current users of modern contraception age 15-49 who did not pay for the method and who do not know the cost of the method and the median cost of the method, by current method, according to source of current method, Pakistan 2006-07						
Source of method/cost	Female sterilization	Pill	IUD	Injectables	Condom	Total
Public sector						
Percentage free	72.4	51.7	22.4	21.1	70.6	58.3
Do not know cost	6.8	14.3	5.9	5.1	14.4	8.1
Median cost (in rupees) ¹	7,992	(6)	114	38	*	49
Number of women	565	91	113	113	109	1,002
Private medical sector/other						
Percentage free	23.2	11.7	7.2	4.7	2.3	8.2
Do not know cost	18.8	35.4	4.2	11.1	70.0	43.8
Median cost (in rupees) ¹	9,973	20	294	71	4	64
Number of women	216	106	103	108	537	1,076
Total						
Percentage free	58.8	30.1	15.1	13.1	13.8	32.4
Do not know cost	10.1	25.7	5.1	8.0	60.6	26.6
Median cost (in rupees) ¹	9,972	12	198	46	5	54
Number of women	781	196	216	221	646	2,078
Note: Costs are based on the last time current users obtained method. Costs include consultation costs, if any. For condoms, costs are per package; for pills, per cycle. For sterilization, data are based on women who received the operation in the 5 years before the survey. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.						
¹ Median cost is based only on those women who reported a cost.						

5.9 INFORMED CHOICE

Current users of modern methods who are informed about the side effects and problems associated with methods and know of a range of method options are better placed to make an informed choice about the method they would like to use. Current users of various modern contraceptive methods who started the last episode of use within the five years preceding the survey were asked whether, at the time they were adopting the particular method, they were informed about side effects or problems that they might have with the method and what to do if they experienced side effects or if they were informed about other methods that they could use.

Table 5.11 shows that 33 percent of modern method users were informed about the side effects or problems of the method and 29 percent were informed about what to do if they experienced side effects. Thirty-eight percent of users were informed of other methods available. The results indicate that IUD users are more likely than users of other methods to be informed about side effects, what to do if they experience side effects, and about other methods available. These data imply that there is considerable room for improvement in terms of providing women with information about family planning methods.

With regard to the source of supply, users who obtain their methods from Lady Health Workers are more likely to be informed about side effects and other methods than users who obtain their methods from other sources. In general, differences between public sector and private sector sources are minimal.

Table 5.11 Informed choice

Among current users of modern methods age 15-49 who started the last episode of use within the five years preceding the survey, percentage who were informed about possible side effects or problems of that method, the percentage who were informed about what to do if they experienced side effects, and the percentage who were informed about other methods that they could use, by method and source, Pakistan 2006-07

Method/source	Among women who started last episode of modern contraceptive method within five years preceding the survey:			Number of women
	Percentage who were informed about side effects or problems of method used	Percentage who were informed about what to do if experienced side effects	Percentage who were informed of other methods that could be used	
Method				
Female sterilization	26.4	23.8	29.5	344
Pill	33.2	26.5	44.1	151
IUD	50.6	47.5	46.6	178
Injectables	30.5	23.7	37.8	197
Total ¹	33.4	29.1	37.7	881
Source of method²				
Public sector	32.5	28.0	38.4	503
Government hospital/RHSC	28.4	24.9	32.3	314
Family welfare centre	(35.4)	(27.5)	(37.6)	29
Lady Health Worker	47.1	40.4	53.2	91
Other public	(31.5)	(27.3)	(53.4)	47
Private medical sector	36.1	32.1	36.8	315
Private/NGO hospital/clinic	35.7	31.5	53.2	52
Pharmacy/chemists	38.2	35.7	36.5	211
Private doctor	(25.4)	(15.3)	(24.1)	32
Other private	(26.8)	(24.3)	(29.4)	34

Note: Table excludes users who obtained their method from friends/relatives. Figures in parentheses are based on 25-49 unweighted cases.

RHSC = Reproductive Health Service Centre

¹ Includes users of implants

² Most recent source; totals include sources with too few users to show separately.

5.10 FUTURE USE OF CONTRACEPTION

An important indicator of the changing demand for family planning is the extent to which nonusers of contraception plan to use family planning in the future. In the PDHS, currently married women age 15-49 who were not using a contraceptive method were asked about their intention to use family planning in the future. The results are presented in Table 5.12.

Fifty percent of currently married nonusers say that they intend to use family planning in the future, while 43 percent do not intend to use, and 7 percent are unsure. The proportion who intend to use varies with the number of living children, increasing from 48 percent among those with no children to a peak for those with one child (58 percent) and then declining to 45 percent among those with four or more children.

Intention	Number of living children ¹					Total
	0	1	2	3	4+	
Intends to use	48.0	58.0	54.7	51.3	44.9	49.9
Unsure	14.7	8.4	4.9	6.6	4.6	7.0
Does not intend to use	37.0	33.2	39.9	41.9	50.1	42.8
Missing	0.3	0.3	0.5	0.2	0.4	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	940	1,129	1,058	900	2,701	6,727

¹ Includes current pregnancy

5.11 REASONS FOR NOT INTENDING TO USE

As mentioned above, the majority of married Pakistani women are not using contraception. Consequently, the reasons why they are not using family planning methods is of great interest. Table 5.13 presents the distribution of currently married nonusers who do not intend to use a contraceptive method in the future by the main reason why they do not intend to use.

The data show that fertility-related reasons (58 percent), opposition to use (23 percent), and method-related reasons (12 percent) were mainly cited. The most common single reasons for not intending to use are “up to God” (28 percent), “infertile/can’t get pregnant” (15 percent), and “husband opposed” (10 percent). Only 8 percent of nonusers say they do not intend to use because they are opposed to contraception and only 5 percent cite religious reasons for nonuse.

Table 5.13 Reason for not intending to use contraception in the future

Percent distribution of currently married women age 15-49 who are not using contraception and who do not intend to use in the future, by main reason for not intending to use, Pakistan 2006-07

Reason	Percentage
Fertility-related reasons	
Infrequent sex/no sex	4.2
Menopausal/had hysterectomy	6.0
Infertile/can't get pregnant	14.5
No menstruation since birth	0.9
Breastfeeding	1.5
Up to God	28.4
Wants more children	2.9
Method-related reasons	
Health concerns	3.6
Fear of side effects	5.4
Costs too much	0.8
Inconvenient to use	0.3
Interferes with body's normal process	2.0
Opposition to use	
Respondent opposed	7.7
Husband opposed	9.9
Others opposed	0.4
Religious prohibition	5.0
Lack of knowledge	
Knows no method	2.2
Knows no source	0.8
Other	0.9
Don't know	2.2
Missing	0.4
Total	100.0
Number of women	2,876

5.12 EXPOSURE TO FAMILY PLANNING MESSAGES

For some time, the Population Welfare Programme has been using the electronic media to inform the population about family planning issues. Information on the level of public exposure to a particular type of media allows policymakers to assess the most effective media for various target groups in the population. To gauge the effectiveness of such media on the dissemination of family planning information, the 2006-07 PDHS asked respondents whether they had heard or seen a family planning message on the radio or television in the month preceding the interview.

Table 5.14 shows that 56 percent of currently married women 15-49 have not been exposed to a family planning message through either radio or television. Eleven percent of women heard a family planning message on the radio and 41 percent saw a message on the television.

The youngest and oldest women are least likely to have heard or seen family planning messages on the radio or television. Although there is little difference by residence in exposure to family planning messages on the radio, there are large differences for television messages; 58 percent of urban women saw a family planning message on television in the month before the survey compared with only 33 percent of rural women. Variation by province in exposure to family planning messages is very large; 87 percent of married women in Balochistan did not hear or see a family planning message in the media compared with only 49 percent of women in Punjab. Exposure to family planning messages through the media—especially through television—increases with the level of education and with wealth.

Table 5.14 Exposure to family planning messages

Percentage of currently married women age 15-49 who heard or saw a family planning message on the radio or television in the month preceding the survey, according to background characteristics, Pakistan 2006-07

Background characteristic	Radio	Television	Neither of these media sources	Number
Age				
15-19	8.3	30.1	66.9	559
20-24	12.5	43.6	53.6	1,463
25-29	11.8	44.6	52.7	1,965
30-34	9.7	41.1	56.7	1,729
35-39	10.1	40.5	57.1	1,565
40-44	11.3	43.0	55.4	1,208
45-49	10.5	37.2	60.2	1,067
Residence				
Total urban	10.2	57.9	41.2	3,191
Major city	8.6	61.0	38.2	1,815
Other urban	12.4	53.7	45.2	1,376
Rural	11.1	33.0	63.9	6,365
Province				
Punjab	12.1	48.5	49.2	5,495
Sindh	10.4	36.5	61.1	2,317
NWFP	8.5	29.7	67.4	1,301
Balochistan	4.0	11.1	87.4	443
Education				
No education	9.3	29.8	67.6	6,165
Primary	14.2	54.0	42.9	1,371
Middle	13.8	62.4	35.5	609
Secondary	11.0	67.4	31.2	785
Higher	15.3	73.2	26.2	626
Wealth quintile				
Lowest	5.9	7.3	88.9	1,847
Second	10.1	25.3	71.2	1,897
Middle	13.3	44.2	52.7	1,846
Fourth	12.4	55.8	42.9	1,957
Highest	12.3	70.8	28.7	2,009
Total 15-49	10.8	41.3	56.3	9,556

Table 5.15 shows information about the messages conveyed over the media. A majority of the respondents who heard or saw a family planning message in the month preceding the interview said that the message was about limiting the size of the family (55 percent), 48 percent said the message promoted use of contraceptives, and 42 percent said the message concerned birth spacing.

The vast majority of those who were exposed to a family planning message (84 percent) said that the messages were effective. Only 7 percent of respondents considered the messages to be ineffective.

Table 5.15 Family planning messages

Among currently married women age 15-49 who heard or saw a family planning message on radio or television in the month preceding the survey, percentage who cite specific messages conveyed and percent distribution by effectiveness, Pakistan 2006-07

Message/effectiveness	Percentage
Type of message	
Limiting the family	55.3
Higher age at marriage	6.7
Spacing of children	42.3
Use of contraceptives	48.0
Welfare of family	20.7
Maternal and child health	15.8
Fewer children means prosperous life	10.0
More children means poverty and starvation	5.1
Importance of breastfeeding	1.9
Other	0.6
Effectiveness of message	
Effective	84.1
Not effective	6.8
Don't know	9.0
Missing	0.1
Total	100.0
Number	4,176

5.13 CONTACT OF NONUSERS WITH FAMILY PLANNING PROVIDERS

In the 2006-07 PDHS, married women who were not using any family planning method were asked if they had been visited by a fieldworker or a Lady Health Worker who talked to them about family planning in the 12 months preceding the survey. This information is especially useful for determining if nonusers of family planning are being reached by family planning programmes.

The results show that less than one-quarter (23 percent) of nonusers are being reached by fieldworkers to discuss family planning issues (Table 5.16). Only 9 percent of these women received information on family planning, 3 percent received family planning supplies, 2 percent received a referral to a health facility, 2 percent received treatment for side effects, and 1 percent received other assistance from fieldworkers or Lady Health Workers in the previous 12 months.

Differentials by background characteristics are generally not large. Married nonusers age 15-19, women living in major cities or in Balochistan, and women in the lowest wealth quintile are less likely than other nonusers to have been visited by a fieldworker or Lady Health Worker in the 12 months before the survey.

Table 5.16 Contact of nonusers with family planning providers

Among currently married women age 15-49 who are not using contraception, the percentage who were visited in the 12 months preceding the survey by a fieldworker or Lady Health Worker (LHW) who discussed family planning, and the percentage who were visited and received specific services, by background characteristics, Pakistan 2006-07

Background characteristic	Percentage of women who were visited by fieldworker or LHW who discussed family planning	Percentage of women who were visited by a fieldworker or LHW in the past 12 months and who received:					Number of currently married women not using contraception
		Information	FP supplies	Referral to facility	Treatment of side effects	Other	
Age							
15-19	17.9	5.6	0.2	1.8	0.2	1.0	521
20-24	23.7	10.3	2.2	1.5	2.8	1.1	1,238
25-29	22.7	8.4	3.9	1.3	1.3	1.0	1,478
30-34	24.5	11.1	4.1	3.4	0.4	0.9	1,113
35-39	25.7	9.8	4.0	2.6	1.7	1.0	940
40-44	20.7	5.4	1.8	1.6	2.3	1.2	705
45-49	25.4	7.0	2.4	1.3	0.9	1.6	732
Residence							
Total urban	21.9	8.1	2.7	1.8	1.1	1.4	1,881
Major city	11.5	4.1	1.9	1.0	0.8	1.0	982
Other urban	33.2	12.4	3.6	2.7	1.4	1.9	898
Rural	23.9	9.0	3.1	2.0	1.6	1.0	4,846
Province							
Punjab	23.0	6.6	2.9	1.2	2.0	1.7	3,671
Sindh	25.3	14.8	2.6	0.8	0.8	0.5	1,699
NWFP	24.0	7.4	5.0	7.4	0.6	0.2	978
Balochistan	16.2	5.1	0.2	0.2	0.9	0.0	379
Education							
No education	21.5	7.9	2.3	1.5	1.0	0.7	4,608
Primary	29.5	10.9	6.0	2.9	3.4	1.1	899
Middle	27.2	12.1	1.6	1.6	4.7	3.8	382
Secondary	28.9	10.2	4.9	3.0	1.1	2.3	478
Higher	19.7	8.5	2.6	3.8	0.0	1.0	360
Wealth quintile							
Lowest	14.6	7.1	1.7	0.9	0.5	0.9	1,559
Second	23.4	10.6	3.0	1.3	1.6	0.1	1,502
Middle	28.3	10.1	3.6	2.8	1.9	1.7	1,291
Fourth	30.7	9.6	4.0	3.1	2.1	1.4	1,238
Highest	21.4	5.9	2.8	1.9	1.3	1.6	1,137
Total	23.3	8.7	3.0	1.9	1.5	1.1	6,727

OTHER DETERMINANTS OF FERTILITY

Mehboob Sultan and Mubashir Baqai

The levels and trends in fertility are influenced by various physiological, cultural, social, economic, behavioural, demographic, and ecological factors. Research shows that fertility levels in most populations can be explained by some key proximate determinants that define the risk of becoming pregnant. These determinants are marriage, postpartum amenorrhoea, abstinence from sexual relations, and onset of menopause. This chapter addresses the principal factors other than contraception that affect a woman's risk of becoming pregnant. In Pakistani society, where sexual activity usually takes place within marriage, marriage signals the onset of a woman's exposure to the risk of childbearing; postpartum amenorrhoea and sexual abstinence affect the duration of a woman's insusceptibility to pregnancy, which in turn affects birth spacing; and the onset of menopause marks the end of a woman's reproductive life. These variables taken together determine the length and pace of a woman's reproductive life and are, therefore, important for understanding fertility dimensions.

6.1 MARITAL STATUS

In Pakistan, marriage is a social and religious obligation. The length of time women are exposed to the risk of childbearing affects the number of children women potentially can bear. Thus, an increase in the age at marriage can play a vital role in reducing fertility levels, because it reduces the period of exposure to childbearing.

Table 6.1 shows the distribution of women of reproductive age by marital status. The category "married" refers to those who are currently married, while those who are divorced, separated, or widowed are referred to as "formerly married." The combined categories of currently married and formerly married gives the proportion "ever married."

Age	Marital status					Total	Number of women
	Never married	Married	Divorced	Separated	Widowed		
15-19	84.0	15.7	0.1	0.2	0.0	100.0	3,551
20-24	52.0	46.9	0.3	0.6	0.2	100.0	3,123
25-29	19.8	78.6	0.4	0.9	0.4	100.0	2,500
30-34	6.8	90.3	0.5	0.7	1.8	100.0	1,916
35-39	3.0	91.8	0.3	1.0	3.9	100.0	1,705
40-44	3.1	90.0	0.5	0.8	5.7	100.0	1,343
45-49	1.4	87.2	0.8	0.8	9.8	100.0	1,225
Total 15-49	34.8	62.2	0.3	0.6	2.1	100.0	15,362

Table 6.1 shows that 62 percent of women of childbearing age are currently married, one-third (35 percent) are never married and the remaining 3 percent are divorced, separated, or widowed. The proportion of women never married decreases with age. The low proportion of 1 percent of women of age group 45-49 who have never been married indicates that marriage is still a common phenomenon in Pakistan. Once marriages are consummated they remain stable. Divorce and separation are socially discouraged, and hence are uncommon (1 percent). Although teenage marriages are on the decline, one of six women age 15-19 is already married. By age 25-29, 80 percent of women of reproductive age have ever married.

It should be noted that the 2006-07 Pakistan Demographic and Health Survey (PDHS) and all preceding surveys undertaken by the National Institute of Population Studies (NIPS) considered the age at marriage as the date the marriage was consummated. In Pakistan, as in other neighbouring countries, the contract of marriage is sometimes finalized months or years before the time the husband and wife actually start living together. The ceremony in which the contract of marriage is signed is called *Nikah*, whereas the subsequent ceremony after which the bride and the bridegroom start living together is called *Rukhsati*. Because the interest in marriage in the survey is mainly as it affects exposure to the risk of pregnancy, interviewers were instructed to ask the questions about marriage not in the sense of formal marriage, but as cohabitation.

6.2 POLYGyny

Polygyny is legal in Pakistan. However, according to the Muslim Family Laws Ordinance promulgated in 1961, the husband needs to obtain written permission from his first wife if he wants to marry a second wife. Table 6.2 shows that 1 in 15 currently married women (7 percent) reported that their husbands have other wives. The prevalence of polygynous marriages has increased by over 2 percentage points since the 1990-91 PDHS. Surprisingly, the highest proportion of women in polygynous marriages is found in the age group 15-19, which appears to be a recent phenomenon. Among women in age groups 20-49, the prevalence of polygynous marriages increases slightly with age. Polygynous marriages are almost twice as common in Balochistan (11 percent) than in Punjab (6 percent). Women with no or low education and those who are poor are more likely to live in polygynous marriages.

Table 6.2 also shows that around 12 percent of married women reported that their husbands were not staying with them at the time of interview. Husbands from rural areas and NWFP are more likely to be living away from their families than husbands in other areas, most probably in order to earn their livelihoods.

6.3 CONSANGUINITY

Pakistan has one of the highest reported rates of consanguineous marriages in the world. Table 6.3 provides data on marriages between relatives reported in the 2006-07 PDHS. The results show that more than half of all marriages (61 percent) are between first and second cousins. First-cousin marriages are more common on the father's side (32 percent) but also occur between first cousins on the mother's side (21 percent). Eight percent of marriages are between second cousins, 7 percent are between other relatives, and one-third are between non-relatives. There is some evidence that cousin marriage may affect both fertility and the health of children.

Differences in marriage patterns are visible by urban-rural residence. First-cousin marriages are most common in rural areas (57 percent) and are less common in major cities where about 40 percent of marriages are between first cousins.

Table 6.2 Cohabitation and polygyny

Percentage of currently married women age 15-49 whose husbands are staying elsewhere and whose husbands have other wives, according to background characteristics, Pakistan 2006-07

Background characteristic	Percentage staying elsewhere	Percentage in polygynous union	Number of women
Age			
15-19	12.9	8.6	559
20-24	13.4	5.4	1,463
25-29	12.4	6.4	1,965
30-34	12.0	6.4	1,729
35-39	12.2	7.3	1,565
40-44	10.1	7.5	1,208
45-49	8.6	7.7	1,067
Residence			
Total urban	7.2	6.4	3,191
Major city	5.7	6.3	1,815
Other urban	9.1	6.4	1,376
Rural	14.1	7.0	6,365
Province			
Punjab	12.1	5.6	5,495
Sindh	6.8	8.2	2,317
NWFP	22.6	7.9	1,301
Balochistan	2.2	10.5	443
Education			
No education	11.2	7.7	6,165
Primary	13.4	5.8	1,371
Middle	12.4	5.0	609
Secondary	12.9	4.7	785
Higher	12.2	5.0	626
Wealth quintile			
Lowest	9.1	8.5	1,847
Second	13.2	7.3	1,897
Middle	13.8	7.9	1,846
Fourth	12.3	5.2	1,957
Highest	10.5	5.4	2,009
Total	11.8	6.8	9,556

Sindh has the highest proportion of marriages among first cousins (56 percent), followed by Punjab (53 percent), Balochistan (52 percent), and NWFP (43 percent). As expected, first-cousin marriages are less common among educated women than among women with no education. Among women with more than secondary education, the proportion marrying first cousins falls to below 40 percent. The association with education is more distinct in marriages between non-related spouses. For example, 52 percent of women with more than secondary schooling marry spouses who are not related compared with only 29 percent of women with no education. Similarly, consanguineous marriages are more common among poor women than women who are in upper wealth quintiles.

Background characteristic	First cousin		Second cousin	Other relation	Not related	Total	Number of women
	Father's side	Mother's side					
Age							
15-19	36.3	25.9	10.1	5.0	22.7	100.0	569
20-24	35.3	20.3	8.1	5.8	30.5	100.0	1,499
25-29	30.0	23.1	6.9	8.3	31.7	100.0	2,006
30-34	29.8	20.0	8.0	6.2	36.0	100.0	1,786
35-39	30.1	19.7	9.6	6.5	34.0	100.0	1,654
40-44	31.6	17.8	8.2	6.0	36.2	100.0	1,301
45-49	31.8	21.5	6.9	5.8	34.0	100.0	1,208
Age at marriage							
< 15	33.1	18.3	8.7	6.7	33.1	100.0	1,495
15	34.0	21.4	7.0	7.1	30.4	100.0	969
16-17	33.8	22.6	10.0	6.4	27.3	100.0	2,211
18-19	32.4	21.6	7.2	7.2	31.6	100.0	1,997
20-21	30.4	22.1	8.0	6.5	33.0	100.0	1,364
22-23	27.8	20.9	6.8	6.8	37.6	100.0	810
24+	26.0	17.7	6.9	4.3	45.1	100.0	1,178
Residence							
Total urban	24.5	18.5	8.0	6.5	42.4	100.0	3,350
Major city	21.1	18.8	7.2	6.0	46.9	100.0	1,898
Other urban	29.0	18.2	9.1	7.1	36.6	100.0	1,452
Rural	35.1	22.0	8.1	6.5	28.3	100.0	6,673
Province							
Punjab	30.0	23.1	7.6	7.1	32.2	100.0	5,800
Sindh	37.4	19.0	7.8	5.6	30.1	100.0	2,410
NWFP	27.7	14.9	8.5	5.6	43.1	100.0	1,351
Balochistan	31.9	20.1	13.5	6.3	28.1	100.0	462
Education							
No education	34.8	21.3	8.1	6.5	29.2	100.0	6,511
Primary	29.1	21.4	8.1	6.8	34.5	100.0	1,423
Middle	26.6	19.1	9.3	6.1	39.0	100.0	634
Secondary	22.8	20.7	8.4	6.7	41.4	100.0	809
Higher	20.4	16.8	5.6	5.7	51.5	100.0	646
Wealth quintile							
Lowest	40.2	24.1	7.1	6.1	22.4	100.0	1,944
Second	35.9	19.9	8.7	6.2	29.2	100.0	2,001
Middle	30.1	21.1	8.1	7.8	32.9	100.0	1,944
Fourth	28.0	19.8	8.4	6.1	37.7	100.0	2,055
Highest	24.1	19.6	7.9	6.3	42.1	100.0	2,078
Total	31.5	20.9	8.1	6.5	33.0	100.0	10,023

6.4 AGE AT FIRST MARRIAGE

In Pakistan, marriage defines the onset of the socially acceptable time for childbearing. Women who marry early will have, on average, a longer period of exposure to pregnancy that often leads to a higher number of children ever born. The minimum legal age at marriage in Pakistan is 18 years for males and 16 years for females. As mentioned earlier, two terms are important in this respect: Nikah and Rukhsati. Nikah means that a girl is legally married, but that she may or may not have yet started living with her husband. Rukhsati is the ceremony when the bride goes to her husband's house and thereafter husband and wife start living together. Women are considered to be exposed to the risk of pregnancy only after the Rukhsati. Interviewers in this survey were instructed to probe to differentiate the Nikah from the Rukhsati. Thus, in the following discussion, marriage refers to Rukhsati rather than Nikah.

Table 6.4 shows the percentage of women who have married by specific ages and the median age at first marriage, according to their current age. The data show that more than half of women in Pakistan marry by age 20 and over one-third marry by age 18. Around 12 to 13 percent of women enter marriage before their 15th birthday.

However, the data imply that median age at first marriage has been increasing over time. The median age at first marriage increases from under 19 years for women age 45-49 to over 20 years for those age 25-29. The proportion of women marrying before age 15 has declined over time, from 15 percent among women in the oldest cohort to 7 percent among women age 20-24. Another indication of increasing age at first marriage is that the singulate mean age at marriage has increased from 21.7 in 1990-91 to 23.1 in 2006-07 (data not shown).

Current age	Percentage first married by exact age:					Percentage never married	Number	Median age at first marriage
	15	18	20	22	25			
15-19	3.5	na	na	na	na	84.0	3,551	a
20-24	6.7	24.0	35.7	na	na	52.0	3,123	a
25-29	10.7	31.3	48.0	59.6	73.3	19.8	2,500	20.3
30-34	13.9	41.7	57.8	69.9	82.6	6.8	1,916	18.9
35-39	14.7	44.2	63.5	76.0	87.0	3.0	1,705	18.5
40-44	14.7	41.4	60.8	74.6	85.4	3.1	1,343	18.8
45-49	14.6	44.2	63.9	77.3	88.9	1.4	1,225	18.5
20-49	11.6	35.4	51.7	na	na	20.0	11,811	19.8
25-49	13.4	39.5	57.4	69.9	82.1	8.4	8,689	19.1

Note: The age at first marriage is defined as the age at which the respondent began living with her first husband.
na = Not applicable due to censoring
a = Omitted because less than 50 percent of the women married for the first time before reaching the beginning of the age group

Table 6.5 shows the median age at first marriage for women age 25-49 by background characteristics. Urban women tend to marry about one year later than their rural counterparts. The difference is larger for younger age cohorts, which suggests that for older women, marriage at a younger age was a common phenomenon both in urban and rural areas. The variation in median age at marriage by province is not large; however, women in Sindh and NWFP generally enter into marriage earlier than women in the other two provinces. The difference in median age at marriage between Punjab and Sindh provinces has been widening over time; there is almost a two-year difference among women age 25-29 and 30-34 but smaller differences among older women. Similarly, large variations exist in median age at first marriage on the basis of educational levels and wealth quintiles. For example, the median age at first marriage is 18 years among women with no education; however, it is almost 25 years among women with more than secondary schooling.

Table 6.5 Median age at first marriage

Median age at first marriage among women age 25-49, by five-year age groups, according to background characteristics, Pakistan 2006-07

Background characteristic	Age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Total urban	21.6	20.2	18.5	19.1	18.6	19.7
Major city	22.1	20.7	18.5	19.3	18.7	20.0
Other urban	21.0	19.8	18.6	18.7	18.5	19.4
Rural	19.6	18.4	18.5	18.7	18.5	18.8
Province						
Punjab	21.0	19.6	19.0	19.1	18.8	19.6
Sindh	19.2	17.8	17.7	18.0	17.3	18.1
NWFP	19.9	18.5	17.9	18.7	19.1	18.7
Balochistan	20.1	18.6	18.8	18.9	19.5	19.3
Education						
No education	18.7	17.9	18.1	18.3	18.2	18.2
Primary	19.8	18.5	18.8	19.2	18.9	19.1
Middle	21.3	21.0	17.9	19.1	18.6	19.8
Secondary	22.0	21.0	20.0	20.3	20.6	21.1
Higher	a	24.2	22.2	24.1	24.2	24.5
Wealth quintile						
Lowest	18.1	17.0	18.1	17.3	17.9	17.7
Second	19.0	18.5	18.5	18.7	17.9	18.7
Middle	20.4	18.4	18.4	19.1	18.7	18.9
Fourth	21.0	19.2	18.5	18.7	18.6	19.2
Highest	22.7	21.8	19.0	19.6	19.0	20.7
Total	20.3	18.9	18.5	18.8	18.5	19.1

Note: The age at first marriage is defined as the age at which the respondent began living with her first husband

a = Omitted because less than 50 percent of the women married for the first time before reaching the beginning of the age group

The median age at marriage has increased slightly since 1990-91, from 18.6 to 19.1 among women age 25-49.

6.5 POSTPARTUM AMENORRHOEA, ABSTINENCE, AND INSUSCEPTIBILITY

Postpartum amenorrhoea is defined as the period between childbirth and the resumption of menstruation after childbirth, which generally approximates the return of ovulation. This period is largely determined by the duration and intensity of breastfeeding. The risk of conception in this period is very low. The duration of postpartum amenorrhoea and sexual abstinence after birth jointly determines the length of the insusceptibility period. Thus, women are considered insusceptible if they are either abstaining from sex after childbirth or are amenorrhoeic.

In the 2006-07 PDHS, women who gave birth in the five years preceding the survey were asked about the duration of amenorrhoea and sexual abstinence after each birth. The results are presented in Table 6.6 for the three years before the survey.

The results show that almost all women (93 percent) are insusceptible to pregnancy within the first two months after childbirth due to amenorrhoea and abstinence. However, after the second month, the proportions of women who are amenorrhoeic, and especially those who are abstaining, fall sharply. At six to seven months after birth, 30 percent of women are still amenorrhoeic, but only 14 percent are abstaining. Thus, the principal determinant of the length of the period of insusceptibility is postpartum amenorrhoea.

Table 6.6 Postpartum amenorrhoea, abstinence, and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrhoeic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Pakistan 2006-07

Months since birth	Percentage of births for which the mother is:			Number of births
	Amenorrhoeic	Abstaining	Insusceptible ¹	
< 2	85.0	84.3	93.4	298
2-3	59.5	30.1	66.5	399
4-5	42.1	14.7	49.4	340
6-7	30.2	14.3	35.8	331
8-9	23.9	10.4	31.1	291
10-11	26.0	4.5	28.2	272
12-13	13.5	5.7	17.8	373
14-15	13.5	2.9	15.6	327
16-17	7.4	4.8	12.1	301
18-19	7.4	1.8	9.0	240
20-21	7.8	4.7	10.8	194
22-23	2.2	1.5	3.7	228
24-25	2.8	2.9	5.5	390
26-27	1.9	3.1	5.0	338
28-29	3.4	5.0	7.3	296
30-31	0.7	1.9	2.2	294
32-33	1.8	4.7	6.1	253
34-35	0.5	4.3	4.8	238
Total	19.7	11.8	24.0	5,401
Median	3.9	2.1	4.8	na
Mean	6.9	4.4	8.4	na

Note: Estimates are based on status at the time of the survey.
na = Not applicable
¹ Includes births for which mothers are either still amenorrhoeic or still abstaining (or both) after birth

Overall, the median duration of amenorrhoea is 3.9 months, abstinence is 2.1 months, and insusceptibility is 4.8 months. The duration of abstinence has remained constant since 1990-91, most probably because of the Muslim tradition of abstaining for 40 days after birth. However, the median period of amenorrhoea has declined by more than 2 months since 1990-91 (NIPS and Macro, 1992).

Table 6.7 shows the median durations of postpartum amenorrhoea, abstinence, and insusceptibility by background characteristics of the respondents. The median duration of abstinence in Pakistan does not vary much by background characteristics; therefore, insusceptibility varies directly according to duration of amenorrhoea. Older women (age 30-49) have a slightly longer median period of insusceptibility than those aged 15-29. Women living in rural areas also have a longer median duration of amenorrhoea and hence a longer period of insusceptibility than urban women. The median duration of postpartum amenorrhoea generally declines as the wealth status increases. The poorest women have the longest duration of amenorrhoea and insusceptibility but have a shorter duration of abstinence.

While the start of infecundity is difficult to determine for an individual woman, there are ways of estimating it for a given population. One indicator of infecundity is the onset of menopause. Menopausal women are defined by the PDHS as women who are neither pregnant nor postpartum amenorrhoeic but who have not had a menstrual period in the six months before the survey.

Table 6.7 Median duration of postpartum amenorrhoea, abstinence, and insusceptibility

Median number of months of postpartum amenorrhoea, postpartum abstinence, and postpartum insusceptibility, after birth in the three years preceding the survey, by background characteristics, Pakistan 2006-07

Background characteristic	Postpartum amenorrhoea	Postpartum abstinence	Postpartum insusceptibility ¹
Mother's age			
15-29	3.7	2.1	4.5
30-49	4.3	2.2	5.7
Residence			
Total urban	3.1	2.1	4.1
Major city	3.5	2.2	(4.2)
Other urban	2.7	2.0	3.9
Rural	4.2	2.1	5.1
Province			
Punjab	4.0	2.3	5.0
Sindh	4.2	1.8	4.7
NWFP	4.5	2.2	5.9
Balochistan	*	*	*
Education			
No education	4.4	2.0	5.5
Primary	(3.6)	(2.2)	4.2
Middle	*	*	*
Secondary	(2.4)	(2.2)	(3.1)
Higher	*	*	*
Wealth quintile			
Lowest	4.9	1.7	6.5
Second	4.1	2.2	5.4
Middle	3.6	2.2	4.7
Fourth	4.0	2.3	4.4
Highest	2.8	2.3	3.9
Total	3.9	2.1	4.8

Note: Medians are based on the status at the time of the survey (current status) at two-month smoothed durations since birth. Figures in parentheses are based on fewer than 25 unweighted births in the relevant duration cell, and an asterisk represents a figure based on fewer than 25 unweighted cases that has been suppressed.

¹ Includes births for which mothers are either still amenorrhoeic or still abstaining (or both) after birth

Table 6.8 shows the percentage of women age 30-49 who are menopausal, by residence and age. Overall, 12 percent of women age 30-49 reported that they were menopausal. As expected, menopause increases with age, from only 2 percent of women 30-34 to almost half of women age 48-49.

Table 6.8 Menopause

Percentage of ever-married women age 30-49 who are menopausal, by residence and age, Pakistan 2006-07

Age	Residence									
	Total urban		Major city		Other urban		Rural		Total	
	Percentage menopausal ¹	Number of women								
30-34	1.0	623	0.6	359	1.6	264	2.0	1,163	1.7	1,786
35-39	4.4	561	3.9	319	5.1	242	3.8	1,093	4.0	1,654
40-41	12.2	244	12.0	153	12.7	92	9.8	417	10.7	661
42-43	13.1	146	19.5	92	2.2	54	9.1	278	10.5	424
44-45	25.4	199	29.6	118	19.2	81	21.6	382	22.9	581
46-47	38.8	166	43.1	106	31.4	60	35.6	267	36.9	433
48-49	52.5	136	62.0	69	42.6	67	46.6	274	48.5	410
Total	12.8	2,075	14.3	1,216	10.7	858	11.3	3,875	11.8	5,949

¹ Percentage of all women who are not pregnant and not postpartum amenorrhoeic whose last menstrual period occurred six or more months preceding the survey

Another important factor affecting the level of fertility is abortion and other pregnancy “wastage,” such as miscarriages and stillbirths. Although it is extremely difficult to get accurate information about the level of induced abortion, the 2006-07 PDHS included several questions about pregnancies that did not end in live births. Table 6.9 shows that 8 percent of ever-married women report that they had a miscarriage in the five years before the survey, about 2 percent said they had an abortion, and 3 percent reported having a stillbirth. The level of miscarriages is high and may include some induced abortions that are reported as miscarriages. Differences by background characteristics are minimal.

Table 6.9 Pregnancy terminations				
Among ever-married women, the percentage who had a miscarriage, abortion, and/or stillbirth since 2001, according to background characteristics, Pakistan 2006-07				
Background characteristic	Pregnancy terminations since January 2001			Number of women
	Percentage who had miscarriage	Percentage who had abortion	Percentage who had stillbirth	
Age				
15-29	10.4	1.5	3.7	4,074
30-49	6.5	1.6	2.2	5,949
Residence				
Total urban	8.9	2.1	2.1	3,350
Major city	8.9	2.3	1.6	1,898
Other urban	8.8	1.9	2.6	1,452
Rural	7.7	1.3	3.2	6,673
Province				
Punjab	8.4	1.5	2.6	5,800
Sindh	8.4	1.5	3.8	2,410
NWFP	7.6	2.1	2.6	1,351
Balochistan	3.3	0.9	0.9	462
Education				
No education	7.4	1.1	3.1	6,511
Primary	9.1	2.2	2.8	1,423
Middle	8.7	2.1	2.8	634
Secondary	10.2	2.7	1.7	809
Higher	9.7	2.3	0.8	646
Wealth quintile				
Lowest	7.1	1.0	3.9	1,944
Second	9.1	0.8	3.5	2,001
Middle	7.7	1.8	2.4	1,944
Fourth	8.1	1.8	2.5	2,055
Highest	8.4	2.3	1.8	2,078
Total	8.1	1.5	2.8	10,023

Syed Mubashir Ali and Faateh ud din Ahmad

The subject of future reproductive preferences is of fundamental importance for population policy and family planning programmes. Whether couples want to cease childbearing or delay the next pregnancy determines the demand for family planning. Moreover, insight into the fertility desires in a population is crucial, both for estimating potential unmet need for family planning and for predicting future fertility. This chapter presents data from the Pakistan Demographic and Health Survey (PDHS) on the fertility intentions and family size norms of Pakistani women. The extent to which contraceptive behaviour diverges from expressed fertility desires is explored. The chapter also looks at the level of unwanted and mistimed pregnancies and considers the effect on recent fertility rates if these pregnancies had been prevented.

Because fertility preferences are subjective and adhered to with varying degrees of intensity, a structured questionnaire like the one used for the 2006-07 PDHS may not fully capture the desired intentions. To know for sure about their childbearing desires, PDHS respondents were first asked if they wanted to have additional children, after which several additional questions were asked. The responses to these additional questions ascertain the validity of the responses given to the first question. A woman's fertility preference may not necessarily predict her reproductive behaviour, because childbearing decisions are not made solely by the woman but are frequently affected by the attitudes of other family members, particularly the husband and, in Pakistani society, the mother-in-law, both of whom may exert a major influence on reproductive decisions.

If a woman was pregnant at the time of survey she was asked whether she wanted to have another child after the birth of the child she was carrying. Taking into account the way in which the preference variable is defined for pregnant women, a current pregnancy is treated as being equivalent to a living child. Women who have been sterilized are classified as wanting no more children.

7.1 DESIRE FOR MORE CHILDREN

Women's preferences concerning future childbearing serve as indicators of future fertility. However, sterilized women and women who state that they are infecund (declared infecund) have no impact on future fertility because their potential contribution to fertility has been curtailed. The data on fertility preference also provide information on the potential need for contraceptive services for spacing and limiting births.

In order to obtain information on future childbearing, currently married, non-sterilized, non-pregnant women were asked: "Would you like to have (a/another) child, or would you prefer not to have any (more) children?" If the response was in the affirmative, they were asked: "How long would you like to wait from now before the birth of (a/another) child?" For currently married, non-sterilized, pregnant women, the questions were phrased a little differently: "After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?" In the case of affirmative answers, they were asked, "After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?" Responses to these questions are presented in Table 7.1 by the number of living children for all currently married women.

Table 7.1 and Figure 7.1 show that more than half of currently married women age 15-49 (52 percent) either do not want another child at any time in the future or are sterilized. More than four in ten women want to have a child at some time in the future—21 percent want one within two years,

20 percent would prefer to wait two or more years, and 2 percent are undecided as to when. Since the 1990-91 PDHS there has been a substantial increase (12 percentage points) in the proportion of married women who want to limit childbearing (from 40 to 52 percent). But there has also been a marginal increase in the desire for more children (Ali and Rakanuddin, 1992).

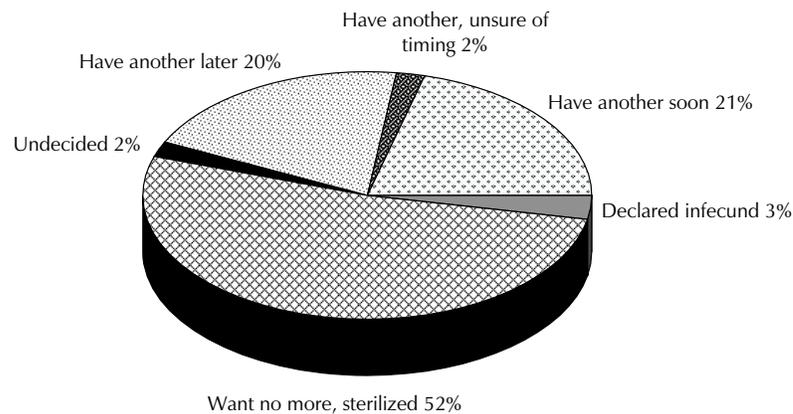
Table 7.1 Fertility preferences by number of living children

Percent distribution of currently married women age 15-49 by desire for children, according to number of living children, Pakistan 2006-07

Desire for children	Number of living children ¹							Total 15-49
	0	1	2	3	4	5	6+	
Have another soon ²	81.3	38.6	24.0	15.1	8.2	4.7	1.8	21.1
Have another later ³	5.2	49.9	39.7	22.8	13.2	5.7	3.4	19.6
Have another, undecided when	2.7	4.2	3.6	2.2	0.6	0.8	0.6	2.0
Undecided	3.0	1.6	3.6	2.9	2.2	2.6	1.7	2.4
Want no more	0.5	4.1	24.6	48.2	60.2	68.2	72.3	43.3
Sterilized ⁴	0.0	0.4	2.0	6.3	12.9	16.1	15.2	8.2
Declared infecund	7.0	1.2	2.1	2.4	2.6	2.0	4.9	3.2
Missing	0.3	0.1	0.4	0.1	0.1	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	947	1,298	1,408	1,365	1,312	1,090	2,136	9,556

¹ The number of living children includes the current pregnancy.
² Wants next birth within 2 years
³ Wants to delay next birth for 2 or more years
⁴ Includes both female and male sterilization

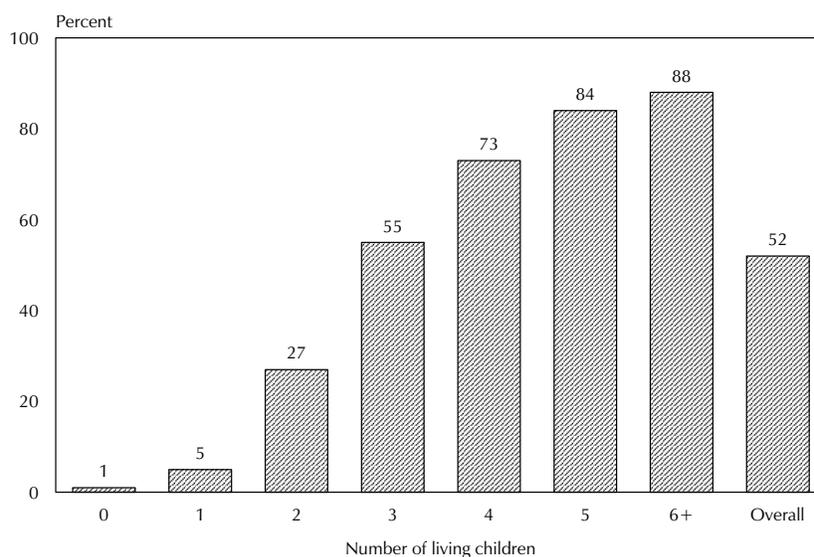
Figure 7.1 Fertility Preferences of Currently Married Women Age 15-49



PDHS 2006-07

The desire for terminating childbearing is strongly associated with the number of children that a woman already has. The desire to stop childbearing (including those women who are sterilized) increases with the number of living children (Figure 7.2), reaching 55 percent among women with three living children and 88 percent among those with six or more children. For women who want to have another child, a reverse relationship emerges; that is, the proportion of women who want to have another child soon or later decreases with the number of living children.

Figure 7.2 Desire to Limit Childbearing among Currently Married Women, by Number of Living Children



PDHS 2006-07

Table 7.2 shows the percentage of currently married women who want no more children (including those women who are sterilized), by the number of children and background characteristics (including residence, province, education, and wealth index).

Background characteristic	Number of living children ¹							Total
	0	1	2	3	4	5	6+	
Residence								
Total urban	0.7	7.5	31.9	65.9	82.9	88.7	91.7	56.9
Major city	0.1	8.5	36.1	68.4	87.3	89.9	93.4	58.8
Other urban	1.5	6.1	25.6	61.9	76.3	87.4	89.8	54.4
Rural	0.5	3.0	23.7	47.5	67.5	82.0	85.8	48.9
Province								
Punjab	0.6	5.4	29.0	57.8	78.6	89.0	89.0	54.4
Sindh	0.2	3.0	26.1	55.3	68.7	76.8	88.0	48.4
NWFP	1.1	3.3	21.3	47.0	65.9	78.8	84.9	50.0
Balochistan	0.0	5.0	12.7	20.5	40.4	61.0	78.8	36.6
Education								
No education	0.4	4.5	21.6	48.9	70.0	82.4	86.4	53.9
Primary	1.4	2.9	26.6	56.8	74.4	86.7	90.1	49.1
Middle	1.1	2.0	31.3	50.7	75.0	88.5	94.6	43.7
Secondary	0.0	5.9	37.4	65.4	86.8	93.0	97.5	50.0
Higher	0.0	8.3	34.9	72.4	82.1	(91.0)	*	43.8
Wealth quintile								
Lowest	0.6	2.6	19.0	42.1	62.9	73.7	82.3	47.0
Second	0.0	3.3	21.5	42.0	66.7	84.5	83.7	47.4
Middle	1.4	3.1	28.1	52.5	66.8	83.2	89.6	53.7
Fourth	0.6	4.3	25.7	59.3	76.0	89.5	92.4	54.1
Highest	0.2	8.0	35.4	67.7	88.3	90.8	92.4	55.3
Total	0.5	4.5	26.6	54.5	73.1	84.2	87.5	51.6

Note: Women who have been sterilized are considered to want no more children. Numbers in parentheses are based on 25-49 unweighted cases, and an asterisk represents a figure based on fewer than 25 unweighted cases that has been suppressed.

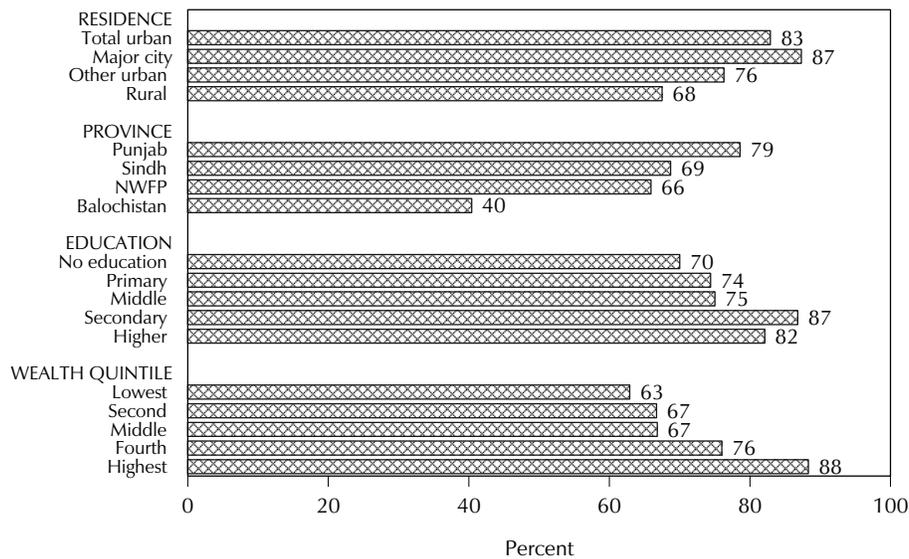
¹ The number of living children includes the current pregnancy.

The table shows that urban women are more likely than rural women to want to terminate childbearing (57 percent and 49 percent, respectively). A comparison of these statistics with the 1990-91 PDHS shows that while in urban areas the increase in the proportion of women who want to stop childbearing is negligible, a substantial increase (from 35 percent in 1990-91 to 49 percent in 2006-07) is evident in rural areas. Moreover, the results indicate that urban women express a desire to limit family size at lower parities than rural women. For example, 66 percent of urban women with three children want to stop childbearing, compared with 48 percent of rural women. The urban-rural differential in the desire to limit childbearing narrows among women with five or more children.

By province, Punjabi women are the most likely to want no more children and Balochi women are the least likely (54 percent and 37 percent, respectively). In general, differences in fertility preferences by educational attainment are not pronounced. However, at parities 3 and above, these differences are pronounced because the desire for no more children is much higher among more educated women than uneducated or less educated women (Figure 7.3).

The proportion of women wanting no more children is positively associated with the wealth index. The highest proportions of women who do not want another child are found among those in the highest wealth quintile. These differentials are more prominent among women with two to five children.

Figure 7.3 Percentage of Currently Married Women with Four Children Who Want No More Children, by Background Characteristics



PDHS 2006-07

Future fertility preferences depend not only on the total number of living children, but also on the sex composition of the children. Most couples want to have some children of both sexes; however, in Pakistan, there is a stronger preference for sons over daughters. One way to measure son preference is to examine the proportion of women who want no more children by the number of sons they already have. Because the desire to stop childbearing depends on the total number of children as well as the sex composition, the data are broken down by number of children (Table 7.3).

The results show that there is still a strong preference for sons in Pakistan. For example, among women with three children, 65 percent of those with three sons want to have no more children compared with only 14 percent of those with three daughters. Similarly, among women with five children, 85-90 percent of women with four or five sons say they want no more children compared with only 65 percent of those with no sons or only one son.

7.2 NEED FOR FAMILY PLANNING

One of the major concerns of family planning programmes and maternal health care services is to define the size of the potential demand for contraception and to identify women who are in need of contraceptive services. Table 7.4 presents estimates of unmet need and of met need for family planning services and of the total demand for family planning in Pakistan as a whole and by selected background characteristics. “Unmet need” refers to women whose last birth or current pregnancy was mistimed or unwanted or who are not currently using contraception but do not want another child soon (see footnote in Table 7.4 for the exact definition). Menopausal and infecund women are excluded from the unmet need category.¹

Women with a “met need” for family planning include women who are currently using contraception. The “total demand” for family planning is represented by the sum of unmet need and met need. Table 7.4 presents information for currently married women on unmet need, met need, and total demand for family planning according to whether the need or demand is for spacing or limiting births.

According to Table 7.4, the total unmet need is 25 percent; there is a greater need for limiting births than for spacing future births (14 percent and 11 percent, respectively). The total met need for family planning (i.e., current use) is 30 percent of currently married women; among these, a large majority are using contraception because they do not want more children, with only one in five users reporting a desire to delay the next birth for two or more years.

As expected, unmet need for spacing purposes is higher among younger women, while unmet need for limiting childbearing is higher among older women. Women living in rural areas tend to have greater unmet need than women in urban areas (26 percent and 22 percent, respectively). By region, Punjab has the lowest unmet need (23 percent) and Balochistan and NWFP have the highest (31 percent).

Table 7.3 Desire to limit childbearing by sex of living children

Percentage of currently married, non-pregnant women age 15-49 who want no more children, by number of living children and sons, Pakistan 2006-07

Number of living children and sons	Percentage who want no more children (or are sterilized)	Number of women
No children	0.5	947
One child		
No sons	3.0	422
One son	7.1	546
Two children		
No sons	6.8	266
One son	36.0	586
Two sons	33.6	323
Three children		
No sons	14.2	102
One son	48.8	383
Two sons	67.4	518
Three sons	64.5	173
Four children		
No sons	(14.6)	45
One son	59.7	241
Two sons	83.8	475
Three sons	84.7	321
Four sons	62.4	81
Five children		
No sons/one son	65.3	151
Two sons	87.1	298
Three sons	89.6	313
Four sons	89.1	179
Five sons	85.4	33
More than 5 children		
No sons/one son	76.1	135
Two sons	83.2	339
Three sons	89.2	489
Four sons	90.8	480
Five sons	90.2	332
Six or more sons	91.7	188
Total	53.6	8,364

Note: Numbers in parentheses are based on 25-49 unweighted women

¹ This definition of unmet need differs from that applied in recent surveys (see Table 7.4).

Table 7.4 Need and demand for family planning among currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by background characteristics, Pakistan 2006-07

Background characteristic	Unmet need for family planning ¹			Met need for family planning (currently using) ²			Total demand for family planning			Percentage of demand satisfied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
15-19	18.6	1.4	20.0	6.5	0.1	6.7	25.1	1.5	26.6	25.0	559
20-24	22.1	5.1	27.2	11.6	3.8	15.4	33.7	8.9	42.5	36.2	1,463
25-29	16.6	9.8	26.5	11.7	13.0	24.8	28.4	22.9	51.3	48.3	1,965
30-34	9.6	18.8	28.4	7.8	27.8	35.6	17.4	46.6	64.0	55.7	1,729
35-39	5.3	21.3	26.6	2.6	37.3	39.9	7.9	58.6	66.5	60.0	1,565
40-44	2.3	20.7	23.0	0.7	41.0	41.6	3.0	61.7	64.7	64.4	1,208
45-49	0.9	14.6	15.5	0.4	31.1	31.5	1.3	45.7	47.0	67.0	1,067
Residence											
Total urban	9.1	12.8	21.9	9.2	31.9	41.1	18.3	44.7	62.9	65.2	3,191
Major city	8.1	12.0	20.1	10.5	35.4	45.9	18.6	47.4	66.0	69.5	1,815
Other urban	10.3	13.8	24.2	7.5	27.3	34.7	17.8	41.1	58.9	58.9	1,376
Rural	11.8	14.6	26.4	5.2	18.6	23.9	17.0	33.3	50.3	47.5	6,365
Province											
Punjab	9.0	13.9	22.8	7.3	25.9	33.2	16.2	39.8	56.0	59.2	5,495
Sindh	12.3	13.1	25.4	5.9	20.8	26.7	18.2	33.9	52.1	51.2	2,317
NWFP	13.7	16.8	30.5	5.5	19.3	24.9	19.3	36.1	55.4	44.9	1,301
Balochistan	18.4	13.1	31.4	4.3	10.2	14.4	22.6	23.2	45.9	31.5	443
Education											
No education	10.6	15.8	26.4	4.1	21.2	25.3	14.6	37.0	51.6	48.9	6,165
Primary	11.8	12.8	24.5	8.9	25.5	34.4	20.7	38.2	58.9	58.4	1,371
Middle	13.4	8.5	21.9	11.2	26.0	37.2	24.6	34.6	59.2	62.9	609
Secondary	10.9	10.9	21.8	11.8	27.3	39.1	22.8	38.2	61.0	64.2	785
Higher	9.5	8.6	18.1	14.4	28.2	42.6	23.9	36.8	60.7	70.2	626
Wealth quintile											
Lowest	13.2	17.9	31.1	2.2	13.4	15.6	15.4	31.3	46.7	33.4	1,847
Second	13.0	14.5	27.4	4.5	16.4	20.8	17.4	30.8	48.2	43.1	1,897
Middle	11.7	14.9	26.5	6.2	23.9	30.1	17.8	38.8	56.6	53.1	1,846
Fourth	7.7	12.2	19.9	8.8	28.0	36.8	16.5	40.1	56.6	64.9	1,957
Highest	9.1	11.1	20.2	10.7	32.7	43.4	19.8	43.8	63.6	68.2	2,009
Total	10.9	14.0	24.9	6.5	23.1	29.6	17.4	37.1	54.5	54.3	9,556

¹ *Unmet need for spacing*: Includes women who are fecund and not using family planning and who say they want to wait two or more years for their next birth, or who say they are unsure whether they want another child, or who want another child but are unsure when to have the child. In addition, unmet need for spacing includes pregnant women whose current pregnancy was mistimed, or whose current pregnancy was unwanted but who now say they want more children. Unmet need for spacing also includes amenorrheic women whose last birth was mistimed, or whose last birth was unwanted but who now say they want more children. *Unmet need for limiting*: Includes women who are fecund and not using family planning and who say they do not want another child. In addition, unmet need for limiting includes pregnant women whose current pregnancy was unwanted but who now say they do not want more children or who are undecided whether they want another child. Unmet need for limiting also includes amenorrheic women whose last birth was unwanted but who now say they do not want more children or who are undecided whether they want another child.

² *Using for spacing* is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. *Using for limiting* is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.

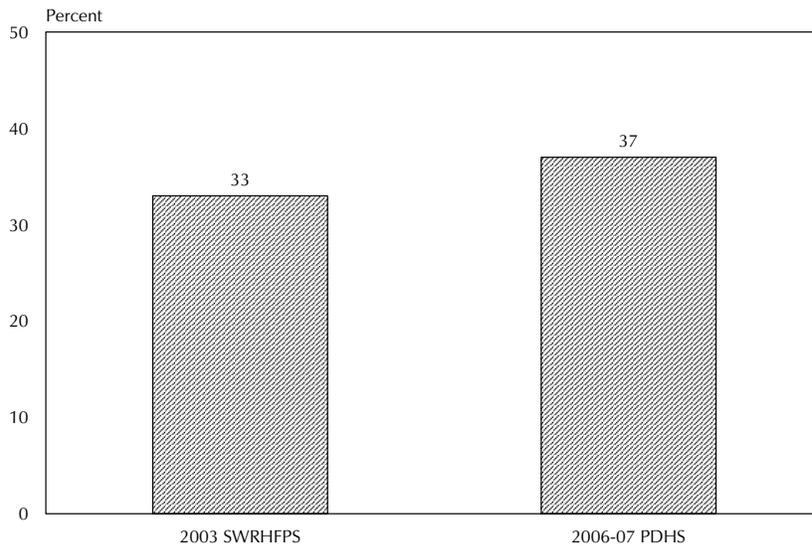
Overall, the total demand for family planning comprises 55 percent of currently married women. Nevertheless, over half of the demand for contraception is satisfied. Looking at variations in the total demand by background characteristics, demand for family planning services remains around 50-60 percent of married women in almost all subgroups; however, the percentage of those whose family planning demand is satisfied ranges from 25 percent at age 15-19 to 70 percent for those who have attained higher level of education.

Differences in the definition of unmet need hinder the analysis of trends over time. Reports for previous surveys have used a definition that excludes information on the timing of a woman's most recent menstrual period. This has the effect of increasing unmet need by not excluding women whose last menstrual period occurred six or more months before the survey or who declare themselves

to be menopausal. According to this definition, unmet need has increased from 33 percent in 2003 to 37 percent in 2006-07 (Figure 7.4).

Regardless of the exact definition of unmet need, it is clear that urgent attention of policymakers is required to minimize unmet need by transforming it into met need.

Figure 7.4 Trends in Unmet Need for Family Planning



Note: The definition of unmet need used here differs from that in Table 7.4.
SWRHFPS = Status of Women, Reproductive Health, and Family Planning Survey

7.3 IDEAL NUMBER OF CHILDREN

The discussion on fertility preferences earlier in the chapter focuses on the respondent's wishes for the future. A woman's preferences obviously are influenced by the number of children she already has. The 2006-07 PDHS attempted to obtain a measure of fertility preferences that is less dependent on the woman's current family size by asking about the respondent's ideal number of children. The question about ideal family size required a woman to perform the difficult task of considering the number of children she would choose to have in her whole life regardless of the number (if any) that she had already borne. This more abstract question proved difficult for some respondents in the survey; 10 percent gave non-numeric answers, like "up to God/Allah," and the proportion of such responses increases with the number of living children. Failure to give a definite answer suggests either an absence of conscious consideration given to the matter or a strong belief that family size is determined by God. Nevertheless, the percentage of women who did not give a numeric response to the hypothetical question on ideal family size decreased from 61 percent in the 1990-91 PDHS to 10 percent in the 2006-07 PDHS.

There is usually a high positive correlation observed between actual and ideal number of children. The reasons are two-fold. First, to the extent that women implement their preferences, those who want larger families tend to achieve larger families. Second, women may adjust their ideal number of children upwards as their actual number of children increases. It is also possible that women with large families have larger ideal sizes because of attitudes they acquired 20 or 30 years ago.

Despite the likelihood that some rationalization occurs in the determination of ideal number of children, respondents often state ideals that are lower than their actual number of surviving children. Thus, the data in Table 7.5 can be grouped into three categories. The first group is women who have reached their ideal family size, i.e., women whose ideal number of children is exactly the same as their number of living children. The second group consists of women whose surviving children have exceeded their ideal family size, and the last group consists of women who have not yet reached their ideal family size.

Ideal number of children	Number of living children ¹							Total
	0	1	2	3	4	5	6+	
0	1.6	0.6	1.2	0.6	0.9	0.9	1.1	1.0
1	0.7	2.0	0.5	0.8	0.1	0.4	0.3	0.7
2	25.6	20.2	23.5	9.6	9.1	7.1	5.1	13.4
3	14.6	19.6	17.2	27.0	8.6	8.0	6.8	14.1
4	29.8	35.5	35.1	37.0	53.3	35.5	30.5	36.4
5	8.5	6.9	6.6	7.4	8.6	21.7	9.8	9.7
6+	12.0	9.5	8.9	9.1	10.6	13.3	31.3	15.0
Non-numeric responses	7.3	5.7	7.1	8.4	8.9	13.1	15.1	9.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,019	1,377	1,461	1,437	1,360	1,150	2,218	10,023
Mean ideal number of children for:²								
Ever-married women	3.7	3.6	3.6	3.8	4.1	4.4	5.0	4.1
Number	944	1,299	1,358	1,316	1,239	1,000	1,884	9,040
Currently married	3.7	3.7	3.6	3.8	4.1	4.4	5.0	4.1
Number	882	1,228	1,312	1,257	1,200	947	1,809	8,635

Table 7.5 shows the distribution of respondents by ideal number of children according to actual number of living children. It shows that about seven in ten ever-married women consider the ideal family size to be at least four children. Only 13 percent of women prefer a two-child family and another 14 percent consider three children as their ideal family size.

The mean ideal number of children is 4.1 for both ever-married and currently married women. The data further reveal an association between the ideal number of children and the actual number of living children. The mean ideal number of children increases from 3.7 children among childless women to 5.0 among women with six or more living children. The mean ideal number of children among ever-married and currently married women has remained the same as in 1990-91.

The results in Table 7.5 also clearly show that many women in Pakistan have had more children than they would now prefer. More than half of women (54 percent) with six or more children have exceeded their ideal family size, as have 52 percent of those with five children. This situation requires attention of family planning programme personnel.

Table 7.6 and Figure 7.5 present the mean ideal number of children for ever-married women by selected background characteristics. The mean ideal number of children generally increases with age, from 4.0 children for ever-married women in the youngest age-group (15-19) to 4.6 among the oldest women (45-49). A considerable differential is found by urban-rural residence, with a higher mean ideal number of children observed among rural women compared with urban women (4.3 and 3.7, respectively). Substantial differences have been observed across provinces, ranging from a mean ideal number of children of 3.8 in Punjab to 5.9 in Balochistan. Similarly, education and wealth quintile also show sizeable inverse relationships with the mean ideal family size.

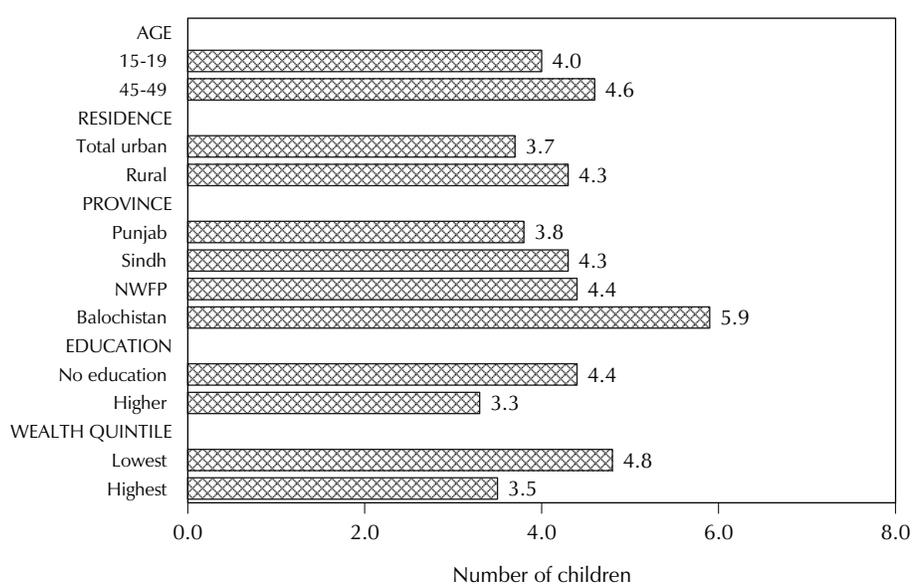
Table 7.6 Mean ideal number of children

Mean ideal number of children for ever-married women age 15-49, by background characteristics, Pakistan 2006-07

Background characteristic	Mean	Number of women ¹
Age		
15-19	4.0	528
20-24	3.9	1,407
25-29	3.8	1,883
30-34	4.0	1,647
35-39	4.2	1,451
40-44	4.4	1,109
45-49	4.6	1,015
Residence		
Total urban	3.7	3,072
Major city	3.5	1,762
Other urban	3.9	1,311
Rural	4.3	5,967
Province		
Punjab	3.8	5,175
Sindh	4.3	2,252
NWFP	4.4	1,213
Balochistan	5.9	399
Education		
No education	4.4	5,795
Primary	3.7	1,283
Middle	3.6	586
Secondary	3.3	762
Higher	3.3	613
Wealth quintile		
Lowest	4.8	1,769
Second	4.5	1,795
Middle	4.0	1,722
Fourth	3.8	1,842
Highest	3.5	1,912
Total	4.1	9,040

¹ Women who gave a numeric response

Figure 7.5 Mean Ideal Number of Children, by Background Characteristics



As mentioned above, decisions about childbearing are usually made by couples and not by the woman herself. Women who were interviewed in the 2006-07 PDHS were asked if they thought that their husbands wanted the same number of children that they wanted, or more or fewer children. Table 7.7 shows that a majority of women (54 percent) say that their husbands want the same number of children that they do. However, one-fifth of women report that their husbands want more children than they want, while only 4 percent say that their husbands want fewer children than they want. A sizeable proportion of women say they don't know about their husband's ideal number of children.

Table 7.7 Couple's agreement on family size

Percent distribution of currently married, non-sterilized women by whether they think their husbands want the same number of children as they want, according to woman's ideal number of children, Pakistan 2006-07

Ideal number of children	Husband's desire for children				Total	Number
	Both want same	Husband wants more	Husband wants fewer	Don't know/missing		
0	41.7	15.0	3.4	39.8	100.0	69
1	36.3	42.8	3.0	17.8	100.0	53
2	61.6	24.2	1.3	12.9	100.0	1,182
3	61.9	21.3	3.2	13.6	100.0	1,251
4	60.1	17.2	4.9	17.8	100.0	3,207
5	47.8	21.7	3.4	27.1	100.0	842
6+	45.1	23.3	4.2	27.5	100.0	1,332
Non-numeric response	32.2	15.0	4.5	48.3	100.0	832
Total	54.1	20.0	3.9	22.0	100.0	8,769

7.4 WANTED AND UNWANTED FERTILITY

Several indicators of unwanted fertility can be derived from the 2006-07 PDHS data. First, responses to a question about the planning status of prior births, in other words, whether a birth was planned (wanted then), mistimed (wanted later), or not wanted at all, provide some indication of the extent of unwanted childbearing. In interpreting data, however, it is important to remember that women may rationalize mistimed or unwanted pregnancies, declaring them as wanted after the children are born.

Table 7.8 shows the percent distribution of births in the five years preceding the 2006-07 PDHS by planning status of the birth. Overall, 24 percent of births in the five-year period preceding the survey were not wanted at the time of conception, with 13 percent wanted at a later time and 11 percent not wanted at all. The proportion of births that are mistimed or not wanted at all at the time of conception increases sharply with birth order, ranging from 5 percent of first births to 37 percent of fourth and higher births. The proportion of births considered mistimed or unwanted has increased slightly, from 21 percent to 24 percent, since the 1990-91 PDHS.

The planning status of births is related to the age of the mother. In general, the older the mother at the time of birth, the larger the percentage of children that are unplanned; for example, more than half of the births (54 percent) to women age 45-49 are either wanted later or not wanted at all. This proportion has increased since 1990-91.

Table 7.8 Fertility planning status

Percent distribution of births to women age 15-49 in the five years preceding the survey (including current pregnancies), by planning status of the birth, according to birth order and mother's age at birth, Pakistan 2006-07

Birth order and mother's age at birth	Planning status of birth				Total	Number of births
	Wanted then	Wanted later	Wanted no more	Missing		
Birth order						
1	94.1	4.4	0.4	1.1	100.0	2,209
2	81.1	17.6	0.7	0.6	100.0	1,911
3	77.8	17.5	4.1	0.6	100.0	1,607
4+	62.0	14.1	22.6	1.4	100.0	4,587
Mother's age at birth						
<20	89.1	9.2	0.7	0.9	100.0	1,081
20-24	81.6	14.7	2.9	0.8	100.0	2,950
25-29	74.6	15.7	8.5	1.3	100.0	3,037
30-34	68.0	11.6	19.4	0.9	100.0	1,899
35-39	60.5	10.2	27.7	1.6	100.0	984
40-44	56.2	8.5	34.0	1.3	100.0	314
45-49	46.1	3.8	50.1	0.0	100.0	50
Total	74.9	13.2	10.9	1.1	100.0	10,314

A second approach to measuring unwanted fertility is to calculate what the fertility rate would be if all unwanted births were avoided. This wanted fertility rate is calculated in the same manner as the total fertility rate, but unwanted births are excluded from the numerator. For this purpose, unwanted births are defined as those that exceed the number considered ideal by the respondent. To the extent that women are unwilling to report an ideal family size that is lower than their actual family size, the wanted fertility rate may be overestimated. Table 7.9 presents the total wanted fertility rates and total fertility rates for the three-year period before the survey for various selected background characteristics.

Overall, the total wanted fertility rate is 24 percent lower than the total fertility rate. Thus, if unwanted births could be eliminated, the total fertility in Pakistan would be 3.1 births per woman instead of 4.1 births (Figure 7.6). The difference between the wanted and observed fertility rates measured here as a ratio of observed fertility to wanted fertility indicates a large gap for women living in rural areas, women in Sindh and NWFP, women in the primary and secondary educational categories, and among women in the lowest wealth quintile. For all these women, the observed fertility rate is around 30-40 percent higher than the wanted fertility rate.

Moreover, socioeconomic status is strongly related to the differences between wanted and actual number of children; the higher the socioeconomic status, the smaller the gap between wanted and observed fertility.

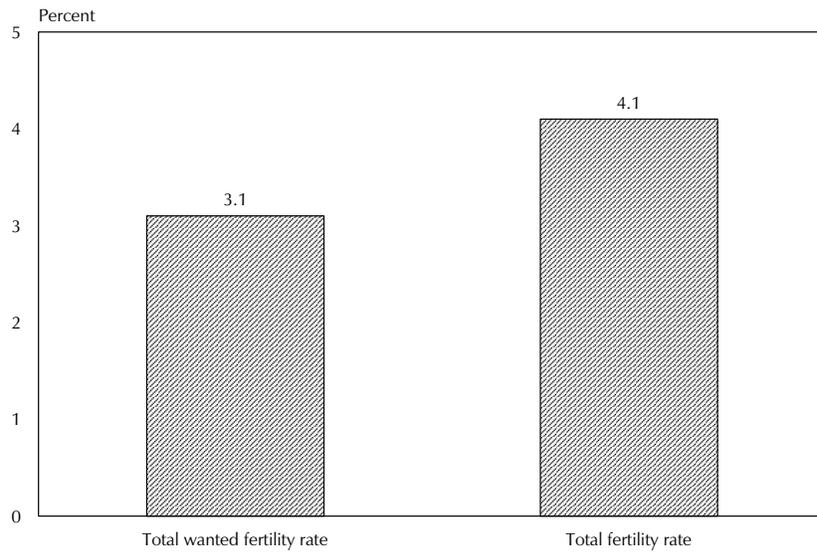
Table 7.9 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Pakistan 2006-07

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Total urban	2.5	3.3
Major city	2.3	3.0
Other urban	2.9	3.8
Rural	3.4	4.5
Province		
Punjab	3.0	3.9
Sindh	3.2	4.3
NWFP	3.2	4.3
Balochistan	3.5	4.1
Education		
No education	3.7	4.8
Primary	2.9	4.0
Middle	2.4	3.2
Secondary	2.4	3.1
Higher	1.8	2.3
Wealth quintile		
Lowest	4.2	5.8
Second	3.5	4.5
Middle	3.0	4.1
Fourth	2.6	3.4
Highest	2.4	3.0
Total	3.1	4.1

Note: Rates are calculated based on births to women age 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 4.2.

Figure 7.6 Total Wanted Fertility Rate and Total Fertility Rate



PDHS 2006-07

INFANT AND CHILD MORTALITY

Zulfiqar A. Bhutta, Anne Cross, Farrukh Raza, and Zafar Zahir

This chapter reports information on levels, trends, differentials, and causes of neonatal, post-neonatal, infant, child, and under-five mortality. In addition, for the first time, information is provided on stillbirths and their causes using standardized verbal autopsy measurement. This information is critical for assessment of the interface of maternal and newborn health and relevant programmes. Estimates of infant and child mortality are required as an input into population projections, particularly if the level of adult mortality is known from another source or can be inferred with reasonable confidence. Information on mortality of children also serves the needs of health ministries by identifying sectors of the population that are at high risk. Infant and child mortality rates are also regarded as indices reflecting the degree of poverty and deprivation of a population. Given the major focus in Pakistan on achieving the Millennium Development Goal 4 on child mortality, these data are critical in assessing the mid-term status of progress or lack thereof.

The primary causes of childhood mortality change as children age, from factors related mostly to biological or congenital conditions to factors related mostly to their environment (infectious diseases). After the neonatal period, post-neonatal and child mortality are caused mainly by childhood diseases and accidents. In this chapter, age-specific mortality rates are defined as follows:

- Neonatal mortality: the probability of dying within the first month of life
- Postneonatal mortality: the difference between infant and neonatal mortality
- Infant mortality: the probability of dying before the first birthday
- Child mortality: the probability of dying between the first and fifth birthday
- Under-five mortality: the probability of dying before the fifth birthday

All rates are expressed per 1,000 live births, except for child mortality, which is expressed per 1,000 children surviving to 12 months of age.

The data for mortality rates were collected in the birth history section of the Women's Questionnaire.¹ The section begins with questions about the aggregate childbearing experience of respondents (i.e., the number of sons and daughters who live with the respondent, those who live elsewhere, and the number who have died). For each of the births, more detailed information was collected on the sex, the month and year of birth, survivorship status, and current age or, if the child had died, the age at death. As mentioned in Chapter 4, in the 2006-07 PDHS, the birth history started with the most recent birth and proceeded backwards in time.

8.1 DATA QUALITY

The quality of mortality estimates calculated from retrospective birth histories depends upon the completeness with which births and deaths are reported and recorded. Potentially the most serious data quality problem is the selective omission from the birth histories of children who did not survive, which can lead to underestimation of mortality rates. Other potential problems include displacement of birth dates, which may cause a distortion of mortality trends, and misreporting of the age at death, which may distort the age pattern of mortality. When selective omission of childhood deaths occurs, it is usually most severe for deaths in early infancy. If early neonatal deaths are selectively underreported, the result is an unusually low ratio of deaths occurring within seven days to all

¹ Data on deaths were also collected in the Household Questionnaires; however, this approach is known to result in some underreporting of deaths and thus was not used to calculate childhood mortality rates. The data were collected to provide the basis for collecting verbal autopsies on causes of death.

neonatal deaths, and an unusually low ratio of neonatal to infant deaths. Underreporting of early infant deaths is most commonly observed for births that occurred long before the survey; hence, it is useful to examine the ratios over time.

An examination of the ratios (see Appendix Tables D.5 and D.6) does not indicate that any appreciable number of early infant deaths were omitted in the 2006-07 PDHS. The proportion of neonatal deaths occurring in the first week of life is high (74 percent) and is higher than the proportion recorded in the 1990-91 PDHS (62 percent).² Moreover, the proportions are roughly constant over the 20 years period before the survey (between 70 and 77 percent). In addition, the proportion of infant deaths that occur during the first month of life is entirely plausible in level (67 percent) and is the same as the proportion recorded in the 1990-91 PDHS but higher than the proportion recorded in the 1996-97 Pakistan Fertility and Family Planning Survey (56 percent). The proportions are also fairly stable over the 20 years before the survey (varying between 61 and 71 percent). This inspection of the mortality data reveals no evidence of selective underreporting or misreporting of age at death that would significantly compromise the quality of the PDHS rates of childhood mortality. However, analysis of data by province indicates some underreporting in Balochistan (see below).

8.2 LEVELS AND TRENDS IN INFANT AND CHILD MORTALITY

Table 8.1 shows the neonatal, postneonatal, infant, child, and under-five mortality rates for three successive five-year periods before the survey. The use of rates for five-year periods smooths out any year-to-year fluctuations in early childhood mortality. For the most recent five-year period preceding the survey, infant mortality is 78 deaths per 1,000 live births and under-five mortality is 94 deaths per 1,000 live births. This means that 1 in every 11 children born in Pakistan dies before reaching their fifth birthday. The pattern shows that over half of deaths under five occur during the neonatal period and 26 percent occur during the postneonatal period.

Years preceding the survey	Approximate calendar period	Neonatal mortality (NN)	Postneonatal mortality (PNN) ¹	Infant mortality (₁ q ₀)	Child mortality (₄ q ₁)	Under-five mortality (₅ q ₀)
0-4	2002-06	54	24	78	18	94
5-9	1997-2001	52	24	76	18	92
10-14	1992-96	56	30	86	19	103

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

Table 8.2 shows trends in infant and under-five mortality rates from several recent surveys in Pakistan. The data show a decline in infant mortality in the late 1990s, but no appreciable change since 2003. Under-five mortality has declined from 117 in 1986-90 to 94 in 2002-06, a 20 percent decline in 16 years.

In interpreting the mortality data, it is useful to keep in mind that sampling errors are quite large. For example, the 95 percent confidence intervals for the under-five mortality estimate of 94 per 1,000 are 86 and 103 per 1,000 (Appendix D) indicating that, given the sample size of the 2006-07 PDHS, the true value may fall anywhere between 86 and 103 per 1,000 births.

² There are no models for mortality patterns during the neonatal period. However, one review of data from several developing countries concluded that, at neonatal mortality levels of 20 per 1,000 or higher, approximately 70 percent of neonatal deaths occur within the first six days of life (Boerma, 1988).

Table 8.2 Trends in infant and under-five mortality rates

Infant and under-five mortality rates from various sources, Pakistan, 1990-91 to 2006-07

Rate	Survey and approximate calendar period of mortality rate				
	1990-91 PDHS (1986-90)	1996-97 PFFPS (1992-96)	2003 PDS (2003)	2005 PDS (2005)	2006-07 PDHS (2002-06)
Infant mortality rate	91	92	76	77	78
Under-five mortality rate	117	111	na	na	94

na = Not applicable
PFFPS = Pakistan Fertility and Family Planning Survey
PDS = Pakistan Demographic Survey
Sources: **PDHS 1990-91:** NIPS and Macro 1992; **PFFPS 1996-97:** Hakim et al., 1998; **PDS 2005:** FBS, 2007b

8.3 SOCIOECONOMIC DIFFERENTIALS IN INFANT AND CHILD MORTALITY

Mortality differentials by place of residence, province, education level of the mother, and wealth index are presented in Table 8.3 and Figure 8.1. In order to have a sufficient number of births to study mortality differentials across population subgroups, period-specific rates are presented for a ten-year period preceding the survey (approximately equivalent to 1997-2006).

Differentials by place of residence show that the under-five mortality rate is 28 percent higher in rural areas than in urban areas (100 and 78 deaths per 1,000 live births, respectively). As might be expected, rates are lower in major cities than in other urban areas.

Table 8.3 Early childhood mortality rates by socioeconomic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by background characteristics, Pakistan 2006-07

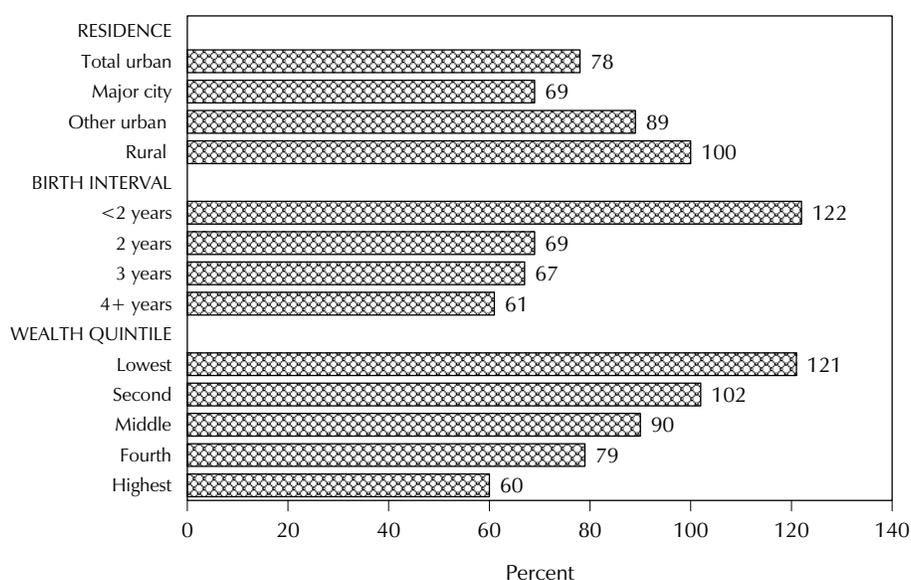
Background characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN) ¹	Infant mortality (₁ q ₀)	Child mortality (₅ q ₁)	Under-five mortality (₅ q ₀)
Residence					
Total urban	48	18	66	13	78
Major city	38	20	58	11	69
Other urban	58	17	75	16	89
Rural	55	26	81	20	100
Province					
Punjab	58	23	81	18	97
Sindh	53	28	81	22	101
NWFP	41	22	63	13	75
Balochistan	30	18	49	11	59
Mother's education					
No education	57	26	84	20	102
Primary	47	19	66	20	85
Middle	45	18	63	13	75
Secondary	39	13	52	2	55
Higher	35	21	56	4	59
Wealth quintile					
Lowest	63	31	94	30	121
Second	60	28	87	17	102
Middle	52	22	74	18	90
Fourth	47	20	67	14	79
Highest	38	14	53	8	60

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

The rates by province display considerable differentials. Surprisingly, all rates are lowest in Balochistan, followed by North-West Frontier Province (NWFP). This pattern is implausible, given that Balochistan is the least developed of the four provinces. As mentioned previously (Chapter 4), the data from the birth histories collected in Balochistan showed evidence of under-reporting of births. The reason for the relatively low rates in NWFP is not clear. Because Balochistan accounts for only about 5 percent of the national population, rates for all of Pakistan are probably not greatly affected. Nevertheless, the mortality data for Balochistan and, to some extent, NWFP require further investigation and should be viewed with caution. Mortality rates for Punjab and Sindh provinces are higher than for the other two provinces and are similar to each other.

As observed in most studies, the mother's level of education is strongly linked to child survival. Higher levels of educational attainment are generally associated with lower mortality rates because education exposes mothers to information about better nutrition, use of contraceptives to space births, and knowledge about childhood illness and treatment. Survey results show a steady decline in all rates as mother's education increases, the only exception being a small increase in several rates for children whose mothers have higher education. Similarly, childhood mortality rates decline as the wealth quintile increases.

Figure 8.1 Differentials in Under-Five Mortality



PDHS 2006-07

8.4 DEMOGRAPHIC DIFFERENTIALS IN INFANT AND CHILD MORTALITY

Childhood mortality rates by sex of child, age of mother at birth, birth order, previous birth interval, and birth size are presented in Table 8.4. Differences between the mortality of male and female children at birth are found in nearly all populations. The results show that female mortality is lower than that of males for the neonatal period only, while males have the advantage during the postneonatal period up to age five years.

Most studies have documented a U-shaped pattern of childhood mortality by mother's age at birth, with children of the youngest and oldest women experiencing the highest risk of death. Data from the 2006-07 PDHS, however, show a steadily decreasing risk of death with increasing age of the mother at birth, implying that while younger mothers have an increased risk of death for their

children, older mothers do not experience any increased risk. It should be noted that the number of children born to women age 40-49 is small and the rates are subject to high sampling errors.

There is a U-shaped pattern of mortality by birth order of the child, but only for neonatal, infant, and under-five mortality. Generally, first births have higher mortality rates than later births.

The length of birth interval has a significant correlation with a child's chances of survival, with short birth intervals considerably reducing the chances of survival. As the birth interval gets longer, the mortality risk is reduced considerably. Children born less than two years after a prior sibling suffer a substantially higher risk of death than children with intervals of two or more years. For example, the under-five mortality rate is twice as high for children born after an interval of less than two years compared with those born four or more years after a previous sibling (122 and 61 deaths per 1,000 live births, respectively). These findings are consistent with observations from other sources (Cecatti et al., 2008; Zhu et al., 1999).

Size of the child at birth also has a bearing on the childhood mortality rates. Children whose birth size is small or very small have a 68 percent greater risk of dying before their first birthday than those whose birth size is average or larger.

Table 8.4 Early childhood mortality rates by demographic characteristics					
Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, Pakistan 2006-07					
Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN) ¹	Infant mortality (₁ q ₀)	Child mortality (₄ q ₁)	Under-five mortality (₅ q ₀)
Child's sex					
Male	57	23	80	14	93
Female	48	25	73	22	93
Mother's age at birth					
<20	85	32	116	18	133
20-29	51	23	75	19	92
30-39	45	22	67	15	81
40-49	39	16	55	(20)	(74)
Birth order					
1	73	23	97	15	110
2-3	49	24	73	17	88
4-6	45	24	69	18	86
7+	52	24	77	23	98
Previous birth interval²					
<2 years	69	32	101	24	122
2 years	34	19	54	16	69
3 years	34	18	52	16	67
4+ years	35	17	51	10	61
Birth size³					
Small/very small	66	35	101	na	na
Average or larger	43	17	60	na	na

Note: Figures in parentheses are based on 250-499 unweighted cases in one or more of the component rates.
na = not applicable
¹ Computed as the difference between the infant and neonatal mortality rates
² Excludes first-order births
³ Rates for the five-year period before the survey

8.5 PERINATAL MORTALITY

Pregnancy losses occurring after seven completed months of gestation (stillbirths) plus deaths of live births within the first seven days of life (early neonatal deaths) constitute perinatal deaths. When the total number of perinatal deaths is divided by the total number of pregnancies reaching seven months' gestation, the perinatal mortality rate is derived. The distinction between a stillbirth

and an early neonatal death may be a fine one, depending often on the observed presence or absence of some faint signs of life after delivery. The causes of stillbirths and early neonatal deaths are overlapping, and examining just one or the other can understate the true level of mortality around delivery.

Table 8.5 presents the number of stillbirths and early neonatal deaths and the perinatal mortality rate for the five-year period preceding the survey, by mother's age at birth, place of residence, mother's education, and wealth quintile. Unlike other DHS surveys, the PDHS did not include an event "calendar" for recording the outcomes of pregnancies in the five years preceding the survey. Consequently, the perinatal mortality rates were calculated from questions asked to women about any pregnancies that they may have had that did not result in a live birth. If the respondent reported having had a pregnancy loss, she was asked when the most recent one occurred and how many months pregnant she was when she lost the pregnancy. There was space in the questionnaire to record up to seven pregnancy losses that occurred in the five years preceding the survey, with dates for the last two.

Background characteristic	Number of stillbirths	Number of early neonatal deaths	Perinatal mortality rate	Number of pregnancies of 7+ months duration
Mother's age at birth (or current age for miscarriages)				
<20	170	56	197	1,145
20-29	648	216	145	5,947
30-39	393	80	161	2,935
40-49	85	10	228	418
Residence				
Total urban	438	106	173	3,149
Major city	247	45	178	1,640
Other urban	191	61	167	1,509
Rural	857	256	153	7,296
Mother's education				
No education	829	254	158	6,838
Primary	188	49	154	1,542
Middle	88	18	169	624
Secondary	114	31	173	839
Higher	78	10	145	602
Wealth quintile				
Lowest	245	89	138	2,412
Second	316	86	178	2,253
Middle	229	82	151	2,060
Fourth	246	53	158	1,897
Highest	260	52	171	1,822
Total	1,296	362	159	10,444

Results indicate that the perinatal mortality rate is 159 deaths per 1,000 pregnancies. Pregnancies of the youngest and oldest women are more likely to end in a perinatal death than are pregnancies of women age 20-39. Perinatal mortality rates are higher in urban than rural areas and they tend to increase with mother's education except among women with higher education. Rates also show an erratic pattern by wealth quintile.

8.6 HIGH-RISK FERTILITY BEHAVIOUR

Numerous studies have found a strong relationship between a child's risk of dying and certain fertility behaviours. Typically, the probability of dying in early childhood is much greater if children are born to mothers who are too young or too old, if they are born after a short birth interval, or if they are born to mothers with high parity. Very young mothers may experience difficult pregnancies and deliveries because of their physical immaturity. Older women may also experience age-related problems during pregnancy and delivery. For purposes of this analysis, a mother is classified as "too young" if she is less than 18 years of age and "too old" if she is more than 34 years of age at the time of delivery; a "short birth interval" is defined as a birth occurring within 24 months of a previous birth; and a "high-order" birth is one occurring after three or more previous births (i.e., birth order 4 or higher). First births may be at increased risk of dying relative to births of other orders; however, this distinction is not included in the risk categories in the table because it is not considered avoidable fertility behaviour. Also, for the short birth interval category, only children with a preceding interval of less than 24 months are included. Short succeeding birth intervals are not included, even though they can influence the survivorship of a child, because of the problem of reverse causal effect (i.e., a short succeeding birth interval can be the result of the death of a child rather than being the cause of the death of a child).

Table 8.6 presents the distribution of children born in the five years preceding the survey by these categories of increased risk of mortality. Column 1 shows the percentage of children falling into specific categories. Column 2 shows the risk ratio of mortality for children by comparing the proportion dead among children in each high-risk category with the proportion dead among children not in any high-risk category, in other words, those whose mothers were age 18-34 at delivery, who were born 24 or more months after the previous birth, or who are of parity 2 or 3.

Sixty-two percent of children in Pakistan fall into a high-risk category, with 38 percent in a single high-risk category and 24 percent in a multiple high-risk category. A higher risk is associated with births to mothers aged less than 18 years under the single high-risk category (relative risk of 1.8). In general, risk ratios are higher for children in a multiple high-risk category than children in a single high-risk category. The highest risk (2.2) is associated with births to mothers under age 18 that occur less than 24 months after a prior birth; however, less than 1 percent of births fall into this multiple high-risk category. Eleven percent of births in Pakistan occur after a short birth interval to mothers who have had three or more births, with these children 50 percent more likely to die in early childhood as children who are not in any high-risk category.

The last column of Table 8.6 addresses the question of what percentage of currently married women have the potential for a high-risk birth. This was obtained by simulating the distribution of currently married women by the risk category in which a birth would fall if a woman were to conceive at the time of the survey. Although many women are protected from conception due to use of family planning, postpartum insusceptibility, and prolonged abstinence, for simplicity only those who have been sterilized are included in the "not in any high-risk category." Overall, 71 percent of currently married women have the potential for having a high-risk birth, with 30 percent falling into a single high-risk category and 42 percent in a multiple high-risk category.

Table 8.6 High-risk fertility behaviour

Percent distribution of children born in the five years preceding the survey, by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Pakistan 2006-07

Risk category	Births in the 5 years preceding the survey		Percentage of currently married women ¹
	Percentage of births	Risk ratio	
Not in any high-risk category	20.5	1.00	19.0 ^a
Unavoidable risk category			
First-order births between ages 18 and 34 years	18.0	1.34	9.6
Single high-risk category			
Mother's age <18	3.1	1.78	1.1
Mother's age >34	0.8	1.13	4.5
Birth interval <24 months	12.1	1.14	10.2
Birth order >3	21.6	0.99	13.8
Subtotal	37.7	1.11	29.6
Multiple high-risk category			
Age <18 and birth interval <24 months ²	0.5	(2.24)	0.2
Age >34 and birth interval <24 months	0.1	*	0.2
Age >34 and birth order >3	9.3	0.89	27.2
Age >34 and birth interval <24 months and birth order >3	2.6	1.68	3.9
Birth interval <24 months and birth order >3	11.3	1.51	10.3
Subtotal	23.8	1.30	41.8
In any avoidable high-risk category	61.5	1.18	71.4
Total	100.0	na	100.0
Number of births/women	9,121	na	9,556

Note: The risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category. Ratios based on 25-49 unweighted cases are shown in parentheses while those based on fewer than 25 unweighted cases have been suppressed (*).
na = Not applicable
¹ Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth being of order 3 or higher.
² Includes the category age <18 and birth order >3
^a Includes sterilized women

8.7 CAUSES OF DEATH OF CHILDREN UNDER FIVE

8.7.1 Methodology

Information on causes of child deaths was obtained using a verbal autopsy (VA) questionnaire. The standard infant and child VA questionnaire (Anker et al., 2008) which had been applied in various settings (Etard et al., 2004; Baqui et al., 1998) was used. The modified instrument was also validated in prospective studies in Pakistan (Bhutta, et al., 2004) and India (Baqui et al., 2006) and further modified to evaluate causes of stillbirths for the PDHS. The latter instrument has been extensively used in field studies of perinatal mortality in rural Pakistan (Bhutta et al., 2008) and is currently the subject of a multi-country prospective validation study by the World Health Organization (WHO personal communication).

The VA instrument for the evaluation of newborn, infant, and child mortality in the 2006-07 PDHS was developed by consensus by a team of experts led by the Aga Khan University (AKU). The field survey teams undertaking the VA were composed of a male supervisor and female interviewers who had received training in the content and methodology of the VA in training workshops at NIPS as well as in the field. Subsequent field work and data collection quality control was assured through supervision and monitoring of teams during field work which also included staff from AKU.

The completed VA questionnaires were entered onto computers at NIPS and the verbatim record and electronic data set were sent to the independent review team at AKU. VAs of all reported under-five deaths and stillbirths were analyzed by the AKU team. The cause of death allocation was undertaken in two ways, described below.

1. Allocation of cause of death using a computerized algorithm. To ascertain the cause of death, a hierarchical-based computerized algorithm was applied to the records for stillbirths, neonatal deaths, and postneonatal deaths. Each algorithm was based on a biologically plausible set of conditions based on the close-ended questions in the VA questionnaire. Potential overlap between various conditions was assessed and final discrete causes of deaths were assigned based on different hierarchies and biological criteria. This was modified from previously published and evaluated criteria (Baqui et al., 2006; Bhutta et al., 2008b). To illustrate: in the event that a child with asphyxia was also preterm and had a secondary infection, asphyxia was taken as the primary cause of death. Similarly, prematurity was ascribed as the cause of death if it was the dominant factor and the death occurred early.

2. Allocation of cause of death using verbatim reviews. A specific review process was undertaken to develop a cause of death allocation based on the narrative part of the VA questionnaire and related sections. The teams undertaking this at AKU consisted of trained paediatricians/neonatologists who received specific training in the cause of death analysis. The teams were provided additional training in February 2007 by an expert representing the World Health Organization in a workshop based on a diagnosis list using the most recent International Classification of Diseases (ICD10) classification. The teams were divided into two groups of two individuals each designated as Reviewers A and B. Reviewers A and B were completely blinded as to the allocations by each other and each pair reviewed roughly half the cases. In the event of concordance between Reviewer A and B, the consensus diagnosis was recorded and in the event of non-concordance, the case was referred to an expert panel for review. The panel also reviewed the cause of death allocation for cases which were not consistent with the age grouping before final allocation.

Based on the two systems above, a final cause of death was allocated by a panel consensus using both the computer allocation as well as the final manual assessments by the team. This final cause of death diagnosis was then used as the basis for classification related to the ICD 10 coding system as much as possible. The same system was used for classification of stillbirths and immediate determinants such as antepartum haemorrhage but it was recognized that there was no agreed system of classification of stillbirths using the ICD10 coding system.

8.7.2 Results

In the Household Questionnaire, respondents were asked to report information about deaths to any usual residents that occurred since January 2003, including the sex, month and year of death and age at death. Any stillbirths and any deaths to children under five that occurred since January 2005 were eligible for a follow-up interview with the Child Verbal Autopsy questionnaire. A total of 1,386 stillbirths and 3,232 deaths of children under five were identified as occurring since January 2005. A total of 4,438 verbal autopsies were completed, of which 1,337 were stillbirths (for a response rate of 97 percent; see Table 8.7) and 3,101 were deaths to children under five (for a response rate of 96 percent). Response rates vary only slightly by sex, residence, province, or age of the child at death.

Table 8.7 Child verbal autopsy response rates

Number of deaths to children under five and stillbirths reported in the household since 2005 and number and percentage for which a verbal autopsy was completed, by sex, residence and province, according to age at death, Pakistan 2006-07 (unweighted)

Sex, residence, province	Stillbirths			Neonatal			Post-neonatal			Child			Under five		
	Number identi- fied in house- hold	Number of verbal autopsies completed	Per- centage												
Sex															
Male	757	737	97.4	1,011	980	96.9	417	397	95.2	271	262	96.7	1,699	1,639	96.5
Female	628	599	95.4	738	696	94.3	475	464	97.7	319	301	94.4	1,532	1,461	95.4
Residence															
Urban	402	383	95.3	462	444	96.1	207	195	94.2	108	101	93.5	777	740	95.2
Rural	984	954	97.0	1,288	1,233	95.7	685	666	97.2	482	462	95.9	2,455	2,361	96.2
Province															
Punjab	519	502	96.7	670	640	95.5	319	308	96.6	186	179	96.2	1,175	1,127	95.9
Sindh	476	456	95.8	647	628	97.1	298	288	96.6	215	208	96.7	1,160	1,124	96.9
NWFP	238	229	96.2	253	241	95.3	139	131	94.2	82	71	86.6	474	443	93.5
Balochistan	153	150	98.0	180	168	93.3	136	134	98.5	107	105	98.1	423	407	96.2
Total	1,386	1,337	96.5	1,750	1,677	95.8	892	861	96.5	590	563	95.4	3,232	3,101	95.9

As shown in Table 8.8, the major causes of death among children under five are birth asphyxia (22 percent), sepsis (14 percent), pneumonia (13 percent), diarrhoea (11 percent), and prematurity (9 percent). About one in nine deaths of children under five cannot be classified as to cause (unexplained/not classified). It is interesting to note that neither malaria nor tetanus account for any appreciable proportion of deaths of children under five.

Table 8.8 Causes of child deaths by age

Percent distribution of neonatal, post-neonatal, child and under-five deaths by cause (weighted), Pakistan, 2006-07

Cause of death	Neonatal	Post-neonatal	Child	Under five
Congenital abnormality	3.4	5.3	3.9	4.0
Tetanus	1.0	0.0	0.0	0.6
Prematurity	16.3	0.3	0.0	9.2
Birth asphyxia	39.5	0.0	0.0	22.1
Sepsis	20.0	8.0	4.7	14.2
Pneumonia	6.3	25.7	16.9	13.3
Meningitis	0.8	9.1	6.6	4.0
Diarrhoea	1.0	26.9	17.7	10.8
Accident/injuries	0.1	1.6	11.0	2.4
Measles	0.0	1.2	7.7	1.7
Severe acute malnutrition	0.0	1.3	2.7	0.8
Malignancies	0.0	0.0	0.7	0.1
Other causes	1.4	7.8	18.6	6.1
Unexplained neonatal death	9.6	0.0	0.0	5.4
Unexplained postneonatal death	0.0	12.7	9.0	4.9
Cause could not be classified	0.5	0.1	0.5	0.4
Total	100.0	100.0	100.0	100.0
Number of deaths	1,651	788	503	2,943

Causes of death are highly correlated with age at death. Deaths during the neonatal period (first month of life) are almost entirely due to birth asphyxia, sepsis, or prematurity. Deaths in the postneonatal period are mostly due to diarrhoea or pneumonia, with sepsis being a far less common cause of death. The main causes of child deaths are diarrhoea, pneumonia, injuries, measles, and meningitis. These data support a strong focus on addressing newborn deaths and a continued focus on reducing deaths from diarrhoea and pneumonia, known killers among older infants and children.

Table 8.9 shows data on causes of death disaggregated by sex and residence of the child. The data show that boys are more likely to die of birth asphyxia, sepsis, and prematurity than girls, who, in turn, are more likely to die of pneumonia and diarrhoea. The main reason for these differences is that a greater proportion of deaths of boys under five occur in the neonatal period.

Cause of death	Sex		Residence		Total
	Male	Female	Urban	Rural	
Congenital abnormality	4.1	3.7	5.7	3.5	4.0
Tetanus	0.8	0.4	0.0	0.7	0.6
Prematurity	9.7	8.8	12.0	8.6	9.2
Birth asphyxia	27.0	16.6	29.0	20.5	22.1
Sepsis	14.6	13.7	11.5	14.8	14.2
Pneumonia	11.8	15.1	10.0	14.1	13.3
Meningitis	3.5	4.5	2.3	4.4	4.0
Diarrhoea	9.4	12.4	9.9	11.0	10.8
Accident/injuries	2.2	2.7	3.0	2.3	2.4
Measles	0.9	2.6	1.4	1.7	1.7
Severe acute malnutrition	0.8	0.9	0.2	1.0	0.8
Malignancies	0.2	0.0	0.0	0.1	0.1
Other causes	5.3	6.9	5.5	6.2	6.1
Unexplained neonatal death	5.3	5.5	3.9	5.7	5.4
Unexplained postneonatal death	4.0	6.0	5.1	4.9	4.9
Cause could not be classified	0.5	0.3	0.3	0.4	0.4
Total	100.0	100.0	100.0	100.0	100.0
Number of deaths	1,561	1,380	571	2,372	2,943

Differences in causes of death by residence are minimal. Urban children are more likely to die of birth asphyxia and prematurity than rural children and less likely to die of pneumonia and diarrhoea. Again, this is due to the fact that deaths of urban children are more likely to occur in the neonatal period. This is consistent with data that show that as childhood death rates decline—mostly due to control of infectious diseases—the proportion of deaths that occur very early in life tends to increase.

Table 8.10 shows provincial differences in causes of death of children under five. In all four provinces, birth asphyxia is the main cause of death. In Punjab and Sindh, this is followed by sepsis and pneumonia. In NWFP, pneumonia is the second leading cause of death, followed by sepsis, while in Balochistan, pneumonia is the second leading cause of death, followed by diarrhoea.

Table 8.10 Causes of under five deaths by province
Percent distribution of under five deaths by cause (weighted), according to province, Pakistan 2006-07

Cause of death	Province				Total
	Punjab	Sindh	NWFP	Balochistan	
Congenital abnormality	4.0	3.2	5.9	3.8	4.0
Tetanus	0.5	0.5	1.1	0.3	0.6
Prematurity	8.6	10.3	11.7	3.9	9.2
Birth asphyxia	23.9	21.5	18.3	16.0	22.1
Sepsis	13.4	16.1	14.2	11.3	14.2
Pneumonia	12.2	13.7	17.0	13.8	13.3
Meningitis	3.3	5.2	3.9	4.6	4.0
Diarrhoea	11.9	10.1	6.8	13.1	10.8
Accident/injuries	2.2	1.8	4.1	4.7	2.4
Measles	1.3	2.2	1.5	2.6	1.7
Severe acute malnutrition	0.9	0.7	0.3	2.2	0.8
Malignancies	0.1	0.2	0.0	0.4	0.1
Other causes	5.6	6.4	4.9	11.4	6.1
Unexplained neonatal death	6.4	3.6	5.7	4.7	5.4
Unexplained postneonatal death	5.6	3.9	3.8	6.9	4.9
Cause could not be classified	0.2	0.5	0.9	0.6	0.4
Total	100.0	100.0	100.0	100.0	100.0
Number of deaths	1,562	891	339	151	2,943

8.8 CAUSES OF STILLBIRTHS

Table 8.11 provides some insight as to what causes stillbirths in Pakistan. The data indicate that over half of all stillbirths occur in the antepartum period and 42 percent occur in the intrapartum period, most of which represent intrapartum asphyxia. Since many of the antepartum stillbirths are associated with antepartum haemorrhage and pre-eclampsia/eclampsia, they are potentially related to preventable disorders. No cause could be identified for 34 percent of stillbirths occurring in the antepartum period indicating that a number of maternal health issues could contribute to the burden of stillbirths in Pakistan.

Table 8.11 Causes of stillbirth
Percent distribution of stillbirths identified in households since 2005, by cause of death, Pakistan 2006-07

Cause	Percentage
Congenital abnormality	4.0
Antepartum maternal disorders	18.7
Antepartum probable foetal problems	0.8
Intrapartum asphyxia related	21.1
Unexplained antepartum	33.5
Unexplained intrapartum	20.9
Cause could not be classified	1.0
Total	100.0
Number of stillbirths	1,285

8.9 IMPLICATIONS OF THE FINDINGS

These data have considerable implications for Pakistan and its maternal, newborn and child health programmes. They highlight the fact that infant and child mortality has hardly changed in over a decade and that newborn deaths account for a very large percentage of the under-five mortality. The PDHS also highlights an “extension” of early neonatal and potential asphyxia related deaths, namely intrapartum asphyxia related deaths which account for almost 42 percent of all stillbirths. Given the high rates of newborn deaths and stillbirths, it is clear that national programmes for maternal and newborn care need to be integrated and also scaled up if Pakistan is to meet its Millennium Development Goals #4 and #5. In addition, the PDHS data also highlight the persistent high rates of death due to diarrhoea and pneumonia after the neonatal period. These deaths are potentially avoidable with existing evidence-based interventions which can be integrated and scaled up within community and outreach programs (Jones et al., 2003; Darmstadt et al., 2008; Bhutta et al., 2005; Bhutta et al., 2008a).

Rabia Zafar and Anne Cross

Everyone has the right to enjoy reproductive health, which is a basis for having healthy children, intimate relationships, and happy families. In an ideal situation, every child would be wanted and every birth would be safe. The critical importance of reproductive health to development has been acknowledged at the highest level. At the 2005 World Summit, world leaders agreed to integrate access to reproductive health into national strategies to attain the Millennium Development Goals (www.unfpa.org).

However, reproductive health problems remain a leading cause of ill health and death for women of childbearing age worldwide. Impoverished women, especially those living in developing countries, suffer disproportionately from unintended pregnancies, maternal death and disability, sexually transmitted infections—including HIV, gender-based violence, and other problems related to their reproductive system and sexual behaviour.

In Pakistan, the National Health Policy was promulgated in June 2001. The policy provides an overall national vision for the health sector based on a “health of all” approach (Pakistan, 2001). It aims to implement the strategy of protecting people against hazardous diseases of promoting public health, and of upgrading curative health care facilities. The policy identifies a series of measures, programmes, and projects as the means for enhancing equity, efficiency, and effectiveness in the health sector through focused interventions. Improved safe motherhood services and focused reproductive health services through a life cycle approach are aimed to be provided at the doorstep. Promotion of maternal and child health has been one of the most important objectives of the health programme in Pakistan. Primary health care services are also extended through the Lady Health Worker (LHW) programme, which provides services through home visits especially in rural areas. LHWs are contributing directly to improved hygiene and higher levels of contraceptive use, iron supplementation, growth monitoring and vaccinations.

9.1 PRENATAL CARE

Prenatal care is important for the health of mother and child. It refers to pregnancy-related health care checkups provided at a medical facility or at home. Ideally, prenatal care comprises at least three visits and includes monitoring the pregnancy for signs of complications; detection and treatment of pre-existing and concurrent problems of pregnancy such as anaemia; provision of advice and counselling on preventive care, diet during pregnancy, and postnatal care; and encouragement of institutional delivery by trained health care personnel. Under the National Health Policy, prenatal care should include provision of iron supplements, folic acid supplements, two doses of tetanus vaccine, blood pressure measurement, and identification and treatment of reproductive tract and sexually transmitted infections.

The quality of prenatal care can be assessed by the type of provider, the number of prenatal visits, and the timing of the first visit. Prenatal care can also be monitored through the content of services received and the kind of information mothers are given during their visit. In the Pakistan Demographic and Health Survey (PDHS), information on prenatal care coverage was obtained from women who gave birth in the five years preceding the survey. For women with one or more live births during the five-year period, data refer to the most recent birth only.

Table 9.1 shows the percent distribution of mothers in the five years preceding the survey by source of prenatal care received during pregnancy, according to background characteristics. Women were asked to report on all persons they saw for prenatal care for their last birth. However, for presenting the results, if a woman saw more than one provider, only the provider with the highest qualification is considered.

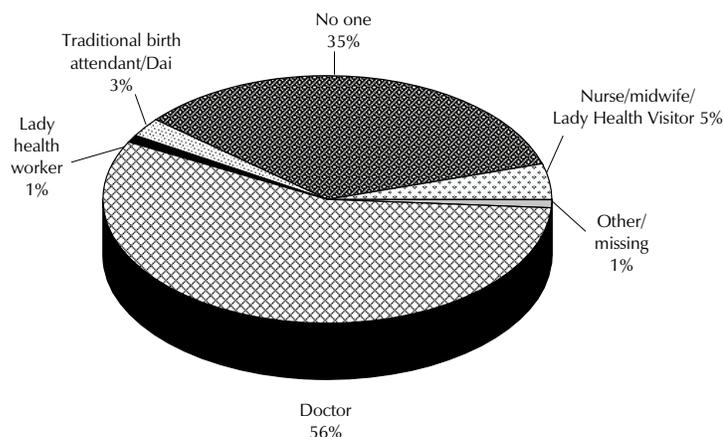
Background characteristic	Doctor	Nurse/ midwife/ Lady Health Visitor	Dai/ traditional birth attendant	Lady Health Worker	Dispenser/ Compounder/ Homeopath/ Hakim	No one	Missing	Total	Percentage receiving prenatal care from a skilled provider ¹	Number of women
Mother's age at birth										
<20	52.3	6.7	5.4	0.2	0.5	35.0	0.0	100.0	59.0	460
20-34	58.8	4.9	2.3	0.8	0.5	32.2	0.5	100.0	63.7	4,303
35-49	44.7	4.2	2.2	0.6	0.7	46.5	1.1	100.0	48.9	915
Birth order										
1	68.8	4.6	3.1	0.8	0.6	21.8	0.3	100.0	73.4	965
2-3	61.1	5.3	1.8	0.7	0.6	30.1	0.4	100.0	66.4	1,917
4-5	51.4	4.7	3.7	0.8	0.6	38.1	0.8	100.0	56.0	1,389
6+	44.8	4.8	1.9	0.6	0.4	46.6	0.8	100.0	49.6	1,406
Residence										
Total urban	73.7	4.4	3.1	0.8	0.2	17.2	0.5	100.0	78.1	1,714
Major city	81.8	2.9	3.6	0.8	0.1	10.5	0.4	100.0	84.7	909
Other urban	64.6	6.1	2.6	0.9	0.3	24.7	0.7	100.0	70.7	806
Rural	48.3	5.1	2.3	0.7	0.7	42.3	0.6	100.0	53.5	3,962
Province										
Punjab	54.6	6.3	3.2	0.9	0.7	33.7	0.6	100.0	60.9	3,182
Sindh	68.1	2.4	1.6	0.3	0.3	26.9	0.5	100.0	70.4	1,404
NWFP	46.7	4.6	1.1	0.7	0.6	45.8	0.5	100.0	51.3	827
Balochistan	37.9	2.8	3.9	0.3	0.3	54.2	0.6	100.0	40.7	264
Mother's education										
No education	45.3	4.7	2.8	0.6	0.6	45.4	0.5	100.0	50.1	3,668
Primary	64.4	5.6	3.3	1.1	0.6	23.9	1.0	100.0	70.1	854
Middle	74.7	7.2	0.5	0.7	0.5	16.3	0.0	100.0	81.9	353
Secondary	84.0	4.0	1.8	1.3	0.8	7.3	0.8	100.0	88.1	461
Higher	92.4	3.8	0.0	0.6	0.0	3.3	0.0	100.0	96.1	341
Wealth quintile										
Lowest	34.6	2.3	2.2	0.5	0.6	59.0	0.7	100.0	36.9	1,289
Second	42.9	5.4	2.9	0.2	1.0	47.3	0.2	100.0	48.3	1,194
Middle	53.1	8.2	3.3	0.9	0.6	33.0	0.9	100.0	61.4	1,099
Fourth	67.7	6.0	3.0	1.7	0.4	20.5	0.7	100.0	73.7	1,066
Highest	89.0	2.9	1.1	0.4	0.0	6.4	0.3	100.0	91.9	1,029
Total	56.0	4.9	2.5	0.7	0.5	34.7	0.6	100.0	60.9	5,677

Note: If more than one source of prenatal care was mentioned, only the provider with the highest qualifications is considered in this tabulation.
¹ Skilled provider includes doctor, nurse, midwife, and Lady Health Visitor.

Sixty-one percent of mothers receive prenatal care from skilled health providers, that is, from a doctor, nurse, midwife, or Lady Health Visitor. Only 3 percent of women receive prenatal care from a traditional birth attendant (*dai*). In addition, 1 percent of mothers receive prenatal care from a Lady Health Worker, a hakim, or a dispenser or compounder. Thirty-five percent of women receive no prenatal care at all (Figure 9.1).

Younger mothers (less than 35 years) are more likely to receive prenatal care from a skilled health provider than older mothers (age 35-49). Mothers are also much more likely to receive care from a skilled health provider for their first births (73 percent) than for births of order six and higher (50 percent).

Figure 9.1 Source of Prenatal Care



PDHS 2006-07

There are large differences in the use of prenatal care services between urban and rural women. Seventy-eight percent of urban mothers receive prenatal care from a skilled health provider compared with only 54 percent of rural mothers.

The use of prenatal care services from a skilled health provider is strongly related to the mother's level of education. Women with higher education are almost twice as likely to receive prenatal care from a skilled health provider (96 percent) than women with no education (50 percent). Similarly, women in the highest wealth quintile are two and a half times more likely to receive care from a skilled health provider (92 percent) than women in the lowest wealth quintile (37 percent).

There has been a significant improvement over the past ten years in the proportion of mothers who receive prenatal care from a skilled health provider, increasing from 33 percent in 1996 (Hakim et al., 1998) to 43 percent in 2001 (NIPS, 2001) to 44 percent in 2003 (NIPS, 2007a) to 61 percent in 2006-07.

9.1.1 Number and Timing of Prenatal Visits

Prenatal care is more beneficial in preventing adverse pregnancy outcomes when it is sought early in the pregnancy and is continued through delivery. The World Health Organization (WHO) recommends that a woman without complications have at least four visits to provide sufficient prenatal care. It is possible during these visits to detect health problems associated with a pregnancy. In the event of complication, more frequent visits are advised and admission to a health facility may be necessary.

Table 9.2 shows that more than one-fourth (28 percent) of pregnant women make four or more prenatal care visits during their entire pregnancy. Urban women (48 percent) are more than twice as likely as rural women (20 percent) to have four or more prenatal visits.

Thirty-one percent of women make their first prenatal care visit before the fourth month of pregnancy. The median duration of pregnancy at the first prenatal care visit is 4.2 months (3.6 months in urban areas and 4.8 months in rural areas).

The percentage of women who made four or more prenatal care visits during their pregnancy has increased during the last ten years, from 16 percent in 1996 (Hakim et al., 1998) to 24 percent in 2003 (NIPS, 2007a) to 28 percent in 2006-07.

Number and timing of prenatal care visits	Residence				Total
	Total urban	Major city	Other urban	Rural	
Number of prenatal care visits					
None	17.2	10.5	24.7	42.3	34.7
1	9.9	6.4	13.8	14.7	13.2
2-3	23.1	19.1	27.7	21.9	22.2
4+	48.3	62.2	32.6	19.8	28.4
Don't know/missing	1.5	1.7	1.3	1.3	1.4
Total	100.0	100.0	100.0	100.0	100.0
Number of months pregnant at time of first prenatal care visit					
No prenatal care	17.2	10.5	24.7	42.3	34.7
<4	47.0	57.8	34.9	23.5	30.6
4-5	16.4	14.6	18.5	11.7	13.1
6-7	12.7	12.4	12.9	12.4	12.5
8+	5.4	3.5	7.6	8.3	7.4
Don't know/missing	1.3	1.2	1.4	1.8	1.6
Total	100.0	100.0	100.0	100.0	100.0
Number of women	1,714	909	806	3,962	5,677
Median months pregnant at first visit (for those with prenatal care)	3.6	3.3	4.3	4.8	4.2
Number of women with prenatal care	1,410	809	601	2,263	3,673

9.1.2 Components of Prenatal Care

The content of prenatal care is important in assessing the quality of prenatal care services. Pregnancy complications are an important source of maternal and child morbidity and mortality, and thus teaching pregnant women about the danger signs associated with pregnancy and the appropriate action to take are essential components of prenatal care.

Table 9.3 presents information on the percentage of women who took iron tablets or syrup and calcium tablets during their last pregnancy in the five years preceding the survey. The table also shows the percentage of women receiving prenatal care who were informed about the signs of pregnancy complications and the percentage who received specific routine prenatal care services.

Among women with a live birth in the past five years, 43 percent took iron tablets or syrup and 44 percent took calcium tablets while pregnant with the last child. There are substantial variations in iron supplementation by background characteristics. Women age 20-34 at the time of the birth (46 percent), women pregnant with their first child (52 percent), urban women (58 percent), women residing in Sindh (54 percent), women with higher education (83 percent), and women in the highest wealth quintile (72 percent) are much more likely to have taken iron supplements during their pregnancy than their counterparts. A similar pattern by background characteristics is seen in the intake of calcium tablets.

Eighty percent of mothers who receive prenatal care report that they had their blood pressure taken, and two-thirds say they had an ultrasound procedure. About half of the women gave urine and blood samples for testing. Thirty-eight percent of pregnant women who sought prenatal care were weighed, but only one-fourth (25 percent) were informed about pregnancy complications during a prenatal visit.

Table 9.3 Components of prenatal care

Among women age 15-49 with a live birth in the five years preceding the survey, the percentage who took iron tablets or syrup and calcium tablets during the pregnancy of the most recent child, and among women receiving prenatal care (ANC) for the most recent live birth in the five years preceding the survey, the percentage receiving specific prenatal services, according to background characteristics, Pakistan 2006-07

Background characteristic	Among women with a live birth in the last five years, the percentage who during the pregnancy of their last child		Number of women with a live birth in the past five years	Among women who received prenatal care for their most recent birth in the last five years, the percentage with selected services:					Number of women with prenatal care for their most recent birth	
	Took iron tablets or syrup	Took calcium tablets		Informed of signs of pregnancy complications	Weighed	Blood pressure measured	Urine sample taken	Blood sample taken		Ultra-sound
Mother's age at birth										
<20	41.0	39.0	460	22.8	33.8	74.3	50.2	44.8	68.8	299
20-34	45.5	46.8	4,303	25.6	40.7	81.3	50.6	44.2	67.1	2,895
35-49	34.1	33.2	915	22.8	27.6	72.8	40.4	40.1	56.5	479
Birth order										
1	51.8	50.6	965	26.2	39.3	80.7	58.0	50.3	75.0	752
2-3	48.1	49.5	1,917	27.1	45.0	81.8	55.7	50.0	71.1	1,333
4-5	39.3	41.8	1,389	24.4	36.9	81.2	43.8	38.2	60.1	849
6+	34.8	34.0	1,406	20.9	27.5	72.9	35.1	32.2	53.9	739
Residence										
Total urban	57.6	60.5	1,714	26.6	54.7	87.3	63.1	57.3	74.4	1,410
Major city	66.3	72.8	909	25.5	69.7	93.2	75.1	68.9	81.6	809
Other urban	47.8	46.7	806	28.1	34.4	79.3	46.9	41.7	64.7	601
Rural	37.1	36.8	3,962	24.0	28.3	74.9	40.6	35.3	60.6	2,263
Province										
Punjab	39.5	44.8	3,182	23.8	39.2	75.1	48.1	41.1	71.3	2,090
Sindh	53.8	45.7	1,404	27.0	37.3	87.4	48.0	48.0	59.7	1,019
NWFP	43.5	43.7	827	27.6	39.0	83.3	60.0	50.6	62.1	444
Balochistan	32.7	25.1	264	19.9	32.7	78.8	40.2	28.7	39.0	119
Mother's education										
No education	33.5	32.9	3,668	20.9	25.8	73.7	36.6	32.0	54.4	1,984
Primary	48.0	53.8	854	23.6	39.4	79.7	50.4	43.7	72.4	641
Middle	55.4	60.9	353	30.6	46.8	84.4	67.4	55.4	80.1	295
Secondary	74.1	71.6	461	31.3	61.5	90.5	71.4	63.5	83.1	424
Higher	82.5	83.7	341	39.3	75.5	97.2	78.2	78.6	87.5	330
Wealth quintile										
Lowest	26.1	22.4	1,289	19.7	16.3	70.5	21.2	22.2	43.8	520
Second	32.5	31.6	1,194	21.1	22.7	70.0	33.7	30.9	54.8	626
Middle	40.7	41.3	1,099	23.1	26.3	71.1	41.6	32.4	57.8	727
Fourth	51.4	57.2	1,066	27.1	42.8	84.1	56.5	48.2	72.0	840
Highest	71.7	74.5	1,029	30.1	66.1	93.4	74.0	68.5	85.9	960
Total	43.3	44.0	5,677	25.0	38.4	79.6	49.2	43.7	65.9	3,673

The quality of prenatal care is particularly related to mother's education, mother's wealth, and residence. For example, among women who receive prenatal care, more than 75 percent of women with higher education were weighed and gave urine and blood samples for testing compared with only about one-third or less of women with no education. Similarly, women with higher education are more likely to have an ultrasound (88 percent) than women with no education (54 percent). Ninety-seven percent of highly educated women had their blood pressure measured compared with 74 percent of women with no education. Similarly, women in the highest wealth quintile and urban women are much more likely to receive each of the components of prenatal care than women in the lowest wealth quintile and women with no education. For example, two-thirds of women in the highest wealth quintile were weighed during a prenatal care visit compared with only 16 percent of women in the

lowest quintile. However, urban women are only slightly more likely (27 percent) than rural women (24 percent) to be provided with information about pregnancy complications.

The overall quality of prenatal care has improved in the past five years; for example, the percentage of women who had blood tests taken increased from 39 percent in 2001 (NIPS, 2001) to 44 percent in 2006-07.

9.1.3 Reasons for Not Receiving Prenatal Checkups

Table 9.4 shows the percentage of women who had a live birth in the five years preceding the survey and who did not receive any prenatal checkup for their most recent birth, and gave specific reasons for not receiving checkups. Almost three-quarters of the mothers did not consider having a checkup to be necessary (73 percent). The next most commonly cited reasons were that prenatal care costs too much (30 percent) and that they were not allowed by their families to go for any checkup (9 percent). Eight percent of women who did not get prenatal care said that the health facility was too far, and far fewer cited reasons such as unavailability of transport, no time to go for prenatal checkups, no one to go with her to the health facility, and lack of knowledge of where to go. Also uncommon were reasons related to quality of service, such as service not good, long waiting times, and lack of female health staff.

Background characteristic	Percentage who did not get prenatal care because:												Number of women
	Not necessary	Costs too much	Too far	No transport	No one to go with	Service not good	No time to go	Didn't know where to go	Did not want to see male doctor	Long waiting time	Not allowed to go	Other	
Table 9.4 Reasons for not getting prenatal care													
Among women age 15-49 with a live birth in the five years preceding the survey who did not see anyone for prenatal care for their most recent birth, percentage who cite specific reasons for not getting prenatal care, according to background characteristics, Pakistan 2006-07													
Mother's age at birth													
<20	79.3	25.5	9.4	4.9	0.1	0.3	0.7	0.0	0.2	0.3	11.9	0.5	161
20-34	72.9	29.5	7.5	3.5	1.7	1.2	1.3	0.5	1.1	0.5	9.3	1.6	1,407
35-49	72.3	34.0	7.2	5.1	0.7	1.2	2.5	1.1	1.4	0.0	7.6	0.7	435
Birth order													
1	74.6	19.8	11.5	4.6	1.9	0.1	0.6	0.6	0.3	0.2	12.7	0.5	213
2-3	74.3	26.6	7.1	4.5	1.6	1.0	0.9	0.4	0.9	0.7	10.6	1.5	584
4-5	75.2	30.0	6.3	2.9	1.2	0.9	1.6	0.6	1.6	0.2	9.0	1.4	540
6+	70.4	36.7	7.8	4.1	1.2	1.8	2.2	0.8	1.1	0.4	6.7	1.3	666
Residence													
Total urban	73.9	21.9	1.9	0.7	2.4	1.5	2.0	0.2	1.0	0.8	10.6	1.9	304
Major city	65.1	17.1	3.5	0.0	5.4	0.8	3.7	0.0	2.3	0.0	11.4	1.9	99
Other urban	78.1	24.2	1.1	1.0	0.9	1.8	1.2	0.2	0.4	1.2	10.2	1.9	205
Rural	73.2	31.6	8.6	4.5	1.2	1.1	1.4	0.7	1.1	0.3	8.9	1.2	1,699
Province													
Punjab	79.7	30.6	6.7	2.1	0.8	1.0	1.6	1.0	1.4	0.4	7.5	1.6	1,092
Sindh	72.6	31.4	3.8	1.9	2.8	0.3	2.2	0.0	0.2	0.3	6.7	0.8	385
NWFP	60.8	27.6	11.7	7.8	1.9	1.8	0.7	0.3	1.0	0.4	13.7	1.5	382
Balochistan	59.7	30.3	13.6	12.8	0.6	2.4	1.0	0.5	0.8	1.1	15.6	0.3	145
Mother's education													
No education	73.0	32.6	8.6	4.4	1.3	1.1	1.5	0.6	1.1	0.5	8.7	1.0	1,685
Primary	74.0	19.7	3.6	0.9	2.5	0.7	1.5	0.7	0.8	0.0	11.7	1.9	213
Middle	79.3	13.4	0.0	0.4	0.0	3.0	0.0	0.9	0.4	0.0	11.7	4.5	58
Secondary	(72.5)	(11.6)	(0.0)	(1.2)	(0.0)	(0.8)	(0.0)	(0.0)	(2.9)	(0.0)	(7.5)	(2.1)	37
Higher	*	*	*	*	*	*	*	*	*	*	*	*	11
Wealth quintile													
Lowest	72.0	42.1	12.2	4.3	1.0	0.6	1.0	0.4	1.0	0.5	7.0	0.9	770
Second	71.7	30.8	7.7	7.0	1.2	1.7	1.4	1.3	0.8	0.1	10.8	1.5	567
Middle	75.8	18.6	2.2	0.9	1.7	1.3	2.0	0.5	1.6	0.5	9.1	1.4	372
Fourth	75.1	12.6	2.3	0.4	2.9	1.6	2.3	0.0	1.1	0.6	12.2	2.4	226
Highest	80.6	11.0	1.5	1.7	0.6	0.5	2.0	0.0	1.6	0.3	8.7	1.2	68
Total	73.3	30.1	7.6	3.9	1.4	1.1	1.5	0.6	1.1	0.4	9.1	1.3	2,004

Note: Figures in parentheses are based on 25-49 unweighted cases, and an asterisk denotes a figure based on fewer than 25 cases that has been suppressed.

Among women who did not receive prenatal care during their last pregnancy, younger mothers and those who were pregnant with their first child were more likely than other women to say that they did not get prenatal care because they were not allowed to go. This proportion is especially high in Balochistan (16 percent) compared with other provinces. Women with no education (33 percent) and those in the lowest wealth quintile (42 percent) are most likely to report that they do not get prenatal care because it costs too much.

These results suggest the need to inform mothers and families about the availability and benefits of prenatal checkups in order to help overcome traditional attitudes and other hurdles that prevent mothers from seeking prenatal care. The most common reasons reported deal with lack of concern, problems of accessibility, and cost of services. Utilization of prenatal care services could be increased by lowering direct and indirect costs and making services more accessible.

9.1.4 Tetanus Toxoid Vaccinations

Tetanus toxoid injections are given during pregnancy for the prevention of neonatal tetanus, historically one of the principal causes of death among infants in many developing countries. To achieve protection for herself and her newborn baby, a pregnant woman should typically receive at least two doses of tetanus toxoid. On the other hand, if a woman was fully vaccinated during a previous pregnancy, she may only require one dose during her current pregnancy to achieve such protection. Five doses are considered adequate to provide lifetime protection.

Table 9.5 presents the percentage of women who had a live birth in the five years preceding the survey and whose last birth was protected against neonatal tetanus. Three in five mothers (60 percent) with a birth in the five years preceding the survey were protected against neonatal tetanus, with more than half (53 percent) of pregnant women receiving two or more tetanus injections during the last pregnancy. These results are almost identical to those provided by the 2005-06 Pakistan Social and Living Standards Measurement Survey conducted by the Federal Bureau of Statistics (FBS, 2007c), which showed that 60 percent of mothers with a birth in the three years preceding the survey were protected against neonatal tetanus and 55 percent of pregnant women received two or more tetanus injections during the last pregnancy.

Children whose mothers are age 20-34 at the time of the birth and those of birth order 2 or 3 are more likely to be protected against neonatal tetanus than other children. There are marked differences in the tetanus coverage by province, with more than twice as many of the children born to

Table 9.5 Tetanus toxoid injections

Among mothers age 15-49 with a live birth in the five years preceding the survey, the percentage receiving two or more tetanus toxoid injections (TTI) during the pregnancy for the last live birth and the percentage whose last live birth was protected against neonatal tetanus, according to background characteristics, Pakistan 2006-07

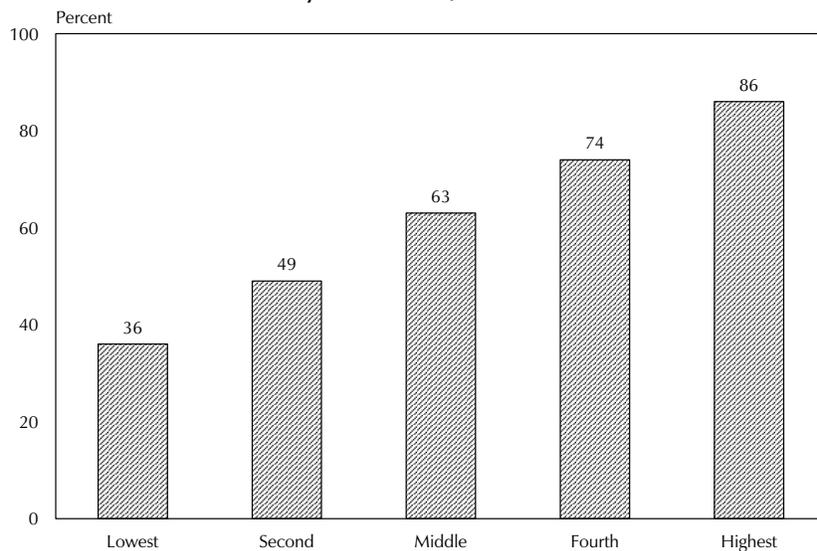
Background characteristic	Percentage receiving two or more injections during last pregnancy	Percentage whose last birth was protected against neonatal tetanus ¹	Number of mothers
Mother's age at birth			
<20	53.2	58.2	460
20-34	55.5	62.6	4,303
35-49	43.4	47.4	915
Birth order			
1	63.3	64.4	965
2-3	59.7	68.1	1,917
4-5	49.1	56.8	1,389
6+	42.3	48.3	1,406
Residence			
Total urban	65.3	73.8	1,714
Major city	71.1	78.7	909
Other urban	58.9	68.3	806
Rural	48.2	53.8	3,962
Province			
Punjab	59.0	65.1	3,182
Sindh	51.2	58.3	1,404
NWFP	43.2	51.2	827
Balochistan	29.7	30.9	264
Mother's education			
No education	42.3	47.5	3,668
Primary	65.4	73.9	854
Middle	76.5	83.2	353
Secondary	79.7	88.5	461
Higher	83.2	94.1	341
Wealth quintile			
Lowest	31.7	35.8	1,289
Second	43.7	48.6	1,194
Middle	55.5	62.6	1,099
Fourth	65.5	73.7	1,066
Highest	77.0	85.7	1,029
Total	53.4	59.8	5,677

¹ Includes mothers with two injections during the pregnancy of her last birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last birth), or four or more injections (the last within ten years of the last live birth), or five or more injections prior to the last birth

mothers in Punjab (65 percent) protected against neonatal tetanus as those whose mothers reside in Balochistan (31 percent). Education and wealth have a positive effect on whether women receive tetanus toxoid injections. Almost twice as many children born to mothers with higher education are protected against tetanus than children born to mothers with no education (94 and 48 percent, respectively). Similarly, 86 percent of births to mothers in the highest wealth quintile, compared with 36 percent of those to mothers in the lowest quintile, were protected against neonatal tetanus (Figure 9.2).

Over the past six years, the percentage of mothers who received at least two tetanus toxoid injections during pregnancy has almost doubled—from 29 percent in 2001 (NIPS, 2001) to 53 percent in 2006-07.

Figure 9.2 Percentage of Births Protected against Tetanus, by Wealth Quintile



PDHS 2006-07

9.1.5 Complications during Pregnancy

In the PDHS, for the most recent birth in the five years preceding the survey, the mother was asked if she experienced any of the following problems during the pregnancy: severe headaches, blurred vision, swelling of hands, swelling of face, vaginal bleeding or spotting, fits or convulsions, and epigastric pain. Convulsions accompanied by signs of hypertension can be symptomatic of eclampsia, a potentially fatal condition. The possible health risk posed by vaginal bleeding during pregnancy varies by when in the pregnancy the bleeding takes place. Although documenting the prevalence of the symptoms of pregnancy complications is vital for planning services to reduce maternal morbidity and mortality, the information presented here is based on women’s self reports and should be interpreted with care.

As shown in Table 9.6 and Figure 9.3, the pregnancy-related health problems most commonly reported are severe headaches (48 percent), followed by epigastric pain (31 percent), blurred vision (29 percent), swelling of hands (26 percent), and swelling of the face (23 percent). Only 8 percent reported any vaginal bleeding, and fits or convulsions are not common (4 percent). Sixty-eight percent of women reported having at least one problem during their most recent pregnancy and 23 percent had a severe problem.

Table 9.6 Pregnancy complications

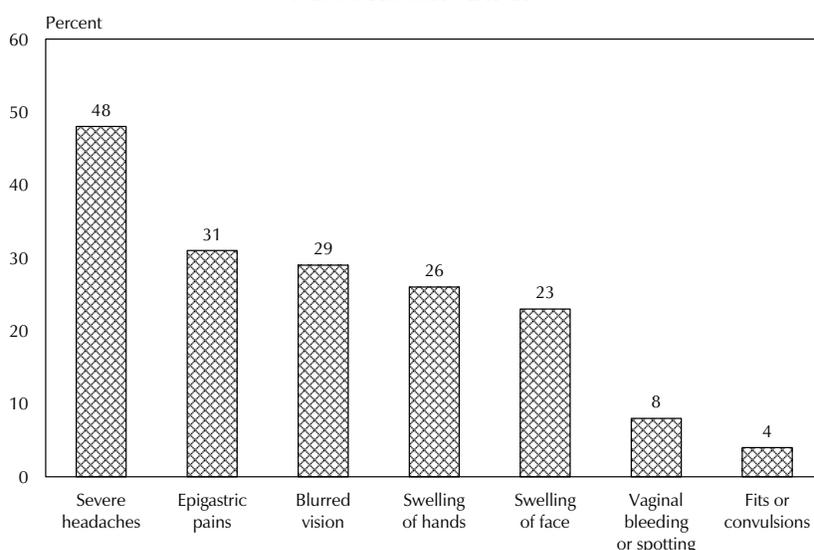
Among women age 15-49 who had a live birth in the five years preceding the survey, the percentage who had specific problems during the pregnancy or any severe problem for the most recent live birth, according to background characteristics, Pakistan 2006-07

Background characteristic	Complication/problem									Number of women
	Severe headaches	Blurred vision	Swelling of hands	Swelling of face	Vaginal bleeding or spotting	Fits or convulsions	Epigastric pain	Any problem	Any severe problem ¹	
Mother's age at birth										
<20	47.0	27.2	21.9	18.5	5.7	2.4	28.3	65.7	21.4	460
20-34	47.1	27.9	26.7	23.5	7.9	3.5	31.5	68.2	23.0	4,303
35-49	52.4	38.0	27.0	25.1	8.0	5.3	31.9	68.6	25.9	915
Birth order										
1	44.1	21.9	26.7	24.1	9.9	3.8	28.8	66.2	21.7	965
2-3	42.5	24.5	24.2	20.9	6.1	3.0	28.8	64.6	19.4	1,917
4-5	50.6	31.5	26.7	23.7	7.9	3.2	31.1	69.0	24.5	1,389
6+	55.5	39.4	28.7	25.9	8.1	5.2	36.6	73.2	28.6	1,406
Residence										
Total urban	42.7	23.6	28.7	24.8	8.3	2.9	30.7	67.2	22.3	1,714
Major city	37.0	21.7	31.1	23.9	9.5	2.8	32.5	67.3	22.0	909
Other urban	49.1	25.8	26.0	25.9	7.0	3.0	28.7	67.0	22.8	806
Rural	50.2	32.0	25.3	22.7	7.4	4.1	31.6	68.5	23.7	3,962
Province										
Punjab	40.9	24.7	24.6	20.8	6.9	3.5	26.4	60.8	18.5	3,182
Sindh	58.2	33.1	29.7	29.7	11.8	5.3	36.5	79.3	30.8	1,404
NWFP	53.4	37.8	26.1	22.5	5.4	2.1	32.3	73.2	30.4	827
Balochistan	61.5	41.2	31.0	22.6	2.9	4.0	59.7	80.4	19.6	264
Mother's education										
No education	51.3	33.6	26.0	23.8	7.7	4.5	32.0	69.1	24.4	3,668
Primary	48.4	26.8	24.5	22.0	6.0	3.5	31.1	68.3	23.5	854
Middle	42.4	23.5	25.9	20.2	6.0	2.3	34.2	67.8	20.6	353
Secondary	37.6	18.5	31.1	23.4	9.4	1.0	28.7	66.0	22.3	461
Higher	30.4	11.8	28.6	25.6	11.3	1.5	24.6	59.2	15.6	341
Wealth quintile										
Lowest	51.7	35.4	24.5	21.9	7.0	4.7	34.2	69.6	25.4	1,289
Second	53.0	34.3	24.4	24.3	7.3	3.7	31.1	71.4	24.2	1,194
Middle	50.1	30.3	27.3	24.3	7.4	4.7	31.4	67.8	24.3	1,099
Fourth	47.0	27.2	26.7	22.5	8.5	3.0	30.7	67.4	24.3	1,066
Highest	36.1	17.8	29.6	23.8	8.5	2.3	28.4	63.4	17.6	1,029
Total	48.0	29.4	26.4	23.4	7.7	3.7	31.3	68.1	23.3	5,677

¹ Refers to the question as to whether any of the problems were "so severe you thought you might die"

There are few differences by background characteristics in the prevalence of any problem and any severe health problem. At the provincial level, the percentage reporting any severe problem is higher in Sindh (31 percent) and North-West Frontier Province (NWFP) (30 percent), compared with Punjab and Balochistan (19 percent and 20 percent, respectively). Mothers' education and wealth quintile have similar patterns with regard to problems during pregnancy. For example, the prevalence of any severe problem is lower among the mothers with higher education and those in the highest wealth quintile.

Figure 9.3 Complications during Pregnancy for the Most Recent Birth



PDHS 2006-07

Table 9.7 shows information as to where women seek treatment when they experience pregnancy complications. A large proportion of women do not seek treatment at all. For example, 41 percent of women who experienced severe headaches did not go anywhere for medical treatment. Similarly, 43 percent of those who had blurred vision did not get treatment. About one-third or more of women with pregnancy complications seek assistance at private hospitals and clinics, by far the most common source of treatment, followed by government hospitals and private doctors.

Table 9.7 Pregnancy complications and place of treatment

Among women age 15-49 who had a live birth in the five years preceding the survey and who reported having any of several specific problems during the pregnancy for the most recent live birth, percentage seeking treatment from various places, Pakistan 2006-07

Place(s) treatment sought	Complication/problem						
	Severe headaches	Blurred vision	Swelling of hands	Swelling of face	Vaginal bleeding or spotting	Fits or convulsions	Epigastric pain
Own home	2.7	2.7	1.9	2.2	3.5	3.0	2.8
Other home	1.0	1.0	1.1	0.9	1.5	0.0	1.2
Government hospital	9.6	8.4	10.6	11.0	17.5	13.3	10.2
Rural health centre/maternal and child health centre	0.5	0.7	0.7	0.7	0.4	0.6	0.7
Basic health unit/family welfare centre	1.4	1.5	1.9	1.8	1.9	2.2	1.1
Other public	0.1	0.1	0.0	0.0	0.0	0.0	0.1
Private hospital/clinic	31.5	29.3	37.4	36.6	43.9	43.5	36.7
Private doctor	9.7	11.1	8.4	8.8	9.8	8.7	9.9
Other private medical	3.8	3.6	3.4	3.6	2.2	4.6	3.8
Other	0.9	0.8	0.7	0.7	1.2	1.2	0.8
No treatment sought	40.9	42.8	36.9	36.9	22.3	24.8	35.8
Number of women	2,722	1,671	1,496	1,326	437	212	1,778

Most women who do not seek treatment for pregnancy complications say the reason is that treatment is not necessary (Table 9.8). Another common reason cited is that treatment costs too much. About one in ten women say they didn't go for treatment because they were not allowed to go.

Table 9.8 Pregnancy complications and reasons for no treatment

Among women age 15-49 who had a live birth in the five years preceding the survey and who reported having any of several specific problems during the pregnancy for the most recent live birth for which they did not seek treatment, percentage citing specific reasons for not seeking treatment, Pakistan 2006-07

Reason(s) for not seeking treatment	Complication/problem						
	Severe headaches	Blurred vision	Swelling of hands	Swelling of face	Vaginal bleeding or spotting	Fits or convulsions	Epigastric pain
Not necessary	60.3	50.8	56.6	57.8	57.1	33.1	56.5
Costs too much	35.9	44.8	38.4	40.6	47.4	57.2	41.9
Too far	8.1	9.1	7.8	6.7	6.8	3.3	10.6
No transport	4.4	5.7	3.8	3.8	2.0	5.6	5.4
No one to go with	2.4	2.7	2.3	2.8	1.1	3.1	3.3
Service not good	0.8	0.4	0.7	0.9	1.7	0.0	0.7
No time to go	2.3	2.4	2.5	1.8	1.7	4.8	1.8
Didn't know where to go	0.3	0.2	0.5	0.6	0.0	2.6	0.3
Didn't want to see male doctor	0.7	0.6	0.8	0.5	1.4	0.0	0.3
Long waiting time	0.6	0.9	0.0	0.0	0.2	0.0	0.5
Not allowed to go	9.5	11.4	12.3	11.3	11.6	12.2	11.8
Other	3.2	1.6	2.5	2.8	0.7	3.6	1.6
Number of women	1,113	715	551	489	98	52	637

9.2 DELIVERY CARE

9.2.1 Preparedness for Delivery

Birth preparedness refers to advance planning and preparation for delivery by setting aside personal funds to cover the costs of travel and knowing what transport can be used to get to the hospital. Delivering with a skilled provider who has the required supplies can do much to improve maternal health outcomes. Birth preparedness helps ensure that women can reach professional delivery care when labour begins. In addition, birth preparedness can help reduce the delays that occur when women experience obstetric complications, such as recognizing the complication and deciding to seek care, reaching a facility where skilled care is available, and receiving care from qualified providers at the facility.

Table 9.9 shows that about two in five women (44 percent) who gave birth in the five years before the survey discussed with their husband where to deliver the baby, and about half of the women (49 percent) set aside money in case of emergency. Mothers of lower order births are more likely to discuss with their husbands where to deliver than mothers of higher order births (50 percent and 31 percent, respectively). It is more common for urban women to discuss with their husbands where to deliver the baby (61 percent) compared with rural women (36 percent).

Education and wealth quintile are positively related to both measures of birth preparedness. Only 33 percent of mothers with no education discussed with their husbands where to deliver compared with 86 percent of mothers with higher education. Similarly, the proportion of mothers who set aside money in case of a pregnancy-related emergency ranges from 41 percent of those with no education to 78 percent of those with higher education. Women in the highest wealth quintile are almost three times more likely to discuss with their husbands where to deliver than are women in the lowest wealth quintile (72 percent and 24 percent, respectively). The percentage of mothers in the highest wealth quintile who say they set aside money in case of emergency is double that of women in the lowest quintile.

Table 9.9 Preparations for delivery

Among mothers with a live birth in the five years preceding the survey, the percentage who, during the pregnancy for the last live birth, discussed with their husbands where they would deliver and who set aside money in case of an emergency, according to background characteristics, Pakistan 2006-07

Background characteristic	Percentage who:		Number of women
	Discussed with husband where to deliver	Set aside money in case of emergency	
Mother's age at birth			
<20	39.7	49.6	460
20-34	46.2	50.4	4,303
35-49	33.0	40.8	915
Birth order			
1	48.9	54.7	965
2-3	49.9	52.2	1,917
4-5	43.3	48.8	1,389
6+	31.4	40.0	1,406
Residence			
Total urban	61.2	58.1	1,714
Major city	71.4	61.4	909
Other urban	49.6	54.4	806
Rural	35.9	44.7	3,962
Province			
Punjab	43.8	45.9	3,182
Sindh	47.3	52.7	1,404
NWFP	38.4	50.2	827
Balochistan	36.2	57.6	264
Mother's education			
No education	32.5	41.2	3,668
Primary	50.7	54.5	854
Middle	67.2	61.8	353
Secondary	68.3	66.9	461
Higher	86.0	77.8	341
Wealth quintile			
Lowest	23.9	32.5	1,289
Second	31.2	41.5	1,194
Middle	40.6	47.7	1,099
Fourth	56.8	58.9	1,066
Highest	71.9	68.3	1,029
Total	43.5	48.8	5,677

9.2.2 Place of Delivery

Proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that may cause the death or serious illness of the mother and the baby or both. Hence, an important component in the effort to reduce the health risks of mothers and children is to increase the proportion of babies delivered in a safe and clean environment and under the supervision of health professionals. Table 9.10 presents the percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics.

Table 9.10 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery and percentage delivered in a health facility, according to background characteristics, Pakistan 2006-07

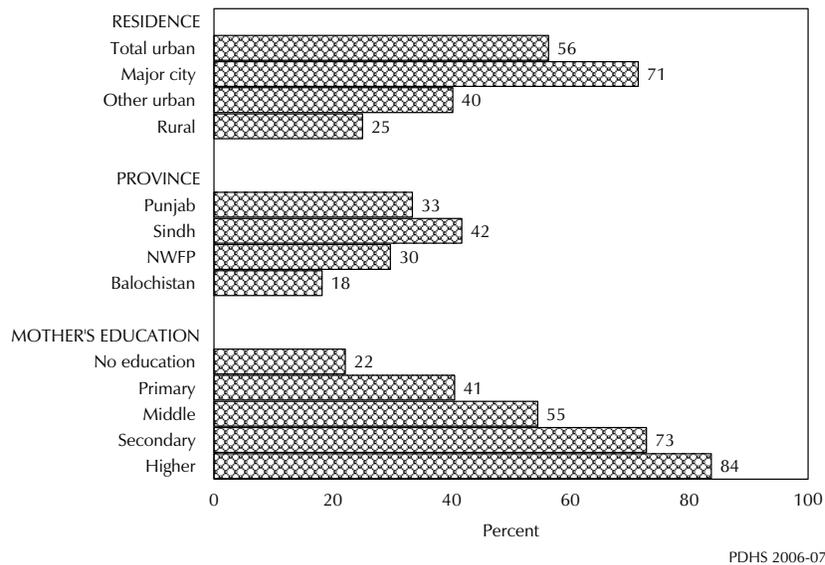
Background characteristic	Health facility		Home	Other	Missing	Total	Percentage delivered in a health facility	Number of births
	Public sector	Private sector						
Mother's age at birth								
<20	10.9	21.7	66.2	0.2	1.0	100.0	32.7	963
20-34	11.2	24.9	62.9	0.0	0.9	100.0	36.1	6,984
35-49	9.2	15.4	73.9	0.0	1.4	100.0	24.7	1,175
Birth order								
1	14.1	34.2	50.8	0.1	0.8	100.0	48.3	1,902
2-3	11.7	26.8	60.9	0.0	0.7	100.0	38.5	3,119
4-5	10.3	17.4	70.9	0.1	1.3	100.0	27.7	2,111
6+	7.3	13.9	77.4	0.1	1.4	100.0	21.1	1,989
Prenatal care visits¹								
None	4.6	7.2	88.1	0.0	0.0	100.0	11.8	1,972
1-3	10.9	24.7	64.2	0.1	0.1	100.0	35.6	2,015
4+	20.6	49.5	29.8	0.0	0.0	100.0	70.1	1,611
Residence								
Total urban	17.4	38.8	42.5	0.0	1.2	100.0	56.3	2,699
Major city	24.2	47.1	27.8	0.0	0.8	100.0	71.4	1,390
Other urban	10.2	30.0	58.2	0.0	1.6	100.0	40.2	1,310
Rural	8.2	16.8	74.0	0.1	0.9	100.0	25.0	6,422
Province								
Punjab	10.0	23.4	65.5	0.0	1.1	100.0	33.4	5,125
Sindh	10.5	31.2	57.3	0.0	0.9	100.0	41.7	2,284
NWFP	15.4	14.3	69.5	0.2	0.6	100.0	29.7	1,312
Balochistan	10.4	7.8	81.0	0.0	0.8	100.0	18.2	400
Mother's education								
No education	7.8	14.3	76.8	0.1	1.0	100.0	22.1	5,986
Primary	13.7	26.8	58.2	0.0	1.2	100.0	40.5	1,354
Middle	17.0	37.4	45.0	0.0	0.5	100.0	54.5	538
Secondary	21.6	51.2	26.4	0.0	0.8	100.0	72.8	722
Higher	18.5	65.2	15.5	0.0	0.8	100.0	83.7	522
Wealth quintile								
Lowest	3.8	8.6	86.5	0.0	1.1	100.0	12.4	2,153
Second	6.7	13.5	78.9	0.1	0.8	100.0	20.2	1,925
Middle	10.5	18.9	69.4	0.1	1.1	100.0	29.4	1,829
Fourth	16.5	30.5	51.6	0.0	1.3	100.0	47.0	1,651
Highest	20.5	53.3	25.6	0.0	0.6	100.0	73.8	1,563
Total	10.9	23.3	64.7	0.1	1.0	100.0	34.3	9,121

Note: Total includes those missing the number of prenatal care visits

¹ Includes only the most recent birth in the five years preceding the survey

Only 34 percent of births in Pakistan take place in a health facility: 11 percent are delivered in a public sector health facility and 23 percent in a private facility. Three out of five births (65 percent) take place at home. Delivery in a health facility is more common among mothers of first order births (48 percent) and mothers who have had at least four prenatal visits (70 percent). More than half (56 percent) of the children in urban areas are born in a health facility compared with 25 percent in rural areas. Delivery in a health facility also varies by provinces, being lowest in Balochistan (18 percent) and highest in Sindh (42 percent). There is a strong association between health facility delivery and mother's education and wealth quintile. The proportion of deliveries in a health facility is only 22 percent among births to uneducated mothers compared with 84 percent among births to mothers with higher education (Figure 9.4). A similar pattern is seen in terms of wealth quintiles: delivery at a health facility is significantly lower among births in the lowest wealth quintile (12 percent) than those in the highest quintile (74 percent).

Figure 9.4 Percentage of Births Delivered at a Health Facility, by Residence, Province, and Mother's Education



The percentage of births that take place in a health facility has doubled in the past ten years, increasing from 17 percent in 1996 (Hakim et al., 1998) to 23 percent in 2000-01 (NIPS, 2001) to 34 percent in 2006-07. This is especially impressive because most of the change occurred in the last six years.

9.2.3 Reasons for Not Delivering in a Facility

The overall situation of maternal health in Pakistan is dismal. Women residing in rural areas and low-income urban neighbourhoods are the victims of poor planning, lack of commitment, and negligence on the part of the government health system. The vast majority of women have little access to modern health services, particularly during pregnancy and childbirth. Many women do not receive any prenatal care during pregnancy nor do they receive any advice or information about safe delivery practices (PAP, 2000). To get a better understanding of why women do not deliver in health facilities, the 2006-07 PDHS asked women who had a birth in the five years preceding the survey why they did not give birth in a health facility.

Table 9.11 shows that the majority of women (57 percent) believe it is not necessary to give birth in a health facility, while 38 percent say that it costs too much, 7 percent mention that delivery in a facility is not customary, and 7 percent said that they did not deliver in a facility because it was too far away or that there was no transportation. In addition, 4 percent of women mentioned that the facility was not open.

Only 6 percent of women reported that their husbands or family did not allow them to deliver in a health facility. The remaining reasons—not enough time to get to the facility, lack of trust or poor quality of service, lack of a female provider available at the facility—are reported by a lower proportion of women. Belief that it is not necessary to deliver in a facility is the most common reason in both urban (58 percent) and rural areas (57 percent).

Table 9.11 Reasons for not delivering in a facility

Among women who had a live birth in the five years preceding the survey and who did not deliver the most recent birth in a health facility, percentage citing specific reasons for not delivering in a facility, according to background characteristics, Pakistan 2006-07

Background characteristic	Percentage who cited:										Number of women
	Costs too much	Facility not open	Too far/ no transport	Don't trust facility/ poor quality	No female providers	Husband/ family not allow	Not necessary	Not customary	No time	Other	
Mother's age at birth											
<20	29.9	4.8	8.2	4.1	0.5	9.6	59.2	8.2	5.4	2.5	296
20-34	37.0	4.2	6.6	3.7	0.5	5.3	57.4	6.7	5.4	1.7	2,611
35-49	45.5	5.1	7.1	2.9	0.8	5.6	56.5	9.6	5.1	0.8	669
Birth order											
1	26.6	5.4	8.0	4.3	0.3	7.0	63.1	6.0	4.8	2.5	469
2-3	34.0	4.5	6.8	3.5	0.6	6.0	57.9	6.2	6.2	1.2	1,086
4-5	37.9	4.0	6.0	3.2	0.6	5.5	58.0	7.7	5.4	2.4	946
6+	47.1	4.4	7.0	3.9	0.6	5.1	53.9	8.9	4.6	0.9	1,075
Residence											
Total urban	29.2	2.1	3.2	7.5	0.9	5.8	57.7	4.6	6.7	2.5	702
Major city	30.3	3.9	6.4	12.1	1.1	5.4	44.6	4.6	6.7	3.0	246
Other urban	28.6	1.2	1.5	5.0	0.8	6.1	64.8	4.5	6.7	2.3	456
Rural	40.1	5.0	7.7	2.7	0.5	5.7	57.3	8.1	5.0	1.4	2,874
Province											
Punjab	35.3	2.1	4.7	2.8	0.5	3.8	65.5	8.1	6.3	1.5	2,024
Sindh	49.6	5.8	6.6	4.2	0.6	5.5	46.6	3.8	3.4	1.3	774
NWFP	31.2	4.2	10.7	5.3	0.5	7.8	48.2	11.9	5.4	2.6	564
Balochistan	39.8	22.6	16.9	4.8	1.8	18.8	44.3	1.5	2.7	1.5	215
Mother's education											
No education	42.5	5.0	7.5	3.1	0.6	5.8	55.7	7.8	4.5	1.5	2,764
Primary	27.5	2.3	4.2	5.3	0.3	6.9	62.0	6.8	6.0	1.7	489
Middle	26.5	2.5	1.8	7.2	1.5	6.0	65.6	3.2	8.1	1.3	142
Secondary	8.5	1.4	8.7	3.8	0.8	2.0	61.7	4.8	12.5	4.0	131
Higher	4.3	5.9	3.7	6.5	0.0	1.2	70.4	5.9	18.7	0.7	50
Wealth quintile											
Lowest	56.1	7.5	10.1	1.3	0.6	6.7	51.2	8.3	3.2	1.1	1,104
Second	40.7	3.5	7.0	2.9	0.2	5.1	56.8	9.1	3.8	1.1	927
Middle	31.7	3.2	4.4	5.2	1.0	5.4	59.8	6.2	5.6	2.6	738
Fourth	19.7	3.0	4.3	5.3	0.7	5.6	63.9	4.7	9.2	2.1	548
Highest	7.9	1.1	4.0	8.3	0.4	4.8	65.8	5.9	10.9	1.3	259
Total	38.0	4.4	6.8	3.6	0.6	5.7	57.4	7.4	5.3	1.6	3,576

The proportions of mothers who say they did not deliver in a health facility because their families did not allow them to go or because the facility was either not open or too far are highest in Balochistan and lowest in Punjab. Wealth quintile is strongly related to reporting of cost as a factor; over half of women in the lowest wealth quintile (56 percent) mentioned that they did not deliver in a health facility because it cost too much compared with only 8 percent of women in the highest wealth quintile.

9.2.4 Use of Home Delivery Kits

The use of a home delivery kit is believed to promote safe and clean delivery at home. Table 9.12 presents data for women who had a live birth in the five years preceding the survey but whose last live birth was not delivered in a health facility. The table shows the percentage of these women who used a safe delivery kit for their last live birth and the percent distribution by what was used to tie the cord and the type of utensil used to cut the cord, according to background characteristics.

The data show that more than one-fourth (32 percent) of the women whose last birth was not delivered in a health facility used a safe delivery kit. The urban-rural differential is quite high, with 42 percent of urban women using safe delivery kits compared with 29 percent of rural women.

Table 9.12 Use of home delivery kits

Among women who had a live birth in the five years preceding the survey and whose last live birth was not delivered in a health facility, percentage who used a safe delivery kit for last live birth and percent distribution by what was used to tie the cord and utensil used to cut the cord, according to background characteristics, Pakistan 2006-07

Background characteristic	Residence				Province				Total
	Total urban	Major city	Other urban	Rural	Punjab	Sindh	NWFP	Balochistan	
Percentage using a safe delivery kit	41.8	48.3	38.3	28.8	34.2	24.2	32.2	28.3	31.4
Percent distribution by what was used to tie the cord									
Unboiled thread	69.4	60.1	74.5	81.7	74.9	88.1	80.3	86.0	79.3
Boiled thread	18.0	18.3	17.8	11.6	16.2	8.2	10.4	5.7	12.9
Washed clamps	5.4	11.4	2.2	1.5	2.5	2.2	2.5	0.2	2.3
Unwashed clamps	1.9	3.7	1.0	0.6	1.1	0.2	1.1	0.3	0.8
Hair	1.1	1.5	0.8	1.1	1.2	0.4	1.5	0.8	1.1
Other	0.9	1.2	0.7	0.7	0.7	0.1	2.1	0.2	0.8
Don't know/missing	3.3	3.8	3.0	2.8	3.4	0.9	2.2	6.9	2.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent distribution by what was used to cut the cord									
New razor blade	47.9	36.2	54.2	58.0	41.5	89.2	51.0	85.8	56.0
Old razor blade	2.8	1.6	3.4	4.1	4.8	2.5	3.2	0.8	3.8
Scissors	40.8	51.5	35.1	24.7	39.4	5.5	26.1	5.3	27.9
Knife	3.4	5.2	2.4	7.9	7.8	1.4	13.9	1.4	7.0
Toka/chopper	0.2	0.0	0.2	0.6	0.6	0.0	1.0	0.0	0.5
Other	0.5	1.3	0.1	1.4	1.5	0.1	2.1	0.1	1.2
Don't know/missing	4.5	4.3	4.7	3.3	4.4	1.2	2.6	6.6	3.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	702	246	456	2,874	2,024	774	564	215	3,576

About four-fifths of the women (79 percent) who did not deliver in a health facility used unboiled thread to tie the cord. In rural settings, women are more likely to use unboiled thread (82 percent) than in urban settings (69 percent). Provincial differences are not large.

The primary care of newborns includes the proper practice of cutting the umbilical cord. Traditionally, the cord is usually cut with a razor blade, knife, sickle, or even a piece of wood, none of which is generally sterile. In some cultures, the cord is not cut until the placenta is delivered, and it is cut only after cord pulsation stops upon delivery of the placenta (Save the Children/US, 2002).

More than half of the women (56 percent) reported that a new razor blade was used to cut the cord, with 28 percent reporting use of scissors. The use of new razor blades is higher in rural areas (58 percent) than urban areas (48 percent). The percentages reporting use of a new razor blade are particularly high in Sindh and Balochistan provinces. Use of old razor blades, knives, and toka/choppers to cut the umbilical cord is not common.

9.2.5 Assistance during Delivery

Assistance during delivery by medically trained birth attendants is considered to be effective in the reduction of maternal and neonatal mortality. Women who had a live birth in the five years preceding the survey were asked who assisted with the delivery. Interviewers recorded multiple responses if more than one person assisted during delivery; however, for the purpose of this tabulation, only the most qualified attendant was considered if there was more than one in attendance.

Table 9.13 shows the type of assistance during delivery by selected background characteristics. Less than two-fifths (39 percent) of births take place with the assistance of a skilled medical provider (doctor, nurse, midwife, or Lady Health Visitor). Traditional birth attendants assist with more than half (52 percent) of deliveries, friends and relatives assist with 7 percent of deliveries,

and Lady Health Workers assist with less than 1 percent of deliveries. Only a tiny fraction of births take place without any assistance at all.

Skilled health providers are more likely to attend births to mothers age 20-34 and first order births (41 percent and 54 percent, respectively) than mothers 35-49 years (29 percent) and births of higher birth order (25 percent).

Births in urban areas are twice as likely to be assisted by a skilled health provider (60 percent) than births in rural areas (30 percent). Births in Sindh province are most likely to be attended by a skilled health provider (44 percent).

Background characteristic	Person providing assistance during delivery									Percentage delivered by a skilled provider ¹	Percentage delivered by caesarean section	Number of births
	Doctor	Nurse/ midwife/ Lady Health Visitor	Dai/ TBA	Lady Health Worker	Hakim	Relative/ friend	No one	Don't know/ missing	Total			
Mother's age at birth												
<20	32.3	6.4	53.5	0.2	0.0	6.3	0.3	1.0	100.0	38.8	6.7	963
20-34	34.8	5.7	50.5	0.5	0.1	6.8	0.6	1.0	100.0	40.5	7.8	6,984
35-49	23.3	5.5	55.4	0.7	0.0	11.8	1.7	1.5	100.0	28.8	5.0	1,175
Birth order												
1	46.5	7.2	40.8	0.9	0.0	3.5	0.4	0.8	100.0	53.6	13.6	1,902
2-3	37.2	6.2	48.7	0.4	0.1	6.3	0.4	0.7	100.0	43.3	9.0	3,119
4-5	26.6	5.1	58.1	0.5	0.1	7.3	0.8	1.4	100.0	31.7	3.7	2,111
6+	20.6	4.5	58.8	0.4	0.0	12.7	1.3	1.7	100.0	25.1	2.4	1,989
Place of delivery												
Health facility	88.7	9.0	1.4	0.6	0.0	0.1	0.1	0.0	100.0	97.7	21.3	3,125
Elsewhere	4.1	4.1	78.7	0.5	0.1	11.3	1.0	0.2	100.0	8.2	0.0	5,906
Residence												
Total urban	54.6	5.5	34.6	0.8	0.0	2.6	0.5	1.2	100.0	60.1	12.9	2,699
Major city	70.1	4.8	21.0	0.6	0.0	1.9	0.5	0.9	100.0	75.0	14.3	1,390
Other urban	38.1	6.2	49.0	1.1	0.1	3.4	0.6	1.5	100.0	44.4	11.5	1,310
Rural	24.0	5.9	58.5	0.4	0.1	9.3	0.8	1.0	100.0	29.8	4.9	6,422
Province												
Punjab	31.2	6.5	57.5	0.6	0.1	2.3	0.6	1.2	100.0	37.7	9.2	5,125
Sindh	40.6	3.8	48.5	0.3	0.0	5.2	0.3	1.1	100.0	44.4	6.5	2,284
NWFP	30.7	7.2	33.3	0.6	0.1	26.5	1.0	0.6	100.0	37.9	2.9	1,312
Balochistan	20.7	2.3	50.6	0.5	0.3	21.8	3.0	0.8	100.0	23.0	1.5	400
Mother's education												
No education	21.8	4.9	60.3	0.5	0.1	10.4	0.9	1.2	100.0	26.7	3.5	5,986
Primary	37.2	9.3	49.0	0.7	0.0	2.2	0.3	1.3	100.0	46.5	8.8	1,354
Middle	53.3	6.6	37.2	0.3	0.0	1.5	0.5	0.5	100.0	59.9	14.0	538
Secondary	70.3	4.7	22.3	1.0	0.0	0.9	0.1	0.8	100.0	74.9	18.8	722
Higher	79.0	7.0	12.0	0.2	0.2	0.7	0.3	0.5	100.0	86.0	24.2	522
Wealth quintile												
Lowest	12.9	3.1	70.1	0.4	0.1	11.4	0.6	1.3	100.0	16.1	1.8	2,153
Second	20.4	4.3	59.4	0.5	0.0	13.2	1.4	0.8	100.0	24.7	2.2	1,925
Middle	26.5	8.9	55.7	0.4	0.1	6.2	0.9	1.2	100.0	35.5	5.1	1,829
Fourth	44.3	7.8	42.4	1.0	0.0	2.8	0.3	1.4	100.0	52.1	10.7	1,651
Highest	72.1	5.2	20.6	0.5	0.0	0.8	0.2	0.7	100.0	77.3	20.1	1,563
Total	33.0	5.8	51.5	0.5	0.1	7.4	0.7	1.1	100.0	38.8	7.3	9,121

There is a strong relationship between mother's education and delivery by a skilled health provider. Births to highly educated women are more than three times more likely (86 percent) as births to uneducated mothers (27 percent) to receive assistance from a skilled health provider. Similarly, assistance during delivery by a skilled health provider varies by women's economic status: births to women in the highest wealth quintile are much more likely to be assisted by a skilled health provider (77 percent) than births to women in the lowest wealth quintile (16 percent).

Table 9.13 also shows that 7 percent of births are delivered by caesarean section. Delivery by caesarean section is highest among births to highly educated mothers (24 percent), births to mothers in the highest wealth quintile (20 percent), urban births (13 percent), and first births (14 percent).

9.3 POSTNATAL CARE

Worldwide, a large proportion of maternal and neonatal deaths occurs during the 24 hours after delivery. In addition, the first two days following delivery are critical for monitoring complications arising from the delivery. A postnatal care visit is also an ideal time to educate a new mother on how to care for herself and her newborn. Safe motherhood programs emphasize the importance of postnatal care, recommending that all women receive at least two postnatal checkups and iron supplementation for 45 days after a delivery. To assess the extent of postnatal care utilization, mothers interviewed in the PDHS were asked whether they had received a health check after the delivery of their most recent birth in the five years preceding the survey, when they received the first checkup, and what type of health provider they saw for postnatal care.

9.3.1 Timing of First Postnatal Checkups

Table 9.14 shows that in the five years preceding the survey, two-fifths (43 percent) of women received postnatal care for their last birth, making it far less common than prenatal care (65 percent). More than one-fourth of women received postnatal care within four hours of delivery, 6 percent received care within the first 4-23 hours, 7 percent of women received postnatal care two days after delivery, and 3 percent of women were seen 3-41 days after delivery. Almost three out of five women reported that they did not have any postnatal checkup. Differences by mother's age, birth order, place of residence, wealth quintile, and education are pronounced. Older mothers (age 35-49 years), mothers of children of higher birth order, rural women, women in the two lowest wealth quintiles, and mothers with no education are much less likely to have a postnatal checkup.

Table 9.14 Timing of first postnatal checkup

Among women age 15-49 giving birth in the five years preceding the survey, the percent distribution of the mother's first postnatal checkup for the last live birth by time after delivery, according to background characteristics, Pakistan 2006-07

Background characteristic	Timing after delivery of mother's first postnatal checkup						Total	Number of women
	Less than 4 hours	4-23 hours	2 days	3-41 days	Don't know/missing	No checkup		
Mother's age at birth								
<20	24.8	6.2	4.5	2.7	0.9	60.9	100.0	460
20-34	28.2	6.4	7.3	2.7	1.1	54.3	100.0	4,303
35-49	19.8	4.2	5.8	1.8	1.2	67.3	100.0	915
Birth order								
1	29.5	8.1	7.8	2.5	1.7	50.5	100.0	965
2-3	29.8	7.1	6.7	2.8	1.2	52.4	100.0	1,917
4-5	26.6	5.2	6.6	2.4	1.1	58.1	100.0	1,389
6+	20.1	3.9	6.7	2.5	0.6	66.2	100.0	1,406
Residence								
Total urban	35.2	9.8	7.5	3.0	1.9	42.5	100.0	1,714
Major city	38.7	12.5	8.5	1.8	2.2	36.3	100.0	909
Other urban	31.2	6.8	6.4	4.5	1.6	49.5	100.0	806
Rural	22.8	4.4	6.6	2.4	0.7	63.1	100.0	3,962
Province								
Punjab	26.7	4.3	5.4	2.3	1.2	60.1	100.0	3,182
Sindh	35.4	12.0	9.8	2.2	0.6	40.0	100.0	1,404
NWFP	16.2	2.8	4.4	2.4	1.6	72.6	100.0	827
Balochistan	10.0	5.1	16.1	9.1	0.2	59.5	100.0	264
Education								
No education	20.8	4.5	6.5	2.2	0.8	65.2	100.0	3,668
Primary	29.7	5.0	9.5	3.2	1.4	51.1	100.0	854
Middle	39.3	10.3	5.2	2.2	0.7	42.3	100.0	353
Secondary	41.3	10.1	7.1	4.4	1.3	35.8	100.0	461
Higher	47.7	14.5	5.7	3.3	3.3	25.5	100.0	341
Wealth quintile								
Lowest	18.4	3.7	6.3	2.5	0.6	68.5	100.0	1,289
Second	19.0	4.5	5.7	1.6	0.0	69.2	100.0	1,194
Middle	25.3	4.2	7.4	2.5	1.1	59.6	100.0	1,099
Fourth	31.1	6.5	8.9	3.7	1.4	48.4	100.0	1,066
Highest	42.3	12.2	6.2	2.7	2.5	34.1	100.0	1,029
Total	26.6	6.0	6.8	2.6	1.1	56.9	100.0	5,677

Table 9.15 presents information on the type of postnatal care provider by mother's background characteristics. Just over one-quarter of mothers (27 percent) received postnatal care from a skilled health provider, and 16 percent received care from a traditional birth attendant. Mothers of first order births, mothers with higher education, those from the wealthiest households, and those in urban areas are more likely to have received postnatal care from a skilled health provider.

Table 9.15 Type of provider of first postnatal checkup

Among women age 15-49 giving birth in the five years preceding the survey, the percent distribution by type of provider of the mother's first postnatal health check for the last live birth, according to background characteristics, Pakistan 2006-07

Background characteristic	Type of health provider of mother's first postnatal checkup				Total	Number of women
	Doctor/ nurse/Lady Health Visitor	Dai/ TBA	LHW/ dispenser/ compounder/ other/ don't know/ missing	No checkup		
Mother's age at birth						
<20	23.4	15.3	0.3	60.9	100.0	460
20-34	29.0	16.1	0.7	54.3	100.0	4,303
35-49	17.7	13.5	1.5	67.3	100.0	915
Birth order						
1	35.9	13.1	0.6	50.5	100.0	965
2-3	32.8	14.0	0.7	52.4	100.0	1,917
4-5	23.4	17.7	0.8	58.1	100.0	1,389
6+	15.4	17.4	1.0	66.2	100.0	1,406
Residence						
Total urban	45.3	11.6	0.5	42.5	100.0	1,714
Major city	56.9	6.5	0.3	36.3	100.0	909
Other urban	32.2	17.5	0.8	49.5	100.0	806
Rural	18.7	17.3	0.9	63.1	100.0	3,962
Province						
Punjab	25.1	14.4	0.5	60.1	100.0	3,182
Sindh	37.1	21.4	1.5	40.0	100.0	1,404
NWFP	19.3	7.1	0.9	72.6	100.0	827
Balochistan	14.7	25.5	0.3	59.5	100.0	264
Education						
No education	16.4	17.4	1.0	65.2	100.0	3,668
Primary	31.5	16.9	0.5	51.1	100.0	854
Middle	43.3	14.0	0.3	42.3	100.0	353
Secondary	55.5	8.5	0.2	35.8	100.0	461
Higher	70.0	4.0	0.5	25.5	100.0	341
Wealth quintile						
Lowest	10.3	19.6	1.6	68.5	100.0	1,289
Second	13.7	16.6	0.4	69.2	100.0	1,194
Middle	22.2	17.6	0.6	59.6	100.0	1,099
Fourth	35.5	15.7	0.5	48.4	100.0	1,066
Highest	58.1	7.2	0.6	34.1	100.0	1,029
Total	26.7	15.6	0.8	56.9	100.0	5,677

9.3.2 Complications during Delivery and the Postnatal Period

For the most recent births in the five years preceding the survey, the mother was asked if she experienced any of the following complications during delivery and/or the postnatal period: severe headaches, blurred vision, swelling of hands and face, high fever, convulsions, prolonged labour, baby's feet came first (breech birth), placenta came first (placenta praevia), continuous urine dribbling, bad vaginal discharge, inability to control bowel motions, and heavy vaginal bleeding. As shown in Table 9.16, the most common complications during delivery and the postnatal period are severe headaches (37 percent), followed by high fever (26 percent), blurred vision (21 percent), and prolonged labour (17 percent). One out of ten women reported swelling of hands, swelling of face, and bad smelling vaginal discharge. Eight percent of women reported heavy vaginal bleeding. Inability to control bowel motions, fits or convulsions, urinary incontinence, breech birth, and placenta praevia are less common complications.

Table 9.16 Complications during delivery and postnatal period

Among women who had a live birth in the five years preceding the survey, percentage who had specific problems during the delivery or the 40-day period after delivery of the most recent live birth, according to background characteristics, Pakistan 2006-07

Background characteristic	Percentage who experienced:															Number of women
	Severe head-aches	Blurred vision	Swelling of hands	Swelling of face	High fever	Fits/convulsions	Labour for more than 12 hours	Baby's feet came first	Placenta came first	Continuous urine dribbling	Bad-smelling vaginal discharge	Inability to control bowel motions ¹	Heavy vaginal bleeding	Any problem	Any severe problem ¹	
Mother's age at birth																
<20	30.8	17.9	5.5	5.0	23.9	2.5	20.7	3.1	0.9	3.5	8.6	1.8	10.3	53.8	19.6	460
20-34	36.3	19.6	9.9	9.4	25.8	3.3	16.7	2.0	1.0	3.9	9.7	4.1	7.7	57.1	18.6	4,303
35-49	40.8	26.9	12.3	12.4	30.3	4.8	16.6	1.9	0.6	5.2	10.8	4.8	7.2	57.4	19.5	915
Birth order																
1	31.6	17.0	8.6	7.6	21.6	2.9	19.5	1.5	0.6	3.8	8.3	3.5	9.2	55.4	18.0	965
2-3	32.6	17.0	9.1	8.4	22.9	2.9	15.9	2.3	0.9	3.3	9.9	3.9	6.5	54.7	16.5	1,917
4-5	39.3	22.0	10.0	10.2	28.4	3.3	16.8	2.0	0.9	4.6	9.8	4.4	7.2	57.8	19.0	1,389
6+	42.6	26.7	12.0	11.7	32.5	4.8	17.0	2.2	1.2	5.0	10.7	4.3	9.3	59.9	22.2	1,406
Residence																
Total urban	34.1	19.0	10.3	9.3	23.5	2.7	17.1	2.4	1.3	4.8	10.9	3.8	8.8	56.6	17.4	1,714
Major city	32.9	17.5	11.4	8.8	20.1	2.5	16.5	2.4	1.7	6.3	13.3	3.7	9.3	55.9	17.4	909
Other urban	35.4	20.7	9.1	9.8	27.3	3.0	17.8	2.5	0.9	3.2	8.1	4.0	8.3	57.4	17.3	806
Rural	37.6	21.3	9.8	9.6	27.7	3.8	16.9	1.9	0.8	3.8	9.3	4.1	7.4	57.0	19.4	3,962
Province																
Punjab	28.5	16.7	7.8	8.1	20.7	3.2	13.9	1.7	0.7	4.3	8.4	6.0	5.0	48.1	14.9	3,182
Sindh	49.4	24.1	14.1	12.9	41.0	4.2	20.1	2.5	1.5	5.3	15.6	1.9	13.9	71.6	25.2	1,404
NWFP	39.1	24.8	9.4	8.8	23.2	2.0	14.9	2.2	1.0	2.1	6.4	1.3	7.9	56.8	21.3	827
Balochistan	57.2	35.8	15.1	11.6	27.3	7.9	44.8	3.2	0.6	2.6	5.9	0.7	9.0	84.0	23.7	264
Education																
No education	39.8	23.0	10.8	10.6	29.3	4.4	18.1	2.2	0.9	4.1	10.0	4.0	8.2	58.8	19.9	3,668
Primary	35.4	20.4	8.7	8.9	24.7	2.7	15.9	2.6	1.4	4.9	9.4	5.4	6.1	57.1	19.5	854
Middle	31.1	15.1	8.5	6.7	21.4	1.5	19.0	0.9	0.7	4.7	10.4	5.4	7.8	54.5	15.4	353
Secondary	27.3	12.9	7.3	6.9	18.1	0.5	11.9	1.3	0.8	3.0	9.5	2.0	8.5	48.7	14.2	461
Higher	22.8	11.8	8.6	6.0	16.2	1.7	13.0	1.5	0.3	3.4	7.9	2.2	7.6	49.3	15.0	341
Wealth quintile																
Lowest	40.6	22.0	12.0	11.3	33.7	6.1	17.9	2.3	0.3	4.1	10.0	3.6	8.0	60.0	22.0	1,289
Second	40.4	23.9	10.6	11.1	28.6	3.9	17.9	2.2	0.5	3.8	9.4	4.6	7.6	60.2	21.3	1,194
Middle	37.6	24.2	8.5	9.7	26.4	3.0	18.7	2.1	1.3	4.8	10.4	5.3	7.0	56.9	18.1	1,099
Fourth	33.6	17.6	8.6	7.4	24.1	2.1	17.0	2.7	1.6	4.3	9.0	4.0	8.3	55.9	17.5	1,066
Highest	28.9	14.5	9.5	7.5	17.0	1.5	13.0	0.8	1.1	3.6	10.1	2.6	8.3	50.1	14.0	1,029
Total	36.6	20.6	9.9	9.5	26.4	3.5	17.0	2.1	0.9	4.1	9.8	4.0	7.8	56.9	18.8	5,677

¹ Refers to the question as to whether any of the problems were "so severe you thought you might die"

About three in five women (57 percent) reported any problem during delivery and the postnatal period, and about one in five women reported any severe problem. The prevalence of any severe problem is surprisingly rather uniform across background characteristics.

9.3.3 Fistula

One of the most serious injuries of childbearing is obstetric fistula, a hole in the vagina or rectum usually caused by prolonged labour without treatment. In such cases, the baby usually dies. Because the fistula leaves women leaking urine or faeces or both, it typically results in social isolation, depression, and poverty. Left untreated, fistula can lead to chronic medical problems (UNFPA, 2005).

Table 9.17 shows that only 3 percent of ever-married women who have ever given birth have experienced the most common symptom of fistula, the constant dribbling of urine. Less than half a percent of ever-married women reported leaking stool from the vagina. There are no meaningful differences by background characteristics.

Table 9.17 Fistula							
Percent distribution of ever-married women 15-49 who have ever given birth by whether they have ever experienced symptoms of fistula, Pakistan 2006-07							
Background characteristic	Dribbling of urine	Stool from vagina	Both urine dribbling and stool from vagina	Neither	Don't know/missing	Total	Number of women
Residence							
Total urban	2.4	0.3	0.2	95.8	1.3	100.0	2,981
Major city	2.5	0.5	0.3	96.0	0.7	100.0	1,684
Other urban	2.2	0.1	0.1	95.4	2.2	100.0	1,297
Rural	2.8	0.2	0.1	95.5	1.4	100.0	5,819
Province							
Punjab	3.4	0.2	0.2	94.9	1.4	100.0	5,118
Sindh	1.7	0.4	0.0	97.4	0.5	100.0	2,102
NWFP	1.8	0.2	0.3	96.8	0.9	100.0	1,184
Balochistan	1.0	0.0	0.0	92.3	6.7	100.0	395
Education							
No education	2.7	0.2	0.2	95.3	1.6	100.0	5,830
Primary	3.3	0.4	0.2	95.3	0.8	100.0	1,241
Middle	2.6	0.5	0.0	95.5	1.4	100.0	520
Secondary	1.7	0.1	0.0	97.6	0.6	100.0	683
Higher	2.2	0.0	0.0	96.9	1.0	100.0	526
Wealth quintile							
Lowest	2.5	0.1	0.1	95.0	2.3	100.0	1,706
Second	2.6	0.3	0.2	95.7	1.2	100.0	1,743
Middle	3.2	0.4	0.0	94.7	1.6	100.0	1,720
Fourth	2.8	0.3	0.1	95.7	1.2	100.0	1,811
Highest	2.2	0.2	0.2	96.8	0.5	100.0	1,819
Total	2.7	0.2	0.1	95.6	1.4	100.0	8,800

Arshad Mahmood and Mehboob Sultan

This chapter examines information from the 2006-07 Pakistan Demographic and Health Survey (PDHS) on the health status of children under the age of five. The analysis is based on the responses of mothers on the birth weights and level of immunization among children, as well as the prevalence and treatment of the common childhood illnesses diarrhoea, acute respiratory infection (ARI), and fever. Data for birth weights were taken for all live births in the five years preceding the survey, but data for immunization and illness were taken only for surviving children. The analysis will help policymakers in planning appropriate strategies to improve child health.

10.1 BIRTH WEIGHT

Low birth weight has long been used as an important public health indicator. Babies whose birth weight is low not only have lower chances of survival but also face higher risk of morbidity and mortality (Mahmood, 2001). In Pakistan, a large proportion of births occur at home and it is difficult to obtain the birth weight of these babies. Results from the 2006-07 PDHS show that mothers reported a birth weight for only one in ten births. This proportion has not changed much since the 1990-91 PDHS when birth weight was reported for only 8 percent of births (NIPS and Macro, 1992). Mothers who did not report a birth weight were asked to report the size of the child at birth; responses were categorized as “very small,” “smaller than average,” and “average or larger.”

Table 10.1 shows significant differentials in reporting the birth weight by mothers' socioeconomic characteristics. It shows that more than half of the mothers (51 percent) with higher education reported birth weight, compared with a very small proportion (4 percent) of mothers with no education. Moreover, mothers in the highest wealth quintile also reported a higher proportion of birth weights, compared with mothers in the lowest wealth quintile (32 and 3 percent, respectively).

One of the goals of the Declaration and Plan of Action adopted at the United Nations General Assembly Special Session on Children in 2002 was to reduce the incidence of low birth weight babies by at least one-third between 2000 and 2010. The reduction in low birth weight also forms an important contribution to the Millennium Development Goal for reducing child mortality (UNICEF, 2004). Table 10.1 shows separately the distribution by birth weight among births for which the mother reported a birth weight, as well as the distribution of all births by the child's size at birth.

Overall, among those few for whom a birth weight was reported, 26 percent were low birth weight (less than 2.5 kg), compared with 31 percent who were reported to be small or very small at birth. Contrary to expectations, the prevalence of births reported by the mother to be very small or smaller than average in the 1990-91 PDHS (22 percent) has increased to 31 percent in 2006-07. This implies that it would be very difficult for the Government of Pakistan to achieve the targets for improving low birth weight set for 2010.

Low birth weight is also associated with age of the mother and birth order. The analysis shows that a higher proportion of low birth weight babies are born to mothers younger than 20 years and older than 35 years age than to mothers aged 20-34. First births and births of sixth and higher birth orders are also reported to have higher proportions with low birth weights compared with second to fifth births. Mother's education and wealth quintile are strongly associated with low birth weight babies. Table 10.1 shows that 12 percent of the babies born to mothers with no education were reported to be very small at birth compared with 6 percent of the births to mothers with higher education. Similarly, 12 percent of babies born to mothers in the lowest wealth quintile are of very small size compared with 7 percent of those born to mothers in the highest wealth quintile.

Table 10.1 Child's weight and size at birth

Percent distribution of live births with a reported birth weight in the five years preceding the survey by birth weight, percent distribution of all live births in the five years preceding the survey by mother's estimate of baby's size at birth, and percentage of all births with a reported birth weight, according to background characteristics, Pakistan 2006-07

Background characteristic	Percent distribution of births with a reported birth weight ¹			Number of births	Percent-age of all births with a reported birth weight	Percent distribution of all live births by size of child at birth				Total	Number of births
	Less than 2.5 kg	2.5 kg or more	Total			Very small	Smaller than average	Average or larger	Don't know/missing		
Mother's age at birth											
<20	39.2	60.8	100.0	68	7.1	14.0	22.2	62.9	0.9	100.0	963
20-34	24.2	75.8	100.0	781	11.2	10.6	19.5	68.7	1.2	100.0	6,984
35-49	28.3	71.7	100.0	72	6.1	12.0	20.8	65.6	1.6	100.0	1,175
Birth order											
1	27.6	72.4	100.0	271	14.3	13.5	20.3	65.3	0.9	100.0	1,902
2-3	23.8	76.2	100.0	388	12.5	9.7	19.0	70.4	0.8	100.0	3,119
4-5	24.2	75.8	100.0	171	8.1	10.1	20.6	67.7	1.6	100.0	2,111
6+	30.3	69.7	100.0	91	4.6	12.1	20.4	65.8	1.7	100.0	1,989
Residence											
Total urban	23.2	76.8	100.0	591	21.9	9.1	19.9	69.3	1.6	100.0	2,699
Major city	19.5	80.5	100.0	436	31.4	8.4	18.3	72.3	1.0	100.0	1,390
Other urban	33.6	66.4	100.0	155	11.8	9.9	21.7	66.1	2.3	100.0	1,310
Rural	30.0	70.0	100.0	330	5.1	12.0	20.0	67.1	1.0	100.0	6,422
Province											
Punjab	24.1	75.9	100.0	483	9.4	9.3	18.2	71.1	1.4	100.0	5,125
Sindh	27.4	72.6	100.0	376	16.5	11.7	24.4	62.9	1.0	100.0	2,284
NWFP	27.4	72.6	100.0	59	4.5	16.1	16.9	66.1	0.9	100.0	1,312
Balochistan	*	*	100.0	3	0.8	14.4	26.5	57.5	1.6	100.0	400
Mother's education											
No education	32.9	67.1	100.0	262	4.4	12.4	20.8	65.5	1.2	100.0	5,986
Primary	38.5	61.5	100.0	122	9.0	10.7	20.3	67.5	1.5	100.0	1,354
Middle	18.6	81.4	100.0	69	12.8	8.5	17.5	73.2	0.7	100.0	538
Secondary	25.0	75.0	100.0	200	27.7	7.1	15.7	76.0	1.2	100.0	722
Higher	14.9	85.1	100.0	268	51.3	5.6	17.4	76.2	0.8	100.0	522
Wealth quintile											
Lowest	(30.9)	(69.1)	100.0	54	2.5	12.4	23.4	63.1	1.1	100.0	2,153
Second	37.8	62.2	100.0	73	3.8	12.9	19.9	66.4	0.8	100.0	1,925
Middle	34.3	65.7	100.0	149	8.2	11.8	19.9	66.8	1.5	100.0	1,829
Fourth	25.3	74.7	100.0	151	9.1	10.1	18.2	69.9	1.8	100.0	1,651
Highest	20.7	79.3	100.0	494	31.6	7.4	17.1	74.6	0.9	100.0	1,563
Total	25.6	74.4	100.0	921	10.1	11.1	20.0	67.7	1.2	100.0	9,121

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk denotes a figure based on fewer than 25 unweighted cases that has been suppressed.

¹ Based on either a written record or the mother's recall

10.2 CHILD IMMUNIZATION

The Pakistan Expanded Programme on Immunization (EPI) follows the international guidelines recommended by the World Health Organization (WHO). The guidelines recommend that all children receive a BCG vaccination against tuberculosis; three doses of DPT vaccine for the prevention of diphtheria, pertussis (whooping cough), and tetanus; three doses of polio vaccine; and a vaccination against measles during the first year of the child's life. These vaccinations are recorded on a health card given to the parents. In addition to these standard immunizations, Pakistan's EPI programme recommends that children also receive three doses of the hepatitis vaccine. In addition to

the programme of routine immunizations, since 1994 Pakistan has also conducted a number of special national immunization days (NID) in the effort to eradicate polio.

According to the EPI programme, approximately 5.1 million children are given immunization services every year. Morbidity and mortality are significantly reduced due to the immunization programme in Pakistan. It is estimated that more than 100,000 deaths due to measles, 70,000 cases of neonatal tetanus, and 20,000 paralytic cases of poliomyelitis are being prevented each year in Pakistan due to these vaccinations (NIH, 2008).

In the PDHS, mothers were asked to show the interviewer the health cards of all children under the age of five. The interviewer copied from the card the date each vaccine was received. If a child never received a health card or if the mother was unable to show the card to the interviewer, the mother was asked to recall whether the child had received BCG, polio, DPT (including the number of doses for polio and DPT), and measles vaccinations.

10.2.1 Vaccination Coverage

Information on vaccination coverage is presented in Table 10.2 according to the source of information used to determine coverage, i.e., the vaccination card or mother's report. Data are presented for children age 12-23 months, thereby including only those children who have reached the age by which they should be fully vaccinated. This indicator shows the proportion of children aged 12-23 months who had been vaccinated. Mothers were able to produce health cards for 24 percent of these children. Another survey reported availability of cards for only 11 percent of children (MOH, 2006), whereas the 2005-06 Pakistan Social and Living Standards Measurement Survey (PSLM) shows availability of cards for an exceptionally high proportion (49 percent) of children in Pakistan (Federal Bureau of Statistics, 2007c).

Source of information	BCG	DPT			Polio			Hepatitis B			Measles	All basic vaccinations ²	No vaccinations	Number of children	
		1	2	3	0 ¹	1	2	3	1	2					3
Vaccinated at any time before survey															
Vaccination card	23.6	23.3	22.0	20.9	19.3	23.4	22.0	21.0	23.1	21.9	20.8	19.2	18.2	0.0	361
Mother's report	56.8	51.5	44.5	37.5	37.0	69.7	68.6	62.1	48.0	42.1	36.5	40.7	29.1	6.0	1,160
Either source	80.3	74.8	66.5	58.5	56.3	93.0	90.6	83.1	71.0	64.0	57.3	59.9	47.3	6.0	1,522
Vaccinated by 12 months of age³															
	77.6	71.7	63.9	56.1	56.0	89.1	86.5	78.6	68.2	61.3	54.5	50.2	39.2	9.1	1,522

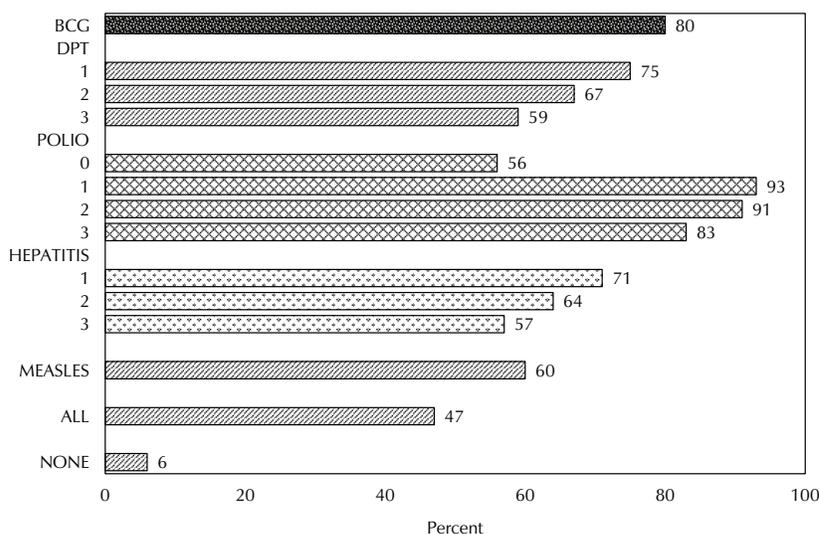
¹ Polio 0 is the polio vaccination given at birth.
² BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth and hepatitis)
³ For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccination.

According to information from the vaccination records and mothers' recall, 80 percent of the children aged 12-23 months have received a BCG vaccination, 75 percent have received the first dose of DPT, and 93 percent have received at least one dose of polio. Figure 10.1 shows that the coverage decreases for subsequent doses of DPT and polio. Only 59 and 83 percent of children receive the third doses of DPT and polio, respectively. Dropout rates between the first and third doses of DPT and of polio are thus 22 and 11 percent, respectively.¹ The findings show that 60 percent of children aged 12-23 months have received measles vaccination and 6 percent have not received any vaccinations at all.

¹ The dropout rate is the proportion of those receiving the first dose who receive the second and third doses.

Overall, 47 percent of children 12-23 months are fully vaccinated according to the 2006-07 PDHS. This compares to a level of 57 percent for the 2006 Ministry of Health (MOH) survey and 71 percent in the 2005-06 PSLM.

Figure 10.1 Percentage of Children 12-23 Months Who Received Specific Vaccines Any Time Before Survey



PDHS 2006-07

As mentioned earlier, the Government of Pakistan expanded the immunization programme to include three doses of hepatitis B vaccine. These vaccinations should also be given before the child reaches one year of age. Immunization coverage for hepatitis B is presented in Table 10.2 and is based on vaccination cards and mothers' reports. Although hepatitis B vaccination was recently initiated, 71 percent of children aged 12-23 have received at least one dose of the vaccine and 57 percent have completed the three-dose series.²

10.2.2 Differentials in Vaccination Coverage

According to the data shown in Table 10.3 and Figure 10.2, girls are less likely than boys to have been fully immunized against the six preventable childhood diseases (44 and 50 percent, respectively). Since the national immunization programme does not discriminate by gender in service delivery, these differences are presumably due to parental discrimination in favour of boys. In addition, immunization coverage also varies across background characteristics of children. For example, the percentage of children who have been fully immunized decreases with increasing birth order, ranging from 52 percent for the first born to 42 percent for the sixth or higher children. Table 10.3 shows that children in urban areas are more likely than rural children to have completed the vaccination schedule (54 percent and 44 percent, respectively).

Immunization coverage varies substantially across provinces. Provinces with the highest coverage are Punjab (53 percent) and North West Frontier Province (NWFP) (47 percent); Sindh (37 percent) and Balochistan (35 percent) have considerably lower levels of full immunization coverage. Table 10.3 also shows that in Balochistan more than one-quarter (29 percent) of the children do not

² Note that hepatitis B vaccination was not included in the "all basic vaccination" category.

have any vaccinations at all compared with less than 4 percent in Punjab. Health card coverage also varies across provinces, ranging from 11 percent in Balochistan to 34 percent in NWFP. Similarly, children whose mothers have had no education are less likely to have been fully immunized against the six preventable childhood diseases than children whose mothers have had higher education (38 percent and 71 percent, respectively). The percentage of children who are fully vaccinated varies widely by wealth quintile. Children whose mothers are in the lowest wealth quintile are far less likely to be fully immunized than children of the highest socioeconomic status (26 percent and 64 percent, respectively).

Table 10.3 Vaccinations by background characteristics

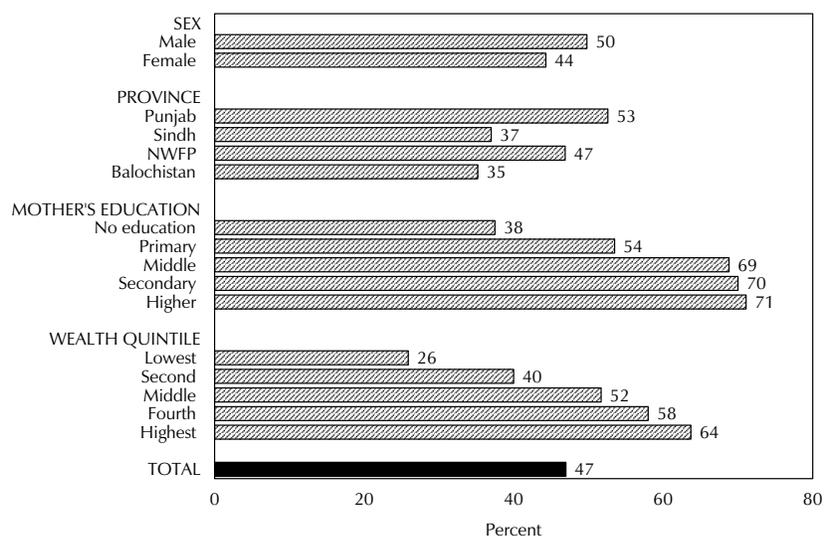
Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card, by background characteristics, Pakistan 2006-07

Background characteristic	BCG	DPT			Polio			Hepatitis B			Measles	All basic vaccinations ²	No vaccination	Percentage with a vaccination card seen	Number of children	
		1	2	3	0 ¹	1	2	3	1	2						3
Sex																
Male	82.2	77.2	70.1	61.3	59.4	93.4	91.2	84.4	73.9	67.4	59.8	63.1	49.8	5.1	23.9	816
Female	78.2	72.0	62.2	55.2	52.8	92.6	90.0	81.5	67.7	60.1	54.4	56.1	44.3	7.1	23.6	706
Birth order																
1	83.6	81.3	71.2	62.7	58.5	93.2	90.5	82.9	75.8	69.4	61.9	65.1	52.1	5.8	29.1	324
2-3	82.9	77.5	69.8	63.2	60.3	92.5	90.4	83.3	75.3	67.5	62.2	64.7	51.8	5.7	27.7	524
4-5	78.2	72.0	64.6	55.9	53.3	92.9	90.0	79.5	67.6	60.0	53.4	54.0	41.2	6.8	20.3	334
6+	75.4	67.1	58.8	49.7	51.0	93.8	91.8	86.5	63.3	57.4	49.2	53.3	41.7	5.8	15.9	340
Residence																
Total urban	89.3	83.6	77.1	68.4	61.5	93.5	91.4	81.8	80.5	74.8	67.2	68.8	54.2	5.6	26.3	484
Major city	90.9	82.5	75.1	70.5	63.4	94.4	92.0	82.3	78.0	72.5	68.5	68.8	53.9	4.7	29.5	266
Other urban	87.3	84.9	79.5	65.8	59.2	92.4	90.7	81.3	83.5	77.6	65.7	68.8	54.6	6.8	22.3	218
Rural	76.2	70.7	61.5	53.8	53.9	92.8	90.3	83.7	66.6	59.0	52.7	55.7	44.0	6.2	22.6	1,038
Province																
Punjab	85.5	80.9	72.3	64.5	58.6	95.5	93.4	84.6	76.9	69.4	63.6	65.1	52.6	3.8	23.8	865
Sindh	76.7	67.3	56.4	47.6	51.2	92.2	89.9	84.1	61.3	53.4	45.2	50.7	37.0	6.3	19.7	373
NWFP	71.1	67.5	62.4	56.4	62.6	91.3	87.9	81.0	67.1	62.3	56.3	56.6	46.9	7.5	33.9	222
Balochistan	63.0	60.8	60.0	46.7	32.5	69.2	66.3	62.9	60.9	58.8	46.3	54.0	35.2	28.9	10.6	61
Mother's education																
No education	73.7	65.8	56.1	47.5	49.5	90.9	88.3	79.9	61.9	53.7	46.1	50.6	37.5	8.0	19.0	947
Primary	87.5	83.4	75.0	65.3	56.5	96.1	94.0	87.5	76.6	69.5	64.0	66.4	53.5	2.3	26.5	231
Middle	90.1	91.1	88.3	81.0	73.3	96.3	93.9	87.6	88.5	86.4	81.4	77.4	68.8	3.7	40.1	114
Secondary	97.2	94.5	86.9	83.5	78.4	98.4	96.8	90.9	95.7	90.0	84.1	83.0	70.0	1.2	33.1	133
Higher	94.1	95.9	94.6	88.8	72.7	95.9	93.6	87.8	92.2	89.8	86.4	83.3	71.1	4.1	31.7	95
Wealth quintile																
Lowest	61.9	52.6	41.3	34.8	38.9	87.3	84.2	78.2	50.2	39.9	33.5	36.3	25.9	11.2	12.5	314
Second	73.3	68.9	59.7	47.6	47.5	92.0	90.2	81.2	65.4	56.5	45.7	50.5	40.0	7.3	19.6	332
Middle	85.4	80.5	71.8	62.9	58.0	96.0	92.5	86.7	74.7	67.7	62.5	65.3	51.7	2.8	26.3	291
Fourth	91.7	85.9	78.8	72.5	66.5	95.1	94.0	85.0	80.7	76.5	70.6	74.9	58.0	4.3	26.4	308
Highest	91.8	88.6	83.8	78.0	73.4	95.3	92.9	84.9	86.8	82.5	78.0	75.5	63.7	3.8	35.9	277
Total	80.3	74.8	66.5	58.5	56.3	93.0	90.6	83.1	71.0	64.0	57.3	59.9	47.3	6.0	23.7	1,522

¹ Polio 0 is the polio vaccination given at birth.

² BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth and hepatitis)

Figure 10.2 Percentage of Children Age 12-23 Months Who Are Fully Immunized, by Background Characteristics



PDHS 2006-07

10.2.3 Trends in Vaccination Coverage

Table 10.4 provides data on childhood vaccination coverage from various surveys conducted in Pakistan in the past two decades. The data imply that there has been a steady upward trend in the proportion of children who are fully immunized from 1990-91 to 2004-05, followed by a dramatic decline in 2006-07. However, a closer inspection shows some anomalies in the data from previous surveys. For example, the 2001-02 Pakistan Integrated Household Survey shows a far higher proportion of children as receiving the second dose of polio as received the first dose (91 percent receiving polio 2 versus 68 percent receiving polio 1), which is clearly impossible. The 2004-05 PSLM shows that 77 percent of children are fully immunized; however, the data show almost no dropout between the first and third doses of vaccines, a somewhat implausible finding. A similar pattern is found in the 2005-06 PSLM although the complete immunization rate has come down to 71 percent in one year (data not shown). Comparison with the 2006 EPI survey shows considerably lower levels of children fully immunized in the PDHS, mostly due to lower proportions of children with DPT2, DPT3, and measles vaccines in the PDHS; the proportions with polio are higher in the PDHS than the EPI survey for each of the three doses. These differences are likely due to the different survey methodologies and in particular to the differences in the questionnaire design.³

Survey	BCG	DPT			Polio			Measles	All vaccinations
		1	2	3	1	2	3		
PDHS (1990-91)	69.7	64.1	60.0	42.7	64.8	60.5	42.9	50.2	35.1
PIHS (1995-96)	73.0	73.0	64.0	58.0	71.0	65.0	58.0	47.0	45.0
PIHS (1996-97)	76.0	76.0	70.0	63.0	80.0	76.0	67.0	49.0	49.0
PIHS (1998-99)	65.0	67.0	63.0	58.0	77.0	76.0	70.0	55.0	49.0
PIHS (2001-02)	67.0	71.0	67.0	63.0	68.0	91.0	89.0	57.0	53.0
PSLM (2004-05)	82.0	82.0	81.0	80.0	82.0	81.0	81.0	78.0	77.0
EPI (2006)	77.7	74.6	69.3	64.5	73.7	68.9	64.4	62.6	56.8
PDHS (2006-07)	80.3	74.8	66.5	58.5	93.0	90.6	83.1	59.9	47.3

Sources: NIPS and Macro, 1992; Federal Bureau of Statistics, 2007c; MOH 2006
 PIHS = Pakistan Integrated Household Survey
 PSLM = Pakistan Social and Living Standards Measurement Survey

³ The 2006-07 PDHS used the standard DHS immunization questions.

10.3 CHILDHOOD DISEASES

Aside from neonatal disorders, diarrhoea, pneumonia, and malaria are the major causes of death of children under five worldwide (Black et al., 2003). Among those most vulnerable are children with low birth weight or those whose immune systems have been weakened by malnutrition or other diseases.

In the PDHS, mothers of children under five were asked if these children had symptoms associated with acute respiratory illness (ARI), fever, and/or diarrhoea in the two weeks before the survey. Information on contact with health providers and treatment practices helps assess national programmes aimed at reducing the impact of these three diseases. The extent of treatment with oral rehydration therapy or increased fluids reflects the success of programmes that encourage these behaviours.

10.3.1 Prevalence and Treatment of ARI

ARI or pneumonia is a common cause of morbidity and death among children under five years of age. Pneumonia is characterized by cough with difficult or rapid breathing and chest indrawing. For severe pneumonia, hospitalization is recommended; otherwise, ambulatory treatment with antibiotics is recommended. Early diagnosis and treatment with antibiotics can prevent many deaths caused by acute lower respiratory infection. Without early treatment for ARI, children can die very rapidly. Many deaths are the result of failure to take the child to a health facility in time.

Table 10.5 indicates that 14 percent of children under age five had symptoms of ARI in the two weeks preceding the survey. Differences by age group in ARI prevalence are not large (Figure 10.3). Prevalence of ARI varies only slightly by the child's sex and place of residence. Variations by education and wealth quintile are small, except that children whose mothers have higher than secondary education are less likely to have had ARI.

Table 10.5 shows that 69 percent of children who showed symptoms of ARI were taken to a health facility or medical provider for treatment. It also shows that treatment-seeking behaviour varies only slightly according to the child's sex. Figure 10.4 illustrates the variation by age of child in the proportion of children taken to a health facility. It shows that children aged 6-11 months are the most likely to be taken for treatment for ARI. Children in urban areas are more likely than those in rural areas to be taken for treatment when they have ARI.

Half of children with ARI received antibiotics. This proportion does not vary much except that it increases as education of the mother and household wealth increases.

Table 10.5 Prevalence and treatment of symptoms of ARI

Among children under age five, the percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey, and among children with symptoms of ARI, the percentage who received specific treatment, according to background characteristics, Pakistan 2006-07

Background characteristic	Children under age five		Children under age five with symptoms of ARI		
	Percentage with symptoms of ARI ¹	Number of children	Percentage for whom treatment was sought from a health facility or provider ²	Percentage who received antibiotics	Number of children
Age in months					
<6	12.0	962	73.2	50.0	116
6-11	19.0	820	75.4	56.1	156
12-23	16.6	1,522	73.7	53.6	253
24-35	15.1	1,668	69.6	46.2	252
36-47	12.9	1,826	62.1	48.0	236
48-59	10.4	1,570	63.8	49.3	164
Sex					
Male	15.1	4,371	70.2	52.8	661
Female	12.9	3,996	68.1	47.1	517
Cooking fuel					
Electricity or gas	14.3	2,437	82.1	60.3	350
Charcoal	20.9	56	*	*	12
Wood/straw ³	13.6	5,261	65.1	45.4	718
Animal dung	16.3	606	50.6	53.1	99
Residence					
Total urban	12.8	2,518	80.4	54.9	323
Major city	12.0	1,307	87.0	56.5	157
Other urban	13.7	1,212	74.2	53.4	166
Rural	14.6	5,849	65.1	48.5	854
Province					
Punjab	13.0	4,689	70.9	59.1	611
Sindh	17.0	2,085	78.0	41.1	354
NWFP	16.5	1,221	49.8	40.6	202
Balochistan	3.1	373	(56.1)	(35.3)	11
Mother's education					
No education	14.3	5,425	63.8	47.3	778
Primary	15.3	1,261	77.6	54.8	193
Middle	12.3	506	80.1	50.0	62
Secondary	14.7	681	80.7	65.5	100
Higher	8.9	494	(89.0)	(47.8)	44
Wealth quintile					
Lowest	14.7	1,920	58.0	39.8	281
Second	14.4	1,742	64.4	46.9	250
Middle	13.0	1,673	66.2	55.0	217
Fourth	15.2	1,559	77.6	52.4	237
Highest	13.0	1,473	85.7	62.0	192
Total	14.1	8,367	69.3	50.3	1,178

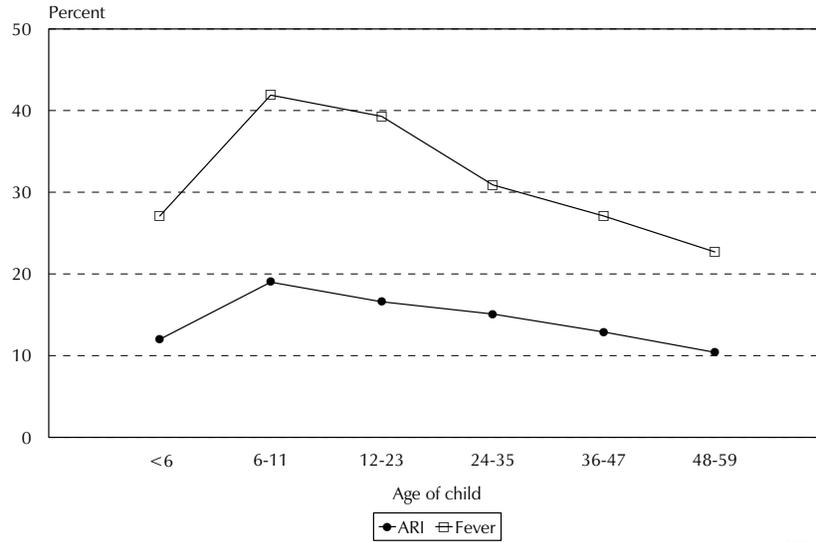
Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk denotes a figure based on fewer than 25 unweighted cases that has been suppressed.

¹ Symptoms of ARI (cough accompanied by short, rapid breathing that was chest-related) are considered, i.e., symptoms of ARI are considered a proxy for pneumonia.

² Excludes pharmacy, shop, homeopath, dispenser, compounder, hakim, Dai/TBA

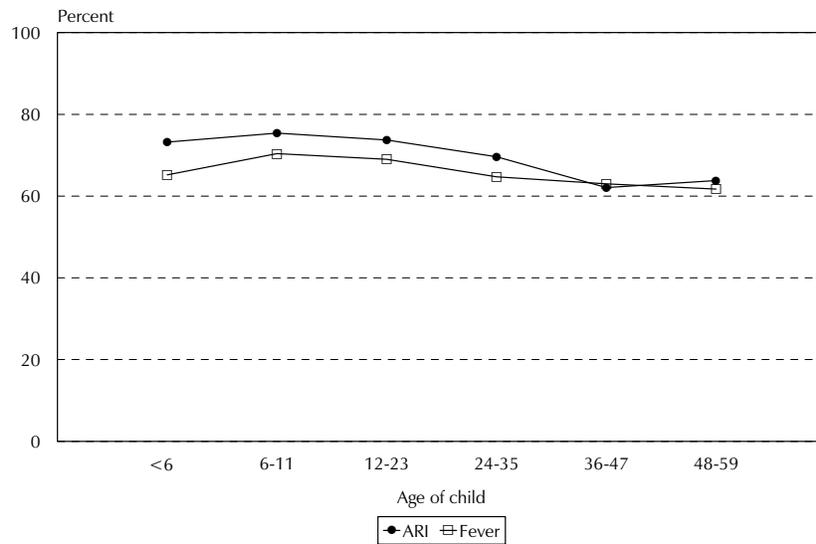
³ Includes grass, shrubs, crop residues

Figure 10.3 Prevalence of Acute Respiratory Infection (ARI) and Fever in the Two Weeks Prior to Survey by Age of Child



PDHS 2006-07

Figure 10.4 Percentage of Children with Acute Respiratory Infection and Fever Taken to Health Facility



PDHS 2006-07

10.3.2 Prevalence and Treatment of Fever

Almost one-third of children under five were reported to have had a fever in the two weeks preceding the survey (Table 10.6). Similar patterns were observed for prevalence of fever as for ARI among children under five years; however, the level of fever is much higher (31 percent).

Table 10.6 Prevalence and treatment of fever

Among children under age five, the percentage who had a fever in the two weeks preceding the survey; and among children with fever, the percentage of children for whom treatment was sought from a health facility or provider, the percentage who took antimalarial drugs, and the percentage who took antibiotic drugs, by background characteristics, Pakistan 2006-07

Background characteristic	Among children under age five:		Children under age five with fever			Number of children
	Percentage with fever	Number of children	Percentage for whom treatment was sought from a health facility or provider ¹	Percentage who took antimalarial drug	Percentage who took antibiotic drug	
Age in months						
<6	27.1	962	65.2	3.6	46.6	261
6-11	41.9	820	70.4	4.3	46.3	344
12-23	39.3	1,522	69.0	3.1	51.6	598
24-35	30.9	1,668	64.7	3.6	48.4	515
36-47	27.1	1,826	63.0	4.0	47.4	494
48-59	22.7	1,570	61.7	1.3	48.1	357
Sex						
Male	32.0	4,371	67.0	3.5	50.6	1,397
Female	29.3	3,996	64.3	3.2	45.9	1,171
Residence						
Total urban	31.4	2,518	75.5	2.5	52.3	791
Major city	33.8	1,307	77.4	1.3	53.0	441
Other urban	28.9	1,212	73.2	4.0	51.4	350
Rural	30.4	5,849	61.4	3.7	46.7	1,777
Province						
Punjab	30.3	4,689	65.6	2.0	53.7	1,418
Sindh	35.0	2,085	75.0	4.6	42.1	730
NWFP	30.3	1,221	50.4	4.1	44.2	370
Balochistan	13.4	373	49.1	16.7	24.5	50
Mother's education						
No education	29.8	5,425	61.2	3.6	46.4	1,617
Primary	33.5	1,261	72.4	2.2	52.0	422
Middle	34.9	506	69.6	3.4	54.6	177
Secondary	31.0	681	69.9	4.7	50.1	211
Higher	28.6	494	87.1	2.0	51.6	141
Wealth quintile						
Lowest	29.9	1,920	55.7	4.1	40.2	573
Second	28.8	1,742	60.4	4.4	44.6	503
Middle	28.9	1,673	61.5	1.5	50.9	484
Fourth	33.3	1,559	77.0	3.8	51.8	519
Highest	33.2	1,473	75.3	2.7	56.1	490
Total	30.7	8,367	65.8	3.3	48.4	2,569

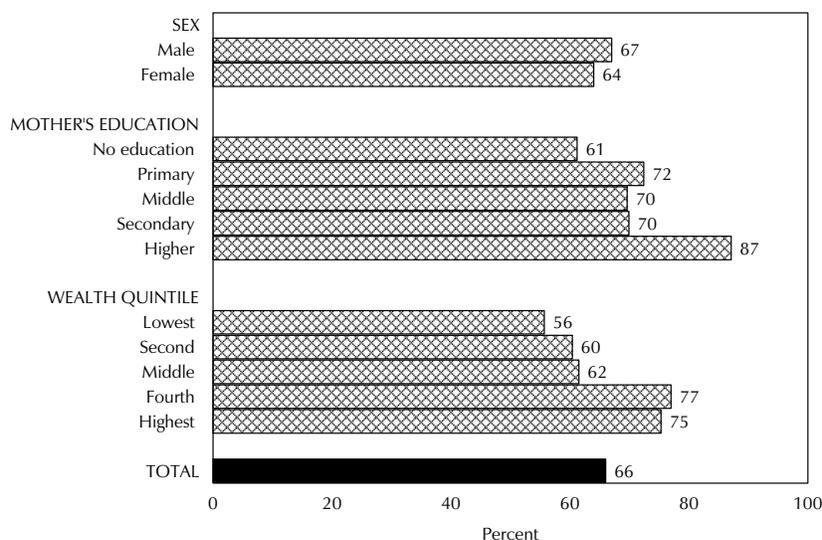
¹ Excludes pharmacy, shop, homeopath, dispenser, compounder, hakim, Dai/TBA

Overall, two-thirds of children with fever were taken to a health facility for treatment (Figure 10.5). This proportion shows little variation by age or sex of child. Children in urban areas are more likely than those in rural areas to be taken for treatment when they have fever. Children in Sindh province are the most likely to be taken for treatment when they have fever, and children in Balochistan are the least likely. Similarly, children whose mothers are more educated are more likely to be taken to a health facility for treatment. It is widely known that mother's education makes a difference in the treatment of sick children. Educated mothers are more likely to recognize signs of illness in their children and actively seek assistance from a doctor. This proactive nature of educated mothers with regard to the health of their children lowers the mortality and morbidity rates of young children. Similarly, mothers living in households of higher wealth quintile were more likely to take

their children to a health facility for ARI and fever compared with children of mothers in the lowest wealth quintile.

Only 3 percent of children with fever in the two weeks preceding the survey were reported to have received an antimalarial drug and almost half were reported to have received an antibiotic. These data should be viewed with caution because many mothers may not have been told or remember the name of the medicine their child was given.

Figure 10.5 Children under Five with Fever



PDHS 2006-07

10.3.3 Prevalence of Diarrhoea

Diarrhoea is an important cause of malnutrition. This is because nutrient requirements are increased during diarrhoea, whereas nutrient intake and absorption are usually decreased. Each episode of diarrhoea can cause weight loss. Moreover, if diarrhoea occurs frequently, there may be too little time to “catch up” on growth between episodes, thereby resulting in more undernourishment than among those who experience less frequent or shorter episodes of diarrhoea.

A simple and effective response to dehydration is a prompt increase in the child’s fluid intake through some form of oral rehydration therapy (ORT). ORT may include the use of a solution prepared from commercially-produced packets of oral rehydration salts (ORS) or a homemade mixture usually prepared from sugar, salt, and water. In Pakistan, the Health Program of the National Commission for Human Development (NCHD) has been training mothers how to prepare a homemade rehydration solution by visiting house to house (NCHD, 2006). In addition to these two special solutions, increasing the amount of any liquids given to a child during a diarrhoeal episode is another means of preventing dehydration.

In the PDHS, mothers were asked whether any of their children under five years of age had had diarrhoea during the two weeks preceding the survey. If the child had had diarrhoea, the mother was asked about any actions that were taken to treat the diarrhoea and about feeding practices during the diarrhoeal episode.

Table 10.7 shows the percentage of children under five years of age who had any diarrhoea and who had bloody diarrhoea at some time during the two-week period before the survey. Blood in the stool is a symptom of dysentery. In considering the information in Table 10.7, it is important to note that the prevalence figures may involve some reporting error because they are based on the mothers' subjective assessment of the child's illness. Because there are seasonal variations in diarrhoea, the percentages in Table 10.7 represent the prevalence of diarrhoea at the time of the survey (September 2006 to February 2007) and not the situation at other times of the year in Pakistan.

Among children under age five, 22 percent were reported to have had an episode of diarrhoea during the two-week period before the survey, and 3 percent had diarrhoea with bloody stool. Diarrhoea prevalence does not appear to differ among children living in households with "improved" or "not improved" sources of drinking water or types of toilet facilities. However, diarrhoeal prevalence is markedly lower for children whose mothers have higher education and somewhat lower for those in the highest wealth quintiles. Prevalence of childhood diarrhoea is somewhat higher in NWFP and Sindh than in other provinces of Pakistan.

Similar to the prevalence of ARI and fever, children aged 6-11 months are the most vulnerable to episodes of diarrhoea. Children aged 6-11 months were over three times more likely to have had diarrhoea than children aged 48-59 months. This is the age when a child starts taking supplementary foods and the environment around the child affects the hygiene, resulting in increased exposure to diarrhoea.

10.3.4 Treatment of Diarrhoea

The PDHS obtained information on the actions that were taken when a child had diarrhoea during the two weeks before the survey. Table 10.8 shows that more than half of the children under five whose mothers reported that they had had diarrhoea in the two weeks before the survey were taken to a health facility for consultation. Of all children with diarrhoea, two out of five were given fluid made from an ORS packet, 16 percent were given a recommended home-made fluid (RHF), and more than half (55 percent) were given ORT or more fluids than usual. Forty-seven percent of children with diarrhoea

Table 10.7 Prevalence of diarrhoea

Percentage of children under age five who had diarrhoea in the two weeks preceding the survey, by background characteristics, Pakistan 2006-07

Background characteristic	Diarrhoea in the two weeks preceding the survey		Number of children
	All diarrhoea	Diarrhoea with blood	
Age in months			
<6	26.3	1.0	962
6-11	39.6	4.6	820
12-23	30.7	5.1	1,522
24-35	20.7	3.8	1,668
36-47	14.2	2.0	1,826
48-59	11.0	2.0	1,570
Sex			
Male	22.4	3.0	4,371
Female	21.0	3.2	3,996
Source of drinking water¹			
Improved	21.6	3.2	7,729
Not improved	23.4	1.6	626
Toilet facility²			
Improved, not shared	21.7	3.1	4,015
Non-improved or shared	21.8	3.1	4,315
Residence			
Total urban	21.1	1.6	2,518
Major city	22.6	1.5	1,307
Other urban	19.5	1.7	1,212
Rural	22.1	3.7	5,849
Province			
Punjab	20.6	3.2	4,689
Sindh	23.6	3.1	2,085
NWFP	24.7	3.0	1,221
Balochistan	16.2	1.1	373
Mother's education			
No education	22.0	3.3	5,425
Primary	22.5	3.9	1,261
Middle	24.3	1.3	506
Secondary	21.1	2.3	681
Higher	15.4	1.2	494
Wealth quintile			
Lowest	22.5	3.3	1,920
Second	24.2	4.6	1,742
Middle	21.8	3.0	1,673
Fourth	19.8	2.7	1,559
Highest	19.9	1.4	1,473
Total	21.8	3.1	8,367

Note: Total includes some cases with missing data.

¹ See Table 2.9 for definition of categories.

² See Table 2.10 for definition of categories.

were given some kind of pill or syrup to treat the disease and 14 percent were given home remedies or herbs. About one in five children with diarrhoea was not treated at all.

Children with bloody diarrhoea are not only more likely than those with non-bloody diarrhoea to be taken to a health facility, but they are also more likely to receive ORS fluid, RHF, pills and syrup, or increased fluids of any kind.

Table 10.8 Diarrhoea treatment

Among children under age five who had diarrhoea in the two weeks preceding the survey, the percentage who were taken for treatment to a health provider, the percentage given oral rehydration therapy (ORT), the percentage given increased fluids, the percentage given ORT or increased fluids, and the percentage who were given other treatments, by background characteristics, Pakistan 2006-07

Background characteristic	Percent- age of children with diarrhoea taken to a health provider ¹	Oral rehydration therapy (ORT)					Other treatments					No treat- ment	Number of children
		ORS packets or pre- packaged liquid	Recom- mended home fluids (RHF)	Either ORS or RHF	Increased fluids	ORT or increased fluids	Pills, syrup	Injec- tion	Intra- venous solution	Home remedy/ other	Missing		
Age in months													
<6	47.1	24.6	13.1	33.6	13.1	42.2	34.8	10.8	2.8	10.7	0.0	33.3	253
6-11	57.8	41.1	14.5	45.4	18.0	50.7	46.3	17.1	2.3	12.4	0.0	25.1	324
12-23	62.6	48.3	18.1	54.5	21.0	61.2	49.1	17.8	2.5	14.2	0.2	17.7	467
24-35	50.0	43.8	16.2	50.3	22.4	58.8	51.4	16.1	2.0	14.3	0.1	15.9	345
36-47	57.0	45.9	16.8	50.0	24.9	57.4	50.4	18.5	1.7	18.0	0.0	18.8	259
48-59	42.8	33.3	17.3	40.9	25.8	55.0	42.4	19.1	3.6	12.3	1.9	16.8	173
Sex													
Male	55.7	41.5	16.2	47.2	20.1	54.9	46.0	16.8	2.9	13.8	0.3	20.2	981
Female	53.1	40.6	16.1	47.3	21.3	55.3	47.3	16.4	1.8	13.7	0.1	21.7	841
Type of diarrhoea													
Non-bloody	53.2	40.1	15.6	46.3	20.0	53.7	45.1	15.2	2.5	13.6	0.2	21.9	1,559
Bloody	63.2	47.2	19.6	53.0	23.9	64.1	56.5	25.8	2.0	14.2	0.3	14.5	256
Residence													
Total urban	65.5	43.8	14.9	49.5	25.1	57.3	49.2	13.8	1.0	13.1	0.2	18.1	532
Major city	68.4	41.6	13.3	47.6	33.1	59.8	51.5	13.1	1.8	10.3	0.3	16.0	295
Other urban	62.0	46.4	17.0	52.0	15.1	54.3	46.3	14.6	0.1	16.5	0.0	20.8	236
Rural	50.0	40.0	16.6	46.3	18.8	54.2	45.5	17.8	3.0	14.1	0.3	22.0	1,290
Province													
Punjab	53.7	35.1	15.1	40.8	23.5	49.8	36.7	12.6	3.1	16.2	0.2	27.6	968
Sindh	66.2	53.7	17.4	59.3	16.3	64.3	57.2	26.7	1.9	11.6	0.4	11.9	493
NWFP	40.1	37.5	18.0	47.0	18.3	54.0	60.8	14.6	1.1	8.0	0.3	16.4	301
Balochistan	44.9	51.8	13.4	53.7	21.6	71.1	49.1	9.8	1.4	21.1	0.3	9.6	60
Mother's education													
No education	50.8	40.0	15.9	45.4	17.7	52.7	47.0	17.1	2.6	13.8	0.4	21.8	1,195
Primary	56.4	47.5	17.4	55.6	25.7	63.5	46.5	17.4	3.7	15.1	0.0	16.6	284
Middle	62.8	39.3	18.8	46.9	24.1	57.0	45.4	9.3	1.4	12.6	0.0	20.2	123
Secondary	65.5	37.0	13.2	43.8	28.3	54.1	43.5	16.1	0.2	13.5	0.0	20.7	144
Higher	71.7	45.0	17.1	52.1	27.1	60.2	47.8	18.5	0.0	11.9	0.0	23.9	76
Wealth quintile													
Lowest	46.0	41.0	16.5	45.4	12.0	51.7	45.7	19.4	3.9	12.5	0.2	23.2	433
Second	51.2	38.7	17.3	47.1	18.4	53.2	46.9	17.7	1.1	12.0	0.6	21.8	422
Middle	53.5	43.4	14.1	48.0	22.0	55.6	45.3	15.3	3.3	14.6	0.2	21.3	365
Fourth	61.1	39.3	18.2	47.4	29.3	58.6	46.6	13.7	3.4	16.8	0.0	19.4	308
Highest	66.1	43.8	14.4	49.0	25.8	58.5	49.1	15.8	0.1	13.9	0.0	17.1	294
Total	54.5	41.1	16.1	47.2	20.6	55.1	46.6	16.6	2.4	13.8	0.2	20.9	1,821

Note: ORT includes solution prepared from oral rehydration salts (ORS), pre-packaged liquid or ORS packet, and recommended home fluids (RHF). Total includes some cases with missing values.

¹ Excludes pharmacy, shop, homeopath, dispenser, compounder, hakim, Dai/TBA

Table 10.8 also shows that male children with diarrhoea are slightly more likely than female children to be taken to a health facility; however, they are no more likely than female children to be treated with ORS packets, home-made fluids, or any other treatment. Moreover, children aged 12-23 months are more likely than older or younger children to be taken to health facilities when they have diarrhoea.

There are some differences in the treatment of diarrhoea cases by urban-rural residence (66 and 50 percent, respectively) as well as the province of residence. The proportion of children with diarrhoea who are taken to health facilities is highest in Sindh (66 percent) and Punjab (54 percent) provinces and lowest in NWFP (40 percent).

As expected, education of mothers is strongly related to treatment of childhood diarrhoea. Children whose mothers have higher education are much more likely to be taken to a health facility or medical professional when they have diarrhoea than are the children of mothers with no education. Similarly, children of mothers in the higher wealth quintiles are more likely to be taken to a health facility compared with children of mothers in the lower wealth quintiles.

10.3.5 Feeding Practices during Diarrhoea

The PDHS also investigated the extent to which mothers make changes in the amount of fluids that a child receives during a diarrhoeal episode. To obtain these data, mothers who had a child under age five with diarrhoea during the two weeks before the survey were asked whether they had changed the quantity that the child was given to drink or eat during the diarrhoeal episode. Table 10.9 indicates that 41 percent of children with diarrhoea were given the same quantity of fluids as usual, 21 percent received more fluids than usual, and 34 percent received somewhat or much less fluid than usual. These results suggest that in Pakistan, about one in three mothers still curtail fluid intake when their children have diarrhoea. This is a very dangerous practice that should be eliminated by campaigning against such practices through electronic and print media as well as by using the services of Lady Health Workers. With regard to feeding practices, young children—especially those under 6 months of age—were less likely to have been offered increased liquids or food than older children. There was no gender differential observed in treatment of children during diarrhoeal episodes.

Table 10.9 shows that the proportion of children given ORT or increased fluids and continued feeding during diarrhoea varies by wealth quintile of the parents. It shows that 48 percent of children in the lowest wealth quintile were given ORT or increased fluids and continued feeding compared with 57 percent of children in the highest wealth quintile. Mother's education also shows a positive relationship with use of ORT or increased fluids and continued feeding.

The analysis clearly shows that there is no gender differential found in providing increased fluids or continued feeding during diarrhoea. However, lack of mothers' education and poverty are the main hurdles in taking children to a health facility.

Table 10.9 Feeding practices during diarrhoea

Percent distribution of children under age five who had diarrhoea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, the percentage of children given increased fluids and continued feeding during the diarrhoea episode, and the percentage of children given ORT or increased fluids and continued feeding during the episode of diarrhoea, by background characteristics, Pakistan 2006-07

Background characteristic	Amount of liquids offered						Amount of food offered						Percentage given increased fluids and continued feeding ^{1,2}	Percentage given ORT or increased fluids and continued feeding ^{1,3}	Number of children with diarrhoea			
	More	Same as usual	Somewhat less	Much less	None	Don't know/missing	Total	More	Same as usual	Somewhat less	Much less	None				Never gave food	Don't know/missing	Total
Age in months																		
<6	13.1	43.1	21.8	11.2	10.7	0.1	100.0	3.4	22.6	12.0	5.8	2.1	53.5	0.6	100.0	2.8	34.6	253
6-11	18.0	43.0	22.1	12.4	4.3	0.2	100.0	6.7	34.7	19.4	10.5	4.5	24.3	0.0	100.0	10.8	48.5	324
12-23	21.0	43.6	23.7	8.5	2.9	0.3	100.0	7.5	40.2	28.4	10.9	6.4	6.2	0.3	100.0	14.1	58.9	467
24-35	22.4	35.4	23.9	14.7	2.7	1.0	100.0	6.6	40.9	26.8	19.1	3.4	2.3	1.0	100.0	17.0	57.0	345
36-47	24.9	39.8	23.6	10.1	1.6	0.0	100.0	8.3	40.9	32.1	15.4	3.2	0.1	0.0	100.0	17.8	55.9	259
48-59	25.8	40.2	19.0	12.7	1.7	0.6	100.0	10.3	43.6	23.7	18.2	2.1	1.5	0.6	100.0	21.2	53.5	173
Sex																		
Male	20.1	43.2	22.0	10.6	3.8	0.2	100.0	6.9	38.6	23.3	12.8	3.6	14.6	0.2	100.0	13.5	52.0	981
Female	21.3	38.4	23.6	12.2	4.0	0.5	100.0	7.2	35.9	25.4	13.2	4.5	13.2	0.7	100.0	14.0	52.8	841
Type of diarrhoea																		
Non-bloody	20.0	41.7	22.7	11.1	4.1	0.4	100.0	6.8	38.1	24.1	12.0	3.8	14.7	0.5	100.0	13.8	51.3	1,559
Bloody	23.9	37.3	23.0	13.0	2.9	0.0	100.0	8.0	33.0	25.9	18.6	5.3	9.2	0.0	100.0	13.3	59.6	256
Residence																		
Total urban	25.1	40.5	20.2	9.6	3.8	0.8	100.0	7.5	36.5	25.5	11.1	4.1	14.0	1.3	100.0	17.6	55.3	532
Major city	33.1	38.9	17.7	6.1	2.7	1.5	100.0	9.9	35.3	25.6	9.2	3.5	14.6	2.0	100.0	24.3	57.2	295
Other urban	15.1	42.4	23.4	13.9	5.2	0.0	100.0	4.6	38.1	25.3	13.4	5.0	13.2	0.4	100.0	9.3	52.9	236
Rural	18.8	41.2	23.8	12.1	3.9	0.2	100.0	6.8	37.7	23.8	13.8	4.0	13.9	0.0	100.0	12.1	51.2	1,290
Province																		
Punjab	23.5	45.4	19.3	6.9	4.6	0.3	100.0	7.7	39.7	22.6	10.1	3.2	16.2	0.5	100.0	15.3	46.8	968
Sindh	16.3	32.5	31.0	16.1	3.7	0.4	100.0	5.9	33.8	28.8	13.1	5.7	12.1	0.5	100.0	11.7	62.9	493
NWFP	18.3	43.5	20.1	15.7	2.1	0.3	100.0	7.7	37.6	21.6	17.3	4.7	11.2	0.0	100.0	12.8	51.6	301
Balochistan	21.6	27.4	23.9	23.4	3.0	0.8	100.0	0.9	27.2	26.8	37.5	0.8	6.0	0.8	100.0	8.4	59.7	60
Mother's education																		
No education	17.7	40.1	24.4	13.1	4.5	0.3	100.0	6.5	37.1	23.8	14.4	4.7	13.4	0.2	100.0	10.9	49.6	1,195
Primary	25.7	41.8	20.8	8.1	2.4	1.2	100.0	5.8	37.1	25.1	10.9	3.4	16.5	1.2	100.0	16.9	61.3	284
Middle	24.1	44.1	20.8	8.0	2.8	0.2	100.0	8.7	46.1	19.4	11.0	0.9	13.6	0.2	100.0	20.1	55.1	123
Secondary	28.3	43.3	16.3	9.8	2.4	0.0	100.0	10.6	31.9	31.1	9.9	2.7	13.1	0.7	100.0	22.4	52.4	144
Higher	27.1	43.3	19.0	5.6	4.9	0.0	100.0	10.7	38.4	23.6	8.4	3.6	15.3	0.0	100.0	19.9	58.5	76
Wealth quintile																		
Lowest	12.0	42.6	26.6	12.4	5.9	0.5	100.0	4.3	35.6	25.7	13.8	5.7	14.8	0.1	100.0	5.1	48.1	433
Second	18.4	38.9	26.4	12.8	3.5	0.1	100.0	6.1	40.2	23.6	14.5	2.2	13.4	0.1	100.0	12.4	50.5	422
Middle	22.0	42.2	17.5	14.0	4.0	0.3	100.0	5.9	38.4	21.3	15.3	5.8	12.9	0.4	100.0	13.8	53.2	365
Fourth	29.3	39.5	18.5	10.0	2.6	0.0	100.0	9.9	32.9	22.6	11.4	4.5	18.5	0.0	100.0	20.5	55.3	308
Highest	25.8	41.7	22.6	6.0	2.7	1.1	100.0	10.7	39.1	28.6	8.3	1.5	10.0	1.9	100.0	21.1	57.4	294
Total	20.6	41.0	22.7	11.4	3.9	0.4	100.0	7.0	37.3	24.3	13.0	4.0	13.9	0.4	100.0	13.7	52.4	1,821

¹ Equivalent to the UNICEF/WHO indicator "home management of diarrhoea"

² Continued feeding includes children who were given more, same as usual, or somewhat less food during the diarrhoea episode

³ Equivalent to UNICEF MICS Indicator 35

Syed Mubashir Ali and Mehboob Sultan

Nutritional status is the result of complex interactions between food consumption and overall health care practices. Poor nutritional status is one of the most important health and welfare problems facing Pakistan today and afflicts the most vulnerable groups: women and children. At the individual level, inadequate or inappropriate feeding patterns lead to malnutrition. Numerous socioeconomic and cultural factors influence the patterns of feeding and nutritional status. The 2006-07 Pakistan Demographic and Health Survey (PDHS) collected data on feeding practices, that is, breastfeeding, complementary feeding, and use of feeding bottles. Data on the intake of vitamin A and iron supplements were also collected from women with a child born in the five years before the survey. Information on experience of night blindness was also asked of these same women. This chapter presents the findings on infant and young child feeding practices and nutritional status of women.

11.1 BREASTFEEDING AND SUPPLEMENTATION

Feeding practices play a pivotal role in determining optimal development of infants. Poor breastfeeding and infant feeding practices have adverse consequences for the health and nutritional status of children, which in turn have consequences on the mental and physical development of the child. On the other hand, breastfeeding has a negative effect on fertility through the mechanism of lactational amenorrhoea. Fortunately, breastfeeding in Pakistan is universal and generally of fairly long duration. This practice in turn has helped to keep fertility in check even when contraceptive practice was very low.

11.1.1 Initiation of Breastfeeding

Women delivering in health facilities and at home are encouraged to initiate breastfeeding within the first 30 minutes after birth. Bottle-feeding is discouraged, and mothers are educated to breastfeed exclusively for six months. Early breastfeeding, preferably within the first 30 minutes after birth, increases the chance of breastfeeding success and generally lengthens the duration of breastfeeding.

Table 11.1 indicates that 94 percent of Pakistani children are breastfed at some point. Unfortunately, the proportion of children who are breastfed within one hour of birth is just 29 percent. Nevertheless, the proportion increases to 70 percent for children breastfed within one day after delivery. Because of the near universality of breastfeeding, there is hardly any variation by background characteristics in the percentage of children who are ever breastfed (Table 11.1). The slightly lower proportions of ever-breastfed children among those whose birth was assisted by a health professional or took place in a health facility is a matter of concern, as medical professionals should be the real proponents of breastfeeding practice. The proportion of women initiating breastfeeding within one hour of birth is highest (42 percent) in Balochistan province and lowest (19 percent) in Sindh province. A relatively lower proportion of rural women initiated breastfeeding within one day compared with their counterparts in urban areas.

Colostrum is a form of milk that is produced soon after birth. It is usually a sticky, yellow substance that is high in nutrients and antibodies. In some societies, this “early milk” is discarded, thus eliminating a potentially healthy tonic for the newborn. In Pakistan, almost two-thirds of babies are given colostrum. As expected, most of the children who are born in a health facility or delivered by a health professional are fed colostrum. This practice is highest among residents of major cities of Pakistan and in the province of Balochistan. The practice of giving colostrum to children is positively related to mother’s education as well as household wealth. In other words, more educated women and

those living in wealthy households are more aware of the benefits of giving colostrum to their newborn babies.

Two-thirds (65 percent) of children are given something other than breast milk in the first three days of life (prelacteal feed), a practice that is discouraged because it may inhibit breastfeeding and/or introduce contaminants. Mothers in rural areas are slightly more likely (67 percent) to practise prelacteal feeding than those in urban areas (62 percent). Prelacteal feeding is most common (71 percent) in North-West Frontier Province (NWFP) and least common (52 percent) in Balochistan. Prelacteal feeding, an established health hazard for newborn babies, is so deep-rooted in Pakistan that a large proportion of the babies delivered in a health facility or delivered by a health professional are receiving a prelacteal feed.

Table 11.1 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed, and for the last children born in the five years preceding the survey ever breastfed, the percentage who started breastfeeding within one hour and within one day of birth, the percentage who received a prelacteal feed, and the percentage given colostrum, by background characteristics, Pakistan 2006-07

Background characteristic	Breastfeeding among children born in past five years		Among last-born children ever breastfed:				
	Percentage ever breastfed	Number of children born in past five years	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth ¹	Percentage who were given colostrum	Percentage who received a prelacteal feed ²	Number of last-born children ever breastfed
Sex							
Male	93.7	4,782	27.6	69.0	62.3	66.0	2,885
Female	94.9	4,339	30.3	70.1	63.4	64.3	2,483
Assistance at delivery							
Health professional ³	92.8	3,538	28.8	71.7	73.1	61.2	2,209
Traditional birth attendant (Dai)	95.1	4,693	29.0	67.9	55.0	68.3	2,671
Other	95.6	726	31.1	73.3	64.2	70.4	414
No one	94.8	64	21.9	65.9	48.8	70.7	43
Place of delivery							
Health facility	92.4	3,125	28.1	72.1	74.0	59.7	1,952
At home	95.2	5,901	29.5	68.6	56.8	68.9	3,387
Residence							
Total urban	93.9	2,699	28.4	75.0	73.4	62.0	1,616
Major city	94.5	1,390	28.0	78.2	80.4	61.3	867
Other urban	93.2	1,310	28.8	71.4	65.3	62.9	748
Rural	94.5	6,422	29.0	67.2	58.2	66.6	3,753
Province							
Punjab	94.0	5,125	30.4	63.0	59.2	69.3	2,990
Sindh	94.1	2,284	19.3	75.8	64.1	55.3	1,333
NWFP	95.6	1,312	34.8	76.8	70.2	71.1	792
Balochistan	95.3	400	41.9	90.3	75.3	51.6	253
Mother's education							
No education	94.3	5,986	28.1	67.4	56.1	66.4	3,475
Primary	94.2	1,354	29.6	70.9	65.9	65.6	806
Middle	95.0	538	26.6	67.1	76.8	64.6	338
Secondary	94.0	722	34.1	83.0	82.3	60.9	430
Higher	94.2	522	29.5	73.8	86.2	58.1	320
Wealth quintile							
Lowest	94.8	2,153	24.9	63.8	45.5	65.9	1,228
Second	94.6	1,925	27.7	67.4	57.2	67.0	1,132
Middle	93.5	1,829	30.8	70.4	63.1	64.8	1,024
Fourth	94.9	1,651	31.9	72.5	71.7	66.5	1,012
Highest	93.6	1,563	29.9	75.3	81.6	61.4	972
Total	94.3	9,121	28.8	69.5	62.8	65.2	5,369

Note: Table is based on births in the last five years whether the children are living or dead at the time of interview. Total includes cases for which assistance at delivery and/or place of delivery was "other" or "missing."

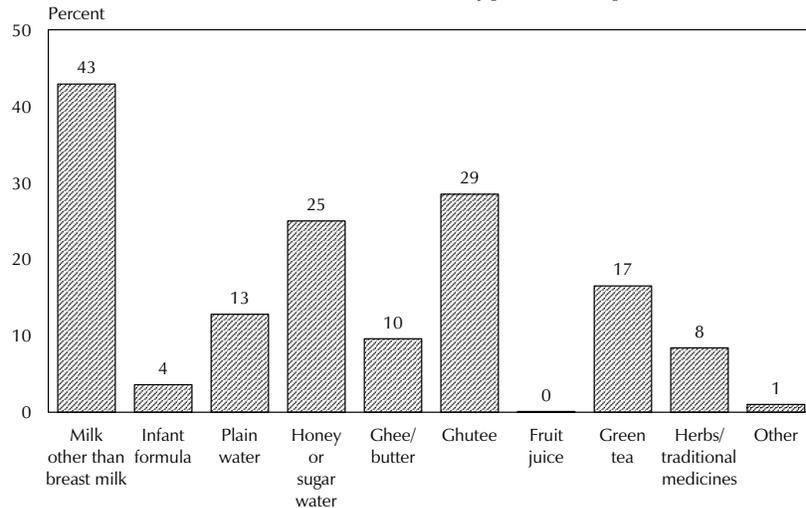
¹ Includes children who started breastfeeding within one hour of birth

² Children given something other than breast milk during the first three days of life

³ Doctor, nurse/midwife, or Lady Health Visitor

Figure 11.1 shows that the most common substance introduced before breast milk is some other sort of milk (given to 43 percent of newborns). The sweet herbal substance (*ghutee*) that is traditionally given to newborns and honey water and sugar water are also commonly used as prelacteal liquids.

Figure 11.1 Among Last Children Born in the Five Years Preceding the Survey Who Ever Received a Prelacteal Liquid, the Percentage Who Received Various Types of Liquids



Note: Percentages do not add to 100 because children may receive more than one type of liquid.

PDHS 2006-07

11.1.2 Breastfeeding Patterns

For optimal growth, it is recommended that infants should be exclusively breastfed for the first six months of life. Exclusive breastfeeding in the early months of life is correlated strongly with increased child survival and reduced risk of morbidity, particularly from diarrhoeal diseases. Table 11.2 and Figure 11.2 show that a majority (55 percent) of children under the age of two months are exclusively breastfed. This represents a doubling from the 27 percent of children under two months who were exclusively breastfed in 1990-91 (NIPS and Macro, 1992), an encouraging trend. Overall, 37 percent of infants under 6 months are exclusively breastfed. This proportion is very low when compared with the recommended 100 percent exclusive breastfeeding for children under 6 months. The propensity to feed infants under 2 months with plain water (13 percent) and other milk (28 percent) is high. At 2-3 months, the propensity to feed plain water and other milk increases further.

Table 11.2 also shows that bottle-feeding is common in Pakistan. More than one-quarter (27 per-cent) of children under six months are fed with a bottle with a nipple. Bottle-feeding practices may potentially result in increased morbidity because of unsafe water and preparation facilities.

Table 11.2 Breastfeeding status by age

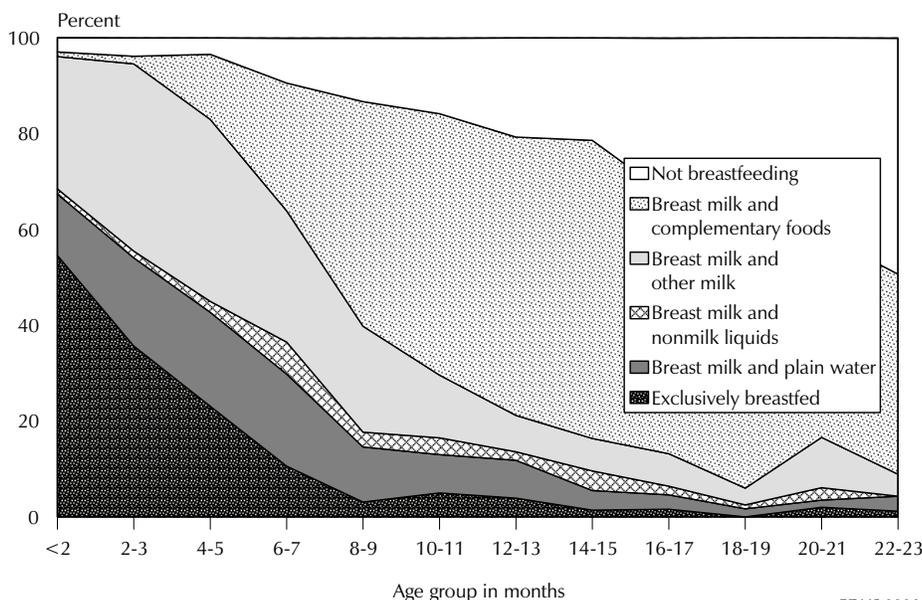
Percent distribution of most recent births under three years who are living with their mother by breastfeeding status and the percentage currently breastfeeding, and the percentage of all children under three years using a bottle with a nipple, according to age in months, Pakistan 2006-07

Age in months	Percent distribution of youngest children under three living with their mother by breastfeeding status							Percentage currently breast-feeding	Number of youngest children under 3 years	Percentage using a bottle with a nipple ¹	Number of all children under three years
	Not breast-feeding	Exclusively breastfed	Breastfeeding and consuming								
			Plain water only	Non-milk liquids/juice	Other milk	Complementary foods	Total				
0-1	3.0	54.6	12.8	1.1	27.6	1.0	100.0	97.0	282	16.8	284
2-3	3.8	35.7	18.4	1.4	39.1	1.6	100.0	96.2	355	29.7	359
4-5	3.4	23.1	19.6	2.3	38.0	13.6	100.0	96.6	318	33.2	319
6-8	10.0	8.3	17.4	5.1	25.6	33.6	100.0	90.0	443	34.5	447
9-11	15.6	4.2	8.4	3.9	16.2	51.7	100.0	84.4	368	40.2	373
12-17	24.6	2.4	5.2	2.5	7.1	58.1	100.0	75.4	843	37.8	916
18-23	41.4	1.0	2.1	1.1	5.9	48.6	100.0	58.6	494	35.7	606
24-35	73.2	0.2	0.3	0.7	2.5	23.2	100.0	26.8	1,007	32.0	1,668
0-3	3.4	44.1	15.9	1.2	34.0	1.3	100.0	96.6	637	24.0	643
0-5	3.4	37.1	17.1	1.6	35.4	5.4	100.0	96.6	955	27.1	962
6-9	11.2	7.1	15.6	5.0	24.9	36.3	100.0	88.8	566	36.4	573
12-15	21.0	2.8	6.2	2.8	7.2	60.0	100.0	79.0	590	35.3	632
12-23	30.8	1.9	4.1	2.0	6.7	54.6	100.0	69.2	1,337	37.0	1,522
20-23	45.1	1.6	2.3	1.3	7.5	42.1	100.0	54.9	293	39.1	386

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Children who are classified as breastfeeding and consuming plain water only consumed no other liquid or solid supplements. The categories of not breastfeeding, exclusively breastfed, and breastfeeding and consuming plain water, nonmilk liquids/juice, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus, children who receive breast milk and nonmilk liquids and who do not receive complementary foods are classified in the nonmilk liquid category even though they may also get plain water. Any children who get complementary foods are classified in that category as long as they are breastfeeding as well.

¹ Based on all children under three years

Figure 11.2 Infant Feeding Practices by Age



PDHS 2006-07

Table 11.3 shows that the median duration of breastfeeding among Pakistani children is 19 months, one month lower than reported in the 1990-91 PDHS, suggesting that during the last decade and a half the patterns have changed only slightly. The median duration of exclusive breastfeeding is estimated at a little less than one month.

Table 11.3 Median duration and frequency of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey; percentage of breastfeeding children under six months living with the mother who were breastfed six or more times in the 24 hours preceding the survey; and mean number of feeds (day/night), by background characteristics, Pakistan 2006-07

Background characteristic	Median duration (months) of breastfeeding among children born in the past three years ¹			Frequency of breastfeeding among children under six months ²			
	Any breast-feeding	Exclusive breast-feeding	Predomi- nantly breast-feeding ³	Percentage breastfed 6+ times in past 24 hours	Mean number of day feeds	Mean number of night feeds	Number of children
Sex							
Male	19.5	0.9	2.9	95.3	6.3	5.2	483
Female	18.2	0.9	2.6	94.0	6.4	5.4	440
Residence							
Total urban	18.0	0.7	1.8	92.6	6.6	5.4	286
Major city	16.8	0.7	1.9	91.7	7.1	5.7	133
Other urban	19.8	0.9	1.8	93.4	6.2	5.0	153
Rural	19.4	1.0	3.3	95.6	6.3	5.3	637
Province							
Punjab	17.9	0.9	2.3	94.3	5.9	5.1	508
Sindh	20.3	0.8	2.3	94.2	6.4	5.3	235
NWFP	21.5	3.2	5.7	95.5	7.1	5.8	137
Balochistan	20.7	0.6	1.5	99.0	9.1	6.8	43
Mother's education							
No education	20.2	1.0	3.4	94.9	6.2	5.3	597
Primary	16.3	0.7	2.1	94.3	6.6	5.3	138
Middle	17.1	0.9	1.8	96.2	6.8	5.7	68
Secondary	18.4	1.1	1.8	88.9	6.6	5.0	69
Higher	15.1	0.6	0.6	(98.9)	(7.1)	(5.3)	51
Wealth quintile							
Lowest	19.6	0.9	4.4	95.6	6.0	5.5	211
Second	20.4	1.6	3.9	96.3	6.7	5.4	200
Middle	18.8	1.3	1.9	94.8	6.0	5.1	182
Fourth	19.2	0.8	2.4	93.3	6.7	5.3	172
Highest	15.2	0.6	0.6	92.7	6.7	5.4	156
Total	18.9	0.9	2.7	94.7	6.4	5.3	923
Mean for all children	18.3	3.2	5.6	na	na	na	na

Note: Median and mean durations are based on current status. Includes children living and deceased at the time of the survey. Figures in parentheses indicate a figure based on 25-49 unweighted cases.
na = Not applicable
¹ It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfeeding.
² Excludes children without a valid answer on the number of times breastfed
³ Either exclusively breastfed or received breast milk and plain water and/or nonmilk liquids only

The median duration of any breastfeeding is slightly higher in rural areas (19 months) compared with urban areas (18 months). At the provincial level, duration of breastfeeding is longest in NWFP (22 months) and shortest in Punjab (18 months). Analysis by background characteristics of the mother indicates that educational level and socioeconomic status as measured by the wealth index are related to breastfeeding practices. Women with no education are more likely to breastfeed longer (20 months) than those who have higher than secondary education (15 months). Median duration of breastfeeding shows a similar pattern of generally declining durations as wealth quintile increases.

Frequent breastfeeding of children is common in Pakistan. Almost all infants (95 percent) under six months of age were breastfed six or more times in the 24 hours before the survey. Overall, the mean number of day feeds is one higher than the night feeds.

11.1.3 Complementary Feeding

Given that babies need nutritious food in addition to breast milk after the age of six months, it is recommended that children should begin receiving complementary foods at this age. To obtain full information on weaning practices, the 2006-07 PDHS collected data on breastfeeding and nonbreastfeeding children. Table 11.4 presents information on the types of complementary (weaning) foods received by children under three years of age in the day or night preceding the survey.

Overall, more than half (56 percent) of breastfed children in the age bracket 6-23 months receive commercially produced infant formula or other milk. As expected, among nonbreastfed children this proportion is far higher (92 percent). Thirty-seven percent of breastfeeding children and 57 percent of nonbreastfeeding children age 6-23 months are given other liquids besides milk.

By age 6-8 months, more than one-third of breastfed children and over half of nonbreastfed children have started receiving mushy or solid food. At higher ages, this proportion rises rapidly among both breastfed and nonbreastfed children.

11.2 MICRONUTRIENT INTAKE

Vitamin A is an essential micronutrient for the immune system and plays an important role in maintaining the epithelial tissue in the body. Severe vitamin A deficiency can cause eye damage leading to blindness and can increase the severity of infections such as measles and diarrhoeal diseases in children. Ensuring that children between 6 and 59 months receive enough vitamin A may be the single most effective child survival intervention. Additionally, adequate intake of the vitamin during pregnancy may reduce maternal deaths.

Table 11.4 Foods and liquids consumed by children

Among the most recently born living children under three years of age who are living with the mother, percentage who consumed specific types of liquids or foods in the day or night preceding the interview, according to breastfeeding status and age, Pakistan 2006-07

Age in months	Liquids			Number of children
	Infant formula/ other milk ¹	Other liquids ²	Any mushy or solid food	
BREASTFEEDING CHILDREN				
0-1	29.4	1.8	1.0	273
2-3	41.5	5.5	1.6	342
4-5	46.7	8.9	14.1	308
6-8	49.5	21.4	37.4	398
9-11	57.7	28.8	61.2	311
12-17	56.2	46.9	77.1	636
18-23	62.1	47.4	82.9	289
24-35	58.3	57.2	86.6	269
6-23	55.9	37.3	65.4	1,634
Total	50.8	28.8	47.9	2,826
NONBREASTFEEDING CHILDREN				
0-5	(90.8)	(5.8)	(11.4)	32
6-8	(98.5)	(32.3)	(55.3)	44
9-11	88.4	54.3	73.9	57
12-17	96.7	58.3	85.1	207
18-23	86.6	61.4	91.9	204
24-35	79.0	63.3	95.0	738
6-23	91.9	56.9	84.0	513
Total	84.4	59.3	88.5	1,283

Note: Breastfeeding status and food consumed refer to a 24-hour period (yesterday and last night). Numbers in parentheses are based on 25-49 unweighted cases.

¹ Other milk includes fresh, tinned, and powdered cow or other animal milk

² Does not include plain water

11.2.1 Micronutrient Intake among Children

Table 11.5 shows that 60 percent of children age 6-59 months received a vitamin A supplement in the six months preceding the survey. It is encouraging to observe that this proportion does not vary substantially by background characteristics. For example, there is hardly any male-female difference in the consumption of vitamin A supplements (61 and 60 percent, respectively). Children who are breastfed are slightly more likely (62 percent) to receive vitamin A supplements compared with their nonbreastfed counterparts (60 percent). Children age 6-8 months or 48-59 months, children of mothers age 15-19 at the time of birth, children residing in rural areas or in Balochistan province, children of uneducated mothers, and children in the lower wealth quintiles are slightly less likely than others to receive vitamin A supplements.

11.2.2 Micronutrient Intake among Women

Table 11.6 presents the percentage of women with a birth in the five years preceding the survey who received a vitamin A dose in the first two months after birth, who took iron tablets or syrup or calcium tablets during pregnancy, and who suffered from night blindness during the pregnancy. In general, 20 percent received a postpartum vitamin A dose, but this varies substantially with area of residence, province, educational attainment, and wealth quintile. Women in major urban areas are more likely (33 percent) to receive vitamin A supplements than those in rural areas (18 percent). At the provincial level, the percentage of women who reported receiving a postpartum vitamin A dose is highest in Sindh province (31 percent).

With regard to educational level, women with no education (16 percent) are least likely to receive vitamin A doses during pregnancy. The data show that 37 percent of women with higher than secondary education have received a postpartum vitamin A dose. Vitamin A supplementation is strongly associated with household wealth, rising from 12 percent of the poorest mothers to 32 percent of the wealthiest.

Night blindness—an indicator of severe vitamin A deficiency to which pregnant women are especially prone—is common in Pakistan. One in six women (16 percent) with a recent birth reported having had night blindness during their last pregnancy. When those who also reported having had difficulty in seeing during the daylight hours are subtracted, the adjusted prevalence of night blindness is reduced to 5 percent of women, still a relatively high level. The adjusted level of night blindness is higher among older (age 40-49) women, women residing in the rural areas of Pakistan, and those in the province of Sindh. Night blindness is also found to be inversely related to education of women and wealth quintile. These segments of women require immediate attention of the health planners for remedial action with vitamin A education and supplementation programmes.

Table 11.5 Micronutrient intake among children

Among all children 6-59 months, percentage who were given vitamin A supplements in the six months preceding the survey, by background characteristics, Pakistan 2006-07

Background characteristic	Percentage given vitamin A supplements in past 6 months	Number of children
Age in months		
6-8	58.0	447
9-11	64.8	373
12-17	63.6	916
18-23	62.2	606
24-35	59.5	1,668
36-47	60.5	1,826
48-59	57.2	1,570
Sex		
Male	60.5	3,866
Female	59.8	3,539
Breastfeeding status		
Breastfeeding	61.7	1,962
Not breastfeeding	60.4	5,259
Mother's age at birth		
15-19	57.8	773
20-29	60.8	4,287
30-39	59.5	2,080
40-49	62.0	265
Residence		
Total urban	61.9	2,219
Major city	63.1	1,167
Other urban	60.5	1,052
Rural	59.4	5,186
Province		
Punjab	57.5	4,157
Sindh	69.5	1,838
NWFP	56.5	1,082
Balochistan	53.6	328
Mother's education		
No education	58.0	4,804
Primary	64.0	1,114
Middle	62.8	439
Secondary	65.7	608
Higher	63.6	440
Wealth quintile		
Lowest	58.0	1,701
Second	56.1	1,534
Middle	60.4	1,481
Fourth	62.2	1,382
Highest	65.2	1,308
Total	60.2	7,405

Note: Information on vitamin A is based on the mother's recall. Total includes those missing breastfeeding status.

As seen in Table 11.6, the intake of iron tablets or syrup during pregnancy is low. Overall, more than half of women (56 percent) do not take iron tablets or syrup during pregnancy. Intake varies considerably by area of residence. Sixty-two percent of women in rural areas, compared with 33 percent of women in major cities, do not take any iron supplements during pregnancy. Among provinces, 66 percent—the highest proportion—of women in Balochistan do not take any iron supplements during pregnancy.

Table 11.6 Micronutrient intake among mothers

Among women with a child born in the five years preceding the survey, percentage who received a vitamin A dose in the first two months after the birth of the last child, percentage who suffered from night blindness during the pregnancy of the last-born child, and the percentage who took iron tablets or syrup for specific numbers of days during the last pregnancy, by background characteristics, Pakistan 2006-07

Background characteristics	Percentage who received vitamin A dose postpartum ¹	Night blindness reported	Night blindness adjusted ²	Number of days women took iron tablets or syrup during pregnancy of last birth					Number of days women took calcium tablets during pregnancy of last birth					Number of women
				None	<60	60-89	90+	Don't know/missing	None	<60	60-89	90+	Don't know/missing	
Age														
15-19	23.4	12.8	4.2	61.0	19.5	5.1	13.1	1.3	59.4	24.2	2.6	12.2	1.6	230
20-29	21.7	15.4	5.4	51.6	20.3	6.7	18.8	2.5	51.4	22.2	6.1	16.9	3.4	2,743
30-39	18.6	15.2	3.5	58.0	17.9	5.9	14.8	3.4	55.1	20.3	5.4	15.0	4.1	2,188
40-49	19.9	20.0	5.5	66.0	16.0	2.9	11.3	3.8	68.2	16.8	2.9	7.5	4.6	515
Residence														
Total urban	27.1	11.6	2.6	41.6	19.9	7.3	27.2	4.0	38.0	23.7	7.8	25.3	5.1	1,714
Major city	32.8	9.0	2.0	33.0	21.0	9.0	32.5	4.6	26.3	26.0	10.0	32.5	5.3	909
Other urban	20.6	14.5	3.2	51.2	18.7	5.3	21.4	3.4	51.3	21.0	5.4	17.3	5.0	806
Rural	17.5	17.4	5.5	61.9	18.6	5.5	11.6	2.5	61.9	19.9	4.4	10.7	3.1	3,962
Province														
Punjab	15.8	10.2	2.7	59.6	17.0	5.9	15.5	2.0	54.3	20.8	5.8	16.5	2.6	3,182
Sindh	31.1	23.8	9.5	45.3	22.7	7.0	21.4	3.7	52.3	21.9	5.0	15.6	5.2	1,404
NWFP	21.1	22.2	3.8	55.5	21.0	5.4	14.4	3.8	55.1	22.9	5.2	12.8	4.0	827
Balochistan	16.3	17.2	4.5	65.6	17.4	4.0	5.3	7.7	71.6	13.5	3.0	3.2	8.6	264
Education														
No education	16.0	18.9	5.8	65.5	17.7	4.4	9.8	2.6	65.7	19.1	3.7	8.2	3.3	3,668
Primary	24.5	13.1	4.0	50.8	20.2	7.8	18.3	3.0	44.6	25.1	6.8	20.1	3.5	854
Middle	27.3	9.3	1.4	43.6	21.5	10.0	21.6	3.3	38.9	25.7	6.5	25.0	3.9	353
Secondary	29.9	6.8	1.0	24.9	25.7	11.5	33.3	4.6	26.8	26.7	13.5	27.0	6.0	461
Higher	36.7	5.3	1.3	16.9	17.8	7.7	53.8	3.9	16.2	19.8	7.8	50.5	5.7	341
Wealth quintile														
Lowest	12.2	21.4	9.3	72.7	15.6	3.3	6.1	2.3	76.1	15.7	2.0	3.4	2.9	1,289
Second	14.7	19.7	5.4	66.9	17.9	4.1	8.8	2.3	67.4	18.3	3.1	8.5	2.7	1,194
Middle	20.5	14.0	3.2	58.1	19.7	5.3	14.1	2.8	57.0	22.0	4.8	12.3	3.9	1,099
Fourth	25.0	13.9	3.2	47.6	20.5	8.4	20.5	3.0	40.9	26.3	7.7	21.6	3.4	1,066
Highest	32.4	7.3	0.7	27.5	22.0	10.0	36.0	4.5	25.0	24.5	10.6	33.9	6.0	1,029
Total	20.4	15.6	4.6	55.7	19.0	6.0	16.3	2.9	54.7	21.0	5.4	15.1	3.7	5,677

¹ In the first two months after delivery

² Women who reported night blindness but did not report difficulty with vision during the day

Mother's education and wealth index show a strong inverse relationship with the likelihood of not taking iron supplements during pregnancy. By education, 66 percent of uneducated women, compared with only 17 percent of those with higher than secondary education, reported that they did not take iron tablets or syrup during their last pregnancy. Among women who took iron supplements during pregnancy, many took them for less than 60 days.

A similar pattern is seen for the proportion of women who take calcium tablets during pregnancy. Slightly over half (55 percent) of women said they had not taken any calcium supplements during the pregnancy leading to their most recent birth.

Mehboob Sultan and Syed Mubashir Ali

In Pakistan, malaria has been a major problem threatening the health of the people due to prevailing socioeconomic conditions and the epidemiological situation. The transmission pattern has been described as a combination of stable and unstable malaria with low to moderate endemicity. There is a tendency for epidemic breakouts over a large area, particularly in Punjab and Sindh provinces. The disease is now emerging as a prominent health problem in Balochistan and the Federally Administered Tribal Areas (FATA), particularly along the international border with Afghanistan. Malaria is a disease that disproportionately affects the poorer sections of the population living in hot, humid, and remote areas that lack good health surveillance systems; consequently, morbidity and mortality in most instances go unreported. Each year about half a million people suffer from malaria (Government of Pakistan, 2007).

Pakistan has been actively engaged in malaria control activities since 1950. A malaria control eradication campaign was launched in 1961 throughout the country. Pakistan became a member of the global partnership on the Roll Back Malaria (RBM) programme in 1999 and a RBM project was launched in Pakistan in 2001. The Malaria Control Programme in the Ministry of Health has a Malaria Information Resource Centre that receives monthly morbidity data from each district in all four provinces. Confirmed malaria cases (microscopically diagnosed) are reported to the Directorate of Malaria Control, Islamabad. Private sector data are not being reported. Clinically diagnosed cases in public health facilities are reported through the Health Management Information System (HMIS). According to estimates in 2003, a total of 3.9 million fever cases were treated as suspected malaria in public sector hospitals, while the total number of confirmed malaria cases reported from the provinces was about 127,000. About one-third of malaria cases are estimated to be due to falciparum malaria and are considered to be potentially dangerous.

According to the Ministry of Health, during the period July to December 2006, the total number of positive cases identified through active case detection (ACD) and passive case detection (PCD) was 83,600, of which 35 percent were falciparum malaria. The parasitic incidence by the end of 2006 was 0.5/1,000 population, and the incidence of falciparum malaria is reported to be 0.18/1,000 population (Government of Pakistan, 2007).

The Government of Pakistan is committed to the control and prevention of malaria. The Pakistan Health Policy 2001 lays down strategies for combating malaria through early diagnosis and prompt treatment, multiple preventive interventions, effective behaviour change communication, improved detection and response to epidemics, and development of viable partnerships with national and international partners (Government of Pakistan, 2001).

12.1 HOUSEHOLD OWNERSHIP OF MOSQUITO NETS

Table 12.1 shows that mosquito nets are not popular in Pakistan. The survey found that at the national level, only 6 percent of households have a mosquito net. The proportion of households with more than one mosquito net is even smaller. The availability of mosquito nets is higher in rural (8 percent) than in urban areas (4 percent). Mosquito nets are comparably more common in Balochistan and Sindh provinces (16 percent) and among poor segments of the society (12 percent). The availability of ever-treated nets is negligible except in Balochistan, where around 4 percent of the households have treated nets. Insecticide-treated nets (ITNs) are virtually non-existent in Pakistan.

Table 12.1 Ownership of mosquito nets

Percentage of households with at least one and more than one mosquito net (treated or untreated) and an ever-treated net, by background characteristics, Pakistan 2006-07

Background characteristic	Any type of mosquito net			Percentage with at least one ever-treated mosquito net ¹	Percentage with at least one insecticide-treated mosquito net (ITN) ²	Number of households
	Percentage with at least one	Percentage with more than one	Average number of nets per household			
Residence						
Total urban	3.5	2.0	0.1	0.7	0.0	3,159
Major city	2.0	1.3	0.0	0.7	0.0	1,808
Other urban	5.5	2.9	0.1	0.6	0.0	1,350
Rural	7.8	4.9	0.2	0.9	0.1	6,096
Province						
Punjab	2.7	1.1	0.0	0.6	0.1	5,609
Sindh	15.9	11.2	0.4	1.0	0.0	2,103
NWFP	3.3	2.1	0.1	0.7	0.1	1,173
Balochistan	16.4	10.3	0.4	3.7	0.0	370
Wealth quintile						
Lowest	11.9	8.3	0.3	0.4	0.0	1,943
Second	5.6	3.2	0.1	0.5	0.1	1,861
Middle	5.5	2.8	0.1	0.9	0.0	1,840
Fourth	4.4	2.5	0.1	0.9	0.1	1,816
Highest	3.7	2.3	0.1	1.3	0.1	1,795
Total	6.3	3.9	0.1	0.8	0.1	9,255

¹ An ever-treated net is a pretreated net or a non-pretreated net that has subsequently been soaked with insecticide at any time.

² An insecticide-treated net (ITN) is a net that has been soaked with insecticide within the past 12 months. Because there was no question as to how long ago pretreated nets were obtained, pretreated nets are not considered here to be ITNs.

12.2 USE OF MOSQUITO NETS AND OTHER REPELLENTS

Age is an important factor in the determination of levels of acquired immunity against malaria. For the first six months of life, antibodies acquired from the mother during pregnancy protect children born in areas endemic for malaria. This is gradually lost as children start developing their own immunity over a period of time. The level of immunity developed depends on the level of exposure to malaria infection, but it is believed that in high malaria-endemic areas, children who survive are immune by the fifth birthday and no longer suffer from severe life-threatening malaria. Immunity in areas of low malaria transmission is acquired more slowly, and malarial illness affects all members of the community, regardless of age. The Government of Pakistan recognizes children less than five years of age as a high-risk group and recommends that this group should be protected by sleeping under ITNs. The government has recently been trying to provide ITNs under the malaria control programme, especially in the high prevalence areas.

Mosquito nets are usually used during the humid summer months. In Pakistan, the summer season starts in May and ends in September. During this period mosquito nets are used if they are available. The fieldwork for the Pakistan Demographic and Health Survey (PDHS) was carried out from September through February. It is evident from Table 12.2 that only 2 percent of children under age five slept under mosquito nets and one in 500 children used a treated net the night before the survey. The proportion of children using any net is higher in Sindh (5 percent) and among the children living in the poorest households (4 percent).

Table 12.2 Use of mosquito nets by children			
Percentage of children under five years of age who slept under a mosquito net (treated or untreated) and an ever-treated mosquito net the night before the survey, by background characteristics, Pakistan 2006-2007			
Background characteristic	Percentage who slept under any net last night	Percentage who slept under an ever-treated net last night ¹	Number of children
Age in months			
<1	1.8	0.3	1,883
1	1.3	0.0	1,575
2	1.6	0.1	1,750
3	1.7	0.4	1,898
4	1.7	0.1	1,673
Sex			
Male	1.7	0.2	4,561
Female	1.6	0.2	4,216
Residence			
Total urban	1.2	0.2	2,636
Major city	0.3	0.1	1,372
Other urban	2.2	0.3	1,264
Rural	1.8	0.2	6,142
Province			
Punjab	0.3	0.1	4,899
Sindh	5.4	0.5	2,187
NWFP	0.1	0.0	1,300
Balochistan	2.5	0.5	392
Wealth quintile			
Lowest	4.4	0.2	2,071
Second	1.0	0.2	1,792
Middle	0.8	0.1	1,716
Fourth	0.5	0.0	1,638
Highest	0.8	0.5	1,561
Total	1.6	0.2	8,778

¹ An ever-treated net is a pretreated net or a non-pretreated net that has subsequently been soaked with insecticide at any time.

Table 12.3 shows the percentage of all women aged 15-49 who slept under any kind of net and those who slept under a treated net, and the percentage of pregnant women who slept under any net the night before the survey. Nationally, only 1 percent of women age 15-49 and 2 percent of pregnant women were reported to have slept under a mosquito net the night before the survey. Pregnant women from Sindh and Balochistan provinces, those with no education, and those from poorer families are relatively more likely to use mosquito nets, though differences are small.

Table 12.3 Use of mosquito nets by women

Percentage of all women age 15-49 and pregnant women age 15-49 who slept under a mosquito net (treated or untreated) and an ever-treated mosquito net the night before the survey, by background characteristics, Pakistan 2006-2007

Background characteristic	Percentage of all women age 15-49 who:			Percentage of pregnant women age 15-49 who:	
	Slept under			Slept under any net last night	Number of women
	Slept under any net last night	an ever-treated net last night ¹	Number of women		
Residence					
Total urban	0.8	0.3	5,858	0.7	349
Major city	0.5	0.4	3,365	0.1	182
Other urban	1.2	0.2	2,492	1.4	167
Rural	1.2	0.1	10,357	2.0	812
Province					
Punjab	0.0	0.0	9,532	0.0	612
Sindh	3.9	0.6	3,708	5.3	298
NWFP	0.3	0.0	2,241	0.2	168
Balochistan	2.6	0.5	734	3.4	83
Education					
No education	1.4	0.2	10,124	2.1	721
Primary	0.8	0.1	2,369	1.6	185
Middle	0.1	0.0	1,160	0.6	72
Secondary	0.5	0.0	1,451	0.0	100
Higher	0.8	0.5	1,111	0.4	83
Wealth quintile					
Lowest	3.7	0.1	2,723	4.8	270
Second	0.8	0.1	3,077	1.7	261
Middle	0.4	0.0	3,263	0.2	221
Fourth	0.5	0.2	3,502	0.6	196
Highest	0.5	0.3	3,650	0.0	213
Total	1.1	0.2	16,215	1.6	1,161

¹ An ever-treated net is a pretreated net or a non-pretreated net that has subsequently been soaked with insecticide at any time.

Use of bednets is not the only action that Pakistani households can take to avoid mosquitoes. In the PDHS, interviewers inquired about other actions households might take to avoid mosquitoes. As shown in Table 12.4, almost one in four households uses anti-mosquito mats, 15 percent use coils, 5 percent use smoke, and 4 percent use spray as repellents. Such methods are more common in urban areas.

Table 12.4 Other anti-mosquito actions

Percentage of households using specific devices or repellents to avoid mosquitoes, by background characteristics, Pakistan 2006-07

Residence/ region	Device or repellent										Number of households
	Nothing	Mosquito coils	Mats	Spray	Electric spray repellent	Insect repellent	Smoke	Fan	Window screen	Other	
Residence											
Total urban	31.2	30.1	40.4	8.5	3.9	1.2	1.0	1.6	0.1	1.0	3,159
Major city	21.3	36.8	44.2	11.2	5.5	1.1	0.3	0.9	0.1	0.6	1,808
Other urban	44.3	21.2	35.4	4.9	1.9	1.2	1.8	2.6	0.1	1.5	1,350
Rural	67.4	7.4	14.5	1.6	0.4	0.9	6.4	3.6	0.2	2.2	6,096
Region											
Punjab	56.8	9.7	26.5	2.9	1.6	1.0	2.9	4.0	0.1	2.4	5,609
Sindh	34.8	34.8	25.2	5.6	2.6	1.3	10.6	1.1	0.5	0.8	2,103
NWFP	75.1	7.3	9.3	5.9	0.5	0.5	2.9	1.3	0.1	0.8	1,173
Balochistan	79.0	11.8	9.7	6.1	0.3	0.2	1.5	0.9	0.1	1.1	370
Total	55.0	15.2	23.4	4.0	1.6	1.0	4.6	2.9	0.2	1.8	9,255

12.3 MALARIA PREVALENCE AND TREATMENT DURING PREGNANCY

Women who had a live birth in the five years preceding the survey were asked whether they suffered from malaria during pregnancy and, if yes, whether they received any kind of treatment. The results presented in Table 12.5 show that one in five such women suffered from malaria during their pregnancy, the vast majority of whom received treatment for the disease (16 percent of all women with a birth in the preceding five years). The prevalence of malaria is higher in rural areas (22 percent), in the province of Balochistan (30 percent), among women with no education (22 percent), and among those who are in the lowest (29 percent) and second lowest wealth quintiles (23 percent). Higher proportions of urban, educated, and wealthier pregnant women receive treatment for malaria when they get infected compared with their counterparts in rural areas, those living in Balochistan, those who are uneducated, and those from poorer segments of society.

12.4 MALARIA CASE MANAGEMENT AMONG CHILDREN

In the PDHS, mothers were asked whether their children under five years had a fever in the two weeks preceding the survey and, if so, whether any treatment was sought. Questions were also asked about the types of drugs given to the child and how soon the drugs were given.

Table 12.5 Prevalence of malaria during pregnancy

Percentages of women aged 15-49 with a live birth in the five years preceding the survey who during the pregnancy suffered from malaria and who received treatment, by background characteristics, Pakistan 2006-07

Background characteristic	Percentage who suffered from malaria	Percentage who received treatment	Number of women with a live birth in the five years preceding the survey
Residence			
Total urban	11.9	10.6	1,714
Major city	9.1	8.3	909
Other urban	15.1	13.1	806
Rural	22.1	18.2	3,962
Province			
Punjab	15.6	12.9	3,182
Sindh	27.1	24.9	1,404
NWFP	14.9	12.3	827
Balochistan	30.2	16.0	264
Education			
No education	22.0	17.7	3,668
Primary	17.8	15.9	854
Middle	12.7	11.7	353
Secondary	10.7	10.5	461
Higher	8.1	7.7	341
Wealth quintile			
Lowest	28.8	22.3	1,289
Second	23.4	19.2	1,194
Middle	17.8	15.2	1,099
Fourth	13.4	12.3	1,066
Highest	8.8	8.6	1,029
Total	19.0	15.9	5,677

Table 12.6 shows the percentage of children under five who had fever in the two weeks preceding the survey, the percentage of such children who took antimalarial drugs, and the percentage taking drugs on the same or next day. Thirty-one percent of children under five years of age are reported to have had fever in the two weeks preceding the survey. Of those, only 3 percent took antimalarial drugs, the vast majority of whom received antimalarial drugs the same or next day after the onset of illness.

Prevalence of fever is higher among children under 24 months than among older children. It is also higher among male children and in major cities. However, treatment with antimalarial drugs is not highly correlated with age, residence, education, or wealth quintiles. In Balochistan, a higher proportion of children received antimalarial drugs compared with any other province. Sex of the child, urban-rural residence, level of education, and wealth are not strongly related to the prompt treatment of fever.

Table 12.6 Prevalence and prompt treatment of fever

Percentage of children under age five with fever in the two weeks preceding the survey, and among children with fever, the percentage who took antimalarial drugs and the percentage who took the drugs the same or next day following the onset of fever, by background characteristics, Pakistan 2006-07

Background characteristic	Among children under age five:		Among children under age five with fever:		
	Percentage with fever in the two weeks preceding the survey	Number of children	Percentage who took antimalarial drugs	Percentage who took antimalarial drugs same or next day	Number of children
Age (in months)					
<12	33.9	1,782	4.0	3.3	605
12-23	39.3	1,522	3.1	2.7	598
24-35	30.9	1,668	3.6	2.4	515
36-47	27.1	1,826	4.0	3.0	494
48-59	22.7	1,570	1.3	0.6	357
Child's sex					
Male	32.0	4,371	3.5	2.6	1,397
Female	29.3	3,996	3.2	2.5	1,171
Residence					
Total urban	31.4	2,518	2.5	2.0	791
Major city	33.8	1,307	1.3	1.1	441
Other urban	28.9	1,212	4.0	3.2	350
Rural	30.4	5,849	3.7	2.8	1,777
Province					
Punjab	30.3	4,689	2.0	1.5	1,418
Sindh	35.0	2,085	4.6	3.7	730
NWFP	30.3	1,221	4.1	3.3	370
Balochistan	13.4	373	16.7	10.1	50
Mother's education					
No education	29.8	5,425	3.6	2.5	1,617
Primary	33.5	1,261	2.2	2.0	422
Middle	34.9	506	3.4	3.2	177
Secondary	31.0	681	4.7	4.1	211
Higher	28.6	494	2.0	2.0	141
Wealth quintile					
Lowest	29.9	1,920	4.1	2.8	573
Second	28.8	1,742	4.4	3.1	503
Middle	28.9	1,673	1.5	1.1	484
Fourth	33.3	1,559	3.8	3.2	519
Highest	33.2	1,473	2.7	2.6	490
Total	30.7	8,367	3.3	2.6	2,569

Table 12.7 presents information on the types of antimalarial drugs given to children with fever and the proportion who took specific antimalarial drugs on the same or next day after the onset of the illness. In interpreting the data, it is important to remember that the information is based on reports from the mothers of the ill children who may not have known the specific drug given to the child. It appears that sulfadoxine and pyrimethamine (SP)/Fansidar and quinine are the more common drugs given to children with symptoms of malaria. Differences by background characteristics are minimal, except that treatment with SP/Fansidar is more common in Balochistan than in other provinces.

Table 12.7 Type and timing of antimalarial drugs

Among children under age five with fever in the two weeks preceding the survey, percentage who took specific antimalarial drugs and percentage who took each type of drug the same or next day after developing the fever, by background characteristics, Pakistan 2006-07

Background characteristic	Percentage of children who took drug:				Percentage of children who took drug the same or next day:				Number of children with fever
	SP/ Fansidar	Chloro- quine	Quinine	Other anti- malarial	SP/ Fansidar	Chloro- quine	Quinine	Other anti- malarial	
Age (in months)									
<12	1.2	1.3	1.3	0.5	0.9	0.9	1.3	0.4	605
12-23	1.2	0.5	0.8	0.8	1.2	0.4	0.5	0.8	598
24-35	1.6	0.5	1.1	0.5	1.1	0.5	0.6	0.3	515
36-47	2.4	0.3	1.2	0.3	1.7	0.2	1.1	0.2	494
48-59	1.3	0.0	0.0	0.0	0.6	0.0	0.0	0.0	357
Child's sex									
Male	1.6	0.6	0.9	0.5	1.2	0.4	0.7	0.4	1,397
Female	1.4	0.6	0.9	0.4	1.1	0.5	0.8	0.3	1,171
Residence									
Total urban	0.9	0.4	0.9	0.4	0.6	0.4	0.8	0.4	791
Major city	0.2	0.1	1.0	0.0	0.1	0.1	1.0	0.0	441
Other urban	1.7	0.8	0.9	0.8	1.3	0.8	0.5	0.8	350
Rural	1.8	0.6	0.9	0.5	1.4	0.4	0.7	0.4	1,777
Province									
Punjab	0.8	0.4	0.8	0.1	0.5	0.4	0.6	0.1	1,418
Sindh	1.3	1.0	1.6	1.0	1.0	0.6	1.4	0.7	730
NWFP	3.1	0.3	0.1	0.6	2.6	0.3	0.0	0.4	370
Balochistan	15.0	0.0	2.6	2.8	10.1	0.0	0.9	2.8	50
Mother's education									
No education	1.9	0.5	0.8	0.6	1.3	0.3	0.6	0.5	1,617
Primary	0.8	0.6	0.6	0.3	0.6	0.6	0.6	0.3	422
Middle	0.8	0.0	2.6	0.0	0.8	0.0	2.4	0.0	177
Secondary	2.0	0.9	1.3	0.5	1.9	0.9	0.8	0.5	211
Higher	0.0	1.4	0.6	0.0	0.0	1.4	0.6	0.0	141
Wealth quintile									
Lowest	1.9	0.7	1.0	0.7	1.1	0.4	0.7	0.5	573
Second	1.9	0.9	1.1	0.9	1.3	0.7	0.7	0.8	503
Middle	0.5	0.4	0.1	0.5	0.4	0.4	0.0	0.3	484
Fourth	2.7	0.2	1.1	0.0	2.4	0.2	0.8	0.0	519
Highest	0.4	0.6	1.4	0.2	0.3	0.6	1.4	0.2	490
Total	1.5	0.6	0.9	0.5	1.1	0.4	0.7	0.4	2,569

SP = Sulfadoxine and pyrimethamine

Faatih ud din Ahmad and Adnan Ahmad Khan

Acquired immune deficiency syndrome (AIDS) was first recognized internationally in 1981. As of 2007, an estimated 33 million adults and children around the world were living with human immunodeficiency virus (HIV) and AIDS (UNAIDS, 2007). AIDS is caused by HIV, which weakens the immune system. A large proportion of those who are infected with HIV die within 5-10 years (Munoz et al., 1997). The HIV/AIDS pandemic is one of the most serious health concerns in the world today because of its high case fatality rate and the lack of a curative treatment or vaccines. Epidemiological studies have identified sexual intercourse, intravenous injections, blood transfusions, and foetal transmission from infected mothers as the main routes of transmission of HIV. HIV cannot be transmitted through food, water, insect vectors, or casual contact.

The first case of HIV in Pakistan was diagnosed in 1987. Since then, approximately 4,000 cases have been diagnosed and reported to the Ministry of Health (National AIDS Control Programme 2007). However, because the infection remains unnoticed for many years, most infected individuals are unaware that they are infected; therefore, the actual number of those infected with HIV in Pakistan may be much larger. Indeed, the National AIDS Control Programme, Ministry of Health, and the Joint United Nations Programme (UNAIDS) estimate that approximately 80,000 people are currently living with HIV in Pakistan. Limited data suggest that infection is extremely common among sex workers and highly uncommon among the general population. A large national study of women in antenatal and labour clinics (which is an internationally accepted measure of assessing HIV in the general population) found no HIV and few sexually transmitted infections (STIs) in 2001 (NACP, 2001).

Nevertheless, there have been various efforts by both government and nongovernment organizations to prevent HIV transmission, including public health education through the media. Particularly, information and education efforts are directed at increasing awareness of these issues. The findings of this Pakistan Demographic and Health Survey (PDHS) will be helpful in shaping these initiatives. The 2006-07 PDHS survey included a section of questions on HIV/AIDS in order to assess the level of knowledge about the transmission and prevention of HIV and the attitudes of ever-married women towards persons living with AIDS. The PDHS survey also includes a set of questions to assess the level of knowledge about the symptoms of STIs and use of safe injection practices.

13.1 KNOWLEDGE OF AIDS

To obtain information on the level of HIV/AIDS knowledge, PDHS respondents were asked a general question about whether they had heard of the illness. Those who responded in the affirmative were asked additional questions about various modes of prevention including whether it is possible to reduce the chance of getting the AIDS virus by having just one faithful sexual partner, using a condom at every sexual intercourse, and abstaining from sex. To get an assessment of the level of possible misconceptions, respondents were also asked whether they think it is possible for a healthy-looking person to have the AIDS virus and whether a person can get AIDS from mosquito bites, sharing food with a person who has AIDS, or through witchcraft or supernatural means.

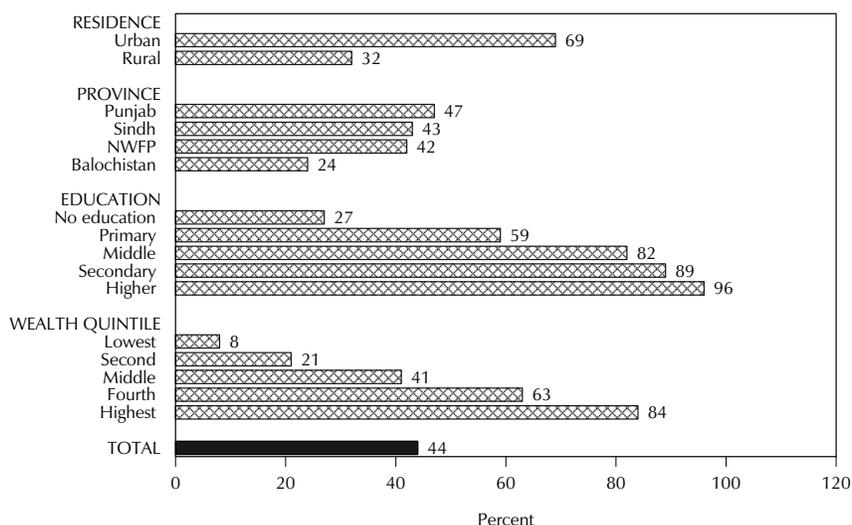
Table 13.1 and Figure 13.1 show that only four in ten ever-married women age 15-49 in Pakistan have heard about AIDS. The reported knowledge of AIDS has increased only slightly over the last decade, from 41 percent to 44 percent. Knowledge of AIDS varies by background characteristics.

Table 13.1 Knowledge of AIDS		
Percentage of ever-married women age 15-49 who have heard of AIDS, by background characteristics, Pakistan 2006-07		
Background characteristic	Has heard of AIDS	Number of women
Age		
15-24	42.0	2,068
15-19	30.4	569
20-24	46.4	1,499
25-29	48.3	2,006
30-39	44.6	3,440
40-49	42.0	2,509
Marital status		
Married	44.3	9,556
Divorced/separated/widowed	42.3	467
Residence		
Total urban	69.2	3,350
Major city	79.2	1,898
Other urban	56.2	1,452
Rural	31.6	6,673
Province		
Punjab	46.8	5,800
Sindh	42.7	2,410
NWFP	42.4	1,351
Balochistan	23.8	462
Education		
No education	26.5	6,511
Primary	59.1	1,423
Middle	81.7	634
Secondary	89.4	809
Higher	96.2	646
Wealth quintile		
Lowest	8.3	1,944
Second	21.1	2,001
Middle	40.9	1,944
Fourth	63.4	2,055
Highest	84.1	2,078
Total 15-49	44.2	10,023

The level of awareness of AIDS is highest among women age 25-29 (48 percent), while ever-married women in their teens (age 15-19 years) have the lowest level of awareness about AIDS (30 percent). Respondents living in rural areas are far less likely to know about AIDS than urban residents. For example, less than one-third of rural women have heard of AIDS compared with 69 percent of urban women. Almost half of women in Punjab have heard of AIDS compared with only 24 percent of women in Balochistan province.

Education and wealth quintile are strongly associated with AIDS awareness. Knowledge of AIDS is almost universal among women with more than secondary education, but it is uncommon among those with no education (27 percent). Similarly, awareness is lowest (only 8 percent) among women living in the poorest households and highest among women living in the wealthiest households (84 percent).

Figure 13.1 Percentage of Ever-Married Women Who Have Heard of AIDS, by Background Characteristics



PDHS 2006-07

13.2 KNOWLEDGE OF WAYS TO AVOID CONTRACTING HIV/AIDS

HIV/AIDS prevention programmes focus their messages and efforts on three important aspects of behaviour: delaying sexual debut (abstinence), limiting the number of sexual partners/staying faithful to one uninfected partner, and use of condoms. To ascertain whether programmes have effectively communicated these messages, respondents were asked specific questions about whether it is possible to reduce the chances of getting the AIDS virus by having just one faithful uninfected sexual partner, using a condom at every sexual encounter, and abstaining from sex.

Table 13.2 presents the levels of knowledge about the various HIV/AIDS prevention methods, by background characteristics. Levels are low, mainly because knowledge of AIDS is also low. Only 31 percent of ever-married women are aware that the chance of getting the AIDS virus can be reduced by limiting sex to one partner, while 24 percent say it can be prevented by abstaining from sexual intercourse (Figure 13.2). In spite of the fact that a mass media campaign on the use of condoms to avoid HIV was launched in the country through both electronic and print media, only one in five women in the survey cited condom use as a means of HIV prevention. Finally, only 17 percent of women are aware of both using condoms and limiting sexual intercourse to one partner as ways to reduce the chances of getting the AIDS virus.

Women age 25-29 are relatively more knowledgeable of the various modes of prevention than those in other age groups. For instance, 20 percent of ever-married women age 25-29 mentioned that using condoms and limiting sexual intercourse to one uninfected partner can reduce the risk of HIV/AIDS infection compared with only 9 percent of women age 15-19.

Knowledge of HIV prevention methods is higher among women in urban areas than in rural areas. Knowledge that abstinence can prevent HIV transmission is highest among women in Punjab (27 percent) and Sindh (22 percent) and is lowest among Balochi women (6 percent).

Table 13.2 Knowledge of HIV prevention methods

Percentage of ever-married women age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse, by having one sex partner who is not infected and has no other partners, and by abstaining from sexual intercourse, by background characteristics, Pakistan 2006-07

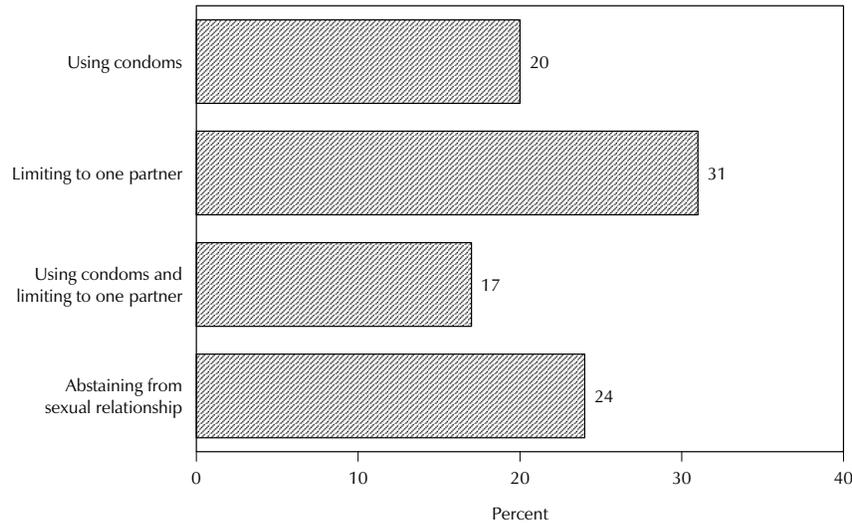
Background characteristic	Percentage who say HIV can be prevented by				Number of women
	Using condoms ¹	Limiting sexual intercourse to one uninfected partner ²	Using condoms and limiting sexual intercourse to one uninfected partner ^{1,2}	Abstaining from sexual intercourse	
Age					
15-24	17.0	28.6	14.4	21.2	2,068
15-19	10.7	19.9	8.8	14.2	569
20-24	19.4	31.9	16.5	23.9	1,499
25-29	22.7	33.0	19.5	25.8	2,006
30-39	21.1	32.9	18.9	24.4	3,440
40-49	16.7	28.4	14.4	22.8	2,509
Marital status					
Married	19.6	31.0	17.1	23.8	9,556
Divorced/separated/widowed	16.0	29.1	13.2	20.4	467
Residence					
Total urban	31.5	50.0	27.7	38.5	3,350
Major city	37.3	58.3	32.7	46.0	1,898
Other urban	24.0	39.1	21.2	28.7	1,452
Rural	13.4	21.3	11.6	16.1	6,673
Province					
Punjab	21.7	33.2	19.0	27.2	5,800
Sindh	18.1	30.4	15.7	21.7	2,410
NWFP	16.2	28.5	14.1	17.9	1,351
Balochistan	7.8	11.5	5.8	6.1	462
Education					
No education	9.2	16.0	7.7	12.1	6,511
Primary	27.2	41.1	23.0	33.5	1,423
Middle	39.2	60.1	33.8	45.0	634
Secondary	44.8	70.2	41.0	53.7	809
Higher	55.1	80.6	49.9	59.0	646
Wealth quintile					
Lowest	3.1	4.9	2.3	4.0	1,944
Second	8.4	12.9	7.1	10.0	2,001
Middle	15.8	26.4	13.8	20.3	1,944
Fourth	26.3	43.1	22.8	31.8	2,055
Highest	42.2	64.5	37.2	50.2	2,078
Total 15-49	19.5	30.9	16.9	23.6	10,023

¹ Using condoms every time they have sexual intercourse

² Partner who has no other partners

Education is positively related with respondents' knowledge about AIDS prevention methods. For example, half of women with a higher level of education know that using condoms and limiting sexual intercourse to one uninfected partner can reduce a person's chances of getting HIV compared with only 8 percent of women with no education. Similarly, women living in wealthier households are more likely to be aware of ways to prevent HIV transmission than those living in poorer households.

Figure 13.2 Percentage of Ever-Married Women Who Know of Specific Ways to Prevent HIV/AIDS



PDHS 2006-07

13.3 COMPREHENSIVE KNOWLEDGE OF HIV/AIDS TRANSMISSION

The 2006-07 PDHS also includes questions to assess the prevalence of common misconceptions about AIDS and HIV transmission. Respondents were asked whether they think it is possible for a healthy-looking person to have the AIDS virus and whether a person can get HIV/AIDS from mosquito bites, by supernatural means like witchcraft, or by sharing food with a person who has AIDS.

The data presented in Table 13.3 indicate that most ever-married women age 15-49 lack accurate knowledge about the ways in which the AIDS virus can and cannot be transmitted. Only 18 percent of ever-married women know that AIDS cannot be transmitted by mosquito bites and only a little more than one in four women is aware that a healthy-looking person can have the AIDS virus. Almost one-third of women (30 percent) correctly believe that a person cannot get the AIDS virus by supernatural means, but only 22 percent of women know that a person cannot become infected by sharing food with a person who has AIDS.

Table 13.3 also provides an assessment of the level of comprehensive knowledge of HIV/AIDS prevention and transmission. Comprehensive knowledge of HIV/AIDS is defined as: 1) knowing that both condom use and limiting sex to one uninfected partner are HIV prevention methods, 2) being aware that a healthy-looking person can have HIV, and 3) rejecting the two common local misconceptions—that HIV/AIDS can be transmitted through mosquito bites and by sharing food. Table 13.3 shows that the percentage of ever-married women with comprehensive knowledge of AIDS is low. Overall, only 5 percent of women are classified as having comprehensive knowledge. This situation should be a matter of great concern to policymakers and for the National AIDS Control Programme, because it implies that there is an urgent need for an efficient strategy to increase accurate and comprehensive knowledge about HIV/AIDS.

There is considerable variation in HIV/AIDS knowledge by respondents' background characteristics. Comprehensive knowledge about AIDS increases as the level of education and wealth quintile increases. Comprehensive knowledge about AIDS is also higher among urban than rural women. Provincial variation is small, with Punjabi women having the highest proportion with comprehensive knowledge (6 percent) compared with Balochi women (2 percent).

Table 13.3 Comprehensive knowledge about AIDS

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention, and the percentage with a comprehensive knowledge about AIDS, by background characteristics, Pakistan 2006-07

Background characteristic	Percentage of women who say that:				Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconceptions ¹	Percentage with a comprehensive knowledge about AIDS ²	Number of women
	A healthy-looking person can have the AIDS virus	AIDS cannot be transmitted by mosquito bites	AIDS cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has AIDS			
Age							
15-24	25.8	17.2	27.3	18.6	7.0	3.4	2,068
15-19	14.1	12.7	18.7	11.8	4.2	2.0	569
20-24	30.3	18.9	30.6	21.1	8.1	4.0	1,499
25-29	30.6	21.3	34.5	26.5	11.3	7.0	2,006
30-39	28.1	18.4	31.2	22.1	8.8	5.8	3,440
40-49	26.1	16.6	26.4	19.1	7.4	3.9	2,509
Marital status							
Married	27.6	18.4	30.0	21.6	8.6	5.1	9,556
Divorced/separated/widowed	27.4	16.6	27.3	18.8	7.3	3.7	467
Residence							
Total urban	44.8	31.9	49.9	37.6	16.3	9.3	3,350
Major city	53.9	37.1	56.9	44.8	21.2	12.5	1,898
Other urban	32.9	25.1	40.7	28.2	9.8	5.2	1,452
Rural	19.0	11.5	19.8	13.4	4.7	2.9	6,673
Province							
Punjab	31.6	18.5	31.1	23.1	9.3	5.8	5,800
Sindh	25.3	20.9	30.6	19.7	8.6	4.6	2,410
NWFP	20.8	14.7	27.4	20.6	6.4	3.5	1,351
Balochistan	9.9	13.1	17.6	13.4	5.1	2.4	462
Education							
No education	14.7	8.1	14.7	8.7	2.4	1.3	6,511
Primary	36.5	22.1	36.7	26.2	8.6	5.7	1,423
Middle	50.1	31.5	59.6	43.3	14.7	6.6	634
Secondary	60.8	48.4	70.9	56.5	26.3	15.2	809
Higher	74.3	61.6	86.5	75.1	42.2	27.5	646
Wealth quintile							
Lowest	4.2	2.6	4.7	2.7	1.1	0.7	1,944
Second	12.0	7.0	12.4	7.8	1.9	1.4	2,001
Middle	23.7	14.2	24.5	15.5	4.7	3.2	1,944
Fourth	38.4	24.1	41.4	28.7	10.6	5.4	2,055
Highest	57.7	41.9	63.9	50.8	23.5	14.1	2,078
Total 15-49	27.6	18.3	29.9	21.5	8.6	5.1	10,023

¹ Two most common local misconceptions: sharing food and mosquito bites

² Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

13.4 KNOWLEDGE OF MOTHER-TO-CHILD TRANSMISSION

Mother-to-child transmission of HIV is an important route of transmission in the general population. The government of Pakistan has recently launched a programme to reduce this route of transmission. To assess the extent to which women are aware of the ways in which HIV can be transmitted from a mother to her child, PDHS respondents were asked if the virus that causes AIDS can be transmitted during pregnancy, at delivery, or by breastfeeding. As Table 13.4 shows, 31 percent of women believe the HIV virus can be transmitted from mother to child during pregnancy, 26 percent believe the virus can be transmitted at the time of delivery, and 28 percent know that the AIDS virus can be transmitted from mother to child by breastfeeding.

Table 13.4 Knowledge of prevention of mother-to-child transmission of HIV

Percentage of ever-married women who know that HIV can be transmitted from mother to child during pregnancy, at delivery, and by breastfeeding, by background characteristics, Pakistan 2006-2007

Background characteristic	Percentage who know that HIV can be transmitted:			Number of women
	During pregnancy	At delivery	By breastfeeding	
Age				
15-24	28.2	23.0	26.0	2,068
15-19	17.7	13.5	17.2	569
20-24	32.3	26.6	29.3	1,499
25-29	34.8	28.5	29.7	2,006
30-39	32.1	27.2	27.9	3,440
40-49	29.2	25.0	27.0	2,509
Marital status				
Married	31.2	26.0	27.7	9,556
Divorced/separated/widowed	29.7	27.6	27.3	467
Currently pregnant				
Pregnant	29.7	25.1	25.7	1,193
Not pregnant or not sure	31.4	26.2	27.9	8,830
Province				
Punjab	34.1	29.9	30.6	5,800
Sindh	29.8	21.8	25.1	2,410
NWFP	26.1	20.9	24.5	1,351
Balochistan	15.5	14.4	12.5	462
Residence				
Total urban	48.4	39.5	41.0	3,350
Major city	55.8	43.2	45.5	1,898
her urban	38.7	34.7	35.1	1,452
Rural	22.5	19.3	21.0	6,673
Education				
No education	17.3	15.2	17.0	6,511
Primary	42.9	36.2	41.0	1,423
Middle	58.0	45.4	48.3	634
Secondary	63.4	51.0	52.2	809
Higher	77.6	63.0	54.0	646
Wealth quintile				
Lowest	5.9	5.2	5.7	1,944
Second	14.7	13.0	15.2	2,001
Middle	27.9	24.0	26.3	1,944
Fourth	44.8	37.6	41.0	2,055
Highest	60.3	48.5	48.2	2,078
Total 15-49	31.2	26.0	27.6	10,023

The pattern of knowledge about transmission of HIV from mother to child during pregnancy, at delivery, and by breastfeeding is more or less similar across ages, urban-rural residence, provinces, and wealth quintiles. The lowest knowledge has been observed, for all other stages, among ever-married women age 15-19 years. The proportion who know about mother-to-child transmission is almost twice as high among urban than rural women for all three time periods. Punjab has the highest proportion of women who know about transmission of HIV during pregnancy, at delivery, and by breastfeeding, followed by Sindh, NWFP, and Balochistan. About half of the women in the highest wealth quintile know about all these modes of HIV transmission from mother to child, compared with only 6 percent of women in the lowest wealth quintile.

13.5 ATTITUDES TOWARDS PEOPLE LIVING WITH HIV/AIDS

Misconceptions and beliefs about HIV/AIDS affect people living with HIV/AIDS. In the 2006-07 PDHS, a number of questions were posed to respondents to measure their attitudes towards people living with HIV/AIDS, including hypothetical questions about their willingness to care for a relative who has the AIDS virus in their own household and their willingness to let others know if a family member became HIV infected. Table 13.5 shows by background characteristics the percentage of ever-married women who express positive attitudes towards people living with HIV. These responses pertain to women who have heard about HIV/AIDS.

More than three in four women state that they would be willing to care for a family member with the AIDS virus in their home. Sixty-two percent of women say that they would not necessarily want to keep secret that a family member is infected with the AIDS virus. The percentage of women expressing accepting attitudes on these two measures combined is low (48 percent).

Table 13.5 Accepting attitudes towards those living with HIV/AIDS

Among ever-married women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes towards people with AIDS, by background characteristics, Pakistan 2006-07

Background characteristic	Percentage of respondents who:		Percentage expressing accepting attitudes on both indicators	Number of women who have heard of AIDS
	Are willing to care for a family member with the AIDS virus in the woman's home	Would not want to keep secret that a family member got infected with the AIDS virus		
Age				
15-24	80.6	59.1	46.8	868
15-19	83.2	55.5	45.0	173
20-24	80.0	60.0	47.2	696
25-29	78.0	57.8	44.6	969
30-39	76.0	63.5	47.7	1,535
40-49	77.3	66.4	51.3	1,054
Marital status				
Married	77.6	62.2	47.7	4,229
Divorced/separated/widowed	79.2	60.5	46.9	198
Residence				
Total urban	80.3	61.8	49.5	2,319
Major city	83.4	64.7	54.3	1,502
Other urban	74.4	56.5	40.8	817
Rural	74.8	62.4	45.7	2,108
Province				
Punjab	74.4	66.3	48.6	2,715
Sindh	89.2	57.4	51.8	1,029
NWFP	74.0	57.1	41.1	573
Balochistan	70.4	27.9	21.4	110
Education				
No education	77.3	58.7	45.8	1,722
Primary	77.7	67.1	50.5	841
Middle	77.9	60.3	44.2	518
Secondary	74.5	67.7	51.4	724
Higher	82.1	59.7	47.7	622
Wealth quintile				
Lowest	74.2	53.9	41.3	161
Second	76.9	56.7	43.7	421
Middle	74.3	58.3	42.2	795
Fourth	76.6	62.8	47.2	1,303
Highest	80.5	65.3	52.1	1,747
Total 15-49	77.7	62.1	47.7	4,427

Stigma associated with AIDS and attitudes related to HIV/AIDS do not vary much by respondents' background characteristics. The percentage expressing accepting attitudes towards those living with HIV/AIDS slightly increases with age, from 45 percent among women age 15-19 to 51 percent among women age 40-49. Women living in urban areas are slightly more likely than rural women to accept people living with AIDS, while women in Punjab are more than twice as likely as

women in Balochistan to have accepting attitudes towards people with AIDS (49 percent and 21 percent, respectively). Women living in households in higher wealth quintiles are more considerate towards people having HIV/AIDS.

13.6 KNOWLEDGE OF OTHER SEXUALLY TRANSMITTED INFECTIONS

The importance of STIs is two-fold. Besides imposing a significant disease burden, they also represent a marker for HIV transmission (which is also transmitted sexually). The 2006-07 PDHS collected information on respondents' awareness about other STIs and women were also asked about their knowledge of the symptoms of STIs.

Table 13.6 reveals that only one in ten ever-married women age 15-49 years reports having ever heard about other infections that can be transmitted through sexual contact. Knowledge about STIs varies only slightly by background characteristics. Women in the older age groups are slightly more likely to know about other STIs than younger women, i.e., more than 10 percent of women 40-49 years are aware of other STIs compared with 5 percent of women age 15-19 years. Education has a positive relationship, i.e., as education increases, knowledge of other STIs also increases.

Background characteristic	Percentage of ever-married women who know of STIs and of specific symptoms of STIs:													Number of ever-married women
	STIs other than AIDS	Wound without pain	Wound with pain	Wound, pain with lots of pimples	Pus-like discharge	Dark pus-like discharge	Sour milk-like discharge	Sponge-like discharge	Discharge with bad odour/dirty water	Itching/back-ache	Hepatitis	TB	Other	
Age														
15-24	6.9	1.2	1.0	0.5	1.1	0.7	0.5	1.1	1.5	1.0	0.4	0.8	1.1	2,068
15-19	4.9	1.1	0.8	0.2	0.6	0.9	0.5	1.1	1.1	0.8	0.1	0.0	1.1	569
20-24	7.7	1.3	1.0	0.6	1.3	0.6	0.5	1.1	1.6	1.1	0.5	1.1	1.0	1,499
25-29	8.9	2.3	2.0	1.4	1.4	1.2	1.0	1.5	2.0	0.3	1.0	0.8	1.4	2,006
30-39	11.0	2.6	2.5	1.5	1.6	1.3	1.1	1.7	2.2	0.5	1.2	1.4	2.2	3,440
40-49	10.2	2.8	2.3	1.6	2.0	1.2	1.1	1.5	2.5	0.5	1.0	1.7	1.5	2,509
Marital status														
Married	9.5	2.3	2.1	1.3	1.6	1.1	1.0	1.5	2.0	0.6	0.9	1.3	1.6	9,556
Divorced/separated/widowed	9.6	2.3	1.0	1.5	0.9	0.9	0.4	0.1	3.5	0.3	1.8	1.3	1.5	467
Residence														
Total urban	11.0	2.9	2.7	1.7	2.0	1.3	1.1	1.2	2.0	0.6	1.3	1.0	2.2	3,350
Major city	11.2	3.5	3.0	1.8	2.4	1.6	1.1	1.1	1.6	0.7	1.9	0.9	2.1	1,898
Other urban	10.7	2.1	2.3	1.5	1.5	1.0	1.1	1.4	2.5	0.4	0.7	1.2	2.3	1,452
Rural	8.8	2.0	1.7	1.1	1.3	1.0	0.9	1.6	2.1	0.6	0.8	1.4	1.3	6,673
Province														
Punjab	12.4	2.8	2.3	1.3	1.9	1.2	1.2	2.0	2.7	0.9	1.3	1.9	2.1	5,800
Sindh	6.5	2.4	2.0	1.2	0.7	1.2	1.0	1.0	1.8	0.2	0.2	0.3	1.2	2,410
NWFP	4.8	0.4	1.3	1.4	1.9	0.9	0.4	0.6	0.4	0.0	0.8	0.6	0.9	1,351
Balochistan	3.3	1.0	0.8	0.6	0.9	0.2	0.3	0.3	0.6	0.0	0.6	0.7	0.3	462
Education														
No education	7.8	1.9	1.6	0.8	1.2	0.8	0.6	1.3	2.1	0.6	0.5	0.9	1.3	6,511
Primary	11.9	3.0	1.9	2.0	2.0	0.9	1.8	1.9	2.2	0.7	0.7	2.4	1.9	1,423
Middle	10.5	2.2	2.4	1.1	1.8	1.0	1.0	1.0	1.4	0.0	1.6	1.6	1.7	634
Secondary	9.7	2.9	2.9	2.2	2.1	1.2	1.0	1.5	1.2	0.8	1.7	1.4	1.3	809
Higher	20.7	4.6	4.8	3.9	3.8	4.6	3.1	2.3	3.8	0.2	4.3	1.6	4.8	646
Wealth quintile														
Lowest	6.7	1.3	1.4	0.7	0.8	1.2	0.6	1.5	2.2	0.5	0.4	0.6	1.4	1,944
Second	7.1	2.1	1.7	0.6	1.0	0.8	0.4	1.2	2.0	0.2	0.3	1.1	1.0	2,001
Middle	10.0	2.4	1.8	1.4	2.1	0.9	1.3	1.4	2.1	0.9	0.3	1.5	1.6	1,944
Fourth	10.9	2.5	2.1	1.6	1.8	0.8	1.0	1.7	2.4	0.3	1.4	1.9	1.4	2,055
Highest	12.7	3.3	3.0	2.0	2.1	1.8	1.4	1.5	1.7	0.9	2.3	1.2	2.6	2,078
Total 15-49	9.5	2.3	2.0	1.3	1.6	1.1	1.0	1.5	2.1	0.6	1.0	1.3	1.6	10,023

TB = Tuberculosis

Table 13.6 further shows data on knowledge about specific signs of STIs other than HIV. A very low proportion of respondents could reply to the question “could you kindly tell me some signs of these infections that you know about?” Only 2 percent of women cite symptoms of STIs like “wounds without pain,” “wounds with pain,” and “discharge with bad odour/dirty water.” The proportion of women who mentioned other symptoms is even lower than 2 percentage points.

13.7 SAFE INJECTION PRACTICES

Failure to follow safe injection practices increases the risk of transmission of blood-borne pathogens. To obtain information on the prevalence of injections, PDHS respondents were asked about the total number of injections that they had in the 12 months before the survey, how many of these injections were administered by a health care provider, where they obtained the syringe for the last injection, and whether the person who gave that injection took the syringe and needle from a new, unopened package.

Table 13.7 presents data on the prevalence of injections among PDHS respondents. The results indicate that more than half of women had at least one injection in the 12 months before the survey, with an average of five injections per person.

Table 13.7 Prevalence of medical injections					
Percentage of ever-married women age 15-49 who received at least one medical injection in the 12 months preceding the survey, the average number of medical injections per person in the 12 months preceding the survey, and among those who received a medical injection the percentage of last medical injections for which the syringe and needle were taken from a new, unopened package, by background characteristics, Pakistan 2006-07					
Background characteristic	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Number of women	For last injection, syringe and needle taken from a new, unopened package	Number of women receiving medical injections in the past 12 months
Age					
15-24	57.3	4.2	2,068	83.7	1,184
15-19	53.1	3.8	569	77.9	302
20-24	58.9	4.3	1,499	85.7	882
25-29	56.2	4.8	2,006	87.7	1,128
30-39	49.9	4.9	3,440	86.9	1,717
40-49	48.6	6.3	2,509	85.2	1,220
Residence					
Total urban	52.7	4.8	3,350	89.3	1,764
Major city	54.0	5.1	1,898	91.0	1,024
Other urban	50.9	4.4	1,452	87.1	740
Rural	52.2	5.2	6,673	84.3	3,486
Province					
Punjab	50.4	4.8	5,800	90.8	2,922
Sindh	65.3	6.2	2,410	74.6	1,574
NWFP	49.8	5.6	1,351	92.7	673
Balochistan	17.5	0.9	462	76.2	81
Education					
No education	49.8	5.0	6,511	81.7	3,244
Primary	61.2	5.8	1,423	91.9	871
Middle	56.7	5.7	634	92.7	359
Secondary	55.8	4.9	809	93.2	452
Higher	50.1	3.4	646	95.5	324
Wealth quintile					
Lowest	48.6	4.9	1,944	73.0	944
Second	48.6	4.9	2,001	82.8	972
Middle	54.8	5.2	1,944	86.1	1,065
Fourth	55.6	5.4	2,055	91.8	1,143
Highest	54.2	4.9	2,078	93.6	1,126
Total 15-49	52.4	5.1	10,023	86.0	5,249

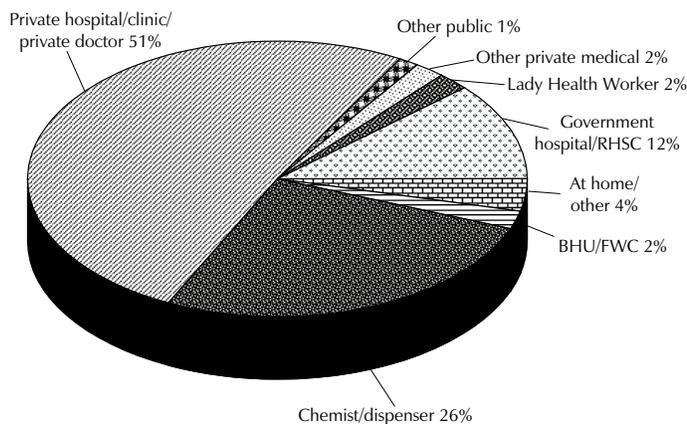
Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist or other health worker.

Table 13.7 also shows by background characteristics the women who are receiving these injections. Although there are not large variations in either of the indicators, the results show that the prevalence of injections tends to decrease with age and increases somewhat with wealth quintile. Nevertheless, the mean number of injections received in the last 12 months increases with age. It also increases with the wealth index.

In addition to the basic information on the frequency of injections, the PDHS included several questions concerning the safety of injections. Respondents who had a recent injection were asked if the provider had taken the syringe and needle from a new unopened package; 86 percent reported that the provider had followed this basic injection safety procedure. Safe injection practice is positively associated with education of women and also increases with wealth quintile. Women living in urban areas and in NWFP and Punjab province are more likely than other women to have safe injections.

Figure 13.3 provides information on the source from where the syringe was obtained for the last injection. It shows that eight out of ten women who received an injection in the last 12 months obtained the syringe from the private sector (51 percent from private hospital/clinics and 26 percent from dispensers/compounders/chemists) and two in ten obtained the syringe from the public sector (12 percent from government hospitals). Regardless of the source of the syringe, the vast majority reported getting safe injections (Figure 13.4).

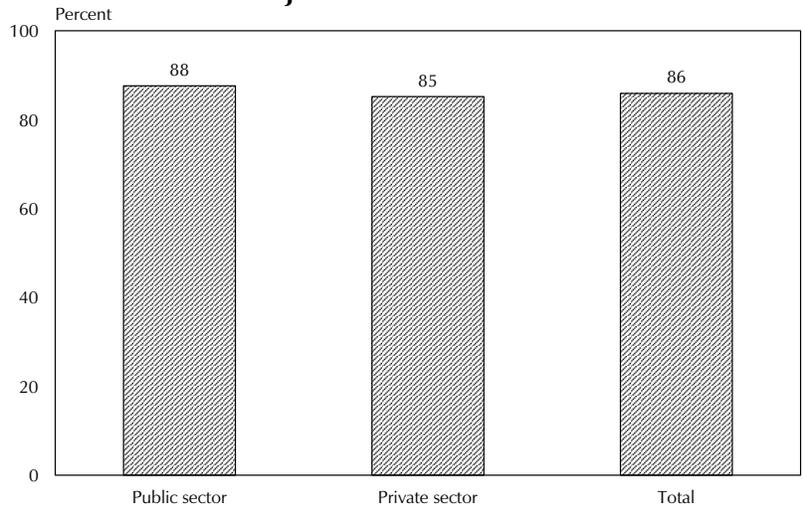
Figure 13.3 Source of Last Medical Injection



RHSC = Reproductive Health Service Centre
 BHU = Basic health unit
 FWC = Family Welfare Centre

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Figure 13.4 Percentage of Women Whose Last Injection Was Given with a Syringe and Needle Taken from a New, Unopened Package, by Type of Facility Where Last Injection Was Received



PDHS 2006-07

Farid Midhet and Sadiqua N. Jafarey, Dr. Azra Ahsan, and Aysha Sheraz

14.1 INTRODUCTION

Maternal mortality represents the largest and the most persistent gap in health indicators between the developed and developing countries. The maternal mortality ratio (MMR), which measures the risk of death per pregnancy, is up to 40 times higher in some African countries than the countries of Northern Europe (Abou Zahr and Wardlaw, 2004). MMR is believed to be the most sensitive indicator of women's status in a society and of the quality and accessibility of maternal health services available to women. A maternal death is not merely a result of treatment failure; rather it is the final outcome of a complex interplay between a myriad of social, cultural and economic factors. Therefore, maternal mortality is widely recognized as a key human rights issue (Rosenfield et al., 2006). In the vast majority of cases, a maternal death reflects the failure of society to look after the life and health of its mothers.

It was for these reasons that the Millennium Declaration adopted MMR as an indicator of maternal health and set the goal of reducing maternal mortality from the 1990 level by 75 percent before 2015. Many experts believe that it is theoretically possible to achieve this target in a majority of developing countries where the MMR is currently higher than 100 maternal deaths per 100,000 live births. The interventions required to achieve this target are skilled birth attendance and emergency obstetric care (Campbell and Graham, 2006). Nevertheless, maternal mortality is an area where the least progress has been made since the Millennium Declaration in 2000. Most projections, using trends in maternal mortality levels since 1990, point to the fact that the fifth Millennium Development Goal will not be achieved in the vast majority of developing countries. Moreover, it is hard to measure the MMR, which requires a well-developed birth and death registration system or expensive field surveys. Indeed, this is the most important reason noted for a failure to address this MDG in the developing nations of the world (United Nations, 2004).

Pakistan's national health policy emphasizes the need to improve quality and accessibility of maternal health services, particularly in the rural areas. All national programs on primary health care have included maternal health as a core component. The country's first maternal and child health program was launched in the early 1950s. In the 1990s, the Lady Health Worker program was introduced, which has a major emphasis on maternal health.

In spite of these efforts, progress in maternal health indicators has remained slow in comparison with other health and population indicators. About 40 percent of pregnant women do not receive skilled prenatal care or full protection against tetanus (Chapter 9). Moreover, almost two in three births occur at home and 60 percent of births are not assisted by skilled medical attendants. Delays in seeking medical care for obstetric complications are common.

Pakistan is a signatory to the Millennium Declaration and is committed to achieve the Millennium Development Goals (MDGs). The country's targets for MDG-5 are to reduce the MMR to less than 140, and to increase skilled birth attendance to 90 percent by the year 2015 (Ministry of Health, 2005). To achieve these targets, the Government has recently launched a large-scale national maternal, neonatal and child health program. The major emphasis of the program is on improving the quality and accessibility of emergency obstetric and neonatal care and increasing the use of skilled birth attendance by introducing a new cadre of health workers—community midwives—along the same lines as the Lady Health Worker program. The community midwives will be fully trained health professionals who will gradually replace the traditional birth attendants in the rural areas of Pakistan.

Most data on the MMR are based on local or sub-national data. No reliable MMR data are available at the national level, with the exception of an indirect estimate arising from a national survey conducted in 2001. Several local and national studies have reported widely different values for MMR, from a low of 279 maternal deaths per 100,000 births to a high of 533 (Table 14.1). Most international sources prior to 2000 reported an estimated MMR of 500 per 100,000 live births. The government currently uses a working range of 350 to 400 (Planning Commission of Pakistan, 2002).

Reference period	Study/source	Estimation method	Geographical coverage	MMR estimate
1990-1991	National Reproductive Health and Family Planning Survey 2001 (National Institute of Population Studies, 2002)	Indirect sisterhood method	Pakistan	533
1988-1993	Maternal and Infant Mortality Survey (MIMS) (Midhet et al., 1998)	Verbal autopsy	Selected rural districts of Balochistan and NWFP	392
2000-2001	Maternal and Infant Mortality Survey (MIMS) (Midhet, 2001)	Statistical modelling using district characteristics as independent variables and projected into future	Pakistan	279
2000	Estimates developed by WHO, UNICEF and UNFPA, (Abou Zahr and Wardlaw, 2004)	Statistical modelling using country characteristics as independent variables	Pakistan	500
2005	Estimates developed by WHO, UNICEF, UNFPA, and the World Bank (WHO, 2005)	Statistical modelling using country characteristics as independent variables	Pakistan	320

Community-based studies of maternal mortality (e.g., the Maternal and Infant Mortality Survey—MIMS) have estimated large variations in MMR by urban and rural areas, provinces and more and less developed districts. Based on statistical models, the government has classified districts into low, medium and high MMR categories (Ministry of Health, 2005). In general, Balochistan has the highest average MMR and Punjab has the lowest. The most important cause of the divergence is differences in access to emergency obstetric and neonatal care services (Midhet et al., 1998).

Hospital-based studies of maternal mortality report much higher MMRs because of the selection bias (more high-risk pregnancies being referred to hospitals). The studies conducted in the large teaching hospitals in the public sector typically report MMRs that are exponentially higher than the community-based studies (Jafarey, 2002; Jafarey and Korejo, 1993; Qureshi and Qazi, 2003).

Previous studies have identified postpartum haemorrhage, antepartum haemorrhage, puerperal sepsis, obstructed labour, eclampsia, and complications of abortions as the leading direct causes of maternal deaths, accounting for approximately 70 percent of all maternal deaths, both occurring in the community and in hospitals (Jafarey, 2002). Unfortunately, these causes are neither preventable nor predictable. A woman having a normal pregnancy can suddenly develop any of these complications. However, all of these causes are treatable at a modestly staffed and adequately equipped secondary care hospital, provided that the mother arrives at the hospital relatively early in the course of the complication.

Because of the paucity of data on MMR and the desire to measure progress towards meeting the MDG-5 goal, the need for a national study to estimate the MMR was felt among public health professionals and government circles for a long time. It was decided that the scope of Pakistan's 2007 Demographic and Health Survey could be expanded to measure MMR using verbal autopsies. Besides estimating the MMR, the 2007 PDHS provides valuable data on the causes and risk factors of maternal mortality, as well as on a number of process indicators, which will be of great help in programme development and monitoring and evaluation.

14.2 METHODS OF DATA COLLECTION

In the 2006-07 PDHS, the Household Questionnaire elicited information on all deaths and live births occurring since January 2003. Female deaths in the age-group 12-49 years thus identified were further investigated through the verbal autopsy (VA) questionnaire, which was administered by a specially trained interviewer. The process of identifying maternal deaths through VA interviews had three stages: developing and validating the VA questionnaires; administering the validated VA questionnaires; and assignment of the cause of death to each VA questionnaire by a panel of three experts.

14.2.1 Development and Validation of the VA Questionnaire

Use of VA instruments for investigating causes of deaths is now well established and a number of model VA instruments are available. VA questionnaires generally comprise a combination of precoded and open-ended questions that are used in interviews with the family and/or health care providers of the deceased. The VA can be used in combination with a large community survey or on its own; for example, in Pakistan, Lady Health Workers (LHWs) routinely conduct a short VA interview with the family of women dying in their reproductive years. The VA methodology has its limitations (such as problem of recall, misclassification of cause of death, etc.), but it is the most reliable method to use in the absence of a functioning vital registration system (Chandramohan, et al., 2001; Chandramohan et al., 1998).

WHO guidelines for verbal autopsies (WHO, 1995) and several model questionnaires were consulted before designing the questionnaire for the 2006-07 PDHS; however, the modules and sequencing of questions were derived mainly from the VA questionnaire used in the Bangladesh maternal mortality study in 2001 (NIPORT et al., 2003). The VA questionnaire included the following sections: 1) personal information of the respondents for the VA interview (age, sex, relationship with the deceased woman and whether he or she was present during the fatal illness, at the time when the woman was taken to hospital, and at the time of death); 2) personal information of the deceased woman, including a short pregnancy history; 3) a detailed verbatim report of the events surrounding the death, as narrated by the respondents; 4) a check-list of signs and symptoms occurring prior to death; 5) details of a few selected signs and symptoms identified through the check-list (duration, intensity, persistence, prognosis); and 6) details of health services utilization during fatal illness.

The draft questionnaire was pretested in the periurban areas of Islamabad in households where the Family Welfare Centre indicated that a maternal death had occurred during the previous year. After pretesting, the questionnaires were further refined to remove repetition and improve sequencing of questions.

The questionnaire was then validated during July-September 2006 to test its sensitivity and specificity. The primary purpose of the validation was to determine the level of agreement in the cause and category of death assigned by the hospital and through review of the completed VA questionnaire. The estimated sample size for the validation study was 128. The first step was to identify 128 female deaths age 15-49 years occurring in the previous year in four tertiary care hospitals—two in Rawalpindi/ Islamabad and two in Hyderabad. Two methods were used for identifying female deaths: 1) Backward tracking (identifying all female deaths occurring in the hospital in last year and ascertaining the home address of the deceased woman through hospital records; due to incomplete hospital records, this method was not successful); 2) Forward tracking (identifying female deaths in communities residing in the vicinity of the hospitals and then finding the hospital records pertaining to that death). The latter was the more commonly used method. Female deaths in communities were identified through LHWs' records. For each death that occurred in a hospital, the following information was collected: a certificate of cause of death from the hospital records; home address of the deceased woman; and the completed VA questionnaire.

Two field supervisors first filled out a “certification of death” form with the help of the hospital staff from the hospital records (electronic records or case files). The information on the form included the name, age, address and date of death of the deceased woman; the name and address of the hospital where the death occurred; the category of death (maternal, non-maternal and unknown); and the immediate and underlying causes of death. These records were kept strictly confidential and the VA interviewers did not have access to them. Once the address of the deceased woman was confirmed, a team comprised of two experienced female interviewers (one team each in Rawalpindi/ Islamabad and Hyderabad) was dispatched to administer the draft VA questionnaire. Completed VA questionnaires were edited and entered into a computer database. Each completed VA questionnaire was then forwarded to a panel of obstetricians at the Pakistan Institute of Medical Sciences, Islamabad. The reviewing obstetricians carefully read the completed questionnaire and then filled out a “certification of death” form, which was identical to the one filled at the hospital where the death had occurred. The reviewing obstetricians were not privy to the information contained in the hospital’s certification of death form.

Causes of death assigned by the hospital and the obstetrician/reviewer were compared through contingency tables and the degree of agreement was estimated using Kappa statistic. Using hospital diagnosis as the “gold standard” and regarding the VA interview as a screening test, the sensitivity, specificity and the positive and negative predictive values were computed.

Only 120 female deaths could be identified and successfully tracked in the two sites. VA questionnaires were completed on all of these deaths. However, ten questionnaires had to be discarded due to ambiguous or partly missing information. There was reasonable agreement in the assignment of broad categories of the cause of death (direct maternal, indirect maternal, infectious diseases, cancer, hypertension, diabetes, and unknown). In terms of identifying maternal deaths, the VA questionnaire had a sensitivity of 86 percent, a specificity of 91 percent, a positive predictive value of 78 percent, and a negative predictive value of 95 percent. The validation exercise also provided valuable information on further refining and improving the VA questionnaires, for training the interviewers and for review panels for coding and categorizing the causes of death.

14.2.2 Implementation of VAs in Sample Households

Each PDHS data collection team included female interviewers who were specially trained to conduct verbal autopsies. These interviewers received extensive training in the VA methodology and questionnaire, during which it was emphasized that the VA interview was very different from the more customary interviewing of single respondents. Rather, interviewers were encouraged to include in the VA interview all those in the household who had knowledge of the circumstances surrounding the deceased prior to her death. The training included exercises, mock interviews, and filling of questionnaires based upon pre-designed scenarios in the form of stories. Finally, all interviewers had a chance to practice their interviewing skills (in teams) in actual field settings. Before qualifying for field work, each interviewer was examined on her comprehension of the questionnaire, interviewing techniques, and interpersonal skills.

During the data collection, when a death to a woman age 12-49 was identified in the Household Questionnaire as occurring in the reference period, the team supervisor assigned a VA interviewer to the household reporting the female death. The VA interviewer visited the household to arrange a suitable time for the detailed VA interview, ideally with those household members who were most knowledgeable about the deceased woman’s symptoms preceding her death. Interviews were usually completed in one sitting and place. However, some questionnaires required multiple visits to the household. At the end of each interview, the interviewer recorded her comments on the conduct of the interview and the demeanour of the respondents during the interviewing process.

The most informative and interesting part of the VA questionnaire proved to be the verbatim story of death narrated by the respondents and recorded in their own words. Since this part was filled early in the interview, it also served as a guide for conducting the pre-coded questionnaire.

14.2.3 Review of VA Questionnaires and Assignment of Causes of Death

The completed VA questionnaires were returned to NIPS, where they were edited, coded and entered into a database. Three photocopies of each questionnaire were made and dispatched to the National Committee for Maternal and Neonatal Health (NCMNH) in Karachi, where the review process of the VA questionnaires was carried out. One copy was kept in the office and the others were circulated among the reviewers.

There were three panels of three reviewers (two obstetricians and one general physician) each. The VA questionnaires were divided into three equal lots, each assigned to a panel. Each questionnaire was reviewed independently by the three experts in the panel. The reviewers recorded their comments on a prescribed form for cause of death assignment containing the following information: identification data; category of death (direct maternal, indirect maternal, coincidental maternal, non-maternal and “could not be determined”); main cause of death (immediate and underlying); possible cause of death (immediate and underlying); associated cause (s) of death, if any; delays in receiving treatment during fatal illness; and the reviewer’s assessment of the quality of data. To help the reviewers summarize and comprehend the complex data, a checklist was also prepared, which listed the main signs and symptoms of the fatal illness and thus facilitated assigning a cause of death.

The reviewers returned the completed cause of death forms to the NCMNH office, where the information from the three cause of death forms were aggregated on a single sheet of paper. The VA questionnaire, the cause of death form and the aggregation sheet were then examined by a fourth reviewer. The job of the fourth reviewer was to give a consensus opinion on the category and cause of death. A condition was regarded as the main cause of death if it was entered in each of the three cause of death forms as either an immediate, underlying, possible, or associated cause of death. In cases where a consensus could not be formed (21 percent of cases), the three reviewers were invited for a small meeting with the fourth reviewer. The 15 cases that remained unresolved after the meeting were discussed in a larger meeting including all reviewers. Finally, all of the causes of death were assigned the standard 4–digit codes according to the International Classification of Diseases, 10th version (ICD-10) (WHO, 2007). Coding was carried out by trained personnel of the medical records department at Ziauddin University Hospital, Karachi. The coding was carried out under supervision of one of the panelist reviewers. Coded forms were randomly rechecked by the NCMNH staff for accuracy.

Each reviewer assessed the quality of data on a scale of 0-10 (whereby 0 was considered as the poorest quality and 10 as the highest quality). Scoring was based on the following criteria: missing information; discrepancy within objective data; and discrepancy between objective data and verbatim history of fatal illness. Some general comments made by the reviewers include:

- The quality of the verbal autopsy data was generally quite good
- The verbatim section provided valuable additional information which helped in arriving at a conclusive diagnosis; however, the verbatim sections in the VA questionnaires from Balochistan and NWFP were very brief and non-descriptive
- The questionnaires from Balochistan and NWFP had the highest frequency of disagreement between reviewers
- There was some discussion amongst the reviewers about the cut-off gestational age at which the case could be labelled as abortion. WHO recommends 20 weeks of gestation as the cut-off point but considering the situation in Pakistan, the view of the majority of health professionals was 24 weeks of gestation
- The signs/symptoms checklist sped up the reviewing process and was helpful in summarizing complex data.

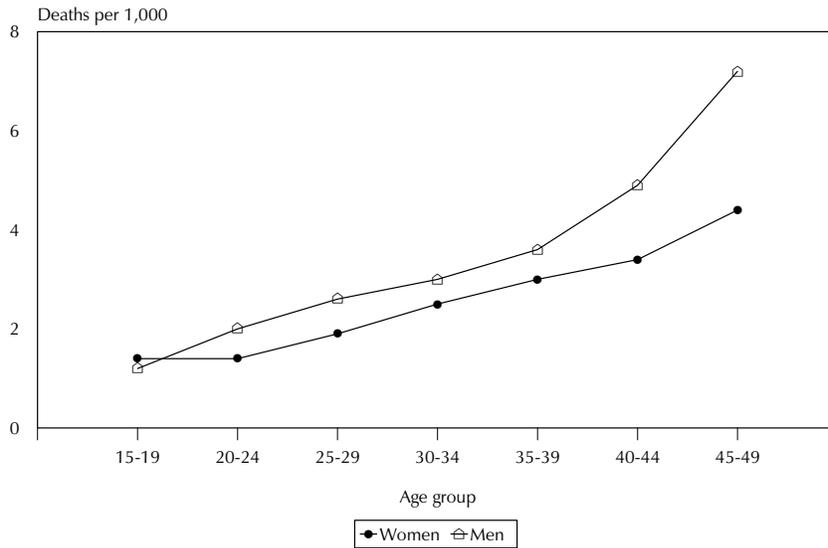
14.3 ADULT MORTALITY RATES

Table 14.2 presents the age-specific mortality rates for women and men aged 15-49 years, by five-year age groups. Men have higher mortality rates than women at all ages except 15-19 (Figure 14.1). This is reassuring, since it is the expected pattern. Comparison for urban and rural areas separately indicates that men have higher mortality rates in each age group except 15-19 and in rural areas, in age group 35-39. It is also interesting to compare the male and female mortality rates by province. In Punjab, men age 15-49 years have higher mortality than women at each age group except the youngest. In Sindh and NWFP, the overall rates are similar, with the age-specific rates showing no consistent pattern by sex, while in Balochistan, mortality among women is higher than among men at every age group except 45-49. The excess mortality among women of reproductive ages in Balochistan compared to men could be attributed to higher maternal mortality and is consistent with the higher maternal mortality ratio in that province (Table 14.11).

Table 14.2 Adult mortality							
Age-specific mortality rates for women and men age 15-49 based on deaths reported in the household questionnaire as occurring in the 12 months preceding the interview, Pakistan 2006-07							
Age	Residence		Province				Total
	Urban	Rural	Punjab	Sindh	NWFP	Balochistan	
WOMEN							
15-19	1.5	1.4	1.4	1.5	1.0	2.3	1.4
20-24	0.9	1.8	1.1	1.9	1.8	2.8	1.4
25-29	1.0	2.3	2.1	1.5	0.8	3.5	1.9
30-34	1.5	3.1	2.4	2.8	2.1	4.7	2.5
35-39	2.6	3.2	2.2	3.8	4.0	6.1	3.0
40-44	2.7	3.8	3.3	3.8	3.3	4.3	3.4
45-49	4.6	4.3	3.9	7.9	1.3	1.6	4.4
Total	1.8	2.4	2.0	2.6	1.8	3.4	2.2
MEN							
15-19	1.0	1.3	1.0	1.3	1.6	1.0	1.2
20-24	1.4	2.4	2.4	1.7	0.9	1.8	2.0
25-29	2.1	2.8	2.7	2.4	2.4	1.9	2.6
30-34	2.2	3.5	3.6	2.8	1.0	1.5	3.0
35-39	5.0	2.8	3.7	4.1	1.6	4.5	3.6
40-44	4.3	5.3	5.4	5.1	3.5	0.2	4.9
45-49	8.3	6.6	8.6	4.9	5.7	3.7	7.2
Total	2.7	2.9	3.2	2.6	2.0	1.9	2.8
Note: Rates are calculated as follows: the numerator consists of the number of deaths reported as occurring in the 12 months prior to the interview, while the denominator consists of the number of woman/man-years. For example, the denominator for women 15-19 consists of an average of the number of women listed in the household age 15-19 and 16-20, plus one-half of the deaths reported to women 15-19 in the 12 months prior to the survey. Rates are quoted per 1,000 women/men.							

With regard to patterns by residence, mortality rates are generally higher in rural areas than in urban areas. For example, rural women have steadily higher age-specific mortality rates than urban women, except at the extreme ages (15-19 and 45-49), when the urban and rural rates are very similar. Among men, mortality rates are higher in rural areas except at age groups 35-39 and 45-49, which is somewhat puzzling. Across provinces, mortality is highest for women in Balochistan, followed by Sindh, whereas for men, it is highest in Punjab and tends to be lowest in Balochistan.

Figure 14.1 Mortality Rates by Age Group for Women and Men Age 15-49

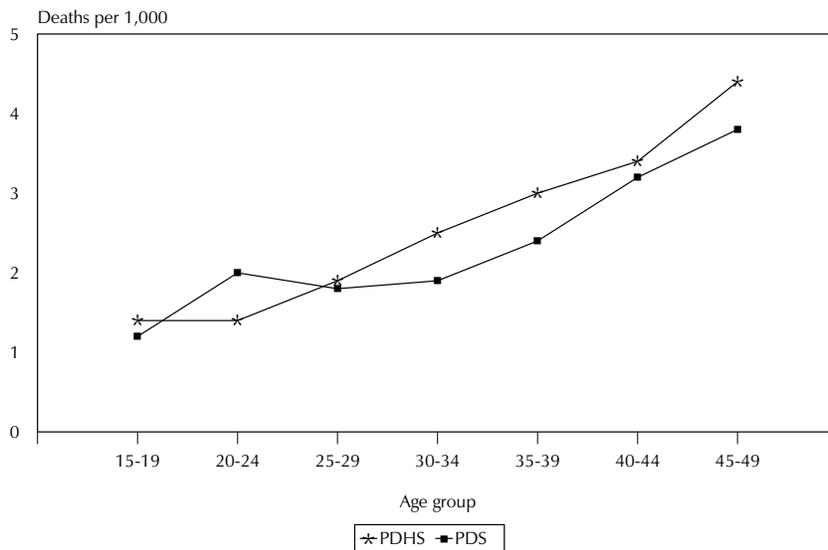


Note: Refers to deaths in the 12 months preceding the survey

PDHS 2006-07

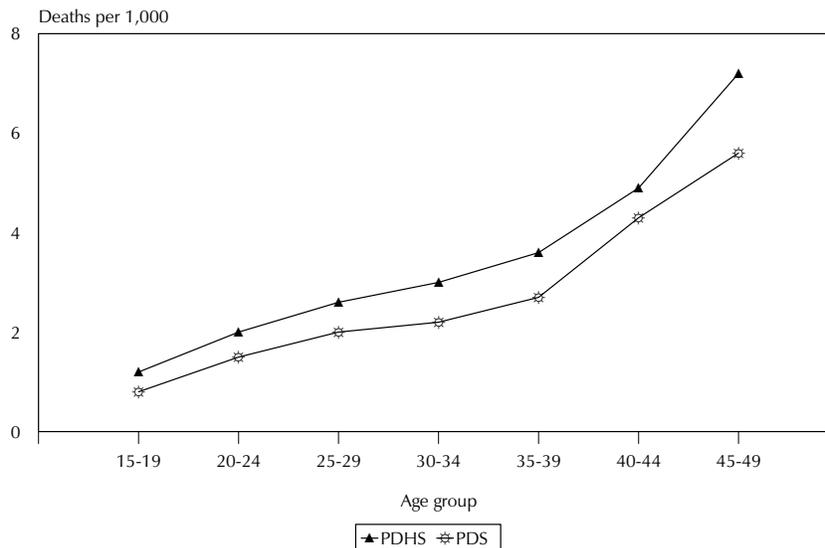
These results are comparable with the age-specific mortality rates reported in the 2005 Pakistan Demographic Survey (Figures 14.2 and 14.3) (Federal Bureau of Statistics, 2001). However, the PDS has consistently lower male and female ASDRs than the 2006-07 PDHS at each age except for the women in the 20-24 years age-group. This may be due to more complete reporting of deaths in the PDHS, compared to the PDS.

Figure 14.2 Mortality Rates by Age Group for Women Age 15-49, Pakistan 2005 and 2006-07



Note: Refers to deaths in the 12 months preceding the survey

Figure 14.3 Mortality Rates by Age Group for Men Age 15-49, Pakistan 2005 and 2006-07



Note: Refers to deaths in the 12 months preceding the survey

14.4 RESPONSE TO THE VERBAL AUTOPSY

A total of 1,125 adult female deaths were identified through the household questionnaires as occurring since January 2003. Verbal autopsies were successfully completed for 1,062, for a response rate of 94 percent (Table 14.3). The response rate was lowest in NWFP (82 percent) and highest in Punjab (98 percent). The reasons for the low completion rate in the NWFP included difficulty in revisiting the households due to security reasons and refusal of the household members from giving an interview. There were no significant differences in completion rates by age of the deceased woman or urban/rural residence.

Background characteristic	Number of female deaths identified	Number of verbal autopsies	Percent completed
Age			
< 20	218	202	92.7
20-24	152	148	97.4
25-29	167	155	92.8
30-34	133	125	94.0
35-39	162	157	96.9
40-44	149	134	89.9
45-49	144	141	97.9
Residence			
Total urban	392	370	94.4
Major city	211	196	92.9
Other urban	181	174	96.1
Rural	733	692	94.4
Province			
Punjab	484	474	97.9
Sindh	329	310	94.2
NWFP	153	126	82.4
Balochistan	159	152	95.6
Total	1,125	1,062	94.4

As shown in Table 14.4, respondents for the VA interviews were usually close relatives of the deceased woman (parent, followed by brother-in-law or sister-in-law, husband, brother, or sister, parent-in-law, and son or daughter). A little over half of the VA interviews were done with multiple respondents. In nearly all cases (94 percent), at least one of the respondents for the VA interview was present at the time the deceased woman first fell ill and in 91 percent of cases, at least one of the respondents was present when the woman died.

14.5 CAUSES OF DEATH AMONG WOMEN AGE 12-49

Complications of pregnancy, childbirth and the puerperium emerge as the outstanding cause of death in the reproductive years, accounting for one-fifth of deaths to women of childbearing age in Pakistan (Table 14.5). In the 20-39 age group, these causes account for about three in ten deaths to women. Cancer, tuberculosis, and other infectious diseases are the next most important causes of death among women in reproductive ages. While cancer accounts for a generally increasing proportion of deaths with age, deaths from tuberculosis fluctuate erratically by age group. However, younger women are more likely to die from infectious diseases other than tuberculosis. Deaths from accidents, violence and burns and corrosions are also more common among younger women than older women.

While it is not surprising that complications of pregnancy, delivery and postpartum period are the leading causes of death among women in the reproductive ages, it is interesting to note that the proportion of maternal deaths among all female deaths in the age group 15-49 years is slightly over 20 percent. The World Health Organization routinely reports maternal

Table 14.4 Respondents for the adult women verbal autopsies

Among deaths to women 12-49 identified in households in 2003 or later and for which a verbal autopsy was completed, percentage with specific types of respondents, Pakistan 2006-07

Relationship to deceased	Percentage
Husband	17.3
Son/daughter	15.4
Son-in-law/daughter-in-law	7.0
Grandchild	0.2
Parent	24.9
Parent-in-law	15.8
Brother/sister	16.6
Brother/sister-in-law	19.2
Niece/nephew	2.1
Grandparent	1.6
Aunt/Uncle	4.8
Other relative	11.1
Adopted/foster/stepchild	0.4
Not related	1.4
Domestic servant	0.2
Not stated	0.6
Percentage with more than one respondent	54.9
Percentage with at least one respondent who was present when deceased first fell ill	94.4
Percentage with at least one respondent who was present when deceased died	91.4
Number of verbal autopsies	1,062

Table 14.5 Causes of adult female deaths by age group

Percent distribution of adult women deaths aged 12-49 since January 2003 by cause of death (from verbal autopsy), according to age, Pakistan 2006-07

Cause of death	Age							Total
	<20	20-24	25-29	30-34	35-39	40-44	45-49	
Tuberculosis	10.8	10.3	7.3	16.0	10.2	6.2	11.0	10.1
All other infectious diseases	19.5	7.8	11.3	12.5	6.9	4.9	4.1	10.2
All cancers	8.2	4.8	9.6	8.4	10.0	19.8	20.5	11.3
All benign tumours	1.9	1.5	0.7	0.3	0.0	4.2	0.0	1.3
Blood disorders	2.9	0.0	0.1	1.0	0.8	0.0	0.0	0.8
Diabetes mellitus	1.6	0.5	0.4	2.8	1.1	2.2	8.1	2.2
Stroke and other cardiovascular diseases	4.2	0.6	2.0	5.7	4.7	6.3	12.5	4.9
Diseases of gastrointestinal tract	5.6	14.3	5.5	5.0	8.2	11.0	12.4	8.7
Burns and corrosions	2.1	0.4	3.3	0.0	0.0	0.8	0.0	1.1
Complications following medical treatment	0.2	3.8	1.7	0.7	1.3	1.1	0.8	1.3
Accidents	4.6	6.6	7.1	4.7	1.3	1.6	4.5	4.4
Violence	2.0	1.5	0.5	0.4	0.2	1.3	0.0	0.9
Epilepsy	1.5	4.0	1.3	1.3	0.1	1.2	0.8	1.5
Respiratory disorders	2.8	0.0	0.3	0.9	1.2	1.5	0.8	1.2
Renal function disorders	4.0	1.9	5.9	3.2	1.8	4.3	3.4	3.6
Pregnancy, childbirth and the puerperium	8.2	26.9	36.7	30.5	29.8	11.6	1.9	20.3
All others	12.2	11.9	4.3	6.6	20.9	20.8	16.6	13.2
Not able to categorize	7.6	3.1	2.1	0.0	1.6	1.0	2.5	2.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	202	142	158	114	143	131	133	1,022

mortality from statistical models for countries lacking reliable data on births and deaths. These estimates are based on estimation of the proportion maternal through regression models. For Pakistan, the proportion maternal was reported as 16 percent and 15 percent for the 2000 and 2005 estimates, respectively; the estimated MMR for these years was 500 and 320, respectively (Abou Zahr and Wardlaw, 2004; WHO, 2005). The proportion maternal among adult female deaths is the highest in Balochistan, followed NWFP, Sindh and Punjab. NWFP has a higher percentage of maternal deaths than Sindh, even though it has a lower MMR.

Table 14.6 presents a comparison by residence of the causes of death among women 12-49 years. Considerably more rural women die of pregnancy-related causes and gastro-intestinal diseases than urban women. On the other hand, deaths due to tuberculosis, respiratory diseases, renal function disorders, and benign tumours are more common among urban women.

Table 14.7 presents the comparison of causes of death by province. Balochistan has by far the highest proportion of adult female deaths caused by complications of pregnancy, childbirth and puerperium, followed by NWFP, Sindh and Punjab, in that order. The proportion of deaths due to accidents is also higher in Balochistan than in the other three provinces. On the other hand, Sindh has a higher proportion of deaths attributed to gastrointestinal disorders, while NWFP has proportionally more deaths due to cancer, cardiovascular diseases, and epilepsy.

Table 14.6 Causes of adult female deaths by residence

Percent distribution of adult women deaths aged 12-49 since January 2003 by cause of death (from verbal autopsy), according to residence, Pakistan 2006-07

Cause of death	Residence		Total
	Urban	Rural	
Tuberculosis	11.7	9.5	10.1
All other infectious diseases	9.9	10.4	10.2
All cancers	11.1	11.4	11.3
All benign tumours	2.5	0.8	1.3
Blood disorders	0.8	0.8	0.8
Diabetes mellitus	2.7	2.0	2.2
Stroke and other cardiovascular diseases	4.8	5.0	4.9
Diseases of gastrointestinal tract	6.4	9.6	8.7
Burns and corrosions	1.5	0.9	1.1
Complications following medical treatment	1.3	1.4	1.3
Accidents	4.2	4.5	4.4
Violence	0.8	1.0	0.9
Epilepsy	1.5	1.5	1.5
Respiratory disorders	2.2	0.8	1.2
Renal function disorders	5.4	2.8	3.6
Pregnancy, childbirth and the puerperium	14.0	22.9	20.3
All others	17.0	11.7	13.2
Not able to categorize	2.4	3.2	2.9
Total	100.0	100.0	100.0
Number	292	730	1,022

Table 14.7 Causes of adult female deaths by province

Percent distribution of adult women deaths aged 12-49 since January 2003 by cause of death (from verbal autopsy), according to province, Pakistan 2006-07

Cause of death	Province				Total
	Punjab	Sindh	NWFP	Balochistan	
Tuberculosis	11.0	11.8	3.3	5.2	10.1
All other infectious diseases	11.7	7.6	6.8	10.5	10.2
All cancers	12.0	7.7	16.2	10.6	11.3
All benign tumours	1.0	2.4	0.0	1.1	1.3
Blood disorders	0.7	0.9	0.1	2.6	0.8
Diabetes mellitus	1.9	3.0	3.8	0.4	2.2
Stroke and other cardiovascular diseases	5.5	2.2	10.2	2.2	4.9
Diseases of gastrointestinal tract	7.2	14.9	3.9	5.9	8.7
Burns and corrosions	1.0	1.3	1.0	1.0	1.1
Complications following medical treatment	1.8	0.6	0.8	0.8	1.3
Accidents	4.0	4.7	2.3	10.5	4.4
Violence	1.2	0.3	1.0	0.7	0.9
Epilepsy	1.2	0.1	7.0	1.3	1.5
Respiratory disorders	1.3	0.6	2.4	0.0	1.2
Renal function disorders	3.8	3.7	3.5	0.7	3.6
Pregnancy, childbirth and the puerperium	16.3	23.9	27.0	35.2	20.3
All others	14.6	11.8	10.4	9.7	13.2
Not able to categorize	3.7	2.5	0.3	1.5	2.9
Total	100.0	100.0	100.0	100.0	100.0
Number	616	245	97	63	1,022

14.6 PREGNANCY-RELATED MORTALITY AND MATERNAL MORTALITY

According to the WHO, a maternal death is defined as a death of a woman while pregnant or within 42 days of the end of the pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes. Using data from the PDHS, there are two main ways to measure the contribution that deaths related to pregnancy and childbirth make to the overall level of adult female mortality. One is calculated from the data collected in the Household Questionnaire about deaths to usual members of the household since January 2003. For any death to a woman age 12-49, interviewers asked whether the woman was pregnant when she died and if not, whether she died during childbirth, and if not, whether she died within 6 weeks after delivery. A “yes” answer to any of these three questions resulted in the death being classified as a “pregnancy-related” death. Although not all deaths occurring during pregnancy and within 6 weeks after delivery are due to maternal causes, the vast majority are and these questions have been widely used to elicit pregnancy-related deaths.

Another way to measure maternal mortality is by analyzing the verbal autopsies for causes that are either directly or indirectly due to pregnancy or childbirth. Direct maternal deaths are those resulting from obstetric complications of the pregnant state (pregnancy, labour and puerperium), from interventions, omissions, incorrect treatment, or from a chain of events resulting from any of the above. Indirect maternal deaths are those resulting from a previously existing disease, or a disease that developed during pregnancy and which was not due to direct obstetric causes, but which was aggravated by the physiologic effects of pregnancy. This method provides a more exact measure of maternal deaths because it excludes deaths occurring during pregnancy or in the 6 weeks postpartum that are not related to the pregnancy or delivery.

From both definitions of deaths, it is possible to construct mortality rates—which refer to deaths per 1,000 women—or mortality ratios—which refer to deaths per 100,000 live births. The most commonly cited statistic is the maternal mortality ratio which refers to the number of maternal deaths per 100,000 live births.

As shown in Table 14.8, the overall pregnancy-related mortality ratio (PRMRatio) for Pakistan is 297 pregnancy-related deaths per 100,000 live births. As expected, the overall maternal mortality ratio (MMR) is slightly lower (since it excludes non-maternal deaths occurring during pregnancy and 6 weeks postpartum) at 276 maternal deaths per 100,000 live births (Table 14.9). Nevertheless, the two rates are very close and compare plausibly with previous estimates. The overall pregnancy-related mortality rate and the maternal mortality rate are the same at 0.4 per 1,000 woman-years. The data imply that approximately 1 in 89 women in Pakistan will die of maternal causes during her lifetime (lifetime risk).

Both the age-specific pregnancy-related mortality *rates* and the maternal mortality *rates* show an expected pattern of being the lowest in the youngest age group, gradually increasing in the early reproductive years to reach a peak in the 35-39 years age group and then declining afterwards, as pregnancy and childbirth begin to taper off. On the other hand, pregnancy-related and maternal mortality *ratios*, which are based on births, are slightly higher among the youngest women (under age 20 years), decline in the 20-24 age group and then steadily increase to reach a peak in the 40-44 age group. Although pregnancy may taper off at older ages, it is also relatively riskier, resulting in higher mortality rates among those who do get pregnant.

Table 14.8 Pregnancy-related mortality rates and ratios by age

Pregnancy-related¹ mortality ratio and rate per 100,000 based on deaths in the 36 months before the survey, by age, Pakistan 2006-07

Age	Weighted number of woman-years ²	Weighted number of deaths ¹ during:				Pregnancy-related mortality rate ³	Age-specific fertility rates ⁴	Pregnancy-related mortality ratio ⁵
		Pregnancy	Delivery	Postpartum period	Total			
<20	120,672	3	2	12	16	0.1	0.051	259
20-24	95,196	14	2	19	35	0.4	0.178	209
25-29	76,785	11	9	28	48	0.6	0.237	262
30-34	57,991	13	3	15	31	0.5	0.182	297
35-39	53,830	12	6	25	43	0.8	0.106	748
40-44	40,447	7	3	7	17	0.4	0.044	967
45-49	36,206	1	0	1	2	0.1	0.018	361
Total	481,127	61	24	107	193	0.4	4.100	297

¹ Based on deaths in the household that occurred to a woman who died when pregnant, during childbirth, or within 6 weeks after delivery, without reference to verbal autopsy data.

² Woman-years lived in that age group during the 36 months before the survey. For example, for age group 15-19, it is calculated by taking ½ of the number of women age 15, plus 1½ times the number age 16, plus 2½ times the number age 17, plus 3 times the number age 18, plus 3 times the number age 19, plus 2½ times the number age 20, plus 1½ times the number age 21, plus ½ times the number age 22, plus ½ times the number of deaths to women 15-49 in the previous 36 months.

³ Deaths per 1,000 woman-years per year

⁴ Calculated from the birth histories of interviewed women (see Table 4.1)

⁵ Deaths per 100,000 live births (calculated by dividing PRMRate by the ASFR * 100); The total is obtained by dividing by the general fertility rate of 0.135 (see Table 4.1).

Table 14.9 Maternal mortality rates and ratios by age

Maternal¹ mortality ratio and rate per 100,000 for the 36 months before the survey, by age, Pakistan 2006-07

Age	Weighted number of woman-years ²	Weighted number of deaths ¹ during:				Maternal mortality rate ³	Age-specific fertility rates ⁴	Maternal mortality ratio ⁵
		Pregnancy	Delivery	Postpartum period	Total			
<20	120,672	0	1	13	15	0.1	0.051	242
20-24	95,196	10	3	21	36	0.4	0.178	210
25-29	76,785	7	7	33	49	0.6	0.237	267
30-34	57,991	5	3	17	26	0.4	0.182	246
35-39	53,830	8	7	22	38	0.7	0.106	657
40-44	40,447	5	3	6	15	0.4	0.044	855
45-49	36,206	0	1	1	2	0.0	0.018	234
Total	481,127	35	25	112	179	0.4	4.100	276

¹ Based on deaths in the 36 months before the survey for which there was a verbal autopsy which was classified as being either a direct or indirect maternal death.

² Woman-years lived in that age group during the 36 months before the survey. For example, for age group 15-19, it is calculated by taking ½ of the number of women age 15, plus 1½ times the number age 16, plus 2½ times the number age 17, plus 3 times the number age 18, plus 3 times the number age 19, plus 2½ times the number age 20, plus 1½ times the number age 21, plus ½ times the number age 22, plus ½ times the number of deaths to women 15-49 in the previous 36 months.

³ Deaths per 1,000 woman-years per year

⁴ Calculated from the birth histories of interviewed women (see Table 4.1)

⁵ Deaths per 100,000 live births (calculated by dividing MMRRate by the ASFR * 100); The total is obtained by dividing by the general fertility rate of 0.135 (see Table 4.1).

As shown in Tables 14.10 and 14.11, there are large differences by residence in reproductive-related mortality. For example, the maternal mortality ratio in rural areas of Pakistan is almost double that in urban areas (319 and 175, respectively).

Table 14.10 Pregnancy-related mortality rates and ratios by residence

Pregnancy-related¹ mortality ratio and rate per 100,000 based on deaths in the 36 months before the survey, by residence and province, Pakistan 2006-07

Residence/ province	Weighted number of woman- years ²	Weighted number of deaths ¹ during:				Pregnancy- related mortality rate ³	General fertility rates ⁴	Pregnancy- related mortality ratio ⁵
		Pregnancy	Delivery	Postpartum period	Total			
Residence								
Urban	170,443	11	2	26	39	0.2	0.113	204
Rural	310,685	51	22	81	153	0.5	0.147	336
Province								
Punjab	284,563	22	4	62	88	0.3	0.130	238
Sindh	110,171	19	9	26	54	0.5	0.146	333
NWFP	66,202	13	7	10	30	0.4	0.139	323
Balochistan	20,192	8	4	10	21	1.1	0.123	856
Total	481,127	61	24	107	193	0.4	0.135	297

¹ Based on deaths in the household that occurred to a woman who died when pregnant, during childbirth, or within 6 weeks after delivery, without reference to verbal autopsy data.

² Woman-years lived in that age group during the 36 months before the survey. For example, for age group 15-19, it is calculated by taking ½ of the number of women age 15, plus 1½ times the number age 16, plus 2½ times the number age 17, plus 3 times the number age 18, plus 3 times the number age 19, plus 2½ times the number age 20, plus 1½ times the number age 21, plus ½ times the number age 22, plus 1½ times the number of deaths to women 15-49 in the previous 36 months.

³ Deaths per 1,000 woman-years per year

⁴ Calculated from the birth histories of interviewed women (see Table 4.1)

⁵ Deaths per 100,000 live births (calculated by dividing PRMRate by the GFR * 100); (see Table 4.1).

Table 14.11 Maternal mortality rates and ratios by residence

Maternal¹ mortality ratio and rate per 100,000 based on deaths in the 36 months before the survey, by residence and province, Pakistan 2006-07

Residence/ province	Weighted number of woman- years ²	Weighted number of deaths ¹ during:				Maternal mortality rate ³	General fertility rates ⁴	Maternal mortality ratio ⁵
		Pregnancy	Delivery	Postpartum period	Total			
Residence								
Urban	170,443	7	3	23	34	0.2	0.113	175
Rural	310,685	29	22	89	146	0.5	0.147	319
Province								
Punjab	284,563	11	6	66	84	0.3	0.130	227
Sindh	110,171	14	8	27	50	0.5	0.146	314
NWFP	66,202	7	7	8	25	0.4	0.139	275
Balochistan	20,192	3	4	11	19	1.0	0.123	785
Total	481,127	35	25	112	179	0.4	0.135	276

¹ Based on deaths in the 36 months before the survey for which there was a verbal autopsy which was classified as being either a direct or indirect maternal death.

² Woman-years lived in that age group during the 36 months before the survey. For example, for age group 15-19, it is calculated by taking ½ of the number of women age 15, plus 1½ times the number age 16, plus 2½ times the number age 17, plus 3 times the number age 18, plus 3 times the number age 19, plus 2½ times the number age 20, plus 1½ times the number age 21, plus ½ times the number age 22, plus 1½ times the number of deaths to women 15-49 in the previous 36 months.

³ Deaths per 1,000 woman-years per year

⁴ Calculated from the birth histories of interviewed women (see Table 4.1)

⁵ Deaths per 100,000 live births (calculated by dividing MMRate by the GFR * 100); (see Table 4.1).

Despite covering over 95,000 households, the sample size was nevertheless too small to calculate reliable estimates of maternal mortality within the provinces. Nonetheless, comparing pregnancy-related and maternal mortality rates and ratios between provinces is quite informative. Clearly, Balochistan has the highest rates and ratios, followed by Sindh, NWFP and Punjab. It may be noted here that since the urban areas of Sindh presumably have relatively lower maternal mortality, rural Sindh probably has very high levels of maternal mortality compared to rural Punjab and NWFP.

As shown in Table 14.12, postpartum haemorrhage is the leading direct cause of maternal deaths, followed by puerperal sepsis and eclampsia. Obstetric bleeding (postpartum and antepartum haemorrhage) is responsible for one-third of all maternal deaths. This is consistent with the unpublished results of verbal autopsies of maternal deaths in two districts of Sindh, as well as reports from other developing countries. A significant proportion (8 percent) of maternal deaths is attributed to iatrogenic causes—described in the ICD-10 as treatment failure or complications of medical procedures—which reflects the poor quality of maternal health services available. In some instances, though, the reported delay in receiving care or inadequate care may not have been real but perceived to be so by the family. Nevertheless, the availability and quality of emergency obstetric care is a matter of great concern in the country; two other studies (one in Sindh and the other in Punjab) have shown similar results (Siddiqui et al., 1999; Fikree et al., 2006). Obstetric embolism emerges as another important direct cause of maternal mortality (6 percent). Another 6 percent of maternal deaths are attributed to complications of abortion (either sepsis or haemorrhage); however, very few deaths were reported to follow an induced abortion and from the history it was quite difficult to make a distinction between induced abortion and miscarriage. The proportion of maternal deaths due to obstructed labour (3 percent) is also relatively low.

Cause	Total
Direct maternal	
Abortion related	5.6
Eclampsia/toxemia of pregnancy	10.4
Obstetric embolism	6.0
Iatrogenic causes	8.1
Antepartum haemorrhage	5.5
Obstructed labour	2.5
Postpartum haemorrhage	27.2
Puerperal sepsis	13.7
Placental disorders	1.2
Other direct causes	4.3
Total direct maternal	84.6
Direct/indirect not able to categorize	2.5
Indirect maternal	13.0
Total	100.0
Number	210

Only 13 percent of maternal deaths are attributed to indirect causes. The main indirect causes included complications of infectious diseases such as hepatitis, cancer, and gastrointestinal disorders. An increasing prevalence of viral hepatitis has been seen in Pakistan and for which a national program for the prevention and control of hepatitis was launched in 2005.

Nearly three-fourths of maternal deaths occurred during delivery and the postpartum period. High quality care during these periods—especially to prevent and manage postpartum haemorrhage—is crucial to prevent deaths.

14.7 DISCUSSION

By collecting information on maternal mortality through verbal autopsies, the 2006-07 PDHS fulfilled a longstanding desire of reproductive health professionals in Pakistan. As is evident from Table 14.1, most estimates of MMR available before this survey were based on mathematical models or indirect estimation. Moreover, the estimates derived from surveys are based on relatively small samples so they have extremely wide confidence intervals.

The 2006-07 PDHS also provided an opportunity to collect in-depth information on the main causes of maternal deaths. The unique design of the study (in-depth interviews with women on their reproductive histories in 10,000 households and detailed information on the characteristics of the women dying due to maternal complications in the same areas during the same time period) will provide an excellent opportunity for future, more in-depth analysis to identify the risk factors associated with maternal mortality.

Despite having an exceptionally well-qualified and efficient technical team, extensively trained and closely supervised field interviewers and use of state-of-the-art technology for data editing, entry and analysis, this study has some constraints and limitations. First, an important constraint was the need for an exceptionally large sample size to estimate the maternal mortality ratio. To keep the sample size within manageable limits, a three-year recall of births and deaths was used.

This has problems in that the recall of deaths declined considerably during the second and third years before the survey, presumably due to recall errors, misreporting of dates, and/or dissolution or change in the composition of households. Information on the causes and circumstances of the death elicited through the verbal autopsy questionnaires was also of poorer quality for the deaths occurring in the second and third years of recall.

Due to cultural sensitivities, direct questions were not asked about induced abortion as a cause of death and caution was taken while investigating whether the death of an unmarried woman was associated with pregnancy-related causes. The proportion of maternal deaths due to complications of abortion (6 percent) is relatively low and there were some deaths to unmarried women who were described in the narrative section as being young and healthy with an unclear cause of death. It is possible that these were unreported abortion-related deaths. Finally, in NWFP, the completion rate of the verbal autopsy interviews was significantly lower than in the other three provinces.

It is possible that the above factors have resulted in an underestimate of maternal mortality over the preceding three years. Notwithstanding the weaknesses and constraints discussed above, the data are rich and valid and provide highly relevant information for evidence-based policymaking.

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Table A.1 Educational attainment of the total household population

Percent distribution of the de facto household population age five and over by highest level of schooling attended and median years completed, according to background characteristics, Pakistan 2006-07

Background characteristic	Education ¹						Total	Number	Median years completed
	No education	Primary	Middle	Secondary	Higher	Missing			
Age									
5-9	31.7	67.9	0.1	0.0	0.0	0.3	100.0	98,592	0.0
10-14	22.9	57.5	18.0	1.4	0.0	0.1	100.0	88,845	2.6
15-19	28.3	21.3	21.9	20.2	8.2	0.1	100.0	81,728	5.1
20-24	32.3	16.7	13.6	19.1	18.2	0.2	100.0	65,553	5.4
25-29	39.3	14.8	11.4	17.9	16.3	0.3	100.0	52,436	4.6
30-34	47.4	13.4	9.3	15.1	14.7	0.2	100.0	38,929	2.8
35-39	54.0	13.7	7.9	12.2	11.9	0.2	100.0	36,627	0.0
40-44	57.4	12.9	8.3	11.4	9.8	0.2	100.0	29,793	0.0
45-49	60.9	12.4	7.2	11.2	8.1	0.2	100.0	25,883	0.0
50-54	64.1	11.5	6.5	9.8	7.8	0.3	100.0	20,026	0.0
55-59	68.2	11.2	5.8	8.0	6.5	0.2	100.0	15,103	0.0
60-64	72.0	10.4	5.3	7.3	4.7	0.4	100.0	14,504	0.0
65+	79.2	8.7	4.2	4.6	2.8	0.4	100.0	28,238	0.0
Residence									
Total urban	26.4	29.6	13.3	15.3	15.1	0.2	100.0	203,421	4.3
Major city	23.3	27.9	13.9	16.9	17.8	0.2	100.0	115,231	4.8
Other urban	30.4	31.9	12.6	13.2	11.7	0.2	100.0	88,189	3.3
Rural	48.3	30.3	9.3	7.8	4.0	0.2	100.0	393,075	0.0
Province									
Punjab	36.8	32.2	11.9	11.4	7.4	0.2	100.0	349,251	1.4
Sindh	45.0	27.1	8.2	9.1	10.2	0.3	100.0	138,054	0.0
NWFP	45.6	28.7	10.5	9.0	5.8	0.2	100.0	82,789	0.0
Balochistan	57.2	22.1	7.5	7.1	5.7	0.4	100.0	26,401	0.0
Wealth quintile²									
Lowest	70.0	23.2	3.3	2.4	0.8	0.3	100.0	17,468	0.0
Second	55.0	30.6	7.2	4.9	1.9	0.4	100.0	19,800	0.0
Middle	42.9	35.0	10.4	8.2	3.3	0.3	100.0	18,233	0.0
Fourth	29.3	35.1	14.3	13.7	7.4	0.3	100.0	16,859	3.2
Highest	16.0	27.3	14.8	20.3	21.4	0.2	100.0	16,089	7.0
Total	40.8	30.1	10.7	10.4	7.8	0.2	100.0	596,496	0.5

¹ Primary = Class 1-5; middle = Class 6-8; secondary = Class 9-10; higher than secondary = Class 11 or more

² Data refer only to individuals interviewed with the Long Household Questionnaire.

Table A.2 Household drinking water

Percent distribution of households and de jure population by source and time to collect water, and percentage of households and the de jure population by treatment of drinking water, according to province, Pakistan 2006-07

Characteristic	Households					Population				
	Punjab	Sindh	NWFP	Baloch- istan	Total	Punjab	Sindh	NWFP	Baloch- istan	Total
Source of drinking water										
Improved source ¹	96.0	90.9	83.3	84.8	92.8	95.8	90.7	85.0	85.5	92.6
Piped into dwelling/yard/plot	33.3	35.9	45.1	42.5	35.8	34.2	33.4	46.8	44.6	36.3
Public tap/standpipe	2.8	1.0	3.7	1.6	2.4	2.7	1.1	3.1	1.3	2.3
Tubewell/borehole/handpump	57.6	49.3	20.8	19.7	49.6	56.9	52.1	21.8	17.6	49.1
Protected dug well	1.8	2.8	12.2	11.3	3.7	1.6	2.8	11.7	11.9	3.8
Protected spring/karez	0.0	0.0	1.5	5.5	0.4	0.0	0.0	1.6	6.3	0.5
Rainwater	0.0	0.2	0.0	3.9	0.2	0.0	0.2	0.0	3.5	0.2
Bottled water	0.3	1.7	0.0	0.2	0.6	0.3	1.1	0.0	0.2	0.4
Non-improved source	2.6	8.6	15.0	15.1	6.1	2.9	8.9	13.7	14.3	6.3
Unprotected dug well	0.7	1.3	3.0	2.6	1.2	0.6	1.3	2.5	2.4	1.1
Unprotected spring	0.0	0.0	8.3	1.1	1.1	0.0	0.0	7.3	0.9	1.1
Tanker truck/cart with tank	0.4	3.7	0.7	3.5	1.3	0.4	4.0	0.7	3.9	1.5
Surface water	1.6	3.6	3.1	7.9	2.5	1.9	3.6	3.1	7.1	2.7
Other	1.3	0.4	1.6	0.1	1.1	1.2	0.3	1.3	0.1	0.9
Missing	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Time to obtain drinking water (round trip)										
Water on premises	90.0	72.7	69.3	50.3	81.8	90.3	72.5	70.6	53.0	81.6
Less than 30 minutes	5.9	13.0	16.7	18.4	9.4	5.5	13.2	14.8	16.9	9.2
30 minutes or longer	3.3	11.7	12.8	24.9	7.3	3.3	11.4	13.2	21.7	7.4
Don't know/missing	0.8	2.5	1.2	6.4	1.5	0.9	2.8	1.4	8.5	1.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water treatment²										
Boiled	5.7	13.7	2.1	1.7	6.9	5.7	11.0	1.8	1.9	6.2
Bleach/chlorine	0.1	2.0	0.1	0.1	0.5	0.1	2.3	0.1	0.1	0.6
Strained through cloth	1.1	5.0	1.1	1.0	2.0	1.0	5.1	1.0	0.9	2.0
Ceramic, sand, or other filter	1.4	2.0	0.1	0.3	1.3	1.4	1.7	0.1	0.4	1.3
Solar disinfection	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Let it stand and settle	0.7	0.5	0.2	0.0	0.6	0.8	0.5	0.2	0.0	0.6
Other	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.0	0.1	0.1
No treatment	91.8	77.7	96.3	96.3	89.4	91.9	80.3	96.7	96.1	90.0
Percentage using an appropriate treatment method ³	7.8	21.6	3.3	3.1	10.1	7.7	19.0	2.9	3.2	9.5
Number	5,609	2,103	1,173	370	9,255	38,168	15,711	9,221	3,046	66,145

¹ Households using bottled water for drinking are classified as using an improved source.

² Respondents may report multiple treatment methods so the sum of treatment may exceed 100 percent.

³ Appropriate water treatment methods include boiling, bleaching, straining, filtering, and solar disinfecting.

Table A.3 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, according to province, Pakistan 2006-07

Type of toilet/ latrine facility	Households					Population				
	Punjab	Sindh	NWFP	Balochistan	Total	Punjab	Sindh	NWFP	Balochistan	Total
Improved, not shared facility										
Flush/pour flush to piped sewer system	26.5	39.1	21.1	10.7	28.0	27.2	36.6	22.6	13.6	28.2
Flush/pour flush to septic tank	18.1	3.5	17.0	16.2	14.6	19.4	3.9	17.7	17.3	15.4
Flush/pour flush to pit latrine	7.5	3.7	3.7	1.2	5.9	8.2	4.5	3.6	1.2	6.4
Ventilated improved pit (VIP) latrine	0.8	0.6	0.3	0.1	0.7	0.8	0.6	0.3	0.1	0.7
Pit latrine with slab	0.3	2.5	0.8	3.1	1.0	0.2	3.2	0.8	3.1	1.1
Non-improved facility										
Any facility shared with other households	6.2	5.8	6.6	12.8	6.4	5.4	5.5	5.8	13.4	5.9
Flush/pour flush not to sewer/septic tank/pit latrine	1.9	5.0	1.6	1.1	2.5	1.9	5.8	1.3	1.2	2.7
Pit latrine without slab/open pit	0.7	5.7	6.0	4.6	2.7	0.8	6.0	5.9	4.7	2.9
Bucket	0.2	1.9	6.0	0.6	1.3	0.2	1.8	6.2	0.8	1.4
Hanging toilet/hanging latrine	8.7	2.6	5.0	5.0	6.7	8.0	2.6	7.0	5.6	6.5
No facility/bush/field	28.9	28.9	31.2	43.3	29.8	27.5	28.9	28.0	38.0	28.4
Other	0.1	0.0	0.3	0.0	0.1	0.1	0.0	0.3	0.0	0.1
Missing	0.2	0.8	0.4	1.1	0.4	0.2	0.6	0.4	1.1	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	5,609	2,103	1,173	370	9,255	38,168	15,711	9,221	3,046	56,145

Table A.4 Housing characteristics

Percent distribution of households and de jure population by housing characteristics and percentage using solid fuel for cooking, according to province, Pakistan 2006-07

Housing characteristic	Households					Population				
	Punjab	Sindh	NWFP	Balochistan	Total	Punjab	Sindh	NWFP	Balochistan	Total
Electricity										
Yes	91.3	83.8	92.7	76.2	89.2	91.6	84.5	94.5	79.0	89.7
No	8.6	16.1	7.2	23.6	10.7	8.3	15.3	5.4	20.8	10.2
Missing	0.1	0.1	0.0	0.2	0.1	0.1	0.2	0.0	0.2	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Flooring material										
Earth/sand/mud	45.4	44.9	69.0	68.5	49.2	45.0	46.3	68.5	67.6	49.6
Chips/terrazo	8.6	4.3	4.4	2.6	6.8	8.7	3.8	5.2	2.6	6.8
Ceramic tiles	0.9	2.3	0.3	0.2	1.1	0.9	1.9	0.2	0.2	1.0
Marble	1.9	5.2	0.7	0.0	2.4	2.0	4.7	0.7	0.0	2.4
Cement	28.2	38.5	23.4	19.7	29.6	28.0	38.6	23.1	19.0	29.4
Carpet	0.6	1.4	0.0	0.3	0.7	0.7	1.1	0.0	0.2	0.6
Bricks	14.2	3.0	2.1	1.7	9.6	14.6	3.3	2.2	1.5	9.6
Other/missing	0.2	0.4	0.0	7.0	0.5	0.2	0.3	0.0	9.0	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Main wall material										
Mud/stones	15.1	15.7	45.0	70.7	21.3	14.7	16.4	45.1	70.8	22.0
Bamboo/sticks/mud	5.3	15.3	6.5	11.2	8.0	5.1	15.4	5.9	11.6	8.0
Unbaked bricks/mud	5.2	8.6	2.5	0.6	5.5	5.3	8.9	2.4	0.6	5.5
Stone blocks	0.3	0.7	1.7	2.6	0.7	0.2	0.5	1.5	3.1	0.6
Baked bricks	25.9	14.8	13.8	5.5	21.0	26.6	16.0	13.3	4.8	21.2
Cement blocks/cement	47.3	44.6	29.5	9.0	42.9	47.0	42.5	30.9	8.6	41.9
Other/missing	0.9	0.3	1.0	0.5	0.7	1.0	0.3	0.9	0.5	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Main roof material										
Thatch/palm leaf	23.6	37.1	56.5	82.2	33.2	22.3	37.8	56.1	82.1	33.5
Iron sheets/asbestos	0.9	7.8	5.8	5.0	3.3	0.9	7.3	5.7	5.8	3.3
T-iron/wood/brick	48.4	26.1	13.8	8.7	37.4	49.5	28.2	13.1	8.7	37.5
Reinforced brick cement/ reinforced concrete cement	26.7	28.6	22.9	2.6	25.7	27.2	26.3	24.4	2.2	25.5
Other/missing	0.2	0.4	0.8	1.4	0.5	0.2	0.4	0.6	1.1	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Rooms used for sleeping										
One	34.9	42.7	31.0	27.3	35.9	27.2	34.8	22.4	17.8	27.9
Two	42.1	37.7	40.0	40.8	40.8	42.1	38.8	36.7	37.7	40.4
Three or more	22.5	18.0	28.1	31.5	22.6	30.3	24.8	40.0	44.2	31.0
Missing	0.5	1.6	0.9	0.4	0.8	0.4	1.6	0.9	0.3	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cooking fuel										
Electricity	0.1	0.2	0.6	1.6	0.2	0.1	0.1	0.6	1.2	0.2
Cylinder gas	5.0	1.3	8.1	6.5	4.6	4.5	1.3	6.5	6.1	4.1
Natural gas	23.5	44.1	13.1	13.3	26.5	23.9	41.7	14.1	13.0	26.3
Biogas	0.5	4.4	0.8	4.6	1.6	0.5	4.6	1.1	4.8	1.7
Charcoal	0.3	0.5	0.4	1.0	0.4	0.4	0.4	0.5	1.2	0.4
Wood	48.8	44.3	66.8	70.6	50.9	49.2	46.8	67.4	71.5	52.2
Straw/shrubs/grass	5.4	1.8	7.6	0.2	4.6	5.0	1.5	7.3	0.1	4.3
Agricultural crop	6.1	0.1	0.0	0.0	3.7	6.3	0.1	0.0	0.0	3.7
Animal dung	9.7	3.0	2.1	2.1	6.9	9.9	3.2	2.1	2.0	6.9
No food cooked in household	0.3	0.3	0.1	0.0	0.2	0.0	0.1	0.0	0.0	0.0
Other/missing	0.2	0.0	0.4	0.1	0.2	0.2	0.0	0.3	0.1	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using solid fuel for cooking ¹	70.3	49.6	76.9	73.9	66.6	70.8	52.1	77.4	74.8	67.4
Number of households	5,609	2,103	1,173	370	9,255	38,168	15,711	9,221	3,046	66,145

¹ Includes charcoal, wood, straw/shrubs/grass, agricultural crops, and animal dung

Table A.5 Household durable goods

Percentage of households and de jure population possessing various household effects, means of transportation, agricultural land, and livestock/farm animals by province, Pakistan 2006-07

Possession	Households					Population				
	Punjab	Sindh	NWFP	Balochistan	Total	Punjab	Sindh	NWFP	Balochistan	Total
Radio	27.2	33.0	42.6	57.4	31.7	28.0	35.1	44.7	61.1	33.5
Television	59.5	57.4	39.1	41.0	55.7	62.2	57.6	41.0	44.9	57.3
Telephone	48.1	44.5	41.2	31.2	45.7	51.4	45.7	44.8	34.9	48.3
Refrigerator	37.6	39.4	30.6	26.6	36.7	39.0	39.1	33.7	30.4	37.9
Room cooler/air conditioner	18.2	7.3	11.2	9.2	14.5	18.7	7.3	12.8	10.2	14.8
Washing machine	43.2	44.8	37.5	33.2	42.5	45.5	45.3	40.0	37.6	44.3
Water pump	47.5	31.2	16.7	21.1	38.8	50.0	32.3	17.4	22.1	40.0
Bed	71.3	86.7	71.7	52.0	74.1	72.6	86.8	72.4	56.2	75.2
Chair	65.7	31.9	56.9	16.3	54.9	66.8	31.9	58.8	18.7	55.2
Cabinet	41.7	49.4	43.1	42.9	43.7	44.3	49.3	45.3	48.2	45.8
Clock	77.0	71.0	87.9	79.7	77.1	78.7	71.5	89.7	81.8	78.7
Sofa	30.8	27.6	26.4	8.5	28.6	32.6	26.5	28.7	10.7	29.6
Sewing machine	66.4	51.1	52.3	48.4	60.4	70.1	52.8	56.9	52.9	63.3
Camera	11.0	11.2	8.1	16.1	10.9	12.0	11.0	9.4	19.2	11.7
Personal computer	8.1	9.1	6.7	7.3	8.1	8.2	8.2	7.9	8.6	8.1
Watch	79.9	76.0	88.3	94.4	80.7	82.4	77.8	90.3	95.2	83.0
Bicycle	52.2	20.7	25.1	29.3	40.7	56.4	23.1	28.8	33.3	43.6
Motorcycle/scooter	19.6	20.0	6.2	31.5	18.4	22.6	21.6	7.5	35.2	20.8
Car/truck/tractor	6.6	6.5	4.8	13.8	6.7	7.7	6.7	6.1	17.5	7.7
Animal drawn cart	11.5	8.6	4.8	6.2	9.8	13.5	10.6	5.8	5.7	11.4
Boat with a motor	0.2	0.4	0.2	0.2	0.2	0.1	0.5	0.2	0.3	0.2
Ownership of agricultural land	38.5	28.6	42.4	50.3	37.2	39.4	31.2	44.0	53.4	38.7
Ownership of farm animals ¹	53.1	43.5	63.4	61.9	52.6	56.3	47.8	66.0	63.6	56.0
Number	5,609	2,103	1,173	370	9,255	38,168	15,711	9,221	3,046	66,145

¹ Buffalo, cows, bulls, camels, donkeys, mules, horses, goats, sheep, chickens

Table B.1 Sample implementation

Percent distribution of households and eligible women by results of the household and individual interviews; and household, eligible women and overall response rates, according to urban-rural residence and region, Pakistan 2006-07

Result	Residence				Province				Total
	Total urban	Major city	Other urban	Rural	Punjab	Sindh	NWFP	Balochistan	
Selected households									
Completed (C)	92.9	92.6	93.1	94.0	94.0	91.5	93.8	96.7	93.5
Household present but no competent respondent at home (HP)	1.4	1.7	1.1	0.9	1.5	1.1	0.5	0.2	1.1
Postponed (P)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)	0.9	1.1	0.7	0.5	0.3	0.6	1.7	0.9	0.7
Dwelling not found (DNF)	0.5	0.4	0.5	0.4	0.2	0.9	0.4	0.3	0.4
Household absent (HA)	2.0	1.8	2.3	1.8	1.6	2.5	2.2	1.2	1.9
Dwelling vacant/address not a dwelling (DV)	1.5	1.4	1.7	1.5	1.9	1.5	0.8	0.6	1.5
Dwelling destroyed (DD)	0.2	0.2	0.2	0.3	0.3	0.5	0.2	0.0	0.3
Other (O)	0.6	0.7	0.4	0.6	0.3	1.5	0.5	0.1	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	40,827	21,297	19,530	61,210	46,200	27,282	18,475	10,080	102,037
Household response rate (HRR) ¹	97.1	96.6	97.6	98.1	97.9	97.3	97.2	98.6	97.7
Eligible women									
Completed (EWC)	93.3	92.5	94.2	95.3	94.7	93.3	94.2	97.6	94.5
Not at home (EWNH)	3.0	3.0	3.1	2.4	2.6	3.1	2.6	1.6	2.6
Postponed (EWP)	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.1
Refused (EWR)	1.6	2.1	1.1	0.5	0.6	1.6	1.1	0.2	0.9
Partly completed (EWPC)	0.8	1.1	0.5	0.3	0.5	0.7	0.6	0.1	0.5
Incapacitated (EWI)	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Other (EWO)	1.1	1.3	0.8	1.3	1.4	1.2	1.5	0.5	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	4,104	2,086	2,018	6,497	4,502	2,911	1,977	1,211	10,601
Eligible women response rate (EWRR) ²	93.3	92.5	94.2	95.3	94.7	93.3	94.2	97.6	94.5
Overall response rate (ORR) ³	91.0	89.6	92.4	93.7	93.3	91.0	91.2	96.3	92.6

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

$$\frac{100 * C}{C + HP + P + R + DNF}$$

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

$$\frac{100 * EWC}{EWC + EWNH + EWP + EWR + EWPC + EWI + EWO}$$

³ The overall response rate (ORR) is calculated as: ORR = HRR * EWRR/100

The estimates from a sample survey are affected by two types of errors: 1) nonsampling errors, and 2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2006-07 Pakistan Demographic and Health Survey (PDHS) to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2006-07 PDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

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

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2006-07 PDHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the 2006-07 PDHS is the ISSA Sampling Error Module. This module used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y , and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

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

in which

$$z_{hi} = y_{hi} - rx_{hi}, \text{ and } z_h = y_h - rx_h$$

where h represents the stratum which varies from 1 to H ,
 m_h is the total number of clusters selected in the h^{th} stratum,
 y_{hi} is the sum of the weighted values of variable y in the i^{th} cluster in the h^{th} stratum,
 x_{hi} is the sum of the weighted number of cases in the i^{th} cluster in the h^{th} stratum, and
 f is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* clusters in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2006-07 PDHS, there were 970 non-empty clusters. Hence, 970 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) = var(r) = \frac{1}{k(k-1)} \sum_{i=1}^k (r_i - r)^2$$

in which

$$r_i = kr - (k-1)r_{(i)}$$

where r is the estimate computed from the full sample of 970 clusters,
 $r_{(i)}$ is the estimate computed from the reduced sample of 969 clusters (i^{th} cluster excluded), and
 k is the total number of clusters.

In addition to the standard error, ISSA computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. ISSA also computes the relative error and confidence limits for the estimates.

Sampling errors for the 2006-07 PDHS are calculated for selected variables considered to be of primary interest for woman's survey and for man's surveys, respectively. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table C.1. The results are presented in this appendix for the country as a whole, for urban and rural areas, and for each of the 4 provinces. Tables C.2 to C.8 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits ($R \pm 2SE$), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to childbearing.

The confidence interval (e.g., as calculated for *children ever born to women aged 40-49*) can be interpreted as follows: the overall average from the national sample is 5.9 and its standard error is 0.068. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., $5.9 \pm 2 \times 0.068$. There is a high probability (95 percent) that the *true* average number of children ever born to all women aged 40 to 49 is between 5.8 and 6.1.

Sampling errors are analyzed for the national woman sample and for two separate groups of estimates: (1) means and proportions, and (2) complex demographic rates. The relative standard errors (SE/R) for the means and proportions range between 0.4 percent and 9.7 percent; the highest relative standard errors are for estimates of very low values (e.g., *currently using rhythm method*). In general, the relative standard error for most estimates for the country as a whole is small, except for estimates

of very small proportions. The relative standard error for the total fertility rate is small, 1.6 percent. However, for the mortality rates, the average relative standard error is much higher, 9.7 percent.

There are differentials in the relative standard error for the estimates of sub-populations. For example, for the variable *want no more children*, the relative standard errors as a percent of the estimated mean for the whole country, and for the urban areas are 0.012 percent and 0.017 percent, respectively.

For the total sample, the value of the design effect (DEFT), averaged over all variables, is 1.32 which means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.32 over that in an equivalent simple random sample.

Table C.1 List of selected variables for sampling errors for the women sample, Pakistan 2006-07

Variable	Estimate	Base population
Urban	Proportion	Ever-married women
Literate	Proportion	Ever-married women
No education	Proportion	Ever-married women
Secondary+ education	Proportion	Ever-married women
Never married	Proportion	All women
Currently married	Proportion	All women
Married before age 20	Proportion	Women age 20-49
Married to first cousin	Proportion	Ever-married women
Currently pregnant	Proportion	All women
Children ever born	Mean	All women
Children surviving	Mean	All women
Children ever born to women age 40-49	Mean	Women age 40-49
Knows any contraceptive method	Proportion	Currently married women
Ever used any contraceptive method	Proportion	Currently married women
Currently using any contraceptive method	Proportion	Currently married women
Currently using pill	Proportion	Currently married women
Currently using IUD	Proportion	Currently married women
Currently using injectables	Proportion	Currently married women
Currently using condoms	Proportion	Currently married women
Currently using female sterilization	Proportion	Currently married women
Currently using rhythm method	Proportion	Currently married women
Currently using withdrawal	Proportion	Currently married women
Used public sector source	Proportion	Current users of modern methods
Want no more children or sterilized	Proportion	Currently married women
Want to delay birth at least 2 years	Proportion	Currently married women
Ideal family size	Mean	All women
Mothers received prenatal care for last birth	Proportion	Women with at least one live birth in five years before survey
Mothers received tetanus injection for last birth	Proportion	Women with at least one live birth in five years before survey
Mothers received medical assistance at delivery	Proportion	Births occurring 1-59 months before interview
Ever had obstetric fistula	Proportion	Ever-married women who have ever given birth
Having diarrhoea in two weeks before survey	Proportion	Children age 0-59 months
Treated with oral rehydration salts (ORS)	Proportion	Children with diarrhoea in two weeks before interview
Taken to a health provider	Proportion	Children with diarrhoea in two weeks before interview
Vaccination card seen	Proportion	Children age 12-23 months
Received BCG	Proportion	Children age 12-23 months
Received DPT (3 doses)	Proportion	Children age 12-23 months
Received Polio (3 doses)	Proportion	Children age 12-23 months
Received measles	Proportion	Children age 12-23 months
Fully vaccinated	Proportion	Children age 12-23 months
Has heard of tuberculosis	Proportion	Ever-married women
Has ever been diagnosed with TB	Proportion	Ever-married women who have heard of TB
Accepting attitudes towards people with HIV	Proportion	Ever-married women who have heard of HIV/AIDS
Total fertility rate (3 years)	Rate	All women 15-49
Neonatal mortality (0-4 years) ¹	Rate	Children exposed to the risk of mortality
Post-neonatal mortality (0-4 years) ¹	Rate	Children exposed to the risk of mortality
Infant mortality (0-4 years) ¹	Rate	Children exposed to the risk of mortality
Child mortality (0-4 years) ¹	Rate	Children exposed to the risk of mortality
Under-five mortality (0-4 years) ¹	Rate	Children exposed to the risk of mortality

¹ 0-4 years for national only; 0-9 years for background characteristics

Table C.2 Sampling errors for national sample, Pakistan 2006-07

Variable	Value (R)	Stand-ard error (SE)	Number of cases		Design effect (DEFT)	Rela-tive error (SE/R)	Confidence limits	
			Un-weighted (N)	Weight-ed (WN)			R-2SE	R+2SE
Urban	0.334	0.007	10023	10023	1.577	0.022	0.319	0.349
No education	0.650	0.008	10023	10023	1.628	0.012	0.634	0.665
Secondary+ education	0.208	0.007	10023	10023	1.637	0.032	0.195	0.222
Never married	0.348	0.009	15478	15362	1.392	0.026	0.330	0.365
Currently married	0.622	0.009	15478	15362	1.405	0.014	0.605	0.639
Married before age 20	0.517	0.005	11875	11811	1.255	0.010	0.506	0.527
Married to first cousin	0.524	0.007	10023	10023	1.448	0.014	0.510	0.538
Currently pregnant	0.078	0.003	15478	15362	1.251	0.035	0.072	0.083
Children ever born	2.527	0.046	15478	15362	1.283	0.018	2.435	2.619
Children surviving	2.254	0.041	15478	15362	1.297	0.018	2.171	2.337
Children ever born to women age 40-49	5.921	0.068	2567	2567	1.198	0.011	5.786	6.056
Knows any contraceptive method	0.959	0.004	9580	9556	1.741	0.004	0.952	0.966
Ever used any contraceptive method	0.487	0.008	9580	9556	1.516	0.016	0.471	0.502
Currently using any contraceptive method	0.296	0.007	9580	9556	1.408	0.022	0.283	0.309
Currently using pill	0.021	0.002	9580	9556	1.141	0.081	0.017	0.024
Currently using IUD	0.023	0.002	9580	9556	1.144	0.077	0.019	0.026
Currently using injection	0.023	0.002	9580	9556	1.204	0.080	0.019	0.027
Currently using condom	0.068	0.003	9580	9556	1.272	0.048	0.061	0.074
Current using female sterilization	0.082	0.003	9580	9556	1.200	0.041	0.075	0.088
Currently using rhythm method	0.036	0.003	9580	9556	1.548	0.082	0.030	0.042
Currently using withdrawal	0.041	0.003	9580	9556	1.340	0.066	0.036	0.047
Used public sector source	0.482	0.014	2032	2078	1.301	0.030	0.453	0.511
Want no more children	0.516	0.006	9580	9556	1.176	0.012	0.504	0.528
Want to delay birth at least 2 years	0.196	0.005	9580	9556	1.179	0.024	0.187	0.206
Ideal family size	4.097	0.029	8988	9040	1.575	0.007	4.038	4.155
Mother received prenatal care for last birth	0.609	0.009	5724	5677	1.377	0.015	0.591	0.627
Mother received 2+ tetanus injections for last birth	0.534	0.010	5724	5677	1.500	0.019	0.514	0.554
Mother received medical assistance at delivery	0.388	0.010	9177	9121	1.502	0.025	0.369	0.407
Ever had obstretic fistula	0.030	0.002	8758	8757	1.231	0.074	0.026	0.035
Having diarrhoea in 2 weeks before survey	0.218	0.006	8448	8367	1.313	0.029	0.205	0.230
Treated with oral rehydration salts (ORS)	0.411	0.014	1877	1821	1.131	0.034	0.383	0.439
Taken to a health provider	0.545	0.015	1877	1821	1.229	0.028	0.514	0.576
Vaccination card seen	0.237	0.014	1541	1522	1.295	0.060	0.209	0.266
Received BCG	0.803	0.012	1541	1522	1.213	0.015	0.779	0.828
Received DPT (3 doses)	0.585	0.014	1541	1522	1.139	0.025	0.556	0.614
Received Polio (3 doses)	0.831	0.012	1541	1522	1.219	0.014	0.807	0.854
Received measles	0.599	0.015	1541	1522	1.220	0.026	0.568	0.630
Fully vaccinated	0.473	0.015	1541	1522	1.195	0.033	0.442	0.503
Has heard of tuberculosis	0.877	0.005	10023	10023	1.460	0.005	0.868	0.887
Has ever been diagnosed with TB	0.035	0.002	8890	8792	1.163	0.065	0.030	0.039
Accepting attitudes towards people with HIV	0.477	0.011	4398	4427	1.439	0.023	0.455	0.499
Total fertility rate (past 3 years)	4.081	0.066	na	42966	1.237	0.016	3.949	4.213
Neonatal mortality (past 5 years)	53.699	3.113	9206	9151	1.218	0.058	47.472	59.926
Post-neonatal mortality (past 5 years)	23.954	1.857	9213	9161	1.133	0.078	20.241	27.667
Infant mortality (past 5 years)	77.653	3.828	9217	9163	1.271	0.049	69.998	85.309
Child mortality (past 5 years)	17.961	1.739	9267	9211	1.192	0.097	14.483	21.440
Under-five mortality (past 5 years)	94.220	4.214	9282	9225	1.299	0.045	85.792	102.647

na = Not applicable

Table C.3 Sampling errors for urban sample, Pakistan 2006-07

Variable	Value (R)	Stand-ard error (SE)	Number of cases		Design effect (DEFT)	Rela-tive error (SE/R)	Confidence limits	
			Un-weighted (N)	Weight-ed (WN)			R-2SE	R+2SE
Urban	1.000	0.000	3830	3350	ne	0.000	1.000	1.000
No education	0.431	0.015	3830	3350	1.843	0.034	0.401	0.460
Secondary+ education	0.414	0.015	3830	3350	1.911	0.037	0.384	0.445
Never married	0.248	0.009	6472	5522	1.249	0.035	0.231	0.266
Currently married	0.578	0.015	6472	5522	1.282	0.026	0.548	0.607
Married before age 20	0.447	0.009	4904	4262	1.269	0.019	0.429	0.464
Married to first cousin	0.431	0.012	3830	3350	1.496	0.028	0.407	0.455
Currently pregnant	0.066	0.004	6472	5522	1.299	0.062	0.058	0.074
Children ever born	2.253	0.072	6472	5522	1.236	0.032	2.108	2.397
Children surviving	2.050	0.067	6472	5522	1.257	0.032	1.917	2.183
Children ever born to women age 40-49	5.584	0.110	1049	912	1.342	0.020	5.363	5.804
Knows any contraceptive method	0.985	0.002	3645	3191	1.182	0.002	0.980	0.989
Ever used any contraceptive method	0.642	0.012	3645	3191	1.549	0.019	0.618	0.667
Currently using any contraceptive method	0.411	0.012	3645	3191	1.504	0.030	0.386	0.435
Currently using pill	0.026	0.003	3645	3191	1.272	0.128	0.020	0.033
Currently using IUD	0.026	0.002	3645	3191	0.945	0.096	0.021	0.031
Currently using injection	0.023	0.003	3645	3191	1.266	0.136	0.017	0.030
Currently using condom	0.119	0.007	3645	3191	1.358	0.061	0.104	0.133
Current using female sterilization	0.102	0.006	3645	3191	1.274	0.063	0.089	0.114
Currently using rhythm method	0.049	0.007	3645	3191	1.893	0.138	0.036	0.063
Currently using withdrawal	0.061	0.006	3645	3191	1.460	0.095	0.050	0.073
Used public sector source	0.361	0.020	1045	953	1.355	0.056	0.320	0.401
Want no more children	0.569	0.010	3645	3191	1.186	0.017	0.549	0.588
Want to delay birth at least 2 years	0.198	0.008	3645	3191	1.170	0.039	0.182	0.213
Ideal family size	3.704	0.034	3474	3072	1.339	0.009	3.635	3.772
Mother received prenatal care for last birth	0.781	0.011	1998	1714	1.209	0.014	0.759	0.804
Mother received 2+ tetanus injections for last birth	0.653	0.016	1998	1714	1.455	0.024	0.622	0.685
Mother received medical assistance at delivery	0.601	0.018	3145	2699	1.634	0.030	0.565	0.638
Ever had obstretic fistula	0.029	0.004	3396	2965	1.350	0.134	0.021	0.037
Having diarrhoea in 2 weeks before survey	0.211	0.010	2938	2518	1.256	0.047	0.191	0.231
Treated with oral rehydration salts (ORS)	0.438	0.026	665	532	1.196	0.058	0.386	0.489
Taken to a health provider	0.655	0.026	665	532	1.255	0.039	0.604	0.707
Vaccination card seen	0.263	0.029	554	484	1.524	0.110	0.205	0.321
Received BCG	0.893	0.015	554	484	1.167	0.017	0.862	0.924
Received DPT (3 doses)	0.684	0.023	554	484	1.137	0.033	0.639	0.729
Received Polio (3 doses)	0.818	0.022	554	484	1.322	0.027	0.775	0.862
Received measles	0.688	0.026	554	484	1.303	0.037	0.637	0.740
Fully vaccinated	0.542	0.027	554	484	1.266	0.050	0.488	0.596
Has heard of tuberculosis	0.929	0.006	3830	3350	1.560	0.007	0.916	0.942
Has ever been diagnosed with TB	0.036	0.004	3563	3111	1.310	0.114	0.028	0.044
Accepting attitudes towards people with HIV	0.495	0.016	2536	2319	1.636	0.033	0.463	0.528
Total fertility rate (past 3 years)	3.334	0.084	na	15481	1.210	0.025	3.166	3.502
Neonatal mortality (past 10 years)	47.810	4.435	6535	5520	1.492	0.093	38.940	56.679
Post-neonatal mortality (past 10 years)	18.228	2.112	6540	5525	1.173	0.116	14.005	22.451
Infant mortality (past 10 years)	66.037	4.814	6541	5525	1.395	0.073	56.410	75.665
Child mortality (past 10 years)	13.193	1.885	6554	5533	1.176	0.143	9.424	16.962
Under-five mortality (past 10 years)	78.359	5.155	6561	5539	1.376	0.066	68.048	88.670

na = Not applicable

Table C.4 Sampling errors for rural sample, Pakistan 2006-07

Variable	Value (R)	Stand-ard error (SE)	Number of cases		Design effect (DEFT)	Rela-tive error (SE/R)	Confidence limits	
			Un-weighted (N)	Weight-ed (WN)			R-2SE	R +2SE
Urban	0.000	0.000	6193	6673	ne	ne	0.000	0.000
No education	0.760	0.008	6193	6673	1.493	0.011	0.743	0.776
Secondary+ education	0.105	0.005	6193	6673	1.353	0.050	0.095	0.116
Never married	0.403	0.013	9217	9838	1.386	0.033	0.377	0.430
Currently married	0.647	0.011	9217	9838	1.410	0.017	0.626	0.668
Married before age 20	0.556	0.007	7046	7549	1.252	0.012	0.543	0.569
Married to first cousin	0.571	0.009	6193	6673	1.391	0.015	0.553	0.588
Currently pregnant	0.084	0.004	9217	9838	1.220	0.043	0.077	0.091
Children ever born	2.682	0.059	9217	9838	1.269	0.022	2.565	2.799
Children surviving	2.369	0.052	9217	9838	1.278	0.022	2.265	2.474
Children ever born to women age 40-49	6.103	0.086	1519	1656	1.130	0.014	5.932	6.275
Knows any contraceptive method	0.946	0.005	5935	6365	1.736	0.005	0.936	0.956
Ever used any contraceptive method	0.409	0.009	5935	6365	1.422	0.022	0.391	0.427
Currently using any contraceptive method	0.239	0.007	5935	6365	1.323	0.031	0.224	0.253
Currently using pill	0.018	0.002	5935	6365	1.068	0.103	0.014	0.021
Currently using IUD	0.021	0.002	5935	6365	1.233	0.109	0.016	0.026
Currently using injection	0.023	0.002	5935	6365	1.170	0.099	0.018	0.028
Currently using condom	0.042	0.003	5935	6365	1.205	0.075	0.036	0.048
Current using female sterilization	0.072	0.004	5935	6365	1.160	0.054	0.064	0.080
Currently using rhythm method	0.029	0.003	5935	6365	1.247	0.093	0.024	0.035
Currently using withdrawal	0.031	0.003	5935	6365	1.275	0.092	0.025	0.037
Used public sector source	0.585	0.019	987	1125	1.201	0.032	0.547	0.623
Want no more children	0.489	0.007	5935	6365	1.153	0.015	0.474	0.504
Want to delay birth at least 2 years	0.195	0.006	5935	6365	1.176	0.031	0.183	0.208
Ideal family size	4.299	0.039	5514	5967	1.570	0.009	4.221	4.377
Mother received prenatal care for last birth	0.535	0.011	3726	3962	1.370	0.021	0.512	0.557
Mother received 2+ tetanus injections for last birth	0.482	0.012	3726	3962	1.466	0.025	0.458	0.507
Mother received medical assistance at delivery	0.298	0.010	6032	6422	1.400	0.034	0.278	0.319
Ever had obstetric fistula	0.031	0.003	5362	5793	1.172	0.089	0.026	0.037
Having diarrhoea in 2 weeks before survey	0.221	0.008	5510	5849	1.316	0.035	0.205	0.236
Treated with oral rehydration salts (ORS)	0.400	0.017	1212	1290	1.088	0.042	0.367	0.434
Taken to a health provider	0.500	0.019	1212	1290	1.211	0.038	0.462	0.538
Vaccination card seen	0.226	0.016	987	1038	1.180	0.071	0.193	0.258
Received BCG	0.762	0.016	987	1038	1.189	0.022	0.729	0.795
Received DPT (3 doses)	0.538	0.018	987	1038	1.130	0.034	0.502	0.575
Received Polio (3 doses)	0.837	0.014	987	1038	1.165	0.017	0.808	0.865
Received measles	0.557	0.019	987	1038	1.183	0.034	0.519	0.596
Fully vaccinated	0.440	0.019	987	1038	1.163	0.043	0.403	0.478
Has heard of tuberculosis	0.851	0.006	6193	6673	1.408	0.007	0.839	0.864
Has ever been diagnosed with TB	0.034	0.003	5327	5681	1.084	0.079	0.029	0.040
Accepting attitudes towards people with HIV	0.457	0.014	1862	2108	1.187	0.030	0.429	0.484
Total fertility rate (past 3 years)	4.491	0.088	na	27477	1.205	0.020	4.315	4.668
Neonatal mortality (past 10 years)	55.234	2.875	12456	13236	1.206	0.052	49.483	60.984
Post-neonatal mortality (past 10 years)	26.156	1.709	12467	13248	1.126	0.065	22.738	29.574
Infant mortality (past 10 years)	81.390	3.556	12470	13250	1.258	0.044	74.277	88.503
Child mortality (past 10 years)	19.860	1.706	12490	13275	1.226	0.086	16.449	23.271
Under-five mortality (past 10 years)	99.633	3.876	12507	13292	1.263	0.039	91.881	107.386

na = Not applicable

Table C.5 Sampling errors for Punjab sample, Pakistan 2006-07

Variable	Value (R)	Stand-ard error (SE)	Number of cases		Design effect (DEFT)	Rela-tive error (SE/R)	Confidence limits	
			Un-weighted (N)	Weight-ed (WN)			R-2SE	R+2SE
Urban	0.316	0.011	4263	5800	1.549	0.035	0.294	0.338
No education	0.597	0.011	4263	5800	1.449	0.018	0.575	0.619
Secondary+ education	0.234	0.010	4263	5800	1.509	0.042	0.214	0.254
Never married	0.294	0.009	6485	8899	1.118	0.032	0.275	0.312
Currently married	0.617	0.011	6485	8899	1.124	0.018	0.595	0.640
Married before age 20	0.473	0.008	5163	7004	1.167	0.016	0.458	0.488
Married to first cousin	0.531	0.010	4263	5800	1.250	0.018	0.511	0.550
Currently pregnant	0.071	0.004	6485	8899	1.188	0.054	0.063	0.078
Children ever born	2.497	0.058	6485	8899	1.052	0.023	2.381	2.613
Children surviving	2.217	0.052	6485	8899	1.068	0.024	2.113	2.321
Children ever born to women age 40-49	5.695	0.090	1164	1570	1.109	0.016	5.516	5.874
Knows any contraceptive method	0.969	0.003	4041	5495	1.240	0.003	0.962	0.976
Ever used any contraceptive method	0.528	0.011	4041	5495	1.424	0.021	0.506	0.551
Currently using any contraceptive method	0.332	0.010	4041	5495	1.292	0.029	0.313	0.351
Currently using pill	0.014	0.002	4041	5495	1.093	0.143	0.010	0.018
Currently using IUD	0.031	0.003	4041	5495	1.040	0.092	0.025	0.036
Currently using injection	0.020	0.003	4041	5495	1.201	0.133	0.014	0.025
Currently using condom	0.071	0.005	4041	5495	1.226	0.070	0.061	0.081
Current using female sterilization	0.092	0.005	4041	5495	1.130	0.056	0.082	0.102
Currently using rhythm method	0.053	0.005	4041	5495	1.371	0.091	0.044	0.063
Currently using withdrawal	0.046	0.004	4041	5495	1.188	0.085	0.038	0.054
Used public sector source	0.482	0.020	947	1267	1.240	0.042	0.442	0.522
Want no more children	0.544	0.008	4041	5495	0.997	0.014	0.529	0.560
Want to delay birth at least 2 years	0.171	0.006	4041	5495	0.977	0.034	0.160	0.183
Ideal family size	3.791	0.026	3788	5175	1.186	0.007	3.739	3.843
Mother received prenatal care for last birth	0.609	0.013	2305	3182	1.248	0.021	0.584	0.634
Mother received 2+ tetanus injections for last birth	0.590	0.015	2305	3182	1.429	0.025	0.561	0.619
Mother received medical assistance at delivery	0.377	0.015	3705	5125	1.481	0.039	0.348	0.407
Ever had obstretic fistula	0.037	0.004	3739	5089	1.137	0.094	0.030	0.044
Having diarrhoea in 2 weeks before survey	0.206	0.009	3403	4689	1.231	0.043	0.189	0.224
Treated with oral rehydration salts (ORS)	0.351	0.020	704	968	1.059	0.058	0.311	0.392
Taken to a health provider	0.537	0.022	704	968	1.124	0.042	0.492	0.581
Vaccination card seen	0.238	0.022	628	865	1.261	0.091	0.195	0.281
Received BCG	0.855	0.016	628	865	1.109	0.018	0.824	0.886
Received DPT (3 doses)	0.645	0.020	628	865	1.072	0.032	0.604	0.686
Received Polio (3 doses)	0.846	0.017	628	865	1.180	0.020	0.811	0.880
Received measles	0.651	0.022	628	865	1.138	0.033	0.608	0.695
Fully vaccinated	0.526	0.022	628	865	1.115	0.042	0.482	0.571
Has heard of tuberculosis	0.865	0.007	4263	5800	1.314	0.008	0.851	0.879
Has ever been diagnosed with TB	0.027	0.003	3711	5018	1.047	0.104	0.021	0.032
Accepting attitudes towards people with HIV	0.486	0.016	2089	2715	1.421	0.032	0.455	0.517
Total fertility rate (past 3 years)	3.923	0.090	na	24414	1.120	0.023	3.742	4.104
Neonatal mortality (past 10 years)	58.137	3.733	7595	10427	1.211	0.064	50.670	65.603
Post-neonatal mortality (past 10 years)	22.742	1.953	7600	10433	1.087	0.086	18.836	26.648
Infant mortality (past 10 years)	80.879	4.348	7601	10434	1.234	0.054	72.183	89.574
Child mortality (past 10 years)	18.063	2.023	7619	10458	1.219	0.112	14.017	22.110
Under-five mortality (past 10 years)	97.481	4.613	7626	10467	1.227	0.047	88.256	106.707

na = Not applicable

Table C.6 Sampling errors for Sindh sample, Pakistan 2006-07

Variable	Value (R)	Stand-ard error (SE)	Number of cases		Design effect (DEFT)	Rela-tive error (SE/R)	Confidence limits	
			Un-weighted (N)	Weight-ed (WN)			R-2SE	R+2SE
Urban	0.488	0.014	2716	2410	1.426	0.028	0.460	0.515
No education	0.668	0.015	2716	2410	1.662	0.022	0.638	0.698
Secondary+ education	0.214	0.012	2716	2410	1.573	0.058	0.189	0.239
Never married	0.454	0.027	3996	3555	1.761	0.060	0.399	0.508
Currently married	0.652	0.019	3996	3555	1.707	0.029	0.613	0.690
Married before age 20	0.608	0.009	3034	2681	1.183	0.015	0.589	0.626
Married to first cousin	0.564	0.017	2716	2410	1.758	0.030	0.531	0.598
Currently pregnant	0.087	0.006	3996	3555	1.230	0.064	0.076	0.098
Children ever born	2.615	0.107	3996	3555	1.565	0.041	2.401	2.828
Children surviving	2.307	0.095	3996	3555	1.576	0.041	2.117	2.497
Children ever born to women age 40-49	6.260	0.159	619	536	1.271	0.025	5.943	6.578
Knows any contraceptive method	0.973	0.005	2611	2317	1.446	0.005	0.963	0.982
Ever used any contraceptive method	0.421	0.013	2611	2317	1.330	0.031	0.395	0.447
Currently using any contraceptive method	0.267	0.012	2611	2317	1.331	0.043	0.244	0.290
Currently using pill	0.023	0.004	2611	2317	1.212	0.153	0.016	0.031
Currently using IUD	0.010	0.002	2611	2317	0.950	0.185	0.006	0.014
Currently using injection	0.023	0.003	2611	2317	1.167	0.149	0.016	0.030
Currently using condom	0.072	0.005	2611	2317	1.057	0.074	0.062	0.083
Current using female sterilization	0.090	0.006	2611	2317	1.081	0.067	0.078	0.102
Currently using rhythm method	0.015	0.002	2611	2317	1.028	0.162	0.010	0.020
Currently using withdrawal	0.031	0.005	2611	2317	1.592	0.174	0.020	0.042
Used public sector source	0.444	0.026	554	509	1.211	0.058	0.393	0.495
Want no more children	0.484	0.012	2611	2317	1.254	0.025	0.460	0.509
Want to delay birth at least 2 years	0.220	0.010	2611	2317	1.222	0.045	0.200	0.240
Ideal family size	4.348	0.056	2517	2252	1.413	0.013	4.237	4.459
Mother received prenatal care for last birth	0.704	0.016	1626	1404	1.427	0.023	0.672	0.737
Mother received 2+ tetanus injections for last birth	0.512	0.016	1626	1404	1.301	0.032	0.479	0.545
Mother received medical assistance at delivery	0.444	0.015	2649	2284	1.247	0.034	0.414	0.475
Ever had obstretic fistula	0.021	0.003	2371	2095	0.999	0.139	0.016	0.027
Having diarrhoea in 2 weeks before survey	0.236	0.012	2415	2085	1.259	0.050	0.213	0.260
Treated with oral rehydration salts (ORS)	0.537	0.024	595	493	1.047	0.045	0.488	0.585
Taken to a health provider	0.662	0.025	595	493	1.116	0.038	0.612	0.712
Vaccination card seen	0.197	0.021	435	373	1.090	0.107	0.155	0.240
Received BCG	0.767	0.025	435	373	1.207	0.032	0.718	0.817
Received DPT (3 doses)	0.476	0.027	435	373	1.092	0.056	0.423	0.529
Received Polio (3 doses)	0.841	0.018	435	373	1.028	0.022	0.805	0.878
Received measles	0.507	0.031	435	373	1.258	0.061	0.445	0.568
Fully vaccinated	0.370	0.027	435	373	1.150	0.073	0.316	0.424
Has heard of tuberculosis	0.904	0.008	2716	2410	1.489	0.009	0.887	0.921
Has ever been diagnosed with TB	0.054	0.005	2464	2179	1.195	0.101	0.043	0.064
Accepting attitudes towards people with HIV	0.518	0.018	1113	1029	1.188	0.034	0.482	0.554
Total fertility rate (past 3 years)	4.322	0.128	na	10695	1.326	0.030	4.067	4.578
Neonatal mortality (past 10 years)	53.241	4.012	5426	4725	1.150	0.075	45.217	61.266
Post-neonatal mortality (past 10 years)	28.159	2.645	5433	4734	1.093	0.094	22.869	33.448
Infant mortality (past 10 years)	81.400	5.186	5434	4734	1.201	0.064	71.027	91.772
Child mortality (past 10 years)	21.852	2.418	5448	4743	1.047	0.111	17.016	26.687
Under-five mortality (past 10 years)	101.473	5.854	5457	4752	1.226	0.058	89.765	113.181

na = Not applicable

Table C.7 Sampling errors for NWFP sample, Pakistan 2006-07

Variable	Value (R)	Stand-ard error (SE)	Number of cases		Design effect (DEFT)	Rela-tive error (SE/R)	Confidence limits	
			Un-weighted (N)	Weight-ed (WN)			R-2SE	R+2SE
Urban	0.170	0.011	1862	1351	1.285	0.066	0.148	0.193
No education	0.774	0.013	1862	1351	1.378	0.017	0.747	0.800
Secondary+ education	0.125	0.009	1862	1351	1.215	0.074	0.107	0.144
Never married	0.406	0.023	3005	2173	1.391	0.057	0.360	0.452
Currently married	0.599	0.020	3005	2173	1.409	0.034	0.559	0.639
Married before age 20	0.557	0.011	2193	1590	1.177	0.019	0.535	0.579
Married to first cousin	0.426	0.016	1862	1351	1.365	0.037	0.394	0.457
Currently pregnant	0.080	0.006	3005	2173	1.180	0.075	0.068	0.091
Children ever born	2.563	0.098	3005	2173	1.145	0.038	2.367	2.760
Children surviving	2.335	0.092	3005	2173	1.174	0.039	2.151	2.520
Children ever born to women age 40-49	6.344	0.136	462	334	1.069	0.022	6.071	6.617
Knows any contraceptive method	0.919	0.019	1792	1301	2.905	0.020	0.882	0.957
Ever used any contraceptive method	0.505	0.018	1792	1301	1.500	0.035	0.469	0.540
Currently using any contraceptive method	0.249	0.014	1792	1301	1.352	0.056	0.221	0.276
Currently using pill	0.031	0.005	1792	1301	1.158	0.153	0.022	0.041
Currently using IUD	0.017	0.003	1792	1301	1.010	0.182	0.011	0.023
Currently using injection	0.040	0.005	1792	1301	1.022	0.118	0.031	0.050
Currently using condom	0.061	0.006	1792	1301	1.103	0.102	0.048	0.073
Current using female sterilization	0.036	0.004	1792	1301	1.010	0.123	0.027	0.045
Currently using rhythm method	0.010	0.003	1792	1301	1.194	0.286	0.004	0.015
Currently using withdrawal	0.051	0.006	1792	1301	1.087	0.110	0.040	0.063
Used public sector source	0.556	0.032	361	243	1.232	0.058	0.491	0.620
Want no more children	0.500	0.017	1792	1301	1.455	0.034	0.466	0.535
Want to delay birth at least 2 years	0.232	0.016	1792	1301	1.644	0.071	0.199	0.265
Ideal family size	4.357	0.137	1689	1213	2.602	0.031	4.083	4.632
Mother received prenatal care for last birth	0.513	0.022	1113	827	1.513	0.044	0.468	0.558
Mother received 2+ tetanus injections for last birth	0.432	0.023	1113	827	1.589	0.054	0.386	0.479
Mother received medical assistance at delivery	0.379	0.021	1787	1312	1.494	0.056	0.337	0.421
Ever had obstretic fistula	0.024	0.004	1635	1179	1.168	0.186	0.015	0.032
Having diarrhoea in 2 weeks before survey	0.247	0.015	1665	1221	1.387	0.062	0.216	0.277
Treated with oral rehydration salts (ORS)	0.375	0.031	420	301	1.193	0.082	0.314	0.437
Taken to a health provider	0.401	0.037	420	301	1.450	0.093	0.326	0.475
Vaccination card seen	0.339	0.035	317	222	1.273	0.103	0.269	0.409
Received BCG	0.711	0.038	317	222	1.459	0.053	0.635	0.787
Received DPT (3 doses)	0.564	0.037	317	222	1.300	0.066	0.490	0.638
Received Polio (3 doses)	0.810	0.031	317	222	1.387	0.039	0.748	0.873
Received measles	0.566	0.035	317	222	1.224	0.062	0.496	0.636
Fully vaccinated	0.469	0.038	317	222	1.315	0.081	0.394	0.545
Has heard of tuberculosis	0.872	0.012	1862	1351	1.577	0.014	0.847	0.896
Has ever been diagnosed with TB	0.038	0.006	1648	1178	1.303	0.163	0.026	0.050
Accepting attitudes towards people with HIV	0.411	0.020	893	573	1.186	0.048	0.372	0.450
Total fertility rate (past 3 years)	4.330	0.163	na	5843	1.320	0.038	4.004	4.657
Neonatal mortality (past 10 years)	40.548	3.985	3676	2724	1.116	0.098	32.578	48.518
Post-neonatal mortality (past 10 years)	22.208	3.034	3679	2725	1.208	0.137	16.141	28.276
Infant mortality (past 10 years)	62.756	5.202	3679	2725	1.193	0.083	52.353	73.160
Child mortality (past 10 years)	12.676	2.232	3685	2729	1.133	0.176	8.212	17.140
Under-five mortality (past 10 years)	74.637	6.125	3688	2731	1.245	0.082	62.386	86.888

na = Not applicable

Table C.8 Sampling errors for Balochistan sample, Pakistan 2006-07

Variable	Value (R)	Stand-ard error (SE)	Number of cases		Design effect (DEFT)	Rela-tive error (SE/R)	Confidence limits	
			Un-weighted (N)	Weight-ed (WN)			R-2SE	R+2SE
Urban	0.238	0.020	1182	462	1.604	0.083	0.199	0.278
No education	0.850	0.013	1182	462	1.226	0.015	0.824	0.875
Secondary+ education	0.101	0.011	1182	462	1.258	0.109	0.079	0.123
Never married	0.321	0.020	1847	714	1.091	0.062	0.281	0.361
Currently married	0.620	0.024	1847	714	0.945	0.039	0.572	0.669
Married before age 20	0.504	0.015	1393	544	1.265	0.031	0.473	0.534
Married to first cousin	0.520	0.017	1182	462	1.190	0.033	0.485	0.554
Currently pregnant	0.115	0.009	1847	714	1.075	0.079	0.097	0.134
Children ever born	2.432	0.140	1847	714	1.116	0.058	2.152	2.713
Children surviving	2.268	0.129	1847	714	1.096	0.057	2.011	2.525
Children ever born to women age 40-49	6.218	0.180	324	127	1.106	0.029	5.858	6.578
Knows any contraceptive method	0.882	0.013	1136	443	1.319	0.014	0.856	0.907
Ever used any contraceptive method	0.262	0.016	1136	443	1.234	0.062	0.229	0.294
Currently using any contraceptive method	0.144	0.012	1136	443	1.185	0.086	0.120	0.169
Currently using pill	0.053	0.007	1136	443	1.130	0.142	0.038	0.068
Currently using IUD	0.006	0.002	1136	443	1.091	0.431	0.001	0.010
Currently using injection	0.014	0.004	1136	443	1.144	0.283	0.006	0.022
Currently using condom	0.016	0.004	1136	443	1.195	0.282	0.007	0.024
Current using female sterilization	0.046	0.006	1136	443	0.919	0.124	0.035	0.057
Currently using rhythm method	0.003	0.001	1136	443	0.849	0.434	0.000	0.006
Currently using withdrawal	0.005	0.002	1136	443	1.055	0.429	0.001	0.010
Used public sector source	0.513	0.058	170	59	1.503	0.113	0.397	0.628
Want no more children	0.366	0.018	1136	443	1.282	0.050	0.329	0.402
Want to delay birth at least 2 years	0.277	0.015	1136	443	1.130	0.054	0.247	0.307
Ideal family size	5.854	0.077	994	399	1.118	0.013	5.700	6.008
Mother received prenatal care for last birth	0.407	0.024	680	264	1.282	0.060	0.359	0.456
Mother received 2+ tetanus injections for last birth	0.297	0.034	680	264	1.947	0.115	0.229	0.366
Mother received medical assistance at delivery	0.230	0.019	1036	400	1.174	0.084	0.191	0.269
Ever had obstretic fistula	0.010	0.003	1013	394	0.975	0.303	0.004	0.016
Having diarrhoea in 2 weeks before survey	0.162	0.018	965	373	1.493	0.109	0.126	0.197
Treated with oral rehydration salts (ORS)	0.518	0.046	158	60	1.118	0.089	0.426	0.610
Taken to a health provider	0.449	0.047	158	60	1.152	0.105	0.354	0.543
Vaccination card seen	0.106	0.026	161	61	1.071	0.249	0.053	0.159
Received BCG	0.630	0.054	161	61	1.388	0.085	0.522	0.738
Received DPT (3 doses)	0.467	0.049	161	61	1.230	0.105	0.369	0.564
Received Polio (3 doses)	0.629	0.048	161	61	1.227	0.076	0.533	0.724
Received measles	0.540	0.051	161	61	1.264	0.094	0.439	0.642
Fully vaccinated	0.352	0.047	161	61	1.247	0.135	0.258	0.447
Has heard of tuberculosis	0.904	0.012	1182	462	1.355	0.013	0.881	0.928
Has ever been diagnosed with TB	0.028	0.007	1067	417	1.402	0.252	0.014	0.042
Accepting attitudes towards people with HIV	0.214	0.031	303	110	1.322	0.146	0.152	0.277
Total fertility rate (past 3 years)	4.081	0.246	na	1958	1.576	0.060	3.589	4.573
Neonatal mortality (past 10 years)	30.408	5.120	2294	880	1.317	0.168	20.168	40.647
Post-neonatal mortality (past 10 years)	18.495	3.985	2295	881	1.337	0.215	10.524	26.466
Infant mortality (past 10 years)	48.903	7.425	2297	881	1.417	0.152	34.052	63.753
Child mortality (past 10 years)	10.867	2.775	2292	879	1.183	0.255	5.317	16.417
Under-five mortality (past 10 years)	59.238	8.583	2297	881	1.491	0.145	42.073	76.403

na = Not applicable

Table D.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Pakistan 2006-07

Age	Female		Male		Age	Female		Male	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
0	9,229	3.0	9,681	3.0	36	3,303	1.0	3,066	1.0
1	8,132	2.0	8,662	2.0	37	2,270	1.0	2,052	1.0
2	8,645	3.0	9,500	3.0	38	4,082	1.0	3,434	1.0
3	9,351	3.0	9,335	3.0	39	2,048	0.0	1,651	1.0
4	9,833	3.0	10,068	3.0	40	6,714	2.0	7,796	2.0
5	10,153	3.0	11,031	3.0	41	1,760	0.0	1,664	1.0
6	9,392	3.0	10,191	3.0	42	2,843	1.0	2,901	1.0
7	10,189	3.0	10,652	3.0	43	1,822	0.0	1,603	1.0
8	10,177	3.0	10,949	3.0	44	1,425	0.0	1,266	0.0
9	7,584	2.0	8,275	2.0	45	5,418	2.0	6,138	2.0
10	10,062	3.0	11,333	3.0	46	1,945	1.0	1,796	1.0
11	6,355	2.0	6,717	2.0	47	1,542	0.0	1,420	0.0
12	10,118	3.0	11,342	3.0	48	2,478	1.0	2,446	1.0
13	7,516	2.0	7,674	2.0	49	1,430	0.0	1,268	0.0
14	8,799	3.0	8,929	3.0	50	4,718	2.0	5,297	1.0
15	8,378	2.0	8,420	2.0	51	1,230	0.0	1,146	0.0
16	9,258	3.0	8,891	3.0	52	1,709	1.0	1,749	1.0
17	7,062	2.0	6,936	2.0	53	1,036	0.0	1,089	0.0
18	10,402	3.0	10,879	3.0	54	1,030	0.0	1,021	0.0
19	5,812	2.0	5,689	2.0	55	3,324	1.0	3,525	1.0
20	10,464	3.0	9,345	3.0	56	1,224	0.0	1,240	0.0
21	4,809	1.0	4,397	1.0	57	786	0.0	903	0.0
22	7,887	2.0	7,375	2.0	58	1,286	0.0	1,201	0.0
23	5,272	1.0	4,961	2.0	59	787	0.0	826	0.0
24	5,606	2.0	5,435	2.0	60	3,990	1.0	4,929	1.0
25	8,583	2.0	7,780	3.0	61	631	0.0	770	0.0
26	5,460	1.0	5,190	2.0	62	917	0.0	983	0.0
27	4,224	1.0	3,988	1.0	63	589	0.0	663	0.0
28	6,044	2.0	5,584	2.0	64	482	0.0	548	0.0
29	3,117	1.0	2,466	1.0	65	2,426	1.0	2,930	1.0
30	8,401	2.0	8,129	2.0	66	549	0.0	665	0.0
31	2,388	1.0	1,960	1.0	67	475	0.0	475	0.0
32	4,417	1.0	4,168	1.0	68	702	0.0	669	0.0
33	2,528	1.0	2,248	1.0	69	395	0.0	461	0.0
34	2,492	1.0	2,198	1.0	70+	7,857	3.0	10,635	2.0
35	7,211	2.0	7,509	2.0	Don't know/ missing	117	0.0	122	0.0
					Total	340,689	100.0	348,238	100.0

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview.

Table D.2 Age distribution of eligible and interviewed women

De facto household population of women age 10-54, interviewed women age 15-49, and percentage of eligible women who were interviewed (weighted), by five-year age groups, Pakistan 2006-07

Age group	Household population of women age 10-54	Ever-married women age 10-54	Interviewed women age 15-49		Percent of women
			Number	Percent	
10-14	4,159	0	na	na	na
15-19	4,023	602	549	5.6	91.3
20-24	3,265	1,568	1,466	15.0	93.5
25-29	2,598	2,086	1,967	20.2	94.3
30-34	1,960	1,828	1,733	17.8	94.8
25-39	1,744	1,690	1,609	16.5	95.2
40-44	1,384	1,341	1,268	13.0	94.6
45-49	1,241	1,225	1,154	11.8	94.2
50-54	882	868	na	na	na
15-49	16,215	10,341	9,747	100.0	94.3

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the household schedule.
na = Not applicable

Table D.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Pakistan 2006-07

Age group	Reference population	Percentage with missing information	Number of cases
Birth date	Births in the 15 years preceding the survey		
Month only		19.0	27,007
Month and year		3.71	27,007
Age at death	Deaths among births in the 15 years preceding the survey	1.04	2,599
Age/date at first union¹	All women age 15-49	0.27	10,023
Respondent's education	All women age 15-49	0.00	10,023
Diarrhoea in past 2 weeks	Living children age 0-59 months	0.60	8,367

¹ Both year and age missing

Table D.4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living (L), dead (D), and total (T) children (weighted), Pakistan 2006-07

Calendar year	Number of births			Percentage with complete birth date ¹			Sex ratio at birth ²			Calendar year ratio ³		
	L	D	T	L	D	T	L	D	T	L	D	T
2007	54	2	55	100.0	100.0	100.0	142.7	58.0	138.4	na	na	na
2006	1,691	155	1,847	99.5	98.8	99.4	108.4	205.9	114.1	na	na	na
2005	1,517	149	1,666	98.0	91.4	97.4	109.9	84.5	107.4	90.5	93.9	90.8
2004	1,660	162	1,821	95.6	83.3	94.5	115.8	112.0	115.5	99.7	110.5	100.5
2003	1,814	144	1,958	93.9	89.5	93.6	100.9	108.5	101.4	112.0	96.3	110.7
2002	1,578	137	1,715	87.4	71.6	86.2	109.0	125.6	110.2	94.1	103.2	94.8
2001	1,540	122	1,662	84.3	69.7	83.2	119.3	134.9	120.3	87.3	70.9	85.9
2000	1,951	207	2,158	80.3	60.0	78.4	118.2	112.1	117.6	115.1	127.1	116.1
1999	1,850	204	2,053	72.3	57.8	70.9	100.9	90.8	99.8	95.4	95.3	95.4
1998	1,926	220	2,146	70.5	63.3	69.8	103.4	100.4	103.1	118.1	119.2	118.2
2003-2007	6,735	612	7,348	96.7	90.7	96.2	108.6	120.1	109.6	na	na	na
1998-2002	8,844	890	9,734	78.5	63.4	77.1	109.6	108.5	109.5	na	na	na
1993-1997	7,438	919	8,357	68.9	52.2	67.1	109.9	103.0	109.1	na	na	na
1988-1992	6,256	797	7,053	63.6	47.9	61.8	98.4	114.4	100.1	na	na	na
<1988	5,354	979	6,333	56.2	42.4	54.0	106.9	108.2	107.1	na	na	na
All	34,626	4,197	38,824	73.8	57.1	72.0	107.0	109.9	107.3	na	na	na

na = Not applicable

¹ Both year and month of birth given

² $(B_m/B_f) \times 100$, where B_m and B_f are the numbers of male and female births, respectively

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

Table D.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days, and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), Pakistan 2006-07

Age at death (days)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1	178	156	142	111	587
1	44	75	60	43	222
2	39	41	25	14	120
3	45	45	44	25	159
4	27	22	15	9	73
5	17	23	26	22	88
6	12	20	21	21	74
7	16	25	20	15	76
8	24	14	18	17	73
9	5	2	12	8	27
10	9	9	6	9	32
11	3	10	4	4	20
12	3	7	11	5	27
13	6	3	4	4	16
14	5	4	2	3	14
15	10	14	9	10	43
16	3	6	4	9	22
17	3	1	1	2	8
18	1	1	3	2	7
19	4	4	0	2	9
20	7	5	6	8	26
21	2	2	0	1	5
22	7	2	10	4	23
23	0	0	2	0	2
24	3	0	1	0	5
25	7	3	2	0	12
26	1	0	1	0	3
27	0	1	0	0	1
28	0	2	0	0	3
30	1	0	0	0	1
Missing	1	2	2	0	5
Total 0-30	481	498	450	348	1,778
Percent early neonatal ¹	75.2	76.8	74.1	70.3	74.4

¹ Under one week/under one month

Table D.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months, and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey, Pakistan 2006-07

Age at death (months)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1 ^a	483	500	453	348	1,783
1	40	51	57	44	192
2	19	15	31	30	95
3	36	25	34	30	126
4	24	21	23	18	86
5	9	13	19	29	69
6	18	31	29	27	104
7	17	16	21	14	68
8	16	12	14	9	50
9	8	13	11	16	48
10	3	14	6	4	26
11	6	9	6	3	25
12	30	47	42	34	153
13	3	1	1	2	7
14	2	2	5	0	9
15	0	2	2	1	5
16	0	2	2	1	6
17	0	2	1	0	3
18	2	12	8	4	26
20	0	1	2	0	3
21	2	0	1	0	3
22	0	0	0	0	1
23	0	3	1	3	7
Missing	0	0	1	0	1
1 year	3	1	6	2	13
Total 0-11	678	720	704	571	2,674
Percent neonatal ¹	71.2	69.4	64.2	61.0	66.7

^a Includes deaths under one month reported in days

¹ Under one month/under one year

**PERSONS INVOLVED IN THE 2006-07
PAKISTAN DEMOGRAPHIC AND
HEALTH SURVEY**

Appendix **E**

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Mr. Zafar Iqbal Qamar	Field Coordinator
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Ms. Naeema Baloch Ms. Nasreen Rehm Ali

1. GENERAL DESCRIPTION

NO.	QUESTIONS	CODING CATEGORIES	SKIP
101	How far is the district headquarters from this village? ASK FROM THE CENTER OF THE LARGEST VILLAGE	KILOMETERS <input type="text"/> <input type="text"/> 95 KMS. OR MORE 95	
102	Is the road to the district headquarters mainly a katcha road or a pukka road?	MAINLY KATCHA 1 MAINLY PUKKA 2	
103	How far is it from this village to the road that goes to the district headquarters? ASK FROM THE CENTER OF THE LARGEST VILLAGE	LESS THAN 1 KM. 00 KILOMETERS <input type="text"/> <input type="text"/> 95 KMS. OR MORE 95	
104	How do most people get from here to the road?	WALK 01 RICKSHAW 02 BICYCLE 03 MOTORBIKE 04 PRIVATE CAR / TAXI / SUZUKI VAN TRACTOR TROLLY 05 TONGA/CATTLE CART 06 BUS / TRUCK 07 OTHER _____ 96 (SPECIFY)	
105	If a woman in this village has a serious problem with her pregnancy, where would she go for treatment? _____ (NAME OF PLACE)	DHQ HOSPITAL 01 THQ HOSPITAL 02 MCH CENTRE 03 RHC 04 BHU 05 PRIVATE CLINIC / HOSPITAL 06 DAI / BIRTH ATTENDANT 07 LADY HEALTH WORKER 08	
106	How would she reach (NAME OF PLACE IN 105)?	WALK 01 RICKSHAW 02 BICYCLE 03 MOTORBIKE 04 PRIVATE CAR / TAXI / SUZUKI VAN TRACTOR TROLLY 05 TONGA/CATTLE CART 06 BUS / TRUCK 07 OTHER _____ 96 (SPECIFY)	→ 108
107	Is transport available during the night time?	YES 1 NO 2 DOES NOT KNOW/NOT SURE 8	
108	How long would it take to reach the facility using this means? GIVE TIME IN MINUTES ONLY.	MINUTES <input type="text"/> <input type="text"/> <input type="text"/> DOES NOT KNOW 998	
109	Is there a Lady Health Worker in this village?	YES 1 NO 2 DOES NOT KNOW/NOT SURE 8	↳ 201

NO.	QUESTIONS	CODING CATEGORIES	SKIP
110	What services does she provide? CIRCLE ALL MENTIONED.	ANTENATAL CARE A DELIVERY B CHILD IMMUNIZATIONS C CHILD CARE SERVICE D FAMILY PLANNING E GENERAL AILMENTS F OTHER _____ X (SPECIFY)	
111	Does the LHW make house visits on a regular basis?	YES 1 NO 2 DOES NOT KNOW/NOT SURE 8	

2. AVAILABILITY OF FACILITIES AND SERVICES

Now I would like to ask you about facilities and other services that may be in this village or at some distance.

	Type of facility/service	201 Is the (FACILITY / SERVICE) in this village?	202 How far away is (FACILITY/ SERVICE) from this village? IF >95 KMS, WRITE 95.
a.	Medical store?	YES . 1 NO 2 →	KMS. <input type="text"/> <input type="text"/>
b.	General store or shop?	YES . 1 NO 2 →	KMS. <input type="text"/> <input type="text"/>
c.	Motorized public transport?	YES . 1 NO 2 →	KMS. <input type="text"/> <input type="text"/>
d.	Non-motorized public transport?	YES . 1 NO 2 →	KMS. <input type="text"/> <input type="text"/>
e.	Post office?	YES . 1 NO 2 →	KMS. <input type="text"/> <input type="text"/>
f.	Bank?	YES . 1 NO 2 →	KMS. <input type="text"/> <input type="text"/>
g.	Primary school for boys ?	YES . 1 NO 2 →	KMS. <input type="text"/> <input type="text"/>
h.	Primary school for girls ?	YES . 1 NO 2 →	KMS. <input type="text"/> <input type="text"/>
i.	Secondary school for boys ?	YES . 1 NO 2 →	KMS. <input type="text"/> <input type="text"/>
j.	Secondary school for girls ?	YES . 1 NO 2 →	KMS. <input type="text"/> <input type="text"/>
k.	Any ambulance service?	YES . 1 NO 2 →	KMS. <input type="text"/> <input type="text"/>
l.	Ultrasound services for pregnant women?	YES . 1 NO 2 →	KMS. <input type="text"/> <input type="text"/>
m.	A waste water drainage scheme?	YES . 1 NO 2	
n.	A drinking water scheme?	YES . 1 NO 2	
o.	Television service?	YES . 1 NO 2	
p.	Cable television connections	YES . 1 NO 2	
q.	Any land-line telephone service?	YES . 1 NO 2	
r.	Mobile telephone coverage?	YES . 1 NO 2	
s.	Any public call office (PCO)?	YES . 1 NO 2	

3. AVAILABILITY OF HEALTH FACILITIES

NO.	QUESTIONS	CODING CATEGORIES	SKIP
301	Please tell me how far away each of the following facilities are from here? ASK FROM THE CENTER OF THE (LARGEST) VILLAGE a. Dai? b. A functioning* basic health unit (BHU)? c. A rural health center (RHC)? d. A government dispensary. e. A functioning* MCH Centre. f. A private doctor. g. A dispenser or a compounder. h. A family welfare center (FWC) or somewhere else to get family planning. i. A hakeem or homeopath. j. A hospital.	<p align="center">IF LESS THAN 1 KM PUT 00 IF 95 KMS. OR MORE PUT 95</p> KILOMETERS <input type="text"/> <input type="text"/> KILOMETERS <input type="text"/> <input type="text"/>	
302	Think back over the last 3 years, has any woman in this village died because of a problem of pregnancy or died during childbirth or within 6 weeks of childbirth?	YES 1 NO 2 DOES NOT KNOW/NOT SURE 8	<input type="checkbox"/> GPS
303	Please tell me about the death(s). WHO IT WAS, WHEN IT OCCURRED.	WHO WAS IT - NAME / WIFE OF: _____ _____ WHEN DID IT OCCUR: _____ _____ END OF INTERVIEW - NOTE GPS READING	

* **Funtioning** facility: Presence of LHV to provide required services on regular basis.

NATIONAL INSTITUTE OF POPULATION STUDIES
PAKISTAN DEMOGRAPHIC AND HEALTH SURVEY 2006

SHORT HOUSEHOLD QUESTIONNAIRE

IDENTIFICATION				
PROVINCE (PUNJAB=1; SINDH=2; NWFP=3; BALOCHISTAN=4; FATA=5) _____ <input type="checkbox"/>			
DISTRICT _____ <input type="checkbox"/>			
TEHSIL _____ <input type="checkbox"/>			
CLUSTER NUMBER <input type="checkbox"/>			
HOUSEHOLD NUMBER <input type="checkbox"/>			
IS HOUSEHOLD SELECTED FOR: (SHORT=1; WOMAN=2; VERBAL AUTOPSY=3; WOMAN AND VERBAL AUTOPSY= 4) <input type="checkbox"/>			
NAME OF HOUSEHOLD HEAD _____ <input type="checkbox"/>			
INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY <input type="checkbox"/> MONTH <input type="checkbox"/> YEAR <input type="checkbox"/> 2 <input type="checkbox"/> 0 <input type="checkbox"/> 0
INTERVIEWER'S NAME	_____	_____	_____	INT. NUMBER <input type="checkbox"/>
RESULT*	_____	_____	_____	RESULT <input type="checkbox"/>
NEXT VISIT: DATE TIME	_____ _____	_____ _____		TOTAL NUMBER OF VISITS <input type="checkbox"/>
*RESULT CODES: 1 COMPLETED 2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME 3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME 4 POSTPONED 5 REFUSED 6 DWELLING VACANT OR ADDRESS NOT A DWELLING 7 DWELLING DESTROYED 8 DWELLING NOT FOUND 9 OTHER _____ (SPECIFY)			TOTAL PERSONS IN HOUSEHOLD <input type="checkbox"/>	
			DEATHS UNDER 5/ SBs FROM Q. 38 <input type="checkbox"/>	
			FEMALE DEATHS AGE 12-49 FROM Q. 39 <input type="checkbox"/>	
LANGUAGE OF QUESTIONNAIRE: URDU			LINE NO. OF RESPONDENT <input type="checkbox"/>	
SUPERVISOR		FIELD EDITOR		OFFICE EDITOR
NAME _____	<input type="checkbox"/>	NAME _____	<input type="checkbox"/>	<input type="checkbox"/>
DATE _____	<input type="checkbox"/>	DATE _____	<input type="checkbox"/>	<input type="checkbox"/>
Signature of interviewer: _____ Date: _____ RESPONDENT AGREES TO BE INTERVIEWED 1 RESPONDENT DOES NOT AGREE TO BE INTERVIEWED 2 → END				

HOUSEHOLD SCHEDULE

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

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	IF AGE 12 OR OLDER	IF AGE 5 YEARS OR OLDER		
							MARITAL STATUS	EDUCATION		
	Please give me the names of the persons who usually live in your household and guest of the household who stayed here last night, starting with the head of the household AFTER LISTING NAMES, RELATIONSHIP AND SEX FOR EACH PERSON, ASK Qs. 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK QUESTIONS IN COLUMNS 5-11 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? (SEE CODES BELOW)	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF LESS THAN 1 YEAR, WRITE '00'. IF AGE 96 YEARS OR MORE, WRITE '96'.	What is (NAME'S) current marital status? (SEE CODES BELOW)	Has (NAME) ever attended school?	What is the highest class of school (NAME) completed?	
(SEE CODES BELOW)										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(10)	(11)	
			M F	YES NO	YES NO	IN YEARS	M W D/S N	YES NO	CLASS	
01		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
02		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
03		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
04		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
05		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
06		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
07		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
08		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
09		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
10		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	

CODES FOR Q. 3
RELATIONSHIP TO HEAD OF HOUSEHOLD:
01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER

09 = BROTHER/SISTER IN LAW
10 = NIECE/NEPHEW
11 = GRAND PARENTS
12 = AUNTS/UNCLE
13 = OTHER RELATIVE
14 = ADOPTED/FOSTER/STEPCHILD
15 = NOT RELATED
16 = DOMESTIC SERVANT
98 = DONT KNOW

CODES FOR Q. 8
MARITAL STATUS
1 = MARRIED
2 = WIDOWED
3 = DIVORCED/SEPARATED
4 = NEVER MARRIED

CODES FOR Q. 11
EDUCATION CLASS:
00 = LESS THAN 1 YEAR COMPLETED
01 = CLASS 1;
02 = CLASS 2
...
10 = MATRIC, CLASS 10
11 = CLASS 11
...
16 = MASTER'S DEGREE OR MBBS, PH.D, MPHIL, BSc (4 YEARS)
98 = DONT KNOW

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	IF AGE 12 OR OLDER	IF AGE 5 YEARS OR OLDER		
				MARITAL STATUS	EDUCATION					
	Please give me the names of the persons who usually live in your household and guest of the household who stayed here last night, starting with the head of the household AFTER LISTING NAMES, RELATIONSHIP AND SEX FOR EACH PERSON, ASK Qs. 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK QUESTIONS IN COLUMNS 5-11 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? (SEE CODES BELOW)	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF LESS THAN 1 YEAR, WRITE '00'. IF AGE 96 YEARS OR MORE, WRITE '96'.	What is (NAME'S) current marital status? (SEE CODES BELOW)	Has (NAME) ever attended school?	What is the highest class of school (NAME) completed? (SEE CODES BELOW)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(10)	(11)	
			M F	YES NO	YES NO	IN YEARS	M W D/S N	YES NO	CLASS	
11		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
12		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
13		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
14		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
15		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
16		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
17		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
18		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
19		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	
20		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	1 2 ↓ NEXT	<input type="text"/>	

TICK HERE IF CONTINUATION SHEET USED

Just to make sure that I have a complete household listing:

2A) Are there any other persons such as small children or infants that we have not listed?

YES ADD TO TABLE NO

2B) Are there any other people who may not be members of your family, such as domestic servants, lodgers or friends who usually live here?

YES ADD TO TABLE NO

2C) Are there any guests or temporary visitors staying here, or anyone else who slept here last night, who have not been listed?

YES ADD TO TABLE NO

IF NO MORE MEMBERS, GO TO COLUMN 5.

CODES FOR Q. 11

EDUCATION CLASS:
 00 = LESS THAN 1 YEAR COMPLETED
 01 = CLASS 1;
 02 = CLASS 2
 ...
 10 = MATRIC, CLASS 10
 11 = CLASS 11
 ...
 16 = MASTER'S DEGREE OR MBBS,
 PHD, MPHIL, BSc (4 YEARS)
 98 = DON'T KNOW

INFORMATION ABOUT BIRTHS AND DEATHS IN THE HOUSEHOLD IN THE PREVIOUS 3 YEARS

18 Now I would like to ask you about all the births that occurred in this household in the last 3 years, whether they were born alive or dead. Since January 2003, did any woman who was a usual resident of this household at that time give birth? I am interested in any birth, even stillbirths and children who did not survive.

YES . . . 1
NO . . . 2 → 27

19 How many births occurred in this household in the last 3 years?

NO.	What are the names of the babies born in the last 3 years? IF STILL BORN, WRITE 'BABY'.	Is (NAME) a boy or a girl?	In what month and year was (NAME) born? IF MONTH DON'T KNOW RECORD '98'	Was (NAME) born alive?	Is (NAME) still alive?	LINE NUMBER FROM HOUSEHOLD ROSTER (RECORD '00' IF CHILD NOT LISTED IN HH ROSTER)
20	21	22	23	24	25	26
01	_____	BOY . 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YR <input type="text"/> 2 <input type="text"/> 0 <input type="text"/> 0 <input type="text"/>	YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<input type="text"/> <input type="text"/> NEXT ←
02	_____	BOY . 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YR <input type="text"/> 2 <input type="text"/> 0 <input type="text"/> 0 <input type="text"/>	YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<input type="text"/> <input type="text"/> NEXT ←
03	_____	BOY . 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YR <input type="text"/> 2 <input type="text"/> 0 <input type="text"/> 0 <input type="text"/>	YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<input type="text"/> <input type="text"/> NEXT ←
04	_____	BOY . 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YR <input type="text"/> 2 <input type="text"/> 0 <input type="text"/> 0 <input type="text"/>	YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<input type="text"/> <input type="text"/> NEXT ←
05	_____	BOY . 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YR <input type="text"/> 2 <input type="text"/> 0 <input type="text"/> 0 <input type="text"/>	YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<input type="text"/> <input type="text"/> NEXT ←
06	_____	BOY . 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YR <input type="text"/> 2 <input type="text"/> 0 <input type="text"/> 0 <input type="text"/>	YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<input type="text"/> <input type="text"/> NEXT ←
07	_____	BOY . 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YR <input type="text"/> 2 <input type="text"/> 0 <input type="text"/> 0 <input type="text"/>	YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<input type="text"/> <input type="text"/> NEXT ←
08	_____	BOY . 1 GIRL . 2	MONTH <input type="text"/> <input type="text"/> YR <input type="text"/> 2 <input type="text"/> 0 <input type="text"/> 0 <input type="text"/>	YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<input type="text"/> <input type="text"/> NEXT ←

CONTINUED (Additional Sheet)

27 Now I would like to ask you about any deaths that occurred in this household in the last 3 years. YES . 1
 Since January 2003, God forbid, has any usual member of this household died? NO . 2 → 38

28 How many deaths occurred to usual residents in this household in the last 3 years?

NO.	What were the names of the people who died in the last 3 years?	Was (NAME) male or female?	In what month and year did (NAME) die? IF MONTH DON'T KNOW RECORD '98'	How old was (NAME) when he/she died? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN 2 YEARS; OR YEARS.	CHECK 31 AND 33: WAS THIS A WOMAN AGE 12-49 WHEN SHE DIED?	Female, 12-49 years old		
						Was (NAME) pregnant when she died?	Did (NAME) die during childbirth?	Did (NAME) die within 6 weeks after delivery?
29	30	31	32	33	34	35	36	37
01	_____	MALE 1 FEMALE 2	MONTH YR 2 0 0	DAYS . 1 MONTH . 2 YEARS . 3	YES . 1 NO . 2 NEXT ↙	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2 NEXT ↙
02	_____	MALE 1 FEMALE 2	MONTH YR 2 0 0	DAYS . 1 MONTH . 2 YEARS . 3	YES . 1 NO . 2 NEXT ↙	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2 NEXT ↙
03	_____	MALE 1 FEMALE 2	MONTH YR 2 0 0	DAYS . 1 MONTH . 2 YEARS . 3	YES . 1 NO . 2 NEXT ↙	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2 NEXT ↙
04	_____	MALE 1 FEMALE 2	MONTH YR 2 0 0	DAYS . 1 MONTH . 2 YEARS . 3	YES . 1 NO . 2 NEXT ↙	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2 NEXT ↙

38. CHECK COLS. 32, 33 AND 24/23: NUMBER OF DEATHS TO CHILDREN UNDER 5 YEARS AND STILLBIRTHS IN 2005 OR AFTER

39. CHECK COLUMN 34 AND 32: NUMBER OF DEATHS TO WOMEN AGE 12-49 YEARS OLD IN 2003 OR AFTER

HOUSEHOLD SCHEDULE

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

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX		RESIDENCE		AGE	IF AGE 12 OR OLDER
			Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	MARITAL STATUS	
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING NAMES, RELATIONSHIP AND SEX FOR EACH PERSON, ASK Qs. 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK QUESTIONS IN COLUMNS 5-17 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? (SEE CODES BELOW)					IF LESS THAN 1 YEAR, WRITE '00'. IF AGE 96 YEARS OR MORE, WRITE '96'.	What is (NAME'S) current marital status? (SEE CODES BELOW)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
01		<input type="text"/>	M F 1 2	YES NO 1 2	YES NO 1 2	IN YEARS <input type="text"/>	M W D/S N 1 2 3 4	
02		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	
03		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	
04		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	
05		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	
06		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	
07		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	
08		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	
09		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	
10		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4	

CODES FOR Q. 3
 RELATIONSHIP TO HEAD OF HOUSEHOLD:
 01 = HEAD
 02 = WIFE OR HUSBAND
 03 = SON OR DAUGHTER
 04 = SON-IN-LAW OR DAUGHTER-IN-LAW
 05 = GRANDCHILD
 06 = PARENT
 07 = PARENT-IN-LAW
 08 = BROTHER OR SISTER

09 = BROTHER/SISTER IN LAW
 10 = NIECE/NEPHEW
 11 = GRAND PARENTS
 12 = AUNTS/UNCLE
 13 = OTHER RELATIVE
 14 = ADOPTED/FOSTER/STEPCHILD
 15 = NOT RELATED
 16 = DOMESTIC SERVANT
 98 = DON'T KNOW

CODES FOR Q. 8
 MARITAL STATUS
 1 = MARRIED
 2 = WIDOWED
 3 = DIVORCED/SEPARATED
 4 = NEVER MARRIED

ELIGIBILITY	IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS			IF AGE 0-17 YEARS SURVIVORSHIP OF BIOLOGICAL PARENTS			FOR ALL AGES REGISTRATION WITH NADRA
	EDUCATION		CURRENT SCHOOLING		SCHOOLING DURING LAST YEAR				
CIRCLE LINE NUMBER OF ALL WOMEN AGE 12-49 WHO ARE MARRIED, WIDOWED OR DIVORCED OR SEPARATED	Has (NAME) ever attended school?	What is the highest class of school (NAME) completed?	Did (NAME) attend school at any time during the 2006 year?	During this school year, what class/grade [is/was] NAME attending?	Did (NAME) attend school at any time during the previous year 2005?	Is (NAME)'s natural mother alive?	Is (NAME)'s natural father alive?	Has (NAME) been registered with NADRA?	
		(SEE CODES BELOW)		(SEE CODES BELOW)				IF YES - PROBE: Does (NAME) have NIC card or name entered onto a 'bay' form, or nothing at all? (SEE CODES BELOW)	
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
	YES NO	CLASS	YES NO	CLASS	YES NO	Y N DK	Y N DK	NIC BF NONE DK	
01	1 2 ↓ GO TO 15	<input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
02	1 2 ↓ GO TO 15	<input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
03	1 2 ↓ GO TO 15	<input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
04	1 2 ↓ GO TO 15	<input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
05	1 2 ↓ GO TO 15	<input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
06	1 2 ↓ GO TO 15	<input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
07	1 2 ↓ GO TO 15	<input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
08	1 2 ↓ GO TO 15	<input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
09	1 2 ↓ GO TO 15	<input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
10	1 2 ↓ GO TO 15	<input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	

CODES FOR Q. 11 AND 13
EDUCATION CLASS:
00 = LESS THAN 1 YEAR COMPLETED
01 = CLASS 1;
02 = CLASS 2
...
10 = MATRIC, CLASS 10
11 = CLASS 11
...
16 = MASTER'S DEGREE OR MBBS, PhD, MPHIL, BSc (4 YEARS);
98 = DON'T KNOW

CODES FOR Q. 17
(1) HAS NIC
(2) NAME ON 'BAY' FORM
(3) NEITHER OF THE ABOVE
(8) DOES NOT KNOW

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	IF AGE 12 OR OLDER
				Does (NAME) usually live here?	Did (NAME) stay here last night?		MARITAL STATUS
	<p>Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.</p> <p>AFTER LISTING NAMES, RELATIONSHIP AND SEX FOR EACH PERSON, ASK Qs. 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK QUESTIONS IN COLUMNS 5-17 FOR EACH PERSON.</p>	<p>What is the relationship of (NAME) to the head of the household?</p> <p>(SEE CODES BELOW)</p>	<p>Is (NAME) male or female?</p>			<p>How old is (NAME)?</p> <p>IF LESS THAN 1 YEAR, WRITE '00'.</p> <p>IF AGE 96 YEARS OR MORE, WRITE '96'.</p>	<p>What is (NAME'S) current marital status?</p> <p>(SEE CODES BELOW)</p>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			M F	YES NO	YES NO	IN YEARS	M W D/S N
11		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4
12		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4
13		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4
14		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4
15		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4
16		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4
17		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4
18		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4
19		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4
20		<input type="text"/>	1 2	1 2	1 2	<input type="text"/>	1 2 3 4
TICK HERE IF CONTINUATION SHEET USED			<input type="checkbox"/>				
<p>Just to make sure that I have a complete household listing:</p> <p>2A) Are there any other persons such as small children or infants that we have not listed? YES <input type="checkbox"/> ADD TO TABLE NO <input type="checkbox"/></p> <p>2B) Are there any other people who may not be members of your family such as domestic servants, lodgers or friends who usually live here? YES <input type="checkbox"/> ADD TO TABLE NO <input type="checkbox"/></p> <p>2C) Are there any guests or temporary visitors staying here, or anyone else who slept here last night, who have not been listed? YES <input type="checkbox"/> ADD TO TABLE NO <input type="checkbox"/></p> <p>IF NO MORE MEMBERS, GO TO COLUMN 5.</p>							

ELIGIBILITY	IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS			IF AGE 0-17 YEARS SURVIVORSHIP OF BIOLOGICAL PARENTS			FOR ALL AGES REGISTRATION WITH NADRA
	EDUCATION		CURRENT SCHOOLING		SCHOOLING DURING LAST YEAR				
CIRCLE LINE NUMBER OF ALL WOMEN AGE 12-49 WHO ARE MARRIED, WIDOWED OR DIVORCED OR SEPARATED	Has (NAME) ever attended school?	What is the highest class of school (NAME) completed? (SEE CODES BELOW)	Did (NAME) attend school at any time during the 2006 year?	During this school year, what class/grade [is/was] NAME attending? (SEE CODES BELOW)	Did (NAME) attend school at any time during the previous year 2005?	Is (NAME)'s natural mother alive?	Is (NAME)'s natural father alive?	Has (NAME) been registered with NADRA? IF YES - PROBE: Does (NAME) have NIC card or name entered onto a 'bay' form, or nothing at all? (SEE CODES BELOW)	
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
	YES NO	CLASS	YES NO	CLASS	YES NO	Y N DK	Y N DK	NIC BF NONE DK	
11	1 2 ↓ NEXT	<input type="text"/> <input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/> <input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
12	1 2 ↓ NEXT	<input type="text"/> <input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/> <input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
13	1 2 ↓ NEXT	<input type="text"/> <input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/> <input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
14	1 2 ↓ NEXT	<input type="text"/> <input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/> <input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
15	1 2 ↓ NEXT	<input type="text"/> <input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/> <input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
16	1 2 ↓ NEXT	<input type="text"/> <input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/> <input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
17	1 2 ↓ NEXT	<input type="text"/> <input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/> <input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
18	1 2 ↓ NEXT	<input type="text"/> <input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/> <input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
19	1 2 ↓ NEXT	<input type="text"/> <input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/> <input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	
20	1 2 ↓ NEXT	<input type="text"/> <input type="text"/>	1 2 ↓ GO TO 14	<input type="text"/> <input type="text"/>	1 2	1 2 8	1 2 8	1 2 3 8	

CODES FOR Q. 11 AND 13
EDUCATION CLASS:

- 00 = LESS THAN 1 YEAR COMPLETED
- 01 = CLASS 1;
- 02 = CLASS 2
- ...
- 10 = MATRIC, CLASS 10
- 11 = CLASS 11
-
- 16 = MASTER'S DEGREE OR MBBS, PhD, MPHIL, BSc (4 YEARS)
- 98 = DON'T KNOW

CODES FOR Q. 17

- (1) HAS NIC
- (2) NAME ON 'BAY' FORM
- (3) NEITHER OF THE ABOVE
- (8) DOES NOT KNOW

INFORMATION ABOUT BIRTHS AND DEATHS IN THE HOUSEHOLD IN THE PREVIOUS 3 YEARS

18 Now I would like to ask you about all the births that occurred in this household in the last 3 years, whether they were born alive or dead. Since January 2003, did any woman who was a usual resident of this household at that time give birth? I am interested in any birth, even stillbirths and children who did not survive.

YES . . . 1
NO . . . 2 → 27

19 How many births occurred in this household in the last 3 years?

NO.	What are the names of the babies born in the last 3 years? IF STILL BORN, WRITE 'BABY'.	Is (NAME) a boy or a girl?	In what month and year was (NAME) born? IF MONTH DON'T KNOW RECORD '98'	Was (NAME) born alive?	Is (NAME) still alive?	LINE NUMBER FROM HOUSEHOLD ROSTER (RECORD '00' IF CHILD NOT LISTED IN HH ROSTER)						
20	21	22	23	24	25	26						
01	_____	BOY . 1 GIRL . 2	MONTH YR <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;">2</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;"></td></tr></table>	2	0	0		YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> NEXT ←		
2	0	0										
02	_____	BOY . 1 GIRL . 2	MONTH YR <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;">2</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;"></td></tr></table>	2	0	0		YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> NEXT ←		
2	0	0										
03	_____	BOY . 1 GIRL . 2	MONTH YR <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;">2</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;"></td></tr></table>	2	0	0		YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> NEXT ←		
2	0	0										
04	_____	BOY . 1 GIRL . 2	MONTH YR <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;">2</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;"></td></tr></table>	2	0	0		YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> NEXT ←		
2	0	0										
05	_____	BOY . 1 GIRL . 2	MONTH YR <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;">2</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;"></td></tr></table>	2	0	0		YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> NEXT ←		
2	0	0										
06	_____	BOY . 1 GIRL . 2	MONTH YR <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;">2</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;"></td></tr></table>	2	0	0		YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> NEXT ←		
2	0	0										
07	_____	BOY . 1 GIRL . 2	MONTH YR <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;">2</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;"></td></tr></table>	2	0	0		YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> NEXT ←		
2	0	0										
08	_____	BOY . 1 GIRL . 2	MONTH YR <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;">2</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;">0</td><td style="width: 20px; height: 20px;"></td></tr></table>	2	0	0		YES 1 NO 2 NEXT ←	YES 1 NO 2 NEXT ←	<table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> NEXT ←		
2	0	0										

CONTINUED (Additional Sheet)

27 Now I would like to ask you about any deaths that occurred in this household in the last 3 years. Since January 2003, God forbid, has any usual member of this household died? YES . 1
NO . 2 → 38

28 How many deaths occurred to usual residents in this household in the last 3 years?

NO.	What were the names of the people who died in the last 3 years?	Was (NAME) male or female?	In what month and year did (NAME) die? IF MONTH DON'T KNOW RECORD '98'	How old was (NAME) when he/she died? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN 2 YEARS; OR YEARS.	CHECK 31 AND 33: WAS THIS A WOMAN AGE 12-49 WHEN SHE DIED?	Female, 12-49 years old		
						Was (NAME) pregnant when she died?	Did (NAME) die during childbirth?	Did (NAME) die within 6 weeks after delivery?
29	30	31	32	33	34	35	36	37
01	_____	MALE 1 FEMALE 2	MONTH YR 2 0 0	DAYS . 1 MONTH: 2 YEARS . 3	YES . 1 NO . 2 NEXT ↙	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2 NEXT ↙
02	_____	MALE 1 FEMALE 2	MONTH YR 2 0 0	DAYS . 1 MONTH: 2 YEARS . 3	YES . 1 NO . 2 NEXT ↙	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2 NEXT ↙
03	_____	MALE 1 FEMALE 2	MONTH YR 2 0 0	DAYS . 1 MONTH: 2 YEARS . 3	YES . 1 NO . 2 NEXT ↙	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2 NEXT ↙
04	_____	MALE 1 FEMALE 2	MONTH YR 2 0 0	DAYS . 1 MONTH: 2 YEARS . 3	YES . 1 NO . 2 NEXT ↙	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2	YES . 1 NEXT ↙ NO . 2 NEXT ↙

38. CHECK COLS. 32, 33 AND 24/23: NUMBER OF DEATHS TO CHILDREN UNDER 5 YEARS AND STILLBIRTHS IN 2005 OR AFTER

39. CHECK COLUMN 34 AND 32: NUMBER OF DEATHS TO WOMEN AGE 12-49 YEARS OLD IN 2003 OR AFTER

HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	What is the main source of drinking water for members of your household?	PIPED WATER PIPED INTO DWELLING 11 PIPED TO YARD/PLOT 12 PUBLIC TAP/STAND PIPE ... 13 TUBE WELL OR BOREHOLE 21 HAND PUMP 22 DUG WELL PROTECTED WELL 31 UNPROTECTED WELL 32 WATER FROM SPRING PROTECTED SPRING/KAREZ ... 41 UNPROTECTED SPRING 42 RAINWATER 51 TANKER TRUCK 61 CART WITH SMALL TANK 71 SURFACE WATER (RIVER/DAM/LAKE/ POND/STREAM/CANAL 81 BOTTLED WATER 91 OTHER _____ 96 (SPECIFY)	→ 103
102	How long does it take to go there, get water, and come back?	MINUTES <input type="text"/> <input type="text"/> <input type="text"/> ON PREMISES 996 DON'T KNOW 998	
103	Do you treat your water in any way to make it safer to drink?	YES 1 NO 2 DON'T KNOW 8	→ 105
104	What do you usually do to the water to make it safer to drink? Anything else? RECORD ALL MENTIONED.	BOIL A ADD BLEACH/CHLORINE B STRAIN THROUGH A CLOTH C USE WATER FILTER (CERAMIC/ SAND/COMPOSITE/ETC.) D SOLAR DISINFECTION E LET IT STAND AND SETTLE F OTHER _____ X (SPECIFY) DON'T KNOW Z	
105	What kind of toilet facility do members of your household usually use?	FLUSH OR POUR FLUSH TOILET FLUSH TO SEWER SYSTEM ... 11 FLUSH TO SEPTIC TANK 12 FLUSH TO SOMEWHERE ELSE ... 13 FLUSH, DON'T KNOW WHERE ... 14 PIT LATRINE VENTILATED IMPROVED PIT LATRINE (VIP) 21 PIT LATRINE WITH SLAB 22 PIT LATRINE WITHOUT SLAB/ OPEN PIT 23 BUCKET TOILET 41 HANGING TOILET/HANGING LATRINE 51 NO FACILITY/BUSH/FIELD 61 OTHER _____ 96 (SPECIFY)	→ 107

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																																			
106	Do you share this toilet facility with other households?	YES 1 NO 2																																																				
107	Does your household have: Electricity? Radio? Television? Refrigerator? Mobile telephone or land line telephone? Room cooler, air conditioner? Washing machine? Water pump? Bed? Chairs? Almira / cabinet? Clock? Sofa? Sewing machine? Camera? Personal computer?	<table border="0"> <thead> <tr> <th></th> <th style="text-align: center;">YES</th> <th style="text-align: center;">NO</th> </tr> </thead> <tbody> <tr> <td>ELECTRICITY</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>RADIO</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>TELEVISION</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>REFRIGERATOR</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>ANY TELEPHONE</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>ROOM COOLER, AIR COND. . .</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>WASHING MACHINE</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>WATER PUMP</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>BED</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>CHAIRS</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>ALMIRAH/CABINET</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>CLOCK</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>SOFA</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>SEWING MACHINE</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>CAMERA</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>PERSONAL COMPUTER ...</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </tbody> </table>		YES	NO	ELECTRICITY	1	2	RADIO	1	2	TELEVISION	1	2	REFRIGERATOR	1	2	ANY TELEPHONE	1	2	ROOM COOLER, AIR COND. . .	1	2	WASHING MACHINE	1	2	WATER PUMP	1	2	BED	1	2	CHAIRS	1	2	ALMIRAH/CABINET	1	2	CLOCK	1	2	SOFA	1	2	SEWING MACHINE	1	2	CAMERA	1	2	PERSONAL COMPUTER ...	1	2	
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CAMERA	1	2																																																				
PERSONAL COMPUTER ...	1	2																																																				
108	What type of fuel does your household mainly use for cooking?	ELECTRICITY 01 CYLINDER GAS 02 NATURAL GAS 03 BIOGAS 04 KEROSENE 05 CHARCOAL 06 WOOD 07 STRAW/SHRUBS/GRASS 08 AGRICULTURAL CROP 09 ANIMAL DUNG 10 NO FOOD COOKED IN HOUSEHOLD 95 OTHER _____ 96 (SPECIFY)																																																				
109	MAIN MATERIAL OF THE FLOOR: RECORD OBSERVATION	NATURAL FLOOR EARTH / SAND / MUD 11 FINISHED FLOOR CHIPS / TERRAZZO 31 CERAMIC TILES 32 MARBLE 33 CEMENT 34 CARPET 35 BRICKS 36 MATS 37 OTHER _____ 96 (SPECIFY)																																																				

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
110	<p>MAIN MATERIAL OF THE ROOF:</p> <p>RECORD OBSERVATION</p>	<p>NATURAL ROOFING THATCH / BAMBOO / WOOD / MUD 12</p> <p>RUDIMENTARY ROOFING CARDBOARD / PLASTIC 21</p> <p>FINISHED ROOFING IRON SHEETS / ASBESTOS 31 T-IRON / WOOD / BRICK 32 REINFORCED BRICK CEMENT/RCC 33</p> <p>OTHER _____ 96 (SPECIFY)</p>	
111	<p>MAIN MATERIAL OF THE WALLS:</p> <p>RECORD OBSERVATION</p>	<p>NATURAL WALLS MUD / STONES 11 BAMBOO / STICKS / MUD 12</p> <p>RUDIMENTARY WALLS UNBAKED BRICKS / MUD 21 PLYWOOD SHEETS 22 CARTON / PLASTIC 23</p> <p>FINISHED WALLS STONE BLOCKS 31 BAKED BRICKS 32 CEMENT BLOCKS/ CEMENT ... 33 TENT 34</p> <p>OTHER _____ 96 (SPECIFY)</p>	
112	How many rooms in this household are used for sleeping?	ROOMS <input type="text"/> <input type="text"/>	
113	Is this house rented, rent-free, mortgaged, or owned by a member of the household?	<p>RENTED 1</p> <p>RENT-FREE 2</p> <p>MORTGAGED 3</p> <p>OWNED 4</p> <p>OTHER 6</p>	
114	Does any member of this household own:	<p style="text-align: right;">YES NO</p> <p>A watch? WATCH 1 2</p> <p>A bicycle? BICYCLE 1 2</p> <p>A motorcycle or motor scooter? MOTORCYCLE/SCOOTER ... 1 2</p> <p>An animal-drawn cart? ANIMAL-DRAWN CART 1 2</p> <p>A car or truck or Tractor? CAR/TRUCK 1 2</p> <p>A boat with a motor? BOAT WITH MOTOR 1 2</p>	
115	Does any member of this household own any land that can be used for agriculture?	<p>YES 1</p> <p>NO 2</p>	
116	Does this household own any livestock, herds, other farm animals, or poultry?	<p>YES 1</p> <p>NO 2</p>	→ 118

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP														
117	<p>How many of the following animals does this household own?</p> <p>Buffalo</p> <p>Milk cows or bulls?</p> <p>Camels?</p> <p>Donkeys, or mules or horses?</p> <p>Goats?</p> <p>Sheep?</p> <p>Chickens?</p> <p>IF NONE, WRITE '00'. IF > 95, WRITE '95'. IF UNKNOWN, WRITE '98'</p>	<p>BUFFALO</p> <p>COWS/BULLS</p> <p>CAMELS</p> <p>DONKEYS/MULES/HORSES .</p> <p>GOATS</p> <p>SHEEP</p> <p>CHICKENS</p> <table border="1"> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </table>															
118	<p>Does your household have any mosquito nets that can be used while sleeping?</p>	<p>YES 1</p> <p>NO 2</p>	→ 126														
119	<p>How many mosquito nets does your household have?</p>	<p>NUMBER OF NETS <input type="text"/></p>															

	ASK THESE QUESTIONS FOR TWO BEDNETS ONLY	NET #1	NET #2	
120	When you got the net, was it already treated with an insecticide to kill or repel mosquitos?	YES 1 SKIP to 123 ← NO 2 NOT SURE 8	YES 1 (SKIP TO 123) ← NO 2 NOT SURE 8	
121	Since you got the mosquito net, was it ever soaked or dipped in a liquid to kill or repel mosquitos?	YES 1 NO 2 (SKIP TO 123) ← NOT SURE 8	YES 1 (SKIP TO 123) ← NO 2 NOT SURE 8	
122	How many months ago was the net last soaked or dipped? IF LESS THAN ONE MONTH, RECORD '00'.	MONTH AGO <input type="text"/> 25 OR MORE MONTHS AGO ... 95 NOT SURE 98	MONTH AGO <input type="text"/> 25 OR MORE MONTHS AGO ... 95 NOT SURE 98	
123	Did anyone sleep under this mosquito net last night?	YES 1 NO 2 (SKIP TO 125) ← NOT SURE 8	YES 1 NO 2 (SKIP TO 125) ← NOT SURE 8	
124	Who slept under this mosquito net last night? RECORD THE PERSON'S LINE NUMBER FROM THE HOUSEHOLD SCHEDULE.	NAME _____ LINE NO. <input type="text"/> NAME _____ LINE NO. <input type="text"/> NAME _____ LINE NO. <input type="text"/>	NAME _____ LINE NO. <input type="text"/> NAME _____ LINE NO. <input type="text"/> NAME _____ LINE NO. <input type="text"/>	
125		GO BACK TO 120 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 126.	GO TO 126.	
126	Does your household do anything (else) to avoid mosquitos?		YES 1 NO 2	→128
127	What do you do? CIRCLE ALL MENTIONED.		COIL A MATS B SPRAY C ELECTRIC SPRAY REPELLANT D INSECT REPELLANT E OTHER _____ X (SPECIFY)	
128	Do you have any medicines for treating malaria in your house now?		YES 1 NO 2 DOES NOT KNOW 8	

**NATIONAL INSTITUTE OF POPULATION STUDIES
PAKISTAN DEMOGRAPHIC AND HEALTH SURVEY
EVER-MARRIED WOMAN'S QUESTIONNAIRE**

IDENTIFICATION																				
PROVINCE (PUNJAB=1; SINDH=2; NWFP=3; BALOCHISTAN=4; FATA=5) _____ DISTRICT _____ TEHSIL _____ CLUSTER NUMBER HOUSEHOLD NUMBER LARGE CITY=1; SMALL CITY=2; TOWN=3; RURAL=4 NAME OF HOUSEHOLD HEAD _____ NAME AND LINE NUMBER OF WOMAN _____				<table border="1" style="margin: auto;"> <tr><td> </td><td> </td></tr> </table>																
INTERVIEWER VISITS																				
	1	2	3	FINAL VISIT																
DATE	_____	_____	_____	DAY _____ MONTH _____ YEAR <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>2</td><td>0</td><td>0</td></tr> </table>	2	0	0													
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INTERVIEWER'S NAME	_____	_____	_____	INT. NUMBER <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td> </td><td> </td><td> </td></tr> </table>																
RESULT*	_____	_____	_____	RESULT <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td> </td></tr> </table>																
NEXT VISIT: DATE TIME	_____ _____	_____ _____		TOTAL NUMBER OF VISITS <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td> </td></tr> </table>																
*RESULT CODES: 1 COMPLETED 4 REFUSED 2 NOT AT HOME 5 PARTLY COMPLETED 7 OTHER _____ 3 POSTPONED 6 INCAPACITATED (SPECIFY)																				
LANGUAGE OF QUESTIONNAIRE: URDU LANGUAGE OF INTERVIEW* LANGUAGE WOMAN SPEAKS AT HOME* * URDU = 1 SINDHI= 3 BALUCHI=5 SARAIKI=7 OTHER=9 PUNJABI=2 PUSHTO=4 ENGLISH=6 POTOHARI=8				<table border="1" style="margin: auto;"> <tr><td>1</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	1															
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SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY																	
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Signature of interviewer: _____ Date: _____ RESPONDENT AGREES TO BE INTERVIEWED 1 RESPONDENT DOES NOT AGREE TO BE INTERVIEWED 2 → END																				

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR <input type="text"/> <input type="text"/> MINUTES <input type="text"/> <input type="text"/>	
102	In what month and year were you born?	MONTH <input type="text"/> <input type="text"/> DON'T KNOW MONTH 98 YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW YEAR 9998	
103	How old are you? COMPARE AND CORRECT 102 AND/OR 103 IF INCONSISTENT	AGE IN COMPLETED YEARS <input type="text"/> <input type="text"/>	
104	What is your current marital status? Are you married, Godforbid widowed, divorced, or separated?	MARRIED 1 WIDOWED 2 DIVORCED 3 SEPARATED 4 NEVER MARRIED 5	} → 107 } → END
105	Is your husband usually living with you now or is he staying elsewhere?	LIVING WITH HER 1 STAYING ELSEWHERE 2	
106	Does your husband have other wives?	YES 1 NO 2 DON'T KNOW 8	
107	Is/was there a blood relationship between you and your husband?	YES 1 NO 2	→ 109
108	What type of relationship (is/was) it?	FIRST COUSIN ON FATHER'S SIDE . 1 FIRST COUSIN ON MOTHER'S SIDE . 2 SECOND COUSIN 3 OTHER RELATIONSHIP 6	
109	Have you been married only once or more than once?	ONLY ONCE 1 MORE THAN ONCE 2	
110	CHECK 109: <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <input type="checkbox"/> MARRIED/ ONLY ONCE ↓ In what month and year did you start living with your husband? 4 </div> <div style="text-align: center;"> <input type="checkbox"/> MARRIED/ MORE THAN ONCE ↓ Now I would like to ask about when you started living with your first husband. In what month and year was that? </div> </div>	MONTH <input type="text"/> <input type="text"/> DON'T KNOW MONTH 98 YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW YEAR 9998	→ 112

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
111	How old were you when you first started living with him?	AGE <input type="text"/> <input type="text"/>	
112	Have you ever attended school?	YES 1 NO 2	→ 115
113	What is the highest class you completed? WRITE '00' IF LESS THAN CLASS ONE; WRITE '16' = IF MA, MPHIL, PHD, MBBS, BSC/4YEARS	CLASS <input type="text"/> <input type="text"/>	
114	CHECK 113 CLASS 00 - 08 <input type="checkbox"/> ↓ CLASS 09 <input type="checkbox"/> OR HIGHER		→ 116
115	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL 1 CAN READ ONLY PARTS OF SENTENCE 2 CAN READ WHOLE SENTENCE..... 3 NO CARD WITH REQUIRED LANGUAGE 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
116	What is your mother tongue?	URDU 01 PUNJABI 02 SINDHI 03 PUSHTO 04 BALOCHI 05 ENGLISH 06 BARAUHI 07 SIRAIKI 08 HINDKO 09 KASHMIRI 10 PAHARI 11 POTOWARI 12 MARWARI 13 FARSI 14 OTHER 96	

211 Now I would like to record the names of all your births, whether still alive or not, starting with the last one you had.

**RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.
(IF THERE ARE MORE THAN 12 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE, STARTING WITH THE FIRST ROW)**

212	213	214	215	216	217	218	219	220	221	222
What name was given to your last (next-to-last) baby? (NAME)	Were any of these births twins?	Is (NAME) a boy or a girl?	In what month and year was (NAME) born? PROBE: What is his/her birthday? RECORD MONTHS 1 THROUGH 12 OR SEASONS WINTER = 21 SPRING = 22 SUMMER = 23 MONSOON = 24 AUTUMN = 25 DON'T KNOW = 98	Is (NAME) still alive?	IF ALIVE: How old is (NAME)? WRITE AGE IN COMPLETED YEARS. WRITE '00' IF UNDER 1	IF ALIVE: Is (NAME) living with you?	IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	IF DEAD: Where did (NAME) die?	Were there any other livebirths between (NAME) and (NAME OF PREVIOUS BIRTH), including any children who died after birth?*
01	SING 1 MULT 2	BOY 1 GIRL 2	MONTH/SEASON YEAR [][]/[][] [][][][] DON'T KNOW 9998	YES ... 1 NO ... 2 220	AGE IN YEARS [][]	YES ... 1 NO ... 2	LINE NUMBER [][] (GO TO 222)	DAYS ... 1 MONTHS 2 YEARS ... 3	HOME 1 HOSP 2 OTHER 6	YES ... 1 ADD BIRTH NO ... 2 NEXT BIRTH
02	SING 1 MULT 2	BOY 1 GIRL 2	MONTH/SEASON YEAR [][]/[][] [][][][] DON'T KNOW 9998	YES ... 1 NO ... 2 220	AGE IN YEARS [][]	YES ... 1 NO ... 2	LINE NUMBER [][] (GO TO 222)	DAYS ... 1 MONTHS 2 YEARS ... 3	HOME 1 HOSP 2 OTHER 6	YES ... 1 ADD BIRTH NO ... 2 NEXT BIRTH
03	SING 1 MULT 2	BOY 1 GIRL 2	MONTH/SEASON YEAR [][]/[][] [][][][] DON'T KNOW 9998	YES ... 1 NO ... 2 220	AGE IN YEARS [][]	YES ... 1 NO ... 2	LINE NUMBER [][] (GO TO 222)	DAYS ... 1 MONTHS 2 YEARS ... 3	HOME 1 HOSP 2 OTHER 6	YES ... 1 ADD BIRTH NO ... 2 NEXT BIRTH
04	SING 1 MULT 2	BOY 1 GIRL 2	MONTH/SEASON YEAR [][]/[][] [][][][] DON'T KNOW 9998	YES ... 1 NO ... 2 220	AGE IN YEARS [][]	YES ... 1 NO ... 2	LINE NUMBER [][] (GO TO 222)	DAYS ... 1 MONTHS 2 YEARS ... 3	HOME 1 HOSP 2 OTHER 6	YES ... 1 ADD BIRTH NO ... 2 NEXT BIRTH
05	SING 1 MULT 2	BOY 1 GIRL 2	MONTH/SEASON YEAR [][]/[][] [][][][] DON'T KNOW 9998	YES ... 1 NO ... 2 220	AGE IN YEARS [][]	YES ... 1 NO ... 2	LINE NUMBER [][] (GO TO 222)	DAYS ... 1 MONTHS 2 YEARS ... 3	HOME 1 HOSP 2 OTHER 6	YES ... 1 ADD BIRTH NO ... 2 NEXT BIRTH
06	SING 1 MULT 2	BOY 1 GIRL 2	MONTH/SEASON YEAR [][]/[][] [][][][] DON'T KNOW 9998	YES ... 1 NO ... 2 220	AGE IN YEARS [][]	YES ... 1 NO ... 2	LINE NUMBER [][] (GO TO 222)	DAYS ... 1 MONTHS 2 YEARS ... 3	HOME 1 HOSP 2 OTHER 6	YES ... 1 ADD BIRTH NO ... 2 NEXT BIRTH
07	SING 1 MULT 2	BOY 1 GIRL 2	MONTH/SEASON YEAR [][]/[][] [][][][] DON'T KNOW 9998	YES ... 1 NO ... 2 220	AGE IN YEARS [][]	YES ... 1 NO ... 2	LINE NUMBER [][] (GO TO 222)	DAYS ... 1 MONTHS 2 YEARS ... 3	HOME 1 HOSP 2 OTHER 6	YES ... 1 ADD BIRTH NO ... 2 NEXT BIRTH
08	SING 1 MULT 2	BOY 1 GIRL 2	MONTH/SEASON YEAR [][]/[][] [][][][] DON'T KNOW 9998	YES ... 1 NO ... 2 220	AGE IN YEARS [][]	YES ... 1 NO ... 2	LINE NUMBER [][] (GO TO 222)	DAYS ... 1 MONTHS 2 YEARS ... 3	HOME 1 HOSP 2 OTHER 6	YES ... 1 ADD BIRTH NO ... 2 NEXT BIRTH

* NOTE: FOR FIRST BIRTH ALWAYS ASK - "WERE THERE ANY OTHER LIVEBIRTHS BETWEEN (NAME) AND YOUR (FIRST) MARRIAGE?"

212	213	214	215	216	217	218	219	220	221	222
What name was given to your last (next-to-last) baby? (NAME)	Were any of these births twins?	Is (NAME) a boy or a girl?	In what month and year was (NAME) born? PROBE: What is his/her birthday? RECORD MONTHS 1 THROUGH 12 OR SEASONS WINTER = 21 SPRING = 22 SUMMER = 23 MONSOON = 24 AUTUMN = 25 DON'T KNOW = 98	Is (NAME) still alive?	IF ALIVE: How old is (NAME)? WRITE AGE IN COMPLETED YEARS. WRITE '00' IF UNDER 1	IF ALIVE: Is (NAME) living with you?	IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	IF DEAD: Where did (NAME) die?	Were there any other livebirths between (NAME) and (NAME OF PREVIOUS BIRTH), including any children who died after birth?*
09	SING 1 MULT 2	BOY 1 GIRL 2	MONTH/SEASON YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 9998	YES ... 1 NO ... 2 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES ... 1 NO ... 2	LINE NUMBER <input type="text"/> (GO TO 222)	DAYS ... 1 MONTHS 2 YEARS ... 3	HOME 1 HOSP 2 OTHER 6	YES ... 1 ADD ↙ BIRTH NO ... 2 NEXT ↖ BIRTH
10	SING 1 MULT 2	BOY 1 GIRL 2	MONTH/SEASON YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 9998	YES ... 1 NO ... 2 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES ... 1 NO ... 2	LINE NUMBER <input type="text"/> (GO TO 222)	DAYS ... 1 MONTHS 2 YEARS ... 3	HOME 1 HOSP 2 OTHER 6	YES ... 1 ADD ↙ BIRTH NO ... 2 NEXT ↖ BIRTH
11	SING 1 MULT 2	BOY 1 GIRL 2	MONTH/SEASON YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 9998	YES ... 1 NO ... 2 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES ... 1 NO ... 2	LINE NUMBER <input type="text"/> (GO TO 222)	DAYS ... 1 MONTHS 2 YEARS ... 3	HOME 1 HOSP 2 OTHER 6	YES ... 1 ADD ↙ BIRTH NO ... 2 NEXT ↖ BIRTH
12	SING 1 MULT 2	BOY 1 GIRL 2	MONTH/SEASON YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 9998	YES ... 1 NO ... 2 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES ... 1 NO ... 2	LINE NUMBER <input type="text"/> (GO TO 222)	DAYS ... 1 MONTHS 2 YEARS ... 3	HOME 1 HOSP 2 OTHER 6	YES ... 1 ADD ↙ BIRTH NO ... 2 NEXT ↖ BIRTH

* NOTE: FOR FIRST BIRTH ALWAYS ASK : " WERE THERE ANY OTHER LIVEBIRTHS BETWEEN (NAME) AND YOUR (FIRST) MARRIAGE?"

223	Have you had any live births since the birth of (NAME OF LAST BIRTH)? IF YES, WRITE BIRTH(S) IN TABLE	YES 1 NO 2
224	COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK: NUMBERS ARE SAME <input type="checkbox"/> NUMBERS ARE DIFFERENT <input type="checkbox"/> (PROBE AND RECONCILE) CHECK: 215 FOR EACH BIRTH SINCE JANUARY 2001: MONTH AND YEAR OF BIRTH ARE RECORDED CHECK: 217 FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED. CHECK: 220 FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED. CHECK: 220 FOR AGE AT DEATH 12 MONTHS OR 1 YEAR: PROBE TO DETERMINE EXACT NUMBER OF MONTHS.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
225	CHECK 215 AND ENTER THE NUMBER OF BIRTHS IN 2001 OR LATER. IF NONE, RECORD '0' AND SKIP TO 226.	<input type="text"/>

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
226	Are you pregnant now?	YES 1 NO 2 UNSURE 8	<input type="checkbox"/> → 229
227	How many months pregnant are you?	MONTHS <input type="text"/>	
228	At the time you became pregnant did you want to become pregnant <u>then</u> , did you want to wait until <u>later</u> , or did you <u>not want</u> to have any (more) children at all?	THEN 1 LATER 2 NOT AT ALL 3	
229	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES 1 NO 2	→ 234
230	When did the <u>last</u> such pregnancy end? PROBE TO ASK BETWEEN WHICH BIRTHS, ETC.	MONTH <input type="text"/> YEAR <input type="text"/>	
231	CHECK 230: LAST PREGNANCY ENDED IN JAN. 2001 OR LATER <input type="checkbox"/> LAST PREGNANCY ENDED BEFORE JAN. 2001 <input type="checkbox"/>		→ 234
232	How many months pregnant were you when the <u>last</u> such pregnancy ended?	MONTHS <input type="text"/>	
233	Since January 2001, how many pregnancies have you had that did not result in a live birth. How many of these pregnancies were miscarried, aborted or ended in a still birth? IF 7 OR MORE, RECORD '7'.	NUMBER OF MISCARRIAGES <input type="text"/> NUMBER OF ABORTIONS <input type="text"/> NUMBER OF STILLBIRTHS <input type="text"/>	
234	When did your last menstrual period start? _____ (DATE, IF GIVEN) IF LESS THAN A WEEK, RECORD DAYS, IF ONE WEEK AND LESS THAN ONE MONTH RECORD WEEKS. IF ONE MONTH AND LESS THAN A YEAR RECORD MONTHS, IF YEAR OR MORE RECORD YEARS.	DAYS AGO 1 <input type="text"/> WEEKS AGO 2 <input type="text"/> MONTHS AGO 3 <input type="text"/> YEARS AGO 4 <input type="text"/> IN MENOPAUSE/ HAS HAD HYSTERECTOMY 994 BEFORE LAST BIRTH 995 NEVER MENSTRUATED 996	
235	Do you know about any problems or complications a woman can have during pregnancy or delivery or after delivery?	YES 1 NO 2	→ 301
236	What complications or problems do you know about? _____ _____ _____ (SPECIFY)	<input type="text"/>	

SECTION 3. CONTRACEPTION

301	<p>Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy.</p> <p>Which ways or methods have you heard about?</p> <p>FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)?</p> <p>CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302.</p>	302 Have you ever used (METHOD)?	
01	<p>FEMALE STERILISATION Women can have an operation to avoid having any more pregnancies.</p>	<p>YES 1</p> <p>NO 2 ↙</p>	<p>Have you ever had an operation to avoid having any more pregnancies?</p> <p>YES 1</p> <p>NO 2</p>
02	<p>MALE STERILISATION Men can have an operation to avoid having any more pregnancies.</p>	<p>YES 1</p> <p>NO 2 ↙</p>	<p>Has your husband ever had an operation to avoid having any more pregnancies?</p> <p>YES 1</p> <p>NO 2</p>
03	<p>PILL Women can take a pill every day to avoid becoming pregnant.</p>	<p>YES 1</p> <p>NO 2 ↙</p>	<p>YES 1</p> <p>NO 2</p>
04	<p>IUD Women can have a loop or coil placed inside them by a doctor or a trained health worker.</p>	<p>YES 1</p> <p>NO 2 ↙</p>	<p>YES 1</p> <p>NO 2</p>
05	<p>INJECTABLES Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.</p>	<p>YES 1</p> <p>NO 2 ↙</p>	<p>YES 1</p> <p>NO 2</p>
06	<p>IMPLANTS Women can have several small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.</p>	<p>YES 1</p> <p>NO 2 ↙</p>	<p>YES 1</p> <p>NO 2</p>
07	<p>CONDOM Men can put a rubber sheath on their organ before sexual intercourse.</p>	<p>YES 1</p> <p>NO 2 ↙</p>	<p>YES 1</p> <p>NO 2</p>

08	RHYTHM METHOD Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES 1 NO 2 ↴	YES 1 NO 2
09	WITHDRAWAL, AZAL Men can be careful and pull out before ejaculation.	YES 1 NO 2 ↴	YES 1 NO 2
10	EMERGENCY CONTRACEPTION Women can take pills up to five days after sexual intercourse to avoid becoming pregnant.	YES 1 NO 2 ↴	YES 1 NO 2
11	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES 1 _____ (SPECIFY) _____ (SPECIFY) NO 2 ↴	YES 1 NO 2 YES 1 NO 2
303	CHECK 302: NOT A SINGLE "YES" (NEVER USED) <input type="checkbox"/> ↴ AT LEAST ONE "YES" (EVER USED) <input type="checkbox"/> → 306		
304	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES 1 NO 2	→ 322
305	What have you used or done? CORRECT 302 AND 303 (AND 301 IF NECESSARY).		
306	CHECK 104: CURRENTLY MARRIED <input type="checkbox"/> ↴ WIDOWED, DIVORCED OR SEPARATED <input type="checkbox"/> → 322		
307	CHECK 302 (01): WOMAN NOT STERILISED <input type="checkbox"/> ↴ WOMAN STERILISED <input type="checkbox"/> → 310		
308	CHECK 226: NOT PREGNANT OR UNSURE <input type="checkbox"/> ↴ PREGNANT <input type="checkbox"/> → 322		
309	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES 1 NO 2	→ 322

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
310	<p>Which method are you using?</p> <p>CIRCLE ALL MENTIONED.</p> <p>IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD ON LIST.</p> <p>CIRCLE 'A' FOR FEMALE STERILISATION.</p>	<p>FEMALE STERILISATION A</p> <p>MALE STERILISATION B</p> <p>PILL C</p> <p>IUD D</p> <p>INJECTABLES E</p> <p>IMPLANTS F</p> <p>CONDOM G</p> <p>RHYTHM H</p> <p>WITHDRAWAL I</p> <p>OTHER _____ X (SPECIFY)</p>	<p>→ 316</p> <p>→ 316</p> <p>→ 314</p> <p>→ 316</p> <p>→ 321</p>
311	<p>May I see the package of pills/condoms you are now using?</p> <p>RECORD NAME OF BRAND IF PACKAGE SEEN.</p>	<p>PACKAGE SEEN 1</p> <p>BRAND NAME _____ <input type="text"/><input type="text"/> (SPECIFY)</p> <p>PACKAGE NOT SEEN 2</p>	<p>→ 313</p>
312	<p>Do you know the brand name of the (pills/condoms) you are using?</p> <p>RECORD NAME OF BRAND.</p>	<p>BRAND NAME _____ <input type="text"/><input type="text"/> (SPECIFY)</p> <p>DON'T KNOW 98</p>	
313	<p>How many (pill cycles/condoms) did you or your husband get the last time?</p>	<p>NUMBER OF PILL CYCLES/CONDOMS ... <input type="text"/><input type="text"/><input type="text"/></p> <p>DON'T KNOW 998</p>	<p>→ 316</p>
314	<p>Can you tell me the name of the injection you are using?</p>	<p>BRAND NAME _____ <input type="text"/> (SPECIFY)</p> <p>DON'T KNOW 8</p>	
315	<p>Please tell me for how many weeks one injection is effective?</p>	<p>NUMBER OF WEEKS <input type="text"/><input type="text"/></p> <p>DON'T KNOW 98</p>	
316	<p>The last time you obtained (CURRENT METHOD), how much did you pay in total, including the cost of the method and any consultation you may have had?</p> <p>IF STERILISED: How much did you or your husband pay for the sterilisation, including any consultation?</p>	<p>NOTHING, FREE 0000</p> <p>Rs. <input type="text"/><input type="text"/><input type="text"/><input type="text"/></p> <p>Rs. 10000+ . . . 9995</p> <p>DON'T KNOW . . . 9998</p>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
317	<p>Where did you obtain (CURRENT METHOD) the last time?</p> <p>IF STERILISED: Where did the sterilisation take place?</p> <p>IF SOURCE IS HOSPITAL, HEALTH CENTER, OR FWC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>_____</p> <p>(NAME OF PLACE)</p> <p>ONLY FOR MODERN METHOD</p>	<p>PUBLIC SECTOR</p> <p>GOVT. HOSPITAL/RHSC 11</p> <p>RURAL HEALTH CENTRE, MCH .. 12</p> <p>FAMILY WELFARE CENTRE..... 13</p> <p>MOBILE SERVICE CAMP 14</p> <p>LADY HEALTH WORKER..... 15</p> <p>LH VISITOR 16</p> <p>BASIC HEALTH UNIT 17</p> <p>MALE MOBILIZEF..... 18</p> <p>OTHER PUBLIC 19</p> <p>(SPECIFY)</p> <p>PRIVATE/NGO MEDICAL SECTOR</p> <p>PRIVATE/NGO HOSPITAL/CLINIC 21</p> <p>PHARMACY, CHEMISTS 22</p> <p>PRIVATE DOCTOR 23</p> <p>HOMEOPATH 24</p> <p>DISPENSER/COMPOUNDER 25</p> <p>OTHER PRIVATE</p> <p>MEDICAL..... 26</p> <p>(SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP (NOT PHARMACY/CHEMI!.. 31</p> <p>FRIEND/RELATIVE 32</p> <p>HAKIM 33</p> <p>DAI, TRAD. BIRTH ATTENDANT . 34</p> <p>PUSHCART 35</p> <p>OTHER 96</p> <p>(SPECIFY)</p> <p>DON'T KNOW 98</p>									
318	<p>At the time you obtained (CURRENT METHOD) from the above source, were you told about side effects or problems you might have with the method?</p>	<p>YES 1</p> <p>NO 2</p>	→ 320								
319	<p>Were you told what to do if you experienced side effects or problems?</p>	<p>YES 1</p> <p>NO 2</p>									
320	<p>Were you ever told about other methods of family planning that you could use?</p>	<p>YES 1</p> <p>NO 2</p>									
321	<p>Since what month and year have you been using (CURRENT METHOD) without stopping?</p> <p>IF STERILISED: In what month and year was the sterilisation performed?</p> <p>PROBE: For how long have you been using (CURRENT METHOD) now without stopping?</p>	<p>MONTH <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table></p> <p>YEAR <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table></p>									→ 324

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
322	Do you know of a place where you can obtain a method of family planning?	YES 1 NO 2	→ 324
323	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) Any other place? RECORD ALL PLACES MENTIONED.	PUBLIC SECTOR GOVT. HOSPITAL/RHSC A RURAL HEALTH CENTRE, MCH B FAMILY WELFARE CENTRE C MOBILE SERVICE CAMP D LADY HEALTH WORKER (LHW) E LADY HEALTH VISITOR (LHV) ... F BASIC HEALTH UNIT G MALE MOBILIZER H OTHER PUBLIC I (SPECIFY) PRIVATE/NGO MEDICAL SECTOR PRIVATE, NGO HOSPITAL/CLINIC J PHARMACY, CHEMISTS K PRIVATE DOCTOR L HOMEOPATH M DISPENSER/COMPOUNDER N OTHER PRIVATE MEDICAL O (SPECIFY) OTHER SOURCE SHOP (NOT PHARMACY) P FRIEND/RELATIVE Q HAKIM R DAI, TRAD. BIRTH ATTENDANT . S PUSH CART T OTHER X (SPECIFY)	
324	In the last 12 months, were you visited by a fieldworker or a Lady Health Worker who talked to you about family planning?	YES 1 NO 2	→ 327
325	Did you receive any care and help from this woman?	YES 1 NO 2	→ 327
326	What type of help did you receive? CIRCLE ALL MENTIONED.	INFORMATION A CONTRACEPTIVE SUPPLIES B REFERRED TO HEALTH / FP FACILITY C TREATMENT OF SIDE EFFECTS D OTHER X (SPECIFY)	
327	In the last month, have you heard a message about family planning on:	YES NO RADIO 1 2 TELEVISION 1 2	
328	CHECK 327: HEARD MESSAGE <input type="checkbox"/> (ANY YES IN 327) NOT HEARD MESSAGE <input type="checkbox"/>		→ 401

SECTION 4. PREGNANCY, LABOUR/DELIVERY AND POSTNATAL CARE

401	CHECK 225: ONE OR MORE LIVE BIRTHS IN 2001 OR LATER <input type="checkbox"/> NO LIVE BIRTHS IN 2001 OR LATER <input type="checkbox"/> → 601			
402	ENTER IN THE TABLE THE BIRTH NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2001 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES). Now I would like to ask you some questions about the health of all your children born since January 2001. (We will talk about each separately.)			
403	BIRTH NUMBER FROM 212	LAST BIRTH BIRTH NO. <input type="text"/> <input type="text"/>	NEXT-TO-LAST BIRTH BIRTH NO. <input type="text"/> <input type="text"/>	SECOND-FROM-LAST BIRTH BIRTH NO. <input type="text"/> <input type="text"/>
404	FROM 212 AND 216	NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/>	NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/>	NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/>
405	At the time you became pregnant with (NAME), did you want to become pregnant <u>then</u> , did you want to wait until <u>later</u> , or did you <u>not want</u> to have any (more) children at all?	THEN 1 (SKIP TO 407) ← LATER 2 NOT AT ALL 3 (SKIP TO 407) ←	THEN 1 (SKIP TO 444) ← LATER 2 NOT AT ALL 3 (SKIP TO 444) ←	THEN 1 (SKIP TO 444) ← LATER 2 NOT AT ALL 3 (SKIP TO 444) ←
406	How much longer would you have liked to wait?	MONTHS ..1 <input type="text"/> <input type="text"/> YEARS ..2 <input type="text"/> <input type="text"/> DON'T KNOW ... 998	MONTHS ..1 <input type="text"/> <input type="text"/> YEARS ..2 <input type="text"/> <input type="text"/> DON'T KNOW ... 998	MONTHS ..1 <input type="text"/> <input type="text"/> YEARS ..2 <input type="text"/> <input type="text"/> DON'T KNOW ... 998
407	Did you see anyone for antenatal care for this pregnancy? IF YES: Whom did you see? Anyone else? PROBE FOR THE TYPE(S) OF PERSON(S) AND RECORD THE ALL MENTIONED.	HEALTH PERSON DOCTOR A NURSE/MIDWIFE/ LHV B OTHER PERSON DAI-TBA C LADY H. WORKER D HOMEOPATH ... E HAKIM F DISPENSER / COMPOUNDER .. G OTHER _____ X (SPECIFY) NO ONE Y (SKIP TO 417) ←		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
408	<p>Where did you receive antenatal care for this pregnancy?</p> <p>Anywhere else?</p> <p>FOR ANY HOSPITAL, HEALTH CENTRE, OR CLINIC, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE(S))</p> <p>PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND RECORD ALL MENTIONED.</p>	<p>HOME YOUR HOME ... A OTHER HOME ... B</p> <p>PUBLIC SECTOR GOVT. HOSPITAL.. C RHC/MCH D BHU/FWC E OTHER PUBLIC _____ F (SPECIFY)</p> <p>PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC H PVT. DOCTOR . . I HOMEOPATH . . J DISPENSER / COMPOUNDER . . K OTHER PRIVATE MED. _____ L (SPECIFY) HAKIM M OTHER _____ X (SPECIFY)</p>		
409	<p>The <u>first time</u> you went for antenatal care did you go because you had a problem or did you go just for a check-up?</p>	<p>FOR PROBLEM 1</p> <p>FOR CHECK-UP ONLY 2</p>		
410	<p>How many months pregnant were you when you first received antenatal care for <u>this</u> pregnancy?</p>	<p>MONTHS ... <input type="text"/> <input type="text"/></p> <p>DON'T KNOW 98</p>		
411	<p>How much did you pay for the first antenatal visit?</p>	<p>NOTHING / FREE .. 0000</p> <p>Rs. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Rs. 10000+ . . . 9995</p> <p>DON'T KNOW . . . 9998</p>		
412	<p>How many times did you receive antenatal care during this pregnancy?</p>	<p>NUMBER OF TIMES .. <input type="text"/> <input type="text"/></p> <p>DON'T KNOW 98</p>		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
413	<p>As part of your antenatal care during this pregnancy, were any of the following measures taken at least once?</p> <p>Were you weighed?</p> <p>Was your blood pressure measured?</p> <p>Did you get a urine test?</p> <p>Did you get a blood test?</p> <p>Did you have an ultra sound exam?</p>	<p style="text-align: center;">YES NO</p> <p>WEIGHT . . . 1 2</p> <p>B.PRESSURE 1 2</p> <p>URINE 1 2</p> <p>BLOOD . . . 1 2</p> <p>U/S EXAM . 1 2</p>		
414	Do you know your blood group?	<p>YES 1</p> <p>NO 2</p>		
415	During any antenatal care visit, were you told about the <u>signs</u> of pregnancy complications?	<p>YES 1</p> <p>NO 2</p> <p style="text-align: center;">(SKIP TO 418) ←</p> <p>DON'T KNOW 8</p>		
416	During any antenatal care visit, were you told where to go if you had any of these complications?	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p> <p style="text-align: center;">(SKIP TO 418) ←</p>		
417	Why didn't you see anyone for an antenatal check-up?	<p>NOT NECESSARY .. A</p> <p>COSTS TOO MUCH .. B</p> <p>TOO FAR C</p> <p>NO TRANSPORT ... D</p> <p>NO ONE TO GO WITH E</p> <p>SERVICE NOT GOOD F</p> <p>NO TIME TO GO ... G</p> <p>DID NOT KNOW</p> <p>WHERE TO GO .. H</p> <p>DID NOT WANT TO SEE A MALE DOCTOR.. I</p> <p>LONG WAITING TIME J</p> <p>NOT ALLOWED TO GO. K</p> <p>OTHER _____ X</p> <p>_____ X</p>		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
418	When you were pregnant with (NAME), did <u>anyone</u> talk to you about how to have a safe delivery? I mean things like using a safe delivery kit or a clean blade to cut the baby's cord or asking the person who helps you to wash their hands?	YES 1 NO 2 DON'T KNOW 8		
419	During this pregnancy, were you given an injection in the buttocks or your arm to prevent the baby from getting tetanus, that is, convulsions after birth?	YES 1 NO 2 (SKIP TO 422) ← DON'T KNOW 8		
420	During this pregnancy, how many times did you get this tetanus injection?	TIMES <input type="checkbox"/> DON'T KNOW 8		
421	CHECK 420	2 OR MORE TIMES <input type="checkbox"/> OTHER <input type="checkbox"/> (SKIP TO 426) ↓		
422	At any time <u>before this pregnancy</u> , did you receive any tetanus injections, either to protect yourself or another baby?	YES 1 NO 2 (SKIP TO 426) ← DON'T KNOW 8		
423	<u>Before this pregnancy</u> , how many other times did you receive a tetanus injection? IF 7 OR MORE TIMES, RECORD '7'.	TIMES <input type="checkbox"/> DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
424	<p>In what month and year did you receive the last tetanus injection before this pregnancy?</p> <p>ASK TO SEE THE CHILD HEALTH/IMMUNISATION CARD. CHECK FOR TETANUS INJECTIONS FOR MOTHER.</p>	<p>MONTH ... <input type="text"/> <input type="text"/></p> <p>DK MONTH 98</p> <p>YEAR</p> <p><input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>(SKIP TO 426) ←</p> <p>DK YEAR 9998</p>		
425	<p>How many years ago did you receive that tetanus injection?</p>	<p>YEARS AGO <input type="text"/> <input type="text"/></p>		
426	<p>During this pregnancy, were you given or did you buy any iron tablets or iron syrup?</p> <p>SHOW TABLETS/SYRUP.</p>	<p>YES 1</p> <p>NO 2</p> <p>(SKIP TO 428) ←</p> <p>DON'T KNOW 8</p>		
427	<p>During the whole pregnancy, for how many days did you take the tablets or syrup?</p> <p>IF ANSWER NOT NUMERIC, ASK FOR APPROXIMATE NUMBER.</p>	<p>DAYS .. <input type="text"/> <input type="text"/> <input type="text"/></p> <p>DIDN'T TAKE ... 997</p> <p>DON'T KNOW ... 998</p>		
428	<p>During this pregnancy, were you given or did you take calcium tablets?</p>	<p>YES 1</p> <p>NO 2</p> <p>(SKIP TO 430) ←</p> <p>DON'T KNOW 8</p>		
429	<p>During the whole pregnancy for how many days did you take the tablets?</p>	<p>DAYS .. <input type="text"/> <input type="text"/> <input type="text"/></p> <p>DIDN'T TAKE ... 997</p> <p>DON'T KNOW ... 998</p>		
430	<p>During this pregnancy, did you have difficulty with your vision during daylight?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>		
431	<p>During this pregnancy, did you suffer from night blindness <i>[Punjabi=andirata]</i></p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
440	<p>How long after you first started having the (first) problem did you seek advice or treatment?</p> <p>IF LESS THAN ONE DAY, RECORD HOURS IF LESS THAN ONE WEEK, RECORD DAYS. IF MORE THAN ONE WEEK, RECORD WEEKS.</p>	<p>HOURS .. .1 <input type="text"/></p> <p>DAYS2 <input type="text"/></p> <p>WEEKS .. .3 <input type="text"/></p> <p>DON'T REMEMBER 998 (SKIP TO 442) ←</p>		
441	<p>Why didn't you see anyone for the problem(s)?</p> <p>RECORD ALL MENTIONED.</p>	<p>NOT NECESSARY .. A COSTS TOO MUCH .. B TOO FAR C NO TRANSPORT ... D NO ONE TO GO WITH E SERVICE NOT GOOD F NO TIME TO GO ... G DID NOT KNOW WHERE TO GO .. H DID NOT WANT TO SEE A MALE DOCTOR I LONG WAITING TIME J NOT ALLOWED TO GO. K OTHER _____ X (SPECIFY)</p>		
442	<p>During this pregnancy, did you and your husband discuss where you would deliver?</p>	<p>YES 1 NO 2 CANNOT REMEMBER 8</p>		
443	<p>During this pregnancy, did you set aside any money in case of an emergency?</p>	<p>YES 1 NO 2 CANNOT REMEMBER 8</p>		
444	<p>When (NAME) was born, was he/she very large, larger than average, average, smaller than average, or very small?</p>	<p>VERY LARGE 1 LARGER THAN AVERAGE 2 AVERAGE 3 SMALLER THAN AVERAGE 4 VERY SMALL 5 DON'T KNOW 8</p>		
445	<p>Was (NAME) weighed at birth?</p>	<p>YES 1 NO 2 (SKIP TO 447) ← DON'T KNOW 8</p>	<p>YES 1 NO 2 (SKIP TO 447) ← DON'T KNOW 8</p>	<p>YES 1 NO 2 (SKIP TO 447) ← DON'T KNOW 8</p>

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
446	<p>How much did (NAME) weigh?</p> <p>RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD, IF AVAILABLE.</p>	<p>KG FROM CARD</p> <p>1 <input type="text"/> . <input type="text"/><input type="text"/><input type="text"/></p> <p>KG FROM RECALL</p> <p>2 <input type="text"/> . <input type="text"/><input type="text"/><input type="text"/></p> <p>DON'T KNOW .. 99.998</p>	<p>KG FROM CARD</p> <p>1 <input type="text"/> . <input type="text"/><input type="text"/><input type="text"/></p> <p>KG FROM RECALL</p> <p>2 <input type="text"/> . <input type="text"/><input type="text"/><input type="text"/></p> <p>DON'T KNOW .. 99.998</p>	<p>KG FROM CARD</p> <p>1 <input type="text"/> . <input type="text"/><input type="text"/><input type="text"/></p> <p>KG FROM RECALL</p> <p>2 <input type="text"/> . <input type="text"/><input type="text"/><input type="text"/></p> <p>DON'T KNOW .. 99.998</p>
447	<p>Who assisted with the delivery of (NAME)?</p> <p>Anyone else?</p> <p>PROBE FOR THE TYPE OF PERSON AND RECORD ALL MENTIONED.</p> <p>IF RESPONDENT SAYS NO ONE ASSISTED, ASK IF ANY ADULTS WERE PRESENT AT THE DELIVERY.</p>	<p>HEALTH PERSON DOCTOR A NURSE/MIDWIFE/ LHV B OTHER PERSON DAI-TBA C LADY H. WORKER D HOMEOPATH ... E HAKIM F RELATIVE/FRIEND (NOT A DAI) ... G OTHER _____ X (SPECIFY) NO ONE Y</p>	<p>HEALTH PERSON DOCTOR A NURSE/MIDWIFE/ LHV B OTHER PERSON DAI-TBA C LADY H. WORKER D HOMEOPATH ... E HAKIM F RELATIVE/FRIEND (NOT A DAI) ... G OTHER _____ X (SPECIFY) NO ONE Y</p>	<p>HEALTH PERSON DOCTOR A NURSE/MIDWIFE/ LHV B OTHER PERSON DAI-TBA C LADY H. WORKER D HOMEOPATH ... E HAKIM F RELATIVE/FRIEND (NOT A DAI) ... G OTHER _____ X (SPECIFY) NO ONE Y</p>
448	<p>Were you given an injection to induce labour to deliver (NAME) ?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>
449	<p>Where did you give birth to (NAME)?</p> <p>IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>_____ (NAME OF PLACE - Last birth)</p> <p>_____ (NAME OF PLACE - next to last birth)</p> <p>_____ (NAME OF PLACE - 2nd from last birth)</p>	<p>HOME YOUR HOME ... 11 (SKIP TO 458) ←</p> <p>OTHER HOME ... 12</p> <p>PUBLIC SECTOR GOVT. HOSPITAL 21 RHC/MCH 22 OTHER PUBLIC _____ 26 (SPECIFY)</p> <p>PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC 31 OTHER PRIVATE MED. _____ 36 (SPECIFY)</p> <p>OTHER _____ 96 (SPECIFY) (SKIP TO 458) ←</p>	<p>HOME YOUR HOME ... 11 (SKIP TO 464) ←</p> <p>OTHER HOME ... 12</p> <p>PUBLIC SECTOR GOVT. HOSPITAL 21 RHC/MCH 22 OTHER PUBLIC _____ 26 (SPECIFY)</p> <p>PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC 31 OTHER PRIVATE MED. _____ 36 (SPECIFY)</p> <p>OTHER _____ 96 (SPECIFY) (SKIP TO 464) ←</p>	<p>HOME YOUR HOME ... 11 (SKIP TO 464) ←</p> <p>OTHER HOME ... 12</p> <p>PUBLIC SECTOR GOVT. HOSPITAL 21 RHC/MCH 22 OTHER PUBLIC _____ 26 (SPECIFY)</p> <p>PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC 31 OTHER PRIVATE MED. _____ 36 (SPECIFY)</p> <p>OTHER _____ 96 (SPECIFY) (SKIP TO 464) ←</p>
450	<p>Why did you deliver at the hospital/health centre?</p>	<p><input type="text"/><input type="text"/></p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><input type="text"/><input type="text"/></p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><input type="text"/><input type="text"/></p> <p>_____</p> <p>_____</p> <p>_____</p>

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
451	<p>How long after (NAME) was delivered did you stay there?</p> <p>IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS. IF ONE WEEK OR MORE, RECORD WEEKS.</p>	<p>HOURS.. 1 <input type="text"/> <input type="text"/></p> <p>DAYS .. 2 <input type="text"/> <input type="text"/></p> <p>WEEKS.. 3 <input type="text"/> <input type="text"/></p> <p>DON'T KNOW .. 998</p>	<p>HOURS.. 1 <input type="text"/> <input type="text"/></p> <p>DAYS .. 2 <input type="text"/> <input type="text"/></p> <p>WEEKS.. 3 <input type="text"/> <input type="text"/></p> <p>DON'T KNOW ... 998</p>	<p>HOURS.. 1 <input type="text"/> <input type="text"/></p> <p>DAYS .. 2 <input type="text"/> <input type="text"/></p> <p>WEEKS.. 3 <input type="text"/> <input type="text"/></p> <p>DON'T KNOW 998</p>
452	Was (NAME) delivered by caesarean section?	<p>YES 1</p> <p>NO 2</p>	<p>YES 1</p> <p>NO 2</p>	<p>YES 1</p> <p>NO 2</p>
453	In total, how much did you pay for the delivery, including doctors' fees, facility costs and medicines?	<p>NOTHING, FREE 0000</p> <p>Rs. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Rs. 10000+ . . . 9995</p> <p>DON'T KNOW . . . 9998</p>		
454	Before you were discharged after (NAME) was born, did any health personnel check on your health?	<p>YES 1</p> <p>NO 2 (SKIP TO 457) ←</p>	<p>YES 1 (SKIP TO 482) ←</p> <p>NO 2</p>	<p>YES 1 (SKIP TO 482) ←</p> <p>NO 2</p>
455	<p>How many hours, days or weeks after delivery did the first check take place?</p> <p>IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS. IF MORE THAN ONE WEEK, RECORD WEEKS.</p>	<p>HOURS 1 <input type="text"/> <input type="text"/></p> <p>DAYS 2 <input type="text"/> <input type="text"/></p> <p>WEEKS 3 <input type="text"/> <input type="text"/></p> <p>DON'T KNOW ... 998</p>		
456	<p>Who checked on your health at that time?</p> <p>PROBE FOR MOST QUALIFIED PERSON.</p>	<p>HEALTH PERSONNEL</p> <p>DOCTOR 11 ←</p> <p>NURSE/MIDWIFE</p> <p>LHV 12 ←</p> <p>OTHER PERSON</p> <p>DAI- TBA 21 ←</p> <p>LADY H.WORKER 22</p> <p>HOMEOPATH ... 23 ←</p> <p>HAKIM 24 ←</p> <p>OTHER _____ 96 ← (SPECIFY) (SKIP TO 472) ←</p>		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____						
457	After you were discharged, did any health care provider or a traditional birth attendant check on your health?	YES 1 (SKIP TO 465) ← NO 2 (SKIP TO 472) ←	YES 1 (SKIP TO 482) ← NO 2	YES 1 (SKIP TO 482) ← NO 2						
458	Why didn't you deliver in a health facility? PROBE: Any other reason? RECORD ALL MENTIONED.	COST TOO MUCH . . . A FACILITY NOT OPEN . B TOO FAR/ NO TRANS- PORTATION C DON'T TRUST FACILITY/POOR QUALITY SERVICE D NO FEMALE PROVID- ER AT FACILITY .. E HUSBAND/FAMILY DID NOT ALLOW .. F NOT NECESSARY .. G NOT CUSTOMARY .. H NO TIME/ BABY CAME TOO FAST .. I OTHER _____ (SPECIFY) X								
459	In total, how much did you pay for the delivery?	NOTHING, FREE 0000 Rs. <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> Rs. 10000+ 9995 DON'T KNOW ... 9998								
460	Was a safe delivery kit used during this delivery?	YES 1 NO 2 DOES NOT KNOW .. 8								
461	What was used to TIE the umbilical cord?	UNBOILED THREAD 1 BOILED THREAD ... 2 WASHED CLAMPS .. 3 UNWASHED CLAMPS 4 HAIR 5 OTHER _____ 6								
462	What was used to CUT the umbilical cord?	NEW RAZOR BLADE 1 OLD RAZOR BLADE 2 SCISSORS 3 KNIFE 4 TOKA, CHOPPER ... 5 OTHER _____ 6								
463	Was the instrument boiled before using or not boiled?	BOILED 1 NOT BOILED 2 DON'T KNOW 8								

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____						
464	After (NAME) was born, did any health care provider or a traditional birth attendant check on your health?	YES 1 NO 2 (SKIP TO 468) ←	YES 1 NO 2	YES 1 NO 2						
465	How many hours, days or weeks after delivery did the first check take place? IF LESS THAN 1 DAY, RECORD HOURS. IF LESS THAN 1 WEEK, RECORD DAYS; IF ONE WEEK OR MORE, RECORD WEEKS.	HOURS... 1 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> DAYS ... 2 WEEKS... 3 DON'T KNOW ... 998								
466	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR 11 NURSE/MIDWIFE LHV 12 OTHER PERSON DAI- TBA 21 LADY H.WORKER 22 HOMEOPATH ... 23 HAKIM 24 DISPENSER / COMPOUNDER .. 25 OTHER _____ 96 (SPECIFY)								
467	Where did this first check take place? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, RECORD THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	HOME YOUR HOME ... 11 OTHER HOME ... 12 PUBLIC SECTOR GOVT. HOSPITAL.. 21 RHC/MCH 22 BHU/FWC 23 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC 31 OTHER PRIVATE MED. _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY)								
468	In the two months after (NAME) was born, did any health care provider or dai or a LHW or hakim check on <u>his/her</u> health?	YES 1 NO 2 (SKIP TO 472) ← DON'T KNOW 8								

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____												
469	<p>How many hours, days or weeks after the birth of (NAME) did the first check take place?</p> <p>IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS. IF ONE WEEK OR MORE, RECORD WEEKS.</p>	<p>HOURS.. 1 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table></p> <p>DAYS .. 2 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table></p> <p>WEEKS.. 3 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table></p> <p>DON'T KNOW ... 998</p>														
470	<p>Who checked on (NAME)'s health at that time?</p> <p>PROBE FOR MOST QUALIFIED PERSON.</p>	<p>HEALTH PERSONNEL DOCTOR 11 NURSE/MIDWIFE LHV 12</p> <p>OTHER PERSON DAI- TBA 21 LADY H.WORKER 22 HOMEOPATH ... 23 HAKIM 24 OTHER _____ 96 (SPECIFY)</p>														
471	<p>Where did this first check of (NAME) take place?</p> <p>IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, RECORD THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>_____ (NAME OF PLACE)</p>	<p>HOME YOUR HOME ... 11 OTHER HOME ... 12</p> <p>PUBLIC SECTOR GOVT. HOSPITAL 21 RHC/MCH 22 BHU/FWC 23 OTHER PUBLIC _____ 26 (SPECIFY)</p> <p>PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC 31 OTHER PRIVATE MED. _____ 36 (SPECIFY)</p> <p>OTHER _____ 96 (SPECIFY)</p>														
472	<p>How long after birth was (NAME) first bathed?</p> <p>IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. IF ONE DAY OR MORE RECORD DAYS.</p>	<p>IMMEDIATELY ... 000</p> <p>HOURS.. 1 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table></p> <p>DAYS .. 2 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table></p> <p>DON'T KNOW ... 998</p>														

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
473	<p>During the delivery or in the 40-day period after the delivery of (NAME), did you experience any of the following problems?</p> <p style="text-align: center;">YES NO</p> <p>Severe headaches? 1 2</p> <p>Blurred vision? 1 2</p> <p>Swelling of your hands? 1 2</p> <p>Swelling of your face? 1 2</p> <p>High fever? 1 2</p> <p>Fits or convulsions? 1 2</p> <p>Labor for more than 12 hours? 1 2</p> <p>Baby's feet came first? 1 2</p> <p>Placenta came first? 1 2</p> <p>Continuous dribbling of urine even during sleep 1 2</p> <p>Bad-smelling vaginal discharge? 1 2</p> <p>Inability to control motions. 1 2</p> <p>Heavy vaginal bleeding? 1 2</p> <p style="text-align: center;">(SKIP TO 474) ←</p> <p>IF YES: When did you experience this:</p> <p style="padding-left: 40px;">Immediately after birth of baby 0</p> <p style="padding-left: 40px;">In the first 24 hours 1</p> <p style="padding-left: 40px;">Later 2</p>			
474	<p>CHECK 473: ANY YES <input type="checkbox"/></p>	<p>ALL NO <input type="checkbox"/> → (SKIP TO 480)</p>		
475	<p>Were any of these problems so severe that you were afraid you might die?</p>	<p>YES 1</p> <p>NO 2</p> <p>CANNOT REMEMBER 8</p>		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____														
476	<p>Did you seek advice or treatment for the problem(s)?</p> <p>IF YES: Whom did you see?</p> <p>Anyone else?</p> <p>PROBE FOR THE TYPE(S) OF PERSON(S) AND RECORD THE ALL MENTIONED.</p>	<p>HEALTH PERSON DOCTOR A NURSE/MIDWIFE/ LHV B OTHER PERSON DAI-TBA C LADY H. WORKER D HOMEOPATH ... E HAKIM F OTHER _____ X _____ (SPECIFY) NO ONE Y (SKIP TO 479) ←</p>																
477	<p>Where did you seek treatment for the problem(s)?</p> <p>Anywhere else?</p> <p>PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND RECORD ALL MENTIONED.</p>	<p>HOME YOUR HOME ... A OTHER HOME ... B PUBLIC SECTOR GOVT. HOSPITAL C RHC/MCH D BHU/FWC E OTHER PUBLIC _____ F _____ (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC H PVT. DOCTOR .. I HOMEOPATH .. J DISPENSER / COMPOUNDER ... K HAKIM L OTHER PRIVATE MED. _____ M _____ (SPECIFY) OTHER _____ X _____ (SPECIFY)</p>																
478	<p>How long after you first started having the problem did you seek advice or treatment?</p> <p>IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. IF LESS THAN 7 DAYS, RECORD DAYS. OTHERWISE WEEKS.</p>	<p>HOURS.. ..1 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table></p> <p>DAYS2 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table></p> <p>WEEKS... ..3 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table></p> <p>DON'T KNOW ... 998 (SKIP TO 480) ←</p>																

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____		
479	Why didn't you see anyone for the problem(s)? CIRCLE ALL MENTIONED.	NOT NECESSARY A COSTS TOO MUCH B FACILITY TOO FAR AWAY ... C NO TRANSPORT ... D NO ONE TO GO WITH E SERVICE NOT GOOD F NO TIME TO GO ... G DID NOT KNOW WHERE TO GO H DID NOT WANT TO SEE A MALE DOCTOR I LONG WAITING TIME J NOT ALLOWED TO GO. K OTHER _____ X				
480	In the first two months after delivery, did you receive a vitamin A dose like this? SHOW AMPULES/CAPSULE/SYRUP.	YES 1 NO 2				
481	Has your menstrual period returned since the birth of (NAME)?	YES 1 (SKIP TO 483) ← NO 2 (SKIP TO 484) ←				
482	Did your period return between the birth of (NAME) and your next pregnancy?				YES 1 NO 2 (SKIP TO 486) ←	YES 1 NO 2 (SKIP TO 486) ←
483	For how many months after the birth of (NAME) did you <u>not</u> have a period?	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW 98	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW 98	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW 98		
484	CHECK 226: IS RESPONDENT PREGNANT?	NOT <input type="checkbox"/> PREGNANT PREG- OR <input type="checkbox"/> NANT UNSURE ↓ (SKIP TO 486) ←				
485	Have you resumed sexual relations since the birth of (NAME)?	YES 1 NO 2 (SKIP TO 487) ←				

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____									
486	For how many months after the birth of (NAME) did you <u>not</u> have sexual relations?	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW 98	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW 98	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW 98									
487	Did you ever breastfeed (NAME)?	YES 1 NO 2 (SKIP TO 495) ←	YES 1 NO 2 (SKIP TO 495) ←	YES 1 NO 2 (SKIP TO 495) ←									
488	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.												
489	Did you give the (NAME) the thick milk (colostrum) that comes first or did you discard it?												
490	In the first three days after delivery, was (NAME) given anything to drink other than breast milk?												
491	What was (NAME) given to drink? Anything else? RECORD ALL LIQUIDS MENTIONED.												
492	CHECK 404: IS CHILD LIVING?												
493	Are you still breastfeeding (NAME)?												

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____																		
494	For how many months did you breastfeed (NAME)? IF LESS THAN ONE MONTH, RECORD '00'	MONTHS ... <input type="text"/> <input type="text"/> DON'T KNOW ... 98	MONTHS ... <input type="text"/> <input type="text"/> STILL BF 95 DON'T KNOW ... 98	MONTHS ... <input type="text"/> <input type="text"/> STILL BF 95 DON'T KNOW ... 98																		
495	CHECK 404: IS CHILD LIVING?	LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501) (SKIP TO 498)	LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501) (SKIP TO 499)	LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> (GO BACK TO 405 IN NEXT COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501) (SKIP TO 499)																		
496	How many times did you breastfeed last night between sunset and sunrise? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF NIGHTTIME FEEDINGS .. <input type="text"/> <input type="text"/>																				
497	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF DAYLIGHT FEEDINGS .. <input type="text"/> <input type="text"/>																				
498	Yesterday or last night, did (NAME) drink or eat: Plain water? Baby formula or other milk? Juice, soda, tea, rice water? Any mushy or solid food?	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>WATER ..</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>MILK ...</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>JUICE/SODA</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>FOOD ...</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>				YES	NO	DK	WATER ..	1	2	8	MILK ...	1	2	8	JUICE/SODA	1	2	8	FOOD ...	1
	YES	NO	DK																			
WATER ..	1	2	8																			
MILK ...	1	2	8																			
JUICE/SODA	1	2	8																			
FOOD ...	1	2	8																			
499	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8																		
499A		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501.																		

SECTION 5. CHILD VACCINATION, HEALTH AND NUTRITION

501	ENTER IN THE TABLE THE BIRTH NUMBER, NAME, AND SURVIVAL STATUS OF EACH LIVE BIRTH IN 2001 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES).																																																																																																																																																							
502	BIRTH NUMBER FROM 212	LAST BIRTH BIRTH NUMBER <input type="text"/> <input type="text"/>	NEXT-TO-LAST BIRTH BIRTH NUMBER <input type="text"/> <input type="text"/>																																																																																																																																																					
503	FROM 212 AND 216	NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> <input type="checkbox"/> (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 601)	NAME _____ LIVING <input type="checkbox"/> DEAD <input type="checkbox"/> <input type="checkbox"/> (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 601)																																																																																																																																																					
504	Do you have a card where (NAME'S) vaccinations are written down? IF YES: May I see it please?	YES, SEEN 1 (SKIP TO 506) ← YES, NOT SEEN 2 (SKIP TO 508) ← NO CARD 3	YES, SEEN 1 (SKIP TO 506) ← YES, NOT SEEN 2 (SKIP TO 508) ← NO CARD 3																																																																																																																																																					
505	Did you ever have a vaccination card for (NAME)?	YES 1 (SKIP TO 508) ← NO 2	YES 1 (SKIP TO 508) ← NO 2																																																																																																																																																					
506	<p>(1) COPY DATE OF BIRTH IF GIVEN. IF NOT ON CARD, LEAVE IT BLANK. (2) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD. (3) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="3">LAST BIRTH</th> <th colspan="3">NEXT-TO-LAST BIRTH</th> <th colspan="3">SECOND-FROM-LAST BIRTH</th> </tr> <tr> <th>DAY</th> <th>MONTH</th> <th>YEAR</th> <th>DAY</th> <th>MONTH</th> <th>YEAR</th> <th>DAY</th> <th>MONTH</th> <th>YEAR</th> </tr> </thead> <tbody> <tr> <td>BIRTH</td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> </tr> <tr> <td>BCG</td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> </tr> <tr> <td>POLIO 0 (POLIO GIVEN AT BIRTH)</td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> </tr> <tr> <td>POLIO 1</td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> </tr> <tr> <td>POLIO 2</td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> </tr> <tr> <td>POLIO 3</td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> </tr> <tr> <td>DPT 1</td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> </tr> <tr> <td>DPT 2</td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> </tr> <tr> <td>DPT 3</td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> </tr> <tr> <td>HBV 1</td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> </tr> <tr> <td>HBV 2</td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> </tr> <tr> <td>HBV 3</td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> </tr> <tr> <td>MEASLES</td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> <td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td> </tr> </tbody> </table>				LAST BIRTH			NEXT-TO-LAST BIRTH			SECOND-FROM-LAST BIRTH			DAY	MONTH	YEAR	DAY	MONTH	YEAR	DAY	MONTH	YEAR	BIRTH	<input type="text"/>	BCG	<input type="text"/>	POLIO 0 (POLIO GIVEN AT BIRTH)	<input type="text"/>	POLIO 1	<input type="text"/>	POLIO 2	<input type="text"/>	POLIO 3	<input type="text"/>	DPT 1	<input type="text"/>	DPT 2	<input type="text"/>	DPT 3	<input type="text"/>	HBV 1	<input type="text"/>	HBV 2	<input type="text"/>	HBV 3	<input type="text"/>	MEASLES	<input type="text"/>																																																																																																								
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NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
507	Has (NAME) received any vaccinations that are not recorded on this card, including vaccinations received in a national immunization day campaign? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, POLIO 0-3, DPT 1-3, HBV, OR MEASLES VACCINES.	YES 1 (PROBE FOR ←) VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) → (SKIP TO 510) ← NO 2 (SKIP TO 510) ← DON'T KNOW 8	YES 1 (PROBE FOR ←) VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) → (SKIP TO 510) ← NO 2 (SKIP TO 510) ← DON'T KNOW 8	YES 1 (PROBE FOR ←) VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) → (SKIP TO 510) ← NO 2 (SKIP TO 510) ← DON'T KNOW 8
508	Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases, including vaccinations received in a national immunisation campaign?	YES 1 NO 2 (SKIP TO 511) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 511) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 511) ← DON'T KNOW 8
509	Please tell me if (NAME) received any of the following vaccinations:			
509A	A BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that usually causes a scar?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
509B	Polio vaccine, that is, drops in the mouth?	YES 1 NO 2 (SKIP TO 509E) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 509E) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 509E) ← DON'T KNOW 8
509C	Was the first time polio drops were received in the first 2 weeks after birth or later?	FIRST 2 WEEKS ... 1 LATER 2	FIRST 2 WEEKS ... 1 LATER 2	FIRST 2 WEEKS ... 1 LATER 2
509D	How many times was the polio vaccine received? IF 7 OR MORE TIMES RECORD 7	NUMBER OF TIMES <input type="text"/>	NUMBER OF TIMES <input type="text"/>	NUMBER OF TIMES <input type="text"/>

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
509E	A DPT vaccination, that is, an injection given in the thigh or buttocks,(sometimes at the same time as polio drops)?	YES 1 NO 2 (SKIP TO 509G) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 509G) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 509G) ← DON'T KNOW 8
509F	How many times was a DPT vaccination received?	NUMBER OF TIMES <input type="text"/>	NUMBER OF TIMES <input type="text"/>	NUMBER OF TIMES <input type="text"/>
509G	A hepatitis HBV vaccination, that is an injection given in the thigh or buttocks, sometimes at the same time as polio drops?	YES 1 NO 2 (SKIP TO 509I) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 509I) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 509I) ← DON'T KNOW 8
509H	How many times was an HBV vaccination received?	NUMBER OF TIMES <input type="text"/>	NUMBER OF TIMES <input type="text"/>	NUMBER OF TIMES <input type="text"/>
509I	An injection to prevent measles?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
510	Did (NAME) ever receive a polio vaccine (drops in the mouth) during a national immunisation day campaign? IF YES, CHECK 506 OR 509D IS 1 OR MORE.	YES 1 NO 2	YES 1 NO 2	YES 1 NO 2
511	Has (NAME) ever received a vitamin A dose like this? SHOW VIT.A CAPSULES.	YES 1 NO 2 (SKIP TO 513) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 513) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 513) ← DON'T KNOW 8
512	How many months ago did (NAME) take the last dose? PUT "00" IF LESS THAN 1 MONTH	MONTHS AGO <input type="text"/> <input type="text"/> DON'T KNOW 98	MONTHS AGO <input type="text"/> <input type="text"/> DON'T KNOW 98	MONTHS AGO <input type="text"/> <input type="text"/> DON'T KNOW 98

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
513	Has (NAME) had diarrhea in the last 2 weeks?	YES 1 NO 2 (SKIP TO 525) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 525) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 525) ← DON'T KNOW 8
514	Was there any blood in the stools?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
515	Has (NAME) had diarrhea in the <u>last 24 hours</u> ?	YES 1 NO 2 (SKIP TO 517) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 517) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 517) ← DON'T KNOW 8
516	How many times did (NAME) pass stool in the <u>last 24 hours</u> ?	NUMBER OF STOOLS .. <input type="text"/> <input type="text"/>	NUMBER OF STOOLS .. <input type="text"/> <input type="text"/>	NUMBER OF STOOLS .. <input type="text"/> <input type="text"/>
517	Now I would like to know how much (NAME) was given to drink during the diarrhea. Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE 4 NOTHING TO DRINK.. 5 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE 4 NOTHING TO DRINK.. 5 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE 4 NOTHING TO DRINK.. 5 DON'T KNOW 8
518	When (NAME) had diarrhea, was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE 4 STOPPED FOOD . . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE 4 STOPPED FOOD . . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE 4 STOPPED FOOD . . 5 NEVER GAVE FOOD 6 DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
519	Did you seek advice or treatment for the diarrhea from any source?	YES 1 NO 2 (SKIP TO 522) ←	YES 1 NO 2 (SKIP TO 522) ←	YES 1 NO 2 (SKIP TO 522) ←
520	Where did you seek advice or treatment? Anywhere else? FOR ANY HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE) _____ (NAME OF PLACE) _____ (NAME OF PLACE) PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND RECORD ALL MENTIONED.	PUBLIC SECTOR GOVT. HOSPITAL A RHC/MCH B BHU/FWC C LADY H.WORKER D OTHER PUBLIC _____ E (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC F CHEMIST G PVT. DOCTOR ... H HOMEOPATH ... I DISPENSER / COMPOUNDER .. J OTHER PRIVATE MED. _____ K (SPECIFY) OTHER SOURCE SHOP L HAKIM M DAI, TBA N OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT. HOSPITAL A RHC/MCH B BHU/FWC C LADY H.WORKER D OTHER PUBLIC _____ E (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC F CHEMIST G PVT. DOCTOR ... H HOMEOPATH ... I DISPENSER / COMPOUNDER .. J OTHER PRIVATE MED. _____ K (SPECIFY) OTHER SOURCE SHOP L HAKIM M DAI, TBA N OTHER _____ X (SPECIFY)	PUBLIC SECTOR GOVT. HOSPITAL A RHC/MCH B BHU/FWC C LADY H.WORKER D OTHER PUBLIC _____ E (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC F CHEMIST G PVT. DOCTOR ... H HOMEOPATH ... I DISPENSER / COMPOUNDER .. J OTHER PRIVATE MED. _____ K (SPECIFY) OTHER SOURCE SHOP L HAKIM M DAI, TBA N OTHER _____ X (SPECIFY)
521	How many days after the illness began did you first seek advice or treatment for (NAME) IF THE SAME DAY RECORD '00'	Days <input type="text"/> <input type="text"/>	Days <input type="text"/> <input type="text"/>	Days <input type="text"/> <input type="text"/>
522	Was he/she given any of the following to drink at any time since he/she started having the diarrhea:			
522A	A fluid made from a special packet called ORS or Nimkol?	YES NO DK FLUID FROM ORS PKT .. 1 2 8	YES NO DK FLUID FROM ORS PKT .. 1 2 8	YES NO DK FLUID FROM ORS PKT .. 1 2 8
522B	A drink made at home with sugar, salt and water?	HOMEMADE FLUID ... 1 2 8	HOMEMADE FLUID ... 1 2 8	HOMEMADE FLUID ... 1 2 8
523	Was anything (else) given to treat the diarrhea?	YES 1 NO 2 (SKIP TO 525) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 525) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 525) ← DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
524	<p>What (else) was given to treat the diarrhea?</p> <p>Anything else?</p> <p>RECORD ALL TREATMENTS GIVEN.</p>	PILLS/SYRUP A INJECTION B I V DRIP C HOME REMEDY/ HERBAL MEDICINE / ISPAGHOL D OTHER _____ X (SPECIFY)	PILLS/SYRUP A INJECTION B I V DRIP C HOME REMEDY/ HERBAL MEDICINE / ISPAGHOL D OTHER _____ X (SPECIFY)	PILLS/SYRUP A INJECTION B I V DRIP C HOME REMEDY/ HERBAL MEDICINE / ISPAGHOL D OTHER _____ X (SPECIFY)
525	<p>Has (NAME) been ill with a fever at any time in the last 2 weeks?</p>	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
526	<p>Has (NAME) had an illness with a cough at any time in the last 2 weeks?</p>	YES 1 NO 2 (SKIP TO 529) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 529) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 529) ← DON'T KNOW 8
527	<p>When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?</p>	YES 1 NO 2 (SKIP TO 530) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 530) ← DON'T KNOW 8	YES 1 NO 2 (SKIP TO 530) ← DON'T KNOW 8
528	<p>Were these breathing symptoms due to a problem in the chest or to a blocked or runny nose?</p>	CHEST ONLY ... 1 NOSE ONLY 2 BOTH 3 OTHER _____ 6 (SPECIFY) DON'T KNOW 8 (SKIP TO 530) ←	CHEST ONLY ... 1 NOSE ONLY 2 BOTH 3 OTHER _____ 6 (SPECIFY) DON'T KNOW 8 (SKIP TO 530) ←	CHEST ONLY ... 1 NOSE ONLY 2 BOTH 3 OTHER _____ 6 (SPECIFY) DON'T KNOW 8 (SKIP TO 530) ←

NO.	QUESTIONS AND FILTERS	LAST BIRTH		NEXT-TO-LAST BIRTH		SECOND-FROM-LAST BIRTH	
		NAME _____					
529	CHECK 525: HAD FEVER?	YES <input type="checkbox"/> ↓	NO OR DK <input type="checkbox"/> ↓ (GO TO 503 IN NEXT COLUMN, OR, IF NO MORE BIRTHS, TO 601)	YES <input type="checkbox"/> ↓	NO OR DK <input type="checkbox"/> ↓ (GO TO 503 IN NEXT COLUMN, OR, IF NO MORE BIRTHS, TO 601)	YES <input type="checkbox"/> ↓	NO OR DK <input type="checkbox"/> ↓ (GO TO 503 IN NEXT COLUMN, OR, IF NO MORE BIRTHS, TO 601)
530	Now I would like to know how much (NAME) was given to drink during the illness with a (fever/cough). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS 1 SOMEWHAT LESS .. 2 ABOUT THE SAME . 3 MORE 4 NOTHING TO DRINK.. 5 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS .. 2 ABOUT THE SAME . 3 MORE 4 NOTHING TO DRINK.. 5 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS .. 2 ABOUT THE SAME . 3 MORE 4 NOTHING TO DRINK.. 5 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS .. 2 ABOUT THE SAME . 3 MORE 4 NOTHING TO DRINK.. 5 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS .. 2 ABOUT THE SAME . 3 MORE 4 NOTHING TO DRINK.. 5 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS .. 2 ABOUT THE SAME . 3 MORE 4 NOTHING TO DRINK.. 5 DON'T KNOW 8
531	When (NAME) had a (fever/cough), was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS 1 SOMEWHAT LESS .. 2 ABOUT THE SAME . 3 MORE 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS .. 2 ABOUT THE SAME . 3 MORE 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS .. 2 ABOUT THE SAME . 3 MORE 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS .. 2 ABOUT THE SAME . 3 MORE 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS .. 2 ABOUT THE SAME . 3 MORE 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS .. 2 ABOUT THE SAME . 3 MORE 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8
532	Did you seek advice or treatment for the illness from any source?	YES 1 NO 2 (SKIP TO 535) →	YES 1 NO 2 (SKIP TO 535) →	YES 1 NO 2 (SKIP TO 535) →	YES 1 NO 2 (SKIP TO 535) →	YES 1 NO 2 (SKIP TO 535) →	YES 1 NO 2 (SKIP TO 535) →

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
533	<p>Where did you seek advice or treatment?</p> <p>Anywhere else?</p> <p>FOR ANY HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE.</p> <p>_____</p> <p>(NAME OF PLACE(S))</p> <p>PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND RECORD ALL MENTIONED.</p>	<p>PUBLIC SECTOR GOVT. HOSPITAL A RHC/MCH B</p> <p>BHU/FWC C LADY H.WORKER D OTHER PUBLIC _____ E (SPECIFY)</p> <p>PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC F PHARMACY G PVT. DOCTOR ... H HOMEOPATH ... I DISPENSER / COMPOUNDER ... J OTHER PRIVATE MED. _____ K (SPECIFY)</p> <p>OTHER SOURCE SHOP L HAKIM M DAI, TBA N</p> <p>OTHER _____ X (SPECIFY)</p>	<p>PUBLIC SECTOR GOVT. HOSPITAL A RHC/MCH B</p> <p>BHU/FWC C LADY H.WORKER D OTHER PUBLIC _____ E (SPECIFY)</p> <p>PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC F PHARMACY G PVT. DOCTOR ... H HOMEOPATH ... I DISPENSER / COMPOUNDER ... J OTHER PRIVATE MED. _____ K (SPECIFY)</p> <p>OTHER SOURCE SHOP L HAKIM M DAI, TBA N</p> <p>OTHER _____ X (SPECIFY)</p>	<p>PUBLIC SECTOR GOVT. HOSPITAL A RHC/MCH B</p> <p>BHU/FWC C LADY H.WORKER D OTHER PUBLIC _____ E (SPECIFY)</p> <p>PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC F PHARMACY G PVT. DOCTOR ... H HOMEOPATH ... I DISPENSER / COMPOUNDER ... J OTHER PRIVATE MED. _____ K (SPECIFY)</p> <p>OTHER SOURCE SHOP L HAKIM M DAI, TBA N</p> <p>OTHER _____ X (SPECIFY)</p>
534	<p>How many days after the illness began did you first seek advice or treatment for (NAME)?</p> <p>IF THE SAME DAY, RECORD '00'.</p>	<p>DAYS <input type="text"/> <input type="text"/></p>	<p>DAYS <input type="text"/> <input type="text"/></p>	<p>DAYS <input type="text"/> <input type="text"/></p>
535	<p>Is (NAME) still sick with a (fever/ cough)?</p>	<p>FEVER ONLY 1 COUGH ONLY ... 2 BOTH FEVER AND COUGH 3 NO, NEITHER 4 DON'T KNOW ... 8</p>	<p>FEVER ONLY 1 COUGH ONLY ... 2 BOTH FEVER AND COUGH 3 NO, NEITHER 4 DON'T KNOW ... 8</p>	<p>FEVER ONLY 1 COUGH ONLY ... 2 BOTH FEVER AND COUGH 3 NO, NEITHER 4 DON'T KNOW ... 8</p>
536	<p>At any time during the illness, did (NAME) take any medicine for the illness?</p>	<p>YES 1 NO 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, TO 601) DON'T KNOW 8</p>	<p>YES 1 NO 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, TO 601) DON'T KNOW 8</p>	<p>YES 1 NO 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, TO 601) DON'T KNOW 8</p>

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
537	<p>What medicine did (NAME) take?</p> <p>Any other medicine?</p> <p>RECORD ALL MENTIONED.</p>	<p>ANTIMALARIAL DRUGS QUININE A CHLOROQUINE . . B FANSIDAR/SP . . . C OTHER ANTI-MALARIAL _____ D (SPECIFY)</p> <p>ANTIBIOTIC PILL/SYRUP . . . E INJECTION F</p> <p>OTHER DRUGS ASPIRIN G PARACETEMOL/ CALPOL H BRUFEN I</p> <p>COUGH DRUGS PILL/SYRUP . . . J OTHER _____ X (SPECIFY)</p> <p>DON'T KNOW Z</p>	<p>ANTIMALARIAL DRUGS QUININE A CHLOROQUINE . . B FANSIDAR/SP . . . C OTHER ANTI-MALARIAL _____ D (SPECIFY)</p> <p>ANTIBIOTIC PILL/SYRUP . . . E INJECTION F</p> <p>OTHER DRUGS ASPIRIN G PARACETEMOL/ CALPOL H BRUFEN I</p> <p>COUGH DRUGS PILL/SYRUP . . . J OTHER _____ X (SPECIFY)</p> <p>DON'T KNOW Z</p>	<p>ANTIMALARIAL DRUGS QUININE A CHLOROQUINE . . B FANSIDAR/SP . . . C OTHER ANTI-MALARIAL _____ D (SPECIFY)</p> <p>ANTIBIOTIC PILL/SYRUP . . . E INJECTION F</p> <p>OTHER DRUGS ASPIRIN G PARACETEMOL/ CALPOL H BRUFEN I</p> <p>COUGH DRUGS PILL/SYRUP . . . J OTHER _____ X (SPECIFY)</p> <p>DON'T KNOW Z</p>
538	<p>Was any medicine prescribed by a doctor, nurse, pharmacist, or other health practitioner?</p>	<p>YES 1</p> <p>NO 2</p>	<p>YES 1</p> <p>NO 2</p>	<p>YES 1</p> <p>NO 2</p>
539	<p>CHECK 537:</p> <p>ANY CODE A-D CIRCLED?</p>	<p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>(GO TO 503 IN NEXT COLUMN, OR, IF NO MORE BIRTHS, TO 601)</p>	<p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>(GO TO 503 IN NEXT COLUMN, OR, IF NO MORE BIRTHS, TO 601)</p>	<p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>(GO TO 503 IN NEXT COLUMN, OR, IF NO MORE BIRTHS, TO 601)</p>
540	<p>How long after the fever started did (NAME) first take the medicine?</p>	<p>SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE DAYS AFTER FEVER 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW 8</p>	<p>SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE DAYS AFTER FEVER 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW 8</p>	<p>SAME DAY 0 NEXT DAY 1 TWO DAYS AFTER FEVER 2 THREE DAYS AFTER FEVER 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW 8</p>
541	<p>For how many days did (NAME) take the medicine?</p> <p>IF 7 DAYS OR MORE, RECORD 7.</p>	<p>DAYS <input type="checkbox"/></p> <p>DON'T KNOW 8</p>	<p>DAYS <input type="checkbox"/></p> <p>DON'T KNOW 8</p>	<p>DAYS <input type="checkbox"/></p> <p>DON'T KNOW 8</p>
542		<p>GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 601.</p>	<p>GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 601.</p>	<p>GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 601.</p>

SECTION 6. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	CHECK 104: CURRENTLY MARRIED <input type="checkbox"/> WIDOWED, DIVORCED, SEPARATED <input type="checkbox"/>		612
602	CHECK 310: NEITHER STERILISED <input type="checkbox"/> HE OR SHE STERILISED <input type="checkbox"/>		612
602	CHECK 104: CURRENTLY MARRIED <input type="checkbox"/> WIDOWED, DIVORCED, SEPARATED <input type="checkbox"/>		612
603	CHECK 226: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/> Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD 1 NO MORE/NONE 2 SAYS SHE CAN'T GET PREGNANT .. 3 UNDECIDED/DON'T KNOW AND PREGNANT 4 UNDECIDED/DON'T KNOW AND NOT PREGNANT 5	605 612 610 609
604	CHECK 226: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/> How long would you like to wait from now before the birth of (a/another) child? After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS 1 YEARS 2 SOON/NOW 993 SAYS SHE CAN'T GET PREGNANT .. 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	609 612 609 609
605	CHECK 226: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/>		610
606	CHECK 309: NOT ASKED <input type="checkbox"/> NOT CURRENTLY USING <input type="checkbox"/> CURRENTLY USING <input type="checkbox"/>		612
607	CHECK 604: NOT ASKED <input type="checkbox"/> 24 OR MORE MONTHS OR 02 OR MORE YEARS <input type="checkbox"/> 00-23 MONTHS OR 00-01 YEAR <input type="checkbox"/>		610

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
608	<p>CHECK 603:</p> <p>WANTS TO HAVE A/ANOTHER CHILD (CODE 1) <input type="checkbox"/> ↓</p> <p>WANTS NO MORE/NONE (CODE 2) <input type="checkbox"/> ↓</p> <p>You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy.</p> <p>You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy.</p> <p>Can you tell me why you are not using a method? <input type="checkbox"/></p> <p>Can you tell me why you are not using a method? <input type="checkbox"/></p> <p>Any other reason? <input type="checkbox"/></p> <p>Any other reason? <input type="checkbox"/></p> <p>RECORD ALL REASONS MENTIONED.</p>	<p>FERTILITY-RELATED REASONS</p> <p>INFREQUENT SEX/NO SEX A</p> <p>MENOPAUSAL/HYSTERECTOMY B</p> <p>INFERTILE/CAN'T GET PREGNANT C</p> <p>NO MENSTRUATION AFTER BIRTH D</p> <p>BREASTFEEDING E</p> <p>UP TO GOD, CAN'T CONTROL F</p> <p>OPPOSITION TO USE</p> <p>RESPONDENT OPPOSED G</p> <p>HUSBAND OPPOSED H</p> <p>OTHERS OPPOSED I</p> <p>AGAINST RELIGION J</p> <p>LACK OF KNOWLEDGE</p> <p>KNOWS NO METHOD K</p> <p>KNOWS NO SOURCE L</p> <p>METHOD-RELATED REASONS</p> <p>HEALTH CONCERNS M</p> <p>FEAR OF SIDE EFFECTS N</p> <p>LACK OF ACCESS/TOO FAR O</p> <p>COSTS TOO MUCH P</p> <p>INCONVENIENT TO USE Q</p> <p>INTERFERES WITH BODY'S NORMAL PROCESSES R</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p> <p>DON'T KNOW Z</p>	
609	<p>CHECK 309:</p> <p>NOT ASKED <input type="checkbox"/> ↓</p> <p>NO, NOT CURRENTLY USING <input type="checkbox"/> ↓</p> <p>YES, CURRENTLY USING <input type="checkbox"/> → 612</p>		
610	<p>Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	→ 612
611	<p>What is the main reason that you think you will not use a contraceptive method at any time in the future?</p>	<p>FERTILITY-RELATED REASONS</p> <p>INFREQUENT SEX/NO SEX 11</p> <p>MENOPAUSAL/HYSTERECTOMY 12</p> <p>INFERTILE/CAN'T GET PREGNANT 13</p> <p>NO MENSTRUATION AFTER BIRTH 14</p> <p>BREASTFEEDING 15</p> <p>UP TO GOD, CAN'T CONTROL 16</p> <p>OPPOSITION TO USE</p> <p>RESPONDENT OPPOSED 21</p> <p>HUSBAND OPPOSED 22</p> <p>OTHERS OPPOSED 23</p> <p>AGAINST RELIGION 24</p> <p>LACK OF KNOWLEDGE</p> <p>KNOWS NO METHOD 31</p> <p>KNOWS NO SOURCE 32</p> <p>METHOD-RELATED REASONS</p> <p>HEALTH CONCERNS 41</p> <p>FEAR OF SIDE EFFECTS 42</p> <p>LACK OF ACCESS/TOO FAR 43</p> <p>COSTS TOO MUCH 44</p> <p>INCONVENIENT TO USE 45</p> <p>INTERFERES WITH BODY'S NORMAL PROCESSES 46</p> <p>OTHER _____ 96</p> <p>DON'T KNOW 98</p>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																		
612	<p>CHECK 216:</p> <p>HAS LIVING CHILDREN <input type="checkbox"/> NO LIVING CHILDREN <input type="checkbox"/></p> <p>If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?</p> <p>If you could choose exactly the number of children to have in your whole life, how many would that be?</p> <p>PROBE FOR A NUMERIC RESPONSE.</p>	<p>NONE 00</p> <p>NUMBER <input type="text"/> <input type="text"/></p> <p>OTHER _____ 96 (SPECIFY)</p>	<p>→ 614</p> <p>→ 614</p>																		
613	<p>How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?</p>	<p>BOYS GIRLS EITHER</p> <p>NUMBER <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>OTHER _____ 96 (SPECIFY)</p>																			
614	<p>CHECK 104:</p> <p>CURRENTLY MARRIED <input type="checkbox"/></p>	<p>WIDOWED, DIVORCED, SEPARATED <input type="checkbox"/></p>	<p>→ 617</p>																		
615	<p>CHECK 310:</p> <p>NEITHER STERILISED <input type="checkbox"/></p>	<p>HE OR SHE STERILISED <input type="checkbox"/></p>	<p>→ 617</p>																		
616	<p>Do you think your husband wants the same number of children that you want, or does he want more or fewer than you want?</p>	<p>SAME NUMBER 1</p> <p>MORE CHILDREN 2</p> <p>FEWER CHILDREN 3</p> <p>DON'T KNOW 8</p>																			
617	<p>PRESENCE OF OTHERS AT THIS POINT.</p>	<table border="0"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>CHILDREN UNDER 10</td> <td>1</td> <td>2</td> </tr> <tr> <td>HUSBAND</td> <td>1</td> <td>2</td> </tr> <tr> <td>MOTHER IN LAW</td> <td>1</td> <td>2</td> </tr> <tr> <td>OTHER MALE(S)</td> <td>1</td> <td>2</td> </tr> <tr> <td>OTHER FEMALE(S)</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		YES	NO	CHILDREN UNDER 10	1	2	HUSBAND	1	2	MOTHER IN LAW	1	2	OTHER MALE(S)	1	2	OTHER FEMALE(S)	1	2	
	YES	NO																			
CHILDREN UNDER 10	1	2																			
HUSBAND	1	2																			
MOTHER IN LAW	1	2																			
OTHER MALE(S)	1	2																			
OTHER FEMALE(S)	1	2																			

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

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	<p>CHECK 104:</p> <p>CURRENTLY MARRIED <input type="checkbox"/> ↓</p> <p>WIDOWED, DIVORCED, SEPARATED <input type="checkbox"/> →</p>		→ 703
702	How old is your husband?	AGE IN COMPLETED YEARS <input type="text"/> <input type="text"/>	
703	Did your (last) husband ever attend school?	YES 1 NO 2	→ 705
704	What was the highest class he completed? WRITE '00' IF LESS THAN CLASS ONE; WRITE '16' = IF MA,MPHIL,PHD, MBBS, BSC(4 YEARS)	CLASS <input type="text"/> <input type="text"/> DON'T KNOW 98	
705	<p>CHECK 701:</p> <p>CURRENTLY MARRIED <input type="checkbox"/> ↓ WIDOWED, DIVORCED OR SEPARATED <input type="checkbox"/> ↓</p> <p>What is your husband's occupation? What was your (last) husband's occupation? That is, what kind of work does he mainly do? That is, what kind of work did he mainly do?</p>	<p>_____ <input type="text"/> <input type="text"/></p> <p>_____</p> <p>_____</p>	
706	Aside from your own housework, have you done any work in the last seven days?	YES 1 NO 2	→ 709
707	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?	YES 1 NO 2	→ 709
708	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave or any other such reason?	YES 1 NO 2	→ 710
709	Do you receive money for the work you do?	YES 1 NO 2	→ 712
710	If you could find a suitable job, would you like to work?	YES 1 NO 2	
711	Have you done any work in the last 12 months?	YES 1 NO 2	→ 713

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
712	What is your occupation, that is, what kind of work do you mainly do?	<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: inline-block; border: 1px solid black; width: 20px; height: 15px; vertical-align: middle;"></div> <div style="display: inline-block; border: 1px solid black; width: 20px; height: 15px; vertical-align: middle; margin-left: 5px;"></div> <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="border-bottom: 1px solid black; width: 100%;"></div>	
713	Did you work at any time before you (first) got married?	YES 1 NO 2	
714	Did you work after you (first) got married?	YES 1 NO 2	

SECTION 8. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES 1 NO 2	→ 814
802	Can people reduce their chance of getting the AIDS virus by staying faithful to just one partner?	YES 1 NO 2 DON'T KNOW 8	
803	Can people get the AIDS virus from mosquito bites?	YES 1 NO 2 DON'T KNOW 8	
804	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES 1 NO 2 DON'T KNOW 8	
805	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES 1 NO 2 DON'T KNOW 8	
806	Can people reduce their chance of getting the AIDS virus by not having sexual intercourse at all?	YES 1 NO 2 DON'T KNOW 8	
807	Can people get the AIDS virus because of witchcraft or other supernatural means?	YES 1 NO 2 DON'T KNOW 8	
808	Is it possible for a healthy-looking person to have the AIDS virus?	YES 1 NO 2 DON'T KNOW 8	
809	Do you know someone personally who has the virus that causes AIDS or someone who died from AIDS?	YES 1 NO 2	
810	Can the virus that causes AIDS be transmitted from a mother to a child: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREGNANCY? .. 1 2 8 DURING DELIVERY? 1 2 8 BY BREASTFEEDING? 1 2 8	
811	Have you ever talked about ways to prevent getting the virus that causes AIDS with your (former) husband?	YES 1 NO 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
812	God forbid If a member of your family got infected with the virus that causes AIDS, would you want it to remain a secret or not?	YES, REMAIN A SECRET 1 NO 2 DON'T KNOW / NOT SURE 8	
813	God forbid If a relative of yours became sick with the virus that causes AIDS, would you be willing to care for her or him in your own household?	YES 1 NO 2 DON'T KNOW / NOT SURE 8	
814	Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact?	YES 1 NO 2	→ 901
815	Could you kindly tell me some signs of these infections that you know about? RECORD ALL MENTIONED.	WOUND WITHOUT PAIN A WOUND WITH PAIN B WOUND, PAIN WITH LOTS C OF PIMPLES PUS LIKE DISCHARGE D DARK PUS LIKE DISCHARGE E SOUR MILK LIKE THICK F DISCHARGE SPONGE LIKE DISCHARGE G DISCHARGE WITH BAD H ODOUR/DIRTY WATER OTHER-1 _____ X (SPECIFY) OTHER-2 _____ Y (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
911	<p>Now I would like to ask you some questions relating to other health matters. Have you had an injection for any reason in the <u>last 12 months</u>?</p> <p>IF YES: How many injections have you had?</p> <p>IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.</p>	<p>NUMBER OF INJECTIONS ... <input type="text"/> <input type="text"/></p> <p>NONE 00 → 915</p>	
912	<p>Among these injections, how many were given by a doctor, nurse, pharmacist, dentist, LHV or any other health worker?</p> <p>IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.</p>	<p>NUMBER OF INJECTIONS ... <input type="text"/> <input type="text"/></p> <p>NONE 00 → 915</p>	
913	<p>The last time you had an injection from where did you obtain the syringe?</p> <p>IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE SOURCE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF SYRINGE WAS PURCHASED FROM A CHEMIST CODE "23".</p> <p>_____</p> <p>(NAME OF PLACE)</p>	<p>PUBLIC SECTOR</p> <p>GOVT. HOSPITAL/RHSC 11</p> <p>RHC/MCH 12</p> <p>BHU/FWC 13</p> <p>MOBILE SERVICE CAMP 14</p> <p>LADY HEALTH WORKER (LHW)</p> <p>HEALTH HOUSE 15</p> <p>OTHER PUBLIC _____ 16</p> <p>(SPECIFY)</p> <p>PRIVATE MED. SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR 21</p> <p>DENTAL CLINIC/OFFICE 22</p> <p>CHEMIST... 23</p> <p>OFFICE OR HOME OF NURSE/ HEALTH WORKER 24</p> <p>DISPENSER / COMPOUNDER 25</p> <p>OTHER PRIVATE MEDICAL _____ 26</p> <p>(SPECIFY)</p> <p>OTHER PLACE AT HOME 31</p> <p>OTHER _____ 96</p> <p>(SPECIFY)</p>	
914	<p>Did the person who gave you that injection take the syringe and needle from a new, unopened package?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
915	Do you think that one can protect herself/himself from getting Hepatitis B,C, and HIV AIDS if:										
915A	A syringe and needle from a new unopened packet is used while giving an injection?	YES 1 NO 2 DON'T KNOW 8									
915B	If need be , blood tested for Hepatitis B,C and HIV AIDS virus is transfused?	YES 1 NO 2 DON'T KNOW 8									
916	RECORD THE TIME.	HOUR <table border="1"> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </table> MINUTES <table border="1"> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </table>									

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____

NATIONAL INSTITUTE OF POPULATION STUDIES
PAKISTAN DEMOGRAPHIC AND HEALTH SURVEY

DECEASED CHILD'S IDENTIFICATION

IDENTIFICATION													
PROVINCE (PUNJAB=1; SINDH=2; NWFP=3; BALOCHISTAN=4; FATA=5) _____ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>												
DISTRICT _____ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>												
TEHSIL/TALUKA _____													
CLUSTER NUMBER <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>												
HOUSEHOLD NUMBER <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>												
NAME OF HOUSEHOLD HEAD _____													
NAME OF CHILD WHO DIED _____ (IF NO NAME GIVEN OR STILL BIRTH WRITE BABY)	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>												
INTERVIEWER VISITS													
	1	2	3	FINAL VISIT									
DATE	_____	_____	_____	DAY _____									
				MONTH _____									
				YEAR <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px; text-align: center;">2</td><td style="width: 20px; height: 20px; text-align: center;">0</td><td style="width: 20px; height: 20px; text-align: center;">0</td></tr></table>	2	0	0						
2	0	0											
INTERVIEWER'S NAME	_____	_____	_____	INT. NUMBER <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>									
RESULT*	_____	_____	_____	RESULT _____									
NEXT VISIT: DATE TIME	_____ _____	_____ _____		TOTAL NUMBER OF VISITS <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td></tr></table>									
*RESULT CODES: 1 COMPLETED 4 REFUSED 2 NOT AT HOME 5 PARTLY COMPLETED 7 OTHER _____ 3 POSTPONED 6 INCAPACITATED (SPECIFY)													
LANGUAGE OF QUESTIONNAIRE: URDU													
SUPERVISOR NAME _____ DATE _____ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>				FIELD EDITOR NAME _____ DATE _____ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>				OFFICE EDITOR <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>			KEYED BY <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>		
Introduction and Consent													
Assalamo Alaikum. My name is _____ and I am working with (NIPS, Islamabad). We are conducting a national survey about various he issues. We would very much appreciate your participation in this survey. As part of this survey, we are interested in the illness that le death. All of the answers you give will be confidential. Participation in the survey is completely voluntary. If I ask any question you do not to answer just let me know and I will go to the next question; or you can stop the interview at any time. However, we hope you will particip the survey since your views are important													
At this time, do you want to ask me anything about the survey? May I begin the interview now?													
Signature of interviewer: _____ Date: _____													
RESPONDENT AGREES TO BE INTERVIEWED 1 RESPONDENT DOES NOT AGREE TO BE INTERVIEWED 2 → END													

SECTION 1. INFORMATION ABOUT RESPONDENTS

INTERVIEWER: ASK TO TALK TO THOSE WHO KNOW THE MOST ABOUT THE CHILD'S LAST ILLNESS AND DEATH, IF A NEIGHBOR, FRIEND, OR DAI WAS PRESENT DURING HIS/HER ILLNESS OR DEATH, ASK THEM TO COME AND JOIN IN FOR INTERVIEW GET ALL THE RESPONDENTS TOGETHER FOR THE INTERVIEW AND FILL THE TABLE BELOW.

First, I have a few questions about each of you. Please tell me:

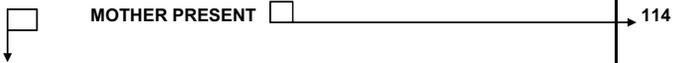
101 NO.	102 What is your name?	103 Sex of respondent ?	104 How old are you? COMPLETED YEARS	105 What was your relationship to (NAME) i.e deceased child? RELATION	106 What is your education? SEE CODES BELOW (CLASSES PASSED)	107 Were you present at the delivery of (NAME)?	108 Were you present when (NAME) was ill?	109 Were you present when (NAME) died?	110 CIRCLE LINE NO. OF MAIN RESPONDENT
1		MALE. ... 1 FEMALE . 2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	YES .. 1 NO ... 2	YES 1 NO 2	YES .. 1 NO ... 2	1
2		MALE. ... 1 FEMALE . 2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	YES .. 1 NO ... 2	YES 1 NO 2	YES .. 1 NO ... 2	2
3		MALE. ... 1 FEMALE . 2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	YES .. 1 NO ... 2	YES 1 NO 2	YES .. 1 NO ... 2	3
4		MALE. ... 1 FEMALE . 2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	YES .. 1 NO ... 2	YES 1 NO 2	YES .. 1 NO ... 2	4
5		MALE. ... 1 FEMALE . 2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	YES .. 1 NO ... 2	YES 1 NO 2	YES .. 1 NO ... 2	5
6		MALE. ... 1 FEMALE . 2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	YES .. 1 NO ... 2	YES 1 NO 2	YES .. 1 NO ... 2	6

RELATIONSHIP TO DECEASED CHILD:

- 01 = PARENT
- 02 = BROTHER / SISTER
- 03 = GRAND PARENTS
- 04 = GRAND MATERNAL PARENTS
- 05 = ANTS / UNCLE
- 06 = OTHERRELATIVE
- 07 = STEP PARENTS
- 08 = NOT RELATED
- 09 = DOMESTIC SERVANT

EDUCATION CLASS:

- 00 = LESS THAN 1 YEAR COMPLETED
- 01 = CLASS 1;
- 02 = CLASS 2
- ...
- 10 = MATRIC, CLASS 10
- 11 = CLASS 11
- ...
- 16 = MASTER'S DEGREE OR MBBS, PhD, MPhil, BSc (4 YEARS)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
111	RECORD THE TIME AT BEGINNING OF INTERVIEW	HOUR <input type="text"/> <input type="text"/> MINUTES <input type="text"/> <input type="text"/>	
112	CHECK 105: MOTHER NOT PRESENT <input type="checkbox"/> MOTHER PRESENT <input type="checkbox"/>		114
113	Is (NAME)'s mother still alive? IF YES: Where is she living now?	ALIVE AND IN THE HOUSEHOLD 1 ALIVE BUT LIVING ELSEWHERE . 2 DEAD 3	
114	Name of the mother of deceased child: _____ (WRITE THE LINE NO. OF THE MOTHER FROM HOUSEHOLD SCHEDULE OR '00' IF NOT IN THE HOUSEHOLD)	LINE NUMBER <input type="text"/> <input type="text"/>	
115	Name of the father of deceased child: _____ (WRITE THE LINE NO. OF THE FATHER FROM HOUSEHOLD SCHEDULE OR '00' IF NOT IN THE HOUSEHOLD)	LINE NUMBER <input type="text"/> <input type="text"/>	
116	In what month and year did you/mother was born?	MONTH <input type="text"/> <input type="text"/> DON'T KNOW 98 YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 9998	
117	In what month and year did you/mother start living with your/her (first) husband?	MONTH <input type="text"/> <input type="text"/> DON'T KNOW 98 YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 9998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
118	How many times have you/mother been pregnant ?	TIMES <input type="text"/> <input type="text"/> DON'T KNOW 98	
119	What was the date of delivery or birth of the deceased child?	DAY <input type="text"/> <input type="text"/> MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 9998	
120	Was the child born alive or dead ?	ALIVE 1 DEAD 2	→ 124
121	Did the baby ever cry, even a little ?	YES 1 NO 2 DON'T KNOW 8	→ 124
122	Did the baby ever show movement, even a little bit ?	YES 1 NO 2 DON'T KNOW 8	→ 124
123	Did the baby ever breathe, even for a short while ?	YES 1 NO 2 DON'T KNOW 8	
124	When did (NAME) die ? IF NOT IN THE YEARS 2005 OR 2006, END INTERVIEW. CHANGE DATE ON THE HOUSEHOLD QUESTIONNAIRE	DAY <input type="text"/> <input type="text"/> MONTH <input type="text"/> <input type="text"/> YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	→ H101
125	How old was (NAME) when he/she died ? IF < 1 HOUR, WRITE MINUTES IF < 1 DAY, WRITE HOURS IF < 1 MONTH, WRITE DAYS IF < 2 YEARS, WRITE MONTHS IF > = 2 YEARS, WRITE YEARS	STILLBIRTH 000 MINUTES 1 <input type="text"/> <input type="text"/> HOURS 2 <input type="text"/> <input type="text"/> DAY 3 <input type="text"/> <input type="text"/> MONTH 4 <input type="text"/> <input type="text"/> YEAR 5 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
126	Was (NAME) a boy or girl ?	BOY 1 GIRL 2 UNCERTAIN 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
204	What were the complications that occurred to the baby, during the illness that led to death?	<p>COMPLICATIONS YES NO DK</p> <p>BABY WAS VERY SMALL 1 2 8</p> <p>PREMATURE (BABY WAS BORN BEFORE 38 WEEKS OF GESTATIONAL AGE) ... 1 2 8</p> <p>BRUISES OR MARKS OF INJURY ON HEAD/BODY 1 2 8</p> <p>HAD A PHYSICAL MALFORMATION 1 2 8</p> <p>DID NOT HAVE STRONG SUCK 1 2 8</p> <p>COULD NOT GET FEED . 1 2 8</p> <p>HAD A STRONG SUCK, BUT THEN STOPPED SUCKING WELL 1 2 8</p> <p>DID NOT HAVE STRONG CRY 1 2 8</p> <p>HAD A STRONG CRY BUT THEN STOPPED CRYING 1 2 8</p> <p>HAD A SPASM OR CONVULSION 1 2 8</p> <p>HAD TETANUS 1 2 8</p> <p>AREAS OF SKIN THAT WERE RED AND HOT ... 1 2 8</p> <p>HAD A BULGING FONTANEL 1 2 8</p> <p>BECOME UNRESPONSIVE/ UNCONSCIOUS..... 1 2 8</p> <p>HANDS OR FEET WERE COLD 1 2 8</p> <p>HAD FEVER 1 2 8</p> <p>HAD REDNESS OR DRAINAGE FROM UMBILICAL STUMP ... 1 2 8</p> <p>BABY WAS VERY PALE . 1 2 8</p> <p>HAD YELLOW EYES AND BODY 1 2 8</p> <p>HAD CYANOSIS (BLUE COLOR) 1 2 8</p> <p>HAD DIFFICULTY BREATHING 1 2 8</p> <p>BABY WAS NOT ABLE TO BREATHE 1 2 8</p> <p>HAD CHEST IN-DRAWING 1 2 8 WAS BREATHING VERY FAST 1 2 8</p> <p>COUGH 1 2 8</p> <p>HAD PERSISTENT VOMITING..... 1 2 8</p> <p>FREQUENT, LIQUID OR WATERY STOOLS ... 1 2 8</p> <p>ABDOMINAL DISTENSION 1 2 8</p> <p>OTHER _____ 1 2 8 (SPECIFY)</p>	

SECTION 3. DETAILS OF THE LAST (DECEASED CHILD) PREGNANCY LABOUR AND DELIVERY
(FOR ALL DEATHS)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																																
301	<p>Did any of illness (problem) occur to the child's mother during pregnancy ?</p> <p align="center">(CIRCLE ALL MENTIONED)</p> <p align="center">* (GESTATIONAL AGE) IN MONTHS WHEN DISEASE STARTED)</p>	<table border="1"> <thead> <tr> <th></th> <th>Duration of illness (Weeks)</th> <th>Stage of pregnancy *</th> </tr> </thead> <tbody> <tr> <td>BLEEDING FROM THE VAGINA A</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>SMELLY OR EXCESSIVE VAGINAL DISCHARGE B</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>SEVERE OR PERSISTENT ABDOMINAL OR BACK PAIN THAT WAS NOT LABOUR PAIN C</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>HAND OR FACE SWELLING OR RAPID LEG SWELLING D</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>BLURRING OF VISION AND SEVERE HEADACHE E</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>CONVULSIONS F</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>HIGH BLOOD PRESSURE G</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>LESS BLOOD OR WAS ANEMIC H</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>MALARIA I</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>DIABETES J</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>JAUNDICE K</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>POSITIVE HIV TEST L</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>OTHER _____ X</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td align="center">(SPECIFY)</td> <td></td> <td></td> </tr> <tr> <td>DON'T KNOW Z</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>		Duration of illness (Weeks)	Stage of pregnancy *	BLEEDING FROM THE VAGINA A	<input type="checkbox"/>	<input type="checkbox"/>	SMELLY OR EXCESSIVE VAGINAL DISCHARGE B	<input type="checkbox"/>	<input type="checkbox"/>	SEVERE OR PERSISTENT ABDOMINAL OR BACK PAIN THAT WAS NOT LABOUR PAIN C	<input type="checkbox"/>	<input type="checkbox"/>	HAND OR FACE SWELLING OR RAPID LEG SWELLING D	<input type="checkbox"/>	<input type="checkbox"/>	BLURRING OF VISION AND SEVERE HEADACHE E	<input type="checkbox"/>	<input type="checkbox"/>	CONVULSIONS F	<input type="checkbox"/>	<input type="checkbox"/>	HIGH BLOOD PRESSURE G	<input type="checkbox"/>	<input type="checkbox"/>	LESS BLOOD OR WAS ANEMIC H	<input type="checkbox"/>	<input type="checkbox"/>	MALARIA I	<input type="checkbox"/>	<input type="checkbox"/>	DIABETES J	<input type="checkbox"/>	<input type="checkbox"/>	JAUNDICE K	<input type="checkbox"/>	<input type="checkbox"/>	POSITIVE HIV TEST L	<input type="checkbox"/>	<input type="checkbox"/>	OTHER _____ X	<input type="checkbox"/>	<input type="checkbox"/>	(SPECIFY)			DON'T KNOW Z	<input type="checkbox"/>	<input type="checkbox"/>	
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(SPECIFY)																																																			
DON'T KNOW Z	<input type="checkbox"/>	<input type="checkbox"/>																																																	
302	<p>CHECK 301:</p> <p>AT LEAST ONE ILLNESS <input type="checkbox"/> NOT A SINGLE ILLNESS <input type="checkbox"/></p>		<p align="right">→ 305</p>																																																
303	<p>In case of illness or problem, was health care sought from a health care provider/ facility for any illness (problem)?</p>	<p>YES 1</p> <p>NO 2</p>	<p align="right">→ 305</p>																																																
304	<p>From where the care was sought ?</p> <p align="center">CIRCLE ALL MENTIONED</p>	<p>GOVERNMENT SECTOR</p> <p>GOVT. DHQ/THQ/CIVIL HOSPITAL. A</p> <p>RURAL HEALTH CENTER B</p> <p>BASIC HEALTH UNIT C</p> <p>DISPENSARY D</p> <p>LADY HEALTH WORKER E</p> <p>OTHER GOV'T _____ F</p> <p align="center">(SPECIFY)</p> <p>PRIVATE SECTOR</p> <p>HOSPITAL /NURSING HOME G</p> <p>LADY HEALTH VISITER H</p> <p>MIDWIFE I</p> <p>COMPOUNDER/ DISPENSEL J</p> <p>DAI K</p> <p>HAKEEM/ HOMEOPATH L</p> <p>OTHER PRIVATE _____ M</p> <p align="center">(SPECIFY)</p>																																																	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
305	Did you/ mother have vaginal bleeding before delivery for any previous pregnancy (APH)?	YES 1 NO 2	→ 308
306	Was healthcare sought during this problem?	YES 1 NO 2	→ 308
307	From where did you/ mother seek care CIRCLE ALL MENTIONED	GOVERNMENT SECTOR GOVT. DHQ/THQ/CIVIL HOSPITAL A RURAL HEALTH CENTER..... B BASIC HEALTH UNIT C DISPENSARY D LADY HEALTH WORKER E OTHER GOV'T F (SPECIFY) PRIVATE SECTOR HOSPITAL /NURSING HOME..... G LADY HEALTH VISITER H MIDWIFE I COMPOUNDER/ DISPENSEL..... J DAI K HAKEEM/ HOMEOPATH L OTHER PRIVATE X (SPECIFY)	
308	Was this child a single or multiple birth ?	SINGLE BIRTH 1 FIRST OF TWINS 2 SECOND OF TWINS 3 OTHERS 4 (SPECIFY) DON'T KNOW 8	
309	Was he/ she born after full term or pre-term or after term ?	FULL TERM 1 PRE-TERM 2 AFTER-TERM 3 DON'T KNOW 8	
310	How many months of pregnancy were completed ?	MONTHS <input type="text"/> <input type="text"/>	
311	Where was he/she born ?	AT HOME 1 GOVT. HEALTH FACILITY 2 PRIVATE HEALTH FACILITY ... 3 ON THE WAY TO HEALTH FACILITY 4 OTHER GOV'T 5 (SPECIFY)	
312	Who attended the delivery ? (CIRCLE ALL MENTIONED)	DOCTOR A MIDWIFE / NURSE / LHV B TRAINED TBA C DAI D LADY HEALTH WORKER E HOMEOPATH F HAKEEM G FAMILY ELDER WOMAN H HERSELF I OTHERS X (SPECIFY) NO ONE Y	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
313	How long did the labor take, from the time contractions began and before the baby came out ? IF < 1 HOUR WRITE '00'	HOURS <input type="text"/> <input type="text"/> DON'T KNOW 98	
314	Was any intervention or procedure done during the labor / delivery ?	YES 1 NO 2	→ 316
315	Which types of interventions or procedure were done ? (CIRCLE ALL MENTIONED)	MANIPULATION WITH HANDS ... A AUGMENTATION B FORCEP ASSISTED C VACUUM D C-SECTION E DON'T KNOW Z	
316	How much time did the delivery take ? IF < 1 HOUR WRITE MINUTES IF ≥ 1 HOUR WRITE HOURS	MINUTES 1 <input type="text"/> <input type="text"/> HOURS 2 <input type="text"/> <input type="text"/> DON'T KNOW 998	
317	CHECK 126: LIVE BIRTH <input type="checkbox"/> STILL BIRTH <input type="checkbox"/>		→ 321
318	What was the weight of the baby at birth ?	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Kg. Gm. DON'T KNOW 98 998	→ 320
319	What was the size of the baby at birth ? (SHOW PHOTOS AND RECORD ITS NUMBER)	PHOTO NO. <input type="text"/>	
320	Did child receive any vaccinations to prevent him/ her from getting diseases, including vaccinations received in a national immunization campaign ?	VACCINATION YES NO DK BCG 1 2 8 POLIO 0 1 2 8 POLIO 1 1 2 8 POLIO 2 1 2 8 POLIO 3 1 2 8 DPT 1 1 2 8 DPT 2 1 2 8 DPT 3 1 2 8 HBV 1 1 2 8 HBV 2 1 2 8 HBV 3 1 2 8 MEASLES 1 2 8	
321	During this pregnancy, were you/mother given an injection in the buttocks or arm to prevent you/mother and the baby from getting tetanus ?	YES 1 NO 2 DON'T KNOW 8	→ 323
322	How many times did you/ mother get this tetanus injection ?	NO. OF DOSES <input type="text"/> DON'T KNOW 98	
323	CHECK 124: CHILD WAS BORN DEAD CHILD HAD DIED AT AGE LESS THAN 28 DAYS CHILD HAD DIED AFTER 28 COMPLETED DAYS OF BIRTH	STILL BIRTH 1 NEONATAL DEATH 2 POST NEONATAL & CHILD DEATH 3	→ 401 → 501

SECTION 4. STILL BIRTH (BORN DEAD)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP						
401	Was the baby moving in the last few days before the delivery?	YES 1 NO 2 DON'T KNOW 8							
402	When did you/ mother last feel the movements of the baby before the delivery ? IF < 1 HOUR WRITE MINUTES IF < 1 DAY WRITE HOURS IF > = 1 DAY WRITE DAYS	MINUTES 1 HOURS 2 DAYS 3 DON'T KNOW 998	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>						
403	Was you/ mother having excess fluid in the womb (Ployhydramnios) ?	YES 1 NO 2 DON'T KNOW 8							
404	What was the color of liquor (water) during delivery ?	GREENISH 1 BROWNISH 2 NORMAL 3 DON'T KNOW 8							
405	Was the liquor foul smelling ?	YES 1 NO 2 DON'T KNOW 8							
406	Which part of the baby came out first	HEAD 1 BOTTOM 2 FEET 3 HANDS AND ARMS 4 C-SECTION 5 DON'T KNOW 8							
407	Was the cord around the neck of the dead baby ?	YES 1 NO 2 DON'T KNOW 8							
408	Was there any gross physical deformity in the dead baby ?	YES 1 NO 2 DON'T KNOW 8							
409	Was the head not properly formed or skull vault and forebrain absent at the time to birth (Anencephaly) ? (SHOW PHOTO)	YES 1 NO 2 DON'T KNOW 8							
410	Was there a mass or defect on the back (Meningomyelocele) ? (SHOW PHOTO)	YES 1 NO 2 DON'T KNOW 8							
411	Was there any cleft lip or cleft palate in the dead baby ? (SHOW PHOTO)	YES 1 NO 2 DON'T KNOW 8							
412	Was dead baby macerated (skin and tissue was pulpy)? (SHOW PHOTO)	YES 1 NO 2 DON'T KNOW 8	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> → H101						

SECTION 5. DEATH FROM INJURY OR ACCIDENT
 (For Neonatal, Post Neonatal child deaths)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	Did he/she die from an injury or accident ?	YES 1 NO 2	→ 503
502	IF YES: What kind of injury or accident ?	ROAD TRAFFICE ACCIDENT 01 FALL DOWN 02 SOMETHING FELL ON THE CHILD ... 03 BURN 04 DROWNING 05 POISONING 06 BITE/STING 07 NATURAL DISASTER 08 HOMICIDE/ ASSAULT 09 OTHERS 10 (SPECIFY) DON'T KNOW 98	→ H101
503	CHECK 126: CIRCLE THE APPROPRIATE CODE FOR TYPE OF DEATH.	NEONATAL DEATH 1 POST NEONATAL DEATH 2	→ 601 → 701

SECTION 6. NEONATAL DEATHS (INFANT DIED WITH IN 28 DAYS AFTER BIRTH)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Did the water bag rupture before or after start of labor pains or water bag never broke ?	BEFORE 1 AFTER 2 WATER BAG NEVER BROKE 3 DON'T KNOW 8	→ 603
602	How much time before labor started did the water bag rupture ? IF < 1 DAY WRITE HOURS IF >= 1 DAY WRITE DAYS	HOURS 1 DAYS 2 DON'T KNOW 998	
603	What was the color of liquor (amniotic fluid) ?	GREENISH 1 BROWNISH 2 NORMAL 3 DON'T KNOW 8	
604	What was the color of child at birth ?	PINK 1 PALE 2 BLUE 3 DON'T KNOW 8	
605	What was the color of child after 5 minutes of birth ?	PINK 1 PALE 2 BLUE 3 DON'T KNOW 8	
606	Did the baby breathe immediately after birth ? (THIS DOES NOT INCLUDE GASPS OR VERY BRIEF EFFORTS TO BREATHE)	YES 1 NO 2 DON'T KNOW 8	
607	Did the child cry after birth ?	YES 1 NO 2 DON'T KNOW 8	→ 609
608	Was the cry feeble or strong ?	FEEBLE 1 STRONG 2 DON'T KNOW 8	
609	Were there any green marks of meconium on the child's body ?	YES 1 NO 2 DON'T KNOW 8	
610	Were there any bruises or marks of injury on the child's body ?	YES 1 NO 2 DON'T KNOW 8	
611	Did the newborn have swelling(s) over the skull ?	YES 1 NO 2 DON'T KNOW 8	
612	Was there any physical deformity in the baby ?	YES 1 NO 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
613	Was the head size not properly formed or skull vault and forebrain absent, very small, small, normal or very large? (Anencephaly, Microcephaly, Hydrocephaly) (SHOW PHOTO)	NOT PROPERLY FORMED 1 SMALL 2 NORMAL 3 LARGE 4 VERY LARGE 5 DON'T KNOW 8	
614	Was there a mass or defect on the back of head or spine? (Meningomyelocele) (SHOW PHOTO)	YES 1 NO 2 DON'T KNOW 8	
615	Was there any cleft lip or cleft palate ? (SHOW PHOTO)	YES 1 NO 2 DON'T KNOW 8	
616	Was there any limp defect ? (SHOW PHOTO)	YES 1 NO 2 DON'T KNOW 8	
617	Was the child limp/ flaccid during first 72 hours ?	YES 1 NO 2 DON'T KNOW 8	
618	When did the child start sucking on the breast or feed bottle after birth ? IF < 1 HOUR WRITE MINUTES IF > 1 HOUR BUT > 1 DAY WRITE HOURS IF >= 1 DAY WRITE DAYS	IMMEDIATELY 000 MINUTES 1 HOURS 2 DAYS 3 NEVER FED 995 DON'T KNOW 998	621
619	When did child stop sucking or bottle-feeding before death ? IF < 1 DAY WRITE HOURS IF >= 1 DAY WRITE DAYS	HOURS 1 DAYS 2 DON'T KNOW 998	
620	How long before death, did the infant stop crying? IF < 1 DAY RECORD HOURS IF >= 1 DAY RECORD DAYS	HOURS 1 MINUTES 2 DON'T KNOW 998	
621	Did body of the child become stiff with the back arched?	YES 1 NO 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
622	Did the newborn have convulsions (Fits/seizure) during first 24 hours after birth ?	YES 1 NO 2 DON'T KNOW 8	
623	Was a safe delivery kit used during this delivery ?	YES 1 NO 2 DON'T KNOW 8	
624	What was used to TIE the umbilical cord ?	UNBOILED THREAD 1 BOILED THREAD 2 WASHED CLAMPS 3 UNWASHED CLAMPS 4 HAIR 5 OTHER 6 (SPECIFY) DON'T KNOW 8	
625	What was used to cut the umbilical cord ?	NEW RAZOR BLADE 1 OLD RAZOR BLADE 2 SCISSOR 3 KNIFE 4 TOKA / CHOPPER 5 OTHER 6 (SPECIFY) DON'T KNOW 8	→ 627
626	Were the instruments boiled before using or not boiled ?	BOILED 1 NOT BOILED 2 DON'T KNOW 8	
627	Did child have "Tetanus" (local words)? (EXPLAIN DESCRIPTION OF DISEASE)	YES 1 NO 2 DON'T KNOW 8	
628	Did child become unresponsive / unconscious during the illness ?	YES 1 NO 2 DON'T KNOW 8	
629	Did child have a bulging fontanelle during the illness ?	YES 1 NO 2 DON'T KNOW 8	
630	Did child have jaundice or yellow discoloration of skin ?	YES 1 NO 2 DON'T KNOW 8	
631	Did child have redness or pus oozing from the umbilical cord ?	YES 1 NO 2 DON'T KNOW 8	
632	Did child have areas of skin that were red and hot ?	YES 1 NO 2 DON'T KNOW 8	
633	Did child have skin rash with pus ?	YES 1 NO 2 DON'T KNOW 8	→ 635

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
634	Did the skin peel off after the rash started ?	YES 1 NO 2 DON'T KNOW 8									
635	Did child have ear discharge ?	YES 1 NO 2 DON'T KNOW 8									
636	Did Child become lethargic at any stage of the illness ?	YES 1 NO 2 DON'T KNOW 8									
637	Did the child have a fever at any stage of the illness ?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 639								
638	For how long did fever last ? IF < 1 DAY RECORD HOURS IF >= 1 DAY RECORD DAYS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998									
639	Did child have frequent loose or watery stools / diarrhea ?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 645								
640	For how long did the diarrhea last ? IF < 1 DAY RECORD HOURS IF >= 1 DAY RECORD DAYS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998									
641	Was there visible blood in the stools at any stage of diarrhea ?	YES 1 NO 2 DON'T KNOW 8									
642	Did child have abdominal distension at any stage of diarrhea ?	YES 1 NO 2 DON'T KNOW 8									
643	Did the child take any liquids during loose or watery stools ?	YES 1 NO 2 DON'T KNOW 8									
644	Did the child take ORS during loose or watery stools ?	YES 1 NO 2 DON'T KNOW 8									
645	Did child have cough ?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 647								
646	For how long did cough last ? IF < 1 DAY RECORD HOURS IF >= 1 DAY RECORD DAYS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998									
647	Did child have difficult breathing ?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 649								

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP				
648	For how long did difficult breathing last ? IF < 1 DAY RECORD HOURS IF >= 1 DAY RECORD DAYS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 2 DON'T KNOW 998					
649	Did child have fast breathing ?	YES 1 NO 2 DON'T KNOW 8	→ 651				
650	For how long did fast breathing last ? IF < 1 DAY RECORD HOURS IF >= 1 DAY RECORD DAYS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 2 DON'T KNOW 998					
651	Did child ever stop breathing for a long time, and start again ?	YES 1 NO 2 DON'T KNOW 8					
652	Did child have chest in-drawing ?	YES 1 NO 2 DON'T KNOW 8					
653	Did child have noisy breathing (Stridor)? (DEMONSTRATE SOUND)	YES 1 NO 2 DON'T KNOW 8					
654	Did child have noisy breathing (Grunting) ? (DEMONSTRATE SOUND)	YES 1 NO 2 DON'T KNOW 8					
655	Did child have noisy breathing (Wheezing) > (DEMONSTRATE SOUND)	YES 1 NO 2 DON'T KNOW 8					
656	Did child's nostrils flare with breathing ?	YES 1 NO 2 DON'T KNOW 8					
657	Did child have pneumonia (local term) ?	YES 1 NO 2 DON'T KNOW 8					
658	Did child become cold at the beginning/ during of illness ?	YES 1 NO 2 DON'T KNOW 8	→ 801				

SECTION 7. POST NEONATAL AND CHILD DEATHS (CHILD DIED AFTER 28 DAYS UP TO 5 YEARS)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP				
701	Did child have a fever ?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 703				
702	For how long did fever last ? IF < 1 DAY WRITE HOURS IF >= 1 DAY WRITE DAYS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 2 DON'T KNOW 998					
703	Did child become unresponsive / unconscious ?	YES 1 NO 2 DON'T KNOW 8					
704	Did child have "Tetanus" (local words) ? (EXPLAIN DESCRIPTION OF DISEASE)	YES 1 NO 2 DON'T KNOW 8					
705	Did child have a bulging fontanelle ?	YES 1 NO 2 DON'T KNOW 8					
706	Did the child have a stiff neck ? (DEMONSTRATE)	YES 1 NO 2 DON'T KNOW 8					
707	Did the child have convulsions (Fits/ seizure) ?	YES 1 NO 2 DON'T KNOW 8					
708	Did child have frequent loose or watery stools / diarrhea ?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 713				
709	For how long did diarrhea last ? IF < 1 DAY WRITE HOURS IF >= 1 DAY WRITE DAYS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 2 DON'T KNOW 998					
710	Was there visible blood in stools during diarrhea ?	YES 1 NO 2 DON'T KNOW 8					
711	Did child have abdominal distention during diarrhea ?	YES 1 NO 2 DON'T KNOW 8					
712	Did the child drink anything during loose or watery stools ?	YES 1 NO 2 DON'T KNOW 8					
712A	Did the child take ORS during loose or watery stools ?	YES 1 NO 2 DON'T KNOW 8					

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
713	Did child have a cough ?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 716								
714	For how long did cough last ? IF < 1 DAY RECORD HOURS IF >= 1 DAY RECORD DAYS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998									
715	How severe was the cough ?	MILD 1 SEVERE 2 VERY SEVERE 3									
716	Did child have difficult breathing ?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 718								
717	For how long did difficult breathing last ? IF < 1 DAY RECORD HOURS IF >= 1 DAY RECORD DAYS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998									
718	Did child have fast breathing ?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 720								
719	For how long did fast breathing last ? IF < 1 DAY RECORD HOURS IF >= 1 DAY RECORD DAYS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998									
720	Did child ever stop breathing for a long time and start again ?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 720								
721	Did child have chest indrawing ?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 720								
722	Did child have noisy breathing (Stridor)? (DEMONSTRATE SOUND)	YES 1 NO 2 DON'T KNOW 8									
723	Did child have noisy breathing (Grunting) ? (DEMONSTRATE SOUND)	YES 1 NO 2 DON'T KNOW 8									
724	Did child have noisy breathing (Wheezing) > (DEMONSTRATE SOUND)	YES 1 NO 2 DON'T KNOW 8									

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
725	Did child's nostrils flare with breathing ?	YES 1 NO 2 DON'T KNOW 8	
726	Did child have pneumonia (local term) ?	YES 1 NO 2 DON'T KNOW 8	
727	Did child become cold at the beginning of illness ?	YES 1 NO 2 DON'T KNOW 8	
728	Did child become cold during the illness ?	YES 1 NO 2 DON'T KNOW 8	
729	Did child have yellow eyes ?	YES 1 NO 2 DON'T KNOW 8	
730	Did child have jaundice or yellow coloured skin ?	YES 1 NO 2 DON'T KNOW 8	
731	Did the child have skin rash ?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 737
732	Was the rash all over child's body ?	YES 1 NO 2 DON'T KNOW 8	
733	Was the rash also on child's face ?	YES 1 NO 2 DON'T KNOW 8	
734	For how many days did the rash last ? IF < 1 DAY RECORD '00'	DAYS <input type="text"/> <input type="text"/> DON'T KNOW 98	
735	Did rash contain clear fluid ?	YES 1 NO 2 DON'T KNOW 8	
736	Did the skin crack or peel off after the rash started ?	YES 1 NO 2 DON'T KNOW 8	
737	Did the child have "measles" ?	YES 1 NO 2 DON'T KNOW 8	
738	Did child become very thin ?	YES 1 NO 2 DON'T KNOW 8	
739	Did child become very weak ?	YES 1 NO 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
740	Did child have swelling on legs or feet ?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 742
741	For how long did the swelling last ? IF < 1 DAY RECORD '00'	DAYS <input type="text"/> <input type="text"/> DON'T KNOW 98	
742	Did child's skin flake off in patches ?	YES 1 NO 2 DON'T KNOW 8	
743	Did Child's hair colour change to reddish (or yellowish) ?	YES 1 NO 2 DON'T KNOW 8	
744	Did child have "kwashiorkor" ?	YES 1 NO 2 DON'T KNOW 8	
745	Did child have "marasmus" ?	YES 1 NO 2 DON'T KNOW 8	
746	Did child suffer from "lack of blood" or "pallor" ?	YES 1 NO 2 DON'T KNOW 8	
747	Did child have pale palms ?	YES 1 NO 2 DON'T KNOW 8	
748	Did child have white nails ?	YES 1 NO 2 DON'T KNOW 8	
749	Did child have swellings in the armpits ?	YES 1 NO 2 DON'T KNOW 8	
750	Did child have swellings in the groin ?	YES 1 NO 2 DON'T KNOW 8	
751	Did child have a whitish rash inside the mouth or on the tongue ?	YES 1 NO 2 DON'T KNOW 8	

SECTION 8. TREATMENT AND RECORDS (FOR NEONATAL AND POST NEONATAL DEATH)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																
801	<p>I would like to ask a few questions about any medicines/ drugs child might have received during the illness. Did child receive any of the following medicine/ drugs during illness? (PROMPT ALL BELOW)</p> <p>Antibiotics</p> <p>Antimalarial medicines</p> <p>Fever medicines</p> <p>Diarrhea medicines</p> <p>Other medicines _____ (SPECIFY)</p>	<p style="text-align: right;">YES NO DK</p> <p>ANTIBIOTICS 1 2 8</p> <p>ANTI-MALARIAL 1 2 8</p> <p>FEVER..... 1 2 8</p> <p>DIARRHEA 1 2 8</p> <p>OTHER MEDICINES..... 1 2 8</p>																																	
802	Do you have any health records that belong to your child ?	YES 1 NO 2	→ 804																																
803	Are these records available at this time ?	YES 1 NO 2																																	
804	<p>RECORD THE MOST RECENT TWO WEIGHTS OF THE CHILD (IF AVAILABLE)</p> <p>RECORD THE DATES OF THE MOST RECENT WEIGHTS RECORD MOST RECENT IN WEIGHT 1</p> <p>IF CARD IS NOT AVAILABLE THEN SKIP TO 805</p>	<p>WEIGHTS 1</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> </tr> <tr> <td colspan="2" style="text-align: center;">Kg.</td> <td colspan="2" style="text-align: center;">Gm.</td> </tr> </table> <p>DATE</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">-</td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">-</td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> </tr> </table> <p>WEIGHTS 2</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> </tr> <tr> <td colspan="2" style="text-align: center;">Kg.</td> <td colspan="2" style="text-align: center;">Gm.</td> </tr> </table> <p>DATE</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">-</td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">-</td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> </tr> </table> <p>DON'T KNOW 8</p>					Kg.		Gm.				-				-						Kg.		Gm.				-				-		
Kg.		Gm.																																	
		-				-																													
Kg.		Gm.																																	
		-				-																													
805	Was a death certificate sought for the deceased child ?	YES 1 NO 2 DON'T KNOW 8	→ 901																																
806	RECORD THE IMMEDIATE CAUSE OF DEATH FROM THE CERTIFICATE (IF AVAILABLE)	_____ _____ _____ _____																																	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
807	RECORD THE OTHER CAUSES FROM DEATH CERTIFICATE RECOR THE FIRST UNDERLYING CAUSE OF DEATH FROM THE CERTIFICATE	<hr/> <hr/> <hr/> <hr/>	
	RECORD THE SECOND UNDERLYING CAUSES OF DEATH FROM THE CERTIFICATE	<hr/> <hr/> <hr/> <hr/>	
	RECORD THE CONTRIBUTING CAUSES OF DEATH FROM THE CERTIFICATE	<hr/> <hr/> <hr/> <hr/>	

SECTION 9. SOCIAL AUDIT AND OTHER ASPECTS

Please ask about any maternal complication during the last trimester of pregnancy and response of family/provider to the complication.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Did you/mother have any complaints or problems during the last trimester (last 3 months) of pregnancy?	YES 1 NO 2	→ 906
902	Please describe the nature of illness which you/mother faced during the last 3-months of pregnancy? <input type="text"/> _____ _____ _____	
903	Did you/mother seek advice or treatment for the problem(s)?	YES 1 NO 2	→ 905
904	Whom did you/mother see?	DOCTOR A HAKIM B HOMEOPATH C PHARMACY D GOVERNMENT HOSPITAL E PRIVATE HOSPITAL F NGO CLINIC G OTHERS _____ ... X (SPECIFY) DON'T KNOW Z	→ 906
905	Why did'nt you/mother see anyone for this problem?	DISEASE WAS TOO SERIOUS BUT NO USE OF SEEKING CARE . 1 DISEASE WAS NOT TOO SERIOUS TOO SEEK CARE 2 HAD NO MONEY TO SEEK CARE . 3 TRANSPORT WAS NOT AVAILABLE 4 HAD NO PERMISSION TO GO OUT ON MY OWN 5 MALE MEMBER/ HUSBAND WAS NOT AVAILABLE AT HOME TO ACCOMPANY ME TO HOSPITAL 6 OTHER _____ ... 7 (SPECIFY)	→ 914
906	Where was the baby delivered?	GOVT HEALTH FACILITY 1 PRIVATE HEALTH FACILITY 2 ON ROUTE TO THE HEALTH FACILITY 3 AT HOME 4 OTHERS _____ ... 6 (SPECIFY)	→ 908

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																
907	Why did'nt you/mother deliver baby in a health facility?	COST TOO MUCH A FACILITY NOT OPENED B POOR SERVICES AT FACILITY ... C NO PERMISSION FROM FAMILY ... D FACILITY TOO FAR E NO TRANSPORTATION F ALWAYS A DAI ASSIST IN FAMILY G OTHERS _____ ... X (SPECIFY) DON'T KNOW Z																	
908	What was the age of the baby/child when you/ mother first noticed that he/ she is not well ? IF < 1 DAY WRITE HOURS IF > = 1 DAY BUT < 1 MONTH WRITE DAYS IF > 1 MONTH BUT < 1 YEAR WRITE MONTHS IF >= 1 YEAR WRITE YEARS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTH!..... 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> YEARS 4 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW998																	
909	What signs and symptoms did you/ mother notice ?	_____ _____ _____																	
DAY ONE OF ILLNESS																			
910	What did you/ mother/ family do first day of illness ?	NOTHING 1 HOME CARE 2 SOUGHT CARE OUTSIDE 3	→ 912 → 913																
911	Why did you do nothing ?	DISEASE WAS TOO SERIOUS BUT NO USE OF SEEKING CARE . 1 DISEASE WAS NOT TOO SERIOUS TO SEEK CARE 2 HAD NO MONEY TO SEEK CARE . 3 TRANSPORT WAS NOT AVAILABLE 4 HAD NO PERMISSION TO GO OUT ON MY OWN 5 MALE MEMBER/ HUSBAND WAS NOT AVAILABLE AT HOME TO ACCOMPANY ME TO HOSPITAL 6 OTHER _____ ... 7 (SPECIFY) BABY DIED SAME DAY 8	→ 915 → 933																
912	Why did you seek home care ?	FAMILY ADVISED FOR HOME CARE 1 ILLNESS WAS NOT SERIOUS 2 OTHERS _____ ... 3 (SPECIFY)	→ 915																

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
913	From whom did you seek care ? CIRCLE ALL MENTIONED	DOCTOR A HAKIM B HOMEOPATH C PHARMACY D GOVERNMENT HOSPITAL E PRIVATE HOSPITAL F NGO CLINIC G OTHERS _____ ... X (SPECIFY) NO ANSWER Y	→ 918
914	What did care provider do ? CIRCLE ALL MENTIONED	GAVE MEDICINE A REFERRED TO ANOTHER HOSPITAL B ADMITTED IN HOSPITAL C OTHERS _____ ... X (SPECIFY)	
DAY TWO AND THREE OF ILLNESS			
915	How was child on second and third day of illness?	WITH SAME CONDITION 1 WORSENERD 2 IMPROVED 3 WAS HOSPITALIZED 4 OTHERS _____ ... 6 (SPECIFY) HAD DIED DURING THIS PERIOD 5	→ 933
916	What did you/ family do ?	NOTHING 1 HOME CARE 2 SOUGHT CARE OUTSIDE 3	→ 918 → 919
917	Why did you do nothing ?	DISEASE WAS TOO SERIOUS BUT NO USE OF SEEKING CARE 1 DISEASE WAS NOT TOO SERIOUS TOO SEEK CARE ... 2 HAD NO MONEY TO SEEK CARE . 3 TRANSPORT WAS NOT AVAILABLE 4 HAD NO PERMISSION TO GO OUT ON MY OWN 5 MALE MEMBER/ HUSBAND WAS NOT AVAILABLE AT HOME TO ACCOMPANY ME TO HOSPITAL 6 OTHER _____ ... 7 (SPECIFY)	→ 921
918	Why was home care sought ?	FAMILY ADVISED FOR HOME CARE 1 ILLNESS WAS NOT SERIOUS ... 2 OTHERS _____ ... 3 (SPECIFY)	→ 921

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
919	From whom did you/ mother seek care ? CIRCLE ALL MENTIONED	DOCTOR A HAKIM B HOMEOPATH C PHARMACY D GOVERNMENT HOSPITAL E PRIVATE HOSPITAL F NGO CLINIC G OTHERS _____ ... X (SPECIFY) DON'T KNOW Z	→ 921
920	What did the care provider do ? CIRCLE ALL MENTIONED	GAVE MEDICINE A REFERRED TO ANOTHER HOSPITAL B ADMITTED IN HOSPITAL C OTHERS _____ ... X (SPECIFY) DON'T KNOW Z	
DAY 4 -8 OF ILLNESS			
921	How was (NAME) baby/ child between days 4-8 of illness?	WITH SAME CONDITION 1 WORSENERD 2 IMPROVED 3 WAS HOSPITALIZED 4 OTHERS _____ ... 6 (SPECIFY) HAD DIED DURING THIS PERIOD 5	→ 933
922	What did you/ mother/ family do ?	NOTHING 1 HOME CARE 2 SOUGHT CARE OUTSIDE 3	→ 924 → 925
923	Why did you/ mother/family do nothing ?	DISEASE WAS TOO SERIOUS BUT NO USE OF SEEKING CARE . 1 DISEASE WAS NOT TOO SERIOUS TOO SEEK CARE ... 2 HAD NO MONEY TO SEEK CARE . 3 TRANSPORT WAS NOT AVAILABLE 4 HAD NO PERMISSION TO GO OUT ON MY OWN 5 MALE MEMBER/ HUSBAND WAS NOT AVAILABLE AT HOME TO ACCOMPANY ME TO HOSPITAL 6 OTHER _____ ... 7 (SPECIFY)	→ 927
924	Why did you seek home care ?	FAMILY ADVISED FOR HOME CARE 1 ILLNESS WAS NOT SERIOUS 2 OTHERS _____ ... 3 (SPECIFY)	→ 927

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
925	From whom did you/ mother seek care ? (CIRCLE ALL MENTIONED)	DOCTOR A HAKIM B HOMEOPATH C PHARMACY D GOVERNMENT HOSPITAL E PRIVATE HOSPITAL F NGO CLINIC G OTHERS _____ ... X (SPECIFY) DON'T KNOW Z	→ 927
926	What did the care provider do ? (CIRCLE ALL MENTIONED)	GAVE MEDICINE A REFERRED TO ANOTHER HOSPITAL B ADMITTED IN HOSPITAL C OTHERS _____ ... X (SPECIFY)	
LAST DAY OF ILLNESS			
927	How was (NAME) baby/ child on last day of illness ?	WITH SAME CONDITION 1 WORSENERD 2 IMPROVED 3 WAS HOSPITALIZED 4 OTHERS _____ 6 (SPECIFY) HAD DIED DURING THIS PERIOD 5	→ 933
928	What did you/mother/family do ?	NOTHING 1 HOME CARE 2 SOUGHT CARE OUTSIDE 3	→ 930 → 931
929	Why did you do nothing ?	DISEASE WAS TOO SERIOUS BUT NO USE OF SEEKING CARE . 1 DISEASE WAS NOT TOO SERIOUS TOO SEEK CARE ... 2 HAD NO MONEY TO SEEK CARE . 3 TRANSPORT WAS NOT AVAILABLE 4 HAD NO PERMISSION TO GO OUT ON MY OWN 5 MALE MEMBER/ HUSBAND WAS NOT AVAILABLE AT HOME TO ACCOMPANY ME TO HOSPITAL 6 OTHER _____ 7 (SPECIFY)	→ 933
930	Why did you/ mother seek home care ?	FAMILY ADVISED FOR HOME CARE 1 ILLNESS WAS NOT SERIOUS 2 OTHERS _____ 3 (SPECIFY)	→ 933

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
931	From whom did you seek care ? (CIRCLE ALL MENTIONED)	DOCTOR A HAKIM B HOMEOPATH C PHARMACY D GOVERNMENT HOSPITAL E PRIVATE HOSPITAL F NGO CLINIC G OTHERS _____ ... X (SPECIFY) DON'T KNOW Z	→ 933
932	What did care provider do ? (CIRCLE ALL MENTIONED)	GAVE MEDICINE A REFERRED TO ANOTHER HOSPITAL B ADMITTED IN HOSPITAL C OTHERS _____ X (SPECIFY)	
DECISION MAKING MECHANISM AND HELP SEEKING			
933	When did you/ mother tell your spouse about the illness of baby ?	AT THE START OF THE ILLNESS . 1 DURING THE ILLNESS 2 TOWARDS THE END OF THE ILLNESS(WHEN IT BECAME SEVERE) 3 OTHER _____ ... 6 (SPECIFY) DON'T KNOW 8	→ 935
934	What was the reaction of your spouse ?	_____	
935	Who mainly takes the care seeking (& other) decisions in the household ?	HUSBAND 1 MOTHER/MOTHER IN LAW 2 FATHER/FATHER IN LAW 3 GRANDMOTHER 4 GRANDFATHER 5 UNCLE 6 OTHER _____ ... 7 (SPECIFY) DON'T KNOW 8	→ 937
936	Why does he/ she take the decisions ?	_____	
937	Who took the child for seeking care ?	MOTHER A FATHER B GRANDMOTHER C GRANDFATHER D UNCLE E OTHER _____ ... X (SPECIFY) DON'T KNOW Z	→ 939
938	Why did the above mentioned person go ?	_____	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
939	Who decided the care should be sought outside home ?	MOTHER 1 FATHER 2 GRANDMOTHER 3 GRANDFATHER 4 UNCLE 5 OTHER _____ ... 6 (SPECIFY) DON'T KNOW 8	
940	In your opinion, what was the illness; (PLEASE READ THE RESPONSES)	MILD/ DID NOT REQUIRE IMMEDIATE ATTENTION/ TREATABLE WITH HOME REMEDIES 1 MODERATE/ ILLNESS PERSISTING YET TREATABLE/ NOT SEVERE ENOUGH TO CAUSE DEATH ... 2 SEVERE/ DEATH WAS POSSIBLE 3 DON'T KNOW 8	
SOURCES OF CARE			
941	Where did you usually go to receive health care ?	HAKIM/ MATAB 1 HOMEOPATH CLINIC/ HOSPITAL . . 2 PHARMACY 3 GOVERNMENT HOSPITAL 4 PRIVATE HOSPITAL 5 NGO CLINIC 6 OTHERS _____ ... 7 (SPECIFY) DON'T KNOW 8	
942	How far is the nearest health facility from your house ?	KILOMETER: <input type="text"/> <input type="text"/> DON'T KNOW 98	
943	How do you commute to the nearest health facility ? (CIRCLE ALL MENTIONED)	TAXI A BUS B RICKSHAW C MOTORBIKE D WALKING E OTHER _____ X (SPECIFY) DON'T KNOW Z	
944	How much is the transportation cost to reach the nearest health facility?	RUPEES <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
945	When did you or your household member last time visit a health care facility ? IF < 1 MONTH WRITE DAYS IF < 1 YEAR, WRITE MONTHS IF >= 1 YEAR WRITE YEARS	DAYS 1 <input type="text"/> <input type="text"/> MONTHS 2 <input type="text"/> <input type="text"/> YEARS 3 <input type="text"/> <input type="text"/> DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
946	CHECK 916, 922, 928: HEALTH CARE <input type="checkbox"/> SOUGHT OUTSIDE <input type="checkbox"/>	OTHERS <input type="checkbox"/>	H101
SATISFACTION WITH THE HEALTH SYSTEM			
947	How easy was it to see a health care provider regarding your child ?	VERY EASY/ DID NOT HAVE TO WAIT AT ALL/ RECEIVED IMMEDIATE HELI..... 1 SOMEWHAT EASY/ HAD TO WAIT A SHORT WHILE 2 DIFFICULT/ HAD TO WAIT A LONG WHILE 3 EXTREMELY DIFFICULT/ NOBODY WAS AVAILABLE 4 DON'T KNOW 8	
948	How was the conduct of the physician (who saw the child towards the baby) ?	UNHELPFUL/ DID NOT EXPLAIN ILLNESS TO OR REASSURE CARETAKER 1 SOMEWHAT HELPFUL/ GAVE LITTLE INFORMATION 2 VERY HELPFUL/ EXPLAINED EVERYTHING VERY WELL 3 DON'T KNOW 8	
949	How was the conduct of the physician (who saw the child towards the caretaker of the baby) ?	UNHELPFUL/ DID NOT EXPLAIN ILLNESS TO OR REASSURE CARETAKER 1 SOMEWHAT HELPFUL/ GAVE LITTLE INFORMATION 2 VERY HELPFUL/ EXPLAINED EVERYTHING VERY WELL 3 DON'T KNOW 8	
950	Were you easily able to purchase/ acquire the drugs needed for the child ?	YES 1 NO 2 DON'T KNOW 8	→ 952
951	Why you were not able to purchase/ acquire the drugs ? (CIRCLE ALL MENTIONED)	EXPENSIVE A NOT EASILY AVAILABLE B TOO MANY WERE PRESCRIBED ... C OTHER _____ X (SPECIFY) DON'T KNOW Z	
952	Were you overall satisfied with the quality of care provided at the health facility ?	YES 1 NO 2 DON'T KNOW 8	→ H101
953	What are the reasons of your satisfaction ?	_____ _____ _____ _____	

SECTION 10: HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
H101	What is the main source of drinking water for members of your household?	PIPED WATER PIPED INTO DWELLING 11 PIPED TO YARD/PLOT 12 PUBLIC TAP/STAND PIPE ... 13 TUBE WELL OR BOREHOLE 21 HAND PUMP 22 DUG WELL PROTECTED WELL 31 UNPROTECTED WELL 32 WATER FROM SPRING PROTECTED SPRING/KAREZ ... 41 UNPROTECTED SPRING 42 RAINWATER 51 TANKER TRUCK 61 CART WITH SMALL TANK 71 SURFACE WATER (RIVER/DAM/LAKE/ POND/STREAM/CANAL 81 BOTTLED WATER 91 OTHER _____ 96 (SPECIFY)	<input type="checkbox"/> → H103
H102	How long does it take to go there, get water, and come back?	MINUTES <input type="text"/> <input type="text"/> <input type="text"/> ON PREMISES 996 DON'T KNOW 998	
H103	Do you treat your water in any way to make it safer to drink?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → H105
H104	What do you usually do to the water to make it safer to drink? Anything else? RECORD ALL MENTIONED.	BOIL A ADD BLEACH/CHLORINE B STRAIN THROUGH A CLOTH C USE WATER FILTER (CERAMIC/ SAND/COMPOSITE/ETC.) D SOLAR DISINFECTION E LET IT STAND AND SETTLE F OTHER _____ X (SPECIFY) DON'T KNOW Z	
H105	What kind of toilet facility do members of your household usually use?	FLUSH OR POUR FLUSH TOILET FLUSH TO SEWER SYSTEM ... 11 FLUSH TO SEPTIC TANK 12 FLUSH TO SOMEWHERE ELSE ... 13 FLUSH, DON'T KNOW WHERE ... 14 PIT LATRINE VENTILATED IMPROVED PIT LATRINE (VIP) 21 PIT LATRINE WITH SLAB 22 PIT LATRINE WITHOUT SLAB/ OPEN PIT 23 BUCKET TOILET 41 HANGING TOILET/HANGING LATRINE 51 NO FACILITY/BUSH/FIELD 61 OTHER _____ 96 (SPECIFY)	<input type="checkbox"/> → H107

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																																			
H106	Do you share this toilet facility with other households?	YES 1 NO 2																																																				
H107	Does your household have:	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">YES</th> <th style="text-align: center;">NO</th> </tr> </thead> <tbody> <tr> <td>Electricity?</td> <td style="text-align: center;">ELECTRICITY 1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Radio?</td> <td style="text-align: center;">RADIO 1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Television?</td> <td style="text-align: center;">TELEVISION 1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Refrigerator?</td> <td style="text-align: center;">REFRIGERATOR 1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Mobile telephone or land line telephone?</td> <td style="text-align: center;">ANY TELEPHONE 1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Room cooler, air conditioner?</td> <td style="text-align: center;">ROOM COOLER, AIR COND. . 1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Washing machine?</td> <td style="text-align: center;">WASHING MACHINE 1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Water pump?</td> <td style="text-align: center;">WATER PUMP 1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Bed?</td> <td style="text-align: center;">BED 1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Chairs?</td> <td style="text-align: center;">CHAIRS 1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Almirah / cabinet?</td> <td style="text-align: center;">ALMIRAH/CABINET 1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Clock?</td> <td style="text-align: center;">CLOCK 1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Sofa?</td> <td style="text-align: center;">SOFA 1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Sewing machine?</td> <td style="text-align: center;">SEWING MACHINE 1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Camera?</td> <td style="text-align: center;">CAMERA 1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Personal computer?</td> <td style="text-align: center;">PERSONAL COMPUTER ... 1</td> <td style="text-align: center;">2</td> </tr> </tbody> </table>		YES	NO	Electricity?	ELECTRICITY 1	2	Radio?	RADIO 1	2	Television?	TELEVISION 1	2	Refrigerator?	REFRIGERATOR 1	2	Mobile telephone or land line telephone?	ANY TELEPHONE 1	2	Room cooler, air conditioner?	ROOM COOLER, AIR COND. . 1	2	Washing machine?	WASHING MACHINE 1	2	Water pump?	WATER PUMP 1	2	Bed?	BED 1	2	Chairs?	CHAIRS 1	2	Almirah / cabinet?	ALMIRAH/CABINET 1	2	Clock?	CLOCK 1	2	Sofa?	SOFA 1	2	Sewing machine?	SEWING MACHINE 1	2	Camera?	CAMERA 1	2	Personal computer?	PERSONAL COMPUTER ... 1	2	
	YES	NO																																																				
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Camera?	CAMERA 1	2																																																				
Personal computer?	PERSONAL COMPUTER ... 1	2																																																				
H108	What type of fuel does your household mainly use for cooking?	ELECTRICITY 01 CYLINDER GAS 02 NATURAL GAS 03 BIOGAS 04 KEROSENE 05 CHARCOAL 06 WOOD 07 STRAW/SHRUBS/GRASS 08 AGRICULTURAL CROP 09 ANIMAL DUNG 10 NO FOOD COOKED IN HOUSEHOLD 95 OTHER _____ 96 (SPECIFY)																																																				
H109	MAIN MATERIAL OF THE FLOOR: RECORD OBSERVATION	NATURAL FLOOR EARTH / SAND / MUD 11 FINISHED FLOOR CHIPS / TERRAZZO 31 CERAMIC TILES 32 MARBLE 33 CEMENT 34 CARPET 35 BRICKS 36 MATS 37 OTHER _____ 96 (SPECIFY)																																																				

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
H117	<p>How many of the following animals does this household own?</p> <p>Buffalo</p> <p>Milk cows or bulls?</p> <p>Camels?</p> <p>Donkeys, or mules or horses?</p> <p>Goats?</p> <p>Sheep?</p> <p>Chickens?</p> <p>IF NONE, WRITE '00'. IF > 95, WRITE '95'. IF UNKNOWN, WRITE '98'</p>	<p>BUFFALO <input type="checkbox"/> <input type="checkbox"/></p> <p>COWS/BULLS <input type="checkbox"/> <input type="checkbox"/></p> <p>CAMELS <input type="checkbox"/> <input type="checkbox"/></p> <p>DONKEYS/MULES/HORSES . <input type="checkbox"/> <input type="checkbox"/></p> <p>GOATS <input type="checkbox"/> <input type="checkbox"/></p> <p>SHEEP <input type="checkbox"/> <input type="checkbox"/></p> <p>CHICKENS <input type="checkbox"/> <input type="checkbox"/></p>	
H118	<p>Does your household have any mosquito nets that can be used while sleeping?</p>	<p>YES 1</p> <p>NO 2</p>	→H126
H119	<p>How many mosquito nets does your household have?</p>	<p>NUMBER OF NETS <input type="text"/></p>	
H126	<p>Does your household do anything (else) to avoid mosquitos?</p>	<p>YES 1</p> <p>NO 2</p>	→H128
H127	<p>What do you do?</p> <p>CIRCLE ALL MENTIONED.</p>	<p>COIL A</p> <p>MATS B</p> <p>SPRAY C</p> <p>ELECTRIC SPRAY REPELLANT ... D</p> <p>INSECT REPELLANT E</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>	
H128	<p>Do you have any medicines for treating malaria in your house now?</p>	<p>YES 1</p> <p>NO 2</p> <p>DOES NOT KNOW 8</p>	

SECTION 1. INFORMATION ABOUT RESPONDENTS

INTERVIEWER: ASK TO TALK TO THOSE WHO KNOW THE MOST ABOUT THE WOMAN'S LAST ILLNESS AND HER DEATH. IF A NEIGHBOR, FRIEND, OR DAI WAS PRESENT DURING HER ILLNESS OR DEATH, ASK THEM TO COME AND JOIN IN FOR INTERVIEW. GET ALL THE RESPONDENTS TOGETHER FOR THE INTERVIEW AND FILL THE TABLE BELOW.

First, I have a few questions about each of you. Please tell me:

101 NO.	102 What is your name	103 Sex of respondent	104 How old are you? COMPLETED YEARS	105 What was your relationship to (NAME) i.e deceased woman? RELATION	106 What is your education? SEE CODES BELOW (CLASSES PASSED)	107 Were you present when (NAME) first fell ill?	108 Were you present when (NAME) was taken to hospital?	109 Were you present when (NAME) died?	110 CIRCLE LINE NO. OF MAIN RESPONDENT
1		MALE . . . 1 FEMALE . 2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2	YES . . . 1 NO 2 NOT TAKEN 3	YES . . 1 NO . . . 2	1
2		MALE . . . 1 FEMALE . 2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2	YES . . . 1 NO 2 NOT TAKEN 3	YES . . 1 NO . . . 2	2
3		MALE . . 1 FEMALE . 2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2	YES . . . 1 NO 2 NOT TAKEN 3	YES . . 1 NO . . . 2	3
4		MALE . . 1 FEMALE . 2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2	YES . . . 1 NO 2 NOT TAKEN 3	YES . . 1 NO . . . 2	4
5		MALE . . 1 FEMALE . 2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2	YES . . . 1 NO 2 NOT TAKEN 3	YES . . 1 NO . . . 2	5
6		MALE . . 1 FEMALE . 2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	YES . . 1 NO . . . 2	YES . . . 1 NO 2 NOT TAKEN 3	YES . . 1 NO . . . 2	6

RELATIONSHIP TO DECEASED WOMAN

- 02 = HUSBAND
- 03 = SON OR DAUGHTER
- 04 = SON-IN-LAW OR DAUGHTER-IN-LAW
- 05 = GRANDCHILD
- 06 = PARENT
- 07 = PARENT-IN-LAW
- 08 = BROTHER OR SISTER

09 = BROTHER/SISTER IN-LAW

- 10 = NIECE/NEPHEW
- 11 = GRAND PARENT
- 12 = AUNTS/UNCLE
- 13 = OTHER RELATIVE
- 14 = ADOPTED/FOSTER/STEPCHILD
- 15 = NOT RELATED
- 16 = DOMESTIC SERVANT

EDUCATION CLASS:

- 00 = LESS THAN 1 YEAR COMPLETED
- 01 = CLASS 1;
- 02 = CLASS 2
- ...
- 10 = MATRIC, CLASS 10
- 11 = CLASS 11
- ...
- 16 = MASTER'S DEGREE OR MBBS, PhD, MPhil, BSc (4 YEARS)

SECTION 2. DECEASED WOMAN'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	RECORD THE TIME AT BEGINNING OF INTERVIEW	HOUR <input type="text"/> <input type="text"/> MINUTES <input type="text"/> <input type="text"/>	
202	I want to talk about the death of (NAME). WRITE WOMAN'S NAME HERE AND ON COVER PAGE	_____	
203	Can you tell me the name of (NAME)'s father?	_____	
204	In what month and year did (NAME) die? PROBE BY ASKING HOW MANY YEARS AGO, WHETHER IT WAS IN SUMMER OR WINTER, WHETHER IT WAS BEFORE OR AFTER EID, ETC. IF NOT IN 2003, 2004, 2005, 2006, OR 2007 END INTERVIEW.	MONTH <input type="text"/> <input type="text"/> DON'T KNOW 98 YEAR <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 9998	END OF INTERVIEW →
205	How old was she (NAME) when she died?	AGE IN YEARS <input type="text"/> <input type="text"/>	
206	At the time she died, was (NAME) a usual member of this household or was she here temporarily?	USUAL MEMBER 1 HERE TEMPORARILY 2	
207	Did she ever attend school?	YES 1 NO 2 DON'T KNOW 8	→ 209
208	What is the highest class she completed? IF CLASS-1 NOT COMPLETED WRITE '00' IF MA, MPHIL, PHD, MBBS, BSC/4 YEARS WRITE '16'	CLASS <input type="text"/> <input type="text"/>	
209	Was she working for wages or salary when she died?	YES 1 NO 2 DON'T KNOW 8	→ 211
210	What was her occupation? That is, what kind of work did she mainly do?	_____ <input type="text"/> <input type="text"/> _____	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
211	What was her mother tongue?	URDU 01 PUNJABI 02 SINDHI 03 PUSHTO 04 BALOCHI 05 ENGLISH 06 BARAUHI 07 SIRAIKI 08 HINDKO 09 KASHMIRI 10 PAHARI 11 POTOWARI 12 MARWARI 13 FARSI 14 OTHER 96	
212	At the time she died, was she married, divorced, widowed, separated or never married?	MARRIED 1 DIVORCED 2 WIDOWED 3 SEPARATED 4 NEVER MARRIED* 5	→ 215 → 401*
213	What was the name of her husband?	_____	
214	How old was her husband at the time of her death?	AGE IN YEARS <input type="text"/> <input type="text"/> DON'T KNOW 98	
215	Did her (last) husband ever attend school?	YES 1 NO 2 DON'T KNOW 8	→ 217
216	What was the highest class completed by her husband? IF CLASS-1 NOT COMPLETED WRITE '00' IF MA, MPHIL, PHD, MBBS, BSC/ 4YEARS WRITE '16'	CLASS <input type="text"/> <input type="text"/> DON'T KNOW 98	
217	What is her husband's occupation? That is, what kind of work does he mainly do?	_____ <input type="text"/> <input type="text"/> _____ DON'T KNOW 98	

*IN CASE OF NEVER MARRIED, CAUTIOUSLY AND CAREFULLY TRY TO ESTABLISH IF THE WOMAN'S DEATH WAS IN ANY WAY RELATED WITH COMPLICATIONS OF PREGNANCY OR CHILDBIRTH. IF SUCH A CASE IS FOUND, PLEASE FILL SECTION 3.

SECTION 3. BIRTH AND PREGNANCY INFORMATION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
301	Now I would like to ask about all the births (NAME) had during her life. Did she ever have a live birth?	YES 1 NO 2 DON'T KNOW 8	→ 304
302	How many total live births did she have? (Include children who later died)	LIVE BIRTHS <input type="text"/> <input type="text"/>	
303	How many of her sons and daughters are still alive?	TOTAL LIVING CHILDREN .. <input type="text"/> <input type="text"/> BOYS <input type="text"/> <input type="text"/> GIRLS <input type="text"/> <input type="text"/>	
304	Women sometimes have pregnancies that do not end in a live birth. Did (NAME) ever have a pregnancy that ended in miscarriage, abortion or stillbirth?	YES 1 NO 2 DON'T KNOW 8	→ 306
305	How many TOTAL miscarriages, abortions and stillbirths did she have?	PREGNANCY LOSSES <input type="text"/> <input type="text"/> DON'T KNOW 98	
306	CHECK 301 AND 304: AT LEAST ONE LIVE BIRTH OR PREGNANCY LOSS (301 IS 'YES' OR 304 IS 'YES') <input type="checkbox"/> NO LIVE BIRTHS OR PREGNANCY LOSSES BOTH 'NO' OR 'DK' <input type="checkbox"/>		→ 315
307	Did she ever have a Caesarean section operation?	YES 1 NO 2 DON'T KNOW 8	
308	Did she have a pregnancy during last 3 years of her life? (regardless of the result of the pregnancy)	YES 1 NO 2 DON'T KNOW 8	→ 315
309	How long before her death did her last pregnancy end? IF < 24 HOURS, WRITE '00' DAYS. IF < 1 MONTH, WRITE DAYS. IF < 1 YEARS, WRITE MONTHS. IF ONE OR MORE YEARS, WRITE YEARS.	DAYS 1 <input type="text"/> <input type="text"/> MONTHS 2 <input type="text"/> <input type="text"/> YEARS 3 <input type="text"/> <input type="text"/> DON'T KNOW 998	
310	What was the outcome of her last pregnancy?	LIVE BIRTH 1 STILL BIRTH 2 MISCARRIAGE 3 ABORTION 4 DON'T KNOW 8	→ 315
311	Is her last born child still alive?	YES 1 NO 2 DON'T KNOW 8	→ 313

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
312	How old is that child now?	AGE IN YEARS <input type="text"/> <input type="text"/>	→ 314
313	How old was that child when he/she died? IF < 24 HOURS, WRITE '00' DAYS. IF < 1 MONTH, WRITE DAYS. IF < 2 YEARS, WRITE MONTHS. IF TWO OR MORE YEARS, WRITE YEARS.	DAYS 1 <input type="text"/> <input type="text"/> MONTHS 2 <input type="text"/> <input type="text"/> YEARS 3 <input type="text"/> <input type="text"/> DON'T KNOW 998	
314	How long after her last birth / delivery / miscarriage / abortion did (NAME) die? IF < 24 HOURS, WRITE '00' DAYS. IF < 1 MONTH, WRITE DAYS. IF < 2 YEARS, WRITE MONTHS. IF TWO OR MORE YEARS, WRITE YEARS.	DAYS 1 <input type="text"/> <input type="text"/> MONTHS 2 <input type="text"/> <input type="text"/> YEARS 3 <input type="text"/> <input type="text"/> DON'T KNOW 998	
315	Was (NAME) pregnant at the time she died?	YES 1 NO 2 DON'T KNOW 8	→ 317
316	How many months was she pregnant at the time she died?	MONTHS <input type="text"/> <input type="text"/> DON'T KNOW 98	
317	Did (NAME) die during delivery, abortion or miscarriage?	YES 1 NO 2 DON'T KNOW 8	→ 319
318	Did she die before labour pains began, before birth or during abortion or miscarriage?	BEFORE LABOUR PAINS BEGAN ... 1 AFTER LABOUR PAINS BEGAN BUT BEFORE BIRTH 2 DURING ABORTION/MISCARRIAGE ... 3 DON'T KNOW 8	
319	Did (NAME) die after delivery, abortion or miscarriage?	YES 1 NO 2 DON'T KNOW 8	→ 321
320	How many days after delivery, abortion or miscarriage did she die? IF < 24 HOURS, WRITE '00' DAYS. IF < 1 MONTH, WRITE DAYS. IF ONE OR MORE MONTH, WRITE MONTHS	DAYS 1 <input type="text"/> <input type="text"/> MONTHS 2 <input type="text"/> <input type="text"/> DON'T KNOW 998	
321	Did she die within 40 days of delivery, abortion or miscarriage?	YES 1 NO 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
508	How long before she died was she last hospitalized? IF < 24 HOURS, WRITE '00' DAYS. IF < 1 MONTH, WRITE DAYS. IF < 2 YEARS, WRITE MONTHS. IF TWO OR MORE YEARS, WRITE YEARS.	DAYS 1 MONTHS..... 2 YEARS 3 DON'T KNOW 998	
509	Why was she last hospitalized? Any other reason?		
510	Did she have any operation before she died?	YES 1 NO 2 DON'T KNOW 8	

Now I would like to ask about the major symptoms that she might have had during her last illness.

INTERVIEWER: PROBE TO GET AN ESTIMATE OF HOW LONG EACH SYMPTOM LASTED FROM WHEN IT FIRST APPEARED UNTIL IT STOPPED, EVEN IF IT STOPPED BEFORE SHE DIED.

511	Did she have fever ?	YES 1 NO 2 DON'T KNOW 8	→ 512
511A	How many days or months did the fever last? IF < 24 HRS WRITE '00' DAYS IF < 1 MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 MONTHS..... 2 DON'T KNOW 998	
511B	Was the fever continuous or on and off?	CONTINUOUS..... 1 ON AND OFF 2 DON'T KNOW 8	
512	Was she breathless doing light work ?	YES 1 NO 2 DON'T KNOW 8	
512A	Was she breathless when she was lying down or when she was asleep?	YES 1 NO 2 DON'T KNOW 8	
513	Did she have rapid heart beat (palpitations)?	YES 1 NO 2 DON'T KNOW 8	
514	Did she have wheezing ?	YES 1 NO 2 DON'T KNOW 8	
515	Did she have a cough ?	YES 1 NO 2 DON'T KNOW 8	→ 516

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
515A	For how long did she have a cough? IF < 24 HRS WRITE '00' DAYS IF < 1 MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 <input type="text"/> <input type="text"/> MONTHS..... 2 <input type="text"/> <input type="text"/> DON'T KNOW 998	
515B	Did the cough produce sputum?	YES 1 NO 2 DON'T KNOW 8	
515C	Did she cough blood?	YES 1 NO 2 DON'T KNOW 8	
516	Did she have chest pain ?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 517
516A	How many days or months did she have chest pain? IF < 24 HRS WRITE '00' DAYS IF < 1 MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 <input type="text"/> <input type="text"/> MONTHS..... 2 <input type="text"/> <input type="text"/> DON'T KNOW 998	
516B	Was the chest pain mild, moderate or severe?	MILD 1 MODERATE..... 2 SEVERE 3 DON'T KNOW 8	
516C	Did the chest pain start suddenly or gradually?	SUDDENLY..... 1 GRADUALLY 2 DON'T KNOW 8	
516D	Was the pain at or near the center of the chest?	NEAR STERNUM..... 1 SOMEWHERE ELSE/ALL OVER... 2 DON'T KNOW 8	
517	Did she have diarrhea (loose motions)?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 517B
517A	How many times a day did she have loose motions?	TIMES <input type="text"/> <input type="text"/> DON'T KNOW 98	
517B	Was there blood in the stools?	YES 1 NO 2 DON'T KNOW 8	
518	Did she have poor appetite or loss of appetite ?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 519
518A	For how long did she have poor appetite? IF < 24 HRS WRITE '00' DAYS IF < 1 MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 <input type="text"/> <input type="text"/> MONTHS..... 2 <input type="text"/> <input type="text"/> DON'T KNOW 998	
519	Did she have pain in swallowing ?	YES 1 NO 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
520	Did she have difficulty in swallowing ?	YES 1 NO 2 DON'T KNOW 8									
521	Did she have headache ?	YES 1 NO 2 DON'T KNOW 8	→ 522								
521A	How many days or months did she have headache? IF < 24 HRS WRITE '00' DAYS IF < 1 MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998									
522	Did she pass blood in her urine ?	YES 1 NO 2 DON'T KNOW 8	→ 523								
522A	For how many days or months did she pass blood in her urine? IF < 24 HRS WRITE '00' DAYS IF < 1 MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998									
523	Did she have pain while urinating ?	YES 1 NO 2 DON'T KNOW 8	→ 524								
523A	For how many days or months did she have pain when urinating? IF < 24 HRS WRITE '00' DAYS IF < 1 MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 8									
524	Was she unable to pass urine ?	YES 1 NO 2 DON'T KNOW 8									
525	Did she urinate many times in a day?	YES 1 NO 2 DON'T KNOW 8									
526	Did she have any type of pain anywhere in the body ?	YES 1 NO 2 DON'T KNOW 8									
527	Did she have abdominal pain ?	YES 1 NO 2 DON'T KNOW 8	→ 528								
527A	How long did the abdominal pain last? IF < 24 HRS WRITE '00' DAYS IF < 1 MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998									
527B	Was the abdominal pain mild, moderate or severe?	MILD 1 MODERATE 2 SEVERE 3 DON'T KNOW 8									

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
527C	Was the abdominal pain in her upper belly, lower belly, or all over her belly?	UPPER ABDOMEN 1 LOWER ABDOMEN 2 ALL OVER THE ABDOMEN 3 DON'T KNOW 8									
528	Did she have abdominal distension ?	YES 1 NO 2 DON'T KNOW 8	→ 529								
528A	How many days or months was her abdomen distended? IF < 24 HRS WRITE '00' DAYS IF < 1 MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998									
528B	Did the distension come rapidly within days or slowly over several weeks?	RAPIDLY, WITHIN FEW DAYS ... 1 SLOWLY, OVER WEEKS 2 DON'T KNOW 8									
529	Did she have a mass in her abdomen ?	YES 1 NO 2 DON'T KNOW 8									
530	Did she have vomiting ?	YES 1 NO 2 DON'T KNOW 8	→ 531								
530A	For how many days or months did she have vomiting? IF < 24 HRS WRITE '00' DAYS IF < 1 MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998									
530B	Did she vomit blood?	YES 1 NO 2 DON'T KNOW 8									
531	Did she become mentally confuse ?	YES 1 NO 2 DON'T KNOW 8									
532	Did she lose consciousness ?	YES 1 NO 2 DON'T KNOW 8	→ 533								
532A	For how long she remained unconscious? IF < 24 HRS WRITE '00' DAYS IF < 1 MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998									
532B	Did she become unconscious suddenly or gradually?	SUDDENLY 1 GRADUALLY 2 DON'T KNOW 8									
533	Did she become paralyze before her death?	YES 1 NO 2 DON'T KNOW 8	→ 534								

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
533A	How long did the paralysis last? IF < 24 HRS WRITE '00' DAYS IF < 1 MONTH WRITE DAYS IF > 1 MONTH WRITE MONTHS IF ONE OR MORE YEAR WRITE YEARS	DAYS 1 <input type="text"/> <input type="text"/> MONTHS..... 2 <input type="text"/> <input type="text"/> LASTED TILL DEATH 997 DON'T KNOW 998	
533B	Was the paralysis on only one side of her body or both sides?	ONE SIDE ONLY 1 BOTH SIDES 2 DON'T KNOW 8	
534	Did she have stiffness in her whole body ?	YES 1 NO 2 DON'T KNOW 8	
535	Did she have neck pain ?	YES 1 NO 2 DON'T KNOW 8	
536	Did she have fits or convulsions ?	YES 1 NO 2 DON'T KNOW 8	→ 537
536A	For how many days or months did she have fits? IF < 24 HRS WRITE '00' DAYS IF < 1 MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 <input type="text"/> <input type="text"/> MONTHS..... 2 <input type="text"/> <input type="text"/> DON'T KNOW 998	
536B	When the fits were most frequent, how many times a day did she have fits?	TIMES <input type="text"/> <input type="text"/> DON'T KNOW 98	
537	Did she have an ulcer or swelling in the breast ?	YES 1 NO 2 DON'T KNOW 8	
538	Did she have vaginal bleeding when she was not having her menstrual period?	YES 1 NO 2 DON'T KNOW 8	→ 539
538A	For how many days or months did she have bleeding? IF < 24 HRS WRITE '00' DAYS IF < 1- MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 <input type="text"/> <input type="text"/> MONTHS..... 2 <input type="text"/> <input type="text"/> DON'T KNOW 998	
538B	Did the bleeding persist until she died?	YES 1 NO 2 DON'T KNOW 8	
539	Did she have abnormal vaginal discharge ?	YES 1 NO 2 DON'T KNOW 8	
540	Did she have swelling on her ankles ?	YES 1 NO 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
541	Did she have swelling or puffiness on her hands and/or face ?	YES 1 NO 2 DON'T KNOW 8	→ 542								
541A	For how many days or months did she have swelling on her hands and/or face ? IF < 24 HRS WRITE '00' DAYS IF < 1- MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS..... 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998									
542	Did she lose weight ?	YES 1 NO 2 DON'T KNOW 8									
543	Did she have sores in her mouth ?	YES 1 NO 2 DON'T KNOW 8									
544	Did she look pale ?	YES 1 NO 2 DON'T KNOW 8									
545	Did she have any skin disease ?	YES 1 NO 2 DON'T KNOW 8									
546	Were her eyes yellowish in color due to jaundice?	YES 1 NO 2 DON'T KNOW 8	→ 547								
546A	For how many days or months did she have yellow eyes? IF < 24 HRS WRITE '00' DAYS IF < 1- MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS..... 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998									
547	Did she ever complain of having blurred vision ?	YES 1 NO 2 DON'T KNOW 8									
548	Did she have difficulty in opening her mouth ?	YES 1 NO 2 DON'T KNOW 8									
549	Did she have difficulty in passing stools ?	YES 1 NO 2 DON'T KNOW 8									
550	Did she feel dizzy ?	YES 1 NO 2 DON'T KNOW 8									
551	Did she have general weakness or fatigue?	YES 1 NO 2 DON'T KNOW 8	→ 552								
551A	For how many days or months did she have Weakness? IF < 24 HRS WRITE '00' DAYS IF < 1- MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS..... 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998									

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
552	Did she have any ulcers on her body?	YES 1 NO 2 DON'T KNOW 8	
553	Was there any other symptom that we did not mention? 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____	PLEASE WRITE IN URDU OR ENGLISH	
554	Did people think she had an evil eye or shadow?	YES 1 NO 2 DON'T KNOW 8	
555	Was a Faith Healer called to or she was taken give amulets or spiritual healing?	YES 1 NO 2 DON'T KNOW 8	→ 601
556	Give Details:	_____ _____ _____	

SECTION 6. DECEASED ILLNESS HISTORY

601	CHECK 511:	614
	YES <input type="checkbox"/>	NO / <input type="checkbox"/> DON'T KNOW

FEVER SECTION

602	How long before she died did the fever start? IF < 1 DAY WRITE HOURS IF < 1 WEEK WRITE DAYS IF < 1 MONTH WRITE WEEKS IF ONE OR MORE MONTH WRITE MONTHS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> WEEKS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS 4 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998																	
603	How long did it last? IF < 1 DAY WRITE HOURS IF < 1 WEEK WRITE DAYS IF < 1 MONTH WRITE WEEKS IF ONE OR MORE MONTH WRITE MONTHS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> WEEKS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS 4 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998																	
604	Was the fever very high?	YES 1 NO 2 DON'T KNOW 8																	
605	Did she have fever with chills?	YES 1 NO 2 DON'T KNOW 8																	
606	Was she prescribed anti-malarial tablets for the episodes of fever and chills?	YES 1 NO 2 DON'T KNOW 8																	
607	Did her colour change during her last illness?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 608																
607A	What was the colour?	PALLOR 1 JAUNDICED 2 BLUE 3																	
608	Had she been vomiting during her last illness?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 610																
608A	How long before she died did the vomiting start? IF < 1 DAY WRITE HOURS IF < 1 WEEK WRITE DAYS IF < 1 MONTH WRITE WEEKS IF ONE OR MORE MONTH WRITE MONTHS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> WEEKS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> MONTHS 4 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998																	

609	Did she ever vomit pure blood?	YES 1 NO 2 DON'T KNOW 8									
610	Did she have any difficulty with urination?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 611								
610A	Record all that apply. ASK EACH CONDITION (ONE BY ONE):	Y N DK UNABLE TO PASS URINE .. 1 2 8 TOO FREQUENT URINATION 1 2 8 PAINFUL URINATION . . . 1 2 8 BACK PAIN WITH FEVER .. 1 2 8 BLOOD IN URINE 1 2 8 OTHER _____ . . . 1 2 8 (SPECIFY)									
611	When did the fever start?	BEFORE CHILD BIRTH / ABORTION 1 AFTER CHILD BIRTH / ABORTION 2 DON'T KNOW / REMEMBER 8 NOT APPLICABLE 9	→ 613								
612	How long before/after childbirth, miscarriage or abortion did the fever start? IF < 1 DAY WRITE HOURS IF < 1 WEEK WRITE DAYS IF < 1 MONTH WRITE WEEKS IF ONE OR MORE MONTH WRITE MONTHS	HOURS 1 DAYS 2 WEEKS 3 MONTHS 4 DON'T KNOW 998	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>								
613	Did she have convulsions with fever?	YES 1 NO 2 DON'T KNOW 8									
614	CHECK 515: YES <input type="checkbox"/> NO/ DON'T KNOW <input type="checkbox"/>		→ 621								
COUGH SECTION											
615	How long before she died did the cough start? IF < 1 DAY WRITE HOURS IF < 1 WEEK WRITE DAYS IF < 1 MONTH WRITE WEEKS IF ONE OR MORE MONTH WRITE MONTHS	HOURS 1 DAYS 2 WEEKS 3 MONTHS 4 DON'T KNOW 998	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>								
616	Was there any sputum when she coughed?	YES 1 NO 2 DON'T KNOW 8									

624	<p>How long before she died did the pain start?</p> <p>IF < 1 DAY WRITE HOURS IF < 1 WEEK WRITE DAYS IF < 1 MONTH WRITE WEEKS IF ONE OR MORE MONTH WRITE MONTHS</p>	<p>HOURS 1 <input type="text"/><input type="text"/></p> <p>DAYS 2 <input type="text"/><input type="text"/></p> <p>WEEKS 3 <input type="text"/><input type="text"/></p> <p>MONTHS 4 <input type="text"/><input type="text"/></p> <p>DON'T KNOW 998</p>	
625	<p>How long did it last?</p> <p>IF < 1 DAY WRITE HOURS IF < 1 WEEK WRITE DAYS IF < 1 MONTH WRITE WEEKS IF ONE OR MORE MONTH WRITE MONTHS</p>	<p>HOURS 1 <input type="text"/><input type="text"/></p> <p>DAYS 2 <input type="text"/><input type="text"/></p> <p>WEEKS 3 <input type="text"/><input type="text"/></p> <p>MONTHS 4 <input type="text"/><input type="text"/></p> <p>DON'T KNOW 998</p>	
626	<p>If it was in abdomen, which specific side?</p>	<p>_____</p> <p>_____</p> <p>_____</p>	
627	<p>Was there any pain in the lower abdomen?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	
628	<p>Was the pain accompanied by fever?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	<p><input type="checkbox"/> → 630</p>
629	<p>Was the fever mild, moderate or high?</p>	<p>MILD 1</p> <p>MODERATE 2</p> <p>HIGH 3</p> <p>DON'T KNOW 8</p>	
630	<p>Was the pain accompanied by vomiting?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	
631	<p>When did the pain start?</p>	<p>BEFORE LABOUR 1</p> <p>AT TIME OF LABOUR 2</p> <p>1 DAY AFTER DELIVERY 3</p> <p>2 DAYS AFTER DELIVERY 4</p> <p>3 DAYS AFTER DELIVERY 5</p> <p>> 3 DAYS AFTER DELIVERY 6</p> <p>DON'T KNOW / DON'T REMEMBER 8</p> <p>NOT APPLICABLE 9</p>	

632	CHECK 536:	YES <input type="checkbox"/>		NO / DON'T KNOW <input type="checkbox"/>	→ 639
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CONVULSION SECTION

633	Did she have a history of convulsions or epilepsy?	YES 1 NO 2 DON'T KNOW 8							
634	Did she have convulsions in her last illness?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 635						
634A	For how long before death? IF < 1 DAY WRITE HOURS IF < 1 WEEK WRITE DAYS IF < 1 MONTH WRITE WEEKS IF ONE OR MORE MONTH WRITE MONTHS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> WEEKS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> DON'T KNOW 998							
635	Did she have high blood pressure before she died?	YES 1 NO 2 DON'T KNOW 8							
636	Did she have severe headache before she died?	YES 1 NO 2 DON'T KNOW 8							
637	Did she have change in her vision before she died?	YES 1 NO 2 DON'T KNOW 8							
638	What was her state of consciousness before she died? I mean, was she conscious, semi-conscious or unconscious? (Explain)	_____ _____ _____							

639	CHECK 540 & 541:	YES <input type="checkbox"/>		NO / DON'T KNOW <input type="checkbox"/>	→ 701
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SWELLING SECTION

640	Where was the site of swelling? (Ask for each)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align: center;">YES</td> <td style="text-align: center;">NO</td> <td style="text-align: center;">DK</td> </tr> <tr> <td>ABDOMEN</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>FACE</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>LEGS AND FEET</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>WHOLE BODY</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> </table>		YES	NO	DK	ABDOMEN	1	2	8	FACE	1	2	8	LEGS AND FEET	1	2	8	WHOLE BODY	1	2	8	
	YES	NO	DK																				
ABDOMEN	1	2	8																				
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641	How long before she died did she have this swelling? IF < 1 DAY WRITE HOURS IF < 1 WEEK WRITE DAYS IF < 1 MONTH WRITE WEEKS IF ONE OR MORE MONTH WRITE MONTHS	HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> WEEKS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> MONTHS 4 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> DON'T KNOW 998																					

642	When did the swelling start in relation to delivery of the baby or abortion? IF < 1 DAY WRITE HOURS IF < 1 WEEK WRITE DAYS IF < 1 MONTH WRITE WEEKS IF ONE OR MORE MONTH WRITE MONTHS	HOURS 1 <table border="1"> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </table> DAYS 2 WEEKS 3 MONTHS 4 DON'T KNOW 998 NOT APPLICABLE 999															
643	At the time of death was she short of breath?	YES 1 NO 2 DON'T KNOW 8															
644	Did her colour change during her last illness?	YES 1 NO 2 DON'T KNOW 8															
645	Did she also have any urinary problems?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 701														
645A	What problems? RECORD ALL THAT APPLY	<table border="0"> <tr> <td></td> <td style="text-align: right;">Y N DK</td> </tr> <tr> <td>UNABLE TO PASS URINE ..</td> <td style="text-align: right;">1 2 8</td> </tr> <tr> <td>TOO FREQUENT URINATION</td> <td style="text-align: right;">1 2 8</td> </tr> <tr> <td>PAINFUL URINATION</td> <td style="text-align: right;">1 2 8</td> </tr> <tr> <td>BLOOD IN URINE</td> <td style="text-align: right;">1 2 8</td> </tr> <tr> <td>OTHER _____</td> <td style="text-align: right;">1 2 8</td> </tr> <tr> <td></td> <td style="text-align: center;">(SPECIFY)</td> </tr> </table>		Y N DK	UNABLE TO PASS URINE ..	1 2 8	TOO FREQUENT URINATION	1 2 8	PAINFUL URINATION	1 2 8	BLOOD IN URINE	1 2 8	OTHER _____	1 2 8		(SPECIFY)	
	Y N DK																
UNABLE TO PASS URINE ..	1 2 8																
TOO FREQUENT URINATION	1 2 8																
PAINFUL URINATION	1 2 8																
BLOOD IN URINE	1 2 8																
OTHER _____	1 2 8																
	(SPECIFY)																

SECTION 7. ANTENATAL CARE AND CHARACTERISTICS OF LAST PREGNANCY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 308: YES <input type="checkbox"/> NO/DON'T KNOW <input type="checkbox"/>		→ 801
702	During her last pregnancy, did (NAME) see anyone for antenatal care?	YES 1 NO 2 DON'T KNOW 8	→ 709
703	Who did she see for antenatal care? <p align="center">CIRCLE ALL THAT MENTIONED</p>	HEALTH PERSON DOCTOR A NURSE / MIDWIFE / LHV B OTHER HEALTH PERSON C OTHER OTHER PERSON DAI/TBA D LADY H. WORKER E HOMEOPATH F HAKEEM G OTHER _____ X (SPECIFY) DON'T KNOW Z	
704	The first time she went for antenatal care, did she go because she had a problem or did she go for a check-up?	FOR PROBLEM 1 FOR CHECK-UP ONLY 2 DON'T KNOW 8	→ 706
705	What was the problem she went for?	_____ _____	
706	How many months pregnant was she when she first saw a health provider during the last pregnancy?	MONTHS <input type="text"/> <input type="text"/> DON'T KNOW 98	
707	How many times did she see a health provider during her last pregnancy?	TIMES <input type="text"/> <input type="text"/> DON'T KNOW 98	
708	Was she referred by a health care provider to go to a specialist ?	YES 1 NO 2 DON'T KNOW 8	→ 710
709	Why didn't she see anyone for antenatal care during her last pregnancy? <p align="center">CIRCLE ALL THAT MENTIONED</p>	NOT NECESSARY A COSTS TOO MUCH B TOO FAR C NO TRANSPORT D NO ONE TO GO WITH E SERVICE NOT GOOD F NO TIME TO GO G DID NOT KNOW WHERE TO GO ... H DID NOT WANT TO SEE A MALE DOCTOR I LONG WAITING TIME J NOT ALLOWED TO GO K OTHER _____ X (SPECIFY) DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
710	During her last pregnancy, did (NAME) have an injection in her arm/buttocks to prevent the baby from getting tetanus, that is, convulsions after birth?	YES 1 NO 2 DON'T KNOW 8	
711	Did she have her blood pressure measured during this pregnancy?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 714
712	Do you know whether her blood pressure was normal or high or low?	NORMAL 1 HIGH 2 LOW 3 DON'T KNOW 8	→ 714
713	Was she prescribed medicines for blood pressure ?	YES 1 NO 2 DON'T KNOW 8	
714	Was (NAME) using any family planning method before she became pregnant?	YES 1 NO 2 DON'T KNOW 8	
715	Did she want this pregnancy?	YES 1 NO 2 DON'T KNOW 8	
716	Did she do anything to try to end this pregnancy?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 719
717	What did she do?	WENT FOR ABORTION 1 TOOK DRUGS 2 INSERTED OBJECT INTO VAGINA 3 OTHER 4 (SPECIFY) DON'T KNOW 8	
718	Who did she go to for help to end this pregnancy?	HEALTH PERSON DOCTOR 01 NURSE / MIDWIFE / LHV 02 OTHER HEALTH PERSON 03 OTHER PERSON DAI/TBA 04 LADY H. WORKER 05 HOMEOPATH 06 HAKEEM 07 OTHER 08 (SPECIFY) DON'T KNOW 98	
719	CHECK 310: IF MISCARRIAGE OR ABORTION <input type="checkbox"/> NO / DON'T KNOW <input type="checkbox"/>		→ 723
720	Did she have a foul-smelling discharge from her vagina after the miscarriage/abortion?	YES 1 NO 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
721	Did she have fever after the miscarriage/abortion?	YES 1 NO 2 DON'T KNOW 8	
722	Did she have abdominal distension after the miscarriage / abortion?	YES 1 NO 2 DON'T KNOW 8	
723	During her last pregnancy, did she have swelling around her ankles?	YES 1 NO 2 DON'T KNOW 8	
724	Was her face puffy during her pregnancy?	YES 1 NO 2 DON'T KNOW 8	
725	Did she complain of blurred vision during her pregnancy?	YES 1 NO 2 DON'T KNOW 8	
726	During the last illness, did she have bleeding from vagina?	YES 1 NO 2 DON'T KNOW 8	→ 732
727	Did the bleeding wet her clothes?	YES 1 NO 2 DON'T KNOW 8	
728	Did the bleeding wet the bed?	YES 1 NO 2 DON'T KNOW 8	
729	Was there so much blood as to wet the floor?	YES 1 NO 2 DON'T KNOW 8	
730	Was she in pain while bleeding?	YES 1 NO 2 DON'T KNOW 8	
731	Did the bleeding contain clots?	YES 1 NO 2 DON'T KNOW 8	
732	Did someone examine her internally during last pregnancy?	YES 1 NO 2 DON'T KNOW 8	→ 734
733	Did the vaginal examination cause any bleeding or make the bleeding worse?	YES 1 NO 2 DON'T KNOW 8	
734	Did the bleeding persist until she died?	YES 1 NO 2 DON'T KNOW 8	

SECTION 8. FOR DEATHS DURING LABOUR, DELIVERY, OR WITHIN 40 DAYS AFTER DELIVERY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	CHECK 317, 319, 321: IF ANY YES <input type="checkbox"/> NO / DON'T KNOW <input type="checkbox"/>		901
802	Did (NAME) have bleeding from her vagina ?	YES 1 NO 2 DON'T KNOW 8	805
803	Did the bleeding start before or after the birth / delivery ?	BEFORE 1 AFTER 2 DON'T KNOW 8	
804	Was she in pain while bleeding?	YES 1 NO 2 DON'T KNOW 8	
805	Did the pain start before the labor pains started?	YES 1 NO 2 DON'T KNOW 8	
806	Where did she deliver?	HOME HER HOME 11 OTHER HOME 12 PUBLIC SECTOR GOVT. HOSPITAL 21 RHC/MCH 22 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/CLINIC 31 OTHER PRIVATE MED. _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) DID NOT DELIVER 90	814
807	Who assisted with the delivery?	HEALTH PERSON DOCTOR 01 NURSE / MIDWIFE / LHV 02 OTHER PERSON DAI-TBA 03 LADY H. WORKER 04 HOMEOPATH 05 HAKEEM 06 RELATIVE / FRIEND 07 OTHER _____ 96 (SPECIFY) NO ONE 08	
808	Were any instruments used to assist in her last delivery?	YES 1 NO 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
809	During her last delivery, did someone cut her vagina to make room for the baby to come [episiotomy]?	YES 1 NO 2 DON'T KNOW 8	
810	Was there a tear in her vagina after her last delivery?	YES 1 NO 2 DON'T KNOW 8	
811	During the delivery, did her birth attendant examine her vagina using either hands or instruments?	YES 1 NO 2 DON'T KNOW 8	
812	Did her water bag break before the labor pains started?	YES 1 NO 2 DON'T KNOW 8	
813	How long was she in labor?	HOURS <input type="text"/> <input type="text"/> DON'T KNOW 98	
814	Was (NAME) given any drugs just before or during labor?	YES 1 NO 2 DON'T KNOW 8	→ 816
815	What were the drugs used for?	EXPEDITE DELIVERY OF BABY ... 1 EXPEDITE PLACENTA COMING ... 2 TO EASE PAIN..... 3 TO REDUCE BLEEDING 4 DON'T KNOW 8	
816	Did she have a lot of bleeding <u>before</u> delivering the baby?	YES 1 NO 2 DON'T KNOW 8	→ 820
817	Did the bleeding wet her clothes?	YES 1 NO 2 DON'T KNOW 8	
818	Did the bleeding wet the bed?	YES 1 NO 2 DON'T KNOW 8	
819	Was there so much blood as to wet the floor?	YES 1 NO 2 DON'T KNOW 8	
820	Did she die before or after the baby was born?	BEFORE 1 AFTER..... 2 DON'T KNOW 8	→ 901
821	Did she have difficulty delivering the baby?	YES 1 NO 2 DON'T KNOW 8	
822	What part of the baby came out first?	HEAD 1 LEG!..... 2 SHOULDER 3 ARMS 4 CAESARIAN SECTION..... 5 DON'T KNOW 8	→ 826

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
823	Did the placenta come out?	YES 1 NO 2 DON'T KNOW 8	→ 826
824	How long after the baby came did the placenta come out? IF < 1 HOUR WRITE MINUTES IF ONE OR MORE HOUR WRITE HOURS	MINUTES 1 <input type="text"/> <input type="text"/> HOURS 2 <input type="text"/> <input type="text"/> DON'T KNOW 998	
825	Did all of the placenta come out or only part?	ALL 1 PART 2 DON'T KNOW 8	
826	Did she have a lot of bleeding <u>after</u> delivering the baby?	YES 1 NO 2 DON'T KNOW 8	→ 830
827	Did the bleeding wet her clothes?	YES 1 NO 2 DON'T KNOW 8	
828	Did the bleeding wet the bed?	YES 1 NO 2 DON'T KNOW 8	
829	Was there so much blood as to wet the floor?	YES 1 NO 2 DON'T KNOW 8	
830	Did she have a foul-smelling discharge from her vagina after the baby was born?	YES 1 NO 2 DON'T KNOW 8	
831	Did she have a pain in her legs after the baby was born?	YES 1 NO 2 DON'T KNOW 8	
832	Did she have a fever after the baby was born?	YES 1 NO 2 DON'T KNOW 8	→ 838
833	How long after the delivery did the fever start? IF < 1 DAY WRITE HOURS IF ONE OR MORE DAY WRITE DAYS	HOURS 1 <input type="text"/> <input type="text"/> DAYS 2 <input type="text"/> <input type="text"/> DON'T KNOW 998	
834	Did she have any fits or rigors with the fever?	YES 1 NO 2 DON'T KNOW 8	→ 836
835	Did the fits stop after the baby was born?	YES 1 NO 2 DON'T KNOW 8	
836	How long did the fever last? IF < 1 DAY WRITE HOURS IF ONE OR MORE DAY WRITE DAYS	HOURS 1 <input type="text"/> <input type="text"/> DAYS 2 <input type="text"/> <input type="text"/> DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
837	Was she having the fever when she died?	YES 1 NO 2 DON'T KNOW 8	
838	Was the color of her eyes yellow after the baby was born?	YES 1 NO 2 DON'T KNOW 8	
839	After the delivery, did a birth attendant examine her vagina using either hands or instruments?	YES 1 NO 2 DON'T KNOW 8	

SECTION 9. DEATHS DUE TO INJURY / ACCIDENT / VIOLENCE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP				
901	Did she have any serious accident or injury before she died?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 1001				
902	Please tell me what happened. WRITE IN DETAIL WHAT IS SAID. THEN CIRCLE THE CODE THAT FITS BEST _____ _____ _____ _____ _____ _____ _____ _____	ROAD / TRAIN ACCIDENT 01 FALL 02 DROWNING 03 SEVERE BURNS / ACID BURNS . 04 POISONING 05 SUFFOCATION 06 CUT / STABBED 07 BEATEN / PUNCHED / KICKED ... 08 RAPE 09 SHOT WITH GUN 10 DOG BITE 11 SNAKE BITE 12 INSECT BITE 13 OTHER _____ 96 (SPECIFY)					
903	How long before she died did this happen? IF < 1-DAY WRITE '00' IF < 1-MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	DAYS 1 MONTHS 2 DON'T KNOW 998	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>				
904	Did she hurt herself intentionally, did someone else hurt her intentionally, or was this an accident?	HURT HERSELF INTENTIONALLY . 1 SOMEONE HURT HER..... 2 ACCIDENT 3 DON'T KNOW 8	<input type="checkbox"/> → 906				
905	Do you think she was trying to commit suicide?	YES 1 NO 2 DON'T KNOW 8					
906	Do you think this injury was the main cause of her death, did it contribute to her death, or was it not important?	MAIN CAUSE 1 CONTRIBUTED 2 NOT IMPORTANT 3 DON'T KNOW 8					

SECTION 10. CARE-SEEKING BEHAVIOR

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP												
1001	<p>During her last illness, how long after she first started having symptoms, did you recognize that she was having a serious problem or illness?</p> <p>IF < 1 DAY WRITE HOURS IF < 1 MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS</p>	<p>IMMEDIATELY 000</p> <p>HOURS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DAYS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>MONTHS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table></p> <p>DIED IMMEDIATELY 995 DON'T KNOW 998</p>													
1002	<p>How serious did she/her family perceive this complication or problem to be?</p>	<p>NOT SERIOUS 1 SOMEWHAT SERIOUS 2 VERY SERIOUS 3 LIFE THREATENING 4</p>	→ 1004												
1003	<p>Did she/her family think that she could have died because of her problem or illness or did you think it was not so serious at first?</p>	<p>THOUGHT SHE COULD DIE 1 DID NOT THINK SHE COULD DIE .. 2</p>													
1004	<p>During (NAME)'s last illness/problem, did she or anyone seek any kind of treatment for her illness?</p>	<p>YES 1 NO 2 DON'T KNOW 8</p>	→ 1007												
1005	<p>Why did you not seek any treatment for her illness?</p> <p>CIRCLE ALL MENTIONED.</p> <p>WRITE DETAILS OF THE REASON GIVEN IN THE SPACE BELOW:</p>	<p>NO TREATMENT NECESSARY ... A NOT CUSTOMARY B COST TOO MUCH C TOO FAR D NO TRANSPORT E NO ONE TO ACCOMPANY F FAMILY DID NOT ALLOW G GOOD CARE AT HOME H DID NOT KNOW WHERE TO GO ... I NO TIME TO GO J HAVE TO GO TO A MALE DOCTOR K DID NOT REALIZE SERIOUSNESS . L OTHER _____ X (SPECIFY) DON'T KNOW Z</p>													
1006	<p>Who was involved in making the decision that (NAME) should NOT go for treatment?</p> <p>CIRCLE ALL MENTIONED.</p>	<p>DECEASED HERSELF A HUSBAND B MOTHER IN LAW/FATHER IN LAW . C MOTHER / FATHER D SISTER / SISTER IN LAW E OTHER HUSBAND'S FAMILY F DECEASED'S FAMILY MEMBERS . G RELATIVES H FRIENDS / NEIGHBOURS I DAI / LHV / FIELDWORKER J OTHER _____ X (SPECIFY) NO ONE Y DON'T KNOW Z</p>	→ H101												

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP												
1007	<p>From whom did she receive treatment?</p> <p>Anyone else?</p> <p>CIRCLE ALL MENTIONED.</p>	<p>HEALTH PERSON</p> <p>DOCTOR A</p> <p>NURSE / MIDWIFE / LHV B</p> <p>OTHER PERSON</p> <p>DAI-TBA C</p> <p>LADY H. WORKER D</p> <p>HOMEOPATH E</p> <p>HAKEEM F</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p> <p>NO ONE Y</p> <p>DON'T KNOW Z</p>													
1008	<p>Where was the treatment provided?</p> <p>CIRCLE ALL MENTIONED.</p>	<p>HOME</p> <p>HER HOME A</p> <p>OTHER HOME B</p> <p>PUBLIC SECTOR</p> <p>GOVT. HOSPITAL C</p> <p>RHC/MCH D</p> <p>OTHER PUBLIC _____ E</p> <p>(SPECIFY)</p> <p>PRIVATE MED. SECTOR</p> <p>PVT. HOSPITAL/CLINIC F</p> <p>OTHER PRIVATE MED. _____ G</p> <p>(SPECIFY)</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p> <p>NO ONE Y</p> <p>DON'T KNOW Z</p>													
1009	<p>Who was involved in making the decision that (NAME) should go for treatment?</p> <p>CIRCLE ALL MENTIONED.</p>	<p>DECEASED HERSELF A</p> <p>HUSBAND B</p> <p>MOTHER IN LAW/FATHER IN LAW . C</p> <p>MOTHER / FATHER D</p> <p>SISTER / SISTER IN LAW E</p> <p>OTHER HUSBAND'S FAMILY F</p> <p>DECEASED'S FAMILY MEMBERS . G</p> <p>RELATIVES H</p> <p>FRIENDS /NEIGHBOURS. I</p> <p>DAI / LHV / FIELDWORKER J</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p> <p>NO ONE Y</p> <p>DON'T KNOW Z</p>													
1010	<p>How long after the problem was recognized, was it decided that she should go for treatment?</p> <p>IF < 24 HRS WRITE '00' DAYS</p> <p>IF < 1 MONTH WRITE DAYS</p> <p>IF ONE OR MORE MONTH WRITE MONTHS</p>	<p>HOURS 1 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table></p> <p>DAYS 2 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table></p> <p>MONTHS 3 <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table></p> <p>DON'T KNOW 998</p>													
1011	<p>Once you decided to go for treatment, did you try to go immediately, or did you wait?</p>	<p>YES, TRIED TO GO IMMEDIATELY . 1</p> <p>NO, WAITED 2</p> <p>DON'T KNOW 8</p>	<p>→ 1013</p> <p>→ 1013</p>												

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1012	Why did you not try to go immediately?	HOSPITAL TOO FAR A DID NOT REALIZE SERIOUSNESS B LACK OF FUNDS C HAVE TO GO TO A MALE DOCTOR D NIGHT TIME E NO TRANSPORT F HUSBAND AWAY G NEED PERMISSION FROM ELDERS H OTHER X DON'T KNOW Z	
1013	What was the time lag between first recognition of the seriousness of symptoms and taking (NAME) to hospital? IF < 1 DAY WRITE HOURS IF ONE OR MORE DAY WRITE DAYS	HOURS 1 <input type="text"/> <input type="text"/> DAYS 2 <input type="text"/> <input type="text"/> DON'T KNOW 998	
1014	CHECK 1008: CARE OUTSIDE HOME <input type="checkbox"/> (ANY CODE 'C' THROUGH 'X' CIRCLED)	(CODE A,B Y,Z) <input type="checkbox"/>	→ 1043
1015	Where did she first get treatment for her last illness?	PUBLIC SECTOR GOVT. HOSPITAL 21 RHC/MCH 22 OTHER PUBLIC 26 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/CLINIC 31 OTHER PRIVATE MED. 36 (SPECIFY) OTHER 96 DON'T KNOW 98	
1016	Who went with her when she went to the first place for treatment? CHECK ALL THAT APPLY	HUSBAND B MOTHER IN LAW/FATHER IN LAW C MOTHER / FATHER D SISTER / SISTER IN LAW E OTHER HUSBAND'S FAMILY F DECEASED'S FAMILY MEMBERS G RELATIVES H FRIENDS /NEIGHBOURS I DAI / LHV / FIELDWORKER J OTHER X (SPECIFY) NO ONE Y DON'T KNOW Z	
1017	How far is the (HEALTH FACILITY / PROVIDER) from her home / where she was staying?	KILOMETERS <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																																
1018	How did she go to the first place she went for treatment?	ON FOOT A PRIVATE CAR/JEEP B BUS C TRAIN D AMBULANCE E ANIMAL CART F TAXI/RENTED VEHICLE G OTHER _____ X (SPECIFY) DON'T KNOW Z	→ 1020 → 1021																																																
1019	Was it difficult to get transport?	YES 1 NO 2 DON'T KNOW 8																																																	
1020	How long did it take to get there? IF < 1 HOUR WRITE MINUTES IF ONE OR MORE HOUR WRITE HOURS	MINUTES 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> HOURS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998																																																	
1021	After she arrived at the first hospital / clinic, how long did she wait before until she was examined by a doctor or nurse or other health care provider? IF < 1 HOUR WRITE MINUTES IF ONE OR MORE HOUR WRITE HOURS	IMMEDIATELY 000 MINUTES 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> HOURS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998																																																	
1022	What treatment was given to (NAME)? Did she receive: a. An injection in her arm? b. An injection in her buttock? c. A needle in her vein attached to a bag (drip)? d. A blood transfusion? e. An operation? f. Pills or capsules? g. Oxygen?	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 10%; text-align: center;">YES</th> <th style="width: 10%; text-align: center;">NO</th> <th style="width: 10%; text-align: center;">DK</th> </tr> </thead> <tbody> <tr> <td>INJECTION IN ARM</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>INJECTION IN BUTT ...</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>DRIP</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>TRANSFUSION</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>OPERATION</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>PILLS/CAPSULES ...</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>OXYGEN</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>OTHER -1 _____</td> <td colspan="3" style="text-align: right;">1</td> </tr> <tr> <td style="text-align: center;">(SPECIFY)</td> <td colspan="3"></td> </tr> <tr> <td>OTHER -2 _____</td> <td colspan="3" style="text-align: right;">1</td> </tr> <tr> <td style="text-align: center;">(SPECIFY)</td> <td colspan="3"></td> </tr> </tbody> </table>		YES	NO	DK	INJECTION IN ARM	1	2	8	INJECTION IN BUTT ...	1	2	8	DRIP	1	2	8	TRANSFUSION	1	2	8	OPERATION	1	2	8	PILLS/CAPSULES ...	1	2	8	OXYGEN	1	2	8	OTHER -1 _____	1			(SPECIFY)				OTHER -2 _____	1			(SPECIFY)				
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1023	Did (NAME)'s condition improve after treatment in this place or did it stay the same or get worse?	IMPROVED 1 STAYED SAME 2 GOT WORSE 3 DIED 4 DON'T KNOW 8	→ 1025 → 1025																																																
1024	How long after she arrived in the first hospital / clinic did she die? IF < 1 HOUR WRITE MINUTES IF < 1 DAY WRITE HOURS IF ONE OR MORE DAYS WRITE DAYS	IMMEDIATELY 000 MINUTES 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> HOURS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998													→ 1043																																				

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
1025	Did the first hospital / clinic / provider refer (NAME) to another hospital / clinic?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 1031								
1026	Where was she referred to?	PUBLIC SECTOR GOVT. HOSPITAL 21 RHC/MCH 22 OTHER PUBLIC 26 _____ (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/CLINIC 31 OTHER PRIVATE MED. 36 _____ (SPECIFY) OTHER 96 _____ (SPECIFY)									
1027	How long after she arrived in the first hospital / clinic did they refer her to the second hospital / clinic? IF < 1 HOUR WRITE MINUTES IF < 1 DAY WRITE HOURS IF < 1 MONTH WRITE DAYS IF ONE OR MORE MONTH WRITE MONTHS	IMMEDIATELY 000 MINUTES 1 <table border="1"><tr><td></td><td></td></tr></table> HOURS 2 <table border="1"><tr><td></td><td></td></tr></table> DAYS 3 <table border="1"><tr><td></td><td></td></tr></table> MONTHS 4 <table border="1"><tr><td></td><td></td></tr></table> DON'T KNOW 998									
1028	Why did they refer (NAME) to the second place?	NO EQUIPMENT FOR OPERATION A HIGH BLOOD PRESSURE B TO GET BETTER CARE C NO DOCTOR WAS AVAILABLE ... D NO WAY TO GIVE BLOOD E NO PROPER ARRANGEMENTS FOR RESOLVING PROBLEM ... F BABY WENT HIGHER G PART OF BABY CAME OUT H BABY PASSED STOOL INSIDE UTERUS I CERVIX DID NOT OPEN J OTHER X _____ (SPECIFY) DON'T KNOW Z									
1029	Did she go to the place they referred her to?	YES 1 NO 2 DON'T KNOW 8	<input type="checkbox"/> → 1032 <input type="checkbox"/> → 1031								

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP												
1036	After she arrived at this last hospital / clinic, how long did she wait until she was examined by a doctor or nurse or other health care provider? IF < 1 HOUR WRITE MINUTES IF ONE OR MORE HOUR WRITE HOURS	IMMEDIATELY 000 MINUTES 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> HOURS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998													
1037	What treatment was given to (NAME)? Did she receive: a. An injection in her arm? b. An injection in her buttock? c. A needle in her vein attached to a bag (drip)? d. A blood transfusion? e. An operation? f. Pills or capsules? g. Oxygen?	YES NO DK INJECTION IN ARM 1 2 8 INJECTION IN BUTT 1 2 8 DRIP 1 2 8 TRANSFUSION 1 2 8 OPERATION 1 2 8 PILLS/CAPSULES 1 2 8 OXYGEN 1 2 8 OTHER -1 1 (SPECIFY) OTHER -2 1 (SPECIFY)													
1038	Did (NAME)'s condition improve after treatment in this last place or did it stay the same or get worse?	IMPROVED 1 STAYED SAME 2 GOT WORSE 3 DIED 4 DON'T KNOW 8	→ 1040 → 1040												
1039	How long after she arrived in the last hospital / clinic did she die? IF < 1 HOUR WRITE MINUTES IF < 1 DAY WRITE HOURS IF ONE OR MORE DAY WRITE DAYS	IMMEDIATELY 000 MINUTES 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> HOURS 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAYS 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DON'T KNOW 998													→ 1043
1040	Before she died, did this last hospital / clinic / provider refer (NAME) to another hospital / clinic?	YES 1 NO 2 DON'T KNOW 8	→ 1043												
1041	Where was she referred to?	PUBLIC SECTOR GOVT. HOSPITAL 21 RHC/MCH 22 OTHER PUBLIC 26 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/CLINIC 31 OTHER PRIVATE MED. 36 (SPECIFY) OTHER 96 DON'T KNOW 98													

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1042	Why did they refer (NAME) to this place?	NO EQUIPMENT FOR OPERATION A HIGH BLOOD PRESSURE B TO GET BETTER CARE C NO DOCTOR WAS AVAILABLE ... D NO ARRANGEMENTS FOR GIVING BLOOD E NO PROPER ARRANGEMENTS FOR RESOLVING PROBLEM ... F BABY WENT HIGHER G PART OF BABY CAME OUT H BABY PASSED STOOL INSIDE UTERUS I CERVIX DID NOT OPEN J OTHER _____ X (SPECIFY) DON'T KNOW Z	
1043	How much did it cost in total for the treatment for her last illness? IF > 990000 WRITE 990000	RUPEES <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW 999998	
1044	Where did you get the funds to pay for her care? CIRCLE ALL MENTIONED	FAMILY FUNDS A BORROWED B SOLD ASSETS C GIVEN BY RELATIVES/FRIENDS... D MORTGAGED PROPERTY E OTHER _____ X (SPECIFY) DON'T KNOW Z	
1045	Did she die in the hospital?	YES 1 NO 2 DON'T KNOW 8	→ 1047
1046	Where did she die?	ON HER WAY TO NEXT HOSPITAL 1 ON HER WAY BACK TO HOME . 2 AT HOME 3 OTHERS 4 DON'T KNOW 8	→ H101
1047	How long after she died did they remove the body from the hospital / clinic? IF < 1 HOUR WRITE "00" IF < 1 DAY WRITE HOURS IF ONE OR MORE DAY WRITE DAYS	HOURS 1 <input type="text"/> <input type="text"/> DAYS 2 <input type="text"/> <input type="text"/> DON'T KNOW 998	

SECTION 11: HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
H101	What is the main source of drinking water for members of your household?	PIPED WATER PIPED INTO DWELLING 11 PIPED TO YARD/PLOT 12 PUBLIC TAP/STAND PIPE ... 13 TUBE WELL OR BOREHOLE 21 HAND PUMP 22 DUG WELL PROTECTED WELL 31 UNPROTECTED WELL 32 WATER FROM SPRING PROTECTED SPRING/KAREZ ... 41 UNPROTECTED SPRING 42 RAINWATER 51 TANKER TRUCK 61 CART WITH SMALL TANK 71 SURFACE WATER (RIVER/DAM/LAKE/ POND/STREAM/CANAL 81 BOTTLED WATER 91 OTHER _____ 96 (SPECIFY)	→ H103
H102	How long does it take to go there, get water, and come back?	MINUTES <input type="text"/> <input type="text"/> <input type="text"/> ON PREMISES 996 DON'T KNOW 998	
H103	Do you treat your water in any way to make it safer to drink?	YES 1 NO 2 DON'T KNOW 8	→ H105
H104	What do you usually do to the water to make it safer to drink? Anything else? RECORD ALL MENTIONED.	BOIL A ADD BLEACH/CHLORINE B STRAIN THROUGH A CLOTH C USE WATER FILTER (CERAMIC/ SAND/COMPOSITE/ETC.) D SOLAR DISINFECTION E LET IT STAND AND SETTLE F OTHER _____ X (SPECIFY) DON'T KNOW Z	
H105	What kind of toilet facility do members of your household usually use?	FLUSH OR POUR FLUSH TOILET FLUSH TO SEWER SYSTEM ... 11 FLUSH TO SEPTIC TANK 12 FLUSH TO SOMEWHERE ELSE ... 13 FLUSH, DON'T KNOW WHERE ... 14 PIT LATRINE VENTILATED IMPROVED PIT LATRINE (VIP) 21 PIT LATRINE WITH SLAB 22 PIT LATRINE WITHOUT SLAB/ OPEN PIT 23 BUCKET TOILET 41 HANGING TOILET/HANGING LATRINE 51 NO FACILITY/BUSH/FIELD 61 OTHER _____ 96 (SPECIFY)	→ H107

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																																			
H106	Do you share this toilet facility with other households?	YES 1 NO 2																																																				
H107	Does your household have:	<table border="0"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>Electricity?</td> <td>ELECTRICITY 1</td> <td>2</td> </tr> <tr> <td>Radio?</td> <td>RADIO 1</td> <td>2</td> </tr> <tr> <td>Television?</td> <td>TELEVISION 1</td> <td>2</td> </tr> <tr> <td>Refrigerator?</td> <td>REFRIGERATOR 1</td> <td>2</td> </tr> <tr> <td>Mobile telephone or land line telephone?</td> <td>ANY TELEPHONE 1</td> <td>2</td> </tr> <tr> <td>Room cooler, air conditioner?</td> <td>ROOM COOLER, AIR COND. . 1</td> <td>2</td> </tr> <tr> <td>Washing machine?</td> <td>WASHING MACHINE 1</td> <td>2</td> </tr> <tr> <td>Water pump?</td> <td>WATER PUMP 1</td> <td>2</td> </tr> <tr> <td>Bed?</td> <td>BED 1</td> <td>2</td> </tr> <tr> <td>Chairs?</td> <td>CHAIRS 1</td> <td>2</td> </tr> <tr> <td>Almirah / cabinet?</td> <td>ALMIRAH/CABINET 1</td> <td>2</td> </tr> <tr> <td>Clock?</td> <td>CLOCK 1</td> <td>2</td> </tr> <tr> <td>Sofa?</td> <td>SOFA 1</td> <td>2</td> </tr> <tr> <td>Sewing machine?</td> <td>SEWING MACHINE 1</td> <td>2</td> </tr> <tr> <td>Camera?</td> <td>CAMERA 1</td> <td>2</td> </tr> <tr> <td>Personal computer?</td> <td>PERSONAL COMPUTER ... 1</td> <td>2</td> </tr> </tbody> </table>		YES	NO	Electricity?	ELECTRICITY 1	2	Radio?	RADIO 1	2	Television?	TELEVISION 1	2	Refrigerator?	REFRIGERATOR 1	2	Mobile telephone or land line telephone?	ANY TELEPHONE 1	2	Room cooler, air conditioner?	ROOM COOLER, AIR COND. . 1	2	Washing machine?	WASHING MACHINE 1	2	Water pump?	WATER PUMP 1	2	Bed?	BED 1	2	Chairs?	CHAIRS 1	2	Almirah / cabinet?	ALMIRAH/CABINET 1	2	Clock?	CLOCK 1	2	Sofa?	SOFA 1	2	Sewing machine?	SEWING MACHINE 1	2	Camera?	CAMERA 1	2	Personal computer?	PERSONAL COMPUTER ... 1	2	
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Personal computer?	PERSONAL COMPUTER ... 1	2																																																				
H108	What type of fuel does your household mainly use for cooking?	ELECTRICITY 01 CYLINDER GAS 02 NATURAL GAS 03 BIOGAS 04 KEROSENE 05 CHARCOAL 06 WOOD 07 STRAW/SHRUBS/GRASS 08 AGRICULTURAL CROP 09 ANIMAL DUNG 10 NO FOOD COOKED IN HOUSEHOLD 95 OTHER _____ 96 (SPECIFY)																																																				
H109	MAIN MATERIAL OF THE FLOOR: RECORD OBSERVATION	NATURAL FLOOR EARTH / SAND / MUD 11 FINISHED FLOOR CHIPS / TERRAZZO 31 CERAMIC TILES 32 MARBLE 33 CEMENT 34 CARPET 35 BRICKS 36 MATS 37 OTHER _____ 96 (SPECIFY)																																																				

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
H117	<p>How many of the following animals does this household own?</p> <p>Buffalo</p> <p>Milk cows or bulls?</p> <p>Camels?</p> <p>Donkeys, or mules or horses?</p> <p>Goats?</p> <p>Sheep?</p> <p>Chickens?</p> <p>IF NONE, WRITE '00'. IF > 95, WRITE '95'. IF UNKNOWN, WRITE '98'</p>	<p>BUFFALO <input type="checkbox"/> <input type="checkbox"/></p> <p>COWS/BULLS <input type="checkbox"/> <input type="checkbox"/></p> <p>CAMELS <input type="checkbox"/> <input type="checkbox"/></p> <p>DONKEYS/MULES/HORSES . <input type="checkbox"/> <input type="checkbox"/></p> <p>GOATS <input type="checkbox"/> <input type="checkbox"/></p> <p>SHEEP <input type="checkbox"/> <input type="checkbox"/></p> <p>CHICKENS <input type="checkbox"/> <input type="checkbox"/></p>	
H118	<p>Does your household have any mosquito nets that can be used while sleeping?</p>	<p>YES 1</p> <p>NO 2</p>	→H126
H119	<p>How many mosquito nets does your household have?</p>	<p>NUMBER OF NETS <input type="text"/></p>	
H126	<p>Does your household do anything (else) to avoid mosquitos?</p>	<p>YES 1</p> <p>NO 2</p>	→H128
H127	<p>What do you do?</p> <p>CIRCLE ALL MENTIONED.</p>	<p>COIL A</p> <p>MATS B</p> <p>SPRAY C</p> <p>ELECTRIC SPRAY REPELLANT ... D</p> <p>INSECT REPELLANT E</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p>	
H128	<p>Do you have any medicines for treating malaria in your house now?</p>	<p>YES 1</p> <p>NO 2</p> <p>DOES NOT KNOW 8</p>	

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____