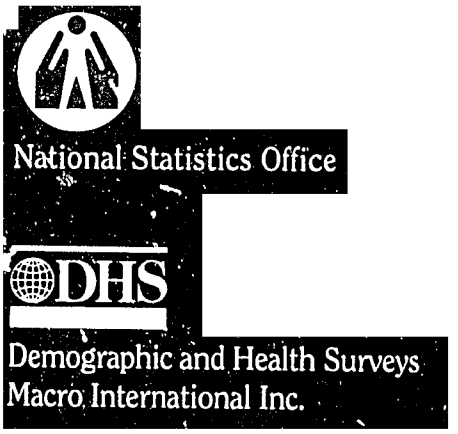
PN-ABZ-046

Philippines

National Demographic Survey 1993



PN-ABS-046

REPUBLIC OF THE PHILIPPINES

National Demographic Survey 1993

National Statistics Office
Manila, Philippines

Macro International Inc.
Calverton, Maryland USA

May 1994

This report summarizes the findings of the 1993 National Demographic Survey (NDS) undertaken by the National Statistics Office in collaboration with the Department of Health, the University of the Philippines Population Institute, and other concerned agencies in the Philippine government. Funding for the 1993 NDS was provided by the U.S. Agency for International Development.

The 1993 NDS is part of the worldwide Demographic and Health Surveys (DHS) program, which is designed to collect, analyze, and disseminate demographic data on fertility, family planning, and maternal and child health. Additional information on the 1993 NDS may be obtained from the National Statistics Office, Solicarel Building, Ramon Magsaysay Boulevard, Santa Mesa, Manila, Philippines. Additional information about the DHS program may be obtained by writing to: Macro International Inc., 11785 Beltsville Drive, Calverton, MD 20705-3119, USA (Telephone 301-572-0200, Fax 301-572-0999).

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PREFACE

The National Statistics Office (NSO) takes pleasure in presenting this final report on the 1993 Philippine National Demographic Survey. This report is a product of the joint efforts of the NSO and other government agencies with assistance from the Macro International Inc., Maryland.

The survey is part of the Demographic and Health Survey (DHS), a worldwide survey program conducted to assess the changing demographic and health situation in different countries. The Philippine NDS covered a national sample of about 13,000 households and about 15,000 women aged 15 to 49 years old. The data were collected from April to June 1993. Data processing was undertaken from May to August 1993, while the preliminary results were released in October 1993.

The survey provides us with an up-to-date set of relevant data useful to evaluate population, health and family planning programs and to assess the overall demographic situation prevailing in the country. It is hoped that the survey achieved in providing social scientists, policy makers, and planners with a clear picture of the current level of demographic and health indicators and trends in the recent past and illuminate the likely direction in the future.

The successful completion of the survey was made possible by the joint effort of a number of organizations and individuals, whose participation we would like to acknowledge with gratitude.

- To the members of the NDS Project Steering Committee and the Project Technical Committee for their valuable advice and suggestions during the formulation of the questionnaire up to the various stages of the survey. These committees were composed of representatives from different agencies, namely: the University of the Philippines Population Institute (UPPI), Department of Health (DOH), Commission on Population (POPCOM), National Economic and Development Authority (NEDA), National Statistical Coordination Board (NSCB), Food and Nutrition Research Institute (FNRI), and the NSO.

- Conducting the field work was a gigantic task and all activities were accomplished on time only with the dedicated, relentless and devoted efforts of the staff of the Household Statistics Department under the able leadership of Director Luisa T. Engracia; the Training and Field Supervision Task Force; the 31 survey teams composed of the Team Supervisor, Field Editor and the Interviewers; the Regional and Provincial Staff and the Data Entry and Processing Staff.

- To the U. S. Agency for International Development, through the Macro International for providing the much-needed financial assistance and the necessary data processing equipment.

- Special thanks also go Ms. Sri Poedjastoeti, DHS Country Monitor for her technical assistance throughout the various stages of the survey, including the review and finalization of this report; to Mr. Guillermo Rojas for his assistance in the data processing and tabulation of results; and to Dr. Alfredo Aliaga for the survey design and selection of samples.

- To the women respondents whose cooperation made this survey possible.
- Finally, to those who helped in one way or another but who were not mentioned here.

TOMAS P. AFRICA
Administrator

Manila, Philippines
February 1994

SUMMARY OF FINDINGS

The 1993 National Demographic Survey (NDS) is a nationally representative sample survey of women age 15-49 designed to collect information on fertility; family planning; infant, child and maternal mortality; and maternal and child health. The survey was conducted between April and June 1993. The 1993 NDS was carried out by the National Statistics Office in collaboration with the Department of Health, the University of the Philippines Population Institute, and other agencies concerned with population, health and family planning issues. Funding for the 1993 NDS was provided by the U.S. Agency for International Development through the Demographic and Health Surveys Program.

Close to 13,000 households throughout the country were visited during the survey and more than 15,000 women age 15-49 were interviewed. The results show that fertility in the Philippines continues its gradual decline. At current levels, Filipino women will give birth on average to 4.1 children during their reproductive years, 0.2 children less than that recorded in 1988. However, the total fertility rate in the Philippines remains high in comparison to the level achieved in the neighboring Southeast Asian countries.

Fertility varies significantly by region and socioeconomic characteristics. Urban women have on average 1.3 children less than rural women, and uneducated women have one child more than women with college education. Women in Bicol have on average 3 more children than women living in Metropolitan Manila.

Virtually all women know of a family planning method; the pill, female sterilization, IUD and condom are known to over 90 percent of women. Four in 10 married women are currently using contraception. The most popular method is female sterilization (12 percent), followed by the pill (9 percent), and natural family planning and withdrawal, both used by 7 percent of married women.

Contraceptive use is highest in Northern Mindanao, Central Visayas and Southern Mindanao, in urban areas, and among women with higher than secondary education. The contraceptive prevalence rate in the Philippines is markedly lower than in the neighboring Southeast Asian countries: the percentage of married women who were using family planning in Thailand was 66 percent in 1987, and 50 percent in Indonesia in 1991.

The majority of contraceptive users obtain their methods from a public service provider (70 percent). Government health facilities mainly provide permanent methods, while barangay health stations or health centers are the main sources for the pill, IUD and condom.

Although Filipino women already marry at a relatively higher age, they continue to delay the age at which they first married. Half of Filipino women marry at age 21.6. Most women have their first sexual intercourse after marriage.

Half of married women say that they want no more children, and 12 percent have been sterilized. An additional 19 percent want to wait at least two years before having another child. Almost two thirds of women in the Philippines express a preference for having 3 or less children. Results from the survey indicate that if all unwanted births were avoided, the total fertility rate would be 2.9 children, which is almost 30 percent less than the observed rate.

More than one quarter of married women in the Philippines are not using any contraceptive method, but want to delay their next birth for two years or more (12 percent), or want to stop childbearing (14 percent). If the potential demand for family planning is satisfied, the contraceptive prevalence rate could

increase to 69 percent. The demand for stopping childbearing is about twice the level for spacing (45 and 23 percent, respectively).

Information on various aspects of maternal and child health—antenatal care, vaccination, breastfeeding and food supplementation, and illness was collected in the 1993 NDS on births in the five years preceding the survey. The findings show that 8 in 10 children under five were born to mothers who received antenatal care from either midwives or nurses (45 percent) or doctors (38 percent). Delivery by a medical personnel is received by more than half of children born in the five years preceding the survey. However, the majority of deliveries occurred at home.

Tetanus, a leading cause of infant deaths, can be prevented by immunization of the mother during pregnancy. In the Philippines, two thirds of births in the five years preceding the survey were to mothers who received a tetanus toxoid injection during pregnancy.

Based on reports of mothers and information obtained from health cards, 90 percent of children aged 12-23 months have received shots of the BCG as well as the first doses of DPT and polio, and 81 percent have received immunization from measles. Immunization coverage declines with doses; the drop out rate is 3 to 5 percent for children receiving the full dose series of DPT and polio. Overall, 7 in 10 children age 12-23 months have received immunization against the six principal childhood diseases—polio, diphtheria, pertussis, tetanus, measles and tuberculosis.

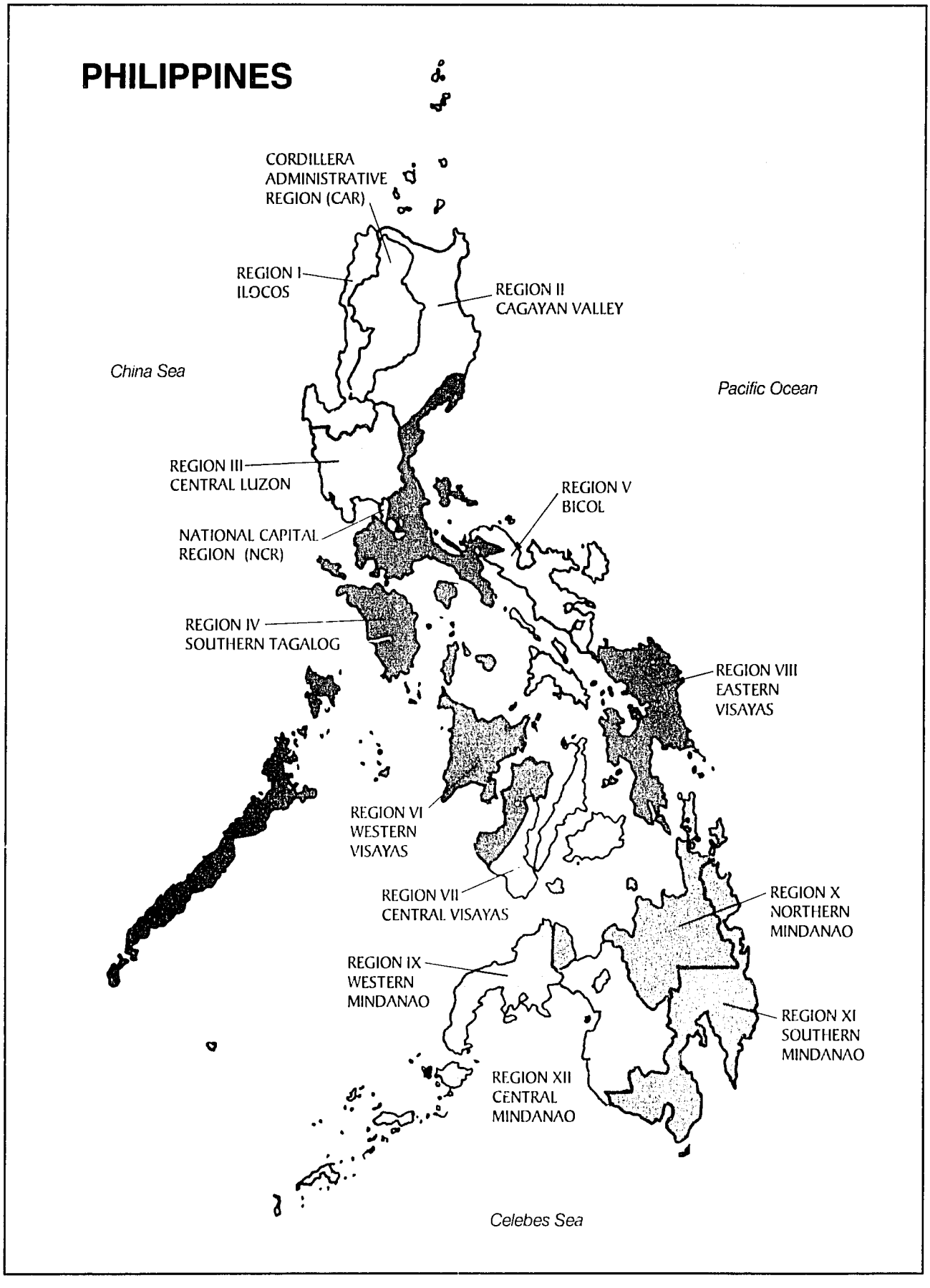
During the two weeks preceding the survey, 1 in 10 children under 5 had diarrhea. Four in ten of these children were not treated. Among those who were treated, 27 percent were given oral rehydration salts, 36 percent were given recommended home solution or increased fluids.

Breastfeeding is less common in the Philippines than in many other developing countries. Overall, a total of 13 percent of children born in the 5 years preceding the survey were not breastfed at all. On the other hand, bottle feeding, a widely discouraged practice, is relatively common in the Philippines. Children are weaned at an early age; one in four children age 2-3 months were exclusively breastfed, and the mean duration of breastfeeding is less than 3 months.

Infant and child mortality in the Philippines have declined significantly in the past two decades. For every 1,000 live births, 34 infants died before their first birthday. Childhood mortality varies significantly by mother's residence and education. The mortality of urban infants is about 40 percent lower than that of rural infants. The probability of dying among infants whose mother had no formal schooling is twice as high as infants whose mother have secondary or higher education. Children of mothers who are too young or too old when they give birth, have too many prior births, or give birth at short intervals have an elevated mortality risk. Mortality risk is highest for children born to mothers under age 19.

The 1993 NDS also collected information necessary for the calculation of adult and maternal mortality using the sisterhood method. For both males and females, at all ages, male mortality is higher than that of females. Maternal mortality ratio for the 1980-1986 is estimated at 213 per 100,000 births, and for the 1987-1993 period 209 per 100,000 births. However, due to the small number of sibling deaths reported in the survey, age-specific rates should be used with caution.

Information on health and family planning services available to the residents of the 1993 NDS barangay was collected from a group of respondents in each location. Distance and time to reach a family planning service provider has insignificant association with whether a woman uses contraception or the choice of contraception being used. On the other hand, being close to a hospital increases the likelihood that antenatal care and births are to respondents who receive ANC and are delivered by a medical personnel or delivered in a health facility.


PHILIPPINES
CORDILLERA ADMINISTRATIVE REGION (CAR)
REGION I ILOCOS
REGION II CAGAYAN VALLEY
China Sea
Pacific Ocean
REGION III CENTRAL LUZON
REGION V BICOL
NATIONAL CAPITAL REGION (NCR)
REGION IV SOUTHERN TAGALOG
REGION VIII EASTERN VISAYAS
REGION VI WESTERN VISAYAS
REGION VII CENTRAL VISAYAS
REGION X NORTHERN MINDANAO
REGION IX WESTERN MINDANAO
REGION XI SOUTHERN MINDANAO
REGION XII CENTRAL MINDANAO
Celebes Sea

CHAPTER 1

INTRODUCTION

1.1 Geography, History, and Economy

The Philippine archipelago lies strategically within the arc of nations that sweeps southeastward from mainland Asia to Australia, spanning 1,094 kilometers from west to east. The archipelago is composed of about 7,100 islands, many of which are still uninhabited. It has a total area of 300,000 square kilometers, 92 percent of which is found in the 11 largest islands. There are three major island groups: Luzon, the largest island situated in the north accounts for 47 percent of the land area; Mindanao in the south has 34 percent of the total land area; and the Visayas, a group of smaller islands between Luzon and Mindanao, which constitute the remaining 19 percent of land area.

Administratively, the Philippines is divided into 15 regions as follows:

LUZON
- National Capital Region (NCR)
- Cordillera Autonomous Region (CAR)
- Region 1 - Ilocos Region
- Region 2 - Cagayan Valley
- Region 3 - Central Luzon
- Region 4 - Southern Tagalog
- Region 5 - Bicol

VISAYAS
- Region 6 - Western Visayas
- Region 7 - Central Visayas
- Region 8 - Eastern Visayas

MINDANAO
- Region 9 - Western Mindanao
- Region 10 - Northern Mindanao
- Region 11 - Southern Mindanao
- Region 12 - Central Mindanao
- Autonomous Region in Muslim Mindanao - ARMM

The next lower administrative units are provinces/subprovinces, cities, and municipalities, and *barangays*. *Barangays* are the smallest political subdivisions in the country. In 1990, there were 73 provinces, 2 subprovinces, 60 cities, 1,537 municipalities and some 41,000 *barangays*. Classification of urban and rural areas is made at the *barangay* level using the 1970 Census urban-rural definitions.

The Philippines has the longest discontinuous coastline in the world. It has 61 natural harbors, 31 of which are developed and could accommodate large vessels. Manila Bay, the finest natural harbor in the Far East, is an asset which has given Metropolitan Manila a locational advantage for rapid industrial development.

The archipelago has a diverse topography and climate. The mountain ranges which traverse the major islands are contrasted sharply by adjacent valleys and plateaus. Because of their topography and

geographic location, the provinces are exposed to varying climatic conditions and degree of weather disturbances. The northeastern parts of Luzon and the Bicol Region are generally wet and more vulnerable to typhoons. On the whole, the Visayas have more rainy days than Luzon and Mindanao. Mindanao is almost free from typhoons, which makes agriculture a very valuable industry in that island.

The Philippines became a republic in 1946. Since the latter part of the 1960s, the government faced several political and social problems caused by ideological and ethnic differences. Threat of communist takeover and student unrest precipitated the declaration of Martial Law by former President Marcos in 1972. Rebellions led by Muslim leftists exacerbated the political and economic situation. Under the shroud of Martial Law, Marcos extended his dictatorial leadership for two decades. The ouster of Marcos in 1986 brought new hope for political stability and economic recovery. Several attempts to topple the new government failed. Sporadic encounters of government forces with both the leftist and rightist groups are no longer considered threats as the Ramos administration gears itself toward the attainment of a Newly Industrialized Country status by the year 2000.

The 1970s witnessed a substantial growth in the Philippine economy, with a growth rate higher than the world average for developing countries. Real GNP increased at an average rate of 6.2 percent annually during the period 1972-80.

While the country experienced substantial growth in the 1970s, the income distribution structure improved only very slightly during the period 1961 to 1988. A large percentage of the nation's wealth remained concentrated in the hands of a few families. The income share of the lowest 50 percent reached its highest level at only 20.5 percent in 1975, from 17.6 percent in 1961. The corresponding proportion in 1988 and 1991 is 20.3 percent and 18.9 percent, respectively.

The worldwide recession in the 1980s, however, affected the top 20 percent income group. This is reflected in the continued decline of its share from 56.5 percent in 1961 to 51.8 percent in 1988. The income share of the top 20 percent improved slightly in 1990 (53.9 percent), which is comparable to that in the early 1970s. This is because international markets for Philippine exports became weak, which adversely affected the trade and industrial sectors. Balance of payment deficit widened as a result of accelerated outflow of short-term capital and the unwillingness of some creditors to extend new credit lines. The debt servicing capacity of the country underwent stresses and strains from both the high cost of borrowing and the difficulty of earning foreign exchange. It was agriculture which propelled economic growth in the 1980s, but its output was affected by the eight-month drought which struck the country in the late 1982. The worsening employment situation was partly offset by the overseas deployment of workers and the implementation of the national livelihood program.

After President Aquino came into power in 1986, the government underwent political and economic reform. The 1984-1987 Development Plan was updated, with the commitment to strengthen the national will and capability for self-reliant development through a conscious effort to raise productivity and attain self-sufficiency. Its fundamental goals are to increase productivity for sustainable development, more equitable distribution of the fruits of development, and total human development.

Over the years, development has not been distributed equitably among regions and provinces within a region. Infrastructure and development efforts have been concentrated in Metropolitan Manila and its environs, and selected cities. Because of the locational advantage of Metropolitan Manila, economic and social policies in the past administrations have been biased, resulting in the rapid industrialization of Metropolitan Manila. Later, an overspill of economic development was seen in the neighboring provinces. Uneven development and perceived economic opportunities in urban centers stimulated rural-urban migration and the continued influx of migrants has exerted pressure on the urban resources and environment.

In 1991, the Philippine economy suffered from disturbances caused by the Gulf War which disrupted employment in the Middle East where many Filipinos work. Millions of US dollars were lost, not only from overseas remittances but also from the damage caused by the continued eruption of Mt. Pinatubo and the flash floods in Ormoc City. The economic slowdown was manifested in all the major sectors, posting lower growth rates over the previous year.

As with economic development, social development has not been distributed equitably among geographic units of the country. Although the national level of literacy has improved from 83 percent for persons aged 10 and over in 1970 to 94 percent in 1990, pockets of illiteracy are still prevalent in remote *barangays* of nearly all provinces. The present government policy on this issue is aimed at eradicating illiteracy by the year 2000 by providing education for all.

There are wide differences in the economic participation between males and females. Sex differentials in education, however, are minimal. In fact, in terms of higher educational attainment, females have an advantage over males. The differential impact of development on women has been integrated in the development plan for 1989-92 by providing women equal opportunities in the economic, political, and social activities of the country.

In 1982, the Filipino diet was found to be adequate in protein but inadequate in energy and micronutrients, except niacin. Nutrient intake was generally higher among those with higher education and income, in urban than in rural areas, with Metro Manila being worse off than other urban and rural areas.

Breastfeeding practices and duration have been slowly declining but a reversal in trend was observed among urban and more educated women. A declining trend persists among the disadvantaged women where the benefits of breastfeeding are most needed.

1.2 Population Growth

The 1990 Census of Population reported a total population of 60.7 million, up by 12.6 million persons over the previous decade. About 30 million or 49 percent of the population lived in urban areas, an increase of 11 percentage points from 1980 (see Table 1.1.). The population growth rate has been declining at a slow pace. The average annual growth rate decreased by 0.4 percentage points, from 2.75 percent during the intercensal period 1970-80 to 2.35 percent in 1980-1990.

The Philippine population is unevenly distributed over the 15 regions. In 1990, the National Capital Region (NCR), which accounted for only 0.2 percent of the total land area, had 13 percent of the total population, surpassed only by Southern Tagalog which registered 14 percent of the population. These two regions, together with Central Luzon, accounted for more than a third of the country's population. The six least populated regions are Cordillera Administrative Region (CAR), Cagayan Valley, Bicol, Eastern Visayas, Western Mindanao and Central Mindanao, which are at the same time the least developed regions, as well as experiencing a relatively high level of civil unrest.

The overall population density increased from 122 persons per square kilometer in 1970 to 160 in 1980, and 202 in 1990. The average density in 1990 ranged from 12,498 persons per square kilometer in Metro Manila to 30 in Kalinga-Apayao in CAR.

The slow decline in population growth has partly been brought about by a decline in both the fertility and mortality levels. In 1970, the crude birth rate was estimated at 39 births per 1,000 population, dropping slightly to 36 in 1980 and 29 in 1990. The total fertility rate for women 15-49 years dropped by about one child in two decades, from an estimated level of 5.1 children in 1970, to 4.7 in 1980 and 4.1 in 1990.

Table 1.1 Demographic indicators, Philippines 1970-1990

Indicator	1970	1980	1990
Population (millions)[a]	36.7	48.1	60.7
Density (Pop./sq. km.)[a]	122	160	202
Urban population (percent)[a]	31.8	37.3	48.7
Rate of annual increase (percent)[a]	3.08	2.74	2.35
Population doubling time (years)	23	26	30
Crude birth rate (per 1,000 pop.)[b]	39	36	29
Crude death rate (per 1,000 pop.)[b]	10	9	7
Total fertility rate	5.1	4.7	4.1
Infant mortality rate	63[c]	63[d]	57[d]
Life expectancy at birth, both sexes (years)	55.9[c]	61.6[b]	64.8[e]

Sources:
[a]1990 Census of Population and Housing. Report no.3.
[b]1980-based projection
[c]Flieger.n.d.
[d]Task Force on Infant Mortality Rate
[e]University of the Philippines Population Institute. Baseline Estimation Project.

While the overall mortality rate showed a decline during the period from 1948-1960, the pace has slowed down since 1960. The crude death rate was estimated at 10 deaths per 1,000 population in 1970, declining to 6 in 1990. Likewise, infant mortality rates hovered around 63 per 1,000 live births during the period 1977-1986, and was estimated at 57 in 1990. Life expectancy at birth which slowed in the 1970s resumed a more rapid increase in the 1980s, rising by 3 years, from 61.6 in 1980 to 64.8 in 1990.

1.3 Population Policies and Programs

The family planning movement in the Philippines was initiated by the private sector in the 1960s. The government's commitment to family planning was manifested with the issuance of Executive Order No. 171 in 1969 to establish the Commission on Population (POPCOM) to undertake studies on all aspects of the population and to formulate policy and program recommendations on population as it relates to economic and social development. Executive Order No. 233 of 1970 empowers the POPCOM to conduct and direct the national population program as an integral part of the national development strategy. When the Population Act was passed in 1971, family planning became an integral part of the national development plan.

Reduction of the population growth rate was embodied as a goal in the country's five-year and ten-year development plans. Specifically, the goal was to reduce the growth rate from 2.5 percent in 1978 to 2.1 percent in 1987. The target was to achieve a contraceptive prevalence rate of 40 percent in 1982 and 50 percent in 1987.

Cognizant of the close interrelationship between population, resources and environment, the population policy of 1987 broadens the scope of population concerns beyond fertility reduction, to include family formation, the status of women, maternal and child health, child survival, morbidity and mortality, population distribution and urbanization, internal and international migration and population structure. In

the 1987-92 Population Development (POPDEV) Program, rapid population growth which remains an important national development issue, took on a more complex dimension as it is linked to welfare and sustainable development.

The policy places emphasis on the following objectives (DOH, 1990):

1. To pursue and promote policies and measures that will ensure the attainment of rational population size, growth, composition and balanced distribution;

2. To promote and ensure explicit, full and conscious consideration of population and sustainable development interrelationships in policy formulation, development planning and decision-making;

3. To strengthen, institutionalize and ensure greater political support of the local government units in the coordination and implementation of the local population program;

4. To promote the values of responsible parenthood, delayed marriage, birth spacing and a small family norm; and

5. To ensure maximum participation of government and non-government organizations as well as population organizations in the implementation of population and population-related programs, projects and activities.

Under the Aquino administration (1986 to 1992), the family planning program suffered from a vacillating political and financial support because of the strong influence of the Catholic Church. The program was transferred from POPCOM to the Department of Health. It became mainly a health program with the primary goal of improving the health of the mother and the child, with fertility reduction as only a consequence.

The integration of population and development (POPDEV) which considers the interaction of socioeconomic and demographic variables in development planning has laid down the foundation for the application of POPDEV approaches and concepts through advocacy, research, training and technology dissemination and adoption. Although a few sectors have attempted to operationalize POPDEV in their development efforts, the program has failed to develop a unified framework and a more vigorous strategy for integration of population in various development concerns.

A more recent population program is currently being updated for the 1993-1998 period.

1.4 Health Plan and Programs

The Health Plan of 1987-1992 aimed at health, nutrition and family planning as the foundation of the sector's contribution to the development of healthy and productive citizens and to their participation in the socioeconomic development of the country.

The main objectives were:

a) to improve the health and nutritional status of the population;
b) to contribute to the achievement of Health for All by the year 2000 through primary health care; and
c) to promote family planning as a means to improve family well-being.

The Plan aims to improve the accessibility of high quality health services particularly to the poor, unserved, underserved and high risk groups. It focuses on the integration and promotion of individual and collective responsibility for health, self-reliance, preventive actions, the status of women, environmental sanitation and workers' safety. It relies heavily on the primary health care to further the establishment of a network to meet the health needs of the people. Another strategy is to involve the private sector in the provision of preventive and creative health services and to more actively participate in the implementation of the Plan.

The priority health programs include, among others, the following:

1. *Expanded Program on Immunization.* The goal of this program is to protect children from the six immunizable diseases by providing specific protection through the use of effective vaccine against TB, diphtheria, pertussis, tetanus, measles and poliomyelitis, and protect newborns from tetanus by immunizing pregnant mothers;

2. *Maternal and Child Health.* This program is designed to improve the well-being of mothers and children through a comprehensive approach of providing preventive, promotive, and curative health care. The specific objective is to reduce maternal, infant and child mortality; the target populations are women of reproductive age (15-49 years); infants (under 1 year); and children (1-6 years). The major activities undertaken are increased coverage of pregnant women given antenatal, natal, and postnatal care and immunization of pregnant mothers against tetanus; and establishment of under-six clinics in all government facilities to monitor the growth and health status of infants and children. The program components of the maternal and child health program are as follows: Maternal Care, Immunization of Pregnant Mothers, Under-Six Clinic, and Breastfeeding Promotion;

3. *Nutrition Program.* The program aims to improve the nutritional status of pre-schoolers, pregnant women and lactating mothers. It is directed towards the prevention and reduction of the prevalence of protein-energy malnutrition, Vitamin A deficiency disorders through effective growth monitoring, nutrition education, food and micronutrients supplementation, and rehabilitation of malnourished children.

4. *Family Planning Program.* This program is a delivery program systematically aimed to provide information and services necessary for couples of reproductive age to plan their families according to their beliefs and circumstances. It gives couples the choice of when to start having children, how many to have, how far apart, when to have them and when to stop, at the least risk to the health of the mother and best chance of survival for the child.

5. *Dental Health Program.* The objective of this program is to reduce the incidence and prevalence of dental caries including reduction of periodontal diseases, particularly among pregnant women and children.

6. *Acquired Immuno-Deficiency Syndrome.* The program aims to control the spread of AIDS in the country which is considered to be in the early stage of AIDS epidemic. The central measures undertaken are generally preventive such as surveillance of high-risk populations including monitoring blood banks, health education, and development of capabilities for dealing with the disease.

1.5 Objectives and Organization of the Survey

The 1993 Philippine National Demographic Survey (1993 NDS) is a nationwide sample survey designed to collect information on fertility, family planning, maternal and child health and child survival. It is the sixth of the series of demographic surveys taken at five-year intervals since 1968. The 1993 NDS was undertaken as part of the worldwide program known as the Demographic and Health Survey (DHS). It was conducted by the National Statistics Office in collaboration with Department of Health (DOH), the University of the Philippines Population Institute, and other concerned agencies of the Philippine government. Macro International, Inc., which is based in Calverton, Maryland (USA), provided funding and technical assistance to the project through its contract with the U.S. Agency for International Development (USAID).

The primary objective of the 1993 NDS is to provide up-to-date information on fertility and mortality levels; nuptiality; fertility preferences; awareness, approval, and use of family planning methods; breastfeeding practices; and maternal and child health. This information is intended to assist policymakers and administrators in evaluating and designing programs and strategies for improving health and family planning services in the country.

1.6 Sample Design and Implementation

The main objective of the 1993 NDS sample is to allow analysis to be carried out for urban and rural areas separately, for 14 of the 15 regions in the country, and to provide estimates with an acceptable precision for sociodemographic characteristics, like fertility, family planning, health and mortality variables. Due to the recent formation of the 15th region, Autonomous Region in Muslim Mindanao (ARMM), the sample did not allow for a separate estimate for this region. Detailed discussion of the 1993 NDS is presented in Appendix A, and sampling errors for selected variables can be found in Appendix B.

The Integrated Survey of Households (ISH) was used as a frame, to generate a nationally representative sample of women aged 15 to 49 years. The ISH was developed in 1980 to collect information on employment and other socioeconomic characteristics of households. It consists of 2,100 samples of primary sampling units (PSUs) systematically selected, with a probability proportional to size, in each of the 14 regions. The PSUs were again selected in 1991, using the 1990 Population Census data on population size, but retaining the maximum number of PSUs selected in 1980.

The sample is self-weighted in each of the 14 regions, but not at the national level. The selection was done separately for the urban and the rural areas, using a two-stage sample design. The first stage is the selection of *barangays*, and the second is the selection of households in the sampled *barangays*. Of the 2,100 PSUs in the ISH, 750 were selected for the 1993 NDS. Individual households were selected with a probability of selection inversely proportional to the *barangay*'s size to maintain a fixed overall sampling fraction within each region.

Eligible respondents for the individual interview were all females age 15-49 years, who are members of the sample household or visitors present at the time of interview and had slept in the sample households the night prior to the time of interview, regardless of marital status.

1.7 Questionnaires

Three types of questionnaires were used for the 1993 NDS: the Household Questionnaire, the Individual Woman's Questionnaire and the Service Availability Questionnaire. The contents of the first two questionnaires were based on the DHS Model Questionnaire, which was designed for use in countries with high levels of contraceptive use. Additions and modifications to the model questionnaires were made after

consultation with members of a Technical Working Group convened for the purpose of providing technical assistance to the NSO in the implementation of the survey. The questionnaires used in the 1993 NDS are presented in Appendix E.

The household and individual questionnaires were developed in English and then translated into and printed in six of the most widely spoken languages in the Philippines, namely: Tagalog, Cebuano, Ilocano, Hiligaynon, Bicol and Waray.

The Household Questionnaire was used to list all the usual members and visitors of selected households. Some basic information was collected on the characteristics of each person listed, including his/her age, sex, education, and relationship to the head of the household. The main purpose of the Household Questionnaire was to identify women who were eligible for individual interview. In addition, information was collected about the dwelling, such as the source of water, type of toilet facilities, materials used for the floor of the house, and ownership of various consumer goods.

The Individual Woman's Questionnaire was used to collect information from women aged 15-49. An important change from the past practice in large-scale demographic surveys in the Philippines is that the 1993 NDS covered all women 15-49 instead of limiting the interview to ever-married women. In keeping with past practice, the questionnaire contained a pregnancy history instead of the usual DHS birth history. Women were asked questions on the following topics:

- Background characteristics (education, religion, etc.)
- Reproductive behavior and intentions
- Knowledge and use of contraception
- Availability of family planning supplies and services
- Breastfeeding and child health
- Maternal mortality

The Health Service Availability Questionnaire was designed to collect information about health and family planning services available to the individual women respondents. This questionnaire was administered at the cluster level, that is, one questionnaire was filled for each of the 750 sample points. Combined with information collected in the main survey, data from the two surveys can identify subgroups of women who are underserved by the health and family planning providers.

1.8 Training and Fieldwork

The 1993 NDS questionnaires were pretested in December 1992. Three pretest areas were selected; namely, the *barangays* of Malolos and Calumpit, Bulacan Province, and Barangay Tatalon in Metropolitan Manila. Fifteen female interviewers were recruited. Three NSO employees were assigned as field editors, and three statisticians from the NSO were assigned to supervise the fieldwork. About 180 interviews of women 15-49 were completed in the pretest. The pretest results were used as basis for revising the questionnaires and the translations into the six dialects. They also provided a basis for firming up survey operational procedures.

Training of field staff for the main survey was conducted in the following designated training sites: Baguio City, Manila, Cebu City and Davao City. The training course consisted of instructions in general interviewing techniques, field procedures, a detailed review of items on the questionnaires, mock interviews between participants in the classroom, and practice interviews in the field. Trainees who performed satisfactorily in the training program were selected as interviewers, while those whose performance was rated as superior were selected as field editors.

The fieldwork for the Philippine NDS was carried out by 31 interviewing teams. Each team consisted of one team supervisor, one field editor, and an average of five interviewers. The Regional Administrators of NSO served as field coordinators during the data collection phase of the survey. During the first two weeks of the field work, statisticians from the Central Office, who served as trainers during the training of interviewers, went on field trips to observe and guide the teams in their initial interviews.

1.9 Data Processing

Editing of the questionnaires was an integral part of the field data collection in the sense that questionnaires based on successful interviews were immediately edited by field editors. Further review and coding of some variables were done at the NSO central office. Machine processing was also done at the central office.

Processing of the NDS data was done with the use of the DHS computer program ISSA (Integrated System for Survey Analysis), from data entry to tabulation. Seven microcomputers were made available by NSO for data entry while Macro International provided four microcomputers for data management as well as for running edit and tabulation programs. Initial tabulations were generated by the end of August 1993, and a preliminary report was released in October 1993.

1.10 Response Rate

Table 1.2 gives a summary of the response rates for the survey. A total of 13,728 households was selected for the survey, of which 12,995 were successfully interviewed. The difference was due to one of the following reasons: some selected households had moved out or could not be located by the NDS team; there were no eligible respondents found for the selected household during the NDS team's visit; or the household simply refused to be interviewed. (See Appendix Table A.1 for details.)

The household interviews identified 15,332 eligible women. Of these, 15,029 were successfully interviewed, giving a response rate of 98 percent. The principal reason for nonresponse among eligible women was the failure of interviewers to find them at home despite repeated visits to the household. Refusals were few in number (less than one percent).

Table 1.2 Results of the household and individual interviews

Number of households, number of interviews and response rates, according to urban-rural residence, Philippines 1993

Result	Residence		
	Urban	Rural	Total
Household interviews			
Households sampled	6542	7186	13728
Households found	6201	6901	13102
Households interviewed	6131	6864	12995
Household response rate	98.9	99.5	99.2
Individual interviews			
Number of eligible women	8056	7276	15332
Number of eligible women interviewed	7908	7121	15029
Eligible woman response rate	98.2	97.9	98.0

CHAPTER 2

BACKGROUND CHARACTERISTICS OF HOUSEHOLDS AND RESPONDENTS

Presented in this chapter are the background characteristics of the sample households and the respondents to the survey. Information on the characteristics of the households and respondents is deemed important in the interpretation of the survey results. The behavior of women concerning demographic phenomena is known to be influenced by their characteristics and their environment. Also, analysis of the reported characteristics of the sample households and the respondents can serve to indicate the representativeness and quality of the data collected in the survey.

The chapter is divided into three parts. The first part deals with the characteristics of the household population in terms of age-sex composition, household size and distribution, and educational background. The second part describes the housing environment in which the respondents live. The characteristics of the individual women respondents to the survey are discussed in the third part of this chapter.

2.1 Population Composition

The household questionnaire used in the 1993 National Demographic Survey (NDS) collected data on the demographic and social characteristics of the members and visitors of each sample household. A household, as defined in the survey, refers to a person or group of persons who usually sleep in the same housing unit and have a common arrangement for the preparation and consumption of food. A visitor, on the other hand, is someone who is not a usual resident of the household but had slept in the household the night prior to the time of interview and is still present in the household during the time of interview. In this report, except in Table 2.2, the population is presented according to the place where they spent the night before the interview (de facto).

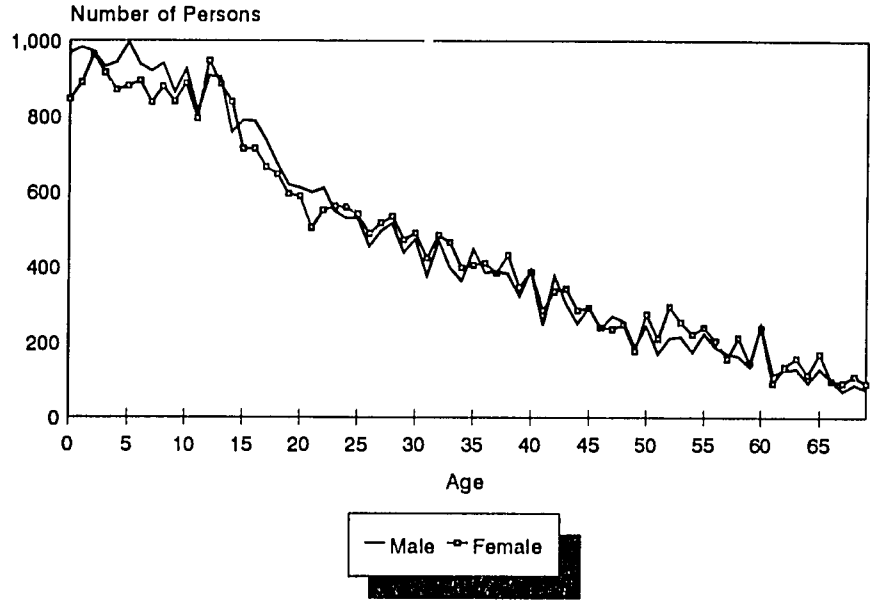
Age-Sex Composition

Age reporting in the Philippines is relatively accurate. The present generation of residents, including those living in the rural areas, seem to be conscious of calendar dates especially those relating to important events in their personal lives such as birthdays. The distribution of the sampled population by single year of age and by sex is presented in Figure 2.1 and in Appendix Table C.1. Examination of the data and the graph reveals only a slight preference for digits ending in 0 and 5 when reporting ages.

It will be noted, however, that the number of women age 15 and age 49 relative to those age 14 and 50, respectively, is conspicuously small. This seems to indicate that there was intentional displacement of women from age 15 to age 14 and from age 49 to 50. Since the respondents for the main questionnaire are women age 15 to 49 years, this was probably done intentionally by the interviewers, to reduce their assigned workload.

For each sex, the proportions below 15 years are larger in rural than in urban areas, indicating a younger age structure of the rural population (Table 2.1). Within the urban areas, the proportion is, however, larger for males than for females but it does not differ much between the sexes in rural areas. On the whole, it can be said that the composition of the Philippine population by age and sex depicts a population pyramid (Figure 2.2) with a wide base and narrow top, a pattern that is typical of high fertility societies.

Figure 2.1
Single-year Age Distribution by Sex
Philippines, 1993



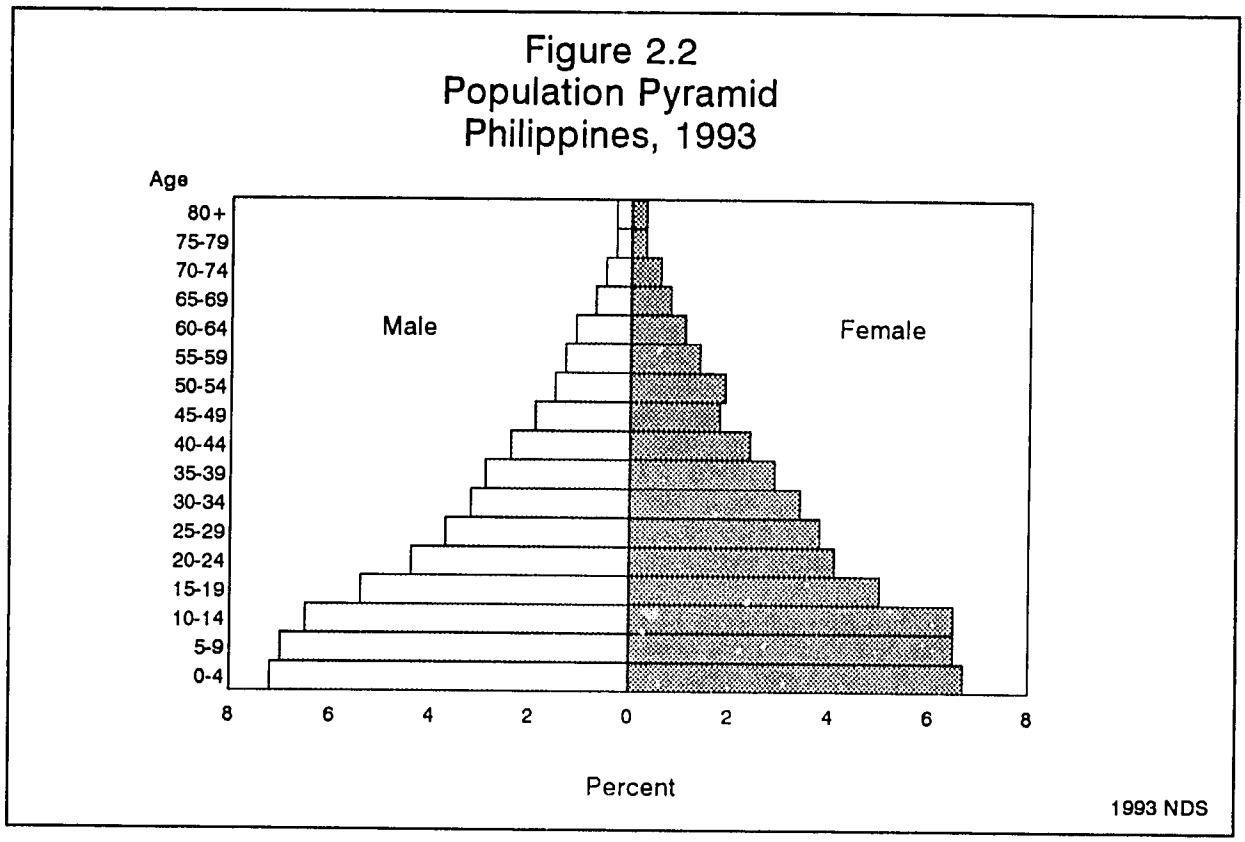
1993 NDS

Table 2.1 Household population by age, residence and sex

Percent distribution of the de facto household population by five-year age group, according to urban-rural residence and sex, Philippines 1993

	Urban			Rural			Total		
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	14.0	12.3	13.2	14.8	14.7	14.7	14.4	13.5	13.9
5-9	13.0	11.5	12.2	15.0	14.6	14.8	14.0	13.0	13.5
10-14	12.0	12.2	12.1	13.8	14.1	13.9	12.9	13.1	13.0
15-19	10.9	11.3	11.1	10.7	8.7	9.7	10.8	10.0	10.4
20-24	9.7	9.3	9.5	7.7	7.2	7.4	8.7	8.3	8.5
25-29	8.0	8.5	8.3	6.6	6.8	6.7	7.3	7.7	7.5
30-34	6.5	7.4	6.9	6.0	6.2	6.1	6.3	6.8	6.5
35-39	6.1	6.0	6.1	5.5	5.8	5.6	5.8	5.9	5.9
40-44	5.1	5.0	5.0	4.4	4.8	4.6	4.7	4.9	4.8
45-49	3.8	3.7	3.8	3.6	3.5	3.5	3.7	3.6	3.7
50-54	2.9	3.6	3.2	3.2	4.0	3.6	3.0	3.8	3.4
55-59	2.5	2.9	2.7	2.8	2.9	2.8	2.6	2.9	2.8
60-64	2.1	2.2	2.1	2.2	2.3	2.2	2.1	2.2	2.2
65-69	1.3	1.7	1.5	1.4	1.7	1.6	1.4	1.7	1.5
70-74	1.0	1.2	1.1	1.0	1.3	1.1	1.0	1.2	1.1
75-79	0.5	0.6	0.5	0.6	0.8	0.7	0.6	0.7	0.6
80 +	0.6	0.7	0.6	0.6	0.8	0.7	0.6	0.7	0.7
Missing/Don't know	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number[1]	16734	17376	34117	16585	15907	32491	33319	33283	66608

[1]Includes 8 cases with missing information on sex.



In Table 2.2, the percent distributions of the population by broad age groups, according to the 1970, 1980, and 1990 Censuses of Population and the 1993 NDS are presented. There appears to be a progressive decline since 1970 in the proportion of the young population and, concomitantly, an increasing value of the median age. The growing proportion in the 15-64 group results in declining dependency ratio, defined as the ratio of persons in the "dependent" ages (under 15 and 65 and over) to those in the "economically active" ages (15-64). This slight ageing of the population has taken place in the recent past as a result of a continuous, albeit slow decline in fertility levels. The 1993 NDS data and 1990 census show fairly similar distributions by age which supports the representativeness of the survey population.

Table 2.2 Population by age from selected sources

Percent distribution of the de jure population by age group, selected sources, Philippines

Age group	1970 Census	1980 Census	1990 Census	1993 NDS
Less than 15	45.7	42.0	39.5	39.3
15-64	51.4	54.6	57.1	56.8
65+	2.9	3.4	3.4	3.9
Total	100.0	100.0	100.0	100.0
Median age	16	18	19	20.1
Dependency ratio	94.6	83.2	75.1	76.1

Household Composition

Information on the size and composition of the sample households by urban-rural residence is presented in Table 2.3. About 14 percent of the households are headed by women. As expected, a higher proportion of female-headed households is noted in the urban areas (16 percent) than in the rural areas (12 percent). On average, a household is composed of 5.3 persons. A negligible difference in average household size is observed between the urban and rural areas.

Taking into consideration the adult composition of the household population, about half of the households contain 3 or more related adults, while 39 percent consist of two adults of opposite sex. About five percent of the households have one adult member, while households with two related adults of the same sex are very rare (2 percent). About one-tenth of the households had foster children, that is, children below 15 years whose natural mother or father is not a member of the household.

Table 2.3 Household composition

Percent distribution of households by sex of head of household, household size, kinship structure, and presence of foster children, according to urban-rural residence, Philippines 1993

Characteristic	Residence		
	Urban	Rural	Total
Household headship			
Male	84.2	87.8	86.0
Female	15.8	12.2	14.0
Total	100.0	100.0	100.0
Number of usual members			
1	2.6	3.0	2.8
2	7.0	7.9	7.4
3	12.0	13.0	12.5
4	17.6	16.2	16.9
5	17.5	17.5	17.5
6	15.2	15.0	15.1
7	11.2	11.7	11.4
8	6.8	6.7	6.7
9+	10.1	9.1	9.6
Total	100.0	100.0	100.0
Mean size	5.4	5.3	5.3
Relationship structure			
One adult	4.0	5.1	4.5
Two related adults:			
Of opposite sex	35.1	42.4	38.7
Of same sex	1.6	1.9	1.8
Three or more related adults	50.7	48.4	49.6
Other	8.6	2.1	5.4
Total	100.0	100.0	100.0
With foster children[1]	9.1	10.2	9.7

[1]Foster children are those under age 15 living in households with neither their natural mother nor father.

Education

Tables 2.4.1 and 2.4.2 present information on the highest educational level attained by the population classified by sex, age, residence, and region. The value of education is highly regarded by Filipino families. The constitution of the country respects this and states that education, at least up to high school level, is a basic right of all Filipino children. The results of the survey indicate that the vast majority of the population do have some formal education. Among the population age 5 and over, only 8 percent have no formal education, and no more than 4 percent among those between the ages of 10 and 50 never went to school. Of both men and women, around half attended primary school, one in four attended high school, and one in six attended higher education.

Table 2.4.1 Educational level of the male household population

Percent distribution of the de facto male household population age six and over by highest level of education attended, according to selected background characteristics, Philippines 1993

Background characteristic	None	Elementary	High school	College or higher	Don't know/ missing	Total	Number	Median number of years
Age[1]								
6-9	37.9	58.9	0.4	0.0	2.8	100.0	3660	1.4
10-14	2.4	80.5	16.9	0.0	0.1	100.0	4306	5.2
15-19	1.1	27.3	58.3	13.1	0.1	100.0	3602	9.0
20-24	1.6	27.7	41.1	29.5	0.0	100.0	2896	10.2
25-29	1.9	29.3	40.6	28.1	0.1	100.0	2437	10.2
30-34	2.3	34.7	35.7	27.2	0.1	100.0	2085	10.0
35-39	2.3	41.7	32.9	22.8	0.3	100.0	1929	8.6
40-44	2.3	44.2	30.3	23.1	0.0	100.0	1571	8.1
45-49	2.6	51.8	24.9	20.6	0.2	100.0	1244	6.8
50-54	4.3	56.6	22.1	16.8	0.2	100.0	1015	6.6
55-59	5.8	56.5	23.3	14.1	0.3	100.0	881	6.5
60-64	9.5	53.6	21.1	15.2	0.6	100.0	710	6.4
65+	16.9	58.5	13.5	10.9	0.1	100.0	1181	4.9
Residence								
Urban	6.0	38.8	32.7	22.0	0.5	100.0	13942	8.1
Rural	9.7	56.9	24.8	8.1	0.6	100.0	13583	6.1
Region								
Metro. Manila	4.2	26.0	38.6	30.8	0.4	100.0	3732	10.2
Cordillera Admin.	6.4	44.1	29.5	19.9	0.2	100.0	479	6.9
Ilocos	7.0	45.9	33.3	13.5	0.2	100.0	1631	6.8
Cagayan Valley	6.4	53.1	28.7	10.7	1.1	100.0	1060	6.5
C-Luzon	4.6	48.1	33.7	13.2	0.4	100.0	2799	6.9
S-Tagalog	6.4	47.7	31.8	13.8	0.3	100.0	3612	6.8
Bicol	9.3	55.4	25.0	9.6	0.7	100.0	1729	6.3
W-Visayas	8.1	50.7	25.9	15.3	0.0	100.0	2463	6.4
C-Visayas	8.8	53.2	22.8	14.1	1.2	100.0	2142	6.1
E-Visayas	8.5	57.6	22.2	11.5	0.2	100.0	1366	6.0
W-Mindanao	12.2	54.3	20.0	11.3	2.1	100.0	1467	5.5
N-Mindanao	7.3	56.1	25.0	10.8	0.8	100.0	1581	6.2
S-Mindanao	11.8	52.5	24.1	11.5	0.0	100.0	2018	6.1
C-Mindanao	15.6	48.1	25.4	10.5	0.4	100.0	1447	6.0
Total	7.8	47.7	28.8	15.2	0.5	100.0	27525	6.6

[1]Excludes 9 people with age information missing.

Table 2.4.2 Educational level of the female household population

Percent distribution of the de facto female household population age six and over by highest level of education attended, according to selected background characteristics, Philippines 1993

Background characteristic	None	Elementary	High school	College or higher	Don't know/ missing	Total	Number	Median number of years
Age[1]								
6-9	35.7	61.6	0.2	0.0	2.5	100.0	3448	1.5
10-14	1.7	75.0	23.2	0.0	0.1	100.0	4351	5.6
15-19	1.1	18.6	63.9	16.3	0.1	100.0	3333	9.6
20-24	1.8	21.7	39.6	36.9	0.1	100.0	2762	10.5
25-29	2.4	25.2	38.6	33.6	0.2	100.0	2552	10.3
30-34	2.3	34.5	32.0	31.3	0.0	100.0	2262	10.1
35-39	2.7	42.0	31.0	24.2	0.1	100.0	1979	8.3
40-44	2.7	47.1	26.9	23.2	0.2	100.0	1636	7.0
45-49	3.8	56.0	20.4	19.7	0.1	100.0	1192	6.7
50-54	6.2	59.3	19.2	15.0	0.2	100.0	1255	6.5
55-59	8.1	60.5	18.6	12.4	0.4	100.0	959	6.3
60-64	11.2	58.7	18.2	11.1	0.9	100.0	740	6.0
65+	22.5	61.3	7.6	7.7	0.9	100.0	1441	4.4
Residence								
Urban	5.9	38.5	31.9	23.2	0.5	100.0	14819	8.1
Rural	10.2	55.2	24.2	9.8	0.5	100.0	13104	6.2
Region								
Metro. Manila	3.0	28.6	36.9	30.8	0.7	100.0	4268	10.1
Cordillera Admin.	10.4	40.2	26.9	22.4	0.1	100.0	474	6.9
Ilocos	7.9	46.5	29.9	15.4	0.3	100.0	1723	6.8
Cagayan Valley	7.4	52.3	25.2	14.2	0.8	100.0	945	6.5
C-Luzon	5.8	48.5	31.0	14.5	0.2	100.0	2870	6.8
S-Tagalog	6.3	48.8	28.7	16.1	0.1	100.0	3873	6.7
Bicol	6.9	59.5	22.6	10.0	0.9	100.0	1658	6.3
W-Visayas	7.2	48.1	26.9	17.6	0.2	100.0	2388	6.7
C-Visayas	9.1	52.6	22.9	14.5	1.0	100.0	2081	6.3
E-Visayas	8.8	53.4	25.2	12.4	0.2	100.0	1366	6.3
W-Mindanao	15.2	50.1	20.7	12.1	2.0	100.0	1435	5.7
N-Mindanao	6.6	51.1	28.6	13.1	0.7	100.0	1501	6.6
S-Mindanao	11.5	45.7	29.3	13.4	0.1	100.0	1961	6.5
C-Mindanao	20.4	43.9	22.7	12.6	0.4	100.0	1380	5.8
Total	7.9	46.3	28.3	16.9	0.5	100.0	27923	6.7

[1]Excludes 13 people with age information missing.

No profound gender difference may be observed as far as education is concerned. However, a significant difference is noted in the educational level between the urban and rural population. The educational system obviously favors residents of the urban areas.

The distribution of the population by highest level of education attended differs greatly among the regions of the country. Metropolitan Manila has a much better educated population compared to the rest of the country; the median duration of schooling in this region is 10 years, compared to 6 or 7 for the other regions. Residents of Western Mindanao and Central Mindanao have the lowest median duration of schooling.

School Enrollment

Table 2.5 shows the percent distribution of the household population 6-24 years of age enrolled in school by age, sex and urban-rural residence. Close to four-fifths of persons age 6 to 10 and 88 percent of those age 11-15 are attending school. Between the ages of 16 and 20, when most everybody is still supposed to be in school, the proportion of those actually enrolled diminishes significantly. Economic reasons possibly pull the youth of the country from the school system into the job market.

The probability of being in school is fairly equal for the male and female populations in the urban areas except at ages 16-24, where men are more likely to be enrolled than women. In the rural areas, however, the female population seems to get the advantage as far as schooling is concerned. This is possibly due to the fact that male children are more needed to help on the farm.

Table 2.5 School enrollment

Percentage of the de facto household population age 6-24 years enrolled in school by age group, sex, and urban-rural residence, Philippines 1993

	Male			Female			Total		
Age group	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
6-10	80.4	73.8	76.9	81.4	77.0	79.0	80.8	75.3	77.9
11-15	91.0	83.2	86.9	91.8	87.2	89.5	91.4	85.2	88.2
6-15	85.4	78.3	81.6	86.6	81.8	84.2	86.0	80.0	82.9
16-20	56.3	41.4	48.9	50.3	47.3	49.1	53.1	44.0	49.0
21-24	18.0	10.7	14.9	12.8	8.8	11.2	15.5	9.8	13.1

2.2 Housing Characteristics

Table 2.6 shows the distribution of households with selected housing characteristics by urban-rural residence. The information on the source of water, type of sanitary facility, type of floor material and number of persons per sleeping room are indicators of the health and socioeconomic condition of households which, in turn, are associated with demographic behavior.

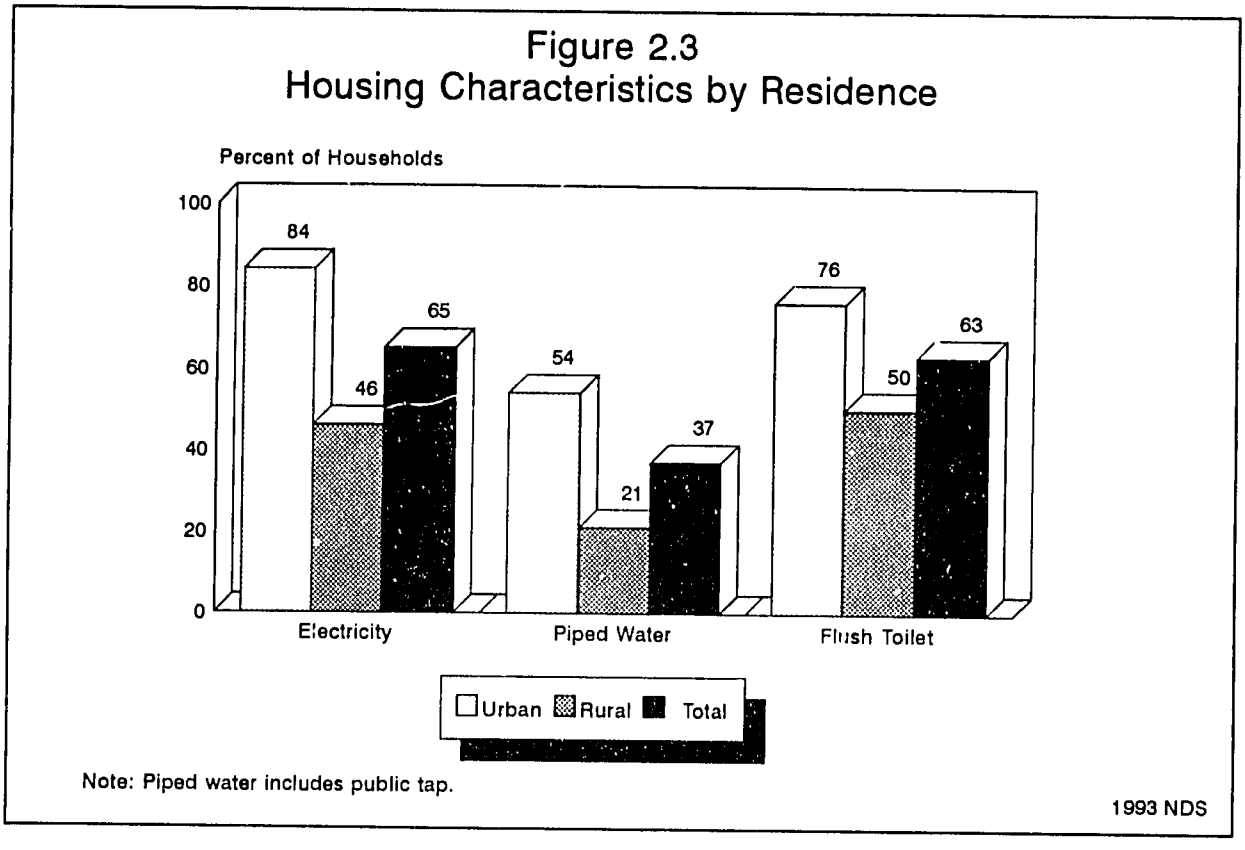
About two thirds of the households have electricity. However, a significant difference was noted between the urban and rural areas; 84 percent of urban households have electricity, compared to less than half (46 percent) of rural households (Figure 2.3).

One in 3 households has piped water (37 percent) and 28 percent have water piped into the residence. Again, a significant difference is noted between the urban and rural areas. In the urban areas, more than half (54 percent) of the households have water piped into the residence, compared to only 21 percent in the rural areas. Open dug well and developed spring are among the main sources of water in the rural areas, but only a few households in the urban areas get their water from these sources.

Table 2.6 Housing characteristics

Percent distribution of households by housing characteristics, according to urban-rural residence, Philippines 1993

Housing characteristic	Residence		Total
	Urban	Rural	
Electricity			
Yes	83.7	46.4	65.4
No	16.1	53.3	34.4
Missing	0.2	0.3	0.2
Total	100.0	100.0	100.0
Source of drinking water			
Piped into residence	44.1	12.0	28.3
Public tap	9.4	8.6	9.0
Tubed/piped well/improved dug well within residence	13.7	20.2	16.9
Tubed/piped well/improved dug well outside residence	6.0	10.4	8.2
Private well	5.9	4.3	5.2
Public well	10.8	11.9	11.3
Open dug well	3.8	15.8	9.7
Developed spring	2.1	12.3	7.1
Rainwater	0.5	1.1	0.8
Other	3.4	3.2	3.3
Missing/Don't know	0.2	0.3	0.3
Total	100.0	100.0	100.0
Sanitation facility			
Own flush toilet	62.8	43.5	53.3
Shared flush toilet	13.0	6.9	10.0
Trad. own pit toilet	8.7	12.0	10.3
Trad. shared pit toilet	3.6	3.3	3.5
Open privy	3.8	10.0	6.8
Drop/overhang type	2.0	[illegible].9	2.9
No facilities	5.8	20.1	12.8
Other	0.2	0.0	0.1
Missing/Don't know	0.2	0.2	0.2
Total	100.0	100.0	100.0
Flooring			
Earth/sand	5.1	7.9	6.5
Wood planks	20.3	20.9	20.6
Palm/bamboo	14.3	36.4	25.2
Parquet/polished wood	0.8	0.5	0.7
Vinyl/asphalt strips	1.3	0.2	0.8
Ceramic tiles	2.7	0.9	1.8
Cement	50.4	31.9	41.3
Marble	3.0	0.5	1.8
Other	1.7	0.6	1.2
Missing/Don't know	0.3	0.2	0.3
Total	100.0	100.0	100.0
Persons per sleeping room			
1-2	47.3	41.4	44.4
3-4	33.0	35.1	34.0
5-6	12.8	14.7	13.7
7 +	5.3	7.5	6.4
Missing/Don't know	1.6	1.3	1.4
Total	100.0	100.0	100.0
Mean persons per room	3.2	3.4	3.3
Number of households	6613	6382	12995



The majority of the households (64 percent) have their own toilet facility. The proportion is much higher in urban (72 percent) than in rural areas (56 percent). A large proportion (20 percent) of rural households have no toilet facility.

As to the type of flooring material, 41 percent of the households have cement floors, and one in four have palm or bamboo floors. Urban households are more likely to use cement than rural households (50 and 32 percent, respectively). One fifth of the households in both the urban and rural areas have wood plank floors.

In the NDS, a question was asked about the number of rooms the household used for sleeping. The purpose was to get a measure of household crowding. On average, there were 3 persons per sleeping room. No significant difference was noted between the urban and rural areas in this respect.

Durable Consumer Goods

The percentage of households owning specific durable consumer goods by urban-rural residence is presented in Table 2.7. Among the durable consumer goods, television is available in 43 percent of the households, followed by refrigerator (28 percent).

Table 2.7 Household durable goods

Percentage of households possessing specific durable consumer goods, by urban-rural residence, Philippines 1993

Durable goods	Residence		
	Urban	Rural	Total
Gas/electric range	21.1	8.0	14.6
Television	61.5	23.8	43.0
Refrigerator	41.9	13.0	27.7
Bicycle	24.1	18.5	21.4
Motorcycle	7.3	4.7	6.0
Private car	9.9	2.1	6.1
Number of households	6613	6382	12995

The proportion of households with such appliances varies greatly between the urban and rural areas; 62 percent of urban households reported having a television, compared to only 24 percent of rural households, and 42 percent of urban households have a refrigerator, compared to 13 percent of rural households. Twenty-one percent of urban households have either an electric or a gas range, compared to only 8 percent of rural households. Urban households are more likely than rural households to own some means of transportation (either a bicycle, motor cycle or private car).

2.3 Characteristics of Respondents

In the household questionnaire, a total of 15,332 women were identified as eligible for interview for the NDS individual questionnaire. Of these women, 15,029 or 98 percent were successfully interviewed. In each age group, the proportion of women interviewed was about the same.

General Characteristics

Table 2.8.1 shows the distribution of women in the NDS sample by selected background characteristics. More than half (55 percent) of the women interviewed in the survey are under age 30. Married women comprise 54 percent of the total women interviewed, while never-married women constitute just over one third. Almost all of the women who were interviewed have had some formal education. More than one fourth are in college or are college graduates, and a large proportion (40 percent) have attended high school. Roman Catholic is the most predominant religion (83 percent). With respect to ethnicity, Tagalog and Cebuano groups comprise more than half of the respondents.

Table 2.8.2 shows that there are slightly more respondents from the urban areas than from the rural areas. Almost one in five respondents (18 percent) were from the Metropolitan Manila area, 10 percent were found in the Northern provinces (comprising Ilocos, Cagayan Valley, and Cordillera Administrative Region), while the rest of Luzon has about 30 percent of the respondents. Visayas and Mindanao have 20 and 22 percent of the respondents, respectively.

Table 2.8.1 Background characteristics of respondents

Percent distribution of women by selected background characteristics, Philippines 1993

Background characteristic	Weighted percent	Number of women: Weighted	Number of women: Un-weighted
Age			
15-19	21.0	3158	3139
20-24	17.6	2649	2602
25-29	16.2	2430	2412
30-34	14.6	2196	2228
35-39	12.6	1889	1907
40-44	10.5	1571	1597
45-49	7.6	1137	1144
Marital status			
Never married	36.7	5518	5343
Married	54.4	8180	8372
Living together	5.2	781	773
Widowed	1.8	273	276
Divorced	0.2	29	31
Separated	1.6	248	234
Education			
No education	2.1	320	382
Elementary	31.2	4690	4863
High school	39.7	5967	5868
College or higher	26.9	4049	3913
Don't know/missing	0.0	3	3
Religion			
Catholic	83.2	12507	12246
Protestant	2.8	426	454
Iglesia ni Kristo	2.8	414	403
Aglipay	1.5	228	241
Islam	3.5	521	671
Other	6.0	908	989
None	0.1	13	14
Missing	0.1	11	11
Ethnicity			
Tagalog	28.2	4237	3256
Cebuano	26.0	3907	4345
Ilocano	10.4	1556	1773
Ilonggo	11.1	1670	1659
Bicolano	6.2	926	902
Waray	4.0	597	638
Other	14.1	2117	2437
Missing	0.1	19	19
Total	100.0	15029	15029

Table 2.8.2 Background characteristics of respondents

Percent distribution of women by type of residence and region, Philippines 1993

Background characteristic	Weighted percent	Number of women	
		Weighted	Un-weighted
Residence			
Urban	56.6	8501	7908
Rural	43.4	6528	7121
Region			
Metro. Manila	18.2	2733	1882
Cordillera Admin.	1.6	241	473
Ilocos	5.5	832	967
Cagayan Valley	3.2	486	689
C-Luzon	10.6	1599	1391
S-Tagalog	13.5	2025	1516
Bicol	5.4	805	849
W-Visayas	8.1	1216	1206
C-Visayas	7.5	1121	1165
E-Visayas	4.3	645	802
W-Mindanao	4.8	729	945
N-Mindanao	5.3	794	996
S-Mindanao	7.3	1095	1205
C-Mindanao	4.7	707	943

Education by Age, Urban-Rural Residence and Region

Table 2.9 presents the percent distribution of the respondents by the highest level of education attended, according to age, urban-rural residence and region. The data show that younger women have higher educational attainment than older women. About 80 percent of women 15-24 have attended at least secondary level of education, compared to less than half of women age 40 and older.

As expected, women in the urban areas are better educated than women in the rural areas. About three fourths of urban women have attended at least secondary school compared to only 54 percent of rural women. Women in Metropolitan Manila, Ilocos and the Cordillera Administrative Region (CAR) are better educated than in other regions. On the other hand, Bicol, Western Mindanao and Central Mindanao had the lowest proportion of women with secondary or higher level of education.

Exposure to Mass Media

Presented in Table 2.10 is the percentage of the respondents who were exposed to different types of mass media by age, educational level, urban-rural residence and by region. The table shows that about 90 percent of the women listen to the radio at least once a week while 72 percent or more watch television and read newspapers. Younger women are more likely to have been exposed to mass media than older women.

A positive relationship is noted between exposure to mass media and educational attainment. Women with higher educational level are more likely to have been exposed to mass media. Between urban and rural areas, the proportion differs greatly for those who read newspapers and watch television but not for those who listen to the radio.

Table 2.9 Level of education

Percent distribution of women by the highest level of education attended, according to selected background characteristics, Philippines 1993

Background characteristic	Level of education				Total	Number
	None	Elementary	High school	College or higher		
Age						
15-19	1.2	17.9	64.6	16.4	100.0	3158
20-24	1.7	21.1	40.2	37.1	100.0	2649
25-29	2.3	25.5	38.4	33.8	100.0	2430
30-34	2.1	34.6	31.9	31.4	100.0	2196
35-39	2.8	42.7	30.5	24.0	100.0	1889
40-44	2.8	47.3	26.8	23.1	100.0	1571
45-49	3.7	56.0	20.7	19.6	100.0	1137
Residence						
Urban	1.3	22.6	41.9	34.2	100.0	8501
Rural	3.2	42.5	36.8	17.5	100.0	6528
Region						
Metro. Manila	0.5	14.4	44.8	40.2	100.0	2733
Cordillera Admin.	1.1	23.5	37.0	38.5	100.0	241
Ilocos	0.4	29.5	43.2	26.9	100.0	832
Cagayan Valley	1.6	38.5	35.4	24.5	100.0	486
C-Luzon	0.4	34.9	41.9	22.8	100.0	1599
S-Tagalog	0.8	31.7	40.6	26.9	100.0	2026
Bicol	0.2	45.0	37.0	17.8	100.0	805
W-Visayas	0.9	32.5	38.1	28.4	100.0	1216
C-Visayas	2.1	42.7	32.4	22.7	100.0	1121
E-Visayas	1.1	38.2	39.8	20.9	100.0	645
W-Mindanao	10.9	38.5	28.9	21.7	100.0	729
N-Mindanao	0.9	35.2	41.9	21.9	100.0	794
S-Mindanao	4.1	31.9	42.9	21.2	100.0	1095
C-Mindanao	13.6	30.6	32.9	22.8	100.0	707
Total[1]	2.1	31.2	39.7	26.9	100.0	15029

[1]Includes 3 women with no information on level of education.

Table 2.10 Exposure to mass media

Percentage of women who usually read a newspaper once a week, watch television once a week, or listen to radio once a week, by selected background characteristics, Philippines 1993

Background characteristic	Read newspaper weekly	Watch television weekly	Listen to radio weekly	Number of women
Age				
15-19	80.9	81.1	93.2	3158
20-24	77.0	74.7	91.1	2649
25-29	74.6	71.2	89.8	2430
30-34	70.0	67.0	88.4	2196
35-39	67.9	66.5	87.5	1889
40-44	64.6	67.5	88.9	1571
45-49	61.8	67.1	88.9	1137
Education				
No education	6.7	17.7	51.5	320
Elementary	50.2	53.0	84.6	4690
High school	79.9	77.6	92.7	5967
College or higher	93.7	90.0	95.7	4049
Residence				
Urban	81.8	85.4	92.2	8501
Rural	61.1	54.5	87.3	6528
Region				
Metro. Manila	94.7	97.8	93.8	2733
Cordillera Admin.	71.9	44.6	89.4	241
Ilocos	78.6	83.5	92.5	832
Cagayan Valley	62.0	43.1	93.3	486
C-Luzon	84.1	90.5	91.1	1599
S-Tagalog	80.7	82.1	93.1	2026
Bicol	65.0	43.7	85.6	805
W-Visayas	72.0	69.7	93.1	1216
C-Visayas	45.4	61.8	90.2	1121
E-Visayas	77.4	58.1	91.4	645
W-Mindanao	46.9	41.1	72.6	729
N-Mindanao	49.5	54.0	84.9	794
S-Mindanao	63.7	66.0	90.1	1095
C-Mindanao	57.4	43.9	82.6	707
Total[1]	72.8	72.0	90.1	15029

[1]Includes 3 women with no information on level of education.

CHAPTER 3

FERTILITY

In line with the objective of measuring fertility levels, trends, and differentials, special care was given to administer a set of carefully worded questions to obtain accurate and reliable data on fertility. Data on fertility come from a full pregnancy history asked of all women aged 15-49 at the time of survey. The sequence of questions was intended to derive information on all pregnancies which resulted in either a live birth or a miscarriage or still birth. For live births, the women were asked questions about children still living at home, those living elsewhere, and those who had died. Since pregnancies were listed in the order of occurrence, it was possible to probe cases where any lengthy or too brief time gap between pregnancies was reported. For pregnancies not ending in a live birth, the women were asked the month and year of pregnancy termination as well as the duration of the pregnancy. For pregnancies that were lost before full term, the women were asked whether a doctor or anyone else did something to end the pregnancy. This approach maximizes recall of all pregnancies and provides a richer data set for fertility analysis than a full birth history.

The analysis in this chapter revolves around females who were born in a given time period (birth cohorts) and on those who married during a given time period (marriage cohorts). The fertility measures presented here are derived directly from the pregnancy history. The total fertility rate (TFR) is calculated by summing the age-specific fertility rates, and can be interpreted as the average number of births a hypothetical group of women would have at the end of their reproductive lives if they were subject to the currently prevailing age-specific rates from age 15 to 49. The TFR remains the most significant demographic indicator in the analysis of the impact of national population programs, in particular, family planning programs, on individual or group reproductive behavior. A three-year TFR was computed to provide the most recent estimates of current levels of fertility to reduce sampling error and to avoid problems of displacements of births reported from 5 to 6 years prior to survey.[1]

3.1 Current Fertility

Reproductive behavior in the Philippines around 1993 remains at a level not substantially different from what prevailed in 1988, as measured by TFR. Data in Table 3.1 show that for the country as a whole, TFR was estimated at 4.09 children per woman. This is indicative of a slight decline from 4.26 children per woman in 1988. The age-specific fertility rates show an age pattern that peaks at ages 25-29 and tapers off at the older ages. Table 3.1 also shows a general fertility rate (GFR) of 138 live births per 1,000 women age 15-44 years and a crude birth rate (CBR) of 29.7 births per 1,000 population. By all indicators, the current fertility level in the Philippines remains relatively high when compared with its Southeast Asian neighbors. In addition to the slow pace of decline from the most recent survey prior to 1993, another notable feature of current fertility is the lower fertility of urban women in the country. The TFR for urban areas is 3.5 births per woman, 1.3 less than the rural TFR. Lower urban fertility is observed across all age groups (Figure 3.1).

[1]The distribution of all children by calendar year of birth shows a slight heaping of births in 1989 and 1990 and a deficit in the year prior to and after those years (see Table C.4). The transference of births out of 1988 was apparent for living children. This pattern has been observed in other DHS surveys; it is believed to be the result of transference of births by interviewers out of the period for which the health and calendar data were collected (January 1988 through the date of the survey).

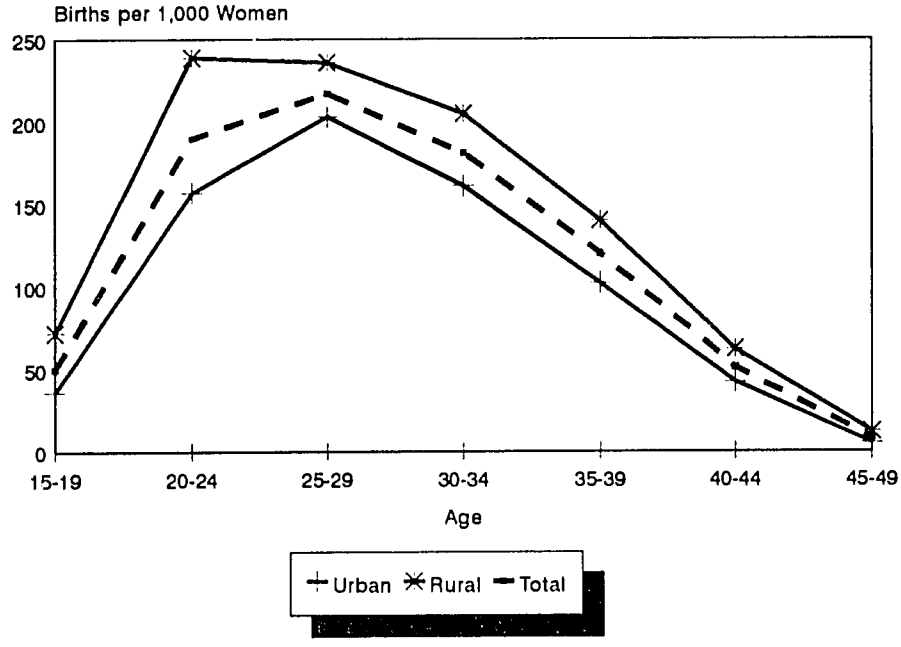
Table 3.1 Current fertility

Age-specific and cumulative fertility rates and the crude birth rate for the three years preceding the survey, by urban-rural residence, Philippines 1993

Age group	Residence: Urban	Rural	Total
15-19	36	72	50
20-24	157	239	190
25-29	203	236	217
30-34	161	205	181
35-39	102	140	120
40-44	42	62	51
45-49	5	12	8
TFR 15-49	3.53	4.82	4.09
TFR 15-44	3.50	4.77	4.05
GFR	119	163	138
CBR	28.5	30.9	29.7

Note: Rates are for the period 1-36 months preceding the survey. Rates for age group 45-49 may be slightly biased due to truncation.
TFR: Total fertility rate expressed per woman
GFR: General fertility rate (births divided by number of women 15-44), expressed per 1,000 women
CBR: Crude birth rate, expressed per 1,000 population

Figure 3.1
Age-Specific Fertility Rates by Residence



1993 NDS

3.2 Fertility by Background Characteristics

Variations in fertility are evident from the data on current and cumulative fertility shown in Table 3.2. The mean number of children ever born (CEB) to the oldest women (40-49 years of age) is an indicator of completed fertility for it reflects the fertility performance of older women who are nearing the end of their reproductive life span. If fertility has remained stable over time, the two fertility measures, TFR and CEB, would be equal or similar. Although a comparison of completed fertility among women aged 40-49 years with the total fertility rate provides an indication of fertility change, this approach may be somewhat biased due to understatement of parity reported by older women. Nevertheless, consistency in the two measures with respect to urban-rural differentials and educational attainment is observed.

Table 3.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey and mean number of children ever born to women age 40-49, by selected background characteristics, Philippines 1993

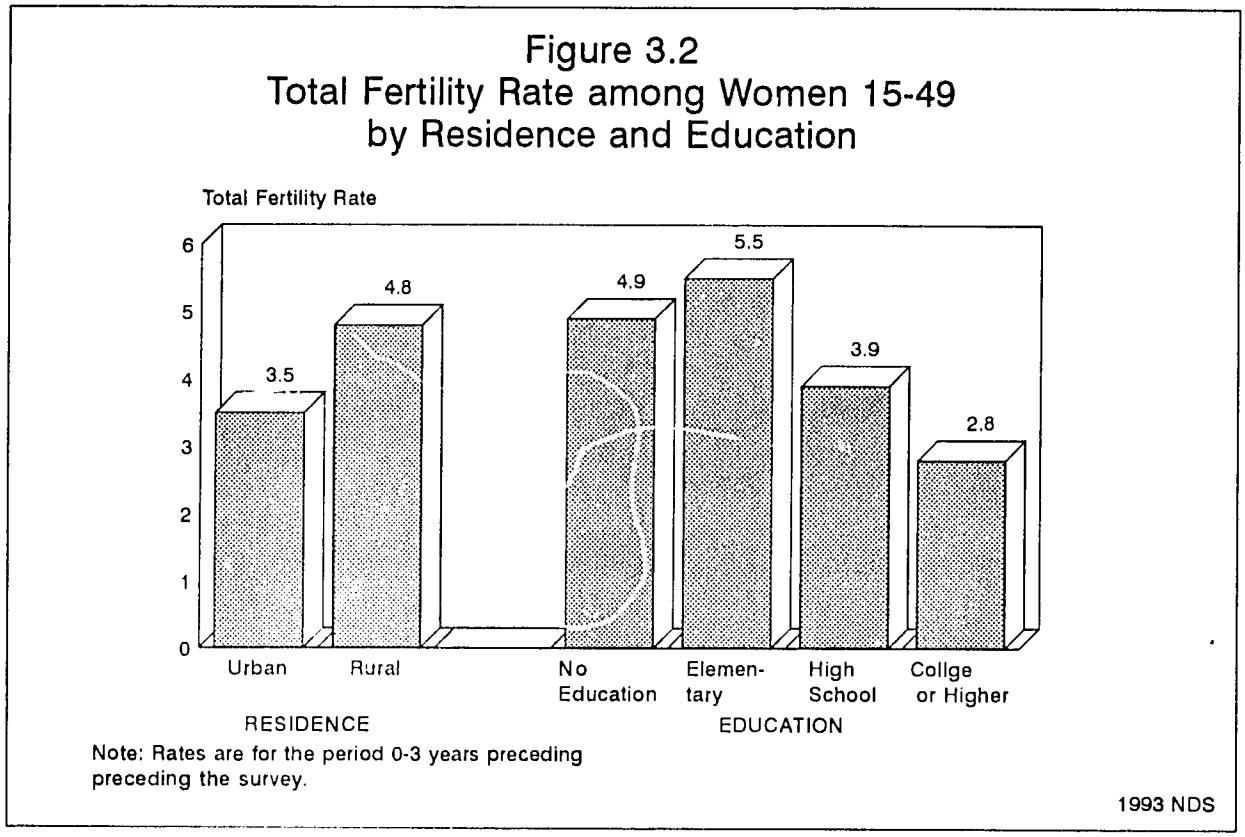
Background characteristic	Total fertility rate[1]	Mean number of children ever born to women age 40-49
Residence		
Urban	3.53	4.34
Rural	4.82	5.65
Region		
Metro. Manila	2.76	3.46
Cordillera Admin.	5.05	4.44
Ilocos	4.25	5.12
Cagayan Valley	4.20	4.60
C-Luzon	3.87	4.58
S-Tagalog	3.86	4.81
Bicol	5.87	6.14
W-Visayas	4.24	5.17
C-Visayas	4.38	5.04
E-Visayas	4.86	5.70
W-Mindanao	4.46	5.46
N-Mindanao	4.81	5.79
S-Mindanao	4.23	5.43
C-Mindanao	4.81	6.09
Education		
No education	4.93	6.07
Elementary	5.51	5.93
High school	3.93	4.40
College or higher	2.82	3.10
Total	4.09	4.95

[1]Rate for women age 15-49 years

As noted earlier, urban women are inclined to have fewer children than their rural counterparts. On average, urban women have at least one child less than rural women have. This may be interpreted as arising from differences in levels of development between the urban and rural areas (Figure 3.2).

Such differences are also substantiated by the regional variation in fertility. Note that Metropolitan Manila, the most developed region, exhibits the lowest TFR of 2.76 children per woman, and the lowest mean number of children ever born of 3.46 children per woman. By contrast, Bicol, the least developed region in the country, shows the highest TFR of 5.87 and mean CEB of 6.14 children per woman. The difference in fertility between the two contrasting regions is at least 3 children.

The widely accepted nonlinear negative effect of education on fertility is clearly borne out by the data. The depressing effect of education on fertility is best indicated by the difference in fertility rate between those with an elementary education estimated at 5.5 children per woman and those with higher education estimated at 2.8 children per woman. Thus, a Filipino woman without education can be expected to have almost twice as many children as a highly educated woman. The data suggest that a good, perhaps the best mechanism, for fertility reduction is to improve education of women. This would free women to spend more time on economic and other pursuits rather than childbearing which in turn would aid the family as a whole.



3.3 Fertility Trends

To validate the data obtained from the 1993 NDS, age-specific fertility rates are compared with corresponding rates from periodic national demographic surveys from 1973 to 1993. Discrepancies will reflect a combination of real change, of differences in geographic coverage, of change in data collection procedures, and of estimation techniques in one or in all surveys. Nonetheless, they serve the purpose of reflecting recent change in fertility trends in the Philippines.

Data in Table 3.3 for the 20-year period preceding the survey are fertility rates reflecting a three-year rate from the 1993 survey and five-year averages centered on mid-period years as calculated from the 1973, 1978, 1983, and 1988 surveys, respectively. In general, however, the TFR declined from 6.0 children per woman in 1970 to 4.1 in 1991 or a decrease of 2.0 births per woman during the 20-year period. The pace of decline in fertility over time is varied. During the period roughly 1970-1975, the TFR declined by 2.4 percent annually. This was followed by a smaller decline of 0.6 percent during the succeeding five-year period. The largest decline was during the first half of the eighties estimated at 3.2 percent annually. The latter half of the eighties once again revealed a slide back in the progress of fertility reduction with just 1.2 percent annual decline during the period 1985-1991 (see Figure 3.3).

Through most of the 20 years, the female mean age at marriage has remained high and relatively stable, averaging about 23 years for the past two decades. The observed decline in fertility can be attributed primarily to changes in family planning practices (see Chapter 4).

Table 3.3 Fertility trends

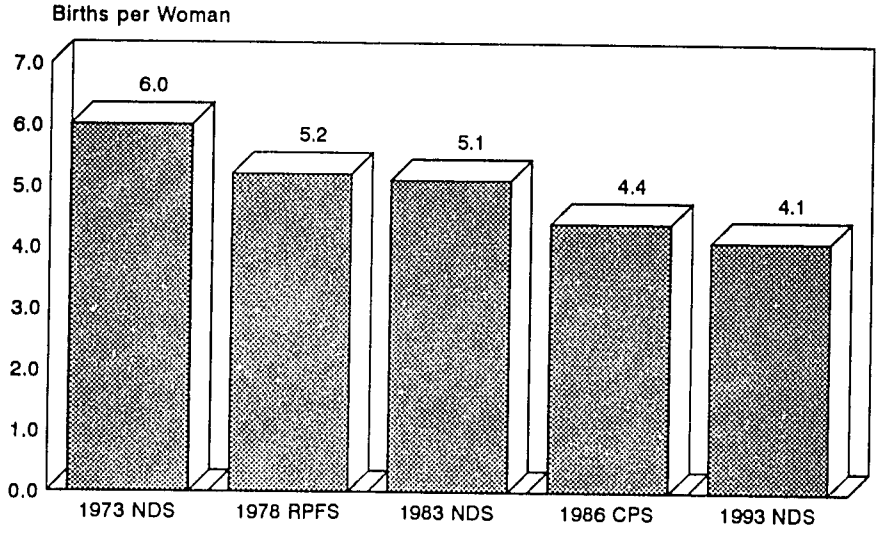
Age-specific and total fertility rates from various surveys, Philippines 1973-1993

Age	1973 NDS (1970)	1978 RPFS (1975)	1983 NDS (1980)	1986 CPS (1984)	1993 NDS (1991)
15-19	56	50	55	48	50
20-24	228	212	220	192	190
25-29	302	251	258	229	217
30-34	268	240	221	198	181
35-39	212	179	165	140	120
40-44	100	89	78	62	51
45-49	28	27	20	15	8
TFR	5.97	5.24	5.08	4.42	4.09

Note: Rates for 1970-1980 are five-year averages, and 1984 and 1991 are three-year averages centered on the years in parentheses.

Source: Concepción, 1991, Table 4.10

Figure 3.3
Total Fertility Rates
Philippines, 1970-1991



Note: Rates are based on 5-year averages except for the 1993 NDS, which is based on a 3-year average.

Retrospective data from a single survey can also be used to establish fertility trends over time. Age-specific fertility rates (ASFRs) from the 1993 NDS for the last 20 years by five-year periods are shown in Table 3.4. The ASFRs therefore are progressively truncated with increasing number of years from time of survey. Due to truncation, changes over the past 20 years are observed for women up to age 29 years.

Table 3.4 Age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age, Philippines 1993

Mother's age	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
15-19	52	62	70	75
20-24	190	216	238	239
25-29	216	232	263	277
30-34	175	192	216	[250]
35-39	123	133	[167]	-
40-44	56	[76]	-	-
45-49	[10]	-	-	-

Note: Age-specific fertility rates are per 1,000 women. Estimates enclosed in brackets are truncated.

In terms of internal consistency, the data substantiate a fertility decline, as the ASFRs are higher in the distant past than in the more recent past. The minimal decline of fertility among women age 20-24 as shown by ASFRs 15-19 and 10-14 years from the survey is similar to the trend observed in previous surveys and, therefore, does not necessarily suggest recall or omission of problems by older women in the survey.

Overall, fertility decline during the past 20 years has been moderate. For women aged 15-29, the TFR declined from 3.0 in 15-19 years before the survey to 2.3 in 0-4 years before the survey. The data also show variation across age groups. A closer look at the more recent fertility change by comparing the ASFRs between 0-4 years and 5-9 years prior to survey reveal that the reduction is largest for those under 20 years.

3.4 Fertility by Marital Duration

Table 3.5 presents fertility rates for ever-married women by duration since first marriage for five-year periods preceding the survey. These rates are similar to the ones presented in Table 3.4 and are subject to similar problems of truncation. Declines are observed in all marital durations; for all five-year periods marital fertility is larger in the more distant past than in the recent past.

3.5 Children Ever Born and Living

A basic measure of fertility is the number of children ever born (CEB) or current parity. This measure is based on a cross-sectional view at the time of survey and does not refer directly to the timing of fertility of the individual respondents but is a measure of her completed fertility. The number of CEB by age of women for all women and currently married women and the corresponding mean CEB as well as mean number of living children is presented in Table 3.6. Among all women, at least 2 in 5 do not have children.

Table 3.5 Fertility by marital duration

Fertility rates for ever-married women by duration since first marriage in years, for five-year periods preceding the survey, Philippines 1993

Marriage duration at birth	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
0-4	384	392	411	425
5-9	235	258	291	325
10-14	165	183	234	274
15-19	114	151	187	[261]
20-24	76	106	[156]	[312]
25-29	33	[83]	-	-

Note: Fertility rates are per 1,000 women. Estimates enclosed in brackets are truncated.

Table 3.6 Children ever born and living

Percent distribution of all women and of currently married women by number of children ever born (CEB) and mean number ever born and living, according to five-year age groups, Philippines 1993

Age group	Number of children ever born (CEB)											Total	Number of women	Mean number of CEB	Mean number of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
15-19	94.7	4.1	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	3158	0.07	0.06
20-24	59.9	17.7	13 8	6.3	1.9	0.4	0.0	0.1	0.0	0.0	0.0	100.0	2649	0.74	0.71
25-29	29.2	14.8	20.6	17.0	11.1	4.7	2.0	0.4	0.1	0.1	0.0	100.0	2430	1.92	1.81
30-34	14.9	11.1	16.0	17.8	15.7	10.1	7.3	4.1	1.9	0.8	0.2	100.0	2196	3.08	2.86
35-39	9.2	7.7	12.2	16.6	15.4	12.5	9.9	6.6	4.5	3.0	2.4	100.0	1889	4.01	3.71
40-44	8.0	4.7	8.7	14.1	17.5	12.2	9.1	7.3	6.6	5.3	6.4	100.0	1571	4.73	4.33
45-49	8.5	3.9	7.2	11.7	12.9	12.5	9.7	8.6	8.2	5.9	10.9	100.0	1137	5.26	4.76
Total	40.0	9.8	11.3	10.9	9.2	6.1	4.3	2.9	2.2	1.5	1.8	100.0	15029	2.30	2.13
CURRENTLY MARRIED WOMEN															
15-19	33.8	50.3	14.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	234	0.83	0.80
20-24	13.5	37.0	30.5	13.8	4.2	0.8	0.1	0.1	0.0	0.0	0.0	100.0	1174	1.62	1.55
25-29	6.0	18.6	27.5	22.7	15.2	6.5	2.7	0.5	0.2	0.1	0.0	100.0	1763	2.58	2.44
30-34	4.1	10.7	17.7	20.4	18.2	11.9	8.6	4.9	2.3	0.9	0.3	100.0	1838	3.55	3.30
35-39	2.8	6.7	12.1	18.0	16.9	13.7	11.1	7.5	5.1	3.4	2.8	100.0	1652	4.40	4.07
40-44	2.9	3.8	8.6	15.1	18.5	13.1	10.0	8.1	6.9	6.0	6.9	100.0	1358	5.09	4.66
45-49	3.1	2.9	7.5	13.1	13.3	13.2	10.5	8.7	9.1	6.6	12.0	100.0	942	5.67	5.13
Total	6.0	14.1	17.7	17.5	14.6	9.7	7.0	4.6	3.5	2.4	2.9	100.0	8961	3.65	3.38

By contrast, only 6 percent of married women do not have children. The table shows marked differences in the proportion without any children at younger ages and between married women and all women. This is due to the fact that many women remain unmarried in their twenties. Considering that most of the births still occur within marriage despite sweeping social changes in the country, this rather small proportion of childlessness suggests that the potential for high fertility is great in Philippine society. The figures for childlessness may also be used to estimate primary sterility.

On the other hand, 3 percent of married women age 45-49 are childless, the corresponding proportion without children among all women 45-49 is higher, at 9 percent. The differences at older ages reflect the combined impact of marital dissolution, infertility, and celibacy. It is worth stressing that while 1 in 12 Filipino women 45-49 remains childless, over 10 percent have 10 or more births.

Table 3.6 also shows that while the proportion of women with no children or zero parity decreases with age, the proportion of women at higher parity increases with age, reflecting the process of family formation over time. Also, the mean CEB for both groups of women become larger with increasing age of the women indicating that the data were free from gross recall bias. The mean parity for the whole sample of women was 2.3 children; for the married women, it was 3.7 children. It is interesting to note that for women completing their childbearing at age 45-49, mean CEB was 5.3 children among all women and 5.7 children among married women.

Besides describing average family size, information on number of living children at the time of interview reported by a respondent or the current family size derived from the pregnancy history can give some indications of infant and child mortality. The data show that on average, all women had 2.1 children still living and those married report 3.4 living children. It is notable that the mean number of CEB and children still living are not substantially different. On average, both groups of women had a loss of 7 percent of all live births.

3.6 Birth Intervals

The timing of births has significant influence on both fertility and mortality. There has been evidence that women with closely spaced births have higher fertility than women with longer birth intervals. Similarly, studies in diverse settings consistently show that shorter birth intervals increase the incidence of infant and child mortality.

Table 3.7 shows the percent distribution of births in the five years preceding the survey by length of interval since the previous birth, classified by some demographic and background characteristics of the women. In general, the median length of birth interval is slightly over 2 years, estimated at 28 months; about 1 in 5 births occurs four or more years after a previous birth, and more than one third of the births occur within two years of a previous birth. This finding is cause for concern as it has implications for maternal and child health and survival. It has been shown that short birth intervals, particularly those less than two years, elevate risks of death for both mother and child (see Chapter 7).

Data on median birth interval by demographic and background characteristics reveal interesting differentials. Younger women who are just beginning their reproductive years exhibit shorter median birth intervals; they are estimated at 19 and 25 months for women under 20 and 20-29 years old, respectively. By contrast, those 30-39 years old report a median birth interval of 31 months, and those 40 years and older report 36 months, an interval nearly twice as long as that of women aged 15-19.

Table 3.7 Birth intervals

Percent distribution of births in the five years preceding the survey by number of months since previous birth, according to demographic and socioeconomic characteristics, Philippines 1993

Characteristic	Number of months since previous birth					Total	Median number of months since previous birth	Number of births
	7-17	18-23	24-35	36-47	48+			
Age of mother								
15-19	36.0	32.5	31.5	0.0	0.0	100.0	19.3	40
20-29	21.8	26.6	32.0	11.7	8.6	100.0	24.6	2779
30-39	13.7	16.3	30.5	15.5	24.1	100.0	30.9	3175
40 +	10.0	12.4	26.8	15.1	35.8	100.0	36.4	846
Birth order								
2-3	19.8	21.8	28.1	12.8	17.6	100.0	26.6	3192
4-6	13.4	17.7	32.2	14.8	22.0	100.0	29.9	2460
7 +	14.9	19.4	34.5	14.4	16.9	100.0	28.3	1188
Sex of prior birth								
Male	17.4	19.4	29.9	13.5	19.8	100.0	28.3	3570
Female	15.8	20.4	31.5	14.0	18.3	100.0	27.9	3269
Survival of prior birth								
Living	15.6	20.1	30.9	14.0	19.4	100.0	28.4	6439
Dead	33.0	16.3	27.2	10.3	13.1	100.0	24.2	400
Residence								
Urban	18.1	19.9	28.4	12.4	21.1	100.0	27.8	3187
Rural	15.3	19.8	32.6	15.0	17.3	100.0	28.3	3652
Region								
Metro. Manila	23.2	17.0	25.5	11.9	22.4	100.0	27.2	719
Cordillera Admin.	19.4	21.2	33.8	11.9	13.7	100.0	26.7	142
Ilocos	17.2	19.5	30.7	14.2	18.5	100.0	27.7	376
Cagayan Valley	15.2	15.2	33.0	14.3	22.3	100.0	29.7	249
C-Luzon	17.9	16.4	29.3	14.6	21.8	100.0	30.3	686
S-Tagalog	13.8	18.2	31.9	14.8	21.2	100.0	29.6	820
Bicol	16.6	20.1	34.7	12.0	16.6	100.0	27.5	560
W-Visayas	13.9	20.4	34.0	14.4	17.2	100.0	28.1	587
C-Visayas	16.1	22.9	28.4	14.6	17.9	100.0	27.2	579
E-Visayas	15.2	24.5	28.4	14.8	17.0	100.0	27.6	354
W-Mindanao	15.5	20.0	32.8	12.2	19.5	100.0	28.2	404
N-Mindanao	15.6	23.8	26.7	15.1	18.9	100.0	27.6	439
S-Mindanao	16.6	21.2	33.3	12.4	16.5	100.0	27.2	519
C-Mindanao	16.0	21.2	30.6	14.9	17.3	100.0	28.1	407
Education								
No education	18.4	16.5	31.8	16.6	16.8	100.0	28.0	209
Elementary	14.1	19.7	33.7	13.9	18.6	100.0	28.8	3140
High school	17.2	21.1	30.3	14.0	17.4	100.0	27.2	2307
College or higher	21.9	18.4	23.2	12.5	24.0	100.0	27.8	1184
Total	16.6	19.9	30.7	13.8	19.1	100.0	28.1	6839

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.

Birth order exhibits a generally curvilinear relationship with median birth interval, increasing from a minimum of 27 months for second to third birth orders, to a peak at 30 months for the fourth through the sixth order births, then declining to 28 months for the seventh or higher order births. It is apparent from these data that the interval between births is greater after the third child.

The data in Table 3.7 show that birth interval does not vary by the sex of the previous child. The survival status of the previous birth influences the timing of the next birth. For women whose previous birth is still living, the next birth occurred after 28 months. For those whose previous births did not survive, the corresponding birth interval was shorter by 4.2 months. This finding raises interesting questions on the different mechanisms through which infant and child mortality influences birth intervals and fertility, particularly the question of whether mothers seek to replace deceased children as soon as possible.

Urban-rural residence and mother's education do not seem to exert an effect on length of birth interval. The insignificant difference in median birth interval between those with no schooling and those with college education does not stand up to the usual expectation that better educated women would space their births more widely than uneducated women. The absence of any significant differential in spacing behavior is also evident when urban-rural residence of mother are examined.

3.7 Age at First Birth

Onset of childbearing is an important fertility indicator. Postponing the first birth and lengthening the interval between subsequent births can contribute to fertility reductions. As can be seen in Table 3.8, early childbearing in the Philippines is not commonplace. Among women age 45-49, only 2 percent had their first birth below age 15. This proportion has diminished among women 15-19. Even among women 20-24, the proportion who had their first birth before reaching age 15 is less than 1 percent. The reduction in the proportions giving birth in the early teens could be attributed to the rise in age at first marriage which has been sustained during the past two decades.

Even if reported age at first birth by older women may be subject to omission or misdating of early births, information gathered among women age 45-49 still give some indications of the timing of first birth and the tempo of fertility. Four in 10 of women in the oldest age group had their first birth during their early

Table 3.8 Age at first birth

Percent distribution of women 15-49 by age at first birth, according to current age, Philippines 1993

Current age	Women with no births	Age at first birth						Total	Number of women	Median age at first birth
		<15	15-17	18-19	20-21	22-24	25+			
15-19	94.7	0.1	3.3	1.9	NA	NA	NA	100.0	3158	a
20-24	59.9	0.5	7.4	13.6	12.0	6.6	NA	100.0	2649	a
25-29	29.2	0.9	8.3	14.6	17.4	19.5	10.0	100.0	2430	23.1
30-34	14.9	0.5	9.3	16.5	16.7	20.3	21.8	100.0	2196	22.9
35-39	9.2	0.7	10.3	16.4	18.9	20.6	24.0	100.0	1889	22.4
40-44	8.0	1.1	8.8	15.8	17.7	22.0	26.6	100.0	1571	22.9
45-49	8.5	1.5	9.8	17.0	17.2	20.0	25.9	100.0	1137	22.6

NA = Not applicable
[a]Less than 50 percent of the women in the age group x to $x+4$ have had a birth by age x

twenties (37 percent), and one in four (26 percent) after age 25. A similar pattern is found for younger women, with a larger proportion of women 30-34 having their first birth at age 20-24 than after age 25 (37 and 22 percent, respectively). Clearly, most Filipino women had their first birth during their early twenties rather than in their teens. The median age at first birth shows a slight increase from 22.6 years among women age 45-49 to 23.1 years among women age 25-29.

Differentials in age at first birth by selected background characteristics of the women are presented in Table 3.9. The median age at first birth among women age 25-49 is 22.8 years. This figure compares well with that of Thai women, and is almost three years higher than that of Indonesian women and 1.5 years higher than that of Pakistani women (Central Bureau of Statistics, 1992; Chavoyan et al., 1988; and National Institute for Population Studies, 1992).

Table 3.9 Median age at first birth

Median age at first birth among women age 25-49 years, by current age and selected background characteristics, Philippines 1993

Background characteristic	Current age					Ages 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	24.3	23.8	23.0	23.5	23.6	23.7
Rural	22.0	21.9	21.7	22.1	21.5	21.9
Region						
Metro. Manila	a	26.1	23.5	24.6	24.5	a
Cordillera Admin.	22.7	22.6	23.9	23.6	23.2	23.2
Ilocos	23.7	22.6	23.2	22.6	22.8	23.0
Cagayan Valley	21.7	22.0	21.3	22.3	19.9	21.7
C-Luzon	22.7	22.4	22.5	23.7	22.8	22.7
S-Tagalog	22.9	22.7	22.1	22.8	22.8	22.7
Bicol	22.5	22.1	21.6	21.8	21.0	21.9
W-Visayas	23.5	23.6	23.4	22.8	23.3	23.3
C-Visayas	22.9	22.8	23.5	22.7	22.4	22.9
E-Visayas	21.9	21.9	21.9	22.2	20.7	21.8
W-Mindanao	21.5	21.3	22.1	22.1	21.5	21.7
N-Mindanao	21.8	22.9	21.4	20.8	22.5	21.8
S-Mindanao	22.1	21.9	21.4	22.9	22.4	22.0
C-Mindanao	21.2	21.3	22.3	21.6	21.6	21.6
Education						
No education	19.8	21.5	20.9	20.2	23.1	20.9
Elementary	20.8	20.7	21.0	21.4	21.1	21.0
High school	22.4	22.1	22.4	22.7	23.1	22.4
College or higher	26.9	26.5	25.9	26.4	26.9	26.6
Total	23.1	22.9	22.4	22.9	22.6	22.8

Note: The medians for the 15-19 cohort and for the 20-24 cohort could not be determined because half the women have not yet had a birth.
[a]Medians were not calculated for these cohorts because less than 50 percent of women in the age group x to $x+4$ have had a birth by age x.

Filipino women in the urban areas are 1.8 years older than their rural counterparts when they first enter motherhood. Regional variation is not as distinct, but four regions (Ilocos, Western and Central Visayas, and the Cordillera Administrative Region) have median ages at first birth exceeding that of the country as a whole. Sharp educational differentials, however, are observed. Women with higher education exhibit a median age at first birth 5.7 years more than that of the unschooled women. The direct correlation between the median age at first birth and education indicates the postponement of marriage and eventual first birth among women who stay longer in school.

3.8 Teenage Fertility

As noted earlier, early childbearing, and in particular births occurring before age 20, affects a small segment of the population. However, this does not necessarily mean that the insignificant level of teenage childbearing and motherhood does not pose social and health threats to society. Table 3.10 present data on fertility among teenagers age 15-19 at the time of the survey. Of the total women in these ages, only 7 percent have begun childbearing, five percent are already mothers and one percent being pregnant for the first time at the time of survey.

Table 3.10 Teenage pregnancy and motherhood

Percentage of teenagers 15-19 who are mothers or pregnant with their first child, by selected background characteristics, Philippines 1993

Background characteristic	Percentage who are: Mothers	Percentage who are: Pregnant with first child	Percentage who have begun child-bearing	Number of teenagers
Age				
15	0.4	0.1	0.5	662
16	0.6	0.7	1.3	681
17	2.9	0.7	3.6	650
18	8.3	2.0	10.3	600
19	16.1	2.9	19.0	565
Residence				
Urban	4.1	0.8	4.8	1868
Rural	7.0	1.8	8.9	1290
Region				
Metro. Manila	3.7	0.7	4.4	595
Cordillera Admin.	3.8	1.0	4.8	54
Ilocos	5.3	1.9	7.2	179
Cagayan Valley	7.3	1.8	9.2	77
C-Luzon	3.7	1.0	4.7	339
S-Tagalog	6.0	0.9	6.9	444
Bicol	3.4	2.1	5.5	138
W-Visayas	5.4	1.1	6.5	263
C-Visayas	7.7	2.3	9.9	214
E-Visayas	7.7	0.0	7.7	147
W-Mindanao	9.7	2.8	12.5	136
N-Mindanao	5.5	0.9	6.5	173
S-Mindanao	5.2	1.1	6.3	245
C-Mindanao	4.4	1.0	5.4	154
Education				
No education	15.2	0.0	15.2	36
Elementary	11.7	1.8	13.5	566
High school	4.3	1.2	5.5	2039
College or higher	1.3	0.4	1.8	517
Total	5.3	1.2	6.5	3158

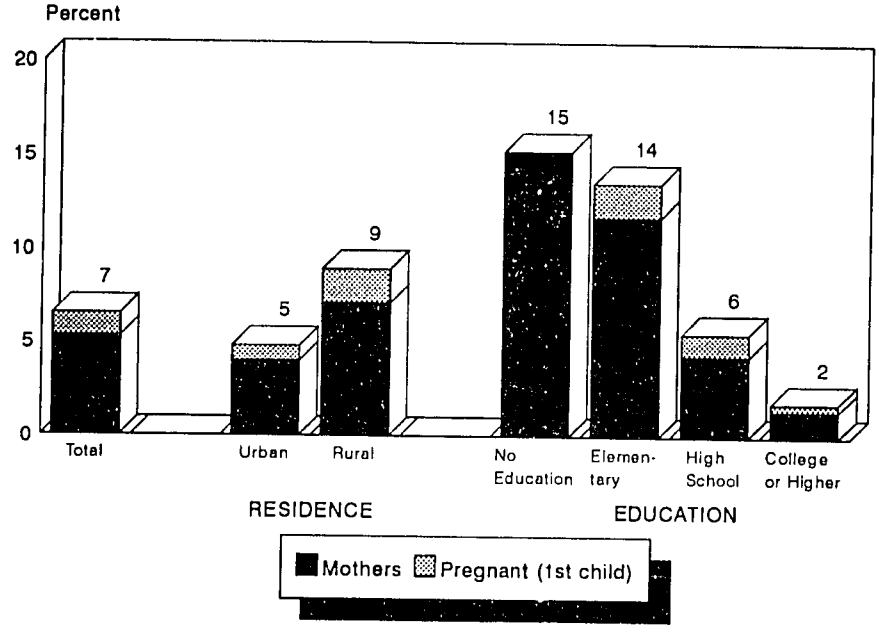
Differences between subgroups of these women are evident. As expected, the proportion of women who have begun childbearing increases linearly with age, from less than one percent among those age 15 years to 19 percent among those age 19 years. Rural teenagers are almost twice as likely (9 percent) to experience teenage pregnancy as their urban counterparts (5 percent) (see Figure 3.4).

Consistent with the urban-rural differentials, regional variations show that the less urbanized regions of Western Mindanao, Central Visayas, and Cagayan Valley all share higher proportions of teenage fertility relative to other regions of the country. This is particularly true for Western Mindanao where cultural factors impinging on women's roles and status could partially explain the highest proportion of teenagers with early childbearing (13 percent). Compare this to that in Metropolitan Manila which has the lowest proportion of teenagers having begun childbearing (4 percent).

One could infer from the data that teenagers in urban areas where educational facilities are concentrated, particularly in Metropolitan Manila, have other alternatives in life than early childbearing. Another interpretation is that teenagers in urban areas and more urbanized regions and those in school have greater access to information and could therefore be more knowledgeable on matters of safe sex.

The preventive effect of education on early childbearing is borne out by the data. There is a gradual decrease in the proportions having begun childbearing from 15 percent among women who had never been to school to 2 percent among those with higher education.

Figure 3.4
Percentage of Teenagers
Who Have Begun Childbearing



1993 NDS

3.9 Children Born To Teenagers

A major concern about teenage pregnancy is its impact on the overall health and well-being of the mother and the child as women of reproductive age under 20 years old are considered at high risk of pregnancy-related illness and death. Table 3.11 shows that three of four teenagers who have started childbearing have one child, and the remaining 20 percent have two or more children. In both instances, the contribution of older teenagers to teenage motherhood is much more substantial than that of the younger teenagers. The overall level of teenage pregnancy in the country is low but this does not necessarily imply that efforts at curbing the incidence of pregnancy among adolescents should be decelerated. It should be borne in mind that as of 1990, about 5.5 percent of the country's total population--some 3.3 million are girls aged 15-19.

Table 3.11 Children born to teenagers

Percent distribution of teenagers 15-19 by number of children ever born (CEB), according to age, Philippines 1993

Age	Number of children ever born			Total	Mean number of CEB	Number of teenagers
	0	1	2+			
15	99.6	0.4	0.0	100.0	0.00	662
16	99.4	0.6	0.0	100.0	0.01	681
17	97.1	2.7	0.3	100.0	0.03	650
18	91.7	7.6	0.8	100.0	0.09	600
19	83.9	10.7	5.4	100.0	0.22	565
Total	94.7	4.1	1.2	100.0	0.07	3158

CHAPTER 4

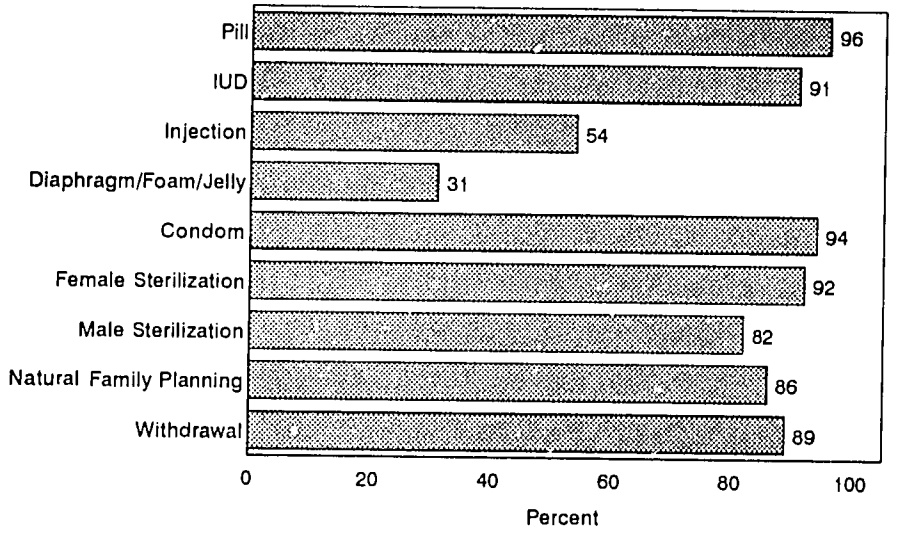
FAMILY PLANNING

4.1 Knowledge of Family Planning Methods and Their Sources

Lack of knowledge of family planning methods and their sources is obviously a major obstacle to the use of contraception. As in other DHS surveys, information about knowledge of family planning methods and of the places where they can be obtained was generated by asking the respondent to name the ways or method that a couple can use to delay or avoid a pregnancy. If the respondent did not spontaneously mention a particular method, the interviewer described that method and asked the respondent if she recognized it. There were nine methods (pill, IUD, injection, diaphragm--together with foam and jelly--condom, female sterilization, male sterilization, natural family planning/rhythm method/period abstinence and withdrawal) described in the questionnaire. Other methods not provided in the questionnaire but mentioned spontaneously by the respondent were also recorded. For all methods mentioned or recognized, the respondent was asked if she knew where a person could obtain the method or, in the case of natural family planning, advice on how to use natural family planning. In this report, the term natural family planning is used for rhythm and periodic abstinence.

Virtually all currently married women as well as all women know of one or more family planning method or a modern method (97 percent and 96 percent, respectively) (Figure 4.1 and Table 4.1). This high level of general contraceptive awareness has been observed in previous surveys, including the 1983 and 1988 National Demographic Surveys and 1986 Contraceptive Prevalence Survey (e.g., Concepción, 1991). Knowledge of traditional methods is only slightly less common than that of modern methods.

Figure 4.1
Knowledge of Contraception
Currently Married Women 15-49



Note: Natural family planning refers to periodic abstinence or rhythm.

1993 NDS

Table 4.1 Knowledge of contraceptive methods and source for methods

Percentage of all women and currently married women who know specific contraceptive methods and who know a source (for information or services), by specific methods, Philippines 1993

Contraceptive method	Know method		Know a source	
	All women	Currently married women	All women	Currently married women
Any method	95.9	97.2	88.8	93.3
Modern method	95.7	96.9	88.8	93.3
Pill	94.3	96.0	85.0	90.8
IUD	85.4	90.9	73.8	82.1
Injection	47.6	53.5	38.1	43.6
Diaphragm/foam/jelly	30.0	31.0	22.9	24.0
Condom	91.8	93.7	81.3	86.5
Female sterilization	87.4	92.2	75.4	82.9
Male sterilization	74.4	81.7	62.7	71.0
Any traditional method	85.1	92.5	NA	NA
Natural family planning	79.3	86.4	NA	NA
Withdrawal	77.5	88.7	NA	NA
Other traditional methods	6.2	8.1	NA	NA
Number of women	15029	8961	15029	8961

NA = Not applicable

The more widely known modern methods are the pill, condom, female and male sterilization, and IUD. It is important to note that the low knowledge of injection is likely related to the fact that the method has not been cleared for widespread distribution (World Bank, 1991). The least known modern methods include the diaphragm together with foam and jelly and injections. Four of 5 women and slightly less than 90 percent of married women are aware of natural family planning and withdrawal.

Not all who claim to know a family planning method know where they can obtain it; however, the gap between knowledge of contraceptive methods and knowledge of their sources among married women is very small. Over 90 percent know a source for the pill, 80 percent for the IUD, condom and female sterilization, and 70 percent for male sterilization. It is not surprising that less than 50 percent of women know a place where one can obtain injections and less than 25 percent of women know the source for diaphragm, foam and jelly because they are not well known contraceptive methods.

Knowledge of any method, modern methods and sources for modern methods does not vary greatly by age, with the exception of the youngest age group, showing a lower level than older counterparts (Table 4.2). There is also little difference in levels of knowledge by urban-rural residence, where the urban level is higher by only 3 percentage points than the rural level.

Table 4.2 Knowledge of modern contraceptive methods and source for methods

Percentage of currently married women who know at least one modern contraceptive method and who know a source (for information or services), by selected background characteristics, Philippines 1993

Background characteristic	Know any method	Know a modern method[1]	Know a source for modern method	Number of women
Age				
15-19	89.6	89.3	83.6	234
20-24	97.3	97.1	91.7	1174
25-29	96.9	96.7	94.5	1763
30-34	97.8	97.7	94.4	1838
35-39	96.9	96.7	93.3	1652
40-44	98.0	97.7	94.2	1358
45-49	97.1	97.0	92.2	942
Residence				
Urban	98.6	98.6	95.1	4638
Rural	95.6	95.2	91.4	4323
Region				
Metro. Manila	99.9	99.9	97.5	1272
Cordillera Admin.	99.3	99.3	98.6	148
Ilocos	98.8	98.8	97.6	503
Cagayan Valley	98.1	97.9	94.2	340
C-Luzon	99.8	99.8	97.5	977
S-Tagalog	98.4	98.2	96.8	1218
Bicol	99.0	98.8	95.2	553
W-Visayas	99.1	99.1	97.7	706
C-Visayas	99.7	99.6	95.9	701
E-Visayas	95.8	95.4	81.6	403
W-Mindanao	80.3	79.2	67.7	485
N-Mindanao	99.8	99.8	94.6	506
S-Mindanao	97.3	96.5	92.3	677
C-Mindanao	84.6	83.9	81.1	471
Education				
No education	49.5	46.7	36.0	239
Elementary	96.9	96.7	91.9	3564
High school	99.3	99.2	96.4	3072
College or higher	99.8	99.8	97.7	2085
Missing	100.0	100.0	100.0	1.0
Total	97.2	96.9	93.3	8961

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

When it comes to regional variations, only Western Mindanao and Central Mindanao deviate from the practically universal knowledge of any method and any modern method. It is in the level of knowledge of a place to obtain a modern method that large regional differentials exist. Women in the Cordillera Administrative Region, Ilocos, Central Luzon and Western Visayas show the highest levels of knowledge of a source for a modern method (at least 97 percent); Eastern Visayas, Western Mindanao and Central Mindanao show the lowest levels (82, 68 and 81 percent, respectively).

Excluding women with no education, there are no substantial differentials in the proportion knowing at least one contraceptive method and source for a modern method by women's education. Women with no education are much less likely to know about methods or their sources.

4.2 Ever Use of Family Planning Methods

For each method mentioned spontaneously or recognized, the respondent was asked if she had ever used it. While the information is available for all women and married women, the analysis primarily focuses on the latter who are at the greatest risk of pregnancy (Table 4.3). Around 61 percent of married women have ever used a family planning method; 45 percent have used a modern method and 35 percent have ever used a traditional method. The most popular modern method is the pill (30 percent) followed by female sterilization (12 percent), the condom (10 percent) and the IUD (8 percent). The remaining modern methods have small proportions of ever users. Among the traditional methods, withdrawal is the most popular (23 percent), followed by natural family planning methods (19 percent).

Table 4.3 Ever use of contraception

Among all women and currently married women, the percentage who have ever used a contraceptive method, by specific method and age, Philippines 1993

		Modern methods								Traditional methods				
Age	Any method	Any modern method	Pill	IUD	Injection	Diaphragm/ foam/ jelly	Condom	Female sterilization	Male sterilization	Any trad. method	Natural family planning	Withdrawal	Other	Number of women
ALL WOMEN														
15-19	1.9	1.2	0.9	0.2	0.0	0.0	0.1	0.0	0.0	1.0	0.4	0.7	0.1	3158
20-24	21.9	14.0	11.1	2.5	0.1	0.0	1.7	0.4	0.0	12.0	5.2	8.7	0.8	2649
25-29	46.0	33.0	25.8	5.3	0.6	0.2	4.6	4.0	0.1	25.4	13.0	17.7	1.6	2430
30-34	57.5	42.5	29.5	7.8	1.4	0.3	9.4	10.2	0.7	32.7	18.9	21.8	1.8	2196
35-39	62.9	47.7	29.4	7.7	1.6	1.0	12.7	16.9	0.5	37.7	22.5	25.4	2.0	1889
40-44	59.5	43.8	25.1	7.9	1.5	1.0	11.4	18.6	0.4	33.0	20.0	21.1	1.7	1571
45-49	49.7	37.8	21.1	7.5	1.0	0.6	10.3	14.3	0.7	26.6	14.8	16.9	1.6	1137
Total	38.0	27.7	18.6	4.8	0.8	0.3	6.0	7.3	0.3	21.4	11.9	14.4	1.2	15029
CURRENTLY MARRIED WOMEN														
15-19	25.1	16.1	12.2	3.1	0.0	0.0	1.3	0.0	0.0	13.4	5.1	10.1	1.4	234
20-24	48.3	31.1	24.7	5.7	0.3	0.0	3.7	0.8	0.0	26.4	11.5	19.0	1.8	1174
25-29	62.4	44.8	34.9	7.2	0.8	0.2	6.2	5.4	0.2	34.6	17.8	24.0	2.2	1763
30-34	66.6	49.4	34.4	9.0	1.5	0.4	10.8	12.0	0.8	38.0	22.0	25.3	2.0	1838
35-39	68.9	52.1	31.7	8.5	1.6	0.9	13.7	18.6	0.6	41.8	25.4	28.0	2.3	1652
40-44	64.6	47.7	27.2	8.6	1.6	1.0	12.6	20.5	0.4	35.9	21.8	22.9	1.9	1358
45-49	54.5	41.4	23.0	7.7	1.2	0.5	11.6	16.1	0.8	29.6	16.3	18.9	1.8	942
Total	61.1	44.6	29.9	7.8	1.2	0.5	9.6	11.9	0.5	34.7	19.4	23.3	2.0	8961

In general, the level of ever used increases with age up to age 35-39, and then declines thereafter. However, the pattern varies for specific modern methods; pill ever-used peaks at age 25-34, IUD at age 30-34, and female sterilization at age 40-44.

4.3 Current Use of Family Planning Methods

The level of current use of contraception is the most widely used and valuable measure of the success of the Philippine Family Planning Program (PFPP). As with ever use, the information on current use is available for all women and currently married women but the analysis focuses on the latter (Table 4.4). Thus, contraceptive prevalence is defined as the proportion of married women age 15-49 years who were using some method of family planning at the survey date.

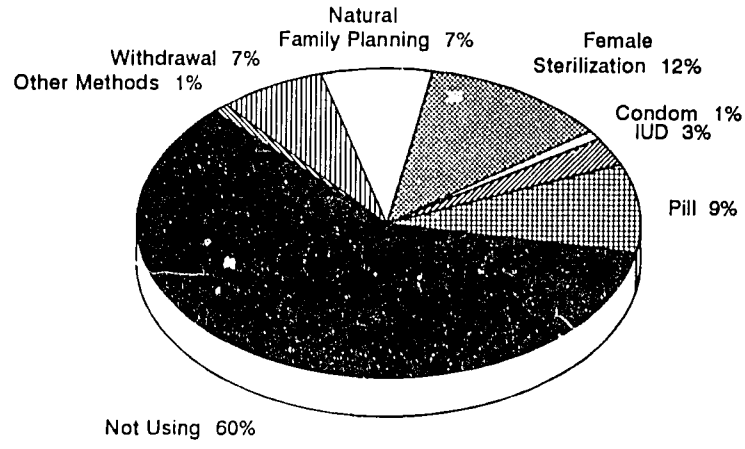
Table 4.4 Current use of contraception by age

Percent distribution of all women and currently married women by contraceptive method currently used, according to age, Philippines 1993

		Modern methods								Traditional methods						
Age	Any method	Any modern method	Pill	IUD	Injection	Diaphragm/ foam/ jelly	Condom	Female sterilization	Male sterilization	Any traditional	Natural family planning	Withdrawal	Other methods	Not currently using	Total	Number of women
ALL WOMEN																
15-19	1.3	0.7	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.1	0.4	0.1	98.7	100.0	3158
20-24	14.2	8.4	5.9	1.8	0.0	0.0	0.3	0.4	0.0	5.8	2.2	3.4	0.2	85.8	100.0	2649
25-29	28.4	17.1	9.7	2.4	0.0	0.0	1.0	4.0	0.0	11.4	5.1	5.8	0.4	71.6	100.0	2430
30-34	38.6	24.6	9.2	3.1	0.1	0.0	1.4	10.2	0.5	14.0	7.6	6.3	0.2	61.4	100.0	2196
35-39	42.8	26.3	5.3	2.7	0.1	0.0	0.8	16.9	0.5	16.4	8.0	8.2	0.3	57.2	100.0	1889
40-44	38.3	24.2	3.0	1.7	0.0	0.0	0.6	18.6	0.3	14.0	7.6	6.2	0.2	61.7	100.0	1571
45-49	23.6	17.1	0.5	1.3	0.0	0.0	0.3	14.3	0.7	6.5	3.0	3.2	0.2	76.4	100.0	1137
Total	24.2	15.1	5.1	1.8	0.0	0.0	0.6	7.3	0.2	9.0	4.4	4.4	0.2	75.8	100.0	15029
CURRENTLY MARRIED WOMEN																
15-19	17.2	9.6	7.0	2.7	0.0	0.0	0.0	0.0	0.0	7.6	2.0	4.9	0.7	82.8	100.0	234
20-24	31.9	18.9	13.3	4.1	0.1	0.0	0.6	0.8	0.0	12.9	4.9	7.5	0.5	68.1	100.0	1174
25-29	39.1	23.5	13.3	3.3	0.0	0.1	1.4	5.4	0.0	15.6	7.1	7.9	0.6	60.9	100.0	1763
30-34	45.8	29.0	10.9	3.8	0.1	0.0	1.6	12.0	0.6	16.7	9.0	7.5	0.2	54.2	100.0	1838
35-39	48.2	29.4	6.1	3.1	0.1	0.1	0.9	18.6	0.6	18.8	9.1	9.4	0.3	51.8	100.0	1652
40-44	43.1	27.0	3.5	1.9	0.0	0.0	0.7	20.5	0.4	16.2	8.8	7.1	0.3	56.9	100.0	1358
45-49	27.2	19.4	0.7	1.5	0.0	0.0	0.4	16.1	0.8	7.9	3.7	3.9	0.3	72.8	100.0	942
Total	40.0	24.9	8.5	3.0	0.1	0.0	1.0	11.9	0.4	15.1	7.3	7.4	0.4	60.0	100.0	8961

The contraceptive prevalence rate is 40 percent; 25 percent are using modern methods and 15 percent traditional methods. Female sterilization ranks first (12 percent), the pill second (9 percent), withdrawal and natural family planning third (7 percent each), and IUD fourth (3 percent). The remaining methods have fewer users, each being used by one percent or less by married women (see Figure 4.2).

Figure 4.2
Use of Contraception
Currently Married Women 15-49



Note: Natural family planning refers to periodic abstinence or rhythm.

1993 NDS

A review of the previous survey results in the past two decades reveals that the percentage using contraceptives at the time of interview among women 15-44 years increased from 15 percent in 1968 to 36 percent in 1988. The use of modern contraception increased steadily from 3 percent to 22 percent. The increase is mainly due to significant rise in the percentage of sterilized women from less than 1 percent in 1968 to 11 percent in 1988, making it the most prevalent method in the country. On the other hand, the use of traditional methods increased from 6 percent in 1973, reaching its peak at 22 percent in 1978 and subsequently declining to its level of 15 percent in 1993 (see Table 4.5 and Figure 4.3).

An inverted-U pattern of prevalence by age was observed which is typical of patterns in most countries. A peak in use occurs at age 35-39 for any method, any modern method or any traditional method (Table 4.4). However, as with the data on ever use, the peak occurs in different age groups for specific modern methods. As expected, permanent methods such as female sterilization are popular among older women who are more likely to have completed their families and want to stop childbearing altogether. In contrast, the pill is popular among the younger women who are still in their early stages of family building, peaking with use at age 20-29 years. Current use of natural family planning is highest among married women age 30-39 years. Among women under age 30, withdrawal is the second most widely used method.

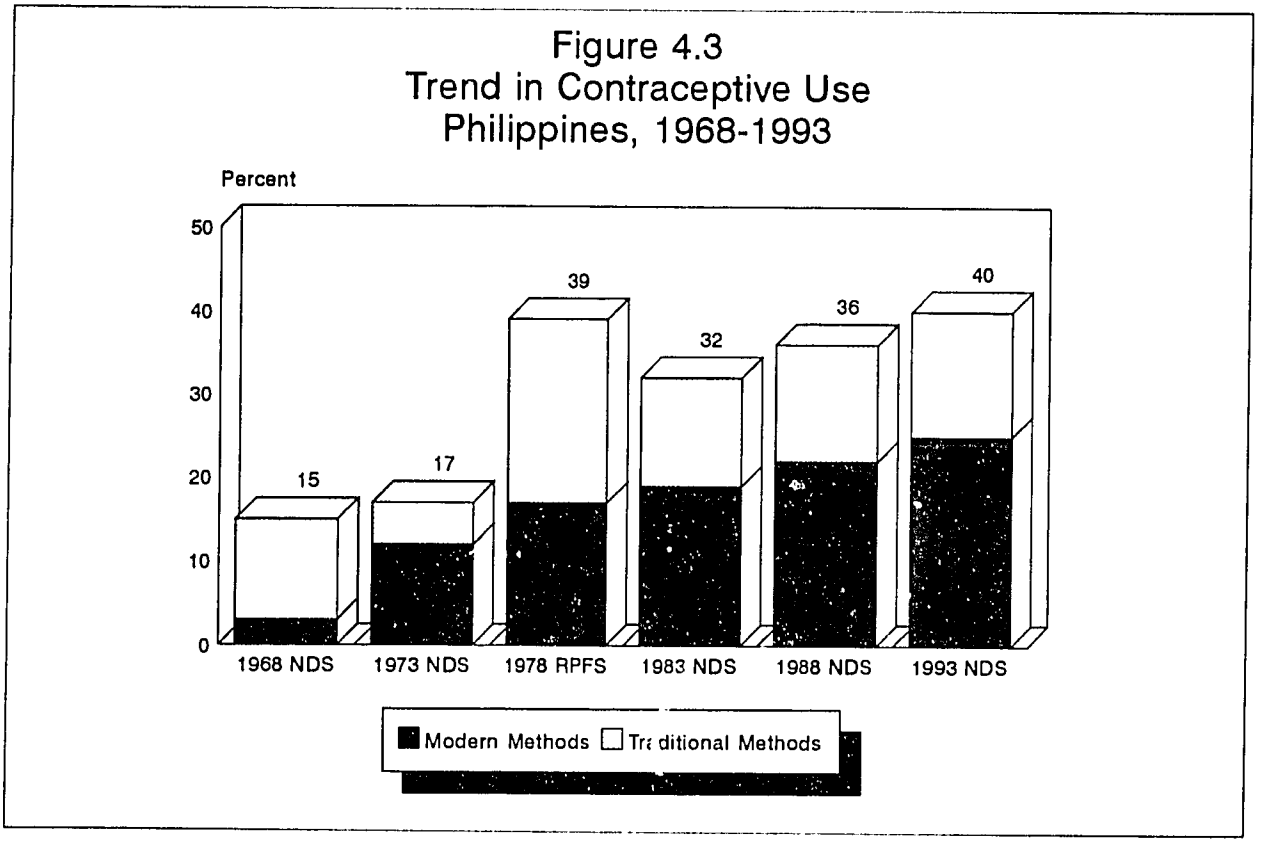
Table 4.5 Trends in contraceptive use

Percentage of currently married women 15-44 using modern contraceptive methods and traditional methods, Philippines, 1968-1993

Survey	Modern methods	Traditional methods	Total
1968 National Demographic Survey	2.9	11.5	15.4
1973 National Demographic Survey	10.7	6.7	17.4
1978 Republic of the Philippines Fertility Survey	17.2	21.3	38.5
1983 National Demographic Survey	18.9	13.1	32.0
1988 National Demographic Survey	21.6	14.5	36.1
1993 National Demographic Survey[1]	24.9	15.1	40.0

Source: World Bank, 1991. Table 1.3 and 1993 NDS

[1]Based on currently married women 15-49



With regard to specific methods, the most notable difference is observed for female sterilization, which tends to be urban biased (Table 4.6). Use of any contraceptive method is highest in Northern Mindanao, Central Visayas and Southern Mindanao (49, 46 and 46 percent, respectively), while Western Mindanao manifests the lowest use (29 percent). However, when current use of any modern method is examined, Cagayan Valley ranks first (32 percent), followed by Northern Mindanao and Central Luzon (31 percent). Bicol and Western Mindanao register the lowest level of current use of modern methods (16 and

Table 4.6 Current use of contraception by background characteristics

Percent distribution of currently married women by contraceptive method currently used, according to selected background characteristics, Philippines 1993

Background characteristic	Any method	Modern methods: Any modern method	Pill	IUD	Injection	Diaphragm/foam/jelly	Condom	Female sterilization	Male sterilization	Traditional methods: Any traditional	Natural family planning	Withdrawal	Other methods	Not currently using	Total	Number of women
Residence																
Urban	43.0	27.6	9.0	2.9	0.1	0.0	1.3	13.9	0.4	15.4	7.8	7.3	0.2	57.0	100.0	4638
Rural	36.8	21.9	8.0	3.2	0.1	0.0	0.6	9.6	0.3	14.9	6.8	7.5	0.5	63.2	100.0	4323
Region																
Metro. Manila	41.9	27.3	9.4	1.6	0.1	0.0	1.1	14.8	0.2	14.6	7.1	7.5	0.0	58.1	100.0	1272
Cordillera Admin.	38.6	23.1	3.4	2.1	0.0	0.0	1.7	15.9	0.0	15.5	7.6	7.9	0.0	61.4	100.0	148
Ilocos	38.8	21.9	6.8	0.9	0.0	0.2	1.2	12.8	0.0	16.9	5.5	10.9	0.5	61.2	100.0	503
Cagayan Valley	41.1	32.2	14.9	2.9	0.0	0.0	0.8	13.3	0.2	8.9	2.9	6.0	0.0	58.9	100.0	340
C-Luzon	43.8	30.9	9.4	1.1	0.1	0.0	1.3	19.1	0.0	12.8	3.2	9.6	0.0	56.2	100.0	977
S-Tagalog	35.2	22.6	5.8	3.4	0.0	0.0	0.9	12.5	0.0	12.6	4.5	7.9	0.2	64.8	100.0	1218
Bicol	36.4	16.1	6.5	1.0	0.3	0.0	0.9	6.9	0.5	20.2	7.5	12.3	0.3	63.6	100.0	553
W-Visayas	39.7	23.4	9.7	1.6	0.0	0.0	1.0	9.9	1.3	16.3	10.1	6.0	0.1	60.3	100.0	706
C-Visayas	46.1	28.8	9.6	4.7	0.0	0.1	1.6	11.5	1.2	17.3	8.8	8.4	0.1	53.9	100.0	701
E-Visayas	35.9	18.2	6.0	1.8	0.0	0.0	0.2	10.2	0.0	17.8	9.8	6.6	1.4	64.1	100.0	403
W-Mindanao	28.5	16.7	8.7	1.7	0.0	0.0	0.2	5.9	0.2	11.8	7.3	3.3	1.1	71.5	100.0	485
N-Mindanao	49.3	31.3	12.3	9.1	0.2	0.0	1.4	8.2	0.2	18.0	13.2	4.3	0.5	50.7	100.0	506
S-Mindanao	45.9	27.1	8.5	5.5	0.0	0.0	1.2	11.0	0.9	18.8	11.3	6.6	0.9	54.1	100.0	677
C-Mindanao	32.5	20.4	6.7	7.3	0.0	0.0	0.0	6.2	0.2	12.1	8.4	2.9	0.8	67.5	100.0	471
Education																
No education	10.8	7.2	1.6	1.4	0.0	0.0	0.0	3.8	0.4	3.6	2.1	1.1	0.3	89.2	100.0	239
Elementary	34.5	21.5	7.0	2.6	0.0	0.0	0.4	11.1	0.4	13.0	5.2	7.3	0.4	65.5	100.0	3564
High school	43.8	27.6	10.1	3.5	0.1	0.0	1.2	12.3	0.4	16.1	7.6	8.1	0.5	56.2	100.0	3072
College or higher	47.1	28.5	9.4	3.3	0.1	0.0	1.9	13.5	0.2	18.6	11.1	7.4	0.1	52.9	100.0	2085
Number of children																
None	1.9	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.7	0.6	0.0	98.1	100.0	558
1	26.7	13.9	9.7	2.5	0.0	0.0	1.0	0.7	0.1	12.7	5.9	6.5	0.4	73.3	100.0	1319
2	44.0	25.4	13.1	4.3	0.1	0.1	1.4	6.3	0.2	18.5	9.9	8.0	0.6	56.0	100.0	1745
3	51.5	35.5	10.1	4.0	0.0	0.1	1.2	19.5	0.6	16.1	7.7	8.0	0.4	48.5	100.0	1657
4+	43.4	27.4	6.3	2.7	0.1	0.0	0.9	16.9	0.5	16.0	7.5	8.2	0.3	56.6	100.0	3682
Total	40.0	24.9	8.5	3.0	0.1	0.0	1.0	11.9	0.4	15.1	7.3	7.4	0.4	60.0	100.0	8961

17 percent, respectively). The ranking changes with the current use of any traditional method with Bicol showing the highest level (20 percent) and Cagayan Valley the lowest (9 percent). The top ranking regions when pill use is considered are Cagayan Valley (15 percent) and Northern Mindanao (12 percent), and for female sterilization are Central Luzon (19 percent), Cordillera Administrative Region (16 percent) and Metropolitan Manila (15 percent).

The higher the educational attainment, the higher the current use of any method, any modern method and any traditional method. This pattern holds true with specific methods such as female sterilization, condom, and natural family planning. For pill and IUD, the pattern is one of increasing current use with education up to secondary education with a slight decline among those with college education.

Contraceptive use of any method, any modern method and female sterilization also increases with the number of children a woman has, up to three children, then declines thereafter. An earlier peak at two children is observed for the pill, IUD, condom, natural family planning and withdrawal.

4.4 Number of Children at First Use of Family Planning

In many cultures, family planning is used only when couples have already had as many children as they want. However, as the concept of family planning gains acceptance, the motivation to use family planning may either be to space births or to limit family size. Table 4.7 shows the percent distribution of ever-married women by the number of living children at the time of first use by the respondent's age at the time of interview. The results indicate that Filipino women are adopting family planning fairly early in the family building process although only 2 percent of ever-users began using immediately after marriage or before the first birth. Overall, one in five women began using family planning after they had the first child and one in four started using after they had two children.

Table 4.7 Number of children at first use of contraception

Percent distribution of ever-married women by number of living children at the time of first use of contraception, according to current age, Philippines 1993

Current age	Never used contraception	Number of living children at time of first use of contraception					Missing	Total	Number of women
		0	1	2	3	4+			
15-19	76.0	6.0	15.0	2.6	0.4	0.0	0.0	100.0	245
20-24	52.2	4.7	26.6	13.1	2.7	0.8	0.0	100.0	1203
25-29	38.7	3.5	26.2	17.2	9.5	4.9	0.0	100.0	1820
30-34	34.9	1.6	23.0	17.3	12.1	11.2	0.0	100.0	1929
35-39	32.7	1.6	19.4	14.7	12.2	19.2	0.1	100.0	1763
40-44	37.1	1.3	13.1	14.6	12.4	21.3	0.2	100.0	1487
45-49	47.0	0.7	8.9	9.7	12.5	21.3	0.0	100.0	1065
Total	40.2	2.3	20.1	14.6	10.2	12.6	0.1	100.0	9511

The timing of first contraceptive use in terms of the number of living children varies among the different age cohorts of women. A particularly striking difference is observed between women age 20-24 and 45-49 years. About half of the women in both age groups of women have ever used a method. Of those half, slightly less than half of those age 45-49 started after having four children while among those age 20-24, slightly more than half started when they had only one child.

4.5 Problems with Current Method

Identifying problems with the use of specific methods has practical implications for future educational and publicity campaigns. Therefore, the 1993 NDS included a question for all current users as to whether they had experienced any problems with the method they were using and if so, what the main problem was. The results are shown in Table 4.8. Ninety percent or more of current users of the pill, IUD, condom, female sterilization, natural family planning and withdrawal reported having no problems with the method they were currently using. Of those who have had problems with their methods, side effects were generally cited as the most common problem, however, for condom users, the most common problem is that it is inconvenient. It should be mentioned that this question which asks about problems with current method may not have elicit a full reporting of problems. Women who had serious problems are likely to have discontinued the method.

Table 4.8 Problems with current method of contraception

Percent distribution of contraceptive users by the main problem with current method, according to specific methods, Philippines 1993

Main problem	Pill	IUD	Condom	Female sterilization	Male sterilization	Natural family planning	Withdrawal	Other
No problem	89.4	93.6	87.5	91.2	(83.6)	97.0	89.4	(97.7)
Husband disapproves	0.2	0.2	0.0	0.1	(0.0)	0.4	0.4	(0.0)
Side effects	5.9	4.1	1.0	5.9	(5.3)	0.8	3.7	(2.3)
Health concerns	2.7	1.6	1.0	2.6	(0.0)	0.4	3.4	(0.0)
Access/availability	0.1	0.0	0.0	0.0	(0.0)	0.0	0.0	(0.0)
Cost	0.2	0.0	0.0	0.0	(0.0)	0.0	0.1	(0.0)
Inconvenient to use	0.6	0.5	9.4	0.0	(0.0)	0.6	1.7	(0.0)
Sterilized/want children	0.0	0.0	0.0	0.1	(2.8)	0.0	0.0	(0.0)
Other	0.1	0.0	0.0	0.1	(5.6)	0.3	0.5	(0.0)
Missing	0.8	0.0	1.1	0.1	(2.7)	0.4	0.8	(0.0)
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women[1]	764	273	90	1104	34	658	669	33

[1]Total includes 5 users of injection and 2 users of vaginal methods.
( ) Figures in parentheses are based on 25-49 cases

4.6 Knowledge of Fertile Period

An elementary knowledge of reproductive physiology is useful for successful practice of coitus-associated methods, such as withdrawal, condom and vaginal methods. Such knowledge is particularly critical in the practice of natural family planning. In the 1993 NDS, women were asked during which days of a woman's menstrual cycle does a woman have the greatest chance of becoming pregnant. A fifth of all women interviewed said they did not know when they are fertile during their ovulatory cycle (Table 4.9). In contrast, only 6 percent of those who have used natural family planning did not know when a woman is most likely to get pregnant. Only 24 percent of all women and 34 percent of ever-users of natural family planning gave the "correct" response, that a woman's fertile period occurs in the middle of her cycle. Thirty percent of all women and 38 percent of ever-users of natural family planning said that a woman is most likely to conceive right after her period has ended. Much smaller proportions reported the least safe period as that right after a woman's period begins. A sizable proportion of all women and ever users of natural family planning (23 percent and 18

Table 4.9 Knowledge of fertile period

Percent distribution of all women and of women who have ever used natural family planning by knowledge of the fertile period during the ovulatory cycle, Philippines 1993

Perceived fertile period	All women	Ever users of natural family planning
During menstrual period	0.8	0.8
Right after period has ended	30.4	37.9
In the middle of the cycle	23.5	33.7
Just before period begins	2.3	2.8
Other	0.1	0.6
No particular time	22.6	17.8
Don't know	20.1	6.3
Missing	0.2	0.1
Total percent	100.0	100.0
Number of women	15029	1790

percent, respectively) reported no particular time. These proportions indicate the need to further educate the potential and actual users of natural family planning on the ovulatory process.

4.7 Timing of Sterilization

In the Philippines where female sterilization is the most prevalent method, information about the trend in age at adoption of sterilization is very useful. To minimize problems of censoring, the median age at the time of operation is calculated for women sterilized at less than 40 years of age. Data shown in Table 4.10 indicate that 7 in 10 women who are sterilized had their operation at age 25-34, and 12 percent are sterilized before reaching their 25th birthday. There is evidence that, over time, women are having their sterilization operation at older ages; the median age at sterilization is 29.9 for women sterilized 8-9 years ago, and 30.9 for women who had the operation less than 2 years ago.

Table 4.10 Timing of sterilization

Percent distribution of sterilized women by age at the time of sterilization, according to the number of years since the operation, Philippines 1993

Years since operation	Age at time of sterilization						Total	Number of women	Median age[a]
	<25	25-29	30-34	35-39	40-44	45-49			
<2	5.1	37.2	29.1	23.2	5.4	0.0	100.0	127	30.9
2-3	10.0	26.7	36.2	18.9	7.6	0.5	100.0	159	30.7
4-5	10.0	39.6	24.1	20.7	5.6	0.0	100.0	137	29.8
6-7	17.3	33.6	30.5	16.0	2.7	0.0	100.0	152	29.8
8-9	13.2	36.7	32.6	15.9	1.5	0.0	100.0	153	29.9
10+	12.5	47.3	32.9	7.2	0.0	0.0	100.0	376	b
Total	11.8	38.9	31.5	14.8	3.0	0.1	100.0	1104	29.7

[a]Median age was calculated only for women less than 40 years of age to avoid problems of censoring
[b]Not calculated due to censoring

4.8 Source of Supply of Modern Contraceptive Methods Currently Used

Information on sources of modern contraceptives currently used is useful for family planning program managers and implementors. The public sector (Table 4.11) emerges as the main source for a large majority of current users (71 percent) of modern contraceptives. In fact, almost three-quarters of users of the pill, IUD and female sterilization obtained their methods from government sources, as do over half of condom and male sterilization users. While the government hospitals are the main sources of the permanent methods, barangay health stations or health centers are the main sources for the pill, IUD and condom. Pharmacies are an important source of pills and condoms.

Aside from the type of source, information on the length of time needed to reach the source from home was obtained for women who are currently using a modern contraceptive method. Nonusers were also asked if they knew a place to obtain a method and, if so, where and how long it takes to get there. Table 4.12 shows the relevant information by urban-rural residence for three types of women: current users of modern contraceptives, nonusers of modern contraceptives and all women knowing a method. Among current users

Table 4.11 Source of supply for modern contraceptive methods

Percent distribution of current users of modern contraceptive methods by most recent source of supply, according to specific methods, Philippines 1993

Source of supply	Pill	IUD	Condom	Female sterilization	Male sterilization	All methods
Public sector	73.4	78.8	55.6	70.4	(56.6)	71.4
Government hospital	2.7	17.7	4.0	59.2	(41.4)	32.6
Barangay health station	53.9	30.7	34.9	3.3	(12.4)	25.0
Barangay supply office	2.6	2.4	2.2	0.4	(0.0)	1.5
Puericulture center	14.2	28.0	14.5	7.5	(2.8)	12.4
Medical private	23.4	19.5	40.6	28.5	(29.7)	26.3
Private hospital/clinic	3.6	12.8	3.8	26.8	(21.0)	16.4
Pharmacy	17.4	0.0	36.0	0.0	(0.0)	7.3
Private doctor	2.4	6.7	0.8	1.7	(8.7)	2.6
Other private	2.2	0.6	2.7	0.8	(5.5)	1.4
Store	0.2	0.0	1.9	0.0	(0.0)	0.2
Church	0.0	0.0	0.0	0.8	(5.5)	0.5
Friends/relatives	2.0	0.6	0.8	0.0	(0.0)	0.8
Other	0.4	0.7	0.0	0.3	(0.0)	0.4
Don't know	0.0	0.0	0.0	0.0	(5.5)	0.1
Missing	0.7	0.4	1.1	0.0	(2.7)	0.4
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women[1]	764	273	90	1104	34	2272

[1]Total includes 5 users of injection and 2 users of diaphragm/foam/jelly.
( ) Figures in parentheses are based on 25-49 cases

Table 4.12 Time to source of supply for modern contraceptive methods

Percent distribution of women who are currently using a modern contraceptive method, of women who are not using a modern method, and of women who know a method, by time to reach a source of supply, according to urban-rural residence, Philippines 1993

Minutes to source	Women who are currently using a modern method			Women who are not using a modern method			Women who know a contraceptive method		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Other private sector	1.9	2.8	2.3	2.6	2.6	2.6	2.5	2.7	2.6
0-14	30.7	25.5	28.5	42.3	33.9	38.6	41.5	34.3	38.5
15-29	18.0	16.9	17.5	15.3	15.7	15.5	16.1	16.8	16.4
30-59	27.3	25.9	26.7	9.2	15.8	12.1	12.3	18.2	14.8
60+	20.8	27.7	23.7	3.4	9.7	6.1	6.2	12.8	9.0
Don't know time	0.6	0.2	0.4	0.4	0.1	0.3	0.4	0.1	0.3
Don't know source	0.0	0.0	0.0	26.3	21.7	24.3	20.3	14.3	17.8
Not stated	0.8	1.0	0.9	0.6	0.5	0.6	0.6	0.6	0.6
Total percentage	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median time to source	25.8	30.3	30.1	10.5	15.4	10.8	10.8	15.7	15.1
Number of women	1319	953	2272	7182	5575	12757	8261	6148	14408

of modern contraceptives, the median time to reach a source is 30 minutes. The same length of time holds true for rural users, while urban users need about 26 minutes. Among nonusers of modern contraceptives, the median time is about 11 minutes in urban areas and about 15 minutes in rural areas. While it appears that women who are not using a modern contraception are closer to a known source than users of modern contraceptive method, note however, that about one in four nonusers did not know a source, which may be a cause for nonuse. Among all women who know a method, the median time is about 15 minutes; rural women state an average of 16 minutes, 5 minutes longer than the average travel time of urban women.

In the 1993 NDS, users of modern contraceptive methods were asked if they had obtained the method they were currently using from the same place as previously. Questions on the first source of service and the reason for switching sources were asked to women who reported using a different source. This information is important in the evaluation of family planning programs, particularly those related to the provision of methods and services. These data are not presented in this report due to the small number of women (88) who reported a change in source for the same method in the last segment of use.

4.9 Contraceptive Discontinuation Rates

Population program managers are greatly interested in fostering improvements in the quality of contraceptive practice. One means of assessing the quality of contraceptive practice is to look at the contraceptive discontinuation rates which represent the proportion of users who discontinued the use of a method within 12 months after the start of use (for a technical discussion on the methodology of calculating this measure, see Macro International, 1992). Table 4.13 shows the contraceptive discontinuation rates due to various reasons for selected contraceptive methods. The results show that overall, one in three users discontinues during the first year of use. Discontinuation rates are highest for the condom (59 percent), followed by withdrawal (41 percent) and the pill (40 percent). IUD has the lowest discontinuation rate—22 percent (see Figure 4.4). Withdrawal, natural family planning and condoms show high failure rates; one of five withdrawal users and around one in seven users of the condom and natural family planning becomes pregnant within a year of starting the method. Side effects/health reasons are cited as the main causes for discontinuing use of the pill.

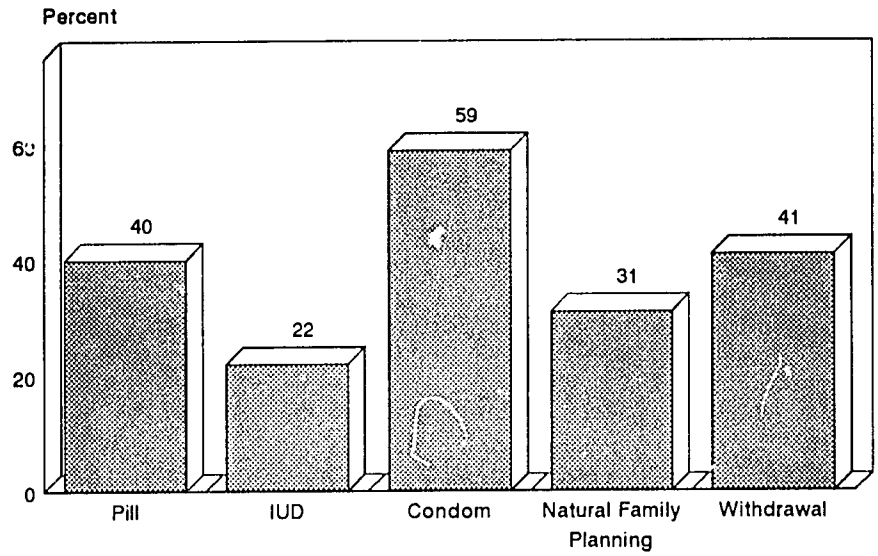
Table 4.13 First-year discontinuation rates for contraception

Proportion of contraceptive users who discontinued use of a method by 12 months after beginning the method, due to method failure, desire to become pregnant, or other reason, according to specific methods, Philippines 1993

	Reason for discontinuing contraceptive method				
Method	Method failure	Desire to become pregnant	Side effects/ Health concerns	All other reasons	All reasons
Pill	5.1	6.6	13.9	14.4	40.1
IUD	2.5	2.1	7.6	10.2	22.4
Condom	15.1	5.7	3.9	34.5	59.2
Natural family planning	15.6	4.8	1.0	9.8	31.3
Withdrawal	20.6	3.7	3.5	12.9	40.7
All methods	11.6	4.6	6.4	12.8	35.4

Note: Figures are based on life-table calculations.

Figure 4.4
Contraceptive Discontinuation
Rates for First Year of Use



Note: Natural family planning refers to to periodic abstinence or rhythm.

1993 NDS

"Other reasons" is an important category for the pill, IUD and condom. They include method-related reasons such as desire for a more effective method, inaccessibility or inconvenience, and the method costs too much and attitudinal, such as disapproval of the respondent's husband, or fatalistic feeling on the part of the respondent.

Table 4.14 presents reasons for discontinuation among ever users who have discontinued use of a method during the five years preceding the survey. Considering all methods, accidental pregnancy stands out as the most important reason of stopping use. Desire for pregnancy and side effects rank second and third, respectively. Manipulable program variables, such as access/availability and cost of methods, are minor reasons for discontinuing use of any method. Looking at specific methods with the number of respondents in question greater than 50 women, the most common reason for discontinuing use the pill and IUD is side effects, while method failure is reported by users of condom, natural family planning and IUD. Method failure accounts for about half of the discontinuations of traditional methods.

4.10 Intentions for Future Family Planning Use among Nonusers

Intention to use contraception in the future provides a forecast of potential demand for services, and acts as a convenient summary indicator of disposition towards contraception among current nonusers. Intention not to use contraception in the future is useful in identifying "hard core" targets for program managers and implementors. Among currently married nonusers, 64 percent do not intend to use a family planning method in the future (Table 4.15). Three in ten nonusers indicated their intent to use a contraceptive method in the future; 80 percent of these women said they were going to use it within the next 12 months. The past experience of nonusers also is taken into account in looking at future intentions in Table 4.15. Overall, 7 in 10 nonusers are never users. The intent to use a contraceptive in the next 12 months is more common among previous users than never users.

Table 4.14 Reasons for discontinuation of contraception

Percent distribution of discontinuation of contraceptive methods in the five years preceding the survey by main reason for discontinuation, according to specific methods, Philippines 1993

Reason for discontinuation	Modern method discontinued				Traditional method discontinued			Total
	Pill	IUD	Injection	Condom	Natural family planning	Withdrawal	Other	
Became pregnant	14.5	9.0	(5.7)	26.1	47.5	52.6	40.6	34.0
To become pregnant	20.9	17.3	(5.3)	16.7	21.0	14.1	11.0	18.1
Husband disapproved	2.1	2.4	(0.0)	11.6	3.4	4.8	0.0	3.6
Side effects	24.3	24.5	(20.6)	2.9	1.6	4.4	6.0	11.9
Health concerns	6.3	7.5	(6.5)	2.8	1.4	1.2	1.9	3.5
Access/availability	2.0	2.2	(0.0)	3.2	0.3	0.0	0.0	1.1
More effective method	1.1	2.8	(14.6)	4.7	4.1	3.0	1.0	2.7
Inconvenient to use	2.0	8.8	(3.0)	17.7	2.1	3.0	7.5	3.5
Infrequent sex	7.8	1.1	(0.0)	1.3	3.7	2.8	6.0	4.6
Cost	0.6	0.0	(12.0)	0.6	0.0	0.0	0.0	0.4
Fatalistic	0.0	0.0	(0.0)	0.0	0.1	0.1	0.0	0.1
Menopause	0.2	1.4	(0.0	0.6	0.4	0.0	1.7	0.3
Marital dissolution	0.4	0.0	(0.0)	0.5	0.3	0.2	0.0	0.3
Other	2.3	3.1	(3.6)	0.9	0.9	0.9	3.0	1.6
Don't know	0.0	0.0	(0.0)	0.0	0.0	0.0	1.9	0.0
Missing	15.5	20.0	(28.8)	10.5	13.1	12.9	19.4	14.4
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women[1]	1196	153	25	169	708	1036	53	3354

[1]Includes users of diaphragm/foam/jelly, female sterilization, male sterilization.
( ) Figures in parentheses are based on 25-49 cases.

Table 4.15 Future use of contraception

Percent distribution of currently married women who are not using a contraceptive method by past experience with contraception and intention to use in the future, according to number of living children, Philippines 1993

Past experience with contraception and future intentions	Number of living children[1]					Total
	0	1	2	3	4+	
Never used contraception						
Intends to use in next 12 months	2.6	21.2	15.3	13.4	8.9	12.5
Intends to use later	10.0	6.5	3.4	1.4	1.4	3.2
Unsure as to timing	0.7	0.8	0.6	0.7	0.4	0.5
Unsure as to intention	4.1	5.9	2.6	2.3	1.6	2.8
Does not intend to use	77.7	48.9	39.9	38.6	44.0	45.6
Missing	0.3	0.0	0.0	0.1	0.0	0.0
Previously used contraception						
Intends to use in next 12 months	0.5	3.6	15.2	15.2	15.3	12.2
Intends to use later	0.2	2.3	2.8	3.7	2.0	2.3
Unsure as to timing	0.0	0.2	0.5	0.4	0.3	0.3
Unsure as to intention	0.0	0.5	1.2	1.8	1.2	1.1
Does not intend to use	3.9	10.0	17.6	21.1	23.4	18.3
Missing	0.0	0.2	1.0	1.3	1.5	1.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
All currently married nonusers						
Intends to use in next 12 months	3.1	24.8	30.5	28.6	24.2	24.7
Intends to use later	10.3	8.7	6.1	5.1	3.4	5.6
Unsure as to timing	0.7	1.0	1.1	1.1	0.7	0.9
Unsure as to intention	4.1	6.4	3.8	4.1	2.8	3.9
Does not intend to use	81.6	58.9	57.5	59.7	67.4	63.8
Missing	0.3	0.2	1.0	1.4	1.5	1.1
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	373	927	1007	876	2196	5379

[1]Includes current pregnancy

More than one fifth of married nonusers who say they do not intend to use family planning cited side effects as the main reason for not using a method. A similar percentage say that they want more children (Table 4.16). Other often cited reasons are "older age, difficulty in becoming pregnant, infrequent sex and husband away" (19 percent), "menopausal and had hysterectomy" (11 percent), and health concerns (10 percent). Small proportions (less than 5 percent) of nonusers are opposed to family planning or cited religion as a reason for not using contraception. Women under age 30 are twice as likely as older women not to use family planning because they want children. Side effects and health concerns are reported more often by women under 30 than older women as the reason for not using contraception.

Table 4.16 Reasons for not using contraception

Percent distribution of currently married women who are not using a contraceptive method and who do not intend to use in the future by main reason for not using, according to age, Philippines 1993

Reason for not using contraception	Age 15-29	Age 30-49	Total
Wants children	32.2	15.6	20.1
Lack of knowledge	9.4	4.7	6.0
Opposed to family planning	3.0	3.3	3.2
Religion	5.6	4.5	4.8
Costs too much	0.6	0.4	0.4
Hard to get methods	0.4	0.4	0.4
Side effects	27.4	19.5	21.6
Inconvenient	2.2	2.1	2.1
Health concerns	11.3	9.5	10.0
Fatalistic	0.3	0.5	0.4
Old/difficult to get pregnant/ infrequent sex/husband away	5.4	23.5	18.6
Menopausal/had hysterectomy	0.4	14.6	10.7
Not married	0.4	0.2	0.3
Other	0.9	0.9	0.9
Don't know	0.4	0.4	0.4
Missing	0.2	0.1	0.1
Total	100.0	100.0	100.0
Number	929	2505	3433

Presented in Table 4.17 is the distribution of married nonusers who intend to use in the future by their preferred method. Half of nonusers who intend to use family planning in the future prefer to use the pill, 14 percent want to use natural family planning and 13 percent, female sterilization. It is interesting to note that the intent to use female sterilization is twice as common among nonusers planning to adopt in the next 12 months as among those who plan to use later. In contrast, a larger percentage of women who intend to use contraception later preferred to use the pill and natural family planning than those who wanted to use within the next 12 months.

Table 4.17 Preferred method of contraception for future use

Percent distribution of currently married women who are not using a contraceptive method but who intend to use in the future by preferred method, according to whether they intend to use in the next 12 months or later, Philippines 1993

Preferred method of contraception	Intend to use: In next 12 months	After 12 months	Unsure as to timing	Total
Pill	45.3	48.1	43.9	45.7
IUD	10.5	7.6	11.3	9.9
Injection	1.5	1.1	2.4	1.4
Diaphragm/foam/jelly	0.0	0.5	0.0	0.1
Condom	2.8	2.2	2.8	2.6
Female sterilization	14.0	7.7	8.1	12.7
Male sterilization	0.1	0.0	0.0	0.1
Natural family planning	13.8	16.8	11.5	14.2
Withdrawal	5.9	8.7	7.6	6.4
Other	1.2	0.3	2.0	1.1
Missing	4.9	7.1	10.4	5.7
Total percent	100.0	100.0	100.0	100.0
Number of women[1]	1330	300	47	1683

[1]Includes 6 cases with missing information on timing of future use

4.11 Family Planning Messages on Radio and Television

In the Philippine Family Planning Program, the Department of Health and Commission on Population are working hand in hand with other government and private agencies in implementing the Information, Education, Communication and Motivation (IECM) component. For example, given the high level of awareness about family planning, the focus of the Department of Health's efforts in IECM are (Department of Health, 1990):

1. correcting misinformation about the Program emanating from various sources;
2. reiterating and specifying the health benefits of family planning and the link of family planning services with other health services;
3. providing the informational basis for expanded choice; and
4. supporting any selection among legally and medically accepted choices with necessary information (as part of the service to assist that choice).

One of the channels of IECM relates to the mass media which includes radio and television. About half of respondents in the 1993 NDS reported that they had not heard or seen a family planning message on either the radio or television during the one month prior to interview (Table 4.18). Of those who had, more than half heard messages on both the radio and television, one in three heard a message on the radio only, and one in six heard from the television only. Women in urban areas are more likely to have heard a message from a television or both television and radio while women in rural areas, heard the message from only the radio.

Table 4.18 Family planning messages on radio and television

Percent distribution of all women by whether they have heard a family planning message on radio or on television in the month preceding the survey, according to selected background characteristics, Philippines 1993

Background characteristic	Heard family planning message on radio or on television				Missing	Total	Number of women
	Neither	Radio only	Television only	Both			
Residence							
Urban	44.6	12.5	11.7	31.0	0.2	100.0	8501
Rural	55.9	21.4	3.1	19.2	0.3	100.0	6528
Region							
Metro. Manila	38.8	6.2	22.3	32.7	0.0	100.0	2733
Cordillera Admin.	15.2	43.6	1.1	40.2	0.0	100.0	241
Ilocos	46.6	7.0	4.9	41.5	0.0	100.0	832
Cagayan Valley	51.1	36.1	1.5	11.0	0.3	100.0	486
C-Luzon	28.9	20.1	7.8	43.2	0.0	100.0	1599
S-Tagalog	50.1	15.0	9.3	25.5	0.1	100.0	2025
Bicol	61.0	23.2	4.2	11.3	0.2	100.0	805
W-Visayas	64.0	15.5	1.4	19.1	0.0	100.0	1216
C-Visayas	58.5	17.3	5.1	18.7	0.5	100.0	1121
E-Visayas	57.6	20.9	2.1	18.6	0.7	100.0	645
W-Mindanao	59.0	22.8	2.1	15.6	0.5	100.0	729
N-Mindanao	61.1	16.4	2.2	20.1	0.2	100.0	794
S-Mindanao	56.7	15.1	4.7	22.5	1.0	100.0	1095
C-Mindanao	56.8	23.4	2.4	17.1	0.2	100.0	707
Education							
No education	85.9	6.6	1.7	5.3	0.5	100.0	320
Elementary	59.5	20.4	4.0	15.8	0.3	100.0	4690
High school	48.9	16.8	8.5	25.6	0.2	100.0	5967
College or higher	36.0	11.9	12.2	39.6	0.3	100.0	4049
Total[1]	49.5	16.4	8.0	25.9	0.2	100.0	15029

[1]Includes 3 women with missing information on level of education

The role of mass media as a channel for communicating family planning to the public varies by region. It is generally more important in Luzon than in other island groups; while only 15 percent of women in Cordillera Administrative Region said that they had not heard family planning messages on radio or television, in Visayas and Mindanao this proportion is more than 56 percent. Surprisingly, being the seat of the government, the level of family planning communication through radio and television in Metropolitan Manila is not the highest. With radio only as the source of family planning messages, Cordillera again tops the list, Cagayan Valley ranks second, and Bicol, Western Mindanao and Central Mindanao together ranking third.

The higher the education, the higher the proportion stating they have heard family planning messages from radio and television. Over half of women with some college education had heard a family planning message on the radio in the month before the survey, compared to only 12 percent of uneducated women.

To determine the level of acceptance for family planning information dissemination among Filipino women, NDS asked the women respondents whether they consider it acceptable to provide family planning information over the radio or television. The results show that most of the women respondents consider it acceptable to air family planning messages over the radio or television (86 percent). There is very little

variation by women's current age. Urban women are somewhat more likely to accept family planning messages on radio or television than rural women. Women living in Metropolitan Manila, Southern Tagalog and Northern Mindanao are more likely to accept family planning messages over radio or television (92 percent or higher) in contrast to their counterparts residing in Western Mindanao and Central Mindanao (63 and 68 percent, respectively). Again, more educated women are more likely to accept family planning messages on radio or television (Table 4.19).

Table 4.19 Acceptability of the use of mass media for disseminating family planning messages

Percentage of women who believe that it is acceptable to have messages about family planning on radio or television, by selected background characteristics, Philippines 1993

Background characteristic	Accept-able	Not accept-able	Don't know/ missing	Total	Number
Age					
15-19	80.8	5.6	13.7	100.0	3158
20-24	87.4	4.9	7.7	100.0	2649
25-29	88.1	5.4	6.5	100.0	2430
30-34	88.4	5.2	6.3	100.0	2196
35-39	87.3	6.1	6.6	100.0	1889
40-44	86.4	6.9	6.7	100.0	1571
45-49	85.9	6.4	7.7	100.0	1137
Residence					
Urban	88.5	4.6	6.9	100.0	8501
Rural	82.8	7.0	10.2	100.0	6528
Region					
Metro. Manila	92.5	3.7	3.9	100.0	2733
Cordillera Admin.	85.4	2.1	12.5	100.0	241
Ilocos	80.5	6.6	12.9	100.0	832
Cagayan Valley	76.5	1.3	22.2	100.0	486
C-Luzon	88.3	3.5	8.2	100.0	1599
S-Tagalog	92.8	2.2	4.9	100.0	2025
Bicol	86.6	4.6	8.8	100.0	805
W-Visayas	82.8	6.3	10.9	100.0	1216
C-Visayas	89.6	5.3	5.1	100.0	1121
E-Visayas	86.4	5.1	8.5	100.0	645
W-Mindanao	62.8	21.7	15.6	100.0	729
N-Mindanao	95.1	2.8	2.1	100.0	794
S-Mindanao	82.9	7.7	9.4	100.0	1095
C-Mindanao	67.7	15.5	16.9	100.0	707
Education					
No education	32.5	30.9	36.6	100.0	320
Elementary	82.2	7.1	10.7	100.0	4690
High school	87.1	4.6	8.2	100.0	5967
College or higher	93.1	3.5	3.4	100.0	4049
Total[1]	86.0	5.7	8.3	100.0	15029

[1]Includes 3 women with missing information on level of education

CHAPTER 5

OTHER PROXIMATE DETERMINANTS OF FERTILITY

Addressed in this chapter are the principal factors, other than contraception, which affect a woman's risk of becoming pregnant: nuptiality and sexual intercourse, postpartum amenorrhea and abstinence from sexual relations, and secondary infertility. Marriage is a primary indicator of the exposure of women to the risk of pregnancy and, therefore, is important for the understanding of fertility. Populations in which age at marriage is low tend to be populations with early childbearing and high fertility. Trends in the age at which women marry as well as in the proportions remaining single can help explain trends in fertility.

Included also in this chapter is information on more direct measures of the beginning of exposure to pregnancy and the level of exposure: age at first sexual intercourse and the frequency of intercourse. Measures of several other proximate determinants of fertility which, like marriage and sexual intercourse, influence exposure to risk are also presented. These are the durations of postpartum amenorrhea and postpartum abstinence, and secondary infertility.

5.1 Current Marital Status

Table 5.1 shows the marital status of women at the time of the survey by age. Overall, 37 percent of women have never married, 54 percent are married, 5 percent are living together with a partner, and about 4 percent are not living with a husband or a partner.

Table 5.1 Current marital status

Percent distribution of women by current marital status, according to age, Philippines 1993

Age	Marital status						Total	Number of women
	Never married	Married	Living together	Widowed	Divorced	Not living together		
15-19	92.2	4.7	2.7	0.0	0.0	0.3	100.0	3158
20-24	54.6	38.4	6.0	0.3	0.0	0.8	100.0	2649
25-29	25.1	66.3	6.3	0.7	0.1	1.6	100.0	2430
30-34	12.2	77.9	5.8	1.4	0.3	2.5	100.0	2196
35-39	6.7	81.6	5.9	2.7	0.2	2.9	100.0	1889
40-44	5.3	81.0	5.4	5.1	0.6	2.5	100.0	1571
45-49	6.3	77.3	5.6	7.6	0.6	2.6	100.0	1137
Total	36.7	54.4	5.2	1.8	0.2	1.6	100.0	15029

The proportion never married decreases rapidly from 92 percent among teenagers to 55 percent among women in their early twenties to 25 percent among women in their late twenties. The proportions in both formal and informal unions start well below 10 percent among teenagers, increasing rapidly to 44 percent among women 20-24 years of age, and 73 percent among women 25-29 years. This proportion reaches its peak at 88 percent among women 35-39 years and slightly declines thereafter more as a result of marital dissolution (primarily through widowhood) than by nonmarriage.

5.2 Marital Exposure

Table 5.2 is intended to show variations in exposure to marriage for a recent period by age and background characteristics of all women. The table is calculated using information collected in the calendar and shows the percentage of months in the five years prior to the survey spent married. Since the table is based on all women, never-married woman are included in the denominator by adding 60 months for each. The percentage of months spent in married state incorporates the effects of age at first marriage, marital dissolution, and remarriage.

Table 5.2 Marital exposure

Percentage of months spent in marital union in the five years preceding the survey, by age and selected background characteristics, Philippines 1993

Background characteristic	Age at time of survey							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Residence								
Urban	2.0	24.2	58.2	76.4	83.7	87.2	79.7	49.7
Rural	4.0	38.4	72.7	86.6	90.6	87.5	88.9	60.8
Region								
Metro. Manila	2.1	17.0	46.3	66.3	78.4	85.6	68.0	41.3
Cordillera Admin.	1.7	28.3	69.7	88.2	94.6	86.3	90.0	57.7
Ilocos	2.9	27.6	65.1	80.3	85.5	84.4	86.1	54.3
Cagayan Valley	3.5	37.4	75.9	86.4	89.3	91.1	83.7	63.0
C-Luzon	1.8	37.5	68.8	85.5	85.5	83.4	85.4	55.9
S-Tagalog	3.0	27.0	65.7	79.2	90.0	89.3	88.3	54.7
Bicol	2.3	39.8	72.2	84.8	91.2	86.1	89.9	63.3
W-Visayas	3.3	27.2	61.9	83.1	84.0	87.2	87.5	54.3
C-Visayas	3.5	33.1	65.2	78.9	86.1	87.2	85.6	57.9
E-Visayas	3.8	34.0	66.6	87.4	92.0	86.6	82.8	56.9
W-Mindanao	5.3	37.3	73.4	88.1	88.5	90.0	84.5	62.3
N-Mindanao	2.8	38.4	71.1	88.1	90.2	88.1	87.4	58.4
S-Mindanao	2.9	36.6	73.7	84.6	90.8	89.6	88.4	56.9
C-Mindanao	2.5	42.3	76.9	90.0	91.5	92.5	91.4	62.3
Education								
No education	5.2	53.9	82.5	82.8	91.6	87.8	87.2	72.6
Elementary	7.3	49.0	79.6	87.9	89.5	88.4	86.3	72.6
High school	2.1	35.5	69.7	82.9	87.8	87.3	81.8	45.5
College or higher	0.6	12.3	45.6	70.8	80.9	85.2	78.8	45.4
Total	2.8	30.1	64.3	80.9	87.0	87.3	84.0	54.5

The percentage of months spent married, as expected, increases with age, reaching a peak of 87 percent at ages 35-39, with a plateau of 87 percent at ages 40-44, and declining only slightly to 84 percent at ages 45-49 years. Undoubtedly, this pattern reflects the pace of entry into marriage among young women as well as the increasing incidence of widowhood among women aged 40 to 49 and the substantial proportion of older women living apart from their husbands. The most revealing aspect of the data in Table 5.2 is the low level of marital exposure among Philippine women. Only 55 percent of the 5 years preceding the survey was spent in marital exposure. The low level of marital exposure for those below age 25 arises from the fact that 55 percent are still single.

There are wide variations in marital exposure by level of education. In general, women with at most a primary education spent 73 percent of the last 5 years in marriage while those with secondary or higher education spent only 45 percent in marital union. This pattern most likely reflects the higher age at marriage among the more educated women. Regional variations in marital exposure depict larger than average marital exposure in less developed regions (Cagayan, Bicol, Western Mindanao and Central Mindanao) with the most developed region (Metropolitan Manila) depicting the lowest marital exposure of 41 percent. The rest of the regions hover around the national marital exposure figure of 55 percent. The larger than average marital exposure values observed in the less developed regions reflects the effects of early age at marriage and of marital dissolution, while the low value for the country's primer region arises from the effects of older age at marriage and marital dissolution, particularly those not living with their husbands. In general, women in urban areas show slightly lower than average marital exposure of 50 percent while rural women show slightly higher than average marital exposure of 61 percent.

5.3 Age at First Marriage

Table 5.3 presents the percentage of women who first married at selected ages and the median age at first marriage, according to current age. The table clearly shows an increase in age at marriage across cohorts. Among women aged 35 or older, approximately 40 percent were married by age 20, while 37 percent of women age 30-34 and only 29 percent of women aged 20-24 did so. The median age at first marriage increased only slightly from 21.3 years among women 45-49 years to 22.0 years among women 25-29 years. This reflects a long-standing late age at marriage among Filipino women, evidenced by the fact that around one in three women 25-49 was still single at age 25.

Table 5.3 Age at first marriage

Percentage of women who were first married by exact age 15, 18, 20, 22, and 25, and median age at first marriage, according to current age, Philippines 1993

	Percentage of women who were first married by exact age:					Percentage who had never married	Number of women	Median age at first marriage
Current age	15	18	20	22	25			
15-19	0.7	NA	NA	NA	NA	92.2	3158	a
20-24	1.9	14.2	29.3	NA	NA	54.6	2649	a
25-29	2.4	16.7	34.0	49.8	66.9	25.1	2430	22.0
30-34	2.4	18.3	36.6	52.6	69.0	12.2	2196	21.7
35-39	2.9	20.1	39.0	54.5	73.5	6.7	1889	21.4
40-44	3.3	20.9	38.3	53.7	72.3	5.3	1571	21.5
45-49	4.2	22.7	40.4	55.3	72.3	6.3	1137	21.3
20-49	2.7	18.1	35.4	50.0	64.8	21.9	11871	b
25-49	2.9	19.2	37.2	52.8	70.3	12.6	9222	21.6

NA = Not applicable
[a]Omitted because less than 50 percent of the women in the age group x to $x+4$ were first married by age x
[b]Not calculated due to censoring

5.4 Median Age at First Marriage

Urban women marry at a somewhat later age than rural women; the median age at first marriage for urban women is 22.3 years while that for rural women is 20.7 years. Sizeable differences in age at marriage exist by regions (Table 5.4). The median age at first marriage in Metropolitan Manila is 24 years. There is no distinct pattern in age at first marriage by island groups; however, the less developed areas show lower median values (ranging from 20.4 to 21.4 years) than other areas. There is a positive relationship between age at first marriage and educational attainment. The median value for women with no education is 19 years while those who reached high school show a median value of 21 years.

Table 5.4 Median age at first marriage

Median age at first marriage among women age 25-49 years, by current age and selected background characteristics, Philippines 1993

Background characteristic	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	22.7	22.3	22.1	22.1	22.2	22.3
Rural	20.9	20.7	20.6	20.7	20.3	20.7
Region						
Metro. Manila	a	25.0	22.6	23.3	22.8	24.0
Cordillera Admin.	(22.4)	22.1	23.1	(21.2)	(21.8)	22.3
Ilocos	22.8	21.8	22.3	22.1	21.5	22.2
Cagayan Valley	20.7	20.4	20.0	20.6	(19.6)	20.4
C-Luzon	20.9	21.4	21.6	22.6	21.2	21.5
S-Tagalog	21.8	21.3	20.9	21.4	21.7	21.4
Bicol	21.3	21.0	20.5	20.4	19.9	20.8
W-Visayas	22.2	22.6	22.4	22.0	22.1	22.3
C-Visayas	22.1	21.8	22.0	21.3	20.2	21.7
E-Visayas	21.1	21.3	20.7	21.1	19.7	20.9
W-Mindanao	20.6	20.0	20.7	20.3	20.6	20.4
N-Mindanao	20.9	21.3	19.9	18.9	21.1	20.6
S-Mindanao	20.9	20.5	20.5	21.6	21.2	20.9
C-Mindanao	20.1	20.2	21.0	20.0	20.7	20.4
Education						
No education	18.3	19.0	19.2	18.8	20.2	18.9
Elementary	19.7	19.4	19.5	19.8	19.8	19.6
High school	21.0	20.8	21.4	21.2	21.6	21.1
College or higher	a	25.2	24.8	25.0	25.8	a
Total	21.8	21.5	21.3	21.4	21.1	21.4

Note: Medians are not shown for women 20-24 because less than 50 percent have married by age 20 in almost all subgroups shown in the table.
[a]Omitted because less than 50 percent of the women in the age group were first married by age 25.
( ) Figures in parentheses are based on 25-49 cases

5.5 Age at First Sexual Intercourse

Like the age at first marriage, the age at first sexual intercourse is a proxy measure for the beginning of a woman's exposure to the risk of pregnancy. Table 5.5 presents information on age at first sex for all women. Overall, half of the women aged 25-49 started to be sexually active at age 21.5 years. Only 3 percent of the women aged 25-49 years had their first intercourse by age 15 and 38 percent by age 20. By age 25, 7 in 10 women have had sexual intercourse. The table shows that the onset of sexual activity has not changed remarkably over time.

Table 5.5 Age at first sexual intercourse

Percentage of women who had first sexual intercourse by exact age 15, 18, 20, 22, and 25, and median age at first intercourse, according to current age, Philippines 1993

Current age	Percentage of women who had first intercourse by exact age: 15	18	20	22	25	Percentage who never had intercourse	Number of women	Median age at first intercourse
15-19	0.8	NA	NA	NA	NA	91.9	3158	a
20-24	2.0	14.7	30.3	NA	NA	53.4	2649	a
25-29	2.5	17.9	35.3	50.8	67.4	24.4	2430	21.9
30-34	2.4	19.1	37.8	53.5	70.1	11.3	2196	21.5
35-39	3.2	21.4	41.0	56.0	74.4	6.4	1889	21.1
40-44	3.3	21.1	38.8	54.6	72.8	5.1	1571	21.4
45-49	4.5	23.0	41.5	56.4	73.0	5.9	1137	21.1
20-49	2.8	18.9	36.6	51.1	65.6	21.3	11871	a
25-49	3.0	20.1	38.4	53.8	71.1	12.0	9222	21.5

NA = Not applicable
[a]Omitted because less than 50 percent of the women in the age group x to $x+4$ had had intercourse by age x.

Comparing the information in Table 5.5 with the information on age at first marriage in Table 5.4, it is clear that the majority of Filipino women have first sexual intercourse when they marry; there is only a one month difference between the median ages at first intercourse (21.5) and first marriage among women aged 25-49 (21.6 year). Differentials in the median age at first intercourse also parallel those observed in the median age at first marriage (see Table 5.6).

5.6 Recent Sexual Activity

In the absence of contraception, the probability of pregnancy is related to the participation in sexual intercourse. Thus, information on intercourse is important for refinement of the measurement of exposure to pregnancy. An indicator of the percentage of women who are abstaining from sex in any given month, due to such factors as a recent birth, spousal separation, illness, etc. is given by the percent who were not sexually active in the last four weeks. There were several questions in the 1993 NDS on the topic of recent sexual activity. All women were asked how long ago they had last had sexual intercourse, how many times they had sex in the last four weeks, and how many times they usually have sex in a month.

Table 5.6 Median age at first intercourse

Median age at first sexual intercourse among women age 25-49 years, by current age and selected background characteristics, Philippines 1993

Background characteristic	Current age 25-29	30-34	35-39	40-44	45-49	Women age 25-49
Residence						
Urban	22.8	22.5	22.0	22.0	22.1	22.3
Rural	20.8	20.6	20.4	20.7	20.2	20.6
Region						
Metro. Manila	24.8	24.6	22.4	23.1	22.7	23.7
Cordillera Admin.	(22.2)	(21.8)	(22.9)	*	*	22.1
Ilocos	22.8	21.8	22.2	22.2	20.6	22.2
Cagayan Valley	20.7	20.4	20.2	20.8	19.4	20.4
C-Luzon	20.9	21.4	21.4	22.2	21.1	21.4
S-Tagalog	21.9	21.3	20.9	21.3	22.0	21.4
Bicol	21.3	21.1	20.4	20.5	19.8	20.8
W-Visayas	22.2	22.5	22.2	21.6	21.9	22.1
C-Visayas	21.9	21.4	21.5	21.0	19.7	21.3
E-Visayas	20.8	21.0	20.8	21.1	19.7	20.7
W-Mindanao	20.7	19.9	20.5	20.5	20.5	20.4
N-Mindanao	20.8	21.2	19.9	18.9	20.8	20.5
S-Mindanao	20.6	20.2	20.1	21.6	21.1	20.6
C-Mindanao	19.9	20.3	20.8	20.0	20.5	20.3
Education						
No education	(18.3)	(19.1)	(18.9)	(18.8)	(19.6)	(18.8)
Elementary	19.6	19.4	19.5	19.9	19.8	19.6
High school	21.0	20.8	21.1	21.3	21.6	21.1
College or higher	a	25.2	24.6	24.9	25.8	a
Total	21.9	21.5	21.1	21.4	21.1	21.5

Note: Medians were not shown for women 20-24 because less than 50 percent had had intercourse by age 20 in almost all subgroups shown in the table.
[a]Omitted because less than 50 percent of the women in age group x to x+4 had had intercourse by age x.
* Less than 25 unweighted cases
( ) Figures in parentheses are based on 25-49 unweighted cases.

Table 5.7 is based on the question of time since last intercourse and allows an assessment of the overall level of sexual activity according to age, marital duration, and other background characteristics. In general, 77 percent of all women were sexually active in the month preceding the survey, 5 percent were postpartum abstaining, and 18 percent were not sexually active for reasons other than a recent birth (e.g., spousal separation, illness). The proportion postpartum abstaining declines as age and duration of marriage increase. At the same time, the proportion not sexually active for other reasons increases with increasing age and marriage duration.

Table 5.7 Recent sexual activity

Percent distribution of women who have ever had sexual intercourse by sexual activity in the four weeks preceding the survey and the duration of abstinence by whether or not postpartum, according to selected background characteristics, Philippines 1993

Background characteristic	Sexually active in last 4 weeks	Not sexually active in last 4 weeks: Abstaining (postpartum) 0-1 years	Abstaining (postpartum) 2+ years	Abstaining (not postpartum) 0-1 years	Abstaining (not postpartum) 2+ years	Missing	Total	Number of women
Age of mother								
15-19	72.0	15.9	1.7	9.5	0.5	0.3	100.0	255
20-24	79.1	8.4	0.7	10.8	0.6	0.4	100.0	1233
25-29	79.7	5.5	0.5	11.7	2.6	0.0	100.0	1837
30-34	78.5	4.6	1.2	11.5	4.1	0.1	100.0	1948
35-39	77.7	3.4	0.7	12.7	5.3	0.1	100.0	1769
40-44	76.6	1.5	0.7	12.0	9.1	0.1	100.0	1490
45-49	69.2	0.3	0.2	16.6	13.3	0.5	100.0	1069
Duration of union								
0-4	76.3	9.2	0.8	12.7	0.9	0.1	100.0	1858
5-9	79.4	4.7	1.0	11.7	3.0	0.1	100.0	2045
10-14	81.4	3.2	0.6	10.6	4.2	0.0	100.0	1851
15-19	79.1	3.1	0.3	11.1	6.1	0.2	100.0	1604
20-24	75.9	1.1	0.4	13.8	8.5	0.3	100.0	1217
25+	69.3	0.4	0.5	16.1	13.5	0.2	100.0	937
Never in union	21.3	28.3	11.3	9.7	24.2	5.3	100.0	91
Residence								
Urban	73.5	4.3	0.9	14.7	6.4	0.2	100.0	5025
Rural	81.2	4.5	0.6	9.6	4.0	0.1	100.0	4577
Region								
Metro. Manila	66.7	5.3	0.7	17.5	9.5	0.3	100.0	1425
Cordillera Admin.	79.6	2.9	1.0	11.3	4.9	0.3	100.0	158
Ilocos	77.1	5.5	0.8	11.8	4.5	0.3	100.0	532
Cagayan Valley	85.1	4.2	0.2	6.2	4.0	0.4	100.0	356
C-Luzon	73.8	4.3	0.9	14.8	6.2	0.0	100.0	1038
S-Tagalog	73.6	5.2	0.6	15.3	5.3	0.0	100.0	1289
Bicol	79.7	6.6	0.5	9.7	3.1	0.5	100.0	588
W-Visayas	78 7	3.7	0.7	12.2	4.7	0.0	100.0	753
C-Visayas	79.6	4.4	0.9	10.3	4.3	0.5	100.0	765
E-Visayas	75.6	6.7	0.7	12.9	4.1	0.0	100.0	435
W-Mindanao	85.5	2.5	1.0	6.9	3.9	0.1	100.0	514
N-Mindanao	86.4	2.1	0.9	7.7	3.0	0.0	100.0	540
S-Mindanao	82.0	2.9	1.0	10.4	3.6	0.1	100.0	715
C-Mindanao	83.8	2.1	0.6	7.7	5.6	0.2	100.0	494
Education								
No education	80.6	3.0	1.1	8.7	6.1	0.6	100.0	263
Elementary	79.2	4.3	0.6	10.5	5.2	0.2	100.0	3823
High school	76.1	4.9	0.8	13.4	4.5	0.2	100.0	3277
College or higher	74.6	3.8	0.9	14.0	6.4	0.1	100.0	2239
Current contraceptive								
No method	68.8	6.8	1.2	15.5	7.5	0.3	100.0	5971
Pill	95.0	0.2	0.0	4.6	0.1	0.0	100.0	764
IUD	94.9	0.0	0.0	4.3	0.8	0.0	100.0	273
Sterilization	82.8	0.7	0.1	11.5	4.8	0.1	100.0	1138
Periodic abstinence	94.0	0.9	0.0	5.0	0.1	0.0	100.0	658
Other	94.6	0.2	0.0	5.2	0.0	0.0	100.0	798
Total	77.1	4.4	0.8	12.3	5.3	0.2	100.0	9602

The percentage of women who were sexually active in the month preceding the survey declines gradually with increasing level of education. More rural than urban women were sexually active in the month preceding the survey. Women living in Metropolitan Manila showed the lowest proportion (67 percent) who were sexually active in the month before the survey. The comparatively large proportion abstaining among Metropolitan Manila women was mainly due to factors other than a recent birth.

The proportions sexually active among contraceptive users were far higher than for nonusers (95 percent compared to 69 percent), except for sterilization users, 16 percent of whom were abstaining for reasons other than a recent birth.

5.7 Postpartum Amenorrhea, Abstinence, and Insusceptibility

Among women who are not using contraception, exposure to the risk of pregnancy in the period following a birth is influenced by two factors: breastfeeding and sexual abstinence. Postpartum protection from conception can be prolonged by breastfeeding, which can lengthen the time to onset of ovulation, and by delaying the resumption of sexual relations.

Table 5.8 Postpartum amenorrhea, abstinence and insusceptibility

Percentage of births whose mothers are postpartum amenorrheic, abstaining and insusceptible, by number of months since birth, and median and mean durations, Philippines 1993

Months since birth	Amenorrheic	Abstaining	Insusceptible	Number of births
< 2	94.0	88.7	97.6	196
2-3	68.4	47.2	77.6	293
4-5	56.0	15.5	61.0	329
6-7	44.5	11.2	50.0	326
8-9	31.7	7.0	36.3	323
10-11	26.5	5.8	30.8	272
12-13	18.5	4.0	21.4	289
14-15	14.4	3.8	17.3	288
16-17	6.5	5.2	11.4	314
18-19	2.7	3.7	6.3	332
20-21	1.2	2.8	3.3	301
22-23	2.2	2.4	4.3	265
24-25	0.5	2.8	3.4	285
26-27	0.6	1.5	2.1	274
28-29	0.8	1.1	1.9	337
30-31	0.0	0.7	0.7	321
32-33	0.3	1.1	1.4	317
34-35	0.0	2.2	2.2	293
Total	19.2	9.9	22.6	5356
Median	5.5	2.3	6.4	NA
Mean	7.7	4.4	8.8	NA
Prevalence/ Incidence mean	6.8	3.5	8.0	NA

Note: Means and medians are based on the current-status proportions in each two-month age interval (smoothed)
NA = Not applicable

Estimation of the mean durations was done using the current status proportions. The prevalence/incidence (P/I) mean is borrowed from epidemiology, and is provided to enable international comparison. Table 5.8 shows the percentage of births whose mothers are postpartum amenorrheic, abstaining, and postpartum insusceptible by the number of months since the birth. Women who are insusceptible are defined as those who are either amenorrheic or abstaining following a birth and, thus, are not exposed to the risk of pregnancy. The estimates shown in Table 5.8 are based on current status data, that is, they refer to the proportion of births occurring x months before the survey for which mothers are still amenorrheic or abstaining at the time of the survey. All live births occurring during the three years prior to the survey are included. To reduce fluctuations in the estimates, the births are grouped in two-month intervals.

Among births 2 to 3 months prior to interview, 68 percent of the mothers are still amenorrheic. The proportion amenorrheic 6 to 7 months after the birth is 45 percent and 12 to 13 months after the birth, declined to 19 percent. The duration of postpartum abstinence is shorter than the duration of amenorrhea (see Figure 5.1). Forty-seven percent of mothers are still abstaining from sexual relations 2 to 3 months following a birth, but only 4 percent are still abstaining after a year. Overall, half of all mothers are susceptible to the risk of pregnancy 6 months after a birth (not taking into account contraceptive use).

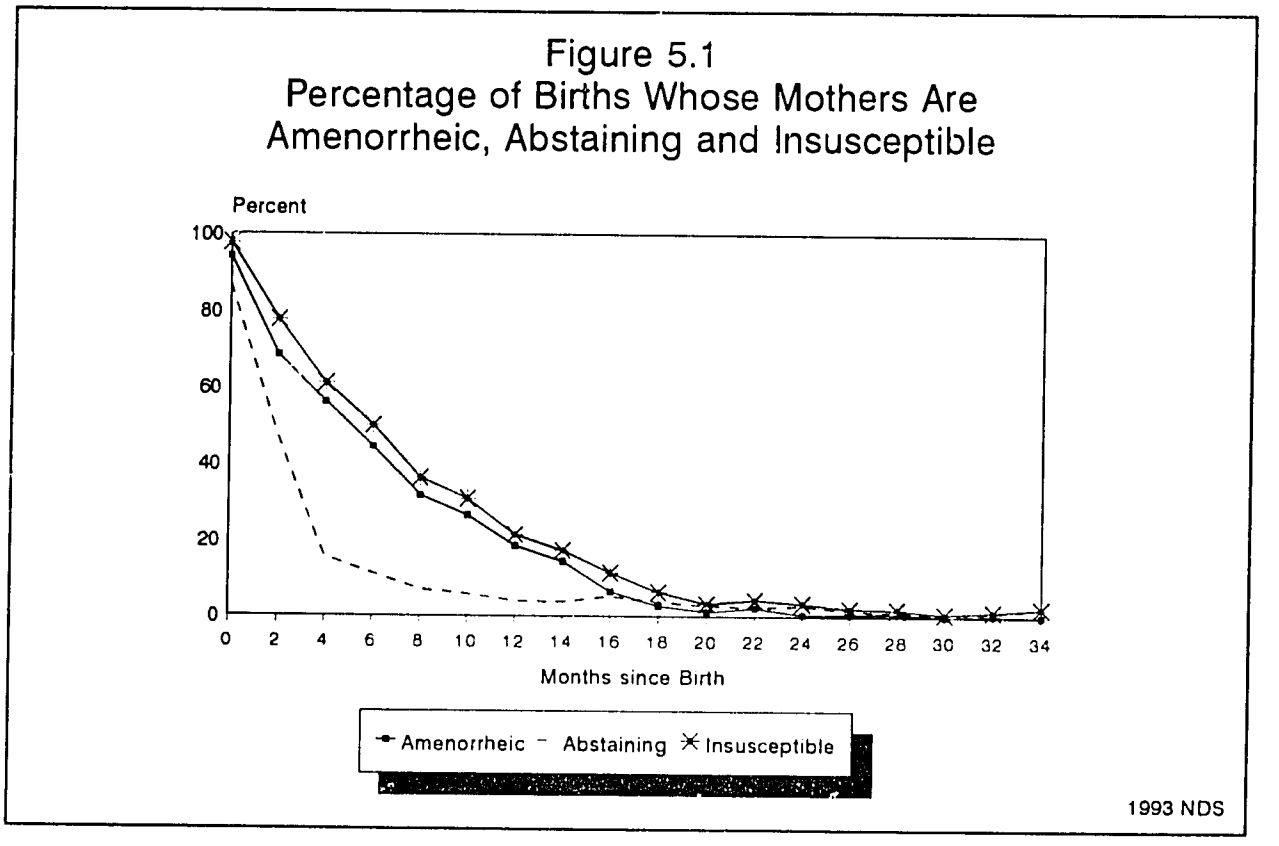


Figure 5.1
Percentage of Births Whose Mothers Are Amenorrheic, Abstaining and Insusceptible

5.8 Median Duration of Postpartum Amenorrhea, Abstinence and Insusceptibility

Presented in Table 5.9 is the median duration of postpartum amenorrhea, abstinence, and insusceptibility by various background characteristics of women. As for Table 5.8, this table is based on current status data on all live births occurring in the three years prior to the survey. On average, women in the Philippines are amenorrheic for 5.5 months following a birth, abstain for 2.3 months, and are insusceptible to the risk of pregnancy for 6.4 months. The duration of postpartum amenorrhea is practically identical among women under 30 years of age and those 30 years or older. Urban women are amenorrheic for a shorter period of time than rural women perhaps due to their breastfeeding practices.

As expected, the median duration of amenorrhea is shortest in Metropolitan Manila (3 months), average for the more developed regions (4-5 months) and longest for the less developed regions of the country (6-9 months). Education is inversely related with the duration of postpartum amenorrhea. Women with no education are amenorrheic for twice as long (9.8 months) as women with high school or higher education (4.8 months).

Subgroup differences in the duration of abstinence tend to be less pronounced due to the brevity of this practice among Philippine couples. The most remarkable differences are observed among regions in Mindanao showing durations of less than 2 months compared to regions in Visayas or Luzon with abstinence duration of 2 to 3 months. In addition, women with no education showed a duration of abstinence of 1.5 months while for those with formal education, this is 0.5 month longer.

The combined effect of amenorrhea and abstinence is reflected in the median duration of insusceptibility shown in Table 5.9. Rural women are insusceptible for longer periods (7.9 months) than urban women (5.2 months); this difference is due largely to longer durations of postpartum amenorrhea among rural women. Education is inversely associated with duration of insusceptibility to the risk of pregnancy following a birth. Regional differences in the duration of insusceptibility generally replicate the differences in the duration of amenorrhea.

Table 5.9 Median duration of postpartum insusceptibility by background characteristics

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility, by selected background characteristics, Philippines 1993

Background characteristic	Postpartum amenorrhea	Postpartum abstinence	Postpartum insuscep-tibility	Number of births
Age				
<30	5.4	2.2	6.2	2982
30+	5.7	2.3	6.7	2373
Residence				
Urban	4.3	2.3	5.2	2618
Rural	7.0	2.2	7.9	2738
Region				
Metro. Manila	3.0	2.2	4.1	680
Cordillera Admin.	6.7	1.8	7.1	104
Ilocos	6.8	2.2	7.7	300
Cagayan Valley	6.2	2.5	7.0	190
C-Luzon	5.3	2.6	5.9	542
S-Tagalog	5.7	3.3	6.5	675
Bicol	8.9	2.1	9.7	416
W-Visayas	7.7	2.3	8.5	432
C-Visayas	5.6	2.2	6.3	428
E-Visayas	5.9	3.0	6.5	269
W-Mindanao	5.9	1.7	6.8	292
N-Mindanao	4.0	2.0	4.1	332
S-Mindanao	6.2	1.8	6.2	406
C-Mindanao	6.8	1.7	7.5	292
Education				
No education	9.8	1.5	10.6	140
Elementary	8.2	2.3	8.8	2154
High school	4.8	2.4	5.7	1935
College or higher	3.3	2.1	4.7	1126
Total	5.5	2.3	6.4	5356

Note: Medians are based on current status.

5.10 Termination of Exposure to Pregnancy

The onset of infecundity with increasing age reduces the proportion of women who are exposed to the risk of pregnancy Three measures of declining exposure to pregnancy, menopause, terminal infertility and long-term abstinence, are shown in Table 5.10. The percentage of currently married women who are not currently pregnant and not postpartum amenorrheic but whose last menstrual period occurred six or more months prior to the survey or who report that they are menopausal is used as an indicator of secondary sterility. The data show that the percentage rises rapidly with age, particularly after age 44. By age 48, 42 percent of women are menopausal.

A woman falls into the terminal infertility category if she was continuously married, did not give birth, and did not use any contraceptive method during the five-year period preceding the survey and she is not currently pregnant. Overall, 56 percent of women 30 years and older have reached terminal fertility. Table 5.10 shows the expected pattern of increasing proportions with age, from 28 percent among women 30-34 to 93 percent for women in the end of their childbearing ages.

Long-term abstinence is another indicator of terminal abstinence--the percentage of currently married women who did not have sexual intercourse in the three years prior to the survey. Although long-term abstinence is an important factor in the termination of exposure in some countries, especially in sub-Saharan Africa, it is not significant in the Philippines, where only 3 percent of women are terminally abstaining in the oldest age group.

Table 5.10 Indicators of termination of exposure

Indicators of menopause, terminal infertility, and long-term abstinence for currently married women 30-49 years of age, by age, Philippines

	Menopause[1]		Terminal infertility[2]		Long-term abstinence[3]	
Age	Percent	Number	Percent	Number	Percent	Number
30-34	1.4	1399	27.8	580	0.5	1838
35-39	2.0	1394	46.3	620	1.1	1652
40-41	3.7	533	54.9	276	0.9	593
42-43	7.1	504	60.5	262	1.6	537
44-45	13.1	440	74.1	265	2.6	449
46-47	27.2	385	82.9	240	2.2	388
48-49	42.1	333	92.7	247	2.9	333
Total	8.1	4987	55.5	2490	1.2	5791

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

CHAPTER 6

FERTILITY PREFERENCES

The Philippine Family Planning Program (PFPP) aims to assure the availability of reliable information and services necessary for families to manage the risks and outcomes of reproduction according to their health needs and fertility aspirations. It is anchored on a basic constitutional provision which recognizes the right of couples to choose for themselves the size of family they would like to raise.

Addressed in this chapter are questions which allow an assessment of the need for contraception, whether for birth spacing or for birth limitation, and the extent of unwanted fertility. The respondents were asked questions whether they wanted more children. If so, how long they would prefer to wait before the next child; and if they could start anew, how many children in all they would want. Since the general objective of the Philippine Family Planning Program is to reduce the level of unmet needs for family planning particularly among high risk families, it is important to understand the extent of unmet need in the country, whether for spacing or limitation. Two other issues are examined: the extent to which unwanted and mistimed pregnancies occur and the effect of such pregnancies on the fertility rates.

Interpretation of data on fertility preferences has always been the subject of controversy. Survey questions on this topic have been criticized on the grounds that a) answers are misleading because they may reflect unformed, ephemeral views, which are held with weak intensity and little conviction and b) they do not take into account the effect of social pressures, or the attitude of the other family members, particularly the husband, who may exert a major influence on reproductive decisions.

The first objection has greater force in societies where the use of contraceptives is limited and the idea of conscious reproductive choice may still be unfamiliar or unknown. Thus, preference data from these settings should be interpreted with caution. This objection probably has little relevance in the Philippines where there is almost universal level of family planning knowledge and a moderated level of family planning use. The second objection is correct in principle. It is only now that the program realizes the importance of the husband with regard to fertility decisions.

The inclusion of women who are currently pregnant complicates the measurement of views on future childbearing. For these women, the questions on the desire for more children is rephrased to refer to desire for another child, after the one that they are expecting. To take into account the way in which the preference variable is defined for pregnant women, the results are classified by number of living children, including the current pregnancy as equivalent to a living child. In addition, the question on preferred waiting time before the next birth is rephrased for pregnant women to make clear that the information wanted is the preferred waiting time after the birth of the child the respondent is expecting. The interpretation of the results should be treated with caution since desire for more children for these pregnant women might change given the high infant mortality experienced by the country.

Women who have been sterilized for contraceptive purposes also require special analytic treatment. The general strategy presented in this chapter is to classify them as wanting no more children.

6.1 Desire for More Children

Table 6.1 shows the percent distribution of married women by desire for children according to number of living children. It allows the examination of the potential need for contraceptive services, for spacing as well as for limiting births. The table indicates that 51 percent of all married women do not want any more children, almost one fifth want to delay their next birth for two or more years, and 12 percent have been sterilized. These figures suggest that 7 out of 10 married women are potentially in need of family planning services. Only 9 percent want another child within two years, while almost 6 percent are undecided about their fertility preferences (Figure 6.1).

The table also shows that among married women, the desire to limit childbearing increases, and the desire to delay the next birth decreases with the number of living children. The proportion of women who want to limit their childbearing increases dramatically after having one child. For example, among women with one living child, 14 percent want no more children and 56 percent want to delay the next child after two years; among women with 3 children, 55 percent want no more children while 12 percent want to have their next child later.

Table 6.1 Fertility preferences by number of living children

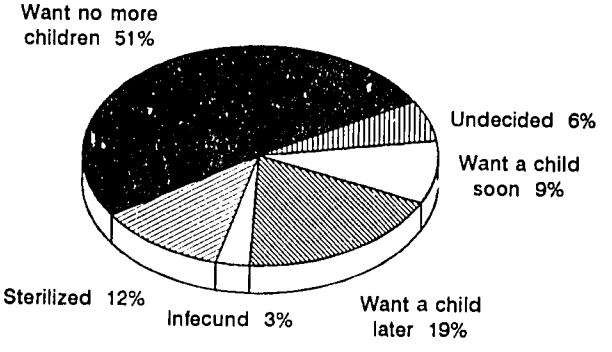
Percent distribution of currently married women by desire for more children, according to number of living children, Philippines 1993

Desire for children	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Have another soon[2]	67.5	20.8	8.2	4.7	2.4	1.3	0.9	9.0
Have another later[3]	14.5	55.7	30.9	11.7	6.2	4.9	2.0	18.7
Have another, undecided when	1.3	0.3	0.6	0.1	0.1	0.1	0.2	0.3
Undecided	2.4	5.6	8.8	6.2	4.8	4.8	3.8	5.7
Wants no more	1.2	13.5	42.4	55.4	60.9	66.7	79.2	50.6
Sterilized	0.0	0.8	6.4	19.2	23.1	19.6	9.8	12.2
Declared infecund	12.4	2.5	2.4	2.4	2.5	2.1	3.9	3.1
Missing	0.7	0.7	0.2	0.3	0.1	0.4	0.3	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	384	1279	1774	1730	1313	966	1516	8961

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

Table 6.2 shows the distribution of married women by desire for children, according to age. The table shows that almost 54 percent of women age 15-19 want to delay having their next child by two or more years. This proportion diminishes with age, and the proportion wanting to limit increases. At age 35-39, only 7 percent of women want to have another child after 2 years, while 3 in 5 do not want any more children. It is interesting to note that at least 3 out of 10 women 20-35 years old stated that they do not want to have more children.

Figure 6.1
Fertility Preferences
Currently Married Women 15-49



Note: "Undecided" includes women who want another child but are undecided when.

1993 NDS

Table 6.2 Fertility preferences by age

Percent distribution of currently married women by desire for more children, according to age, Philippines 1993

Desire for children	Age of woman							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Have another soon[1]	19.0	9.8	10.6	10.6	8.9	6.1	4.1	9.0
Have another later[2]	53.7	48.8	30.7	15.4	7.2	2.1	1.0	18.7
Have another, undecided when	0.0	0.4	0.6	0.4	0.3	0.0	0.1	0.3
Undecided	7.8	8.3	8.3	7.1	4.7	2.1	1.2	5.7
Wants no more	17.8	30.6	43.4	52.6	57.5	64.6	60.6	50.6
Sterilized	0.0	0.8	5.4	12.6	19.2	20.8	16.9	12.2
Declared infecund	1.0	0.7	0.8	1.1	1.9	4.2	15.2	3.1
Missing	0.6	0.6	0.1	0.2	0.4	0.2	0.8	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	234	1174	1763	1838	1652	1358	942	8961

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

Table 6.3 shows the percentage distribution of the married women who want no more children according to parity, and by selected background characteristics. This table provides information about group variation in the potential demand for family planning. It is interesting to note that there is almost no difference in the desire to limit childbearing between urban and rural women (62 percent in urban areas and 64 percent in rural areas) (see Figure 6.2).

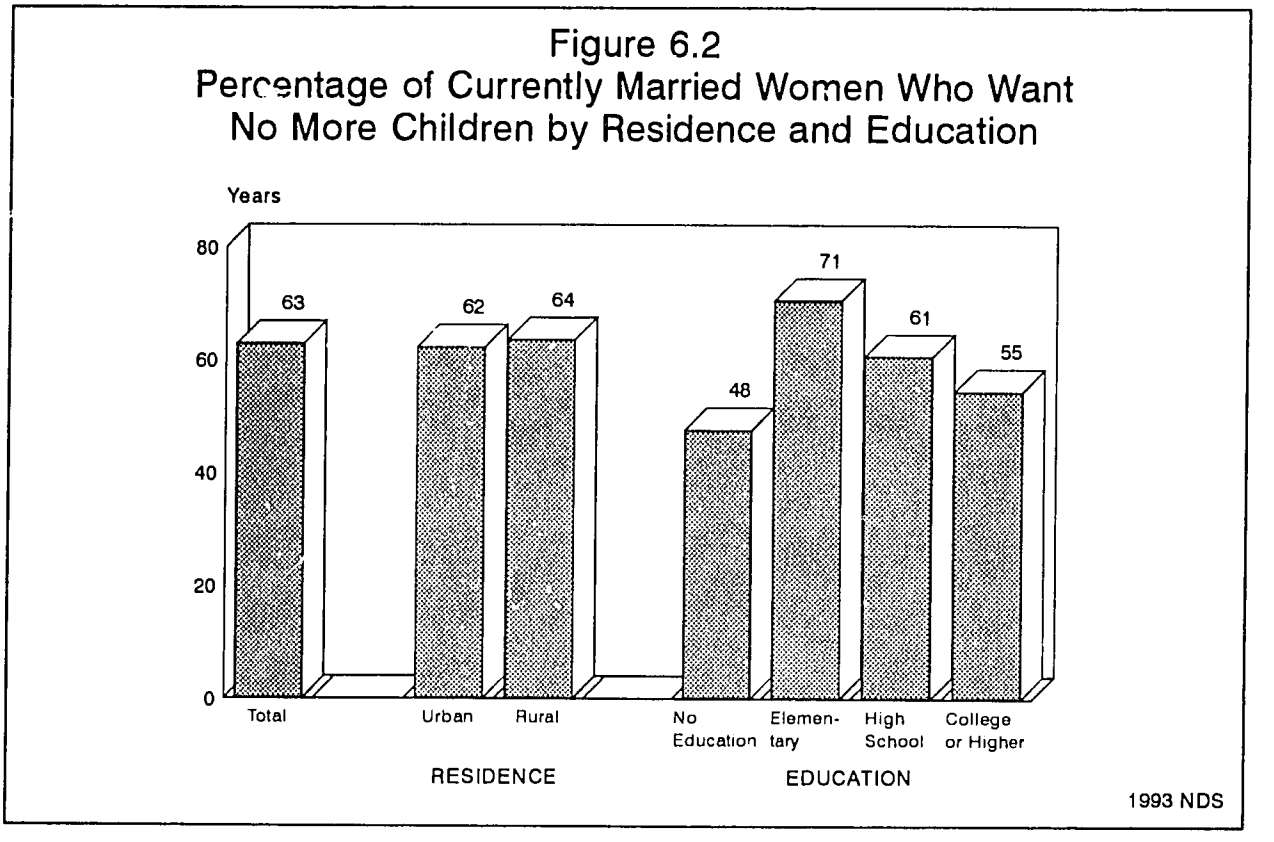
Considering the differentials by region of residence, Eastern Visayas has the largest proportion of women who wanted no more children (71 percent), while Central Mindanao shows the lowest percentage of 52 percent). Desire to limit childbearing among married women varies with education. In general, except for the comparatively small number of women with no education, there is an inverse relationship between educational level and the proportion of women wanting no more children. This is likely due to the concentration of more highly educated women at lower parities. At parity two and above, the expected positive relationship between education and the desire to limit childbearing is generally observed.

Table 6.3 Desire to limit (stop) childbearing

Percentage of married women who want no more children, by number of living children and selected background characteristics, Philippines 1993

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	1.0	15.7	50.8	76.3	86.6	88.7	90.1	62.2
Rural	1.6	12.5	46.2	72.6	81.2	84.1	88.2	63.5
Region								
Metro. Manila	0.0	15.8	57.5	82.9	91.9	92.9	86.7	59.9
Cordillera Admin.	*	*	(27.8)	(71.4)	(65.5)	*	*	(57.9)
Ilocos	*	8.0	42.2	70.5	74.7	83.1	84.5	58.3
Cagayan Valley	*	(4.5)	43.6	78.6	75.0	(67.3)	(84.3)	56.6
C-Luzon	(0.0)	8.1	38.1	72.4	87.8	89.0	85.8	59.8
S-Tagalog	(0.0)	14.7	52.4	79.3	90.6	96.6	93.5	67.4
Bicol	*	12.3	39.3	78.1	81.5	89.2	91.8	67.9
W-Visayas	(0.0)	13.6	51.5	74.8	92.0	88.0	94.9	67.1
C-Visayas	(0.0)	23.5	59.0	77.4	86.0	84.7	94.8	67.1
E-Visayas	*	(25.4)	42.5	80.6	89.5	(91.5)	92.7	70.5
W-Mindanao	*	15.6	38.3	45.2	67.7	72.9	79.8	52.3
N-Mindanao	*	16.0	50.0	73.6	84.4	93.6	91.0	67.2
S-Mindanao	(2.6)	13.4	55.9	76.5	84.0	79.7	87.2	63.6
C-Mindanao	*	12.3	45.0	56.3	63.4	67.1	79.7	55.1
Education								
No education	*	*	(25.0)	(40.9)	(56.2)	*	75.3	47.6
Elementary	2.2	18.3	48.8	70.8	82.4	85.3	88.7	70.6
High school	0.5	12.5	48.4	77.1	86.2	91.8	91.6	60.6
College or higher	1.5	13.1	51.0	78.8	87.8	84.9	90.9	54.5
Total	1.2	14.3	48.8	74.6	84.0	86.4	88.9	62.8

Note: Women who have been sterilized are considered to want no more children.
[1]Includes current pregnancy
* Less than 25 unweighted cases
( ) Figures in parentheses are based on 25-49 unweighted cases.



6.2 Demand for Family Planning

Unmet need is defined as the percentage of currently married women who do not use any method of family planning and do not want any more children or intend to space their next birth. Specifically, women with an unmet need for spacing include pregnant women whose pregnancy was mistimed, amenorrheic women whose last birth was mistimed, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and want to wait two or more years for their next birth.

Unmet need for limiting purposes refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and women who are not using any method of family planning but who want no more children. These indicators are used to evaluate the extent to which family planning programs are meeting the demand for services.

Table 6.4 shows the combined information on the desire for children and the intention to use contraception to explore the level of potential demand for family planning among married women. Demand for family planning is defined as the sum of contraceptive prevalence (including currently pregnant or amenorrheic women whose pregnancy or last birth was the result of a contraceptive failure) and unmet need. Overall, the total demand for family planning is 69 percent; around two thirds of that demand is for limiting births. The demand for family planning for limiting purposes peaks among women age 35-44. Total demand varies little by urban-rural residence. By region, it is highest in Eastern Visayas, Northern Mindanao and Southern Mindanao. Variation across educational groups is small except for a much lower level of demand among the small number of women with no education.

Table 6.4 Need for family planning services

Percentage of currently married women with unmet need for family planning, met need for family planning, and the total demand for family planning services, by selected background characteristics, Philippines 1993

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning[3]			Percentage of demand satis-fied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
15-19	27.1	4.4	31.5	12.5	4.7	17.2	41.6	9.5	51.1	38.4	231
20-24	28.2	7.0	35.2	20.2	11.7	31.9	51.9	18.7	70.6	50.2	1174
25-29	19.7	12.6	32.3	15.7	23.5	39.1	37.8	36.7	74.5	56.7	1763
30-34	12.2	15.6	27.9	9.9	35.9	45.8	24.5	52.4	76.9	63.7	1838
35-39	6.4	17.1	23.6	3.9	44.3	48.2	11.4	62.3	73.8	68.1	1652
40-44	2.6	19.5	22.2	1.3	41.8	43.1	4.0	62.2	66.2	66.5	1358
45-49	0.5	8.9	9.5	0.3	26.9	27.2	0.9	35.9	36.8	74.2	942
Residence											
Urban	11.4	12.1	23.5	9.3	33.6	43.0	22.4	46.3	68.7	65.8	4638
Rural	13.6	15.6	29.1	8.7	28.1	36.8	23.9	44.4	68.3	57.4	4323
Region											
Metro. Manila	12.1	12.2	24.3	9.0	32.9	41.9	23.1	45.7	68.7	64.6	1272
Cordillera Admin.	15.2	12.1	27.2	9.0	29.7	38.6	25.5	41.7	67.2	59.5	148
Ilocos	14.2	14.4	28.5	9.9	28.9	38.8	26.8	44.6	71.5	60.0	503
Cagayan Valley	12.7	11.6	24.3	12.0	29.0	41.1	25.7	40.9	66.6	63.6	340
C-Luzon	12.4	11.1	23.4	10.4	33.4	43.8	24.4	44.8	69.2	66.2	977
S-Tagalog	9.4	15.9	25.3	6.7	28.5	35.2	17.9	44.8	62.7	59.6	1218
Bicol	12.5	19.6	32.1	8.9	27.4	36.4	23.0	48.5	71.5	55.2	553
W-Visayas	13.4	13.7	27.1	8.4	31.3	39.7	22.7	45.9	68.6	60.4	706
C-Visayas	10.4	11.4	21.8	9.3	36.8	46.1	22.1	48.8	70.9	69.2	701
E-Visayas	13.2	23.4	36.5	7.2	28.7	35.9	22.0	53.3	75.2	51.5	403
W-Mindanao	18.3	13.2	31.5	7.9	20.5	28.5	26.9	34.0	60.9	48.3	485
N-Mindanao	12.6	11.2	23.8	11.2	38.1	49.3	26.5	49.8	76.2	68.8	506
S-Mindanao	12.2	12.1	24.3	10.2	35.7	45.9	23.9	48.3	72.2	66.4	677
C-Mindanao	13.1	14.2	27.2	8.4	24.0	32.5	22.8	38.5	61.3	55.6	471
Education											
No education	18.4	15.2	33.6	1.4	9.2	10.6	20.5	24.4	44.9	25.2	234
Elementary	11.6	18.1	29.8	5.6	28.8	34.5	18.5	47.7	66.3	55.1	3564
High school	13.5	12.1	25.6	10.9	32.9	43.8	26.4	45.5	71.9	64.5	3072
College or higher	11.5	8.8	20.3	13.0	34.2	47.1	26.6	43.5	70.1	71.1	2085
Total	12.4	13.8	26.2	9.0	31.0	40.0	23.1	45.4	68.5	61.8	8951

[1]Unmet need for *spacing* includes pregnant women whose pregnancy was mistimed, amenorrheic women whose last birth was mistimed, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and say they want to wait 2 or more years for their next birth. Also included in unmet need for spacing are women who are unsure whether they want another child or who want another child but are unsure when to have the birth. Unmet need for *limiting* refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and who want no more children.

[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.

[3]Pregnant and amenorrheic women whose pregnancy was the result of a contraceptive failure are not included in the category of unmet need, but are included in total demand for contraception.

Since only two thirds of the total demand for family planning is satisfied, there is a need for the Family Planning Program to intensify efforts to address unmet need and the backlog in the demand for family planning services. Unsatisfied demand or unmet need is 26 percent: 12 percent for spacing births and 14 percent for limiting childbearing. Total unmet need decreases with age. It is higher among rural women, among women who have no education or elementary education, and among women in Bicol, Eastern Visayas, and Western Mindanao than among other women.

6.3 Ideal Number of Children

This section focuses on the respondent's ideal number of children, implicitly taking into account the number of children she already has. In ascertaining the total ideal number of children, the respondent is required to perform the more difficult task of considering abstractly and independent of her actual family size, the number of children she would choose if she could start again. As shown in Table 6.5, the ideal number of children is 3.2 among all women and 3.5 among all married women, regardless of actual number of surviving children. Almost two thirds of the women in the Philippines who express a numeric preference would like to have 3 or less children, while more than one third expressed more than three as their ideal number of children. It is interesting to note that 12 percent of women want to have 5 or more children, while more than one quarter want only two.

Table 6.5 Ideal number of children

Percent distribution of all women by ideal number of children and mean ideal number of children for all women and for currently married women, according to number of living children, Philippines 1993

Ideal number of children	Number of living children[1]							Total
	None	1	2	3	4	5	6+	
0	1.0	0.2	0.0	0.0	0.0	0.2	0.1	0.5
1	3.1	8.7	2.3	1.1	0.8	0.9	0.9	2.7
2	37.8	39.3	42.8	10.8	13.2	8.9	6.8	27.8
3	35.7	35.1	30.5	58.7	16.3	28.3	23.3	34.1
4	16.1	12.6	18.9	20.3	56.9	17.5	26.0	21.5
5	2.8	2.0	2.6	5.1	7.2	32.7	11.2	6.3
6+	1.4	1.4	2.4	3.3	4.9	10.1	28.5	5.5
Non-numeric response	2.0	0.5	0.4	0.7	0.8	1.5	3.2	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	5864	1489	1888	1801	1385	1007	1594	15029
All women, mean ideal	2.8	2.6	2.9	3.3	3.8	4.1	4.6	3.2
All women	5745	1481	1881	1789	1373	992	1543	14805
Currently married women, mean ideal	2.9	2.7	2.9	3.3	3.8	4.1	4.6	3.5
Currently married women	380	1272	1766	1717	1302	953	1470	8861

Note: The means exclude women who gave non-numeric responses.
[1]Includes current pregnancy

There is an indication of a correlation between actual and ideal number of children. Women who want larger families tend to achieve larger families. It is also possible that women with larger families have larger ideal sizes because of attitudes that they acquired 20 or 30 years ago. For example, the mean ideal number of children of women with one living child is 2.6, while women who have 6 or more children expressed an ideal number of 4.6. Women may adjust upwards their ideal size of family as the actual number of children increases. Preference for a three-child family is expressed by 59 percent of women with three living children, and about 57 percent of women with four children expressed their preference for 4.0 as their ideal number.

Despite the likelihood that some rationalization occurs, it is common to find that respondents state ideal sizes lower than their actual number of living children. This can be taken as an indicator of surplus or unwanted fertility. At four and higher number of living children, the proportion of women stating ideal family size smaller than their actual become sizable. In fact, among women with five or more children, more than 50 percent say that if they were to start again they want fewer children.

Presented in Table 6.6 is the ideal number of children by age and by background characteristics of all women. The table shows that younger and better educated women are more likely to have lower long-term fertility goals. There is only a small difference in the ideal number of children among women in the rural and urban areas. Women in Central Mindanao desired more than four children compared to less than three for women in Metropolitan Manila, while the ideal numbers for other regions were all between 3 and 4 children.

Table 6.6 Mean ideal number of children by background characteristics

Mean ideal number of children for all women, by age and selected background characteristics, Philippines 1993

Background characteristic	Age of woman							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Residence								
Urban	2.7	2.8	3.0	3.1	3.4	3.6	3.8	3.1
Rural	2.9	3.0	3.2	3.6	3.7	4.0	4.1	3.4
Region								
Metro. Manila	2.7	2.8	2.8	2.9	3.2	3.4	3.5	2.9
Cordillera Admin.	(3.2)	(3.3)	(3.5)	(4.1)	(4.4)	*	*	3.8
Ilocos	3.1	2.9	3.0	3.6	3.8	3.7	4.3	3.4
Cagayan Valley	2.6	2.9	3.1	3.3	3.7	4.0	3.9	3.2
C-Luzon	2.9	3.1	3.3	3.4	3.8	4.1	4.1	3.4
S-Tagalog	2.7	2.8	3.1	3.1	3.6	3.6	3.8	3.1
Bicol	3.0	2.9	3.2	3.5	3.5	3.7	3.8	3.3
W-Visayas	2.8	2.8	3.1	3.3	3.4	3.7	3.7	3.2
C-Visayas	2.6	2.8	2.8	3.1	3.3	3.8	3.7	3.1
E-Visayas	2.6	2.8	3.1	3.3	3.3	3.7	(3.8)	3.1
W-Mindanao	2.9	3.0	3.4	4.0	4.1	4.6	4.8	3.7
N-Mindanao	2.6	2.8	3.1	3.2	3.5	3.7	(3.7)	3.1
S-Mindanao	2.7	2.8	3.0	3.2	3.4	3.6	4.0	3.1
C-Mindanao	3.4	3.7	4.0	4.5	4.6	4.7	5.3	4.2
Education								
No education	(3.8)	(3.7)	(4.5)	(4.6)	5.2	(5.1)	(5.3)	4.6
Elementary	2.8	3.1	3.3	3.6	3.8	4.0	4.1	3.6
High school	2.8	2.8	3.0	3.3	3.4	3.7	3.8	3.0
College or higher	2.8	2.9	2.9	3.0	3.2	3.3	3.5	3.0
Total	2.8	2.9	3.1	3.3	3.6	3.8	4.0	3.2

* Less than 25 unweighted cases
( ) Figures in parentheses are based on 25-49 unweighted cases.

6.4 Unplanned and Unwanted Fertility

Women were asked questions for each child born in the preceding five years and any current pregnancy, to determine whether the particular pregnancy was planned, unplanned but wanted at a later time or not wanted at all. Answers to these questions form a powerful indicator of the degree to which couples successfully control child bearing. In addition, the data can be used to gauge the effect on period fertility of the prevention of unwanted births.

Table 6.7 shows the distribution of births in the five years preceding the survey by fertility planning status, according to birth order and mothers' age at birth. Fifty six percent of all births were wanted at the time of conception, 28 percent were wanted but at a later time and 16 percent were unwanted. The proportion of births which were wanted at the time of conception is highest among the first birth (79 percent) and among mothers under age 20 at the time of birth (67 percent). Mistimed pregnancies are highest for second and third child. The proportion of unwanted births increases as mothers get older and have had larger number of children; it is highest among the fourth births and above (30 percent) and among mothers age 40-44 years (48.3 percent).

The wanted fertility rate is defined as the level of fertility that theoretically would result if all unwanted births are prevented. The total fertility rate provides another indicator of fertility aspirations and may be interpreted as the number of wanted births that a woman would bear by age 50.

Table 6.7 Fertility planning status

Percent distribution of births in the five years preceding the survey by fertility planning status, according to birth order and mother's age, Philippines 1993

Birth order and mother's age	Planning status of birth				Total	Number of births
	Wanted then	Wanted later	Wanted no more	Missing		
Birth order						
1	79.1	18.4	2.3	0.3	100.0	2190
2	58.7	35.9	5.1	0.3	100.0	1961
3	54.9	32.7	11.9	0.6	100.0	1605
4+	41.9	27.6	30.0	0.5	100.0	4061
Age at birth						
<20	67.3	29.5	3.3	0.0	100.0	783
20-24	62.6	31.0	5.8	0.6	100.0	2651
25-29	57.0	30.2	12.4	0.4	100.0	2758
30-34	50.8	27.2	21.6	0.4	100.0	1985
35-39	45.1	21.4	32.8	0.6	100.0	1188
40-44	34.9	16.[illegible]	48.3	0.2	100.0	420
45-49	(39.8)	(12.7)	(45.1)	(2.3)	100.0	33
Total	55.7	28.0	15.9	0.4	100.0	9817

Note: Birth order includes current pregnancy.
( ) Figures in parentheses are based on 25-49 unweighted cases.

Table 6.8 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by selected background characteristics, Philippines 1993

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	2.6	3.5
Rural	3.3	4.8
Region		
Metro. Manila	2.2	2.8
Cordillera Admin.	3.9	5.0
Ilocos	3.2	4.3
Cagayan Valley	3.2	4.2
C-Luzon	3.1	3.9
S-Tagalog	2.7	3.9
Bicol	3.5	5.9
W-Visayas	2.8	4.2
C-Visayas	2.9	4.4
E-Visayas	3.1	4.9
W-Mindanao	3.4	4.5
N-Mindanao	2.9	4.8
S-Mindanao	2.9	4.2
C-Mindanao	3.7	4.8
Education		
No education	4.0	4.9
Elementary	3.7	5.5
High school	2.9	3.9
College or higher	2.4	2.8
Total	2.9	4.1

Note: Rates are based on births to women 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 3.2.

Table 6.8 shows the total wanted fertility rates and total fertility rates for the three years preceding the survey by place of residence and level of education. The comparison makes clear that women will bear 1.2 children more than they desire if they continue to reproduce at current levels over time. This difference is an indication of the number of births that a woman needs to avoid over her reproductive life in order to attain her fertility aspiration. The table also shows that regardless of the place of residence, region of residence, and level of education, the wanted number of births is lower than the actual number of births. It is interesting to note, however, that women in rural areas have 1.5 children more than their desired fertility, while among urban women the difference is less than one child, indicating that urban women are more successful in achieving their fertility goal.

Considering the gap between wanted and actual fertility among the regions, Bicol has the highest difference of 2.4 births while Metropolitan Manila has the lowest at 0.6 births. Metropolitan Manila has the lowest wanted fertility of 2.2 births as well as the gap between wanted and actual fertility. College-educated women seem to be most successful in achieving their fertility goal, with less than one or less child gap between desired and actual fertility. On the other hand, women with elementary education have the largest gap of 1.8 children.

CHAPTER 7

INFANT AND CHILD MORTALITY

7.1 Background

Reported in this chapter is information on levels, trends, and differentials in neonatal, postneonatal, infant and child mortality. This information is relevant both to the demographic assessment of the population and health policies and programs. Estimates of infant and child mortality may be used as inputs 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 agencies providing health services by identifying sectors of the population which are at high mortality risk.

In this report, infant and child mortality are measured using the following rates:

- Neonatal mortality (NN): the probability of dying within the first month of life;
- Postneonatal mortality (PNN): the probability of dying after the first month of life but before age one year;
- Infant mortality (${}_1q_0$): the probability of dying between birth and age one year;
- Child mortality (${}_4q_1$): the probability of dying between exact age one and age five;
- Under-five mortality (${}_5q_0$): the probability of dying between birth and exact age five.

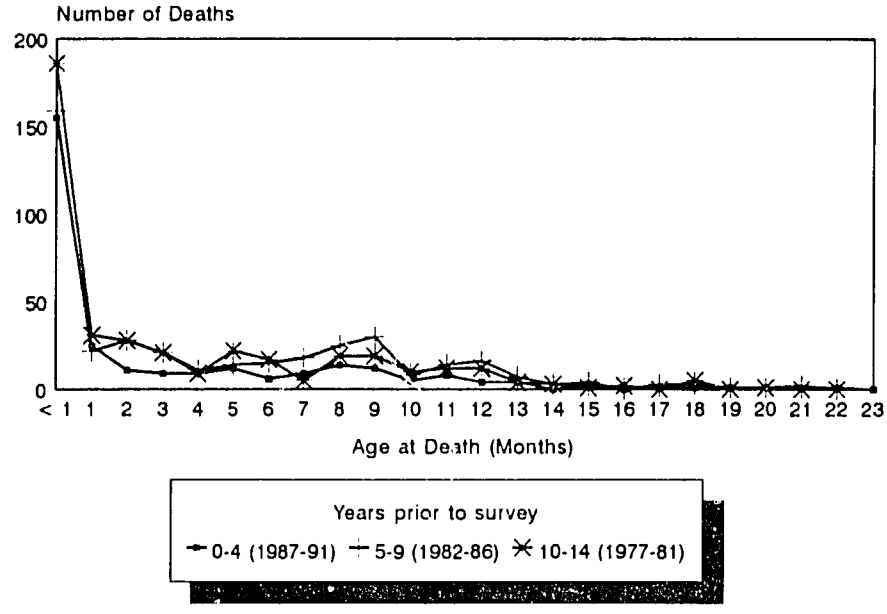
The mortality rates presented in this chapter are computed from information derived from the questions asked in the pregnancy history section of the 1993 National Demographic Survey (NDS) individual woman's questionnaire. Data collection proceeded as follows: first, each woman was asked about the number of sons and daughters living with her in the same household as well as those who are living elsewhere, and the number who had died. At this point, the respondent was also asked about the number of pregnancies which did not result in a live birth. Next, the respondent was asked to give information on each of the pregnancies she had experienced. For each pregnancy, she was asked whether the pregnancy ended in a live birth or not. The name, sex, date of birth, age at last birthday, whether the birth was an outcome of a single or multiple births and survival status were recorded for all live births. If the child had died, the woman was asked the age at death. If the child is still living, information about his/her age at last birthday and whether the child lived with his/her mother was obtained. For pregnancies that did not result in a live birth, the respondent was asked if she or someone else did something to end the pregnancy, and how old the pregnancy was at the time of loss.

The information on births (still living and now dead) is used to directly estimate mortality rates. It should be noted here that the reliability of these mortality estimates depends upon full recall about children who have died, the absence of significant differential of birth dates between surviving and dead children, and accurate reporting of ages at death. It should be said, however, that birth history data provide information that make detailed analyses of mortality possible.

A closer look at the pattern of reporting of ages at death (Table C.6 in Appendix C and Figure 7.1) reveals some evidence of heaping of deaths. For the five years preceding the survey, a significantly high percentage of deaths was reported to occur to infants age 12 months, and to a lesser extent age 8 and 9

months. However, the extent of heaping is much less than that observed in the DHS data for Indonesia and Nigeria (Central Bureau of Statistics, 1992; Federal Office of Statistics, 1992). With regard to the issues of recall and misplacement of birth dates, the 1993 NDS data are found to contain slight biases (see Appendix C). While reporting of age at death appear to be reasonable, no definitive conclusions could be made about the birth history data as a whole.

Figure 7.1
Deaths among Children under Two Years
for Three 5-year Periods Preceding the Survey



1993 NDS

A task force on child and maternal mortality rates created by the National Statistical Coordination Board to review and assess the latest mortality estimates obtained from surveys and to recommend the most reasonable mortality levels is currently undertaking a thorough assessment of the results of the 1993 NDS. Therefore, the observed levels and changes in mortality in this report should be considered preliminary.

In order to analyze trends in mortality, direct estimates based on the 1983 and 1988 NDS, the 1986 Contraceptive Prevalence Survey (CPS) and the Republic of the Philippines Fertility Survey (RPFS) are also presented in this chapter as well as estimates from the Vital Registration System (VRS).

Data from the maternity histories collected in previous surveys cited earlier provided direct estimates of infant mortality at various periods preceding each survey. The estimates from the vital registration system were calculated using the ratio of registered infant deaths to births expressed in terms of 1,000 live births. Comparing the point estimates of infant mortality from various sources during the same periods provides some insights as to the levels and trends on infant mortality.

7.2 Levels and Trends in Infant and Child Mortality

Table 7.1 presents various mortality estimates for children under five based on the 1993 NDS. Infant mortality during the five-year period prior to the survey was 34 deaths per 1,000 live births, while the

neonatal mortality rate was 18 deaths per 1,000 live births. The probability of dying between birth and the fifth birthday was 54 per 1,000 live births. The data indicate that the under-five mortality rate declined from 79 in the period 10 to 14 years prior to the survey to 54 in the most recent five-year period. While the data in the various measures of mortality showed a declining trend, a slightly saw-tooth pattern is observed with child mortality.

Table 7.1 Infant and child mortality

Infant and child mortality rates by five-year periods preceding the survey, Philippines 1993

Years preceding survey	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4	17.7	15.9	33.6	21.3	54.2
5-9	18.6	24.9	43.5	31.5	73.6
10-14	24.9	26.4	51.3	28.8	78.6

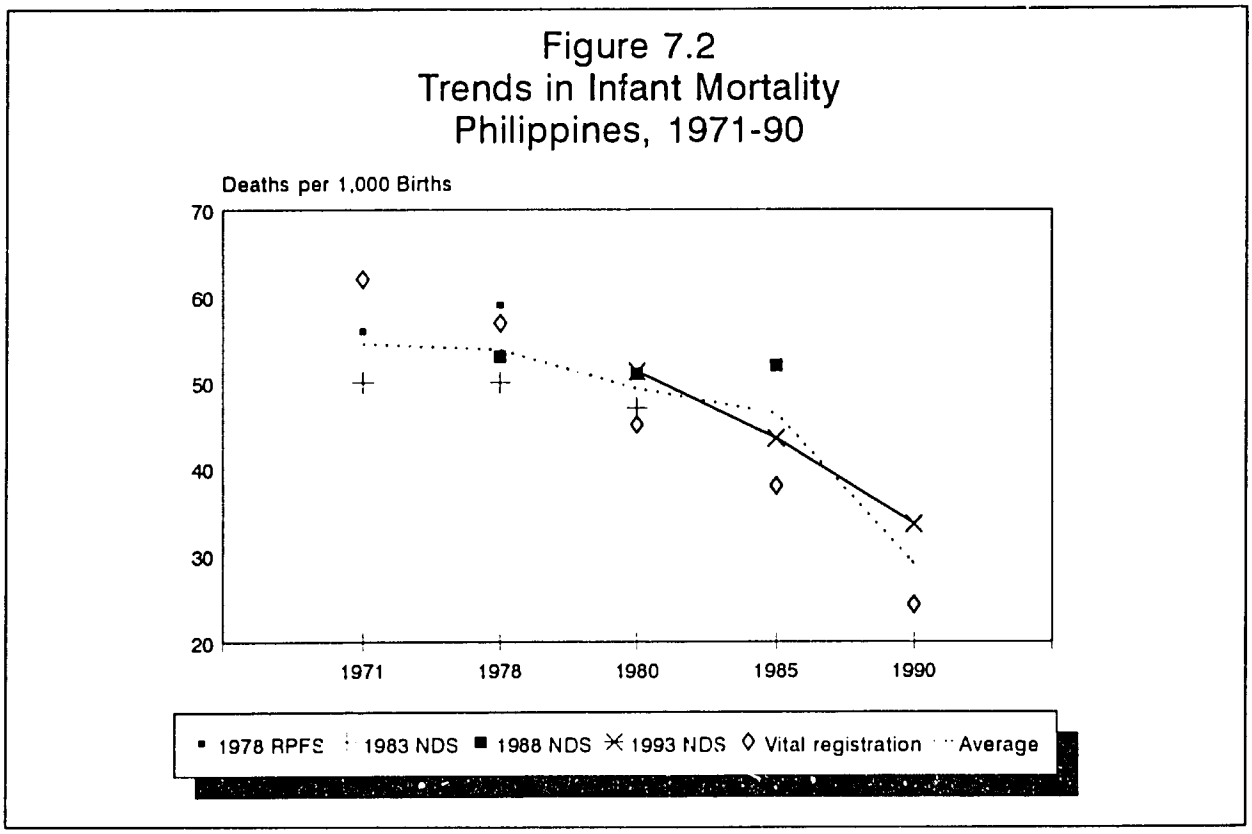
Table 7.2 and Figure 7.2 show direct measures of infant mortality from various sources. During the 20-year period, infant mortality continued to decline though at varying paces. Prior to 1980, the IMR based on the VRS was generally higher than those directly measured from the four national demographic surveys, with the exception of the 1978 RPFS which turned out to be higher than the VRS in 1976. The 1978 RPFS, the 1983 and 1988 NDS rounds and the 1986 CPS yielded more or less comparable stable estimates of IMR for the periods 1971 to 1985. The pattern observed with the vital registration as a source is reversed for the periods since 1980 in which the rates are much lower than those estimated from the national surveys. Point estimates for 1980 appear to be similar from all sources. There were, however, wide divergence for the preceding and succeeding periods. To illustrate, a wide difference is noticeable from the results of the 1988 NDS and the 1993 NDS. The trend in the 1993 follows the pattern of the VRS showing a dramatic decline in the estimates. These varying pattern of changes from various sources imply that a more detailed assessment of the estimates of child mortality is necessary before arriving at a definitive conclusion.

Table 7.2 Trend in infant mortality rate

Infant mortality rates from various sources, Philippines 1970-90

Approximate midpoint	1993 NDS	1988 NDS	1983 NDS	1978 RPFS	Vital Registration System
1990	33.6	-	-	-	24.3
1985	43.5	52.0			38.0
1980	51.3	51.0	47.0	-	45.1
1975	-	53.0	50.0	59.0	56.9
1970	-	-	50.0	56.0	62.0

Source: Final Report of the Task Force on Infant Mortality Rate, NCSB, December 1992, and 1993 NDS.



7.3 Infant and Child Mortality Differentials by Socioeconomic Characteristics

Socioeconomic factors are important determinants of the levels of infant and child mortality. In the NDS, several socioeconomic factors have been collected, such as, place of residence and education of parents. Health beliefs and practices as well as accessibility or availability of health care services have also been collected. This section deals with the relationship between the childhood mortality measures and some of these variables.

Table 7.3 shows mortality measures by selected socioeconomic background characteristics of the mother for the ten-year period preceding the survey. In general, mortality in the urban areas is lower than in the rural areas.

Table 7.3 indicates that mortality rates (except in the neonatal period) for children of mothers with no education or elementary education are much higher than those with a high school or especially college education (see Figure 7.3). This supports the findings of previous studies which showed that children born to better educated mothers have higher probability of surviving their early years. In reviewing Philippines studies in this area, using various statistical techniques and mortality indicators, (Costello, n.d.) concluded that there is an inverse relationship between maternal education and infant mortality.

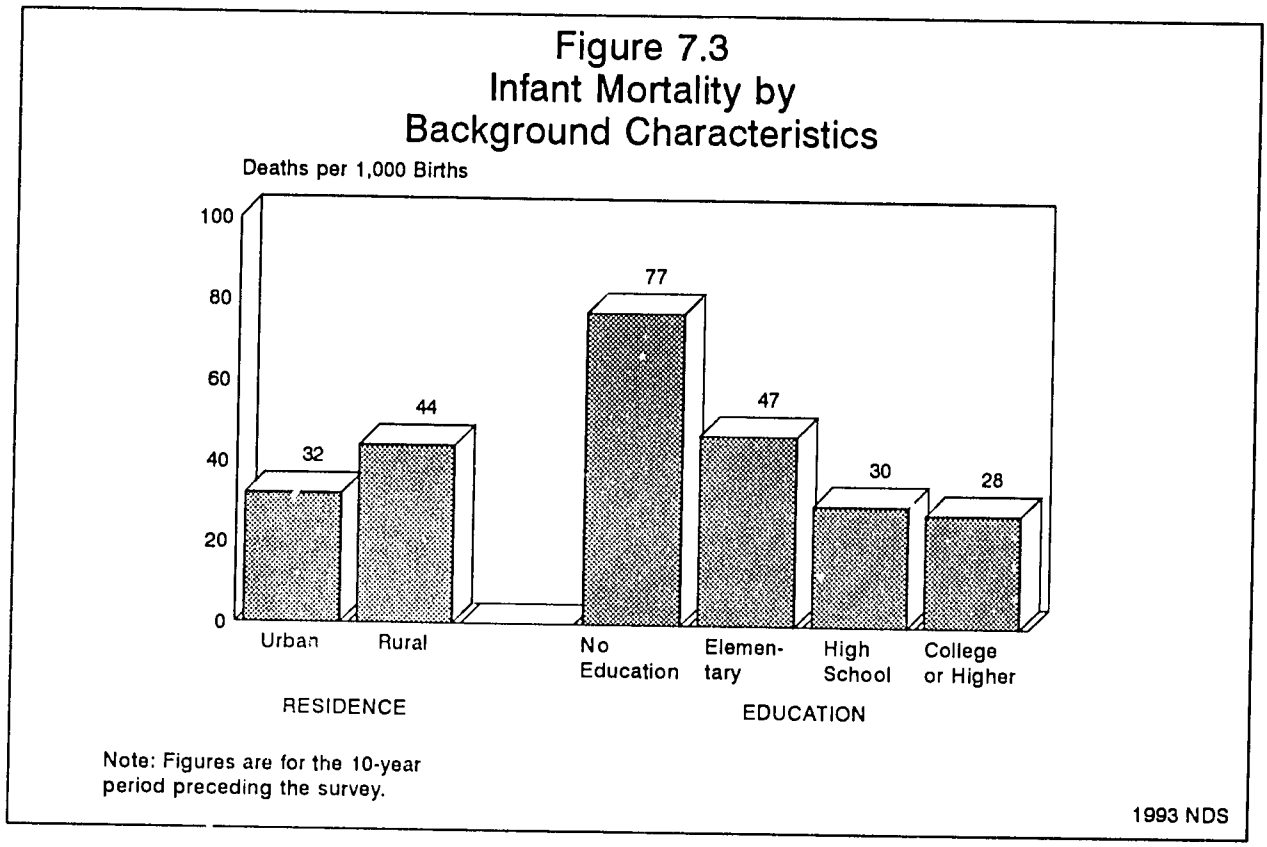
Meanwhile, mortality among infants/children whose mother had no antenatal care or medical assistance at the time of delivery is much higher than for those who had either or both antenatal care and medical assistance. This observation reinforces the findings of local studies which showed that accessibility and availability of health services/facilities can be linked empirically to reduced rates of infant mortality. For instance, it was found out that access to midwife, hospital, primary health care center or pharmacy is linked inversely with neonatal mortality rates, and that access to a health worker and hospital has a similar impact on postneonatal mortality rates (Engracia, 1983). Similarly, it was observed that access to modern medical practitioners can be linked to lower infant mortality rates (Madigan, 1985).

Table 7.3 Infant and child mortality by socioeconomic characteristics

Infant and child mortality rates for the ten-year period preceding the survey, by selected background characteristics, Philippines 1993

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Residence					
Urban	15.8	16.1	31.9	21.5	52.7
Rural	20.3	24.0	44.3	30.5	73.4
Region					
Metro. Manila	15.0	12.1	27.1	20.5	47.1
Cordillera Admin.	11.0	12.0	23.0	26.1	48.5
Ilocos	21.6	24.9	46.5	20.7	66.2
Cagayan Valley	20.5	21.3	41.8	19.5	60.5
C-Luzon	13.9	8.3	22.2	13.7	35.5
S-Tagalog	19.1	14.6	33.7	24.4	57.3
Bicol	17.4	22.6	40.0	35.5	74.0
W-Visayas	22.9	22.6	45.5	20.9	65.5
C-Visayas	22.1	11.8	33.8	21.4	54.5
E-Visayas	27.7	33.7	61.4	38.4	97.5
W-Mindanao	13.8	38.0	51.8	34.8	84.8
N-Mindanao	14.5	22.6	37.1	26.4	62.5
S-Mindanao	16.7	26.4	43.1	38.0	79.4
C-Mindanao	17.9	31.2	49.1	39.3	86.5
Education					
No education	18.1	58.6	76.7	81.4	151.8
Elementary	19.9	26.7	46.6	35.5	80.4
High school	15.9	13.7	29.6	16.9	46.0
College or higher	18.0	9.6	27.6	8.3	35.7
Medical maternity care					
No antenatal/delivery care	26.8	35.8	62.6	*	*
Either antenatal or delivery	16.0	16.8	32.8	(17.9)	(50.2)
Both antenatal & delivery	15.9	8.5	24.3	(6.0)	(30.2)
Total	18.2	20.2	38.4	26.2	63.5

Note: Month of interview excluded from analysis.
( ) Based on 250-499 cases
* Less than 250 cases



7.4 Infant and Child Mortality Differentials by Demographic and Health-related Characteristics

Table 7.4 shows mortality by selected demographic characteristics, which have been shown to influence the survival chances of children. In general, mortality is higher for males than for females. One of the variables known to have an effect on infant mortality is the mother's age at the time of delivery. The level of infant and under-five mortality is higher among children whose mothers were less than age 20 at the time of delivery, decreases among mothers age 20-29 and increases among mothers age 40-49. The pattern is similar for child mortality which is extremely high among children whose mothers are less than 20 at the time of delivery. However, neither neonatal or postneonatal mortality shows a definite pattern of variation with mother's age.

Mortality according to the length of the previous birth interval indicate the usual pattern of high mortality among children born less than two years after the previous birth. This is true for all mortality rates. The rates decline as the interval between birth increases except for neonatal mortality.

Children who were judged by their mothers to be "average or larger" at birth generally have lower mortality levels than children judged to be "very small" or "very small" at birth. Before reaching age 1, the mortality risks for very small infants is four times higher than those whose birth size are average or larger. The same is true for children under-five; mortality rates are 4 times higher for very small children than for children whose birth size are average or larger.

Table 7.4 Infant and child mortality by demographic characteristics

Infant and child mortality rates for the ten-year period preceding the survey, by selected demographic characteristics, Philippines 1993

Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Sex of child					
Male	19.8	23.7	43.5	27.6	69.9
Female	16.4	16.5	32.9	24.7	56.8
Age of mother at birth					
< 20	18.9	22.7	41.6	40.5	80.4
20-29	16.1	18.0	34.1	24.9	58.1
30-39	20.4	23.6	44.0	23.3	66.3
40-49	(30.2)	18.8	49.0	*	*
Birth order					
1	18.1	10.0	28.1	17.9	45.5
2-3	13.9	17.3	31.2	24.3	54.8
4-6	21.5	26.3	47.8	29.6	75.9
7+	23.0	33.0	55.9	39.8	93.5
Previous birth interval					
< 2 yrs	20.6	33.5	54.0	38.3	90.3
2-3 yrs	15.0	18.0	33.0	25.0	57.2
4 yrs +	19.3	13.9	33.2	15.1	47.8
Size at birth[1]					
Very small	(76.7)	(23.1)	(99.8)	*	*
Small	28.4	23.9	52.3	*	*
Average or larger	11.6	13.1	24.7	13.8	38.1

[1]Rates for the five-year period preceding the survey
* Less than 250 cases
( ) Figures in parentheses are based on less than 500 cases (exposed persons).

7.5 High-Risk Fertility Behavior

The distribution of women and children according to categories of increased risk of infant and child mortality as a result of fertility behavior of the mother is shown in Table 7.5. Children at elevated risk include those born to mothers who are too young or too old when they give birth, children of too high parity, and children born after a too short interval. The table also presents the relative risk of mortality for children born in the last five years by comparing the proportion dead in each high-risk category with the proportion dead among children who are not in any high risk category. This information is useful for designing and monitoring programs both to avoid high-risk behavior and to cope with the elevated risks.

Of the total number of children born in the five years preceding the survey, 3 in 5 (62 percent) are in one or more elevated risk categories. A high birth order and short birth interval were the most common high-risk factors. More than 40 percent of all births at elevated risk also had been subject to multiple risk characteristics. Under the single risk category, 2 percent were born to mothers younger than 18, 2 percent were born to mothers older than 34 years old, 14 percent were born after an interval of less than 24 months and 19 percent of births were of birth orders greater than 3. Meanwhile, under the multiple high risk category, 11 percent were born to mothers who are over 34 years of age and with birth order greater than 3, and 11 percent were born after an interval of less than 24 months and with birth order greater than 3.

Table 7.5 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey who are at elevated risk of mortality, and the percent distribution of currently married women at risk of conceiving a child with an elevated risk of mortality, by category of increased risk, Philippines 1993

Risk category	Births in last 5 years preceding the survey		Percentage of currently married women[a]
	Percentage of births	Risk ratio	
Not in any risk category	37.6	1.00	31.1[b]
Single risk categories			
Mother's age < 18	2.3	1.67	0.2
Mother's age > 34	1.7	1.17	7.5
Birth interval < 24	13.5	1.32	9.3
Birth order > 3	19.0	1.50	12.1
Subtotal	36.5	1.43	29.1
Multiple risk categories			
Age <18 & birth interval <24[c]	0.2	*	0.1
Age >34 & birth interval<24	0.4	(1.05)	0.5
Age >34 & birth order>3	11.2	2.15	26.4
Age >34 & birth interval <24 & birth order >3	3.2	3.47	4.1
Birth interval <24 & birth order >3	10.9	2.52	8.8
Subtotal	25.9	2.44	39.8
In any risk category	62.4	1.85	68.9
Total	100.0	NA	100.0
Number	8803	NA	8961

Note: Risk ratio is the ratio of the proportion dead of births in a specific risk category to the proportion dead of births not in any risk category.
NA = Not applicable
[a]Women were assigned to risk categories according to the status they would have at the birth of a child, if the child were conceived at the time of the survey: age less than 17 years and 3 months, age older than 34 years and 2 months, latest birth less than 15 months ago, and latest birth of order 3 or higher.
[b]Includes sterilized women
[c]Includes the combined categories age <18 and birth order >3.
* Less than 100 cases
( ) Figures in parentheses are risk ratios based on fewer than 200 cases.

The risk ratios shown in the second column of Table 7.5 illustrate the relationship between the risk factors and mortality levels. The risk ratios for children in the single risk categories are generally lower than risk ratios for children in multiple high-risk categories. Those who fall into only one elevated risk category have a risk ratio of 1.43, while children who are in multiple high risk category have a risk ratio of 2.44. The highest risk ratios for those in single high risk categories are observed for children with mothers who are less than 18 years of age (1.67). As for children who are in the elevated multiple risk, the highest ratio is observed for those with mothers who are older than 34 with birth intervals of less than 24 months and with birth orders greater than 3 (3.47). High risk ratios also are observed for those with birth orders greater than 3 combined with either mothers who are less than 24 (2.52) or those who are more than 34 (2.15) years of age.

The distribution of currently married women according to category of potential risk if they were to conceive at the time of the survey is also presented. The results indicated that 29 percent of married women have the potential for giving birth to a child in one elevated risk category, and 40 percent have a risk of having a child in multiple high risk categories.

In summary, the aforementioned findings indicate that the majority of births in the last five years are at an elevated mortality risk. Moreover, two thirds of married women had the potential for giving birth to a child at elevated risk at the time of the survey. It clearly implies that significant reduction in infant and child mortality can be achieved by changing the patterns of childbearing.

CHAPTER 8

MATERNAL AND CHILD HEALTH

Presented in this chapter are three areas of importance to maternal and child health: maternal care and delivery assistance, vaccinations, and common childhood diseases and treatment. Combined with information on neonatal and infant mortality, this information is useful in identifying subgroups of women who are in need of maternity care and in planning for improvements of services.

8.1 Antenatal Care

In the 1993 National Demographic Survey (NDS), the respondents were asked whether they had seen anyone for antenatal care during the pregnancy preceding each live birth in the preceding five years. The interviewer was instructed to record all responses if more than one source of antenatal care was mentioned for the same pregnancy. However, for the purposes of this tabulation, only the provider with the highest qualifications is considered when there is more than one response. Table 8.1 shows that the overall level of antenatal care among Filipino women is relatively high. Nine of 10 children born in the five years preceding the survey were to mothers who received antenatal care; mothers of almost half of these children saw a trained nurse or midwife, 4 in 10 saw a physician, and the rest received care from a birth attendant.

Births to mothers age 20-34, lower order births and births to urban mothers, better-educated mothers, and mothers living in Central Luzon and Metropolitan Manila were more likely to receive medical attention during pregnancy than were other births in the five years prior to the survey. While more than half of children in the urban areas are born to mothers who received antenatal care from a physician, in the rural areas nurses and midwives are more likely to be the antenatal care provider. The disparity in antenatal service provider is also present when the regions are considered. In Metropolitan Manila and Central Luzon, the most common antenatal care provider is a physician. In all other regions, mothers were most likely to consult a nurse or midwife. Birth attendants are an important source for antenatal care in Mindanao (especially West and Central Mindanao) and, to a lesser extent in Visayas. There is a very strong association between mother's level of education and type of antenatal care used. Children born to mothers who had secondary education are four times more likely to consult a physician for antenatal care compared to mothers who had no education. For mothers with higher education, the chance for using a doctor for antenatal care is even higher; almost seven times higher than the level of mothers who had no formal schooling.

The maternal care program in the Philippines recommends that every pregnant woman have at least 3 antenatal care visits during her pregnancy, 1 visit in each of the three trimesters. Information about the visits made by pregnant women is presented in Table 8.2 and Figure 8.1. The findings indicate that for the majority of the births in the five years prior to the survey, mothers made the recommended number of visits. For more than half of births, mothers made 4 or more antenatal visits, and one in three had 2 or 3 visits. The median number of visits was 4.5.

Table 8.2 also presents the distribution of births occurring in the past five years according to the timing of the first antenatal visit. For three in four births, the first antenatal visit was made in the first 5 months of gestation; in fact, the median number of months pregnant at the time of the first visit was 4.3 months. It should be noted that one in seven births had their first antenatal care in the second trimester, while a small percentage was first examined in the third trimester.

Table 8.1 Antenatal care

Percent distribution of live births in the five years preceding the survey, by source of antenatal care during pregnancy, according to selected background characteristics, Philippines 1993

Background characteristic	Antenatal care provider[1]					Number of births
	Doctor	Trained nurse/ midwife	Traditional birth attendant	No one/ Missing	Total	
Mother's age at birth						
< 20	34.5	45.9	11.9	7.7	100.0	731
20-34	39.7	44.7	8.6	7.0	100.0	6618
35+	33.6	45.1	10.2	11.1	100.0	1454
Birth order						
1	53.4	35.7	5.8	5.1	100.0	1995
2-3	42.0	44.2	7.9	6.0	100.0	3181
4-5	31.7	50.1	9.9	8.3	100.0	1857
6+	21.2	50.8	14.3	13.7	100.0	1769
Residence						
Urban	53.9	34.4	5.7	6.1	100.0	4269
Rural	23.5	54.7	12.4	9.5	100.0	4533
Region						
Metro. Manila	81.3	9.9	2.1	6.7	100.0	1086
Cordillera Admin.	32.2	55.5	3.5	8.9	100.0	173
Ilocos	33.7	52.7	4.4	9.2	100.0	489
Cagayan Valley	25.2	58.4	2.7	13.8	100.0	317
C-Luzon	56.4	37.0	2.8	3.8	100.0	905
S-Tagalog	36.7	46.9	5.5	10.9	100.0	1069
Bicol	19.7	53.4	15.3	11.6	100.0	669
W-Visayas	30.3	52.3	7.9	9.4	100.0	738
C-Visayas	36.5	51.1	9.5	2.9	100.0	722
E-Visayas	33.5	45.7	11.4	9.4	100.0	437
W-Mindanao	16.7	50.8	29.4	3.1	100.0	491
N-Mindanao	24.3	61.6	8.6	5.5	100.0	550
S-Mindanao	26.9	51.8	12.1	9.1	100.0	666
C-Mindanao	24.4	44.9	22.0	8.7	100.0	491
Mother's education						
No education	10.7	22.8	41.3	25.1	100.0	244
Elementary	19.5	54.6	14.5	11.4	100.0	3637
High school	42.7	46.5	5.1	5.7	100.0	3114
College or higher	72.0	25.4	0.8	1.8	100.0	1808
All births	38.3	44.8	9.1	7.8	100.0	8803

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

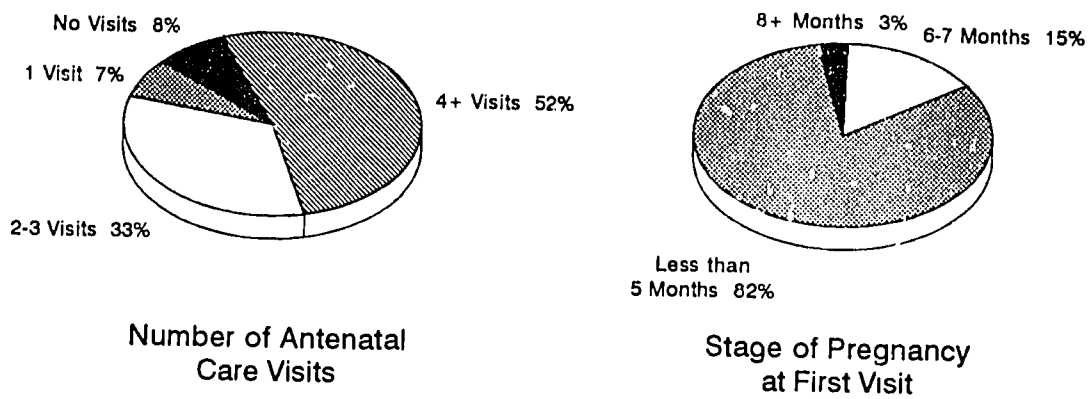
Table 8.2 Number of antenatal care visits and stage of pregnancy

Percent distribution of live births in the last 5 years by number of antenatal care (ANC) visits, and by the stage of pregnancy at the time of the first visit, Philippines 1993

Antenatal visits/ Stage of pregnancy at first visit	All births
Number of ANC visits	
0	7.7
1	6.5
2-3	32.6
4+	52.1
Don't know, missing	1.0
Total	100.0
Median no. of visits	4.5
Number of months pregnant at the time of first ANC visit	
No antenatal care	7.7
Less than 6 months	74.4
6-7 months	14.3
8+ months	2.9
Don't know, missing	0.7
Total	100.0
Median number of months pregnant at first visit	4.3
Number of live births	8803

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

Figure 8.1
Number of Antenatal Care Visits and Stage of Pregnancy at First Visit



Note: Births 1-59 months before the survey.

1993 NDS

8.2 Tetanus Immunization of Pregnant Women

In many countries, neonatal tetanus is a major cause of neonatal mortality. The maternal care program recommends that women receive at least two tetanus toxoid injections during the first pregnancy. Booster injections are given 6 months later, and in order to confer lifetime immunity, two more doses are given. Information on the number of tetanus toxoid injections received by pregnant women was collected in the 1993 NDS. For mothers with antenatal cards, information was obtained from the card. Table 8.3 shows that for 8,803 births in the five years preceding the survey, slightly more than half of their mothers

Table 8.3 Tetanus toxoid vaccination

Percent distribution of live births in the five years preceding the survey, by number of tetanus toxoid injections given to the mother during pregnancy and whether the respondent received an antenatal card, according to selected background characteristics, Philippines 1993

Background characteristic	Number of tetanus toxoid injections					Percentage given antenatal card	Number of births
	None	One dose	Two doses or more	Don't know/ Missing	Total		
Mother's age at birth							
< 20	32.9	22.0	45.1	0.0	100.0	50.3	731
20-34	34.6	22.2	42.8	0.4	100.0	53.2	6618
35+	39.0	22.1	38.1	0.8	100.0	47.6	1454
Birth order							
1	32.0	19.5	48.3	0.1	100.0	58.3	1995
2-3	33.3	23.6	42.7	0.4	100.0	54.1	3181
4-5	33.8	23.8	41.7	0.7	100.0	51.4	1857
6+	43.7	21.0	35.0	0.4	100.0	42.0	1769
Residence							
Urban	36.4	21.4	41.7	0.5	100.0	61.2	4269
Rural	34.1	22.9	42.7	0.3	100.0	43.4	4533
Region							
Metro. Manila	44.1	21.5	34.1	0.3	100.0	65.6	1086
Cordillera Admin.	23.3	38.9	37.8	0.0	100.0	61.4	173
Ilocos	38.3	25.7	35.1	0.9	100.0	61.3	489
Cagayan Valley	28.3	22.9	48.8	0.0	100.0	22.3	317
C-Luzon	36.1	19.1	44.5	0.4	100.0	60.7	905
S-Tagalog	37.0	16.0	46.6	0.4	100.0	47.9	1069
Bicol	35.8	19.4	44.1	0.7	100.0	44.8	669
W-Visayas	29.8	18.9	51.1	0.3	100.0	44.9	738
C-Visayas	30.3	31.1	38.1	0.5	100.0	53.5	722
E-Visayas	33.5	21.5	44.8	0.2	100.0	35.9	437
W-Mindanao	36.5	17.9	45.4	0.2	100.0	52.0	491
N-Mindanao	25.5	35.8	38.7	0.0	100.0	72.0	550
S-Mindanao	33.8	23.2	42.0	1.0	100.0	44.7	666
C-Mindanao	43.2	17.1	39.4	0.3	100.0	42.0	491
Mother's education							
No education	73.3	10.2	16.4	0.0	100.0	15.3	244
Elementary	39.4	21.1	39.3	0.2	100.0	41.6	3637
High school	28.3	24.8	46.5	0.4	100.0	57.8	3114
College or higher	33.6	21.6	44.1	0.8	100.0	68.0	1808
All births	35.2	22.2	42.2	0.4	100.0	52.0	8803

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

received an antenatal card during pregnancy. Women who live in Metropolitan Manila, Cordillera Administrative Region, Ilocos, Central Luzon, and Northern Mindanao are more likely to have a card. It is worth noting that Cagayan Valley is the only region not only in Luzon island, but also in the country for which the antenatal card coverage level is less than 25 percent. For women who did not receive a card, information on tetanus toxoid injections was based on the respondent's recall.

The mothers of 1 in 3 births in the five years prior to the survey did not receive a tetanus injection, for 1 in 5 births the mothers received one dose, and for 2 in 5 births the mothers received two or more doses. Tetanus toxoid coverage varies only slightly by mother's age, birth order and urban-rural residence. By contrast, coverage differs significantly according to region and women's education. Coverage levels are lower in Metropolitan Manila and Central Mindanao than in other regions. Less educated mothers are much less likely to have had a tetanus injection than other mothers.

8.3 Delivery Assistance

Among births in the past five years, 28 percent were born in a health facility while the remaining 72 percent were delivered in the respondent's home or someone else's home. Table 8.4 demonstrates that there does not appear to be a strong relationship between mother's age and the children's place of delivery. Women who delivered in a health facility are more likely to have lower birth order babies, live in urban areas, have higher than college or higher education, and made 4 or more antenatal visits. It is interesting to note that the vast majority of births of order six or higher (88 percent) were delivered at home. This implies that a large proportion of high risk births did not receive medical attention during delivery. Delivery at a health facility most likely occurred in Metropolitan Manila (68 percent), and least likely in Cagayan Valley, Bicol, and Western Mindanao (11 percent).

Presented in Table 8.5 is information on assistance at delivery. As with antenatal care, the interviewer was instructed to record all responses if more than one person assisted during delivery. However, for purposes of this analysis, only the most highly qualified attendant is considered if there is more than one response. Virtually all of the births in the past five years were delivered with some assistance; more than half by medical professionals. Medical assistance at delivery was more common among women with lower order births, those who live in urban areas, who have high school or higher educational level, and who had 4 or more antenatal visits. In Metropolitan Manila, almost 9 in 10 births were attended by a medical professional, while in Cagayan Valley, Bicol, Eastern Visayas, and all of the regions in Mindanao, less than 4 in 10 were assisted by a doctor or a nurse/midwife during delivery.

Table 8.4 Place of delivery

Percent distribution of live births in the five years preceding the survey, by place of delivery, according to selected background characteristics, Philippines 1993

Background characteristic	Place of delivery: Health facility	At home	Other/ Don't Know/ Missing	Total	Number of births
Mother's age at birth					
< 20	25.5	74.5	0.0	100.0	731
20-34	29.5	70.2	0.2	100.0	6618
35+	23.6	76.1	0.4	100.0	1454
Birth order					
1	44.3	55.4	0.3	100.0	1995
2-3	30.8	68.9	0.4	100.0	3131
4-5	21.8	78.1	0.0	100.0	1857
6+	12.1	87.6	0.4	100.0	1769
Residence					
Urban	43.5	56.2	0.4	100.0	4269
Rural	13.8	86.0	0.2	100.0	4533
Region					
Metro. Manila	68.3	30.7	0.9	100.0	1086
Cordillera Admin.	32.2	67.6	0.3	100.0	173
Ilocos	18.1	81.7	0.2	100.0	489
Cagayan Valley	10.7	89.3	0.0	100.0	317
C-Luzon	40.3	59.6	0.1	100.0	905
S-Tagalog	24.1	75.7	0.1	100.0	1069
Bicol	11.3	88.4	0.2	100.0	669
W-Visayas	26.2	73.6	0.1	100.0	738
C-Visayas	26.9	73.1	0.0	100.0	722
E-Visayas	19.9	79.9	0.2	100.0	437
W-Mindanao	11.2	88.5	0.3	100.0	491
N-Mindanao	19.1	80.6	0.2	100.0	550
S-Mindanao	23.1	76.7	0.3	100.0	666
C-Mindanao	15.6	84.4	0.0	100.0	491
Mother's education					
No education	3.9	96.1	0.0	100.0	244
Some primary	12.3	87.5	0.3	100.0	3637
Completed primary	29.3	70.5	0.2	100.0	3114
Some secondary	61.7	37.9	0.3	100.0	1808
Antenatal care visits					
None	7.7	92.0	0.3	100.0	676
1-3 visits	14.1	85.8	0.1	100.0	3444
4 or more visits	41.9	58.0	0.2	100.0	4590
Don't know/missing	26.4	62.4	11.2	100.0	92
Total	28.2	71.5	0.2	100.0	8803

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

Table 8.5 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by type of assistance during delivery, according to selected background characteristics, Philippines 1993

Background characteristic	Attendant assisting during delivery[1]							Number of births
	Doctor	Trained nurse/ Midwife	Traditional birth attendant	Relative/ Other	No One	Don't Know/ Missing	Total	
Mother's age at birth								
< 20	23.7	25.0	48.7	2.3	0.2	0.0	100.0	731
20-34	27.0	27.0	44.2	1.5	0.2	0.1	100.0	6618
35+	22.4	27.1	48.4	1.9	0.2	0.1	100.0	1454
Birth order								
1	41.8	24.6	32.5	0.9	0.0	0.1	100.0	1995
2-3	27.8	28.7	41.8	1.4	0.1	0.2	100.0	3181
4-5	20.0	26.3	51.6	1.9	0.2	0.0	100.0	1857
6+	11.0	26.4	59.2	2.7	0.4	0.2	100.0	1769
Residence								
Urban	39.6	30.8	28.4	1.0	0.1	0.2	100.0	4269
Rural	13.1	23.0	61.2	2.3	0.3	0.1	100.0	4533
Region								
Metro. Manila	60.4	28.1	10.6	0.5	0.0	0.4	100.0	1086
Cordillera Admin.	31.9	20.4	21.8	24.5	1.2	0.3	100.0	173
Ilocos	19.0	45.9	34.6	0.4	0.0	0.2	100.0	489
Cagayan Valley	11.4	25.2	56.3	5.3	1.8	0.0	100.0	317
C-Luzon	39.0	41.6	19.4	0.0	0.0	0.0	100.0	905
S-Tagalog	21.9	33.0	44.5	0.5	0.0	0.1	100.0	1069
Bicol	10.5	19.8	68.7	0.8	0.0	0.1	100.0	669
W-Visayas	23.8	24.5	49.5	2.2	0.1	0.0	100.0	738
C-Visayas	25.2	26.0	48.4	0.4	0.0	0.0	100.0	722
E-Visayas	18.4	14.0	67.4	0.2	0.0	0.0	100.0	437
W-Mindanao	10.1	23.3	65.4	0.9	0.0	0.3	100.0	491
N-Mindanao	17.7	20.7	60.3	1.0	0.1	0.1	100.0	550
S-Mindanao	19.5	16.9	57.8	5.0	0.7	0.0	100.0	666
C-Mindanao	14.8	17.4	66.4	0.9	0.5	0.0	100.0	491
Mother's education								
No education	2.6	6.7	76.9	11.4	2.5	0.0	100.0	244
Elementary	10.6	23.9	63.0	2.1	0.2	0.2	100.0	3637
High school	26.7	32.8	39.4	1.0	0.0	0.1	100.0	3114
College or higher	58.8	25.2	15.4	0.6	0.1	0.0	100.0	1808
Antenatal care visits								
None	6.3	19.1	65.5	7.7	1.4	0.0	100.0	676
1-3 visits	12.7	25.2	60.6	1.4	0.1	0.0	100.0	3444
4 or more visits	38.8	29.6	30.7	0.9	0.0	0.0	100.0	4590
Don't know/Missing	26.4	6.7	52.5	3.3	0.0	11.2	100.0	92
Total	26.0	26.8	45.3	1.7	0.2	0.1	100.0	8803

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

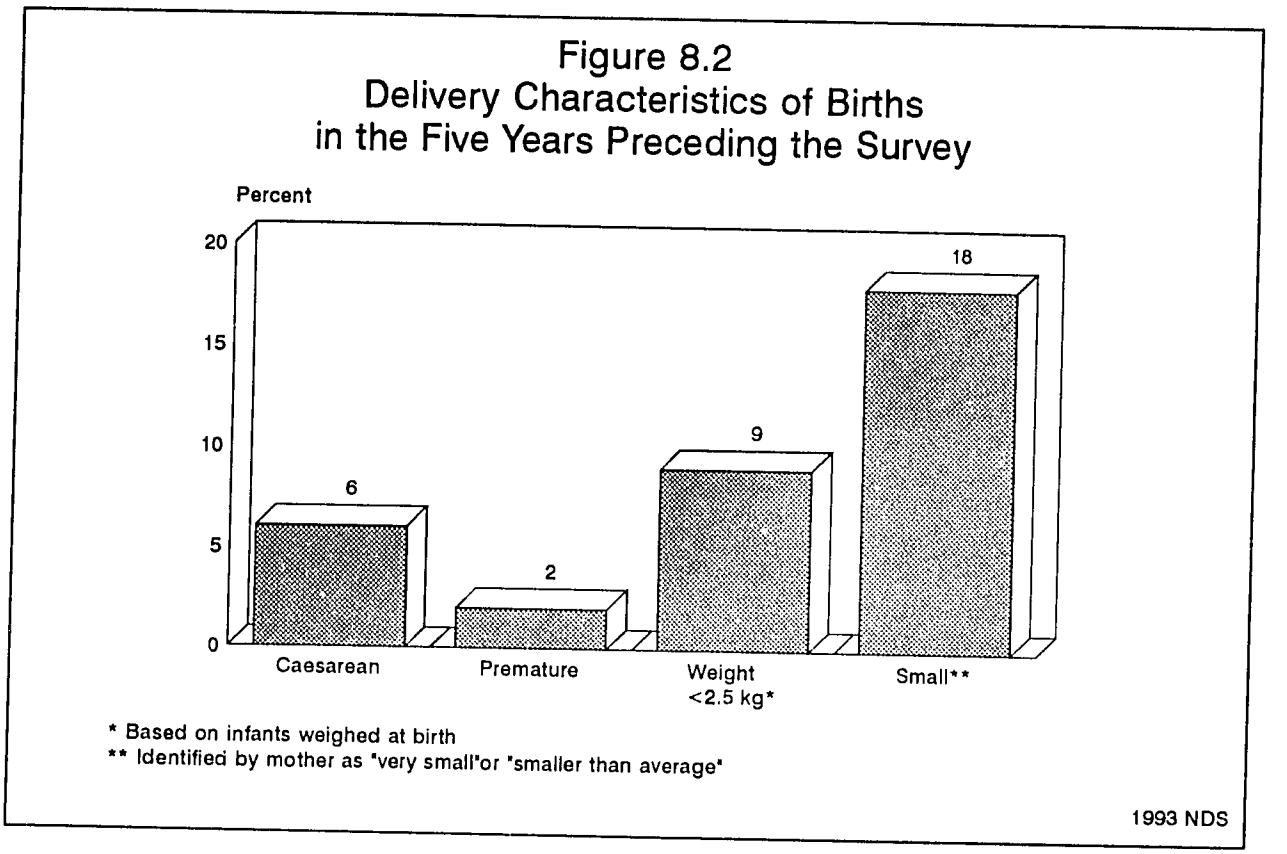
Table 8.6 and Figure 8.2 shows that about 1 in 16 births (6 percent) in the past five years were born by caesarean section. This constitutes 1 in 5 of all deliveries in a health facility. Less than two percent of births were born prematurely. Information on the baby's birth weight was also obtained in the 1993 NDS. In addition, the mother was also asked for her own objective assessment of whether the baby's birth size was very large, larger than average, average, smaller than average, or very small. Among children born in the 5 years prior to the survey, 36 percent were not weighed at birth. Of those who were weighed, 14 percent were reported by their mother to weigh less than what is considered as a normal birth weight (2,500 grams). According to the mother's report, 18 percent of births in the past 5 years were smaller than average or very small at birth.

Table 8.6 Characteristics of delivery

Percent distribution of births in the five years preceding the survey by whether the delivery was by caesarean section, whether premature, and by birth weight and the mother's estimate of baby's size at birth, Philippines 1993

Characteristic	Percent
Caesarean	
Yes	5.9
No	91.8
Missing	2.4
Total	100.0
Premature birth	
Yes	1.6
No	98.1
Don't know/missing	0.2
Total	100.0
Birth weight	
Less than 2.5 kg.	8.7
2.5 kg. or more	50.3
Don't know/missing	5.5
Not weighed	35.5
Total	100.0
Size at birth	
Very large	2.5
Larger than average	17.4
Average	59.4
Smaller than average	13.9
Very small	4.2
Don't know/missing	2.5
Total	100.0
Number of births	8803

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



8.4 Immunization of Children

To assist in the evaluation of the Expanded Program of Immunization (EPI), the 1993 NDS collected information on immunization coverage for all children born in the five years prior to the survey. For each child, the mother was asked if she had a health card for the child, and, if so, the interviewer asked to see it. When a mother was able to show the health card to the interviewer, the dates of vaccinations were copied from the card to the questionnaire. If the child has never received a health card, or the mother was unable to show the card to the interviewer, the mother was asked whether the child had received vaccinations against specific diseases, namely, tuberculosis, measles, diphtheria, pertussis, tetanus and polio. Although data on vaccinations were obtained for children who died, the data presented in this report are restricted to children who were alive at the time of the survey.

Shown in Table 8.7 is the overall vaccination coverage for children age 12-23 months according to the source of the data used for determining the coverage. Data were obtained from health cards for only about 1 in 3 children; for the remaining children the immunization coverage information is based on their mother's report. Overall, 72 percent of these children have received all of the vaccines. The coverage rate is highest for BCG and the first doses of DPT and polio (91 percent). The drop out rate[1] measured by the difference in coverage between the first and third doses is 12 percent for DPT and 14 percent for polio.

[1]Drop out rate = (Dose 1 - Dose 3)/Dose 1 • 100

Table 8.7 Vaccinations by source of information

Percentage of children 12-23 months who had received specific vaccines at any time before the survey and the percentage vaccinated by 12 months of age, by whether the information was from a vaccination card or from the mother, Philippines 1993

Background characteristic	Percentage of children who received:										Percentage with a card	Number of children
		DPT			Polio							
	BCG	1	2	3+	1	2	3+	Measles	All[1]	None		
Vaccinated at any time before the survey												
Vaccination card	34.7	34.9	34.7	33.1	34.8	34.5	33.0	32.2	31.1	0.0	35.1	611
Mother's report	56.5	56.2	53.2	46.8	56.1	51.6	45.1	49.3	40.4	6.8	64.9	1131
Either source	91.2	91.1	87.9	79.9	90.9	86.2	78.2	81.4	71.5	6.8	100.0	1742
Vaccinated by 12 months of age												
Either source	88.3	88.8	85.0	77.3	88.2	83.1	75.5	70.9	61.9	8.6	-	1742
Valid dates	93.5	96.0	92.9	84.3	95.2	91.5	82.5	77.9	69.4	2.3	-	611

Note: The DPT coverage rate for children without a written record is assumed to be the same as that for polio vaccine since mothers were specifically asked whether the child had received polio vaccine.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.

[1]Children who are fully vaccinated (i.e., those who have received BCG, measles and three doses of DPT and polio).

Since the immunization series should be completed by the end of the first year of life, immunization coverage for the first 12 months is also reported in Table 8.7. Based on information obtained from the health cards and from mothers' report, 62 percent of children 12-23 months have been completely immunized during the first year of life. BCG and the first doses of DPT and polio have the highest levels, while coverage for the subsequent DPT and polio doses and measles is slightly lower.

Differentials in immunization coverage among children 12-23 months by background characteristics are presented in Table 8.8 and Figure 8.3. The rates are based on both health cards and mother's report. Coverage varies only slightly by the sex of the child and type of residence; however, the rates have a strong negative association with birth order, and a very strong positive association with mother's education. Variation by region is greater on Luzon island than in Visayas or on Mindanao island.

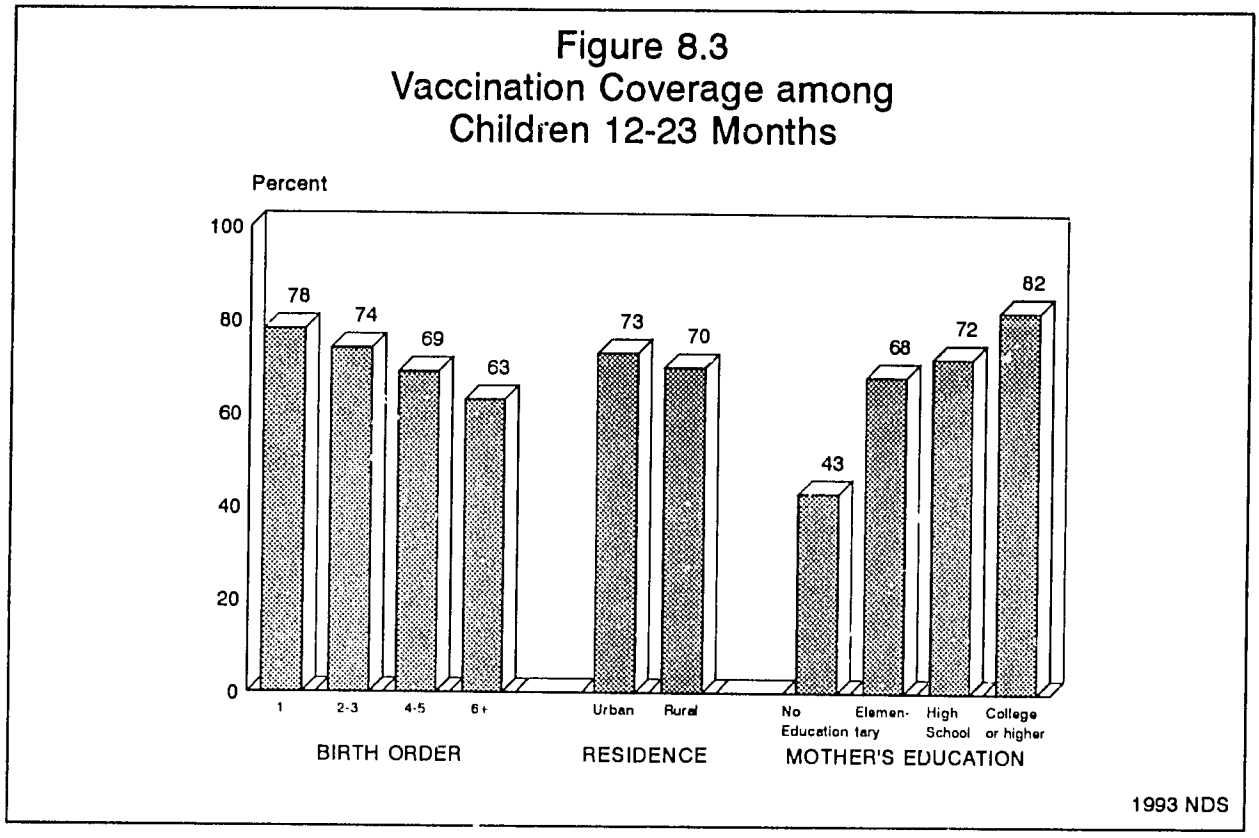
Table 8.8 Vaccinations by background characteristics

Percentage of children 12-23 months who had received specific vaccines by the time of the survey (according to the vaccination card or the mother's report) and the percentage with a vaccination card, by selected background characteristics, Philippines 1993

Background characteristic	Percentage of children who received:										Percentage with a card	Number of children
		DPT			Polio							
	BCG	1	2	3+	1	2	3+	Measles	All[1]	None		
Sex												
Male	91.5	90.9	87.7	79.9	91.0	86.3	77.9	81.4	71.0	6.4	34.8	899
Female	90.8	91.4	88.1	79.9	90.8	86.1	78.4	81.5	72.1	7.1	35.4	843
Birth order												
1	96.2	96.8	93.0	86.6	95.6	92.0	84.8	86.5	77.5	3.0	41.8	378
2-3	93.6	93.6	90.9	83.9	92.8	88.8	81.2	84.2	74.4	5.2	36.3	640
4-5	89.2	88.3	85.0	74.6	89.4	83.7	74.1	78.2	68.5	8.2	30.9	387
6+	83.1	83.5	79.8	70.9	83.6	77.4	69.4	74.3	62.9	12.2	30.2	337
Residence												
Urban	93.0	93.0	90.0	81.4	92.9	89.0	81.2	83.7	73.2	4.9	35.8	860
Rural	89.4	89.4	85.9	78.5	89.0	83.4	75.2	79.2	69.9	8.6	34.4	883
Region												
Metro. Manila	93.1	93.1	89.6	77.1	94.4	87.5	77.1	72.9	61.1	4.2	27.8	209
Cordillera Admin.	92.8	97.1	97.1	89.9	95.7	95.7	89.9	91.3	85.5	2.9	63.8	35
Ilocos	93.8	94.7	90.3	79.6	93.8	83.2	68.1	81.4	59.3	4.4	23.9	97
Cagayan Valley	88.7	93.8	87.6	75.3	93.8	87.6	74.2	73.2	61.9	6.2	21.6	68
C-Luzon	94.4	93.7	93.0	81.0	92.3	89.4	76.1	85.9	71.8	4.9	31.0	163
S-Tagalog	94.1	93.5	90.5	83.4	92.3	87.6	83.4	84.6	77.5	5.3	24.9	226
Bicol	88.0	86.7	81.0	74.1	89.9	80.4	72.8	82.9	70.3	7.6	32.0	150
W-Visayas	89.8	90.6	87.5	82.8	89.8	88.3	82.0	80.5	74.2	7.8	60.9	129
C-Visayas	92.4	90.4	88.5	83.4	92.4	88.5	82.8	80.9	76.4	5.1	37.6	131
E-Visayas	92.6	92.6	89.4	83.0	91.5	89.4	81.9	85.1	75.5	6.4	34.0	76
W-Mindanao	82.9	82.9	81.4	75.2	82.2	78.3	72.9	76.0	69.8	17.1	40.3	99
N-Mindanao	95.6	96.4	89.8	79.6	92.7	87.6	78.8	91.2	75.9	2.9	39.4	109
S-Mindanao	91.7	91.0	88.9	84.7	91.7	90.3	83.3	86.8	79.9	5.6	50.7	131
C-Mindanao	80.2	80.2	76.3	71.8	77.1	74.0	71.0	71.8	67.2	18.3	26.7	98
Mother's education												
No education	51.2	51.2	48.0	46.1	51.2	48.0	46.1	48.2	43.0	46.8	20.4	47
Elementary	88.4	88.7	83.8	75.0	88.4	82.5	73.7	76.9	67.6	8.5	35.1	696
High school	93.6	93.2	91.0	81.3	93.0	88.1	78.6	85.0	72.1	4.6	35.6	625
College or higher	97.4	97.3	95.4	90.8	97.0	94.6	89.7	88.2	81.5	2.0	36.1	374
All children	91.2	91.1	87.9	79.9	90.9	86.2	78.2	81.4	71.5	6.8	35.1	1742

Note: The DPT coverage rate for children without a written record is assumed to be the same as that for polio vaccine since mothers were specifically asked whether the child had received polio vaccine.

[1]Children who are fully vaccinated (i.e., those who have received BCG, measles and three doses of DPT and polio).



Shown in Table 8.9 is the trend in immunization coverage over a period of 4 years before the survey until the date of interview based on records in the health cards and mother's recall. Although the rate is still low, it is encouraging to note that health cards are more than twice as likely to be available for children 12-23 months than for children 48-59 months. At the same time, the immunization coverage has gradually increased. The percentage of children 1-4 years who have never received vaccination declined from 18 percent to less than 10 percent.

Table 8.9 Vaccinations in the first year of life

Percentage of children one to four years of age for whom a vaccination card was shown to the interviewer and the percentage vaccinated for BCG, DPT, polio, and measles during the first year of life, by current age of the child, Philippines 1993

Vaccine	Current age of child in months				All children 12-59 months
	12-13	24-35	36-47	48-59	
Vaccination card shown to interviewer	35.1	29.1	24.4	17.5	26.7
Percent vaccinated at 0-11 months[a]					
BCG	88.3	88.3	84.4	78.8	85.1
DPT 1[b]	88.8	87.7	85.6	79.1	85.4
DPT 2	85.0	83.1	79.4	72.8	80.2
DPT 3	77.3	74.5	70.3	62.4	71.3
Polio 1	88.2	88.4	85.3	79.6	85.5
Polio 2	83.1	81.4	76.9	71.7	78.4
Polio 3	75.5	72.5	67.6	61.2	69.4
Measles	70.9	73.4	69.0	58.6	68.2
All vaccinations[c]	61.9	62.1	55.8	49.0	57.4
No vaccinations	8.6	9.7	11.9	18.0	11.9
Number of children	1742	1752	1712	1596	6802

[a]Information was obtained either from a vaccination card or from the mother if there was no written record. For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as that for children with a written vaccination record.
[b]The DPT coverage rate for children without a written record is assumed to be the same as that for polio vaccine, since mothers were specifically asked whether the child had received polio vaccine.
[c]Children who have received BCG, measles and three doses of DPT and polio vaccines.

8.5 Prevalence of Fever

Various infectious diseases are accompanied by fever. In the Philippines, the most common diseases with fever are measles, respiratory infections, typhoid, and dengue. Information about the prevalence of fever among children under 5 was collected in the survey although the cause was not investigated. Provided in Table 8.10 is information on the presence of fever and its treatment. Overall, one in four children under 5 had fever in the two weeks prior to the survey. Variations in the percentage of children with fever are generally small across subgroups; the highest levels—30 percent or more—are found for children aged 6-23 months, and children of six or higher birth order.

Table 8.10 Prevalence and treatment of fever

Percentage of children under five years who had a fever during the two weeks preceding the survey, and the percentage of children with a fever who were treated with specific remedies, by selected background characteristics, Philippines 1993

Background characteristic	Percentage of children with fever	Among children with fever: Percentage taken to a health facility or provider[1]	Percentage treated with: Antibiotic pill or syrup	Home remedy	Other	None/ Don't know/ Missing	Number of children
Child's age							
< 6 months	18.2	54.1	34.5	10.5	65.3	12.8	751
6-11 months	36.5	48.3	42.6	11.0	61.3	12.4	905
12-23 months	32.3	43.6	38.9	13.8	63.9	11.3	1742
24-35 months	26.3	42.1	34.9	12.6	60.6	15.2	1752
36-47 months	22.3	38.9	36.3	12.7	63.6	12.2	1712
48-59 months	17.9	39.1	37.8	16.3	60.1	13.3	1596
Sex							
Male	25.7	42.1	38.4	12.0	63.4	12.4	4359
Female	25.4	44.5	37.0	14.1	61.2	13.1	4099
Birth order							
1	22.7	47.9	37.9	10.2	66.9	10.5	1941
2-3	23.6	44.2	40.3	12.0	59.4	13.3	3083
4-5	28.3	40.3	35.0	13.4	64.7	12.8	1783
6+	29.5	40.7	36.6	16.8	60.1	14.0	1651
Residence							
Urban	24.4	44.8	42.6	9.9	66.6	10.2	4135
Rural	26.6	41.9	33.5	15.8	58.6	15.1	4323
Region							
Metro. Manila	21.8	55.7	51.3	1.3	72.8	8.8	1052
Cordillera Admin.	17.0	44.6	37.5	12.5	64.3	14.3	168
Ilocos	23.8	55.4	49.2	6.9	64.6	13.0	470
Cagayan Valley	26.3	45.1	36.3	15.0	57.5	18.6	303
C-Luzon	19.2	42.6	48.6	6.8	71.6	8.8	884
S-Tagalog	25.4	29.3	37.4	8.1	65.2	10.1	1039
Bicol	36.3	38.7	32.5	16.0	65.0	10.7	634
W-Visayas	31.3	44.5	28.4	17.4	57.3	14.2	702
C-Visayas	18.6	42.2	23.7	10.4	57.0	24.5	696
E-Visayas	30.2	46.2	42.3	21.8	44.9	12.2	415
W-Mindanao	23.8	49.3	38.9	24.3	59.0	16.0	467
N-Mindanao	23.4	53.2	41.6	22.1	55.8	9.1	524
S-Mindanao	32.8	38.3	33.9	12.6	63.5	14.7	637
C-Mindanao	26.8	35.9	26.9	20.4	59.3	13.8	467
Mother's education							
No education	22.0	20.2	21.2	24.5	43.2	37.4	215
Elementary	28.7	38.3	32.0	17.0	57.7	14.2	3456
High school	24.4	48.5	43.9	10.6	64.0	11.4	3027
College or higher	21.6	48.8	42.7	5.9	73.6	8.4	1760
All children[2]	25.5	43.2	37.7	13.0	62.3	12.8	8458

Note: Figures are for children born in the period 1-59 months preceding the survey.
[1]Includes health post, health center, hospital, and private doctor.
[2]Includes 34 children who were given antimalarial pill or syrup, and 14 children who were given an injection.

Overall, 4 in 10 children with fever were taken to a health facility or provider. Young infants (less than 6 months) are more likely to be taken to a health facility for treatment when they have fever. Mother's education is also important in whether a child is taken to a health facility or not. The proportion of children taken to a health facility is highest among children born to mothers with high school or higher education.

The types of treatment given to children with fever are also presented in Table 8.10. The most popular remedies for fever are antibiotics (38 percent) and other remedies (62 percent).

8.6 Acute Respiratory Infection

Acute respiratory infection is still the leading cause of death among children under 5. The prevalence and treatment of this disease are investigated in Table 8.11. The 1993 NDS results show that 8.7 percent of children under 5 had cough with rapid breathing in the two weeks prior to the survey. Children 6 to 23 months, children of birth order 6 or higher, children in rural areas, and children born to mothers with no education are slightly more likely to have been reported to have respiratory problems.

Table 8.11 Prevalence and treatment of acute respiratory infection

Percentage of children under five years who were ill with a cough accompanied by rapid breathing during the two weeks preceding the survey, and the percentage of ill children who were treated with specific remedies, by selected background characteristics, Philippines 1993

		Among children with cough and rapid breathing						
			Percentage treated with:					
Background characteristic	Percentage of children with cough and rapid breathing	Percentage taken to a health facility or provider[1]	Antibiotic pill or syrup	Cough syrup	Home remedy	Other	None/ Don't know/ Missing	Number of children
Child's age								
< 6 months	7.4	(56.5)	*	(45.3)	*	*	*	751
6-11 months	10.7	56.0	52.8	55.3	*	*	*	905
12-23 months	11.0	55.0	45.3	51.4	(18.8)	(21.5)	*	1742
24-35 months	9.3	49.6	41.2	48.9	(16.1)	(23.4)	*	1752
36-47 months	7.1	47.2	39.3	48.9	(14.8)	(25.5)	*	1712
48-59 months	6.6	(44.8)	45.7	(38.8)	(29.0)	*	*	1596
Sex								
Male	8.7	51.9	46.6	48.1	19.6	22.2	(11.2)	4359
Female	8.7	50.6	40.6	49.3	17.4	22.5	12.4	4099
Birth order								
1	7.7	55.3	42.6	54.6	*	(19.6)	*	1941
2-3	8.8	52.0	42.9	48.5	20.4	24.2	(9.7)	3083
4-5	8.4	52.5	48.2	49.1	(16.4)	(21.2)	*	1783
6+	10.0	45.4	41.6	43.1	(24.6)	(22.7)	*	1651
Residence								
Urban	7.4	55.8	48.6	56.5	15.0	20.8	*	4135
Rural	9.9	48.0	40.1	43.1	21.0	23.4	14.2	4323
Mother's education								
No education	9.8	*	*	*	*	*	*	215
Elementary	9.9	47.1	39.1	42.0	20.9	22.0	14.6	3456
High school	8.5	54.9	47.2	48.4	19.5	22.8	(9.2)	3027
College or higher	6.5	60.5	51.8	71.0	*	(24.5)	*	1760
All children[2]	8.7	51.3	43.6	48.7	18.5	22.3	11.8	8458

Note: Figures are for children born in the period 1-59 months preceding the survey.
[1]Includes health post, health center, hospital, and private doctor.
[2]Includes 7 children who were given an injection.
( ) Figures in parentheses are based on 25-49 cases
* Less than 25 cases

Among children who were ill with cough and rapid breathing, more than half were taken to a health facility. The percentage of children who were taken to a health facility varies insignificantly by various background characteristics except for mother's education.

The types of treatment to children with cough are also presented in Table 8.11. The most popular treatments are cough syrup (49 percent) and antibiotic pill or syrup (44 percent). Little variation is again observed in the treatment by background characteristics of the children, except by mother's education.

8.7 Diarrheal Disease

Mothers with children under 5 years of age were asked if their children had diarrhea at any time in the preceding two weeks prior to the interview and if they had diarrhea in the past 24 hours. Mothers are also asked about any action taken to treat their children. The 1993 NDS data indicate that 1 in 10 children under 5 was reported having diarrhea during the 2-week period before the survey, and less than 1 percent had bloody diarrhea in that period (Table 8.12). The prevalence of diarrhea in the 24 hour before the survey is 3 percent.

The prevalence of diarrhea generally varies only slightly by background characteristics. For both the two-week and 24-hour periods preceding the survey, the most significant variation is by age and region. Prevalence is somewhat higher for children 6-23 months than for younger or older children. Considering regional variation, Table 8.12 shows that prevalence of diarrhea is higher in Bicol, Ilocos, and Cordillera Administrative Region than in other regions.

Table 8.12 Prevalence of diarrhea

Percentage of children under five years who had diarrhea and diarrhea with blood in the two weeks preceding the survey, and the percentage of children who had diarrhea in the preceding 24 hours, by selected background characteristics, Philippines 1993

Background characteristic	Diarrhea in the preceding 2 weeks[1]		All diarrhea in the preceding 24 hours[2]	Number of children
	All diarrhea	Diarrhea with blood		
Child's age				
< 6 months	9.3	0.5	2.9	751
6-11 months	17.0	1.2	6.0	905
12-23 months	15.6	1.1	5.4	1742
24-35 months	9.6	0.8	2.2	1752
36-47 months	6.6	0.4	1.7	1712
48-59 months	4.9	0.4	0.8	1596
Sex				
Male	10.2	0.8	3.0	4359
Female	10.0	0.7	2.9	4099
Birth order				
1	9.0	0.4	2.8	1941
2-3	9.3	0.9	2.8	3083
4-5	10.9	0.8	2.8	1783
6+	12.1	0.6	3.7	1651
Residence				
Urban	9.7	0.7	2.7	4135
Rural	10.5	0.8	3.2	4323
Region				
Metro. Manila	7.5	0.4	2.3	1052
Cordillera Admin.	13.6	0.6	7.9	168
Ilocos	13.6	0.5	5.7	470
Cagayan Valley	11.9	0.5	5.4	303
C-Luzon	6.5	0.3	2.1	884
S-Tagalog	11.8	0.6	3.3	1039
Bicol	15.4	1.5	4.8	634
W-Visayas	11.8	0.6	2.2	702
C-Visayas	4.7	0.3	0.6	696
E-Visayas	10.7	1.2	1.9	415
W-Mindanao	9.4	1.0	5.0	467
N-Mindanao	10.0	0.8	3.0	524
S-Mindanao	10.7	1.6	2.1	637
C-Mindanao	11.1	0.8	1.4	467
Mother's education				
No education	10.2	1.7	2.0	215
Elementary	11.4	0.9	3.5	3456
High school	9.6	0.6	3.0	3027
College or higher	8.6	0.6	1.9	1760
All children	10.1	0.7	3.0	8458

Note: Figures are for children born in the period 1-59 months preceding the survey.
[1]Includes diarrhea in the past 24 hours
[2]Includes diarrhea with blood

Treatment with Oral Rehydration Therapy

The level of knowledge of ORS (prepackaged oral rehydration salts) to treat diarrhea is shown in Table 8.13. In 1993 NDS, a mother is classified as knowing about ORS if she reported using ORS packets to treat one of her children for diarrhea in the two-week period prior to the survey, or if she has ever seen or heard of ORS packets.

A large majority of mothers (85 percent) knew about ORS packets, and more than half have used ORS. There are significant variations in both the levels of ORS knowledge and ever use by age, region, and education; teenage mothers, mothers with no education are the least likely to know about or to have had experience in using ORS packets. The overall level of knowledge is almost twice as high among educated mothers as for mothers with no education.

Table 8.13 Knowledge and use of ORS packets

Percentage of mothers with births in the five years preceding the survey who know about and have ever used ORS packets, by selected background characteristics, Philippines 1993

Background characteristic	Know about ORS packets	Have ever used ORS packets	Number of mothers
Age			
15-19	72.8	24.5	166
20-24	82.4	45.2	1046
25-29	85.8	56.1	1527
30-34	86.7	59.8	1362
35+	83.8	58.0	1525
Residence			
Urban	84.3	53.0	2795
Rural	84.7	56.1	2831
Region			
Metro. Manila	73.7	45.1	747
Cordillera Admin.	96.9	78.6	98
Ilocos	84.2	57.1	311
Cagayan Valley	86.0	65.3	212
C-Luzon	84.2	55.6	590
S-Tagalog	80.6	46.0	708
Bicol	90.7	57.7	396
W-Visayas	94.6	60.6	468
C-Visayas	94.7	68.4	450
E-Visayas	92.2	59.4	269
W-Mindanao	76.4	52.4	308
N-Mindanao	92.9	60.5	349
S-Mindanao	80.1	46.4	421
C-Mindanao	74.3	46.3	300
Education			
No education	45.2	28.2	146
Elementary	85.1	57.6	2225
High school	85.9	56.4	2011
College or higher	85.8	49.3	1244
All mothers	84.5	54.6	5626

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

Table 8.14 examines in detail the treatment approaches that were adopted for children who were reported to have experienced a diarrheal episode during the two-week period before the survey. Medical treatment was sought for 34 percent of children who had diarrhea in the two-week period prior to the survey (Table 8.14). The majority of children who had diarrhea were either treated with ORS packets (27 percent) or recommended home made solution such as sugar, salt and water, or rice water (am soup). While 1 in 5 of the children who had diarrhea were given increased fluids, it is interesting to note that 40 percent were given neither increased fluids nor ORT. Among children who were given other treatments, 39 percent received home remedies and 16 percent antibiotic. It is interesting to note that neither advice nor treatment was sought for 20 percent of children who had diarrhea.

Table 8.14 Treatment of diarrhea

Percentage of children under five years who had diarrhea in the two weeks preceding the survey who were taken for treatment to a health facility or provider, the percentage who received oral rehydration therapy (ORT), either a solution prepared from ORS packets or a recommended home fluids (RHF), the percentage who received increased fluids, the percentage who received neither ORT nor increased fluids, and the percentage receiving other treatments, according to selected background characteristics, Philippines 1993

Background characteristic	Percentage taken to a health facility or provider[1]	Oral rehydration therapy (ORT)		Percentage receiving increased fluids	Percentage receiving neither ORT nor increased fluids	Percentage receiving other treatments:			Number of children with diarrhea
		ORS packets	RHF			Antibiotics	Home remedy/ Other	No treatment/ ORESOL/ rice water	
Age of child (months)									
<6	(34.9)	*	*	*	(49.9)	*	*	*	70
6-11	41.1	(23.6)	39.4	(20.1)	40.5	(20.0)	32.7	(21.3)	154
12-23	33.4	31.0	38.9	22.2	36.3	(15.1)	38.0	18.6	272
24-35	33.0	(25.4)	32.7	(24.4)	44.3	(18.0)	41.9	(19.8)	169
36-47	31.5	(26.2)	(36.5)	*	45.2	*	47.2	*	112
48-59	*	*	(37.2)	*	(38.2)	*	(45.6)	*	78
Sex of child									
Male	32.0	25.7	37.3	23.1	41.0	18.4	39.4	19.8	445
Female	35.9	28.8	35.1	19.6	41.2	14.1	39.1	19.2	410
Birth order									
1	39.2	(23.5)	35.5	(19.1)	43.7	(19.0)	31.3	(25.6)	174
2-3	34.2	25.3	37.0	25.3	39.9	18.7	38.0	17.5	286
4-5	33.4	33.0	38.5	(19.0)	37.8	(15.7)	46.8	(14.9)	195
6+	29.2	27.4	33.5	(20.1)	43.9	(11.3)	40.7	(21.6)	200
Residence									
Urban	36.2	26.0	35.5	21.3	42.2	20.6	36.2	20.7	403
Rural	31.8	28.2	36.9	21.5	40.1	12.6	42.0	18.5	452
Education									
No education	*	*	*	*	*	*	*	*	22
Elementary	29.6	25.6	32.4	23.2	43.2	12.6	39.9	20.9	393
High school	33.2	28.6	41.3	17.1	39.4	(16.8)	38.7	19.6	289
College or higher	45.7	(29.0)	38.5	(27.0)	37.5	(26.6)	38.4	(14.5)	151
Total[2]	33.9	27.2	36.2	21.4	41.1	16.4	39.3	19.5	855

Note: Figures are for children born in the period 1-59 months preceding the survey. Oral rehydration therapy (ORT) includes solution prepared from oral rehydration salts (ORS) and recommended home fluid (RHF), e.g. sugar-salt-water solution. Increased fluids includes increased frequency of breastfeeding.
[1]Includes health post, health center, hospital, and private doctor.
[2]Includes 5 children who were given an injection and 9 children with missing information on treatment.
* Less than 25 cases
( ) Figures in parentheses are based on 25-49 cases.

Table 8.15 and Figure 8.4 looks at the extent to which feeding practices were changed for children with diarrhea in the two-weeks prior to the survey. Among children who were breastfed, the majority either were given the usual amount or an increased amount of breast milk (7 percent), but 14 percent were given a reduced amount of breast milk. With regard to consumption of other fluids during children's diarrhea, mothers reported that they gave the same amount of fluids to 57 percent of children, and increased fluids for 21 percent. However, nearly one-fifth of children were given less fluids.

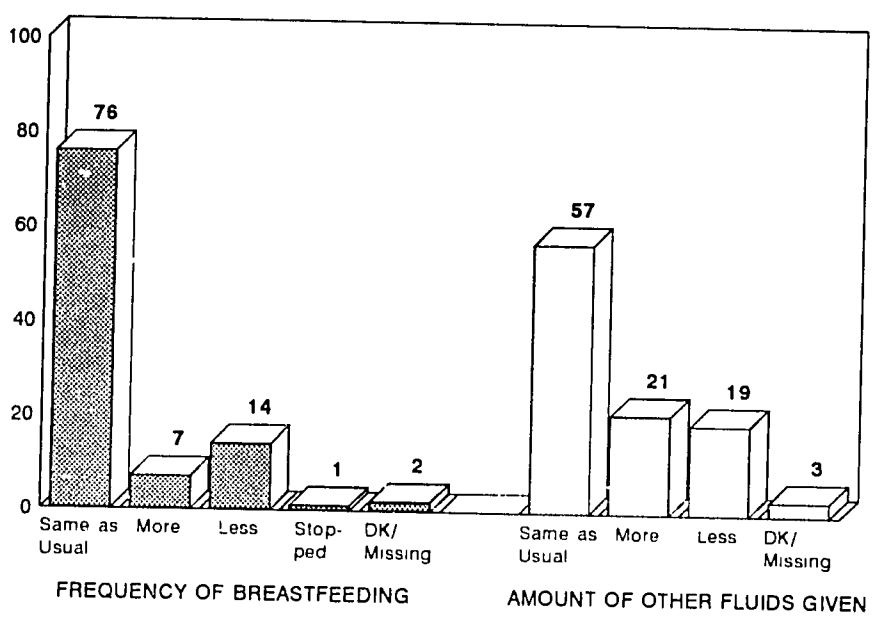
Table 8.15 Feeding practices during diarrhea

Percent distribution of children under five years who had diarrhea in the two weeks preceding the survey by feeding practices during diarrhea, Philippines 1993

Feeding practices	Percent
Breastfeeding frequency[1]	
Same as usual	75.7
Increased	6.9
Reduced	13.8
Stopped	1.3
Don't know/missing	2.4
Total	100.0
Number of children	676
Amount of fluids given	
Same as usual	57.3
More	20.9
Less	19.2
Don't know/missing	2.6
Total	100.0
Number of children with diarrhea[2]	855

[1]Applies only to children who are still breastfed.
[2]Children born in the period 1-59 months preceding the survey.

Figure 8.4
Feeding Practices among Children Under Five with Diarrhea



1993 NDS

CHAPTER 9

INFANT FEEDING AND SUPPLEMENTATION

The importance of proper infant feeding cannot be overemphasized as it affects children's nutritional health and well being. Hence, the Philippines in urgent response to the 1981 International Code of Marketing of Breastmilk Substitute by the World Health Organization (WHO) advocated a strong campaign to encourage breastfeeding among nursing mothers instead of using breast milk substitute. Breastfeeding with all its healthful and economic advantages is the best form of feeding during the first six months of infancy. Supplementary foods introduced initially at four to six months of infancy greatly contribute to the nutritional needs of the growing child. Thus, proper and adequate infant feeding, starting at birth, is very important for physical and mental development of a child.

9.1 Prevalence of Breastfeeding and Supplementation

Breastfeeding is not universal in the Philippines; 13 percent of children born in the preceding 5 years before the survey were not breastfed at all (see Table 9.1). The extent of breastfeeding does not vary by the sex of the child. Urban children were less likely to be given breast milk than rural children (82 percent compared to 92 percent). Observing regional variations, children in Metropolitan Manila are the least likely and children in Mindanao the most likely to be breastfed. Mother's education has a negative association with their children's chance to be given breast milk. While virtually all children of mothers who have no education were breastfed, only 78 percent of children whose mothers have higher education ever received breast milk. Exposure to medical assistance is also negatively associated with the children's likelihood of being put to the breast. Children who received assistance from a medical personnel at delivery and those who were born in a health facility were at least 10 percentage points less likely to be breastfed than those who were delivered by a traditional midwife or born at home.

The first breast milk, or colostrum, is beneficial to infants because it contains a high concentration of antibodies that protect children against certain infectious diseases. However, in some places, cultural norms dictate against giving infants colostrum. Results from 1993 NDS show that more than one-third of children born during the five years before the survey were given breast milk during the first hour after birth, and 61 percent were given breast milk during the first 24 hours.

Differentials in the early initiation of breast milk appears to exhibit a pattern similar to that of prevalence; girls, rural infants, infants of mothers with no education, and those born at home tend to be given breastmilk soon after birth. The percentage of children receiving colostrum in Luzon island, except in the Cordillera Administrative Region, tends to be lower than in other parts of the country. It is interesting to note that children in Metropolitan Manila, in addition to being the least likely to be given breast milk, were also among the least likely to be breastfed immediately after birth.

For children born in the five years prior to the survey who were currently breastfed, mothers were asked if they had given various types of liquids or solid foods to the child "yesterday' or "last night." Children who are *exclusively* breastfed are defined as receiving breast milk only, while *full* breastfeeding is

Table 9.1 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed, and the percentage of last-born children who started breastfeeding within one hour of birth and within one day of birth, by selected background characteristics, Philippines 1993

Background characteristic	Among all children: Percent ever breastfed	Number of children	Among last-born children, percent who started breastfeeding: Within 1 hour of birth	Within 1 day of birth	Number of children
Sex					
Male	86.7	4580	35.1	59.7	2936
Female	87.7	4279	36.1	62.3	2739
Residence					
Urban	82.3	4296	33.0	55.0	2819
Rural	91.8	4563	38.2	66.8	2856
Region					
Metro. Manila	75.5	1098	24.8	47.3	749
Cordillera Admin.	94.1	173	67.0	83.5	99
Ilicos	84.4	490	28.2	57.5	311
Cagayan Valley	90.3	319	24.1	58.1	214
C-Luzon	82.5	912	29.4	47.6	594
S-Tagalog	86.7	1072	42.3	65.5	713
Bicol	92.7	674	12.8	60.0	400
W-Visayas	90.2	740	48.5	73.1	476
C-Visayas	87.3	725	41.4	63.9	458
E-Samar	87.8	442	51.3	66.9	269
W-Mindanao	95.0	497	38.1	63.9	310
N-Mindanao	89.6	553	28.7	59.3	352
S-Mindanao	91.5	670	42.5	64.3	425
C-Mindanao	92.3	494	46.9	74.9	302
Mother's education					
No education	97.8	245	56.1	80.9	148
Elementary	92.2	3660	39.7	67.7	2245
High school	85.9	3141	33.7	60.2	2026
College or higher	77.9	1813	28.9	47.8	1255
Assistance at delivery					
Medically trained person	82.1	4677	31.8	54.2	3153
Traditional midwife	92.9	4009	39.6	68.9	2424
Other or none	94.8	162	57.9	81.9	95
Place of delivery					
Health facility	77.4	2503	28.2	46.9	1748
At home	91.1	6333	38.9	67.2	3917
All children	87.2	8859	35.6	60.9	5675

Note: Table is based on all children born in the five years preceding the survey, whether living or dead at the time of the interview. Excluded are children for whom attendance at delivery is missing or place of delivery is "other" or missing.

defined as receiving breast milk and plain water only. The results shown in Table 9.2 indicate that, children in the Philippines are introduced to supplemental foods very early; among newborns under 2 months, one in six was not breastfed, and 31 percent were receiving supplementary foods. Only 4 in 10 newborns were exclusively breastfed. At age 4-5 months, the majority of infants were receiving supplementary foods; the percentage of children who were not breastfed increased to one in four children, while the percentage of children who were exclusively breastfed dropped to 13 percent. At age 6 months and older, virtually all infants have received foods other than breast milk (Figure 9.1).

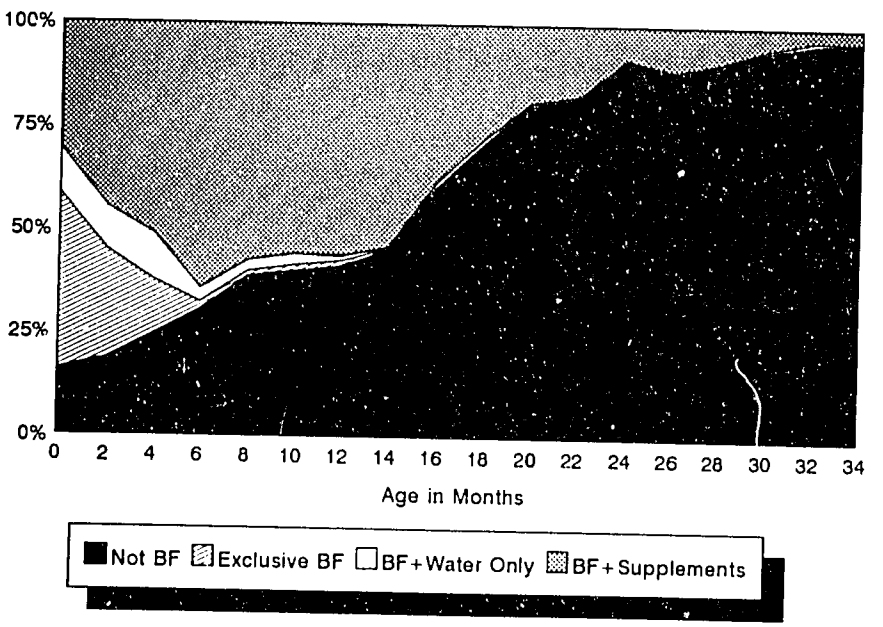
Table 9.2 Breastfeeding status

Percent distribution of living children by breastfeeding status, according to child's age in months, Philippines 1993

	Percentage of living children who are:					
			Breastfeeding and:			
Age in months	Not breast-fed	Exclusively breast-fed	Plain water only	Supple-ments	Total	Number of living children
0-1	15.9	42.7	10.7	30.7	100.0	194
2-3	18.6	26.4	10.3	44.7	100.0	292
4-5	24.5	13.2	11.2	51.1	100.0	319
6-7	30.6	1.8	3.4	64.2	100.0	316
8-9	38.8	1.1	2.7	57.4	100.0	321
10-11	40.1	1.4	2.7	55.8	100.0	269
12-13	41.3	1.3	1.2	56.2	100.0	274
14-15	45.4	0.3	0.3	53.9	100.0	282
16-17	60.3	0.3	1.2	38.3	100.0	303
18-19	71.3	0.0	1.2	27.5	100.0	326
20-21	81.1	0.3	0.0	18.6	100.0	294
22-23	82.6	0.0	0.3	17.1	100.0	264
24-25	91.3	0.3	0.3	8.1	100.0	275
26-27	89.0	0.0	0.0	11.0	100.0	262
28-29	90.6	0.3	0.3	8.8	100.0	327
30-31	93.9	0.2	0.6	5.3	100.0	312
32-33	96.2	0.0	0.8	3.1	100.0	299
34-35	96.7	0.0	0.0	3.3	100.0	277

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

Figure 9.1
Distribution of Children by Breastfeeding (BF) Status According to Age



1993 NDS

Table 9.3 shows the type of supplements given to children under five. Among breastfeeding children age 2-3 months, 28 percent were given infant formula, 15 percent received milk other than breast milk, and 31 percent were given other liquids. Other liquids consisted of water, tea, rice water or fruit juice. By the time the infants are 4-5 months, the pattern of infant feeding has changed dramatically; 36 percent have been introduced to solid or mushy food. Infant formula and other milk seem to be popular among children up to almost three years old.

Bottles with nipples are usually used in conjunction with infant formula, but they are also used with other types of supplementary food. The use of a bottle is not generally recommended at early stages of infancy due to the risk of exposing the child to the harmful effects of inefficient and unhygienic preparation of the liquid, particularly in poor environmental and socioeconomic conditions. In particular, since it is difficult to thoroughly clean feeding bottles, their use is thought to place children at increased risk for developing diarrhea or other diseases. Among breastfeeding newborns, 29 percent have already used a bottle with a nipple. The percentage of children who were given a bottle with a nipple increases until age 6-7 months, after which the percentage gradually declines.

Table 9.3 Breastfeeding and supplementation by age

Percentage of breastfeeding children who are receiving specific types of food supplementation, and the percentage who are using a bottle with a nipple, by age in months, Philippines 1993

	Percentage of breastfeeding children who are:					
	Receiving supplement				Using a bottle with a nipple	Number of children
Age in months	Infant formula	Other milk	Other liquid	Solid/ mushy		
0-1	21.1	6.8	13.3	0.5	28.9	163
2-3	28.0	14.8	31.2	2.3	35.5	238
4-5	27.2	15.7	41.9	36.2	28.1	241
6-7	28.8	16.6	69.5	78.0	31.9	219
8-9	26.6	22.2	68.4	81.4	29.2	197
10-11	27.5	29.6	66.9	87.0	25.0	161
12-13	21.7	29.6	73.1	88.2	19.6	161
14-15	19.4	29.0	70.3	88.6	15.9	154
16-17	16.4	34.5	73.1	91.4	9.5	120
18-19	19.6	24.3	79.9	89.0	18.3	93
20-21	37.0	51.0	79.8	94.0	22.0	56
22-23	(23.7)	(26.3)	(81.3)	(89.2)	(6.6)	46

Note: Breastfeeding status refers to preceding 24 hours. Percents by type of supplement among breastfeeding children may sum to more than 100 percent, as children may have received more than one type of supplement.
( ) Figures in parentheses are based on 25 to 49 unweighted cases.

9.2 Duration of Breastfeeding

The median duration and the frequency of breastfeeding according to selected background characteristics are presented in Table 9.4. The estimates of mean and median durations are based on current status data, that is, the proportions of children under 3 years of age who were being breastfed at the time of the survey, as opposed to the retrospective data on the length of breastfeeding of older children who are no longer breastfed. The prevalence/incidence mean is provided for the total population in order to allow for international comparison.

Table 9.4 Median duration and frequency of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and full breastfeeding among children under 5 years of age, and the percentage of children under 6 months of age who were breastfed six or more times in the 24 hours preceding the interview, according to background characteristics, Philippines 1993

Background characteristic	Median duration in months[1]			Number of children under 5 years of age	Children under 6 months	
	Any breast-feeding	Exclusive breast-feeding	Full breast-feeding[2]		Breastfed 6+ times in preceding 24 hours	Number of children
Residence						
Urban	9.0	0.5	0.6	2636	58.7	386
Rural	15.9	1.2	1.9	2757	84.4	419
Region						
Metro. Manila	1.2	0.5	0.5	683	34.1	128
Cordillera Admin.	16.9	2.2	2.4	105	*	15
Ilicos	13.8	1.8	2.2	301	(80.7)	49
Cagayan	17.3	1.5	2.1	192	(72.1)	30
C-Luzon	10.5	0.7	0.7	545	72.7	76
S-Tagalog	13.3	0.5	0.7	677	78.4	99
Bicol	15.8	2.2	2.5	419	90.8	62
W-Visayas	18.3	0.5	1.1	437	78.2	55
C-Visayas	11.7	0.7	2.0	433	75.8	63
E-Samar	16.5	2.1	2.5	269	(75.0)	42
W-Mindanao	15.9	0.6	0.7	295	90.8	50
N-Mindanao	14.1	0.5	0.6	334	(81.1)	42
S-Mindanao	14.1	0.5	0.7	410	(75.5)	48
C-Mindanao	16.6	0.7	0.7	294	(76.7)	45
Education						
No education	19.4	2.2	2.6	141	*	22
Elementary	16.7	1.6	2.4	2173	83.0	316
High school	13.8	0.5	0.6	1945	69.4	299
College or higher	5.4	0.4	0.5	1134	53.6	168
Assistance at delivery						
Medically trained	9.5	0.5	0.6	2911	63.2	444
Traditional midwife	15.7	1.4	2.3	2384	83.0	351
Sex of child						
Male	13.4	0.6	0.8	2800	71.0	416
Female	14.4	0.6	1.3	2593	73.2	389
Total	14.1	0.6	1.0	5393	72.1	805
Mean	13.7	2.3	3.1	86.9	NA	NA
Prevalence/Incidence[3]	13.0	1.5	2.3	NA	NA	NA

Note: Children for whom attendance at delivery is missing, "other," or "none" are excluded.
NA = Not applicable
[1]Medians and means are based on current status
[2]Either exclusive breastfeeding or breastfeeding and plain water only
[3]Prevalence-incidence mean
* Less than 25 cases
( ) Figures in parentheses are based on 25-49 cases.

The median duration of breastfeeding is estimated at 14.1 months, only slightly shorter than in Thailand (14.5 months), but much shorter than in Indonesia (23.3 months). Children who live in rural areas are breastfed about 7 months longer than children in urban areas. Children whose mother had no education are breastfed 4 times as long as children whose mother have college or higher education (19.4 months compared to 5.4 months). Mothers assisted by traditional midwife at delivery are also shown to breastfeed longer than those attended by medically trained personnel at delivery. There is very little difference in duration of breastfeeding by the sex of the child; girls are slightly more likely to be given breast milk longer than boys.

The duration of exclusive breastfeeding is very short in the Philippines. In fact, children are exclusively breastfed for only a little over half a month. The differentials of duration of exclusive and full breastfeeding resemble those of breastfeeding in general.

The duration of postpartum amenorrhea is affected by both the length of time breastfeeding and the frequency of breastfeeding. The child's health and nutritional status are also affected by the frequency of breastfeeding. Frequent breastfeeding is fairly common in the Philippines; 7 in 10 children under 6 months were breastfed six times or more in the past 24 hours. The differentials in the frequency of breastfeeding are similar to those of breastfeeding prevalence, initiation, and supplement.

CHAPTER 10

MATERNAL MORTALITY

10.1 Introduction

Data were collected in the 1993 National Demographic Survey (NDS) which are suitable for estimating maternal mortality using either a direct or an indirect estimation technique and for providing estimates of adult male and female mortality. The data concern the survivorship of sisters and brothers of survey respondents. For each of a respondent's siblings, information was collected on current age or, if dead, age at death and the number of years ago the death occurred. For dead sisters, additional questions were asked to determine if the death was maternity related, i.e., did the death occur during pregnancy, during delivery or within six weeks following a delivery or pregnancy termination.

The direct approach for estimation of maternal mortality uses data on the age of surviving sisters, the age at death of sisters who died, and the number of years ago the sisters died. For well-defined reference periods, the data are aggregated to determine the number of maternal deaths occurring in each reference period; maternal mortality rates are then directly estimated by dividing the number of deaths by the person-years of exposure. The result is the proportion of sisters who died of maternal causes among all sisters of respondents. This is an unbiased estimate of the probability of maternal death, provided that the mortality risk to all sisters is the same.

In the indirect approach to estimate maternal mortality, the data requirements are less rigid than those in the direct approach. However, because the estimates derived using the indirect approach do not have a specific time reference period, it is less preferred. Thus, in this report, only direct estimates are given.

10.2 Data Collection

The questions used in the 1993 NDS to collect information on adult mortality and maternal mortality are in Section 8 of the Individual Questionnaire (see Appendix E). The respondent is first asked to give the number of children to whom her mother gave birth, followed by a question on the birth order of the respondent. The respondent is asked to list all of her brothers and sisters, that is, all of the children born to her mother, starting with the first. After obtaining a complete list of the respondents' brothers and sisters, for each sibling the interviewer proceeded with the following questions: whether the sibling is still living or has already died; if living, his/her current age; if dead, how long ago the sibling died, and his/her age at the time of death. It was stressed during training that, while interviewers should be sensitive to the delicate nature of the data, every effort must be made to obtain answers to the questions. Interviewers were instructed that, when a respondent could not provide precise information on ages or the number of years ago the death occurred, approximate answers were acceptable.

For deceased sisters, three questions were asked to determine if a death was maternity related: "Was [NAME OF THE SISTER] pregnant when she died?" and if the answer was negative, the respondent was asked: "Did she die during childbirth?" and "Did she die within six weeks after a pregnancy termination or birth of a child?"

10.3 Assessment of Data Quality

One gauge of the quality of data collected in the survey is the completeness with which information has been recorded. Table 10.1 shows the completeness of information on the siblings of the NDS respondents.

Table 10.1 Data on siblings

Number of siblings reported by survey respondents and completeness of the reported data on age, age at death, and years since death, weighted, Philippines 1993

Sibling status and completeness of reporting	Sisters		Brothers		Total	
	Number	Percent	Number	Percent	Number	Percent
All siblings	43269	100.0	44641	100.0	87909	100.0
Living	39684	91.7	39833	89.2	79517	90.5
Dead	3372	7.8	4761	10.7	8132	9.3
Status unknown	213	0.5	47	0.1	260	0.3
Living siblings	39684	100.0	39833	100.0	79517	100.0
Age reported	39566	99.7	39708	99.7	79274	99.7
Age missing	118	0.3	125	0.3	243	0.3
Dead siblings	3372	100.0	4761	100.0	8132	100.0
Age at death and years-since-death reported	3233	95.9	4585	96.3	7818	96.1
Missing only age-at-death information	41	1.2	77	1.6	118	1.5
Missing only years-since death-information	43	1.3	33	0.7	77	0.9
Missing age-at-death and years-since-death information	54	1.6	65	1.4	119	1.5

Reporting of survivorship of siblings is almost complete in the NDS survey with less than 1 percent of the cases with missing information. Interestingly, information about the survival status of brothers is slightly more likely to be available than that of sisters.

Information on the ages of siblings who are still alive is almost complete. In a few instances where the respondent could not recall her sibling's age, the age was imputed on the basis of the birth order of that sibling; as a result, less than 1 percent of the cases have missing information on age. Recall of information regarding dead siblings was also good; age at death and the number of years ago the death occurred were reported for 96 percent of the respondents' brothers and sisters. The Filipino tradition of visiting annually tombs of departed members of the family accounts for the high memory recall of this kind of information since tombstones usually bear the age and the year of death of deceased persons.

Several tests were conducted on the completeness of the listing of siblings, and their characteristics. The following discussion is based on tables specially run to investigate the quality of data in this section. These tables are presented in Appendix C which discusses nonsampling errors found in the survey. One indicator of the superior quality of the data on which maternal mortality estimation will be based is shown by the distribution of year of birth of respondents vis-à-vis that of the siblings. The fact that the median year of birth of the respondent (1964) coincides with the median year of birth of her siblings indicates that there is no systematic omission of older siblings (Table C.7).

The evolution of the mean sibship size based on the listing of siblings lends further credence to the good quality of the Philippine data. The overall sibship size of 6.85, the high but stable sibship sizes observed until the mid-sixties and their subsequent monotonic decline reflects what is generally known to be the fertility trend in the country. Nevertheless, a slight omission in the reporting of older brothers seems to have occurred, as is evident from the low sex ratios among siblings born prior to the sixties. This brought down the overall sex ratio of the siblings to 104. While this may cause a slight bias in the estimation of adult mortality, estimates of maternal mortality remain unaffected because the omission occurred among male siblings (Table C.8).

10.4 Direct Estimates of Adult Mortality

The information collected on the siblings through the above described data collection strategy permits the estimation not only of maternal mortality but also of adult mortality. Estimation of adult mortality in this case is straightforward. First, age specific death rates are computed by dividing the number of deaths in each age group by the total person months of exposure to the risk in that group during a specified reference period. For females, an overall age-standardized adult mortality rate is then obtained by adjusting the age-specific rates by the current age distribution of the respondents, that is, by taking the sum of each age-specific mortality rate multiplied by the percentage of respondents in that age group. The underlying assumption in this instance is that the age distribution of the respondents is the same as that of her siblings. This procedure was also done for males, using the age distribution of the male population obtained from the household questionnaire.

Table 10.2 Estimates of age-specific adult mortality

Direct age-specific mortality estimated based on the survivorship of siblings of survey respondents, by age and sex, Philippines 1987-1993

Age interval	Deaths	Exposure years	Estimated rates
MALES			
15-19	65	38375	1.70
20-24	121	44882	2.70
25-29	113	42824	2.64
30-34	135	37170	3.64
35-39	134	27173	4.92
40-44	82	17301	4.71
45-49	81	10046	8.05
Total	731	217771	3.51
FEMALES			
15-19	45	36907	1.23
20-24	67	44055	1.52
25-29	57	42442	1.34
30-34	63	36977	1.70
35-39	61	27849	2.21
40-44	49	17943	2.71
45-49	33	10587	3.10
Total	375	216759	1.79

Age-specific mortality estimates for males and females for the period 0-6 years before the survey, calculated from the survivorship data by direct procedures are shown in Table 10.2. The number of sibling deaths during the period in the age range 15-49 was fairly small, so that the individual rates are based on relatively few events and are subject to sampling variability. Table 10.2 also shows that the number of male deaths is almost twice as many as that for females (731 compared to 375). For both sexes, the pattern of mortality rates is as expected; for all ages, males have higher mortality than females, and the rates rise according to age.

10.5 Direct Estimates of Maternal Mortality

Table 10.3 includes information necessary for the calculation of maternal mortality ratio. Two 7-year time periods are investigated, 1980-86 and 1987-93. These time periods are chosen to reduce the impact of heaping of reporting on 5-year intervals. For each time period, maternal deaths are found to be an extremely rare event; 53 in the more recent period, and 46 in the preceding seven years. Given the small number of cases, the age-specific pattern should be interpreted with caution. As such, the aggregate rate for 15-49 is preferred. Age-specific mortality rates are calculated by dividing the number of maternal deaths by years of exposure. To remove the effects of truncation due to the upper age boundary of eligibility for the survey (age

49), the overall rate for women 15-49 is standardized by the age distribution of the survey respondents. Based on this information, the maternal mortality rate for the 1980-86 period was found to be 0.280, and for the 1987-93 period 0.236 per 1,000 women.

Table 10.3 Maternal mortality rates by age

Direct maternal mortality estimate based on the survivorship of sisters, Philippines 1987-93 and 1980-86

	1987 - 1993				1980 - 1986			
Age	Maternal deaths	Exposure years	Mortality rates (000)	Fertility rates	Maternal deaths	Exposure years	Mortality rates (000)	Fertility rates
15-19	2.34	36907	0.064	0.056	1.87	44724	0.042	0.066
20-24	13.42	44055	0.305	0.198	14.14	40910	0.346	0.227
25-29	13.50	42442	0.318	0.221	10.16	34235	0.297	0.248
30-34	8.60	36977	0.233	0.178	11.42	23871	0.487	0.207
35-39	8.09	27849	0.290	0.124	4.86	15041	0.323	0.150
40-44	2.69	17943	0.150	0.058	2.71	8354	0.325	0.090
45-49	4.44	10587	0.420	0.010	0.91	3836	0.237	0.016
Total	53.09	216760	0.245	4.224	46.06	170972	0.269	5.027
Total age-standardized			0.236				0.280	
Total age-standardized adjusted for "ever pregnant"			0.273				0.327	
General fertility rate				0.131				0.154
Maternal mortality ratio		181					182	
Maternal mortality ratio adjusted for "ever pregnant"		209					213	

Since information on whether the female siblings of the respondents have ever been pregnant was missing for approximately 30 percent of the cases, these cases were distributed proportionately across age groups according to the distribution of women with a known response to the question whether they have ever been pregnant. A more detailed discussion of this adjustment is presented in Appendix C. The adjusted number of deaths for the two time periods increased to 53 for 1980-86 and 62 for 1987-93 (data not shown), and the maternal mortality rate increased to 0.327 and 0.273 for the same consecutive time periods.

Maternal mortality ratio is considered a more useful measure of maternal mortality because it reflects the risk experienced by women once pregnant rather than the combined risk of pregnancy and risk once pregnant. This ratio is calculated by dividing the age-standardized maternal mortality rate by the general fertility rate which has also been standardized by age. The resulting ratios are 213 deaths per 100,000 births for the 1980-86 period and 209 deaths per 100,000 births for the more recent period.

A further analysis carried out by observing mortality ratios per 100,000 births obtained by dividing the maternal mortality rate by the fertility rate for each of the age groups (not presented in table) show that the greatest mortality risks occur among women 35 and over. The risks are lowest for women 25-29 in 1980-86 and 30-34 in 1987-1993. The low risks for teenage women should be used with caution due to the small number of women who started childbearing in their teens.

CHAPTER 11

LOCAL AVAILABILITY OF FAMILY PLANNING AND HEALTH SERVICES

The information presented in this chapter comes from the Health Service Availability Questionnaire, which was administered at the community level (see Appendix E). Data collected in the questionnaire will provide information on the family planning and health environment available to women and children in the cluster samples. The relationship between availability of services and their use is also presented on the assumption that making services more accessible increases the likelihood of use. In this analysis, the availability of services is defined as the nearest facility providing services to the women in the clusters. It should be kept in mind that 1993 NDS covered an unbiased estimate of women of reproductive ages, not an unbiased sample of clusters or facilities. As such, the service availability sample is representative of the nearest facility to the sampled women, and does not represent all facilities in the country.

In the 1993 National Demographic Survey (NDS), the community is the cluster sample, which corresponds to the lowest level of geographic administrative unit (*barangay*) or a segment of a barangay. The questionnaire was filled out using information obtained from knowledgeable residents. In most cases, this includes the barangay captain. This information is then assigned to each respondent. Information gathered include general information on the cluster setting, availability of public services, information on the types of family planning and health services available in the cluster, and information about stationary facilities providing family planning and health services. The survey also collected information on the distance between the community and the nearest of each type of facility. Accessibility, measured by time to the facility, was recorded if the most common mode of transport was public transportation.

11.1 Distance and Time to Nearest Family Planning Services

Tables 11.1 and 11.2 show that the majority of Filipino women live in close proximity to a health or family planning facility. Virtually all married women are within 5 kilometers of a health facility. As expected, urban women are more likely to have access to a health and family planning facility that rural women (Table 11.1). Table 11.2 shows that there are no notable differences in the availability of health services across regions; throughout the country, at least 67 percent of women have a health facility in the barangay or live within 1 kilometer from a health facility.

Table 11.1 Distance to nearest health or family planning services

Percent distribution of currently married women 15-49 by distance to nearest health or family planning (FP) services/supplies, by area of residence, Philippines 1993

Distance (kilometers)[1]	Residence		Total
	Urban	Rural	
Under 1	89.1	71.8	80.7
1-4	8.2	18.5	13.2
5-9	0.3	6.1	3.1
10-14	1.6	1.3	1.5
15+	0.2	1.6	0.8
Distance unknown	0.6	0.6	0.6
Total	100.0	100.0	100.0

[1]Distance was obtained from the community-level service availability survey.

Presented in Table 11.3 is the distribution of married women 15-49 in the survey by the distance to the nearest facility offering various family planning services. The table shows that overall, distance and availability of family planning methods make no significant difference in whether a woman uses a contraception, or her choice of method. Except for small variations, for both family planning users and nonusers, and regardless of the method they are using, virtually all women have easy access to a family planning service.

Table 11.2 Distance to nearest health or family planning services

Percent distribution of currently married women 15-49 by distance to nearest family planning services, by region, Philippines 1993

Distance (kilometers)[1]	Total	Metro Manila	Cordillera Administration	Ilocos	Cagayan Valley	C-Luzon	S-Tagalog	Bicol	W-Visayas	C-Visayas	E-Visayas	W-Mindanao	N-Mindanao	S-Mindanao	C-Mindanao
Under 1	80.7	88.4	80.7	66.7	70.1	81.9	77.2	83.7	86.3	78.6	81.8	71.7	80.6	91.0	75.0
1-4	13.2	9.5	19.3	33.3	24.9	10.8	14.6	14.4	8.9	12.6	11.4	18.3	5.4	7.9	11.1
5-9	3.1	0.0	0.0	0.0	5.0	4.0	6.4	0.0	4.9	2.9	1.8	7.8	0.0	1.1	7.8
10-14	1.5	0.0	0.0	0.0	0.0	3.3	1.9	0.0	0.0	4.7	0.0	0.0	6.1	0.0	2.9
15+	0.8	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	1.2	0.0	2.2	7.9	0.0	1.8
Distance unknown	0.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	1.4
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

[1]Distance was obtained from the community-level service availability survey.

Table 11.3 Distance to nearest family planning services by use of family planning

Percent distribution of all currently married women 15-49 by distance to nearest family planning services, for nonusers of family planning and for users of family planning by type of method, Philippines 1993

Distance to nearest facility providing FP services and FP services	All married women	Non-users	Family planning users: Sterilization	Clinical methods	Supply methods	Any method
Distance (kilometers)[1]						
Under 1	80.7	79.9	79.8	79.8	81.6	82.0
1-4	13.2	13.2	15.4	15.9	14.0	13.2
5-9	3.1	3.6	2.2	0.8	2.7	2.3
10-14	1.5	1.5	1.5	1.5	1.1	1.4
15-29	0.3	0.4	0.2	0.0	0.3	0.3
30+	0.5	0.6	0.4	1.4	0.2	0.5
Distance unknown	0.6	0.8	0.6	0.5	0.1	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Methods available						
Pill	89.8	88.5	92.6	95.1	93.5	91.9
IUD	59.3	58.3	63.4	61.9	63.5	61.0
Injection	29.8	29.2	30.3	36.2	33.9	30.7
Condom	86.3	84.8	91.7	92.6	89.1	88.7
Female sterilization	21.5	21.4	24.6	21.6	21.0	21.7
Male sterilization	17.5	17.1	19.5	20.3	18.3	18.1
Total	8961	5379	1097	278	853	3582

Note: Regional information may be subject to large sampling errors due to the small number of sampling points.
[1]Distance was obtained from the community-level service availability survey.

The data concerning distance to the nearest health facility providing family planning services by type of facility are shown in Table 11.4. For the country as a whole, 81 percent of married women are within 1 kilometer from a family planning facility, 13 percent are 1 to 4 kilometers away from a facility. The median distance to the nearest facility is 0.6 kilometer. In general, hospitals are slightly farther than other health facilities. As expected, urban women are nearer to a family planning facility than women in rural areas. The median distance to a hospital for rural women is almost 4 kilometers. Nevertheless, more than 90 percent of rural women live within 5 kilometer of a family planning facility.

Table 11.4 Distance to nearest family planning services by type of facility

Percent distribution of currently married women age 15-49 by distance to nearest facility providing family planning (FP) services/supplies, according to type of facility, Philippines 1993

Distance to nearest facility providing FP services (in kilometers)[1]	Government hospital	Rural health unit/ Puericulture center	Barangay health station	Private hospital	Private clinic	Other	Total
Urban areas							
Under 1	66.9	88.8	96.2	69.1	100.0	100.0	89.1
1-4	25.5	8.1	3.2	20.7	0.0	0.0	8.2
5-14	6.0	2.0	0.0	10.2	0.0	0.0	1.9
15+	1.6	0.0	0.0	0.0	0.0	0.0	0.2
Distance unknown	0.0	1.0	0.6	0.0	0.0	0.0	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median distance[2]	0.7	0.6	0.5	0.7	0.5	0.5	0.6
Rural areas							
Under 1	22.2	36.5	86.5	81.7	100.0	67.8	71.8
1-4	29.0	39.4	11.8	18.3	0.0	0.0	18.5
5-14	32.1	20.2	1.6	0.0	0.0	10.4	7.4
15+	12.2	3.9	0.1	0.0	0.0	0.0	1.6
Distance unknown	4.4	0.0	0.0	0.0	0.0	21.8	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median distance[2]	3.8	2.2	0.6	0.6	0.5	0.6	0.7
Currently married women							
Under 1	53.0	68.1	90.7	70.3	100.0	80.1	80.7
1-4	26.6	20.5	8.1	20.5	0.0	0.0	13.2
5-14	14.1	9.2	0.9	9.2	0.0	6.5	4.6
15+	4.9	1.6	0.1	0.0	0.0	0.0	0.9
Distance unknown	1.4	0.6	0.2	0.0	0.0	13.5	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median distance[2]	0.9	0.7	0.5	0.7	0.5	0.5	0.6

[1]Distance was obtained from the community-level service availability survey.
[2]Based on women having access to a facility of a specific known type.

Informants for the service availability module of the 1993 National Demographic Survey (NDS) were also asked the estimated one-way travel time to reach the facilities discussed in the preceding section. This question applies only if the primary means of travel is public transportation; in sample clusters where most of the people go to the health facility on foot, ride their own vehicle or rented vehicle, time to reach the facility is not recorded. The result underscores the previous finding which suggests that distance as well as travel time to a family planning facility has little or no association with a woman's decision whether to use a contraception, and whether she is using contraception for limiting or spacing births. The median estimated travel time to a family planning facility is between 10 to 15 minutes. Data in Table 11.5 show the expected pattern; hospitals are more likely to be located farther than other facilities, and rural women are farther from a family planning service than urban women.

Table 11.5 Time to nearest family planning services by type of facility

Percent distribution of currently married (rural) women age 15-49 by time to nearest facility providing family planning (FP) services/supplies, according to type of facility, Philippines 1993

Time to nearest facility providing FP services (in minutes)[1]	Government hospital	Rural health unit/ Pueri-culture center	Barangay health station	Private hospital	Other	Total
Urban areas						
Under 15	16.2	13.5	4.0	23.5	0.0	9.4
15-29	11.0	4.0	2.5	4.9	0.0	4.0
30-59	4.9	1.8	0.0	0.0	0.0	1.1
60-119	6.0	0.0	0.0	10.2	0.0	1.3
120+	0.0	0.0	0.0	1.3	0.0	0.1
Time unknown	61.9	80.7	93.4	60.1	100.0	84.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Median time[2]	15.3	5.8	10.7	10.8	-	10.6
Rural areas						
Under 15	17.9	17.8	6.6	0.0	0.0	9.5
15-29	15.8	20.2	1.1	18.3	0.0	6.1
30-59	4.6	4.7	0.7	0.0	0.0	1.8
60-119	10.0	2.6	0.0	0.0	10.4	1.3
120+	10.5	1.3	0.0	0.0	0.0	0.9
Time unknown	41.1	53.5	91.6	81.7	89.6	80.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Median time[2]	20.7	15.4	5.9	25.5	35.5	15.1
Currently married women						
Under 15	16.7	15.2	5.5	21.2	0.0	9.4
15-29	12.5	10.4	1.7	6.2	0.0	5.0
30-59	4.8	3.0	0.4	0.0	0.0	1.4
60-119	7.2	1.0	0.0	9.2	6.5	1.3
120+	3.3	0.5	0.0	1.2	0.0	0.5
Time unknown	55.4	69.9	92.4	62.2	93.5	82.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Median time[2]	16.0	10.9	10.2	10.9	35.5	10.8

[1]Time was obtained from the community-level service availability survey.
[2]Based on women having access to a facility of a specific known type.

11.2 Distance to Nearest Maternal and Child Health Services

During the interview with the respondents for the selected cluster, if the reported nearest health facility is a hospital, questions about services provided in the hospital were also asked. Overall, almost half of children 1-4 years live within 5 kilometers of a hospital and 61 percent are less than 10 kilometers away from a hospital. Unlike family planning services, distance to a health facility seems to have an impact on the use of services, particularly maternal and child health services (Table 11.6). Mothers who received antenatal care from a doctor or a nurse, or trained midwife and were delivered by medical personnel or delivered in a health facility are more likely to live close to a hospital. The chance of a mother receiving either antenatal care or delivery assistance from medical personnel appears to be associated with the distance to the hospital. The likelihood of a child receiving a vaccination is reported in the last two columns of Table 11.6. Children who have received all recommended vaccinations are slightly more likely to live close to a hospital than those who are only partially immunized.

Table 11.6 Distance to nearest maternal and child health services by type of care received

Percent distribution of children under 5 by distance to nearest hospital providing maternal and child health services, according to antenatal care and delivery assistance received, Philippines 1993

Distance to nearest hospital providing MCH services (in kilometers)[1]	All children 0-4 years	Maternal care			Vaccination coverage[2]	
		ANC & DA	ANC or DA	Neither ANC nor DA	All vaccinations[3]	Some/no vaccinations
Under 1	18.4	25.7	11.6	9.6	20.0	18.4
1-4	29.1	35.7	23.7	18.7	30.4	29.2
5-9	23.3	19.7	26.8	27.1	22.5	23.4
10-14	9.6	7.6	11.3	12.1	9.2	9.7
15-29	13.6	7.8	18.5	22.1	13.4	13.1
30+	4.6	2.7	6.3	7.2	3.1	4.8
Distance unknown	1.5	0.8	1.7	3.2	1.5	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

ANC = Antenatal care by doctor, nurse, or trained midwife
DA = Delivery assistance by doctor, nurse, trained midwife, or delivered in a health facility.
[1]Distance was obtained from the community-level service availability survey
[2]Figures are for children age 1-4 years
[3]Received BCG, measles, and three doses of DPT and polio vaccines before first birthday

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APPENDIX A

SAMPLE DESIGN

APPENDIX A

SAMPLE DESIGN

The main objective of the 1993 National Demographic Survey (NDS) sample is to provide estimates with an acceptable precision for sociodemographics characteristics, like fertility, family planning, health and mortality variables and to allow analysis to be carried out for urban and rural areas separately, for 14 of the 15 regions in the country. Due to the recent formation of the 15th region, Autonomous Region in Muslim Mindanao (ARMM), the sample did not allow for a separate estimate for this region.

The sample is nationally representative with a total size of about 15,000 women aged 15 to 49. The Integrated Survey of Households (ISH) was used as a frame. The ISH was developed in 1980, and was comprised of samples of primary sampling units (PSUs) systematically selected and with a probability proportional to size in each of the 14 regions. The PSUs were reselected in 1991, using the 1990 Population Census data on population size, but retaining the maximum number of PSUs selected in 1980.

This sample is self-weighted in each of the 14 regions, but not at the national level. It was selected using a two-stage sample design; the first involved the selection of *barangays*, and the second, the selection of households in the sampled *barangays*. Barangays are the smallest political subdivisions. In general, the barangay corresponds to a census enumeration area. However, they vary widely in size, some covering more than 1,000 households. In the case when the barangay size was very large, it was segmented into several enumeration areas.

To maximize the efficiency of the sample design, the sample was allocated to the regions using a method called "power allocation procedure." This method optimizes the precision by taking into account sampling errors found in previous demographic surveys, in particular the 1978 Republic of the Philippines Fertility Survey. For this purpose, the following characteristics were considered: mean number of children ever born, proportion of women who want no more children, mean number of children desired, and proportion of married women who are using a family planning method.

A total of 2100 PSUs were selected for ISH, 750 of which were selected for the 1993 NDS. Individual households were selected with a probability of selection inversely proportional to the barangay's size to maintain a fixed overall sampling fraction within each region. An average of 20 completed interviews was targeted in each PSU. The estimated probability of selection for each PSU in each region is calculated as follows:

$$P_{1i} = (b * M_i) / \Sigma M_i$$

where:

b is the number of selected PSUs in a particular stratum

M_i is the 1990 census population of the i-th PSU in the stratum

ΣM_i is the total stratum population.

The sample selection probability of households, P_{2i}, follows that

$$P_{1i} * P_{2i} = f$$

where f is the overall sampling fraction for the corresponding region.

In total, 750 PSUs and about 13,700 households were selected. The survey was well received by the respondents. Response rate for the household interview varies slightly by region (see Table A.1). In some regions, all of the households in the sample were successfully interviewed. For the individual women's interview, Bicol women have the lowest overall response rate (93 percent).

A total of 15,029 women aged 15-49 years were succesfully interviewed. The weighting factors to provide national estimates were calculated as the inverse of the overall sampling fractions, adjusted with the corresponding household and individual responses rates. Table A.2 shows the total number of selected PSUs per region and the final sampling weights for households and individual interviews:

Table A.1 Sample implementation

Percent distribution of households and eligible women in the DHS sample by results of the interview, and household response rates, eligible women response rates, and overall response rates, according to region and urban-rural area, Philippines 1993

Result	Region							
	Metro. Manila	Cordillera Admin.	Ilocos	Cagayan Valley	C-Luzon	S-Tagalog	Bicol	W-Visayas
Selected households								
Completed (C)	92.5	87.3	98.1	98.9	94.7	92.6	96.3	96.2
Household present but no competent respondent at home (HP)	0.6	0.4	0.1	0.0	0.6	0.3	0.3	
Refused (R)	0.8	0.2	0.1	0.0	0.3	0.1	0.1	0.1
Dwelling not found (DNF)	0.5	0.8	0.1	0.0	0.1	0.2	0.0	
Household absent (HA)	0.5	2.1	0.3	0.0	0.2	2.0	1.9	0.5
Dwelling vacant/destroyed (DV)	0.8	2.3	0.4	0.0	1.6	0.3	0.1	0.1
Other (O)	4.2	6.8	0.8	1.1	2.5	4.4	1.3	3.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1298	513	890	733	1183	1380	917	1127
Household response rate (HRR)[1]	98.0	98.5	99.7	100.0	98.9	99.3	99.5	99.8
Eligible women								
Completed (EWC)	98.8	96.9	98.6	98.3	98.5	98.6	92.7	98.9
Not at home (EWNH)	0.9	1.8	0.8	0.9	0.7	1.0	4.0	0.4
Postponed (EWP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (EWR)	0.2	0.0	0.1	0.0	0.0	0.0	1.0	0.0
Partly completed (EWPC)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Incapacitated (EWI)	0.1	0.8	0.3	0.4	0.8	0.4	2.1	0.6
Other (EWO)	0.0	0.4	0.2	0.4	0.0	0.1	0.1	0.2
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1904	488	981	701	1412	1538	916	1220
Eligible woman response rate (EWRR)[2]	98.8	96.9	98.6	98.3	98.5	98.6	92.7	98.9
Overall response rate (ORR)[3]	96.8	95.4	98.2	98.3	97.5	97.9	92.3	98.7

Note: The household response rate is calculated for completed households as a proportion of completed, no competent respondent, postponed, refused, and dwelling not found. The eligible woman response rate is calculated for completed interviews as a proportion of completed, not at home, postponed, refused, partially completed, incapacitated and "other." The overall response rate is the product of the household and woman response rates.

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

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

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

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

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

$$ORR = HRR * EWRR$$

Table A.1—*continued*

Percent distribution of households and eligible women in the DHS sample by results of the interview, and household response rates, eligible women response rates, and overall response rates, according to region and urban-rural residence, Philippines 1993

Result	Region						Residence		Total
	C-Visayas	E-Visayas	W-Mindanao	N-Mindanao	S-Mindanao	C-Mindanao	Urban	Rural	
Selected households									
Completed (C)	96.0	93.5	96.0	95.3	93.5	93.4	93.7	95.5	94.7
Household present but no competent respondent at home (HP)	0.2	1.2	0.5	0.1	0.1	0.2	0.4	0.3	0.3
Refused (R)	0.2	0.0	0.1	0.0	0.1	0.0	0.4	0.0	0.2
Dwelling not found (DNF)	0.7	0.5	0.2	0.1	0.7	0.0	0.3	0.2	0.3
Household absent (HA)	1.1	2.4	1.4	1.5	0.9	1.2	1.2	1.1	1.1
Dwelling vacant/ destroyed (DV)	0.2	0.6	1.6	1.0	0.2	0.2	0.7	0.5	0.6
Other (O)	1.6	1.8	0.2	2.0	4.5	4.9	3.3	2.4	2.8
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1062	867	886	931	1060	881	6542	7186	13728
Household response rate (HRR)[1]	98.9	98.3	99.2	99.8	99.1	99.8	98.9	99.5	99.2
Eligible women									
Completed (EWC)	98.6	97.1	97.1	98.3	98.5	98.7	98.2	97.9	98.0
Not at home (EWNH)	0.5	1.8	1.5	0.9	0.9	0.7	1.1	1.1	1.1
Postponed (EWP)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (EWR)	0.5	0.1	0.1	0.0	0.2	0.3	0.2	0.1	0.2
Partly completed (EWPC)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Incapacitated (EWI)	0.4	0.8	0.7	0.7	0.4	0.2	0.5	0.7	0.6
Other (EWO)	0.0	0.0	0.5	0.0	0.0	0.0	0.1	0.1	0.1
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1182	826	973	1013	1223	955	8056	7276	15332
Eligible woman response rate (EWRR)[2]	98.6	97.1	97.1	98.3	98.5	98.7	98.2	97.9	98.0
Overall response rate (ORR)[3]	97.5	95.4	96.3	98.1	97.6	98.5	97.1	97.3	97.2

Note: The household response rate is calculated for completed households as a proportion of completed, no competent respondent, postponed, refused, and dwelling not found. The eligible woman response rate is calculated for completed interviews as a proportion of completed, not at home, postponed, refused, partially completed, incapacitated and "other." The overall response rate is the product of the household and woman response rates.

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

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

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

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

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

$$ORR = HRR * EWRR$$

Table A.2 Distribution of sample PSUs, households and women

Region	Number of PSUs	Households	Individual
Metro. Manila	70	1.501267	1.452369
CAR	28	0.886659	0.860143
Ilocos	49	0.725397	0.705742
Cagayan Valley	40	1.184577	1.149854
C. Luzon	65	1.377194	1.336054
S. Tagalog	75	0.918937	0.948080
Bicol	50	1.042227	1.008199
W. Visayas	62	0.991550	0.962006
C. Visayas	58	0.816717	0.804357
E. Visayas	48	0.783337	0.771261
W. Mindanao	48	0.819593	0.797113
N. Mindanao	51	0.936176	0.908592
S. Mindanao	58	0.774537	0.750077
C. Mindanao	48	0.516750	0.509813

APPENDIX B

ESTIMATES OF SAMPLING ERRORS

APPENDIX B

ESTIMATES OF SAMPLING ERRORS

The results from sample surveys are affected by two types of errors, nonsampling error and sampling error. Nonsampling error is due to mistakes made in carrying out field activities, such as failure to locate and interview the correct household, errors in the way the questions are asked, misunderstanding on the part of either the interviewer or the respondent, data entry errors, etc. Although efforts were made during the design and implementation of the 1993 NDS to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be measured statistically. The sample of women selected in the 1993 NDS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each one would have yielded results that differed somewhat from the actual sample selected. The sampling error is a measure of the variability between all possible samples; although it is not known exactly, it can be estimated from the survey results.

Sampling error is usually measured in terms of *standard error* of a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which, apart from nonsampling errors, 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 same statistic as measured in 95 percent of all possible samples with the same design (and expected size) will fall within a range of plus or minus two times the standard error of that statistic.

If the sample of women had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 1993 NDS sample was designed using stratification (region and urban/rural), clustering (barangay or a segment thereof) and stages of selection (barangay and household on the first and second stage, respectively). Consequently, it was necessary to utilize more complex formulas. The module on sampling errors in the ISSA package developed for the Demographic and Health Surveys program was used to assist in computing the sampling errors with the proper statistical methodology.

This program treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

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

in which

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

where h represents the stratum which varies from 1 to H,
m_h is the total number of EAs selected in the hth stratum,
y_{hi} is the sum of the values of variable y in EA i in the hth stratum,

x_{hi} is the sum of the number of cases (women) in EA i in the hth stratum, and
f is the overall sampling fraction, which is so small that CLUSTERS ignores it.

In addition to the standard errors, the program 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. The ISSA program also computes the relative error and confidence limits for the estimates.

For each variable, the type of statistic (mean or proportion) and the base population are given in Table B.1. Sampling errors are presented in Tables B.2.1-B.2.17 for variables considered to be of major interest. Results are presented for the whole country, divided into urban and rural areas, and for each of the 14 regions. For each variable, Tables B.2.1-B.2.17 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted cases (WN), the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE).

More complex estimates like the total fertility rate, infant mortality rate or medians are calculated using the Jackknife replication procedure incorporated in this ISSA module. Results are presented only for the whole country, divided into urban and rural areas, but not for each of the 14 regions, because these estimates need to have a large sample size to provide accurate precision.

The confidence limits have the following interpretation. For the proportion of married women currently using a contraceptive method (currently using any method), the overall average from the sample is 0.400 and its standard error is 0.006. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., 0.400 ± (2 x 0.006), which means that there is a high probability (95 percent) that the true proportion currently using is between 0.387 and 0.412.

The relative standard error for most estimates for the country as a whole is small, except for estimates of very small proportions. The magnitude of the error increases as estimates for subpopulations such as geographical areas are considered. For the variable currently using any method, for instance, the relative standard error (as a percentage of the estimated proportion) for the whole country and for urban and rural areas is 1.5 percent, 2.1 percent, and 2.3 percent, respectively.

Table B.1 List of selected variables for sampling errors, Philippines 1993

Variable	Type	Description	Base population
Urban	Proportion	Urban resident	All women
With secondary education or higher	Proportion	Secondary or more	All women
Currently in union	Proportion	Currently in union	All women
Married before age 20	Proportion	Married before age 20	All women 20-49
Had first sexual intercourse before 18	Proportion	First sex before age 18	All women 20-49
Children ever born	Mean	Children ever born	All women
Children ever born to women over 40	Mean	Children ever born	Women 40-49
Children surviving	Mean	Children surviving	All women
Know any method	Proportion	Knowing any method	Women in union
Knew any modern method	Proportion	Knowing any modern method	Women in union
Know source for modern method	Proportion	Knowing modern method source	Women in union
Ever used any contraceptive method	Proportion	Ever use any method	Women in union
Currently using any method	Proportion	Using any method	Women in union
Currently using a modern method	Proportion	Using any modern method	Women in union
Currently using pill	Proportion	Using pills	Women in union
Currently using IUD	Proportion	Using IUD	Women in union
Currently using condom	Proportion	Using condom	Women in union
Currently using female sterilization	Proportion	Using female sterilization	Women in union
Currently using periodic abstinence	Proportion	Using abstinence	Women in union
Public source user	Proportion	Public source user	User modern method
Want no more children	Proportion	Desiring no more children	Women in union
Want to delay next birth at least 2 years	Proportion	Delay child at least 2 years	Women in union
Ideal number of children	Mean	Ideal number of children	All women
Mothers received tetanus injection	Proportion	Received tetanus injection	Births last 5 years
Received medical care at birth	Proportion	Medical attention at birth	Births last 5 years
Had diarrhea in last 24 hours	Proportion	Diarrhea last 24 hours	Children < 5 years
Had diarrhea in last 2 weeks	Proportion	Diarrhea last 2 weeks	Children < 5 years
Received ORS treatment	Proportion	Received ORS treatment	Diarrhea last 2 weeks
Received medical treatment	Proportion	Received medical treatment	Diarrhea last 2 weeks
Having health card	Proportion	Had health card	Children 12-23 months
Received BCG vaccination	Proportion	Received BCG	Children 12-23 months
Received DPT vaccination (3 doses)	Proportion	Received DPT (3 doses)	Children 12-23 months
Received polio vaccination (3 doses)	Proportion	Received POLIO (3 doses)	Children 12-23 months
Received measles vaccination	Proportion	Received measles	Children 12-23 months
Fully immunized	Proportion	Fully immunized	Children 12-23 months

Table B.2.1 Sampling errors: Entire sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Urban	.566	.008	15029.0	15029.0	1.980	.014	.550	.582
With secondary education or higher	.666	.006	15029.0	15029.0	1.622	.009	.654	.679
Currently in union	.596	.005	15029.0	15029.0	1.355	.009	.585	.607
Married before age 20	.354	.006	11890.0	11871.3	1.419	.018	.342	.366
Had first sexual intercourse before 18	.189	.005	11890.0	11871.3	1.295	.025	.179	.198
Children ever born	2.300	.028	15029.0	15029.0	1.287	.012	2.244	2.356
Children ever born to women over 40	4.950	.068	2741.0	2707.3	1.168	.014	4.814	5.087
Children surviving	2.127	.025	15029.0	15029.0	1.253	.012	2.078	2.177
Know any method	.972	.003	9145.0	8961.3	1.808	.003	.965	.978
Know any modern method	.969	.003	9145.0	8961.3	1.889	.004	.963	.976
Know source for modern method	.933	.005	9145.0	8961.3	1.794	.005	.924	.943
Ever used any contraceptive method	.611	.007	9145.0	8961.3	1.282	.011	.598	.625
Currently using any method	.400	.006	9145.0	8961.3	1.198	.015	.387	.412
Currently using a modern method	.249	.005	9145.0	8961.3	1.147	.021	.238	.259
Currently using pill	.085	.003	9145.0	8961.3	1.103	.038	.079	.091
Currently using IUD	.030	.002	9145.0	8961.3	1.275	.075	.026	.035
Currently using condom	.010	.001	9145.0	8961.3	1.113	.116	.008	.012
Currently using female sterilization	.119	.004	9145.0	8961.3	1.080	.031	.111	.126
Currently using periodic abstinence	.073	.003	9145.0	8961.3	1.096	.041	.067	.079
Public source user	.717	.011	2251.0	2227.2	1.207	.016	.694	.740
Want no more children	.506	.006	9145.0	8961.3	1.088	.011	.494	.517
Want to delay next birth at least 2 years	.187	.004	9145.0	8961.3	1.033	.023	.178	.195
Ideal number of children	3.226	.015	14764.0	14804.9	1.292	.005	3.195	3.256
Mothers received tetanus injection	.648	.008	9137.0	8802.7	1.280	.013	.631	.664
Received medical care at birth	.528	.011	9137.0	8802.7	1.552	.020	.506	.549
Had diarrhea in last 24 hours	.101	.004	8767.0	8457.9	1.054	.037	.094	.109
Had diarrhea in last 2 weeks	.030	.002	8767.0	8457.9	.952	.062	.026	.033
Received ORS treatment	.272	.016	907.0	855.2	.955	.058	.240	.303
Received medical treatment	.339	.017	907.0	855.2	.975	.051	.304	.373
Having health card	.351	.012	1812.0	1742.3	1.053	.035	.327	.375
Received BCG vaccination	.912	.007	1812.0	1742.3	1.080	.008	.897	.927
Received DPT vaccination (3 doses)	.799	.011	1812.0	1742.3	1.107	.013	.778	.820
Received polio vaccination (3 doses)	.782	.011	1812.0	1742.3	1.086	.014	.760	.803
Received measles vaccination	.814	.010	1812.0	1742.3	1.107	.013	.794	.835
Fully immunized	.715	.012	1812.0	1742.3	1.125	.017	.691	.740

NA = Not applicable

Table B.2.2 Sampling errors: Urban sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Urban	1.000	.000	7908.0	8501.1	NA	.000	1.000	1.000
With secondary education or higher	.761	.007	7908.0	8501.1	1.555	.010	.746	.776
Currently in union	.546	.008	7908.0	8501.1	1.419	.015	.530	.561
Married before age 20	.299	.008	6171.0	6633.5	1.449	.028	.282	.316
Had first sexual intercourse before 18	.152	.006	6171.0	6633.5	1.325	.040	.140	.164
Children ever born	1.937	.037	7908.0	8501.1	1.353	.019	1.863	2.011
Children ever born to women over 40	4.343	.089	1380.0	1453.1	1.156	.020	4.165	4.521
Children surviving	1.813	.033	7908.0	8501.1	1.316	.018	1.747	1.878
Know any method	.986	.003	4415.0	4638.1	1.729	.003	.980	.992
Know any modern method	.986	.003	4415.0	4638.1	1.703	.003	.979	.992
Know source for modern method	.951	.005	4415.0	4638.1	1.436	.005	.942	.961
Ever used any contraceptive method	.655	.009	4415.0	4638.1	1.233	.013	.638	.673
Currently using any method	.430	.009	4415.0	4638.1	1.189	.021	.412	.447
Currently using a modern method	.276	.007	4415.0	4638.1	1.056	.026	.262	.290
Currently using pill	.090	.005	4415.0	4638.1	1.092	.052	.081	.099
Currently using IUD	.029	.003	4415.0	4638.1	1.160	.102	.023	.034
Currently using condom	.013	.002	4415.0	4638.1	1.140	.147	.009	.017
Currently using female sterilization	.139	.005	4415.0	4638.1	.998	.037	.129	.150
Currently using periodic abstinence	.078	.005	4415.0	4638.1	1.134	.059	.069	.087
Public source user	.653	.016	1207.0	1280.5	1.163	.024	.621	.685
Want no more children	.478	.008	4415.0	4638.1	1.063	.017	.462	.494
Want to delay next birth at least 2 years	.183	.006	4415.0	4638.1	1.090	.035	.170	.196
Ideal number of children	3.095	.019	7789.0	8397.4	1.242	.006	3.058	3.133
Mothers received tetanus injection	.636	.010	4130.0	4269.5	1.102	.017	.615	.657
Received medical care at birth	.704	.015	4130.0	4269.5	1.585	.021	.675	.734
Had diarrhea in last 24 hours	.097	.006	3997.0	4135.1	1.079	.057	.086	.109
Had diarrhea in last 2 weeks	.027	.003	3997.0	4135.1	1.041	.104	.021	.033
Received ORS treatment	.260	.024	405.0	402.9	1.007	.094	.211	.308
Received medical treatment	.362	.027	405.0	402.9	1.001	.075	.308	.416
Having health card	.358	.017	834.0	859.7	1.017	.049	.323	.393
Received BCG vaccination	.930	.010	834.0	859.7	1.134	.011	.909	.950
Received DPT vaccination (3 doses)	.814	.015	834.0	859.7	1.098	.019	.783	.844
Received polio vaccination (3 doses)	.812	.015	834.0	859.7	1.073	.018	.782	.841
Received measles vaccination	.837	.016	834.0	859.7	1.218	.019	.805	.869
Fully immunized	.732	.018	834.0	859.7	1.125	.024	.697	.768

NA = Not applicable

Table B.2.3 Sampling errors: Rural sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Urban	.000	.000	7121.0	6527.9	NA	.000	.000	.000
With secondary education or higher	.543	.009	7121.0	6527.9	1.580	.017	.524	.562
Currently in union	.662	.006	7121.0	6527.9	1.062	.009	.650	.674
Married before age 20	.423	.009	5719.0	5237.7	1.337	.021	.406	.441
Had first sexual intercourse before 18	.235	.007	5719.0	5237.7	1.252	.030	.221	.249
Children ever born	2.772	.039	7121.0	6527.9	1.141	.014	2.694	2.850
Children ever born to women over 40	5.654	.101	1361.0	1254.3	1.193	.018	5.451	5.856
Children surviving	2.537	.034	7121.0	6527.9	1.099	.013	2.469	2.605
Know any method	.956	.006	4730.0	4323.2	1.864	.006	.944	.967
Know any modern method	.952	.006	4730.0	4323.2	1.981	.006	.940	.964
Know source for modern method	.914	.008	4730.0	4323.2	2.025	.009	.897	.930
Ever used any contraceptive method	.565	.009	4730.0	4323.2	1.314	.017	.546	.584
Currently using any method	.368	.008	4730.0	4323.2	1.197	.023	.351	.385
Currently using a modern method	.219	.008	4730.0	4323.2	1.253	.034	.204	.234
Currently using pill	.080	.004	4730.0	4323.2	1.107	.055	.071	.088
Currently using IUD	.032	.004	4730.0	4323.2	1.388	.111	.025	.039
Currently using condom	.006	.001	4730.0	4323.2	.967	.176	.004	.009
Currently using female sterilization	.096	.005	4730.0	4323.2	1.186	.053	.086	.107
Currently using periodic abstinence	.068	.004	4730.0	4323.2	1.025	.055	.061	.076
Public source user	.802	.015	1044.0	946.7	1.238	.019	.772	.833
Want no more children	.535	.008	4730.0	4323.2	1.115	.015	.519	.551
Want to delay next birth at least 2 years	.191	.005	4730.0	4323.2	.957	.029	.180	.202
Ideal number of children	3.396	.023	6975.0	6407.5	1.291	.007	3.350	3.443
Mothers received tetanus injection	.659	.013	5007.0	4533.3	1.462	.019	.634	.684
Received medical care at birth	.361	.013	5007.0	4533.3	1.521	.037	.335	.388
Had diarrhea in last 24 hours	.105	.005	4770.0	4322.8	1.035	.048	.095	.115
Had diarrhea in last 2 weeks	.032	.002	4770.0	4322.8	.880	.074	.027	.037
Received ORS treatment	.282	.021	502.0	452.2	.922	.073	.241	.324
Received medical treatment	.318	.022	502.0	452.2	.944	.069	.274	.361
Having health card	.344	.017	978.0	882.6	1.095	.049	.310	.378
Received BCG vaccination	.894	.010	978.0	882.6	1.046	.012	.873	.915
Received DPT vaccination (3 doses)	.785	.015	978.0	882.6	1.124	.019	.755	.814
Received polio vaccination (3 doses)	.752	.016	978.0	882.6	1.109	.021	.721	.783
Received measles vaccination	.792	.014	978.0	882.6	1.032	.017	.765	.820
Fully immunized	.699	.017	978.0	882.6	1.141	.024	.665	.733

NA = Not applicable

Table B.2.4 Sampling errors: Metropolitan Manila sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Urban	1.000	.000	1882.0	2733.4	NA	.000	1.000	1.000
With secondary education or higher	.851	.013	1882.0	2733.4	1.598	.015	.824	.877
Currently in union	.465	.018	1882.0	2733.4	1.532	.038	.430	.501
Married before age 20	.230	.016	1472.0	2137.9	1.431	.068	.199	.262
Had first sexual intercourse before 18	.105	.010	1472.0	2137.9	1.208	.092	.085	.124
Children ever born	1.421	.059	1882.0	2733.4	1.317	.042	1.302	1.539
Children ever born to women over 40	3.458	.147	271.0	393.6	1.036	.042	3.164	3.751
Children surviving	1.343	.054	1882.0	2733.4	1.280	.040	1.235	1.451
Know any method	.999	.001	876.0	1272.3	.995	.001	.997	1.001
Know any modern method	.999	.001	876.0	1272.3	.995	.001	.997	1.001
Know source for modern method	.975	.007	876.0	1272.3	1.299	.007	.961	.989
Ever used any contraceptive method	.679	.018	876.0	1272.3	1.122	.026	.644	.715
Currently using any method	.419	.021	876.0	1272.3	1.270	.051	.377	.461
Currently using a modern method	.273	.016	876.0	1272.3	1.050	.058	.241	.304
Currently using pill	.094	.010	876.0	1272.3	1.064	.112	.073	.115
Currently using IUD	.016	.004	876.0	1272.3	.913	.242	.008	.024
Currently using condom	.011	.004	876.0	1272.3	1.048	.330	.004	.019
Currently using female sterilization	.148	.012	876.0	1272.3	1.038	.084	.123	.173
Currently using periodic abstinence	.071	.008	876.0	1272.3	.980	.120	.054	.088
Public source user	.527	.034	239.0	347.1	1.041	.064	.460	.595
Want no more children	.449	.016	876.0	1272.3	.977	.037	.416	.481
Want to delay next birth at least 2 years	.180	.013	876.0	1272.3	1.007	.073	.154	.207
Ideal number of children	2.928	.029	1868.0	2713.0	1.045	.010	2.870	2.987
Mothers received tetanus injection	.559	.027	748.0	1086.4	1.180	.048	.506	.612
Received medical care at birth	.885	.024	748.0	1086.4	1.696	.027	.837	.934
Had diarrhea in last 24 hours	.075	.008	724.0	1051.5	.844	.110	.058	.091
Had diarrhea in last 2 weeks	.023	.005	724.0	1051.5	.910	.216	.013	.034
Received ORS treatment	.241	.061	54.0	78.4	.998	.255	.118	.363
Received medical treatment	.444	.062	54.0	78.4	.908	.140	.320	.569
Having health card	.278	.038	144.0	209.1	1.027	.138	.201	.354
Received BCG vaccination	.931	.023	144.0	209.1	1.103	.025	.884	.977
Received DPT vaccination (3 doses)	.771	.042	144.0	209.1	1.201	.055	.687	.855
Received polio vaccination (3 doses)	.771	.041	144.0	209.1	1.158	.053	.690	.852
Received measles vaccination	.729	.042	144.0	209.1	1.145	.058	.644	.814
Fully immunized	.611	.044	144.0	209.1	1.090	.072	.523	.700

NA = Not applicable

Table B.2.5 Sampling errors: Cordillera Administrative Region sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Urban	.522	.051	473.0	241.1	2.232	.098	.420	.625
With secondary education or higher	.755	.022	473.0	241.1	1.123	.029	.710	.799
Currently in union	.613	.028	473.0	241.1	1.270	.046	.556	.670
Married before age 20	.304	.034	368.0	187.6	1.416	.112	.236	.372
Had first sexual intercourse before 18	.174	.022	368.0	187.6	1.110	.126	.130	.218
Children ever born	2.442	.161	473.0	241.1	1.349	.066	2.120	2.763
Children ever born to women over 40	4.444	.423	90.0	45.9	1.448	.095	3.598	5.291
Children surviving	2.290	.144	473.0	241.1	1.307	.063	2.002	2.577
Know any method	.993	.005	290.0	147.8	1.001	.005	.983	1.003
Know any modern method	.993	.005	290.0	147.8	1.001	.005	.983	1.003
Know source for modern method	.986	.005	290.0	147.8	.740	.005	.976	.996
Ever used any contraceptive method	.586	.028	290.0	147.8	.978	.048	.530	.643
Currently using any method	.386	.024	290.0	147.8	.843	.063	.338	.435
Currently using a modern method	.231	.019	290.0	147.8	.749	.080	.194	.268
Currently using pill	.034	.008	290.0	147.8	.744	.232	.019	.050
Currently using IUD	.021	.007	290.0	147.8	.859	.348	.006	.035
Currently using condom	.017	.011	290.0	147.8	1.374	.610	.004	.038
Currently using female sterilization	.159	.013	290.0	147.8	.616	.083	.132	.185
Currently using periodic abstinence	.076	.011	290.0	147.8	.677	.139	.055	.097
Public source user	.701	.072	67.0	34.2	1.286	.103	.557	.846
Want no more children	.421	.025	290.0	147.8	.878	.061	.370	.472
Want to delay next birth at least 2 years	.248	.026	290.0	147.8	1.025	.105	.196	.300
Ideal number of children	3.799	.092	437.0	222.8	1.275	.024	3.615	3.982
Mothers received tetanus injection	.767	.038	339.0	172.8	1.335	.049	.692	.842
Received medical care at birth	.522	.063	339.0	172.8	1.759	.121	.396	.648
Had diarrhea in last 24 hours	.136	.019	330.0	168.2	.941	.143	.097	.175
Had diarrhea in last 2 weeks	.079	.017	330.0	168.2	.991	.211	.046	.112
Received ORS treatment	.467	.082	45.0	22.9	.969	.175	.303	.630
Received medical treatment	.422	.081	45.0	22.9	.965	.193	.260	.585
Having health card	.638	.067	69.0	35.2	1.149	.105	.504	.772
Received BCG vaccination	.928	.022	69.0	35.2	.710	.024	.883	.972
Received DPT vaccination (3 doses)	.899	.038	69.0	35.2	1.031	.042	.823	.974
Received polio vaccination (3 doses)	.899	.038	69.0	35.2	1.031	.042	.823	.974
Received measles vaccination	.913	.034	69.0	35.2	1.012	.038	.844	.982
Fully immunized	.855	.034	69.0	35.2	.799	.040	.787	.923

Table B.2.6 Sampling errors: Ilocos sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Urban	.285	.020	967.0	831.8	1.408	.072	.244	.326
With secondary education or higher	.701	.022	967.0	831.8	1.464	.031	.658	.744
Currently in union	.605	.020	967.0	831.8	1.243	.032	.566	.644
Married before age 20	.302	.022	759.0	652.8	1.318	.073	.258	.346
Had first sexual intercourse before 18	.123	.014	759.0	652.8	1.173	.114	.095	.150
Children ever born	2.392	.113	967.0	831.8	1.295	.047	2.165	2.619
Children ever born to women over 40	5.118	.327	195.0	167.7	1.544	.064	4.463	5.773
Children surviving	2.216	.101	967.0	831.8	1.256	.045	2.015	2.418
Know any method	.988	.006	585.0	503.2	1.366	.006	.976	1.000
Know any modern method	.988	.006	585.0	503.2	1.366	.006	.976	1.000
Know source for modern method	.219	.017	585.0	503.2	.968	.076	.186	.252
Ever used any contraceptive method	.976	.007	585.0	503.2	1.120	.007	.962	.990
Currently using any method	.581	.022	585.0	503.2	1.060	.037	.538	.624
Currently using a modern method	.388	.021	585.0	503.2	1.042	.054	.346	.430
Currently using pill	.068	.012	585.0	503.2	1.187	.181	.044	.093
Currently using IUD	.009	.004	585.0	503.2	1.006	.448	.001	.016
Currently using condom	.012	.004	585.0	503.2	.970	.365	.003	.021
Currently using female sterilization	.128	.013	585.0	503.2	.973	.105	.101	.155
Currently using periodic abstinence	.055	.009	585.0	503.2	.932	.160	.037	.072
Public source user	.711	.064	128.0	110.1	1.600	.091	.582	.840
Want no more children	.455	.017	585.0	503.2	.847	.038	.420	.490
Want to delay next birth at least 2 years	.210	.016	585.0	503.2	.946	.076	.178	.242
Ideal number of children	3.383	.070	963.0	828.3	1.555	.021	3.244	3.522
Mothers received tetanus injection	.617	.046	569.0	489.4	1.822	.074	.525	.709
Received medical care at birth	.649	.041	569.0	489.4	1.588	.063	.567	.730
Had diarrhea in last 24 hours	.136	.015	546.0	469.6	.903	.111	.105	.166
Had diarrhea in last 2 weeks	.057	.008	546.0	469.6	.797	.149	.040	.074
Received ORS treatment	.351	.061	74.0	63.7	1.008	.172	.230	.473
Received medical treatment	.405	.082	74.0	63.7	1.274	.201	.242	.569
Having health card	.239	.048	113.0	97.2	1.205	.202	.142	.336
Received BCG vaccination	.938	.031	113.0	97.2	1.377	.033	.876	1.001
Received DPT vaccination (3 doses)	.796	.030	113.0	97.2	.801	.038	.736	.857
Received polio vaccination (3 doses)	.681	.050	113.0	97.2	1.135	.073	.582	.781
Received measles vaccination	.814	.036	113.0	97.2	.978	.044	.743	.886
Fully immunized	.593	.053	113.0	97.2	1.139	.089	.488	.698

Table B.2.7 Sampling errors: Cagayan Valley sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Urban	.303	.026	689.0	486.3	1.486	.086	.251	.355
With secondary education or higher	.599	.030	689.0	486.3	1.621	.051	.539	.660
Currently in union	.700	.015	689.0	486.3	.881	.022	.669	.730
Married before age 20	.436	.023	580.0	409.3	1.127	.053	.390	.483
Had first sexual intercourse before 18	.228	.016	580.0	409.3	.921	.071	.195	.260
Children ever born	2.457	.105	689.0	486.3	1.128	.043	2.248	2.666
Children ever born to women over 40	4.602	.320	123.0	86.8	1.326	.070	3.961	5.242
Children surviving	2.277	.086	689.0	486.3	1.015	.038	2.106	2.448
Know any method	.981	.007	482.0	340.2	1.195	.008	.967	.996
Know any modern method	.979	.008	482.0	340.2	1.173	.008	.964	.995
Know source for modern method	.942	.010	482.0	340.2	.892	.010	.923	.961
Ever used any contraceptive method	.571	.028	482.0	340.2	1.234	.049	.515	.626
Currently using any method	.411	.030	482.0	340.2	1.360	.074	.350	.472
Currently using a modern method	.322	.031	482.0	340.2	1.445	.096	.260	.383
Currently using pill	.149	.022	482.0	340.2	1.371	.149	.105	.194
Currently using IUD	.029	.010	482.0	340.2	1.321	.348	.009	.049
Currently using condom	.008	.004	482.0	340.2	1.002	.500	.000	.017
Currently using female sterilization	.133	.019	482.0	340.2	1.252	.146	.094	.172
Currently using periodic abstinence	.029	.007	482.0	340.2	.958	.253	.014	.044
Public source user	.742	.048	155.0	109.4	1.360	.065	.646	.838
Want no more children	.432	.019	482.0	340.2	.860	.045	.393	.470
Want to delay next birth at least 2 years	.210	.017	482.0	340.2	.942	.083	.175	.244
Ideal number of children	3.232	.073	672.0	474.3	1.315	.023	3.086	3.378
Mothers received tetanus injection	.717	.031	449.0	316.9	1.142	.043	.656	.779
Received medical care at birth	.365	.040	449.0	316.9	1.389	.108	.286	.444
Had diarrhea in last 24 hours	.119	.017	429.0	302.8	.927	.139	.086	.152
Had diarrhea in last 2 weeks	.054	.013	429.0	302.8	1.040	.241	.028	.079
Received ORS treatment	.275	.066	51.0	36.0	.925	.241	.142	.407
Received medical treatment	.412	.063	51.0	36.0	.771	.154	.285	.538
Having health card	.216	.054	97.0	68.5	1.236	.248	.109	.324
Received BCG vaccination	.887	.032	97.0	68.5	.913	.036	.823	.950
Received DPT vaccination (3 doses)	.753	.046	97.0	68.5	1.049	.061	.660	.845
Received polio vaccination (3 doses)	.742	.043	97.0	68.5	.959	.058	.657	.828
Received measles vaccination	.732	.054	97.0	68.5	1.170	.074	.624	.840
Fully immunized	.619	.067	97.0	68.5	1.336	.108	.485	.753

Table B.2.8 Sampling errors: Central Luzon sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Urban	.575	.027	1391.0	1599.4	2.015	.046	.522	.629
With secondary education or higher	.647	.019	1391.0	1599.4	1.461	.029	.610	.684
Currently in union	.611	.013	1391.0	1599.4	1.001	.021	.585	.637
Married before age 20	.370	.020	1096.0	1260.2	1.364	.054	.330	.409
Had first sexual intercourse before 18	.167	.015	1096.0	1260.2	1.343	.091	.137	.197
Children ever born	2.195	.084	1391.0	1599.4	1.284	.038	2.027	2.362
Children ever born to women over 40	4.576	.163	264.0	303.6	.937	.036	4.249	4.902
Children surviving	2.090	.076	1391.0	1599.4	1.241	.036	1.937	2.242
Know any method	.998	.002	850.0	977.4	.994	.002	.994	1.001
Know any modern method	.998	.002	850.0	977.4	.994	.002	.994	1.001
Know source for modern method	.975	.005	850.0	977.4	.973	.005	.965	.986
Ever used any contraceptive method	.629	.017	850.0	977.4	1.044	.028	.595	.664
Currently using any method	.438	.015	850.0	977.4	.890	.035	.407	.468
Currently using a modern method	.309	.013	850.0	977.4	.842	.043	.283	.236
Currently using pill	.094	.009	850.0	977.4	.944	.101	.075	.113
Currently using IUD	.011	.004	850.0	977.4	1.090	.361	.003	.018
Currently using condom	.013	.004	850.0	977.4	.932	.279	.006	.020
Currently using female sterilization	.191	.010	850.0	977.4	.767	.054	.170	.211
Currently using periodic abstinence	.032	.006	850.0	977.4	1.064	.202	.019	.045
Public source user	.817	.023	263.0	302.4	.962	.028	.772	.863
Want no more children	.407	.017	850.0	977.4	.995	.041	.374	.441
Want to delay next birth at least 2 years	.201	.013	850.0	977.4	.944	.065	.175	.227
Ideal number of children	3.407	.041	1389.0	1597.1	1.162	.012	3.326	3.489
Mothers received tetanus injection	.639	.023	787.0	904.9	1.109	.036	.593	.685
Received medical care at birth	.806	.035	787.0	904.9	1.916	.043	.736	.875
Had diarrhea in last 24 hours	.065	.012	769.0	884.2	1.251	.186	.041	.089
Had diarrhea in last 2 weeks	.021	.005	769.0	884.2	.928	.229	.011	.030
Received ORS treatment	.240	.068	50.0	57.5	1.033	.282	.105	.375
Received medical treatment	.260	.066	50.0	57.5	.982	.253	.128	.392
Having health card	.310	.040	142.0	163.3	1.018	.130	.229	.390
Received BCG vaccination	.944	.024	142.0	163.3	1.241	.025	.896	.992
Received DPT vaccination (3 doses)	.810	.030	142.0	163.3	.900	.037	.750	.869
Received polio vaccination (3 doses)	.761	.037	142.0	163.3	1.029	.049	.687	.835
Received measles vaccination	.859	.035	142.0	163.3	1.137	.040	.790	.928
Fully immunized	.718	.041	142.0	163.3	1.056	.057	.637	.800

Table B.2.9 Sampling errors: Southern Tagalog sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Urban	.551	.026	1516.0	2025.5	2.034	.047	.499	.603
With secondary education or higher	.675	.018	1516.0	2025.5	1.473	.026	.640	.711
Currently in union	.602	.015	1516.0	2025.5	1.209	.025	.571	.632
Married before age 20	.358	.017	1184.0	1581.9	1.248	.049	.323	.393
Had first sexual intercourse before 18	.202	.013	1184.0	1581.9	1.100	.064	.176	.228
Children ever born	2.283	.063	1516.0	2025.5	.929	.027	2.157	2.409
Children ever born to women over 40	4.811	.181	285.0	380.8	1.052	.038	4.448	5.173
Children surviving	2.121	.056	1516.0	2025.5	.908	.026	2.009	2.233
Know any method	.984	.007	912.0	1218.5	1.609	.007	.970	.997
Know any modern method	.982	.008	912.0	1218.5	1.757	.008	.967	.998
Know source for modern method	.968	.009	912.0	1218.5	1.567	.009	.950	.986
Ever used any contraceptive method	.570	.021	912.0	1218.5	1.288	.037	.528	.612
Currently using any method	.352	.017	912.0	1218.5	1.049	.047	.319	.385
Currently using a modern method	.226	.017	912.0	1218.5	1.215	.074	.192	.260
Currently using pill	.058	.006	912.0	1218.5	.823	.110	.045	.071
Currently using IUD	.034	.009	912.0	1218.5	1.557	.275	.015	.053
Currently using condom	.009	.004	912.0	1218.5	1.232	.434	.001	.016
Currently using female sterilization	.125	.012	912.0	1218.5	1.073	.094	.101	.149
Currently using periodic abstinence	.045	.006	912.0	1218.5	.870	.133	.033	.057
Public source user	.714	.035	206.0	275.2	1.116	.049	.643	.784
Want no more children	.549	.018	912.0	1218.5	1.110	.033	.513	.586
Want to delay next birth at least 2 years	.158	.013	912.0	1218.5	1.090	.083	.132	.184
Ideal number of children	3.137	.040	1515.0	2024.1	1.342	.013	3.057	3.218
Mothers received tetanus injection	.630	.022	800.0	1068.8	1.026	.034	.587	.673
Received medical care at birth	.549	.029	800.0	1068.8	1.276	.053	.491	.607
Had diarrhea in last 24 hours	.118	.013	778.0	1039.5	1.033	.109	.092	.144
Had diarrhea in last 2 weeks	.033	.007	778.0	1039.5	.989	.197	.020	.047
Received ORS treatment	.272	.044	92.0	122.9	.891	.163	.183	.360
Received medical treatment	.380	.050	92.0	122.9	.915	.131	.281	.480
Having health card	.249	.034	169.0	225.8	1.031	.139	.180	.317
Received BCG vaccination	.941	.020	169.0	225.8	1.009	.021	.901	.981
Received DPT vaccination (3 doses)	.834	.026	169.0	225.8	.875	.031	.783	.886
Received polio vaccination (3 doses)	.834	.026	169.0	225.8	.883	.031	.782	.886
Received measles vaccination	.846	.025	169.0	225.8	.869	.029	.796	.896
Fully immunized	.775	.030	169.0	225.8	.906	.038	.716	.835

Table B.2.10 Sampling errors: Bicol sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Urban	.280	.039	849.0	804.9	2.510	.138	.203	.358
With secondary education or higher	.548	.032	849.0	804.9	1.883	.059	.483	.612
Currently in union	.687	.018	849.0	804.9	1.149	.027	.650	.723
Married before age 20	.427	.026	703.0	666.5	1.398	.061	.375	.479
Had first sexual intercourse before 18	.228	.023	703.0	666.5	1.470	.102	.181	.274
Children ever born	3.190	.131	849.0	804.9	1.219	.041	2.928	3.451
Children ever born to women over 40	6.145	.257	173.0	164.0	1.082	.042	5.630	6.659
Children surviving	2.896	.115	849.0	804.9	1.201	.040	2.667	3.126
Know any method	.990	.005	583.0	552.7	1.199	.005	.980	.000
Know any modern method	.988	.005	583.0	552.7	1.173	.005	.977	.999
Know source for modern method	.952	.008	583.0	552.7	.939	.009	.935	.969
Ever used any contraceptive method	.621	.021	583.0	552.7	1.042	.034	.579	.663
Currently using any method	.364	.021	583.0	552.7	1.072	.059	.321	.406
Currently using a modern method	.161	.014	583.0	552.7	.912	.086	.133	.189
Currently using pill	.065	.010	583.0	552.7	.982	.154	.045	.085
Currently using IUD	.010	.004	583.0	552.7	.941	.383	.002	.018
Currently using condom	.009	.003	583.0	552.7	.833	.371	.002	.015
Currently using female sterilization	.069	.008	583.0	552.7	.796	.122	.052	.085
Currently using periodic abstinence	.075	.013	583.0	552.7	1.230	.178	.049	.102
Public source user	.819	.049	94.0	89.1	1.235	.060	.721	.918
Want no more children	.605	.027	583.0	552.7	1.321	.044	.552	.659
Want to delay next birth at least 2 years	.175	.019	583.0	552.7	1.200	.108	.137	.213
Ideal number of children	3.322	.050	829.0	786.0	1.123	.015	3.222	3.422
Mothers received tetanus injection	.642	.031	706.0	669.3	1.311	.048	.580	.703
Received medical care at birth	.303	.031	706.0	669.3	1.431	.103	.241	.365
Had diarrhea in last 24 hours	.154	.012	669.0	634.3	.836	.079	.130	.178
Had diarrhea in last 2 weeks	.048	.009	669.0	634.3	.982	.181	.031	.065
Received ORS treatment	.291	.048	103.0	97.7	1.005	.164	.196	.387
Received medical treatment	.252	.047	103.0	97.7	1.042	.185	.159	.346
Having health card	.329	.039	158.0	149.8	1.035	.118	.252	.407
Received BCG vaccination	.880	.024	158.0	149.8	.945	.028	.831	.929
Received DPT vaccination (3 doses)	.741	.042	158.0	149.8	1.190	.056	.657	.824
Received polio vaccination (3 doses)	.728	.041	158.0	149.8	1.170	.057	.645	.811
Received measles vaccination	.829	.026	158.0	149.8	.851	.031	.778	.880
Fully immunized	.703	.045	158.0	149.8	1.226	.063	.613	.792

Table B.2.11 Sampling errors: Western Visayas sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Urban	.483	.024	1206.0	1215.9	1.6[illegible]	.050	.435	.532
With secondary education or higher	.666	.019	1206.0	1215.9	1.431	.029	.627	.705
Currently in union	.580	.018	1206.0	1215.9	1.256	.031	.545	.616
Married before age 20	.305	.019	945.0	952.7	1.256	.062	.267	.342
Had first sexual intercourse before 18	.166	.015	945.0	952.7	1.240	.090	.136	.196
Children ever born	2.334	.102	1206.0	1215.9	1.262	.044	2.131	2.537
Children ever born to women over 40	5.168	.240	226.0	227.9	1.087	.046	4.688	5.649
Children surviving	2.167	.091	1206.0	1215.9	1.231	.042	1.985	2.348
Know any method	.991	.005	700.0	705.7	1.534	.005	.981	1.002
Know any modern method	.991	.005	700.0	705.7	1.534	.005	.981	1.002
Know source for modern method	.977	.007	700.0	705.7	1.209	.007	.963	.991
Ever used any contraceptive method	.610	.020	700.0	705.7	1.088	.033	.570	.650
Currently using any method	.397	.023	700.0	705.7	1.219	.057	.352	.442
Currently using a modern method	.234	.018	700.0	705.7	1.130	.077	.198	.270
Currently using pill	.097	.011	700.0	705.7	1.016	.117	.074	.120
Currently using IUD	.016	.004	700.0	705.7	.909	.272	.007	.024
Currently using condom	.010	.004	700.0	705.7	.977	.368	.003	.017
Currently using female sterilization	.099	.016	700.0	705.7	1.389	.159	.067	.130
Currently using periodic abstinence	.101	.013	700.0	705.7	1.172	.132	.075	.128
Public source user	.738	.054	164.0	165.3	1.581	.074	.629	.847
Want no more children	.560	.017	700.0	705.7	.928	.031	.525	.595
Want to delay next birth at least 2 years	.154	.012	700.0	705.7	.873	.077	.130	.178
Ideal number of children	3.155	.050	1170.0	1179.6	1.233	.016	3.054	3.255
Mothers received tetanus injection	.702	.026	732.0	738.0	1.239	.037	.650	.754
Received medical care at birth	.482	.038	732.0	738.0	1.621	.078	.407	.558
Had diarrhea in last 24 hours	.118	.013	696.0	701.7	.952	.109	.092	.143
Had diarrhea in last 2 weeks	.022	.006	696.0	701.7	1.113	.282	.009	.034
Received ORS treatment	.293	.053	82.0	82.7	.921	.182	.186	.399
Received medical treatment	.280	.059	82.0	82.7	1.049	.211	.162	.399
Having health card	.609	.047	128.0	129.0	1.074	.077	.516	.703
Received BCG vaccination	.898	.024	128.0	129.0	.894	.027	.851	.946
Received DPT vaccination (3 doses)	.828	.043	128.0	129.0	1.235	.052	.743	.914
Received polio vaccination (3 doses)	.820	.042	128.0	129.0	1.193	.051	.736	.904
Received measles vaccination	.805	.038	128.0	129.0	1.041	.047	.729	.880
Fully immunized	.742	.042	128.0	129.0	1.061	.057	.658	.826

Table B.2.12 Sampling errors: Central Visayas sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Urban	.555	.031	1165.0	1120.7	2.118	.056	.494	.617
With secondary education or higher	.552	.022	1165.0	1120.7	1.519	.040	.508	.596
Currently in union	.626	.017	1165.0	1120.7	1.208	.027	.591	.660
Married before age 20	.362	.020	943.0	907.2	1.276	.055	.322	.402
Had first sexual intercourse before 18	.224	.018	943.0	907.2	1.331	.081	.188	.260
Children ever born	2.454	.104	1165.0	1120.7	1.288	.042	2.247	2.661
Children ever born to women over 40	5.043	.231	234.0	225.1	1.094	.046	4.582	5.504
Children surviving	2.287	.090	1165.0	1120.7	1.204	.039	2.107	2.466
Know any method	.997	.002	729.0	701.3	.991	.002	.993	1.001
Know any modern method	.996	.002	729.0	701.3	.984	.002	.991	1.001
Know source for modern method	.959	.009	729.0	701.3	1.172	.009	.942	.976
Ever used any contraceptive method	.697	.015	729.0	701.3	.895	.022	.666	.727
Currently using any method	.461	.018	729.0	701.3	.966	.039	.425	.497
Currently using a modern method	.288	.020	729.0	701.3	1.165	.068	.249	.327
Currently using pill	.096	.012	729.0	701.3	1.089	.124	.072	.120
Currently using IUD	.047	.010	729.0	701.3	1.260	.211	.027	.066
Currently using condom	.016	.004	729.0	701.3	.944	.270	.008	.025
Currently using female sterilization	.115	.014	729.0	701.3	1.154	.119	.088	.143
Currently using periodic abstinence	.088	.010	729.0	701.3	.949	.113	.068	.108
Public source user	.671	.034	210.0	202.0	1.047	.051	.603	.739
Want no more children	.543	.022	729.0	701.3	1.170	.040	.500	.586
Want to delay next birth at least 2 years	.198	.014	729.0	701.3	.963	.072	.169	.226
Ideal number of children	3.051	.048	1156.0	1112.1	1.243	.016	2.954	3.148
Mothers received tetanus injection	.697	.025	750.0	721.5	1.139	.035	.648	.746
Received medical care at birth	.512	.043	750.0	721.5	1.814	.084	.426	.598
Had diarrhea in last 24 hours	.047	.012	724.0	696.5	1.414	.266	.022	.072
Had diarrhea in last 2 weeks	.006	.003	724.0	696.5	1.001	.496	.000	.011
Received ORS treatment	.235	.073	34.0	32.7	.965	.312	.089	.382
Received medical treatment	.412	.099	34.0	32.7	.996	.240	.214	.609
Having health card	.376	.042	157.0	151.0	1.070	.112	.291	.460
Received BCG vaccination	.924	.021	157.0	151.0	.985	.023	.882	.965
Received DPT vaccination (3 doses)	.834	.027	157.0	151.0	.894	.032	.781	.888
Received polio vaccination (3 doses)	.828	.025	157.0	151.0	.820	.030	.778	.878
Received measles vaccination	.809	.029	157.0	151.0	.936	.036	.750	.868
Fully immunized	.764	.035	157.0	151.0	1.035	.046	.694	.835

Table B.2.13 Sampling errors: Eastern Visayas sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Urban	.465	.022	802.0	645.1	1.234	.047	.422	.509
With secondary education or higher	.607	.024	802.0	645.1	1.374	.039	.560	.655
Currently in union	.625	.022	802.0	645.1	1.266	.035	.581	.668
Married before age 20	.423	.031	619.0	497.9	1.572	.074	.361	.486
Had first sexual intercourse before 18	.233	.027	619.0	497.9	1.598	.117	.178	.287
Children ever born	2.713	.096	802.0	645.1	.926 -	.035	2.521	2.906
Children ever born to women over 40	5.699	.288	156.0	125.5	1.127	.050	5.123	6.274
Children surviving	2.410	.086	802.0	645.1	.967 -	.036	2.239	2.582
Know any method	.958	.009	501.0	403.0	1.010	.009	.940	.976
Know any modern method	.954	.010	501.0	403.0	1.098	.011	.934	.975
Know source for modern method	.816	.031	501.0	403.0	1.769	.038	.755	.878
Ever used any contraceptive method	.543	.033	501.0	403.0	1.465	.060	.478	.608
Currently using any method	.359	.029	501.0	403.0	1.334	.080	.302	.417
Currently using a modern method	.182	.018	501.0	403.0	1.044	.099	.146	.218
Currently using pill	.060	.012	501.0	403.0	1.094	.194	.037	.083
Currently using IUD	.018	.007	501.0	403.0	1.217	.402	.004	.032
Currently using condom	.002	.002	501.0	403.0	.996	.996	.002	.006
Currently using female sterilization	.102	.014	501.0	403.0	1.012	.134	.074	.129
Currently using periodic abstinence	.098	.024	501.0	403.0	1.782	.242	.050	.145
Public source user	.813	.019	91.0	73.2	.467	.024	.775	.852
Want no more children	.603	.021	501.0	403.0	.973	.035	.560	.645
Want to delay next birth at least 2 years	.162	.014	501.0	403.0	.874	.089	.133	.190
Ideal number of children	3.096	.049	784.0	630.6	1.017	.016	2.998	3.194
Mothers received tetanus injection	.665	.033	543.0	436.8	1.245	.050	.598	.731
Received medical care at birth	.324	.047	543.0	436.8	1.821	.145	.230	.418
Had diarrhea in last 24 hours	.107	.016	516.0	415.0	1.075	.154	.074	.139
Had diarrhea in last 2 weeks	.019	.005	516.0	415.0	.879	.276	.009	.030
Received ORS treatment	.436	.066	55.0	44.2	.879	.151	.305	.568
Received medical treatment	.418	.062	55.0	44.2	.809	.148	.295	.542
Having health card	.340	.037	94.0	75.6	.766	.110	.266	.415
Received BCG vaccination	.926	.032	94.0	75.6	1.183	.035	.861	.990
Received DPT vaccination (3 doses)	.830	.034	94.0	75.6	.871	.041	.762	.897
Received polio vaccination (3 doses)	.819	.035	94.0	75.6	.875	.042	.750	.889
Received measles vaccination	.851	.038	94.0	75.6	1.037	.045	.775	.927
Fully immunized	.755	.039	94.0	75.6	.884	.052	.677	.834

Table B.2.14 Sampling errors: Western Mindanao sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Urban	.361	.034	945.0	728.8	2.176	.094	.293	.429
With secondary education or higher	.506	.029	945.0	728.8	1.787	.057	.448	.564
Currently in union	.666	.021	945.0	728.8	1.368	.032	.624	.708
Married before age 20	.449	.025	769.0	593.1	1.372	.055	.399	.498
Had first sexual intercourse before 18	.270	.019	769.0	593.1	1.157	.069	.233	.308
Children ever born	2.764	.106	945.0	728.8	1.148	.038	2.552	2.976
Children ever born to women over 40	5.462	.293	182.0	140.4	1.247	.054	4.876	6.047
Children surviving	2.499	.090	945.0	728.8	1.093	.036	2.320	2.679
Know any method	.803	.035	629.0	485.1	2.177	.043	.734	.872
Know any modern method	.792	.037	629.0	485.1	2.305	.047	.717	.866
Know source for modern method	.677	.044	629.0	485.1	2.355	.065	.589	.765
Ever used any contraceptive method	.429	.031	629.0	485.1	1.545	.071	.368	.490
Currently using any method	.285	.025	629.0	485.1	1.385	.088	.235	.334
Currently using a modern method	.167	.022	629.0	485.1	1.485	.132	.123	.211
Currently using pill	.087	.018	629.0	485.1	1.586	.205	.052	.123
Currently using IUD	.017	.007	629.0	485.1	1.273	.381	.004	.031
Currently using condom	.002	.002	629.0	485.1	.979	.979	.002	.005
Currently using female sterilization	.059	.010	629.0	485.1	1.081	.173	.039	.079
Currently using periodic abstinence	.073	.010	629.0	485.1	.935	.133	.054	.093
Public source user	.914	.025	105.0	81.0	.917	.028	.864	.965
Want no more children	.463	.027	629.0	485.1	1.363	.059	.408	.517
Want to delay next birth at least 2 years	.231	.015	629.0	485.1	.900	.066	.200	.261
Ideal number of children	3.672	.092	922.0	711.1	1.406	.025	3.489	3.856
Mothers received tetanus injection	.635	.045	636.0	490.5	1.777	.071	.545	.726
Received medical care at birth	.333	.038	636.0	490.5	1.581	.115	.256	.410
Had diarrhea in last 24 hours	.094	.013	605.0	466.6	1.005	.134	.069	.119
Had diarrhea in last 2 weeks	.050	.007	605.0	466.6	.831	.150	.035	.064
Received ORS treatment	.123	.056	57.0	44.0	1.264	.453	.012	.234
Received medical treatment	.193	.054	57.0	44.0	1.008	.279	.085	.301
Having health card	.403	.056	129.0	99.5	1.300	.140	.290	.516
Received BCG vaccination	.829	.043	129.0	99.5	1.289	.052	.744	.915
Received DPT vaccination (3 doses)	.752	.071	129.0	99.5	1.849	.094	.611	.893
Received polio vaccination (3 doses)	.729	.057	129.0	99.5	1.461	.079	.614	.843
Received measles vaccination	.760	.055	129.0	99.5	1.452	.072	.650	.869
Fully immunized	.698	.065	129.0	99.5	1.606	.093	.567	.828

Table B.2.15 Sampling errors: Northern Mindanao sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Urban	.463	.045	996.0	793.9	2.852	.097	.373	.553
With secondary education or higher	.638	.029	996.0	793.9	1.884	.045	.580	.695
Currently in union	.638	.020	996.0	793.9	1.304	.031	.598	.677
Married before age 20	.434	.020	779.0	621.0	1.118	.046	.394	.474
Had first sexual intercourse before 18	.228	.016	779.0	621.0	1.033	.068	.197	.260
Children ever born	2.656	.153	996.0	793.9	1.661	.058	2.350	2.962
Children ever born to women over 40	5.788	.261	165.0	131.5	1.074	.045	5.267	6.309
Children surviving	2.465	.127	996.0	793.9	1.509	.051	2.211	2.718
Know any method	.998	.002	635.0	506.2	.971	.002	.995	1.001
Know any modern method	.998	.002	635.0	506.2	.971	.002	.995	1.001
Know source for modern method	.946	.013	635.0	506.2	1.444	.014	.921	.972
Ever used any contraceptive method	.710	.026	635.0	506.2	1.426	.036	.659	.762
Currently using any method	.493	.023	635.0	506.2	1.156	.047	.447	.539
Currently using a modern method	.313	.025	635.0	506.2	1.361	.080	.263	.364
Currently using pill	.123	.016	635.0	506.2	1.242	.132	.090	.155
Currently using IUD	.091	.012	635.0	506.2	1.075	.135	.067	.116
Currently using condom	.014	.007	635.0	506.2	1.597	.529	.001	.029
Currently using female sterilization	.082	.013	635.0	506.2	1.150	.153	.057	.107
Currently using periodic abstinence	.132	.013	635.0	506.2	.959	.098	.106	.158
Public source user	.784	.036	199.0	158.6	1.246	.046	.711	.857
Want no more children	.589	.024	635.0	506.2	1.211	.040	.542	.636
Want to delay next birth at least 2 years	.197	.019	635.0	506.2	1.184	.095	.159	.234
Ideal number of children	3.099	.055	974.0	776.4	1.295	.018	2.989	3.208
Mothers received tetanus injection	.745	.023	690.0	550.0	1.154	.031	.699	.791
Received medical care at birth	.384	.039	690.0	550.0	1.703	.103	.305	.463
Had diarrhea in last 24 hours	.100	.019	657.0	523.7	1.433	.188	.063	.138
Had diarrhea in last 2 weeks	.030	.008	657.0	523.7	1.146	.273	.014	.047
Received ORS treatment	.258	.049	66.0	52.6	.804	.190	.160	.356
Received medical treatment	.424	.063	66.0	52.6	.888	.148	.299	.550
Having health card	.394	.039	137.0	109.2	.935	.100	.315	.473
Received BCG vaccination	.956	.017	137.0	109.2	.954	.017	.923	.990
Received DPT vaccination (3 doses)	.796	.038	137.0	109.2	1.105	.048	.719	.872
Received polio vaccination (3 doses)	.788	.042	137.0	109.2	1.201	.053	.704	.872
Received measles vaccination	.912	.022	137.0	109.2	.893	.024	.869	.956
Fully immunized	.759	.041	137.0	109.2	1.121	.054	.677	.841

Table B.2.16 Sampling errors: Southern Mindanao sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases: Un-weighted (N)	Number of cases: Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Urban	.487	.021	1205.0	1094.9	1.452	.043	.445	.529
With secondary education or higher	.641	.025	1205.0	1094.9	1.773	.038	.592	.690
Currently in union	.618	.016	1205.0	1094.9	1.115	.025	.587	.649
Married before age 20	.401	.027	935.0	849.5	1.703	.068	.346	.456
Had first sexual intercourse before 18	.234	.022	935.0	849.5	1.615	.096	.189	.279
Children ever born	2.432	.107	1205.0	1094.9	1.339	.044	2.218	2.645
Children ever born to women over 40	5.428	.325	201.0	182.6	1.436	.060	4.779	6.077
Children surviving	2.211	.092	1205.0	1094.9	1.296	.042	2.026	2.395
Know any method	.973	.016	745.0	676.9	2.651	.016	.942	1.005
Know any modern method	.965	.019	745.0	676.9	2.782	.019	.928	1.003
Know source for modern method	.923	.027	745.0	676.9	2.792	.029	.869	.978
Ever used any contraceptive method	.681	.030	745.0	676.9	1.765	.044	.620	.741
Currently using any method	.459	.026	745.0	676.9	1.446	.058	.406	.512
Currently using a modern method	.271	.019	745.0	676.9	1.146	.069	.234	.308
Currently using pill	.085	.012	745.0	676.9	1.131	.136	.061	.108
Currently using IUD	.055	.010	745.0	676.9	1.208	.184	.035	.075
Currently using condom	.012	.003	745.0	676.9	.810	.268	.006	.019
Currently using female sterilization	.110	.011	745.0	676.9	.982	.102	.088	.133
Currently using periodic abstinence	.113	.014	745.0	676.9	1.240	.128	.084	.142
Public source user	.668	.038	201.0	183.5	1.151	.057	.592	.745
Want no more children	.517	.019	745.0	676.9	1.013	.036	.480	.554
Want to delay next birth at least 2 years	.165	.015	745.0	676.9	1.112	.092	.135	.195
Ideal number of children	3.094	.053	1171.0	1064.0	1.380	.017	2.989	3.199
Mothers received tetanus injection	.662	.033	733.0	666.0	1.537	.050	.595	.728
Received medical care at birth	.364	.028	733.0	666.0	1.229	.077	.308	.420
Had diarrhea in last 24 hours	.107	.013	701.0	636.9	1.121	.125	.080	.134
Had diarrhea in last 2 weeks	.021	.005	701.0	636.9	.884	.224	.012	.031
Received ORS treatment	.187	.046	75.0	68.1	.953	.245	.095	.278
Received medical treatment	.293	.048	75.0	68.1	.865	.163	.198	.389
Having health card	.507	.049	144.0	130.8	1.180	.097	.409	.605
Received BCG vaccination	.917	.028	144.0	130.8	1.209	.030	.861	.972
Received DPT vaccination (3 doses)	.847	.034	144.0	130.8	1.123	.040	.780	.915
Received polio vaccination (3 doses)	.833	.032	144.0	130.8	1.016	.038	.770	.896
Received measles vaccination	.868	.031	144.0	130.8	1.111	.036	.805	.931
Fully immunized	.799	.035	144.0	130.8	1.037	.043	.729	.868

Table B.2.17 Sampling errors: Central Mindanao sample, Philippines 1993

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Urban	.455	.035	943.0	707.3	2.133	.076	.386	.524
With secondary education or higher	.557	.027	943.0	707.3	1.646	.048	.503	.610
Currently in union	.666	.015	943.0	707.3	.960	.022	.636	.695
Married before age 20	.461	.018	738.0	553.6	.959	.038	.426	.496
Had first sexual intercourse before 18	.274	.015	738.0	553.6	.933	.056	.243	.304
Children ever born	2.936	.109	943.0	707.3	1.103	.037	2.718	3.154
Children ever born to women over 40	6.085	.251	176.0	132.0	1.062	.041	5.584	6.586
Children surviving	2.654	.090	943.0	707.3	1.024	.034	2.474	2.834
Know any method	.846	.027	628.0	471.0	1.888	.032	.791	.900
Know any modern method	.839	.027	628.0	471.0	1.858	.032	.785	.894
Know source for modern method	.811	.028	628.0	471.0	1.759	.034	.755	.866
Ever used any contraceptive method	.473	.028	628.0	471.0	1.395	.059	.417	.529
Currently using any method	.325	.024	628.0	471.0	1.307	.075	.276	.374
Currently using a modern method	.204	.020	628.0	471.0	1.239	.098	.164	.244
Currently using pill	.067	.010	628.0	471.0	.997	.149	.047	.087
Currently using IUD	.073	.017	628.0	471.0	1.613	.229	.040	.107
Currently using condom	.000	.000	628.0	471.0	.000	.000	.000	.000
Currently using female sterilization	.062	.012	628.0	471.0	1.240	.192	.038	.086
Currently using periodic abstinence	.084	.013	628.0	471.0	1.164	.153	.059	.110
Public source user	.781	.046	128.0	96.0	1.251	.059	.689	.873
Want no more children	.487	.016	628.0	471.0	.822	.034	.454	.520
Want to delay next birth at least 2 years	.234	.013	628.0	471.0	.777	.056	.208	.260
Ideal number of children	4.155	.125	914.0	685.6	1.691	.030	3.905	4.406
Mothers received tetanus injection	.568	.037	655.0	491.3	1.428	.065	.494	.642
Received medical care at birth	.322	.055	655.0	491.3	2.248	.170	.213	.432
Had diarrhea in last 24 hours	.111	.011	623.0	467.3	.796	.097	.089	.132
Had diarrhea in last 2 weeks	.014	.005	623.0	467.3	.934	.338	.005	.024
Received ORS treatment	.232	.059	69.0	51.8	1.123	.254	.114	.350
Received medical treatment	.232	.058	69.0	51.8	1.104	.249	.116	.348
Having health card	.267	.035	131.0	98.3	.912	.132	.197	.338
Received BCG vaccination	.802	.036	131.0	98.3	1.026	.045	.730	.873
Received DPT vaccination (3 doses)	.718	.031	131.0	98.3	.775	.043	.657	.779
Received polio vaccination (3 doses)	.710	.033	131.0	98.3	.834	.047	.644	.776
Received measles vaccination	.718	.033	131.0	98.3	.829	.045	.652	.783
Fully immunized	.672	.033	131.0	98.3	.814	.050	.605	.739

APPENDIX C

QUALITY OF THE DATA: NONSAMPLING ERRORS

APPENDIX C

QUALITY OF THE DATA: NONSAMPLING ERRORS

While Appendix B provides sampling errors for selected variables presented in the report, this appendix is presented to provide data users an initial overview of the data quality. For this purpose, misreporting of ages, respondent's recall problems and other problems encountered during data collection are investigated in Appendix C.

Presented in Table C.1 is the distribution by single years of age of the household population. Overall, slight heaping on ages ending with 0 and 5 is detected throughout all ages for both sexes. Errors are particularly notable in the age reporting of females at ages 15 and 49 years--the lower and upper limits of eligibility for individual interview. The age ratios at 15 for women is 0.92, while for men it is 1.02. At age 49, the ratios are 1.42 and 1.36 for women and men, respectively, demonstrating that heaping is detected for both sexes.

In Table C.2, household weights are applied to the age distribution of women reported in the individual interview, to investigate if there is a bias in the age reporting in the individual woman's interview. The table shows the expected pattern of declining percentage as age increases, and that there is virtually no difference between the age distribution of women recorded in the household schedule and those interviewed with the individual questionnaire, indicating the absence of a bias. This table also shows that response rates vary slightly across the age of the respondents.

Information on the completeness of reporting in connection with a set of important variables is provided in Table C.3. With the exception of information on child's size at birth, the percentage of cases with missing information is extraordinarily low, and information on dating of events seem to be complete.

According to Table C.4, there is a slight heaping in the reported total number of births in 1990 and the number of children still living. Information on month and year of birth is available for virtually all children. Birth dates of dead children are less complete than for surviving children; nevertheless, this information is known for 95 percent of children, a much higher rate than that found in other DHS surveys, e.g., Malawi 88 percent and Indonesia less than 50 percent. The overall sex ratio at birth for all births is 107, while from year to year there are fluctuations without any indication of bias. Sex ratio for dead children is much higher than for surviving children, indicating higher mortality among male children. The calendar ratios show that there was a transference of births from 1988 to the earlier and later years. The ratio of births in 1988 to the average of the two adjoining years is 0.95, while the ratios for 1987 and 1989 are 1.02 and 1.03, respectively. Compared to the ratio in other DHS surveys, the transference is not as serious (e.g., 0.92 in Peru; 0.90 in Indonesia and 0.77 in Nigeria).

The percentage of early neonatal deaths (deaths within the first 7 days after birth) among all neonatal deaths (deaths within the first month of birth) increases as infant mortality decreases (Table C.5). The same can be deduced from the increasing proportion of neonatal among infant deaths shown in Table C.6, although the pattern is not as clear. It should also be noted that heaping at age 12 months which is detected in the more distant past (5 years or more prior to the survey) seems to have disappeared in the most recent period, demonstrating that reporting of age at death is improving.

Table C.1 Household age distribution

Single-year age distribution of the de jure household population by sex (weighted), Philippines 1993

	Males		Females			Males		Females	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
<1	969	2.9	845	2.5	36	386	1.2	411	1.2
1	982	2.9	889	2.7	37	388	1.2	385	1.2
2	972	2.9	963	2.9	38	383	1.2	431	1.3
3	932	2.8	915	2.7	39	323	1.0	347	1.0
4	943	2.8	869	2.6	40	393	1.2	387	1.2
5	996	3.0	880	2.6	41	246	0.7	285	0.9
6	937	2.8	894	2.7	42	377	1.1	336	1.0
7	919	2.8	837	2.5	43	304	0.9	343	1.0
8	940	2.8	878	2.6	44	251	0.8	285	0.9
9	864	2.6	839	2.5	45	293	0.9	292	0.9
10	924	2.8	887	2.7	46	236	0.7	240	0.7
11	812	2.4	794	2.4	47	270	0.8	236	0.7
12	908	2.7	947	2.8	48	257	0.8	247	0.7
13	904	2.7	885	2.7	49	189	0.6	177	0.5
14	758	2.3	838	2.5	50	244	0.7	275	0.8
15	788	2.4	714	2.1	51	170	0.5	210	0.6
16	787	2.4	714	2.1	52	212	0.6	295	0.9
17	735	2.2	665	2.0	53	215	0.6	254	0.8
18	672	2.0	646	1.9	54	174	0.5	222	0.7
19	618	1.9	594	1.8	55	223	0.7	240	0.7
20	610	1.8	588	1.8	56	188	0.6	204	0.6
21	598	1.8	504	1.5	57	170	0.5	157	0.5
22	609	1.8	551	1.7	58	164	0.5	212	0.6
23	549	1.6	561	1.7	59	136	0.4	146	0.4
24	530	1.6	559	1.7	60	244	0.7	239	0.7
25	531	1.6	540	1.6	61	115	0.3	92	0.3
26	455	1.4	489	1.5	62	126	0.4	136	0.4
27	495	1.5	517	1.6	63	131	0.4	158	0.5
28	517	1.6	534	1.6	64	93	0.3	114	0.3
29	439	1.3	472	1.4	65	129	0.4	170	0.5
30	474	1.4	490	1.5	66	100	0.3	98	0.3
31	377	1.1	424	1.3	67	70	0.2	92	0.3
32	471	1.4	485	1.5	68	87	0.3	110	0.3
33	398	1.2	465	1.4	69	75	0.2	91	0.3
34	364	1.1	399	1.2	70+	721	2.2	881	2.6
35	448	1.3	406	1.2					
					Don't know/ missing	9	0.0	13	0.0
					Total	33319	100.0	33283	100.0

Note: The de jure population includes all usual residents.

Table C.2 Age distribution of eligible and interviewed women

Percent distribution in five-year age groups of the de jure household population of women age 10-54 and of interviewed women age 15-49, and percentage of eligible women who were interviewed (weighted), Philippines 1993

Age	Household population of women age 15-49		Interviewed women age 15-49		Percentage interviewed (weighted)
	Number	Percent	Number	Percent	
10-14	4351	NA	NA	NA	NA
15-19	3333	21.2	3266	21.2	98.0
20-24	2762	17.6	2705	17.5	97.9
25-29	2552	16.2	2503	16.2	98.1
30-34	2262	14.4	2232	14.5	98.7
35-39	1979	12.6	1949	12.6	98.5
40-44	1636	10.4	1605	10.4	98.1
45-49	1192	7.6	1165	7.6	97.7
50-54	1255	NA		NA	NA
15-49	15717	NA	15425	NA	98.1

Note: The de jure population includes all residents.
NA = Not applicable

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Philippines 1993

Subject	Reference group	Percentage missing information	Number of cases
Birth date	Births in last 15 years		
Month only		0.8	24781
Month and year		0.1	24781
Age at death	Deaths to births in last 15 years	0.0	1651
Age/date at first union[1]	Ever-married women	0.1	9511
Respondent's education	All women	0.3	15029
Child's size at birth	Births in last 59 months	39.5	8859
Diarrhea in last 2 weeks	Living children age 0-59 months	0.5	8512

[1]Both year and age missing

Table C.4 Births by calendar year since birth

Distribution of births by calendar years since birth for living (L), dead (D), and all (T) children, according to reporting completeness, sex ratio at birth, and ratio of births by calendar year, Philippines 1993

	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar ratio[3]			Male			Female		
Year	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T
93	1764	80	1844	99.9	100.0	99.9	98.6	121.5	99.5	-	-	-	876	44	920	888	36	924
92	1640	74	1714	99.9	96.1	99.7	114.4	138.5	115.3	96.8	82.5	96.1	875	43	918	765	31	796
91	1625	99	1724	99.9	99.1	99.8	104.8	140.0	106.6	98.0	100.4	98.1	832	58	889	793	41	835
90	1677	123	1800	98.1	91.2	97.7	103.9	128.0	105.4	103.5	108.0	103.8	855	69	924	822	54	876
89	1615	129	1744	99.1	95.2	98.8	108.9	136.8	110.7	102.1	100.8	102.0	842	75	917	773	54	828
88	1489	133	1622	99.0	97.7	98.9	105.9	108.4	106.1	94.6	102.4	95.2	766	69	835	723	64	787
87	1532	131	1662	98.3	96.2	98.1	110.2	125.6	111.3	103.9	97.0	103.3	803	73	876	729	58	786
86	1460	136	1596	98.4	96.4	98.2	95.6	170.3	100.3	98.1	92.3	97.5	713	86	799	746	50	797
85	1445	165	1610	99.2	94.9	98.7	109.1	120.8	110.2	103.0	129.9	105.2	754	90	844	691	75	766
84	1348	117	1465	98.1	94.9	97.8	99.7	113.9	100.8	-	-	-	673	63	735	675	55	730
89-93	8322	505	8827	99.4	95.9	99.2	105.9	132.9	107.3	-	-	-	4280	288	4568	4042	217	4259
84-88	7273	682	7955	98.6	96.0	98.4	104.1	126.1	105.8	-	-	-	3709	380	4090	3564	302	3866
79-83	6062	580	6642	98.6	93.0	98.1	104.4	140.6	107.1	-	-	-	3096	339	3435	2966	241	3207
74-78	3830	396	4226	98.6	95.3	98.3	109.8	132.7	111.7	-	-	-	2004	226	2230	1826	170	1996
< 74	2336	294	2629	98.7	95.2	98.3	98.4	125.6	101.1	-	-	-	1159	163	1322	1177	130	1307
All	27823	2457	30280	98.8	95.0	98.5	105.0	131.8	106.9	-	-	-	14248	1397	15645	13575	1060	14635

NA = Not applicable

[1]Both year and month of birth given

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

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

Table C.5 Reporting of age at death in days

Distribution of reported deaths under 1 month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey, Philippines 1993

Age at death (in days)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1	34	44	48	24	150
1	38	31	44	28	142
2	19	9	8	7	43
3	5	17	19	11	52
4	8	5	8	3	25
5	11	5	7	7	30
6	2	6	2	1	11
7	20	14	29	20	82
8	1	1	4	0	6
9	0	4	1	5	10
10	1	6	1	5	13
11	3	1	0	2	6
12	0	1	3	1	5
13	1	2	1	0	4
14	4	3	4	0	10
15	0	2	1	0	2
17	0	2	1	0	3
18	1	0	1	0	2
19	2	0	0	0	2
20	0	2	2	0	3
21	1	3	0	2	6
22	0	0	1	0	1
23	0	0	1	0	1
26	0	0	0	1	1
27	1	0	0	1	3
28	2	1	0	0	2
30	1	0	1	3	5
31+	1	2	0	0	2
Total 0-30	155	157	185	122	620
Percent early neonatal[1]	75.2	75.0	73.5	67.2	73.1

[1](0-6 days/0-30 days) * 100

Table C.6 Reporting of age at death in months

Distribution of reported deaths under 2 years of age by age at death in months and the percentage of infant deaths reported to occur at ages under one month, for five-year periods of birth preceding the survey, Philippines 1993

Age at death (in months)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1[a]	155	159	186	124	624
1	25	22	31	14	91
2	11	28	28	13	80
3	9	21	21	17	68
4	9	11	9	3	31
5	12	14	22	8	57
6	6	15	17	7	44
7	9	18	5	17	49
8	14	25	19	11	69
9	12	30	19	16	77
10	5	8	10	3	26
11	8	14	12	4	39
12	4	16	12	10	42
13	4	7	4	2	16
14	0	3	3	2	9
15	3	4	1	6	14
16	0	0	2	1	3
17	1	3	0	0	3
18	1	3	5	4	13
19	1	1	0	1	3
20	1	1	1	1	3
21	1	2	0	0	3
22	1	0	0	0	1
23	0	2	0	1	2
24+	0	1	2	0	4
1 year	27	53	58	52	190
Total 0-11	275	363	377	238	1253
Percent neonatal[b]	56.3	43.8	49.2	52.2	49.8

[a]Includes deaths under 1 month reported in days
[b](Under 1 month/under 1 year) * 100

Table C.7 and C.8 are presented to show the superior quality of data used in the calculation of maternal mortality using the sisterhood method. Table C.7 shows that the distribution of respondents and their siblings by year of birth is very similar; in fact, the median year of birth falls on the same year, 1964, indicating that there is no systematic omission and misreporting of date of birth. The evolution of the mean sibship size since 1940s is shown in Table C.8. Sibship size declines from over 7 per respondent in the 1950s to slightly more than 6 per respondents 20 years later. The decline in sibship size coincides with the fertility trend in the Philippines.

Of the 88,607 siblings listed in the survey, sufficient information on sex, survivorship status, and age at death was available for 87,515 siblings, among who, 1,092 were females and have died at age 10 or over. Information on whether the sibling has ever been pregnant was missing for 331 women, or 30 percent of women with potential risks of maternal death. These women were distributed proportionately according to the composition of women with known information on ever pregnant and by age group.

Table C.7

Percent distribution of respondents and siblings by year of birth, Philippines 1993

Year of birth	Respondent	Siblings
Before 1945	2.0	7.5
1945-49	8.6	6.7
1950-54	11.2	10.4
1955-59	13.3	13.4
1960-64	15.0	15.3
1965-69	17.1	15.5
1970-74	17.8	13.1
1975 or later	15.0	18.1
Total	100.0	100.0
Lower range	1943	1913
Upper range	1978	1993
Median	1964	1964
Number of cases	15029	87887

Table C.8

Mean sibship size and sex ratio of births, Philippines 1993

Year of birth	Mean sibship size	Sex ratio at birth
1940s	7.1	101.1
1950-54	7.3	102.8
1955-59	7.4	102.9
1960-64	7.3	104.7
1965-69	6.8	104.2
1970-74	6.4	103.9
1975-77	6.1	105.5
Total	6.85	104.2

APPENDIX D

PERSONS INVOLVED IN THE 1993 NATIONAL DEMOGRAPHIC SURVEY

1993 National Demographic Survey Project Steering Committee

DR. JAIME GALVEZ TAN
Undersecretary
Department of Health

MS. ERLINDA CAPONES
Assistant Director
National Economic and Development Authority

DR. ALEJANDRO HERRIN
Professor
School of Economics
University of the Philippines

DR. RODOLFO FLORENTINO
Executive Director
Food and Nutrition Research Institute

DR. CORAZON RAYMUNDO
Dean
University of the Philippines
Population Institute

MS. CECILE JOAQUIN-YASAY
Director
Population Commission

MR. TOMAS P. AFRICA
Administrator
National Statistics Office

MS. NELIA R. MARQUEZ
Deputy Administrator
National Statistics Office

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Director, Household Survey Division
National Statistics Office

DR. ROMULO VIROLA
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1993 National Demographic Survey Project Technical Committee

MS. LINA CASTRO
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DR. AURORA E. PEREZ
University of the Philippines
Population Institute

DR. JOSEPHINE CABIGON
University of the Philippines
Population Institute

MS. GRACE VILLAVIEJA
Food and Nutrition Research Institute

MS. GRACE DINO
Population Commission

DR. DIVINA HEY-GONZALES
Department of Health

MS. MARITESS LOGARTO/LENI MAGALIT
National Economic and Development Authority

National Statistics Office
MS. ROSALINDA P. BAUTISTA
MS. ELIZABETH GO
MS. BENEDICTA YABUT
MS. MINERVA ELOISA ESQUIVIAS
MS. TITA TABIJE

1993 National Demographic Survey Staff

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Edna Pineda
Divina Graco Laluan
Hazel Ricarte
Josephine Quiambao
Levitico Balajadia
Marites Espinosa
Lucita Flavier
Tita Tabije
Socrates Ramores
Maribelle Baluyot
Ma. Leah Magracia
Minerva Eloosa Esquivias
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Geraldine Cadenas
Carlito David
Arleene Guillermo
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APPENDIX E

SURVEY QUESTIONNAIRES

NDS FORM 1
NSCB Clearance
No.A0477-R011MS
Expires January 31, 1994

Confidentiality
This survey is authorized by Commonwealth Act No. 59
All informartion is strictly confidential.

Republic of the Philippines
NATIONAL STATISTICAL OFFICE

1993 NATIONAL DEMOGRAPHIC SURVEY
HOUSEHOLD SCHEDULE

IDENTIFICATION

PROVINCE.....

CITY/MUNICIPALITY.....

BARANGAY.....

CLUSTER NUMBER.....

URBAN/RURAL (urban=1, rural=2).....

HOUSEHOLD CONTROL NUMBER.....

SAMPLE HOUSEHOLD SERIAL NUMBER.....

ADDRESS _____

INTERVIEWER VISITS

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

* RESULT CODES:
1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING/HOUSEHOLD NOT FOUND
9 OTHER _____
(SPECIFY)

TOTAL IN HOUSEHOLD

TOTAL ELIGIBLE WOMEN

LINE NO. OF RESP. TO HOUSEHOLD SCHEDULE

LANGUAGE OF QUESTIONNAIRE: _____

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

HOUSEHOLD ROSTER

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*	FAMILY TYPE AND RELATIONSHIP	RESIDENCE		SEX	AGE
	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.	What is the relationship of (NAME) to the head of the household?	What is the relationship of (NAME) to the head of the family? ENTER FAMILY TYPE AND RELATIONSHIP CODE*	Does (NAME) usually live here?	Did (NAME) sleep here last night?	Is (NAME) male or female?	How old is (NAME) as of his/her last birthday?
(1)	(2)	(3)	(4)	(8)	(9)	(10)	(11)
			TYPE REL.	YES NO	YES NO	M F	IN YEARS
01				1 2	1 2	1 2	
02				1 2	1 2	1 2	
03				1 2	1 2	1 2	
04				1 2	1 2	1 2	
05				1 2	1 2	1 2	
06				1 2	1 2	1 2	
07				1 2	1 2	1 2	
08				1 2	1 2	1 2	
09				1 2	1 2	1 2	
10				1 2	1 2	1 2	
11				1 2	1 2	1 2	
12				1 2	1 2	1 2	
13				1 2	1 2	1 2	
14				1 2	1 2	1 2	
15				1 2	1 2	1 2	

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

Just to make sure that I have a complete listing, I have listed _____ people.

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

(6) Are there any other people who may not be members of your family, such as domestic servants, lodgers or friends who ususlly live here we have not listed? YES ☐ → ENTER EACH IN TABLE NO ☐

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

* CODES FOR Q.3

RELATIONSHIP TO HEAD OF HOUSEHOLD/FAMILY:

01= HEAD
02= WIFE OR HUSBAND
03= SON OR DAUGHTER
04= SON/DAUGHTER-IN-LAW
05= GRANDCHILD
06= PARENT
07= PARENT-IN-LAW
08= BROTHER/SISTER OR BROTHER/SISTER-IN-LAW
09= UNCLE/AUNT OR UNCLE/AUNT-IN-LAW
10= COUSIN/COUSIN-IN-LAW
11= NIECE/NEPHEW OR NIECE/NEPHEW-IN-LAW
12= GRANDPARENT OR GRANDPARENT-IN-LAW
13= ADOPTED/FOSTER CHILD
14= NOT RELAted
98= DK

FAMILY TYPE:

0 = NO FAMILY NUCLEUS
1 = FIRST FAMILY
2 = SECOND FAMILY
3 = THIRD FAMILY
AND SO FORTH

2

EDUCATION		PARENTAL SURVIVORSHIP AND RESIDENCE FOR PERSONS LESS THAN 15 YEARS OLD***				ELIGIBILITY
AGED 6 YEARS OR OLDER						
IF ATTENDED SCHOOL						
Has (NAME) ever been to school? IF YES, What is the highest grade/year (NAME) completed?** (12)	IF AGED LESS THAN 25 YEARS Is (NAME) still in school? (13)	Is (NAME)'s natural mother alive? (14)	IF ALIVE Does (NAME)'s mother live in this household? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER (15)	Is (NAME)'s natural father alive? (16)	IF ALIVE Does (NAME)'s father live in this household? IF YES: What is his name? RECORD FATHER'S LINE NUMBER (17)	CIRCLE LINE NUMBER OF WOMEN ELIGIBLE FOR INDIVIDUAL INTERVIEW (18)
	YES NO	YES NO DK		YES NO DK		
	1 2	1 2 8		1 2 8		01
	1 2	1 2 8		1 2 8		02
	1 2	1 2 8		1 2 8		03
	1 2	1 2 8		1 2 8		04
	1 2	1 2 8		1 2 8		05
	1 2	1 2 8		1 2 8		06
	1 2	1 2 8		1 2 8		07
	1 2	1 2 8		1 2 8		08
	1 2	1 2 8		1 2 8		09
	1 2	1 2 8		1 2 8		10
	1 2	1 2 8		1 2 8		11
	1 2	1 2 8		1 2 8		12
	1 2	1 2 8		1 2 8		13
	1 2	1 2 8		1 2 8		14
	1 2	1 2 8		1 2 8		15

** CODES FOR Q.12 GRADE/YEAR:

00= NO EDUCATION
11= ELEMENTARY GRADE 1
12= ELEMENTARY GRADE 2
13= ELEMENTARY GRADE 3
14= ELEMENTARY GRADE 4
15= ELEMENTARY GRADE 5
16= ELEMENTARY GRADE 6
17= ELEMENTARY GRADE 7
21= HIGH SCHOOL YEAR 1
22= HIGH SCHOOL YEAR 2
23= HIGH SCHOOL YEAR 3
31= COLLEGE YEAR 1
32= COLLEGE YEAR 2
33= COLLEGE YEAR 3
34= COLLEGE YEAR 4
35= COLLEGE YEAR 5
40= COLLEGE GRADUATE

*** These questions refe to the biological parents of the child. Record "00" if parent not member of household.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
19	What is the main source of water your household uses for handwashing and dishwashing?	COMMUNITY WATER SYSTEM PIPED INTO RESIDENCE/YARD/PLOT.....11 PUBLIC TAP.....12 TUBED/PIPED WELL/IMPROVED DUG WELL PRIVATE WELL W/O FAUCET WITHIN RESIDENCE/YARD/PLOT...21 NOT W/IN RES/YARD/PLOT.....22 PRIVATE WELL W/ FAUCET.....23 PUBLIC WELL.....24 OPEN DUG WELL.....31 DEVELOPED SPRING.....41 RAIN WATER.....51 OTHER_____71 (SPECIFY)	 21 21 21 21
20	How long does it take to go there, get water, and come back?	MINUTES..... [ ][ ][ ] WITHIN PREMISES.....996	
21	Does your household get drinking water from this same source?	YES.....1 NO.....2	23
22	What is the main source of drinking water for members of your household?	COMMUNITY WATER SYSTEM PIPED INTO RESIDENCE/YARD/PLOT.....11 PUBLIC TAP.....12 TUBED/PIPED WELL/IMPROVED DUG WELL PRIVATE WELL W/O FAUCET WITHIN RESIDENCE/YARD/PLOT...21 NOT W/IN RES/YARD/PLOT.....22 PRIVATE WELL W/ FAUCET.....23 PUBLIC WELL.....24 OPEN DUG WELL.....31 DEVELOPED SPRING.....41 RAIN WATER.....51 OTHER_____71 (SPECIFY)	
23	What kind of toilet facility does your household have?	FLUSH TOILET (WATER SEALED) OWN FLUSH TOILET.....11 SHARED FLUSH TOILET.....12 PIT TOILET/LATRINE TRADITIONAL PIT TOILET.....21 VENTILATED IMPROVED PIT (VIP) LATRINE.....22 NO FACILITY/BUSH/FIELD.....31 OTHER _____41 (SPECIFY)	
24	Does your household have: Electricity? An electric/gas range? A television? A refrigerator?	YES NO ELECTRICITY.....1 2 ELECTRIC/GAS RANGE.....1 2 TELEVISION.....1 2 REFRIGERATOR.....1 2	
25	How many rooms in your household are used for sleeping?	ROOMS..... [ ][ ]	
26	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR EARTH/SAND.....11 RUDIMENTARY FLOOR WOOD PLANKS.....21 PALM/BAMBOO.....22 FINISHED FLOOR PARQUET OR POLISHED WOOD.....31 VINYL OR ASPHALT STRIPS.....32 CERAMIC TILES.....33 CEMENT.....34 MARBLE.....35 OTHER _____41 (SPECIFY)	
27	Does any member of your household own: A bicycle? A motorcycle? A car?	YES NO BICYCLE.....1 2 MOTORCYCLE.....1 2 CAR.....1 2	

4

NDS FORM 2
NSCB Clearance
No.

Republic of the Philippines
NATIONAL STATISTICS OFFICE

1993 NATIONAL DEMOGRAPHIC SURVEY
INDIVIDUAL QUESTIONNAIRE

Confidentiality : This survey is authorized by Commonwealth Act No. 591. All information is strictly confidential.

IDENTIFICATION

PROVINCE _____

CITY/MUNICIPALITY _____

BARANGAY _____

CLUSTER NUMBER.....

URBAN/RURAL (urban=1, rural=2).....

HOUSEHOLD CONTROL NUMBER.....

SAMPLE HOUSEHOLD SERIAL NUMBER _____

ADDRESS _____

NAME AND LINE NUMBER OF ELIGIBLE WOMAN _____

INTERVIEWER VISITS

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

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

LANGUAGE OF QUESTIONNAIRE: ENGLISH 7

LANGUAGE USED IN INTERVIEW** _____

RESPONDENT'S LOCAL LANGUAGE** _____

WITH TRANSLATOR (NOT AT ALL=1; SOMETIMES=2; ALL THE TIME=3).....

** LANGUAGE CODES:
1 TAGALOG
2 CEBUANO
3 ILOCANO
4 BICOL
5 HILIGAYNON
6 WARAY
7 ENGLISH
8 OTHER

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

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
101	RECORD THE TIME.	HOUR..... [ ][ ] MINUTES..... [ ][ ]	
102	First I would like to ask some questions about you and your household. For most of the time until you were 12 years old, did you live in a city, in a town, or in a barrio/rural area?	CITY.....1 TOWN.....2 BARRIO/RURAL AREA.....3	
103	In what month and year were you born?	MONTH..... [ ][ ] DK MONTH.....98 YEAR..... [ ][ ] DK YEAR.....98	
104	How old were you on your last birthday? COMPARE AND CORRECT 103 AND/OR 104 IF INCONSISTENT.	AGE IN COMPLETED YEARS..... [ ][ ]	
105	Have you ever attended school?	YES.....1 NO.....2	→109
106	What is the highest level of school you attended?	PRESCHOOL.....0 ELEMENTARY.....1 HIGH SCHOOL.....2 COLLEGE OR HIGHER.....3 DK.....8	→109
107	What is the highest grade/year you completed at that level?	GRADE/YEAR..... [ ][ ] DK.....98	
108	CHECK 106: ELEMENTARY [ ] ↓	HIGH SCHOOL OR HIGHER [ ]	→110
109	Can you read and understand a letter or newspaper easily, with difficulty, or not at all?	EASILY.....1 WITH DIFFICULTY.....2 NOT AT ALL.....3	→111
110	Do you usually read a newspaper or magazine at least once a week?	YES.....1 NO.....2	
111	Do you usually listen to the radio at least once a week?	YES.....1 NO.....2	
112	Do you usually watch television at least once a week?	YES.....1 NO.....2	
113	What is your religion?	ROMAN CATHOLIC.....1 PROTESTANT.....2 IGLESIA NI KRISTO.....3 AGLIPAY.....4 ISLAM.....5 OTHER_____6 (SPECIFY) NONE.....7	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
114	How do you classify yourself? Are you a Tagalog, Cebuano, Ilocano, Ilonggo, Bicolano, Waray, Kapampangan, or what?	TAGALOG.....1 CEBUANO.....2 ILOCANO.....3 ILONGGO.....4 BICOLANO.....5 WARAY.....6 OTHER_____7 (SPECIFY)	
115	CHECK Q.8 IN THE HOUSEHOLD QUESTIONNAIRE THE WOMAN INTERVIEWED IS NOT A USUAL RESIDENT ☐ ↓	THE WOMAN INTERVIEWED IS A USUAL RESIDENT ☐	→201
116	Now I would like to ask about the place in which you usually live. Do you usually live in a city, in a town, or in a barrio/rural area?	CITY.....1 TOWN.....2 BARRIO/RURAL AREA.....3	
117	What is the main source of water your household uses for handwashing and dishwashing?	COMMUNITY WATER SYSTEM PIPED INTO RESIDENCE/YARD/PLOT.....11 PUBLIC TAP.....12 TUBED/PIPED WELL/IMPROVED DUG WELL PRIVATE WELL W/O FAUCET WITHIN RESIDENCE/YARD/PLOT...21 NOT W/IN RES/YARD/PLOT.....22 PRIVATE WELL W/ FAUCET.....23 PUBLIC WELL.....24 OPEN DUG WELL.....31 DEVELOPED SPRING.....41 RAINWATER.....51 OTHER_____71 (SPECIFY)	→119 →119 →119 →119
118	How long does it take to go there, get water, and come back?	MINUTES..... ☐☐☐ WITHIN PREMISES.....996	
119	Does your household get drinking water from this same source?	YES.....1 NO.....2	→121
120	What is the main source of drinking water for members of your household?	COMMUNITY WATER SYSTEM PIPED INTO RESIDENCE/YARD/PLOT.....11 PUBLIC TAP.....12 TUBED/PIPED WELL/IMPROVED DUG WELL PRIVATE WELL W/O FAUCET WITHIN RESIDENCE/YARD/PLOT...21 NOT W/IN RES/YARD/PLOT.....22 PRIVATE WELL W/ FAUCET.....23 PUBLIC WELL.....24 OPEN DUG WELL.....31 DEVELOPED SPRING.....41 RAINWATER.....51 OTHER_____71 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
121	What kind of toilet facility does your household have?	FLUSH TOILET (WATER SEALED) OWN FLUSH TOILET.....11 SHARED FLUSH TOILET.....12 SANITARY PIT/ANTIPOLO TYPE OWN TOILET.....21 SHARED TOILET.....22 OPEN PRIVY.....31 DROP TYPE/OVERHANG TYPE.....41 NO FACILITY/BUSH/FIELD.....51 OTHER _____ 61 (SPECIFY)	
122	Does your household have: Electricity? A gas/electric range? A television? A refrigerator?	YES NO ELECTRICITY.....1 2 GAS/ELECTRIC RANGE.....1 2 TELEVISION.....1 2 REFRIGERATOR.....1 2	
123	How many rooms in your household are used for sleeping?	ROOMS..... [ ][ ]	
124	Could you describe the main material of the floor of your house?	NATURAL FLOOR EARTH/SAND.....11 RUDIMENTARY FLOOR WOOD PLANKS.....21 PALM/BAMBOO.....22 FINISHED FLOOR PARQUET OR POLISHED WOOD.....31 VINYL OR ASPHALT STRIPS.....32 CERAMIC TILES.....33 CEMENT.....34 MARBLE.....35 OTHER _____ 41 (SPECIFY)	
125	Does any member of your household own: A bicycle? A motorcycle? A car?	YES NO BICYCLE.....1 2 MOTORCYCLE.....1 2 CAR.....1 2	

4

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES.....1 NO.....2	206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES.....1 NO.....2	204
203	How many sons live with you? And how many daughters live with you? IF NONE RECORD '00'.	SONS AT HOME..... [ ][ ] DAUGHTERS AT HOME..... [ ][ ]	
204	Do you have any sons or daughters to whom you have given birth who are still alive but do not live with you?	YES.....1 NO.....2	206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE RECORD '00'.	SONS ELSEWHERE..... [ ][ ] DAUGHTERS ELSEWHERE..... [ ][ ]	
206	Have you ever given birth to a boy or a girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed any sign of life but only survived a few hours or days?	YES.....1 NO.....2	208
207	In all, how many boys have died? And how many girls have died? IF NONE RECORD '00'	BOYS DEAD..... [ ][ ] GIRLS DEAD..... [ ][ ]	
208	Some pregnancies end before full term or as a stillbirth. Have you had any pregnancy that did not result in a live birth?	YES.....1 NO.....2	210
209	In all, how many such pregnancies have there been? IF NONE RECORD '00'	PREGNANCY LOSS..... [ ][ ]	
210	SUM ANSWERS TO 203, 205, 207 AND 209, AND ENTER TOTAL. IF NONE RECORD '00'.	TOTAL PREGNANCIES..... [ ][ ]	
211	CHECK 210: Just to make sure that I have this right, you have had _____ children who are still living (203 and 205) + _____ children who have died (207), and + _____ pregnancies which did not result in a live birth (209). Is that correct? YES [ ] NO [ ] → PROBE AND CORRECT 201-210 AS NECESSARY		
212	CHECK 210: ONE OR MORE PREGNANCIES [ ] NO PREGNANCIES [ ]		233

213 Now I would like to talk to you about all of your pregnancies, whether born alive, born dead or lost before full term, starting with the first one you had.

RECORD ALL THE PREGNANCIES. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.

214 Think back to the time of your (first/next) pregnancy.	215 Was that a single or a multiple pregnancy?	216 Was the baby born alive, born dead, or lost before full term?	217 Did that baby cry, move, or breathe when it was born?	218 What name was given to that child?	219 Is (NAME) a boy or a girl?	220 In what month and year was (NAME) born? PROBE: What is his/her birthday?	221 Is (NAME) still alive?
01	SINGLE....1 MULTIPLE..2	BORN ALIVE.....1 (SKIP TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (SKIP TO 226)	YES.....1 NO.....2 → 226	(NAME)	BOY.....1 GIRL....2	MONTH.... YEAR.....	YES.....1 NO.....2 → 225
02	SINGLE....1 MULTIPLE..2	BORN ALIVE.....1 (SKIP TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (SKIP TO 226)	YES.....1 NO.....2 → 226	(NAME)	BOY.....1 GIRL....2	MONTH.... YEAR.....	YES.... .1 NO.....2 → 225
03	SINGLE....1 MULTIPLE..2	BORN ALIVE.....1 (SKIP TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (SKIP TO 226)	YES.....1 NO.....2 → 226	(NAME)	BOY.....1 GIRL....2	MONTH.... YEAR.....	YES.....1 NO.....2 → 225
04	SINGLE....1 MULTIPLE..2	BORN ALIVE.....1 (SKIP TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (SKIP TO 226)	YES.....1 NO.....2 → 226	(NAME)	BOY.....1 GIRL....2	MONTH.... YEAR.....	YES.....1 NO.....2 → 225
05	SINGLE....1 MULTIPLE..2	BORN ALIVE.....1 (SKIP TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (SKIP TO 226)	YES.....1 NO.....2 → 226	(NAME)	BOY.....1 GIRL....2	MONTH.... YEAR.....	YES.....1 NO.....2 → 225
06	SINGLE....1 MULTIPLE..2	BORN ALIVE.....1 (SKIP TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (SKIP TO 226)	YES.....1 NO.....2 → 226	(NAME)	BOY.....1 GIRL....2	MONTH.... YEAR.....	YES.....1 NO.....2 → 225
07	SINGLE....1 MULTIPLE..2	BORN ALIVE.....1 (SKIP TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (SKIP TO 226)	YES.....1 NO.....2 → 226	(NAME)	BOY.....1 GIRL....2	MONTH.... YEAR.....	YES.....1 NO.....2 → 225
08	SINGLE....1 MULTIPLE..2	BORN ALIVE.....1 (SKIP TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (SKIP TO 226)	YES.....1 NO.....2 → 226	(NAME)	BOY.....1 GIRL....2	MONTH.... YEAR.....	YES.....1 NO.....2 → 225

IF BORN ALIVE AND STILL LIVING:			BORN ALIVE BUT NOW DEAD:	IF BORN DEAD OR LOST BEFORE FULL TERM:		IF LOST BEFORE FULL TERM:
222 How old was (NAME) as of his/her last birthday? RECORD IN YEARS	223 Is (NAME) living with you?	224 IF LESS THAN 15 YRS. OF AGE: With whom does he/she live? IF 15+: GO TO NEXT PREGNANCY	225 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, OTHERWISE, ENTER YEARS.	226 In what month and year did this pregnancy end?	227 How many months did the pregnancy last? RECORD IN COMPLETED MONTHS.	228 Did you or a doctor or someone else do anything to end this pregnancy?
AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT PREGNANCY) NO.....2	FATHER.....1 MATERNAL RELATIVE..2 PATERNAL RELATIVE..3 SOMEONE ELSE.....4 (GO TO NEXT PREGNANCY)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES.....1 NO.....2
AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT PREGNANCY) NO.....2	FATHER.....1 MATERNAL RELATIVE..2 PATERNAL RELATIVE..3 SOMEONE ELSE.....4 (GO TO NEXT PREGNANCY)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES.....1 NO.....2
AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT PREGNANCY) NO.....2	FATHER.....1 MATERNAL RELATIVE..2 PATERNAL RELATIVE..3 SOMEONE ELSE.....4 (GO TO NEXT PREGNANCY)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES.....1 NO.....2
AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT PREGNANCY) NO.....2	FATHER.....1 MATERNAL RELATIVE..2 PATERNAL RELATIVE..3 SOMEONE ELSE.....4 (GO TO NEXT PREGNANCY)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES.....1 NO.....2
AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT PREGNANCY) NO.....2	FATHER.....1 MATERNAL RELATIVE..2 PATERNAL RELATIVE..3 SOMEONE ELSE.....4 (GO TO NEXT PREGNANCY)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES.....1 NO.....2
AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT PREGNANCY) NO.....2	FATHER.....1 MATERNAL RELATIVE..2 PATERNAL RELATIVE..3 SOMEONE ELSE.....4 (GO TO NEXT PREGNANCY)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES.....1 NO.....2
AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT PREGNANCY) NO.....2	FATHER.....1 MATERNAL RELATIVE..2 PATERNAL RELATIVE..3 SOMEONE ELSE.....4 (GO TO NEXT PREGNANCY)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES.....1 NO.....2
AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT PREGNANCY) NO.....2	FATHER.....1 MATERNAL RELATIVE..2 PATERNAL RELATIVE..3 SOMEONE ELSE.....4 (GO TO NEXT PREGNANCY)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES.....1 NO.....2
AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT PREGNANCY) NO.....2	FATHER.....1 MATERNAL RELATIVE..2 PATERNAL RELATIVE..3 SOMEONE ELSE.....4 (GO TO NEXT PREGNANCY)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES.....1 NO.....2

7

214 Think back to the time of your (first/next) pregnancy.	215 Was that a single or a multiple pregnancy?	216 Was the baby born alive, born dead, or lost before full term?	217 Did that baby cry, move, or breathe when it was born?	218 What name was given to that child?	219 Is (NAME) a boy or a girl?	220 In what month and year was (NAME) born? PROBE: What is his/her birthday?	221 Is (NAME) still alive?
09	SINGLE....1 MULTIPLE..2	BORN ALIVE.....1 (SKIP TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (SKIP TO 226)	YES.....1 NO.....2 → 226	(NAME)	BOY.....1 GIRL....2	MONTH.... YEAR.....	YES.....1 NO.....2 → 225
10	SINGLE....1 MULTIPLE..2	BORN ALIVE.....1 (SKIP TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (SKIP TO 226)	YES.....1 NO.....2 → 226	(NAME)	BOY.....1 GIRL....2	MONTH.... YEAR.....	YES.....1 NO.....2 → 225
11	SINGLE....1 MULTIPLE..2	BORN ALIVE.....1 (SKIP TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (SKIP TO 226)	YES.....1 NO.....2 → 226	(NAME)	BOY.....1 GIRL....2	MONTH.... YEAR.....	YES.....1 NO.....2 → 225
12	SINGLE....1 MULTIPLE..2	BORN ALIVE.....1 (SKIP TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (SKIP TO 226)	YES.....1 NO.....2 → 226	(NAME)	BOY.....1 GIRL....2	MONTH.... YEAR.....	YES.....1 NO.....2 → 225
13	SINGLE....1 MULTIPLE..2	BORN ALIVE.....1 (SKIP TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (SKIP TO 226)	YES.....1 NO.....2 → 226	(NAME)	BOY.....1 GIRL....2	MONTH.... YEAR.....	YES.....1 NO.....2 → 225

IF BORN ALIVE AND STILL LIVING:			BORN ALIVE BUT NOW DEAD:	IF BORN DEAD OR LOST BEFORE FULL TERM:		IF LOST BEFORE FULL TERM:
222 How old was (NAME) as of his/her last birthday? RECORD IN YEARS	223 Is (NAME) living with you?	224 IF LESS THAN 15 YRS. OF AGE: With whom does he/she live? IF 15+: GO TO NEXT PREGNANCY	225 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, OTHERWISE, ENTER YEARS.	226 In what month and year did this pregnancy end?	227 How many months did the pregnancy last? RECORD IN COMPLETED MONTHS.	228 Did you or a doctor or someone else do anything to end this pregnancy?
AGE IN YEARS	YES.....1 (GO TO NEXT PREGNANCY) NO.....2	FATHER.....1 MATERNAL RELATIVE..2 PATERNAL RELATIVE..3 SOMEONE ELSE.....4 (GO TO NEXT PREGNANCY)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES.....1 NO.....2
AGE IN YEARS	YES.....1 (GO TO NEXT PREGNANCY) NO.....2	FATHER.....1 MATERNAL RELATIVE..2 PATERNAL RELATIVE..3 SOMEONE ELSE.....4 (GO TO NEXT PREGNANCY)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES.....1 NO.....2
AGE IN YEARS	YES.....1 (GO TO NEXT PREGNANCY) NO.....2	FATHER.....1 MATERNAL RELATIVE..2 PATERNAL RELATIVE..3 SOMEONE ELSE.....4 (GO TO NEXT PREGNANCY)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES.....1 NO.....2
AGE IN YEARS	YES.....1 (GO TO NEXT PREGNANCY) NO.....2	FATHER.....1 MATERNAL RELATIVE..2 PATERNAL RELATIVE..3 SOMEONE ELSE.....4 (GO TO NEXT PREGNANCY)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES.....1 NO.....2
AGE IN YEARS	YES.....1 (GO TO NEXT PREGNANCY) NO.....2	FATHER.....1 MATERNAL RELATIVE..2 PATERNAL RELATIVE..3 SOMEONE ELSE.....4 (GO TO NEXT PREGNANCY)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES.....1 NO.....2

229 COMPARE 210 WITH NUMBER OF PREGNANCIES IN HISTORY ABOVE AND MARK:

NUMBERS ARE SAME ☐ → ✓

NUMBERS ARE DIFFERENT ☐ → (PROBE AND RECONCILE)

CHECK: FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED IN 220.

FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED IN 222.

FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED IN 225.

FOR EACH PREGNANCY LOSS: DURATION IS RECORDED IN 227.

FOR AGE AT DEATH 12 MONTHS: PROBE TO DETERMINE EXACT NUMBER OF MONTHS IN 225.

230 CHECK 220 AND ENTER THE NUMBER OF BIRTHS SINCE JANUARY 1988.
IF NONE, ENTER 0 AND GO TO 232.

231 FOR EACH BIRTH SINCE JANUARY 1988 ENTER "B" IN MONTH OF BIRTH IN COLUMN 1 OF CALENDAR AND "P" IN EACH OF THE 8 PRECEDING MONTHS. WRITE NAME TO THE LEFT OF THE "B" CODE.

232 AT THE BOTTOM OF THE CALENDAR, ENTER THE NAME AND BIRTH DATE OF THE LAST CHILD BORN PRIOR TO JANUARY 1988, IF APPLICABLE.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
233	Are you pregnant now?	YES.....1 NO.....2 UNSURE.....8	236
234	How many months pregnant are you? ENTER "P" IN COLUMN 1 OF CALENDAR IN MONTH OF INTERVIEW AND IN EACH PRECEDING MONTH PREGNANT.	MONTHS..... [ ][ ]	
235	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</u> want to become pregnant at all?	THEN.....1 LATER.....2 NOT AT ALL.....3	
236	CHECK 209: WITH PREGNANCY LOSS [ ] NO PREGNANCY LOSS [ ]		239
237	CHECK 216 AND 226 FOR DATE OF LAST PREGNANCY LOSS: LAST PREGNANCY ENDED SINCE JANUARY 1988 [ ] LAST PREGNANCY ENDED BEFORE JANUARY 1988 [ ]		239
238	ASK FOR DATES AND DURATIONS OF ALL PREGNANCIES SINCE JANUARY 1988. ENTER "T" IN COLUMN 1 OF CALENDAR IN MONTH PREGNANCY TERMINATED, AND "P" IN EACH PRECEDING MONTH PREGNANT.		
239	When did your last menstrual period start?	DAYS AGO.....1 [ ][ ] WEEKS AGO.....2 [ ][ ] MONTHS AGO.....3 [ ][ ] YEARS AGO.....4 [ ][ ] IN MENOPAUSE.....994 BEFORE LAST BIRTH.....995 NEVER MENSTRUATED.....996	
240	Within a woman's menstrual cycle, that is, between the first day of a woman's period and the first day of her <u>next</u> period, are there days when she has a greater chance of becoming pregnant?	YES.....1 NO.....2 DK.....8	301
241	During which days of a woman's menstrual cycle does a woman have the greatest chance of becoming pregnant?	DURING HER PERIOD.....1 RIGHT AFTER HER PERIOD HAS ENDED.....2 IN THE MIDDLE OF THE CYCLE.....3 JUST BEFORE HER PERIOD BEGINS...4 OTHER _____ (SPECIFY) 5 DK.....8	

10

SECTION 3: CONTRACEPTION

301 Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Which ways or methods have you heard about?

CIRCLE CODE 1 IN 302 FOR EACH METHOD MENTIONED SPONTANEOUSLY.
THEN PROCEED DOWN THE COLUMN, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY.
CIRCLE CODE 2 IF METHOD IS RECOGNIZED, AND CODE 3 IF NOT RECOGNIZED.
ASK 303-304 FOR EACH METHOD WITH CODE 1 OR 2 CIRCLED IN 302.

	302 Have you ever heard of (METHOD)? READ DESCRIPTION OF EACH METHOD.	303 Have you ever used (METHOD)?	304 Do you know where a person could go to get (METHOD)?
01 PILL Women can take a pill every day.	YES/SPONTANEOUS.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES, SAME BARANGAY.....1 YES, ANOTHER BARANGAY.....2 NO.....3
02 IUD Women can have a loop or coil placed inside the uterus by a doctor or a nurse.	YES/SPONTANEOUS.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES, SAME BARANGAY.....1 YES, ANOTHER BARANGAY.....2 NO.....3
03 INJECTIONS Women can have an injection by a doctor or nurse which stops them from becoming pregnant for several months.	YES/SPONTANEOUS.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES, SAME BARANGAY.....1 YES, ANOTHER BARANGAY.....2 NO.....3
04 DIAPHRAGM, FOAM, JELLY, CREAM Women can place a sponge, suppository, diaphragm, jelly or cream inside before intercourse	YES/SPONTANEOUS.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES, SAME BARANGAY.....1 YES, ANOTHER BARANGAY.....2 NO.....3
05 CONDOM Men can use a rubber sheath during sexual intercourse.	YES/SPONTANEOUS.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES, SAME BARANGAY.....1 YES, ANOTHER BARANGAY.....2 NO.....3
06 LIGATION, FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES/SPONTANEOUS.....1 YES/PROBED.....2 NO.....3	Have you ever had an operation to avoid having any more children? YES.....1 NO.....2	YES, SAME BARANGAY.....1 YES, ANOTHER BARANGAY.....2 NO.....3
07 VASECTOMY, MALE STERILIZATION Men can have an operation to avoid having any more children.	YES/SPONTANEOUS.....1 YES/PROBED.....2 NO.....3	Have your partner ever had an operation to avoid having any more children? YES.....1 NO.....2	YES, SAME BARANGAY.....1 YES, ANOTHER BARANGAY.....2 NO.....3
08 NATURAL FAMILY PLANNING, RHYTHM, PERIODIC ABSTINENCE Couples can avoid having sexual intercourse on certain days of the month when the woman is more likely to become pregnant.	YES/SPONTANEOUS.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	Do you know where a person can obtain advice on how to use natural family planning? YES, SAME BARANGAY.....1 YES, ANOTHER BARANGAY.....2 NO.....3
09 WITHDRAWAL Men can be careful and pull out before climax.	YES/SPONTANEOUS.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	
10 Have you heard of any other ways or methods that women or men can use to avoid pregnancy? 1 _____ (SPECIFY) 2 _____ (SPECIFY) 3 _____ (SPECIFY)	YES/SPONTANEOUS.....1 NO.....3	YES.....1 NO.....2 YES.....1 NO.....2 YES.....1 NO.....2	

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

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
306	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES.....1 NO.....2	→308
307	ENTER "0" IN COLUMN 1 OF CALENDAR IN EACH BLANK MONTH.		→361
308	What have you used or done? CORRECT 303-305 (AND 302 IF NECESSARY).		
309	What is the first thing you ever did or method you ever used to delay or avoid getting pregnant?	PILL.....01 IUD.....02 INJECTIONS.....03 DIAPHRAGM/FOAM/JELLY/CREAM.....04 CONDOM.....05 LIGATION/FEM. STER.....06 VASECTOMY/MALE STER.....07 NATURAL FAMILY PLANNING.....08 WITHDRAWAL.....09 OTHER _____ _____10 (SPECIFY)	→311
310	Where did you go to get this method the first time? _____ (NAME OF FACILITY)	PUBLIC SECTOR GOVERNMENT HOSPITAL.....11 BARANGAY HEALTH STATION.....12 BARANGAY SUPPLY/SERVICE POINT OFFICER.....13 RHU/PUERICULTURE CENTER.....14 MEDICAL PRIVATE SECTOR PRIVATE HOSPITAL OR CLINIC....21 PHARMACY.....22 PRIVATE DOCTOR.....23 OTHER PRIVATE SECTOR STORE.....31 CHURCH.....32 FRIENDS/RELATIVES.....33 OTHER _____41 (SPECIFY) DK..... 98	
311	How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN..... [ ][ ]	
312	In what month and year did you first start using this method?	MONTH..... [ ][ ] DK MONTH.....98 YEAR..... [ ][ ] DK YEAR.....98	
313	How old were you at that time?	AGE..... [ ][ ]	
314	CHECK 233: NOT PREGNANT OR UNSURE [ ] ↓	PREGNANT [ ]	→353
315	CHECK 303: WOMAN NOT STERILIZED [ ] ↓	WOMAN STERILIZED [ ]	→317A
316	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES.....1 NO.....2	→353

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
317	Which method are you using?	PILL.....01	
		IUD.....02	
		INJECTIONS.....03	
		DIAPHRAGM/FOAM/JELLY/CREAM.....04	→327
		CONDOM.....05	
317A	CIRCLE '06' FOR FEMALE STERILIZATION.	LIGATION/FEM. STER.....06	
		VASECTOMY/MALE. STER.....07	→324
		NATURAL FAMILY PLANNING.....08	→323
		WITHDRAWAL.....09	
		OTHER _____ 10 (SPECIFY)	→342
318	At the time you first started using the pill, did you consult a doctor or a nurse ?	YES.....1	
		NO.....2	
		DK.....8	
319	At the time you last got pills, did you consult a doctor or a nurse?	YES.....1	
		NO.....2	
320	May I see the package of pills you are using now? RECORD NAME OF BRAND.	PACKAGE SEEN.....1	→322
		BRAND NAME _____ [ ][ ]	
		PACKAGE NOT SEEN.....2	
321	Do you know the brand name of the pills you are now using? RECORD NAME OF BRAND.	BRAND NAME _____ [ ][ ]	
		DK.....98	
322	How much does one packet/cycle of pills cost you?	PESO..... [ ][ ][ ]	
		FREE.....996	→327
		DK.....998	
323	What type of natural family planning are you using: calendar, mucus, Billings, ovulation, temperature, thermometer, or other method? IF RESPONDENT DOES NOT KNOW THE NAME, ASK HER TO DESCRIBE HOW SHE USES THE METHOD, AND CIRCLE APPROPRIATE CODE.	CALENDAR.....1	
		MUCUS, BILLINGS, OVULATION.....2	
		TEMPERATURE, THERMOMETER.....3	→342
		OTHER METHOD.....4	
324	In what month and year was the sterilization operation performed?	MONTH..... [ ][ ]	
		DK MONTH.....98	
		YEAR..... [ ][ ]	
		DK YEAR.....98	
325	How much did the sterilization operation cost you?	PESO..... [ ][ ][ ][ ][ ]	
		FREE.....99996	
		DK.....99998	
326	ENTER STERILIZATION METHOD CODE IN MONTH OF INTERVIEW IN COLUMN 1 OF CALENDAR AND IN EACH MONTH BACK TO DATE OF OPERATION OR TO JANUARY 1988 IF OPERATION OCCURRED BEFORE 1988.		
327	CHECK 317: WOMAN/PARTNER STERILIZED [ ] → Where did the sterilization take place? _____ (NAME OF FACILITY)	PUBLIC SECTOR	
		GOVERNMENT HOSPITAL.....11	
		BARANGAY HEALTH STATION.....12	
		BARANGAY SUPPLY/SERVICE POINT OFFICER.....13	
		RHU/PUERICULTURE CENTER.....14	
	USING ANOTHER METHOD [ ] → Where did you obtain (METHOD) the last time?	MEDICAL PRIVATE SECTOR	
		PRIVATE HOSPITAL OR CLINIC....21	
		PHARMACY.....22	
		PRIVATE DOCTOR.....23	
		OTHER PRIVATE SECTOR	
		STORE.....31	
		CHURCH.....32	
		FRIENDS/RELATIVES.....33	→342
		OTHER _____ 41 (SPECIFY)	
		DK..... 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
328	How long does it take to travel from your home to (SOURCE)? IF LESS THAN 2 HOURS, RECORD MINUTES. OTHERWISE, RECORD HOURS.	MINUTES.....1 [ ][ ][ ] HOURS.....2 [0][ ][ ] DK.....9998	
329	Is it easy or difficult to get there?	EASY.....1 DIFFICULT.....2	
330	How did you travel to (SOURCE) the last time you went?	WALKED.....1 PERSONAL VEHICLE/CART.....2 →332 HIRED VEHICLE/CART.....3 PUBLIC TRANSPORTATION.....4 OTHER _____ (SPECIFY) 5	
331	How much did it cost you to travel to and from (SOURCE) on your last visit?	PESO..... [ ][ ][ ] , [ ][ ] FREE.....99996 DK.....99998	
332	On which days of the week does this (SOURCE) provide family planning services/supplies? ENCIRCLE ALL THAT APPLY.	MONDAY.....A TUESDAY.....B WEDNESDAY.....C THURSDAY.....D FRIDAY.....E SATURDAY.....F SUNDAY.....G DK.....H →334	
333	Are the days when family planning services/supplies are available at (SOURCE) convenient for you?	YES.....1 NO.....2 DK.....8	
334	Are the hours of operation at (SOURCE) convenient for you?	YES.....1 NO.....2 DK.....8	
335	CHECK 317: WOMAN/PARTNER STERILIZED [ ] →342	USING ANOTHER METHOD [ ] ↓	
336	On your last visit, how much time did you spend at (SOURCE) from the time you arrived until the time you left? IF LESS THAN 2 HOURS, RECORD MINUTES. OTHERWISE, RECORD HOURS.	MINUTES.....1 [ ][ ][ ] HOURS.....2 [0][ ][ ] DK.....9998	
337	On your last visit to (SOURCE) were you unable to obtain your prescribed or preferred method because it was no longer in stock?	YES.....1 NO.....2 DK.....8	
338	When you visit (SOURCE) for family planning services/supplies, do you usually combine the trip with other social, family or business activities?	YES.....1 NO.....2 →340	
339	Which of these activities is usually combined with family planning visit? ENCIRCLE ALL THAT APPLY.	VISIT FRIENDS/RELATIVES.....A MARKET ACTIVITIES.....B WORK.....C HEALTH CARE FOR SELF OR OTHER FAMILY MEMBER.....D OTHER _____ (SPECIFY) E	
340	CHECK 317: PILL [ ] →342	OTHER METHOD [ ] ↓	
341	On your last visit to this place, how much did you pay/donate? CHECK 317/317A: IUD PER DEVICE INJECTIONS PER INJECTION DIAGHRAGM/FOAM/CREAM PER PIECE OR TUBE CONDOM PER PIECE OTHER (SPECIFY)	PESO..... [ ][ ][ ] FREE.....996 DK.....998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
342	What is the main reason you decided to use (CURRENT METHOD FROM 317/317A) rather than some other method of family planning?	RECOMMENDATION OF FAMILY PLANNING WORKER.....01 RECOMMENDATION OF FRIEND/RELATIVE.....02 SIDE EFFECTS OF OTHER METHODS..03 CONVENIENCE.....04 ACCESS/AVAILABILITY.....05 COST.....06 WANTED PERMANENT METHOD.....07 HUSBAND PREFERRED.....08 WANTED MORE EFFECTIVE METHOD...09 RELIGION.....10 OTHER_____11 (SPECIFY) DK.....98	
343	Are you having any problems in using (CURRENT METHOD)?	YES.....1 NO.....2	→345
344	What is the main problem?	HUSBAND DISAPPROVES.....01 SIDE EFFECTS.....02 HEALTH CONCERNS.....03 ACCESS/AVAILABILITY.....04 COST.....05 INCONVENIENT TO USE.....06 STERILIZED, WANTS CHILDREN.....07 OTHER_____08 (SPECIFY) DK.....98	
345	CHECK 317 AND 317A: WOMAN/PARTNER STERILIZED ☐ →351 CURRENTLY USING NATURAL FAMILY PLANNING, WITHDRAWAL, OTHER TRADITIONAL METHOD ☐ →351 CURRENTLY USING A MODERN METHOD ☐ ↓		
346	Since you began using (CURRENT METHOD)(this time), have you always obtained it from the same place?	YES.....1 NO.....2	→351
347	Why did you stop going to the place where you first obtained (CURRENT METHOD)(this time)?	COST.....1 DISTANCE.....2 POOR SERVICE.....3 INACCESSIBLE/UNAVAILABLE.....4 CHANGE OF RESIDENCE.....5 RUMORED POOR SERVICE/ INAVAILABILITY OF SUPPLIES.....6 OTHER_____ 7 (SPECIFY)	
348	Where did you go to get this method the first time? _____ (NAME OF FACILITY) IF NAME IS SAME AS IN Q.327, SKIP TO Q.351.	PUBLIC SECTOR GOVERNMENT HOSPITAL.....11 BARANGAY HEALTH STATION.....12 BARANGAY SUPPLY/SERVICE POINT OFFICER.....13 RHU/PUERICULTURE CENTER.....14 MEDICAL PRIVATE SECTOR PRIVATE HOSPITAL OR CLINIC....21 PHARMACY.....22 PRIVATE DOCTOR.....23 OTHER PRIVATE SECTOR STORE.....31 CHURCH.....32 FRIENDS/RELATIVES.....33 OTHER _____41 (SPECIFY) DK..... 98	→351

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
349	How long does it take to travel from your home to (SOURCE)? IF LESS THAN 2 HOURS, RECORD MINUTES. OTHERWISE, RECORD HOURS.	MINUTES.....1 HOURS.....2 [0] DK.....9998	
350	Is it easy or difficult to get there?	EASY.....1 DIFFICULT.....2	
351	CHECK 317 AND 324: WOMAN AND PARTNER NOT STERILIZED [ ]	STERILIZED BEFORE JANUARY 1988 [ ]	→370
		STERILIZED SINCE JANUARY 1988 [ ]	→353
352	ENTER METHOD CODE FROM 317 IN CURRENT MONTH IN COLUMN 1 OF CALENDAR. THEN DETERMINE WHEN SHE STARTED USING THIS METHOD THIS TIME. ENTER METHOD CODE IN EACH MONTH OF USE. ILLUSTRATIVE QUESTIONS: - When did you start using this method continuously? - How long have you been using this method continuously?		
353	I would like to ask some questions about all of the (other) periods in the last few years during which you or your partner used a method to avoid getting pregnant. USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO JANUARY 1988. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS. IN EACH MONTH, ENTER CODE FOR METHOD OR "0" FOR NONUSE IN COLUMN 1. IN COLUMN 2, ENTER CODES FOR DISCONTINUATION NEXT TO LAST MONTH OF USE. NUMBER OF CODES ENTERED IN COLUMN 2 MUST BE THE SAME AS THE NUMBER OF INTERRUPTIONS OF CONTRACEPTIVE USE IN COLUMN 1 ASK WHY SHE STOPPED USING THE METHOD. IF A PREGNANCY FOLLOWED, ASK WHETHER SHE BECAME PREGNANT UNINTENTIONALLY WHILE USING THE METHOD OR DELIBERATELY STOPPED TO GET PREGNANT. ILLUSTRATIVE QUESTIONS: COLUMN 1: -When was the last time you used a method? Which method was that? -When did you start using that method? How long after the birth of (NAME)? -How long did you use the method then? COLUMN 2: -Why did you stop using the (METHOD)? -Did you become pregnant while using (METHOD), or did you stop to get pregnant, or stop for some other reason? IF DELIBERATELY STOPPED TO BECOME PREGNANT, ASK: "How many months did it take you to get pregnant after you stopped using (METHOD)? AND ENTER '0' IN EACH SUCH MONTH IN COLUMN 1.		

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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
354	CHECK CALENDAR: METHOD USED IN MONTH OF JAN. 1988 ☐ ↓ NO METHOD USED IN MONTH OF JAN. 1988 ☐		→356
355	I see that you were using (METHOD) in January 1988. When did you start using (METHOD) that time? THIS DATE SHOULD BE PRIOR TO JANUARY 1988.	MONTH..... ☐☐ YEAR..... ☐☐	→360
356	I see that you were not using any method of contraception in January 1988. Did you ever use a method before that?	YES.....1 NO.....2	→360
357	CHECK 220: HAD BIRTH BEFORE JANUARY 1988 ☐ ↓ NO BIRTH BEFORE JANUARY 1988 ☐		→359
358	Did you use a method between the birth of (NAME OF LAST CHILD BORN BEFORE JANUARY 1988) and January 1988?	YES.....1 NO.....2	→360
359	When did you stop using a method the last time prior to January 1988?	MONTH..... ☐☐ YEAR..... ☐☐	
360	CHECK 317: NOT CURRENTLY USING A METHOD ☐ ↓ CURRENTLY USING NATURAL FAMILY PLANNING, WITHDRAWAL, OTHER TRADITIONAL METHOD ☐ ↓ (SKIP TO 366) CURRENTLY USING A MODERN METHOD ☐		→370
361	Do you intend to use a method to delay or avoid pregnancy at any time in the future?	YES.....1 NO.....2 DK.....8	→363 →366
362	What is the main reason you do not intend to use a method?	WANTS CHILDREN.....01 LACK OF KNOWLEDGE.....02 OPPOSED TO FAMILY PLANNING.....03 COST TOO MUCH.....04 SIDE EFFECTS.....05 HEALTH CONCERNS.....06 HARD TO GET METHODS.....07 RELIGION.....08 FATALISTIC.....09 OLD/DIFFICULT TO GET PREGNANT/ INFREQUENT SEX/HUSBAND AWAY....10 MENOPAUSE/HAD HYSTERECTOMY.....11 INCONVENIENT.....12 NOT MARRIED.....13 OTHER_____ (SPECIFY) 14 DK.....98	→366
363	Do you intend to use a method to delay or avoid pregnancy within the next 12 months?	YES.....1 NO.....2 DK.....8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
364	When you use a method, which method would you prefer to use?	PILL.....01 IUD.....02 INJECTIONS.....03 DIAPHRAGM/FOAM/JELLY/CREAM.....04 CONDOM.....05 FEMALE STERILIZATION.....06 MALE STERILIZATION.....07 NATURAL FAMILY PLANNING.....08 WITHDRAWAL.....09 OTHER _____ 10 (SPECIFY) UNSURE.....98	366
365	Where can you get (METHOD MENTIONED IN 364)? _____ (NAME OF FACILITY)	PUBLIC SECTOR GOVERNMENT HOSPITAL.....11 BARANGAY HEALTH STATION.....12 BARANGAY SUPPLY/SERVICE POINT OFFICER.....13 RHU/PUERICULTURE CENTER.....14 MEDICAL PRIVATE SECTOR PRIVATE HOSPITAL OR CLINIC....21 PHARMACY.....22 PRIVATE DOCTOR.....23 OTHER PRIVATE SECTOR STORE.....31 CHURCH.....32 FRIENDS/RELATIVES.....33 OTHER _____ 41 (SPECIFY) DK..... 98	368 370
366	Do you know of a place where you can obtain a method of family planning?	YES.....1 NO.....2	370
367	Where is that? _____ (NAME OF FACILITY)	PUBLIC SECTOR GOVERNMENT HOSPITAL.....11 BARANGAY HEALTH STATION.....12 BARANGAY SUPPLY/SERVICE POINT OFFICER.....13 RHU/PUERICULTURE CENTER.....14 MEDICAL PRIVATE SECTOR PRIVATE HOSPITAL OR CLINIC....21 PHARMACY.....22 PRIVATE DOCTOR.....23 OTHER PRIVATE SECTOR STORE.....31 CHURCH.....32 FRIENDS/RELATIVES.....33 OTHER _____ 41 (SPECIFY) DK..... 98	370
368	How long does it take to travel from your home to this place? IF LESS THAN 2 HOURS, RECORD MINUTES. OTHERWISE, RECORD HOURS.	MINUTES.....1 [ ][ ][ ] HOURS.....2 [0][ ][ ] DK.....9998	
369	Is it easy or difficult to get there?	EASY.....1 DIFFICULT.....2	
370	In the last month, have you heard a message about family planning on:	YES NO RADIO.....1 2 TELEVISION.....1 2	
371	Is it acceptable or not acceptable to you for family planning information to be provided on the radio or television?	ACCEPTABLE.....1 NOT ACCEPTABLE.....2 DK.....(	

SECTION 4. MATERNAL AND CHILD HEALTH

SUBSECTION 4A. PREGNANCY AND BREASTFEEDING

401 CHECK 230:
ONE OR MORE BIRTHS SINCE JAN. 1988 ☐ ↓
NO BIRTHS SINCE JAN. 1988 ☐ → (SKIP TO 445)

402 ENTER THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH SINCE JANUARY 1988 IN THE TABLE. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE ADDITIONAL FORMS).

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

LINE NUMBER FROM Q. 214	☐☐	☐☐	☐☐
FROM Q. 218 AND Q. 221	LAST BIRTH NAME _____ ALIVE ☐ DEAD ☐	NEXT-TO-LAST BIRTH NAME _____ ALIVE ☐ DEAD ☐	SECOND-FROM-LAST BIRTH NAME _____ ALIVE ☐ DEAD ☐
403 At the time you became pregnant with (NAME), did you want to become pregnant then, did you want to wait until later or did you want no (more) children at all?	THEN.....1 (SKIP TO 405) LATER.....2 NO MORE.....3 (SKIP TO 405)	THEN.....1 (SKIP TO 405) LATER.....2 NO MORE.....3 (SKIP TO 405)	THEN.....1 (SKIP TO 405) LATER.....2 NO MORE.....3 (SKIP TO 405)
404 How much longer would you like to have waited?	MONTHS.....1 ☐☐ YEARS.....2 DK.....998	MONTHS.....1 ☐☐ YEARS.....2 DK.....998	MONTHS.....1 ☐☐ YEARS.....2 DK.....998
405 When you were pregnant with (NAME), did you see anyone for prenatal care for this pregnancy? IF YES, Whom did you see? Anyone else? RECORD ALL PERSONS SEEN.	HEALTH PROFESSIONAL DOCTOR.....A NURSE.....B MIDWIFE.....C OTHER PERSON TRAINED HILOT.....D UNTRAINED HILOT.....E OTHER_____F (SPECIFY) NO ONE.....G (SKIP TO 409)	HEALTH PROFESSIONAL DOCTOR.....A NURSE.....B MIDWIFE.....C OTHER PERSON TRAINED HILOT.....D UNTRAINED HILOT.....E OTHER_____F (SPECIFY) NO ONE.....G (SKIP TO 409)	HEALTH PROFESSIONAL DOCTOR.....A NURSE.....B MIDWIFE.....C OTHER PERSON TRAINED HILOT.....D UNTRAINED HILOT.....E OTHER_____F (SPECIFY) NO ONE.....G (SKIP TO 409)
406 Were you given a prenatal card for this pregnancy?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
407 How many months pregnant were you when you first saw someone for a prenatal check on this pregnancy?	MONTHS..... ☐☐ DK.....98	MONTHS..... ☐☐ DK.....98	MONTHS..... ☐☐ DK.....98
408 How many prenatal visits did you have during this pregnancy?	NO. OF VISITS..... ☐☐ DK.....98	NO. OF VISITS..... ☐☐ DK.....98	NO. OF VISITS..... ☐☐ DK.....98
409 When you were pregnant with (NAME) were you given any of the following: Iron tablet/capsule? Iodine capsule? Tetanus toxoid, an injection to prevent the baby from getting tetanus, that is, convulsions after birth?	YES NO DK IRON TAB/CAP.....1 2 8 IODINE CAP.....1 2 8 TETANUS TOXOID...1 2 8 (SKIP TO 411)	YES NO DK IRON TAB/CAP.....1 2 8 IODINE CAP.....1 2 8 TETANUS TOXOID...1 2 8 (SKIP TO 411)	YES NO DK IRON TAB/CAP.....1 2 8 IODINE CAP.....1 2 8 TETANUS TOXOID...1 2 8 (SKIP TO 411)
410 During this pregnancy how many times did you get Tetanus Toxoid injection?	TIMES..... ☐ DK.....8	TIMES..... ☐ DK.....8	TIMES..... ☐ DK.....8

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
411	Where did you give birth to (NAME)?	HOME OWN HOME.....11 OTHER HOME.....12 PUBLIC SECTOR GVT. HOSPITAL.....21 GVT. HEALTH CENTER.....22 GVT HEALTH POST.....23 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 OTHER_____41 (SPECIFY)	HOME OWN HOME.....11 OTHER HOME.....12 PUBLIC SECTOR GVT. HOSPITAL.....21 GVT. HEALTH CENTER.....22 GVT. HEALTH POST.....23 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 OTHER_____41 (SPECIFY)	HOME OWN HOME.....11 OTHER HOME.....12 PUBLIC SECTOR GVT. HOSPITAL.....21 GVT. HEALTH CENTER.....22 GVT. HEALTH POST.....23 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 OTHER_____41 (SPECIFY)
412	Who assisted in the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING.	HEALTH PROFESSIONAL DOCTOR.....A NURSE.....B MIDWIFE.....C OTHER PERSON TRAINED HILOT.....D UNTRAINED HILOT.....E RELATIVE.....F OTHER_____G (SPECIFY) NO ONE.....H	HEALTH PROFESSIONAL DOCTOR.....A NURSE.....B MIDWIFE.....C OTHER PERSON TRAINED HILOT.....D UNTRAINED HILOT.....E RELATIVE.....F OTHER_____G (SPECIFY) NO ONE.....H	HEALTH PROFESSIONAL DOCTOR.....A NURSE.....B MIDWIFE.....C OTHER PERSON TRAINED HILOT.....D UNTRAINED HILOT.....E RELATIVE.....F OTHER_____G (SPECIFY) NO ONE.....H
413	Was (NAME) born on time or prematurely?	ON TIME.....1 PREMATURELY.....2 DK.....8	ON TIME.....1 PREMATURELY.....2 DK.....8	ON TIME.....1 PREMATURELY.....2 DK.....8
414	Was (NAME) delivered by caesarian section?	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
415	When (NAME) was born, was he/she: very large, larger than average, average, smaller than average, or very small?	VERY LARGE.....1 LARGER THAN AVERAGE.....2 AVERAGE.....3 SMALLER THAN AVERAGE.....4 VERY SMALL.....5 DK.....8	VERY LARGE.....1 LARGER THAN AVERAGE.....2 AVERAGE.....3 SMALLER THAN AVERAGE.....4 VERY SMALL.....5 DK.....8	VERY LARGE.....1 LARGER THAN AVERAGE.....2 AVERAGE.....3 SMALLER THAN AVERAGE.....4 VERY SMALL.....5 DK.....8
416	Was (NAME) weighed at birth? IF YES, how much did (NAME) weigh?	YES, WEIGHT IN POUNDS AND OUNCES [ ][ ][ ][ ] YES, WEIGHT UNKNOWN...9998 NOT WEIGHED.....9992	YES, WEIGHT IN POUNDS AND OUNCES [ ][ ][ ][ ] YES, WEIGHT UNKNOWN...9998 NOT WEIGHED.....9992	YES, WEIGHT IN POUNDS AND OUNCES [ ][ ][ ][ ] YES, WEIGHT UNKNOWN...9998 NOT WEIGHED.....9992
417	Did you see anyone for postnatal check-up after the birth of (LAST CHILD)? IF YES, Whom did you see? Anyone else? RECORD ALL PERSONS SEEN.	HEALTH PROFESSIONAL DOCTOR.....A NURSE.....B MIDWIFE.....C OTHER PERSON TRAINED HILOT.....D UNTRAINED HILOT.....E OTHER_____F (SPECIFY) NO ONE.....G (SKIP TO 420)		
418	How many days/weeks after the birth of (LAST CHILD) did you get postnatal check-up?	DAYS.....1 WEEKS.....2 [ ][ ] DK.....998		

		LAST BIRTH NAME _____	NEXT-TO LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
419	What services did you receive during your postnatal check-up? RECORD ALL SERVICES RECEIVED.	CHECK-UP OF BABY.....A CHECK-UP OF MOTHER... ...B INSTRUCTIONS ON BREASTFEEDING/ FORMULA FEEDING.....C FAMILY PLANNING ADVICE/ SERVICE.....D OTHER_____E (SPECIFY)		
420	Has your period returned since the birth of (NAME)?	YES .....1 (SKIP TO 422) NO.....2		
421	ENTER "X" IN COL.3 OF CALENDAR IN MONTH AFTER BIRTH AND IN EACH MONTH TO CURRENT MONTH (OR TO CURRENT PREGNANCY) (SKIP TO 423)			
422	For how many months after the birth of (NAME) did you not have a period?	ENTER "X" IN COL.3 OF CALENDAR FOR THE NUMBER OF SPECIFIED MONTHS WITHOUT A PERIOD, STARTING IN THE MONTH AFTER BIRTH. IF LESS THAN ONE MONTH WITHOUT A PERIOD, ENTER "0" IN COL.3 IN MONTH AFTER BIRTH.		
423	CHECK 233: RESPONDENT PREGNANT?	NOT PREGNANT ☐ PREGNANT OR UNSURE ☐ (SKIP TO 426)		
424	Have you resumed sexual relations since the birth of (NAME)?	YES.....1 (SKIP TO 426) NO.....2		
425	ENTER "X" IN COL.4 OF CALENDAR IN MONTH AFTER BIRTH AND IN EACH MONTH TO CURRENT MONTH. (SKIP TO 427)			
426	For how many months after the birth of (NAME) did you not have sexual relations?	ENTER "X" IN COL.4 OF CALENDAR FOR THE NUMBER OF SPECIFIED MONTHS WITHOUT SEXUAL RELATIONS, STARTING IN THE MONTH AFTER BIRTH. IF LESS THAN ONE MONTH WITHOUT SEXUAL RELATIONS, ENTER "0" IN COL.4 OF CALENDAR IN THE MONTH AFTER BIRTH.		
427	Did you ever breastfeed (NAME)?	YES.....1 (SKIP TO 430) NO.....2	YES.....1 (SKIP TO 430) NO.....2	YES.....1 (SKIP TO 430) NO.....2
428	ENTER "N" IN COL.5 OF CALENDAR IN MONTH AFTER BIRTH			
429	Why did you not breastfeed (NAME)?	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK.....05 MOTHER WORKING.....06 CHILD REFUSED.....07 OTHER_____08 (SPECIFY) (SKIP TO 439)	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK.....05 MOTHER WORKING.....06 CHILD REFUSED.....07 OTHER_____08 (SPECIFY) (SKIP TO 439)	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK.....05 MOTHER WORKING.....06 CHILD REFUSED.....07 OTHER_____08 (SPECIFY) (SKIP TO 439)
430	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 NO. OF HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY.....000 HOURS.....1 ☐☐ DAYS.....2 ☐☐	IMMEDIATELY.....000 HOURS.....1 ☐☐ DAYS.....2 ☐☐ (SKIP TO 437)	IMMEDIATELY.....000 HOURS.....1 ☐☐ DAYS.....2 ☐☐ (SKIP TO 437)
431	CHECK 221: CHILD ALIVE?	ALIVE ☐ DEAD ☐ (SKIP TO 437)		

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
432	Are you still breast-feeding (NAME)?	YES.....1 NO.....2 (SKIP TO 437)		
433	ENTER "X" IN COL.5 OF CALENDAR IN MONTH AFTER BIRTH AND IN EACH MONTH TO CURRENT MONTH			
434	How many times did you breastfeed (NAME) last night between sunset and sunrise? How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER	NUMBER OF NIGHTTIME FEEDINGS [ ][ ] NUMBER OF DAYLIGHT FEEDINGS [ ][ ]		
435	At any time yesterday or last night was (NAME) given any of the following?:	YES NO		
	Plain water?	PLAIN WATER.....1 2		
	Sugar water?	SUGAR WATER.....1 2		
	Rice water (am)?	RICE WATER (AM).....1 2		
	Juice?	JUICE.....1 2		
	Herbal tea?	HERBAL TEA.....1 2		
	Baby formula?	BABY FORMULA.....1 2		
	Fresh milk?	FRESH MILK.....1 2		
	Tinned or powdered milk?	TINNED/POWDERED MILK.1 2		
	Other liquids?	OTHER LIQUIDS.....1 2		
	Any solid or mushy food?	SOLID/MUSHY FOOD.....1 2		
436	CHECK 435: FOOD OR LIQUID GIVEN YESTERDAY?	"YES" TO ONE OR MORE [ ] (SKIP TO 441) "NO" TO ALL [ ] (SKIP TO 440)		
437	For how many months did you breastfeed (NAME)?	ENTER "X" IN COL.5 OF CALENDAR FOR THE NUMBER OF SPECIFIED MONTHS OF BREASTFEEDING, STARTING IN THE MONTH AFTER BIRTH. IF BREASTFED LESS THAN ONE MONTH, ENTER "0" IN COL.5 IN MONTH AFTER BIRTH.		
438	Why did you stop breastfeeding (NAME)?	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK.....05 MOTHER WORKING.....06 CHILD REFUSED.....07 WEANING AGE.....08 BECAME PREGNANT.....09 STARTED USING CONTRACEPTION.....10 OTHER_____11 (SPECIFY)	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK.....05 MOTHER WORKING.....06 CHILD REFUSED.....07 WEANING AGE.....08 BECAME PREGNANT.....09 STARTED USING CONTRACEPTION.....10 OTHER_____11 (SPECIFY)	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 INSUFFICIENT MILK.....05 MOTHER WORKING.....06 CHILD REFUSED.....07 WEANING AGE.....08 BECAME PREGNANT.....09 STARTED USING CONTRACEPTION.....10 OTHER_____11 (SPECIFY)
439	CHECK 221: CHILD ALIVE?	ALIVE [ ] (SKIP TO 441) DEAD [ ]	ALIVE [ ] (SKIP TO 441) DEAD [ ]	ALIVE [ ] (SKIP TO 441) DEAD [ ]
440	Was (NAME) ever given water or anything else to drink or eat (other than breastmilk)?	YES.....1 NO.....2 (SKIP TO 444)	YES.....1 NO.....2 (SKIP TO 444)	YES.....1 NO.....2 (SKIP TO 444)

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
441	How many months old was (NAME) when you started giving the following on a regular basis?:			
	Formula or milk other than breastmilk?	AGE IN MONTHS..... [ ][ ] NOT GIVEN.....96	AGE IN MONTHS..... [ ][ ] NOT GIVEN.....96	AGE IN MONTHS..... [ ][ ] NOT GIVEN.....96
	Plain water?	AGE IN MONTHS..... [ ][ ] NOT GIVEN.....96	AGE IN MONTHS..... [ ][ ] NOT GIVEN.....96	AGE IN MONTHS..... [ ][ ] NOT GIVEN.....96
	Other liquids?	AGE IN MONTHS..... [ ][ ] NOT GIVEN.....96	AGE IN MONTHS..... [ ][ ] NOT GIVEN.....96	AGE IN MONTHS..... [ ][ ] NOT GIVEN.....96
	Any solid or mushy food?	AGE IN MONTHS..... [ ][ ] NOT GIVEN.....96	AGE IN MONTHS..... [ ][ ] NOT GIVEN.....96	AGE IN MONTHS..... [ ][ ] NOT GIVEN.....96
	IF LESS THAN 1 MONTH, RECORD '00'.			
442	CHECK 221: CHILD ALIVE?	ALIVE [ ] DEAD [ ] (SKIP TO 444)	ALIVE [ ] DEAD [ ] (SKIP TO 444)	ALIVE [ ] DEAD [ ] (SKIP TO 444)
443	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
444	GO BACK TO 403 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, GO TO 445.			

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
445	CHECK 220: ANY BIRTH IN 1985, 1986, OR 1987? NAME OF LAST BIRTH PRIOR TO 1988: _____ (NAME)	YES [ ] NO [ ]	449
446	Did you ever breastfeed (NAME)? IF YES, how many months did you breastfeed (NAME)?	YES, NUMBER OF MONTHS..... [ ][ ] NO.....92	
447	For how many months after the birth of (NAME) did you not have a period?	MONTHS..... [ ][ ] HAS NOT RETURNED/ DID NOT RETURN.....96	
448	For how many months after the birth of (NAME) did you not have sexual relations?	MONTHS..... [ ][ ] NOT RESUMED.....96	
449	CHECK 401: ONE OR MORE BIRTHS SINCE JAN. 1988 [ ] (SKIP TO 451) NO BIRTHS SINCE JAN. 1988 [ ]		501

451 ENTER THE LINE NUMBER, NAME AND SURVIVAL STATUS OF EACH BIRTH SINCE JANUARY 1988 IN THE TABLE. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE ADDITIONAL FORMS).

LINE NUMBER FROM Q. 214			
FROM Q. 218 AND Q. 221	LAST BIRTH NAME _____ ALIVE ☐ DEAD ☐	NEXT-TO-LAST BIRTH NAME _____ ALIVE ☐ DEAD ☐	SECOND-FROM-LAST BIRTH NAME _____ ALIVE ☐ DEAD ☐
452 Do you have a card where (NAME'S) vaccinations are written down? IF YES: May I see it, please?	YES, SEEN.....1 (SKIP TO 454) YES, NOT SEEN.....2 (SKIP TO 456) NO CARD.....3	YES, SEEN.....1 (SKIP TO 454) YES, NOT SEEN.....2 (SKIP TO 456) NO CARD.....3	YES, SEEN.....1 (SKIP TO 454) YES, NOT SEEN.....2 (SKIP TO 456) NO CARD.....3
453 Did you ever have a vaccination card for (NAME)?	YES.....1 (SKIP TO 456) NO.....2	YES.....1 (SKIP TO 456) NO.....2	YES.....1 (SKIP TO 456) NO.....2
454 (1) COPY VACCINATION DATES FOR EACH VACCINE FROM THE CARD. (2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE RECORDED.	DAY MO YR BCG DPT 1 DPT 2 DPT 3 POLIO 1 POLIO 2 POLIO 3 MEASLES	DAY MO YR BCG D1 D2 D3 P1 P2 P3 MEA	DAY MO YR BCG D1 D2 D3 P1 P2 P3 MEA
455 Has (NAME) received any vaccinations that are not recorded on this card? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, DPT 1-3, POLIO 1-3 AND/OR MEASLES VACCINE(S).	YES.....1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 454 AND GO TO 458) NO.....2 DK.....8 (SKIP TO 458)	YES.....1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 454 AND GO TO 458) NO.....2 DK.....8 (SKIP TO 458)	YES.....1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 454 AND GO TO 458) NO.....2 DK.....8 (SKIP TO 458)
456 Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases?	YES.....1 NO.....2 (SKIP TO 458) DK.....8	YES.....1 NO.....2 (SKIP TO 458) DK.....8	YES.....1 NO.....2 (SKIP TO 458) DK.....8
457 Please tell me if (NAME) received any of the following vaccinations:			
A BCG vaccination against tuberculosis, that is, an injection in the left shoulder that caused a scar?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
A DPT vaccination against diptheria, pertussis and tetanus, that is, an injection in the thigh? IF YES: How many times?	YES.....1 NO.....2 DK.....8 NUMBER OF TIMES..... ☐	YES.....1 NO.....2 DK.....8 NUMBER OF TIMES..... ☐	YES.....1 NO.....2 DK.....8 NUMBER OF TIMES..... ☐
Polio vaccine, that is, drops in the mouth? IF YES: How many times?	YES.....1 NO.....2 DK.....8 NUMBER OF TIMES..... ☐	YES.....1 NO.....2 DK.....8 NUMBER OF TIMES..... ☐	YES.....1 NO.....2 DK.....8 NUMBER OF TIMES..... ☐
An injection against measles?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
458	CHECK 221: CHILD ALIVE?	ALIVE ☐ DEAD ☐ (SKIP TO 460)	ALIVE ☐ DEAD ☐ (SKIP TO 460)	ALIVE ☐ DEAD ☐ (SKIP TO 460)
459	GO BACK TO 452 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, SKIP TO 491.			
460	At any time during the last six months, did (NAME) receive any of the following: Vitamin A capsule? Iodine capsule? Iron drops/syrup?	YES NO VITAMIN A CAPSULE....1 2 IODINE CAPSULE.....1 2 IRON DROPS/SYRUP.....1 2	YES NO VITAMIN A CAPSULE....1 2 IODINE CAPSULE.....1 2 IRON DROPS/SYRUP.....1 2	YES NO VITAMIN A CAPSULE....1 2 IODINE CAPSULE.....1 2 IRON DROPS/SYRUP.....1 2
461	Has (NAME) ever had measles?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
462	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
463	Has (NAME) been ill with a cough at any time in the last 2 weeks?	YES.....1 NO.....2 (SKIP TO 467) DK.....8	YES.....1 NO.....2 (SKIP TO 467) DK.....8	YES.....1 NO.....2 (SKIP TO 467) DK.....8
464	Has (NAME) been ill with a cough in the last 24 hours?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
465	For how many days (has the cough lasted/did the cough last)? IF LESS THAN 1 DAY, RECORD '00'	DAYS..... ☐☐	DAYS..... ☐☐	DAYS..... ☐☐
466	When (NAME) had the illness with a cough, did he/she breathe faster than usual with short, rapid breaths?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
467	CHECK 462 AND 463: FEVER OR COUGH?	"YES" IN EITHER 462 OR 463 ☐ "NO" OR "DK" IN 462 AND 463 ☐ (SKIP TO 472)	"YES" IN EITHER 462 OR 463 ☐ "NO" OR "DK" IN 462 AND 463 ☐ (SKIP TO 472)	"YES" IN EITHER 462 OR 463 ☐ "NO" OR "DK" IN 462 AND 463 ☐ (SKIP TO 472)
468	Was anything given to treat the fever/cough?	YES.....1 NO.....2 (SKIP TO 470) DK.....8	YES.....1 NO.....2 (SKIP TO 470) DK.....8	YES.....1 NO.....2 (SKIP TO 470) DK.....8
469	What was given to treat the fever/cough? Anything else? RECORD ALL MENTIONED.	INJECTION.....A ANTIBIOTIC (PILL OR SYRUP).....B ANTIMALARIAL (PILL OR SYRUP).....C COUGH SYRUP.....D OTHER PILL OR SYRUP.....E UNKNOWN PILL OR SYRUP....F HOME REMEDY/ HERBAL MEDICINE.....G OTHER_____H (SPECIFY)	INJECTION.....A ANTIBIOTIC (PILL OR SYRUP).....B ANTIMALARIAL (PILL OR SYRUP).....C COUGH SYRUP.....D OTHER PILL OR SYRUP.....E UNKNOWN PILL OR SYRUP....F HOME REMEDY/ HERBAL MEDICINE.....G OTHER_____H (SPECIFY)	INJECTION.....A ANTIBIOTIC (PILL OR SYRUP).....B ANTIMALARIAL (PILL OR SYRUP).....C COUGH SYRUP.....D OTHER PILL OR SYRUP.....E UNKNOWN PILL OR SYRUP....F HOME REMEDY/ HERBAL MEDICINE.....G OTHER_____H (SPECIFY)
470	Did you seek advice or treatment for the fever/cough?	YES.....1 NO.....2 (SKIP TO 472)	YES.....1 NO.....2 (SKIP TO 472)	YES.....1 NO.....2 (SKIP TO 472)

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
471	Where did you seek advice or treatment for the fever/cough? Anywhere else? RECORD ALL MENTIONED.	PUBLIC SECTOR GVT. HOSP/CLINIC/CHHC...A RURAL HEALTH UNIT(RHU)..B BGY HEALTH STATION(BHS).C MOBILE CLINIC.....D COMMUNITY HEALTH WORKER.E MEDICAL PRIVATE SECTOR PVT. HOSPITAL/CLINIC....F PHARMACY.....G PRIVATE DOCTOR.....H MOBILE CLINIC.....I COMMUNITY HEALTH WORKER.J OTHER PRIVATE SECTOR STORE.....K HILOT/HERBOLARIO.....L OTHER_____M (SPECIFY)	PUBLIC SECTOR GVT. HOSP/CLINIC/CHHC...A RURAL HEALTH UNIT(RHU)..B BGY HEALTH STATION(BHS).C MOBILE CLINIC.....D COMMUNITY HEALTH WORKER.E MEDICAL PRIVATE SECTOR PVT. HOSPITAL/CLINIC....F PHARMACY.....G PRIVATE DOCTOR.....H MOBILE CLINIC.....I COMMUNITY HEALTH WORKER.J OTHER PRIVATE SECTOR STORE.....K HILOT/HERBOLARIO.....L OTHER_____M (SPECIFY)	PUBLIC SECTOR GVT. HOSP/CLINIC/CHHC...A RURAL HEALTH UNIT(RHU)..B BGY HEALTH STATION(BHS).C MOBILE CLINIC.....D COMMUNITY HEALTH WORKER.E MEDICAL PRIVATE SECTOR PVT. HOSPITAL/CLINIC....F PHARMACY.....G PRIVATE DOCTOR.....H MOBILE CLINIC.....I COMMUNITY HEALTH WORKER.J OTHER PRIVATE SECTOR STORE.....K HILOT/HERBOLARIO.....L OTHER_____M (SPECIFY)
472	Has (NAME) had diarrhea in the last two weeks?	YES.....1 (SKIP TO 474) NO.....2 DK.....8	YES.....1 (SKIP TO 474) NO.....2 DK.....8	YES.....1 (SKIP TO 474) NO.....2 DK.....8
473	GO BACK TO 452 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, SKIP TO 491			
474	Has (NAME) had diarrhea in the last 24 hours?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
475	For how many days has the diarrhea lasted/did the diarrhea last? IF LESS THAN 1 DAY, RECORD '00'.	DAYS..... [ ][ ]	DAYS..... [ ][ ]	DAYS..... [ ][ ]
476	Was there any blood in the stools?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8 (SKIP TO 479)	YES.....1 NO.....2 DK.....8 (SKIP TO 479)
477	CHECK 427/432: LAST CHILD STILL BREASTFED?	YES [ ] NO [ ] (SKIP TO 479)		
478	During (NAME)'s diarrhea, did you maintain the same number of breastfeeds or did you increase or reduce them or or did you stop completely?	MAINTAINED THE SAME.....1 INCREASED.....2 REDUCED.....3 STOPPED COMPLETELY.....4		
479	(Aside from breastmilk), was he/she given the same amount to drink as before the diarrhea, or more, or less?	SAME.....1 MORE.....2 LESS.....3 DK.....8	SAME.....1 MORE.....2 LESS.....3 DK.....8	SAME.....1 MORE.....2 LESS.....3 DK.....8
480	Was anything given to treat the diarrhea?	YES.....1 NO.....2 (SKIP TO 482) DK.....8	YES.....1 NO.....2 (SKIP TO 482) DK.....8	YES.....1 NO.....2 (SKIP TO 482) DK.....8
481	What was given to treat the diarrhea? Anything else? RECORD ALL MENTIONED.	FLUID FROM ORS PACKET....A RICE WATER/"AM".....B ANTIBIOTIC (PILL OR SYRUP).....C OTHER PILL OR SYRUP.....D INJECTION.....E (I.V.) INTRAVENOUS.....F HOME REMEDY/ HERBAL MEDICINES.....G OTHER_____H (SPECIFY)	FLUID FROM ORS PACKET....A RICE WATER/"AM".....B ANTIBIOTIC (PILL OR SYRUP).....C OTHER PILL OR SYRUP.....D INJECTION.....E (I.V.) INTRAVENOUS.....F HOME REMEDY/ HERBAL MEDICINES.....G OTHER_____H (SPECIFY)	FLUID FROM ORS PACKET....A RICE WATER/"AM".....B ANTIBIOTIC (PILL OR SYRUP).....C OTHER PILL OR SYRUP.....D INJECTION.....E (I.V.) INTRAVENOUS.....F HOME REMEDY/ HERBAL MEDICINES.....G OTHER_____H (SPECIFY)
482	Did you seek advice or treatment for the diarrhea?	YES.....1 NO.....2 (SKIP TO 484)	YES.....1 NO.....2 (SKIP TO 484)	YES.....1 NO.....2 (SKIP TO 484)

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
483	Where did you seek advice or treatment? Where else? RECORD ALL MENTIONED.	PUBLIC SECTOR GVT. HOSP/CLINIC/CHHC...A RURAL HEALTH UNIT(RHU)..B BGY HEALTH STATION(BHS).C MOBILE CLINIC.....D COMMUNITY HEALTH WORKER.E MEDICAL PRIVATE SECTOR PVT. HOSPITAL/CLINIC....F PHARMACY.....G PRIVATE DOCTOR.....H MOBILE CLINIC.....I COMMUNITY HEALTH WORKER.J OTHER PRIVATE SECTOR STORE.....K HILOT/HERBOLARIO.....L OTHER_____M (SPECIFY)	PUBLIC SECTOR GVT. HOSP/CLINIC/CHHC...A RURAL HEALTH UNIT(RHU)..B BGY HEALTH STATION(BHS).C MOBILE CLINIC.....D COMMUNITY HEALTH WORKER.E MEDICAL PRIVATE SECTOR PVT. HOSPITAL/CLINIC....F PHARMACY.....G PRIVATE DOCTOR.....H MOBILE CLINIC.....I COMMUNITY HEALTH WORKER.J OTHER PRIVATE SECTOR STORE.....K HILOT/HERBOLARIO.....L OTHER_____M (SPECIFY)	PUBLIC SECTOR GVT. HOSP/CLINIC/CHHC...A RURAL HEALTH UNIT(RHU)..B BGY HEALTH STATION(BHS).C MOBILE CLINIC.....D COMMUNITY HEALTH WORKER.E MEDICAL PRIVATE SECTOR PVT. HOSPITAL/CLINIC....F PHARMACY.....G PRIVATE DOCTOR.....H MOBILE CLINIC.....I COMMUNITY HEALTH WORKER.J OTHER PRIVATE SECTOR STORE.....K HILOT/HERBOLARIO.....L OTHER_____M (SPECIFY)
484	CHECK 481: ORS FLUID FROM PACKET MENTIONED?	NO, ORS FLUID NOT MENTIONED ☐ YES, ORS FLUID MENTIONED ☐ (SKIP TO 486)	NO, ORS FLUID NOT MENTIONED ☐ YES, ORS FLUID MENTIONED ☐ (SKIP TO 486)	NO, ORS FLUID NOT MENTIONED ☐ YES, ORS FLUID MENTIONED ☐ (SKIP TO 486)
485	Was (NAME) given ORESOL when he/she had the diarrhea?	YES.....1 NO.....2 (SKIP TO 487) DK.....8	YES.....1 NO.....2 (SKIP TO 487) DK.....8	YES.....1 NO.....2 (SKIP TO 487) DK.....8
486	For how many days was (NAME) given ORESOL? IF LESS THAN 1 DAY, RECORD '00'.	DAYS..... ☐☐ DK.....98	DAYS..... ☐☐ DK.....98	DAYS..... ☐☐ DK.....98
487	CHECK 481: RICE WATER/"AM" MENTIONED?	NO, RICE WATER/"AM" NOT MENTIONED ☐ YES, RICE WATER/"AM" MENTIONED ☐ (SKIP TO 489)	NO, RICE WATER/"AM" NOT MENTIONED ☐ YES, RICE WATER/"AM" MENTIONED ☐ (SKIP TO 489)	NO, RICE WATER/"AM" NOT MENTIONED ☐ YES, RICE WATER/"AM" MENTIONED ☐ (SKIP TO 489)
488	Was (NAME) given rice water/ "am" when he/she had the diarrhea?	YES.....1 NO.....2 (SKIP TO 490) DK.....8	YES.....1 NO.....2 (SKIP TO 490) DK.....8	YES.....1 NO.....2 (SKIP TO 490) DK.....8
489	For how many days was (NAME) given rice water/"am"? IF LESS THAN 1 DAY, RECORD '00'.	DAYS..... ☐☐ DK.....98	DAYS..... ☐☐ DK.....98	DAYS..... ☐☐ DK.....98
490	GO BACK TO 452 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, GO TO 491			

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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
491	CHECK 481 AND 485 (ALL COLUMNS): ORS FLUID FROM PACKET GIVEN TO ANY CHILD → 495 ORS FLUID FROM PACKET NOT GIVEN TO ANY CHILD OR 481 AND 485 NOT ASKED ↓		
492	Have you ever heard of a special product called ORESOL which you can get for the treatment of diarrhea?	YES.....1 NO.....2	494
493	Have you ever seen a packet like this before? SHOW PACKET.	YES.....1 NO.....2	498
494	Have you ever prepared a solution with one of these packets for yourself or someone else to treat diarrhea? SHOW PACKET.	YES.....1 NO.....2	497
495	The last time you prepared the ORESOL solution, did you use the whole packet at once or only part of the packet?	WHOLE PACKET AT ONCE.....1 PART OF PACKET.....2	497
496	How much water did you use to prepare ORESOL the last time you made it?	1/2 LITER.....01 1 LITER.....02 1 1/2 LITERS.....03 2 LITERS.....04 FOLLOWED PACKAGE INSTRUCTIONS..05 OTHER_____06 (SPECIFY) DK.....98	
497	Where can you get the ORESOL packet? PROBE: Anywhere else? RECORD ALL PLACES MENTIONED.	PUBLIC SECTOR GVT. HOSPITAL/CLINIC/CHHC.....A RURAL HEALTH UNIT (RHU).....B BGY HEALTH STATION (BHS).....C MOBILE CLINIC.....D COMMUNITY HEALTH WORKER.....E MEDICAL PRIVATE SECTOR PVT. HOSPITAL/CLINIC.....F PHARMACY.....G PRIVATE DOCTOR.....H MOBILE CLINIC.....I COMMUNITY HEALTH WORKER.....J OTHER PRIVATE SECTOR STORE.....K HILOT/HERBOLARIO.....L OTHER_____M (SPECIFY)	
498	CHECK 481 AND 488 (ALL COLUMNS): RICE WATER/"AM" GIVEN TO ANY CHILD ↓ RICE WATER/"AM" NOT GIVEN TO ANY CHILD OR 481 and 488 NOT ASKED → 501		
499	Where did you learn to prepare the recommended home fluid made from rice water given to (NAME) when he/she had diarrhea?	PUBLIC SECTOR GVT. HOSPITAL/CLINIC/CHHC.....11 RURAL HEALTH UNIT (RHU).....12 BGY HEALTH STATION (BHS).....13 MOBILE CLINIC.....14 COMMUNITY HEALTH WORKER.....15 MEDICAL PRIVATE SECTOR PVT. HOSPITAL/CLINIC.....21 PHARMACY.....22 PRIVATE DOCTOR.....23 MOBILE CLINIC.....24 COMMUNITY HEALTH WORKER.....25 OTHER PRIVATE SECTOR STORE.....31 HILOT/HERBOLARIO.....32 OTHER_____33 (SPECIFY)	

SECTION 5. NUPTIALITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
501	Have you ever been married or lived with a man?	YES.....1 NO.....2	→504
502	ENTER "0" IN COLUMN 6 OF CALENDAR IN MONTH OF INTERVIEW, AND IN EACH MONTH BACK TO JANUARY 1988.		
503	IF NEVER BEEN MARRIED OR LIVED WITH A MAN: Have you ever had sexual intercourse?	YES.....1 NO.....2	→518 →523
504	Are you now married or living with a man, or are you now widowed, divorced, or no longer living together?	MARRIED.....1 LIVING TOGETHER.....2 WIDOWED.....3 DIVORCED.....4 NO LONGER LIVING TOGETHER.....5	→507
505	Is your husband/partner living with you now or is he staying elsewhere?	LIVING WITH HER.....1 STAYING ELSEWHERE.....2	→507
506	Where does your husband live?	IN COUNTRY.....1 OVERSEAS.....2	
507	Have you been married or lived with a man only once, or more than once?	ONCE.....1 MORE THAN ONCE.....2	
508	In what month and year did you start living with your (first) husband/partner?	MONTH..... [ ][ ] DK MONTH.....98 YEAR..... [ ][ ] DK YEAR.....98	
509	How old were you when you started living with him?	AGE..... [ ][ ] DK AGE.....98	
510	CHECK 507: MARRIED OR LIVED WITH A MAN ONLY ONCE [ ] → SKIP TO 513 MARRIED OR LIVED WITH A MAN MORE THAN ONCE [ ] ↓		
511	In what month and year did you start living with your current/last husband/partner?	MONTH..... [ ][ ] DK MONTH.....98 YEAR..... [ ][ ] DK YEAR.....98	
512	How old were you when you started living with him?	AGE..... [ ][ ] DK AGE.....98	
513	How old was your current/last husband/partner when you started living with him?	AGE..... [ ][ ] DK AGE.....98	
514	CHECK 508 AND 509: YEAR AND AGE GIVEN? YES [ ] ↓ NO [ ]		→516

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
515	CHECK CONSISTENCY OF 508 AND 509: YEAR OF BIRTH (103) [ ][ ] PLUS + AGE AT MARRIAGE (509) [ ][ ] = CALCULATED YEAR OF MARRIAGE [ ][ ] IF YEAR OF BIRTH UNKNOWN, CALCULATE YEAR OF BIRTH CURRENT YEAR [9][3] MINUS - CURRENT AGE (104) [ ][ ] = CALCULATED YEAR OF BIRTH [ ][ ] IS THE CALCULATED YEAR OF MARRIAGE WITHIN ONE YEAR OF THE REPORTED YEAR OF MARRIAGE (508)? YES [ ] ↓ NO [ ] → PROBE AND CORRECT 508 AND 509.		
516	DETERMINE MONTHS MARRIED OR IN UNION SINCE JANUARY 1988. ENTER "X" IN COLUMN 6 OF CALENDAR FOR EACH MONTH MARRIED OR IN UNION, AND ENTER "0" FOR EACH MONTH NOT MARRIED/NOT IN UNION, SINCE JANUARY 1988. FOR WOMEN NOT CURRENTLY IN UNION OR WITH MORE THAN ONE UNION: PROBE FOR DATE COUPLE STOPPED LIVING TOGETHER OR DATE WIDOWED, AND FOR STARTING DATE OF ANY SUBSEQUENT UNION.		
517	During the last four weeks, how many days were you and your husband/partner apart?	DAYS..... [ ][ ]	
518	Now we need some details about your sexual activity in order to get a better understanding of family planning and fertility. How many times did you have sexual intercourse in the last four weeks?	TIMES..... [ ][ ]	
519	How many times in a month do you usually have sexual intercourse?	TIMES..... [ ][ ]	
520	When was the last time you had sexual intercourse?	DAYS AGO.....1 [ ][ ] WEEKS AGO.....2 [ ][ ] MONTHS AGO.....3 [ ][ ] YEARS AGO.....4 [ ][ ] BEFORE LAST BIRTH.....996	
521	How old were you when you first had sexual intercourse?	AGE..... [ ][ ] FIRST TIME WHEN MARRIED.....96	
522	How old were you in years and months when you had your first menstrual period?	AGE IN YEARS..... [ ][ ] AND MONTHS..... [ ][ ]	
523	PRESENCE OF OTHERS AT THIS POINT.	YES NO CHILDREN UNDER 10.....1 2 HUSBAND.....1 2 OTHER MALES.....1 2 OTHER FEMALES.....1 2	

SECTION 6. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
601	CHECK 317: WOMAN AND PARTNER NOT STERILIZED ☐ ↓ WOMAN OR PARTNER STERILIZED ☐		→607
602	CHECK 504: CURRENTLY MARRIED OR LIVING TOGETHER ☐ ↓ NOT MARRIED/ NOT LIVING TOGETHER ☐		→612
603	CHECK 233: NOT PREGNANT OR UNSURE ☐ → 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? PREGNANT ☐ → Now I have some questions about the future. After the child you are expecting, 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 OR DK.....8	→610
604	CHECK 233: NOT PREGNANT OR UNSURE ☐ → How long would you like to wait from now before the birth of (a/another) child? PREGNANT ☐ → How long would you like to wait after the birth of the child you are expecting before the birth of another child?	MONTHS.....1 ☐☐ YEARS.....2 SOON/NOW.....994 SAYS SHE CAN'T GET PREGNANT...995 OTHER _____ 996 (SPECIFY) DK.....998	→610
605	CHECK 221 AND 233: HAS LIVING CHILD(REN) OR PREGNANT? YES ☐ ↓ NO ☐		→610
606	CHECK 233: NOT PREGNANT OR UNSURE ☐ → How old would you like your youngest child to be when your next child is born? PREGNANT ☐ → How old would you like the child you are expecting to be when your next child is born?	AGE OF CHILD YEARS..... ☐☐ DK.....98	→610
607	Given your present circumstances, if you had to do it over again, do you think (you/your husband) would make the same decision to have an operation not to have any more children?	YES.....1 NO.....2	
608	Do you regret that (you/your husband) had the operation not to have any (more) children?	YES.....1 NO.....2	→610

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
609	Why do you regret it?	RESPONDENT WANTS ANOTHER CHILD..1 PARTNER WANTS ANOTHER CHILD.....2 SIDE EFFECTS.....3 OTHER REASON_____4 (SPECIFY)	
610	Have you and your husband/partner ever discussed the number of children you would like to have?	YES.....1 NO.....2	
611	Do you think your husband/partner wants the <u>same</u> number of children that you want, or does he want <u>more</u> or <u>fewer</u> than what you want?	SAME NUMBER.....1 MORE CHILDREN.....2 FEWER CHILDREN.....3 DK.....8	
612	CHECK 221: HAS LIVING CHILD(REN) ☐ → 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? NO LIVING CHILD(REN) ☐ → If you could choose exactly the number of children to have in your whole life, how many would that be? RECORD SINGLE NUMBER OR OTHER ANSWER.	NUMBER..... ☐☐ OTHER ANSWER_____96 (SPECIFY)	
613	What do you think is the best number of months or years between the birth of one child and the birth of the next child?	MONTHS.....1 ☐☐ YEARS.....2 ☐☐ OTHER_____996 (SPECIFY)	
614	When you get old, do you expect to live with one or more children?	YES.....1 NO.....2	
615	Where do you expect to live?	RESPONDENT'S HOUSE.....1 CHILD(REN)'S HOUSE.....2 OTHER_____3 (SPECIFY)	
616	Do you expect to receive financial or material support from your children/relatives when you get old?	YES.....1 NO.....2 DEPENDS ON CHILDREN.....3 OTHER_____4 (SPECIFY)	

7. HUSBAND'S BACKGROUND, RESIDENCE AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
701	CHECK 501: EVER MARRIED OR LIVED TOGETHER ☐ → ASK QUESTIONS ABOUT CURRENT OR MOST RECENT HUSBAND/PARTNER. NEVER MARRIED/ NEVER LIVED TOGETHER ☐		707
702	Did your (last) husband/partner ever attend school?	YES.....1 NO.....2	705
703	What is/was the highest level of school he attended?	PRESCHOOL.....0 ELEMENTARY.....1 HIGH SCHOOL.....2 COLLEGE OR HIGHER.....3 DK.....8	705
704	What is/was the highest grade/year he completed?	CODE..... ☐☐ DK.....98	
705	What kind of work does (did) your (last) husband/partner mainly do?	_____ ☐☐ _____ _____	
706	CHECK 705: WORKS (WORKED) IN A FARM ☐ → ASK 707 DOES (DID) NOT WORK IN A FARM ☐		708
707	(Does/did) your husband/partner work mainly on his own land or family land, or (does/did) he rent land, or (does/did) he work on someone else's land?	HIS/FAMILY LAND.....1 RENTED LAND.....2 SOMEONE ELSE'S LAND.....3	
708	Have you lived in this barangay since January 1988?	YES.....1 NO.....2	710
709	ENTER (IN COLUMN 7 OF CALENDAR) THE APPROPRIATE CODE ("1" CITY, "2" TOWN, "3" BARRIO/RURAL AREA) BEGIN IN THE MONTH OF INTERVIEW AND CONTINUE WITH ALL PRECEDING MONTHS BACK TO JAN. 1988.		711

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
710	In what month and year did you move to this barangay? ENTER (IN COL.7 OF CALENDAR) "X" IN THE MONTH AND YEAR OF THE MOVE, AND IN THE SUBSEQUENT MONTHS ENTER THE APPROPRIATE CODE ("1" CITY, "2" TOWN, "3" BARRIO/RURAL AREA). CONTINUE PROBING FOR OTHER BARANGAYS OF RESIDENCE AND RECORD MOVES AND TYPES ACCORDINGLY. ILLUSTRATIVE QUESTIONS - Where did you live before.....? - In what month and year did you arrive there? - Is that place in a city, a town, or in a barrio/rural area?		
711	REFER TO PLACE OF RESIDENCE IN JANUARY 1988: When did you move to (PLACE OF RESIDENCE IN JANUARY 1988)? TIME SHOULD BE PRIOR TO JANUARY 1988	LIVED THERE SINCE BIRTH.....96 MONTH..... [ ][ ] DK MONTH.....98 YEAR..... [ ][ ] DK YEAR.....98	→713
712	Was the place you moved from a city, a town, or a barrio/rural area?	CITY.....1 TOWN.....2 BARRIO/RURAL AREA.....3	
713	I would like to ask you some questions about working. Aside from your own housework, are you currently working?	YES.....1 NO.....2	→717
714	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. Are you currently doing any of these things or any other work?	YES.....1 NO.....2	→717
715	Have you ever worked since January 1988?	YES.....1 NO.....2	→717
716	ENTER "D" IN COLUMN 8 OF CALENDAR IN EACH MONTH FROM JANUARY 1988 TO CURRENT MONTH.		→721
717	What is (was) your (most recent) occupation? That is, what kind of work do (did) you do?	_____ [ ][ ] _____ _____	
718	USE CALENDAR TO PROBE FOR ALL PERIODS OF WORK, STARTING WITH CURRENT OR MOST RECENT WORK, BACK TO JANUARY 1988. ENTER CODE FOR NO WORK OR FOR TYPE OF WORK IN COLUMN 8. ILLUSTRATIVE QUESTIONS - When did this job begin (and when did it end)? - What did you do before that? - How long did you work at that time? - Were you self-employed or an employee? - Were you paid for this work? - Did you work at home or away from home?		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	TO
719	CHECK COLUMN 8 OF CALENDAR:	WORKED IN JANUARY 1988 ☐ / DID NOT WORK IN JANUARY 1988 ☐	721
720	I see that you were working in January 1988. When did you start that job? STARTING DATE SHOULD BE PRIOR TO JANUARY 1988	MONTH..... ☐☐ DK MONTH.....98 YEAR..... ☐☐ DK YEAR.....98	723
721	I see that you were not working in January 1988. Did you ever work prior to January 1988?	YES.....1 NO.....2	723
722	When did your last job prior to January 1988 end? END DATE SHOULD BE PRIOR TO JANUARY 1988	MONTH..... ☐☐ DK MONTH.....98 YEAR..... ☐☐ DK YEAR.....98	
723	CHECK 220/223: WITH A CHILD BORN SINCE JAN. 1988 AND LIVING WITH RESPONDENT	YES ☐ / NO ☐	727
724	CHECK 713 AND 714. CURRENTLY WORKING?	YES ☐ / NO ☐	727
725	While you are working, do you usually have (NAME OF YOUNGEST CHILD AT HOME) with you, sometimes have him/her with you, or never have him/her with you?	USUALLY.....1 SOMETIMES.....2 NEVER.....3	727
726	Who usually takes care of (NAME OF YOUNGEST CHILD AT HOME) while you are working?	HUSBAND/PARTNER.....01 OLDER CHILD(REN).....02 ELDERLY RELATIVES.....03 OTHER RELATIVES.....04 NEIGHBORS/FRIENDS.....05 SERVANTS/HIRED HELP.....06 CHILD IS IN SCHOOL.....07 INSTITUTIONAL CHILDCARE.....08 OTHER_____ (SPECIFY) 09	
727	Does any other family member need to be cared for? IF YES: Who are they? RECORD ALL MENTIONED.	OTHER YOUNG CHILDREN.....A ELDERLY PARENTS OF RESPONDENT...B ELDERLY PARENTS OF HUSBAND.....C OTHER ELDERLY RELATIVES.....D OTHER_____ (SPECIFY) .E NO ONE.....F	

SECTION B. MATERNAL MORTALITY

801	Now I would like to ask you some questions about your brothers and sisters, that is, all of the children born to your own mother, including those who are living with you, those living elsewhere, and those who have died How many children did your mother give birth to, including yourself?	NUMBER OF BIRTHS TO OWN MOTHER..... [ ][ ]
802	CHECK 801: TWO OR MORE BIRTHS [ ] ↓	ONLY ONE BIRTH (RESPONDENT ONLY) [ ] → SKIP TO 818
803	How many of these births did your mother have before you were born?	NUMBER OF PRECEDING BIRTHS..... [ ][ ]

		[1]	[2]	[3]	[4]	[5]
804	Please give me the names of all your brothers and sisters born to your own mother, starting with the eldest.	_____	_____	_____	_____	_____
805	Is (NAME) male or female?	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2
806	Is (NAME) still alive?	YES.....1 NO.....2 SKIP TO 808 DK.....8 GO TO [2]	YES.....1 NO.....2 SKIP TO 808 DK.....8 GO TO [3]	YES.....1 NO.....2 SKIP TO 808 DK.....8 GO TO [4]	YES.....1 NO.....2 SKIP TO 808 DK.....8 GO TO [5]	YES.....1 NO.....2 SKIP TO 808 DK.....8 GO TO [6]
807	How old is (NAME) as of his/her last birthday?	[ ][ ] GO TO [2]	[ ][ ] GO TO [3]	[ ][ ] GO TO [4]	[ ][ ] GO TO [5]	[ ][ ] GO TO [6]
808	How many years ago did (NAME) die?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
809	How old was (NAME) when she/he died?	[ ][ ] IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [2]	[ ][ ] IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [3]	[ ][ ] IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [4]	[ ][ ] IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [5]	[ ][ ] IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [6]
810	Was (NAME) ever been pregnant?	YES.....1 NO.....2 GO TO [2]	YES.....1 NO.....2 GO TO [3]	YES.....1 NO.....2 GO TO [4]	YES.....1 NO.....2 GO TO [5]	YES.....1 NO.....2 GO TO [6]
811	Was (NAME) pregnant when she died?	YES.....1 SKIP TO 814 NO.....2	YES.....1 SKIP TO 814 NO.....2	YES.....1 SKIP TO 814 NO.....2	YES.....1 SKIP TO 814 NO.....2	YES.....1 SKIP TO 814 NO.....2
812	Did (NAME) die during childbirth?	YES.....1 SKIP TO 815 NO.....2	YES.....1 SKIP TO 815 NO.....2	YES.....1 SKIP TO 815 NO.....2	YES.....1 SKIP TO 815 NO.....2	YES.....1 SKIP TO 815 NO.....2
813	How long after giving birth to her last child did (NAME) die? (Days if <90, months if <12, else years).	DY..1 [ ][ ] MO..2 [ ][ ] YR..3 [ ][ ]	DY..1 [ ][ ] MO..2 [ ][ ] YR..3 [ ][ ]	DY..1 [ ][ ] MO..2 [ ][ ] YR..3 [ ][ ]	DY..1 [ ][ ] MO..2 [ ][ ] YR..3 [ ][ ]	DY..1 [ ][ ] MO..2 [ ][ ] YR..3 [ ][ ]
814	Was the death related to pregnancy or complications of pregnancy or delivery?	YES.....1 SKIP TO 816 NO.....2 DK.....8	YES.....1 SKIP TO 816 NO.....2 DK.....8	YES.....1 SKIP TO 816 NO.....2 DK.....8	YES.....1 SKIP TO 816 NO.....2 DK.....8	YES.....1 SKIP TO 816 NO.....2 DK.....8
815	CHECK 808 AND 809: DEATH IN THE PAST 20 YEARS AND AGE AT DEATH BETWEEN 15 AND 50	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
816	How many children has (NAME) given birth to before that pregnancy?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]

817	GO BACK TO 804 FOR NEXT BROTHER/SISTER; OR IF NO MORE BROTHER/SISTER → SKIP TO 818

		[6]	[7]	[8]	[9]	[10]
804	Please give me the names of all your brothers and sisters born to your own mother, starting with the eldest.	_____	_____	_____	_____	_____
805	Is (NAME) male or female?	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2
806	Is (NAME) still alive?	YES.....1 NO.....2 SKIP TO 808 DK.....8 GO TO [7]	YES.....1 NO.....2 SKIP TO 808 DK.....8 GO TO [8]	YES.....1 NO.....2 SKIP TO 808 DK.....8 GO TO [9]	YES.....1 NO.....2 SKIP TO 808 DK.....8 GO TO [10]	YES.....1 NO.....2 SKIP TO 808 DK.....8 GO TO [11]
807	How old is (NAME) as of his/her last birthday?	[ ][ ] GO TO [7]	[ ][ ] GO TO [8]	[ ][ ] GO TO [9]	[ ][ ] GO TO [10]	[ ][ ] GO TO [11]
808	How many years ago did (NAME) die?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
809	How old was (NAME) when she/he died?	[ ][ ] IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [7]	[ ][ ] IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [8]	[ ][ ] IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [9]	[ ][ ] IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [10]	[ ][ ] IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [11]
810	Has (NAME) ever been pregnant?	YES.....1 NO.....2 GO TO [7]	YES.....1 NO.....2 GO TO [8]	YES.....1 NO.....2 GO TO [9]	YES.....1 NO.....2 GO TO [10]	YES.....1 NO.....2 GO TO [11]
811	Was (NAME) pregnant when she died?	YES.....1 SKIP TO 814 NO.....2	YES.....1 SKIP TO 814 NO.....2	YES.....1 SKIP TO 814 NO.....2	YES.....1 SKIP TO 814 NO.....2	YES.....1 SKIP TO 814 NO.....2
812	Did (NAME) die during childbirth?	YES.....1 SKIP TO 815 NO.....2	YES.....1 SKIP TO 815 NO.....2	YES.....1 SKIP TO 815 NO.....2	YES.....1 SKIP TO 815 NO.....2	YES.....1 SKIP TO 815 NO.....2
813	How long after giving birth to her last child did (NAME) die? (Days if <90, months if <12, else years).	DY..1 [ ][ ] MO..2 [ ][ ] YR..3 [ ][ ]	DY..1 [ ][ ] MO..2 [ ][ ] YR..3 [ ][ ]	DY..1 [ ][ ] MO..2 [ ][ ] YR..3 [ ][ ]	DY..1 [ ][ ] MO..2 [ ][ ] YR..3 [ ][ ]	DY..1 [ ][ ] MO..2 [ ][ ] YR..3 [ ][ ]
814	Was the death related to pregnancy or complications of pregnancy or delivery?	YES.....1 SKIP TO 816 NO.....2 DK.....8	YES.....1 SKIP TO 816 NO.....2 DK.....8	YES.....1 SKIP TO 816 NO.....2 DK.....8	YES.....1 SKIP TO 816 NO.....2 DK.....8	YES.....1 SKIP TO 816 NO.....2 DK.....8
815	CHECK 808 AND 809: DEATH IN THE PAST 20 YEARS AND AGE AT DEATH BETWEEN 15 AND 50	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
816	How many children has (NAME) given birth to before that pregnancy?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
817	GO BACK TO 804 FOR NEXT BROTHER/SISTER; OR IF NO MORE BROTHER/SISTER → SKIP TO 818					

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		[11]	[12]	[13]	[14]	[15]
804	Please give me the names of all your brothers and sisters born to your own mother, starting with the eldest.	_____	_____	_____	_____	_____
805	Is (NAME) male or female?	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2
806	Is (NAME) still alive?	YES.....1 NO.....2 SKIP TO 808 DK.....8 GO TO [12]	YES.....1 NO.....2 SKIP TO 808 DK.....8 GO TO [13]	YES.....1 NO.....2 SKIP TO 808 DK.....8 GO TO [14]	YES.....1 NO.....2 SKIP TO 808 DK.....8 GO TO [15]	YES.....1 NO.....2 SKIP TO 808 DK.....8 SKIP TO 818
807	How old is (NAME) as of his/her last birthday?	[ ][ ] GO TO [12]	[ ][ ] GO TO [13]	[ ][ ] GO TO [14]	[ ][ ] GO TO [15]	[ ][ ] SKIP TO 818
808	How many years ago did (NAME) die?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
809	How old was (NAME) when she/he died?	[ ][ ] IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [12]	[ ][ ] IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [13]	[ ][ ] IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [14]	[ ][ ] IF MALE OR DIED BEFORE 10 YEARS OF AGE GO TO [15]	[ ][ ] IF MALE OR DIED BEFORE 10 YEARS OF AGE SKIP TO 818
810	Has (NAME) ever been pregnant?	YES.....1 NO.....2 GO TO [12]	YES.....1 NO.....2 GO TO [13]	YES.....1 NO.....2 GO TO [14]	YES.....1 NO.....2 GO TO [15]	YES.....1 NO.....2 SKIP TO 818
811	Was (NAME) pregnant when she died?	YES.....1 SKIP TO 814 NO.....2	YES.....1 SKIP TO 814 NO.....2	YES.....1 SKIP TO 814 NO.....2	YES.....1 SKIP TO 814 NO.....2	YES.....1 SKIP TO 814 NO.....2
812	Did (NAME) die during childbirth?	YES.....1 SKIP TO 815 NO.....2	YES.....1 SKIP TO 815 NO.....2	YES.....1 SKIP TO 815 NO.....2	YES.....1 SKIP TO 815 NO.....2	YES.....1 SKIP TO 815 NO.....2
813	How long after giving birth to her last child did (NAME) die? (Days if <90, months if <12, else years).	DY..1 [ ][ ] MO..2 [ ][ ] YR..3 [ ][ ]	DY..1 [ ][ ] MO..2 [ ][ ] YR..3 [ ][ ]	DY..1 [ ][ ] MO..2 [ ][ ] YR..3 [ ][ ]	DY..1 [ ][ ] MO..2 [ ][ ] YR..3 [ ][ ]	DY..1 [ ][ ] MO..2 [ ][ ] YR..3 [ ][ ]
814	Was the death related to pregnancy or complications of pregnancy or delivery?	YES.....1 SKIP TO 816 NO.....2 DK.....8	YES.....1 SKIP TO 816 NO.....2 DK.....8	YES.....1 SKIP TO 816 NO.....2 DK.....8	YES.....1 SKIP TO 816 NO.....2 DK.....8	YES.....1 SKIP TO 816 NO.....2 DK.....8
815	CHECK 808 AND 809: DEATH IN THE PAST 20 YEARS AND AGE AT DEATH BETWEEN 15 AND 50	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
816	How many children has (NAME) given birth to before that pregnancy?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
817	GO BACK TO 804 FOR NEXT BROTHER/SISTER; OR IF NO MORE BROTHER/SISTER → SKIP TO 818					
818	RECORD THE TIME.	HOUR..... [ ][ ] MINUTES..... [ ][ ]				

INSTRUCTIONS: ONLY ONE CODE SHOULD APPEAR IN ANY BOX. FOR COLUMNS 1, 6, 7, AND 8 ALL MONTHS SHOULD BE FILLED IN.

INFORMATION TO BE CODED FOR EACH COLUMN

COL.1: Births, Pregnancies, Contraceptive Use
- B BIRTHS
- P PREGNANCIES
- T TERMINATIONS

- 0 NO METHOD
- 1 PILL
- 2 IUD
- 3 INJECTIONS
- 4 DIAPHRAGM/FOAM/JELLY
- 5 CONDOM
- 6 FEMALE STERILIZATION
- 7 MALE STERILIZATION
- 8 PERIODIC ABSTINENCE
- 9 WITHDRAWAL
- W OTHER_____ (SPECIFY)

COL.2: Discontinuation of Contraceptive Use
- 1 BECAME PREGNANT WHILE USING
- 2 WANTED TO BECOME PREGNANT
- 3 HUSBAND DISAPPROVED
- 4 SIDE EFFECTS
- 5 HEALTH CONCERNS
- 6 INACCESSIBLE/UNAVAILABLE
- 7 WANTED MORE EFFECTIVE METHOD
- 8 INCONVENIENT TO USE
- 9 INFREQUENT SEX/HUSBAND AWAY/OLD/ DIFFICULT TO GET PREGNANT
- C COST TOO MUCH
- F FATALISTIC
- A MENOPAUSE/HAD HYSTERECTOMY
- D MARITAL DISSOLUTION/SEPARATION
- W OTHER_____ (SPECIFY)
- K DON'T KNOW

COL.3: Postpartum Amenorrhea
- X PERIOD DID NOT RETURN
- 0 LESS THAN ONE MONTH

COL.4: Postpartum Abstinence
- X NO SEXUAL RELATIONS
- 0 LESS THAN ONE MONTH

COL.5: Breastfeeding
- X BREASTFEEDING
- 0 LESS THAN ONE MONTH
- N NEVER BREASTFED

COL.6: Marriage/Union
- X IN UNION (MARRIED OR LIVING TOGETHER)
- 0 NOT IN UNION

COL.7: Moves and Types of Communities
- X CHANGE OF COMMUNITY
- 1 CITY
- 2 TOWN
- 3 BARRIO/RURAL AREA

COL.8: Type of Employment
- 0 DID NOT WORK
- 1 PAID EMPLOYEE, AWAY FROM HOME
- 2 PAID EMPLOYEE, AT HOME
- 3 SELF-EMPLOYED, AWAY FROM HOME
- 4 SELF-EMPLOYED, AT HOME
- 5 UNPAID WORKER, AWAY FROM HOME
- 6 UNPAID WORKER, AT HOME

			1	2	3	4	5	6	7	8		
	12	DEC 01									01	DEC
	11	NOV 02									02	NOV
	10	OCT 03									03	OCT
	09	SEP 04									04	SEP
1	08	AUG 05									05	AUG 1
9	07	JUL 06									06	JUL 9
9	06	JUN 07									07	JUN 9
3	05	MAY 08									08	MAY 3
	04	APR 09									09	APR
	03	MAR 10									10	MAR
	02	FEB 11									11	FEB
	01	JAN 12									12	JAN
	12	DEC 13									13	DEC
	11	NOV 14									14	NOV
	10	OCT 15									15	OCT
	09	SEP 16									16	SEP
1	08	AUG 17									17	AUG 1
9	07	JUL 18									18	JUL 9
9	06	JUN 19									19	JUN 9
2	05	MAY 20									20	MAY 2
	04	APR 21									21	APR
	03	MAR 22									22	MAR
	02	FEB 23									23	FEB
	01	JAN 24									24	JAN
	12	DEC 25									25	DEC
	11	NOV 26									26	NOV
	10	OCT 27									27	OCT
	09	SEP 28									28	SEP
1	08	AUG 29									29	AUG 1
9	07	JUL 30									30	JUL 9
9	06	JUN 31									31	JUN 9
1	05	MAY 32									32	MAY 1
	04	APR 33									33	APR
	03	MAR 34									34	MAR
	02	FEB 35									35	FEB
	01	JAN 36									36	JAN
	12	DEC 37									37	DEC
	11	NOV 38									38	NOV
	10	OCT 39									39	OCT
	09	SEP 40									40	SEP
1	08	AUG 41									41	AUG 1
9	07	JUL 42									42	JUL 9
9	06	JUN 43									43	JUN 9
0	05	MAY 44									44	MAY 0
	04	APR 45									45	APR
	03	MAR 46									46	MAR
	02	FEB 47									47	FEB
	01	JAN 48									48	JAN
	12	DEC 49									49	DEC
	11	NOV 50									50	NOV
	10	OCT 51									51	OCT
	09	SEP 52									52	SEP
1	08	AUG 53									53	AUG 1
9	07	JUL 54									54	JUL 9
8	06	JUN 55									55	JUN 8
9	05	MAY 56									56	MAY 9
	04	APR 57									57	APR
	03	MAR 58									58	MAR
	02	FEB 59									59	FEB
	01	JAN 60									60	JAN
	12	DEC 61									61	DEC
	11	NOV 62									62	NOV
	10	OCT 63									63	OCT
	09	SEP 64									64	SEP
1	08	AUG 65									65	AUG 1
9	07	JUL 66									66	JUL 9
8	06	JUN 67									67	JUN 8
8	05	MAY 68									68	MAY 8
	04	APR 69									69	APR
	03	MAR 70									70	MAR
	02	FEB 71									71	FEB
	01	JAN 72									72	JAN

LAST CHILD BORN PRIOR TO JAN. 1988

NAME: _____

MONTH.. [ ][ ]

YEAR... [ ][ ]

OBSERVATION SHEET

Interviewer's Observations

_____

_____

_____

_____

_____

_____

Name of Interviewer : _____ Date: _____

Supervisor's Observations

_____

_____

_____

_____

_____

_____

Name of Supervisor : _____ Date: _____

Editor's Observations

_____

_____

_____

_____

_____

_____

Name of Editor : _____ Date: _____

NDS FORM 3
NSCB CLEARANCE No. A0447-R013 HN
(Expires January 31, 1994)

Republic of the Philippines
NATIONAL STATISTICS OFFICE

1993 NATIONAL DEMOGRAPHIC SURVEY

HEALTH SERVICE AVAILABILITY QUESTIONNAIRE

IDENTIFICATION

PROVINCE _____

CITY/MUNICIPALITY _____

BARANGAY _____

CLUSTER NUMBER .....

URBAN/RURAL (Urban = 1, Rural = 2) .....

INTERVIEWER'S NAME _____

DATE OF VISIT: ..... DAY

MONTH

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

SECTION 1A. COMMUNITY CHARACTERISTICS

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
	QUESTIONS 101 TO 104 ARE TO BE ANSWERED BY THE SUPERVISOR UPON ARRIVAL AT THE CLUSTER.		
101	Is the barangay part of a city, town, barrio/rural area?	CITY.....1 TOWN.....2 BARRIO/RURAL AREA.....3	
102	Is the barangay part of an urban center/poblacion?	YES.....1 NO.....2	→ 109
103	NUMBER OF INHABITANTS IN BARANGAY	[ ][ ][ ][ ][ ] If > 20,000	→ 109
104	DENSITY OF BARANGAY	COMPACT.....1 SCATTERED.....2	
	THE REMAINING QUESTIONS IN SECTIONS ONE AND TWO ARE TO BE ANSWERED BY ANY BARANGAY OFFICIAL.		
105	What is the name of the nearest urban center/poblacion?	_____ [ ][ ]	
106	How far is it in kilometers to the nearest urban center/ poblacion?	KILOMETER TO THE NEAREST URBAN CENTER..... [ ][ ]	
107	What are the commonly used types of transportation to go to the nearest urban center? (CIRCLE ALL APPLICABLE)	WALKING.....A PERSONAL VEHICLE/CART.....B HIRED VEHICLE/CART.....C PUBLIC TRANSPORTATION.....D OTHER_____E (SPECIFY)	
108	What is the main access route to this barangay?	ALL WEATHER ROAD.....1 SEASONAL ROAD.....2 OTHER (RIVER/RAILWAY).....3 TRAIL/PATH/ALLEY.....4	
109	What is the main source of drinking water in the barangay?	COMMUNITY WATER SYSTEM.....1 TUBED/PIPED WELL.....2 OPEN DUG WELL.....3 DEVELOPED SPRING.....4 RAINWATER.....5 OTHER_____6 (SPECIFY)	
110	Is there electricity in this barangay?	YES.....1 NO.....2	
111	Is there a sewer system in this barangay?	YES.....1 NO.....2	
112	What type of toilet facilities are used by most households in this barangay?	FLUSH/WATER-SEALED.....1 SANITARY PIT/ANTIPOLO.....2 OPEN PRIVY.....3 DROP TYPE/OVERHANG TYPE.....4 NO FACILITY/BUSH/FIELD.....5 OTHER_____...6 (SPECIFY)	
113	What is the major economic activity of the barangay inhabitants? (CIRCLE ONE)	FARMING.....1 FISHING.....2 TRADE/MARKETING.....3 MANUFACTURING.....4 MINING/QUARRYING.....5 SERVICES.....6 OTHER_____7 (SPECIFY)	

2

SECTION 1B. AVAILABILITY OF SERVICE FACILITIES/CENTERS NEAREST TO OR WITHIN THE BARANGAY.

INTERVIEWER: Now I would like to ask you about the nearest available schools and service facilities/centers. How do you usually go there and how long does it take to get there from here?

SERVICE FACILITY/CENTER	114 DISTANCE TO SERVICE FACILITY/ CENTER (IN KM.)	115 MOST COMMON TYPE OF TRANSPORT	116 TRAVEL TIME TO GET THERE
A. EDUCATION			
1. Elementary	IF '00'		HR. 1 0 / MIN. 2
2. High School	IF '00'		HR. 1 0 / MIN. 2
3. College/University	IF '00'		HR. 1 0 / MIN. 2
B. GENERAL SERVICES			
1. Barangay hall	IF '00'		HR. 1 0 / MIN. 2
2. Postal service	IF '00'		HR. 1 0 / MIN. 2
3. Church/chapel/mosque with a service at least once a month	IF '00'		HR. 1 0 / MIN. 2
4. Market place where trading activities are carried on at least once a week	IF '00'		HR. 1 0 / MIN. 2
5. Public library	IF '00'		HR. 1 0 / MIN. 2
6. Cinema	IF '00'		HR. 1 0 / MIN. 2
7. Public transportation	IF '00' 201		HR. 1 0 / MIN. 2

CODES:

Q. 114: 97 km or more.....97
Less than 1 km/located w/in barangay.....00
No known facility.....98

Q. 115: Walking.....1
Private Vehicle/ Cart.....2
Hired Vehicle/ Cart.....3
Public Transport.4
Other.....5

Q. 116: RECORD IN MINUTES IF LESS THAN 2 HOURS AND IN HOURS IF 2 HOURS OR MORE.

SECTION 2. HEALTH AND FAMILY PLANNING SERVICES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
201	What is the nearest health facility that provides health or family planning services to (NAME OF BARANGAY)?	GOVT HOSPITAL.....1 RHU/PUERICULTURE CENTER.....2 BGY HEALTH STATION.....3 PRIVATE HOSPITAL.....4 PRIVATE CLINIC.....5 OTHER _____ 6 (SPECIFY)	
202	How far is the facility from here in kilometers? RECORD '00' IF LESS THAN 1 KM OR WITHIN THE BGY, IF 97 KM OR MORE RECORD '97', IF UNKNOWN RECORD '98'	KILOMETERS..... [ ][ ]	
203	How do most persons in this barangay get from here to (HEALTH FACILITY) ?	WALKING.....1 PERSONAL VEHICLE/CART.....2 HIRED VEHICLE/CART.....3 PUBLIC TRANSPORTATION.....4 OTHER _____ 5 (SPECIFY)	▸206 ▸206
204	CHECK 102: IF NOT PART OF AN URBAN CENTER/POBLACION, How often per week is public transport available to residents to go to the facility?	NO. OF TIMES PER WEEK..... [ ][ ]	
205	How long does it take to get from here to (HEALTH FACILITY) using (MEANS MENTIONED IN 203)? RECORD IN MINUTES IF LESS THAN 2 HOURS AND IN HOURS IF 2 HOURS OR MORE.	HOURS.....1 [0][ ][ ] MINUTES.....2 [ ][ ][ ]	
206	Does (HEALTH FACILITY) provide: prenatal care? delivery care? child immunization? family planning services? postnatal care?	YES NO DK PRENATAL CARE.....1 2 8 DELIVERY CARE.....1 2 8 CHILD IMMUNIZATION.....1 2 8 FAMILY PLANNING.....1 2 8 POSTNATAL CARE.....1 2 8	
207	CHECK Q. 206: IF "YES" IN FAMILY PLANNING SERVICES, Are the following methods available from (HEALTH FACILITY)? Pill? IUD? Injections? Condom? Female sterilization? Male sterilization?	YES NO DK PILL.....1 2 8 IUD.....1 2 8 INJECTIONS.....1 2 8 CONDOM.....1 2 8 FEMALE STERILIZATION...1 2 8 MALE STERILIZATION.....1 2 8	
208	CHECK 201: IS THE NEAREST FACILITY A HOSPITAL?	NO [ ] ▼ YES [ ]	▸216

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
209	What is the nearest hospital that provides health or family planning services to (NAME OF BARANGAY)	GOV'T HOSPITAL.....1 PRIVATE HOSPITAL.....2 OTHER _____ 3 (SPECIFY)	
210	How far is the hospital from here (in kilometers)? RECORD '00' IF LESS THAN 1 KM, IF 97 KM OR MORE RECORD '97', IF UNKNOWN RECORD '98'	KILOMETERS..... [ ][ ]	
211	How do most persons in this community get from here to (HOSPITAL) ?	WALKING.....1 PERSONAL VEHICLE/CART.....2 HIRED VEHICLE/CART.....3 PUBLIC TRANSPORTATION.....4 OTHER_____ 5 (SPECIFY)	214 214
212	CHECK 102: IF NOT PART OF AN URBAN CENTER/POBLACION, How often per week is public transport available to residents to go to the hospital? RECORD '00' IF LESS THAN ONCE PER WEEK. IF UNKNOWN RECORD '98'.	NO. OF TIMES PER WEEK..... [ ][ ]	
213	How long does it take to get from here to the hospital using (MEANS MENTIONED IN 211) ? RECORD IN MINUTES IF LESS THAN 2 HOURS AND IN HOURS IF 2 HOURS OR MORE.	HOURS.....1 [0][ ][ ] MINUTES.....2 [ ][ ][ ]	
214	Does the hospital provide: prenatal care? delivery care? child immunization? family planning services? postnatal care?	YES NO DK PRENATAL CARE.....1 2 8 DELIVERY CARE.....1 2 8 CHILD IMMUNIZATION.....1 2 8 FAMILY PLANNING.....1 2 8 POSTNATAL CARE.....1 2 8	
215	CHECK Q. 214: IF "YES" IN FAMILY PLANNING SERVICES, Are the following methods available from the hospital? Pill? IUD? Injections? Condom? Female sterilization? Male sterilization?	YES NO DK PILL.....1 2 8 IUD.....1 2 8 INJECTIONS.....1 2 8 CONDOM.....1 2 8 FEMALE STERILIZATION...1 2 8 MALE STERILIZATION.....1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
216	Is (NAME OF BARANGAY) served by mobile outreach, that is, by a health unit that arrives regularly nearby to provide health services to persons in this community? IF YES: What is the name of the outreach point? _____ (NAME) IF NO: RECORD '000'.	[ ][ ][ ] NO MOBILE OUTREACH.....000	→END
217	Under what authority is this service operated? CIRCLE ALL THAT APPLIES.	NATIONAL GOV'T.....A LOCAL GOV'T.....B CHURCH/RELIGIOUS GROUPS.....C CIVIC GROUPS/NGOS.....D PRIVATE FIRMS.....E OTHER _____ (SPECIFY) F	
218	How far is the outreach point from here (in kilometers)? RECORD '00' IF LESS THAN 1 KM, IF 97 KM OR MORE RECORD '97', IF UNKNOWN RECORD '98'	KILOMETERS..... [ ][ ]	
219	How many times per quarter does the mobile outreach come to provide services ? RECORD '00' IF LESS THAN 1 TIME PER QUARTER. IF UNKNOWN, RECORD '98'	TIMES PER QUARTER..... [ ][ ]	
220	How do most persons in this community get from here to the outreach point?	WALKING.....1 PERSONAL VEHICLE/CART.....2 HIRED VEHICLE/CART.....3 PUBLIC TRANSPORTATION.....4 OTHER _____ (SPECIFY) 5	→223 →223
221	CHECK 102: IF NOT PART OF AN URBAN CENTER/POBLACION, How often per week is public transport available to residents to go to the outreach point? RECORD '00' IF LESS THAN ONCE PER WEEK. IF UNKNOWN RECORD '98'.	NO. OF TIMES PER WEEK..... [ ][ ]	
222	How long does it take to get from here to (NAME OF OUTREACH POINT) using (MEANS MENTIONED IN 220)? RECORD IN MINUTES IF LESS THAN 2 HOURS AND IN HOURS IF 2 HOURS OR MORE.	HOURS.....1 [0][ ][ ] MINUTES.....2 [ ][ ][ ]	
223	Does the outreach post provide: prenatal care? child immunization? family planning services?	YES NO DK PRENATAL CARE.....1 2 8 CHILD IMMUNIZATION.....1 2 8 FAMILY PLANNING.....1 2 8	
224	CHECK Q. 223: IF "YES" IN FAMILY PLANNING SERVICES, Are the following methods available from (HEALTH FACILITY NAME)? Pill? IUD? Injections? Condom?	YES NO DK PILL.....1 2 8 IUD.....1 2 8 INJECTIONS.....1 2 8 CONDOM.....1 2 8	