Philippines National Safe Motherhood Survey 1993

REPUBLIC OF THE PHILIPPINES

National Safe Motherhood Survey 1993

National Statistics Office
Manila, Philippines

Macro International Inc.
Calverton, Maryland USA

October 1994

This report summarizes the findings of the 1993 National Safe Motherhood Survey (SMS) undertaken by the National Statistics Office in collaboration with the Department of Health, the University of the Philippines, and other concerned agencies in the Philippine government. Funding for the 1993 SMS was provided by the Rockefeller Foundation and the U.S. Agency for International Development, through the MotherCare Project of John Snow, Inc.

The 1993 SMS was a follow-on to the 1993 National Demographic Survey (NDS), which is a part of the worldwide Demographic and Health Surveys (DHS) program. This program is designed to collect, analyze, and disseminate demographic data on fertility, family planning, and maternal and child health. Additional information on the 1993 SMS 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).

Recommended citation:

National Statistics Office (NSO) [Philippines] and Macro International Inc.(MI). 1994. *National Safe Motherhood Survey 1993.* Calverton, Maryland: NSO and MI.

CONTENTS

LIST OF TABLES

LIST OF FIGURES

PREFACE

The National Statistics Office (NSO) takes pleasure in presenting this report on the 1993 Philippines Safe Motherhood Survey (SMS). This report is a product of joint efforts of the NSO and other government agencies with assistance from Macro International Inc., Calverton, Maryland (U.S.A.).

This survey is the first national survey conducted as a follow-on to a survey carried out as part of the global Demographic and Health Surveys program. The SMS covered a national sample of about 8,500 women 15-49 ever having a pregnancy outcome. The data were collected from October to December 1993. Data processing was from November 1993 to January 1994.

This survey provides a data set unique in its ability to describe the maternal health situation in the Philippines as well as to answer important questions about relationships between women's health status, use of services, and socio-demographic characteristics.

The successful completion of the survey was made possible by the joint efforts of a number of organizations and individuals, whose participation we would like to gratefully acknowledge:

- To the members of the SMS Technical Advisory Committee for their valuable advice and suggestions throughout the project, beginning with the formulation of the questionnaire to the production of the final report of findings. This committee was composed of representatives from different agencies, namely, Dr. Camilla Habacon (Department of Health), Dr. Mario Festin (Philippine General Hospital/Clinical Epidemiology Unit), Dr. Corazon Raymundo (University of the Philippines Population Institute), and Ms. Rosalinda Bautista and Ms. Elizabeth Go (National Statistics Office).

- Conducting the fieldwork 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 25 survey teams each composed of the team supervisor, field editor, and interviewers; the regional and provincial staff and the data entry and processing staff.

- To the U.S. Agency for International Development, the MotherCare Project/John Snow and the Rockefeller Foundation, through Macro International, for financial assistance, and necessary data processing and anthropometry equipment.

- To Dr. Kate Stewart and Ms. Cindy Stanton, from Macro International, for their technical assistance in training, fieldwork, and in the writing of this report; to Mr. Guillermo Rojas for his assistance in the data processing and tabulation of results; to Dr. Alfredo Aliaga for the sample design; to Dr. Sidney Moore for editing and layout design; to Ms. Betty Thomas for word processing; and to Mr. Jonathan Dammons for graphical design.

- 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.

Manila, Philippines
August, 1994

TOMAS P. AFRICA
Administrator

PREFACE

A number of us here at DHS have been interested in improving data resources on maternal health status for several years now. Therefore, I am quite pleased to see this report being published. This product is the culmination of the work of many individuals, particularly those involved in conducting the survey through the National Statistics Office in Manila. Clearly, they have done an excellent job.

Because of the experimental nature of this project many others were involved in the earlier stages. The first draft of the questionnaire was developed with input from a committee of experts familiar with methodological and substantive issues in data collection on maternal health. Our heartfelt thanks to the people listed below for giving us their time, dedication, and advice.

Wendy Graham (London School of Hygiene and Tropical Medicine)
Elisabeth Sommerfelt (Demographic and Health Surveys)
Marge Koblinsky (MotherCare Project, John Snow, Inc.)
Barbara Kwast (MotherCare Project, John Snow, Inc.)
Carla AbouZahr (World Health Organization)
Huda Zurayk (Population Council, Cairo)
Nancy Sloan (Population Council)
Beverly Winikoff (Population Council)
Judith Fortney (Family Health International)
Victoria Ward (Columbia University)
Jane Hughes (Rockefeller Foundation)
John Strauss (Michigan State University)
Ann Tinker (World Bank)
Catherine Fogle (World Bank)
Cynthia Mobley (DHS consultant)

After the initial draft of the questionnaire was developed, two preliminary studies were conducted to further aid in the development of the questionnaire. One of these studies, a validation study, was conducted in collaboration with Dr. Mario Festin of the Clinical Epidemiology Unit, at the Philippine General Hospital. His staff of interviewers and medical students did an excellent job of interviewing women in the community and extracting data from medical records in the hospital. His work as a co-investigator on this study and more recently, on the technical advisory committee for the SMS, have been invaluable.

The other preliminary research conducted before the survey was a qualitative study of women's perceptions of pregnancy and childbirth. Ms. Nora Jacobson, a consultant to Macro, and Dr. Erlinda Burton, of the Research Institute for Mindanao Culture (RIMCU), did a superb job of designing and managing this study in Cagayan de Oro. The interviewers in this study also deserve a special thanks for their fine work.

Our thanks also to the technical advisory committee in the Philippines which was of enormous help in guiding this study.

Finally, we would like to express our gratitude to the Rockefeller Foundation and USAID for providing the necessary financial support to do this work. The AID support was provided through the MotherCare project of John Snow, Inc. In particular, we want to thank Dr. Steve Sinding and Dr. Mahmoud

Fatallah, of the Rockefeller Foundation, Dr. Marge Koblinsky, the Director of the MotherCare project, Eilene Oldwine and Dr. Emmanuel Volgaropoulos of USAID/Philippines, and Mary Ann Anderson, Beth Ann Plowman, and Amanda Glassman of USAID/Washington for their personal support of this project.

Calverton, Maryland
August 1994

Martin Vaessen
Demographic and Health Surveys

SUMMARY OF FINDINGS

The 1993 National Safe Motherhood Survey (SMS) was a nationally representative sample survey designed to collect information on the reproductive health of women in the Philippines. The sample for the SMS was all respondents in the 1993 National Demographic Survey (NDS)[1] who reported, at the time of the NDS interview, that they had ever had a pregnancy outcome. The survey fieldwork was conducted between October and December 1993. The 1993 SMS was carried out by the National Statistics Office in collaboration with the Department of Health, and other agencies concerned with issues of women's health. Funding for the 1993 SMS was provided by the Rockefeller Foundation and the U.S. Agency for International Development through the MotherCare Project of John Snow, Inc. Technical assistance was provided by the Demographic and Health Research Division of Macro International Inc.

The SMS was a follow-on survey to the NDS in which more than 15,000 women aged 15-49 were interviewed. The NDS had a number of results with relevance for the SMS. Of greatest interest was the finding that maternal mortality is much higher than previously estimated; the maternal mortality ratio was 209 per 100,000 live births and the rate was .273 per 1000 women 15-49 years. Also, although most women know of a family planning method, only 25 percent were currently using a modern contraceptive method at the time of the NDS.

Background Characteristics

More than 8,400 women age 15-49 were interviewed throughout the country for the SMS. Ninety-four percent of the SMS respondents were currently in a union. Half of the sample fell within the 20-34 year age group. Unlike the NDS, in which 21 percent of the respondents were adolescents, only one percent of the SMS respondents were under age 20 at the time of the interview since the SMS included only those with a pregnancy outcome. Forty-four percent of the SMS sample had no more than a primary education. Nine percent said they had a paid helper and 45 percent work for a wage.

Reproductive History

A complete pregnancy history was collected in the SMS. The average number of pregnancies per SMS respondent was 4.4. Four percent reported ever having a stillbirth, while 27 percent reported an early loss. Eight percent of the respondents reported that they were pregnant at the time of the SMS interview. The perinatal mortality rate for the 10 years prior to the survey was 27.1 per 1,000 births.

Maternity Care

Prenatal Care

Coverage of prenatal care was quite high overall. Eighty-four percent of the births were to women who received prenatal care from a doctor, nurse, or midwife at least once during pregnancy, while mothers of 71 percent had at least one tetanus toxoid injection. In 81 percent of the births for which prenatal care was received, the respondent had three or more prenatal visits, and in 92 percent, the first visit was before the last trimester. Sixty-three percent of the first visits were made at public health facilities other than a hospital or clinic (i.e., *barangay* health stations (BHS) or rural health units (RHU)).

[1]The 1993 National Demographic Survey is part of the worldwide Demographic and Health Surveys Program.

In contrast to coverage, the content of prenatal care reported by respondents was inadequate. None of the respondents reported receiving all the recommended elements of prenatal care (at least once) during any given pregnancy.

Delivery Care

Seventy percent of the births were to respondents who delivered at home, however, 48 percent of all births were delivered by a doctor, nurse, or midwife. Among home births, 73 percent were attended by a hilot, 32 percent by a midwife, and only one percent by a doctor or a nurse. Six percent of the births did not occur in the place of delivery intended by the respondent; of these, 40 percent delivered elsewhere because of a problem or referral.

There were marked differentials with regard to place of delivery with 54 percent of urban deliveries occurring at home, compared with 85 percent of rural deliveries. Sixty-four percent of births to women with college level education were in facilities, compared with 14 percent of those with primary or no education.

Postpartum Care

Only 32 percent of the births were to women reporting postpartum care from a doctor, nurse, or midwife; less than half of these reported receiving essential elements of postpartum care.

Obstetric Complications

All respondents were asked about maternal complications ever experienced during any pregnancy. Two percent of respondents reported having convulsions during pregnancy, 15 percent reported having labored for more than 12 hours, seven percent had a caesarean section delivery, and eight percent had excessive bleeding around labor and delivery.

For respondents having a stillbirth or live birth in the three years prior to the survey, 12 percent had symptoms of at least one of the four major obstetric complications: hemorrhage (8 percent), caesarean section due to obstructed labor (3 percent), infection (2 percent), or eclampsia (1 percent). Most respondents with a major complication experienced only one for a given birth.

Among perinatal deaths in the past three years, 23 percent were among respondents having one of these major complications, while only 11 percent of the surviving live births were to those with complications.

There were almost no differences in these complications according to the respondent's age, education, parity, and residence. The differentials for caesarean section due to obstructed labor, in which educated and urban respondents had higher percentages, can be largely explained by differences in service access.

Fifty-one percent of the births to respondents who had complications occurred in a facility, compared with 28 percent who had normal deliveries. Among those who reported laboring for more than 12 hours, 48 percent were referred to a hospital or clinic; 55 percent of those with excessive bleeding were referred. In both cases, more than 70 percent of those referred went where they were referred.

The prevalence of other obstetric problems and procedures carried out regarding deliveries in the last three years was: caesarean section delivery (5 percent), episiotomy (17 percent), breech presentation (2 percent), multiple birth (2 percent), prolapsed cord (1 percent), perineal laceration (42 percent), and retained placenta (4 percent).

Perceptions of Health and Physical Ability

Ninety-five percent of respondents reported their perception of their health status as good or fair. However, seven percent reported they were limited in their ability to do vigorous physical activities, while another two percent could not do moderately difficult activities.

Diagnosed Illnesses

The percentage of respondents reporting diagnosed illnesses when asked from a prompted list was: anemia (16 percent), high blood pressure (10 percent), kidney disease (9 percent), and heart disease (5 percent). Less than five percent reported having ever been diagnosed with goiter, malaria, tuberculosis, diabetes, or hepatitis. It is important to note that these percentages are not prevalences, per se, because many respondents with illnesses may not have been diagnosed.

Anthropometry

All respondents were weighed and measured to obtain a picture of their nutritional status. The mean height was 151.6 cm; mean weight was 51.2 kg; mean body mass index (BMI) was 22.2; and mean mid-upper arm circumference (MUAC) was 26.5 cm. Ten percent of those measured were less than 145 cm in stature; 13 percent had a BMI less than 18.5; and 12 percent had a MUAC less than 23 cm. Height was not associated with obstetric risk in this sample, probably because adolescents were underrepresented.

Reproductive Morbidity

The prevalence of symptoms of selected reproductive morbidities among respondents was: uterine prolapse (14 percent); urinary incontinence (6 percent); menstrual disorders (6 percent); urinary tract infection (5 percent); dyspareunia (5 percent); abnormal vaginal discharge (2 percent); and infertility (2 percent). Care seeking and type of provider varied according to the type of symptoms experienced and background characteristics of respondents.

High-Risk Sexual Behavior

Over 90 percent of respondents reported having had only one sex partner during their lifetime. However, nine percent reported that their partner had sexual intercourse with others while in union with her, and five percent said their partner pays other women for sex. Three percent reported using a condom the last time they had intercourse.

Unwanted Pregnancy

Twenty-four percent of respondents reported ever having had an unwanted pregnancy. Among these respondents, 80 percent said they did nothing and continued the pregnancy. Among those taking action, five percent aborted, 14 percent tried to abort and failed, and four percent said they did something to bring on their period. Five percent of those taking one of these actions had to be hospitalized afterwards.

Domestic Violence and Rape

Ten percent of respondents reported having been physically abused at some time in their life. One-third of these had experienced abuse during pregnancy. Five percent of respondents reported having been abused by their partner. Rape was reported by three percent of the respondents; 60 percent of the women who were raped did not seek help or tell anyone. Distinct regional differences exist in the prevalence of both

domestic violence and rape. Women with lower indicators of status and autonomy were more likely to report having been abused.

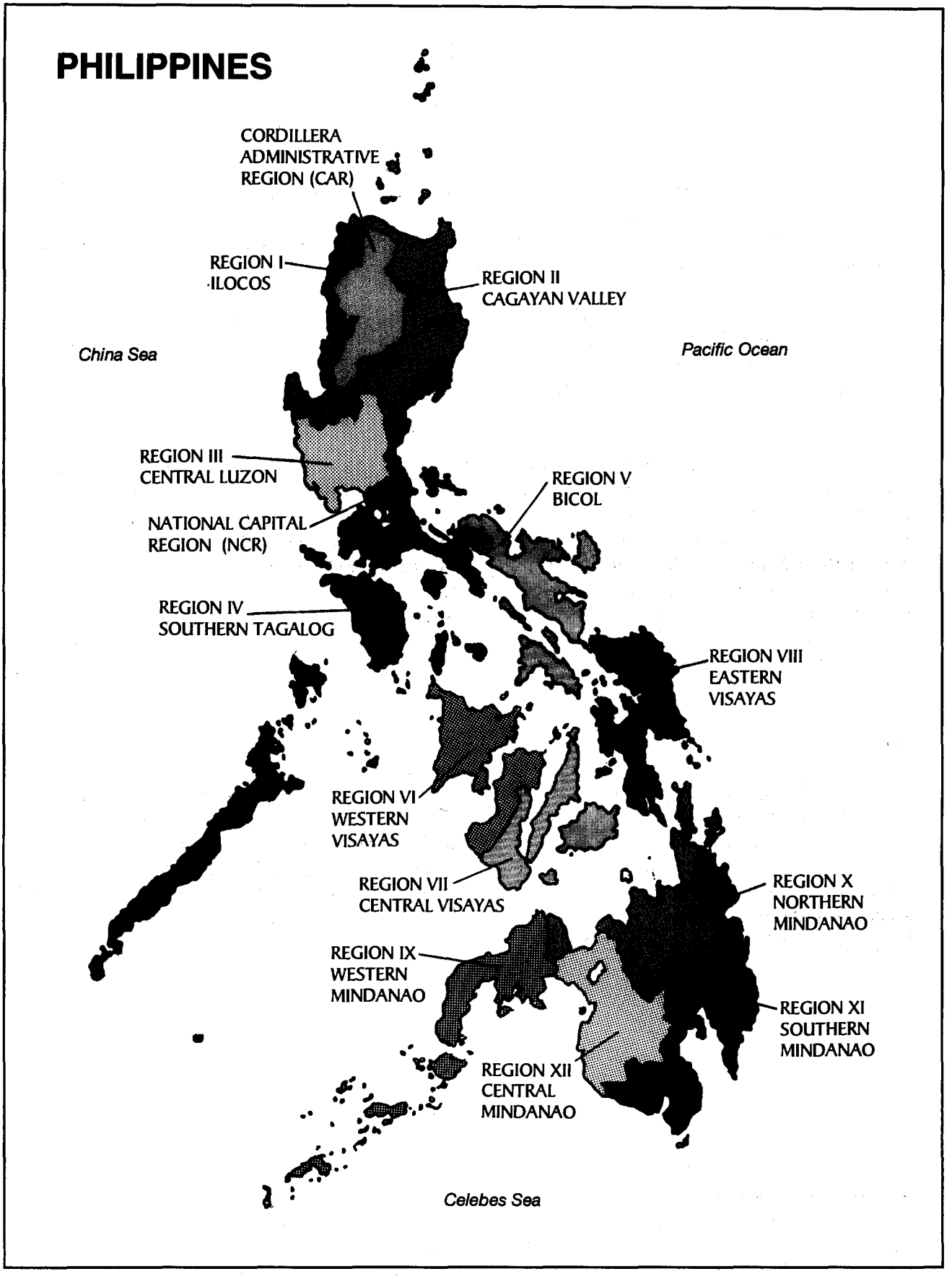
Policy Relevant Findings

A number of findings from this survey are relevant for policy decisions and program planning. The following is a list of some of these policy relevant findings.

- Maternal mortality is high (209 deaths per 100,000 live births).
- Contraceptive prevalence is low for the region (25 percent).
- One-fourth of women have had an unwanted pregnancy.
- Prenatal care coverage is good, but content of care is inadequate.
- Most women go to primary health care centers (BHS/RHU) for prenatal care.
- Most deliveries are at home; midwives are a critical interface between health systems.
- Recognition and referral of symptoms of major complications is poor, but most women go when referred.
- The number of women who have major obstetric complications is high.
- Perinatal deaths are associated with higher complication rates than surviving births.
- Postpartum care coverage is low, and content of care is inadequate.
- Many women suffer symptoms of reproductive morbidity.
- Women are at risk of sexually transmitted diseases, including HIV/AIDS.
- Domestic violence is a problem, especially in some regions.

Recommendations

- Improve the chain of referral;
- Increase community awareness of the danger signs of obstetric complications and of the availability of health resources and providers;
- Train hilots in problem recognition and referral;
- Train midwives in prenatal care services;
- Improve monitoring and supervision of midwives serving in remote areas;
- Train midwives in recognition of complications, case management, and referral;
- Upgrade district hospitals:
  - Provide for availability of blood and other supplies;
  - Provide training of hospital staff in emergency obstetric care and abortion management;
- Improve family planning services to reduce unmet need for family planning;
- Integrate family planning services and maternity care (prenatal care and postpartum care);
- Improve services for prevention and management of women's reproductive health problems;
- Increase community awareness of high risk behaviors for STDs/HIV;
- Improve availability of STD treatment services in facilities providing routine care;
- Provide social services for victims of violence and rape.


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

An estimated 500,000 maternal deaths occur in the world every year. The majority of these deaths occur in less developed settings; many are preventable. While new methods have been developed and used to obtain population-based estimates of maternal mortality, less attention has been given, until recently, to measurement of maternal morbidity.

The Safe Motherhood Survey (SMS) Project began in December 1992 with the goal of developing a survey instrument to gather badly needed information on the health status of women focusing on reproductive issues. Much earlier discussions, between those involved with the Demographic and Health Surveys (DHS) program[1] and the World Health Organization (WHO), about the potential advantages of the DHS infrastructure for implementing such a project, planted the seed resulting in this work.

The process of developing the SMS questionnaire used in the Philippines involved many individuals, institutions, organizations, and activities, all of which contributed to the survey conducted in late 1993. The SMS in the Philippines was the first instance of a follow-on survey being conducted in conjunction with a DHS survey. The DHS survey in the Philippines—the National Demographic Survey (NDS)—was carried out in early 1993 (NSO and MI, 1994). The Philippines was a prime choice as the first country to implement a Safe Motherhood Survey as a follow-on to a DHS survey because of the high level of national interest in maternal morbidity and mortality issues and the likelihood that findings would be well utilized in decisionmaking and program planning. This report describes the setting in which the SMS was implemented, the survey design, the process of developing the questionnaire, and the major survey results. It is hoped that this overview of study findings will spur further in-depth analysis of this rich data source.

1.1 Philippine Geography, History, and Economy

The Philippine archipelago is composed of about 7,100 islands and lies strategically within the arc of nations that sweeps southeastward from mainland Asia to Australia. It has a total land area of 300,000 square kilometers, 92 percent of which is found on the 11 largest islands. The country can be grouped geographically into the three major islands groups: Luzon, Visayas, and Mindanao. Accounting for 47 percent of the total land area, Luzon is the largest island group and is situated in the north. Mindanao, the second largest group is located in the south and occupies 34 percent of the total land area, while the Visayas is a group of smaller islands between Luzon and Mindanao comprising the remaining 19 percent of land area.

[1] The DHS Program, currently in its third phase, has been funded by the U.S. Agency for International Development (USAID) since its inception in 1984. The DHS program aims to provide assistance to developing countries in implementing surveys to provide estimates of fertility, contraceptive knowledge and use, infant and child mortality, maternal and child nutrition, and child health.

In 1993 the Philippines was divided administratively into 15 regions as follows:

LUZON
- National Capital Region (NCR)
- Cordillera Administrative Region (CAR)
- Region 1 - Ilocos
- 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. In 1990, there were 73 provinces, 2 subprovinces, 60 cities, 1,537 municipalities and some 41,000 barangays. Classification of urban and rural areas are made at the barangay level using the 1970 Census urban-rural definitions (see Appendix A).

Diverse topography and climate characterize the different areas in the country. While mountain ranges traverse the major islands, adjacent valleys and plateaus provide a sharp contrast. The climatic conditions and degree of weather disturbances differ among the provinces because of their varied topography and geographic location. The provinces in northeastern Luzon and the Bicol Region are generally wet and more vulnerable to typhoon than the rest of the country. The Visayan regions have generally more rainy days than Luzon and Mindanao. Mindanao, on the other hand, is almost free from typhoon which makes agriculture a very important industry on that island.

The Philippines became a republic in 1946. Under different presidential successions, a favorable political, social, and economic climate in the country was achieved. However, in the late 1960s, several political and social problems caused by ideological and ethnic differences beset the Marcos regime. The threat of communist takeover and student unrest precipitated Marcos' declaration of Martial Law in 1972. The political and economic situation was worsened by rebellions led by the Muslim leftist groups. Under the shroud of Martial Law, Marcos extended his leadership for two decades. The ouster of Marcos in 1986 brought new hope for political stability and economic recovery. After President Aquino came into power in 1986, the government underwent political and economic reforms. Several coup attempts to topple the Aquino government failed. In 1992, a democratic presidential election was held, six years after the downfall of the government of Marcos. This election brought Fidel V. Ramos, a former Defense Secretary of Marcos and a leading figure in the 1986 People Power Revolution, to the presidential seat. Under the Ramos administration, sporadic encounters between government forces and both leftist and rightist groups continue. However, these are considered to pose less of a threat as the government directs itself toward the attainment of Newly Industrialized Country status by the year 2000.

The economic performance of the country was on the upturn after the Second World War; even under Martial Law in the 1970s, the Philippine economy registered a growth rate higher than the world average for developing countries. During the period 1972-80, real GNP increased at an average rate of 6.2 percent annually. The 1980 real GNP of P 92.6 billion was more than ten times the 1946 level of P 8.8 billion. However, during the 1980s the Philippine economy grew at an average of less than one percent per year. This slower growth has continued into the 1990s.

In the 1980s, international markets for Philippine exports became weak, which adversely affected the trade and industrial sectors. The accelerated outflow of short-term capital and the unwillingness of some creditors to extend new credit lines resulted in widening the balance of payment deficit. The debt servicing capacity of the country was strained by both the high cost of borrowing and the difficulty of earning foreign exchange. Agriculture propelled economic growth in the 1980s, but agricultural output was affected by the eight-month drought which struck the country in late 1982. The worsening employment situation in the country was partially offset by overseas deployment of workers and implementation of the National Livelihood Program, which provided capital and technological assistance to individuals and families in setting up home industries, livelihood projects, and other self-employment activities.

In 1991, an economic crisis was once again felt as a result of the Gulf War which disrupted employment in the Middle East where many overseas Filipinos work. Millions of US dollars from overseas remittance were lost. In the same year, two natural disasters hit the country. Damage from continued eruption of Mt. Pinatubo and flash floods in Ormoc City created added problems for the Philippine economy. The economic slowdown was manifested in all major sectors, posting lower growth rates over the previous year.

Even in times of growth, there has been inequitable distribution of wealth. A large percentage of the nation's wealth remains concentrated in the hands of a few families in the highest income group. Economic development has also favored some regions more than others over the years and is reflected in the present economic status of these areas. The economic and social policies of past administrations have been biased toward Metropolitan Manila for geo-political reasons—its fine harbor and role as the seat of government and the center of commerce and industry—resulting in rapid development of that region. An overspill of economic development was observed later in the neighboring provinces. Rural-to-urban migration was a response to unbalanced development and perceived economic opportunities in urban centers. This continued influx of migrants has exerted pressure on the urban resources and environment.

Social development, like economic development, has not been equitably distributed among geographic units of the country. Pockets of illiteracy are still prevalent in remote *barangays* of nearly all provinces, in spite of improvement in the overall literacy rate, from 83.4 percent in 1970 to 93.5 percent in 1990 (for persons aged 10 years and over). The present government policy aims to eradicate illiteracy by the year 2000 by providing education for all.

The Ramos administration is committed to three fundamental pillars of development, namely, increasing global competitiveness, human resource development, and sustainable development. It is committed to strengthening the national will and capability for self-reliant development through a conscious effort to raise productivity and attain self-sufficiency.

1.2 Population Growth

The total population in the 1990 Census of Population was 60.7 million, up by 12.6 million persons over the last decade. This represents an average annual growth rate of 2.35 percent during the period 1980-1990, down by 0.4 percentage points from 2.75 percent during the period 1970-80. About 29.6 million or 48.7 percent of the population lived in urban areas, an increase of 11.3 percentage points from 1980.

The Philippines 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 shared 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, Eastern Visayas, Western Mindanao, Central Mindanao and Bicol, which are at the same time the least developed regions.

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

A slackening decline in fertility and mortality levels has been observed in the last two decades. In 1970, the crude birth rate (CBR) was estimated at 39 births per 1,000 population, dropping slightly to 36 in 1980 and 29 in 1990. The total fertility rate (TFR) 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. Based on the results of the 1993 National Demographic Survey (NDS), the TFR is estimated at 4.1 (see Table 1.1). The 1993 NDS also estimated the level of current contraceptive use among women 15-49 years at 40 percent for all methods and 25 percent for modern methods.

Table 1.1 Health indicators, Philippines 1993

National health indicators from the 1993 Philippines National Demographic Survey

Indicator	
Total Fertility Rate (women 15-49)	4.1
Median age at first birth (women 25-49)	22.8
Maternal mortality (0-7 yrs before survey)	
Ratio (per 100,000 live births)	209
Rate (per 1000 women 15-49)	.273
Childhood mortality (0-4 yrs before survey)	
Neonatal mortality	18
Postneonatal mortality	16
Infant mortality	34
Child mortality	21
Under-five mortality	54

The Population Program for the period 1993-98 seeks to achieve a TFR of 3.57 in 1998 (POPCOM, 1993). It aims to reduce CBR to 25.1 births per 1,000 population in 1998. To achieve this fertility target, the plan will pursue programs to increase the contraceptive prevalence rate (CPR) to 51.6 percent in 1998.

After a substantial decline in the overall mortality level during the period from 1948-60, the pace has slowed since 1960. The crude death rate (CDR) was estimated at 10.2 deaths per 1,000 population in 1970, declining to 6.9 in 1990. Likewise, the infant mortality rate (IMR) which hovered around 63 per 1,000 live births during the period 1977-1986, improved slightly to 57 in 1990, according to officially recognized figures based on indirect estimates. Direct estimation of the IMR from NDS and other national surveys over the past 15 years have consistently produced lower estimates. The reason for these differences is not clear. Direct estimates from the 1993 NDS give a much lower IMR of 34 per 1,000 live births, for the five-year period preceding the survey. The same survey estimated the neonatal mortality rate at 18 per 1,000 live births and the probability of dying between birth and the fifth birthday at 54 per 1,000 live births during the same period. The maternal mortality ratio, estimated using the sisterhood method in the 1993 NDS, was 209 per 100,000 live births, and the maternal mortality rate was .273 per 1,000 women aged 15-49.

Variations in mortality levels among population subgroups have also been observed over time. Higher mortality risks are associated with low education, low-status occupations, and rural residence, while relatively low mortality risks are associated with more education, high-status occupations, and urban residence (DRDF, 1988).

1.3 Health Policies and Programs

The mission statement of the Department of Health is "to ensure equity, quality, and access to health care in partnership with the people" (DOH, 1993). In carrying out this mission, primary health care, with its focus on prevention and health promotion, is placed in the forefront as a service delivery policy. The DOH strategy also aims to improve the accessibility of 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.

The priority health programs include the Expanded Programme on Immunization, Women's Health and Safe Motherhood, Family Planning, Nutrition, Growth Monitoring and Promotion, and Control of Childhood Diseases.

The 1993 Safe Motherhood Survey (SMS) was conducted to provide information needed for policymaking and program planning in the area of safe motherhood and women's health. This report describes the survey and its major findings.

1.4 Objectives of the Survey

The 1993 SMS was a national survey of ever-pregnant women of reproductive age designed to collect data on maternal health and nutrition and service utilization.

More specifically, the objectives of the SMS were to collect nationally representative data on:

- the proportion of women who experience symptoms of serious health problems during pregnancy, childbearing, and during the postpartum period;

- the use and content of antenatal, delivery, and postpartum care for women giving birth in the past three years;
- the proportion of ever-pregnant women of reproductive age with symptoms of chronic and other reproductive morbidities;
- the use of services for these health problems;
- the proportion of women who report domestic violence;
- the nutritional anthropometry of ever-pregnant women of reproductive age, namely, height, weight, and mid-upper arm circumference.

An additional objective of the SMS was to explore the feasibility of conducting a follow-on survey of women interviewed in a DHS-type survey to measure indicators of women's reproductive health. One major advantage of such a follow-on survey is that a nationally representative sample of women was identified during the DHS survey in the Philippines (1993 NDS) obviating the expense of selecting a new sample for the SMS. The follow-on design also allows use of the extensive data collected during the initial NDS in further analysis of the findings from the SMS, as well as providing an opportunity to validate the results of the NDS.

1.5 Institutions Supporting and Implementing the Survey

The SMS was implemented by the National Statistics Office with training assistance from the Department of Health. The survey was funded by the Rockefeller Foundation and USAID through the MotherCare Project of John Snow, Inc. Technical support was provided by the Demographic and Health Research Division of Macro International Inc.

1.6 Sample Design and Implementation

The sample for the SMS was chosen to be a nationally representative sample of ever-pregnant women of reproductive age. The SMS sample included all women successfully interviewed who had reported at least one pregnancy outcome in the NDS. Eligible respondents for the individual interview in the NDS were all female members and female visitors of the sample households aged 15 to 49 years, regardless of marital status. Eligible female visitors included those who were not regular household members who slept in the sample household the night prior to the day of interview.

The NDS sample, which was nationally representative with a total size of 15,029 women aged 15-49 years, was chosen using the sample for the Integrated Survey of Households (ISH) developed in 1980 as a sample frame. The latter is comprised of a sample of primary sampling units (PSUs) or *barangays* 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.

The NDS household sample is self-weighted in each of the 14 regions, but not at the national level.[2] It was selected using a two-stage sample design; the first is the selection of *barangays*, and the second is the selection of households in the sampled *barangays*. The total household sample in each *barangay* is desig-

[2]The weights in the SMS are the same as those in the NDS, adjusted for nonresponse.

nated as a *cluster*. *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 cases where the *barangay* was too large, it was segmented into several enumeration areas.

In the 1993 NDS, no separate sample was drawn for the fifteenth region, the Autonomous Region of Muslim Mindanao (ARMM), due to the recent formation of this region. Instead, estimates are provided for each of the original 14 regions. For further information on the NDS sample design see the final report for the 1993 National Demographic Survey (NSO and MI, 1994).

Questionnaires

The SMS questionnaire was developed in English and then translated into and printed in the six major dialects, namely: Tagalog, Cebuano, Ilocano, Hiligaynon, Bicol and Waray. Translation verification was done by reverse translation from the individual dialects back into English. A full description of how the SMS questionnaire instrument was developed is given in Chapter 2 of this report; Appendix B provides a schedule of activities.

Training and Fieldwork

Training for the survey fieldwork was conducted in two stages. The first stage was a training of trainers and lasted two weeks. The second stage, training of interviewers, lasted two weeks and was conducted by 10 trainers who were all female statisticians from the NSO central office. None of the trainers had backgrounds in medicine, nursing, or public health, however, many had conducted training of interviewers for the NDS, and two had also participated in the SMS pretest. Anthropometric training included didactic lectures, review of measurement methods, in-class practice, and a modified standardization procedure. The guidelines presented in the United Nations manual "How to Weigh and Measure Children," were adapted for the training of how to obtain accurate anthropometric measurements of adults. Height was measured using a wooden board, similar to the one described in the UN manual. A portable electronic bathroom-style scale, which reads weight to within 100 grams, was used to weigh the respondents.

The fieldwork for the SMS was carried out by 25 teams. Each team consisted of one supervisor, one field editor, and four or five interviewers. Many of the team supervisors, field editors, and interviewers were the same ones involved in conducting the NDS fieldwork. The Regional Administrators of NSO served as field coordinators during the data collection phase of the survey. Though all team members were trained in conducting anthropometric measurements, the team editor was responsible for taking the measurements with the assistance of an interviewer. During the first two weeks of fieldwork, statisticians from the NSO central office who had conducted the training went on field trips to observe and guide the teams in their initial interviews. Fieldwork was carried out from October to December 1993.

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 was done at the NSO central office. Machine processing was likewise done at the central office.

Data entry began two weeks after fieldwork started so that field check tables could be run on an ongoing basis. This allowed supervisors to monitor data quality and to give appropriate feedback to those in the field.

Processing of the SMS data was done with the use of ISSA (Integrated System for Survey Analysis), from data entry to tabulation. Eight microcomputers were used for data entry, data management, editing, and tabulation. Final data editing was done at Macro International.

A preliminary tabulation plan was developed and circulated for review in early 1994. Programs were then written using ISSA and tabulations for the final report were generated by mid-March 1994.

In April 1994, a meeting of the technical advisory committee was held in Manila to discuss the report of findings and to decide on final revisions.

CHAPTER 2

DEVELOPMENT OF THE SAFE MOTHERHOOD SURVEY QUESTIONNAIRE

The Safe Motherhood Survey (SMS) instrument was developed for use in the Philippines, with an eye toward having a questionnaire that could then be adapted for use in other settings. The process of developing the questionnaire was a collaborative effort involving several phases and methods of data collection. (A schedule of activities is given in Appendix B.) Initially, existing population-based studies on women's reproductive health were reviewed, including subjects covered, methods used, data results, and instruments employed. Other researchers working in this area were extremely helpful at this stage in providing sample questionnaires.

A draft questionnaire was then developed with input from an expert committee whose members had both experience and interest in issues of women's health. This draft was then taken to the Philippines for discussion and review. An informal data needs assessment was conducted at that time to determine what desired information could be collected through the SMS. Revisions to the first draft were made based on input received from professionals and advisors in the Department of Health, the National Statistics Office, the University of the Philippines Population Institute, and interested donors and funding agencies.

Early on it was decided that the only non-interview data that would be collected in this first SMS were anthropometric measurements of height, weight, and mid-upper arm circumference. This decision helped to focus the survey on issues of how to assess major obstetric complications in the context of a national sample survey. After input from various institutions in the Philippines was obtained and incorporated, two preliminary studies, one quantitative and one qualitative, were conducted to further refine the questionnaire.

2.1 Validation Study

The quantitative study, a hospital-based validation study, was conducted to validate interview data on obstetric complications by comparing women's responses with data abstracted from their medical records. This exercise involved work by two separate teams: one reviewed hospital charts of women admitted to the Philippine General Hospital in Manila up to four years prior to the study; a second team, blinded to the hospital diagnosis, then attempted to locate the same women within the community for follow-up interview about their experiences related to that delivery. This was done to quantify the sensitivity[1] and specificity of various questions and question combinations and to investigate women's recall of complications experienced in past deliveries in order to aid in development of the SMS questionnaire.

This study focused on severe obstetric complications, specifically, hemorrhage, dystocia, eclampsia, and puerperal infection or sepsis. This focus was chosen for several reasons, in particular, 1) constraints of time and money, which mandated concentration on a few specific outcomes, 2) the importance of these problems as causes of maternal mortality, 3) the lack of data on accuracy of reporting for such complications, and 4) the availability of existing data on the accuracy of reporting of other reproductive morbidities such as reproductive tract infections and complications of unsafe abortion (see for example, Figa-Talamanca et al., 1986).

[1] *Sensitivity* is defined as the true positives divided by the true positives plus the false negatives. *Specificity* is defined as the true negatives divided by true negatives plus false positives (Lilienfeld and Lilienfeld, 1980).

The validation study was conducted as a collaborative effort between Macro International and the Clinical Epidemiology Unit of the Philippine General Hospital. Findings were used to revise the SMS questionnaire prior to pretesting. A more detailed description of the methods and results of this study are presented elsewhere (Stewart and Festin, 1994), but the main lessons learned for the SMS are summarized as follows.

2.2 Major Findings of the Validation Study

In general, the findings suggest that some complications, such as dystocia and hemorrhage, can be detected through retrospective interview with acceptable levels of over- and underreporting. Conclusions on sepsis and eclampsia, however, were limited by the smaller number of cases available for analysis.

Reporting for individual signs and symptoms on interview confirmed that no single question accurately detects and differentiates specific complications. On the other hand, a combination of questions can provide a better picture of events.

Even with the best combination of questions in the validation interview, women were more likely to underreport than to overreport dystocia when compared to their hospital record. Sensitivity of reporting was 69 percent compared with specificity of 97 percent. However, duration of labor was more accurately reported in the validation study among women with dystocia. This may be due to the fact that the adverse event itself was better remembered. These findings indicate that dystocia and prolonged labor can best be detected through a combination of questions. The best set of questions include: whether or not the woman experienced labor, whether it lasted longer than a normal duration cut-off, whether or not she had a caesarean section delivery, and if so, why. The definition for dystocia actually identifies women with surgical deliveries due to dystocia, since asking about dystocia in the absence of such intervention would be extremely problematic.

Detection of hemorrhage in the validation study was best achieved by asking a combination of two questions. The optimal set of questions was whether or not the woman bled a lot around the time of labor and delivery, and whether or not the placenta had to be manually removed. It is important to specify in detail what is meant by manual extraction through a description of the process. That is, "did someone have to put their hand up through your vagina into your womb to try to pull out the placenta?" Asking about symptoms of hemorrhage, such as dizziness and weakness was not useful in the validation study because of the number of false positives picked up with these questions.

Women reporting high fever or very foul smelling vaginal discharge had the best balance of over- and underreporting for sepsis when comparing their interview responses with their hospital data. Relatively few women interviewed in the validation study reported a foul smelling discharge. This sign was not overreported in the validation; the findings suggest that this is an appropriate sign to inquire about on a survey interview. However, it is important to note again that there were only nine sepsis cases interviewed in the validation study, which makes it difficult to draw definite conclusions on reporting for this diagnosis.

Eclampsia was chosen as a condition of interest because of the assumption that convulsions are among the more memorable events one might experience during pregnancy. Even though the woman herself may not remember her experience, her recognition retrospectively is most likely influenced by the descriptions she received from others who were present at the time. Though pre-eclampsia is a very important problem, it is difficult to detect through interview alone since hypertension is usually asymptomatic. In addition, associated symptoms such as headache and edema, which may occur, are also common among women without disease and are thus quite nonspecific.

While the validation study results on eclampsia were inconclusive due to small numbers, it was noted several times in field observations of validation interviews that women mistakenly reported shakes and trembling associated with fever when asked about convulsions. These anecdotal observations are in agreement with data collected separately through qualitative research on women's perceptions of disease (described below). These findings led to recommending revisions in the SMS questionnaire to ask instead about "convulsions not caused by fever."

The results on duration of recall indicated that reporting did not become less accurate over the four-year period covered by the study. This is not surprising, given the focus on the more serious, memorable obstetric complications. These findings indicate that women's reporting of these events is reasonably accurate on retrospective interview up to four years after the event.

The results of the validation study were used to revise the questionnaire to focus on the combinations of questions most useful in identifying those women who may have had the complications of interest in this study. In addition, these results shed some light on the meaning of the results obtained from the SMS.

2.3 Qualitative Study

After the fieldwork for the validation study was underway, a qualitative study was undertaken in Cagayan de Oro, Northern Mindanao. The purpose of the qualitative component was to gain an emic, or insider's, perspective of the women's health problems covered by the SMS and to develop a list of descriptive terminology for use in the SMS questionnaire. This study was conducted in cooperation with the Research Institute for Mindanao Culture at Xavier University in Cagayan de Oro.

The research followed an iterative sequence of ethnographic interviewing and systematic data collection. The process began with open-ended interviewing of women hospitalized with one of the obstetric morbidities of interest. From the initial interviews with women who had suffered problems, the researchers branched out to interview the traditional birth attendants (locally called *mananabangs*) or relatives who were in attendance at the birth and witnessed the problem.

Similar open-ended interviews were conducted with women who had given birth, but were not known to have had a specific problem, and with mananabangs. These interviews focused not on specific events, but on the realm of pregnancy and pregnancy-related problems, and on women's health concerns in general. Sampling for the ethnographic interviews was entirely purposive and opportunistic. Informants came from several sources: two area hospitals provided patient records from which women with the morbidities of interest were selected. Women and mananabangs for the general interviews were selected opportunistically.

After several weeks of ethnographic interviewing, researchers had lists of the morbidities recognized by their informants, lists of signs and symptoms associated with the morbidities, and some indications of cause and treatment. This information was used to devise a systematic data collection instrument which was then used in the qualitative study to correlate morbidities with signs and symptoms and to assess quantitatively the degree of cultural saliency and coherence of these morbidities.

Based on the results of the qualitative component, the specific recommended changes to the SMS questionnaire were revisions in phrasing, the addition of clarification statements to some of the questions, and several new answer codes. Other recommendations addressed the order of the sections and the structure of the induced abortion question series.

One of the objectives of the qualitative component was to maximize the likelihood that women would understand the questions asked in the SMS questionnaire. We wanted to learn how to express the concepts

of interest to assure a concurrence between the question asked and the answer given. The underlying concern is the problem of under- or overreporting.

2.4 Major Findings of the Qualitative Study

Women were highly cognizant of a range of health problems throughout pregnancy. The problems they described were of several types: problems of blood, problems of air, problems of size, and problems of the supernatural. The data collected in the study point toward a preliminary sketch of the ethnophysiology of pregnancy held by the women of Cagayan de Oro. The unifying feature of this model was a perception of fetal development in which the pregnancy is "just blood" until the third or fourth month.

The results of the qualitative research suggest that women who have had the obstetric morbidities of interest will recognize them as they are described in the revised questionnaire. The use of clarifying statements like "Did you bleed so much that you were afraid you might die?" to describe hemorrhage came from the experiential descriptions that women known to have suffered hemorrhage gave us. While a woman might not know the term "hemorrhage," it seems unlikely that a woman who had experienced massive bleeding would not recognize such a vivid description.

The problem of overreporting is more problematic. While most of the interviews in the ethnographic study were with women who had suffered problems during at least one pregnancy, many of the women had other, trouble-free pregnancies. They themselves drew sharp distinctions between normal problems or ailments and the serious and dramatic problems. For example, women who had not hemorrhaged did not talk about "bleeding so much I was afraid I would lose my life." Women with normal pregnancies do not seem to overdramatize their experiences. From these findings, there was no reason to expect that women would overreport in the SMS. Further details from the qualitative research conducted in Cagayan de Oro are described elsewhere (Jacobson, 1993).

2.5 Content of the SMS Questionnaire

After analyzing the findings from both the validation and qualitative studies, the questionnaire was again revised. The SMS collected information on the following:

Section 1	Respondent's background: education and marital status
Section 2	Pregnancy history and maternal morbidity in any pregnancy
Section 3-4	Maternal morbidity: detailed information about all pregnancies in the past three years
Section 5	Other morbidities; general health, reproductive morbidities, abortion
Section 6	Women's position; domestic violence, sexual behavior
Section 7	Weight, height, and mid-upper arm circumference measurements

2.6 Questionnaire Translation

The revised questionnaire was then translated into six dialects: Tagalog, Cebuano, Ilocano, Hiligaynon, Bicol, and Waray. The validation and qualitative studies were conducted in Tagalog and Cebuano, respectively, the two most commonly spoken dialects. (Sixty-four percent of the respondents in the SMS identified one of these two dialects as their local tongue.)

After translation, each of the six versions of the questionnaire was translated back into English by an independent translator. These back-translations were then reviewed and revisions were subsequently made in the original translations.

2.7 Pretest of the SMS Questionnaire

In August 1993, the translated questionnaire was pretested in a one-month exercise which included two weeks of interviewer training, one week of field interviews, and one week of analysis and questionnaire revision.

Fieldwork for the pretest was conducted in six different regions, each selected as indigenous to one of the six dialects. Selection of respondents for the pretest interviews was not random because of the need to assess how difficult it would be to locate NDS respondents for reinterview in the main SMS survey. Rather, NDS clusters were selected in the areas to be pretested, and lists of all ever-pregnant NDS respondents in each of those clusters were made.

A total of 189 women were sought for interview in the pretest. Ninety-five percent of the women sought were either living in the same place as during the NDS or could be traced to another address, whether or not the interview was actually completed. Five percent of the women were no longer at the same address and had either left no forwarding address or had moved too far to be traced. The actual response rate in the pretest was 83.5 percent.

Each stage of the pretest provided useful input on changes needed in the questionnaire. During the training of interviewers, their input was obtained on the translations, the skip patterns, and what did and did not "make sense." Mock interviews, field practice, and actual interviews revealed inconsistencies, questions, and skip patterns needing further clarification. Observation of interviews also provided feedback from respondents and from interviewers about the questionnaire.

Analysis of the pretest included tabulations of selected responses; calculation of response rates, average length of interview, distribution of pregnancies and women with pregnancies since January 1990; review of observations and interviewer comments from the field; and a comparison of NDS and SMS responses to the pregnancy history.

Following review of the findings from the pretest, the SMS questionnaire was revised a last time and printed for the main survey.

CHAPTER 3

FOLLOW-UP EFFORTS, RESPONSE RATES, AND BACKGROUND CHARACTERISTICS OF RESPONDENTS

This chapter describes the results of the SMS field operation efforts to locate and interview eligible NDS respondents and the background characteristics of women who completed the SMS interview. Information on the characteristics of eligible respondents who were not interviewed is provided in Appendix C.

As a follow-on survey to the 1993 NDS, the SMS selected all NDS respondents who reported ever having had a pregnancy outcome. Pregnancy outcomes included miscarriages, induced abortions, stillbirths, and live births. Women who were currently pregnant with their first pregnancy at the time of the NDS were not selected for the SMS. To find the selected women, the interviewers were provided with the following information: the household number, the name of the household head, the eligible woman's name, her relationship to the household head, and maps. These pieces of information were deemed helpful in directing the interviewer to the selected woman. Before beginning the interview, interviewers asked respondents if they remembered participating in the NDS. This was done as an additional means of verifying that the woman they were about to interview was, to the best of their knowledge, the true NDS respondent.

3.1 Follow-up Efforts

The number of visits and the tracing efforts were recorded in order to assess the time and effort necessary for a survey in which specific women must be located for reinterview. The interviewers were required to make at least three visits to find eligible respondents while working in each *barangay*. A visit could be a household visit to identify the correct household or a return visit to find the selected woman at home.

"Tracing" was defined as any effort to locate a woman selected for the SMS at an address other than the one at which she was interviewed for the NDS. Interviewers were instructed to record one of the following codes: 1) the selected woman was residing at the same address recorded during the NDS; 2) the selected woman was successfully traced, that is, she was no longer at the address recorded during the NDS and her new residence was located; or 3) the selected woman could not be traced; she was no longer at the address recorded during the NDS and either no one could provide her new address, or her new address was too far outside of the *barangay* to pursue. The tracing code indicates whether or not the current address of the selected woman was located. It does not indicate whether or not she was found and/or interviewed.

In most cases (90 percent), the respondent was found at the address obtained during the NDS (data not shown). In three percent of both rural and urban cases the interviewer traced the woman, that is, located her new residence. In four percent of the cases, the selected woman could not be traced.

3.2 Response Rates

The interview results are shown in Table 3.1. Ninety percent of all selected women were successfully interviewed. Four percent of the selected women were not at home on any of the three visits by the interviewer and five percent were never found. The percentages of refusals and deaths were negligible.

Table 3.1 Results of SMS interviews

Percent distribution of interview results, Philippines, 1993 SMS

Result	Percent	Number
Completed	89.8	8,484
Not at home	4.1	391
Refused	0.4	38
Partly completed	0.1	10
Died/incapacitated	0.2	23
Never pregnant	0.2	11
Not found	5.0	475
Other	0.2	12
Total	100.0	9,441

Table 3.2 presents the number of visits interviewers made to women who were successfully interviewed by urban/rural residence. The increased mobility of urban women was apparent in that nearly 30 percent of eligible urban women required two or more household visits, whereas, 18 percent of eligible rural respondent required return visits.

In the 1993 National Demographic Survey (NDS), 98 percent of the selected women were successfully interviewed. The SMS response rate, conditional upon the NDS response rate, was 90 percent, and varied little by urban/rural residence. Considering that the SMS was conducted four to eight months following the NDS, and that eligible SMS respondents included women who were visitors in NDS households, a 90 percent response rate represents a very successful field operation.

Table 3.2 Number of visits made by interviewers

Percent distribution of respondents with completed interviews by number of visits made by interviewers, and the percentage of completed interviews in the SMS, by urban/rural residence, Philippines 1993 SMS

Residence	Number of visits			Total percent	Percentage of completed interviews	Number of respondents
	1	2	3+			
Urban	71.2	19.0	9.8	100.0	89.0	4,583
Rural	82.5	13.0	4.5	100.0	91.0	4,858
Total	77.0	15.9	7.1	100.0	89.8	8,481

3.3 Background Characteristics of Respondents

The age distribution of the SMS sample is substantially older than that of the NDS sample. For example, one percent of the SMS sample is comprised of women less than 20 years old (see Table 3.3), compared to a quarter of NDS respondents in this age group (NDS data not shown). This is primarily due to the nature of the SMS sample which only included women who had reported at least one pregnancy outcome in the NDS. In addition, there was a somewhat higher nonresponse rate among the youngest women selected for the SMS (see Table C.5 in Appendix C).

Table 3.3. Characteristics of SMS respondents

Percent distribution of SMS respondents by background characteristics and contraceptive use, according to residence, Philippines, 1993 SMS

Background characteristic	Residence		Total
	Urban	Rural	
Age group			
15-19	1.3	1.4	1.3
20-24	9.6	11.7	10.6
25-29	18.2	17.3	17.8
30-34	21.7	19.9	20.8
35-39	19.6	19.7	19.7
40-44	16.6	16.7	16.6
45-49	11.7	11.8	11.8
50+	1.2	1.3	1.3
Marital status			
Never married	0.4	0.4	0.4
Married	86.4	87.1	86.7
Living together	7.5	7.3	7.4
Widowed	2.9	3.1	3.0
Divorced	0.1	0.2	0.1
No longer together	2.7	1.8	2.3
No. of pregnancies			
1	13.1	10.1	11.7
2-3	37.0	30.1	33.7
4-5	26.8	26.6	26.7
6+	23.1	33.1	28.0
Education			
No education	1.2	3.5	2.3
Primary	31.2	53.2	41.8
High school/ vo-tech	39.4	30.3	35.0
College	28.2	13.1	21.9
Region			
Metro. Manila	28.1	0.0	14.5
Cordillera Admin.	1.7	1.8	1.7
Ilocos	3.1	8.5	5.7
Cagayan Valley	2.2	5.8	3.9
C-Luzon	11.8	9.7	10.8
S-Tagalog	13.6	13.7	13.6
Bicol	3.3	9.5	6.3
W-Visayas	6.4	9.2	7.7
C-Visayas	7.3	8.2	7.8
E-Visayas	3.7	5.4	4.5
W-Mindanao	3.5	7.4	5.4
N-Mindanao	4.7	6.5	5.6
S-Mindanao	6.2	8.4	7.3
C-Mindanao	4.5	5.8	5.2
Current use of modern contraceptive method			
Not using modern method	71.5	77.8	74.6
Currently using modern meth.	28.5	22.2	25.4
Ever use of modern contraceptive method			
Never used modern meth.	47.8	59.8	53.6
Ever used modern meth.	52.2	40.2	46.4
Total percent	100.0	100.0	100.0
Number of respondents	4,383	4,098	8,481

In the SMS, approximately 50 percent of the respondents were 20-34 years of age. One percent of SMS respondents reported their age as being 50 years or older. A number of these women may have become 50 between surveys.

One indicator proposed for demonstrating the extent of women's autonomy in a given society is whether they marry men who are substantially older than they are. A comparison of the respondent's age with that of her husband or partner shows that nearly half (48 percent) of the women are one to five years younger than their husband or partner, while only 17 percent are six to ten years younger. One in ten women are married to men of their age and 18 percent of the respondents are older than their husband or partner (see Table 3.4).

Table 3.4 Respondent's age relative to husband's age

Percent distribution of currently married respondents by respondent's age relative to husband's age, Philippines, 1993 SMS

	Respondent's age relative to husband's age								
	> 10 years younger	6-10 years younger	1-5 years younger	Same age	1-5 years older	6-10 years older	> 10 years older	Total percent	Number of respondents
Percentage of respondents	7.1	16.8	48.0	10.1	15.3	2.0	0.6	100.0	7,981

Virtually all SMS respondents have been married or in union at some time in their lives. About 87 percent were legally married at the time of interview and 7 percent were living consensually with a partner. The marital status distributions do not differ noticeably between urban and rural areas (see Table 3.3).

About one-fifth (22 percent) of SMS respondents have attended college while more than a third have gone to high school or had post-secondary vocational or technical training. Forty-two percent of the respondents have attended the elementary level and only two percent have attended pre-school levels or have no education at all (see Table 3.3). Due to the small proportion of respondents with no education, throughout the rest of this report, those with no education will be presented in combination with those with elementary level education.

Generally, rural respondents are less educated than their urban counterparts. Over half of the rural respondents have attained only elementary education or less. This is in contrast to urban respondents, whose educational attainment is more equally distributed between elementary, high school, and college education.

The educational distribution of in-union SMS respondents resembles that of their husband or partner. In general, SMS respondents have married men of their own educational level or one level higher (data not shown).

Table 3.3 shows the distribution of SMS respondents by region. Nearly 40 percent of all respondents reside in Metropolitan Manila and its contiguous regions, Central Luzon and Southern Tagalog. Metropolitan Manila alone accounts for 28 percent of urban respondents.

The geographical distribution of the SMS sample is very similar to the NDS with the exception that Metropolitan Manila is slightly underrepresented. Although, nonresponse in the SMS was similar in the urban and rural areas, urban nonresponse stemmed disproportionately from Metropolitan Manila.

Excluding current pregnancies, the majority (55 percent) of SMS respondents have had at least four pregnancies, over half of these women have had six or more pregnancies (see Table 3.3). As expected, rural women report a greater number of pregnancies than urban women.

Among SMS respondents, nearly half (46 percent) have used a modern contraceptive method at some time and a quarter are current users. As expected, both ever use and current use of contraceptives is higher among urban than rural women.

In the 1993 NDS, respondents who said they worked were asked whether they derived income from their usual activity. Such information was culled from the NDS data file for women who were successfully interviewed in the SMS. Some 45 percent of the SMS respondents reported earning a wage or salary from their economic activity. This percentage increases with age, ranging from 22 percent among women 20-24 years old to 56 percent among women 45 and over (see Table 3.5). SMS respondents earning a wage or salary is highest among those with some college education (59 percent).

Table 3.5 Wage/salary employment and presence of a paid helper in home

Percentage of SMS respondents who reported during the NDS that they earned a regular wage or salary and the percentage with a paid helper in the home, according to background characteristics, Philippines, 1993 SMS

Background characteristic	Percent earning a wage/ salary	Percent with paid helper in home	Number of respondents
Age group			
15-19	13.0	4.7	113
20-24	21.9	4.9	903
25-29	37.6	7.3	1,507
30-34	43.6	10.9	1,766
35-39	50.2	8.6	1,668
40-44	54.5	9.8	1,411
45-49	56.0	8.2	998
50+	58.0	4.7	110
No. of pregnancies			
1	41.9	9.7	988
2-3	44.2	11.6	2,858
4-5	44.5	8.5	2,263
6+	46.2	4.3	2,372
Education			
No educ./primary	42.6	2.6	3,739
High school/vo-tech	38.4	5.4	2,968
College	59.1	26.2	1,772
Residence			
Urban	46.6	12.7	4,383
Rural	42.4	4.0	4,098
Total	44.6	8.5	8,481

Information on a paid helper in the home was collected as an indicator of the socioeconomic status of the respondents. Paid helpers were defined broadly as any nonrelative who receives cash for services in the home, regardless of whether or not they reside in the household (see Table 3.5). The results indicate that about one in twelve respondents has a paid helper at home. Paid helpers were most commonly reported by respondents with a college education and those in urban areas.

CHAPTER 4

REPRODUCTIVE HISTORY

Indicators describing the reproductive history of ever-pregnant Filipino women presented in this chapter are based on the pregnancy history data collected from all SMS respondents. The pregnancy history, which was also collected during the NDS, asks respondents about the outcome of each pregnancy, whether the pregnancy was single or multiple, the date of pregnancy termination, gestational age for pregnancy losses, sex of the fetus/infant, whether the termination of the pregnancy was spontaneous or induced, date of birth for live born children and age at death for those who died. The pregnancy history used in the SMS was almost identical to that of the NDS. The main differences were that 1) the sex of stillborn children was asked only in the SMS, and 2) the residence of surviving children was asked only in the NDS. An additional difference was the inclusion in the SMS of a series of questions regarding the reasons for long birth intervals, to assist in detection of omitted pregnancies. A brief examination of the consistency of the pregnancy history data in the NDS and the SMS is included in Tables C.1, C.2, C.6, and C.7 of Appendix C.

The average number of pregnancies per respondent by pregnancy outcome and background characteristic of the respondent is presented in Table 4.1. In this report, *stillbirths* are defined as children born

Table 4.1 Average number of pregnancies by outcome

Average number of pregnancies among SMS respondents, by outcome, urban/rural residence, and selected background characteristics, Philippines, 1993 SMS

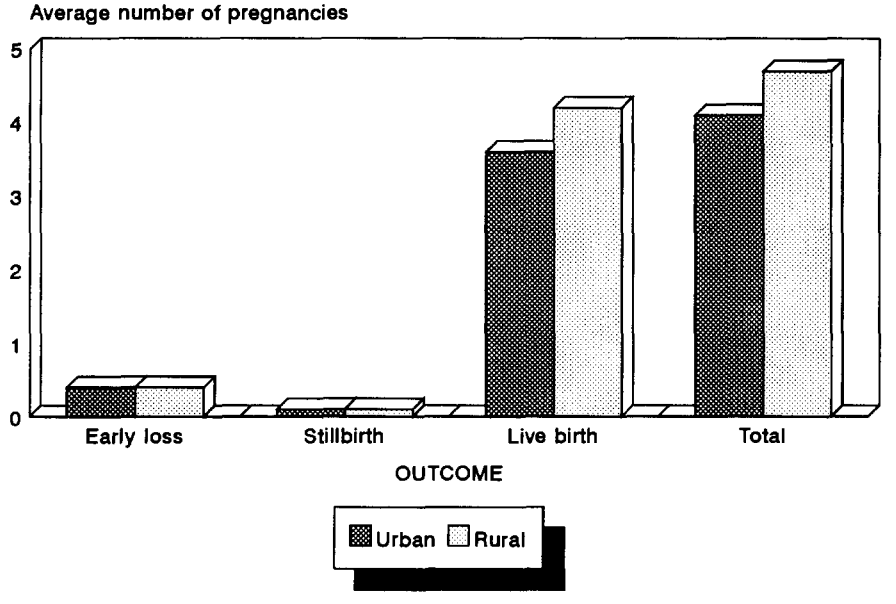
Background characteristic	Urban				Rural				Total			
	Early loss	Still-birth	Live birth	No. of respon-dents	Early loss	Still-birth	Live birth	No. of respon-dents	Early loss	Still-birth	Live birth	No. of respon-dents
Age group												
< 20	0.1	0.1	1.2	57	0.1	0.0	1.4	57	0.1	0.0	1.3	113
20-34	0.3	0.1	2.7	2,169	0.3	0.1	3.1	2,007	0.3	0.1	2.9	4,177
35+	0.5	0.1	4.5	2,157	0.5	0.2	5.5	2,034	0.5	0.2	5.0	4,191
Education												
No educ./primary	0.4	0.2	4.7	1,417	0.4	0.2	5.0	2,322	0.4	0.2	4.9	3,739
High school/vo-tech	0.3	0.1	3.3	1,728	0.3	0.1	3.4	1,240	0.3	0.1	3.4	2,968
College	0.3	0.1	2.7	1,237	0.3	0.1	2.9	535	0.3	0.1	2.8	1,772
Region												
Metro. Manila	0.3	0.1	3.0	1,232	*	*	*	0	0.3	0.1	3.0	1,232
Cordillera Admin.	0.4	0.1	3.7	74	0.5	0.2	4.5	73	0.5	0.1	4.1	147
Ilocos	0.4	0.1	3.8	137	0.4	0.1	4.1	347	0.4	0.1	4.0	484
Cagayan Valley	0.5	0.2	3.7	94	0.4	0.2	3.7	239	0.4	0.2	3.7	333
C-Luzon	0.4	0.1	3.5	518	0.3	0.1	3.8	397	0.4	0.1	3.7	914
S-Tagalog	0.4	0.1	3.6	595	0.4	0.1	4.1	562	0.4	0.1	3.9	1,157
Bicol	0.5	0.1	4.4	145	0.4	0.2	4.6	390	0.4	0.2	4.6	535
W-Visayas	0.4	0.1	3.8	280	0.4	0.1	4.3	375	0.4	0.1	4.1	655
C-Visayas	0.4	0.1	3.3	321	0.4	0.1	4.5	337	0.4	0.1	3.9	659
E-Visaya	0.4	0.2	4.1	162	0.4	0.1	4.5	220	0.4	0.1	4.3	382
W-Mindanao	0.3	0.1	4.2	152	0.3	0.1	4.5	305	0.3	0.1	4.4	457
N-Mindanao	0.4	0.1	4.2	205	0.3	0.1	4.4	268	0.4	0.1	4.3	473
S-Mindanao	0.4	0.1	4.0	270	0.4	0.2	4.1	346	0.4	0.1	4.0	616
C-Mindanao	0.3	0.1	4.3	199	0.3	0.1	4.6	239	0.3	0.1	4.5	438
Total	0.4	0.1	3.6	4,383	0.4	0.1	4.2	4,098	0.4	0.1	3.9	8,481

Note: *Stillbirths* are children born dead after a gestation of seven or more completed months.
* Fewer than 25 unweighted cases.

dead after a gestation of seven or more completed months. All other non-live births are classified as early losses, that is, spontaneous and induced abortions.

Among all SMS respondents, the average number of pregnancies combined is 4.4, while the average number of live births is 3.9. Urban fertility is lower than rural fertility throughout the country, with Metropolitan Manila showing a lower average number of live births (3.0) than any other region. Higher education is associated with lower fertility in both the urban and rural areas. The average number of early pregnancy losses (miscarriages and induced abortions) is 0.4 per woman and the average number of late pregnancy losses, or stillbirths, is 0.1 (see Figure 4.1). In contrast to live births, there is no variation in the average number of pregnancy losses by urban/rural residence or by level of education.

Figure 4.1
Average number of pregnancies per respondent by residence and outcome



More than a quarter of the SMS respondents reported having had an early pregnancy loss at some time, and four percent reported having had a stillbirth (see Table 4.2). Less educated respondents were more likely to experience both types of pregnancy loss, which may, at least in part, be explained by the large proportion of older women at the lower education levels.

Table 4.2 Pregnancy loss and stillbirths

Percentage of SMS respondents who reported ever having had a pregnancy loss, by type of loss and background characteristics, Philippines, 1993 SMS

Background characteristic	Percent reporting an early loss	Percent reporting a still-birth	Percent reporting any loss	Number of respon-dents
Age group				
< 20	9.4	0.0	12.2	113
20-34	21.3	3.3	26.5	4,177
35+	33.8	5.3	41.7	4,191
Education				
No educ./primary	30.2	5.7	39.0	3,739
High school/vo-tech	25.1	3.6	30.6	2,968
College	24.8	2.5	28.2	1,772
Residence				
Urban	26.9	3.7	32.6	4,383
Rural	27.8	4.9	35.1	4,098
Region				
Metro. Manila	23.3	2.9	28.1	1,232
Cordillera Admin.	31.2	4.4	37.1	147
Ilocos	29.8	3.8	36.9	484
Cagayan Valley	30.0	8.4	39.5	333
C-Luzon	26.6	4.2	31.9	914
S-Tagalog	28.6	3.0	34.5	1,157
Bicol	30.9	6.2	38.8	535
W-Visayas	27.6	4.2	34.0	655
C-Visayas	29.1	3.5	35.6	659
E-Visayas	29.3	5.4	36.3	382
W-Mindanao	24.9	3.7	32.2	457
N-Mindanao	27.3	4.4	34.1	473
S-Mindanao	27.8	6.6	35.6	616
C-Mindanao	23.4	4.2	31.0	438
Total	27.3	4.3	33.8	8,481

Note: *Stillbirths* are children born dead after a gestation of seven or more completed months.

4.1 Current Pregnancy

The SMS questionnaire also asked about current pregnancy status and month of gestation for those reporting a current pregnancy. Eight percent of respondents reported being pregnant at the time of the survey. Only a small percentage of respondents aged 35 and over reported a current pregnancy, and a smaller percentage of urban and well-educated respondents reported a current pregnancy compared to their rural and less educated counterparts (see Table 4.3).

Table 4.3 Current pregnancies

Percentage of SMS respondents who were pregnant at the time of the interview, by background characteristics, Philippines, 1993 SMS

Background characteristic	Percent pregnant	Number of respondents
Age group		
< 20	12.4	113
20-34	12.8	4,177
35+	3.4	4,191
Education		
No educ./primary	8.6	3,739
High school/vo-tech	8.4	2,968
College	6.8	1,772
Residence		
Urban	6.7	4,383
Rural	9.7	4,098
Region		
Metro. Manila	6.4	1,232
Cordillera Admin.	9.9	147
Ilocos	9.1	484
Cagayan Valley	8.6	333
C-Luzon	6.9	914
S-Tagalog	6.7	1,157
Bicol	11.2	535
W-Visayas	9.4	655
C-Visayas	8.7	659
E-Visayas	9.3	382
W-Mindanao	8.0	457
N-Mindanao	9.4	473
S-Mindanao	8.3	616
C-Mindanao	9.2	438
Total	8.2	8,481

Some degree of underreporting of current pregnancies at early gestational ages is expected since women may be unaware of or less willing to reveal their pregnancy status. In fact, Table 4.4 shows that fewer than four percent of respondents reported gestational ages below two months compared with 10 to 15 percent who reported gestational ages between two and eight months.

4.2 Perinatal Mortality

Perinatal mortality reflects an adverse outcome for pregnancies of at least seven months gestation. The *perinatal mortality* rate is defined as the sum of all stillbirths and early neonatal deaths (deaths to children within the first week of life), divided by the sum of all stillbirths and live births. The impetus behind the perinatal mortality rate is to capture two seemingly different events (stillbirths and early neonatal deaths), which in fact, result from very similar causes.

The measurement of perinatal mortality is difficult because it is based on reporting of pregnancy losses and pregnancy duration (in order to define stillbirths), and child deaths within the first week of life. All of these events are highly susceptible to omission and/or misreporting. Nevertheless, retrospective surveys should provide more representative and complete enumeration of perinatal deaths than do reliance on most vital registration systems and hospital-based studies.

The perinatal mortality rate for the period ten years preceding the SMS survey is 27.1 perinatal deaths per 1,000 stillbirths and live births (see Table 4.5). First pregnancies and sixth and higher order pregnancies are at increased risk of perinatal loss, as are pregnancies to women with less than college education (see Figure 4.2). Perinatal mortality does not vary by urban/rural residence.

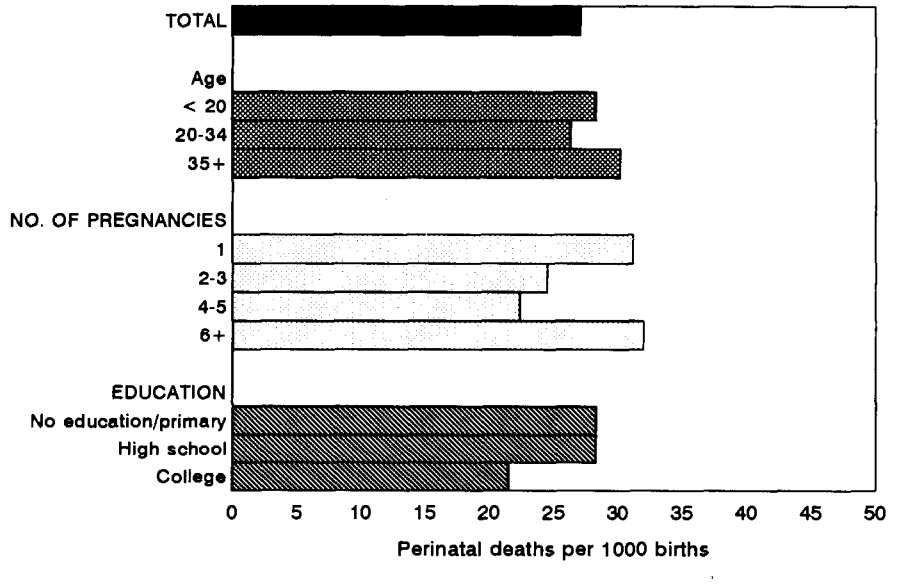
The expected ratio of stillbirths to early neonatal deaths is approximately one to one, with variation ranging from approximately 0.5 to 1.5 depending on levels of care and classification practices (Hoffman et al., 1984). The perinatal mortality rate resulting from the vital registration in 1987 was 15 per 1,000 births,

Table 4.4 Gestational age: current pregnancies

Percent distribution of currently pregnant SMS respondents by gestational age (length of gestation in months), Philippines, 1993 SMS

Gestational age (months)	Percent currently pregnant
< 1	0.1
1	3.7
2	10.0
3	12.0
4	12.3
5	12.5
6	11.8
7	14.3
8	15.2
9	7.9
DK/missing	0.3
Total percent	100.0
Number of respondents	692

Figure 4.2
Perinatal mortality by age, number of pregnancies, and education



1993 SMS

births, with a ratio of one stillbirth to four early neonatal deaths (Casabal, 1987). This ratio clearly indicates underregistration of stillbirths. The ratio of stillbirths to early neonatal deaths in the SMS is one to 1.5, which is within a plausible range.

Table 4.5. Perinatal mortality

Perinatal mortality rates for the ten-year period preceding the interview, by background characteristics of mother and sex of child, Philippines, 1993 SMS

Background characteristic	Perinatal mortality rate 0-9 years preceding interview
Age group	
< 20	28.6
20-34	26.3
35+	30.2
No. of pregnancies at event	
1	31.2
2-3	24.5
4-5	22.4
6+	32.0
Education	
No educ./primary	28.3
High school/vo-tech	28.3
College	21.5
Residence	
Urban	26.7
Rural	27.5
Sex of child	
Male	26.1
Female	23.8
Total	27.1

Note: *Perinatal mortality* is the number of stillbirths and early neonatal deaths (live births dying before day 7) per 1,000 stillbirths and live births.

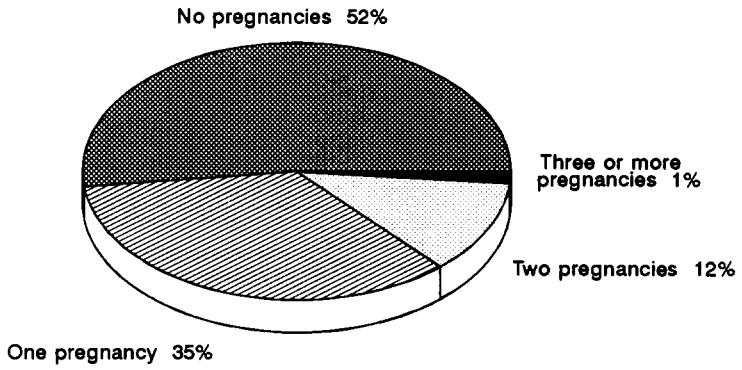
CHAPTER 5

MATERNAL CARE

One objective of the Safe Motherhood Survey was to learn more about the health care women receive during pregnancy, childbirth, and in the postpartum period. Detailed questions on these topics were asked to all respondents who reported having a pregnancy in the three years preceding the survey. This reference period was chosen to avoid biases introduced by focusing solely on the last pregnancy, and to minimize problems with recall.

This chapter describes the findings on prenatal, delivery, and postpartum care received by the 48 percent of respondents who reported having a pregnancy in the three years preceding the survey (see Figure 5.1). The main difference between respondents with recent pregnancies and the 52 percent who were not pregnant during the three-year reference period is age; recent pregnancies are most prevalent among respondents under age 35 (see Table 5.1).

Figure 5.1
Number of pregnancies per respondent in the three years prior to the survey



1993 SMS

5.1 Prenatal Care Provider and Place of First Visit

Ideally, prenatal care functions to identify and monitor women at risk of future complications, to detect and treat pre-existing and concurrent illnesses of pregnancy, to provide preventive care and information to women and their families, and to establish a relationship between providers and women early in pregnancy.

Table 5.1 Recent pregnancies

Percent distribution of respondents by the number of pregnancies during the last three years, according to background characteristics, Philippines, 1993 SMS

Background characteristic	Pregnancies in last three years				Total percent	No. of respondents
	0	1	2	3+		
Age group						
< 20	2.6	71.0	24.9	1.5	100.0	113
20-34	31.0	48.0	18.9	2.1	100.0	4,177
35+	74.1	20.7	4.6	0.6	100.0	4,191
No. of pregnancies						
1	47.2	52.8	0.0	0.0	100.0	988
2-3	50.4	32.4	16.0	1.1	100.0	2,858
4-5	56.2	31.3	10.9	1.6	100.0	2,263
6+	51.6	33.6	12.8	1.9	100.0	2,372
Education						
No educ./primary	53.2	33.9	11.4	1.5	100.0	3,739
High school/vo-tech	47.6	38.0	13.0	1.4	100.0	2,968
College	56.7	31.5	10.9	0.9	100.0	1,772
Residence						
Urban	55.0	32.4	11.3	1.3	100.0	4,383
Rural	48.6	37.4	12.6	1.4	100.0	4,098
Region						
Metro. Manila	58.3	30.9	9.5	1.4	100.0	1,232
Cordillera Admin.	44.1	34.9	18.0	2.9	100.0	147
Ilocos	51.4	34.7	12.4	1.6	100.0	484
Cagayan Valley	53.9	37.6	7.9	0.6	100.0	333
C-Luzon	57.7	31.4	10.1	0.8	100.0	914
S-Tagalog	52.2	34.9	10.9	1.9	100.0	1,157
Bicol	40.6	40.6	16.9	1.9	100.0	535
W-Visayas	49.8	37.8	10.8	1.6	100.0	655
C-Visayas	51.8	35.7	11.1	1.4	100.0	659
E-Visayas	50.3	35.8	12.2	1.6	100.0	382
W-Mindanao	47.6	35.5	15.5	1.4	100.0	457
N-Mindanao	46.8	38.0	14.3	1.0	100.0	473
S-Mindanao	55.3	31.1	13.2	0.5	100.0	616
C-Mindanao	47.2	38.0	13.7	1.1	100.0	438
Total	51.9	34.8	11.9	1.4	100.0	8,481

Respondents reporting a pregnancy in the three years prior to the survey were asked whether they saw anyone for prenatal care and if so whom they saw. They were also asked whether they were given a tetanus toxoid injection during pregnancy. Data on service utilization were analyzed for pregnancies ending in either a stillbirth or a live birth, that is, early losses were not included. This was done because many miscarriages occurred early in the first trimester, leaving less time for prenatal care to be initiated. Table 5.2 presents these results for all stillbirths and live births in the past three years. Multiple responses for providers of prenatal care were accepted, that is, the categories are not mutually exclusive.

Table 5.2 Prenatal care

Among stillbirths and live births in the last three years, the percentage receiving prenatal care from specific providers, and the percentage of births for which the mothers received a tetanus toxoid injection, according to background characteristics and perinatal outcome, Philippines, 1993 SMS

Characteristic	Prenatal care provider							Mother received tetanus toxoid	Number of births
	No one	Doctor	Nurse	Midwife	Hilot	Other	Missing		
Age group at event									
< 20	5.7	28.9	3.7	61.5	31.9	0.0	0.0	72.8	334
20-34	5.8	36.2	5.4	57.9	26.9	0.3	0.0	72.0	3,585
35+	8.2	32.3	3.8	54.7	33.1	0.6	0.1	65.2	838
No. of pregnancies at event									
1	2.6	51.1	6.5	51.7	23.2	0.1	0.1	75.1	769
2-3	4.1	41.7	6.1	55.4	24.1	0.3	0.0	75.2	1,678
4-5	6.7	31.0	4.6	61.0	27.0	0.1	0.1	69.3	1,082
6+	10.9	19.3	2.8	61.2	38.5	0.7	0.1	63.5	1,228
Education									
No educ./primary	9.1	16.1	2.8	63.4	38.9	0.4	0.0	63.9	2,059
High school/vo-tech	5.0	38.4	5.5	61.3	23.2	0.4	0.1	78.2	1,798
College	1.9	71.6	8.8	36.7	14.3	0.0	0.1	71.8	896
Residence									
Urban	5.7	50.8	6.8	47.4	19.1	0.2	0.0	70.7	2,295
Rural	6.7	20.3	3.3	67.0	36.9	0.5	0.1	70.9	2,462
Region									
Metro. Manila	7.9	80.8	12.3	19.7	1.0	0.0	0.0	58.3	584
Cordillera Admin.	10.9	33.2	16.1	67.4	10.9	0.0	0.0	84.5	105
Ilocos	10.7	34.1	7.6	63.4	10.1	0.0	0.0	69.1	267
Cagayan Valley	10.1	33.6	6.7	66.4	17.2	0.0	0.0	76.9	170
C-Luzon	3.8	50.8	6.9	53.8	2.7	0.3	0.0	81.0	432
S-Tagalog	6.4	38.5	2.0	58.2	12.7	0.0	0.0	79.8	638
Bicol	5.4	14.9	3.5	64.9	50.5	0.5	0.0	49.7	371
W-Visayas	8.3	26.9	2.1	65.0	35.2	0.5	0.0	77.5	379
C-Visayas	6.2	25.6	0.2	69.5	20.2	0.2	0.5	73.4	379
E-Visayas	3.8	31.9	8.1	64.6	36.9	1.5	0.0	76.2	225
W-Mindanao	4.8	11.1	2.6	51.3	77.2	0.3	0.0	51.6	301
N-Mindanao	5.9	20.2	4.1	70.0	36.4	0.0	0.0	80.6	297
S-Mindanao	3.1	20.3	3.1	72.4	63.8	1.4	0.0	73.5	332
C-Mindanao	3.6	20.9	1.1	60.6	53.6	0.0	0.3	72.1	276
Pregnancy outcome									
Perinatal death	14.1	31.0	3.2	53.7	26.2	0.8	0.8	62.8	117
Live birth surviving 1st wk	6.0	35.1	5.0	57.7	28.4	0.3	0.0	71.0	4,639
Total	6.2	35.0	5.0	57.6	28.3	0.3	0.1	70.8	4,757

Note: Respondents could give more than one response for provider of prenatal care.

Only six percent of the births were to respondents who did not receive prenatal care from anyone (see Table 5.2). Midwives were the main provider of prenatal care (58 percent), followed by doctors (35 percent), and *hilots*, that is, traditional birth attendants (28 percent). Nurses provided prenatal care in very few cases. In 71 percent of the births, the mother received at least one tetanus toxoid injection. Births in Metropolitan Manila, where women were more likely to receive prenatal care from a doctor, were also to women among the least likely to receive tetanus immunization (58 percent).

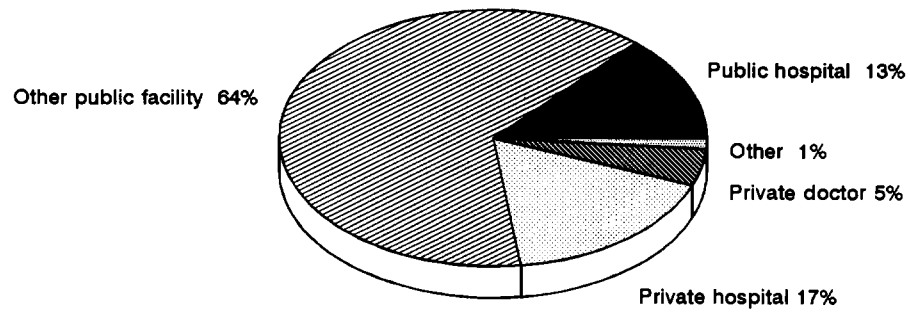
Respondents having their first birth were more likely to see a doctor for prenatal care. Respondents with primary or no education, and to those living in rural areas were more likely to receive care from a midwife or a hilot. Those with a college education, and to those in urban areas most often saw a doctor. Less educated respondents were also less likely to have received tetanus toxoid.

Respondents in the Mindanao regions and in Bicol were least likely to see a doctor for prenatal care, while eight out of ten in Metropolitan Manila saw doctors. Over half of the births in Bicol, Western, Southern, and Central Mindanao were to women who were seen by hilots for prenatal care.

Fourteen percent of the births ending in a perinatal death were to women who saw no one for care compared to six percent of births surviving beyond the first week of life. These births were also less likely to have been to mothers receiving tetanus during pregnancy (see Table 5.2).

For births in which respondents reported seeing a doctor, nurse or midwife for care, mothers were also asked where they received their first such prenatal check-up. More than 60 percent went to a public health facility *other than* a hospital or clinic, such as a barangay health station (BHS) or a the rural health unit (RHU) (see Figure 5.2).

Figure 5.2
Place of first prenatal care visit for births in the three years prior to the survey



1993 SMS

Births to respondents under 20 were less likely to go to a private hospital, though first births, births to those with more education, and urban births and those in urbanized regions were more likely to go to private hospitals (see Table 5.3).

Table 5.3 Place of first prenatal care

Among stillbirths and live births in the last three years, for which respondents received prenatal care from health personnel, the percent distribution of the place respondents went for the first prenatal care visit, according to background characteristics and perinatal outcome, Philippines, 1993 SMS

Characteristic	Place of first prenatal care visit							Total percent	Number of births
	Public hospital/ clinic	Other public health	Private hospital	Private doctor	Other private	Other	Missing		
Age group at event									
< 20	14.7	70.9	8.1	4.4	0.0	1.9	0.0	100.0	272
20-34	13.0	62.8	18.2	4.5	0.4	1.1	0.0	100.0	3,077
35+	14.4	63.3	15.9	4.9	0.2	1.3	0.0	100.0	661
No. of pregnancies at event									
1	14.2	51.9	25.8	7.2	0.0	1.0	0.0	100.0	701
2-3	13.4	59.2	21.0	5.2	0.2	0.9	0.0	100.0	1,486
4-5	13.6	66.3	14.1	4.2	0.6	1.1	0.1	100.0	915
6+	12.4	76.3	7.0	2.0	0.3	2.0	0.0	100.0	909
Education									
No educ./primary	9.2	81.6	5.6	1.6	0.3	1.7	0.0	100.0	1,528
High school/vo-tech	16.0	63.1	15.4	3.9	0.2	1.2	0.0	100.0	1,619
College	15.7	31.6	40.8	11.2	0.4	0.3	0.0	100.0	862
Residence									
Urban	18.2	50.1	25.0	5.6	0.3	0.9	0.0	100.0	2,036
Rural	8.4	77.2	8.9	3.6	0.3	1.5	0.0	100.0	1,975
Region									
Metro. Manila	27.8	28.9	38.4	3.7	0.6	0.6	0.0	100.0	535
Cordillera Admin.	25.0	59.8	12.2	1.8	0.0	1.2	0.0	100.0	89
Ilocos	12.9	69.1	10.3	6.6	0.0	1.1	0.0	100.0	229
Cagayan Valley	8.4	68.3	9.4	12.4	1.5	0.0	0.0	100.0	144
C-Luzon	17.5	52.9	20.5	7.9	0.6	0.6	0.0	100.0	406
S-Tagalog	16.3	57.4	22.1	2.4	0.0	1.7	0.0	100.0	576
Bicol	8.9	80.1	5.7	2.8	0.4	2.1	0.0	100.0	282
W-Visayas	5.3	76.7	10.7	6.0	0.3	0.9	0.0	100.0	312
C-Visayas	5.1	71.7	15.9	7.1	0.0	0.3	0.0	100.0	330
E-Visayas	21.0	59.3	10.3	0.9	0.0	8.4	0.0	100.0	185
W-Mindanao	10.4	81.4	4.5	2.7	0.0	0.9	0.0	100.0	176
N-Mindanao	5.0	78.2	14.1	2.6	0.0	0.0	0.0	100.0	261
S-Mindanao	3.7	79.8	11.4	4.0	1.0	0.0	0.0	100.0	275
C-Mindanao	9.2	73.5	11.8	4.0	0.0	1.1	0.4	100.0	210
Pregnancy outcome									
Perinatal death	16.1	63.6	14.6	3.8	0.0	2.0	0.0	100.0	90
Live birth surviving 1st week	13.3	63.4	17.2	4.6	0.3	1.2	0.0	100.0	3,921
Total	13.4	63.4	17.1	4.6	0.3	1.2	0.0	100.0	4,010

5.2 Number of Prenatal Visits and Gestation at First Visit

The standard recommendation of the Department of Health regarding the number and timing of prenatal visits is that all women have a minimum of three visits during pregnancy, with at least one visit in each trimester. For births in which the respondent saw a doctor, nurse, or midwife for prenatal care, the respondent was asked how many months pregnant she was at her first such visit and how many such visits she made. Eight in ten of these births were to respondents who saw a doctor, nurse, or midwife for at least three prenatal visits, with almost half having their first visit in the first trimester (see Table 5.4). The median number of visits decreases the later in pregnancy the first visit is made (see Figure 5.3 and Table 5.5).

Table 5.4 Number of prenatal care visits

Among stillbirths and live births in the last three years for which the respondent received prenatal care from health personnel, the percent distribution of the number of prenatal care (PNC) visits and of the stage of pregnancy at the time of first visit, Philippines, 1993 SMS

No. of visits/ stage of pregnancy	Percent
Prenatal care visits	
1	6.9
2	11.8
3+	81.3
Median no. of visits	3.8
Months pregnant at 1st PNC	
< 4	48.0
4-6	43.8
7+	8.1
Total percent	100.0
Number	4,010

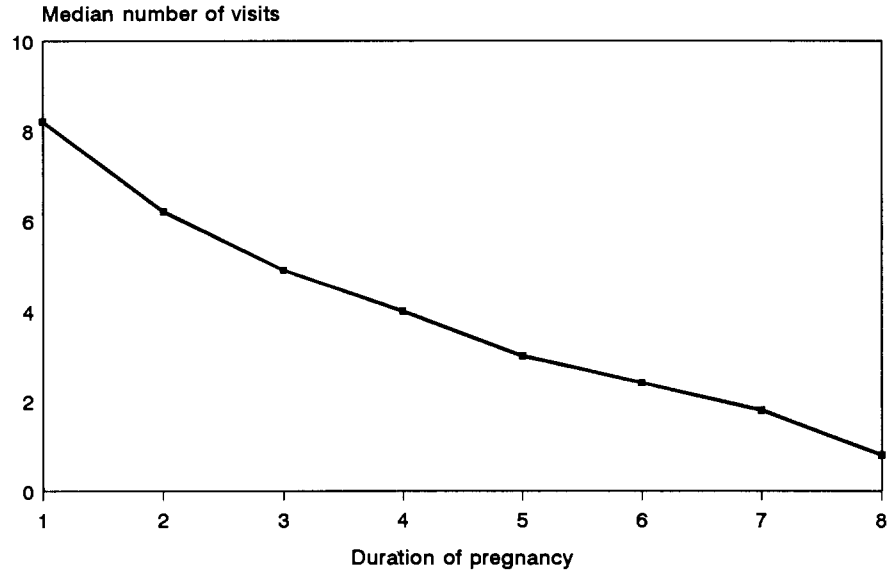
Table 5.5 Median number of prenatal care visits

Among stillbirths and live births in the last three years for which prenatal care was received from health personnel, the median number of prenatal care (PNC) visits by stage of pregnancy at the time of first visit, Philippines, 1993 SMS

Stage of pregnancy	Median no. of PNC visits	No. of births
Months pregnant at 1st PNC		
< 1	6.8	*
1	8.2	377
2	6.2	498
3	4.9	1,041
4	4.0	572
5	3.0	804
6	2.4	380
7	1.8	205
8+	0.8	120
DK/missing	3.0	*
Total	3.8	4,010

* Fewer than 25 unweighted cases.

Figure 5.3
Median number of prenatal care visits by duration of pregnancy at time of first visit



5.3 Reason for First Visit

For births in which respondents saw a doctor, nurse, or midwife for a prenatal check-up, the respondent was asked the most important reason which prompted her first visit. Among those with care from a trained provider, the main reason for the first visit in more than half of the births was to find out if the baby was healthy (see Table 5.6), while 32 percent went because they wanted to assure a healthy pregnancy. Only four percent reported that they went because of a problem. Older and higher parity women, as well as those whose births ended in perinatal death were more likely to seek prenatal care because of a problem.

5.4 Content of Prenatal Care

For pregnancies in which respondents saw a doctor, nurse, or midwife for a prenatal check-up, the respondent was asked whether or not she received any of a list of various components of care during any of her visits. The percentage of births for which respondents received each of the listed components of prenatal care is shown in Table 5.7 and Figure 5.4.

Table 5.6 Reasons for first prenatal care visit

Among stillbirths and live births in the last three years, the percentage for which care was received from a trained provider, and the percent distribution of reasons for first prenatal care (PNC) visit, according to background characteristics, perinatal outcome, and place of first PNC visit, Philippines, 1993 SMS

Characteristic	Received PNC	Reason for first prenatal care visit									Total percent	Number of births
		Find out about baby	Book for delivery	To find if pregnant	Urging by others	Routine	Have safe pregnancy	Because of a problem	Other	Missing		
Age group at event												
< 20	81.6	54.4	0.0	3.7	2.4	0.6	36.7	2.2	0.0	0.0	100.0	334
20-34	85.8	56.4	0.4	4.7	1.5	1.7	31.4	3.3	0.3	0.2	100.0	3,585
35+	78.9	53.4	0.0	4.0	2.0	3.0	31.0	6.0	0.6	0.0	100.0	838
No. of pregnancies at event												
1	91.1	54.3	0.5	7.2	1.5	0.5	33.8	2.2	0.1	0.0	100.0	769
2-3	88.6	57.4	0.4	4.4	1.2	1.8	31.8	2.7	0.2	0.2	100.0	1,678
4-5	84.5	57.0	0.1	4.2	1.2	2.4	31.0	3.4	0.6	0.2	100.0	1,082
6+	74.0	52.9	0.2	3.2	3.1	2.6	30.7	6.7	0.5	0.0	100.0	1,228
Education												
No educ./primary	74.2	51.5	0.5	3.0	2.9	2.2	33.9	5.5	0.4	0.0	100.0	2,059
High school/vo-tech	90.0	60.1	0.2	4.3	1.0	1.5	29.4	2.8	0.4	0.4	100.0	1,798
College	96.1	55.2	0.2	7.8	0.8	2.0	31.9	2.0	0.2	0.0	100.0	896
Residence												
Urban	88.7	57.2	0.3	5.8	0.9	1.2	31.4	2.8	0.1	0.2	100.0	2,295
Rural	80.2	54.3	0.3	3.2	2.4	2.6	32.0	4.5	0.6	0.1	100.0	2,462
Region												
Metro. Manila	91.6	65.3	0.6	6.6	0.0	0.3	26.9	0.3	0.0	0.0	100.0	584
Cordillera Admin.	85.0	60.4	0.0	1.2	2.4	4.3	23.2	7.9	0.6	0.0	100.0	105
Ilocos	85.8	54.0	0.4	7.0	2.2	3.3	27.9	4.8	0.4	0.0	100.0	267
Cagayan Valley	84.9	23.3	0.0	3.5	3.5	2.5	47.5	18.8	1.0	0.0	100.0	170
C-Luzon	94.0	70.5	0.6	6.7	0.6	0.0	17.0	4.1	0.6	0.0	100.0	432
S-Tagalog	90.3	54.7	0.0	7.3	0.0	0.5	34.1	2.4	0.2	0.7	100.0	638
Bicol	75.9	46.3	0.0	5.0	0.0	1.4	40.9	5.3	1.1	0.0	100.0	371
W-Visayas	82.4	48.7	0.3	1.9	2.2	6.6	34.9	5.3	0.0	0.0	100.0	379
C-Visayas	86.9	63.2	0.0	5.7	4.8	3.1	22.1	1.1	0.0	0.0	100.0	379
E-Visayas	82.3	44.9	0.0	2.3	3.7	0.5	40.7	7.5	0.5	0.0	100.0	225
W-Mindanao	58.5	33.0	0.0	1.4	0.0	0.5	62.9	2.3	0.0	0.0	100.0	301
N-Mindanao	87.9	61.8	0.9	1.8	3.2	0.9	27.9	3.5	0.0	0.0	100.0	297
S-Mindanao	82.7	58.9	0.3	1.3	4.4	6.1	26.3	1.3	1.3	0.0	100.0	332
C-Mindanao	76.0	56.3	0.7	1.1	1.1	0.0	38.6	1.5	0.0	0.7	100.0	276
Pregnancy outcome												
Perinatal death	76.3	55.8	0.0	2.0	4.2	4.1	23.3	9.5	1.0	0.0	100.0	117
Live birth surviving 1st week	84.5	55.7	0.3	4.6	1.6	1.8	31.9	3.5	0.3	0.1	100.0	4,639
Place of first prenatal care												
Public hospital	a	62.6	0.5	4.7	0.5	0.7	27.1	3.5	0.2	0.3	100.0	613
Other public health	a	55.9	0.3	2.4	2.2	2.2	32.7	3.8	0.4	0.1	100.0	3,074
Private hospital	a	53.2	0.2	11.2	0.8	1.4	30.6	2.3	0.3	0.0	100.0	776
Private doctor	a	43.8	0.0	10.9	1.2	2.1	35.8	6.3	0.0	0.0	100.0	215
Other private	a	54.2	0.0	0.0	7.5	7.5	17.1	13.7	0.0	0.0	100.0	18
Other	a	56.4	0.0	0.0	0.0	1.8	34.1	3.9	3.9	0.0	100.0	60
Total	84.3	55.7	0.3	4.6	1.7	1.9	31.7	3.7	0.4	0.1	100.0	4,757

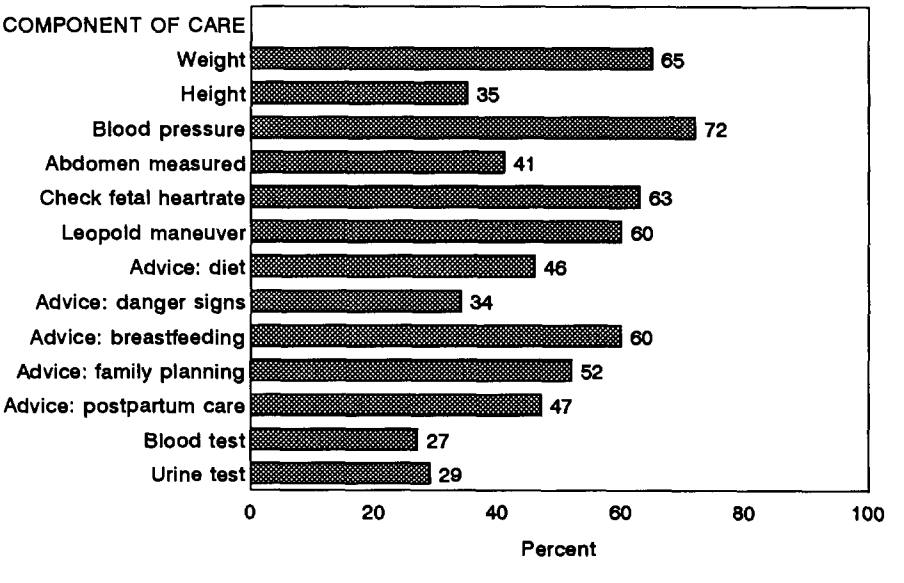
[a]Only those receiving care from a doctor, nurse, or midwife were asked where their first visit took place

Table 5.7 Components of prenatal care

Among pregnancies for which prenatal care (PNC) was received from a doctor, nurse, or midwife, the percentage for which respondents received specific components of prenatal care, Philippines, 1993 SMS

Component of prenatal care	Percentage of pregnancies
Weight	65
Height	35
Blood pressure	72
Abdomen measured	41
Listened to baby	63
Check baby's position	60
Test on blood	27
Test on urine	29
Internal exam	21
Referral for hospital delivery	18
Tetanus toxoid injection	63
Ultrasound	6
X-ray of abdomen	3
Received:	
Information on:	
Diet	46
Danger signs of pregnancy	34
Breastfeeding	60
Family planning	52
Postpartum care	47
Iron tablets	68
Pink prenatal card	42
No. of pregnancies for which PNC was received	5,363

Figure 5.4
Components of prenatal care received for births in the three years prior to the survey



1993 SMS

The standard recommendation of the Department of Health regarding the content of routine prenatal care includes twelve components. These components are listed below and fall into two categories: 1) examination/preventive services, and 2) advice and information. Referral and laboratory services are not included because they are recommended only in specific cases; whereas, the twelve components should be provided to all women at some point during prenatal care.

Department of Health Components of Recommended Prenatal Care

Examination/preventive services	**Advice and information on:**
Weight	Diet
Height	Danger signs of pregnancy
Blood pressure	Breastfeeding
Fundal height ("abdomen measured")	Family planning
Fetal heart auscultation ("listened to baby")	Postpartum care
Leopold maneuver ("checked baby's position")	
Tetanus toxoid injection	

None of the respondents reported receiving all twelve of the recommended components of prenatal care. Table 5.8 presents the number of components reported collapsed into three categories, none (< 1 percent), one to five (23 percent), and six to eleven (77 percent), by background characteristics. There were no major differences by age, but births to respondents of higher parity, or less education, or living in rural areas were more likely than their counterparts to fall into the category of receiving fewer components of care. Respondents in Metropolitan Manila, those who attended a hospital for care, and those with children who survived the first week of life were more likely to have received more of the recommended components of care.

5.5 Delivery Care Provider

Though most women experience no major problems during labor and delivery, complications that do occur can be unpredictable and sudden in onset, requiring immediate action. Maternal and perinatal outcome in such instances are improved when such complications occur in the presence of a trained attendant.

The choice of attendant during delivery may be associated with the mother's characteristics, and delivery care received could have an effect on the pregnancy outcome, particularly when complications arise. Table 5.9 presents the percentage of stillbirths and live births in the three years before the survey for which the mother received delivery care from specific providers, by background characteristics, pregnancy outcome, and place of delivery. Multiple responses for birth attendant were accepted.

The majority (52 percent) were attended by hilots, followed by midwives, who assisted in over a third (35 percent). Just over a quarter of the births were to respondents reporting assistance by a doctor, while 15 percent were attended by a nurse.

Educational level is an important factor relating to the type of attendant assisting during delivery, with births to respondents with college education more likely to delivery with a medically trained attendant. Variation in birth attendant is also seen for residence. Over a third of all births in urban areas were attended by a doctor, which is three times the number attended by doctors in rural areas. Hilots attend two-thirds of the births in rural areas.

Table 5.8 Recommended components of prenatal care

Among stillbirths and live births in the past three years for which respondents received prenatal care (PNC) from health personnel, the percent distribution of those receiving 0, 1-5, or 6-11 of the 12 recommended components of PNC, according to background characteristics, perinatal outcome, and place of first PNC visit, Philippines, 1993 SMS

Characteristic	Number of recommended components of PNC received			Total percent	Number of births
	0	1-5	6-11		
Age group at event					
< 20	0.3	24.1	75.6	100.0	272
20-34	0.3	22.0	77.7	100.0	3,077
35+	0.2	24.2	75.6	100.0	661
No. of pregnancies at event					
1	0.1	18.2	81.7	100.0	701
2-3	0.2	20.6	79.2	100.0	1,486
4-5	0.3	23.2	76.5	100.0	915
6+	0.3	28.2	71.5	100.0	909
Education					
No educ./primary	0.4	31.5	68.1	100.0	1,528
High school/vo-tech	0.2	20.2	79.6	100.0	1,619
College	0.0	10.8	89.2	100.0	862
Residence					
Urban	0.3	16.6	83.1	100.0	2,036
Rural	0.2	28.6	71.2	100.0	1,975
Region					
Metro. Manila	0.0	6.3	93.7	100.0	535
Cordillera Admin.	0.0	36.0	64.0	100.0	89
Ilocos	0.7	36.0	63.2	100.0	229
Cagayan Valley	0.5	27.2	72.3	100.0	144
C-Luzon	0.6	22.8	76.6	100.0	406
S-Tagalog	0.2	21.9	77.9	100.0	576
Bicol	0.4	29.9	69.8	100.0	282
W-Visayas	0.0	22.0	78.0	100.0	312
C-Visayas	0.3	27.5	72.2	100.0	330
E-Visayas	0.0	18.2	81.8	100.0	185
W-Mindanao	0.0	33.0	67.0	100.0	176
N-Mindanao	0.3	20.3	79.4	100.0	261
S-Mindanao	0.0	20.5	79.5	100.0	275
C-Mindanao	0.4	24.6	75.0	100.0	210
Pregnancy outcome					
Perinatal death	0.0	31.0	69.0	100.0	90
Live birth surviving 1st week	0.2	22.3	77.4	100.0	3,921
Place of first prenatal care					
Public hospital	0.0	12.6	87.4	100.0	536
Other public health	0.2	26.2	73.7	100.0	2,543
Private hospital	0.0	14.4	85.6	100.0	686
Private doctor	0.0	23.9	76.1	100.0	184
Other private	19.2	33.4	47.3	100.0	12
Other	5.0	47.8	47.2	100.0	48
Total	0.2	22.5	77.2	100.0	4,010

Poor perinatal outcome was less common among births in which the respondent was attended by a hilot or a midwife during delivery. This may reflect self-screening or referral for problem pregnancies or deliveries. Review of providers according to the place of delivery indicates that doctors and nurses only attend deliveries in facilities, and hilots attend three-quarters of the home deliveries. Midwives, who are professionally trained and community based, are the only providers existing at the interface between home and facility births, making them a key point of intervention in any maternal health program.

Table 5.9 Delivery care providers

Among stillbirths and live births in the last three years, the percentage receiving delivery care from specific persons, by background characteristics, perinatal outcome, and place of delivery, Philippines, 1993 SMS

Characteristic	Delivery care provider[1]							No.of births
	Doctor	Nurse	Midwife	Hilot	Relative	Other	Missing	
Age group at event								
< 20	25.9	11.6	35.0	53.5	36.0	4.8	0.0	334
20-34	27.1	15.4	34.9	50.3	28.1	6.1	0.1	3,585
35+	23.8	11.8	33.7	55.8	23.7	5.7	0.3	838
No. of pregnancies at event								
1	44.8	23.4	36.0	37.4	23.7	5.5	0.1	769
2-3	30.4	16.2	37.2	45.4	27.9	5.9	0.1	1,678
4-5	22.8	13.7	34.4	54.4	29.6	4.9	0.2	1,082
6+	12.7	7.2	30.8	66.0	29.0	7.1	0.4	1,228
Education								
No educ./primary	11.2	5.7	25.9	69.8	34.4	6.2	0.1	2,059
High school/vo-tech	27.8	14.8	41.4	45.2	28.1	5.7	0.2	1,798
College	58.8	33.7	41.6	22.1	12.6	5.8	0.3	896
Residence								
Urban	40.9	21.6	42.6	33.7	21.0	5.3	0.1	2,295
Rural	13.0	7.8	27.4	68.1	34.3	6.5	0.2	2,462
Region								
Metro. Manila	64.3	29.1	44.9	11.0	17.8	3.9	0.0	584
Cordillera Admin.	26.9	21.2	36.8	31.6	37.3	8.8	0.0	105
Ilocos	21.1	11.0	54.6	43.5	23.0	1.6	0.0	267
Cagayan Valley	15.1	8.8	31.1	71.4	49.2	3.4	0.0	170
C-Luzon	37.4	21.7	48.1	22.0	28.3	2.2	0.0	432
S-Tagalog	24.4	16.3	39.8	49.5	26.2	9.9	0.0	638
Bicol	10.8	4.3	27.6	69.5	21.6	5.7	0.0	371
W-Visayas	21.2	16.6	37.8	54.9	28.0	9.6	0.3	379
C-Visayas	29.3	15.8	29.1	53.9	19.2	11.8	1.0	379
E-Visayas	19.2	9.6	23.5	70.4	61.9	3.5	0.0	225
W-Mindanao	7.9	6.1	20.1	84.1	52.4	1.3	0.5	301
N-Mindanao	17.1	9.3	24.3	70.8	18.6	1.0	0.0	297
S-Mindanao	17.8	7.8	24.5	62.4	12.3	8.6	0.3	332
C-Mindanao	16.5	7.5	24.6	74.0	35.2	7.8	0.3	276
Pregnancy outcome								
Perinatal death	31.4	17.7	30.8	42.9	27.3	6.6	3.2	117
Live birth surviving 1st week	26.3	14.4	34.8	51.7	27.9	5.9	0.1	4,639
Place of delivery								
Home	0.7	1.0	32.0	73.2	38.4	6.7	0.1	3,322
Public facility	84.0	45.3	49.3	1.2	4.3	3.8	0.1	909
Private facility	90.8	46.9	26.7	1.4	2.5	4.8	0.0	520
Total	26.4	14.5	34.7	51.5	27.9	5.9	0.2	4,757

[1]Respondents could give more than one response for delivery care provider.

Table 5.10 presents four combinations of prenatal and delivery care for pregnancies and deliveries in the last three years according to background characteristics of the respondent and pregnancy outcome. The column headings separate maternity care into four categories: 1) both prenatal and delivery care received from a doctor, nurse, or midwife; 2) prenatal care only; 3) delivery care only; and 4) neither prenatal care nor delivery care from a trained provider.

Table 5.10 Prenatal care and delivery care

Among stillbirths and live births in the last three years, the percent distribution for which respondents received prenatal care (PNC) from health personnel during pregnancy and/or delivery care (DC), according to background characteristics and perinatal outcome, Philippines, 1993 SMS

Characteristic	Both PNC and DC	PNC only	DC only	Neither PNC nor DC	Total percent	Number of births
Age group at event						
< 20	45.9	35.6	3.9	14.5	100.0	334
20-34	51.0	34.8	2.8	11.3	100.0	3,585
35+	45.6	33.3	4.2	17.0	100.0	838
No. of pregnancies at event						
1	64.4	26.8	2.4	6.4	100.0	769
2-3	56.7	31.9	2.1	9.3	100.0	1,678
4-5	46.6	37.9	3.3	12.1	100.0	1,082
6+	33.8	40.3	4.8	21.2	100.0	1,228
Education						
No educ./primary	29.6	44.7	3.3	22.4	100.0	2,059
High school/vo-tech	56.7	33.3	3.3	6.6	100.0	1,798
College	82.1	14.0	2.1	1.8	100.0	896
Residence						
Urban	66.2	22.5	4.2	7.1	100.0	2,295
Rural	34.3	45.9	2.1	17.7	100.0	2,462
Region						
Metro. Manila	83.5	8.1	6.8	1.6	100.0	584
Cordillera Admin.	49.7	35.2	2.6	12.4	100.0	105
Ilocos	62.8	23.0	7.3	6.9	100.0	267
Cagayan Valley	34.9	50.0	3.4	11.8	100.0	170
C-Luzon	76.6	17.3	3.3	2.7	100.0	432
S-Tagalog	54.1	36.3	2.9	6.8	100.0	638
Bicol	31.6	44.3	3.2	20.8	100.0	371
W-Visayas	47.9	34.5	2.8	14.8	100.0	379
C-Visayas	47.3	39.7	2.2	10.8	100.0	379
E-Visayas	31.5	50.8	1.5	16.2	100.0	225
W-Mindanao	24.1	34.4	0.8	40.7	100.0	301
N-Mindanao	34.9	53.0	1.0	11.1	100.0	297
S-Mindanao	32.6	50.1	1.1	16.2	100.0	332
C-Mindanao	31.8	44.1	1.7	22.3	100.0	276
Pregnancy outcome						
Perinatal death	47.4	28.9	6.5	17.3	100.0	117
Live birth surviving 1st week	49.8	34.7	3.0	12.4	100.0	4,639
Total	49.7	34.6	3.1	12.6	100.0	4,757

Background characteristics show essentially the same differences seen separately for the two indicators, that is, births to less educated and/or rural women are less likely to receive medical care than their urban, more educated counterparts.

5.6 Place of Delivery

The place of delivery is important for maternal and perinatal health, particularly in instances when acute problems arise. Place of delivery was asked for each stillbirth and live birth born in the three years preceding the survey. Table 5.11 shows that seven out of ten births were delivered at home. The percentage of births delivered in a facility increases with increasing education and decreases with parity. Just over half of the births in urban areas occurred at home while 85 percent of births in rural areas were home deliveries.

Table 5.11 Place of delivery

Percent distribution of stillbirths and live births in the last three years, by place of delivery according to background characteristics and perinatal outcome, Philippines, 1993 SMS

Characteristic	Place of delivery				Total percent	Number of births
	Home	Public facility	Private facility	DK/ missing		
Age group at event						
< 20	72.6	21.7	5.5	0.2	100.0	334
20-34	68.9	19.3	11.7	0.1	100.0	3,585
35+	72.9	17.1	9.7	0.3	100.0	838
No. of pregnancies at event						
1	51.4	29.7	18.9	0.1	100.0	769
2-3	65.4	21.1	13.4	0.1	100.0	1,678
4-5	72.8	18.0	9.1	0.1	100.0	1,082
6+	84.9	10.7	4.1	0.2	100.0	1,228
Education						
No educ./primary	86.2	10.9	2.8	0.1	100.0	2,059
High school/vo-tech	68.0	22.2	9.8	0.1	100.0	1,798
College	36.2	31.7	31.8	0.3	100.0	896
Residence						
Urban	53.8	27.4	18.7	0.1	100.0	2,295
Rural	84.8	11.4	3.7	0.1	100.0	2,462
Region						
Metro. Manila	27.8	41.2	31.0	0.0	100.0	584
Cordillera Admin.	65.3	28.0	6.7	0.0	100.0	105
Ilocos	79.8	14.8	5.4	0.0	100.0	267
Cagayan Valley	84.9	11.8	3.4	0.0	100.0	170
C-Luzon	57.1	31.0	11.8	0.0	100.0	432
S-Tagalog	71.9	16.7	11.4	0.0	100.0	638
Bicol	87.6	10.3	2.2	0.0	100.0	371
W-Visayas	71.2	22.8	5.7	0.3	100.0	379
C-Visayas	67.5	16.5	15.5	0.5	100.0	379
E-Visayas	79.2	15.4	5.4	0.0	100.0	225
W-Mindanao	90.2	7.1	2.4	0.3	100.0	301
N-Mindanao	82.2	10.1	7.8	0.0	100.0	297
S-Mindanao	78.3	10.9	10.6	0.3	100.0	332
C-Mindanao	81.0	10.6	7.8	0.6	100.0	276
Pregnancy outcome						
Perinatal death	57.7	31.4	8.4	2.4	100.0	117
Live birth surviving 1st week	70.1	18.8	11.0	0.1	100.0	4,639
Total	69.8	19.1	10.9	0.1	100.0	4,757

Poor perinatal outcomes were more likely to occur when the birth took place in a public facility. Perinatal deaths were less common in births occurring at home or in private facilities. As mentioned earlier, this probably represents self-selection or referral of complicated cases, perhaps after a delay, and does not indicate a causative relationship.

5.7 Mode of Transportation

Table 5.12 gives the percentage of stillbirths and live births in the last three years by the mode of transportation used by the respondent to get to the place of delivery according to background characteristics and pregnancy outcome. Sixty-eight percent of the births were to women who did not travel to the delivery place; this is consistent with the report that 70 percent of the births occurred at home. Most of those who did travel used a bus or motorized vehicle for transport.

Table 5.12 Mode of transportation to place of delivery

Percent distribution of stillbirths and live births in last three years by mode of transport used to travel to place of delivery, according to background characteristics and perinatal outcome, Philippines, 1993 SMS

Characteristic	Mode of transportation to place of delivery						Total percent	Number of births
	Walking	Horse, cart, pedicab	Bus, motorized vehicle	Did not travel	Other	Missing		
Age group at event								
< 20	3.5	0.2	18.2	69.8	8.3	0.0	100.0	334
20-34	2.3	1.0	20.9	67.2	8.4	0.1	100.0	3,585
35+	3.0	0.6	18.6	71.2	6.3	0.3	100.0	838
No. of pregnancies at event								
1	4.2	1.2	33.1	48.6	12.6	0.3	100.0	769
2-3	2.5	0.9	23.6	63.8	9.0	0.1	100.0	1,678
4-5	1.8	1.2	18.5	71.0	7.2	0.2	100.0	1,082
6+	2.1	0.4	9.3	83.5	4.5	0.2	100.0	1,228
Education								
No educ./primary	2.6	0.3	7.5	83.9	5.5	0.1	100.0	2,059
High school/vo-tech	2.4	0.8	21.5	66.3	8.8	0.1	100.0	1,798
College	2.6	2.3	47.3	35.3	12.3	0.3	100.0	896
Residence								
Urban	2.8	1.6	32.5	52.9	10.2	0.1	100.0	2,295
Rural	2.3	0.3	9.0	82.2	6.0	0.2	100.0	2,462
Region								
Metro. Manila	4.5	1.3	56.7	27.8	9.7	0.0	100.0	584
Cord. Administ	3.6	0.0	25.9	65.3	5.2	0.0	100.0	105
Ilocos	1.3	0.0	12.3	78.5	7.9	0.0	100.0	267
Cagayan Valley	3.4	0.0	13.4	78.6	4.6	0.0	100.0	170
C-Luzon	1.1	1.1	23.1	56.3	18.1	0.3	100.0	432
S-Tagalog	1.8	0.0	20.2	70.3	7.7	0.0	100.0	638
Bicol	3.0	0.0	6.2	83.5	7.0	0.3	100.0	371
W-Visayas	2.6	0.5	13.7	69.9	13.0	0.3	100.0	379
C-Visayas	3.2	3.7	22.2	65.5	4.9	0.5	100.0	379
E-Visayas	1.5	1.5	7.3	77.3	12.3	0.0	100.0	225
W-Mindanao	3.4	0.0	3.7	88.1	4.5	0.3	100.0	301
N-Mindanao	2.8	0.3	15.8	77.8	3.4	0.0	100.0	297
S-Mindanao	2.2	1.4	15.3	76.9	3.9	0.3	100.0	332
C-Mindanao	1.1	2.0	14.0	80.7	2.0	0.3	100.0	276
Pregnancy outcome								
Perinatal death	1.6	1.5	18.2	57.0	19.2	2.4	100.0	117
Live birth surviving 1st week	2.6	0.9	20.4	68.4	7.7	0.1	100.0	4,639
Total	2.5	0.9	20.3	68.1	8.0	0.2	100.0	4,757

5.8 Intended Place of Delivery

Respondents were asked whether or not they delivered where they had intended to deliver, for all births in the three years prior to survey. Over 90 percent of the births occurred where the respondent intended, with 72 percent of these occurring at home (see Table 5.13). Among births in a health facility, over 10 percent said that they had not intended to deliver there, compared to only three percent of home births.

Table 5.13 Intended place of delivery

Percent distribution of stillbirths and live births in the last three years, by place of delivery, according to intended place of delivery, Philippines, 1993 SMS

	Place of delivery			
Intention	Home	Public facility	Private facility	Total
Is that where delivery was intended?				
Delivered where intended	96.7	84.0	87.9	93.2
Did not deliver where intended	3.0	13.5	10.1	5.8
DK/missing	0.3	2.7	1.9	1.0
Total percent	100.0	100.0	100.0	100.0
Number of births	3,322	909	520	4,757

Of the six percent of births occurring in a place other than that intended, the respondent was asked why she was unable to deliver where she had planned. Over 40 percent of the births in unplanned locations occurred there because of a problem before or during labor or because the mother was referred (see Table 5.14). Nineteen percent delivered on the way to another place. Only six percent reported transportation problems as a reason.

The percentage of births delivered in an unplanned place because of a problem in labor is more pronounced among the oldest women, those delivering for the first time, those with more than five pregnancies, and those with primary or no education.

5.9 Perceptions of Delivery Care

In the SMS, respondents who reported ever having delivered in a medical facility were asked four questions about their perception of the experience. Specifically, respondents were asked whether they waited for less than one hour to be seen for care, whether the facility had the required medicines and supplies, whether they had enough privacy during labor and delivery, and whether the people working there were respectful of them.

Only 45 percent of the respondents had ever delivered in a medical facility. Over one-quarter of these said they waited more than an hour to be seen for care. Eighty-eight percent said the facility had sufficient supplies, 86 percent had enough privacy during labor and delivery, and 94 percent said they were treated re-

Table 5.14 Reason delivery was not where intended

Percent distribution of stillbirths and live births in the last three years by reason birth did not occur in planned location, according to background characteristics, Philippines, 1993 SMS

Background characteristics	Reason delivery was not where intended						Total percent	Number of births
	No transport	Delivered on the way	Problem in labor	Referred	Other	Missing		
Age group at event								
< 20	(8.5)	(7.9)	(20.6)	(29.2)	(33.9)	(0.0)	100.0	31
20-34	7.2	20.0	18.7	21.7	31.6	0.8	100.0	191
35+	1.7	19.4	24.4	22.3	32.2	0.0	100.0	53
No. of pregnancies at event								
1	7.2	6.3	28.1	25.1	33.3	0.0	100.0	86
2-3	5.4	30.9	15.0	18.9	29.8	0.0	100.0	80
4-5	6.6	20.4	11.9	29.4	28.9	2.9	100.0	53
6+	5.9	17.7	22.8	18.0	35.7	0.0	100.0	57
Education								
No educ./primary	3.0	13.2	29.7	19.4	34.6	0.0	100.0	88
High school/vo-tech	7.4	20.9	16.1	24.0	30.2	1.3	100.0	118
College	8.6	21.1	14.4	24.4	31.4	0.0	100.0	70
Residence								
Urban	4.2	21.3	19.6	27.7	27.3	0.0	100.0	149
Rural	8.7	15.3	20.6	16.7	37.4	1.2	100.0	127
Total	6.3	18.5	20.0	22.7	31.9	0.6	100.0	276

( ) Based on 25-49 unweighted cases.

spectfully by the people working in the facility (data not shown). Differences in perceptions of care by selected background characteristics such as parity, education, and residence were very small.

5.10 Postpartum Care

A number of the problems women experience surrounding childbirth occur in the postpartum period, the six weeks following delivery. Such problems can be detected and treated through proper follow-up visits for women in the postpartum period. In the SMS, respondents were asked, for each birth in the past three years, whether they saw a doctor, nurse, or midwife for a check-up during the six weeks after delivery. Among those receiving such postpartum care, information on the kind of care given was obtained. Respondents were asked specifically whether they had their abdomen or breasts examined, whether an internal pelvic exam was performed, and whether they received advice on family planning, breastfeeding, or baby care.

In one-third of the births respondents reported that they saw someone for a check-up on their health after delivery (see Table 5.15). First births were slightly more likely than later births to be followed by postpartum care. Mothers with college education were more than twice as likely to receive postpartum care as those with primary or no education, and mothers in urban areas were more likely to receive postpartum care than rural mothers.

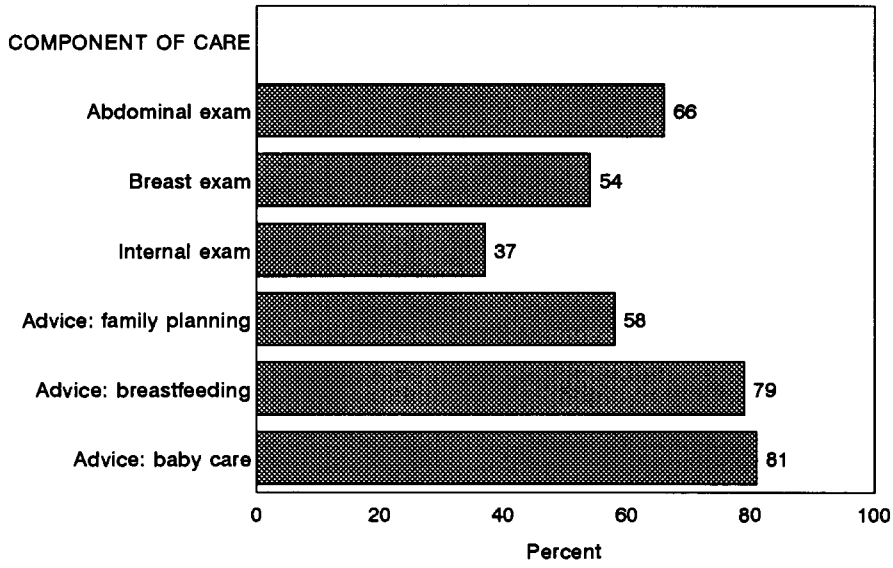
Table 5.15 Postpartum care

Percentage of stillbirths and live births in the last three years for which postpartum (PP) care was received, and among those the percentage for which mothers received specific components of care, by background characteristics, Philippines, 1993 SMS

Background characteristic	Postpartum care		Components of postpartum care					
	Percent with PP visit	Number of births	Abdominal exam	Breast exam	Internal pelvic exam	Advice on family planning	Advice on breast-feeding	Advice on baby care
Age group at event								
< 20	27.2	334	67.9	57.6	33.9	49.1	74.4	75.8
20-34	32.8	3,585	66.0	54.8	38.6	58.6	79.9	82.1
35+	31.8	838	67.9	51.4	32.3	56.4	74.6	74.7
No. of pregnancies at event								
1	37.3	769	67.8	58.7	42.2	53.2	79.4	80.9
2-3	34.7	1,678	70.0	58.4	44.5	59.6	82.1	83.3
4-5	33.1	1,082	61.9	50.8	33.8	60.0	76.5	81.2
6+	24.8	1,228	63.5	46.7	22.7	55.4	73.8	73.9
Education								
No educ./primary	22.1	2,059	65.1	52.9	27.2	58.6	76.1	78.7
High school/vo-tech	34.0	1,798	63.6	51.6	38.8	57.3	78.4	80.0
College	51.9	896	71.4	59.6	45.0	57.1	81.5	82.8
Residence								
Urban	38.1	2,295	68.6	55.8	42.7	55.0	80.2	82.0
Rural	26.7	2,462	63.5	52.5	29.9	61.1	76.6	78.5
Region								
Metro. Manila	44.1	584	64.9	62.5	51.2	44.6	82.1	82.7
Cordillera Admin.	25.9	105	30.0	26.0	28.0	42.0	42.0	78.0
Ilocos	32.2	267	52.9	46.1	34.3	58.8	78.4	75.5
Cagayan Valley	26.5	170	44.4	36.5	19.0	46.0	60.3	68.3
C-Luzon	46.7	432	74.7	64.7	55.9	68.2	81.8	87.1
S-Tagalog	44.0	638	69.0	55.5	44.5	59.0	79.5	77.5
Bicol	22.4	371	48.2	43.4	24.1	54.2	71.1	75.9
W-Visayas	33.2	379	74.2	50.8	18.8	54.7	73.4	81.3
C-Visayas	26.1	379	74.5	49.1	38.7	62.3	83.0	79.2
E-Visayas	23.1	225	63.3	46.7	16.7	80.0	90.0	88.3
W-Mindanao	11.6	301	47.7	45.5	25.0	36.4	72.7	75.0
N-Mindanao	22.0	297	67.1	51.8	31.8	77.6	87.1	89.4
S-Mindanao	21.4	332	63.6	53.2	11.7	64.9	80.5	83.1
C-Mindanao	37.2	276	84.2	60.9	26.3	54.1	77.4	74.4
Total	32.2	4,757	66.4	54.4	37.2	57.6	78.7	80.5

A review of the components of postpartum care shows that more than two-thirds of respondents received the abdominal exam and information on breastfeeding and baby care (see Figure 5.5). Breast and internal exams and advice on family planning were received less frequently. Births to respondents under 20 years were less likely to be followed up with information on family planning. Births to uneducated respondents and in rural areas were less likely to be followed up with an internal exam (see Table 5.15).

Figure 5.5
Components of postpartum care received for births in the three years prior to the survey



5.11 Consistency of Service Use

Twenty-one percent of the women with a pregnancy in the past three years had more than one birth in the reference period. The patterns of service use among these respondents can be studied using a woman-based analysis as presented in Tables 5.16 and 5.17. The question of interest is whether women can be considered as consistent users or non-users of services such as antenatal and delivery care. While this analysis does not provide a comprehensive picture of service use over a lifetime, it does suggest that for this subsample of respondents, eighty-five percent or more either consistently received or failed to receive antenatal and delivery care. Differentials are reinforced in this analysis as we see that women who are older, higher parity, less educated and living in rural areas more commonly consistently fail to receive care.

Table 5.16 Patterns of prenatal care

Prenatal care (PNC) received from a health professional by women with more than one birth in the three years prior to survey, by their consistency of receipt of PNC between the last birth and the previous births, according to background characteristics and perinatal outcome, Philippines, 1993 SMS

Characteristic	Number of women with births in last 3 years	Number of women with > 1 birth in last 3 years	Percentage who consistently received PNC	Percentage who consistently failed to receive PNC	Percentage who received PNC inconsistently
Age group					
< 20	107	23	*	*	*
20-34	2,773	695	78.7	11.2	10.2
35+	966	150	67.9	26.9	5.2
No. of pregnancies					
1	506	4	*	*	*
2-3	1,355	394	82.3	7.9	9.8
4-5	931	222	80.3	11.4	8.2
6+	1,055	250	63.3	26.5	10.2
Education					
No educ./primary	1,657	380	64.9	23.1	12.1
High school/vo-tech	1,459	324	82.0	8.4	9.6
College	727	165	92.0	4.6	3.5
Residence					
Urban	1,848	426	83.3	9.8	6.9
Rural	1,998	442	69.8	18.2	12.0
Region					
Metro. Manila	476	104	89.7	8.8	1.5
Cordillera Admin.	78	26	(80.9)	(10.6)	(8.5)
Ilocos	218	48	70.2	12.3	17.5
Cagayan Valley	144	24	(72.7)	(9.1)	(18.2)
C-Luzon	359	72	86.9	4.9	8.2
S-Tagalog	516	112	83.8	8.8	7.5
Bicol	302	69	68.1	21.7	10.1
W-Visayas	310	65	72.7	13.6	13.6
C-Visayas	306	70	76.0	12.0	12.0
E-Visayas	178	42	(69.4)	(14.3)	(16.3)
W-Mindanao	232	65	48.8	47.6	3.7
N-Mindanao	240	55	84.5	8.5	7.0
S-Mindanao	266	66	77.5	11.3	11.3
C-Mindanao	221	51	71.2	15.2	13.6
Last pregnancy outcome					
Perinatal death	87	32	(61.2)	(17.7)	(21.1)
Live birth surviving 1st week	3,759	837	77.0	14.0	9.1
Total	3,846	869	76.4	14.1	9.5

* Fewer than 25 unweighted cases
( ) Based on 25-49 unweighted cases

Table 5.17 Patterns of delivery care

Delivery care (DC) received from a health professional by women with more than one birth in the three years prior to survey, by consistency of receipt of DC between the last birth and the previous births, according to background characteristics and perinatal outcome, Philippines, 1993 SMS

Characteristic	Number of women with births in last 3 years	Number of women with > 1 birth in last 3 years	Percentage who consistently received DC	Percentage who consistently failed to receive DC	Percentage who received DC inconsistently
Age group					
< 20	107	23	*	*	*
20-34	2,773	695	43.4	42.3	14.3
35+	966	150	33.8	51.9	14.3
No. of pregnancies					
1	506	4	*	*	*
2-3	1,355	394	52.1	33.9	14.1
4-5	931	222	39.7	45.0	15.3
6+	1,055	250	26.7	60.0	13.4
Education					
No educ./primary	1,657	380	24.7	64.9	10.4
High school/vo-tech	1,363	308	45.1	34.7	20.2
College	823	180	75.2	14.0	10.8
Residence					
Urban	1,848	426	58.6	25.7	15.7
Rural	1,998	442	25.6	61.7	12.7
Region					
Metro. Manila	476	104	79.4	2.9	17.6
Cordillera Admin.	78	26	(48.9)	(36.2)	(14.9)
Ilocos	218	48	54.4	24.6	21.1
Cagayan Valley	144	24	(24.2)	(60.6)	(15.2)
C-Luzon	359	72	77.0	16.4	6.6
S-Tagalog	516	112	42.5	43.8	13.8
Bicol	302	69	23.2	60.9	15.9
W-Visayas	310	65	39.4	36.4	24.2
C-Visayas	306	70	44.0	44.0	12.0
E-Visayas	178	42	(20.4)	(71.4)	(8.2)
W-Mindanao	232	65	14.6	74.4	11.0
N-Mindanao	240	55	25.4	57.7	16.9
S-Mindanao	266	66	26.8	64.8	8.5
C-Mindanao	221	51	21.2	66.7	12.1
Last pregnancy outcome					
Perinatal death	87	32	(36.8)	(52.2)	(10.9)
Live birth surviving 1st week	3,759	837	42.0	43.7	14.3
Total	3,846	869	41.8	44.0	14.1

* Fewer than 25 unweighted cases
( ) Based on 25-49 unweighted cases

CHAPTER 6

OBSTETRIC COMPLICATIONS AND TREATMENT

A major objective of the Safe Motherhood Survey was to quantify how frequently women experience symptoms of major obstetric complications requiring assessment and care. While the main causes of maternal death have been documented, thus far, less attention has been given to documenting the frequency with which women experience these potentially fatal complications. Such information is vital in planning for the services necessary for improved maternal survival.

The main focus of this chapter is on the life threatening obstetric complications of hemorrhage, obstructed labor, eclampsia, and puerperal sepsis. These problems have consistently ranked as the most common causes of maternal death in community-based studies conducted in numerous settings where maternal mortality is high (see, for example, Fauveau et al., 1988; Fortney et al., 1988; and Kane et al., 1992). Studies of maternal mortality must rely on interview-based diagnosis of cause of death because most births and deaths occur at home where clinical diagnosis is less common. These studies include interviews with someone who was present at the time of the woman's death focusing on symptoms and signs exhibited before death.

Death due to hemorrhage occurs because of massive blood loss, most commonly after giving birth. While there are many causes of postpartum hemorrhage, the most frequent are retained placenta, where the afterbirth fails to detach from the wall of the uterus; uterine atony, where the uterine muscle fails to contract after delivery; and uterine rupture from obstructed labor. Genital tract injury and episiotomy may also be associated with postpartum hemorrhage.

Complications of labor, or obstructed labor, may be due to cephalopelvic disproportion, where the woman's pelvis size or shape cannot accommodate the head of the fetus; transverse lie, where the fetus is lying horizontally inside the womb; and dysfunctional labor, where the uterus fails to contract in a manner conducive to delivery. These problems, if unmanaged, can result in prolonged labor, rupture of the uterus, fetal and maternal death.

Hypertensive diseases of pregnancy include both chronic and pregnancy induced hypertension. Pre-eclampsia is a hypertensive disease of pregnancy, diagnosed in a woman with hypertension, protein in the urine and/or severe edema. When convulsions accompany the signs of pre-eclampsia the condition is called eclampsia. Because pre-eclampsia is often asymptomatic, it cannot be diagnosed through interview alone, thus the focus on eclampsia.

Puerperal sepsis refers to severe infection of the uterus after delivery, which may spread throughout the body. Symptoms can include severe lower abdominal pain, high fever, lower back pain, and foul smelling vaginal discharge.

Chapter 2 of this report provides further details on validation of questions on symptoms of complications and other aspects of questionnaire development. This chapter presents findings on complications experienced by respondents during pregnancy, labor and delivery, and the postpartum period. All respondents were asked about problems ever experienced in any pregnancy. For pregnancies in the three years prior to interview, detailed questions were asked about the process respondents went through to get help for problems they experienced.

Because of the varied interests of those reading this report, and because of its experimental nature, the data on obstetric complications is presented in several formats. These include both woman-based and birth-based (stillbirths and live births) presentations, as well as a variety of combinations of problems reported. Table 6.1 describes the time frames covered in each table and whether they are woman-based or birth-based (see Table 6.1).

Table 6.1 Summary of time frames and units for tables in chapter 6

Table	Time frame	Units
6.1	Ever	Respondents (during pregnancy)
6.2	Ever	Respondents (during labor/delivery)
6.3	Ever	Respondents (postpartum)
6.4	Last 3 years	Respondents
6.5	Last 3 years	Respondents
6.6	Last 3 years	Respondents
6.7	Last 3 years	Respondents
6.8	Last 3 years	Stillbirths & live births
6.9	Last 3 years	Respondents
6.10	Last 3 years	Stillbirths & live births
6.11	Last 3 years	Stillbirths & live births
6.12	Last 3 years	Stillbirths & live births
6.13	Last 3 years	Respondents
6.14	Last 3 years	Respondents
6.15	Last 3 years	Stillbirths & live births
6.16	Last 3 years	Stillbirths & live births
6.17	Last 3 years	Stillbirths & live births
6.18	Last 3 years	Stillbirths & live births
6.19	Last 3 years	Stillbirths & live births
6.20	Last 3 years	Stillbirths & live births
6.21	Last 3 years	Stillbirths & live births

6.1 Obstetric Complications Ever Experienced

Pregnancy Problems/Complications

Each respondent was asked prompted questions about whether she had ever experienced specific problems during any pregnancy. Twenty-two percent of those interviewed reported vaginal bleeding, two percent reported convulsions, and six percent reported having a very high fever during at least one of their pregnancies (see Table 6.2).

The findings on bleeding during pregnancy should be interpreted with caution. Causes of bleeding during pregnancy vary depending on gestation. For instance, in the first trimester, bleeding is associated with spontaneous or induced abortion, while bleeding near term may be a sign of placenta previa or abruptio placenta. At the same time, some bleeding during pregnancy is not problematic, such as spotting at the time of implantation. The question asked in the survey did not differentiate these various types of bleeding.

Respondents 35 and older were almost twice as likely as the youngest to report bleeding during any of their pregnancies. Respondents with six or more pregnancies reported bleeding four times as often as those

Table 6.2 Symptoms of complications during pregnancy

Percentage of respondents who ever had symptoms of complications of vaginal bleeding, convulsions, or very high fever during pregnancy, by background characteristics and years since last pregnancy outcome, Philippines, 1993 SMS

Characteristic	Vaginal bleeding	Convulsions	Very high fever	Number of respondents
Age group				
< 20	13.3	0.7	5.2	113
20-34	19.7	1.6	6.2	4,177
35+	24.9	2.2	5.3	4,191
No. of pregnancies				
1	8.3	0.4	4.7	988
2-3	16.2	1.1	4.2	2,858
4-5	22.9	2.3	6.1	2,263
6+	34.3	3.0	7.8	2,372
Education				
No educ./primary	23.4	2.6	7.4	3,739
High school/vo-tech	20.4	1.5	4.6	2,968
College	22.5	0.8	4.4	1,772
Residence				
Urban	21.2	1.6	4.9	4,383
Rural	23.2	2.2	6.7	4,098
Region				
Metro. Manila	16.8	0.6	2.9	1,232
Cordillera Admin.	19.9	1.8	6.6	147
Ilocos	26.1	2.6	6.1	484
Cagayan Valley	30.0	1.7	9.2	333
C-Luzon	26.4	1.6	4.3	914
S-Tagalog	27.9	0.6	2.8	1,157
Bicol	29.0	2.8	4.3	535
W-Visayas	15.7	0.9	6.3	655
C-Visayas	16.7	2.7	12.5	659
E-Visayas	24.7	5.7	10.4	382
W-Mindanao	17.9	4.0	7.1	457
N-Mindanao	22.2	2.9	7.5	473
S-Mindanao	18.6	1.4	6.0	616
C-Mindanao	19.9	1.8	4.9	438
Years since last outcome				
0-2	26.1	2.1	6.5	4,095
3-5	20.1	1.5	5.8	1,689
6-9	18.4	2.0	5.4	1,245
10+	16.7	1.4	3.9	1,452
Total	22.1	1.9	5.8	8,481

with one. These differences probably reflect both the higher risk to older, higher parity women, as well as the cumulative effect of exposure to pregnancy over time.

Respondents who had their last pregnancy outcome in the preceding two years were more likely to report vaginal bleeding during pregnancy than those whose last outcome occurred more than nine years ago (26 vs. 17 percent). Though the number of years since their last pregnancy outcome may not be the same as the time since the hemorrhage under discussion, one would expect them to be correlated. This difference in reporting raises the question of how well women recall their experiences of antepartum hemorrhage.

With the exception of some regional differences, there is very little variation in other background characteristics of respondents reporting convulsions or very high fever during pregnancy.

Labor and Delivery Problems/Complications

After reporting on pregnancy, respondents ever having given birth to a stillborn or live born child were asked whether they had ever had specific symptoms of complications during labor or delivery of any of their births (see Table 6.3). Respondents were asked if they had ever had labor that lasted for more than 12 hours to indicate those who may have had prolonged labor. They were also asked about massive vaginal bleeding around labor and delivery, which interviewers were trained to stress as an abnormally excessive amount of bleeding. Prolonged labor was the most frequently reported problem (15 percent), followed by massive vaginal bleeding (8 percent) and malpresentation (8 percent). Seven percent of the respondents had had a caesarean section delivery and five percent reported having had a retained placenta. Fewer than five percent reported convulsions, placenta previa, very high fever, or sickness of the baby in the womb (see Figure 6.1).

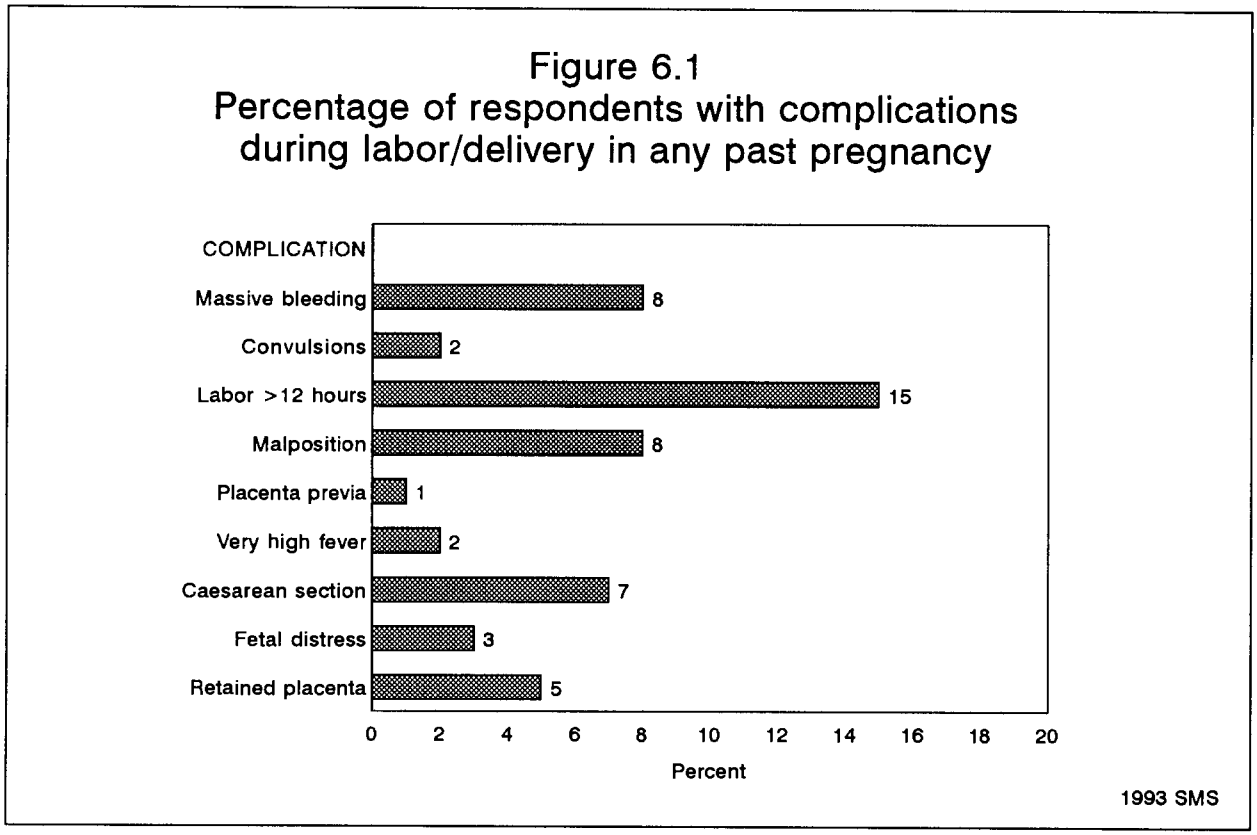
The most striking finding in the differentials for these complications is the selective nature of respondents reporting caesarean sections. Surgical delivery was more common among the most educated respondents and among urban residents, indicating the importance of service access; it was also higher among women who only had one pregnancy. Massive bleeding was most common among those who had six or more pregnancies (13 percent).

In contrast to complications during pregnancy (see Table 6.2), there are no major differences in reported symptoms of labor and delivery complications according to the number of years since the last pregnancy outcome (see Table 6.3). If the time since last pregnancy outcome can serve as a proxy for recall, it may indicate that for these most severe problems, recall does not have a significant impact on reporting.

Table 6.3 Symptoms of complications during labor or delivery

Among respondents who ever had a stillbirth or a live birth, the percentage who have ever had symptoms of complications during labor or delivery of massive bleeding, convulsions, labor more than 12 hours, malpresentation, placenta previa, very high fever, caesarean section delivery, fetal distress, or retained placenta, by background characteristics and years since last pregnancy outcome, Philippines, 1993 SMS

Characteristic	Symptoms of complications during labor or delivery									Number of respondents
	Massive bleeding	Convulsions	Labor > 12 hours	Malposition	Placenta previa	Very high fever	C-section	Fetal distress	Retained placenta	
Age group										
< 20	2.3	0.8	15.0	1.9	0.0	2.5	4.6	0.0	8.4	110
20-34	6.5	1.1	14.6	6.3	0.9	1.4	5.8	2.5	5.0	4,146
35+	9.4	2.0	15.8	9.4	1.8	1.9	7.4	4.3	4.4	4,170
No. of pregnancies										
1	3.3	0.5	15.0	3.8	0.8	0.9	10.1	0.7	3.2	949
2-3	5.3	1.1	15.0	5.8	0.9	1.1	9.4	1.9	3.8	2,845
4-5	7.2	1.5	15.2	7.2	1.4	1.8	5.3	3.0	4.6	2,260
6+	13.4	2.7	15.7	12.4	2.0	2.5	3.0	6.6	6.6	2,372
Education										
No educ./primary	9.7	2.0	15.0	8.4	1.3	1.9	2.9	4.2	5.1	3,725
High school/vo-tech	6.4	1.5	14.7	7.5	1.3	1.3	6.1	2.9	4.9	2,941
College	6.6	1.0	16.5	7.0	1.4	1.5	15.1	2.3	3.8	1,758
Residence										
Urban	6.9	1.6	15.7	7.2	1.2	1.6	9.2	2.9	4.8	4,349
Rural	8.9	1.6	14.7	8.4	1.5	1.6	3.8	3.9	4.7	4,077
Region										
Metro. Manila	3.6	0.8	12.7	5.4	0.6	1.4	12.9	1.6	3.8	1,223
Cordillera Admin.	11.8	2.6	35.7	8.8	1.1	2.9	6.6	4.4	7.4	147
Ilocos	10.9	2.6	17.0	7.9	1.9	1.8	6.1	1.4	4.0	481
Cagayan Valley	11.2	1.7	21.3	8.8	2.6	1.5	4.1	6.0	12.7	332
C-Luzon	6.2	1.2	16.8	6.4	1.8	1.3	10.0	1.6	3.3	903
S-Tagalog	4.3	0.9	16.7	7.9	0.7	0.9	5.4	1.8	2.2	1,150
Bicol	9.2	2.6	16.0	7.7	2.3	1.9	4.5	2.4	3.6	532
W-Visayas	10.7	2.6	18.6	9.5	2.4	1.4	6.3	3.2	6.8	650
C-Visayas	9.3	1.6	13.3	8.0	1.4	2.0	5.6	5.6	5.3	653
E-Visayas	15.4	4.4	23.9	12.4	0.9	1.8	3.2	5.1	6.0	376
W-Mindanao	5.8	1.6	10.6	6.8	0.7	1.6	2.6	5.9	3.8	456
N-Mindanao	10.6	1.5	16.5	10.6	1.3	2.8	4.2	5.1	4.9	470
S-Mindanao	9.9	1.2	5.4	8.1	1.1	2.4	5.0	5.6	5.9	615
C-Mindanao	7.6	0.7	8.1	6.3	0.7	1.8	3.3	4.8	6.7	438
Years since last outcome										
0-2	8.2	1.8	14.7	7.8	1.2	1.9	5.7	3.4	6.5	4,072
3-5	7.8	1.1	15.6	7.1	1.3	1.4	7.5	3.1	3.6	1,675
6-9	6.9	1.8	15.6	7.8	1.4	0.8	7.6	3.8	2.9	1,235
10+	7.9	1.4	15.7	8.6	1.8	2.0	7.0	3.1	2.6	1,444
Total	7.9	1.6	15.2	7.8	1.3	1.6	6.6	3.4	4.7	8,426



Postpartum Problems/Complications

Respondents ever having given birth were asked about symptoms of complications experienced during the six-week postpartum period after any of their births. The most common problem reported was severe lower abdominal pain (10 percent), followed by those with a foul-smelling vaginal discharge (6 percent) (see Table 6.4). Massive vaginal bleeding, very high fever, and urinary incontinence were reported by three percent each.

Severe lower abdominal pain was more likely to be reported by respondents with less than a high school education, by those living in rural areas, and by those with six or more pregnancies. Most of the other background characteristics showed little variation.

6.2 Obstetric Complications in the Last Three Years

Respondents were questioned in depth about each pregnancy ending in the three years prior to the survey. This format allows analysis of data using either the woman or her pregnancy as the unit of analysis. Fifty-two percent of the respondents were not asked these questions because they had not been pregnant within the past three years (see Table 5.1). Ninety-four percent of those pregnant in the past three years delivered either a stillbirth or a live birth, another six percent had only an early loss(es) in that time period. Twenty-three percent of those who had a stillbirth or live birth had more than one birth in that time period (see Table 6.5).

Table 6.4 Postpartum symptoms of complications

Among respondents who ever had a stillbirth or a live birth, the percentage who ever had symptoms of complications in the six-week postpartum period of severe vaginal bleeding, very high fever, convulsions, foul smelling vaginal discharge, severe lower abdominal pain, retained placenta, or urinary incontinence, by background characteristics and years since last pregnancy outcome, Philippines, 1993 SMS

Characteristic	Postpartum symptoms of complications							Number of respondents
	Vaginal bleeding	Very high fever	Convulsions	Foul discharge	Lower abdominal pain	Retained placenta	Urinary incontinence	
Age group								
< 20	3.2	6.0	0.0	7.4	8.9	0.0	7.2	110
20-34	2.6	2.8	0.9	5.1	10.3	0.8	2.8	4,146
35+	3.2	2.9	0.8	6.2	10.6	1.2	3.5	4,170
No. of pregnancies								
1	1.8	2.7	0.4	3.8	4.2	0.0	2.7	949
2-3	2.0	2.1	0.7	4.4	8.5	0.3	2.5	2,845
4-5	3.1	2.4	0.9	5.3	11.9	1.4	2.8	2,260
6+	4.2	4.4	1.1	8.5	13.9	1.8	4.5	2,372
Education								
No educ./primary	3.0	3.6	1.1	7.7	12.8	1.3	4.1	3,725
High school/vo-tech	2.6	2.8	0.6	4.6	9.7	0.7	2.3	2,941
College	3.1	1.5	0.4	3.3	6.7	0.6	2.5	1,758
Residence								
Urban	2.6	2.5	0.6	4.5	8.4	0.9	2.5	4,349
Rural	3.2	3.3	1.0	7.0	12.7	1.1	3.8	4,077
Region								
Metro. Manila	1.5	1.5	0.5	1.4	3.0	0.3	0.9	1,223
Cordillera Admin.	10.7	3.3	0.4	13.6	12.1	1.8	4.0	147
Ilocos	2.8	3.5	0.4	10.4	10.4	0.7	2.6	481
Cagayan Valley	4.7	8.8	0.2	9.1	22.2	0.4	3.9	332
C-Luzon	1.8	2.0	0.4	4.6	8.3	1.1	1.8	903
S-Tagalog	0.7	1.2	0.0	2.0	3.7	0.1	2.0	1,150
Bicol	1.9	3.4	1.7	5.8	13.0	0.8	3.4	532
W-Visayas	2.7	2.9	0.9	4.7	10.0	1.2	3.6	650
C-Visayas	3.3	3.1	0.4	7.9	14.4	1.0	6.6	653
E-Visayas	6.2	6.4	4.4	14.5	32.2	4.6	6.4	376
W-Mindanao	4.4	3.7	1.9	3.8	8.0	1.0	4.2	456
N-Mindanao	4.6	2.9	1.8	10.3	19.2	1.6	4.9	470
S-Mindanao	3.5	3.3	0.2	5.6	9.0	1.4	4.1	615
C-Mindanao	4.2	1.9	0.9	7.4	12.1	0.9	2.1	438
Years since last outcome								
0-2	3.1	3.4	1.1	5.8	11.2	1.0	3.3	4,072
3-5	2.5	3.0	0.7	5.8	10.5	1.1	3.1	1,675
6-9	2.5	1.9	0.4	4.9	9.8	1.0	3.4	1,235
10+	3.2	2.1	0.7	6.0	8.9	0.7	2.6	1,444
Total	2.9	2.9	0.8	5.7	10.4	1.0	3.2	8,426

Table 6.5 Recent pregnancy outcomes

Percent distribution of respondents for whom an obstetric history was obtained, according to outcomes in the last three years, Philippines, 1993 SMS

Outcomes in last three years	Percentage of respondents
Early loss only (no births)	5.7
Only one stillbirth or live birth	73.0
More than one stillbirth or live birth	21.3
Number of respondents	4,080

Algorithms of reported symptoms used for identifying women most likely to have experienced hemorrhage, eclampsia, severe infection, and caesarean section due to obstructed labor were developed based on the results of a hospital-based validation study undertaken at the Philippine General Hospital (Stewart and Festin, 1994). This study is described in more detail in Chapter 2. The combination of questions used to identify respondents with symptoms of these complications is shown in Table 6.6.

Table 6.6 Criteria for identifying obstetric complications

Questions used to identify respondents with symptoms of four major obstetric complications: hemorrhage, eclampsia, sepsis, and caesarean section due to obstructed labor, Philippines, 1993 SMS

Hemorrhage:
Respondents were counted as having experienced a hemorrhage if they answered yes to any of the following three questions:
1) "Did you lose a lot of blood around the time of labor and delivery? PROBE: Did you bleed so much that you were afraid you might die?"
2) "Did anyone stick their hand up through your vagina into your womb to try to pull out the placenta?" (manual extraction of placenta)
3) "At any time during the six weeks after your delivery, did you have massive vaginal bleeding?"

Eclampsia:
Respondents considered to have experienced eclampsia were those who reported having convulsions not due to fever during pregnancy, during labor/delivery, or during the six weeks after delivery, but not outside of that period. Those experiencing convulsions outside of pregnancy were excluded because of the inceased likelihood of another cause of the convulsions, such as epilepsy.
The wording "not due to fever" was used to avoid classifying tremors or trembling associated with high fever and chills as eclampsia.

Infection:
Respondents were classified as having infection if they reported a very high fever during labor or delivery or within the six weeks following delivery.

Caesarean section due to obstructed labor:
A respondent was considered to have caesarean section due to obstructed labor if she underwent a caesarean section delivery and gave as the reason for that procedure, one of the following: pelvis too small, transverse lie, or no progress of labor.

Twelve percent of the respondents giving birth in the three years prior to survey had symptoms of at least one of these problems (see Table 6.7). Hemorrhage was the most common complication (8 percent), followed by caesarean section due to obstructed labor (3 percent), severe infection (2 percent), and eclampsia (1 percent) (see Figure 6.2). These findings must be interpreted with caution. By restricting these questions to women who had births in the last three years, the subsample of births may overrepresent the experience of high fertility women. In addition, the window of experience being documented here does not represent the woman's full lifetime risk. However, the birth-based estimates are almost identical to these (see Table 6.10).

Very little population-based data is available for purposes of comparison of this data. These figures are remarkably similar to the global estimates made by WHO (WHO, 1993), although the proportion with symptoms of severe infection in the SMS is lower than their 8 percent estimate. A review of community-based studies on maternal morbidity by Koblinsky, Campbell, and Harlow (Koblinsky et al., 1993) attempts to bring the data together, but complications are grouped and de-

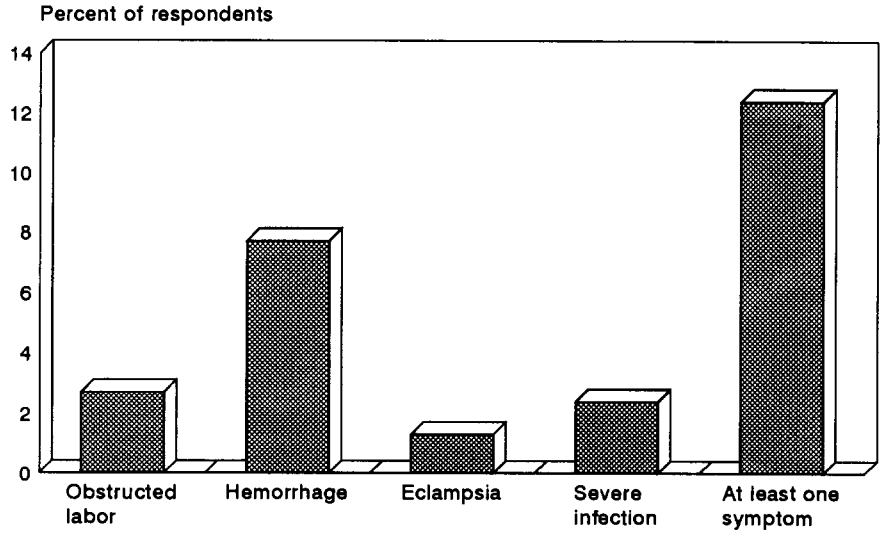
Table 6.7 Symptoms of obstetric complications among respondents who had a birth in the last three years

Percentage of respondents who had a stillbirth or a live birth in the last three years for which symptoms of one or more major obstetric complication(s) were present for one or more of the births, Philippines, 1993 SMS

Symptom	Percentage of respondents with symptoms of complications
C-section due to obstruction	2.7
Hemorrhage	7.7
Eclampsia	1.3
Severe infection	2.4
At least one symptom	12.4
Number of respondents	3,846

Note: Figures are based on criteria for identifying complications (see Table 6.6).

Figure 6.2
Percentage of respondents with symptoms of a major obstetric complication in the three years before the survey



fined in a variety of ways making comparisons difficult. This review included studies from countries in Asia, Africa, and the Caribbean and found a range of 0.3 to 13 percent of births were to women with symptoms of obstructed labor and/or prolonged labor and/or cephalopelvic disproportion; less than one percent for eclampsia; two to eight percent for postpartum hemorrhage; and one to eight percent for symptoms of postpartum sepsis. A more recent population-based study in Ghana found convulsions experienced by two percent of their respondents; excessive postpartum bleeding in seven percent; and postpartum fever in five percent (de Graft-Johnson, 1994).

Two questions of interest are how often women experience more than one complication in the same birth, and what proportion of women experience the same complication in repeated births. Most of the respondents reporting symptoms of an obstetric complication did not experience more than one symptom (see Table 6.8).

Table 6.8 Perinatal deaths and live births surviving the first week of life, according to symptoms of obstetric complications

Percent distribution of perinatal deaths (PND) and live births surviving the first week of life (LBSFW) in the last three years, according to symptoms of major obstetric complication(s) experienced by the mother in that birth, Philippines, 1993 SMS

Symptom	PND	LBSFW	Total
C-section due to obstruction only	1.4	2.2	2.1
Hemorrhage only	13.5	5.5	5.7
Eclampsia	1.2	0.6	0.6
Severe infection only	0.8	1.2	1.2
C-S due to obstruction & hemorrhage	0.0	0.1	0.1
C-S due to obstruction & infection	0.0	0.0	0.0
C-S due to obstruction, hemorrhage & infection	1.0	0.0	0.0
Hemorrhage & infection	3.0	0.5	0.5
C-S due to obstruction & eclampsia	0.0	0.1	0.1
Hemorrhage & eclampsia	0.7	0.1	0.1
Other combination of symptoms	1.6	0.3	0.3
No symptoms	76.8	89.4	89.1
Total percent	100.0	100.0	100.0
Number of births	117	4,639	4,757

Note: Figures are based on criteria for identifying complications (see Table 6.6).

The question of repeating complications can only be addressed among respondents who had more than one birth in the three-year reference period. These respondents were asked about symptoms of complications experienced for each of those births. In this select sample of women and recent births, the proportion reporting a symptom of a complication in only one birth was two to four times higher than for those having a given symptom in more than one birth (see Table 6.9 and Figure 6.3). It is important to keep in mind that less than a quarter had more than one birth in the reference period, and that there may be adverse selection taking place. That is, those experiencing the symptom a second time may not have survived to the interview.

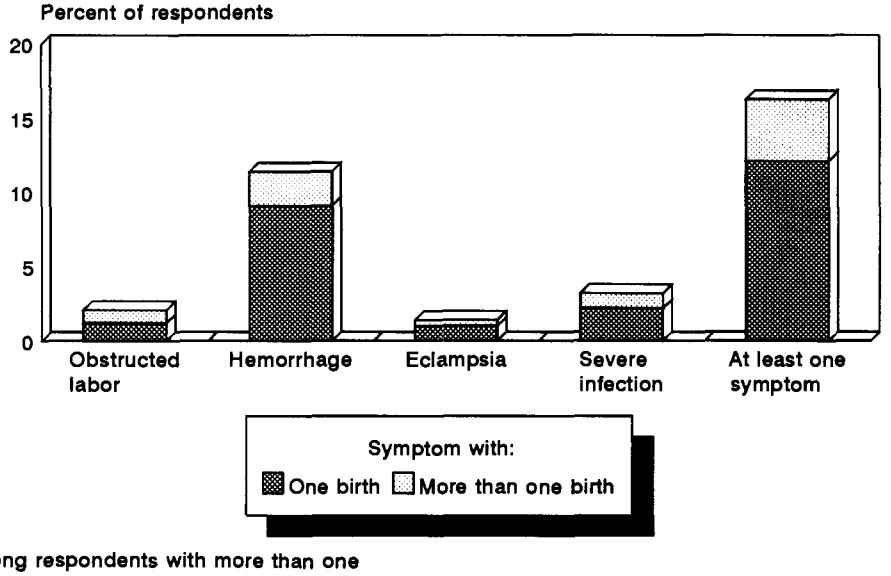
Table 6.9 Symptoms of obstetric complications among respondents with more than one birth in the last three years

Among respondents with more than one stillbirth or live birth in the last three years, the percentage with one or more symptoms of major obstetric complications, by whether the symptoms were associated with one or more outcomes, Philippines, 1993 SMS

Symptom	Symptom in 1 outcome	Symptom in > 1 outcome
C-section due to obstruction	1.2	0.9
Hemorrhage	9.1	2.3
Eclampsia	1.0	0.4
Severe infection	2.2	1.0
At least one symptom	12.1	4.2
Number of respondents	869	869

Note: Figures are based on criteria for identifying complications (see Table 6.6).

Figure 6.3
Percentage of respondents with symptoms of obstetric complications by whether the symptom occurred with one or more than one birth



Note: Among respondents with more than one birth in the three years prior to survey (n=869).

1993 SMS

Among births in the past three years, all symptoms of complications were more common for births resulting in perinatal death (stillbirth or death in first week of life) except for caesarean sections due to obstructed labor (see Table 6.10). Hemorrhage, eclampsia, and fever occurred with perinatal deaths three times as often as with surviving births. Twenty-three percent and 11 percent of perinatal deaths and surviving births, respectively, were to respondents having at least one of these major obstetric complications in that birth.

Table 6.10 Perinatal deaths and live births surviving the first week of life associated with one or more symptoms of obstetric complications

Percentage of stillbirths and live births resulting in perinatal deaths (PND) or live births surviving the first week of life (LBSFW) in the last three years associated with one or more symptoms of major obstetric complication(s), Philippines, 1993 SMS

Symptom	PND	LBSFW	Total
C-section due to obstruction	2.4	2.4	2.4
Hemorrhage	18.9	6.3	6.6
Eclampsia	3.5	1.0	1.1
Severe infection	6.4	2.0	2.1
At least one symptom	23.2	10.6	10.9
More than one symptom	6.3	1.0	1.2
Number of births	117	4,639	4,757

Note: Figures are based on criteria for identifying complications (see Table 6.6).

These relationships are not surprising since conditions affecting the mother often inevitably affect the fetus as well. The case of hemorrhage invites further investigation however, since the causes of postpartum bleeding occur predominantly after delivery of the child. Table 6.11 presents, for those births where the mother reported excessive bleeding, the pregnancy outcome by a variety of other problems and conditions having a more direct effect on the fetus. In almost all cases, the birth resulting in perinatal death has a higher percentage of symptoms of problems like obstructed labor, convulsions, prolonged labor, breech presentation, and multiple birth. This indicates that the women with hemorrhage did suffer from other problems associated with a higher risk of perinatal mortality.

Examination of background characteristics of respondents reporting symptoms of major obstetric complications for births in the past three years reveals minimal variation, suggesting that such demographic indicators are inadequate predictors of women at risk (see Table 6.12).

Educational background is the only characteristic where the proportion with any symptom of a complication varies by more than five percentage points between categories, the highest proportion being among the most educated respondents. Review of specific complications shows that most of this variation can be explained by differences in the proportions experiencing caesarean section due to obstruction. This is consistent with the fact that this is the only complication of the four which, by definition, requires hospital treatment, i.e., caesarean section delivery. That is, the most educated respondents have better access to medical services.

Table 6.11 Symptoms of obstetric complications in cases of hemorrhage by pregnancy outcome

Among stillbirths and live births in the last three years for which the mothers experienced hemorrhage, the percentage of perinatal deaths (PND) and live births surviving the first week of live (LBSFW) associated with symptoms of specific obstetric complications or procedures, Philippines, 1993 SMS

Symptom or procedure	Pregnancy outcome	
	PND	LBSFW
C-section due to obstruction	(5.3)	1.9
Severe infection	(25.3)	9.3
Convulsion	(7.8)	3.4
Labor > 12 hours	(33.7)	23.2
Breech presentation	(16.1)	3.1
Multiple birth	(7.4)	2.8
Manual extraction of placenta	(26.5)	55.8
Caesarean section	(20.6)	3.5
Forceps	(7.2)	7.9
Number of births	22	293

Note: Figures are based on criteria for identifying complications (see Table 6.6).
( ) Based on 25-49 unweighted cases

Table 6.12 Symptoms of obstetric complications by background characteristics

Percentage of stillbirths and live births in the last three years, for which the respondent reported symptoms of four major obstetric complications: caesarean section due to obstructed labor, hemorrhage, eclampsia, infection, and any of these symptoms, by background characteristics, Philippines, 1993 SMS

Background characteristic	Percentage of births for which respondents had symptoms of obstetric complications					
	C-section obstruction	Hemorrhage	Eclampsia	Severe infection	Percent with any symptom	Number of births
Age group at event						
< 20	1.1	6.6	1.3	2.6	10.1	334
20-34	2.4	6.6	0.8	1.9	10.5	3,585
35+	2.7	6.8	2.4	3.0	12.6	838
No. of pregnancies at event						
1	4.3	7.4	1.2	3.2	13.5	769
2-3	3.4	5.9	0.8	1.1	10.5	1,678
4-5	1.3	5.6	1.0	1.8	9.0	1,082
6+	0.8	8.0	1.5	3.2	11.4	1,228
Education						
No educ./primary	1.0	6.7	1.5	2.4	10.1	2,059
High school/vo-tech	2.5	5.5	0.7	2.1	9.6	1,798
College	5.5	8.6	1.0	1.6	15.2	896
Residence						
Urban	3.3	7.0	1.0	2.3	11.8	2,295
Rural	1.5	6.3	1.2	1.9	10.0	2,462
Total	2.4	6.6	1.1	2.1	10.9	4,757

Note: Figures are based on criteria for identifying complications (see Table 6.6).

Overall, 28 percent of all births occurred in hospital or clinic facilities (see Table 6.13). However, births for which the respondent experienced symptoms of a major complication were more likely to occur in a facility (51 percent) than births for which no symptom was reported (25 percent).

Table 6.13 Symptoms of obstetric complications by place of delivery

Percentage of respondents with symptoms of a major obstetric complication in the last three years, by place of delivery, Philippines, 1993 SMS

Place of delivery	No symptom	C-section obstruction	Hemorrhage	Eclampsia	Severe infection	At least one symptom	Total
Home	72.6	0.0	57.9	54.7	65.4	47.3	70
Hospital/clinic	(25.2)	(100.0)	(40.1)	(45.3)	(34.6)	(51.3)	28
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of respondents	4,240	113	315	53	101	517	4,757

Note: Figures are based on criteria for identifying complications (see Table 6.6).
( ) Based on 25-49 unweighted cases

6.3 Other Obstetric Complications

Forty-three percent of the respondents giving birth in the past three years reported having had a perineal tear (other than an episiotomy) in at least one of those births; eight percent said that they had been in labor for more than twelve hours; and five percent of the respondents said it took more than one hour for the placenta to come out after the birth of the child (see Table 6.14).

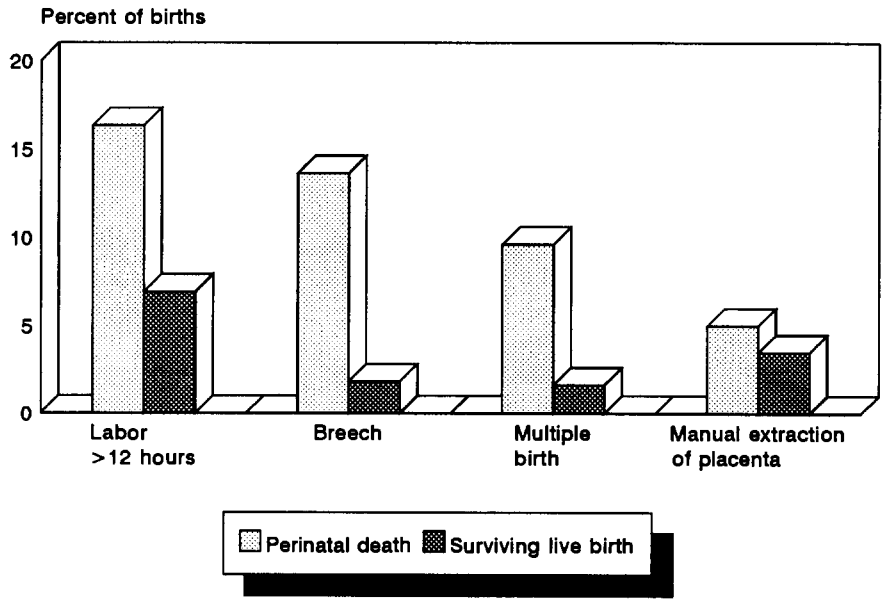
Prolonged labor occurred twice as frequently when there was a perinatal death (16 percent) (see Figure 6.4). Overall, breech presentation and multiple birth occurred in two percent of all births. However, breech presentation was seven times as frequent among births in which there was a perinatal death and multiple birth was five times as common among perinatal deaths (see Figure 6.4)

Table 6.14 Symptoms of other obstetric complications among respondents who had a birth in the last three years

Percentage of respondents with a birth in the last three years reporting symptoms of other obstetric complications: prolonged labor, prolonged rupture of membranes, breech presentation, multiple birth, cord prolapse, perineal laceration, retained placenta, or manual extraction of placenta, for one or more of those births, Philippines, 1993 SMS

Symptom	Percentage of respondents
Labor > 12 hours	8.2
Membranes ruptured > 24 hours	0.2
Breech presentation	2.5
Multiple birth	1.1
Prolapsed cord	0.8
Perineal laceration	42.5
Retained placenta	4.6
Placenta manually extracted	4.1
At least one symptom	51.9
Number of respondents	3,846

Figure 6.4
Pregnancy outcome by selected symptoms of obstetric complications



In two percent of the births, the respondent said she experienced a very high fever in the postpartum period (see Table 6.15). Fever was more common when labor lasted more than twelve hours (6 percent), in surgical deliveries (4 percent), and when the placenta was manually extracted (5 percent) (see Figure 6.5).

6.4 Medical Procedures for Births in the Last Three Years

Respondents reporting caesarean section delivery of any birth in the last three years were asked the reason the procedure was performed. More than one response was accepted. The main reasons given were "pelvis too small" (34 percent) and "repeat C-section" (23 percent), both of which were more common among urban births (see Table 6.16).

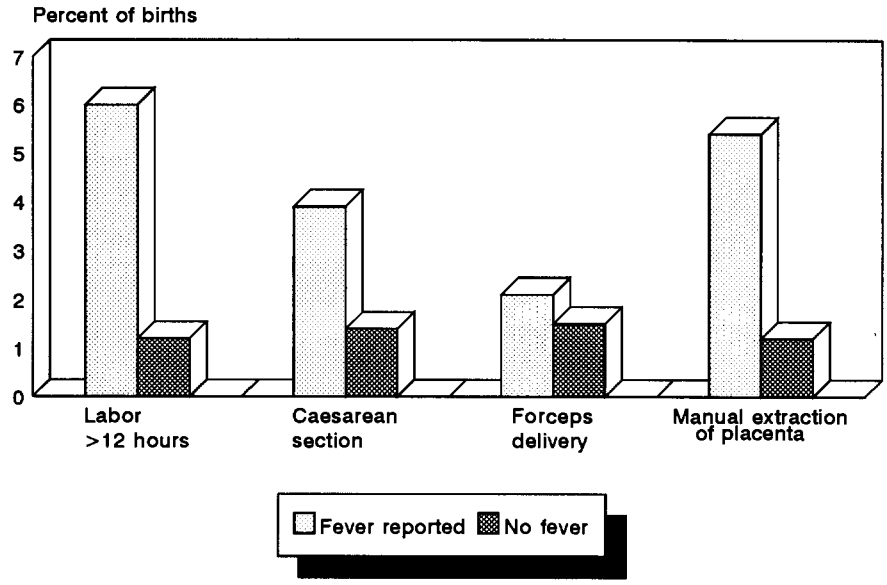
Table 6.15 Postpartum high fever and symptoms of other obstetric complications

Percentage of stillbirths and live births in the last three years for which the respondent reported having a very high fever postpartum, by whether other symptoms of obstetric complications occurred during labor and/or delivery, who attended the delivery, and place of delivery, Philippines, 1993 SMS

Symptom/ delivery attendant/ place of delivery	Percent with high fever postpartum	Number of births
Labor > 12 hrs		
Yes	6.0	339
No	1.2	4,411
DK/missing	*	7
Caesarean section delivery		
Yes	3.9	220
No	1.4	4,516
Forceps assisted delivery		
Yes	2.1	119
No	1.5	4,619
Episiotomy		
Yes	1.8	791
No	1.3	3,688
DK/missing	3.1	278
Perineal laceration		
Yes	1.4	1,973
No	1.4	2,473
DK/missing	3.0	311
Placenta manually extracted		
Yes	5.4	169
No	1.2	4,176
DK/missing	2.9	412
Delivery attendant		
Health professional	1.4	2,235
Other person	1.6	2,513
Missing	0.0	8
Place of delivery		
Home	1.6	3,322
Public sector	1.7	909
Private sector	0.8	502
Other/missing	*	24
Total	1.5	4,757

Note: Missing cases include those not asked the question because it was not applicable; in most cases this was respondents who had a caesarean section delivery.
* Fewer than 25 unweighted cases

Figure 6.5
Postpartum fever by selected symptoms of obstetric complications



1993 SMS

Table 6.16 Reasons for caesarean section delivery

Among stillbirths and live births in the last three years delivered by caesarean section, the percentage of those procedures performed for specific reasons, as reported by the respondent, by urban/rural residence, Philippines, 1993 SMS

Reported reason for caesarean section	Residence		Total
	Urban	Rural	
Pelvis too small	37.0	29.0	34.2
Baby transverse	5.8	8.1	6.6
Breech	8.8	7.6	8.4
Repeat C-section	26.9	15.3	22.9
Mother sick	3.5	6.7	4.6
Baby sick	6.4	0.7	4.5
Didn't know how to push	3.6	9.1	5.5
Baby overdue	8.8	4.3	7.2
No labor progress	12.7	17.4	14.4
Not told the reason	0.6	4.7	2.1
DK/missing	0.5	3.2	1.5
Other	15.7	14.2	15.2
Number of births	144	76	220

Seventeen percent of the births in the past three years were to respondents on whom an episiotomy was performed (see Table 6.17). That is, an incision at the opening of the vagina was intentionally made to facilitate delivery of the child. This procedure was more common among the youngest women (21 percent), in first births (39 percent), for more educated women (35 percent), in urban areas (26 percent), and in hospital deliveries (47 percent). Episiotomy was less common among births with a perinatal death (10 percent). Reporting of forceps delivery is quite low (3 percent overall), with more educated respondents having the highest proportion of forceps deliveries (6 percent).

The overall rate of caesarean section delivery is five percent. The pattern for C-section delivery is similar to that for obstructed labor, i.e., surgical delivery for any reason is more common for first births and among more educated respondents. Urban residence and urbanized regions, such as Metropolitan Manila and Central Luzon, also have higher rates of caesarean section delivery (see Figure 6.6).

Table 6.18 presents the percentage of births by perinatal outcome and symptoms/procedures experienced around delivery for both major complications and other problems, and the percentage for which at least one of these was reported. In half of all perinatal deaths, the mother experienced at least one symptom of obstetric complications, in contrast to one-fifth of surviving live births.

6.5 Problem Recognition and Referral for Major Complications

As described above, for each birth in the past three years, respondents were asked if their labor lasted longer than twelve hours, if they had convulsions, and if they had a lot of bleeding around labor and delivery. For each of these three problems, positive responses were followed up with a series of questions to determine if the symptom was considered to be a problem and if so, who thought it was a problem. If a respondent reported that the problem was recognized, she was asked where she was at the time, and whether or not it was recommended that she go somewhere else for help. For those referred, further questions were asked about where she was referred, how much time it takes to reach there, whether or not she went to the place of referral, and if not, why not.

This sequence of questions was designed to shed light on the process women experience when they develop a complication requiring medical attention. Of particular interest is what happens to women who develop a major complication at home. The difficulty with trying to document the process of seeking care for these complications is the relative rarity with which they occur and the wide range of possible responses that must be considered. Multiple stratification of cases based on what actions were taken results in very small numbers.

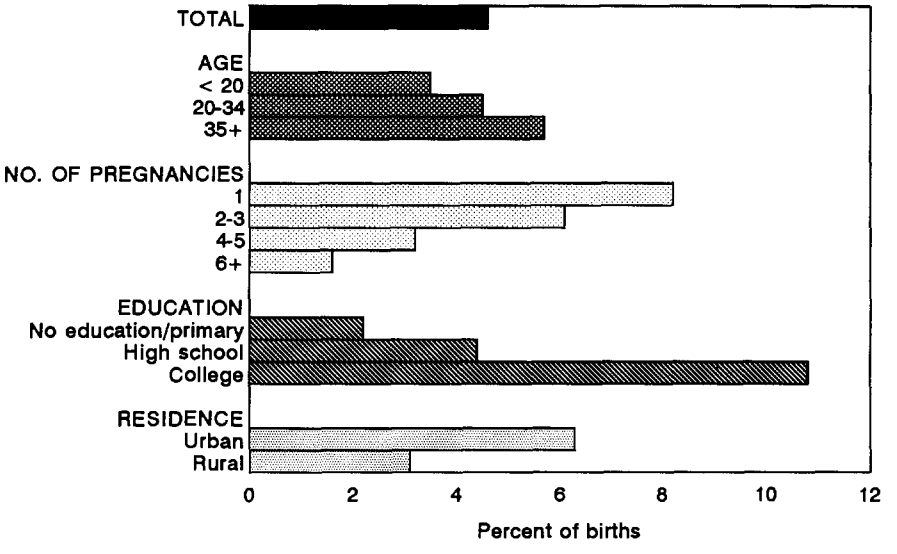
Prolonged labor, convulsions, and excessive bleeding were reported for 7, 1, and 3 percent of all births in the past three years, respectively. In 62, 72, and 77 percent of the births where women had prolonged labor, convulsions, or excessive bleeding, respectively, the respondent herself or someone assisting her considered this to be a problem (see Table 6.19). The respondent herself and her husband or partner were most frequently reported as the person who recognized the problem (see Table 6.20).

Table 6.17 Delivery procedures associated with symptoms of obstetric complications

Percentage of stillbirths and live births in the last three years for which the respondent reported receiving an episiotomy, or having a forceps-assisted delivery, or a caesarean section delivery, or any of these, by background characteristics, perinatal outcome, and place of delivery, Philippines, 1993 SMS

Characteristic	Delivery procedure				Number of births
	Episi-otomy	Forceps delivery	C-section delivery	At least one procedure	
Age group at event					
< 20	21.2	2.7	3.5	25.1	334
20-34	18.2	2.6	4.5	23.8	3,585
35+	8.0	1.8	5.7	14.3	838
No. of pregnancies at event					
1	38.7	5.3	8.2	48.2	769
2-3	19.0	2.4	6.1	25.9	1,678
4-5	11.0	2.2	3.2	15.5	1,082
6+	4.5	1.2	1.6	6.9	1,228
Education					
No educ./primary	6.5	1.3	2.2	9.2	2,059
High school/vo-tech	18.9	2.3	4.4	24.4	1,798
College	35.1	5.7	10.8	47.7	896
Residence					
Urban	25.9	3.3	6.3	33.4	2,295
Rural	8.0	1.7	3.1	11.8	2,462
Region					
Metro. Manila	43.3	4.5	8.9	54.9	584
Cordillera Admin.	16.1	5.7	2.1	20.2	105
Ilocos	11.0	2.8	5.7	18.0	267
Cagayan Valley	8.8	2.9	2.5	12.6	170
C-Luzon	21.7	2.2	10.2	32.1	432
S-Tagalog	17.1	4.6	5.1	23.3	638
Bicol	7.3	1.1	3.0	10.8	371
W-Visayas	15.5	2.1	2.8	19.2	379
C-Visayas	16.5	1.0	3.7	20.9	379
E-Visayas	11.9	1.2	1.9	14.2	225
W-Mindanao	5.0	1.3	1.6	7.1	301
N-Mindanao	7.0	1.6	1.8	9.8	297
S-Mindanao	11.4	1.7	3.9	15.3	332
C-Mindanao	8.7	1.1	2.5	11.7	276
Perinatal outcome					
Perinatal death	9.8	5.7	6.9	19.7	117
Live birth surviving 1st week	16.8	2.4	4.6	22.3	4,639
Place of delivery					
Home	3.7	0.5	0.1	4.1	3,322
Hospital	47.4	7.5	16.3	66.2	1,332
Other	36.4	1.4	0.7	37.2	103
Total	16.6	2.5	4.6	22.2	4,757

Figure 6.6
Percentage of births delivered by caesarean section by selected background characteristics



Note: Births in the three years prior to the survey.

1993 SMS

Table 6.18 Perinatal outcome and symptoms of obstetric complications

Percentage of stillbirths and live births resulting in perinatal deaths (PND) or live births surviving the first week of life (LBSFW) in the last three years by specific symptoms of obstetric complications or procedures, Philippines, 1993 SMS

Symptom/ procedure	Perinatal outcome	
	PND	LBSFW
C-section due to obstruction	2.4	2.4
Severe infection	6.4	2.0
Hemorrhage	18.9	6.3
Eclampsia	3.5	1.0
Labor > 12 hours	16.3	6.9
Membranes ruptured > 24 hours	0.8	0.1
Breech presentation	13.6	1.8
Multiple birth	9.6	1.6
Manual removal of placenta	5.0	3.5
Caesarean section	6.9	4.6
Forceps	5.7	2.4
At least one symptom/procedure	49.7	20.6
Number of births	117	4,639

Note: Figures are based on criteria for identifying complications (see Table 6.6).

Table 6.19 Recognition of problem status of symptoms of obstetric complications

Among stillbirths and live births for which the respondent reported prolonged labor, convulsions, or excessive bleeding, the percentage for which the symptom was recognized as a problem, by background characteristics, Philippines, 1993 SMS

Background characteristic	Labor > 12 hours	Convul-sions	Exces-sive bleeding
Age group at event			
< 20	41.5	(100.0)	87.7
20-34	62.1	(54.9)	70.3
35+	79.9	(87.0)	92.0
Education			
No educ./primary	62.5	(69.0)	76.2
High school/vo-tech	65.9	(66.1)	77.7
College	56.4	(100.0)	75.7
No. of pregnancies at event			
1	56.0	(62.5)	80.4
2-3	57.7	(35.6)	68.6
4-5	62.5	(100.0)	73.6
6+	79.9	(86.9)	80.1
Residence			
Urban	55.8	(87.1)	73.0
Rural	69.1	(58.0)	79.2
Region			
Metro. Manila	60.0	(100.0)	50.0
Cordillera Admin.	72.0	*	100.0
Ilocos	82.6	(66.7)	70.0
Cagayan Valley	73.9	*	100.0
C-Luzon	60.6	(100.0)	55.6
S-Tagalog	50.0	(100.0)	75.0
Bicol	48.6	(60.0)	78.6
W-Visayas	69.7	(80.0)	75.0
C-Visayas	68.4	(33.3)	88.9
E-Visayas	55.6	(50.0)	87.5
W-Mindanao	57.1	(50.0)	80.0
N-Mindanao	75.0	(66.7)	75.0
S-Mindanao	100.0	(100.0)	69.2
C-Mindanao	88.9	(100.0)	88.9
Total	62.4	71.6	76.5
Percent of all births	7.1	0.6	2.6
Number of births	332	29	122

( ) Based on 25-49 cases
* Fewer than 25 unweighted cases

Table 6.20 Recognition of problem status of symptoms of major obstetric complications by various persons

Among stillbirths and live births in the last three years for which there was a recognized symptom of a major obstetric complication of prolonged labor, or excessive vaginal bleeding, the percentage of various types of persons who thought it was a problem, by symptom, Philippines, 1993 SMS

Symptom	Doctor	Nurse	Midwife	Hilot	Husband	Mother	Other relative	Respondent	Other	Number of births
Labor > 12 hours	15.2	2.8	17.5	22.3	39.8	27.2	21.1	40.2	0.4	207
Excessive vaginal bleeding	22.4	2.7	13.4	25.7	43.6	18.3	26.2	43.1	0.9	93

Note: Multiple responses were accepted.

Among those who were at home when the labor was recognized as prolonged, 48 percent were not referred elsewhere (see Table 6.21). Fifty-six percent of those with excessive bleeding were not referred. Over seventy percent of those who were referred for either problem went where they were referred.

Table 6.21 Responses to recognition of problem status of symptoms of obstetric complications

Among stillbirths and live births for which the respondent had prolonged labor or excessive vaginal bleeding around delivery, and the problem was recognized, and the woman was at home when it was recognized, the percentage for which no referral was recommended, the percentage for which the woman was referred and went where she was referred, and the percentage for which she was referred but did not go, Philippines, 1993 SMS

Symptom	No referral suggested	Went where referred	Did not go where referred	Total percent	Number of births
Labor > 12 hours	47.9	37.0	15.0	100.0	162
Excessive vaginal bleeding	55.5	32.4	12.1	100.0	65

For each of the three symptoms of obstetric complications—prolonged labor, convulsions, and excessive bleeding—between 70 and 80 percent of the events were first recognized when the respondent was at home (data not shown). This proportion is only slightly higher than the overall percent who delivered at home (69 percent). In most cases where the respondent was referred when she was at home, she was referred to a government hospital or clinic. The second most common place of referral was a private hospital or clinic.

CHAPTER 7

GENERAL HEALTH, ANTHROPOMETRY, CHRONIC AND OTHER REPRODUCTIVE MORBIDITIES AND INDUCED ABORTION

This chapter presents findings related to several objectives of the SMS. One goal of the SMS was to explore some of the issues encompassed in a broader definition of reproductive health. In the SMS this goal was pursued in a number of ways. One method was to ask women about symptoms of chronic and other reproductive morbidities and treatment sought. Questions on complications of unsafe abortion and on sexual exposure were included, since these issues can increase the risk of some reproductive morbidities. The nutritional anthropometry of SMS respondents was also documented.

A cautionary note is worth making here on some of the methodological issues involved in this process. These fall into the separate but related categories of biomedical diagnosis; socio-cultural definitions of health and illness; and the sensitive concerns of privacy and confidentiality. These latter concerns are highly trust-dependent and relate back to questions of methodology. For a number of the conditions included in this broader definition of reproductive health, definitive diagnosis depends on clinical and laboratory examination. While suggestive symptoms are sometimes present, some reproductive morbidities produce few symptoms until late in the course of disease. In addition, some of the symptoms that do occur may be accepted as the norm by women with chronic poor health and low social status. Abortion and sexual behavior are both difficult areas of data collection because of the extremely sensitive and private nature of these practices.

7.1 Perceived General Health Condition

As an introduction to the set of questions on symptoms of reproductive morbidities, respondents were asked about their general health condition. Each respondent was asked to rate her general health condition, whether it is good, fair, or poor, and whether her health now is better, the same, or worse compared to that at about the same time last year. They were also asked whether their health limits them in any way in doing vigorous or moderate activities. Table 7.1 shows the respondents' perceptions about their general health condition, how it compares to last year, and whether they have health limitations, according to background characteristics.

Overall, 95 percent of respondents reported their health as good or fair (see Table 7.1). How well these perceptions correlate with their true health condition is unknown. Respondents' perceptions of their health varied most with parity, education, and region of residence. A relatively higher percentage of respondents reporting poor health is found in the 35 and over age group. Respondents with six or more pregnancies comprise the largest percentage reporting poor health. Generally, reporting of poor health condition is associated with regions with the poorest economic condition. The highest percentages of respondents with perceived poor health are in Bicol and Eastern Visayas, two of the least developed regions in the country. Two-thirds of the respondents in Mindanao considered themselves in good condition compared with just over a third in Metropolitan Manila and Western Visayas. Most of the respondents in the latter regions, however, rated their health as fair.

One in five respondents thought her health was better now than last year; 72 percent said it is the same while nine percent reported their health as worse than last year. Those who thought their health was worse now than last year were more likely to be older, have more than five pregnancies, and have primary

Table 7.1 Health status of respondents

Percent distribution of respondents by perceived current health status (good, fair, or poor), perceived current health status compared to last year (better, the same, or worse), and current ability to do activities (unlimited, limited on vigorous activities only, or limited on moderate activities), according to background characteristics, Philippines, 1993 SMS

Background characteristic	Current health condition			Current health compared to last year			Ability to do activities			Total percent	Number of respondents
	Good	Fair	Poor	Better	Same	Worse	Unlimited	Limit on vigorous	Limit on moderate		
Age group											
< 20	52.8	46.2	1.0	21.2	75.6	3.3	96.8	2.8	0.0	100.0	113
20-34	54.2	42.5	3.3	19.3	74.1	6.5	92.3	6.0	1.7	100.0	4,177
35+	48.6	45.4	6.1	19.6	69.8	10.6	89.4	8.1	2.5	100.0	4,191
No. of pregnancies											
1	57.1	40.2	2.8	20.7	74.1	5.1	94.0	5.0	1.0	100.0	988
2-3	55.0	41.7	3.3	19.8	73.8	6.4	92.7	5.8	1.5	100.0	2,858
4-5	50.6	45.4	4.0	20.0	71.3	8.7	90.7	6.6	2.7	100.0	2,263
6+	45.5	46.8	7.7	18.1	69.7	12.2	87.8	9.7	2.5	100.0	2,372
Education											
No educ./primary	48.6	44.8	6.6	18.3	70.8	10.9	90.0	7.8	2.2	100.0	3,739
High school/vo-tech	51.0	45.5	3.4	19.9	72.8	7.2	91.4	6.6	2.0	100.0	2,968
College	58.0	39.3	2.7	21.4	73.0	5.6	92.2	6.0	1.8	100.0	1,772
Residence											
Urban	51.6	45.0	3.3	19.7	73.2	7.1	92.0	6.0	2.0	100.0	4,383
Rural	51.2	42.8	6.1	19.3	70.7	10.0	89.9	7.9	2.2	100.0	4,098
Region											
Metro. Manila	39.7	58.2	2.1	23.2	71.6	5.2	95.5	3.1	1.4	100.0	1,232
Cordillera Admin.	71.3	24.6	4.0	9.2	73.9	16.9	64.7	29.8	5.5	100.0	147
Ilocos	52.3	42.2	5.6	19.9	72.0	8.2	86.9	8.4	4.7	100.0	484
Cagayan Valley	48.3	47.9	3.9	16.3	63.3	20.4	68.9	29.8	1.3	100.0	333
C-Luzon	55.7	39.1	5.2	19.0	75.8	5.2	92.6	4.3	3.1	100.0	914
S-Tagalog	51.6	45.2	3.2	15.8	78.5	5.7	92.4	5.8	1.8	100.0	1,157
Bicol	41.0	49.4	9.6	20.0	70.4	9.6	94.6	3.7	1.7	100.0	535
W-Visayas	38.4	57.4	4.2	22.9	63.1	13.8	90.7	7.3	2.0	100.0	655
C-Visayas	64.3	29.9	5.8	15.6	73.3	11.1	90.1	6.6	3.3	100.0	659
E-Visayas	32.0	58.5	9.5	24.9	66.7	8.4	93.2	5.2	1.6	100.0	382
W-Mindanao	62.5	32.9	4.5	26.3	66.7	6.6	96.7	3.1	0.2	100.0	457
N-Mindanao	62.2	33.0	4.9	21.1	68.2	10.7	89.9	8.6	1.5	100.0	473
S-Mindanao	60.2	34.8	5.0	18.5	71.2	10.4	89.0	9.2	1.8	100.0	616
C-Mindanao	63.4	34.0	2.6	13.4	82.4	4.2	94.0	4.9	1.1	100.0	438
Total	51.4	43.9	4.7	19.5	72.0	8.5	90.9	7.0	2.1	100.0	8,481

or no education. A higher percentage of respondents who reported poorer health than last year was found in CAR and Cagayan Valley.

Seven percent of respondents reported that their health limits their ability to do vigorous activities such as scrubbing the floor. Two percent reported a limited ability to do moderate activities. Respondents with limited mobility tended to be older and higher parity, as was seen for the other self-reported indicators of health status.

7.2 Diagnosed Illnesses

Respondents were asked whether they had ever been told by a doctor or a nurse, at any time in their life, that they had any of the following health problems: tuberculosis, diabetes mellitus, high blood pressure/ hypertension, malaria, hepatitis, kidney disease, heart disease, anemia, goiter, or any other medical problems. These questions help to estimate the levels of diagnosed illness among ever-pregnant women; however, they do not reflect the actual prevalence of disease. This point is born out through comparisons with prevalence surveys as described below.

The most commonly reported diagnosed illness was anemia, reported by 16 percent of the respondents (see Table 7.2). This is followed by high blood pressure (10 percent), kidney disease (9 percent), other (uncategorized) morbidities (8 percent), and heart disease (5 percent). Less than five percent of the respondents reported having been diagnosed with goiter, malaria, tuberculosis, diabetes, or hepatitis.

Table 7.2 Diagnosed illnesses

Percentage of respondents who reported ever having various illnesses diagnosed by a doctor or a nurse, by background characteristics, Philippines, 1993 SMS

Background characteristic	Diagnosed illness										Number of respondents
	Tuberculosis	Diabetes	High blood pressure	Malaria	Hepatitis	Kidney disease	Heart disease	Anemia	Goiter	Other	
Age group											
< 20	0.0	0.0	3.2	8.3	0.9	4.2	1.0	14.0	1.7	1.9	113
20-34	1.2	0.5	5.8	2.4	1.0	7.2	3.4	17.0	3.7	6.6	4,177
35+	3.0	1.7	14.4	3.4	1.0	10.5	7.4	15.6	5.7	9.6	4,191
No. of pregnancies											
1	1.0	0.5	8.0	2.1	0.8	7.9	3.9	9.7	3.6	8.3	988
2-3	1.4	0.7	9.1	1.9	0.9	7.1	4.4	15.4	4.2	7.4	2,858
4-5	1.6	1.4	10.4	3.3	1.1	9.7	4.4	16.7	4.7	8.3	2,263
6+	3.7	1.5	11.8	4.5	1.0	10.2	7.9	19.7	5.6	8.4	2,372
Education											
No educ./primary	2.9	1.1	9.9	4.4	0.7	9.3	5.7	17.3	4.8	6.6	3,739
High school/vo-tech	1.6	0.7	10.0	2.4	1.2	8.8	5.1	16.7	4.3	7.8	2,968
College	1.0	1.6	10.3	1.1	1.1	7.6	5.1	13.4	5.1	11.3	1,772
Residence											
Urban	2.1	1.2	10.4	1.9	0.7	8.8	5.2	14.0	4.5	8.8	4,383
Rural	2.1	0.9	9.7	4.2	1.3	8.7	5.4	18.6	4.9	7.2	4,098
Region											
Metro. Manila	2.4	1.6	8.0	0.2	0.5	4.2	4.0	5.7	3.2	11.7	1,232
Cordillera Admin.	1.1	0.7	15.1	17.6	3.3	12.5	5.1	28.7	15.4	14.7	147
Ilocos	2.6	0.3	11.8	1.0	0.9	7.0	5.2	24.9	1.7	8.0	484
Cagayan Valley	1.3	1.1	13.1	20.4	3.9	14.4	7.7	44.0	10.3	17.8	333
C-Luzon	1.9	0.9	11.6	1.8	0.9	13.0	4.9	12.9	5.2	4.2	914
S-Tagalog	1.3	0.6	12.2	4.0	1.5	9.7	4.8	9.8	7.0	6.9	1,157
Bicol	5.4	1.1	9.2	0.9	0.2	5.2	2.8	16.1	2.6	6.2	535
W-Visayas	3.9	0.9	9.9	0.7	2.2	4.8	5.2	11.4	2.8	10.5	655
C-Visayas	0.7	1.1	11.9	0.0	0.1	11.1	7.8	18.7	3.3	5.5	659
E-Visayas	3.9	1.1	10.9	1.4	1.1	9.1	6.8	26.8	2.7	12.2	382
W-Mindanao	1.0	0.3	5.4	2.4	0.2	7.0	2.8	11.5	3.0	4.2	457
N-Mindanao	0.8	2.3	6.8	2.9	0.3	10.2	6.5	14.6	5.7	2.4	473
S-Mindanao	1.4	1.2	9.3	4.8	0.6	12.0	7.2	28.4	6.0	6.3	616
C-Mindanao	0.9	1.2	7.9	4.6	0.5	9.2	6.7	19.4	4.6	10.0	438
Total	2.1	1.1	10.0	3.0	1.0	8.8	5.3	16.3	4.7	8.0	8,481

The level of diagnosed anemia reported here is considerably lower than the estimate of 37.2 from the FNRI 1987 National Nutrition Survey (Villavieja et al., 1989). This raises the point of how few providers actually test for anemia. Another study finding higher rates of anemia was conducted in 1987 in Metropolitan Manila among urban poor mothers of infants in their third trimester of pregnancy. The prevalence of anemia in this high-risk group was 21 percent (Raymundo, 1987).

Older women were more likely to report a diagnosis of tuberculosis, high blood pressure, kidney and heart disease, while younger women were more likely to report malaria. There is very little variation in the percentage of respondents reporting diagnosis of the various morbidities by parity, except for high blood pressure, malaria, heart disease, and anemia where levels were higher for women with six or more pregnancies than for those with one. Less educated women were more likely to report tuberculosis, malaria, kidney disease, and anemia than better educated women, while the latter were more likely to report other morbidities. There was little variation in reporting by urban/rural residence other than for malaria and anemia, both of which were more commonly reported by respondents from rural areas.

7.3 Illness during Pregnancy

Women who reported ever having had any of the illnesses mentioned above diagnosed by a doctor or a nurse, were asked whether they had that problem when they were pregnant. Over half of the women reporting anemia had the illness while they were pregnant, while only 19 percent of those diagnosed with diabetes said they had it when they were pregnant (see Table 7.3). For the other morbidities, from about one in five (for hepatitis) to one in three (for goiter) respondents with the illness experienced it during pregnancy (Figure 7.1).

Table 7.3 Diagnosed illness during pregnancy

Among respondents who reported ever having various illnesses diagnosed by a doctor or a nurse, the percentage who reported experiencing the illness(es) during pregnancy, Philippines, 1993 SMS

Illness	Percent ill while pregnant	Number with illness/ problem
Tuberculosis	28.1	176
Diabetes mellitus	18.9	90
High blood pressure	33.1	852
Malaria	28.2	255
Hepatitis	22.5	83
Kidney disease	31.4	744
Heart disease	30.1	453
Anemia	54.7	1,379
Goiter	35.3	396
Other	26.2	680

7.4 Anthropometry

Several indicators can be used to assess the nutritional status of women (Krasovec and Anderson, 1991). While anthropometric data are now routinely collected in DHS surveys for mothers with living children under five, the SMS broadened this to include all SMS respondents, that is, women of reproductive age who reported ever having been pregnant. This allows analysis of height, weight, and mid-upper arm circumference (MUAC) measurements for women who are normally underrepresented in DHS surveys. However, because of the SMS focus on ever-pregnant women and the relatively late age of onset of childbearing in the Philippines, women under age 20 are still relatively underrepresented in the SMS as well.

The measuring equipment used in the SMS was the same as that routinely used to measure mothers and children in DHS surveys. Height was measured using a wooden measuring board, equipped with an extension for measuring adults. A digital bathroom scale with accuracy of ± 100 grams was used to obtain weights. An insertion tape was used to measure arm circumference.

Figure 7.1
Percentage of respondents ever diagnosed with selected illnesses and whether they ever had illness during pregnancy

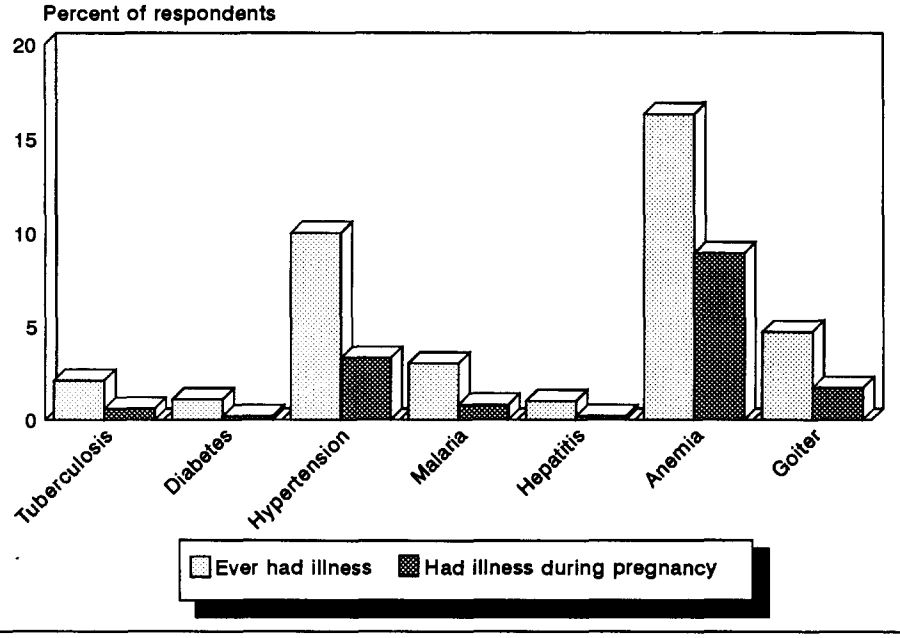


Table 7.4 presents the mean, standard deviation, and percent distribution for four anthropometric indicators: height, weight, body mass index (BMI), and mid-upper arm circumference (MUAC).

Height is associated with socioeconomic status over generations and is useful in identifying women at nutritional risk. Maternal height has also been used to identify women at risk of difficult delivery, since short stature is sometimes correlated with small pelvis size. The risk of low birth weight also appears to be higher for children of short women. The optimal cut-off point varies among populations, but is likely to be in the range 140-150 cm. The mean height of women measured in the SMS was 151.6 cm. Ten percent of the respondents were shorter than 145 cm, while 37 percent were below 150 cm. The mean weight was 51.2 kg, excluding pregnant women.

Body mass indices are used to assess thinness or obesity. The most commonly used index is the *body mass index* (BMI), which is defined as weight in kilograms divided by the squared height in meters. Chronic energy deficiency is generally defined as a BMI of 18.5 or lower. Obesity has not been clearly defined. The mean BMI among respondents who were not pregnant at the time of the survey was 22.2. However, almost 13 percent had a BMI below 18.5, suggesting chronic energy deficiency.

Mid-upper arm circumference (MUAC) can be used as an indicator of maternal nutritional status in non-pregnant women because of its high correlation with maternal weight-for-height. It is also used as a tool during pregnancy to screen for risk of low birth weight and late fetal and infant mortality. The recommended cut-off points for assessing both of these risks are on the order of 21-23 cm. The mean arm circumference of all SMS respondents was 26.5 cm. Two percent had an arm circumference below 21 cm, while 12 percent were below 23 cm.

Table 7.4 Anthropometric indicators of maternal nutritional status

Mean, standard deviation, and percent distribution for all respondents, for those with a live birth in the last five years, and for those with a live birth in the last three years, by selected anthropometric indicators (height, weight, body mass index (BMI), and mid-upper arm circumference), Philippines, 1993 SMS

Anthropometric indicator	All respondents	Respondents with: Birth in last 5 years	Respondents with: Birth in last 3 years
Height in centimeters			
Mean height	151.6	151.4	151.3
Standard deviation	5.5	5.4	5.5
0-129.9	0.1	0.1	0.1
130.0-134.9	0.1	0.1	0.1
135.0-139.9	1.3	1.4	1.5
140.0-144.9	8.7	9.2	9.4
145.0-149.9	26.8	27.8	28.4
150.0-154.9	37.2	36.7	36.6
155.0-159.9	19.7	19.2	18.5
160.0-164.9	4.9	4.5	4.5
165.0-169.9	1.1	0.9	0.9
170.0-174.9	0.1	0.1	0.1
≥ 175.0	0.0	0.0	0.0
Missing	186	123	90
No. of women	8,293	5,207	4,005
Weight in kg.			
Mean weight	51.2	49.9	49.5
Standard deviation	9.4	8.7	8.6
0-34.9	1.4	1.2	1.3
35.0-39.9	6.9	8.1	8.1
40.0-49.9	40.5	45.9	48.1
50.0-59.9	35.7	33.2	31.9
≥ 60.0	15.5	11.6	10.6
Missing	288	179	138
No. of women	7,284	4,304	3,219
BMI in kg/m^2			
Mean BMI	22.2	21.7	21.6
Standard deviation	3.7	3.4	3.3
0-11.9	0.0	0.0	0.0
12.0-15.9 (severe)	1.3	1.0	1.0
16.0-16.9 (moderate)	2.4	2.9	2.7
17.0-18.4 (mild)	9.0	10.1	10.9
18.5-20.4 (normal)	21.3	25.2	26.8
20.5-22.9 (normal)	30.3	31.5	31.3
23.0-24.9 (normal)	16.8	14.6	14.0
25.0-26.9 (overweight)	9.3	8.0	7.3
27.0-28.9 (overweight)	5.0	3.3	3.0
≥ 29.9 (overweight)	4.7	3.3	2.9
Missing	303	188	141
No. of women	7,271	4,296	3,214
Mid-upper arm circumference (cm)			
Mean mid-upper arm circumference	26.5	26.0	25.8
Standard deviation	3.3	3.0	2.9
0-19.9	0.7	0.7	0.7
20.0-20.9	1.7	1.9	2.1
21.0-21.9	3.1	3.9	4.3
22.0-22.9	6.5	7.8	8.3
23.0-23.9	9.5	11.1	12.1
24.0-24.9	12.2	13.8	14.7
25.0-25.9	11.4	12.4	12.5
26.0-26.9	14.0	14.7	14.6
27.0-27.9	9.7	9.0	8.7
28.0-28.9	10.1	8.8	8.1
≥ 29.0	21.1	15.9	14.0
Missing	85	59	45
No. of women	8,399	5,273	4,050

Note: Currently pregnant women are excluded from weight and BMI calculations. Missing cases are not included in percent calculations.

Review of the nutritional status indices of SMS respondents who have had a live birth in the last five years and in the last three years shows little variation (see Table 7.4). However, the means are consistently lower and the percentages below cut-off are consistently greater in the selected group having a birth in the five or three years prior to the survey than among the total sample of respondents.

Table 7.5 presents mean height, percent below 145 cm, mean BMI, percent with BMI below 18.5, mean mid-upper arm circumference, and percent with arm circumference less than 23 cm, by background characteristics. Although there is little difference in the means for each indicator, the lowest means are consistently found among the youngest respondents, those with one or more than five pregnancies, those with primary or no education, and those from rural areas (see Figure 7.2). This pattern is more evident for percentages below the cut-offs for each indicator.

Table 7.5 Differentials in maternal anthropometric indicators

Mean height and percentage of respondents shorter than 145 centimeters, mean body mass index (BMI) and percentage of respondents whose BMI is less than 18.5, and mean mid-upper arm circumference and percentage of respondents with arm circumference less than 23 centimeters, by selected background characteristics, Philippines, 1993 SMS

Background characteristic	Height			BMI			Mid-upper arm circumference		
	Mean	Percent < 145	Number	Mean	Percent < 18.5	Number	Mean	Percent < 23.0	Number
Age group									
< 20	150.6	15.4	113	20.5	15.9	89	24.3	23.9	113
20-34	151.6	10.4	4,086	21.7	13.4	3,345	26.1	13.5	4,137
35+	151.6	9.8	4,094	22.6	12.0	3,836	27.0	10.1	4,148
No. of pregnancies									
1	151.7	10.0	966	21.9	13.4	805	26.1	12.9	981
2-3	152.0	9.6	2,798	22.2	11.6	2,448	26.5	11.4	2,834
4-5	151.6	9.4	2,224	22.5	10.7	1,981	26.8	10.1	2,242
6+	151.0	11.7	2,305	22.0	15.6	2,037	26.4	14.1	2,342
Education									
No educ./primary	150.7	13.1	3,655	21.9	15.5	3,174	26.2	14.7	3,700
High school	151.7	9.7	2,908	22.2	11.8	2,542	26.5	11.8	2,944
College	153.2	5.0	1,730	22.8	8.1	1,554	27.2	6.7	1,754
Residence									
Urban	152.1	8.9	4,292	22.6	10.5	3,848	27.0	9.7	4,342
Rural	151.0	11.5	4,001	21.7	15.0	3,422	26.0	14.4	4,057
Region									
Metro. Manila	152.2	8.4	1,210	23.1	8.0	1,106	27.2	8.1	1,219
Cordillera Admin.	150.4	9.6	141	23.0	5.8	122	26.9	8.8	142
Ilocos	151.8	7.4	470	21.6	17.2	416	26.2	14.3	472
Cagayan Valley	151.2	9.7	332	21.2	17.2	299	26.0	13.6	332
C-Luzon	154.1	5.8	905	22.3	11.3	827	27.2	8.4	906
S-Tagalog	151.7	10.4	1,122	22.1	10.5	1,024	26.2	12.4	1,151
Bicol	150.0	17.0	524	21.7	15.3	445	26.2	12.8	533
W-Visayas	151.0	11.8	648	21.3	21.6	573	25.7	19.2	655
C-Visayas	150.8	13.7	654	21.7	17.3	577	26.6	12.1	658
E-Visayas	150.7	14.0	377	22.8	11.3	330	26.4	12.1	379
W-Mindanao	151.4	7.4	454	22.6	8.3	268	26.1	13.9	457
N-Mindanao	150.8	12.5	471	22.6	10.8	414	26.7	11.2	473
S-Mindanao	150.8	11.7	555	22.4	10.4	496	26.6	11.4	586
C-Mindanao	151.6	6.8	430	22.2	13.8	374	26.3	14.3	436
Total	151.6	10.2	8,293	22.2	12.7	7,271	26.5	12.0	8,399

Figure 7.2
Percentage of respondents with height <145 cm by selected background characteristics

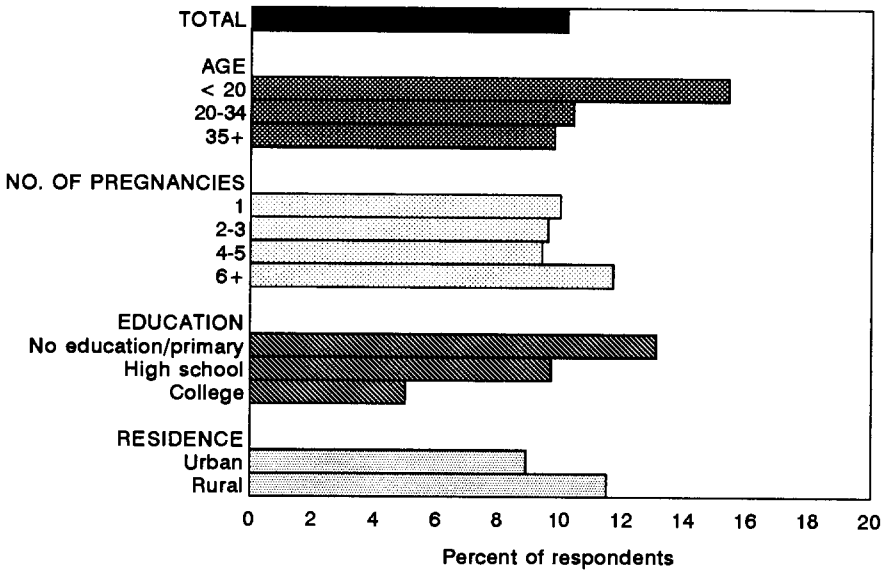


Table 7.6 presents the percentage of respondents in each height category by whether or not, for births in the last three years, they had a caesarean section due to obstructed labor, a caesarean section delivery, or labor for more than 12 hours. The percentage below 145 cm for those with prolonged or obstructed labor is only three percentage points higher than the percentage below this cut-off among those without the complication. Similar differences are seen for those with caesarean section due to obstructed labor and for caesarean section in general. These findings indicate that in this sample of respondents, who are for the most part 20 or older, height is not associated with risk of obstructed labor. It is important to note, however, that these findings underrepresent the risk burden in settings where many very young women, that is, under 18 years of age, are giving birth.

7.5 Other Reproductive Morbidities

After being questioned about diagnosed disease, respondents were also asked about symptoms suggestive of the following reproductive morbidities: infertility, uterine prolapse, urinary incontinence, reproductive tract infection, urinary tract infection, dyspareunia, and menstrual disorders. These questions were not asked to determine the prevalence of these morbidities, per se, but rather to indicate what proportion of respondents had symptoms requiring evaluation for care. It is important to note that the figures reported here are likely to underestimate the burden of disease for reasons described above regarding asymptomatic disease.

A respondent had to meet certain criteria in order to be counted as having symptoms of infertility in the SMS. These criteria were as follows: 1) she was not pregnant at the time of interview and had not been pregnant in the past 12 months; 2) she had been trying to get pregnant without success for more than twelve months; 3) she had been living with her husband/partner during most of the time she was trying; and 4) she had not used any kind of contraception during that time.

Table 7.6 Caesarean section and prolonged labor according to height

Percent distribution of respondents by whether or not they reported symptoms of caesaean section due to obstructed labor in the last three years, and whether they had labor for more than 12 hours in the last three years, according to height, Philippines, 1993 SMS

Symptom	Height				Total percent	No. of respondents
	< 145 cm	145-159.9 cm	160 + cm	Missing		
Caesarean section due to obstructed labor in last three years						
Yes	13.5	80.2	5.5	0.8	100.0	105
No	10.8	81.4	5.4	2.3	100.0	3,741
Caesarean section in last three years						
Yes	13.1	79.5	5.9	1.6	100.0	201
No	10.8	81.5	5.3	2.3	100.0	3,645
Labor for > 12 hours in last three years						
Yes	13.6	77.6	6.1	3.0	100.0	315
No	10.6	81.7	5.5	2.2	100.0	3,531

For the chronic conditions of uterine prolapse and urinary incontinence, respondents were asked about their current status. Respondents considered symptomatic of uterine prolapse were those who said they had a feeling that their womb was coming out or slipping. The symptom considered suggestive of urinary incontinence was if a woman was having a problem controlling her urine.

Symptoms of the more acute problems of reproductive and urinary tract infections were asked about in reference to the last three months prior to the survey. The main symptom asked about for reproductive tract infections was the presence of an abnormal vaginal discharge. For respondents reporting a discharge, further questions were asked to determine whether or not they had localized itching, irritation, or bad odor, and whether they had severe lower abdominal pain or fever with the discharge. Symptoms considered indicative of a urinary tract infection included pain or burning while urinating, or more frequent or difficult urination.

Diagnosis of dyspareunia, or painful intercourse, is dependent on the woman's report. For this condition, respondents were asked if they often feel pain in their abdomen or vagina during intercourse. A general question was also asked to suggest women who might be suffering from menstrual disorders. This question, focused on the respondent's last period, asked about problems with severe pain, and changes in the duration, amount, or onset of bleeding.

Table 7.7 shows that the most prevalent of these reproductive disorders, as suggested by the symptoms reported by the respondents, is uterine prolapse, with 14 percent of women reporting symptoms. This is followed by urinary incontinence and menstrual disorder, with about six percent each. Five percent each of women reported symptoms of urinary tract infection and dyspareunia, and two percent each have symptoms of abnormal vaginal discharge and infertility. Eight percent of the women reported symptoms of more than one morbidity.

Table 7.7 Symptoms of reproductive health problems

Percentage of respondents reporting symptoms of infertility, uterine prolapse, urinary incontinence, vaginal discharge, urinary tract infection, dyspareunia, menstrual disorders, by background characteristics, Philippines, 1993 SMS

Background characteristic	Infertility		Uterine prolapse	Urinary incontinence	Vaginal discharge	Urinary infection	Dyspareunia	Menstrual disorders	Any symptom	> 1 symptom	Number of respondents
	Percent with symptom	Number									
Age group											
< 20	(0.0)	41	11.5	2.3	1.4	3.9	8.2	5.3	24.4	6.2	113
20-34	1.5	2,440	13.9	5.8	2.0	4.8	5.4	5.3	26.1	8.1	4,177
35+	2.2	3,632	13.2	6.7	2.1	5.5	4.4	5.8	28.2	8.3	4,191
No. of pregnancies											
1	7.1	669	11.5	6.6	1.8	4.3	4.6	5.1	26.7	8.8	988
2-3	2.0	2,039	11.9	5.2	1.9	4.1	4.5	4.5	24.3	6.4	2,858
4-5	0.9	1,684	13.3	6.3	2.1	5.4	5.1	6.0	27.5	8.1	2,263
6+	0.7	1,720	16.5	7.2	2.2	6.6	5.6	6.5	30.4	10.1	2,372
Education											
No educ./primary	1.9	2,688	15.5	5.8	2.1	5.9	5.0	6.1	28.4	8.9	3,739
High school/vo-tech	1.8	2,071	12.7	6.7	1.9	4.8	5.4	5.2	26.9	8.1	2,968
College	2.0	1,353	10.7	6.3	2.0	4.2	4.3	4.8	24.9	6.9	1,772
Residence											
Urban	1.9	3,293	11.5	7.1	2.2	4.6	4.4	4.8	25.2	7.7	4,383
Rural	1.9	2,819	15.7	5.2	1.8	5.8	5.6	6.3	29.2	8.7	4,098
Region											
Metro. Manila	1.6	940	6.6	11.3	2.2	4.4	4.1	3.0	22.7	6.8	1,232
Cordillerà Admin.	0.6	97	15.4	6.2	2.9	14.3	9.2	8.8	40.8	10.7	147
Ilocos	2.7	341	15.5	4.5	3.3	7.5	5.7	6.3	31.0	9.8	484
Cagayan Valley	1.5	244	17.6	1.9	2.4	6.9	3.6	9.7	30.0	9.0	333
C-Luzon	1.7	698	7.9	5.6	1.4	3.9	3.6	2.6	18.7	5.2	914
S-Tagalog	2.5	848	7.4	6.4	2.1	2.8	2.7	2.3	19.3	5.2	1,157
Bicol	0.9	336	10.3	7.9	0.4	4.7	7.9	3.9	24.3	8.1	535
W-Visayas	3.1	476	16.0	3.4	2.5	4.6	9.3	7.6	30.7	9.6	655
C-Visayas	2.8	473	15.5	5.5	2.4	5.1	4.4	10.9	33.2	9.2	659
E-Visayas	1.0	261	23.4	4.8	2.7	11.8	6.1	6.8	36.7	14.1	382
W-Mindanao	0.0	309	17.1	5.9	0.9	5.4	1.2	5.2	25.8	7.5	457
N-Mindanao	1.4	334	24.2	3.9	2.4	4.5	3.2	11.9	38.5	10.4	473
S-Mindanao	2.2	455	21.6	6.9	2.1	7.7	7.7	6.3	33.9	12.6	616
C-Mindanao	2.1	300	17.1	3.9	0.9	2.1	6.7	4.0	27.1	6.3	438
Total	1.9	6,112	13.5	6.2	2.0	5.2	5.0	5.5	27.1	8.2	8,481

Note: Women with symptoms of infertility were women who had not been pregnant in the past 12 months and were not currently pregnant, who reported trying to get pregnant without success for 12 months or longer and were living with their husband most of the time and not using contraception.
( ) Based on 25-49 unweighted cases

Variations in the likelihood of having symptoms of these morbidities by selected characteristics of respondents are very small. Nevertheless, some patterns are evident for a few illnesses. Infertility symptoms are relatively common among respondents with only one pregnancy. Symptoms of uterine prolapse are more frequent among respondents who have at least six pregnancies, have primary or no education, and reside in rural areas.

Symptoms of at least one of the health problems indicated in Table 7.7 were experienced by over a quarter of all women interviewed. A slightly higher percentage of older women, those with high parity, those with primary or no education, and those residing in rural areas experienced symptoms than women in other categories. However, these differences were not great.

Whenever a respondent reported having a symptom of one of these reproductive morbidities, she was asked whether she had seen anyone for advice or treatment. Table 7.8 presents the percentage of respondents

Table 7.8 Percentage of respondents who sought treatment for symptoms of reproductive health problems

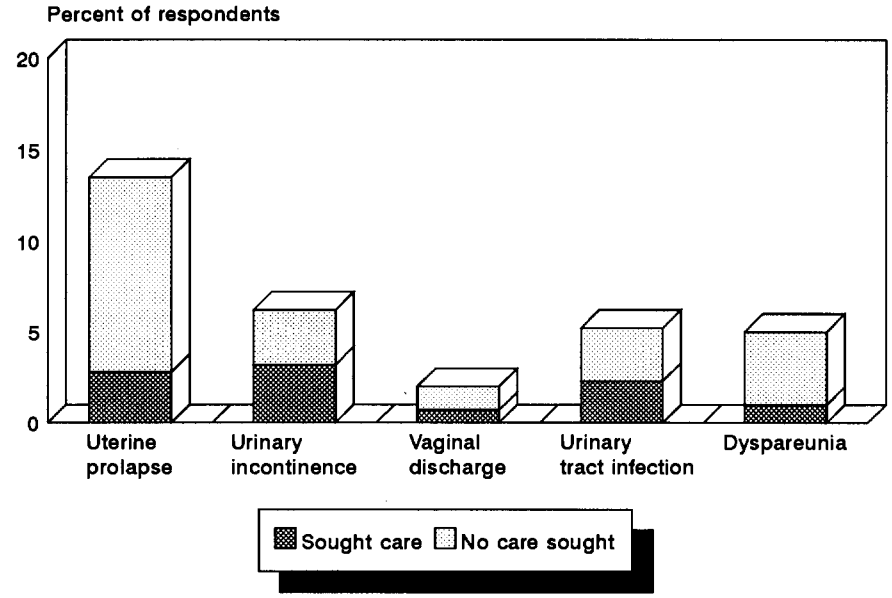
Among respondents with symptoms of infertility, uterine prolapse, urinary incontinence, vaginal discharge, urinary tract infection, dyspareunia, or menstrual disorders, the percentage who sought treatment from a doctor or nurse for that problem, by background characteristics, Philippines, 1993 SMS

Background characteristic	Sought treatment for symptoms of: Infer-tility	Uterine prolapse	Urinary inconti-nence	Vaginal dis-charge	Urinary infec-tion	Dys-pare-unia	Menstrual dis-orders
Age group							
< 20	*	11.7	45.8	0.0	34.6	0.0	0.0
20-34	40.7	15.2	51.1	31.8	48.1	18.2	14.6
35+	35.5	26.3	52.9	39.1	40.6	21.2	20.7
No. of pregnancies							
1	38.6	18.7	53.1	41.7	53.2	16.5	24.0
2-3	47.8	20.2	59.6	39.8	48.8	19.9	21.7
4-5	16.4	23.5	52.9	31.8	44.0	20.3	16.3
6+	21.6	19.0	44.2	31.5	38.0	18.4	13.2
Education							
No educ./primary	23.0	14.5	36.7	21.5	31.7	12.2	11.3
High school/vo-tech	42.5	24.3	59.2	46.3	49.5	25.2	20.0
College	55.7	31.3	68.6	47.9	70.6	23.2	30.3
Residence							
Urban	47.0	29.1	60.6	46.4	50.3	21.5	22.3
Rural	26.1	13.8	39.5	20.1	38.6	17.2	13.8
Region							
Metro. Manila	80.0	56.6	72.5	61.1	65.7	27.3	41.7
Cordillera Admin.	0.0	21.4	17.6	25.0	71.8	32.0	25.0
Ilocos	27.3	20.2	42.3	15.8	32.6	15.2	16.7
Cagayan Valley	60.0	20.7	22.2	63.6	53.1	17.6	20.0
C-Luzon	20.0	42.6	58.1	27.3	46.7	10.7	20.0
S-Tagalog	33.3	23.0	45.3	58.8	39.1	22.7	10.5
Bicol	0.0	9.1	54.8	0.0	28.0	7.1	14.3
W-Visayas	46.7	31.8	60.9	29.4	41.9	22.6	27.5
C-Visayas	28.6	15.6	30.8	29.4	47.2	22.6	10.4
E-Visayas	66.7	8.7	28.6	0.0	25.0	7.4	23.3
W-Mindanao	*	4.1	26.5	20.0	22.6	14.3	23.3
N-Mindanao	16.7	12.1	45.8	33.3	42.9	30.0	5.5
S-Mindanao	36.4	13.2	50.0	14.3	49.0	15.7	7.1
C-Mindanao	0.0	13.4	40.9	20.0	50.0	26.3	17.4
Total	37.2	20.5	52.0	35.2	44.0	19.2	17.6

Note: Women with symptoms of infertility were women who had not been pregnant in the past 12 months and were not currently pregnant, who reported trying to get pregnant without success for 12 months or longer and were living with their husband most of the time and not using contraception.
* Fewer than 25 unweighted cases

who reported seeking advice or treatment from a doctor or nurse, by morbidity and background characteristics. The data show that among those with symptoms, over a third of the respondents sought treatment from a doctor, nurse or midwife for infertility symptoms, half (52 percent) for symptoms of incontinence, and 44 percent for symptoms of urinary tract infection. About one in five respondents sought care for uterine prolapse (21 percent), dyspareunia (19 percent) and menstrual disorders (18 percent) (see Figure 7.3).

Figure 7.3
Percentage of respondents with morbidity symptoms by whether or not they sought care from a doctor or nurse



Apart from infertility and urinary tract infection, the percentage of respondents who sought care for symptoms of the various morbidities increases with age. The percentage also increases with education for all the morbidities, with the percentage among the college educated more than twice that for women with primary or no education. Generally, rural women and those with more than six pregnancies are less likely to seek care.

7.6 Type of Provider Sought

Table 7.9 shows the providers sought for treatment of symptoms of reproductive health problems. Multiple responses for type of provider were allowed. The main problems prompting help from traditional healers were symptoms of infertility and uterine prolapse. Over 40 percent of respondents consulted a doctor, nurse, or midwife for symptoms of infertility, urinary incontinence, vaginal discharge, and urinary tract infection. More women went to traditional healers (41 percent) for symptoms of uterine prolapse than to a doctor, nurse, or midwife (26 percent). One in five of those with dyspareunia and menstrual disorders sought care from medical personnel. Some respondents sought treatment or advice from relatives or used self-treatment; these ranged from 10 percent for dyspareunia to 18 percent for urinary tract infection. A sizeable proportion (29 to 62 percent) did not seek help. Respondents with dyspareunia or menstrual disorders were three times more likely to not seek treatment than to seek care from a doctor, nurse or midwife.

Table 7.9 Providers sought for treatment of symptoms of reproductive health problems

Among respondents with symptoms of infertility, uterine prolapse, urinary incontinence, vaginal discharge, urinary tract infection, dyspareunia, or menstrual disorders, the percentage who sought care from specific providers, by symptoms of reproductive health problems, Philippines, 1993 SMS

Symptom	Provider: Doctor, nurse, midwife	Provider: Chemist, herbalist, hilot, shaman, healer	Provider: Relative, self-treatment, others	No treatment	Number of respondents
Infertility	42.0	36.7	3.4	32.0	116
Uterine prolapse	26.2	40.5	12.7	29.4	1,147
Urinary incontinence	54.8	8.2	11.2	30.5	527
Vaginal discharge	41.1	8.4	15.1	40.8	170
Urinary tract infect	46.0	8.4	18.2	31.7	439
Dyspareunia	21.9	7.6	10.4	62.4	421
Menstrual disorders	22.0	6.7	14.4	59.7	468

7.7 Reasons for Not Seeking Care

Respondents with symptoms who did not see anyone for advice or treatment were asked why they did not seek care (see Table 7.10). With the exception of those with symptoms of infertility and menstrual disorders, three in five respondents did not seek treatment because they did not think the problem was serious enough. About a quarter to a third of the respondents expressed resource-related reasons such as cost, transportation, and time. Except for infertility, where one-third of respondents believed that seeking care would not help with their problem, less than seven percent with symptoms of other ailments gave this reason for not seeking care.

Table 7.10 Reasons for not seeking care for symptoms of reproductive health problems

Among respondents with symptoms of infertility, uterine prolapse, urinary incontinence, vaginal discharge, urinary tract infection, dyspareunia, or menstrual disorders who did not seek care, the percentage reporting reasons for not seeking care, by symptoms of reproductive health problems, Philippines, 1993 SMS

Symptom	Reason for not seeking care: Did not think it would help	Reason for not seeking care: Cost, no transportation, no time	Reason for not seeking care: Not serious enough	Reason for not seeking care: Embarrassed, afraid	Number of respondents
Infertility	(33.0)	(27.8)	(35.3)	(20.2)	37
Uterine prolapse	5.6	34.2	62.7	10.7	338
Urinary incontinence	4.2	31.0	59.3	15.1	161
Vaginal discharge	3.5	33.2	59.9	22.3	69
Urinary tract infect	6.8	37.8	59.2	9.1	139
Dyspareunia	4.1	23.6	59.5	24.2	263
Menstrual disorders	6.4	23.1	42.2	44.6	280

( ) Based on 25-49 unweighted cases

7.8 Sexual Activity

In order to estimate the prevalence of sexual behavior placing women at high risk of sexually transmitted diseases (STDs), SMS respondents were asked about their lifetime number of sexual partners, and, for those in union, their perceptions of their partner's sexual behavior. Respondents were also asked about recent use of a condom, and for those reporting recent condom use, whether condoms were used to prevent pregnancy and/or sexually transmitted diseases.

Less than one percent of SMS respondents reported having three or more sex partners in their life and the vast majority (93 percent) reported a single lifetime partner (see Table 7.11). It is important to remember, however, that SMS respondents are ever-pregnant women (primarily married), and, therefore, do not represent all women of childbearing age.

Among currently married or in-union women, only nine percent reported that they believed their husband/partner had had sex with other women and six percent believed their husband/partner had paid to have sex with women (see Table 7.12). One-quarter of women reported that they believed their husband/partner had previous partners before them. Extramarital partners, sex prior to the current union, and commercial sex among the husbands of in-union SMS respondents were all more common in urban than in rural areas.

Current use of condoms among SMS respondents is very low (see Table 7.13). Less than three percent of SMS respondents used a condom during their most recent sexual intercourse. This mirrors findings from the NDS indicating that only one percent of respondents were currently using the condom. Among the few SMS respondents reporting condom use at last sexual intercourse, over 90 percent claimed use as a means of pregnancy prevention; fewer than one in five claimed condom use for purposes of STD prevention. Motivation for condom use varies little by background characteristics except for women less than 20 years old. In this age group, all women reported condom use as a means of pregnancy prevention; only 61 percent reported using a condom for prevention of STDs.

7.9 Induced Abortion

Complications of induced abortion are a well-known cause of maternal mortality and morbidity. At the same time, it is often in settings where access to safe abortion is most lacking that the toll on women's lives is most difficult to document (Coeytaux et al., 1989; Barreto et al., 1992). Because induced abortion is both socially and legally unacceptable in the Philippines, it is expected that such information would be hard to obtain in this setting.

Clearly, collection of data on induced abortion and resulting complications is problematic. If no attempt is made to gather information, the problem remains invisible. If, on the other hand, data are collected and events are not reported, the problem must be recognized but the magnitude remains unknown. Prior to the SMS, qualitative work was conducted to aid in the development of questions on induced abortion (see Chapter 2). This led to two less direct lines of questioning on what women did to bring on a delayed period and on what women did in response to an unwanted pregnancy. In spite of these various efforts, the results of the SMS are still considered to be a serious underestimate of the true magnitude of the problem of unsafe abortion. These findings demonstrate the need to further explore methods of collecting data on unsafe abortion in settings where the issue is a highly sensitive one.

The SMS questionnaire experimented with four different approaches to the collection of information on induced abortion. The first approach was included in the pregnancy history table of the questionnaire and involved asking respondents reporting any pregnancy that terminated at zero to six months gestation if she

Table 7.11 High-risk sexual activity: number of sex partners

Percent distribution of respondents by the number of partners they have had in the preceding year, and by the number of partners they have had in their whole lifetime, according to background characteristics, Philippines, 1993 SMS

Background characteristic	Number of sex partners in preceding year					Number of sex partners in lifetime					
	0	1	2	Missing	Total percent	1	2	3 +	Missing	Total percent	No. of respondents
Age group											
< 20	3.1	96.9	0.0	0.0	100.0	98.6	0.0	1.4	0.0	100.0	113
20-34	3.0	96.8	0.1	0.1	100.0	94.7	4.7	0.5	0.1	100.0	4,177
35+	6.0	93.7	0.3	0.0	100.0	91.5	7.7	0.7	0.0	100.0	4,191
No. of pregnancies											
1	11.6	88.3	0.0	0.1	100.0	95.7	3.4	0.6	0.2	100.0	988
2-3	3.4	96.3	0.2	0.1	100.0	94.1	5.2	0.5	0.1	100.0	2,858
4-5	3.4	96.4	0.1	0.0	100.0	93.3	6.1	0.6	0.1	100.0	2,263
6+	3.8	95.9	0.3	0.0	100.0	90.8	8.4	0.8	0.0	100.0	2,372
Education											
No educ./primary	4.5	95.2	0.3	0.0	100.0	90.7	8.5	0.7	0.1	100.0	3,739
High school/vo-tech	3.7	96.1	0.1	0.1	100.0	94.0	5.2	0.7	0.1	100.0	2,968
College	5.7	94.1	0.1	0.1	100.0	96.8	2.8	0.4	0.1	100.0	1,772
Residence											
Urban	4.5	95.3	0.1	0.1	100.0	93.4	5.7	0.8	0.1	100.0	4,383
Rural	4.5	95.2	0.2	0.1	100.0	92.9	6.6	0.5	0.1	100.0	4,098
Region											
Metro. Manila	4.2	95.5	0.1	0.1	100.0	93.6	5.2	1.0	0.1	100.0	1,232
Cordillera Admin.	5.5	94.1	0.4	0.0	100.0	94.9	4.0	1.1	0.0	100.0	147
Ilocos	6.6	93.4	0.0	0.0	100.0	94.9	4.7	0.3	0.0	100.0	484
Cagayan Valley	3.0	96.8	0.0	0.2	100.0	95.5	3.9	0.4	0.2	100.0	333
C-Luzon	5.7	94.2	0.1	0.0	100.0	94.3	5.1	0.5	0.1	100.0	914
S-Tagalog	4.0	95.9	0.1	0.0	100.0	93.2	6.2	0.6	0.0	100.0	1,157
Bicol	3.7	94.6	1.7	0.0	100.0	95.1	4.5	0.4	0.0	100.0	535
W-Visayas	4.5	95.5	0.0	0.0	100.0	94.0	6.0	0.0	0.0	100.0	655
C-Visayas	3.5	96.3	0.1	0.0	100.0	91.3	7.5	1.1	0.0	100.0	659
E-Visayas	4.1	95.9	0.0	0.0	100.0	90.2	9.1	0.7	0.0	100.0	382
W-Mindanao	5.6	94.3	0.0	0.2	100.0	90.8	8.5	0.5	0.2	100.0	457
N-Mindanao	4.9	94.6	0.2	0.3	100.0	90.3	8.3	1.0	0.5	100.0	473
S-Mindanao	4.4	95.5	0.2	0.0	100.0	91.9	7.4	0.8	0.0	100.0	616
C-Mindanao	3.2	96.8	0.0	0.0	100.0	93.8	5.6	0.4	0.2	100.0	438
Total	4.5	95.3	0.2	0.1	100.0	93.2	6.1	0.6	0.1	100.0	8,481

Table 7.12 High-risk sexual activity: respondent's perceptions of partner's sexual practices

Among respondents currently married or having a sex partner, the percentage reporting that their partner had sex with others while being their partner, before becoming their partner, and whether partner paid for sex from others, according to background characteristics, Philippines, 1993 SMS

Background characteristic	Respondent's perception of partner's sexual practices: Has your partner had sex with others while being your partner? Yes	Has your partner had sex with others while being your partner? Don't know	Did your partner have sex with others before being your partner? Yes	Did your partner have sex with others before being your partner? Don't know	Does your partner ever pay other women to have sex with him? Yes	Does your partner ever pay other women to have sex with him? Don't know	No. of respondents married or having a sex partner
Age group							
< 20	7.9	10.1	22.1	20.7	2.7	15.9	105
20-34	6.7	9.2	25.4	17.5	4.3	16.0	4,008
35+	12.1	11.3	27.0	20.4	7.0	17.1	3,873
No. of pregnancies							
1	5.5	8.8	27.7	17.6	3.2	14.0	832
2-3	6.9	10.9	25.4	18.3	4.7	16.3	2,724
4-5	10.7	10.5	26.3	19.1	7.3	16.6	2,174
6+	12.2	9.6	26.3	20.3	6.0	17.6	2,256
Education							
No educ./primary	9.6	10.0	24.8	19.7	5.6	17.4	3,498
High school/vo-tech	9.6	9.7	26.7	17.9	5.7	16.2	2,833
College	8.3	11.6	28.3	19.3	5.3	15.0	1,652
Residence							
Urban	11.4	10.8	29.2	18.0	7.1	16.0	4,116
Rural	7.1	9.6	22.9	20.0	4.0	17.0	3,870
Region							
Metro. Manila	11.5	8.9	31.0	14.8	7.3	15.0	1,138
Cordillera Admin.	7.1	8.7	25.0	20.6	2.0	13.1	137
Ilocos	9.4	9.6	19.3	15.3	6.3	7.4	458
Cagayan Valley	5.6	10.7	18.7	21.3	4.4	13.1	322
C-Luzon	9.7	16.5	22.0	23.0	8.0	18.0	858
S-Tagalog	9.7	17.6	23.2	23.9	6.5	21.1	1,102
Bicol	10.2	7.4	30.2	21.2	6.0	25.8	501
W-Visayas	7.7	8.8	26.5	14.2	5.7	10.4	623
C-Visayas	11.8	9.2	35.3	20.4	5.6	16.2	619
E-Visayas	5.8	2.4	33.7	7.7	5.3	8.2	359
W-Mindanao	5.2	10.1	13.6	18.4	0.9	18.1	427
N-Mindanao	7.4	7.9	32.1	18.3	4.0	21.6	445
S-Mindanao	13.5	6.0	34.2	24.2	4.9	22.3	582
C-Mindanao	6.3	4.5	13.0	17.1	2.2	9.6	416
Total	9.3	10.2	26.2	19.0	5.6	16.5	7,986

Table 7.13 Condom use

Percentage of respondents reporting condom use during last sex and the percentage using the condom to prevent pregnancy and/or to prevent STDs, by background characteristics, Philippines, 1993 SMS

Background characteristic	Percent using condom	Number of respon-dents	Condom used to prevent preg-nancy	Condom used to prevent STDs
Age group				
< 20	2.2	113	100.0	61.0
20-34	3.0	4,177	93.7	17.0
35+	2.1	4,191	91.7	14.3
No. of pregnancies				
1	1.9	988	91.6	21.1
2-3	2.9	2,858	91.3	20.1
4-5	2.5	2,263	98.7	17.1
6+	2.6	2,372	90.2	9.6
Education				
No educ./primary	1.4	3,739	91.2	15.5
High school/vo-tech	3.0	2,968	94.5	13.5
College	4.5	1,772	92.4	20.3
Residence				
Urban	3.4	4,383	92.4	17.5
Rural	1.7	4,098	94.1	14.4
Region				
Metro. Manila	3.9	1,232	93.5	19.4
Cordillera Admin.	8.1	147	100.0	4.5
Ilocos	2.4	484	92.9	7.1
Cagayan Valley	1.1	333	80.0	0.0
C-Luzon	1.7	914	76.9	15.4
S-Tagalog	1.3	1,157	81.8	9.1
Bicol	2.2	535	100.0	16.7
W-Visayas	2.7	655	100.0	33.3
C-Visayas	4.5	659	90.6	31.3
E-Visayas	1.6	382	100.0	14.3
W-Mindanao	0.7	457	100.0	50.0
N-Mindanao	5.4	473	93.9	0.0
S-Mindanao	2.9	616	100.0	10.5
C-Mindanao	0.2	438	100.0	0.0
Total	2.6	8,481	93.0	16.5

or anyone else did anything to end the pregnancy. If something specific was done by the respondent or another person, the pregnancy was coded as an induced abortion. If nothing was done, the pregnancy was coded as a spontaneous abortion or, a miscarriage.

The second approach, aimed at identifying women who may have suffered complications from an unsafe abortion, was included in section three of the questionnaire. In this section, respondents reporting an early loss in the last three years in the pregnancy history were asked about hospitalization at the time of their loss. For each pregnancy in the last three years, respondents were also asked whether they had wanted to be pregnant then, later, or not at all.

The third and fourth approaches to collecting information on abortions were asked in section five of the questionnaire. Results from qualitative research preceding this survey indicated that women may not consider efforts to "bring on a delayed period" as an abortion because an early pregnancy is considered as "just blood" (Jacobson, 1993). In light of these findings, questions were asked first about efforts to bring on a delayed period, that is, methods used and problems, if any, experienced. Following these less direct questions, women were asked about whether they had ever had an unwanted pregnancy, and if so, what action was taken at that time.

Results from the survey are presented according to the set of quesions from which the data were drawn. All findings are discussed in the text, that is, the data are not shown in tabular form.

7.10 Results from the Pregnancy History

In the pregnancy history, more than one-quarter of the SMS respondents reported having had an early pregnancy loss. Seven percent of the early pregnancy losses were reported as induced abortions. Given the reticence of women to report induced abortions, particularly in settings in which induced abortion is illegal, it is not possible to infer the degree of underreporting of induced abortion in the SMS, nor the degree to which respondents may have reported an induced abortion as a miscarriage. Of all pregnancies, 0.5 percent were reported as induced abortions.

Reporting of induced abortion appears to increase with both age and number of pregnancies. Ignoring the possibility of selective underreporting, these data suggest that induced abortion is used more as a means of avoiding unwanted higher birth order children than it is to avoid or postpone a first birth. For example, nearly one in ten (9 percent) early pregnancy losses among women with four or more pregnancies were reported as induced abortions compared with one in 100 (1 percent) among women with one pregnancy. (Seven percent were reported by women with two or three pregnancies.) Higher education is also associated with increased reporting of induced abortion. It is unclear, if these findings reflect true differences in behavior or differential reporting among women. There is substantial variation in the reported induced abortion by region, ranging from two percent of pregnancy losses in Western Visayas and Central Mindanao, to 14 and 16 percent in Cagayan Valley and Ilocos, respectively. The proportion of early losses reported as induced abortion in Metropolitan Manila is in the middle range at nine percent.

The results from Manila are in contrast to another survey conducted in Metropolitan Manila in 1994, which found a reported prevalence of 17 percent for ever having had an induced abortion (Cabigon, 1994).

7.11 Results on Hospitalization after an Early Loss

Among those with an early loss in the last three years, 29 percent had to be hospitalized. There was no difference in the duration of the hospital stay by pregnancy desire, however, 79 percent of those reporting hospitalization for an induced abortion stayed for four or more days, compared with only 18 percent of those with spontaneous losses.

7.12 Results from Later Section of Questionnaire

Brought on Delayed Period

Only seven percent of the respondents reported they had ever done something to bring on their period. The percentage is slightly higher among women with six or more pregnancies and among those with low education. As to the method used, close to two in three women reported taking a bitter drink or tablet to bring on their period, and the percentage using this method varies little by education or type of residence. Higher parity women are more likely to use this method. The bitter drinks contain different types of roots and herbs of unknown effectiveness; they are frequently seen for sale in local markets and gathering places.

Nine percent of the respondents reported having hard abdominal massage to bring on their period. The percentage who used hard massage is higher among women of higher parity (12 percent), those with low education, and those residing in rural areas. Eight percent did some strenuous work or scrubbed floors; this method is more commonly tried by women without college education. Six percent prayed. Relatively higher percentages of women with four to five pregnancies and those with low education prayed to bring on their period. Of note is the finding that only three respondents reported using a catheter or object in the womb to bring on their period, and none reported the use of more effective methods such as suction or curettage.

Unwanted Pregnancy

Following the questions on bringing on a late period, respondents were asked more directly whether they had ever been pregnant when they did not want to be. Those responding positively were then asked what they did. Multiple responses were accepted for this question. Respondents who attempted abortion were asked about methods used and providers seen. In addition, women were asked whether they experienced subsequent health problems.

A quarter (24 percent) of all respondents reported having had an unwanted pregnancy. This percentage was highest among respondents aged 20-34, those with at least six pregnancies, and those with more than three surviving children. There is little difference in responses by education and urban/rural residence. However, unwanted pregnancy is less likely to occur among women in Metropolitan Manila and Central Luzon.

Among the quarter reporting an unwanted pregnancy, eight in ten (81 percent) respondents reported they continued the pregnancy or did nothing. Five percent reported that they aborted the pregnancy, 14 percent tried to abort but failed, and 4 percent did something to bring on their period. Successful abortion was higher among older women. The percentage who aborted or tried to abort among women with at least six pregnancies is more than twice that among women with only one pregnancy.

Again, bitter drinks or tablets were reported by the highest percentage of respondents (76 percent). However, 22 percent reported hard abdominal massage, and 6 percent reported use of a catheter, suction, or curettage. The numbers of very young and primiparous respondents reporting abortion were too small to

assess differences for these groups. However, respondents 35 and older, those with more education, and those from urbanized regions were more likely to use catheters, or suction, or curettage.

Respondents were also asked who provided the method they used to abort. Eleven percent reported getting help from a doctor, nurse, or midwife. Twenty-two percent went to traditional sources and 73 percent sought help from someone else. Older, higher parity, more educated respondents were more likely to report going to a doctor, nurse, or midwife.

Lastly, respondents reporting abortion were asked whether they subsequently experienced any health problems, such as bleeding or high fever, and whether they had to be hospitalized as a result. Only three percent reported high fever; 10 percent said they had excessive vaginal bleeding. Five percent had to be hospitalized for care.

There is very little data available on abortion in the Philippines with which to compare the SMS data. Seventeen percent of women interviewed in Cavite in 1976 reported having had at least one induced abortion (Flavier and Chen, 1980). This study was a community-based survey in five rural villages in Cavite where the International Institute of Rural Reconstruction (IIRR) had been working and had established rapport with women in the community. The context of this study may explain why women were more willing to discuss their personal experiences openly. These types of differences in the circumstances of data collection clearly have an important impact on study results. Even after taking into consideration changes over time and regional differences, the results of the Cavite study are in sharp contrast to the one percent of abortions detected in the SMS.

CHAPTER 8

DOMESTIC VIOLENCE AND RAPE

This chapter presents findings from self-reported data on domestic violence and rape. These issues, like induced abortion and sexual practices, are also extremely sensitive and private. Because of the sensitive nature of the questions, interviewers were instructed to take special care in conducting this section of the interview and to make an extra effort to obtain privacy. Despite these precautions, underreporting of domestic violence and rape is likely from such a structured survey interview.

8.1 Domestic Violence

Domestic violence towards women has increasingly become of social concern. Due to the increased physical vulnerability of pregnant women, the SMS also investigated the occurrence of domestic violence during pregnancy. To do so, each respondent in the SMS was first asked if anyone close to her, that is, a family member or friend, had ever hit, slapped, kicked, or tried to hurt her physically. Respondents who reported physical harm were then asked if this had ever occurred when they were pregnant. The results indicate that one in ten respondents have ever been physically harmed by someone close to them; about a third of these also reported being harmed during pregnancy (see Table 8.1).

Table 8.1 Domestic violence and physical harm during pregnancy

Percentage of respondents who reported ever having been hit, kicked, slapped or physically harmed, and the percentage who report physical harm during pregnancy, by background characteristics, Philippines, 1993 SMS

Background characteristic	Percent reporting ever being physically harmed	Percent reporting being physically harmed while pregnant	Number of respondents
Age group			
< 20	14.5	6.4	113
20-34	10.2	3.1	4,177
35+	9.1	2.5	4,191
Education			
No educ./primary	11.4	3.7	3,739
High school/vo-tech	10.1	2.7	2,968
College	5.5	1.3	1,772
Residence			
Urban	9.7	2.7	4,383
Rural	9.8	3.0	4,098
Region			
Metro. Manila	7.6	1.5	1,232
Cordillera Admin.	7.7	2.6	147
Ilocos	9.1	3.5	484
Cagayan Valley	14.4	3.6	333
C-Luzon	5.7	1.7	914
S-Tagalog	5.2	2.1	1,157
Bicol	7.9	3.0	535
W-Visayas	11.4	2.7	655
C-Visayas	18.9	5.5	659
E-Visayas	15.0	4.5	382
W-Mindanao	5.6	1.4	457
N-Mindanao	12.3	5.2	473
S-Mindanao	17.1	4.1	616
C-Mindanao	6.3	1.8	438
Total	9.7	2.8	8,481

Domestic violence was most frequently reported by respondents less than 20 years old (15 percent), and least frequently reported by more educated respondents (6 percent). The problem is as likely to occur in urban as in rural areas. Some regional variations seem to be evident in the data. Percentages higher than the national average are noted in Central Visayas (19 percent), Southern Mindanao (17 percent), Eastern Visayas (15 percent) and Cagayan Valley (14 percent). The characteristics of respondents who reported physical harm during pregnancy are very similar to those who reported having ever been physically harmed.

Two-thirds of the respondents who were ever harmed by a family member or friend reported that the incident happened once or twice in their lifetime and the percentage differs little by age, education, or residence (see Table 8.2). Fifteen percent of the respondents who reported being hurt said that this happened three or more times a year; ten percent reported physical harm once or twice a year, and six percent reported less than once a year.

Table 8.2 Frequency of physical abuse

Percent distribution of respondents who reported having been physically harmed by a family member or friend, by the frequency of these incidents, according to background characteristics, Philippines, 1993 SMS

Background characteristic	Frequency of being hit, kicked or slapped					Total percent	Number of respondents
	3 + times per year	1-2 times per year	< 1 time per year	Once or twice ever	Don't know/ Missing		
Age group							
< 20	*	*	*	*	*	*	17
20-34	14.0	11.8	8.4	62.9	2.9	100.0	425
35+	16.0	8.7	4.4	68.2	2.7	100.0	383
Education							
No educ./primary	16.0	9.3	6.1	65.1	3.4	100.0	428
High school/vo-tech	13.6	11.2	7.3	66.4	1.6	100.0	298
College	15.7	11.8	4.7	64.4	3.4	100.0	98
Residence							
Urban	17.0	13.7	4.9	62.8	1.6	100.0	423
Rural	13.0	6.8	8.0	68.3	4.0	100.0	401
Region							
Metro. Manila	14.8	19.7	3.3	62.3	0.0	100.0	94
Cordillera Admin.	*	*	*	*	*	*	11
Ilocos	13.5	5.8	1.9	78.8	0.0	100.0	44
Cagayan Valley	9.0	3.0	3.0	79.1	6.0	100.0	48
C-Luzon	(4.5)	(2.3)	(2.3)	(86.4)	(4.5)	(100.0)	52
S-Tagalog	(14.0)	(14.0)	(2.3)	(67.4)	(2.3)	(100.0)	60
Bicol	(9.5)	(7.1)	(16.7)	(59.5)	(7.1)	(100.0)	42
W-Visayas	18.4	13.2	7.9	57.9	2.6	100.0	75
C-Visayas	13.5	15.0	3.0	62.4	6.0	100.0	124
E-Visayas	19.7	9.1	3.0	65.2	3.0	100.0	57
W-Mindanao	(15.6)	(0.0)	(6.3)	(78.1)	(0.0)	(100.0)	26
N-Mindanao	25.0	3.9	22.4	47.4	1.3	100.0	58
S-Mindanao	18.4	8.8	7.0	65.8	0.0	100.0	106
C-Mindanao	(11.1)	(11.1)	(11.1)	(66.7)	(0.0)	(100.0)	28
Total	15.1	10.3	6.4	65.5	2.7	100.0	824

( ) Based on 25-49 unweighted cases
* Fewer than 25 unweighted cases

8.2 Rape

Rape is another extremely sensitive and difficult subject to explore due to the effects that the questioning may have on the respondent, and also due to the unspoken implications of/for those in the respondent's household or family. However, in examining women's health and the conditions affecting it, the occurrence of rape cannot be ignored. The results show that about three percent of SMS respondents report ever having been physically forced to have sex with a man (see Table 8.3). Differences by age, education, and urban/rural residence are not evident from the data, although some regional variations exist. Proportions as high as six and ten percent are reported in the Eastern Visayas and in Southern Mindanao, respectively. The incidence of domestic violence is also high in these regions.

Table 8.3 Rape

Percentage of respondents who reported ever having been physically forced to have sex with someone, by background characteristics, Philippines, 1993 SMS

Background characteristic	Percent ever forced to have sex	Number of respondents
Age group		
< 20	3.7	113
20-34	2.5	4,177
35+	2.7	4,191
Education		
No educ./primary	3.0	3,739
High school/vo-tech	2.7	2,968
College	1.5	1,772
Residence		
Urban	2.5	4,383
Rural	2.7	4,098
Region		
Metro. Manila	1.5	1,232
Cordillera Admin.	1.5	147
Ilocos	1.2	484
Cagayan Valley	0.6	333
C-Luzon	0.9	914
S-Tagalog	1.0	1,157
Bicol	4.1	535
W-Visayas	3.9	655
C-Visayas	3.8	659
E-Visayas	6.3	382
W-Mindanao	1.4	457
N-Mindanao	1.5	473
S-Mindanao	9.6	616
C-Mindanao	0.5	438
Total	2.6	8,481

Respondents who were victims of rape were asked if they ever told anyone about this in an attempt to get help. Table 8.4 shows that over 60 percent did not seek help. Close to a quarter of the victims asked for help from relatives, while 15 percent went to a friend. One in ten respondents went to either a *barangay* captain, policeman or other, unidentified persons (see Figure 8.1). The data suggest that younger respondents are less likely to ask for help. While 38 percent sought help of some kind, only 22 percent of those who had been raped reported receiving help; this varied little by background characteristics of the respondents (see Table 8.5).

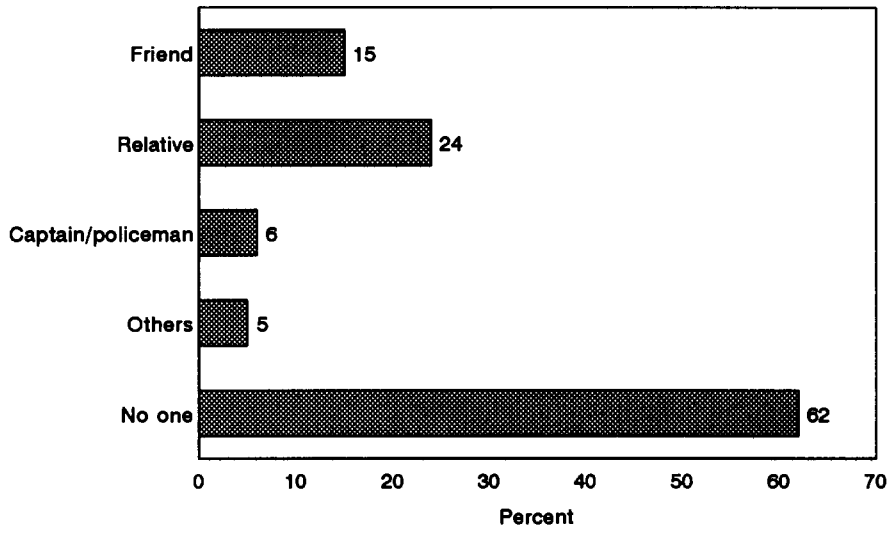
Table 8.4 Help sought following rape

Among respondents who reported having ever been forced to have sex with someone, the percentage who told someone/sought help from someone, by person contacted and background characteristics, Philippines, 1993 SMS

Background characteristic	Person contacted					Number of respondents
	Friend	Relative	Captain, policeman	Other	No one	
Age group						
< 20	*	*	*	*	*	4
20-34	19.3	32.1	4.7	1.9	56.2	104
35+	11.3	16.6	6.9	7.5	66.3	112
Education						
No educ./primary	14.5	25.8	7.0	4.2	61.3	112
High school/vo-tech	12.8	23.9	4.7	3.0	62.8	82
College	(25.8)	(12.8)	(3.5)	(12.1)	(61.4)	27
Residence						
Urban	16.9	21.5	3.0	3.9	64.8	108
Rural	13.5	25.5	8.4	5.5	59.0	112
Total	15.2	23.6	5.7	4.7	61.8	220

( ) Based on 25-49 unweighted cases
* Fewer than 25 unweighted cases

Figure 8.1
Persons from whom help was sought by respondents who were ever raped



Note: Respondent were allowed to give more than one response.

1993 SMS

Table 8.5 Receipt of help following rape

Among respondents who reported having ever been forced to have sex with someone, the percentage who sought help from at least one person, and the percentage who received some kind of help, by background characteristics, Philippines, 1993 SMS

Background characteristic	Percent who sought help	Percent who received help	Number of respondents
Age group			
< 20	*	*	4
20-34	43.8	24.1	104
35+	33.7	20.9	112
Education			
No educ./primary	38.7	21.8	112
High school/vo-tech	37.2	23.5	82
College	(38.6)	(21.4)	27
Residence			
Urban	35.2	19.1	108
Rural	41.0	25.5	112
Total	38.2	22.4	220

( ) Based on 25-49 unweighted cases
* Fewer than 25 unweighted cases

8.3 Domestic Violence and Women's Status

A woman's status in the family may be associated with her risk of exposure to domestic violence. In the SMS, attempts to measure women's status were included via questions on the woman's participation in the household decisionmaking about how income is spent, presence of a paid helper in the home, and whether the husband or partner has had sex with other women or men while being her partner. The data in Table 8.6 suggest that respondents who do not participate in decisions on how household income is spent are more likely to report physical abuse by their partners, compared to those who do participate (10 percent vs. 5 percent). Likewise, respondents who report that their husband/partner has had sex with other women are more likely to report physical abuse than other women (14 percent vs. 4 percent). The differences in reported physical abuse between those with and without a paid helper in the home are negligible. Physical abuse during pregnancy shows a similar relationship to these various proxy measures of women's status.

Table 8.6 Women's status and domestic violence

Percentage of respondents who reported domestic violence, by selected indicators of women's status and background characteristics, Philippines, 1993 SMS

Background characteristic	Indicator of women's status: Never abused	Abused by partner	Abused by other	Abused during pregnancy	Number of respondents
Takes part in how income spent					
Yes	90.5	4.8	4.6	2.7	8,138
No	83.6	10.2	6.2	5.8	331
Has paid helper at home					
Yes	93.8	3.7	2.6	2.3	721
No	89.9	5.2	4.9	2.9	7,759
In union partner has sex with other women					
Yes	79.1	14.3	6.7	6.7	744
No	92.1	3.8	4.1	2.3	6,426
Not currently in union	84.6	6.8	8.6	3.7	495
DK/missing	89.8	5.4	4.8	3.2	816
Total	90.3	5.1	4.7	2.8	8,481

CHAPTER 9

POLICY RELEVANT FINDINGS AND RECOMMENDATIONS

9.1 Prenatal Care

A major function of prenatal care is to provide information to women during pregnancy, while helping them to establish contact with the health care system. Such contact can be lifesaving if complications develop during pregnancy or childbirth, when urgent access to evaluation and care may be needed. The components of prenatal care recommended by the Department of Health incorporate these issues as well as some of the physical examination procedures that can easily be done on a routine basis such as monitoring the growth, position, and heart rate of the fetus. Routine prenatal care should also serve to identify and, when necessary, refer women experiencing symptoms or signs requiring further evaluation and care.

While the majority of the women interviewed in the SMS received prenatal care during pregnancy, the actual content of care they reported was less than adequate to meet the minimal requirements described above. If women's perceptions and recall of what happened during their prenatal care visits are accurate, improvements are needed in this area.

Access to care is primarily an issue for those few women who do not receive prenatal care. Since many of these women live in harder to reach areas, it is necessary to improve the distribution of services at the periphery. It is important to note, however, that the majority of those receiving prenatal care are not accessing care through hospitals or clinics but rather through more decentralized services found in rural health units and *barangay* health stations. This existing decentralization of prenatal care services is probably a major determinant of the high coverage of care reported.

At the same time, this heavy reliance on provision of prenatal care services at the periphery may contribute to the less than optimal quality of care reported by women in the SMS. Providers in these settings are likely to be less skilled, and less frequently monitored and supervised. While no data were collected in the SMS on the number of women attending such facilities for prenatal care, patient overload may also be a significant factor in quality of care.

To address these concerns, the main recommendations regarding content of prenatal care are for refresher or improved training of midwives who provide prenatal care and improved support through monitoring and supervision. Further assessment of patient flow and numbers is needed to determine whether this would also be an important point of intervention.

9.2 Delivery Care

Three-quarters of all deliveries in the Philippines occur in the home. Most home births are normal deliveries with healthy outcomes. Unfortunately, it is often impossible to predict when complications are most likely to develop. And the nature of some obstetric complications is such that the outcome for both the mother and the child is dependent on rapid assessment and care. Given this situation, the effectiveness of the chain of referral can be critical to survival when severe complications occur. Equally important is the quality of care provided at each link in the referral chain.

In the SMS, about half of those in labor at home with symptoms of a problem were not referred elsewhere for evaluation and care. In cases where the problem was recognized, it was the respondent herself

and her partner who most often felt there was a complication. In addition, among those referred, most went where they were referred. These findings suggest that further efforts should be made to educate those attending home deliveries about when to refer women for higher level care. Though this may be less problematic than provider recognition of problems, community awareness of available services and recognition of danger signs can also be improved.

Most deliveries are attended by hilots. The findings of many women with complicated births not being referred for care and the high level of maternal mortality both indicate a need to invest some effort in training hilots. These traditional birth attendants should be trained to handle deliveries, with a focus on recognition of danger signs, early management of problems, and appropriate timing of referral. Clearly, establishment of linkages between hilots and referral facilities are essential in this regard.

Midwives attended one-third of all home births and almost half of all public facility-based births. They are the only provider routinely working on both sides of this critical interface. These findings illustrate the vital role of the midwife as a provider of delivery care and confirm the importance of ongoing training efforts to upgrade their skills in problem recognition, case management, and appropriate referral.

From SMS data alone, it is difficult to comment on the critical question of quality of facility-based delivery care. While other methods are usually more appropriate for collection of this type of information, one suggestion for future SMS-type surveys is to pursue this question more thoroughly.

Data from a DOH assessment of maternal deaths in facilities does indicate the need to improve the quality of obstetric services (White et al., 1993). Given the levels of complications reported in the SMS, the need to upgrade district hospitals to manage such cases will be essential if maternal survival is to improve. Improvements are needed in availability of blood and other supplies as well as in training of staff. Training should focus on emergency obstetric care and abortion management.

9.3 Family Planning

The levels of maternal mortality estimated from the NDS were higher than previous community-based estimates. Improvements in family planning services play a critical role in decreasing maternal deaths through prevention of unwanted or high-risk pregnancies. The relatively low rates of contraceptive use and the high percentage of respondents reporting a history of unwanted pregnancy suggest a significant degree of unmet need for family planning exists. Improved access to family planning and quality of services are necessary to fill this need.

The small percentage of women who reported receiving information on family planning during prenatal and postpartum care indicates the vital need to integrate maternal health and family planning services.

9.4 Reproductive Morbidity

A number of respondents reported symptoms suggestive of selective reproductive morbidities; many of these women received no care. Interventions in this area should focus on increasing women's access to high quality services for prevention and management of reproductive health problems.

9.5 STDs/HIV

The SMS findings indicate that some women are exposed to the risk of STDs. Given the sensitivity of the topic of sexual behavior, these estimates of the percentage of women at risk are likely to be underestimates. Efforts should be made to increase community awareness of behaviors that put women at increased risk of HIV and other sexually transmitted diseases (STD). Treatment for STDs should be made available in facilities that provide routine health care, to increase the availability of such services.

9.6 Social Services

Domestic violence and rape are significant problems for women in the Philippines, according to the results of the SMS. The fact that so few women seek help in such situations suggests a need for improvement in the quality of and access to social services that deal with these problems in a sensitive manner.

REFERENCES

Barreto, T.A., O.M.R Campbell, J.L. Davies, V. Fauveau, V.G.A. Filippi, W.J. Graham, M. Mamdani, C.I.F. Rooney, and N.F. Toubia. 1992. Investigating induced abortion in developing countries: Methods and problems. *Studies in Family Planning* 23(3):159-170.

Cabigon, J.V. 1994. *Abortion measurement in Metro Manila.* Manila: University of the Philippines Population Institute. Forthcoming.

Casabal, G. 1987. Maternal conditions and birth outcome. In *Proceedings of the National Conference on Safe Motherhood, Manila, September 3-4.* Manila, Philippines.

Coeytaux F.M., A.H. Leonard, and E. Royston. 1989. *Methodological Issues in Abortion Research.* Proceedings of a seminar presented under the Population Council's Roger H. Ebert Program on Critical Issues in Reproductive Health. New York: The Population Council.

de Graft-Johnson, J. 1994. Maternal morbidity in Ghana. Paper presented at the annual meeting of the Population Association of America, Miami, Florida, May 5-7.

Demographic Research Development Foundation, Inc (DRDF). 1988. *The morbidity and mortality differentials.* ASEAN Population Programme Phase III, Philippines. Quezon City, Philippines.

Department of Health [Philippines] (DOH). 1993. *Strategy Paper for Philippines 2000.* Manila, Philippines.

Fauveau V., M.A. Koenig, J. Chakraborty, and A.I. Chowdhury. 1988. Causes of maternal mortality in rural Bangladesh, 1976-85, *Bulletin of the World Health Organization* 66(5):643-651.

Figa-Talamanca, I., T.A. Sinnathuray, K. Yusof, C.K. Fong, V.T. Palan, N. Adeeb, P. Nylander, A. Onifade, A. Akin, M. Bertan, S. Gaslonde, K. Edstrom, O. Ayeni, and M.A. Belsey. 1986. Illegal abortion: An attempt to assess its cost to the health services and its incidence in the community. *International Journal of Health Services* 16(3):375-389.

Flavier, J.M. and C.H.C. Chen. 1980. Induced abortion in rural villages of Cavite, the Philippines: Knowledge, attitudes, and practice. *Studies in Family Planning* 11(2):65-71.

Fortney J.A., I. Susanti, S. Gadalla, S. Saleh, P.J. Feldblum, and M. Potts. 1988. Maternal mortality in Indonesia and Egypt. *International Journal of Gynaecology and Obstetrics* 26(1):21-32.

Hoffman, H., Q. Meirik, and L. Bakketeig. 1984. Methodological considerations in the analysis of perinatal mortality rates. In *Perinatal epidemiology*, ed. M. Bracken, 491-530. New York: Oxford University Press.

Jacobson, N. 1993. Pregnancy in Cagayan de Oro, Philippines: A qualitative study in conjunction with the Safe Motherhood Survey. Report submitted to MotherCare Project, John Snow, Inc. and Macro International Inc., Calverton, Maryland (U.S.A).

Kane, T.T., A.A. El-Kady, S. Saleh, M. Hage, J. Stanback, L. Potter. 1992. Maternal mortality in Giza, Egypt: Magnitude, causes, and prevention. *Studies in Family Planning* 23(1):45-57.

Koblinsky, M., O.M.R. Campbell, and S.D. Harlow. 1993. Mother and more: A broader perspective on women's health. In *The health of women: A global perspective*, ed. M. Koblinsky, J. Timyan, and J. Gay, 33-62. Boulder, Colorado: Westview Press, Inc.

Krasovec, K. and Mary Ann Anderson, eds. 1991. *Maternal nutrition and pregnancy outcomes: An anthropometric assessment.* Pan American Health Organization Scientific Publication No. 529. Washington, D.C.: MotherCare Project (John Snow, Inc.) and PAHO.

Lilienfeld, A.M., and D.E. Lilienfeld. 1980. *Foundations of epidemiology*, 2d ed. New York: Oxford University Press.

National Statistics Office (NSO) [Philippines] and Macro International Inc (MI). 1994. *National Demographic Survey 1993.* Calverton, Maryland: NSO and MI.

POPCOM. 1993. *Philippine Program Plan: 1993-1998.* Manila, Philippines.

Raymundo, C. 1987. Risks of motherhood among the urban poor. Paper presented at the Philippines Department of Health National Conference on Safe Motherhood. Manila, Philippines.

Stewart, M.K. and M. Festin. 1994. Validation study of women's reporting and recall of major obstetric complications treated at the Philippine General Hospital. *International Journal of Gynecology and Obstetrics.* In press.

Villavieja, G., et al. 1989. *Third National Nutrition Survey, Philippines 1987.* Food and Nutrition Research Institute, Metropolitan Manila, Philippines.

White, F.M., N.S. Zacarias, M.E. White, B. Loevinsohn, and A.R. Manahan. 1993. *Maternal mortality semi-annual report, 1993.* Department of Health, Health Intelligence Service, Field Epidemiology Training Program.

World Health Organization. 1993. *Mother-Baby Package: A road map for implementation in countries.* Geneva: Division of Family Health/WHO.

APPENDIX A

DEFINITION OF URBAN AND RURAL AREAS

APPENDIX A

Definition of Urban and Rural Areas
1990 Census of Population and Housing

The same concepts used in the 1970, 1975, and 1980 censuses were followed in classifying areas as *urban*. According to these concepts, urban areas consist of:

1. Every city or municipality having a population density of at least 1,000 persons per square kilometer.

2. Each central district of municipality or city which has a population density of at least 500 persons per square kilometer.

3. Each central district (not included in 1 and 2), regardless of the population size which has the following:

    a. Street pattern, i.e., network of streets in either parallel or right-angle orientation.

    b. At least six establishments (commercial, manufacturing, recreational, and/or personal services); and

    c. At least three of the following:

        i. A town hall, church, or chapel with religious services at least once a month;

        ii. A public plaza, park, or cemetery;

        iii. A market place or building where trading activities are carried on at least once a week;

        iv. A public building like a school, hospital, puericulture and health center or library.

4. Barangay having at least 1,000 inhabitants which meet the conditions set forth in 3 above, and where the occupation of the inhabitants is predominantly non-farming or non-fishing.

All areas not falling under any of the above classifications are considered *rural*.

APPENDIX B

SCHEDULE OF ACTIVITIES

APPENDIX B

SCHEDULE OF ACTIVITIES FOR THE 1993 PHILIPPINES SAFE MOTHERHOOD SURVEY

	Activity	Date
1.	Preliminary review of studies done, instruments available, and data needs	Sep-Nov 1992
2.	Draft of SMS questionnaire	Nov-Dec 1992
3.	Expert committee meeting at World Bank	Dec. 16-17, 1992
3.	SMS questionnaire revised	Jan 1993
4.	a. Feedback from DOH, UPPI, and NSO on draft of SMS questionnaire b. SMS implementing agency identified c. Collaborator for validation study identified	Feb 1993 Feb 1993 Feb 1993
5.	Validation study: questionnaire and abstract forms developed	Feb-Mar 1993
6.	Validation study: training of interviewers and chart abstractors	Mar 1993
7.	Qualitative study: study design and collaborators identified	Apr-May 1993
8.	Validation study: fieldwork and chart abstraction	Apr-May 1993
9.	Qualitative study: fieldwork	June 1993
10.	Validation study: data entry	May-June 1993
11.	Validation study: data analysis and report writing	Jun-Jul 1993
12.	Qualitative study: data analysis and report writing	Jun-Jul 1993
13.	Revision of SMS questionnaire based on preliminary study findings	June 1993
14.	SMS questionnaire translations, back-translations and revisions	July 1993
15.	Preparation of interviewer and supervisor/editor manuals	July 1993
16.	Pretest of SMS questionnaire: training and fieldwork	August 1993
17.	Revision of SMS questionnaire and manuals based on pretest results	August 1993
18.	Main SMS: training of trainers	Sept 1993

19.	Main SMS: training of interviewers	Oct 1993
20.	Main SMS: fieldwork	Mid-Oct-Dec 1993
21.	Main SMS: ISSA training for data entry and editing	Nov 1993
22.	Main SMS: data entry and editing	Nov-Jan 1993
23.	Main SMS: preparation of tabulation plan and programs	Jan-Feb 1994
24.	Main SMS: preparation of tables and text for report	Feb-Mar 1994
25.	Main SMS: first draft of report for review	Apr 1994
26.	SMS report: working group meeting in Manila to review	April 26, 1994
27.	SMS report: revisions	May-Jun 1994
28.	SMS report: review of revised report	Jul 1994
29.	SMS report: final revisions	Aug 1994
28.	SMS report: editing, printing, and publication	Aug-Sep 1994

APPENDIX C

DATA QUALITY

APPENDIX C

DATA QUALITY

Two objectives of the SMS were to investigate women's health and health care seeking behavior during pregnancy, delivery and the postpartum period. Therefore, the pregnancy history in the questionnaire, which identifies the pregnancies to be examined, represents the basis for much of the analysis to be presented in this report. The purpose of this appendix is to provide the reader with an idea of the aggregate level consistency of SMS data to that collected during the NDS, as the quality of the pregnancy history underlies many of the results presented in this report.

The SMS survey consisted of follow-up interviews with all respondents of the National Demographic Survey (NDS) who reported at least one pregnancy outcome. The design of the SMS questionnaire included the repeat collection of certain variables from the NDS survey. For example, the SMS questionnaire contained questions on: age of respondent, respondent education, education of the respondent's husband or partner, age at first sexual relations, and a complete pregnancy history. Repeat collection of the above information was done for several reasons. First, duplicate information will be used to evaluate the extent to which the field operation successfully located the true NDS respondents by comparing their reported age, education and numbers of pregnancies during the two survey operations. Repeat collection of the pregnancy history assured collection of the most current information, including pregnancy outcomes occurring since the NDS interview, and also assured access to a complete pregnancy history in case the merging of the two data sets proved problematic.

Table C.1 presents the distribution of pregnancy outcomes from the pregnancy histories collected in the NDS and SMS surveys, truncating both histories at March 1993 to insure comparability. Although, the overall distributions of pregnancy outcomes are quite similar, the SMS collected over 1,200 additional events. Half of these additional events were early pregnancy losses (induced abortions and miscarriages). Early losses also represent a higher proportion of pregnancy outcomes in the SMS compared to the NDS (8.2 percent versus 6.7 percent).

Table C.1 Pregnancy outcomes, 1993 NDS and SMS, Philippines

Percent distribution of pregnancies by survey source, according to pregnancy outcome, 1993 NDS and SMS, Philippines

Pregnancy outcome	Survey	
	NDS	SMS
Miscarriage	6.7	8.2
Stillbirth	2.4	2.7
Surviving child	85.4	82.8
Dead child	5.5	6.3
Total	100.0	100.0
Number	35,032	36,244

It is not possible to determine precisely why this difference exists; however, some of the most likely explanations relate to the main differences between the two surveys. The design of the pregnancy history table was almost identical in the two questionnaires. However, one difference of note is the addition of a series of questions on reasons for prolonged birth intervals in the SMS. These questions were added with the goal of obtaining a more complete pregnancy history.

Another difference in the two surveys is the focus of the content. It is not surprising that a survey specifically oriented toward pregnancy and maternal health might identify more early and late pregnancy losses than an NDS survey which focuses on the health of live-born children. However, it was not expected that the SMS would also detect additional live births.

Finally, the timing of the SMS, as a follow-on survey after the NDS, may have played a role in enhanced recall of events. Perhaps respondents remembered their pregnancies more fully in the SMS as a result

of having been asked the questions in the recent past in the NDS interview. That is, the act of recounting their history may have subsequently jogged their memory of events they failed to report in the first interview. A less likely explanation is that the techniques of the interviewers had changed by the time of the second interview. This is unlikely because the majority of the interviewers who participated in both surveys were professional interviewers with years of experience doing interviews for NSO.

The SMS identified over 450 additional live births compared to the NDS, three-quarters of which subsequently died. No doubt a small number of these child deaths may have occurred in the three to eight months between the NDS and the SMS surveys. Nonetheless, these data suggest that the SMS recorded a more complete pregnancy history than the NDS.

Review of the distributions of NDS and SMS pregnancy outcomes by background characteristics indicate few differences in the results of the two surveys (see Table C.2). In both surveys, increasing parity and education are associated with larger proportions of early losses. Respondent's age at interview and urban/rural residence do not appear to be related to reporting of pregnancy outcome. It is interesting to note that two-thirds of the additional early losses and over 90 percent of the additional live births identified in the SMS were reported by women aged 35 or more. This again suggests that these were events occurring further back in the past, which were perhaps remembered more clearly after women were asked about them in the SMS. Surprisingly, there were actually fewer events reported in the SMS than in the NDS by the youngest women, among whom recall should be the least affected.

The percent distribution of pregnancy outcomes for consecutive three year periods is presented by background characteristics of the respondent in Table C.3. The purpose of this table is to assess the effects of recall over time on the reporting of early losses and stillbirths, the outcomes which are most likely to be forgotten. The table also identifies differential reporting of outcomes over time by background characteristics of the respondent. The results show that 11 to 12 percent of all reported pregnancy outcomes terminate in an early or late loss across all four time intervals.

Among pregnancy losses, there is evidence of underreporting of early losses the further back in time one goes. In the SMS, early losses decrease from ten percent of all outcomes for the period 1990-92 to eight percent for the period 1981-83. Review of these trends by age of the respondent at outcome confirms the effect of recall over time. Ten percent of all outcomes to women aged 20 or less were reported as early losses between 1990 and 1992, whereas only six percent were reported among respondents who were in this age group between 1981 and 1983. Rural respondents and those with primary or no education reported slightly fewer early losses for pregnancies ending in the earlier time period compared with the past three years.

Table C.4 presents the percent distribution of pregnancy losses and child deaths, surviving children and all pregnancy outcomes combined by year of pregnancy termination. The purpose of this table is to assess the displacement of pregnancy outcomes to 1989 or earlier. The concern here is that interviewers may have deliberately assigned dates of birth or pregnancy termination prior to January 1990 in order to avoid completing the lengthy sections of the questionnaire which are specific to pregnancies terminating since that date. Results indicate that among pregnancy losses and child deaths, the proportions of events from 1990 through to the time of the survey are consistently lower than the proportions prior to 1990. This tendency is not apparent among surviving children and all pregnancy outcomes combined. Since pregnancy loss and early child death are sometimes related to maternal complications, this displacement of pregnancies in the SMS may contribute to an underestimation of the percentage of respondents experiencing maternal complications in the three years prior to interview.

Table C.2 Pregnancy outcomes, by background characteristics, 1993 SMS and NDS, Philippines

Percent distribution of pregnancies by survey source and pregnancy outcomes, according to background characteristics, 1993 SMS and NDS, Philippines

Background characteristic	SMS pregnancy outcomes					NDS pregnancy outcomes				
	Early loss	Peri-natal death	Live birth	Total percent	Number of pregnancies	Early loss	Peri-natal death	Live birth	Total percent	Number of pregnancies
Age group										
<20	8.3	2.5	89.2	100.0	130	9.6	2.2	88.2	100.0	147
20-34	7.9	2.6	89.5	100.0	12,869	6.6	2.2	91.2	100.0	12,557
35+	8.3	2.8	88.9	100.0	23,245	6.8	2.5	90.7	100.0	22,329
No. of pregnancies										
1	4.0	0.9	95.1	100.0	952	5.5	1.1	93.3	100.0	1,038
2-3	6.7	2.0	91.4	100.0	6,865	6.1	1.6	92.3	100.0	6,842
4-5	8.1	2.8	89.1	100.0	9,815	6.9	2.6	90.6	100.0	9,550
6+	9.0	3.1	87.9	100.0	18,611	7.0	2.6	90.4	100.0	17,603
Education										
No educ./primary	7.4	3.0	89.6	100.0	20,010	6.1	2.6	91.2	100.0	19,231
High school/vo-tech	8.4	2.5	89.1	100.0	10,797	7.2	2.1	90.8	100.0	10,524
College	10.7	2.0	87.4	100.0	5,425	8.2	1.9	89.8	100.0	5,266
Residence										
Urban	8.7	2.6	88.7	100.0	17,301	7.1	2.2	90.7	100.0	16,681
Rural	7.7	2.8	89.5	100.0	18,943	6.4	2.5	91.1	100.0	18,351
Region										
Metro. Manila	8.6	2.7	88.7	100.0	4,095	7.2	2.2	90.6	100.0	3,985
Cordillera Admin.	9.6	2.6	87.8	100.0	668	7.4	2.1	90.5	100.0	632
Ilocos	8.6	3.1	88.4	100.0	2,127	7.9	2.6	89.5	100.0	2,093
Cagayan Valley	10.2	4.2	85.6	100.0	1,404	7.6	3.4	89.0	100.0	1,303
C-Luzon	8.7	2.0	89.3	100.0	3,667	6.8	1.9	91.3	100.0	3,546
S-Tagalog	8.5	2.5	89.0	100.0	4,900	7.4	2.2	90.4	100.0	4,755
Bicol	7.6	3.0	89.4	100.0	2,647	6.9	2.6	90.5	100.0	2,615
W-Visayas	7.9	2.3	89.8	100.0	2,923	6.3	2.6	91.0	100.0	2,834
C-Visayas	8.7	2.9	88.4	100.0	2,850	7.1	2.6	90.3	100.0	2,761
E-Visayas	8.8	2.8	88.4	100.0	1,804	8.1	2.2	89.7	100.0	1,790
W-Mindanao	6.2	2.7	91.1	100.0	2,124	4.5	2.3	93.1	100.0	1,997
N-Mindanao	7.5	2.4	90.1	100.0	2,207	6.1	2.2	91.7	100.0	2,097
S-Mindanao	8.2	3.2	88.6	100.0	2,750	7.1	2.6	90.3	100.0	2,660
C-Mindanao	6.0	2.8	91.2	100.0	2,079	3.4	1.9	94.7	100.0	1,965
Total	8.2	2.7	89.1	100.0	36,244	6.7	2.4	90.9	100.0	35,032

Note: This analysis is restricted to those pregnancies ocurring prior to April 1993.

Table C.3 Trends in pregnancy outcomes

Percent distribution of pregnancy outcomes for four 3-year periods, by background characteristics, Philippines, 1993 SMS

Background characteristic	1990-1992 Early loss	Still-birth	Live birth	Total	Number of out-comes	1987-1989 Early loss	Still-birth	Live birth	Total	Number of out-comes	1984-1986 Early loss	Still-birth	Live birth	Total	Number of out-comes	1981-1983 Early loss	Still-birth	Live birth	Total	Number of out-comes
Age group																				
<20	10.2	2.3	87.6	100.0	459	8.1	3.5	88.4	100.0	500	9.7	2.4	87.9	100.0	514	6.4	5.5	88.1	100.0	539
20-34	8.7	2.0	89.3	100.0	4,237	9.2	2.5	88.3	100.0	4,164	8.6	2.7	88.7	100.0	4,051	7.9	2.6	89.5	100.0	3,953
35+	15.9	2.7	81.4	100.0	1,024	14.1	2.8	83.0	100.0	962	13.3	1.7	85.0	100.0	728	12.3	4.5	83.2	100.0	459
Education																				
No educ./primary	9.6	2.5	87.9	100.0	2,493	9.5	2.6	88.0	100.0	2,689	8.8	2.6	88.6	100.0	2,728	7.6	3.4	89.0	100.0	2,709
High school/vo-tech	10.7	2.0	87.3	100.0	2,128	9.6	3.1	87.3	100.0	1,922	8.5	2.8	88.8	100.0	1,652	8.1	3.0	88.9	100.0	1,500
College	10.0	1.8	88.2	100.0	1,097	11.8	2.0	86.2	100.0	1,013	12.8	2.0	85.2	100.0	908	10.1	2.2	87.6	100.0	741
Residence																				
Urban	10.2	1.8	88.0	100.0	2,774	9.5	2.9	87.7	100.0	2,659	10.0	2.7	87.3	100.0	2,516	9.1	2.4	88.5	100.0	2,359
Rural	10.0	2.5	87.5	100.0	2,947	10.3	2.5	87.2	100.0	2,967	8.8	2.4	88.9	100.0	2,777	7.2	3.7	89.0	100.0	2,593
Region																				
Metro. Manila	10.9	0.4	88.7	100.0	692	8.8	3.0	88.2	100.0	663	9.2	2.9	87.9	100.0	584	9.2	3.8	87.0	100.0	518
Cordillera Admin.	10.5	3.2	86.4	100.0	119	10.2	4.1	85.7	100.0	106	11.8	2.9	85.3	100.0	111	11.2	1.2	87.6	100.0	87
Ilocos	12.1	3.3	84.7	100.0	336	9.3	3.3	87.5	100.0	309	9.2	2.2	88.6	100.0	304	8.8	3.6	87.6	100.0	307
Cagayan Valley	10.9	3.6	85.5	100.0	217	13.9	4.6	81.5	100.0	232	15.7	3.1	81.2	100.0	205	9.7	3.7	86.6	100.0	192
C-Luzon	11.0	1.0	88.0	100.0	572	11.7	2.0	86.3	100.0	546	8.9	1.8	89.3	100.0	534	10.3	2.3	87.4	100.0	508
S-Tagalog	10.1	2.3	87.6	100.0	735	12.2	1.2	86.6	100.0	714	8.8	3.4	87.8	100.0	698	8.7	2.8	88.5	100.0	707
Bicol	11.7	2.5	85.8	100.0	445	7.7	2.6	89.7	100.0	430	7.1	2.1	90.8	100.0	380	6.7	3.4	89.9	100.0	358
W-Visayas	11.7	2.5	85.9	100.0	480	10.3	2.9	86.8	100.0	469	8.1	2.6	89.2	100.0	411	6.5	2.9	90.6	100.0	438
C-Visayas	7.8	2.5	89.6	100.0	441	9.7	3.2	87.1	100.0	470	11.6	2.5	85.9	100.0	404	7.9	3.4	88.7	100.0	380
E-Visayas	10.7	2.3	86.9	100.0	258	9.1	5.0	85.9	100.0	277	10.8	3.8	85.4	100.0	273	8.8	2.8	88.4	100.0	247
W-Mindanao	8.1	2.8	89.1	100.0	336	9.0	2.0	88.9	100.0	317	8.5	1.8	89.7	100.0	317	7.0	3.3	89.7	100.0	286
N-Mindanao	9.5	2.1	88.4	100.0	364	7.7	2.4	89.9	100.0	350	9.4	1.1	89.5	100.0	336	7.0	2.8	90.3	100.0	275
S-Mindanao	8.3	2.7	89.0	100.0	411	9.9	2.4	87.7	100.0	421	10.8	3.1	86.1	100.0	412	7.7	2.5	89.8	100.0	373
C-Mindanao	6.8	2.4	90.7	100.0	315	8.6	2.1	89.3	100.0	323	6.1	1.9	92.0	100.0	326	4.7	4.5	90.8	100.0	276
Total	10.1	2.2	87.7	100.0	5,721	9.9	2.7	87.4	100.0	5,626	9.4	2.5	88.1	100.0	5,293	8.1	3.1	88.8	100.0	4,952

Table C.4 Pregnancy outcomes by year of pregnancy termination

Percent distribution of pregnancy outcomes by year of pregnancy termination and ratio of the number of specific outcomes in 1990 to one-half the sum of the outcomes from 1989 and 1991, Philippines, 1993 SMS

Pregnancy outcome	Year of pregnancy termination								Total percent	Number of pregnancies	Ratio
	1986 or before	1987	1988	1989	1990	1991	1992	1993			
Surviving child	65.1	5.0	5.0	5.1	5.4	5.2	5.1	4.0	100.0	30,881	105.7
Dead child/ pregnancy loss	67.4	4.8	4.7	5.3	4.6	4.4	4.5	3.9	99.5	6,415	95.1
All pregnancies	65.5	5.0	4.9	5.2	5.3	5.0	5.0	4.0	99.9	37,296	103.9

Table C.5 presents the proportion of eligible women by background characteristics and by whether or not the SMS interview was completed. The results show that nonresponse in the SMS was selective with regard to age and total number of pregnancies. However, there was little difference in response by urban/rural residence and educational status. The 10 percent of eligible respondents who were not interviewed tended to be younger and of lower parity than the women completing an SMS interview. Nonresponse was also slightly higher in the regions of Metropolitan Manila and Eastern Visayas.

Table C.6 shows the percentage of SMS respondents whose birth date falls within plus or minus five years of the date given in the NDS and whose total number of pregnancy outcomes is within plus or minus two compared to the NDS. Age reporting appears to be quite consistent in the Philippines with less than three percent of respondents reporting ages discrepant by five or more years. Six percent of SMS respondents reported a number for pregnancy outcomes discrepant by two or more compared to the number of pregnancy outcomes reported in the NDS for the same period.

The NDS questionnaire restricted its questions regarding prenatal and delivery care to pregnancies resulting in live born children. Table C.7 compares the reporting by NDS and SMS respondents on their care seeking behaviors during the three years prior to the NDS for all live births. Reporting on prenatal and delivery care and tetanus toxoid injection is very consistent. Among live births to women giving birth in the three years prior to survey, 85 percent in both surveys reported at least one prenatal visit, 53-54 percent said they were attended by a doctor, nurse, or midwife during delivery, and 68-71 percent reported at least one tetanus toxoid injection.

Conclusion

This preliminary examination of the aggregate level consistency of SMS and NDS reporting suggests that data on women's age and on maternity care are quite reliable. There is less consistency in the reporting on number of pregnancies. This is because the SMS identified more events than the NDS for every type of pregnancy outcome. The more complete reporting of pregnancies in the SMS may have resulted from structural differences in the questionnaire, the pregnancy-oriented focus of the SMS questionnaire, and/or the fact that respondents may have been influenced to remember more by the very exercise of answering the pregnancy history questions in the NDS.

Table C.5 Percentage of eligible NDS respondents interviewed for the SMS

Percent distribution of eligible NDS respondents by background characteristics, according to SMS interview status, Philippines, 1993 SMS

Background characteristic	Inter-viewed	Not inter-viewed	Number of eligible respondents
Age group			
<20	79.9	20.1	149
20-34	88.6	11.4	4,722
35+	91.5	8.5	4,571
No. of pregnancies			
1	82.6	17.4	1,150
2-3	89.4	10.6	3,131
4-5	91.2	8.8	2,482
6+	92.2	7.8	2,678
Education			
No educ./primary	90.7	9.3	4,262
High school/vo-tech	90.0	10.0	3,205
College	87.7	12.3	1,973
Residence			
Urban	88.6	11.4	4,583
Rural	90.9	9.1	4,858
Region			
Metro. Manila	86.4	13.6	932
Cordillera Admin.	92.2	7.8	294
Ilocos	95.8	4.2	602
Cagayan Valley	92.7	7.3	503
C-Luzon	87.9	12.1	878
S-Tagalog	88.3	11.7	931
Bicol	87.2	12.8	613
W-Visayas	92.3	7.7	726
C-Visayas	93.9	6.1	750
E-Visayas	85.0	15.0	519
W-Mindanao	89.2	10.8	647
N-Mindanao	93.6	6.4	661
S-Mindanao	88.4	11.6	758
C-Mindanao	88.4	11.6	643
Total	89.8	10.2	9,441

Table C.6 Differences in reported age and number of pregnancies between the 1993 NDS and SMS

Percentage of SMS respondents reporting an age ± 5 years different from that reported in the NDS, and the percentage reporting a total number of pregnancies ± 2 different from that in the NDS, Philippines, 1993 SMS

Difference from NDS	Percent of SMS respondents
Age ± 5	2.7
Pregnancies ± 2	6.0
Number of SMS respondents	8,481

Table C.7 Prenatal and delivery care, 1993 NDS and SMS, Philippines

Percentage of live births in the NDS and the SMS for which prenatal care, delivery care, and tetanus toxoid were received, Philippines, 1993 SMS

Type of care	Percentage of live births	
	NDS	SMS
Prenatal care	84.7	84.5
Delivery care	53.8	52.8
Tetanus toxoid	67.9	70.6
No. of live births	4,918	4,639

APPENDIX D

SAMPLING ERRORS

APPENDIX D

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 SMS survey 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 eligible women selected in the SMS 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 SMS sample design depended on stratification, stages and clusters. Consequently, it was necessary to utilize more complex formulas. The computer package CLUSTERS, developed for the World Fertility Survey program by the International Statistical Institute, was used to assist in computing the sampling errors with the proper statistical methodology.

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

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

in which

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

where

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

In addition to the standard errors, CLUSTERS computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. CLUSTERS also computes the relative error and confidence limits for the estimates.

Sampling errors are presented in Tables D.2-D.9 for variables considered to be of major interest. Results are presented for the whole country, for urban and rural areas separately, for each education group (primary, secondary, and more than secondary) and for each age group (less than 35 years and 35 or older). For each variable, the type of statistic (mean or proportion) and the base population are given in Table D.1. For each variable, Tables D.2-D.9 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 error (SE/R), and the 95 percent confidence limits (R±2SE).

The confidence limits have the following interpretation. For the proportion of all eligible informants with unwanted pregnancy (S559), the overall proportion from the sample is .235 and its standard error is 0.004. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., .235 ± (2 x 0.004), which means that there is a high probability (95 percent) that the *true* proportion with unwanted pregnancy is between .226 and .244.

The relative 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 S559, for instance, the relative error (as a percentage of the estimated proportion) for the whole country and for urban and rural areas is 1.9 percent, 3.0 percent, and 2.3 percent, respectively.

Table D.1 List of selected variables for sampling errors, 1993 Philippines Safe Motherhood Survey (SMS)

Variable	Description	Estimate	Base population
URBAN	Urban resident	Proportion	All eligible respondents
PRIMAR	Attended primary or no education	Proportion	All eligible respondents
SECOND	Graduated secondary (exludes vo-tech)	Proportion	All eligible respondents
MARSTA	Currently married or with partner	Proportion	All eligible respondents
S235A	Ever had vaginal bleeding in pregnancy	Proportion	All eligible respondents
S235B	Ever had convulsions in pregnancy	Proportion	All eligible respondents
S235C	Ever had high fever in pregnancy	Proportion	All eligible respondents
S239A	Ever had massive bleeding in labor & delivery	Proportion	All eligible respondents
S239B	Ever had convulsions in labor & delivery	Proportion	All eligible respondents
S239C	Ever had labor more than twelve hours	Proportion	All eligible respondents
S239G	Ever had retained placenta	Proportion	All eligible respondents
S239H	Ever had high fever in labor & delivery	Proportion	All eligible respondents
S239I	Ever had a cesearean delivery	Proportion	All eligible respondents
S559	With unwanted pregnancy	Proportion	All eligible respondents
XS703	Height	Mean	All eligible respondents
XS704	Weight	Mean	All eligible respondents
XS705	Mid-upper arm circumference	Mean	All eligible respondents
S305	With prenatal care	Proportion	Stillbirths and live births
S401	With labor more than twelve hours	Proportion	Births in last 3 years
S437A	Delivered at home	Proportion	Births in last 3 years
S441	Delivered by cesearean section	Proportion	Births in last 3 years
S444	Attended by doctor, nurse or midwife	Proportion	Births in last 3 years
DYST	Caesarean section due to obstruction	Proportion	Births in last 3 years
HEMO	With hemorrhage	Proportion	Births in last 3 years
ECLAM	With eclampsia	Proportion	Births in last 3 years
SEPS	With severe infection	Proportion	Births in last 3 years
S449	With retained placenta	Proportion	Births in last 3 years
S453	Had postpartum care	Proportion	Births in last 3 years

Table D.2 Sampling errors for entire sample, Philippines, 1993 SMS

Sampling errors for entire sample, 1993 Philippines Safe Motherhood Survey (SMS)

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
URBAN	.517	.008	8481	8481.0	1.541	.016	.500	.534
PRIMAR	.441	.007	8479	8478.5	1.356	.017	.426	.456
SECOND	.322	.006	8479	8478.5	1.105	.017	.311	.333
MARSTA	.942	.003	8481	8481.0	1.142	.003	.936	.947
S235A	.221	.005	8481	8481.0	1.112	.023	.211	.232
S235B	.019	.002	8481	8481.0	1.076	.085	.016	.022
S235C	.058	.003	8481	8481.0	1.109	.049	.052	.063
S239A	.078	.003	8481	8481.0	1.007	.038	.072	.084
S239B	.016	.001	8481	8481.0	1.055	.090	.013	.019
S239C	.151	.004	8481	8481.0	1.106	.028	.143	.160
S239G	.047	.002	8481	8481.0	1.025	.050	.042	.052
S239H	.016	.001	8481	8481.0	1.058	.089	.013	.019
S239I	.065	.003	8481	8481.0	1.185	.049	.059	.072
S559	.235	.004	8481	8481.0	.962	.019	.226	.244
XS703	151.583	.075	8294	8293.1	1.244	.000	151.433	151.733
XS704	51.159	.142	7222	7284.0	1.287	.003	50.875	51.443
XS705	26.519	.046	8481	8481.0	1.291	.002	26.427	26.610
S305	.843	.008	4852	4756.5	1.307	.009	.827	.859
S401	.071	.004	4852	4756.5	1.092	.061	.063	.080
S437A	.698	.011	4852	4756.5	1.429	.015	.677	.720
S441	.046	.004	4852	4756.5	1.133	.081	.039	.054
S444	.528	.012	4852	4756.5	1.464	.023	.504	.552
DYST	.024	.003	4852	4756.5	1.093	.109	.019	.029
HEMO	.066	.004	4852	4756.5	1.053	.060	.058	.074
ECLAM	.011	.002	4852	4756.5	1.019	.149	.008	.014
SEPS	.021	.002	4852	4756.5	.991	.107	.017	.026
S449	.043	.003	4852	4756.5	1.045	.081	.036	.050
S453	.322	.009	4852	4756.5	1.186	.028	.304	.340

Table D.3 Sampling errors for urban sample, Philippines, 1993 SMS

Sampling errors for urban sample, 1993 Philippines Safe Motherhood Survey (SMS)

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
PRIMAR	.323	.010	4062	4381.8	1.347	.031	.304	.343
SECOND	.359	.008	4062	4381.8	1.099	.023	.342	.375
MARSTA	.939	.004	4063	4383.3	1.133	.005	.930	.948
S235A	.212	.007	4063	4383.3	1.074	.033	.198	.225
S235B	.016	.002	4063	4383.3	1.092	.135	.012	.020
S235C	.049	.004	4063	4383.3	1.113	.077	.041	.056
S239A	.068	.004	4063	4383.3	.950	.055	.061	.076
S239B	.016	.002	4063	4383.3	1.120	.138	.012	.020
S239C	.156	.006	4063	4383.3	1.123	.041	.143	.169
S239G	.048	.004	4063	4383.3	1.070	.075	.040	.055
S239H	.016	.002	4063	4383.3	1.107	.135	.012	.021
S239I	.091	.006	4063	4383.3	1.233	.061	.080	.102
S559	.218	.006	4063	4383.3	1.003	.030	.205	.231
XS703	152.119	.112	3981	4292.4	1.254	.001	151.895	152.344
XS704	52.487	.203	3550	3854.7	1.258	.004	52.080	52.893
XS705	26.951	.064	4063	4383.3	1.219	.002	26.824	27.079
S305	.887	.009	2167	2294.7	1.134	.010	.869	.905
S401	.074	.006	2167	2294.7	1.045	.084	.061	.086
S437A	.538	.017	2167	2294.7	1.411	.032	.504	.573
S441	.063	.007	2167	2294.7	1.184	.106	.050	.076
S444	.704	.016	2167	2294.7	1.456	.023	.671	.737
DYST	.033	.004	2167	2294.7	1.064	.132	.025	.042
HEMO	.070	.007	2167	2294.7	1.102	.094	.057	.083
ECLAM	.010	.002	2167	2294.7	1.077	.238	.005	.014
SEPS	.018	.003	2167	2294.7	1.039	.179	.011	.024
S449	.041	.005	2167	2294.7	1.048	.127	.030	.051
S453	.381	.014	2167	2294.7	1.180	.037	.353	.410

Table D.4 Sampling errors for rural sample, Philippines, 1993 SMS

Sampling errors for rural sample, 1993 Philippines Safe Motherhood Survey (SMS)

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
PRIMAR	.567	.010	4417	4096.7	1.393	.018	.546	.588
SECOND	.283	.007	4417	4096.7	1.072	.026	.268	.297
MARSTA	.944	.004	4418	4097.7	1.139	.004	.937	.952
S235A	.232	.007	4418	4097.7	1.147	.031	.217	.247
S235B	.022	.002	4418	4097.7	1.073	.109	.017	.026
S235C	.067	.004	4418	4097.7	1.110	.062	.059	.076
S239A	.089	.005	4418	4097.7	1.065	.051	.080	.098
S239B	.016	.002	4418	4097.7	.956	.114	.012	.019
S239C	.146	.006	4418	4097.7	1.073	.039	.135	.158
S239G	.047	.003	4418	4097.7	.958	.065	.041	.053
S239H	.016	.002	4418	4097.7	.986	.115	.013	.020
S239I	.037	.003	4418	4097.7	1.067	.081	.031	.044
S559	.253	.006	4418	4097.7	.905	.023	.241	.265
XS703	151.008	.100	4313	4000.7	1.251	.001	150.808	151.207
XS704	49.666	.195	3672	3429.3	1.337	.004	49.276	50.057
XS705	26.056	.064	4418	4097.7	1.378	.002	25.927	26.185
S305	.802	.013	2685	2461.8	1.424	.016	.777	.828
S401	.069	.006	2685	2461.8	1.145	.088	.057	.081
S437A	.848	.010	2685	2461.8	1.312	.012	.828	.868
S441	.031	.004	2685	2461.8	1.018	.124	.023	.039
S444	.365	.015	2685	2461.8	1.441	.041	.334	.395
DYST	.015	.003	2685	2461.8	1.104	.192	.009	.020
HEMO	.063	.005	2685	2461.8	.975	.076	.053	.072
ECLAM	.012	.002	2685	2461.8	.993	.190	.008	.017
SEPS	.024	.003	2685	2461.8	.967	.132	.018	.031
S449	.045	.005	2685	2461.8	1.044	.103	.036	.054
S453	.267	.012	2685	2461.8	1.215	.044	.243	.290

Table D.5 Sampling errors for primary education, Philippines, 1993 SMS

Sampling errors for primary education, 1993 Philippines Safe Motherhood Survey (SMS)

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
URBAN	.379	.012	3869	3738.8	1.509	.031	.355	.403
MARSTA	.936	.004	3869	3738.8	1.103	.005	.927	.944
S235A	.234	.008	3869	3738.8	1.133	.033	.218	.249
S235B	.026	.003	3869	3738.8	1.121	.109	.021	.032
S235C	.074	.004	3869	3738.8	1.056	.060	.065	.082
S239A	.096	.005	3869	3738.8	1.079	.053	.086	.106
S239B	.020	.002	3869	3738.8	.986	.111	.015	.024
S239C	.149	.006	3869	3738.8	1.103	.042	.137	.162
S239G	.051	.004	3869	3738.8	1.000	.070	.044	.058
S239H	.019	.002	3869	3738.8	1.043	.120	.015	.024
S239I	.029	.003	3869	3738.8	1.110	.103	.023	.035
S559	.252	.007	3869	3738.8	1.008	.028	.238	.266
XS703	150.703	.099	3780	3654.7	1.155	.001	150.505	150.901
XS704	49.864	.188	3256	3177.8	1.148	.004	49.487	50.240
XS705	26.200	.063	3869	3738.8	1.202	.002	26.073	26.326
S305	.742	.014	2189	2058.9	1.318	.019	.713	.771
S401	.065	.006	2189	2058.9	1.047	.094	.053	.077
S437A	.862	.009	2189	2058.9	1.097	.010	.844	.880
S441	.022	.004	2189	2058.9	1.048	.173	.014	.029
S444	.329	.014	2189	2058.9	1.211	.043	.301	.357
DYST	.010	.003	2189	2058.9	1.061	.265	.004	.015
HEMO	.067	.005	2189	2058.9	.953	.080	.056	.078
ECLAM	.015	.003	2189	2058.9	.933	.175	.010	.020
SEPS	.024	.003	2189	2058.9	.946	.147	.017	.031
S449	.048	.005	2189	2058.9	1.019	.111	.037	.059
S453	.221	.012	2189	2058.9	1.131	.052	.198	.244

Table D.6 Sampling errors for secondary education, Philippines, 1993 SMS

Sampling errors for secondary education, 1993 Philippines Safe Motherhood Survey (SMS)

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
URBAN	.576	.012	2659	2729.8	1.237	.021	.552	.600
MARSTA	.955	.004	2659	2729.8	.997	.004	.947	.963
S235A	.203	.008	2659	2729.8	1.058	.041	.187	.220
S235B	.016	.002	2659	2729.8	1.004	.151	.011	.021
S235C	.048	.004	2659	2729.8	.922	.080	.040	.055
S239A	.065	.005	2659	2729.8	.949	.070	.056	.074
S239B	.015	.002	2659	2729.8	1.009	.158	.010	.020
S239C	.145	.007	2659	2729.8	1.000	.047	.131	.158
S239G	.048	.004	2659	2729.8	1.026	.089	.039	.056
S239H	.013	.002	2659	2729.8	.949	.162	.009	.017
S239I	.059	.005	2659	2729.8	1.147	.089	.049	.070
S559	.229	.009	2659	2729.8	1.084	.039	.211	.247
XS703	151.651	.120	2606	2674.4	1.127	.001	151.410	151.892
XS704	51.182	.227	2270	2341.6	1.158	.004	50.728	51.636
XS705	26.488	.071	2659	2729.8	1.124	.003	26.346	26.630
S305	.898	.009	1659	1685.2	1.049	.010	.880	.916
S401	.073	.007	1659	1685.2	1.083	.100	.058	.087
S437A	.694	.016	1659	1685.2	1.272	.023	.662	.726
S441	.042	.006	1659	1685.2	1.165	.143	.030	.054
S444	.583	.016	1659	1685.2	1.211	.028	.550	.616
DYST	.022	.004	1659	1685.2	1.128	.191	.014	.030
HEMO	.053	.006	1659	1685.2	1.017	.110	.041	.065
ECLAM	.007	.002	1659	1685.2	1.008	.310	.003	.012
SEPS	.020	.004	1659	1685.2	.994	.184	.013	.028
S449	.044	.006	1659	1685.2	1.122	.146	.031	.057
S453	.326	.015	1659	1685.2	1.123	.045	.297	.356

Table D.7 Sampling errors for more than secondary education, Philippines, 1993 SMS

Sampling errors for more than secondary education, 1993 Philippines Safe Motherhood Survey (SMS)

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
URBAN	.626	.010	4610	4739.7	1.426	.016	.605	.646
SECOND	.576	.009	4610	4739.7	1.250	.016	.558	.594
MARSTA	.946	.004	4610	4739.7	1.057	.004	.939	.953
S235A	.212	.006	4610	4739.7	1.064	.030	.199	.224
S235B	.013	.002	4610	4739.7	1.015	.133	.009	.016
S235C	.045	.003	4610	4739.7	.970	.066	.039	.051
S239A	.064	.003	4610	4739.7	.957	.054	.057	.071
S239B	.013	.002	4610	4739.7	1.027	.134	.009	.016
S239C	.153	.006	4610	4739.7	1.060	.037	.141	.164
S239G	.044	.003	4610	4739.7	1.025	.070	.038	.051
S239H	.014	.002	4610	4739.7	1.051	.131	.010	.017
S239I	.094	.005	4610	4739.7	1.108	.051	.084	.103
S559	.221	.006	4610	4739.7	1.048	.029	.209	.234
XS703	152.277	.096	4513	4637.4	1.156	.001	152.086	152.468
XS704	52.161	.180	3966	4106.3	1.224	.003	51.801	52.522
XS705	26.770	.057	4610	4739.7	1.202	.002	26.656	26.885
S305	.921	.007	2660	2694.1	1.068	.007	.907	.934
S401	.076	.006	2660	2694.1	1.062	.075	.065	.088
S437A	.574	.014	2660	2694.1	1.269	.024	.546	.601
S441	.065	.006	2660	2694.1	1.128	.090	.053	.077
S444	.681	.013	2660	2694.1	1.264	.019	.655	.707
DYST	.035	.004	2660	2694.1	1.056	.115	.027	.043
HEMO	.065	.005	2660	2694.1	1.037	.081	.055	.076
ECLAM	.008	.002	2660	2694.1	1.109	.253	.004	.012
SEPS	.019	.003	2660	2694.1	1.052	.157	.013	.025
S449	.039	.005	2660	2694.1	1.082	.118	.030	.048
S453	.400	.012	2660	2694.1	1.116	.030	.375	.424

Table D.8 Sampling errors for age < 35 years, Philippines, 1993 SMS

Sampling errors for age < 35 years, 1993 Philippines Safe Motherhood Survey (SMS)

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
URBAN	.519	.011	4300	4289.9	1.438	.021	.497	.541
PRIMAR	.358	.009	4298	4287.4	1.277	.026	.339	.376
SECOND	.389	.008	4298	4287.4	1.110	.021	.372	.406
MARSTA	.959	.003	4300	4289.9	1.051	.003	.952	.965
S235A	.195	.007	4300	4289.9	1.094	.034	.182	.208
S235B	.016	.002	4300	4289.9	1.063	.129	.012	.020
S235C	.062	.004	4300	4289.9	1.000	.059	.055	.070
S239A	.064	.003	4300	4289.9	.934	.055	.057	.070
S239B	.011	.002	4300	4289.9	.951	.135	.008	.014
S239C	.145	.006	4300	4289.9	1.074	.040	.133	.156
S239G	.050	.003	4300	4289.9	1.025	.068	.043	.057
S239H	.014	.002	4300	4289.9	1.015	.129	.011	.018
S239I	.057	.004	4300	4289.9	1.176	.073	.049	.065
S559	.245	.007	4300	4289.9	1.053	.028	.231	.259
XS703	151.525	.094	4209	4199.1	1.096	.001	151.338	151.713
XS704	49.994	.169	3411	3438.8	1.174	.003	49.656	50.332
XS705	26.011	.056	4300	4289.9	1.223	.002	25.900	26.122
S305	.861	.008	3685	3635.3	1.232	.010	.844	.877
S401	.075	.005	3685	3635.3	1.064	.065	.065	.085
S437A	.687	.012	3685	3635.3	1.354	.017	.664	.711
S441	.043	.004	3685	3635.3	1.144	.097	.035	.052
S444	.537	.013	3685	3635.3	1.407	.025	.510	.564
DYST	.024	.003	3685	3635.3	1.119	.130	.017	.030
HEMO	.064	.005	3685	3635.3	1.044	.070	.055	.073
ECLAM	.008	.002	3685	3635.3	1.101	.214	.005	.012
SEPS	.019	.002	3685	3635.3	.999	.132	.014	.024
S449	.041	.004	3685	3635.3	1.154	.106	.032	.049
S453	.323	.010	3685	3635.3	1.159	.032	.302	.344

Table D.9 Sampling errors for age 35+ years, Philippines, 1993 SMS

Sampling errors for age 35+ years, 1993 Philippines Safe Motherhood Survey (SMS)

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
URBAN	.515	.009	4181	4191.1	1.215	.018	.496	.533
PRIMAR	.526	.009	4181	4191.1	1.192	.017	.508	.545
SECOND	.253	.007	4181	4191.1	1.017	.027	.240	.267
MARSTA	.924	.004	4181	4191.1	1.062	.005	.915	.933
S235A	.249	.008	4181	4191.1	1.135	.031	.233	.264
S235B	.022	.002	4181	4191.1	1.020	.105	.017	.027
S235C	.053	.004	4181	4191.1	1.080	.070	.046	.061
S239A	.093	.005	4181	4191.1	1.076	.052	.084	.103
S239B	.020	.002	4181	4191.1	1.012	.109	.016	.025
S239C	.158	.006	4181	4191.1	1.112	.040	.145	.170
S239G	.044	.003	4181	4191.1	.950	.068	.038	.050
S239H	.018	.002	4181	4191.1	.979	.111	.014	.022
S239I	.074	.004	4181	4191.1	1.113	.061	.065	.083
S559	.225	.006	4181	4191.1	.954	.027	.213	.238
XS703	151.643	.097	4085	4094.0	1.150	.001	151.449	151.837
XS704	52.200	.194	3811	3845.3	1.193	.004	51.812	52.589
XS705	27.038	.066	4181	4191.1	1.238	.002	26.906	27.170
S305	.787	.016	1167	1121.3	1.101	.020	.755	.818
S401	.058	.008	1167	1121.3	1.025	.133	.043	.074
S437A	.734	.017	1167	1121.3	1.175	.023	.701	.768
S441	.056	.008	1167	1121.3	1.097	.145	.040	.072
S444	.501	.019	1167	1121.3	1.163	.038	.462	.539
DYST	.024	.005	1167	1121.3	1.135	.216	.014	.035
HEMO	.072	.008	1167	1121.3	.949	.105	.057	.088
ECLAM	.020	.004	1167	1121.3	.969	.212	.011	.028
SEPS	.029	.005	1167	1121.3	.918	.171	.019	.039
S449	.050	.007	1167	1121.3	.954	.135	.036	.063
S453	.319	.015	1167	1121.3	1.016	.048	.288	.350

APPENDIX E

SURVEY STAFF

APPENDIX E

1993 Philippines Safe Motherhood Survey Staff

TASK FORCE

Trainers:
Elizabeth M. Go
Marichu Duka
Tita Tabije
Maribelle Baluyot
Matilde Alejandro
Priscilla Bacus
Josephine Quiambao
Benedicta Yabut
Lucita Flavier
Ma. Leah Magracia

Supervisors-at-Large:
Luisa T. Engracia
Rosalinda P. Bautista
Elizabeth M. Go

DATA ENTRY AND PROCESSING STAFF

Ma. Leah Magracia (Over-all Supervisor)
Priscilla Bacus
Sonia Galope
Marlyn Recupero
Geraldine Cadenas
Arlene Anacion

Receipt and Control:
Gerry Labatorio
Amalia Gonzales

Manual Processors:
Ana Malubay
Amalia Gonzales
Myrna Jenosa

FIELD WORKERS

Cordillera Administrative Region

Team No. 1
Robert Tawaya (Team Supervisor)
Ma. Leonora Lacuata (Field Editor)
Virginia Chokowen
Elvira Cuyao
Thelma Bentres
Shirley Palaguitang
Yolanda Advincula
Felomina Batay-an

Region I - Ilocos

Team No. 2
Carlito Caragan (Team Supervisor)
Corina Roque (Field Editor)
Magdalen Tuliao
Natalia Banta
Sylvia de Guzman
Gloria Naraja
Violeta Naraja

Team No. 3
Jose Natividad (Team Supervisor)
Rosalie Reyes (Field Editor)
Yvonne Abenoja
Jane Pamuspusan
Sonia Guillermo
Marybel Patoc

Region II - Cagayan Valley

Team No. 4
Johnny Agustin (Team Supervisor)
Magdalen Aglibut (Field Editor)
Merlita Abella
Lorna Castaneda
Rosemarie Comtillo
Cherita Ramos
Susana Guzman
Caroline dela Cruz
Petrocina Marayag

Region III - Central Luzon

Team No. 5
Isidro Mariano (Team Supervisor)
Cristina Lopez (Field Editor)
Perseveranda Rodriguez
Agnes Barcena
Remedios de Guzman
Teodorica Puzon
Cecilia Vega

Team No. 6
Rafael Gabriel (Team Supervisor)
Rosalinda Perez (Field Editor)
Eliza Rayo
Gracelyn Valmonte
Angelica Valeda
Rosario Enriquez
Maria Baun
Gina Aurelio

Region IV - Southern Tagalog

Team No. 7
Carlito Torres (Team Supervisor)
Maria Ramirez (Field Editor)
Annelyn Aguila
Norieta Grimalto
Elisa Alegria
Jocelyn Gerpacio
Beverly Garcia
Teresa delos Reyes

Team No. 8
Rodulfo Vergara (Team Supervisor)
Rosalinda Iranzo (Field Editor)
Agnes Bautista
Maria Asi
Baby Veronica Mendoza
Erlinda Caperina
Norma Felia

Team No. 9
Emilio Salazar (Team Supervisor)
Sherly Valoroso (Field Editor)
Marichu Heredero

Region V - Bicol

Team No. 10
Rodulfo Guevarra (Team Supervisor)
Marile Servuelas (Field Editor)
Yolanda Adolfo
Elda Joy Primo
Rosario Suliamo
Teresita Vale

Team No. 11
Celso Moral (Team Supervisor)
Cynthia Balin (Field Editor)
Alicia Rebusquillo
Jocelyn Diaz
Ligaya Docog
Ligaya Ty
Ma. Joy Balean

Region VI - Western Visayas

Team No. 12
Ernesto Esmeralda (Team Supervisor)
Salvacion Lemos (Field Editor)
Lourdes Gonzales
Anita Pinosa
Regina Sontat
Ma. Corazon Quijano
Digna Apitong

Team No. 13
Ildefonso Rollo (Team Supervisor)
Helen Claur (Field Editor)
Jasmin Buala
Lucita Trajeras
Lilita Vargas
Myrna Jamili

Region VII - Central Visayas

Team No. 14
Arcadio Regis (Team Supervisor)
Colita Montoya (Field Editor)
Joyce Salvacion
Epifania Hibaya
Nimfa Aray
Jocelyn Vera Cruz
Shired Miraflor
Monina Obrero

Team No. 15
Rodrigo Puyot (Team Supervisor)
Wenifreda Hayag (Field Editor)
Josephine Gonzales
Fe Bascon
Lorna Chua
Rosanna Limbo
Evelyn Casas

Region VIII - Eastern Visayas

Team No. 16
Custodio Saboren, Jr. (Team Supervisor)
Nelia Gabon (Field Editor)
Lani Buedron
Remedios Quinones
Nila Onate
Imelda Rosco
Aileen Awa
Grace Lianzon
Nida Ayon

Region IX - Western Mindanao

Team No. 17
Jalandoni Besas (Team Supervisor)
Rosa Bella Delfinado (Field Editor)
Rajini Adjarani
Nanawia Amiludin
Linang Macud
Sanaoray Macud
Elma Ybanez
Lucia Natividad
Norpha Abdulaup

Team No. 18
Isagani Templanza (Team Supervisor)
Vilma Arnoza (Field Editor)
Nelma Alaza
Merly Alemanzas
Susan Beliganio
Hedda Insay

Region X - Northern Mindanao

Team No. 19
Julito Pilar (Team Supervisor)
Elvie Blanco (Field Editor)
Estrellita Amista
Roberta Belano
Honoraria Estrella
Rodelyn Manlapaz
Ma. Liza Modequillo

Team No. 20
Eddie Nasol (Team Supervisor)
Emma Sumalinog (Field Editor)
Eva Cabotaje
Juliet Cordero
Isabel Piape
Clara Tupino
Perlita Madjus
Lanie Beluan

Region XI - Southern Mindanao

Team No. 21
Neil Gonzaga (Team Supervisor)
Rhodora Grenien (Field Editor)
Judith Calida
Lily Eumague
Flerida Thalas
Charita Mahinay
Felicidad Orot

Team No. 22
Antonio Flores (Team Supervisor)
Dolores Berja (Field Editor)
Leticia Baluran
Lilibeth Yntig
Florencia Alga
Felipa Empico
Cristeta Madrista

Region XII - Central Mindanao

Team No. 23
Edilberto Tabanay (Team Supervisor)
Judema Angot (Field Editor)
Baiking Ganoy
Nancy Paragas
Evelyn Quijano
Arlyn Lujero
Sapia Kutba
Marilou Inting

National Capital Region

Team No. 24
Yolanda Mantaring (Team Supervisor)
Adelpha Yepes (Field Editor)
Analiza Celis
Alona Maymay
Nourin Dioneda
Mechell Monta
Roselita Villegas

Team No. 25
Naomi Guevarra (Team Supervisor)
Belen Centena (Field Editor)
Marlene Pascua
Ditas Caparas
Ruby Cayabyab
Roselle Tan
Adelaida Bermudez

APPENDIX F

QUESTIONNAIRE

Republic of the Philippines
NATIONAL STATISTICS OFFICE

PHILIPPINES SAFE MOTHERHOOD SURVEY
INDIVIDUAL QUESTIONNAIRE

CONFIDENTIALITY: This survey is authorized by Commonwealth Act No. 591. All information obtained about any individual respondent will be held strictly confidential.

IDENTIFICATION

PROVINCE _____ [ ][ ]

CITY/MUNICIPALITY _____ [ ][ ]

CLUSTER NUMBER ..... [ ][ ][ ][ ]

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

HOUSEHOLD NUMBER ..... [ ][ ][ ][ ]

NAME AND LINE NUMBER OF WOMAN _____ [ ][ ]

INTERVIEWER VISIT

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY [ ][ ]
				MONTH [ ][ ]
				YEAR [ ][ ]
INTERVIEWER'S NAME	_____	_____	_____	NAME [ ][ ][ ]
RESULT	_____	_____	_____	IND. RESULT * [ ]
NEXT VISIT: DATE	_____	_____	_____	TOTAL NO. OF VISITS [ ]
TIME	_____	_____	_____	TRACING ** RESULT [ ]

* INDIVIDUAL RESULT CODES:

1 Completed	4 Refused	7 Never Been Pregnant
2 Not At Home	5 Partly Completed	8 Not Found
3 Postponed	6 Died/Incapacitated	9 Others _____

** TRACING RESULT CODES:

1 Matches NDS	2 Traced	3 Not Traced

NOTES: _____

_____

LANGUAGE AND EDITING

LANGUAGE OF QUESTIONNAIRE: ENGLISH [7]

LANGUAGE USED IN INTERVIEW [ ]

TRANSLATOR USED (Not At All = 1; Sometimes = 2; All The Time = 3) [ ]

RESPONDENT'S LOCAL LANGUAGE [ ]

LANGUAGE CODES:

1 Tagalog	4 Bicol	7 English
2 Cebuano	5 Hiligaynon	8 Others _____
3 Ilocano	6 Waray	

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

INTRODUCTION AND CONSENT

Hello. My name is _____ and I am working with the National Statistics Office. We are conducting a national survey about women's health. Do you remember someone speaking to you a few months ago for the National Demographic Survey? YES ☐ NO ☐ →PROBE: The NDS was about child health and immunizations, and about family planning. Do you recall that? CONTINUE WITH INTERVIEW

We very much appreciated your participation in that important study. This time I would like to talk to you and ask you some questions about your health. This information is needed by the government to plan health services and programs for women in the country. If you agree to take part in this survey, I will be asking you questions for less than an hour, and then at the end of the interview I will take your weight and height. You can refuse to answer any question or series of questions if you choose. However, I would like to reassure you that all that is said during the interview will be strictly confidential and that the information collected from thousands of women will be used only in scientific reports without any personal identification being mentioned.

Any likely benefits of the study for the well being of the population rely on the accuracy of your answers Therefore, if you do not understand the meaning of any of the questions, please don't be afraid to ask. Now that I have told you about why I am here, do you have any questions before we go on?

SECTION 1. RESPONDENT'S BACKGROUND

			SKIP TO
101	RECORD THE TIME WHEN THE INTERVIEW BEGAN.	HOUR..... ☐☐ MINUTES..... ☐☐	
102	First, I would like to ask you some general questions about your background. In what month and year were you born?	MONTH..... ☐☐ DK MONTH.....98 YEAR..... ☐☐ DK YEAR.....98	
103	How old were you at your last birthday? COMPARE AND CORRECT 102 AND/OR 103 IF INCONSISTENT.	AGE IN COMPLETED YEARS..... ☐☐	
104	Have you ever attended school?	YES.....1 NO.....2	→107
105	What is the highest level of school you attended?	PRE-SCHOOL.....0 ELEMENTARY.....1 HIGH SCHOOL.....2 VOCATIONAL/TECHNICAL.....3 COLLEGE OR HIGHER 4	
106	What is the highest grade/year you completed at that level?	GRADE/YEAR..... ☐☐	
107	Have you ever been married or lived with a man?	YES.....1 NO.....2	→201
108	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	→110
109	How old was your current husband/partner on his last birthday?	AGE IN COMPLETED YEARS..... ☐☐	
110	Did your current (last) husband/partner ever attend school?	YES.....1 NO.....2	→201
111	What is/was the highest level of school he attended?	PRE-SCHOOL.....0 ELEMENTARY.....1 HIGH SCHOOL.....2 VOCATIONAL/TECHNICAL.....3 COLLEGE OR HIGHER .....4 DK.....8	
112	What is/was the highest grade/year he completed at that level?	GRADE/YEAR..... ☐☐ DK.....98	

SECTION 2. PREGNANCY HISTORY

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. I realize you have answered these questions before for the NDS, but we would like to ask you again to make sure we have the correct information. 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 as a miscarriage or an abortion, while others may result in a stillbirth. Have you had any pregnancies that did not result in live births?	YES.....1 NO.....2	→210
209	In all, how many pregnancies did not result in a live birth?	PREGNANCY LOSS.....	
210	SUM ANSWERS TO 203, 205, 207, AND 209, AND ENTER TOTAL. IF NONE RECORD '00'.	TOTAL OUTCOMES.....	
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 201-209 AS NECESSARY		
212	CHECK 210: ONE OR MORE OUTCOMES ☐ → 213 NO OUTCOMES ☐ → END		

213 Now I would like to talk to you about all of your pregnancies, whether the child was born alive, born dead, or the pregnancy was lost before full-term, that is as a miscarriage or an abortion. I would like to start with your first pregnancy. 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, that is, as a miscarriage or an abortion?	217 Did that baby cry, move, or breathe when it was born?	218 What name was given to that child?	219 Is/Was (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 DK.....3	BORN ALIVE.....1 (GO TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (GO TO 225)	YES.....1 NO.....2 (GO TO 224)	NAME	BOY.....1 GIRL....2	MONTH.. YEAR...	YES.....1 NO.....2 (GO TO 223)
02	SINGLE....1 MULTIPLE..2 DK.....3	BORN ALIVE.....1 (GO TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (GO TO 225)	YES.....1 NO.....2 (GO TO 224)	NAME	BOY.....1 GIRL....2	MONTH.. YEAR...	YES.....1 NO.....2 (GO TO 223)
03	SINGLE....1 MULTIPLE..2 DK.....3	BORN ALIVE.....1 (GO TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (GO TO 225)	YES.....1 NO.....2 (GO TO 224)	NAME	BOY.....1 GIRL....2	MONTH.. YEAR...	YES.....1 NO.....2 (GO TO 223)
04	SINGLE....1 MULTIPLE..2 DK.....3	BORN ALIVE.....1 (GO TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (GO TO 225)	YES.....1 NO.....2 (GO TO 224)	NAME	BOY.....1 GIRL....2	MONTH.. YEAR...	YES.....1 NO.....2 (GO TO 223)
05	SINGLE....1 MULTIPLE..2 DK.....3	BORN ALIVE.....1 (GO TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (GO TO 225)	YES.....1 NO.....2 (GO TO 224)	NAME	BOY.....1 GIRL....2	MONTH.. YEAR...	YES.....1 NO.....2 (GO TO 223)
06	SINGLE....1 MULTIPLE..2 DK.....3	BORN ALIVE.....1 (GO TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (GO TO 225)	YES.....1 NO.....2 (GO TO 224)	NAME	BOY.....1 GIRL....2	MONTH.. YEAR...	YES.....1 NO.....2 (GO TO 223)
07	SINGLE....1 MULTIPLE..2 DK.....3	BORN ALIVE.....1 (GO TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (GO TO 225)	YES.....1 NO.....2 (GO TO 224)	NAME	BOY.....1 GIRL....2	MONTH.. YEAR...	YES.....1 NO.....2 (GO TO 223)

BORN ALIVE, STILL ALIVE:	BORN ALIVE, BUT NOW DEAD:	BORN DEAD:	IF BORN DEAD OR LOST BEFORE FULL TERM:		IF LOST BEFORE FULL TERM:
222 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD IN YEARS	223 IF DEAD: How old was he/she when he/she died? IF "1 YR.", PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH, MONTHS IF LESS THAN TWO YEARS, OTHERWISE RECORD ONLY COMPLETED YEARS.	224 Was that baby a boy or a girl?	225 In what month and year did this pregnancy end?	226 How many months did the pregnancy last? RECORD IN COMPLETED MONTHS.	227 Did this pregnancy end by itself or did you or someone else do something to end it?
01 AGE IN YEARS (NEXT PREG. OR IF NO MORE, SKIP TO 228)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREG. IF NO MORE SKIP TO 228)	BOY.....1 GIRL.....2 DK.....8	MONTH.. YEAR...	MONTHS	SPONTANEOUS.1 INDUCED.....2 (NEXT PREG. OR IF NO MORE, SKIP TO 228)
02 AGE IN YEARS (NEXT PREG. OR IF NO MORE, SKIP TO 228)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREG. IF NO MORE SKIP TO 228)	BOY.....1 GIRL.....2 DK.....8	MONTH.. YEAR...	MONTHS	SPONTANEOUS.1 INDUCED.....2 (NEXT PREG. OR IF NO MORE, SKIP TO 228)
03 AGE IN YEARS (NEXT PREG. OR IF NO MORE, SKIP TO 228)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREG. IF NO MORE SKIP TO 228)	BOY.....1 GIRL.....2 DK.....8	MONTH.. YEAR...	MONTHS	SPONTANEOUS.1 INDUCED.....2 (NEXT PREG. OR IF NO MORE, SKIP TO 228)
04 AGE IN YEARS (NEXT PREG. OR IF NO MORE, SKIP TO 228)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREG. IF NO MORE SKIP TO 228)	BOY.....1 GIRL.....2 DK.....8	MONTH.. YEAR...	MONTHS	SPONTANEOUS.1 INDUCED.....2 (NEXT PREG. OR IF NO MORE, SKIP TO 228)
05 AGE IN YEARS (NEXT PREG. OR IF NO MORE, SKIP TO 228)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREG. IF NO MORE SKIP TO 228)	BOY.....1 GIRL.....2 DK.....8	MONTH.. YEAR...	MONTHS	SPONTANEOUS.1 INDUCED.....2 (NEXT PREG. OR IF NO MORE, SKIP TO 228)
06 AGE IN YEARS (NEXT PREG. OR IF NO MORE, SKIP TO 228)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREG. IF NO MORE SKIP TO 228)	BOY.....1 GIRL.....2 DK.....8	MONTH.. YEAR...	MONTHS	SPONTANEOUS.1 INDUCED.....2 (NEXT PREG. OR IF NO MORE, SKIP TO 228)
07 AGE IN YEARS (NEXT PREG. OR IF NO MORE, SKIP TO 228)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREG. IF NO MORE SKIP TO 228)	BOY.....1 GIRL.....2 DK.....8	MONTH.. YEAR...	MONTHS	SPONTANEOUS.1 INDUCED.....2 (NEXT PREG. OR IF NO MORE, SKIP TO 228)

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, that is, as a miscarriage or an abortion?	217 Did that baby cry, move, or breathe when it was born?	218 What name was given to that child?	219 Is/Was (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?
08	SINGLE....1 MULTIPLE..2 DK.....3	BORN ALIVE.....1 (GO TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (GO TO 225)	YES.....1 NO.....2 (GO TO 224)	NAME	BOY.....1 GIRL....2	MONTH.. YEAR...	YES.....1 NO.....2 → 223
09	SINGLE....1 MULTIPLE..2 DK.....3	BORN ALIVE.....1 (GO TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (GO TO 225)	YES.....1 NO.....2 (GO TO 224)	NAME	BOY.....1 GIRL....2	MONTH.. YEAR...	YES.....1 NO.....2 → 223
10	SINGLE....1 MULTIPLE..2 DK.....3	BORN ALIVE.....1 (GO TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (GO TO 225)	YES.....1 NO.....2 (GO TO 224)	NAME	BOY.....1 GIRL....2	MONTH.. YEAR...	YES.....1 NO.....2 → 223
11	SINGLE....1 MULTIPLE..2 DK.....3	BORN ALIVE.....1 (GO TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (GO TO 225)	YES.....1 NO.....2 (GO TO 224)	NAME	BOY.....1 GIRL....2	MONTH.. YEAR...	YES.....1 NO.....2 → 223
12	SINGLE....1 MULTIPLE..2 DK.....3	BORN ALIVE.....1 (GO TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (GO TO 225)	YES.....1 NO.....2 (GO TO 224)	NAME	BOY.....1 GIRL....2	MONTH.. YEAR...	YES.....1 NO.....2 → 223
13	SINGLE....1 MULTIPLE..2 DK.....3	BORN ALIVE.....1 (GO TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (GO TO 225)	YES.....1 NO.....2 (GO TO 224)	NAME	BOY.....1 GIRL....2	MONTH.. YEAR...	YES.....1 NO.....2 → 223
14	SINGLE....1 MULTIPLE..2 DK.....3	BORN ALIVE.....1 (GO TO 218) BORN DEAD.....2 LOST BEFORE FULL TERM.....3 (GO TO 225)	YES.....1 NO.....2 (GO TO 224)	NAME	BOY.....1 GIRL....2	MONTH.. YEAR...	YES.....1 NO.....2 → 223

BORN ALIVE, STILL ALIVE:	BORN ALIVE, BUT NOW DEAD:	BORN DEAD:	IF BORN DEAD OR LOST BEFORE FULL TERM:		IF LOST BEFORE FULL TERM:
222 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD IN YEARS	223 IF DEAD: How old was he/she when he/she died? IF "1 YR.", PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH, MONTHS IF LESS THAN TWO YEARS, OTHERWISE RECORD ONLY COMPLETED YEARS.	224 Was that baby a boy or a girl?	225 In what month and year did this pregnancy end?	226 How many months did the pregnancy last? RECORD IN COMPLETED MONTHS.	227 Did this pregnancy end by itself or did you or someone else do something to end it?
08 AGE IN YEARS (NEXT PREG. OR IF NO MORE, SKIP TO 228)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREG. IF NO MORE SKIP TO 228)	BOY.....1 GIRL.....2 DK.....8	MONTH.. YEAR...	MONTHS	SPONTANEOUS.1 INDUCED.....2 (NEXT PREG. OR IF NO MORE, SKIP TO 228)
09 AGE IN YEARS (NEXT PREG. OR IF NO MORE, SKIP TO 228)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREG. IF NO MORE SKIP TO 228)	BOY.....1 GIRL.....2 DK.....8	MONTH.. YEAR...	MONTHS	SPONTANEOUS.1 INDUCED.....2 (NEXT PREG. OR IF NO MORE, SKIP TO 228)
10 AGE IN YEARS (NEXT PREG. OR IF NO MORE, SKIP TO 228)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREG. IF NO MORE SKIP TO 228)	BOY.....1 GIRL.....2 DK.....8	MONTH.. YEAR...	MONTHS	SPONTANEOUS.1 INDUCED.....2 (NEXT PREG. OR IF NO MORE, SKIP TO 228)
11 AGE IN YEARS (NEXT PREG. OR IF NO MORE, SKIP TO 228)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREG. IF NO MORE SKIP TO 228)	BOY.....1 GIRL.....2 DK.....8	MONTH.. YEAR...	MONTHS	SPONTANEOUS.1 INDUCED.....2 (NEXT PREG. OR IF NO MORE, SKIP TO 228)
12 AGE IN YEARS (NEXT PREG. OR IF NO MORE, SKIP TO 228)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREG. IF NO MORE SKIP TO 228)	BOY.....1 GIRL.....2 DK.....8	MONTH.. YEAR...	MONTHS	SPONTANEOUS.1 INDUCED.....2 (NEXT PREG. OR IF NO MORE, SKIP TO 228)
13 AGE IN YEARS (NEXT PREG. OR IF NO MORE, SKIP TO 228)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREG. IF NO MORE SKIP TO 228)	BOY.....1 GIRL.....2 DK.....8	MONTH.. YEAR...	MONTHS	SPONTANEOUS.1 INDUCED.....2 (NEXT PREG. OR IF NO MORE, SKIP TO 228)
14 AGE IN YEARS (NEXT PREG. OR IF NO MORE, SKIP TO 228)	DAYS.....1 MONTHS.....2 YEARS.....3 (GO TO NEXT PREG. IF NO MORE SKIP TO 228)	BOY.....1 GIRL.....2 DK.....8	MONTH.. YEAR...	MONTHS	SPONTANEOUS.1 INDUCED.....2 (NEXT PREG. OR IF NO MORE, SKIP TO 228)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
228	COMPARE 210 WITH NUMBER OF PREGNANCIES IN HISTORY ABOVE AND MARK: NUMBERS ARE SAME ☐ → CHECK: FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED. ☐ FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED. ☐ FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED. ☐ FOR AGE AT DEATH 12 MONTHS: PROBE TO DETERMINE EXACT NUMBER OF MONTHS ☐ FOR EACH PREGNANCY LOSS: DURATION AND DATE OF TERMINATION IS RECORDED ☐ NUMBERS ARE DIFFERENT ☐ → (PROBE AND RECONCILE)		
229	CHECK 220 OR 225 FOR EACH PREGNANCY: IF ANY PREGNANCY INTERVAL IS MORE THAN FOUR YEARS ☐ IF NO PREGNANCY INTERVAL IS MORE THAN FOUR YEARS ☐ →		231
230	Why was there such a long interval between your ____ and _____ pregnancies? CIRCLE ALL RESPONSES GIVEN.	USED FAMILY PLANNING.....A HUSBAND/PARTNER WAS AWAY.....B COULDN'T GET PREGNANT.....C SEPARATED FROM HUSBAND/PARTNER...D RESPONDENT WAS SICK.....E HUSBAND/PARTNER SICK.....F UNRECORDED PREGNANCY.....G (PROBE AND RECONCILE)	
231	CHECK 220 OR 225 FOR LAST PREGNANCY: IF LAST PREGNANCY WAS MORE THAN FOUR YEARS AGO ☐ IF LAST PREGNANCY WAS FOUR OR FEWER YEARS AGO ☐ →		233
232	Why have you not been pregnant since your last pregnancy? CIRCLE ALL RESPONSES GIVEN.	USED FAMILY PLANNING.....A HUSBAND/PARTNER WAS AWAY.....B COULDN'T GET PREGNANT.....C SEPARATED FROM HUSBAND/PARTNER...D RESPONDENT WAS SICK.....E HUSBAND/PARTNER SICK.....F RESPONDENT IS MENOPAUSAL.....G HUSBAND IS DEAD.....H UNRECORDED PREGNANCY.....I (PROBE AND RECONCILE)	
233	Are you pregnant now?	YES.....1 NO.....2 UNSURE.....8	235
234	How many months pregnant are you?	MONTHS..... ☐☐	
235	Now I'd like to ask you about all the pregnancies you've had in the past. When you were pregnant, did you have any of the following problems? EXCLUDE CURRENT PREGNANCY any vaginal bleeding? convulsions not caused by fever, that is, eclampsia? very high fever? READ EACH ALOUD AND CIRCLE CORRESPONDING ANSWERS.	YES NO VAGINAL BLEEDING.....1 2 CONVULSIONS NOT FROM FEVER..1 2 VERY HIGH FEVER.....1 2	
236	CHECK 201: IF RESPONDENT HAS EVER HAD A LIVE OR STILLBIRTH ☐ IF RESPONDENT HAS NEVER GIVEN BIRTH ☐ →		301
237	Have you ever delivered in a medical facility?	YES.....1 NO.....2 →	239

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES
238	When you delivered in a medical facility: Did you wait less than one hour to be seen for care? Did the facility have the required medicines & supplies? Did you have enough privacy during labor and delivery? Were the people working there respectful of you? READ EACH ALOUD AND CIRCLE CORRESPONDING ANSWERS.	YES NO DK LESS THAN ONE HOUR.....1 2 8 HAD MEDICINES & SUPPLIES..1 2 8 HAD PRIVACY.....1 2 8 PEOPLE RESPECTFUL.....1 2 8
239	Did you ever have any of the following during labor or delivery of any of your pregnancies? massive vaginal bleeding? convulsions not caused by fever, that is, eclampsia? did your labor last for more than 12 hours? was the baby in a bad position, that is, foot or bottom first, or transverse? was the baby sick in the womb? placenta previa? retained placenta? very high fever? did you have a caesarian section? READ EACH ALOUD AND CIRCLE CORRESPONDING ANSWERS.	YES NO MASSIVE BLEEDING.....1 2 CONVULSIONS NOT FROM FEVER..1 2 LABOR MORE THAN 12 HOURS....1 2 BABY IN BAD POSITION.....1 2 BABY SICK IN WOMB.....1 2 PLACENTA PREVIA.....1 2 RETAINED PLACENTA.....1 2 VERY HIGH FEVER.....1 2 CAESARIAN SECTION.....1 2
240	Did you have any of the following problems during the six weeks after delivery of any of your pregnancies? massive vaginal bleeding? very high fever? convulsions not caused by fever, that is, eclampsia? foul-smelling vaginal discharge? severe lower abdominal pain? retained placenta? incontinence of urine? READ EACH ALOUD AND CIRCLE CORRESPONDING ANSWERS.	YES NO MASSIVE BLEEDING.....1 2 VERY HIGH FEVER.....1 2 CONVULSIONS NOT FROM FEVER..1 2 FOUL-SMELLING DISCHARGE.....1 2 SEVERE LOWER ABDOMINAL PAIN.1 2 RETAINED PLACENTA.....1 2 URINARY INCONTINENCE.....1 2

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
301	CHECK 220 OR 225 FOR DATE WHEN LAST PREGNANCY ENDED: IF AFTER JANUARY 1990 [ ] ↓ We have just talked in general about when you were pregnant. I am now going to ask you some questions about each pregnancy you have had in the past three years. (EXCLUDE CURRENT PREGNANCY). I will start by asking you about your last pregnancy.	NO PREGNANCIES AFTER JANUARY 1990 [ ]	→501

NO.	QUESTIONS AND FILTERS	LAST PREGNANCY	NEXT-TO-LAST PREGNANCY	SECOND-FROM-LAST PREGNANCY
302	START WITH LAST PREGNANCY IN Q214 AND WRITE THE LINE NO. AND NAME (IF GIVEN) FOR ALL ENDING AFTER JANUARY 1990. START WITH THE MOST RECENT PREG. AND WORK BACKWARDS TO JAN. 1990	LINE NO.______ NAME ______	LINE NO.______ NAME ______	LINE NO.______ NAME ______
303	CHECK 227:	SPONTANEOUS OR NO ANSWER [ ] ↓ INDUCED [ ]→324	SPONTANEOUS OR NO ANSWER [ ] ↓ INDUCED [ ]→324	SPONTANEOUS OR NO ANSWER [ ] ↓ INDUCED [ ]→324
304	When you learned of this pregnancy, did you you want to become pregnant then, did you want to wait until later or did you want no (more) children at all?	THEN....................1 LATER...................2 NO MORE.................3	THEN....................1 LATER...................2 NO MORE.................3	THEN....................1 LATER...................2 NO MORE.................3
305	During this pregnancy did you see anyone for prenatal care? IF YES, Whom did you see? Anyone else? RECORD ALL PERSONS SEEN. USE SKIP PATTERN FOR CIRCLED LETTER CLOSEST TO A.	HEALTH PROFESSIONAL DOCTOR.................A NURSE..................B MIDWIFE................C OTHER PERSON HILOT..................D OTHER______E (SPECIFY) NO ONE.................F (SKIP TO 312)	HEALTH PROFESSIONAL DOCTOR.................A NURSE..................B MIDWIFE................C OTHER PERSON HILOT..................D OTHER______E (SPECIFY) NO ONE.................F (SKIP TO 312)	HEALTH PROFESSIONAL DOCTOR.................A NURSE..................B MIDWIFE................C OTHER PERSON HILOT..................D OTHER______E (SPECIFY) NO ONE.................F (SKIP TO 312)
306	How many months pregnant were you when you first saw a doctor, nurse or midwife for a prenatal check on this pregnancy?	MONTHS.............[ ][ ] DK.....................98	MONTHS.............[ ][ ] DK.....................98	MONTHS.............[ ][ ] DK.....................98
307	How many times did you see a doctor, nurse or midwife for prenatal care during this pregnancy?	NO. OF TIMES........[ ][ ] DK.....................98	NO. OF TIMES........[ ][ ] DK.....................98	NO. OF TIMES........[ ][ ] DK.....................98
308	What prompted you to have your first prenatal check-up? PROBE FOR MOST IMPORTANT REASON.	TO FIND OUT IF BABY OK...1 TO "BOOK" FOR DELIVERY...2 TO FIND OUT IF PREGNANT..3 URGING OF FAMILY/OTHER...4 ROUTINE..................5 TO ASSURE A HEALTHY PREGNANCY................6 BECAUSE I HAD PROBLEM....7 OTHER______8 (SPECIFY)	TO FIND OUT IF BABY OK...1 TO "BOOK" FOR DELIVERY...2 TO FIND OUT IF PREGNANT..3 URGING OF FAMILY/OTHER...4 ROUTINE..................5 TO ASSURE A HEALTHY PREGNANCY................6 BECAUSE I HAD PROBLEM....7 OTHER______8 (SPECIFY)	TO FIND OUT IF BABY OK...1 TO "BOOK" FOR DELIVERY...2 TO FIND OUT IF PREGNANT..3 URGING OF FAMILY/OTHER...4 ROUTINE..................5 TO ASSURE A HEALTHY PREGNANCY................6 BECAUSE I HAD PROBLEM....7 OTHER______8 (SPECIFY)
309	Where did you receive your first prenatal check-up?	PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC...................11 RURAL HEALTH UNIT (RHU).12 BGY HEALTH STATION......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______41 (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC...................11 RURAL HEALTH UNIT (RHU).12 BGY HEALTH STATION......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______41 (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC...................11 RURAL HEALTH UNIT (RHU).12 BGY HEALTH STATION......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______41 (SPECIFY)

		LAST PREGNANCY LINE NO._____ NAME	NEXT-TO-LAST PREGNANCY LINE NO._____ NAME	SECOND-FROM-LAST PREGNANCY LINE NO._____ NAME
310	Did you have any of the following performed at least once during any of your prenatal check-ups with a doctor, nurse, or midwife in this pregnancy? READ EACH ALOUD AND CIRCLE CORRESPONDING ANSWERS.	YES NO DK	YES NO DK	YES NO DK
	weight	WEIGHT.....1 2 8	WEIGHT.....1 2 8	WEIGHT.....1 2 8
	height	HEIGHT.....1 2 8	HEIGHT.....1 2 8	HEIGHT.....1 2 8
	blood pressure	BLOOD PRESSURE....1 2 8	BLOOD PRESSURE....1 2 8	BLOOD PRESSURE....1 2 8
	test on blood	TEST ON BLOOD.....1 2 8	TEST ON BLOOD.....1 2 8	TEST ON BLOOD.....1 2 8
	test on urine	TEST ON URINE.....1 2 8	TEST ON URINE.....1 2 8	TEST ON URINE.....1 2 8
	abdomen measured	ABDOMEN MEASURED..1 2 8	ABDOMEN MEASURED..1 2 8	ABDOMEN MEASURED..1 2 8
	listened to baby	LISTENED TO BABY..1 2 8	LISTENED TO BABY..1 2 8	LISTENED TO BABY..1 2 8
	internal exam (IE)	INTERNAL EXAM.....1 2 8	INTERNAL EXAM.....1 2 8	INTERNAL EXAM.....1 2 8
	referral for hospital delivery	REF./ HOSP DEL....1 2 8	REF./ HOSP DEL....1 2 8	REF./ HOSP DEL....1 2 8
	tetanus toxoid injection	TETANUS TOXOID....1 2 8	TETANUS TOXOID....1 2 8	TETANUS TOXOID....1 2 8
	ultrasound	ULTRASOUND.....1 2 8	ULTRASOUND.....1 2 8	ULTRASOUND.....1 2 8
	X-ray of abdomen	X-RAY.....1 2 8	X-RAY.....1 2 8	X-RAY.....1 2 8
	check baby's position	BABY'S POSITION...1 2 8	BABY'S POSITION...1 2 8	BABY'S POSITION...1 2 8
311	Did you receive any of the following during at least one of your prenatal check-ups during this pregnancy? READ EACH ALOUD AND CIRCLE CORRESPONDING ANSWERS.	YES NO DK	YES NO DK	YES NO DK
	iron tablets	IRON.....1 2 8	IRON.....1 2 8	IRON.....1 2 8
	pink prenatal card	PRENATAL CARD....1 2 8	PRENATAL CARD....1 2 8	PRENATAL CARD....1 2 8
	information on:	INFORMATION ON:	INFORMATION ON:	INFORMATION ON:
	diet	DIET.....1 2 8	DIET.....1 2 8	DIET.....1 2 8
	danger signs of pregnancy	DANGER SIGNS.....1 2 8	DANGER SIGNS.....1 2 8	DANGER SIGNS.....1 2 8
	breastfeeding	BREASTFEEDING....1 2 8	BREASTFEEDING....1 2 8	BREASTFEEDING....1 2 8
	family planning	FAMILY PLANNING..1 2 8	FAMILY PLANNING..1 2 8	FAMILY PLANNING..1 2 8
	postpartum care	POSTPARTUM CARE..1 2 8	POSTPARTUM CARE..1 2 8	POSTPARTUM CARE..1 2 8
312	When you were pregnant with (NAME) were you given a tetanus toxoid injection?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
313	At any time during your pregnancy with (NAME), did you experience any of the following:	YES NO DK	YES NO DK	YES NO DK
	any vaginal bleeding?	BLEEDING.....1 2 8	BLEEDING.....1 2 8	BLEEDING.....1 2 8
	convulsions not from fever, that is, eclampsia?	CONVULSIONS NOT FROM FEVER.....1 2 8	CONVULSIONS NOT FROM FEVER.....1 2 8	CONVULSIONS NOT FROM FEVER.....1 2 8
	swelling (edema) of legs or body or face?	SWELLING.....1 2 8	SWELLING.....1 2 8	SWELLING.....1 2 8
	very high fever?	FEVER.....1 2 8	FEVER.....1 2 8	FEVER.....1 2 8
	painful urination?	PAIN/URINE.....1 2 8	PAIN/URINE.....1 2 8	PAIN/URINE.....1 2 8
	jaundice (yellow eyes/skin)?	JAUNDICE.....1 2 8	JAUNDICE.....1 2 8	JAUNDICE.....1 2 8
	high blood pressure?	HIGH BLOOD.....1 2 8	HIGH BLOOD.....1 2 8	HIGH BLOOD.....1 2 8
	anemia?	ANEMIA.....1 2 8	ANEMIA.....1 2 8	ANEMIA.....1 2 8
314	CHECK 313:	YES TO ANY SYMPTOM ☐ NO TO ALL SYMPTOMS or DK ☐→322	YES TO ANY SYMPTOM ☐ NO TO ALL SYMPTOMS or DK ☐→322	YES TO ANY SYMPTOM ☐ NO TO ALL SYMPTOMS or DK ☐→322
315	Did you receive treatment from a doctor, nurse, or midwife for that/any of those problem(s)?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8

		LAST PREGNANCY LINE NO._____ NAME_____	NEXT-TO-LAST PREGNANCY LINE NO._____ NAME_____	SECOND-FROM-LAST PREGNANCY LINE NO._____ NAME_____
316	CHECK 313:	HAD BLEEDING ☐ / HAD NO BLEEDING ☐→318	HAD BLEEDING ☐ / HAD NO BLEEDING ☐→318	HAD BLEEDING ☐ / HAD NO BLEEDING ☐→318
317	Did you have the bleeding during the first 3 months? during the middle 3 months? during the last 3 months?	YES NO NA FIRST 3 MONTHS...1 2 8 MIDDLE 3 MONTHS..1 2 8 LAST 3 MONTHS....1 2 8	YES NO NA FIRST 3 MONTHS...1 2 8 MIDDLE 3 MONTHS..1 2 8 LAST 3 MONTHS....1 2 8	YES NO NA FIRST 3 MONTHS..1 2 8 MIDDLE 3 MONTHS.1 2 8 LAST 3 MONTHS...1 2 8
318	CHECK 313:	HAD CONVULSIONS ☐ / HAD NO CONVULSIONS ☐→320	HAD CONVULSIONS ☐ / HAD NO CONVULSIONS ☐→320	HAD CONVULSIONS ☐ / HAD NO CONVULSIONS ☐→320
319	Had you ever had convulsions when you were not pregnant?	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
320	CHECK 313:	HAD FEVER ☐ / HAD NO FEVER ☐→322	HAD FEVER ☐ / HAD NO FEVER ☐→322	HAD FEVER ☐ / HAD NO FEVER ☐→322
321	Did you have a high fever at any point during the three days before the end of this pregnancy?	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
322	CHECK 216:	IF PREGNANCY WAS: BORN DEAD OR LOST BEFORE TERM ☐ / LIVE BIRTH ☐→401	IF PREGNANCY WAS: BORN DEAD OR LOST BEFORE TERM ☐ / LIVE BIRTH ☐→401	IF PREGNANCY WAS: BORN DEAD OR LOST BEFORE TERM ☐ / LIVE BIRTH ☐→401
323	CHECK 226:	IF PREGNANCY ENDED: FIVE MONTHS OR LESS ☐ / SIX MONTHS OR MORE ☐→401	IF PREGNANCY ENDED: FIVE MONTHS OR LESS ☐ / SIX MONTHS OR MORE ☐→401	IF PREGNANCY ENDED: FIVE MONTHS OR LESS ☐ / SIX MONTHS OR MORE ☐→401
324	You said that this pregnancy ended early. When this pregnancy ended did you have to be hospitalized overnight?	YES.....1 NO.....2 (SKIP TO 462)	YES.....1 NO.....2 (SKIP TO 462)	YES.....1 NO.....2 (SKIP TO 462)
325	How many nights did you have to stay in the hospital?	NUMBER OF NIGHTS.... ☐☐ (SKIP TO 462)	NUMBER OF NIGHTS.... ☐☐ (SKIP TO 462)	NUMBER OF NIGHTS.... ☐☐ (SKIP TO 462)
401	Now I would like to ask you some questions about your experiences in labor and delivery with (NAME). First I want to know about when you were in heavy labor, by that I mean when the pains, contractions, or hardening of your stomach started coming at regular, short intervals. Did your heavy labor with this pregnancy last longer than twelve hours?	YES.....1 NO.....2 (SKIP TO 412) DK.....8	YES.....1 NO.....2 (SKIP TO 412) DK.....8	YES.....1 NO.....2 (SKIP TO 412) DK.....8
402	Did you or anyone assisting you think this was a problem?	YES.....1 NO.....2 (SKIP TO 412) DK.....8	YES.....1 NO.....2 (SKIP TO 412) DK.....8	YES.....1 NO.....2 (SKIP TO 412) DK.....8
403	How many hours had you been in heavy labor when you or someone else thought it was a problem?	HOURS..... ☐☐ DK.....98	HOURS..... ☐☐ DK.....98	HOURS..... ☐☐ DK.....98

		LAST PREGNANCY LINE NO.________ NAME________	NEXT-TO-LAST PREGNANCY LINE NO.________ NAME________	SECOND-FROM-LAST PREGNANCY LINE NO.________ NAME________
404	Who thought this was a problem? Anyone else? RECORD ALL RESPONSES.	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G RESPONDENT..............H OTHER____________I (SPECIFY)	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G RESPONDENT..............H OTHER____________I (SPECIFY)	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G RESPONDENT..............H OTHER____________I (SPECIFY)
405	Was anyone else called because of this problem? IF YES, Who? Anyone else? RECORD ALL RESPONSES.	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G NO ONE..................H OTHER____________I (SPECIFY)	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G NO ONE..................H OTHER____________I (SPECIFY)	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G NO ONE..................H OTHER____________I (SPECIFY)
406	Where were you when it was first recognized that your heavy labor was lasting a long time?	HOME OWN HOME...............11 OWN PARENT'S HOME......12 OTHER'S HOME...........13 PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................21 RURAL HEALTH UNIT......22 BGY. HEALTH STATION....23 OTHER PUBLIC...........24 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 PRIVATE DOCTOR.........32 OTHER PRIVATE..........33 OTHER____________41 (SPECIFY)	HOME OWN HOME...............11 OWN PARENT'S HOME......12 OTHER'S HOME...........13 PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................21 RURAL HEALTH UNIT......22 BGY. HEALTH STATION....23 OTHER PUBLIC...........24 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 PRIVATE DOCTOR.........32 OTHER PRIVATE..........33 OTHER____________41 (SPECIFY)	HOME OWN HOME...............11 OWN PARENT'S HOME......12 OTHER'S HOME...........13 PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................21 RURAL HEALTH UNIT......22 BGY. HEALTH STATION....23 OTHER PUBLIC...........24 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 PRIVATE DOCTOR.........32 OTHER PRIVATE..........33 OTHER____________41 (SPECIFY)
407	Was it recommended that you go somewhere else for help because the heavy labor was lasting a long time?	YES....................1 NO.....................2 (SKIP TO 412) DK.....................8	YES....................1 NO.....................2 (SKIP TO 412) DK.....................8	YES....................1 NO.....................2 (SKIP TO 412) DK.....................8
408	Where were you referred?	PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................11 RURAL HEALTH UNIT......12 BGY. HEALTH STATION....13 OTHER PUBLIC...........14 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...21 PRIVATE DOCTOR.........22 OTHER PRIVATE..........23 OTHER____________31 (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................11 RURAL HEALTH UNIT......12 BGY. HEALTH STATION....13 OTHER PUBLIC...........14 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...21 PRIVATE DOCTOR.........22 OTHER PRIVATE..........23 OTHER____________31 (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................11 RURAL HEALTH UNIT......12 BGY. HEALTH STATION....13 OTHER PUBLIC...........14 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...21 PRIVATE DOCTOR.........22 OTHER PRIVATE..........23 OTHER____________31 (SPECIFY)
409	How long does it take to reach that place?	MINUTES..........1 [ ][ ] HOURS............2 [ ][ ] DK................998	MINUTES..........1 [ ][ ] HOURS............2 [ ][ ] DK................998	MINUTES..........1 [ ][ ] HOURS............2 [ ][ ] DK................998
410	Did you go?	YES....................1 (SKIP TO 412) NO.....................2	YES....................1 (SKIP TO 412) NO.....................2	YES....................1 (SKIP TO 412) NO.....................2

		LAST PREGNANCY LINE NO. ________ NAME ________	NEXT-TO-LAST PREGNANCY LINE NO. ________ NAME ________	SECOND-FROM-LAST PREGNANCY LINE NO. ________ NAME ________
411	Why not? Any other reason? CIRCLE ALL THAT APPLY.	TOO FAR AWAY..............A NOT A PROBLEM.............B NO TRANSPORT..............C NO CHILDCARE..............D HUSBAND/FAMILY FORBID.....E POOR SERVICES.............F TOO EXPENSIVE.............G HILOT ABLE TO MANAGE......H DELIVERED ON THE WAY......I NON-MEDICAL TREATMENT.....J OTHER ________ K (SPECIFY)	TOO FAR AWAY..............A NOT A PROBLEM.............B NO TRANSPORT..............C NO CHILDCARE..............D HUSBAND/FAMILY FORBID.....E POOR SERVICES.............F TOO EXPENSIVE.............G HILOT ABLE TO MANAGE......H DELIVERED ON THE WAY......I NON-MEDICAL TREATMENT.....J OTHER ________ K (SPECIFY)	TOO FAR AWAY..............A NOT A PROBLEM.............B NO TRANSPORT..............C NO CHILDCARE..............D HUSBAND/FAMILY FORBID.....E POOR SERVICES.............F TOO EXPENSIVE.............G HILOT ABLE TO MANAGE......H DELIVERED ON THE WAY......I NON-MEDICAL TREATMENT.....J OTHER ________ K (SPECIFY)
412	How long after your water bag ruptured was the baby born?	MINUTES..........1 [ ][ ] HOURS............2 [ ][ ] ARTIFICIAL RUPT......003 DID NOT BREAK........004 DK...................998	MINUTES..........1 [ ][ ] HOURS............2 [ ][ ] ARTIFICIAL RUPT......003 DID NOT BREAK........004 DK...................998	MINUTES..........1 [ ][ ] HOURS............2 [ ][ ] ARTIFICIAL RUPT......003 DID NOT BREAK........004 DK...................998
413	During labor and/or delivery, were you sick with a high fever?	YES.....................1 NO......................2 DK......................8	YES.....................1 NO......................2 DK......................8	YES.....................1 NO......................2 DK......................8
414	During labor and/or delivery, did you have any convulsions not caused by fever, that is eclampsia?	YES.....................1 NO......................2 (SKIP TO 424)← DK......................8	YES.....................1 NO......................2 (SKIP TO 424)← DK......................8	YES.....................1 NO......................2 (SKIP TO 424)← DK......................8
415	Did you or anyone assisting you think the convulsions were a problem?	YES.....................1 NO......................2 (SKIP TO 424)← DK......................8	YES.....................1 NO......................2 (SKIP TO 424)← DK......................8	YES.....................1 NO......................2 (SKIP TO 424)← DK......................8
16	Who thought this was a problem? Anyone else? RECORD ALL RESPONSES.	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G RESPONDENT................H OTHER ________ I (SPECIFY)	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G RESPONDENT................H OTHER ________ I (SPECIFY)	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G RESPONDENT................H OTHER ________ I (SPECIFY)
'7	Was anyone else called because of this problem? IF YES, Who? Anyone else? RECORD ALL RESPONSES.	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G NO ONE....................H OTHER ________ I (SPECIFY)	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G NO ONE....................H OTHER ________ I (SPECIFY)	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G NO ONE....................H OTHER ________ I (SPECIFY)
418	Where were you when you first had a convulsion not due to fever?	HOME OWN HOME...............11 OWN PARENT'S HOME......12 OTHER'S HOME...........13 PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................21 RURAL HEALTH UNIT......22 BGY. HEALTH STATION....23 OTHER PUBLIC...........24 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 PRIVATE DOCTOR.........32 OTHER PRIVATE..........33 OTHER ________ 41 (SPECIFY)	HOME OWN HOME...............11 OWN PARENT'S HOME......12 OTHER'S HOME...........13 PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................21 RURAL HEALTH UNIT......22 BGY. HEALTH STATION....23 OTHER PUBLIC...........24 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 PRIVATE DOCTOR.........32 OTHER PRIVATE..........33 OTHER ________ 41 (SPECIFY)	HOME OWN HOME...............11 OWN PARENT'S HOME......12 OTHER'S HOME...........13 PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................21 RURAL HEALTH UNIT......22 BGY. HEALTH STATION....23 OTHER PUBLIC...........24 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 PRIVATE DOCTOR.........32 OTHER PRIVATE..........33 OTHER ________ 41 (SPECIFY)

		LAST PREGNANCY LINE NO.____ NAME____	NEXT-TO-LAST PREGNANCY LINE NO.____ NAME____	SECOND-FROM-LAST PREGNANCY LINE NO.____ NAME____
419	Was it recommended that you go somewhere else for help because of the convulsion(s)?	YES....................1 NO.....................2 (SKIP TO 424) DK.....................8	YES....................1 NO.....................2 (SKIP TO 424) DK.....................8	YES....................1 NO.....................2 (SKIP TO 424) DK.....................8
420	Where were you referred?	PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................11 RURAL HEALTH UNIT......12 BGY. HEALTH STATION....13 OTHER PUBLIC...........14 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...21 PRIVATE DOCTOR.........22 OTHER PRIVATE..........23 OTHER____31 (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................11 RURAL HEALTH UNIT......12 BGY. HEALTH STATION....13 OTHER PUBLIC...........14 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...21 PRIVATE DOCTOR.........22 OTHER PRIVATE..........23 OTHER____31 (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................11 RURAL HEALTH UNIT......12 BGY. HEALTH STATION....13 OTHER PUBLIC...........14 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...21 PRIVATE DOCTOR.........22 OTHER PRIVATE..........23 OTHER____31 (SPECIFY)
421	How long does it take to reach that place?	MINUTES..........1 [ ][ ] HOURS............2 [ ][ ] DK................998	MINUTES..........1 [ ][ ] HOURS............2 [ ][ ] DK................998	MINUTES..........1 [ ][ ] HOURS............2 [ ][ ] DK................998
422	Did you go?	YES....................1 (SKIP TO 424) NO.....................2	YES....................1 (SKIP TO 424) NO.....................2	YES....................1 (SKIP TO 424) NO.....................2
423	Why not? Any other reason? CIRCLE ALL THAT APPLY.	TOO FAR AWAY.............A NOT A PROBLEM............B NO TRANSPORT.............C NO CHILDCARE.............D HUSBAND/FAMILY FORBID.....E POOR SERVICES............F TOO EXPENSIVE............G HILOT ABLE TO MANAGE......H NON-MEDICAL TREATMENT.....I OTHER____J (SPECIFY)	TOO FAR AWAY.............A NOT A PROBLEM............B NO TRANSPORT.............C NO CHILDCARE.............D HUSBAND/FAMILY FORBID.....E POOR SERVICES............F TOO EXPENSIVE............G HILOT ABLE TO MANAGE......H NON-MEDICAL TREATMENT.....I OTHER____J (SPECIFY)	TOO FAR AWAY.............A NOT A PROBLEM............B NO TRANSPORT.............C NO CHILDCARE.............D HUSBAND/FAMILY FORBID.....E POOR SERVICES............F TOO EXPENSIVE............G HILOT ABLE TO MANAGE......H NON-MEDICAL TREATMENT.....I OTHER____J (SPECIFY)
424	Did you lose a lot of blood around the time of labor and delivery? PROBE: Did you bleed so much that you were afraid you might die?	YES....................1 NO.....................2 (SKIP TO 437) DK.....................8	YES....................1 NO.....................2 (SKIP TO 437) DK.....................8	YES....................1 NO.....................2 (SKIP TO 437) DK.....................8
425	Did you or anyone assisting you think this was a problem?	YES....................1 NO.....................2 (SKIP TO 437) DK.....................8	YES....................1 NO.....................2 (SKIP TO 437) DK.....................8	YES....................1 NO.....................2 (SKIP TO 437) DK.....................8
426	Who thought this was a problem? Anyone else? RECORD ALL RESPONSES.	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G RESPONDENT................H OTHER____I (SPECIFY)	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G RESPONDENT................H OTHER____I (SPECIFY)	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G RESPONDENT................H OTHER____I (SPECIFY)
427	Was anyone else called because of this problem? IF YES, Who? Anyone else? RECORD ALL RESPONSES.	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G NO ONE....................H OTHER____I (SPECIFY)	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G NO ONE....................H OTHER____I (SPECIFY)	HEALTH PROFESSIONAL DOCTOR..................A NURSE...................B MIDWIFE.................C OTHER PERSON HILOT...................D HUSBAND.................E MOTHER..................F OTHER RELATIVE..........G NO ONE....................H OTHER____I (SPECIFY)

		LAST PREGNANCY LINE NO.______ NAME______	NEXT-TO-LAST PREGNANCY LINE NO.______ NAME______	SECOND-FROM-LAST PREGNANCY LINE NO.______ NAME______
428	Where were you when it was first recognized that the amount of bleeding was a problem?	HOME OWN HOME...............11 OWN PARENT'S HOME......12 OTHER'S HOME...........13 PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................21 RURAL HEALTH UNIT......22 BGY. HEALTH STATION....23 OTHER PUBLIC...........24 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 PRIVATE DOCTOR.........32 OTHER PRIVATE..........33 OTHER__________________41 (SPECIFY)	HOME OWN HOME...............11 OWN PARENT'S HOME......12 OTHER'S HOME...........13 PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................21 RURAL HEALTH UNIT......22 BGY. HEALTH STATION....23 OTHER PUBLIC...........24 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 PRIVATE DOCTOR.........32 OTHER PRIVATE..........33 OTHER__________________41 (SPECIFY)	HOME OWN HOME...............11 OWN PARENT'S HOME......12 OTHER'S HOME...........13 PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................21 RURAL HEALTH UNIT......22 BGY. HEALTH STATION....23 OTHER PUBLIC...........24 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 PRIVATE DOCTOR.........32 OTHER PRIVATE..........33 OTHER__________________41 (SPECIFY)
429	Was it recommended that you go somewhere else for help because of the bleeding?	YES.....................1 NO......................2 (SKIP TO 434) DK......................8	YES.....................1 NO......................2 (SKIP TO 434) DK......................8	YES.....................1 NO......................2 (SKIP TO 434) DK......................8
430	Where were you referred?	PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................11 RURAL HEALTH UNIT......12 BGY. HEALTH STATION....13 OTHER PUBLIC...........14 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...21 PRIVATE DOCTOR.........22 OTHER PRIVATE..........23 OTHER__________________31 (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................11 RURAL HEALTH UNIT......12 BGY. HEALTH STATION....13 OTHER PUBLIC...........14 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...21 PRIVATE DOCTOR.........22 OTHER PRIVATE..........23 OTHER__________________31 (SPECIFY)	PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................11 RURAL HEALTH UNIT......12 BGY. HEALTH STATION....13 OTHER PUBLIC...........14 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...21 PRIVATE DOCTOR.........22 OTHER PRIVATE..........23 OTHER__________________31 (SPECIFY)
431	How long does it take to reach that place?	MINUTES..........1 [ ][ ] HOURS............2 [ ][ ] DK................998	MINUTES..........1 [ ][ ] HOURS............2 [ ][ ] DK................998	MINUTES..........1 [ ][ ] HOURS............2 [ ][ ] DK................998
432	Did you go?	YES.....................1 (SKIP TO 434) NO......................2	YES.....................1 (SKIP TO 434) NO......................2	YES.....................1 (SKIP TO 434) NO......................2
433	Why not? Any other reason? CIRCLE ALL THAT APPLY.	TOO FAR AWAY..............A NOT A PROBLEM.............B NO TRANSPORT..............C NO CHILDCARE..............D HUSBAND/FAMILY FORBID.....E POOR SERVICES.............F TOO EXPENSIVE.............G HILOT ABLE TO MANAGE......H NON-MEDICAL TREATMENT.....I OTHER_____________________J (SPECIFY)	TOO FAR AWAY..............A NOT A PROBLEM.............B NO TRANSPORT..............C NO CHILDCARE..............D HUSBAND/FAMILY FORBID.....E POOR SERVICES.............F TOO EXPENSIVE.............G HILOT ABLE TO MANAGE......H NON-MEDICAL TREATMENT.....I OTHER_____________________J (SPECIFY)	TOO FAR AWAY..............A NOT A PROBLEM.............B NO TRANSPORT..............C NO CHILDCARE..............D HUSBAND/FAMILY FORBID.....E POOR SERVICES.............F TOO EXPENSIVE.............G HILOT ABLE TO MANAGE......H NON-MEDICAL TREATMENT.....I OTHER_____________________J (SPECIFY)
434	Did anyone do anything to try to stop or decrease the amount of bleeding?	YES.....................1 NO......................2 (SKIP TO 436) DK......................8	YES.....................1 NO......................2 (SKIP TO 436) DK......................8	YES.....................1 NO......................2 (SKIP TO 436) DK......................8
435	What did she/he do? Anything else? CIRCLE ALL THAT APPLY.	INJECTION OF MEDICINE....A PACKED THE BIRTH CANAL...B REFERRED HER FOR CARE....C REPAIRED TEARS...........D MASSAGED THE STOMACH.....E RUB ON OIL...............F GAVE AN HERBAL DRINK.....G PUT A TUBE IN MY ARM.....H GAVE A TABLET............I ELEVATE FEET.............J NON-MEDICAL TREATMENT....K ICE ON ABDOMEN...........L KEEP KNEES BENT..........M PUT BABY TO BREAST.......N OTHER____________________O (SPECIFY)	INJECTION OF MEDICINE....A PACKED THE BIRTH CANAL...B REFERRED HER FOR CARE....C REPAIRED TEARS...........D MASSAGED THE STOMACH.....E RUB ON OIL...............F GAVE AN HERBAL DRINK.....G PUT A TUBE IN MY ARM.....H GAVE A TABLET............I ELEVATE FEET.............J NON-MEDICAL TREATMENT....K ICE ON ABDOMEN...........L KEEP KNEES BENT..........M PUT BABY TO BREAST.......N OTHER____________________O (SPECIFY)	INJECTION OF MEDICINE....A PACKED THE BIRTH CANAL...B REFERRED HER FOR CARE....C REPAIRED TEARS...........D MASSAGED THE STOMACH.....E RUB ON OIL...............F GAVE AN HERBAL DRINK.....G PUT A TUBE IN MY ARM.....H GAVE A TABLET............I ELEVATE FEET.............J NON-MEDICAL TREATMENT....K ICE ON ABDOMEN...........L KEEP KNEES BENT..........M PUT BABY TO BREAST.......N OTHER____________________O (SPECIFY)

		LAST PREGNANCY LINE NO.______ NAME	NEXT-TO-LAST PREGNANCY LINE NO.______ NAME	SECOND-FROM-LAST PREGNANCY LINE NO.______ NAME
436	Did you have a blood transfusion around the time of labor or delivery? (PROBE: Did anyone insert blood into your arm to replace the blood that came out of your vagina?)	YES....................1 NO.....................2 DK.....................8	YES....................1 NO.....................2 DK.....................8	YES....................1 NO.....................2 DK.....................8
437	Where did you deliver or give birth to (NAME)?	HOME OWN HOME...............11 OWN PARENT'S HOME......12 OTHER'S HOME...........13 PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................21 RURAL HEALTH UNIT......22 BGY. HEALTH STATION....23 OTHER PUBLIC...........24 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 PRIVATE DOCTOR.........32 OTHER PRIVATE..........33 OTHER__________41 (SPECIFY)	HOME OWN HOME...............11 OWN PARENT'S HOME......12 OTHER'S HOME...........13 PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................21 RURAL HEALTH UNIT......22 BGY. HEALTH STATION....23 OTHER PUBLIC...........24 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 PRIVATE DOCTOR.........32 OTHER PRIVATE..........33 OTHER__________41 (SPECIFY)	HOME OWN HOME...............11 OWN PARENT'S HOME......12 OTHER'S HOME...........13 PUBLIC SECTOR GVT. HOSPITAL/CLINIC/ CHHC..................21 RURAL HEALTH UNIT......22 BGY. HEALTH STATION....23 OTHER PUBLIC...........24 PRIVATE SECTOR PVT. HOSPITAL/CLINIC...31 PRIVATE DOCTOR.........32 OTHER PRIVATE..........33 OTHER__________41 (SPECIFY)
438	Is that where you had intended for your delivery to take place?	YES....................1 (SKIP TO 440) ← NO.....................2 DK/HAD NO PLAN..........8 (SKIP TO 440) ←	YES....................1 (SKIP TO 440) ← NO.....................2 DK/HAD NO PLAN..........8 (SKIP TO 440) ←	YES....................1 (SKIP TO 440) ← NO.....................2 DK/HAD NO PLAN..........8 (SKIP TO 440) ←
439	Why were you not able to deliver at the place where you planned to deliver?	NO TRANSPORT..............1 DELIVERED ON THE WAY.......2 HAD OBSTETRIC COMPLICATION.3 REFERRED..................4 OTHER__________5 (SPECIFY)	NO TRANSPORT..............1 DELIVERED ON THE WAY.......2 HAD OBSTETRIC COMPLICATION.3 REFERRED..................4 OTHER__________5 (SPECIFY)	NO TRANSPORT..............1 DELIVERED ON THE WAY.......2 HAD OBSTET. COMPLICATION..3 REFERRED..................4 OTHER__________5 (SPECIFY)
440	What method of transport did you use to travel to the place where (NAME) was born?	WALKING/ON FOOT..........01 CARABAO/HORSE............02 ANIMAL DRAWN CART........03 BUS......................04 TAXI/HIRED CAR...........05 OWN CAR..................06 BORROWED VEHICLE.........07 JEEPNEY..................08 MOTORELLA................09 PEDICAB..................10 TRICYCLE.................11 DID NOT TRAVEL...........12 OTHER__________13 (SPECIFY)	WALKING/ON FOOT..........01 CARABAO/HORSE............02 ANIMAL DRAWN CART........03 BUS......................04 TAXI/HIRED CAR...........05 OWN CAR..................06 BORROWED VEHICLE.........07 JEEPNEY..................08 MOTORELLA................09 PEDICAB..................10 TRICYCLE.................11 DID NOT TRAVEL...........12 OTHER__________13 (SPECIFY)	WALKING/ON FOOT..........01 CARABAO/HORSE............02 ANIMAL DRAWN CART........03 BUS......................04 TAXI/HIRED CAR...........05 OWN CAR..................06 BORROWED VEHICLE.........07 JEEPNEY..................08 MOTORELLA................09 PEDICAB..................10 TRICYCLE.................11 DID NOT TRAVEL...........12 OTHER__________13 (SPECIFY)
441	To help deliver (NAME), did anyone have to: use forceps? perform a caesarian section?	YES NO FORCEPS...........1 2 CAESARIAN SECTION.1 2	YES NO FORCEPS...........1 2 CAESARIAN SECTION.1 2	YE NO FORCEPS...........1 2 CAESARIAN SECTION.1 2
442	CHECK Q441:	HAD C-SECTION ☐ NO C-SECTION ☐→444	HAD C-SECTION ☐ NO C-SECTION ☐→444	HAD C-SECTION ☐ NO C-SECTION ☐→444
443	Were you told the reason you had the C-section operation? IF YES, what were you told? CIRCLE ALL THAT APPLY.	PELVIS TOO SMALL.........A BABY TRANSVERSE..........B BREECH...................C REPEAT C-SECTION.........D MOTHER SICK..............E BABY SICK/SLOW HEARTBEAT.F DIDN'T KNOW HOW TO PUSH..G BABY OVERDUE.............H NO PROGRESS IN LABOR.....I NOT TOLD.................J DON'T KNOW...............K OTHER__________L (SPECIFY) (GO TO 451) ←	PELVIS TOO SMALL.........A BABY TRANSVERSE..........B BREECH...................C REPEAT C-SECTION.........D MOTHER SICK..............E BABY SICK/SLOW HEARTBEAT.F DIDN'T KNOW HOW TO PUSH..G BABY OVERDUE.............H NO PROGRESS IN LABOR.....I NOT TOLD.................J DON'T KNOW...............K OTHER__________L (SPECIFY) (GO TO 451) ←	PELVIS TOO SMALL.........A BABY TRANSVERSE..........B BREECH...................C REPEAT C-SECTION.........D MOTHER SICK..............E BABY SICK/SLOW HEARTBEAT.F DIDN'T KNOW HOW TO PUSH..G BABY OVERDUE.............H NO PROGRESS IN LABOR.....I NOT TOLD.................J DON'T KNOW...............K OTHER__________L (SPECIFY) (GO TO 451) ←

		LAST PREGNANCY LINE NO.______ NAME	NEXT-TO-LAST PREGNANCY LINE NO.______ NAME	SECOND-FROM-LAST PREGNANCY LINE NO.______ NAME
444	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 HILOT....D RELATIVE....E OTHER____ F (SPECIFY)	HEALTH PROFESSIONAL DOCTOR....A NURSE....B MIDWIFE....C OTHER PERSON HILOT....D RELATIVE....E OTHER____ F (SPECIFY)	HEALTH PROFESSIONAL DOCTOR....A NURSE....B MIDWIFE....C OTHER PERSON HILOT....D RELATIVE....E OTHER____ F (SPECIFY)
445	What part of the baby came out first, its head, its feet, or its bottom?	HEAD....1 FEET....2 BOTTOM....3 OTHER____ 4 (SPECIFY) DON'T KNOW....8	HEAD....1 FEET....2 BOTTOM....3 OTHER____ 4 (SPECIFY) DON'T KNOW....8	HEAD....1 FEET....2 BOTTOM....3 OTHER____ 4 (SPECIFY) DON'T KNOW....8
446	Did the cord come out before the baby was born?	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8
447	During the delivery, did your attendant intentionally cut your vaginal area to make it easier for the baby to come out? (That is, an episiotomy)	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8
448	Did you accidentally get torn in your vaginal area during the delivery? (laceration)	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8
449	How long did it take for your placenta to come out? RECORD IN HOURS IF LESS THAN 24. OTHERWISE, IN COMPLETED DAYS.	HOURS....1 [ ][ ] DAYS....2 [ ][ ] DK....998	HOURS....1 [ ][ ] DAYS....2 [ ][ ] DK....998	HOURS....1 [ ][ ] DAYS....2 [ ][ ] DK....998
450	Did anyone stick their hand up through your vagina into your womb to try to pull out the placenta?	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8
451	CHECK 216:	LIVE BIRTH [ ] BORN DEAD [ ] →453	LIVE BIRTH [ ] BORN DEAD [ ] →453	LIVE BIRTH [ ] BORN DEAD [ ] →453
452	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
453	Now I would like to ask you about the six week period after the delivery of (NAME). Did you see a doctor, nurse, or midwife for a routine check-up on your health?	YES....1 NO....2 (SKIP TO 455)	YES....1 NO....2 (SKIP TO 455)	YES....1 NO....2 (SKIP TO 455)
454	Did any of the following happen when you went for your postpartum care? abdomen examined breasts examined internal exam advice on family planning advice on breastfeeding advice on baby care READ EACH ALOUD AND CIRCLE CORRESPONDING ANSWERS.	YES NO DK ABDOMEN EXAM....1 2 8 BREAST EXAM....1 2 8 INTERNAL EXAM....1 2 8 FAMILY PLANNING....1 2 8 BREASTFEEDING....1 2 8 BABY CARE....1 2 8	YES NO DK ABDOMEN EXAM....1 2 8 BREAST EXAM....1 2 8 INTERNAL EXAM....1 2 8 FAMILY PLANNING....1 2 8 BREASTFEEDING....1 2 8 BABY CARE....1 2 8	YES NO DK ABDOMEN EXAM....1 2 8 BREAST EXAM....1 2 8 INTERNAL EXAM....1 2 8 FAMILY PLANNING....1 2 8 BREASTFEEDING....1 2 8 BABY CARE....1 2 8

		LAST PREGNANCY LINE NO.____ NAME____	NEXT-TO-LAST PREGNANCY LINE NO.____ NAME____	SECOND-FROM-LAST PREGNANCY LINE NO.____ NAME____
455	At any time during the six weeks after your delivery, did you have any of the following: massive vaginal bleeding? convulsions not from fever?	YES NO DK BLEEDING.....1 2 8 CONVULSIONS..1 2 8	YES NO DK BLEEDING.....1 2 8 CONVULSIONS..1 2 8	YES NO DK BLEEDING.....1 2 8 CONVULSIONS..1 2 8
456	At any time during the six weeks after the delivery of (NAME), did you have a very high fever?	YES.....................1 NO......................2 (SKIP TO 458)	YES.....................1 NO......................2 (SKIP TO 458)	YES.....................1 NO......................2 (SKIP TO 458)
457	When you had a very high fever, did you also have any of the following: foul-smelling discharge? lower abdominal pain? severe lower back pain? severe upper back pain? painful urination? swollen, painful breasts? READ EACH ALOUD AND CIRCLE CORRESPONDING ANSWERS	YES NO DK DISCHARGE.........1 2 8 LOW ABDOM.PAIN....1 2 8 LOW BACK PAIN.....1 2 8 UPPER BACK PAIN...1 2 8 PAINFUL URINATION.1 2 8 PAINFUL BREASTS...1 2 8	YES NO DK DISCHARGE.........1 2 8 LOW ABDOM.PAIN....1 2 8 LOW BACK PAIN.....1 2 8 UPPER BACK PAIN...1 2 8 PAINFUL URINATION.1 2 8 PAINFUL BREASTS...1 2 8	YES NO DK DISCHARGE.........1 2 8 LOW ABDOM.PAIN....1 2 8 LOW BACK PAIN.....1 2 8 UPPER BACK PAIN...1 2 8 PAINFUL URINATION.1 2 8 PAINFUL BREASTS...1 2 8
458	CHECK 455 AND 456:	BLEEDING OR CONVULSIONS OR FEVER ☐ NO BLEEDING NO CONVULSIONS NO FEVER ☐→462	BLEEDING OR CONVULSIONS OR FEVER ☐ NO BLEEDING NO CONVULSIONS NO FEVER ☐→462	BLEEDING OR CONVULSIONS OR FEVER ☐ NO BLEEDING NO CONVULSIONS NO FEVER ☐→462
459	Did you receive treatment from a doctor, nurse, or midwife: for bleeding? for convulsions? for fever?	YES NO NA BLEEDING.....1 2 8 CONVULSIONS..1 2 8 FEVER........1 2 8	YES NO NA BLEEDING.......1 2 8 CONVULSIONS....1 2 8 FEVER..........1 2 8	YES NO NA BLEEDING.........1 2 8 CONVULSIONS......1 2 8 FEVER............1 2 8
460	CHECK 459:	ANY ARE EQUAL TO NO (=2) ☐ NO ANSWERS EQUAL TO NO(2) ☐→462	ANY ARE EQUAL TO NO (=2) ☐ NO ANSWERS EQUAL TO NO(2) ☐→462	ANY ARE EQUAL TO NO (=2) ☐ NO ANSWERS EQUAL TO NO(2) ☐→462
461	Why not? Any other reason? CIRCLE ALL THAT APPLY.	TOO FAR AWAY..............A NOT A PROBLEM.............B NO TRANSPORT..............C NO CHILDCARE..............D HUSBAND/FAMILY FORBID.....E POOR SERVICES.............F TOO EXPENSIVE.............G HILOT ABLE TO MANAGE......H NON-MEDICAL TREATMENT.....I OTHER____J (SPECIFY)	TOO FAR AWAY..............A NOT A PROBLEM.............B NO TRANSPORT..............C NO CHILDCARE..............D HUSBAND/FAMILY FORBID.....E POOR SERVICES.............F TOO EXPENSIVE.............G HILOT ABLE TO MANAGE......H NON-MEDICAL TREATMENT.....I OTHER____J (SPECIFY)	TOO FAR AWAY..............A NOT A PROBLEM.............B NO TRANSPORT..............C NO CHILDCARE..............D HUSBAND/FAMILY FORBID.....E POOR SERVICES.............F TOO EXPENSIVE.............G HILOT ABLE TO MANAGE......H NON-MEDICAL TREATMENT.....I OTHER____J (SPECIFY)
462	How many days after delivery/ the end of your pregnancy, did you return to your normal chores?	DAYS.............☐☐ GO TO 303 FOR NEXT PREGNANCY. IF NO MORE, GO TO 501.	DAYS.............☐☐ GO TO 303 FOR NEXT PREGNANCY. IF NO MORE, GO TO 501.	DAYS.............☐☐ GO TO 303 FOR NEXT PREGNANCY. IF NO MORE, GO TO 501.

SECTION 5. OTHER MORBIDITIES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES
501	Now I would like to ask you some more general questions about your health. In general, would you say your health is good, fair, or poor?	GOOD.....1 FAIR.....2 POOR.....3
502	Compared to this time last year, would you say your health now is better, the same, or worse?	BETTER.....1 SAME.....2 WORSE.....3

503A Have you ever, at any time in your life, been told by a doctor or a nurse that you had any of the following health problems:
PROCEED DOWN THE COLUMN, READING THE NAME OF THE DISEASE. FOR EACH DISEASE WITH CODE 1 (YES) IN 503A, ASK 503B BEFORE PROCEEDING TO THE NEXT DISEASE.

READ ALOUD AND CIRCLE CORRESPONDING ANSWERS.

	503A YES	503A NO	503B: Did you have that problem when you were pregnant? YES	NO	DK
tuberculosis?	TUBERCULOSIS.....1 (ASK 503B)	2	1	2	8
diabetes mellitus?	DIABETES.....1 (ASK 503B)	2	1	2	8
high blood pressure/hypertension?	HIGH BLOOD PRESSURE..1 (ASK 503B)	2	1	2	8
malaria?	MALARIA.....1 (ASK 503B)	2	1	2	8
hepatitis?	HEPATITIS.....1 (ASK 503B)	2	1	2	8
kidney disease?	KIDNEY DISEASE.....1 (ASK 503B)	2	1	2	8
heart disease?	HEART DISEASE.....1 (ASK 503B)	2	1	2	8
anemia?	ANEMIA.....1 (ASK 503B)	2	1	2	8
goiter?	GOITER.....1 (ASK 503B)	2	1	2	8
any other medical problem? IF YES, what?	OTHER_____1 (SPECIFY) (ASK 503B)	2	1	2	8

504	Does your health limit you in any way in the kinds or amounts of vigorous activities you can do, like scrubbing the floor or washing clothes?	YES.....1 NO.....2 (SKIP TO 516)
505	How long have you been limited in this way? IF LESS THAN TWO YEARS, RECORD IN MONTHS. OTHERWISE, RECORD IN COMPLETED YEARS.	MONTHS.....1 ☐☐ YEARS.....2 ☐☐
506	Does your health limit you in any way in the kinds or amounts of moderate activities you can do, like carrying food home from the market?	YES.....1 NO.....2 (SKIP TO 516)
507	How long have you been limited in this way? IF LESS THAN TWO YEARS, RECORD IN MONTHS. OTHERWISE, RECORD IN COMPLETED YEARS.	MONTHS.....1 ☐☐ YEARS.....2 ☐☐
508	Does your health limit you in any way in walking uphill or climbing stairs or ladders?	YES.....1 NO.....2 (SKIP TO 516)
509	How long have you been limited in this way? IF LESS THAN TWO YEARS, RECORD IN MONTHS. OTHERWISE, RECORD IN COMPLETED YEARS.	MONTHS.....1 ☐☐ YEARS.....2 ☐☐
510	Does your health limit you in any way from bending or stooping?	YES.....1 NO.....2 (SKIP TO 516)
511	How long have you been limited in this way? IF LESS THAN TWO YEARS, RECORD IN MONTHS. OTHERWISE, RECORD IN COMPLETED YEARS.	MONTHS.....1 ☐☐ YEARS.....2 ☐☐

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
512	Does your health limit you in any way in walking short distances (that is, about 100 meters)?	YES.....1 NO.....2 (SKIP TO 516) ←	
513	How long have you been limited in this way? IF LESS THAN TWO YEARS, RECORD IN MONTHS. OTHERWISE, RECORD IN COMPLETED YEARS.	MONTHS.....1 ☐☐ YEARS.....2 ☐☐	
514	Does your health limit you in any way in eating, dressing, bathing, or using the comfort room?	YES.....1 NO.....2 (SKIP TO 516) ←	
515	How long have you been limited in this way? IF LESS THAN TWO YEARS, RECORD IN MONTHS. OTHERWISE, RECORD IN COMPLETED YEARS.	MONTHS.....1 ☐☐ YEARS.....2 ☐☐	
516	CHECK Q220, Q225, AND Q233 TO SEE IF SHE HAS BEEN PREGNANT IN THE PAST 12 MONTHS OR IS CURRENTLY PREGNANT. NOT PREGNANT IN PAST 12 MONTHS AND NOT CURRENTLY PREGNANT ☐ ↓ PREGNANT IN PAST 12 MONTHS OR CURRENTLY PREGNANT ☐	→	523
517	Now I would like to ask you about some specific health problems. Have you been trying to get pregnant and not succeeding?	YES.....1 NO.....2 (SKIP TO 523) ←	
518	For how many months have you been trying?	MONTHS..... ☐☐	
519	Have you been living with your husband/partner during most of that time?	YES.....1 NO.....2	
520	Have you used any kind of contraception during that time?	YES.....1 NO.....2	
521	Have you seen anyone for advice or treatment to help you get pregnant? If yes, who? Anyone else? CIRCLE ALL THAT APPLY.	DOCTOR.....A NURSE.....B MIDWIFE.....C CHEMIST/PHARMACIST.....D HERBALIST.....E HILOT.....F SHAMAN.....G FAITH HEALER.....H RELATIVE.....I SELF-TREATMENT.....J OTHER_____K (SPECIFY) (SKIP TO 523) ← NO TREATMENT SOUGHT.....L	
522	Why didn't you see anyone for this? Any other reason? CIRCLE ALL THAT APPLY.	DID NOT THINK IT WOULD HELP.....A TOO EXPENSIVE.....B NO TRANSPORT.....C NO TIME.....D NOT SERIOUS ENOUGH.....E EMBARASSED.....F AFRAID.....G OTHER_____H (SPECIFY)	
523	Do you have a feeling that your womb is coming out or slipping?	YES.....1 NO.....2 →	527
524	Does it seem to stay the same, get better, or get worse when you cough, sneeze, laugh, or lift heavy objects?	STAYS ABOUT SAME.....1 GETS BETTER.....2 GETS WORSE.....3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
525	Have you seen anyone for advice or treatment to help you with that/these problem(s)? If yes, who? Anyone else? CIRCLE ALL THAT APPLY.	DOCTOR.....A NURSE.....B MIDWIFE.....C CHEMIST/PHARMACIST.....D HERBALIST.....E HILOT.....F SHAMAN.....G FAITH HEALER.....H RELATIVE.....I SELF-TREATMENT.....J OTHER_____K (SPECIFY) (SKIP TO 527) NO TREATMENT SOUGHT.....L	
526	Why did you not see anyone for this? Any other reason? CIRCLE ALL THAT APPLY.	DID NOT THINK IT WOULD HELP.....A TOO EXPENSIVE.....B NO TRANSPORT.....C NO TIME.....D NOT SERIOUS ENOUGH.....E EMBARASSED.....F AFRAID.....G OTHER_____H (SPECIFY)	
527	Another problem some women have is controlling their urine. Do you have trouble controlling your urine?	YES.....1 NO.....2	→531
528	Has this problem of controlling your urine changed or limited your daily activities in any way?	YES.....1 NO.....2	
529	Have you seen anyone for advice or treatment to help you with this problem? If yes, who? Anyone else? CIRCLE ALL THAT APPLY.	DOCTOR.....A NURSE.....B MIDWIFE.....C CHEMIST/PHARMACIST.....D HERBALIST.....E HILOT.....F SHAMAN.....G FAITH HEALER.....H RELATIVE.....I SELF-TREATMENT.....J OTHER_____K (SPECIFY) (SKIP TO 531) NO TREATMENT SOUGHT.....L	
530	Why did you not see anyone for this? Any other reason? CIRCLE ALL THAT APPLY.	DID NOT THINK IT WOULD HELP.....A TOO EXPENSIVE.....B NO TRANSPORT.....C NO TIME.....D NOT SERIOUS ENOUGH.....E EMBARASSED.....F AFRAID.....G OTHER_____H (SPECIFY)	
531	Now I would like to ask you about some other symptoms you may have had. During the past three months, have you had a problem with an abnormal vaginal discharge?	YES.....1 NO.....2 (SKIP TO 538)	
532	Have you had any itching or irritation in your vaginal area with this discharge?	YES.....1 NO.....2	
533	Have you noticed a bad odor in your vaginal area with this discharge?	YES.....1 NO.....2	
534	When you had that discharge during the past three months did you have any severe lower abdominal pain which was not related to menstruating?	YES.....1 NO.....2	
535	When you had that discharge during the past three months did you have a fever?	YES.....1 NO.....2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
536	Have you seen anyone for advice or treatment to help you with that/these problem(s)? If yes, who? Anyone else? CIRCLE ALL THAT APPLY.	DOCTOR.....A NURSE.....B MIDWIFE.....C CHEMIST/PHARMACIST.....D HERBALIST.....E HILOT.....F SHAMAN.....G FAITH HEALER.....H RELATIVE.....I SELF-TREATMENT.....J OTHER_____K (SPECIFY) (SKIP TO 538) NO TREATMENT SOUGHT.....L	
537	Why did you not see anyone for this? Any other reason? CIRCLE ALL THAT APPLY.	DID NOT THINK IT WOULD HELP.....A TOO EXPENSIVE.....B NO TRANSPORT.....C NO TIME.....D NOT SERIOUS ENOUGH.....E EMBARASSED.....F AFRAID.....G OTHER_____H (SPECIFY)	
538	During the past three months, have you had a problem with pain or burning while urinating or have you had more frequent or difficult urination?	YES.....1 NO.....2 (SKIP TO 541)	
539	Have you seen anyone for advice or treatment to help you with that/these problem(s)? If yes, who? Anyone else? CIRCLE ALL THAT APPLY.	DOCTOR.....A NURSE.....B MIDWIFE.....C CHEMIST/PHARMACIST.....D HERBALIST.....E HILOT.....F SHAMAN.....G FAITH HEALER.....H RELATIVE.....I SELF-TREATMENT.....J OTHER_____K (SPECIFY) (SKIP TO 541) NO TREATMENT SOUGHT.....L	
540	Why did you not see anyone for this? Any other reason? CIRCLE ALL THAT APPLY.	DID NOT THINK IT WOULD HELP.....A TOO EXPENSIVE.....B NO TRANSPORT.....C NO TIME.....D NOT SERIOUS ENOUGH.....E EMBARASSED.....F AFRAID.....G OTHER_____H (SPECIFY)	
541	Another problem some women have is feeling pain in their abdomen or vagina during intercourse. Do you <u>often</u> experience this kind of pain?	YES.....1 NO.....2 (SKIP TO 545)	
542	Do you ever see blood after having sex, at times when you are not menstruating?	YES.....1 NO.....2	
543	Have you seen anyone for advice or treatment to help you with that/these problem(s)? If yes, who? Anyone else? CIRCLE ALL THAT APPLY.	DOCTOR.....A NURSE.....B MIDWIFE.....C CHEMIST/PHARMACIST.....D HERBALIST.....E HILOT.....F SHAMAN.....G RELATIVE.....H SELF-TREATMENT.....I OTHER_____J (SPECIFY) (SKIP TO 545) NO TREATMENT SOUGHT....K	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
544	Why did you not see anyone for this? Any other reason? CIRCLE ALL THAT APPLY.	DID NOT THINK IT WOULD HELP.....A TOO EXPENSIVE.....B NO TRANSPORT.....C NO TIME.....D NOT SERIOUS ENOUGH.....E EMBARASSED.....F AFRAID.....G OTHER_____H (SPECIFY)	
545	Do you still menstruate?	YES.....1 NO.....2 → (SKIP TO 549)	
546	Now I have a few questions about the last time you had your menstrual period. Did you have any problems with your menstruation this past time? PROBE: Did you have pain that was so severe that it kept you from your normal activities, or were there any changes in the duration of your period or in the amount of blood lost, or was your period irregular?	YES.....1 NO.....2 →	→549
547	Have you seen anyone for advice or treatment to help you with that/those problem(s)? If yes, who? Anyone else? CIRCLE ALL THAT APPLY.	DOCTOR.....A NURSE.....B MIDWIFE.....C CHEMIST/PHARMACIST....D HERBALIST.....E HILOT.....F SHAMAN.....G RELATIVE.....H SELF-TREATMENT.....I OTHER_____J (SPECIFY) (SKIP TO 549) NO TREATMENT SOUGHT...K	
548	Why did you not see anyone for this? Any other reason? CIRCLE ALL THAT APPLY.	DID NOT THINK IT WOULD HELP.....A TOO EXPENSIVE.....B NO TRANSPORT.....C NO TIME.....D NOT SERIOUS ENOUGH.....E EMBARASSED.....F AFRAID.....G IN MENOPAUSE.....H IT'S ALWAYS LIKE THAT...I OTHER_____J (SPECIFY)	
549	Sometimes women have irregular menstruation. Have you ever experienced a lapse in your menstruation and done something to bring it on again?	YES.....1 NO.....2 → (SKIP TO 558)	
550	Can you tell me what you did? Was anything else tried? IF MORE THAN ONCE, ASK ABOUT LAST TIME. CIRCLE ALL THAT APPLY.	PRAYERS/GOD'S WILL.....A STRENUOUS WORK.....B SCRUBBING FLOORS.....C BITTER DRINKS (HERBS)....D TABLETS.....E HARD MASSAGE/SQUEEZING OF ABDOMEN.....F CATHETER/OBJECT IN WOMB..G INJECTION.....H SUCTION/VACUUM.....I CURETTAGE.....J OTHER_____K (SPECIFY) DK.....L	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
551	Can you tell me who provided the method(s) for you? Anyone else? CIRCLE ALL THAT APPLY.	DOCTOR.....A NURSE.....B MIDWIFE.....C CHEMIST/PHARMACIST.....D HERBALIST.....E HILOT.....F SHAMAN.....G HUSBAND.....H OTHER RELATIVE.....I FRIEND.....J SELF-TREATMENT.....K OTHER_____L (SPECIFY) NO TREATMENT SOUGHT....M	
552	Did you have a fever afterwards?	YES.....1 NO.....2	
553	Did you have heavy vaginal bleeding afterwards?	YES.....1 NO.....2	→555
554	Did you have a blood transfusion?	YES.....1 NO.....2	
555	Did you have to be hospitalized because of any problems related to this?	YES.....1 NO.....2	→557
556	How long did you have to stay in the hospital?	NIGHTS..... ☐☐ (IF < ONE NIGHT, CODE 00)	
557	When did this happen to you? RECORD MONTH AND YEAR.	MONTH..... ☐☐ YEAR..... ☐☐	
558	PRESENCE OF OTHERS AT THIS POINT.	YES NO CHILDREN UNDER 10.....1 2 HUSBAND/PARTNER.....1 2 OTHER MALES.....1 2 OTHER FEMALES.....1 2	
559	Sometimes women get pregnant at a time when they have not chosen to be. Have you ever been pregnant when you did not want to be?	YES.....1 NO.....2 (SKIP TO 601)	
560	When that happened to you, what did you do about it? Anything else? IF MORE THAN ONCE, ASK ABOUT THE MOST RECENT. USE SKIP PATTERN FOR CIRCLED LETTER CLOSEST TO "A"	ABORTED THE PREGNANCY.....A TRIED TO ABORT BUT FAILED.....B STARTED TO ABORT, CHANGED MIND.C DID SOMETHING TO BRING PERIOD..D HAD A MISCARRIAGE.....E CONTINUED THE PREGNANCY.....F NOTHING.....G DK.....H	→561 →568 →570
561	Can you tell me what was done? Was anything else tried? CIRCLE ALL THAT APPLY.	PRAYERS/GOD'S WILL.....A STRENUOUS WORK.....B SCRUBBING FLOORS.....C BITTER DRINKS (HERBS).....D TABLETS.....E HARD MASSAGE/SQUEEZING OF ABDOMEN.....F CATHETER/OBJECT IN WOMB.....G INJECTION.....H SUCTION.....I CURETTAGE.....J OTHER_____K (SPECIFY) DK.....L	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
562	Can you tell me who provided the method(s) for you? Anyone else? CIRCLE ALL THAT APPLY.	DOCTOR.....A NURSE.....B MIDWIFE.....C CHEMIST/PHARMACIST.....D HERBALIST.....E HILOT.....F SHAMAN.....G HUSBAND.....H OTHER RELATIVE.....I FRIEND.....J SELF-TREATMENT.....K OTHER_____L (SPECIFY) NO TREATMENT SOUGHT.....M	
563	Did you have a fever afterwards?	YES.....1 NO.....2	
564	Did you have heavy vaginal bleeding afterwards?	YES.....1 NO.....2	→566
565	Did you have a blood transfusion?	YES.....1 NO.....2	
566	Did you have to be hospitalized because of any problems related to this?	YES.....1 NO.....2	→569
567	How long did you have to stay in the hospital?	NIGHTS..... ☐☐ (IF < ONE NIGHT, CODE 00)	→569
568	What do you think caused you to have a miscarriage? Anything else? CIRCLE ALL THAT APPLY.	PRAYERS/GOD'S WILL.....A STRENUOUS WORK.....B SCRUBBING FLOORS.....C BITTER DRINKS (HERBS).....D TABLETS.....E HARD MASSAGE/SQUEEZING OF ABDOMEN.....F CATHETER/OBJECT IN WOMB.....G INJECTION.....H SUCTION.....I CURETTAGE.....J SOMETHING WRONG WITH BABY....K HAD A FIGHT.....L HAD AN ACCIDENT..... M RESPONDENT WAS SICK.....N OTHER_____O (SPECIFY) DK.....P	
569	When did this happen to you? RECORD MONTH AND YEAR.	MONTH..... ☐☐ YEAR..... ☐☐	
570	Did you ever have an earlier unwanted pregnancy that you or anyone else stopped?	YES.....1 NO.....2	

SECTION 6. WOMEN'S POSITION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
601	Many people think that women's health can be affected by other things that happen in their lives. Now I'd like to ask you some questions about some of these other parts of your life. Do you have a paid helper at home?	YES.....1 NO.....2	
602	Do you have a say in how your household's overall income is spent?	YES.....1 NO.....2	
603	PRESENCE OF OTHERS AT THIS POINT.	YES NO CHILDREN UNDER 10.....1 2 HUSBAND/PARTNER.....1 2 OTHER MALES.....1 2 OTHER FEMALES.....1 2	
604	Now I want to talk with you about something that can be difficult to discuss. Sometimes during difficult times tensions develop within our relationships and we may have misunderstandings and arguments. Sometimes these quarrels can be very painful. Has anyone close to you, that is family or friend, ever hit, slapped, kicked, or tried to hurt you physically?	YES.....1 NO.....2 (SKIP TO 609)	
605	Who did that to you? Anyone else? CIRCLE ALL THAT APPLY.	HUSBAND/PARTNER.....A FATHER.....B OTHER MALE RELATIVE.....C MALE FRIEND.....D MOTHER.....E OTHER FEMALE RELATIVE.....F FEMALE FRIEND.....G OTHER_____H (SPECIFY)	
606	On average, how often did this happen?	THREE OR MORE TIMES PER YEAR.1 1-2 TIMES PER YEAR.....2 LESS THAN ONCE PER YEAR.....3 ONLY ONCE OR TWICE EVER.....4 DON'T KNOW.....8	
607	Did this ever happen while you were pregnant?	YES.....1 NO.....2	→609
608	Did the violence seem to decrease, increase, or stay the same when you were pregnant?	SEEMS TO DECREASE.....1 SEEMS TO INCREASE.....2 SEEMS TO STAY THE SAME.....3 HAPPENED ONCE OR TWICE.....4	
609	Have you ever been physically forced to have sex with someone?	YES.....1 NO.....2	→613
610	Did you ever tell anyone about any of this in an attempt to get help? If yes, who? Anyone else? CIRCLE ALL THAT APPLY.	FRIEND.....A MOTHER.....B SISTER.....C HUSBAND.....D OTHER RELATIVE.....E BARANGAY CAPTAIN.....F POLICEMAN.....G PRIEST.....H HILOT.....I OTHER_____J (SPECIFY) NO ONE.....K	→612
611	Was that person able to help you at all?	YES.....1 NO.....2	→613 →613
612	Why not?	SHE/HE THREATENED ME.....1 EMBARRASSED.....2 NO ONE TO TELL/ABLE TO HELP..3 HAPPENS TO MANY WOMEN.....4 SCARED.....5 IT WAS MY OWN FAULT.....6 OTHER_____7 (SPECIFY) DON'T KNOW.....8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES
613	Finally, because sexual habits have an influence on people's health, I want to ask you some other questions about your sexual life. I am quite aware that these questions are very personal, but we hope that your answers will be as complete and truthful as possible. How old were you when you had sexual intercourse for the first time?	YEARS..... ☐☐
614	The last time you had sex, did you and your partner use a condom?	YES.....1 NO.....2 →616
615	Did you use the condom: to prevent pregnancy? to protect you from sexually transmitted diseases?	YES NO PREVENT PREGNANCY.....1 2 PREVENT STDS.....1 2
616	Altogether, about how many sexual partners have you had: in the last year? in your whole life?	☐☐ PARTNERS IN LAST YEAR ☐☐ PARTNERS IN WHOLE LIFE
617	CHECK 107 AND 108: MARRIED OR LIVING WITH A MAN NOT MARRIED OR NOT LIVING WITH A MAN ☐ ☐→620	
618	Now I would like to ask you about your current partner. As far as you know, has he had sex with other women or with men: while being your partner? before becoming your partner?	YES NO DK WHILE BEING PARTNER.....1 2 8 BEFORE BEING PARTNER.....1 2 8
619	As far as you know, does he ever pay other women to have sex with him?	YES.....1 NO.....2 DK.....8
620	I have asked you many things today; you have been very helpful and kind in talking with me. Thank you for taking this time with me. Now, as I mentioned before, I would like to take your height and weight measurements before I leave.	
621	RECORD THE TIME WHEN THE INTERVIEW ENDED.	HOUR..... ☐☐ MINUTES..... ☐☐

ENG-28

SECTION 7. HEIGHT AND WEIGHT

INTERVIEWER: MEASURE HEIGHT, WEIGHT, AND MID-UPPER ARM CIRCUMFERENCE (MUAC) FOR ALL WOMEN INTERVIEWED.

701 RESPONDENT'S NAME	(NAME) _____
702 DATE OF BIRTH FROM Q.102	MONTH.... ☐☐ YEAR..... ☐☐
703 HEIGHT (in centimeters)	☐☐☐.☐
704 WEIGHT (in kilograms)	☐☐☐.☐
705 MID-UPPER ARM CIRCUMFERENCE (MUAC) (in centimeters)	☐☐.☐
706 DATE WEIGHED AND MEASURED	DAY..... ☐☐ MONTH.... ☐☐ YEAR..... ☐☐

707
NAME OF MEASURER: _____ ☐☐

NAME OF ASSISTANT: _____ ☐☐

ENG-29

INTERVIEWER'S OBSERVATIONS
(To be filled in after completing interview)

Comments About Respondent: _____

_____

_____

Comments on Specific Questions: _____

_____

_____

Any Other Comments: _____

_____

SUPERVISOR'S OBSERVATIONS

_____

_____

_____

_____

Name of Supervisor: _____ Date: _____

EDITOR'S OBSERVATIONS

_____

_____

_____

_____

ENG-30