

# Indonesia

## Demographic and Health Survey 1991



Central Bureau of Statistics



National Family Planning Coordinating Board



Ministry of Health



Demographic and Health Surveys  
Macro International Inc.

# **Indonesia Demographic and Health Survey 1991**

Central Bureau of Statistics  
Jakarta, Indonesia

National Family Planning Coordinating Board  
Jakarta, Indonesia

Ministry of Health  
Jakarta, Indonesia

Macro International Inc.  
Columbia, Maryland USA

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This report summarizes the findings of the 1991 Indonesia Demographic and Health Survey (IDHS) conducted by the Indonesia Central Bureau of Statistics, the National Family Planning Coordinating Board and the Ministry of Health. Macro International provided funding and technical assistance. Additional funding for the survey was provided by USAID/Jakarta, UNFPA, and the Government of Indonesia.

The IDHS is part of the worldwide Demographic and Health Surveys program, which is designed to collect data on fertility, family planning, and maternal and child health. Additional information on the Indonesia survey may be obtained from the Central Bureau of Statistics, Jl. Dr. Sutomo 8, Jakarta 10710, Indonesia (Telephone 372808, 374908, 3810291-5), or the National Family Planning Coordinating Board, Jl. Let. Jen. M.T. Haryono, Jakarta 10002, Indonesia (Telephone 8009029), or the Ministry of Health, Institute for Health Research and Development, Jl. Percetakan Negara 29, P.O. Box 1226, Jakarta 10440, Indonesia (Telephone 414146, Ext. 31). Additional information about the DHS program may be obtained by writing to: DHS, Macro International Inc., 8850 Stanford Boulevard, Suite 4000, Columbia, Maryland 21045, U.S.A. (Telephone 410-290-2800; Telex 198116; Fax 410-290-2999).

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## PREFACE

The Indonesia Demographic and Health Survey (IDHS) was a project designed as a collaborative effort of four institutions—the National Family Planning Coordinating Board, the Central Bureau of Statistics, the Ministry of Health, and Macro International Inc. The survey received financial assistance from the Government of Indonesia, the U.S. Agency for International Development (USAID)/Jakarta, and the United Nations Population Fund. Technical assistance as well as funds for the survey were provided by Macro International through its Demographic and Health Surveys Program (DHS), a USAID-funded project in many developing countries.

The Central Bureau of Statistics (CBS) had the responsibility of conducting the survey. CBS activities included survey design, fieldwork, and data processing. The IDHS was carried out from May to July 1991 in selected areas of the 27 provinces in Indonesia. The IDHS sample is a subsample of the 1990 Population Census, and was designed to produce reliable estimates of major survey variables for each of the 27 provinces and for urban and rural areas of the three family planning program development areas (Java-Bali, Outer Islands I and Outer Islands II).

As a follow-on to the 1987 National Indonesia Contraceptive Prevalence Survey (NICPS), the IDHS questionnaire is an expanded version of those used in the NICPS. The IDHS will provide important information for program managers and policymakers to evaluate existing programs. A comparison of IDHS and NICPS data provides a picture of the development as well as the achievement of program goals in the field of family planning, population, and health.

This final report is a completed and elaborated version of the earlier preliminary report. The relatively short time required to produce the survey results would not have been possible without the hard work and dedication of all parties involved. To those who gave their active contribution to this project, I would like to extend my sincere thanks and appreciation.

Central Bureau of Statistics

Azwar Rasjid  
Director General



## PREFACE

Since its inception in 1970, the Indonesian National Family Planning Coordinating Board (NFPCB) has given high priority to monitoring and evaluating family planning program activities throughout the country. The first national survey providing detailed measures of family planning performance was the 1987 National Indonesia Contraceptive Prevalence Survey (NICPS). Results from this survey confirmed that the use of contraception in Indonesia had increased rapidly since 1970 and that fertility had fallen from around 5.6 births per woman in 1970 to 3.3 by 1987.

The 1991 Indonesia Demographic and Health Survey (IDHS) is the second and most recent national survey providing Indonesia's program managers and policymakers with nationally representative information on fertility, infant and child mortality, contraceptive use dynamics, and patterns of family planning service utilization. For the first time, the 1991 IDHS also provides extensive data on the knowledge and use of maternal and child health (MCH) services throughout the country—information that should prove highly useful to Indonesia's Ministry of Health (MOH) and the NFPCB in assessing the coverage and quality of current MCH interventions, and developing new program initiatives designed to further enhance the welfare of mothers and their children.

Results from the 1991 IDHS confirm that Indonesia has continued to make considerable progress in providing effective, high quality family planning services to its people. As of 1991, 49.7 percent of all currently married women were using some form of contraception. By 1991, women were having an average of 3.0 children, a decline of 9 percent since 1987 and 46 percent since 1970. These outcomes clearly indicate that Indonesia's family planning movement is achieving even greater success throughout much of the country.

A particularly encouraging development documented by the 1991 IDHS is the rapid expansion of self-reliant family planning (KB Mandiri) over the past four years. For example, the percentage of clients acquiring family planning services through private sector outlets has increased from 11 percent in 1987 to 22 percent in 1991. This dramatic shift in the composition of Indonesia's service delivery system has exceeded all expectations, and provides confirmation that KB Mandiri is achieving widespread acceptance among family planning clients.

While the 1991 IDHS indicates that Indonesia's family planning program is providing for the needs of more couples than ever before, it should also be recognized that even greater effort will be required to lower Indonesia's fertility rate to replacement level (around 2.1 births per woman). Encouraging women to begin practicing family planning at younger ages and promoting greater use of effective contraception will become increasingly important program priorities in the coming years. In addition, enhancing the quality of family planning and MCH services (especially client counselling and follow-up) and providing more service delivery options for clients will be essential ingredients in the future expansion of Indonesia's family planning program. However, beyond the need to recruit more family planning acceptors and promote greater use effectiveness, there is an overriding need to develop program strategies that enhance the welfare of mothers and children and promote greater economic opportunities for families. This holistic approach to development will help ensure that future generations of Indonesians reap a full reward from their country's dramatic demographic transition and rapid economic expansion.

In conclusion, I would like to thank the Central Bureau of Statistics, Macro International Inc. in Columbia, Maryland (USA), the IDHS Steering Committee, and the Office of Program Development at the NFPCB for their efforts in conducting the 1991 IDHS. In addition, USAID and UNFPA made substantial financial and technical contributions that helped ensure the ultimate success of this important undertaking. The high quality of the IDHS final country report is indicative of the professional manner in which this project was designed and implemented. I trust that future demographic and health surveys will be conducted with the same impressive dedication to hard work and technical competence.

National Family Planning Coordinating Board

Haryono Suyono, Ph.D.  
Chairman

## **PREFACE**

The evaluation of the effectiveness of health programs rests on the ability to demonstrate changes in the health and nutritional status of the targeted population following the implementation of certain health strategies. Population-based measures of change in mortality and morbidity rates along with changes in objective measures of nutritional status are required. Since coverage by health services is not complete, institution-based data does not provide valid measures of effectiveness for program evaluation purposes. One way of making population-based data available is to conduct household surveys using scientifically acceptable sampling techniques.

The 1991 Indonesia Demographic and Health Survey (IDHS) is such a survey. It was designed to meet the requirements of measuring family planning and health program attainment. The 1991 IDHS has as its objectives, among others, to provide data concerning fertility, family planning, and maternal and child health and to measure the development and achievements of programs related to health policy, particularly those concerning the maternal and child health development program. With these broad objectives and a sample covering all 27 provinces of Indonesia, the 1991 IDHS is indeed a valuable source of data.

Indonesia is now facing demographic and epidemiological transitions. The implications for the health sector are that there will be changes in the types of services needed. Changes in mortality and morbidity patterns will require increased attention to life style and personal choices. Emerging needs of the elderly and other groups will require changes in the way health care is delivered. To afford all the changes, we need to utilize all of our resources in providing needed information for planning and evaluation in health. The IDHS is an example of the collaborative efforts of several institutions in providing good population-based data. We hope that such collaboration can be expanded in the near future to meet the need for high quality data.

This report is the first comprehensive analysis derived from the 1991 IDHS. Further reports of in-depth analyses will hopefully appear soon. We believe that all of the outputs of the 1991 IDHS can be used to complement existing health information. They can be used by program managers, policymakers, as well as researchers to evaluate and improve existing programs.

Ministry of Health

Dr. Adhyatma, MPH  
Minister of Health  
Republic of Indonesia



## SUMMARY OF FINDINGS

The 1991 Indonesia Demographic and Health Survey (IDHS) is a nationally representative survey of ever-married women age 15-49. It was conducted between May and July 1991. The survey was designed to provide information on levels and trends of fertility, infant and child mortality, family planning, and maternal and child health. The IDHS was carried out as a collaboration between the Central Bureau of Statistics, the National Family Planning Coordinating Board, and the Ministry of Health. The IDHS is a follow-on to the National Indonesia Contraceptive Prevalence Survey conducted in 1987.

More than 27,000 households throughout the 27 provinces of Indonesia were visited during the survey and 22,909 women were interviewed. The results show that fertility in Indonesia continues to decline. At current levels, Indonesian women will have an average of 3.0 children during their reproductive years. Since 1985, the total fertility rate (TFR) has declined by one child. Fertility has reached close to replacement level in a few provinces, including Jakarta, Yogyakarta, East Java, and Bali. In the Java-Bali region, the TFR is 2.7 children per woman while it is 3.5 in Outer Java-Bali I and 3.8 in Outer Java-Bali II.

Half of all currently married women in Indonesia are using contraception. The pill (15 percent), IUD (13 percent) and injection (12 percent) are the most commonly used methods, together accounting for over 80 percent of current use. Norplant (3 percent) and female sterilization (3 percent) account for most of the remaining users.

Contraceptive use is highest in Java-Bali at 53 percent and is approximately 43 percent in the Outer Islands. Fifty-six percent of urban women use contraception compared to 47 percent of rural women. Also, contraceptive use increases as women's education level increases. Slightly over one-third of married women with no education are using a method while 59 percent of those with secondary or higher education do so.

Government facilities are the most important sources of family planning, supplying 76 percent of contraceptive users. Approximately 39 percent of users get their method from a government health center and 16 percent from a health post; the remaining users of government sources obtain their methods mostly from family planning posts and government hospitals. Twenty-two percent of users receive family planning supplies or information from private sources, the most significant being private midwives and doctors.

Women in Indonesia are marrying later than they did previously. The median age at marriage among women age 40-44 was 17.1 years compared to 19.8 years among those age 20-24. There are large differences in age at marriage across regions and provinces. Within Java-Bali, the median age at first marriage ranges from 15.9 years in West Java to 20.2 years in Bali. Compared to results from the 1987 NICPS, the age at marriage has increased in all of the provinces in Java-Bali, except West Java, and in the Outer Islands.

One-half of married women in Indonesia say that they do not want any more children. An additional 25 percent want to wait at least two years before having another child. Among women with three or more children, almost three-quarters want no more children or are sterilized. The average desired family size among married Indonesian women is 3.1 children, varying from 2.5 children among women age 15-19 to 3.7 among women age 45-49. About 34 percent of women say that a two-child family is ideal while 22 percent state that their ideal family size is three children. A significant number of women (16 percent) did not specify the number of children they desire but said that it was "up to God" or gave some other non-numeric response.

Results from the survey suggest that, if all unwanted births were eliminated, the fertility rate at the national level would be 2.5 births per woman or 15 percent lower than its current level. In addition, six percent of married women want no more children but are not using family planning and an additional six percent want to wait two or more years before having their next birth but are not using family planning.

Infant and child mortality in Indonesia has declined dramatically in the past two decades. Estimates suggest that infant mortality decreased by about half during the 20-year period from 1968 to 1988. In the five-year period preceding the IDHS, 68 of every 1000 Indonesian children died before reaching their first birthday and 91 of every 1000 children died before reaching age five.

The level of infant mortality varies significantly according to the age of the mother at the time of the birth and the length of the interval between births. During the ten-year period prior to the IDHS, the infant mortality rate among women age less than 20 at the time of the birth was 60 deaths per 1000 births compared to 29 among women age 20-29 and 25 among women age 30-39. Children born less than two years after a preceding birth were 2.5 times more likely to die during the first year of life than children born at least four years after a preceding birth.

Information on various aspects of maternal and child health—antenatal care, vaccinations, breastfeeding and food supplementation, and illness—was collected in the IDHS on births in the five years prior to the survey. The findings show that 80 percent of children born in the five years preceding the survey had mothers who received antenatal care during pregnancy. The most common providers of antenatal care are health centers, followed by private midwives and health posts. Tetanus, a major cause of infant death, can be prevented by immunization of the mother during pregnancy. Forty-three percent of children under five had mothers who received two or more injections of tetanus toxoid vaccine during pregnancy.

Based on information obtained from health cards and the reports of mothers, 74 percent of children age 12-23 months have been vaccinated for tuberculosis (BCG) and 58 percent for measles. Seventy-three percent have received at least one dose of polio vaccine and one dose of DPT vaccine but the percentage receiving the full three-dose series is only 56 percent. Overall, 48 percent of children age 12-23 months are fully immunized and 24 percent have received no immunizations.

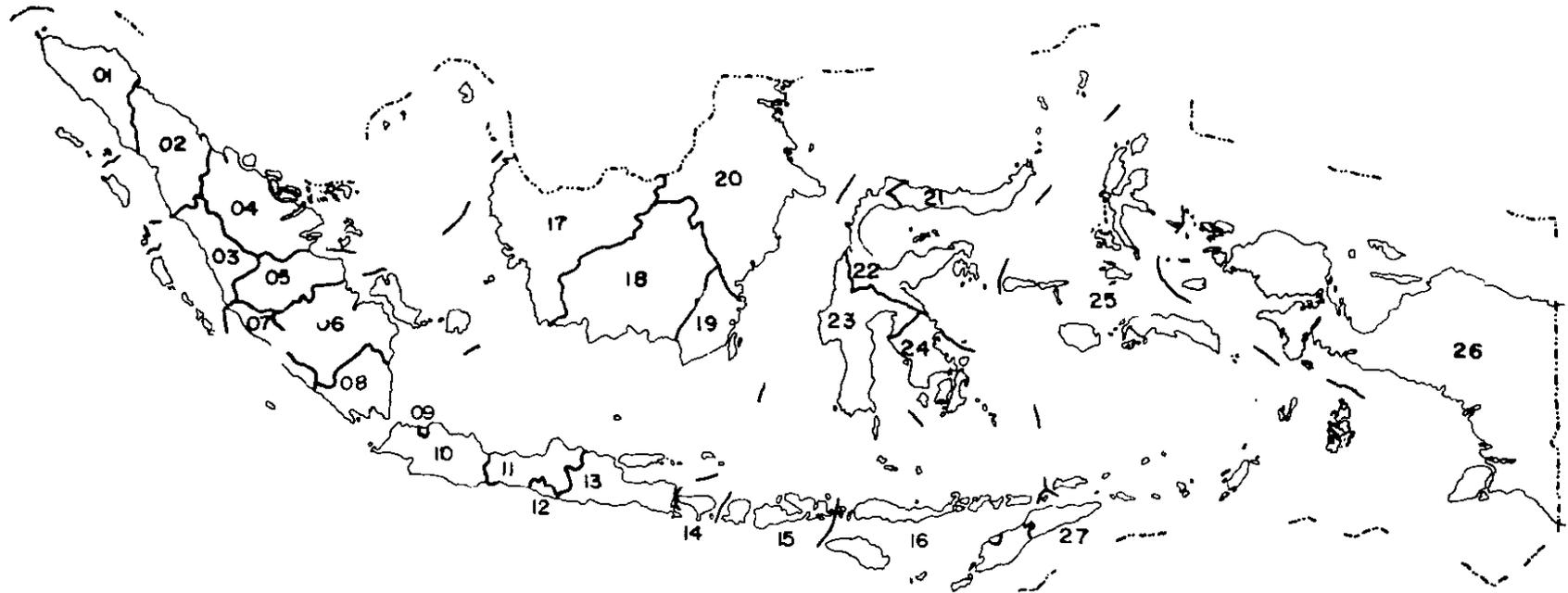
Almost all children in Indonesia (97 percent) are breastfed. The median duration of breastfeeding is relatively long—23 months—but supplemental liquids and foods are introduced at an early age. By the age of 2-3 months, half of all children are being given supplementary foods or liquids.

During the two weeks preceding the survey, 10 percent of children under age five had symptoms of acute lower respiratory infection (cough with fast breathing). Sixty-five percent of these children were taken to a health facility for treatment. Over the same two-week period, 27 percent of children suffered from fever and 7 percent had a fever only unaccompanied by cough, fast breathing, or diarrhea. Of those with fever only, half were taken to a health facility and 27 percent went to a dispensary or drug store for treatment.

Eleven percent of children under age five had diarrhea during the two weeks preceding the survey. Forty-three percent of these children were given a solution prepared from ORS packets (oral rehydration salts) and 33 percent received a recommended home fluid prepared from ingredients at home (e.g., sugar-salt-water solution). Knowledge and use of ORS packets is widespread in Indonesia. Overall, 85 percent of mothers of children under age five know about these packets and 59 percent have used them at some time.



# INDONESIA



APXX



## PROVINCE CODE

01 . DI Aceh	12 . DI Yogyakarta	23 . South Sulawesi
02 . North Sumatra	13 . East Java	24 . South East Sulawesi
03 . West Sumatra	14 . Bali	25 . Maluku
04 . Riau	15 . West Nusa Tenggara	26 . Irian Jaya
05 . Jambi	16 . East Nusa Tenggara	27 . East Timor
06 . South Sumatra	17 . West Kalimantan	
07 . Bengkulu	18 . Central Kalimantan	
08 . Lampung	19 . South Kalimantan	
09 . DKI Jakarta	20 . East Kalimantan	
10 . West Java	21 . North Sulawesi	
11 . Central Java	22 . Central Sulawesi	

# CHAPTER 1

## INTRODUCTION

### 1.1 GEOGRAPHY, HISTORY AND ECONOMY

The Indonesian archipelago lies between Asia and Australia, between the Indian and Pacific Oceans, and covers an area of approximately 1.9 million square kilometers. There are five major islands starting from the west with Sumatra, Java in the south, Kalimantan which straddles the equator, Sulawesi which resembles the letter K, and Irian Jaya to the west of Papua New Guinea. In addition to these, there are more than 13,000 smaller islands, few of which are inhabited.

Most of the islands are located in the equatorial region; no month passes without some rainfall. From November through April there is more precipitation, while the months of May through October are the dry season. The large number of islands and their dispersion over a wide area result in a diverse culture and hundreds of ethnic groups with their own languages. This is the basis of the national motto, "Unity in Diversity."

Since Indonesia proclaimed independence in 1945, the Republic has experienced several political shifts. In 1948, a rebellion of the Communist Party took place in Madiun. Since its independence until December 1949, when the Dutch gave up control over Indonesia, there were disputes against the ruling democratic republic. Some factions, supported by the Dutch, formed the Federation of Indonesian Republics which lasted less than one year. During the period 1950-1959, Indonesia faced several political problems, including a multi-party system which influenced political and economic stability, and several rebellions caused by ideological and ethnic/race differences. The history of the Republic of Indonesia reached a turning point after an aborted coup by the Communist Party in September 1965. In 1966, President Suharto began a new era with the establishment of the New Order Government which is oriented toward overall development.

Indonesia consists of 27 provinces. The next lower administrative units are *regency* or *municipality*, *sub-district*, and *village*. Classification of urban and rural areas is made at the village level. In 1990, there were 241 regencies, 56 municipalities, 3,623 sub-districts, 6,670 urban villages and 62,065 rural villages.

Development programs in Indonesia are implemented in five-year stages. The first four Development Plans which started in 1969, initially supported the promotion of agricultural products, then gradually shifted to the manufacturing and service sectors. The focus of the current plan is on manufacturing industries, especially those that produce export commodities. At the same time, transportation and communication facilities were built to reduce the disparity that existed between provinces in their ability to benefit from development programs.

Since the inauguration of the New Order Government, Indonesia has achieved substantial progress, particularly in stabilizing political and economic conditions. Per capita income has increased sharply, jumping from about US\$ 50 in 1968 to US\$ 385 in 1986. In the early 1980s Indonesia enjoyed an accumulation of foreign exchange as a result of the international oil boom. At the time, more than 60 percent of the country's foreign exchange came from the sale of oil. The drop in the price of crude oil and natural gas in 1985 forced the government to look for alternatives. This effort seems to have been successful. In recent years, per capita income has increased from US\$ 400 in 1988 to around US\$ 500 in 1990, whereas income from exports other than crude oil has increased from about 55 percent in 1986 to 61 percent in 1988 of the total foreign exchange received from exports.

Social development closely follows economic progress. The government policy on this issue is aimed at improving the people's welfare by ensuring the availability of adequate food, clothing and housing. Education and health are areas which have also received considerable attention. In the last two decades, the Indonesian educational system has undergone major improvements. The literacy rate of persons 10 years of age and over has increased from 61 percent in 1970 to 84 percent in 1990. The percentage of children 7 to 12 years of age who are attending school has also increased from 1971 to 1990. The figures for males are 62 percent in 1971 and 91 percent in 1990, whereas for females, the figures are 58 percent in 1971 and 92 percent in 1990. The percentage of persons who never attended school has decreased, and the percentage of graduates at all levels of education has increased. The percentage of primary school graduates increased from 20 percent in 1971 to 36 percent in 1990, whereas persons who completed junior high school and higher increased from 26 percent in 1971 to 61 percent 1990. At all levels of education, the improvement in female education has been greater than for males.

One possible effect of the improvement in female education is the rise in the age at first marriage. The singulate mean age at first marriage increased from 19.6 in 1971 to 21.6 in 1990. In urban areas, these figures are 21.1 in 1971 and 23.5 in 1990, whereas for rural areas these figures are 18.8 in 1971 and 20.5 in 1990. The increase in age at first marriage in urban areas has been greater than for rural areas. Another probable effect of more widespread education is the increase in labor force participation among females; while the female labor force participation rate in 1980 was 32.4 percent, it increased to 39.2 percent in 1990. This trend is expected to continue.

## 1.2 POPULATION

In terms of the size of its population, Indonesia stands fourth in the world after the People's Republic of China, India, and the United States of America. Data from the 1990 Population Census show that the total population of Indonesia is 179.3 million. About 31 percent (55.4 million people) live in urban areas, an increase of 8 percentage points since 1980.

The rate of growth has been declining in the last two decades. Between 1971 and 1980 the average annual rate of population growth was 2.32 percent, while between 1980 and 1990 it was only 1.97 percent. The rate of growth has declined in all islands, except Kalimantan. There is significant variation in the rate of growth among provinces in Indonesia. In the period 1980-1990, the rate of growth in Java was only 1.66 percent. While Jakarta and West Java show rates of growth greater than 2 percent, in Yogyakarta, the rate of growth was only 0.35 percent per annum. Among the five provinces in Java, Jakarta shows the greatest decline in the growth rate. This is partly because in the last decade many people moved from Jakarta to West Java, especially in the regencies around Jakarta.

Other characteristics of Indonesia's population are its uneven distribution among islands/provinces, and higher birth and death rates than other ASEAN (Association of South East Asian Nations) countries. According to the 1990 Population Census, population density at the national level is 93 persons per square kilometer. This figure varies across regions, not only among islands, but also among provinces in the same island. Java has the highest population density (814), whereas Kalimantan has the lowest density (17). Comparison of provinces in Java shows that population density ranges from 12,500 persons per square kilometer in Jakarta to 678 persons per square kilometer in East Java.

Table 1.1 presents the basic demographic indicators derived from the 1971, 1980, and 1990 Population Censuses and the 1985 Intercensal Population Survey. The first three indicators have already been discussed.

**Table 1.1 Basic demographic indicators**

Demographic indicators from selected sources, Indonesia 1971-1990

Index	1971 Census	1980 Census	1985 Intercensal survey	1990 Census
Population (millions)	119.2	147.5	164.6	179.4
Density (pop/km <sup>2</sup> )	62.4	77.0	85.0	93.0
Percent urban	17.3	22.3	26.2	30.9
Reference period	1967-70	1976-79	1981-84	1986-89
Crude birth rate (CBR) <sup>1</sup>	40.6	35.5	32.0	27.9
Crude death rate (CDR) <sup>3</sup>	19.1	13.1	11.4	8.9
Growth rate (GR) <sup>2</sup>	2.2	2.2	2.1	1.9
Total fertility rate (TFR) <sup>4</sup>	5.6	4.7	4.1	3.3
Infant mortality rate <sup>5</sup> (per 1000 births)	142	112	71	70
Life expectancy <sup>5</sup>				
Male	45.0	50.9	57.9	57.9
Female	48.0	54.0	61.5	61.5

<sup>1</sup>Estimated using the formula  $CBR = 9.48968 + 0.00555 TFR$

<sup>2</sup>Interpolated from growth rates: 1961-70 = 2.10; 1971-80 = 2.32; 1980-90 = 1.98

<sup>3</sup> $CDR = CBR - GR$

<sup>4</sup>Estimated based on own children method

<sup>5</sup>Estimated using indirect estimation techniques

Source: Central Bureau of Statistics (1987a, 1987b, 1989, 1992)

Based on the 1971 Population Census, the crude birth rate (CBR) for the period 1967-1970 was estimated to be 41 per 1000 population. Results of the 1980 Population Census show that the CBR was 36 per 1000 for the period 1976-1979. The 1985 Intercensal Population Survey indicated that the CBR was 32 per 1000 for the period 1981-1984, and the CBR based on the 1990 Population Census was 28 for the period 1986-1989. Thus, the annual percentage decline in the CBR has continued steadily since the late 1960s.

During the same period, the total fertility rate (TFR) declined from 5.6 children per woman to 3.3 children per woman. The average annual decline in the TFR during the period covered by these estimates is 2.2 percent.

The crude death rate (CDR) has decreased from 19 per 1000 population to 9 per 1000 in the most recent period. The average annual rate of decrease in the CDR is 2.8 percent.

Data from the 1971 and 1980 Population Censuses demonstrate that there has been a significant decline in the level of infant mortality. Based on the 1971 Population Census, the infant mortality rate (IMR) was estimated to be 142 deaths per 1000 live births. The figure dropped to 112 deaths per 1,000 live births according to the 1980 Population Census, and declined to around 70 per 1,000 live births for the period 1986-1989. The decline no doubt reflects efforts in the field of health promotion, particularly those specially designed to reduce infant and child mortality through integrated health and family planning services.

### **1.3 POPULATION AND FAMILY PLANNING POLICIES AND PROGRAMS**

The government of Indonesia has devoted many of its development programs to population-related issues since President Suharto joined other heads of state in signing the Declaration of the World Leaders in 1969. In this declaration, rapid population growth was considered an obstacle to economic development.

Family planning activities were initiated in Indonesia in 1956 by a private organization working under the auspices of the International Planned Parenthood Federation. It provided family planning advice and services, as well as maternal and child care. In 1968, the government established a National Family Planning Institute, which two years later was reorganized as the National Family Planning Coordinating Board (BKKBN). Since the BKKBN is a non-departmental body, the Chairman reports directly to the President. Thus, the government has made a strong political commitment to family planning and works with religious and community leaders to develop programs to promote family planning.

These programs were not initiated simultaneously throughout the country. In the first five-year development plan (Repelita) which covered the period 1969/70 to 1973/74, programs began in the six provinces of Java and Bali. In the next five-year plan, the program was expanded to the provinces of Aceh, North Sumatra, West Sumatra, South Sumatra, Lampung, West Nusa Tenggara, West Kalimantan, South Kalimantan, North Sulawesi, and South Sulawesi. In the development of the family planning program, these provinces are classified as the "Outer Java-Bali I Region." In the third Repelita, the programs were further expanded to include the rest of the provinces which are grouped as the "Outer Java-Bali II Region."

The goals of the program according to the Broad Guidelines for State Policy are: to reduce the birth rate, to establish the small family norm, and to improve the health of mothers and children. To achieve these goals, the family planning program has defined three dimensions: program extension, program maintenance, and program institutionalization. Program extension involves increasing the number of acceptors; it is conducted through the information, education, and communication (IEC) activities throughout the country, that are implemented particularly by community organizations and religious leaders at the village level. Program maintenance involves stabilizing the acceptance of family planning and improving the quality of services; it is implemented by expanding the involvement of people in running family planning programs and its success is measured by the number of acceptors of more effective, long-term methods. Program institutionalization is achieved by the acceptance of the small family norm and the greater participation of government, community and private institutions in managing the program.

Therefore, it is recommended that program strategies be aimed toward sustaining the achievement of the program through the following five-point strategy ("Panca Karya") for action:

1. Eligible couples with wives 20 to 30 years of age should have no more than two children, with sufficient birth spacing for the health and well-being of the mother and her children, in order to reduce fertility and to encourage development of a happy and prosperous family at the early stages of its formation.
2. Eligible couples with wives age 30 years or over, or who have had two or more children, should stop having children, as this is good for the mother's health and well-being; preventing pregnancy or stopping childbearing will also increase life expectancy and eliminate high-risk pregnancies associated with older ages.
3. Youth are to be provided with sufficient knowledge to prepare them to be responsible parents and citizens. Equal socialization of boys and girls, improvement of the role and status of women, and preparation to participate in program activities, will be encouraged.

4. Community institutions will support and participate actively in population and family planning efforts, as these are for the benefit of communities and the whole nation. Emphasis will be placed on institutional development to sustain family planning activities.

5. New or reformulated norms and values concerning family and community life will be developed, such that these norms and values support family planning as a part of the daily life of individuals and families.

The program emphasis has been shifted toward the establishment of a family planning movement. As the program develops, various activities are carried out in cooperation with other government agencies, in an integrated effort. Safe motherhood and self-sustained family planning campaigns are the priorities of the movement.

## **1.4 HEALTH PRIORITIES AND PROGRAMS**

The National Health System (NHS) was developed in 1982 to provide a basic framework for general health development activities on a nationwide basis. The NHS includes the Long-term Health Development Plan, covering a period of 20 years through the year 2000. The main objective is to improve the individual's ability to achieve an optimal health status. Specific goals contained in the "Panca Karsa Husada," or Five Major Objectives, are as follows:

- To enable people to take care of their own health and live a healthy and productive life;
- To promote an appropriate environment in support of the health of the people;
- To improve the nutritional status of the people;
- to decrease morbidity and mortality rates; and
- To promote a healthy and prosperous family life through the acceptance of the small and happy family norm.

To reach these objectives, health development activities are designed to be integrated into the community, evenly distributed, acceptable and accessible to the community, and are carried out with the active participation of the community. The NHS aims to apply appropriate technology at a cost that the government and the community can afford. Realizing differences in opportunities between population subgroups and in the availability of health services, health development activities are specifically aimed to reach the rural population, low-income citizens in urban areas, persons living in isolated or border areas, new settlements and transmigration areas.

The National Health System has established targets to be achieved in the remaining years of the century. They are stated in terms of life expectancy, infant and child mortality and maternal mortality, birth weight, eradication of infectious diseases, immunization coverage and antenatal care, and other health measures. Various programs were developed to encourage active community involvement through Integrated Service Posts (Pos Pelayanan Terpadu, popularly called Posyandu) which are established and administered by the community with the technical support of the public health center staff. The Posyandu activities are directed primarily toward reducing the mortality of children under five through the provision of maternal and child care, improvement of nutrition, intensified efforts in immunization, delivery of family planning, and reduction of diarrheal diseases.

## **1.5 OBJECTIVES OF THE SURVEY**

In 1984, the U.S. Agency for International Development (USAID) initiated the Demographic and Health Surveys (DHS) program. Macro International was selected to coordinate the worldwide project under which more than 50 surveys will be conducted by 1993.

The DHS program has four general objectives:

- To provide participating countries with data and analysis useful for informed policy choices;
- To expand the international population and health database;
- To advance survey methodology; and
- To help develop in participating countries the technical skills and resources necessary to conduct demographic and health surveys.

In 1987 the National Indonesia Contraceptive Prevalence Survey (NICPS) was conducted in 20 of the 27 provinces in Indonesia, as part of Phase I of the DHS program. This survey did not include questions related to health since the Central Bureau of Statistics (CBS) had collected that information in the 1987 National Socioeconomic Household Survey (SUSENAS). The 1991 Indonesia Demographic and Health Survey (IDHS) was conducted in all 27 provinces of Indonesia as part of Phase II of the DHS program. The IDHS received financial assistance from several sources. The BKKBN provided funds through grants from the U.S. Agency for International Development (USAID)/Jakarta and the UN Population Fund (UNFPA). The BKKBN and the Ministry of Health contributed funding from their Government of Indonesia development budgets. Macro International furnished technical assistance as well as funds to the project through its Demographic and Health Surveys Program.

The 1991 IDHS was specifically designed to meet the following objectives:

- To provide data concerning fertility, family planning, and maternal and child health that can be used by program managers, policymakers, and researchers to evaluate and improve existing programs;
- To measure changes in fertility and contraceptive prevalence rates and at the same time study factors which affect the change, such as marriage patterns, urban/rural residence, education, breastfeeding habits, and the availability of contraception;
- To measure the development and achievements of programs related to health policy, particularly those concerning the maternal and child health development program implemented through public health clinics in Indonesia.

## **1.6 ORGANIZATION OF THE SURVEY**

As in the 1987 NICPS, at the request of the BKKBN, the CBS was appointed as the implementing institution for the IDHS in Indonesia. A steering committee was formed to give direction in the implementation of the survey. Members of the steering committee included representatives from various components within BKKBN, the Center for Development and Research of the Ministry of Health, related government agencies, and experts in topics covered by the IDHS. Representatives from USAID/Jakarta and UNFPA/Jakarta served as ex-officio members of the steering committee. A technical team was established

within the CBS, including staff members whose responsibilities were associated with population statistics and survey activities.

The directors of the regional statistical offices in the provinces were responsible for the technical as well as the administrative aspects of the survey in their area. They were assisted by field coordinators, most of whom were chiefs of the social and population sections in the regional office.

The DHS model "A" questionnaire and manuals were modified to meet the requirements of measuring family planning and health program attainment, and were translated into Bahasa Indonesia. Over 170 female interviewers were trained for 15 days in nine training centers during May 1991, and data collection took place from the end of May to the end of July 1991. For more information about the fieldwork, see Appendix A.

Table 1.2 is a summary of the results of the fieldwork for the IDHS, from both the household and individual interviews by urban-rural residence. Of 28,141 households sampled, 27,109 were eligible to be interviewed (excluding those that were absent, vacant, or destroyed), and of these, 26,858 or 99 percent of eligible households were successfully interviewed. In the interviewed households, 23,470 eligible women were found and complete interviews were obtained with 98 percent of these women.

<u>Table 1.2 Results of the household and individual interviews</u>			
Number of households, number of interviews and response rates, according to urban-rural residence, Indonesia 1991			
Type of interview	Residence		Total
	Urban	Rural	
<b>Households</b>			
Sampled households	8911	19230	28141
Households found	8515	18594	27109
Households interviewed	8408	18450	26858
<b>Response rate</b>	98.7	99.2	99.1
<b>Women</b>			
Eligible women	7233	16237	23470
Interviewed women	7051	15858	22909
<b>Response rate</b>	97.5	97.7	97.6



## CHAPTER 2

### BACKGROUND CHARACTERISTICS OF HOUSEHOLDS AND RESPONDENTS

Throughout this report, data on various topics are presented for different subgroups of the population. One purpose of this chapter is to describe the general characteristics of the sample population, such as age and sex composition, residence, education, housing facilities, and access to mass media. These provide information which, when combined with previous data sources, can be used to evaluate the IDHS data quality and to monitor changes over time.

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

#### 2.1 POPULATION BY AGE AND SEX

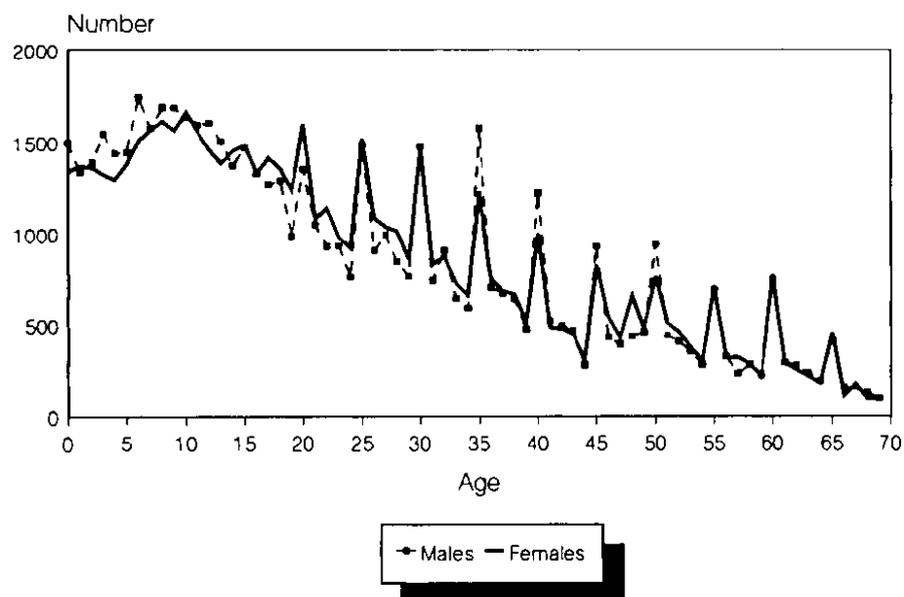
In the household questionnaire utilized in the IDHS, information was collected on all usual members of the interviewed household. In addition to providing a background against which various demographic processes are occurring, the age structure of the population also incorporates the past history of the population.

Recognizing problems in ascertaining the correct age of the respondents, due to ignorance of their age by the general population, the IDHS interviewers were instructed to do the following in order to obtain accurate age information: (1) ask for legal documents or identity cards, (2) relate the respondent's age to the age of another household member whose age is known or to a household event whose date has been ascertained, or (3) relate the respondent's age to local or national events well known in the area. A chart used to convert reported dates from the Javanese, Sundanese and Muslim calendars to the Gregorian calendar was appended to the interviewers' manual. The Javanese and Sundanese calendars are actually the same as the Muslim calendar except for the names of the months.

Figure 2.1 shows the number of persons enumerated in the household questionnaire by single years of age. The graph indicates that a preference for certain digits persists in Indonesia, particularly for ages ending in 0 and 5. The errors are more obvious among people age 20 and over, implying that recent educational improvements may have contributed to greater awareness of birth dates among younger people.

Table 2.1 and Figure 2.2 present the age distribution of the population by five-year age groups according to sex. The pattern is typical of a country with relatively high fertility in the recent past—a narrow top and a wide base. The decline in fertility and mortality may be observed from the narrowing of the base over time.

Figure 2.1  
Number of Persons Reported at Each Age  
by Sex, Indonesia 1991



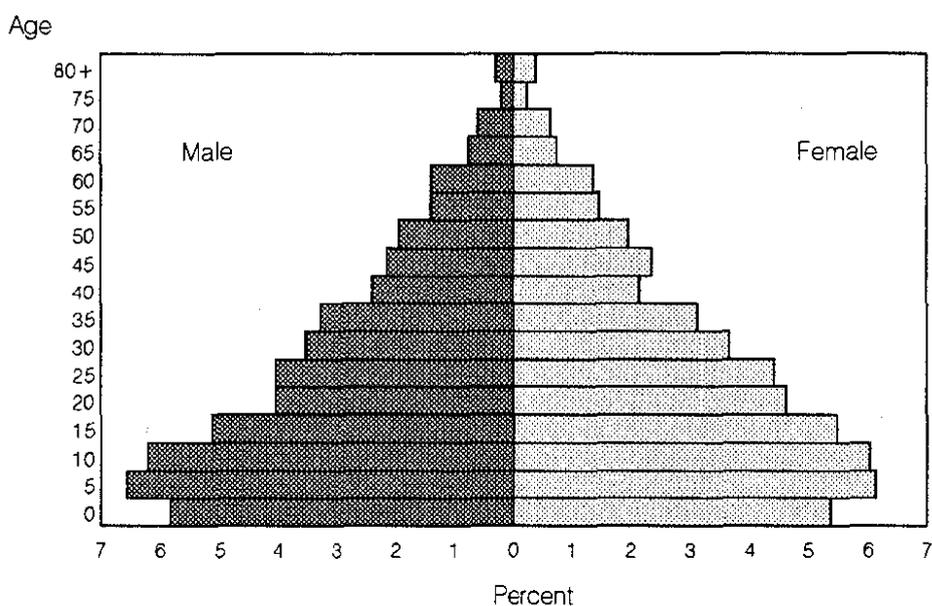
IDHS 1991

Table 2.1 Household population by age, residence and sex

Percent distribution of the de jure household population by five-year age group, according to urban-rural residence and sex, Indonesia 1991

Age group	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	10.5	10.3	10.4	12.2	10.9	11.5	11.7	10.7	11.2
5-9	12.6	11.0	11.8	13.5	12.8	13.1	13.2	12.2	12.7
10-14	11.6	11.5	11.5	12.9	12.3	12.6	12.5	12.0	12.3
15-19	10.8	11.9	11.4	10.0	10.5	10.3	10.3	10.9	10.6
20-24	10.0	10.7	10.4	7.3	8.5	7.9	8.1	9.2	8.7
25-29	9.1	9.6	9.3	7.7	8.5	8.1	8.1	8.8	8.5
30-34	7.8	8.1	7.9	6.7	7.0	6.8	7.1	7.3	7.2
35-39	7.2	6.4	6.8	6.3	6.1	6.2	6.6	6.2	6.4
40-44	4.7	4.1	4.4	4.9	4.4	4.7	4.8	4.3	4.6
45-49	4.2	4.2	4.2	4.3	4.9	4.6	4.3	4.7	4.5
50-54	3.4	3.2	3.3	4.1	4.2	4.1	3.9	3.9	3.9
55-59	2.5	2.7	2.6	2.9	3.1	3.0	2.8	2.9	2.9
60-64	2.2	2.6	2.4	3.1	2.8	2.9	2.8	2.7	2.8
65-69	1.4	1.4	1.4	1.6	1.5	1.6	1.5	1.5	1.5
70-74	1.0	1.2	1.1	1.3	1.3	1.3	1.2	1.3	1.3
75-79	0.3	0.5	0.4	0.5	0.5	0.5	0.4	0.5	0.5
80 +	0.5	0.7	0.6	0.7	0.8	0.8	0.6	0.8	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	18998	19584	38582	42883	43018	85903	61880	62604	124488

Figure 2.2  
Distribution of the Household  
Population by Age, Indonesia 1991



## 2.2 POPULATION BY AGE FROM SELECTED SOURCES

Table 2.2 gives the percent distribution of the sample population by broad age groups in the 1980 Census, the 1985 Intercensal Survey (SUPAS), the 1987 National Indonesia Contraceptive Prevalence Survey (NICPS), and the 1991 IDHS. It is clear that there has been a decrease in the percentage of persons under 15 years old and an increase in the proportion in other age groups. The dependency ratio, calculated as the ratio of non-productive persons (under 15 and 65 and over) to persons 15-64 based on these figures has been decreasing gradually from 79 in 1980 to 67 in 1991. The decline in the dependency ratio indicates a lessening of the economic burden on persons in the productive age groups, who support those in the non-productive age groups.

Table 2.2 Population by age from selected sources

Percent distribution of the population by age group, according to selected sources, Indonesia 1991

Age group	1980	1985	1987	1991
	Census	Intercensal survey		
<15	40.9	38.8	36.9	36.2
15-64	55.9	59.8	59.3	59.9
65+	3.2	4.0	3.8	3.9
Total	100.0	100.0	100.0	100.0
Median age	-	-	-	21.5
Dependency ratio	78.9	73.1	68.6	67.2

## 2.3 HOUSEHOLD COMPOSITION

Table 2.3 provides information on the size and composition of sampled households, factors which may influence the allocation of financial resources among household members, thus affecting the overall well-being of the members. Large household size may be associated with crowding in the dwelling, which can lead to unfavorable health conditions. Single-parent families, especially if they are headed by females, usually have limited financial resources. Household composition can also be analyzed through family type, distinguishing among others, nuclear and extended families.

Of all households covered in the IDHS, 13 percent are headed by women. This proportion has remained at a similar level since 1980. The proportion is slightly higher in urban than in rural areas. There are, on average, 4.6 persons in a household; urban households are 0.4 persons larger than rural households.

Taking account of adult household members age 15 and over only, the large majority of households are composed of two related adults of the opposite sex or three related adults. Single adult households are comparatively rare, comprising only 7 percent of all households in both urban and rural areas. In addition, approximately 6 to 7 percent of households include one or more children who are living with neither their natural father nor their natural mother.

## 2.4 EDUCATIONAL LEVEL OF HOUSEHOLD POPULATION

Education has been identified as an important characteristic which affects demographic and health behavior. Many phenomena such as reproductive behavior, use of contraception, health of children, and hygienic practices are related to the education of household members. Table 2.4.1 provides data on the educational attainment of the population obtained from the IDHS household questionnaire. Approximately 85 percent of men and 75 percent of women have had some schooling; 37 percent of men and women have some primary education but have not completed primary school, 20 percent of men and 18 percent of women have completed primary school. The proportion who have at least some secondary education is 28 percent for men and 21 percent for women.

Table 2.3 Household composition

Percent distribution of households by sex of head of household, household size, relationship structure, and presence of foster children, according to urban-rural residence, Indonesia 1991

Characteristic	Residence		Total
	Urban	Rural	
<b>Household headship</b>			
Male	86.4	87.2	87.0
Female	13.6	12.8	13.0
<b>Number of usual members</b>			
1	5.3	4.5	4.7
2	9.2	10.7	10.3
3	14.9	18.0	17.1
4	18.4	21.2	20.4
5	17.0	17.5	17.4
6	13.6	12.5	12.8
7	9.0	7.5	7.9
8	5.0	4.0	4.3
9 +	7.6	4.2	5.2
<b>Mean size</b>	4.9	4.5	4.6
<b>Relationship structure</b>			
One adult	6.5	6.5	6.5
Two related adults:			
Of opposite sex	36.4	44.3	42.0
Of same sex	2.0	1.9	1.9
Three or more related adults	46.4	45.2	45.5
Other	8.7	2.1	4.1
<b>With foster children</b>	6.4	6.5	6.5

**Table 2.4.1 Educational level of the household population: age and residence**

Percent distribution of the de jure male and female household populations age five and over by highest level of education attended, according to age and urban-rural residence, Indonesia 1991

Age/residence	Level of education					Total	Number	Median number of years
	None	Some primary	Completed primary	Some secondary+	Missing/Don't know			
<b>MALE</b>								
<b>Age</b>								
5-9	41.0	58.1	0.1	0.0	0.9	100.0	8163	1.0
10-14	1.2	68.5	13.5	16.8	0.1	100.0	7729	5.2
15-19	1.5	14.3	26.5	57.7	0.0	100.0	6360	8.1
20-24	3.4	15.1	26.0	55.5	0.1	100.0	5043	9.1
25-29	5.4	24.7	27.4	42.5	0.0	100.0	5011	6.7
30-34	7.9	31.2	26.9	33.9	0.2	100.0	4370	6.4
35-39	9.6	33.1	28.0	29.3	0.0	100.0	4082	6.3
40-44	10.4	30.6	28.8	30.0	0.2	100.0	2984	6.3
45-49	14.3	32.1	26.5	27.1	0.1	100.0	2651	6.2
50-54	21.9	33.2	23.0	21.4	0.4	100.0	2422	4.9
55-59	29.5	37.4	18.1	14.9	0.2	100.0	1744	3.3
60-64	35.3	36.3	19.6	8.1	0.7	100.0	1735	2.7
65+	43.5	31.0	18.0	6.9	0.6	100.0	2358	2.1
<b>Residence</b>								
Urban	9.0	28.0	15.9	47.0	0.2	100.0	16989	6.8
Rural	17.4	41.1	21.9	19.3	0.3	100.0	37672	4.8
<b>Total<sup>1</sup></b>	<b>14.8</b>	<b>37.0</b>	<b>20.0</b>	<b>27.9</b>	<b>0.3</b>	<b>100.0</b>	<b>54661</b>	<b>5.9</b>
<b>FEMALE</b>								
<b>Age</b>								
5-9	39.1	59.9	0.0	0.0	1.0	100.0	7654	1.1
10-14	1.9	65.4	15.3	17.4	0.0	100.0	7534	5.3
15-19	3.0	16.6	32.2	48.1	0.0	100.0	6841	6.9
20-24	6.2	22.5	30.4	40.7	0.1	100.0	5739	6.7
25-29	13.3	33.7	24.0	28.9	0.1	100.0	5533	6.2
30-34	17.4	37.8	24.0	20.7	0.1	100.0	4575	5.3
35-39	19.7	37.9	23.2	19.2	0.0	100.0	3862	5.0
40-44	28.4	36.8	18.3	16.5	0.1	100.0	2711	3.6
45-49	41.0	30.0	16.2	12.6	0.1	100.0	2938	2.4
50-54	57.5	22.9	10.5	8.4	0.7	100.0	2418	0.0
55-59	62.8	22.3	9.4	4.8	0.7	100.0	1839	0.0
60-64	70.0	18.4	6.3	4.5	0.8	100.0	1700	0.0
65+	79.1	11.8	5.9	2.0	1.2	100.0	2549	0.0
<b>Residence</b>								
Urban	15.5	29.9	16.5	37.8	0.3	100.0	17560	6.3
Rural	28.7	39.6	18.8	12.6	0.3	100.0	38338	3.5
<b>Total<sup>1</sup></b>	<b>24.6</b>	<b>36.6</b>	<b>18.0</b>	<b>20.5</b>	<b>0.3</b>	<b>100.0</b>	<b>55898</b>	<b>4.3</b>

<sup>1</sup>Total includes cases with missing values on age.

Table 2.4.1 also shows the median number of years of schooling attained by males and females in each five-year age group. The data indicate that public education became important only in the last few decades, in particular, after Indonesia proclaimed its independence in 1945. This is shown by the lower medians for older age groups. Overall, males have a median duration of schooling of 5.9 years, 1.6 years longer than females. While men between the ages of 25 and 49 have attended school for 6.2 to 6.7 years, for women the median is between 2.4 and 6.2 years. The gap in the median number of years of schooling between males and females is more than 1 year for people 15 years and older, but is negligible among those 5-14 years. These figures imply that, in recent years, girls have had as much opportunity as boys to pursue education.

There is a notable difference in educational attainment between urban and rural dwellers. The median years of schooling for urban men is 6.8 years, or 2.0 years longer than rural men, while urban women spend 2.8 years longer in school than their rural counterparts.

Tables 2.4.2 and 2.4.3 show differentials in educational attainment by region and province for males and females. As expected, Java-Bali's population is better educated than the population in other parts of the country. Educational level also varies between provinces in Java-Bali. The highest median duration of schooling occurs among men in Jakarta (9 years), almost 4 years longer than the median for men in Central and East Java. While women in Jakarta enjoy the longest median duration of schooling (6.8 years), the median for women in Bali is only 3.4 years, shorter than the median for women in Central and East Java (3.7 and 3.6 years, respectively).

In Outer Java-Bali I, for both males and females, North Sumatra and North Sulawesi show the highest medians, whereas West Nusa Tenggara and West Kalimantan have the lowest. In Outer Java-Bali II, where men in most provinces have a median duration of schooling ranging from 5.4 years to 6.3 years and women's medians range from 3.8 years to 5.3 years, people in two provinces—East Timor and Irian Jaya—stand out as having much less education than people in other provinces; 3 years or less for men and less than 1 year for women. It should be kept in mind, however, that these provinces became part of the Republic only in 1976 and 1961, respectively.

**Table 2.4.2 Educational level of the male household population: region and province**

Percent distribution of the de jure male household populations age five and over by highest level of education attended, according to region and province, Indonesia 1991

Region/province	Level of education					Total	Number of men	Median number of years
	None	Some primary	Completed primary	Some secondary+	Missing/Don't know			
<b>MALE</b>								
<b>Java-Bali</b>	14.7	36.6	21.7	26.9	0.1	100.0	33579	6.0
DKI Jakarta	5.8	21.1	14.3	58.6	0.1	100.0	2641	9.2
West Java	15.9	37.6	24.1	22.3	0.1	100.0	10559	5.8
Central Java	14.6	40.0	23.3	22.0	0.0	100.0	8393	5.3
DI Yogyakarta	14.0	28.5	15.3	42.2	0.0	100.0	916	6.5
East Java	15.5	38.1	20.5	25.7	0.1	100.0	10209	5.3
Bali	17.1	29.6	19.9	33.3	0.1	100.0	860	6.2
<b>Outer Java-Bali I</b>	14.4	37.8	17.4	29.9	0.5	100.0	14814	5.9
DI Aceh	12.1	35.2	19.9	32.5	0.2	100.0	963	6.2
North Sumatra	9.4	35.7	18.1	36.0	0.8	100.0	3069	6.3
West Sumatra	10.8	37.9	17.4	33.7	0.2	100.0	1239	6.1
South Sumatra	14.7	37.7	19.8	27.5	0.4	100.0	1948	6.0
Lampung	11.8	43.7	18.8	24.9	0.8	100.0	1815	5.7
West Nusa Tenggara	26.8	36.4	13.7	22.8	0.3	100.0	1064	3.9
West Kalimantan	20.0	45.2	11.0	23.0	0.8	100.0	1032	4.0
South Kalimantan	10.8	35.4	23.6	29.9	0.3	100.0	847	6.2
North Sulawesi	7.9	39.8	14.3	37.9	0.1	100.0	725	6.3
South Sulawesi	21.2	34.4	15.6	28.2	0.6	100.0	2112	5.1
<b>Outer Java-Bali II</b>	16.6	37.2	17.0	28.5	0.7	100.0	6268	5.6
Riau	12.6	41.6	16.3	29.1	0.4	100.0	1156	5.5
Jambi	13.6	40.2	19.4	26.8	0.0	100.0	626	5.6
Bengkulu	11.4	39.9	16.2	32.1	0.4	100.0	374	5.9
East Nusa Tenggara	19.9	35.5	21.1	23.0	0.6	100.0	948	5.7
East Timor	36.9	31.9	8.2	22.8	0.2	100.0	241	2.8
Central Kalimantan	13.3	41.1	17.8	25.4	2.3	100.0	463	5.6
East Kalimantan	10.2	35.0	15.3	39.2	0.3	100.0	578	6.3
Central Sulawesi	10.8	35.3	22.0	30.4	1.4	100.0	519	6.2
Southeast Sulawesi	16.1	36.9	13.6	32.9	0.5	100.0	363	5.4
Maluku	12.8	37.4	16.9	31.7	1.1	100.0	573	6.0
Irian Jaya	42.0	26.3	9.9	20.4	1.3	100.0	427	3.0
<b>Total</b>	14.8	37.0	20.0	27.9	0.3	100.0	54661	5.9

**Table 2.4.3 Educational level of the female household population: region and province**

Percent distribution of the de jure female household populations age five and over by highest level of education attended, according to region and province, Indonesia 1991

Region/province	Level of education					Total	Number of women	Median number of years
	None	Some primary	Completed primary	Some secondary+	Missing/Don't know			
<b>FEMALE</b>								
<b>Java-Bali</b>	26.0	35.3	19.4	19.2	0.2	100.0	34757	4.2
DKI Jakarta	10.3	25.3	18.8	45.4	0.2	100.0	2757	6.8
West Java	23.6	38.9	21.3	16.0	0.3	100.0	10532	4.3
Central Java	27.9	36.5	20.3	15.1	0.2	100.0	8867	3.7
DI Yogyakarta	29.5	26.2	13.6	30.7	0.0	100.0	945	4.8
East Java	29.5	34.7	17.7	17.9	0.1	100.0	10778	3.6
Bali	36.1	27.4	17.2	19.2	0.1	100.0	877	3.4
<b>Outer Java-Bali I</b>	21.5	38.7	15.7	23.7	0.5	100.0	15060	4.6
DI Aceh	22.2	37.6	16.3	23.5	0.4	100.0	973	4.6
North Sumatra	15.1	37.8	17.2	29.1	0.8	100.0	3144	5.7
West Sumatra	15.5	39.7	14.7	29.8	0.2	100.0	1297	5.3
South Sumatra	19.5	41.1	17.6	21.6	0.2	100.0	2021	4.9
Lampung	17.8	47.7	15.9	18.2	0.5	100.0	1724	4.5
West Nusa Tenggara	37.3	33.2	12.8	16.5	0.2	100.0	1144	2.8
West Kalimantan	36.5	38.3	8.0	16.2	1.0	100.0	992	2.3
South Kalimantan	18.6	37.9	20.9	22.3	0.3	100.0	862	5.3
North Sulawesi	8.5	41.4	16.0	34.0	0.2	100.0	710	6.2
South Sulawesi	28.9	33.0	14.5	23.0	0.5	100.0	2194	3.9
<b>Outer Java-Bali II</b>	24.0	38.8	16.1	20.3	0.7	100.0	6082	4.2
Riau	21.1	43.0	15.0	20.6	0.3	100.0	1114	4.0
Jambi	23.9	42.7	15.9	17.4	0.1	100.0	625	3.8
Bengkulu	17.4	42.2	15.6	24.5	0.3	100.0	341	4.8
East Nusa Tenggara	22.5	37.0	22.8	16.7	1.1	100.0	955	5.2
East Timor	53.9	24.9	4.6	16.2	0.4	100.0	226	0.0
Central Kalimantan	20.8	45.2	12.3	19.5	2.2	100.0	425	4.1
East Kalimantan	18.4	39.2	15.8	26.0	0.6	100.0	532	4.7
Central Sulawesi	16.6	39.2	22.4	21.1	0.8	100.0	506	5.3
Southeast Sulawesi	25.2	35.3	14.9	23.8	0.8	100.0	371	4.0
Maluku	18.3	39.1	17.7	24.2	0.7	100.0	581	5.3
Irian Jaya	51.9	25.3	6.7	14.8	1.3	100.0	405	0.0
<b>Total</b>	24.6	36.6	18.0	20.5	0.3	100.0	55898	4.3

## 2.5 SCHOOL ENROLLMENT

Table 2.5 presents the percentage of the household population 5 to 24 years of age enrolled in school, by age, sex and urban-rural residence. The data show that for people under age 12 years, the percentage enrolled in school is practically identical for girls and boys. While one in four children age 5-6 are in school, by age 7-12, nearly 90 percent of children are attending school. The proportion decreases for the older age groups.

There are differences in school enrollment between urban and rural residents at all ages and for both sexes; the rural population has consistently lower school enrollment than the urban population.

Age group	Male			Female			Total		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
5-6	23.1	14.0	16.7	25.7	14.6	17.8	24.3	14.3	17.2
7-12	92.2	84.2	86.5	93.3	84.3	86.8	92.7	84.3	86.7
13-15	83.8	57.3	65.3	71.6	53.0	58.9	77.6	55.2	62.1
7-15	89.5	76.1	80.0	85.9	74.8	78.0	87.7	75.4	79.0
16-18	59.8	31.4	40.4	50.0	23.6	32.5	54.6	27.4	36.3
19-24	24.2	7.7	13.8	16.3	4.3	8.7	20.0	5.8	11.1

## 2.6 HOUSING CHARACTERISTICS

Table 2.6 gives the distribution of households by selected housing characteristics. The source of drinking water, type of sanitation facilities, type of flooring and distance to household water are important determinants of the health status of household members, particularly children. The seriousness of major childhood diseases, such as diarrhea, can be reduced by proper hygienic and sanitation practices. Overall, half of the households covered in the IDHS have electricity. There is a notable difference between urban and rural areas; 88 percent of households in urban areas have electricity compared to only one in three in rural areas.

Half of the sampled households get their drinking water from a well. Water that is either piped into the residence, into the yard or obtained from a public tap, is used by 15 percent of the households, 39 percent in urban and 5 percent in rural areas. Other sources of drinking water include springs (15 percent) and pumps (11 percent).

Of all households covered in the survey, 44 percent have a private toilet, 10 percent use a shared facility, and the remaining 46 percent do not have a toilet. The difference between urban and rural areas is significant; 2 of 3 households in urban areas have a private toilet, while in rural areas the percentage is 37. The majority of people who do not have a toilet facility use a river or creek.

As far as primary construction materials of the floor are concerned, 3 of 10 households in the sample have dirt flooring, the same proportion have concrete or brick floors, and 34 percent have tile or wood flooring. These proportions vary between urban and rural areas; while 79 percent of urban households have tile or concrete/brick floors, in rural areas the percentage of households with this type of floor is 35; 21 percent of the rural households have wood floors and 40 percent have dirt floors.

Overall, the source of water for household purposes is on the premises in 51 percent of the households, and 34 percent of the households have a source between 1 and 9 minutes away. Urban households are closer to their source of water than rural households. While 75 percent of the households in urban areas have water on the premises and 12 percent are within 5 minutes of the source, in rural areas the corresponding numbers are 41 and 20 percent.

## 2.7 PRESENCE OF DURABLE GOODS IN THE HOUSEHOLD

Data in Table 2.7 indicate that the proportion of households which have a radio, a television set and a refrigerator is 55, 28 and 38 percent, respectively. Urban households are more likely to have the convenience of these items than rural households. For instance, while 72 percent of urban households have a radio, in rural areas only 48 percent do. The difference in the possession of a television set and a refrigerator between urban and rural households is more dramatic; in urban areas, the proportion of households having a television and a refrigerator is 58 and 79 percent respectively, while the corresponding proportions in rural areas are 16 and 21 percent.

There is only a small difference in the ownership of a bicycle or boat between urban and rural areas; however, while 23 percent of urban households have a motor vehicle, in rural areas the percentage is only 9.

Table 2.6 Housing characteristics

Percent distribution of households by housing characteristics, according to urban-rural residence, Indonesia 1991

Housing characteristic	Residence		Total
	Urban	Rural	
<b>Electricity</b>			
Yes	87.6	32.8	48.9
No	12.3	67.1	51.0
<b>Source of drinking water</b>			
Piped into residence	21.0	1.4	7.1
Piped into yard/plot	3.6	0.7	1.6
Public tap	14.3	2.4	5.9
Pump	16.8	8.5	10.9
Well	38.6	54.4	49.8
Spring	2.8	20.2	15.1
River	1.1	8.3	6.2
Rainwater	1.2	2.6	2.2
Other	0.5	1.4	1.1
Missing / Don't know	0.2	0.1	0.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Sanitation facility</b>			
Private, septic tank	38.7	5.8	15.4
Private, no septic tank	23.2	31.2	28.9
Shared public	14.3	7.6	9.5
Pit	0.1	0.6	0.5
Bush/Forest/Yard	2.0	7.5	5.9
River/Creek/Stream	17.3	33.1	28.5
Other	4.4	14.0	11.2
Missing/Don't know	0.2	0.1	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Flooring</b>			
Tile	36.9	8.5	16.9
Concrete/brick	42.1	26.8	31.3
Wood	9.0	20.9	17.4
Bamboo	0.6	4.0	3.0
Dirt/earth	11.3	39.5	31.2
Other	0.0	0.2	0.2
Missing / Don't know	0.2	0.1	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Distance to household water</b>			
On premises	75.1	40.9	50.9
1-4 minutes	11.8	20.4	17.9
5-9 minutes	8.2	19.2	15.9
10+ minutes	3.8	19.1	14.6
Missing / Don't know	1.1	0.4	0.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Mean</b>	<b>1.2</b>	<b>4.9</b>	<b>3.8</b>
<b>Total</b>	<b>7879</b>	<b>18979</b>	<b>26858</b>

**Table 2.7 Household durable goods**

Percentage of households possessing specific durable consumer goods, by urban-rural residence, Indonesia 1991

Durable goods	Residence		Total
	Urban	Rural	
Radio	71.6	47.6	54.7
Television	57.5	16.0	28.2
Refrigerator	78.8	21.1	38.0
Bicycle or boat	38.7	40.8	40.2
Motor vehicle	23.0	8.5	12.8
Number of households	7879	18979	26858

## 2.8 BACKGROUND CHARACTERISTICS OF RESPONDENTS

Table 2.8.1 presents the distribution of respondents to the individual questionnaire by various background characteristics, including age, marital status, urban-rural residence, and religion. The distribution of ever-married women by age group in the 1991 IDHS is very similar to that for the 1987 NICPS and the 1990 Census.

Of the ever-married women in the sample, 92 percent are currently married, 4 percent are divorced, and 4 percent are widowed. The proportions have changed little since 1987 (CBS, NFPCB, and IRD, 1989).

Nineteen percent of ever-married women interviewed in the survey have never attended school, 35 percent have some primary education but did not finish primary school, 26 percent completed primary school, and 20 percent have at least some secondary school; this last category includes women who have education beyond secondary school.

Although decreasing, the majority (71 percent) of respondents live in rural areas. This proportion was 83 in 1971, 78 in 1980, 74 in 1985, and 72 in 1987. Of all women interviewed in the survey, 92 percent are Muslim, 6 percent are Protestant or Catholic, 2 percent are Hindu and 1 percent are Buddhist.

**Table 2.8.1 Background characteristics of respondents**

Percent distribution of ever-married women by selected background characteristics, Indonesia 1991

Background characteristic	Number of ever-married women		
	Weighted percent	Weighted	Un-weighted
<b>Age</b>			
15-19	5.4	1243	999
20-24	15.5	3557	3361
25-29	20.9	4788	4876
30-34	18.5	4244	4399
35-39	16.1	3687	3859
40-44	11.3	2583	2638
45-49	12.3	2807	2777
<b>Residence</b>			
Urban	29.2	6691	7051
Rural	70.8	16218	15858
<b>Education</b>			
No education	19.1	4385	4479
Some primary	34.8	7974	7524
Completed primary	26.1	5969	5461
Some secondary +	20.0	4581	5445
<b>Marital status</b>			
Married	92.1	21109	21187
Widowed	4.1	944	855
Divorced	3.7	856	867
<b>Religion</b>			
Muslim	88.8	20344	18347
Protestant/Christian	5.7	1314	1960
Catholic	2.6	602	1155
Hindu	1.7	386	1084
Buddhist	0.9	204	269
Other	0.3	58	90
Total	100.0	22909	22909

The weighted and unweighted numbers of women in the sample by region and province are presented in Table 2.8.2. The IDHS is a weighted sample of ever-married women. Outer Java-Bali I and Outer Java-Bali II were oversampled in order to provide a sufficient number of cases on which to base estimates. The weighted percentage of women living in Java-Bali is 64 percent, 25 percent live in the Outer Java-Bali I region, and 11 percent live in Outer Java-Bali II.

## 2.9 RESPONDENT'S LEVEL OF EDUCATION

Table 2.9.1 is an overview of the relationship between women's level of education and the background characteristics of age and residence. Respondents are distinguished by their marital status; the first panel presents information on ever-married women, while the lower panel refers to currently married women. Examination of this table shows that there are only slight differences between the two groups of women in terms of their distribution by education.

The distribution by age is as expected; the percentage of women who have not gone to school and, to a lesser extent, women who have some primary education increases with age, while the percentage who have completed primary or higher education shows the opposite pattern. Twenty-five percent of women age 20-29 have at least some secondary school.

Women in urban areas are more likely to have higher education than their rural counterparts. While only 10 percent of women in urban areas have never gone to school, the percentage in rural areas is more than double at 23 percent. The urban-rural difference is most pronounced at the secondary or higher level; urban women are four times more likely than rural women to attain this level of education.

Tables 2.9.2 and 2.9.3 show the distribution of women by education according to region and province. Among ever-married women, the percentage who have no education is 20 percent in Java-Bali, 17 percent in Outer Java-Bali I and 22 percent in Outer Java-Bali II, while the percentage of women who have some secondary or higher education is 19 percent in Java-Bali, 23 percent in Outer Java-Bali I and 21 percent in Outer Java-Bali II.

**Table 2.8.2 Background characteristics of respondents: region and province**

Percent distribution of ever-married women by region and province, Indonesia 1991

Region/province	Number of ever-married women		
	Weighted percent	Weighted	Un-weighted
<b>Java-Bali</b>	63.9	14637	8296
DKI Jakarta	4.7	1086	1813
West Java	20.5	4701	1585
Central Java	16.2	3708	1370
DI Yogyakarta	1.4	328	1066
East Java	19.6	4500	1469
Bali	1.4	314	993
<b>Outer Java-Bali I</b>	24.9	5709	9760
DI Aceh	1.5	349	710
North Sumatra	4.9	1112	1194
West Sumatra	2.1	475	1000
South Sumatra	3.7	848	1184
Lampung	3.0	698	1017
West Nusa Tenggara	1.8	412	986
West Kalimantan	1.7	399	874
South Kalimantan	1.6	377	935
North Sulawesi	1.1	254	668
South Sulawesi	3.4	786	1192
<b>Outer Java-Bali II</b>	11.2	2563	4853
Riau	2.0	459	491
Jambi	1.2	282	474
Bengkulu	0.6	139	386
East Nusa Tenggara	1.7	400	472
East Timor	0.4	96	467
Central Kalimantan	0.8	184	434
East Kalimantan	1.0	237	416
Central Sulawesi	0.9	204	434
Southeast Sulawesi	0.6	131	343
Maluku	1.0	222	477
Irian Jaya	0.9	209	459
<b>Total</b>	<b>100.0</b>	<b>22909</b>	<b>22909</b>

**Table 2.9.1 Level of education: age and residence**

Percent distribution of ever-married and of currently married women by highest level of education attended, according to age and urban-rural residence, Indonesia 1991

Characteristic	Level of education				Total	Number of women
	None	Some primary	Completed primary	Some secondary+		
<b>EVER-MARRIED WOMEN</b>						
<b>Age</b>						
15-19	5.3	28.1	48.9	17.7	100.0	1243
20-24	7.6	29.2	37.0	26.2	100.0	3557
25-29	14.3	35.8	25.5	24.5	100.0	4788
30-34	17.7	39.1	24.2	18.9	100.0	4244
35-39	19.4	38.3	23.3	19.0	100.0	3687
40-44	28.8	37.1	18.4	15.7	100.0	2583
45-49	41.1	30.0	16.5	12.4	100.0	2807
<b>Residence</b>						
Urban	9.5	25.3	23.9	41.3	100.0	6691
Rural	23.1	38.7	26.9	11.2	100.0	16218
<b>Total</b>	<b>19.1</b>	<b>34.8</b>	<b>26.1</b>	<b>20.0</b>	<b>100.0</b>	<b>22909</b>
<b>CURRENTLY MARRIED WOMEN</b>						
<b>Age</b>						
15-19	5.2	27.7	48.7	18.4	100.0	1152
20-24	7.5	28.5	37.5	26.6	100.0	3388
25-29	14.0	35.6	25.3	25.0	100.0	4570
30-34	17.7	38.7	24.6	19.0	100.0	4000
35-39	18.5	38.5	23.7	19.2	100.0	3386
40-44	28.0	36.7	18.8	16.5	100.0	2298
45-49	39.8	30.2	16.8	13.2	100.0	2314
<b>Residence</b>						
Urban	8.6	24.8	23.8	42.7	100.0	6120
Rural	22.2	38.6	27.6	11.6	100.0	14989
<b>Total</b>	<b>18.3</b>	<b>34.6</b>	<b>26.5</b>	<b>20.6</b>	<b>100.0</b>	<b>21109</b>

**Table 2.9.2 Level of education among ever-married women: region and province**

Percent distribution of ever-married women by highest level of education attended, according to region and province, Indonesia 1991

Region/province	Level of education				Total	Number of women
	None	Some primary	Completed primary	Some secondary+		
<b>Java-Bali</b>	19.5	34.5	27.3	18.7	100.0	14637
DKI Jakarta	6.8	20.0	24.4	48.8	100.0	1086
West Java	18.0	36.9	30.7	14.4	100.0	4701
Central Java	22.9	36.6	26.9	13.6	100.0	3708
DI Yogyakarta	18.0	27.1	21.9	32.9	100.0	328
East Java	20.6	34.7	25.3	19.3	100.0	4500
Bali	31.3	27.7	25.6	15.4	100.0	314
<b>Outer Java-Bali I</b>	17.1	36.2	23.9	22.8	100.0	5709
DI Aceh	16.3	34.0	25.4	24.3	100.0	349
North Sumatra	6.8	35.4	29.4	28.4	100.0	1112
West Sumatra	6.1	38.9	23.1	31.9	100.0	475
South Sumatra	15.8	36.3	28.0	19.9	100.0	848
Lampung	12.7	49.1	23.5	14.7	100.0	698
West Nusa Tenggara	41.1	28.7	16.3	14.0	100.0	412
West Kalimantan	41.9	33.8	9.4	15.0	100.0	399
South Kalimantan	12.9	36.9	27.1	23.1	100.0	377
North Sulawesi	3.0	33.7	22.1	41.2	100.0	254
South Sulawesi	25.3	30.6	22.7	21.4	100.0	786
<b>Outer Java-Bali II</b>	21.8	33.6	23.5	21.0	100.0	2563
Riau	12.8	41.1	24.3	21.9	100.0	459
Jambi	20.5	37.8	22.4	19.3	100.0	282
Bengkulu	11.4	36.1	24.9	27.5	100.0	139
East Nusa Tenggara	24.1	29.9	30.0	15.9	100.0	400
East Timor	63.9	12.6	6.5	17.0	100.0	96
Central Kalimantan	19.1	45.7	15.7	19.4	100.0	184
East Kalimantan	13.7	37.8	21.0	27.4	100.0	237
Central Sulawesi	10.2	30.0	35.4	24.4	100.0	204
Southeast Sulawesi	18.3	30.5	26.4	24.8	100.0	131
Maluku	14.1	32.6	27.9	25.4	100.0	222
Irian Jaya	59.9	18.0	9.3	12.8	100.0	209
<b>Total</b>	19.1	34.8	26.1	20.0	100.0	22909

**Table 2.9.3 Level of education among currently married women: region and province**

Percent distribution of currently married women by highest level of education attended, according to region and province, Indonesia 1991

Region/province	Level of education				Total	Number of women
	None	Some primary	Completed primary	Some secondary+		
<b>Java-Bali</b>	18.5	34.2	27.9	19.4	100.0	13419
DKI Jakarta	5.7	18.3	24.0	52.0	100.0	973
West Java	17.7	37.0	30.8	14.6	100.0	4386
Central Java	21.2	36.9	27.6	14.3	100.0	3331
DI Yogyakarta	16.7	27.4	22.2	33.8	100.0	307
East Java	19.5	33.8	26.4	20.2	100.0	4119
Bali	30.7	27.6	26.0	15.7	100.0	30 2
<b>Outer Java-Bali I</b>	16.3	36.1	24.3	23.3	100.0	5309
DI Aceh	15.4	33.8	25.5	25.3	100.0	327
North Sumatra	6.3	35.3	29.5	28.9	100.0	1049
West Sumatra	6.0	38.2	23.7	32.1	100.0	436
South Sumatra	15.0	36.5	28.3	20.1	100.0	792
Lampung	12.2	48.5	24.3	15.0	100.0	664
West Nusa Tenggara	40.3	27.8	17.0	14.9	100.0	369
West Kalimantan	41.0	33.9	9.9	15.3	100.0	373
South Kalimantan	11.2	37.3	27.5	24.0	100.0	339
North Sulawesi	3.0	34.0	22.1	40.9	100.0	240
South Sulawesi	24.2	30.7	22.9	22.2	100.0	719
<b>Outer Java-Bali II</b>	21.3	33.5	23.9	21.4	100.0	2382
Riau	12.4	40.9	24.8	21.8	100.0	426
Jambi	19.8	37.4	22.7	20.1	100.0	265
Bengkulu	10.7	36.6	24.3	28.4	100.0	132
East Nusa Tenggara	24.6	29.6	30.6	15.2	100.0	367
East Timor	61.3	13.3	6.7	18.6	100.0	87
Central Kalimantan	18.9	44.2	16.7	20.2	100.0	170
East Kalimantan	13.2	37.9	20.6	28.3	100.0	216
Central Sulawesi	9.9	30.1	35.4	24.6	100.0	195
Southeast Sulawesi	17.1	31.2	26.7	25.0	100.0	122
Maluku	14.0	31.9	28.3	25.9	100.0	210
Irian Jaya	59.5	18.3	9.4	12.8	100.0	191
<b>Total</b>	18.3	34.6	26.5	20.6	100.0	21109

The difference in women's educational attainment across provinces is pronounced. While 3 percent of ever-married women in North Sulawesi did not go to school, in East Timor and Irian Jaya the proportion is 64 and 60 percent, respectively. In Jakarta, half of the women have some secondary or higher education, while this proportion is only 14 percent in West Java, a neighboring province. The larger percentage of women having higher education in certain provinces may be due in part to the greater availability of higher education facilities.

## 2.10 EXPOSURE TO MASS MEDIA

The availability of newspapers, television and radio, is shown in Table 2.10.1. Twenty-seven percent of ever-married women read the newspaper at least once a week, 61 percent watch television once a week and 63 percent listen to the radio. While television viewing, radio listening and newspaper reading do not vary much across age, the oldest women are slightly less likely to do these activities than younger women.

As expected, there is a positive association between exposure to mass media and level of education. Likewise, urban residence is associated with exposure to mass media. Urban women and women who have higher education are more likely read the newspaper, watch television, and listen to the radio than women in other subgroups.

**Table 2.10.1 Exposure to mass media: age, residence, and education**

Percentage of ever-married women who usually read a newspaper once a week, watch television once a week, or listen to radio once a week, by age, urban-rural residence, and education, Indonesia 1991

Characteristic	Read newspaper weekly	Watch television weekly	Listen to radio weekly	Number of women
<b>Age</b>				
15-19	27.1	59.0	69.2	1243
20-24	29.2	62.4	67.2	3557
25-29	30.3	63.9	64.8	4788
30-34	28.4	62.9	63.0	4244
35-39	28.8	61.8	61.8	3687
40-44	22.4	58.0	57.8	2583
45-49	17.8	52.2	55.9	2807
<b>Residence</b>				
Urban	51.2	86.2	74.7	6691
Rural	16.9	50.3	57.8	16218
<b>Education</b>				
No education	0.4	37.4	44.0	4385
Some primary	13.2	55.3	59.5	7974
Completed primary	31.3	66.6	69.9	5969
Some secondary +	70.5	85.2	76.8	4581
<b>Total</b>	<b>26.9</b>	<b>60.8</b>	<b>62.7</b>	<b>22909</b>

Table 2.10.2 shows the distribution of ever-married women by exposure to mass media, according to region and province. In general, women in Java-Bali are more likely to have access to mass media than women in other areas. Within Java-Bali, large differences emerge. Women in Jakarta are much more likely to read a newspaper and watch television than women elsewhere in the country. The low percentage of newspaper readers in Bali may be associated with the large percentage of women who have no education.

**Table 2.10.2 Exposure to mass media: region and province**

Percentage of ever-married women who usually read a newspaper once a week, watch television once a week, or listen to radio once a week, by region and province, Indonesia 1991

Region/province	Read newspaper weekly	Watch television weekly	Listen to radio weekly	Number of women
<b>Java-Bali</b>	28.1	67.0	67.9	14637
DKI Jakarta	62.2	93.9	74.4	1086
West Java	31.6	71.9	81.8	4701
Central Java	20.4	62.8	63.4	3708
DI Yogyakarta	39.5	76.7	65.7	328
East Java	22.8	58.8	56.4	4500
Bali	11.8	60.7	61.2	314
<b>Outer Java-Bali I</b>	24.7	51.1	55.8	5709
DI Aceh	22.7	52.4	54.5	349
North Sumatra	22.5	54.4	49.9	1112
West Sumatra	25.0	54.9	47.4	475
South Sumatra	20.4	46.2	48.1	848
Lampung	19.7	46.7	62.5	698
West Nusa Tenggara	18.6	41.0	47.6	412
West Kalimantan	28.8	71.7	60.5	399
South Kalimantan	24.9	51.7	67.1	377
North Sulawesi	41.8	47.0	41.7	254
South Sulawesi	33.1	48.3	73.1	786
<b>Outer Java-Bali II</b>	25.4	46.7	48.4	2563
Riau	30.9	66.6	63.2	459
Jambi	22.7	62.7	55.6	282
Bengkulu	33.8	62.8	57.7	138
East Nusa Tenggara	13.5	11.7	17.0	400
East Timor	16.7	13.6	26.3	96
Central Kalimantan	12.5	34.0	72.6	184
East Kalimantan	44.2	78.3	69.1	237
Central Sulawesi	28.1	50.9	44.5	204
Southeast Sulawesi	14.8	33.3	43.3	131
Maluku	38.2	57.0	56.1	221
Irian Jaya	19.1	21.8	23.6	208
<b>Total</b>	26.9	60.8	62.7	22909



## CHAPTER 3

### FERTILITY

In the Indonesia Demographic and Health Survey (IDHS), information on fertility was gathered by two procedures. First, a series of questions on the number of live births was asked. Experience has indicated that certain types of events are under-reported. To minimize bias, the children were distinguished by sex, whether they lived at home or away, and whether they were living or dead. Distinction by sex improves reporting, and allows estimation of sex-specific mortality rates. Second, a full birth history approach was utilized, in which for each live birth the following information was collected: sex, age, whether the birth was single or multiple, whether the child was living in the household or away, and survival status of the child. For dead children, the age at death was recorded. Information on whether currently married women were pregnant was also asked.

The questions on the total number of children ever born and surviving are often used in population censuses and surveys in Indonesia to calculate indirect fertility and mortality estimates. The more complicated birth history procedure is used less frequently, although it offers a richer set of data for analysis. The fertility measures presented here are calculated directly from the birth history. In applying a direct fertility estimation procedure, two issues are worth noting. First, interviews were conducted only with surviving women; there is no information on the fertility of women who did not survive. The fertility rates would be biased if the mortality of women in the childbearing ages was high and if there was a significant difference in fertility between surviving and non-surviving women. In Indonesia, neither of these appears to be the case. The second issue has to do with the limitation of the survey to ever-married women. Since most births in Indonesia occur within marriage, the number of births to single women is negligible. Although information on fertility was only asked of ever-married women, estimates can be made for all women regardless of marital status using information in the household schedule, and by assuming that women who were reported as never married had no children.

In the collection of information through a birth history, it is important to obtain accurate data on age and the timing of births. Errors in reporting the number of children affect estimates of fertility levels, whereas errors in the timing of births distort trends. If these errors vary by socio-economic characteristics of the women, the differentials in fertility will also be affected.

#### 3.1 FERTILITY LEVELS AND TRENDS

The measure of current fertility presented in this report is the total fertility rate (TFR). The TFR is calculated by summing the age-specific fertility rates and can be interpreted as the average number of births a hypothetical group of women would have at the end of their reproductive lives if they were subject to the currently prevailing age-specific rates from age 15 to 49. Table 3.1 and Figure 3.1 present the age-specific fertility rates from the 1991 IDHS along with results from selected sources.

It is important to note that the rates from different data sources are not strictly comparable, because of differences in data collection procedures, geographic coverage, estimation techniques, and time reference. Nonetheless, they serve the purpose of reflecting recent fertility trends in Indonesia.

According to the data in Table 3.1, the overall fertility decline in the past 20 years is 46 percent, from 5.6 children per woman in the late 1960s to 3.0 children per woman around 1990. Thus, during this period, fertility in Indonesia has progressed about 75 percent of the way to replacement level fertility, i.e., 2.2 children per woman.

**Table 3.1 Fertility rates from various sources**

Age-specific and cumulative fertility rates from selected sources, Indonesia 1971-1991

Mother's age	1971	1976	1980	1985	1987	1990	1991 IDHS (1988-1991) <sup>2</sup>		
	Census 1967-1970	SUPAS 1971-1975	Census 1976-1979	SUPAS 1980-1985	NICPS <sup>1</sup> 1984-1987	Census 1986-1989	Urban	Rural	Total
15-19	155	127	116	95	78	71	39	82	67
20-24	286	265	248	220	188	178	135	176	162
25-29	273	256	232	206	172	172	147	162	157
30-34	211	199	177	154	126	128	114	118	117
35-39	124	118	104	89	75	73	66	75	73
40-44	55	57	46	37	29	31	16	26	23
45-49	17	18	13	10	10	9	3	8	7
TFR 15-49	5.61	5.20	4.68	4.06	3.39	3.31	2.60	3.24	3.02
TFR 15-44	5.52	5.11	4.62	4.01	3.34	3.27	2.59	3.19	2.99
GFR	-	-	-	-	-	-	94	116	108
CBR	-	-	-	-	-	-	24.0	25.6	25.1

Note: Estimates for 1971 to 1985 are computed using the own children method while 1987 NICPS and 1991 IDHS rates are calculated directly from birth history data.

TFR: Total fertility rate expressed per woman.

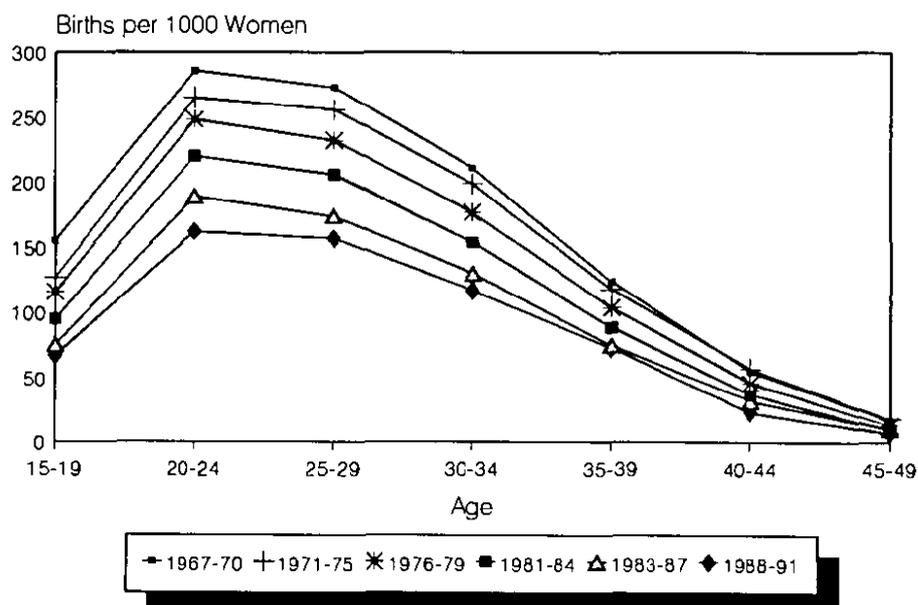
GFR: General fertility rate (births divided by number of women 15-44), expressed per 1,000 women

CBR: Crude birth rate expressed per 1,000 population

<sup>1</sup>Excludes 7 provinces in Outer Java-Bali II

<sup>2</sup>1-36 months prior to survey

**Figure 3.1**  
Age-Specific Fertility Rates  
Indonesia 1967-1991



The pace of decline in fertility has varied across time. It was relatively slow prior to the mid-1970s, accelerated in the subsequent decade, and seems to have slowed down slightly in recent years. As illustrated in Figure 3.1, age-specific fertility rates for the youngest group of women have declined by more than half during this period, from 155 births per 1,000 women to 67 births per 1,000 women. In addition, the shape of the age-specific fertility curve has flattened considerably, denoting substantial decline in fertility rates of women age 20 to 29 although more than 50 percent of births occur to women in these ages.

Table 3.1 also shows age-specific fertility rates for urban and rural areas for the three years preceding the IDHS, as well as the general fertility rate and the crude birth rate. The general fertility rate (GFR) is the number of live births per 1,000 women age 15-44 years. The crude birth rate (CBR) is the number of births per 1,000 population. It is calculated by summing the product of the age-specific fertility rates and the proportion of women in the specific age group out of the total number of persons who usually live in the selected households. The GFR is 108 and the CBR is 25.1. There is a substantial gap in fertility between urban and rural residents. Urban women have, on average, half a child less than rural women. The largest urban-rural difference in age-specific fertility occurs among younger women age 15-24.

Fertility trends can also be investigated using retrospective data from a single survey. Table 3.2 is generated from the birth history collected in the IDHS. The age-specific rates in the tables are progressively truncated with the elapsed time before the survey. The bottom diagonal of estimates is also partially truncated. Due to the truncation, changes over the past 20 years are observed from the age-specific rates for women up to age 29 years. Caution should be exercised when interpreting data in these tables because of possible recall lapses resulting in omission or incorrect dating of events, especially by older women and for distant time periods.

**Table 3.2 Age-specific fertility rates**

Age-specific fertility rates (per thousand women) for four-year periods preceding the survey, by mother's age, Indonesia 1991

Mother's age	Number of years preceding the survey				
	0-3	4-7	8-11	12-15	16-19
15-19	70	98	129	136	141
20-24	166	197	241	243	256
25-29	158	181	224	230	251
30-34	116	137	175	194	(234)
35-39	70	85	114	(143)	-
40-44	21	37	(71)	-	-
45-49	(9)	(10)	-	-	-

Note: Rates in parentheses are partially truncated.

Overall, fertility decline in the past 20 years has been substantial, and there are indications of a recent acceleration in the rate of decline among women 15-24 accompanied by a slowing of the decline among women 25-44. A similar pattern can be seen in Table 3.3, which shows fertility and marital duration. For the same marriage duration, at all times, recent fertility is lower than in the distant past.

**Table 3.3 Fertility by marital duration**

Fertility rates for four-year periods preceding the survey, by number of years since first marriage, Indonesia 1991

Years since first marriage	Number of years preceding the survey				
	0-3	4-7	8-11	12-15	16-19
0-4	286	297	332	317	304
5-9	174	207	257	264	281
10-14	129	158	203	216	241
15-19	95	117	152	180	213
20-24	51	66	97	145	a
25-29	18	33	a	a	-

Note: Fertility rates are per 1,000 ever-married women.

<sup>a</sup>Less than 125 person-years of exposure

Table 3.4 and Figure 3.2 focus on the six provinces in Java-Bali where comparable data are available from the Population Censuses of 1971 and 1980, the 1976 Indonesia Fertility Survey (IFS), the 1985 Intercensal Population Survey, and the 1987 National Indonesia Contraceptive Prevalence Survey (NICPS). In demographic studies of Indonesia, it is important to set this region apart from the rest of the country because of its distinct socioeconomic and political context. The distinction is particularly relevant in fertility analysis, since organized family planning programs in this region were initiated earlier than elsewhere in the country.

Table 3.4 shows that, among the provinces in Java-Bali, West Java has consistently had the highest fertility rates, while Yogyakarta has the lowest fertility, particularly since the late 1970s. Until the mid 1970s, the fertility rate in Bali was second highest after West Java. However, a rapid decline in the early 1980s brought the rate in Bali to a level lower than all other provinces in the region except Yogyakarta. The low fertility levels in Yogyakarta and Bali are accompanied by higher percentages of women who are using family planning methods (see Chapter 5).

**Table 3.4 Total fertility rates for provinces in Java-Bali**

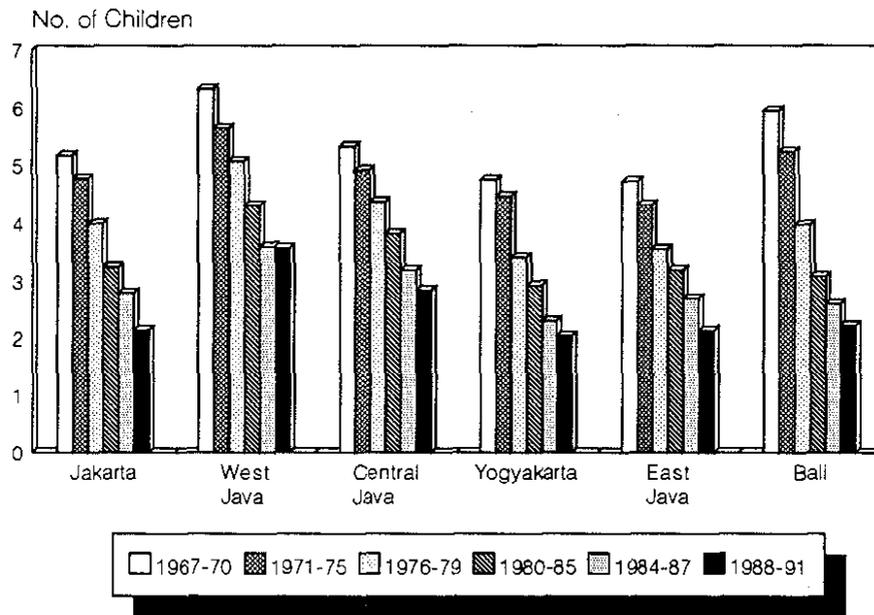
Total fertility rates for provinces in Java-Bali from selected sources, Indonesia 1971-1991

Province	1971	1976	1980	1985	1987	1991
	Census 1967-1970	SUPAS 1971-1975	Census 1976-1979	SUPAS 1980-1985	NICPS 1984-1987	IDHS 1988-1991 <sup>1</sup>
Jakarta	5.18	4.78	3.99	3.25	2.8	2.14
West Java	6.34	5.64	5.07	4.31	3.6	3.37
Central Java	5.33	4.92	4.37	3.82	3.2	2.85
Yogyakarta	4.76	4.47	3.42	2.93	2.3	2.04
East Java	4.72	4.32	3.56	3.20	2.7	2.13
Bali	5.96	5.24	3.97	3.09	2.6	2.22

Note: Estimates for 1971 to 1985 are computed using the own children method while 1987 NICPS and 1991 IDHS rates are calculated directly from birth history data.

<sup>1</sup>1-36 months prior to the survey.

Figure 3.2  
Total Fertility Rates by Province  
Java-Bali 1967-1991



### 3.2 FERTILITY DIFFERENTIALS

Table 3.5 shows differentials in fertility by background characteristics. The first column of the table shows total fertility rates (TFR) for the three years preceding the survey (mid-1988 to mid-1991), while the second column presents the mean number of children ever born (CEB) to the oldest women (40-49 years of age). The average number of children ever born is an indicator of cumulative fertility; it reflects the fertility performance of older women who are nearing the end of their reproductive period, and thus represents completed fertility. If fertility has remained stable over time, the two fertility measures, TFR and CEB, would either be equal or similar.

Regionally, Java-Bali continues to have the lowest fertility in the country. However, since Outer Java-Bali II is experiencing a rapid decline, the difference in fertility between this region and the rest of the country is narrowing. Fertility in Java-Bali is 23 percent lower than in Outer Java-Bali I, and 28 percent lower than in Outer Java-Bali II. Among the six provinces in Java-Bali, four have reached a fertility level close to 2 children per woman (Yogyakarta 2.04, East Java 2.13, Jakarta 2.14, and Bali 2.22). Fertility in West Java continues to be the highest in the region (3.37), with a difference of more than one child between this province and the four provinces with the lowest fertility.

In general, there is an inverse relationship between education and fertility, that is, fertility decreases as education increases. However, similar to findings from previous data (e.g., 1987 NICPS), women who have no education have the same or lower fertility than women who have some primary education. At the same time, women who have no education are experiencing a faster decline in fertility than women who have gone to school.

Table 3.5 also indicates that completed fertility (CEB) among women age 40-49 is much higher than the TFR for the three years preceding the survey, suggesting a substantial reduction in fertility. The 1987 NICPS showed a similar pattern.

### 3.3 CHILDREN EVER BORN AND LIVING

In the survey questionnaire, the total number of children ever born was ascertained by a sequence of questions designed to maximize recall. Lifetime fertility reflects the accumulation of births over the past 30 years and therefore, its relevance to the current situation is limited. However, the data are useful in providing background information for understanding current fertility.

Table 3.6 presents the distribution of all women and of currently married women by the number of children ever born. Since respondents in the IDHS are ever-married women, information on the reproductive history of never-married women is not available. However, since virtually all births in Indonesia occur within marriage, it is safe to assume that never-married women have had no births; this is the assumption made in Table 3.6. The difference between the fertility of all women and currently married women is brought about primarily by the proportion of women who remain unmarried, which is more pronounced in the younger ages. The average number of children increases with age, reflecting the family building process.

Among all women, one in three does not have any children, 14 percent each have one or two children, 12 percent have three children, and the remaining 27 percent have four or more children. The corresponding proportions for currently married women are as follows: 8 percent did not have a child, 19 percent and 20 percent have one and two children respectively, 16 percent have three children, and one in three have four or more children. Five percent of women age 45-49 are childless.

The last column of Table 3.6 shows the average number of children still living. Overall, women have an average of 2.3 children, 2 of whom were still living at the time of interview. For currently married women, the respective averages are 3.1 and 2.7 children. These figures are lower than those found in the 1987 NICPS, reflecting a decline in fertility in the past four years. For all women and for currently married women, the difference between the number of children ever born and still living is notable only after age 30.

**Table 3.5 Fertility by background characteristics**

Total fertility rate for the three years preceding the survey and mean number of children ever born to women age 40-49, by selected background characteristics, Indonesia 1991

Background characteristic	Total fertility rate <sup>1</sup>	Mean number of children ever born to women age 40-49
<b>Residence</b>		
Urban	2.60	4.71
Rural	3.24	4.97
<b>Region/Province</b>		
<b>Java-Bali</b>	2.68	4.69
DKI Jakarta	2.14	4.43
West Java	3.37	5.37
Central Java	2.85	4.69
DI Yogyakarta	2.04	4.11
East Java	2.13	4.24
Bali	2.22	3.98
<b>Outer Java-Bali I</b>	3.50	5.34
DI Aceh	3.76	5.75
North Sumatra	4.17	5.89
West Sumatra	3.60	5.98
South Sumatra	3.43	5.26
Lampung	3.20	5.41
West Nusa Tenggara	3.82	5.69
West Kalimantan	3.94	5.72
South Kalimantan	2.70	4.74
North Sulawesi	2.25	4.27
South Sulawesi	3.01	4.58
<b>Outer Java-Bali II</b>	3.75	5.10
<b>Education</b>		
No education	3.28	4.76
Some primary	3.51	5.12
Completed primary	3.07	5.33
Some secondary +	2.58	4.18
<b>Total</b>	<b>3.02</b>	<b>4.90</b>

<sup>1</sup>Women age 15-49 years

**Table 3.6 Children ever born and living**

Percent distribution of all women and of currently married women by number of children ever born (CEB) and mean number ever born and living, according to five-year age groups, Indonesia 1991

Age group	Number of children ever born (CEB)											Total	Number of women	Mean no. of CEB	Mean no. of living children	
	0	1	2	3	4	5	6	7	8	9	10+					
<b>ALL WOMEN</b>																
15-19	90.9	7.6	1.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	6280	0.11	0.09	
20-24	45.8	31.6	17.0	4.3	1.0	0.2	0.1	0.0	0.0	0.0	0.0	100.0	5523	0.84	0.75	
25-29	16.9	22.4	28.2	18.6	9.6	3.3	0.6	0.3	0.0	0.0	0.0	100.0	5408	1.96	1.74	
30-34	8.9	8.9	21.2	22.8	17.5	11.1	5.6	2.6	0.8	0.4	0.1	100.0	4456	3.08	2.71	
35-39	5.2	6.4	13.7	18.2	20.0	14.8	9.9	6.2	2.8	1.5	1.4	100.0	3772	3.95	3.47	
40-44	6.6	5.4	9.7	13.5	14.7	13.7	12.7	9.7	5.9	4.2	3.8	100.0	2646	4.64	3.91	
45-49	4.9	7.7	7.1	10.7	13.1	11.7	12.1	10.7	9.2	6.0	6.9	100.0	2847	5.14	4.30	
Total	32.5	14.3	14.4	11.7	9.3	6.3	4.3	3.0	1.8	1.2	1.2	100.0	30933	2.31	2.00	
<b>CURRENTLY MARRIED WOMEN</b>																
15-19	52.9	39.8	6.6	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1152	0.55	0.48	
20-24	15.3	48.9	27.0	6.9	1.5	0.4	0.1	0.0	0.0	0.0	0.0	100.0	3388	1.32	1.19	
25-29	5.5	24.5	32.5	21.5	11.1	3.9	0.7	0.4	0.1	0.0	0.0	100.0	4570	2.25	2.01	
30-34	3.2	8.6	22.6	24.4	18.8	12.1	6.0	2.8	0.9	0.4	0.1	100.0	4000	3.31	2.92	
35-39	2.4	5.6	14.0	18.9	20.6	15.2	10.5	6.6	3.1	1.6	1.5	100.0	3386	4.12	3.63	
40-44	3.8	5.0	9.4	13.3	14.8	14.4	13.6	10.7	6.2	4.7	4.2	100.0	2298	4.88	4.13	
45-49	3.1	7.1	6.6	10.5	12.8	12.0	12.3	11.8	9.4	6.6	7.8	100.0	2314	5.37	4.53	
Total	8.3	19.2	20.0	16.0	12.5	8.5	5.8	4.1	2.4	1.6	1.6	100.0	21109	3.14	2.73	

### 3.4 BIRTH INTERVALS

The timing of births has implications for both fertility and mortality. Some evidence suggests that woman who have births in rapid succession finish their childbearing years with more children than those who space births farther apart. Changes in birth spacing patterns affect period fertility measures. Further, short birth intervals (less than two years) are associated with an elevated risk of mortality for children.

Shorter intervals are generally associated with higher morbidity and mortality for the next child (see Chapter 9). Table 3.7 shows the percent distribution of births in the five years prior to the survey according to the length of the interval since the previous birth. Figures at the bottom of the table indicate that women in Indonesia favor relatively long birth intervals; the median length of birth interval is 38 months; 36 percent of the births occurred four years or longer after a previous birth, 44 percent had a two- to four-year interval, and only one in five had an interval of less than two years.

**Table 3.7 Birth intervals**

Percent distribution of births in the five years preceding the survey by number of months since previous birth, according to demographic and socioeconomic characteristics, Indonesia 1991

Characteristic	Number of months since previous birth					Total	Median no. of months since previous birth	Number of births
	7-17	18-23	24-35	36-47	48+			
<b>Age</b>								
15-19	19.9	21.4	52.5	2.9	3.3	100.0	25.7	95
20-24	15.0	18.7	34.9	14.1	17.3	100.0	29.4	1425
25-29	7.9	11.8	30.1	17.3	32.9	100.0	37.1	3337
30-34	5.9	11.7	27.1	15.5	39.8	100.0	40.6	2860
35-39	5.4	8.7	23.7	16.6	45.6	100.0	44.9	1799
40-44	2.6	10.2	23.4	16.1	47.7	100.0	46.0	649
45-49	5.7	2.0	18.7	12.4	61.2	100.0	50.1	209
<b>Birth order</b>								
2-3	8.8	12.1	27.3	15.2	36.6	100.0	38.2	5587
4-6	5.9	10.8	28.8	16.6	37.9	100.0	39.5	3658
7+	7.4	14.7	32.8	17.3	27.7	100.0	34.6	1129
<b>Sex of prior birth</b>								
Male	7.6	11.4	29.4	16.1	35.5	100.0	37.9	5367
Female	7.6	12.6	27.3	15.9	36.7	100.0	38.5	5007
<b>Survival of prior birth</b>								
Living	6.1	11.0	28.4	16.7	37.9	100.0	39.6	9137
Dead	18.6	19.2	28.6	10.8	22.8	100.0	27.8	1237
<b>Residence</b>								
Urban	9.3	11.6	25.7	15.4	37.9	100.0	38.9	2933
Rural	6.9	12.1	29.5	16.2	35.3	100.0	37.9	7441
<b>Region/Province</b>								
Java-Bali	5.3	9.4	25.0	16.4	43.9	100.0	44.0	5527
DKI Jakarta	9.3	11.0	24.2	16.7	38.8	100.0	40.2	369
West Java	5.5	10.6	25.2	12.2	46.5	100.0	44.4	2211
Central Java	4.6	10.5	24.9	19.8	40.3	100.0	42.6	1463
DI Yogyakarta	4.8	7.9	20.7	14.9	51.7	100.0	48.9	97
East Java	4.7	5.4	25.1	19.6	45.1	100.0	45.7	1280
Bali	7.1	11.8	28.6	16.5	36.0	100.0	38.4	108
Outer Java-Bali I	10.0	15.4	32.2	15.4	27.0	100.0	33.5	3359
Outer Java-Bali II	10.7	13.8	32.5	15.6	27.4	100.0	33.8	1488
<b>Education</b>								
No education	6.7	13.0	27.5	16.6	36.3	100.0	38.6	1841
Some primary	6.7	11.0	30.0	14.8	37.5	100.0	38.5	4174
Completed primary	7.7	11.8	28.1	17.0	35.4	100.0	38.1	2594
Some secondary +	10.6	13.4	25.9	16.5	33.6	100.0	37.1	1765
<b>Work status since marriage</b>								
Worked since marriage	6.7	12.1	27.6	16.7	36.9	100.0	39.2	5401
Did not work	8.6	11.8	29.3	15.1	35.2	100.0	37.2	4967
<b>Current work status</b>								
Currently working	6.7	12.3	27.9	16.6	36.5	100.0	39.0	4066
Not currently working	8.2	11.7	28.7	15.5	35.9	100.0	37.7	6274
Total <sup>1</sup>	7.6	12.0	28.4	16.0	36.1	100.0	38.2	10374

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

<sup>1</sup>Total includes cases with missing information on work status since marriage and current work status.

While the proportion in each birth interval category varies little according to children's sex, urban-rural residence, mother's education or mother's work experience, there are significant differences by mother's age, region/province of residence, and to some extent, birth order. Younger women have shorter birth intervals than older women; women age 15-19 have birth intervals half as long as women in the 45-49 year age group. On average, women in Java and Bali have intervals 10 months longer than women in other parts of Indonesia. The median birth interval in Java-Bali is 43 months, while in the other regions, it is 33 months. Among provinces in Java, women in Yogyakarta have the longest inter-birth intervals; fertility is also lower in Yogyakarta than in any other province in Java.

### 3.5 AGE AT FIRST BIRTH

The onset of childbearing is an important fertility indicator. A rise in the age at first birth is usually a result of increasing age at first marriage, although the opposite may not be true. In many countries, postponing the first birth, combined with spacing the second birth, has contributed greatly to reducing fertility.

Table 3.8 shows the distribution of women by current age and age at first birth. The prevalence of very early childbearing has declined over time. While 9 percent of women age 40-49 had their first birth before age 15, only 3 percent of those age 20-24 did so. About half of women age 30-49 had their first birth before age 20; the corresponding percentage for women age 20-24 is 36, a 28 percent decline.

The last column in Table 3.8 presents the median age at first birth according to women's current age. Except for the oldest age group, there is evidence that age at first birth has been increasing among Indonesian women; it is 19.8 for women 40-44, and 20.4 for women 25-29.

**Table 3.8 Age at first birth**

Percent distribution of women by age at first birth, according to current age, Indonesia 1991

Current age	Women with no births	Age at first birth						Total	Number of women	Median age at first birth
		<15	15-17	18-19	20-21	22-24	25+			
15-19	90.9	1.2	4.9	3.1	NA	NA	NA	100.0	6280	a
20-24	45.8	3.4	15.1	17.8	13.0	4.8	NA	100.0	5523	a
25-29	16.9	5.3	20.7	20.2	16.3	14.5	6.0	100.0	5408	20.4
30-34	9.0	6.8	23.8	19.5	15.8	15.4	9.7	100.0	4456	20.0
35-39	5.2	6.3	23.0	21.4	14.7	16.3	13.0	100.0	3772	19.9
40-44	6.6	8.7	24.5	18.2	15.5	14.8	11.8	100.0	2646	19.8
45-49	4.9	9.0	23.2	17.3	15.4	14.8	15.4	100.0	2847	20.1

NA = Not applicable

<sup>a</sup>Less than 50 percent of the women in age group  $x$  to  $x+4$  have had a birth by age  $x$

Table 3.9 presents data on differentials in age at first birth according to selected background characteristics of the woman. Overall, among women age 25-49, the median age at first birth is 20 years. There is wide variation between subgroups of women; urban women have their first child when they are 1.5 years older than their rural counterparts, and women in Java-Bali start motherhood one year earlier than women in other regions. Women who have secondary or higher education start childbearing when they are 3.6 years older than women who have not completed primary education but among those with no education or some primary education only, age at first birth is almost identical.

<b>Table 3.9 Median age at first birth</b>						
Median age at first birth among women 25-49, by current age and selected background characteristics, Indonesia 1991						
Background characteristic	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
<b>Residence</b>						
Urban	22.1	21.1	21.1	20.7	20.3	21.2
Rural	19.8	19.6	19.5	19.5	19.9	19.6
<b>Region/Province</b>						
Java-Bali	20.1	19.5	19.6	19.4	19.6	19.7
DKI Jakarta	24.0	22.1	21.6	21.8	20.8	22.2
West Java	18.9	18.3	18.2	18.7	18.1	18.5
Central Java	20.5	20.1	19.9	20.1	20.0	20.2
DI Yogyakarta	22.5	22.6	22.0	21.3	20.6	21.9
East Java	19.9	19.1	19.6	18.8	19.4	19.5
Bali	22.1	21.0	21.5	22.1	21.6	21.6
Outer Java-Bali I	21.0	20.6	20.5	20.4	20.7	20.7
Outer Java-Bali II	21.0	20.9	20.9	20.8	21.4	21.0
<b>Education</b>						
No education	18.8	18.6	19.5	19.4	20.1	19.3
Some primary	19.3	19.4	19.1	19.2	19.2	19.3
Completed primary	19.8	19.4	19.5	19.6	19.8	19.6
Some secondary +	23.8	23.3	22.8	22.2	22.3	23.2
<b>Total</b>	<b>20.4</b>	<b>20.0</b>	<b>19.9</b>	<b>19.8</b>	<b>20.1</b>	<b>20.1</b>

### 3.6 TEENAGE FERTILITY

This section presents information on fertility among women age 15-19 (see Table 3.10). (Teenagers who have never married are assumed to have had no pregnancies and no births.) The topic of teenage fertility is important because teenage mothers and their children are at increased risk of social and health problems. For example, children born to young mothers are more prone to illness and to higher mortality during childhood than other children. Also, young women may have to curtail their education in order to have children.

Although fertility among young women has declined substantially, childbearing still starts relatively early in Indonesia; more than 12 percent of women 15-19 years have become mothers (9 percent) or are currently pregnant with their first child (3 percent). There are large differentials between subgroups of women. As expected, the proportion of women who have started childbearing increases with age; while less

than 0.5 percent of 15-year olds have become mothers or are pregnant with their first child, by age 19 the proportion has reached 8 percent. Teenagers in rural areas, in Java-Bali, and teenagers who have less than primary education have children earlier than those living in urban areas, in Outer Java-Bali, and those who have primary or higher education. Rural women in their teens are three times more likely than urban women to have given birth or be pregnant with their first child. Among the provinces in Java-Bali, West Java and East Java are quite different from the rest of the region. In these provinces, 1 in 5 and 1 in 6 teenagers respectively have already started childbearing compared to about 1 in 10 in the other provinces. Women's education is closely related to the initiation of childbearing; while 20 percent of teenagers who have less than primary education have had children or are expecting their first child, the corresponding percentage among those with some secondary schooling is 5 percent.

**Table 3.10 Teenage fertility**

Percentage of women 15-19 who are mothers or pregnant with their first child, by selected background characteristics, Indonesia 1991

Background characteristic	Percentage who are:		Percentage who have	Number of teenagers
	Mothers	Pregnant with first child	begun child-bearing	
<b>Age</b>				
15	0.2	0.2	0.3	5976
16	0.5	0.3	0.8	5342
17	1.7	1.1	2.8	4960
18	4.6	1.3	5.8	4297
19	6.5	1.7	8.2	3865
<b>Residence</b>				
Urban	4.2	1.5	5.8	2121
Rural	11.5	4.0	15.5	4164
<b>Region/Province</b>				
<b>Java-Bali</b>	13.1	4.8	17.9	2937
DKI Jakarta	3.8	1.8	5.7	423
West Java	15.2	4.3	19.5	1189
Central Java	6.7	2.1	8.9	927
DI Yogyakarta	4.1	0.3	4.4	97
East Java	10.3	5.2	15.4	1148
Bali	5.0	2.4	7.4	95
<b>Outer Java-Bali I</b>	6.7	2.0	8.7	1750
<b>Outer Java-Bali II</b>	9.3	3.3	12.6	710
<b>Education</b>				
No education	19.5	2.4	22.0	195
Some primary	17.5	4.3	21.8	1022
Completed primary	10.7	4.8	15.4	2335
Some secondary+	3.7	1.4	5.2	2777
<b>Total</b>	9.1	3.2	12.2	6280

Table 3.11 presents the distribution of teenage women by current age and number of children. (Teenagers who never married are assumed to have had no births and no pregnancies.) Of the 9 percent who are teenage mothers, 7.6 percent have one child, and 1.4 percent have two or more children. Overall, the contribution of women age 15-19 to total fertility in Indonesia is small, and as noted earlier, decreasing.

Age	Number of children ever born			Total	Mean number of CEB	Number of teenagers
	0	1	2+			
15	99.3	0.6	0.0	100.0	0.01	1327
16	97.7	2.3	0.0	100.0	0.02	1242
17	93.3	5.5	1.2	100.0	0.08	1265
18	84.6	12.9	2.5	100.0	0.18	1274
19	78.6	17.8	3.6	100.0	0.25	1172
Total	90.9	7.6	1.4	100.0	0.11	6280

## CHAPTER 4

### KNOWLEDGE AND EVER USE OF FAMILY PLANNING

#### 4.1 KNOWLEDGE OF FAMILY PLANNING METHODS AND SOURCES

Knowledge of family planning methods and of places to obtain them is crucial in the decision of whether to use a method and which method to use. Knowing about methods but not about sources is an obstacle to the adoption of contraception.

In the IDHS, data on knowledge of family planning methods were obtained by first asking the respondent to name the ways that a couple can delay or avoid a pregnancy or birth. If a respondent did not spontaneously mention a particular method, the method was described by the interviewer and the respondent was asked if she recognized the method. Descriptions were included in the questionnaire for eleven methods (pill, IUD, injection, intravag, condom, Norplant, female sterilization, male sterilization, abortion, periodic abstinence, and withdrawal). In addition, other methods mentioned spontaneously by the respondent such as herbs (*jamu*), abdominal massage (*pijat*), and prolonged abstinence were recorded. For each method recognized, the respondent was asked if she had ever used the method. Finally, for all modern methods recognized, the respondent was asked where a person could obtain the method if she wanted to use it.

If the respondent recognized periodic abstinence, she was asked where a person could go to obtain advice about the method if she wanted to use it.

Knowledge of family planning methods and sources is practically universal among ever-married women (94 percent) as well as among currently married women (95 percent), and virtually all of these women recognize at least one modern method (see Table 4.1). These percentages are the same as those derived from the 1987 NICPS.

**Table 4.1 Knowledge of contraceptive methods and source for methods**

Percentage of ever-married women and of currently married women who know specific contraceptive methods and who know a source (for information or services), by specific methods, Indonesia 1991

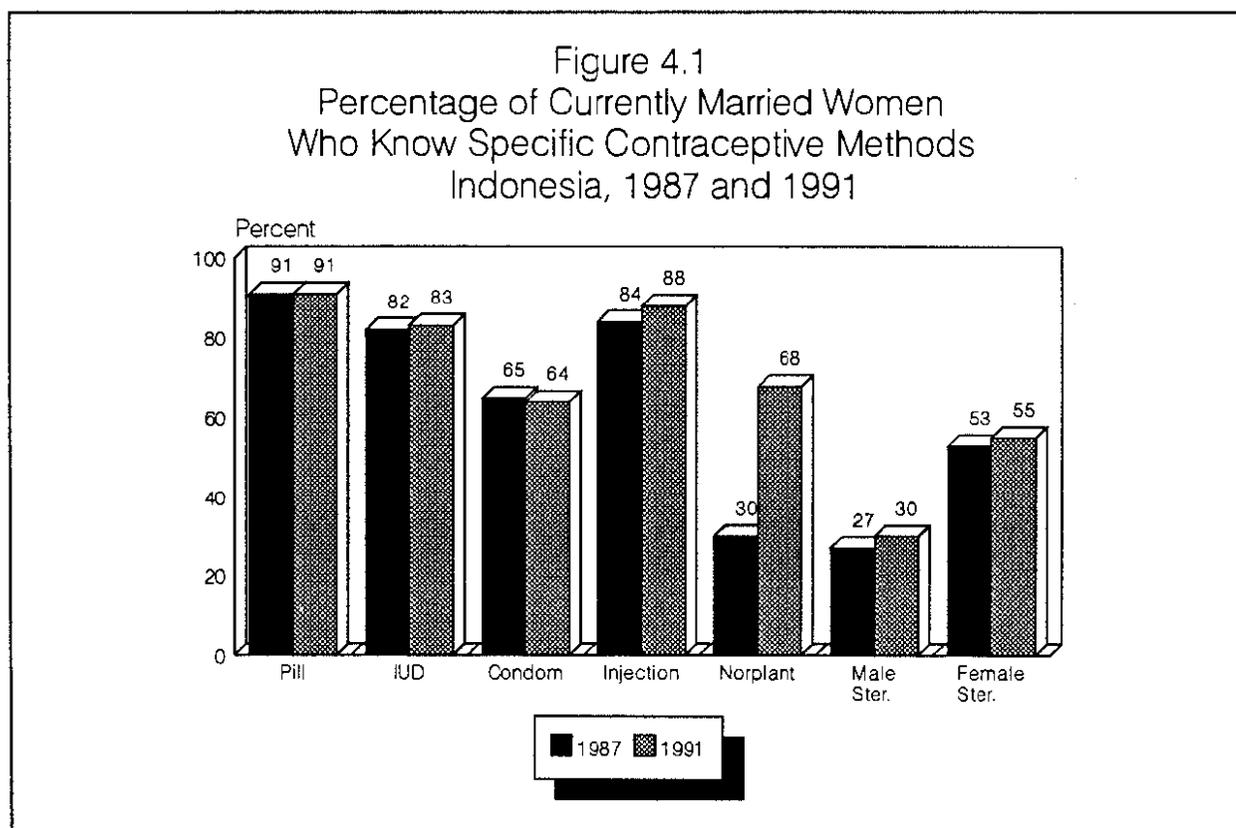
Contraceptive method	Know method		Know a source	
	Ever-married women	Currently married women	Ever-married women	Currently married women
<b>Any method</b>	93.9	94.6	91.9	92.9
<b>Any modern method</b>	93.6	94.4	91.9	92.9
Pill	90.4	91.2	87.5	88.6
IUD	82.0	83.2	77.6	78.9
Injection	86.5	87.6	83.8	85.1
Intravag	6.1	6.2	5.0	5.1
Condom	62.8	63.9	53.8	54.9
Norplant	66.0	67.5	60.1	61.4
Female sterilization	54.1	55.2	49.5	50.6
Male sterilization	29.2	29.9	26.8	27.6
Abortion	25.6	26.2	18.6	19.1
<b>Any traditional method</b>	28.0	28.7	19.1	19.7
Periodic abstinence	20.9	21.6	19.1	19.7
Withdrawal	14.0	14.5	NA	NA
Herbs	5.1	5.2	NA	NA
Massage	2.1	2.1	NA	NA
Other	0.6	0.7	NA	NA
Number of women	22909	21109	22909	21109

NA = Not applicable

Knowledge of family planning varies by method. The most widely known methods are the pill, injection and the IUD—known by 91, 88 and 83 percent, respectively. The least known modern method is *intravag*, a non-program method which has only recently become available commercially.<sup>1</sup> Male sterilization is also less well known than other methods. Abortion as a family planning method is known by one of four women. This percentage is high, given that abortion is not a program method.

Knowledge of most methods has remained stable or increased slightly since 1987 (see Figure 4.1). However, there has been a large increase in knowledge of Norplant. In 1987, only 30 percent of married women had heard of this method while in 1991, this figure is 68 percent.

Table 4.1 also shows that almost all ever-married and currently married women know at least one source for family planning. The percentage of married women who know a source for the pill, injection, and the IUD is 89, 85 and 79 percent, respectively. The gap between knowledge of methods and knowledge of sources is relatively small for most methods, ranging from 2 percent for pill and injection to 9 percent for the condom.



A larger percentage of women in urban areas know about family planning methods than women in rural areas (see Table 4.2.1), although the difference is small (98 versus 93 percent). Looking at the pattern according to age, the highest level of knowledge of both methods and sources occurs in age group 20-24.

<sup>1</sup> Intravag is a spermicide-impregnated tissue which is inserted prior to intercourse.

**Table 4.2.1 Knowledge of modern contraceptive methods and source for methods: age, residence, and education**

Percentage of currently married women who know at least one modern contraceptive method and who know a source (for information or services), by age, urban-rural residence, and education, Indonesia 1991

Characteristic	Know any method	Know a modern method <sup>1</sup>	Know a source for modern method	Number of women
<b>Age</b>				
15-19	89.5	88.9	87.1	1152
20-24	97.1	97.0	96.3	3388
25-29	96.1	95.9	95.0	4570
30-34	96.5	96.3	95.2	4000
35-39	96.2	96.0	94.6	3386
40-44	93.0	92.7	90.1	2298
45-49	86.7	86.3	82.9	2314
<b>Residence</b>				
Urban	97.9	97.8	96.6	6120
Rural	93.3	93.0	91.4	14989
<b>Education</b>				
No education	84.7	84.1	81.0	3854
Some primary	94.9	94.7	92.9	7305
Completed primary	97.2	97.1	96.5	5598
Some secondary +	99.6	99.6	98.9	4352
<b>Total</b>	<b>94.6</b>	<b>94.4</b>	<b>92.9</b>	<b>21109</b>

<sup>1</sup>Includes pill, IUD, injection, intravag, condom, female sterilization, male sterilization and Norplant

Respondent's level of education has a strong association with knowledge of family planning methods. About 84 percent of women with no education have heard of a modern method. The proportion rises to 95 percent among women with some primary school, and to almost 100 percent of women with secondary or higher education. The pattern with respect to knowledge of family planning sources is similar.

Regional differences in knowledge of methods and sources are small (see Table 4.2.2). Ninety-six percent of married women in Java-Bali have heard of at least one modern method of family planning, compared to 93 percent of women in Outer-Java Bali I and 90 percent of women in Outer Java-Bali II. This pattern is consistent with the pattern of development of the family planning program; the areas where the program has been functioning longest are those with the highest level of knowledge. The percentage of women who know a modern method ranges from 93 to 99 percent in the provinces of Java-Bali, from 84 to 99 percent in Outer Java-Bali I, and from 65 to 99 percent in Outer Java-Bali II.

**Table 4.2.2 Knowledge of modern contraceptive methods and source for methods: region and province**

Percentage of currently married women who know at least one modern contraceptive method and who know a source (for information or services), by region and province, Indonesia 1991

Region/province	Know any method	Know a modern method <sup>1</sup>	Know a source for modern method	Number of women
<b>Java-Bali</b>	95.7	95.6	94.3	13419
DKI Jakarta	99.8	99.8	99.0	973
West Java	93.0	92.8	91.8	4386
Central Java	98.4	98.4	96.2	3331
DI Yogyakarta	99.2	99.1	98.5	307
East Java	95.0	94.9	93.7	4119
Bali	97.0	97.0	96.5	302
<b>Outer Java-Bali I</b>	93.6	93.2	91.5	5309
DI Aceh	89.7	87.9	86.5	327
North Sumatra	92.5	92.4	90.8	1049
West Sumatra	95.2	95.0	93.3	436
South Sumatra	95.1	94.9	94.2	792
Lampung	98.8	98.8	97.4	664
West Nusa Tenggara	96.1	95.8	94.1	369
West Kalimantan	84.7	84.0	82.1	373
South Kalimantan	96.9	96.4	94.7	339
North Sulawesi	98.9	98.6	98.4	240
South Sulawesi	89.6	89.2	84.7	719
<b>Outer Java-Bali II</b>	91.0	90.3	88.4	2382
Riau	93.5	93.3	90.9	426
Jambi	95.8	95.8	95.3	265
Bengkulu	96.7	96.7	96.4	132
East Nusa Tenggara	85.1	84.4	83.7	367
East Timor	69.5	65.3	65.0	87
Central Kalimantan	94.5	93.3	91.0	170
East Kalimantan	98.9	98.7	96.5	216
Central Sulawesi	97.1	96.6	93.5	195
Southeast Sulawesi	93.8	93.4	92.2	122
Maluku	93.3	92.2	87.9	210
Irian Jaya	73.4	72.2	69.1	191
<b>Total</b>	94.6	94.4	92.9	21109

<sup>1</sup>Includes pill, IUD, injection, intravag, condom, female sterilization, male sterilization and Norplant

Respondents in the IDHS who said that they had heard of a particular method were also asked where they thought a person could go if they wanted to use the method. The responses to this question are summarized in Table 4.3. For all modern methods except intravag, the most frequently named source is the health center (*Puskesmas*). A sizeable proportion of women also mention health posts (*Posyandu*) as a source for these methods. In the case of female and male sterilization, a government hospital is named as a source by more than 60 percent of women. Approximately 15 percent of respondents named pharmacies or drugstores as places to obtain condoms and a relatively large proportion (14 percent) said that they did not know where condoms could be obtained.

**Table 4.3 Potential source of supply for contraceptive methods**

Percent distribution of ever-married women knowing a method by supply source they would use if they wanted the method, according to specific methods, Indonesia 1991

Source of supply	Pill	IUD	Injection	Intravag	Condom	Norplant	Female sterilization	Male sterilization	Periodic abstinence
<b>Government source</b>	84.7	79.7	78.0	41.9	62.8	78.0	77.5	75.7	24.7
Government hospital	3.8	9.1	5.2	12.4	4.2	15.1	62.6	61.5	4.2
Health center ( <i>Puskesmas</i> )	41.6	58.6	58.9	23.9	41.2	51.5	13.3	11.9	11.0
Health post ( <i>Posyandu</i> )	21.7	8.2	10.8	3.7	11.7	6.8	0.7	0.9	5.2
FP post/VCDC/Paguyu.	15.8	1.9	2.3	1.2	4.5	1.4	0.3	0.5	1.8
Fieldworker-PLKB	1.7	0.2	0.4	0.4	0.9	0.3	0.1	0.1	1.7
FP mobile-TKBK/TMK	0.1	0.7	0.2	0.1	0.2	0.6	0.1	0.0	0.1
FP safari	0.1	1.0	0.2	0.2	0.1	2.3	0.4	0.8	0.6
<b>Private source</b>	10.9	14.7	18.2	39.6	22.1	12.6	13.7	15.8	18.9
Private hospital	1.5	2.5	2.1	6.4	1.2	2.6	7.2	7.7	1.7
Private clinic	1.1	1.3	1.3	1.1	0.8	1.2	0.8	1.1	1.0
Private doctor	2.7	5.0	5.9	9.4	1.8	5.1	4.5	6.0	8.8
Private midwife	4.4	5.9	9.0	3.8	3.0	3.6	1.3	1.0	7.4
Pharmacy/Drugstore	1.2	0.0	0.0	18.9	15.3	0.1	0.0	0.0	0.1
<b>Other source</b>	1.2	0.3	0.6	1.1	0.8	0.4	0.2	0.3	47.8
Traditional healer ( <i>Dukun</i> )	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Friends/Relatives	0.5	0.0	0.1	0.5	0.3	0.1	0.0	0.1	38.9
Other	0.7	0.3	0.5	0.5	0.5	0.3	0.1	0.2	8.5
Don't know	2.8	4.8	2.7	16.4	13.5	8.4	8.1	7.7	7.1
Missing	0.4	0.6	0.4	1.1	0.8	0.7	0.5	0.5	1.5
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Number</b>	20712	18797	19820	1390	14390	15130	12402	6684	4792

## 4.2 KNOWLEDGE OF BLUE CIRCLE

One of the highest priority programs of the family planning movement is the provision of family planning services through the private sector. The program is directed toward encouraging self-sufficiency of acceptors by having them pay for services. The program was initiated in a campaign in 1987 in large cities, such as Jakarta, Surabaya, and Bandung, and has gradually expanded to almost all of the municipalities throughout Indonesia. The private sector program logo, "Blue Circle" is present on the packaging of

contraceptives (e.g., condoms, pills) which are sold to users. For information, education, and communication purposes, the Blue Circle logo is also put on signs outside of the offices of private doctors and midwives, and is widely displayed in other strategic locations such as billboards. In order to evaluate the progress of the Blue Circle campaign, respondents in the IDHS were asked whether they had ever heard of Blue Circle, and if so, did they know what it was.

Table 4.4.1 shows that 34 percent of ever-married women had heard of Blue Circle. Of these, only one-third knew that it was a private family planning service and 19 percent mentioned that it concerned family planning but did not specifically mention that it was a *private* service. Forty seven percent of those who had heard of Blue Circle said that they did not know what it was.

**Table 4.4.1 Knowledge of Blue Circle: age, residence, and education**

Percentage of ever-married women who have heard of Blue Circle and of those who have heard of Blue Circle, the percentage who think Blue Circle is a private family planning service, by age, urban-rural residence, and education, Indonesia 1991

Characteristic	Heard of Blue Circle	Among those who heard of Blue Circle, percentage who think it is:			Don't know	Don't know if heard of	Number
		Private family planning service	Other family planning service	Other			
<b>Age</b>							
15-19	33.2	17.7	23.3	1.3	57.7	22.7	1243
20-24	39.9	29.8	17.5	2.0	50.7	19.6	3557
25-29	39.2	33.8	18.1	0.9	47.2	19.3	4788
30-34	36.4	35.3	18.9	1.2	44.6	18.3	4244
35-39	32.9	35.5	18.0	0.9	45.6	21.4	3687
40-44	27.0	38.1	19.6	1.3	40.9	24.7	2583
45-49	20.4	37.7	17.5	1.0	43.7	27.7	2807
<b>Residence</b>							
Urban	60.4	37.2	21.7	1.1	40.0	11.8	6691
Rural	22.8	29.4	15.0	1.4	54.2	25.3	16218
<b>Education</b>							
No education	9.1	13.0	9.0	0.9	77.1	33.8	4385
Some primary	21.7	19.3	19.4	1.7	59.5	25.0	7974
Completed primary	38.1	26.7	20.4	1.3	51.5	18.8	5969
Some secondary +	72.7	47.9	17.9	0.9	33.3	6.3	4581
<b>Total</b>	<b>33.8</b>	<b>33.5</b>	<b>18.5</b>	<b>1.2</b>	<b>46.8</b>	<b>21.3</b>	<b>22909</b>

Young women are more familiar with Blue Circle than older women. However, even in the age group 15 to 24 years more than half of those who said that they had heard of Blue Circle did not know what it was. The Blue Circle campaign has concentrated its efforts in urban areas and has only recently begun to expand to rural areas. It is not surprising, then, that 60 percent of ever-married urban women had heard of Blue Circle, compared to only 23 percent of rural women.

Education is closely associated with knowledge of Blue Circle. Only 9 percent of women with no education have heard of Blue Circle. This proportion rises to 22 percent among women with some primary, 38 percent among those who completed primary, and 73 percent among women with secondary or higher education.

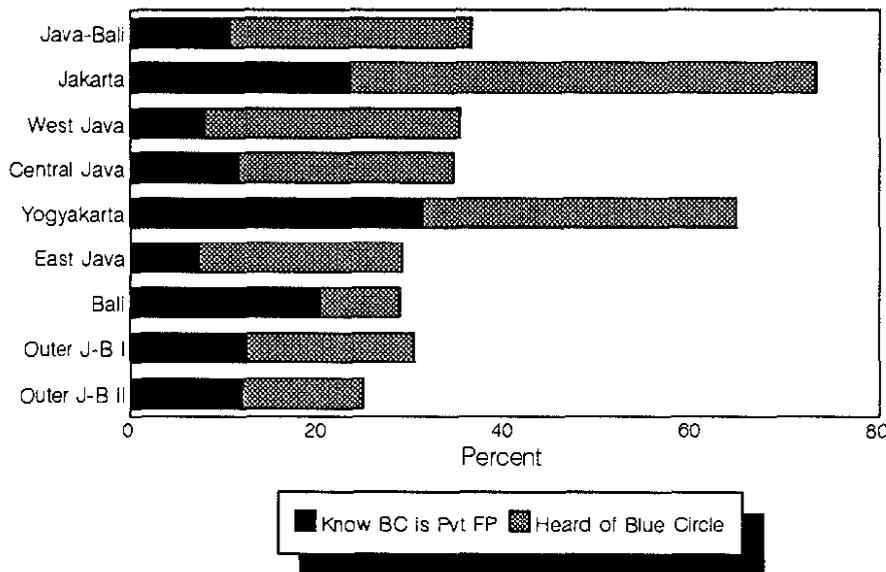
Among the provinces, the highest proportion of ever-married women who have heard Blue Circle occurs in Jakarta (73 percent), followed by Yogyakarta (see Table 4.4.2 and Figure 4.2). This finding is not surprising since the Blue Circle campaign started in large cities like Jakarta. By region, knowledge of Blue Circle is highest in Java-Bali at 37 percent, 30 percent in Outer Java-Bali I and 25 percent in Outer Java-Bali II. The lowest level of knowledge occurs in East Nusa Tenggara in Outer Java-Bali II where only 9 percent have heard of Blue Circle, although almost two-thirds of those who have heard of Blue Circle know that it is a private family planning service. In several other provinces where overall knowledge of Blue Circle is low, the percentage of those who know Blue Circle who correctly identify it is high, such as East Nusa Tenggara and North Sulawesi.

Table 4.4.2 Knowledge of Blue Circle: region and province

Percentage of ever-married women who have heard of Blue Circle and of those who have heard of Blue Circle, the percentage who think Blue Circle is a private family planning service, by region and province, Indonesia 1991

Region/province	Heard of Blue Circle	Among those who heard of Blue Circle, percentage who think it is:			Don't know	Don't know if heard of	Number
		Private family planning service	Other family planning service	Other			
<b>Java-Bali</b>	36.6	29.2	23.6	1.1	46.1	24.3	14637
DKI Jakarta	73.4	32.3	30.8	1.0	35.9	8.5	1086
West Java	35.4	22.9	23.4	1.6	52.2	20.2	4701
Central Java	34.7	33.4	13.3	0.8	52.4	15.0	3708
DI Yogyakarta	64.9	48.3	22.2	0.4	29.0	4.7	328
East Java	29.1	25.3	31.0	1.0	42.7	41.7	4500
Bali	28.9	70.6	4.8	0.3	24.2	18.8	314
<b>Outer Java-Bali I</b>	30.4	41.3	6.5	1.9	50.2	13.3	5709
DI Aceh	20.2	27.5	8.2	0.6	63.6	3.9	349
North Sumatra	31.1	37.1	21.7	7.4	33.8	5.3	1112
West Sumatra	28.7	46.7	10.5	2.4	40.4	7.8	475
South Sumatra	35.6	42.6	0.0	0.0	57.4	15.1	848
Lampung	38.5	36.2	0.5	0.5	62.8	21.4	698
West Nusa Tenggara	18.1	38.3	16.5	0.6	44.6	21.5	412
West Kalimantan	28.0	36.1	0.0	0.0	63.9	10.4	399
South Kalimantan	41.8	43.0	2.8	1.3	53.0	22.5	377
North Sulawesi	31.8	65.8	0.0	0.5	33.7	5.8	254
South Sulawesi	23.9	48.2	0.3	0.0	51.5	18.1	786
<b>Outer Java-Bali II</b>	25.0	47.7	8.4	0.6	43.3	22.4	2563
Riau	23.0	40.7	34.7	1.7	22.8	6.9	459
Jambi	28.2	44.6	0.0	0.0	55.4	35.3	282
Bengkulu	30.9	44.9	3.3	0.0	51.8	14.3	139
East Nusa Tenggara	8.6	60.3	18.1	0.0	21.7	43.5	400
East Timor	12.1	29.8	55.9	3.6	10.7	31.8	96
Central Kalimantan	33.3	27.8	0.0	0.7	71.5	16.6	184
East Kalimantan	51.4	45.3	0.0	0.0	54.7	1.2	237
Central Sulawesi	26.2	21.6	5.2	0.0	73.2	16.9	204
Southeast Sulawesi	18.1	85.2	0.0	0.0	14.8	44.1	131
Maluku	34.1	72.1	0.0	1.2	26.7	11.4	222
Irian Jaya	15.1	81.8	0.0	0.0	18.2	31.8	209
<b>Total</b>	<b>33.8</b>	<b>33.5</b>	<b>18.5</b>	<b>1.2</b>	<b>46.8</b>	<b>21.3</b>	<b>22909</b>

Figure 4.2  
 Percentage of Ever-Married Women Who  
 Have Heard of Blue Circle Program and Who  
 Know It Is Private Family Planning Program



IDHS 1991

### 4.3 DISSEMINATION OF FAMILY PLANNING INFORMATION

The objectives of the Information, Education, and Communication (IEC) component of Indonesia's family planning program are to disseminate knowledge about family planning in particular and to institutionalize the "small, happy, and prosperous family" norm in general. IEC activities are conducted through the mass media and through family planning groups and workers. The use of the mass media including newspaper, radio and television, is integral to the IEC program at both the central and provincial levels. Family planning television programs are shown on both central and regional stations run by the government. Family planning information is carried on the radio by government and private stations throughout the country.

IEC activities are also carried out through community groups which are formed at the village or neighborhood level. Generally, IEC activities at periodic community group meetings are handled by a family planning field worker or by the group leader.

#### 4.3.1 Knowledge of the Best Methods for Delaying and Limiting Births

One very important indicator of the success of the IEC program is the extent to which accurate information is conveyed to women about the objective of using modern contraceptive methods. Table 4.5 indicates that 70 percent of women believe that either the pill, IUD or injection is best for delaying births. Although the family planning program recommends that women use the IUD only when they have all the children they want, about 21 percent of women say this method is best for delaying the next birth. The percentage of women who think that female sterilization is best for stopping childbearing is 20 percent while very few named male sterilization or Norplant as the best.

About one in five women said they did not know the best contraceptive for delaying a birth and about one in four said that they did not know the best method for stopping childbearing. From these data, it appears that there is a need for greater knowledge about the methods appropriate for different childbearing desires. It should be noted that the figures in Table 4.5 are almost identical to the figures derived from the 1987 NICPS. Thus, there has been little improvement in this aspect of contraceptive knowledge since 1987.

#### 4.3.2 Provision of Information by Family Planning Field Workers

Family planning field workers and cadres at the grassroots level play a very important role in the IEC component of the family planning program. They are not only agents of dissemination of family planning innovations, but are also the "motor" of the family planning movement. Various activities are carried out by the cadres at regular monthly meetings, such as recording current users, IEC activities, referrals to the proper family planning services, self-reliant family planning movement (*KB Mandiri*) activities, and other activities integrated with family planning, such as income generation and family welfare education.

Table 4.6.1 shows the percentage of currently married women who had been visited by a family planning field worker in the 6 months prior to the survey. Overall, one in three women was visited. The percentage visited reaches 30-32 percent of women age 20-29 but is lower among teenagers and women age 40 or over. Rural women are more likely to be visited by a family planning field worker than urban women. Visits by a field worker are positively related to the respondent's level of education. Women who have attended school are much more likely to be visited by a field worker than those with no education.

Compared to women in the other two regions, women in Outer Java-Bali II are most likely to be visited by a family planning field worker (see Table 4.6.2), but there are significant differentials between provinces within each region. In Java-Bali, DKI Jakarta has the lowest percentage (11 percent) while Central Java and East Java have the highest percentage of women who were visited by a family planning field worker (34 and 35 percent, respectively). In Outer Java-Bali I, the lowest percentage occurs in North Sumatra (11 percent) and the highest in North Sulawesi (41 percent). In Outer Java-Bali II, the percentages are lowest in Central and Southeast Sulawesi (13 and 14 percent) and highest in East Nusa Tenggara (60 percent).

Women who are using contraception are more likely to have had a visit from a family planning field worker than nonusers, 35 percent compared to 24 percent. This finding suggests that family planning field workers should be encouraged to increase their efforts to visit nonusers. The same pattern was found in the 1987 NICPS results.

**Table 4.5 Perceived best method to delay or limit births**

Percent distribution of ever-married women by the method they think best to use to delay or limit births, Indonesia 1991

Method	Best for delaying	Best for limiting
Pill	28.3	15.1
IUD	20.7	15.5
Injection	22.1	15.5
Condom	1.0	0.3
Norplant	3.9	4.6
Female sterilization	0.7	19.8
Male sterilization	0.1	1.0
Periodic abstinence	0.9	0.4
Withdrawal	0.4	0.2
Herbs	0.8	0.7
Massage	0.3	0.3
Other	0.4	0.3
Don't know	20.4	26.2
Total	100.0	100.0
Number	22909	22909

**Table 4.6.1 Visits by family planning field workers: age, residence, and education**

Percentage of currently married women who have been visited by a family planning field worker in the 6 months prior to the survey, by age, urban-rural residence, education, and current contraceptive use status, Indonesia 1991

Background characteristic	Using contraception	Not using contraception	Total	Number
<b>Age</b>				
15-19	35.6	17.4	22.9	1152
20-24	36.9	24.9	31.0	3388
25-29	37.9	27.1	32.9	4570
30-34	33.3	27.0	30.6	4000
35-39	37.1	25.8	32.3	3386
40-44	29.8	19.8	24.6	2298
45-49	29.2	18.1	21.2	2314
<b>Residence</b>				
Urban	28.5	20.9	25.1	6120
Rural	38.3	24.5	31.0	14989
<b>Education</b>				
No education	29.4	17.6	21.9	3854
Some primary	35.0	23.3	28.9	7305
Completed primary	38.5	28.0	33.7	5598
Some secondary +	34.4	26.1	31.0	4352
<b>Total</b>	<b>35.1</b>	<b>23.6</b>	<b>29.3</b>	<b>21109</b>

**Table 4.6.2 Visits by family planning field workers: region and province**

Percentage of currently married women who have been visited by a family planning field worker in the 6 months prior to the survey, by region, province, and current contraceptive use status, Indonesia 1991

Region/province	Using contra- ception	Not using contra- ception	Total	Number
<b>Java-Bali</b>	34.4	24.0	29.6	13419
DKI Jakarta	12.7	8.5	10.9	973
West Java	38.8	30.3	34.6	4386
Central Java	26.6	17.3	21.9	3331
DI Yogyakarta	36.7	26.6	33.8	307
East Java	42.3	26.7	35.3	4119
Bali	19.8	10.1	17.0	302
<b>Outer Java-Bali I</b>	32.8	20.9	26.1	5309
DI Aceh	29.2	20.3	22.8	327
North Sumatra	14.1	8.8	10.8	1049
West Sumatra	31.1	18.2	23.4	436
South Sumatra	36.8	23.5	29.8	792
Lampung	36.1	28.4	32.5	664
West Nusa Tenggara	46.0	32.7	37.9	369
West Kalimantan	25.3	13.2	18.6	373
South Kalimantan	33.0	18.0	25.8	339
North Sulawesi	44.6	31.6	40.5	240
South Sulawesi	42.8	29.7	34.6	719
<b>Outer Java-Bali II</b>	45.0	27.8	35.2	2382
Riau	25.3	19.7	21.9	426
Jambi	59.5	35.8	47.2	265
Bengkulu	51.5	17.7	37.4	132
East Nusa Tenggara	77.8	48.2	59.8	367
East Timor	47.7	29.0	33.7	87
Central Kalimantan	54.3	20.9	35.8	170
East Kalimantan	35.5	17.6	28.0	216
Central Sulawesi	14.8	11.2	13.0	195
Southeast Sulawesi	21.6	8.1	13.7	122
Maluku	53.9	40.0	46.0	210
Irian Jaya	46.4	28.0	31.8	191
<b>Total</b>	<b>35.1</b>	<b>23.6</b>	<b>29.3</b>	<b>21109</b>

### 4.3.3 Appropriate Sources of Family Planning Information

Mass media programs used to disseminate information about family planning in Indonesia through radio and television include spot shows, dramas, reports, discussions, and regular series. Another important means of disseminating family planning information is the family planning field worker system, which operates in all parts of the country. Field workers focus their efforts on motivating family planning use, providing family planning information and recording service statistics. An important aspect of a family planning worker's job is institutionalization, or working through community organizations such as mother's clubs, religious groups, women's organizations (PKK), and the organization for wives of civil servants (*Dharma Wanita*). Income generating activities and rewards to long-term users are among the strategies used to introduce family planning and maintain motivation. In an effort to discover which actual or potential sources of family planning information are considered appropriate by women in Indonesia, the IDHS included a set of questions on this subject (see Table 4.7.1).

Table 4.7.1 Appropriate sources for family planning information: age, residence, and education

Percentage of ever-married women who believe specific sources are appropriate for obtaining family planning information, by age, urban-rural residence, and education, Indonesia 1991

Characteristic	Private doctor	Private midwife	Family planning field worker	Village official	Religious leader	Women's org. (PKK)	Pharmacist	Teacher	Television	Radio	Number of women
<b>Age</b>											
15-19	72.6	80.0	78.4	53.4	39.2	60.0	42.1	37.2	64.0	65.3	1243
20-24	80.6	87.1	85.1	61.5	47.3	70.9	47.9	43.3	71.9	73.6	3557
25-29	79.7	86.0	84.1	62.0	49.2	69.6	47.3	45.5	72.7	73.3	4788
30-34	81.4	86.8	84.4	63.7	51.6	71.7	49.0	49.2	72.1	73.4	4244
35-39	80.5	85.9	82.9	62.5	51.1	70.2	47.5	48.6	70.3	70.3	3687
40-44	76.8	81.7	79.5	62.3	49.4	66.2	44.3	47.3	66.9	68.0	2583
45-49	70.5	76.7	72.2	55.6	45.2	59.1	41.3	42.6	61.0	61.4	2807
<b>Residence</b>											
Urban	85.6	90.1	87.2	58.7	52.3	75.4	51.0	47.3	83.0	81.2	6691
Rural	75.5	82.0	79.7	62.1	47.1	65.1	44.5	45.1	64.0	65.9	16218
<b>Education</b>											
No education	63.2	69.8	64.5	54.5	40.6	51.1	34.6	38.4	49.7	51.7	4385
Some primary	78.0	84.6	81.9	64.8	49.8	67.7	47.1	48.0	67.2	68.7	7974
Completed primary	83.3	88.7	87.1	63.9	49.8	73.6	50.8	46.7	74.2	75.5	5969
Some secondary+	87.5	92.2	91.6	57.3	52.8	77.9	50.6	47.7	86.5	84.6	4581
<b>Total</b>	<b>78.4</b>	<b>84.3</b>	<b>81.9</b>	<b>61.1</b>	<b>48.6</b>	<b>68.1</b>	<b>46.4</b>	<b>45.7</b>	<b>69.5</b>	<b>70.4</b>	<b>22909</b>

At least three of four ever-married women considered private doctors, midwives, and family planning field workers appropriate sources of family planning information and 68 to 70 percent said women's organizations (PKK), television, and radio are appropriate family planning information sources. Teachers, religious leaders, and pharmacists are thought to be appropriate sources by less than half of women.

There is little difference by urban-rural residence in the percentage of ever-married women who believe specific sources are appropriate for family planning information. Eighty-six percent of ever-married women in urban areas believe that private doctors are appropriate for family planning information, compared to 76 percent of ever-married women in rural areas. Furthermore, 90 percent of ever-married women in urban areas and 82 percent in rural areas think that private midwives are appropriate sources for family planning information. This finding supports the strategic role of midwives in the delivery of family planning services as well as in the improvement of maternal and child health.

The types of providers of family planning information who are considered acceptable vary by women's education. For example, 65 percent of ever-married women with no education think that family planning field workers are appropriate for family planning information, compared to 92 percent of those with some secondary or more education.

Differentials by province in the proportion of women who believe that a specific source of family planning information is appropriate are shown in Table 4.7.2. In most provinces, the largest proportion of women consider midwives acceptable, followed by family planning field workers, and private doctors. In East Timor, however, the largest proportion of women believe that religious leaders are an appropriate source of family planning information.

**Table 4.7.2 Appropriate sources for family planning information: region and province**

Percentage of ever married women who believe specific sources are appropriate for obtaining family planning information, region and province, Indonesia 1991

Region/province	Private doctor	Private midwife	Family planning field worker	Village official	Religious leader	Women's org. (PKK)	Pharmacist	Teacher	Television	Radio	Number of women
<b>Java-Bali</b>	77.6	84.3	83.9	69.9	56.9	75.1	54.8	53.6	74.8	76.0	14637
DKI Jakarta	92.3	97.1	97.0	70.4	69.3	91.9	66.2	60.5	95.5	96.9	1086
West Java	68.1	79.1	77.9	60.3	46.0	67.9	40.2	43.4	66.1	70.5	4701
Central Java	82.8	86.0	89.6	85.3	72.2	87.3	72.6	71.2	83.7	83.9	3708
DI Yogyakarta	89.8	94.3	97.0	80.6	68.5	93.2	59.2	65.1	89.9	89.9	328
East Java	78.1	84.2	81.6	67.3	54.3	68.7	54.1	49.0	71.2	70.4	4500
Bali	88.3	90.4	79.3	57.0	22.5	53.7	27.3	26.6	61.8	57.2	314
<b>Outer Java-Bali II</b>	82.8	86.8	78.6	47.8	35.1	56.5	34.1	34.0	61.6	61.5	5709
DI Aceh	85.5	87.6	84.7	37.6	28.6	55.8	41.2	27.5	60.8	57.4	349
North Sumatra	88.0	89.6	74.2	45.6	34.5	50.9	38.5	32.1	56.6	56.3	1112
West Sumatra	85.5	91.6	84.6	46.9	31.2	66.7	30.9	37.6	71.4	73.3	475
South Sumatra	79.7	88.3	78.2	38.2	29.0	58.1	38.2	29.0	63.4	61.8	848
Lampung	90.4	97.1	94.5	66.7	48.9	76.4	52.9	63.3	92.1	92.9	698
West Nusa Tenggara	70.6	73.9	69.6	62.1	44.2	55.9	29.2	31.7	49.5	46.9	412
West Kalimantan	73.4	79.3	75.7	58.0	53.2	63.9	43.9	52.3	76.4	75.0	399
South Kalimantan	83.9	90.2	82.8	57.8	53.1	59.3	22.0	24.2	66.7	77.8	377
North Sulawesi	73.5	72.0	76.0	55.9	35.1	74.6	31.7	36.1	54.6	54.3	254
South Sulawesi	83.0	82.8	69.9	29.2	13.3	28.7	9.7	13.0	32.4	30.9	786
<b>Outer Java-Bali II</b>	73.6	78.9	77.5	40.5	31.4	54.1	25.9	27.2	57.3	58.0	2563
Riau	87.7	90.3	75.0	46.5	36.3	62.3	40.3	36.2	68.8	70.0	459
Jambi	97.6	99.1	96.2	73.3	61.3	81.2	62.1	57.3	87.0	86.5	282
Bengkulu	82.9	89.4	86.5	37.1	23.0	56.7	32.6	36.8	79.5	79.0	139
East Nusa Tenggara	58.6	73.6	69.2	23.8	7.0	29.5	8.0	10.0	15.0	21.3	400
East Timor	52.7	40.3	33.8	32.3	55.3	37.1	7.9	8.2	25.0	33.4	96
Central Kalimantan	65.0	76.2	77.6	35.5	44.0	46.7	12.0	13.9	60.7	59.9	184
East Kalimantan	89.7	95.2	95.0	54.2	63.4	73.7	43.5	49.3	91.7	91.7	237
Central Sulawesi	58.2	60.3	85.5	51.7	24.0	69.1	17.9	28.8	65.3	58.0	204
Southeast Sulawesi	78.5	79.3	79.9	31.5	26.6	58.7	21.7	25.3	68.2	79.7	131
Maluku	82.6	89.8	86.5	20.4	13.6	54.0	8.1	5.1	51.5	44.5	222
Irian Jaya	33.5	38.3	48.7	26.0	3.8	19.1	5.3	11.8	22.9	22.1	209
<b>Total</b>	<b>78.4</b>	<b>84.3</b>	<b>81.9</b>	<b>61.1</b>	<b>48.6</b>	<b>68.1</b>	<b>46.4</b>	<b>45.7</b>	<b>69.5</b>	<b>70.4</b>	<b>22909</b>

#### 4.4 EVER USE OF FAMILY PLANNING METHODS

For each method recognized, the respondent was asked if she had ever used that method. About 66 percent of ever-married women have used a method of contraception sometime, and 64 percent have used a modern method (see Table 4.8). The most common method women have ever used is the pill (37 percent) followed by the IUD and injection (22 and 27, respectively). Much smaller proportions of women report having used the condom (5 percent), Norplant (3 percent) and female sterilization (3 percent). Seven percent of ever-married women have used a traditional method sometime: periodic abstinence (3 percent), withdrawal (3 percent), herbs (2 percent), and 1 percent have used massage.

Table 4.8 Ever use of contraception								
Percentage of ever-married women and of currently married women who have ever used any contraceptive method, by specific method and age, Indonesia 1991								
Method	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
<b>EVER-MARRIED WOMEN</b>								
<b>Any method</b>	37.6	65.4	73.7	76.3	73.4	63.7	45.6	66.3
<b>Any modern method</b>	36.8	63.7	71.7	74.5	71.1	61.0	42.1	64.2
Pill	22.0	32.0	39.6	44.0	43.9	36.2	26.5	37.0
IUD	4.1	15.3	23.4	27.2	28.0	25.0	15.3	21.7
Injection	15.5	34.6	34.4	31.9	27.1	16.4	8.6	26.6
Condom	0.1	2.2	4.8	6.4	6.7	6.7	3.9	4.8
Norplant	1.6	3.9	3.8	4.3	4.3	2.4	0.8	3.4
Female sterilization	0.0	0.2	0.9	3.1	4.0	5.9	4.3	2.6
Male sterilization	0.3	0.1	0.4	0.8	1.2	0.6	0.6	0.6
Abortion	0.0	0.2	0.1	0.6	0.7	0.4	0.4	0.4
<b>Any traditional method</b>	1.6	4.2	7.5	8.1	9.7	9.8	7.6	7.4
Periodic abstinence	0.4	1.4	3.1	3.4	5.4	4.1	2.9	3.2
Withdrawal	0.7	2.1	3.6	3.3	3.6	3.7	1.7	2.9
Herbs	0.4	0.7	1.2	1.9	2.0	3.4	2.4	1.7
Massage	0.1	0.3	0.6	0.5	0.5	0.6	1.1	0.6
Other	0.0	0.1	0.3	0.3	0.3	0.6	0.4	0.3
Number of women	1243	3557	4788	4244	3687	2583	2807	22909
<b>CURRENTLY MARRIED WOMEN</b>								
<b>Any method</b>	39.1	66.9	75.7	70.4	76.4	67.8	50.3	69.3
<b>Any modern method</b>	38.2	65.1	73.6	76.6	74.1	65.2	46.8	67.1
Pill	22.3	32.8	40.6	45.4	45.9	38.4	29.7	38.7
IUD	4.4	15.7	24.1	28.2	29.3	26.9	17.0	22.8
Injection	16.1	35.4	35.3	32.9	28.5	18.2	9.8	28.1
Condom	0.1	2.2	4.9	6.5	7.0	7.3	4.2	5.0
Norplant	1.7	4.1	3.9	4.5	4.6	2.7	1.0	3.6
Female sterilization	0.0	0.2	0.8	3.2	4.1	6.2	4.8	2.7
Male sterilization	0.3	0.1	0.4	0.9	1.3	0.7	0.7	0.6
Abortion	0.0	0.2	0.1	0.5	0.8	0.4	0.5	0.4
<b>Any traditional method</b>	1.7	4.2	7.7	8.3	10.2	10.3	8.0	7.6
Periodic abstinence	0.4	1.4	3.2	3.4	5.7	4.2	3.2	3.3
Withdrawal	0.7	2.1	3.7	3.4	3.8	3.9	1.7	3.1
Herbs	0.5	0.7	1.2	1.9	2.1	3.7	2.4	1.8
Massage	0.1	0.4	0.6	0.5	0.5	0.6	1.1	0.6
Other	0.0	0.2	0.3	0.3	0.3	0.7	0.5	0.3
Number of women	1152	3388	4570	4000	3386	2298	2314	21109

## CHAPTER 5

### CURRENT USE OF FAMILY PLANNING

Information on the current level of contraceptive use, or contraceptive prevalence, is important for measuring the success of the National Family Planning Movement. Contraceptive prevalence is defined as the proportion of currently married women age 15-49 who were using some method of family planning at the time of the survey. This chapter presents data concerning levels, trends, and differentials in current use, sources of family planning methods, age at time of first contraceptive use, accessibility, reasons for using a particular method, and some indicators of the quality of use of the pill, injection and condom.

#### 5.1 CURRENT USE OF FAMILY PLANNING

Fifty percent of currently married women are using contraception, 47 percent modern methods and 3 percent traditional methods (see Table 5.1). As with ever use, the pill (15 percent), IUD (13 percent), and injection (12 percent) are the most commonly used methods, together accounting for over 80 percent of current contraceptive use. Other modern methods with significant proportions of users are Norplant and female sterilization, each used by 3 percent of married women.

**Table 5.1 Current use of contraception**

Percent distribution of currently married women by contraceptive method currently used, according to age, Indonesia 1991

Method	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
<b>Any method</b>	30.0	51.0	53.6	56.8	57.5	48.3	27.4	49.7
<b>Any modern method</b>	29.1	49.4	51.2	54.1	53.7	44.8	25.0	47.1
Pill	11.8	15.1	17.6	18.1	16.0	11.6	6.0	14.8
IUD	3.5	10.9	12.8	15.0	17.0	17.8	10.2	13.3
Injection	11.7	19.3	15.6	11.9	9.9	5.2	1.8	11.7
Condom	0.1	0.2	0.7	1.2	1.2	1.2	0.5	0.8
Norplant	1.7	3.7	3.2	3.8	4.2	2.2	0.9	3.1
Female sterilization	0.0	0.2	0.8	3.2	4.1	6.2	4.8	2.7
Male sterilization	0.3	0.1	0.3	0.8	1.2	0.6	0.6	0.6
<b>Any traditional method</b>	0.9	1.6	2.4	2.7	3.8	3.5	2.5	2.6
Periodic abstinence	0.1	0.5	1.1	1.2	2.1	1.1	1.0	1.1
Withdrawal	0.4	0.5	0.9	0.7	0.8	0.9	0.4	0.7
Herbs	0.4	0.3	0.3	0.7	0.7	1.2	0.5	0.6
Massage	0.1	0.2	0.1	0.1	0.2	0.2	0.5	0.2
Other	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>Not currently using</b>	70.0	49.0	46.4	43.2	42.5	51.7	72.6	50.3
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Number</b>	1152	3388	4570	4000	3386	2298	2314	21109

Modern methods predominate in all subgroups but there are clear differences in the overall level of use between subgroups. Younger and older women are less likely to be using contraception than women in the mid-childbearing years; the highest rate of use is reported for women aged 35-39 (58 percent). The pill and injection are more common among younger women (15-30 years), whereas the IUD, condom, male sterilization, and female sterilization are more commonly used by women over 30.

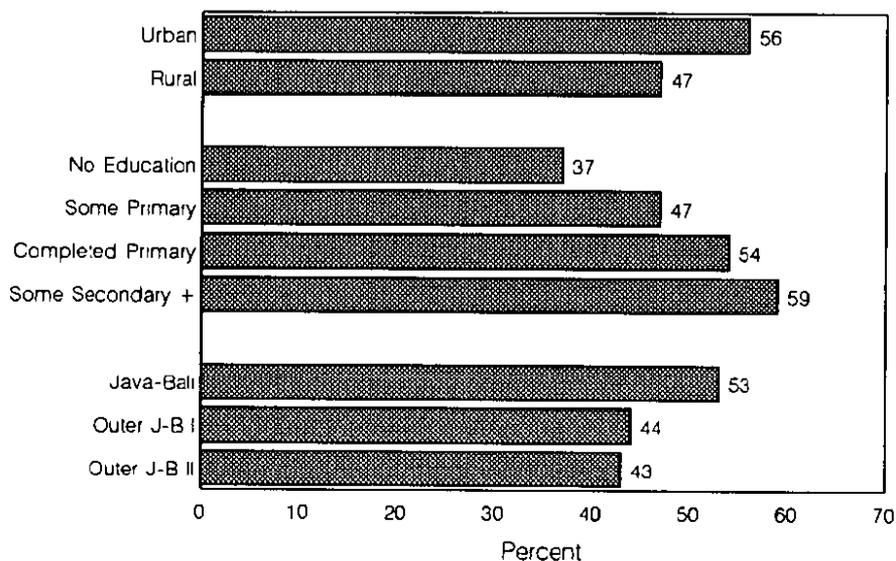
Family planning use is higher among urban women than rural women (see Table 5.2.1 and Figure 5.1). Over half (56 percent) of currently married urban women are using a method, compared to 47 percent

**Table 5.2.1 Current use of contraception: background characteristics**

Percent distribution of currently married women by contraceptive method currently used, according to selected background characteristics, Indonesia 1991

Method	Residence		Education				No. of living children					Total
	Urban	Rural	No education	Some primary	Completed primary	Some secondary+	0	1	2	3	4+	
<b>Any method</b>	55.7	47.2	36.5	47.2	54.4	59.4	7.7	48.3	59.5	58.8	51.6	49.7
<b>Any modern method</b>	51.1	45.4	35.6	45.2	52.2	53.8	7.2	46.2	56.5	55.9	48.4	47.1
Pill	13.8	15.2	12.5	16.5	17.0	11.2	4.7	15.7	19.0	17.0	13.1	14.8
IUD	14.2	13.0	10.1	11.3	13.6	19.3	0.7	10.9	17.2	17.2	14.1	13.3
Injection	14.4	10.6	7.3	10.7	14.4	13.9	1.8	16.2	13.6	12.2	10.0	11.7
Condom	1.8	0.4	0.2	0.4	0.6	2.2	0.0	0.5	1.1	1.0	0.9	0.8
Norplant	1.2	3.9	3.1	3.8	3.3	1.8	0.0	2.5	3.9	4.0	3.4	3.1
Female sterilization	5.2	1.7	1.6	2.1	2.5	5.0	0.0	0.2	1.2	3.8	5.9	2.7
Male sterilization	0.4	0.7	0.8	0.4	0.8	0.3	0.0	0.3	0.4	0.7	1.1	0.6
<b>Any traditional method</b>	4.6	1.8	1.0	2.1	2.1	5.6	0.5	2.1	3.0	2.9	3.2	2.6
Periodic abstinence	2.4	0.6	0.2	0.5	0.8	3.4	0.1	0.9	1.5	1.3	1.1	1.1
Withdrawal	1.0	0.5	0.2	0.7	0.7	1.2	0.1	0.6	0.7	0.8	0.8	0.7
Herbs	0.9	0.4	0.4	0.6	0.5	0.7	0.2	0.3	0.5	0.5	0.9	0.6
Massage	0.2	0.2	0.2	0.3	0.1	0.1	0.0	0.2	0.1	0.2	0.3	0.2
Other	0.1	0.1	0.1	0.1	0.0	0.2	0.0	0.1	0.2	0.1	0.1	0.1
<b>Not currently using</b>	44.3	52.8	63.5	52.8	45.6	40.6	92.3	51.7	40.5	41.2	48.4	50.3
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Number</b>	6120	14989	3854	7305	5598	4352	2013	4541	4706	3567	6283	21109

**Figure 5.1**  
Percentage of Currently Married Women  
Using a Contraceptive Method



IDHS 1991

of rural women. The mix of methods also differs, with urban women relying more heavily on the use of condoms, injection, female sterilization and periodic abstinence, and rural women relying more heavily on the pill, IUD and Norplant.

Contraceptive use increases with the respondent's level of education. Thirty-seven percent of currently married women with no education are using a method, compared to 59 percent of those with secondary or higher education. While pill use varies erratically by education level, use of almost all other methods except Norplant, is higher for better educated women. Traditional methods also account for a higher proportion of use among better educated women than among less educated women.

Contraceptive use increases rapidly with the number of living children a woman has; it reaches a peak among women with 2 or 3 children, after which it declines among women with 4 or more children. Eight percent of childless women are using a method of family planning, mostly the pill, presumably to delay their first birth. As the number of children increases, reliance on the pill diminishes relative to the IUD and injection. Use of Norplant and female sterilization is highest among women with 3 or more children.

Tables 5.2.2-5.2.4 show the proportion of married women currently using contraception by province in each of the three regions. Contraceptive use is highest in Java-Bali (53 percent), followed by Outer Java-Bali I (44 percent) and Outer Java-Bali II (43 percent), reflecting the order in which the family planning program was initiated. Women in Java-Bali tend to rely more heavily on the IUD, while the pill and Norplant account for a greater proportion of use in the Outer Islands.

Table 5.2.2 Current use of contraception: Java-Bali							
Percent distribution of currently married women by contraceptive method currently used, according to province, Java-Bali, Indonesia 1991							
Method	Java-Bali						Total
	DKI Jakarta	West Java	Central Java	DI Yogyakarta	East Java	Bali	
<b>Any method</b>	56.0	51.0	49.7	71.3	55.4	71.9	53.4
<b>Any modern method</b>	51.8	49.7	48.1	57.0	53.0	70.2	51.1
Pill	11.9	17.7	10.4	8.2	16.0	4.3	14.5
IUD	17.5	7.5	15.6	27.8	22.3	44.8	16.1
Injection	12.7	19.0	13.2	9.6	6.9	9.9	13.0
Condom	2.4	0.3	1.2	5.3	0.4	0.9	0.8
Norplant	1.4	3.0	3.7	1.3	3.5	0.7	3.1
Female sterilization	5.5	1.2	2.5	4.5	3.9	8.6	2.9
Male sterilization	0.4	1.1	1.2	0.3	0.1	1.0	0.7
<b>Any traditional method</b>	4.2	1.3	1.7	14.3	2.4	1.7	2.3
Periodic abstinence	2.3	0.6	0.9	4.1	1.1	1.5	1.0
Withdrawal	0.9	0.1	0.4	7.2	0.6	0.0	0.5
Herbs	0.9	0.5	0.1	0.0	0.5	0.1	0.4
Massage	0.0	0.1	0.2	0.2	0.1	0.1	0.1
Other	0.1	0.0	0.1	2.8	0.1	0.0	0.1
<b>Not currently using</b>	44.0	49.0	50.3	28.7	44.6	28.1	46.6
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Number</b>	973	4386	3331	307	4119	302	13419

**Table 5.2.3 Current use of contraception: Outer Java-Bali I**

Percent distribution of currently married women by contraceptive method currently used, according to province, Outer Java-Bali I, Indonesia 1991

Method	Outer Java-Bali I										Total
	DI Aceh	North Sumatra	West Sumatra	South Sumatra	Lampung	West Nusa Tenggara	West Kalimantan	South Kalimantan	North Sulawesi	South Sulawesi	
<b>Any method</b>	28.9	37.2	40.3	47.1	53.8	39.0	44.4	51.9	68.5	37.1	43.5
<b>Any modern method</b>	24.9	34.0	37.8	44.6	50.8	38.2	42.9	47.2	62.8	32.9	40.3
Pill	12.6	11.1	8.2	16.8	20.8	13.4	20.4	31.6	16.8	16.4	16.1
IUD	1.9	7.7	11.2	8.5	15.3	11.6	4.9	3.9	24.4	3.9	8.8
Injection	8.6	7.4	10.6	10.6	11.3	7.6	13.4	5.8	13.5	7.7	9.4
Condom	0.4	1.4	0.4	0.9	0.2	0.1	1.0	0.4	0.3	0.4	0.7
Norplant	0.5	1.3	5.9	4.3	1.3	4.8	2.0	2.6	4.6	2.2	2.7
Female sterilization	0.9	5.2	1.5	3.4	1.2	0.6	0.8	2.7	3.2	2.2	2.6
Male sterilization	0.0	0.0	0.0	0.0	0.5	0.1	0.4	0.1	0.0	0.0	0.1
<b>Any traditional method</b>	4.0	3.1	2.5	2.5	3.0	0.8	1.4	4.7	5.7	4.2	3.1
Periodic abstinence	1.6	1.6	0.7	0.6	1.1	0.2	1.0	0.6	4.6	0.9	1.1
Withdrawal	1.0	0.7	1.5	1.0	1.3	0.0	0.2	0.0	0.3	2.7	1.0
Herbs	0.7	0.8	0.1	0.4	0.2	0.6	0.1	4.2	0.6	0.2	0.7
Massage	0.5	0.1	0.1	0.5	0.3	0.0	0.1	0.0	0.2	0.4	0.2
Other	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
<b>Not currently using</b>	71.1	62.8	59.7	52.9	46.2	61.0	55.6	48.1	31.5	62.9	56.5
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Number</b>	327	1049	436	792	664	369	373	339	240	719	5309

There are major differentials in the use of contraception within regions. In Java-Bali, contraceptive use is highest in Bali and Yogyakarta and lowest in Central Java and West Java. More than 70 percent of currently married women in Bali are using contraceptive methods, 98 percent of which are modern methods. In Outer Java-Bali I, contraceptive use is highest in North Sulawesi (69 percent) and lowest in DI Aceh (29 percent). The highest level of contraceptive use in Outer Java-Bali II occurs in Bengkulu and East Kalimantan (58 percent) and the lowest in East Timor and Irian Jaya (25 and 21 percent, respectively).

The mix of methods varies considerably by province. Interestingly, in Java-Bali, the provinces with the highest overall prevalence rate have the smallest proportion of pill users. For example, in Bali and Yogyakarta, pill use accounts for only 6 and 12 percent of contraceptive use respectively, while in Central Java, 22 percent of users depend on the pill. In Bali, 45 percent of currently married women—or 62 percent of users—are using the IUD. Injection and female sterilization are the second most widely used contraceptive methods in Bali. Yogyakarta shows a pattern similar to that in Bali, with the IUD predominating among users. After the IUD, traditional methods (primarily withdrawal) are used most commonly by married women in Yogyakarta.

**Table 5.2.4 Current use of contraception: Outer Java-Bali II**

Percent distribution of currently married women by contraceptive method currently used, according to province, Outer Java-Bali-II, Indonesia 1991

Method	Outer Java-Bali II											Total
	Riau	Jambi	Beng- kulu	East Nusa Tenggara	East Timor	Central Kali- mantan	East Kali- mantan	Central Sula- wesi	South- east Sulawesi	Maluku	Irian Jaya	
<b>Any method</b>	39.8	47.9	58.3	39.2	25.1	44.6	57.9	50.4	41.9	43.2	20.6	42.8
<b>Any modern method</b>	35.2	46.3	55.9	35.0	20.4	42.9	54.6	47.5	37.9	36.5	18.9	39.3
Pill	11.6	22.3	20.7	3.9	1.4	23.2	22.4	21.3	16.3	9.5	6.4	14.0
IUD	5.6	5.8	13.1	10.3	4.5	6.7	13.9	8.7	4.7	10.5	5.2	8.2
Injection	11.9	9.8	12.5	8.8	10.5	8.8	11.6	11.1	8.5	11.4	5.0	10.1
Condom	2.4	0.4	0.5	0.2	0.2	0.3	2.1	0.0	0.0	0.2	0.0	0.8
Norplant	2.2	6.2	7.6	5.9	3.6	3.5	1.3	4.3	6.2	3.6	0.9	4.0
Female sterilization	1.5	1.8	0.8	2.3	0.2	0.5	3.1	2.1	1.9	1.3	1.4	1.7
Male sterilization	0.0	0.0	0.5	3.5	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.6
<b>Any traditional method</b>	4.6	1.6	2.4	4.2	4.7	1.7	3.4	2.8	4.0	6.6	1.6	3.5
Periodic abstinence	0.6	0.7	1.4	3.4	1.4	0.0	1.0	1.2	1.9	2.6	0.5	1.4
Withdrawal	1.8	0.0	0.3	0.0	0.5	0.0	0.3	0.5	1.9	0.9	0.0	0.6
Herbs	0.4	0.7	0.3	0.9	2.1	1.7	2.1	1.2	0.0	2.9	0.5	1.1
Massage	1.5	0.2	0.5	0.0	0.7	0.0	0.0	0.0	0.0	0.2	0.0	0.4
Other	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.7	0.1
<b>Not currently using</b>	60.2	52.1	41.7	60.8	74.9	55.4	42.1	49.6	58.1	56.8	79.4	57.2
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Number</b>	426	265	132	367	87	170	216	195	122	210	191	2382

## 5.2 TRENDS IN CONTRACEPTIVE USE

The dramatic changes that have taken place in the level and pattern of contraceptive use in Indonesia over the past 15 years are demonstrated in Tables 5.3-5.5. Table 5.3 focuses on the provinces that comprise the Java-Bali region, for which it is possible to construct comparable estimates of contraceptive prevalence over a 15-year period. Overall, prevalence has more than doubled in Java-Bali since 1976. Between 1987 and 1991, the percentage of married women using family planning in Java-Bali increased slightly from 51 to 53 percent. The largest increases (5 percentage points) in Java-Bali between 1987 and 1991 occurred in West Java and East Java.

**Table 5.3 Trends in contraceptive use by province: Java-Bali**

Percentage of currently married women who are currently using any family planning method by province, Java-Bali, Indonesia 1991

Province	1976 (IFS)	1987 (NICPS)	1991 (IDHS)	Ratio 1991/1987
Jakarta	28	54	56	1.04
West Java	16	46	51	1.17
Central Java	28	54	50	0.93
Yogyakarta	40	68	71	1.04
East Java	32	50	55	1.10
Bali	38	69	72	1.04
<b>Total</b>	<b>26</b>	<b>51</b>	<b>53</b>	<b>1.04</b>

The small increase in overall prevalence in Java-Bali between 1987 and 1991 is due mainly to an increase in the use of Norplant (from 0.4 percent to 3.1 percent) and injection (from 11 percent to 13 percent) combined with small decreases in the use of the pill, condom, and female sterilization (see Table 5.4 and Figure 5.2).

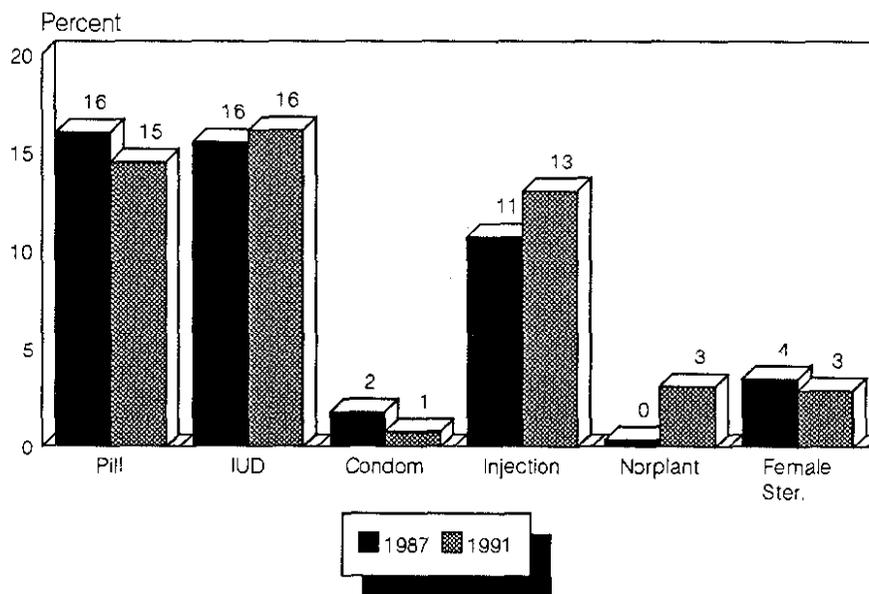
While the 1991 IDHS covered all provinces in Indonesia, the 1987 NICPS excluded seven provinces. Thus, the overall prevalence figures for the two surveys are not strictly comparable. Table 5.5 shows the percentage of married women using contraception in the 20 provinces common to both surveys. The overall prevalence in the 20 provinces was 48 percent in 1987 and 50 percent in 1991.

**Table 5.4 Trends in contraceptive use by specific methods: Java-Bali**

Percentage of currently married women in Java-Bali who are currently using any family planning method by specific methods, Indonesia 1991

Method	1976 (IFS)	1987 (NICPS)	1991 (IDHS)
<b>Any method</b>	26.3	50.9	53.4
Pill	14.9	16.0	14.5
IUD	5.6	15.5	16.1
Injection	0.2	10.7	13.0
Diaphragm/jelly/foam	0.1	0.0	-
Condom	1.8	1.8	0.8
Female Sterilization	0.3	3.5	2.9
Male Sterilization	0.0	0.2	0.7
Norplant	-	0.4	3.1
Periodic abstinence	0.8	1.1	1.0
Withdrawal	0.3	0.7	0.5
Other	2.3	2.3	0.6
Number of women	7974	7265	13419

**Figure 5.2**  
Percentage of Currently Married Women  
Using Specific Contraceptive Methods  
Java-Bali, 1987 and 1991



### 5.3 CONTRACEPTIVE USE AMONG WOMEN OVER 30 AND AMONG THOSE WITH THREE OR MORE CHILDREN

One of the five principles of the family planning movement is that women over 30 and those with 3 or more children should be using the most effective means of fertility control available. Table 5.6 presents information with which to evaluate the success of the program in meeting this goal. In Table 5.6, long-term methods include female and male sterilization, IUD and Norplant.

The table shows that, among women in their early thirties, about 24 percent had never used a modern method of contraception, and 23 percent had used a modern method in the past but were not using at the time of the survey; 54 percent were users at the time of the survey. Thirty-four percent of married women in this age group had 3 or more children and were using a method; of these women, 67 percent were using temporary methods and 33 percent were using long-term methods.

Among women age 35-39, 54 percent were using a family planning method. Among users with 1-2 children, about half were using temporary methods and half were using long-term methods. However, among users with 3 or more children, 40 percent were using long-term methods and 60 percent were using temporary methods. Thus, although a large proportion of women over age 30 were using a method of contraception, most were using temporary methods, especially those users with 3 or more children.

Table 5.5 Trends in contraceptive use by specific methods: 20 provinces

Percentage of currently married women who are currently using any family planning method by specific methods, 20 provinces of Indonesia, Indonesia 1991

Method	1987 (NICPS)	1991 (IDHS)
Any method	47.7	50.3
Pill	16.1	15.0
IUD	13.2	13.7
Injection	9.4	11.9
Condom	1.6	0.8
Female sterilization	3.1	2.8
Male sterilization	0.2	0.5
Norplant	0.4	3.1
Periodic abstinence	1.2	1.1
Withdrawal	1.3	0.7
Other	1.2	0.8
Number of women	10907	19603

Note: Excluded provinces are: Jambi, East Nusa Tenggara, East Timor, Central Kalimantan, East Kalimantan, Maluku, Irian Jaya

Table 5.6 Contraceptive use status and number of children

Percent distribution of currently married women by contraceptive use status and number of living children, according to age, Indonesia 1991

Age	Never used a modern method	Past user of modern method	No. of living children						Total	Number
			0		1-2		3+			
			Using any method	Using temp. method	Using long-term method <sup>1</sup>	Using temp. method	Using long-term method <sup>1</sup>	Using temp. method		
15-19	61.8	9.1	7.8	16.0	5.2	0.0	0.0	100.0	1152	
20-24	34.9	15.7	1.2	32.0	13.5	1.7	0.9	100.0	3388	
25-29	26.4	22.5	0.1	23.8	11.4	11.0	4.9	100.0	4570	
30-34	23.5	22.5	0.2	11.4	8.0	22.9	11.5	100.0	4000	
35-39	26.0	20.3	0.0	6.1	5.4	25.2	17.0	100.0	3386	
40-44	34.8	20.3	0.0	3.3	3.1	20.9	17.6	100.0	2298	
45-49	53.2	21.8	0.0	1.2	0.7	12.0	11.0	100.0	2314	
Total	32.9	20.0	0.7	14.8	7.7	14.6	9.2	100.0	21109	

<sup>1</sup>Long-term methods include female and male sterilization, IUD and Norplant

## 5.4 REASONS FOR CHOICE OF CONTRACEPTIVE METHOD

The reasons women give for choosing their current contraceptive method are important for the family planning movement, particularly in view of the current emphasis on program self-sustainability. As shown in Table 5.7, the desire for a more effective method, side effects of other methods, and convenience are the most common reasons given for having chosen a specific method.

**Table 5.7 Reasons for using current method of contraception**

Percent distribution of contraceptive users by reason for deciding to use current contraceptive method, according to specific method, Indonesia 1991

Reason for using current method	Pill	IUD	Injection	Con- dom	Nor- plant	Female steri- lization	Male steri- lization	Absti- nence	With- drawal	Herbs	Massage	Total <sup>1</sup>
Recommendation FP worker	9.7	11.5	5.0	7.2	16.3	5.6	15.5	0.0	0.0	0.0	0.0	8.8
Recommendation friend, relative	3.3	4.3	4.1	0.9	4.5	2.1	10.1	3.3	3.7	9.4	10.3	3.9
Side effects of other methods	21.4	16.3	20.1	36.4	14.2	13.1	4.4	47.6	33.3	36.6	41.1	19.9
Convenience	11.9	15.6	21.3	3.7	15.1	3.2	2.3	11.3	7.9	11.6	12.8	14.5
Access, availability	14.3	1.3	3.4	4.4	0.8	0.0	0.0	0.5	0.2	12.4	0.0	5.7
Cost	6.5	0.7	1.9	0.0	2.0	0.0	0.0	0.2	0.0	0.0	0.0	2.7
Wanted permanent method	1.5	5.6	2.5	1.3	8.3	37.7	32.5	2.0	0.7	0.3	1.6	5.6
Husband preferred	3.2	1.9	3.4	23.1	2.8	3.4	18.5	10.6	24.6	7.1	4.8	3.9
Wanted more effective method	20.3	31.6	31.7	11.6	29.4	28.4	16.3	11.5	14.9	7.6	9.0	26.3
Medical advice	1.1	2.0	0.9	0.2	0.4	3.1	0.0	0.4	0.0	0.0	0.0	1.3
Advice of gov. official	0.4	4.7	0.0	0.0	0.6	0.8	0.0	0.0	0.0	0.0	0.0	1.5
Afraid of other methods	2.2	1.1	1.8	4.4	1.4	0.0	0.0	5.1	4.5	5.9	8.0	1.8
Other	2.8	2.0	2.0	6.9	3.1	1.8	0.0	6.8	8.5	7.3	3.4	2.6
Don't know	1.2	1.3	1.6	0.0	1.1	0.1	0.0	0.2	0.0	1.2	9.0	1.2
Missing	0.1	0.1	0.2	0.0	0.0	0.6	0.4	0.6	1.7	0.7	0.0	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	3129	2815	2476	167	658	600	121	233	143	117	39	10521

<sup>1</sup>Total includes some users of other methods not shown separately

The reasons given for the decision to use a specific method vary according to the method used. Approximately 30 percent of the IUD, injection and Norplant users stated that they chose the method because they wanted a more effective method while between 15 and 20 percent said that they chose the method because it was convenient or to avoid the side effects of other methods. A substantial proportion of pill users (14 percent) said that they chose the method because of its accessibility or availability; few users of other modern methods reported this as their reason for choosing the method. Most sterilized women said that they chose this method because they wanted a permanent or more effective method. The most common reason given for using any of the traditional methods is to avoid the side effects of other methods.

## 5.5 QUALITY OF USE OF PILL, INJECTION AND CONDOM

The pill is the most popular method of contraception used in Indonesia. In order to study the "quality" of pill use, the IDHS included a series of questions for women who said they were using the pill. Each respondent was first asked if she had a package of pills in the house. If not, the respondent was asked why she did not have a package and was requested to identify the brand of pills she was using from a brand chart carried by the interviewer. If the respondent said she did have a package of pills in the house, the interviewer asked to see it, then recorded the brand and noted on the questionnaire whether pills were missing in order. If no pills were missing or pills were missing out of order, the interviewer asked why. Finally, all pill users were asked when they last took a pill.

About 93 percent of pill users were able to show the interviewer a packet of pills (see Table 5.8). Most women who could not show a packet gave the reason that they had run out of supplies (data not shown). Of those who showed the packet, 93 percent had pills missing in order. A matter of concern is that only 85 percent of pill users reported taking a pill less than two days before the survey. Most women who had not taken a pill during that period said that they were having their menstrual period or they had run out of pills. A few women (7 percent) said they were not taking the pill because their husband was away. Although many of the women who missed taking a pill are still protected from pregnancy, the data suggest that the effective level of pill use is somewhat lower than the reported number of pill users.

**Table 5.8 Pill use compliance**

Percentage of currently married women who are using the pill and the percentage of pill users who have a packet at home, have taken pills in order, and who took a pill less than two days ago, by background characteristics, Indonesia 1991

Background characteristic	Percent using pill	Percentage of pill users who:			Number
		Can show package	Took pills in order	Took pill <2 days ago	
<b>Age</b>					
15-19	11.8	99.7	94.2	92.0	136
20-24	15.1	95.4	92.3	87.1	512
25-29	17.6	92.1	94.7	86.7	806
30-34	18.1	93.6	93.4	84.1	725
35-39	16.0	91.0	91.4	81.7	543
40-44	11.6	89.3	87.5	85.1	267
45-49	6.0	84.7	97.9	74.0	140
<b>Residence</b>					
Urban	13.8	92.2	92.9	80.7	848
Rural	15.2	92.7	93.0	86.4	2282
<b>Education</b>					
No education	12.5	89.8	91.9	84.1	483
Some primary	16.5	93.2	92.2	85.2	1207
Completed primary	17.0	92.1	94.3	85.4	952
Some secondary +	11.2	94.5	93.3	83.6	488
<b>Total</b>	<b>14.8</b>	<b>92.5</b>	<b>93.0</b>	<b>84.8</b>	<b>3129</b>

The data show that there are small differences in the quality of pill use by background characteristics of the respondent. There is a negative association between age and the proportion of pill users who took a pill less than two days before the survey. Only three of four pill users age 45-49 took a pill in the two days prior to the survey.

As mentioned above, all pill users were asked about the brand of pill they used. The most popular brands are Marvelon 28 and BKKBN Microgynon, followed by Stophamil and Microgynon 30ED (see Table 5.9). The other brands which have a sizeable number of users are Nordette 28, Blue Circle Microgynon and Noriday and Ovostat 28.

**Table 5.9 Use of pill and condom brands**

Percent distribution of currently married pill users and of condom users by brand of pill/condom used, Indonesia 1991

Brand	Total	Number
<b>Pill</b>		
Marvelon 28	21.4	670
Blue Circle Microgy.	5.5	171
Microgynon 30 ED	14.1	440
Nordette 28	7.1	221
Ovostat 28	3.1	96
Restovar 28 micro	2.1	66
Exluton	1.1	36
BKKBN Microgynon	21.1	661
Stophamil	16.9	530
Noriday	4.0	126
Brand uncoded	0.6	19
Other	1.6	50
Don't know	1.4	44
<b>Total</b>	<b>100.0</b>	<b>3129</b>
<b>Condom</b>		
Young young 002	5.4	9
Young young Super	1.6	3
Young young Hi-way	2.5	4
Young young 0.03	2.2	4
Romantic 003	1.3	2
Kondom untuk prog KB	30.1	50
KB Dua Lima	15.1	25
Jellia Ultra	2.3	4
Jellia Sexy	4.3	7
Dua Lima	14.4	24
Kingtex Longtime	1.8	3
Kingtex Ring	4.9	8
Brand uncoded	4.5	7
Other	3.3	6
Don't know	6.2	10
<b>Total</b>	<b>100.0</b>	<b>167</b>

The IDHS also investigated condom and injection use compliance. Interviewers asked all injection users when they received their last injection and all condom users to show a package of condoms. Only 88 percent of injection users received an injection less than three months before the survey (see Table 5.10); this means that 12 percent of injection users may actually be at risk of pregnancy. As in the case of pill users, older users appear to use the method less effectively than younger users. Differences by other background variable, such as residence and education are very small.

The proportion of condom users who could show the interviewer a packet is moderately high (74 percent) but lower than the figure for the 1987 NICPS (90 percent). The condom is not widely used in Indonesia, with less than one percent of currently married women relying on it. The most popular brands are KB and Dualima.

**Table 5.10 Use of injection and the condom**

Percentage of currently married women who are using injection and the percentage using the condom, the percentage of injection users who have received an injection in the last three months, and the percentage of condom users who can show a packet, by background characteristics, Indonesia 1991

Background characteristic	Injection users			Condom users		
	Percent using injection	Injection <3 months	Number	Percent using condom	Can show package	Number
<b>Age</b>						
15-19	11.7	86.8	135	0.1	*	1
20-24	19.3	89.8	653	0.2	*	5
25-29	15.6	89.5	715	0.7	(76.5)	33
30-34	11.9	87.7	477	1.2	78.0	49
35-39	9.9	84.8	335	1.2	(74.2)	39
40-44	5.2	82.6	120	1.2	(65.2)	27
45-49	1.8	68.0	42	0.5	*	12
<b>Residence</b>						
Urban	14.4	86.4	882	1.8	72.4	111
Rural	10.6	88.5	1594	0.4	78.4	56
<b>Education</b>						
No education	7.3	84.3	280	0.2	*	6
Some primary	10.7	87.2	783	0.4	(67.0)	28
Completed primary	14.4	89.7	807	0.6	(77.8)	36
Some secondary +	13.9	87.4	606	2.2	76.5	97
<b>Region</b>						
Java-Bali	13.0	89.6	1739	0.8	71.2	113
Outer Java-Bali I	9.4	84.2	497	0.7	74.4	35
Outer Java-Bali II	10.1	81.3	240	0.8	(92.6)	18
<b>Total</b>	<b>11.7</b>	<b>87.7</b>	<b>2476</b>	<b>0.8</b>	<b>74.4</b>	<b>167</b>

\* Less than 25 unweighted cases  
( ) Based on 25-49 unweighted cases

## 5.6 PROBLEMS WITH CURRENT METHOD

All current contraceptive users in the IDHS were asked whether they had experienced problems with the method they were using and if so, what the problems were. The large majority of users reported having no problems with the method they were using (see Table 5.11). The proportion of users who report health problems tends to be highest among users of hormonal contraceptives, such as Norplant, injection, and the pill. Among these users, headache is the most commonly reported health problem with about 6 to 7 percent of users saying that they have experienced this problem. Very few users reported any other problems.

**Table 5.11 Problems with current method of contraception**

Percent distribution of contraceptive users by the main problem with current method, according to specific methods, Indonesia 1991

Main problem with current method	Pill	IUD	Injection	Condom	Norplant	Female sterilization	Male sterilization	Periodic abstinence
<b>Health problem with method</b>								
No health problem	88.8	92.2	83.6	98.0	82.4	91.8	94.4	99.1
Weight gain	1.0	0.4	1.2	0.0	0.5	0.7	0.0	0.0
Weight loss	0.3	0.4	0.1	0.0	1.1	0.4	0.0	0.0
Bleeding	0.2	0.9	0.7	0.0	1.8	0.5	0.0	0.0
Hypertension	0.3	0.0	0.2	0.0	0.1	0.5	0.0	0.1
Headache	6.7	2.1	7.1	0.0	6.3	1.6	0.0	0.0
Nausea	0.8	0.4	0.3	0.0	0.5	0.2	0.0	0.0
Amenorrhea	0.3	0.2	3.5	0.0	2.2	0.0	0.0	0.0
Weak/tired	0.4	0.6	0.5	0.0	1.3	1.3	2.6	0.0
Other	1.2	2.5	2.7	2.0	3.8	2.3	2.6	0.1
Don't know	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Missing	0.1	0.2	0.2	0.0	0.1	0.5	0.4	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Other problem with method</b>								
No other problem	99.1	99.2	98.4	95.6	97.9	98.2	97.3	96.9
Husband disapproves	0.2	0.1	0.3	0.0	0.1	0.0	0.0	0.0
Access/availability	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Cost	0.1	0.0	0.4	0.3	0.0	0.0	0.0	0.0
Inconvenient to use	0.2	0.1	0.1	2.2	0.7	0.0	0.0	1.6
Sterilized, want child	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Other	0.4	0.4	0.5	1.9	1.3	1.1	2.3	0.8
Don't know	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Missing	0.0	0.2	0.2	0.0	0.1	0.6	0.4	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	3129	2815	2476	167	658	600	121	233

## 5.7 COST AND ACCESSIBILITY OF METHODS

Although the Indonesian National Family Planning Movement is essentially a government program, it is strongly supported by community participation. One indicator of community support is the level of *self-sustainability* of the community in the provision of contraceptive services. One measure of self-sustainability is the proportion of users who pay for services themselves. In the IDHS, all users were asked where they obtained the method the last time, and how much their method cost, including any cost for services. The results are presented in Tables 5.12 and 5.13.

Overall, 38 percent of users obtain their methods free of charge (see Table 5.12). Injection has the highest proportion of self-sustaining users, with 10 percent of users getting the method free, followed by female sterilization (32 percent), pill (34 percent), condom (35 percent), Norplant (56 percent), and IUD (61 percent). By region, 31 percent of users in Java-Bali obtain their method free of charge, 48 percent in Outer Java-Bali I and 57 percent in Outer Java-Bali II.

**Table 5.12 Payment for contraceptive methods and services**

Percentage distribution of current users of contraceptive methods by source of method and whether method is free or they pay for it, according to method and region, Indonesia 1991

Method/region	Government source		Private source		Other source		Total	Number
	Free	Pay	Free	Pay	Free	Pay		
<b>Method</b>								
Pill	30.8	54.2	1.8	8.7	1.4	3.0	100.0	3129
IUD	56.1	22.1	4.6	16.7	0.4	0.1	100.0	2815
Injection	8.5	51.2	1.4	37.6	0.4	0.9	100.0	2476
Condom	30.4	13.5	4.6	49.0	0.4	2.2	100.0	167
Norplant	53.2	40.7	1.2	3.1	1.6	0.2	100.0	658
Female sterilization	26.1	44.8	5.7	23.3	0.0	0.2	100.0	600
<b>Region</b>								
Java-Bali	29.3	45.2	2.1	21.5	0.5	1.3	100.0	6885
DKI Jakarta	15.2	31.8	2.7	49.2	0.2	0.8	100.0	507
West Java	20.2	56.6	1.3	20.5	0.1	1.3	100.0	2186
Central Java	35.9	40.6	3.6	19.2	0.3	0.3	100.0	1607
DI Yogyakarta	36.9	37.3	4.2	21.1	0.3	0.2	100.0	176
East Java	36.6	41.4	1.5	17.1	1.1	2.4	100.0	2197
Bali	25.5	41.5	2.7	29.7	0.6	0.0	100.0	212
Outer Java-Bali I	41.6	34.8	4.5	16.1	1.4	1.5	100.0	2147
Outer Java-Bali II	52.1	31.4	3.8	10.0	2.1	0.6	100.0	937
<b>Total</b>	<b>34.1</b>	<b>41.7</b>	<b>2.8</b>	<b>19.3</b>	<b>0.9</b>	<b>1.3</b>	<b>100.0</b>	<b>9969</b>

As part of their contribution to increased community participation in family planning, some private sources provide free services, although they are much less likely to do so (13 percent) than public or government services (45 percent). In the private sector, female sterilization is the most costly method, with a mean cost of Rp 154,000, followed by the IUD at Rp 27,500, and Norplant at Rp 14,000 (see Table 5.13). Users who obtained their method at a government source reported paying an average of Rp 57,000 for female sterilization, Rp 2,400 for the IUD and Rp 4,900 for Norplant.

**Table 5.13 Mean cost of contraceptive methods**

Percentage of current users of contraception who get their method free and the mean cost of the method (including services) for those who pay, by type of source, method, and region, Indonesia 1991

Method/region	Government source			Private source		
	Percent receiving method free	Mean cost for those who pay (Rp)	Number of users	Percent receiving method free	Mean cost for those who pay (Rp)	Number of users
<b>Method</b>						
Pill	36.2	364	2661	16.9	1432	328
IUD	71.7	2432	2202	21.8	27447	600
Injection	14.3	1906	1479	3.6	3925	965
Condom	69.2	819	73	8.6	2149	89
Norplant	56.6	4854	618	(28.1)	(13969)	29
Female sterilization	36.8	56637	426	19.6	153656	174
<b>Region</b>						
Java-Bali	39.3	4002	5130	9.0	19873	1627
Outer Java-Bali I	54.4	7928	1641	21.8	21047	443
Outer Java-Bali II	62.4	6383	783	27.4	20331	129
<b>Total</b>	<b>45.0</b>	<b>4879</b>	<b>7554</b>	<b>12.7</b>	<b>20107</b>	<b>2199</b>

Note: In mid-1991, \$US 1.00 equaled approximately 1950 Rp.  
( ) Based on 25-49 unweighted cases

In order to obtain further information on the accessibility of contraceptives, the IDHS included a question for all users about the length of time needed to reach the last place they obtained their method. Women who were not using a method at the time of the survey, were asked if they knew a place to obtain a method and, if so, where and how long it takes to get there. The median time to reach a source of supply is 15 minutes (see Table 5.14).<sup>1</sup> This figure is remarkably consistent across urban and rural areas as well as among users and nonusers of contraception.

<sup>1</sup> The distribution of responses to this question indicates a large amount of heaping on figures that are multiples of five (i.e., 5 minutes, 10 minutes, etc.).

**Table 5.14 Time to source of supply for users/nonusers of modern contraceptive methods**

Percent distribution of women who are currently using a modern contraceptive method, of women who are not using a modern method, and of women who know a method, by time (minutes) to reach source of supply, according to urban-rural residence, Indonesia 1991

Minutes to source	Women who are currently using a modern method			Women who are not using a modern method			Women who know a contraceptive method		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Mobile source, Other	3.7	8.0	6.6	2.3	3.5	3.2	3.0	5.8	4.9
0-14	45.2	35.3	38.4	39.5	25.7	29.5	43.2	31.9	35.3
15-29	25.9	19.6	21.6	28.9	19.0	21.7	28.1	20.7	22.9
30-59	15.3	17.9	17.1	12.2	15.9	14.9	14.0	17.9	16.7
60+	8.3	16.4	13.8	4.3	14.1	11.4	6.4	16.1	13.2
Don't know time	0.3	0.4	0.4	0.8	0.6	0.7	0.6	0.6	0.6
Don't know source	0.0	0.0	0.0	11.7	20.6	18.2	3.9	5.6	5.1
Not stated	1.4	2.4	2.1	0.4	0.5	0.5	0.9	1.4	1.3
Total percentage	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	3149	6821	9969	3543	9397	12940	6516	14988	21504
Median	15.1	15.6	15.4	15.1	15.8	15.5	15.1	15.7	15.5

Note: For current users of modern methods, the source is defined as the place they obtained the method the last time. For intended future users of modern methods, the source is defined as the place where they say they can get the method they intend to use. For all others, the source is defined as the place where they can obtain any method of family planning.

Almost half of the users of modern methods in urban areas need less than 15 minutes to reach their source of supply, 26 percent need 15 to 29 minutes, and 24 percent need more than 30 minutes. In rural areas, approximately one-third of users of modern methods need less than 15 minutes, 20 percent need 15 to 29 minutes, 18 percent need 30 to 59 minutes, and 16 percent need one hour or more. Among nonusers of modern methods, 18 percent stated that they did not know a source.

The median time to reach a source is quite consistent across provinces, although, among current users in Bali, West Kalimantan, and East Nusa Tenggara, it is about 5 minutes greater than the national average (see Table 5.15). The median time varies with the source named (see Table 5.16). For example, among current users, government and private hospitals take the longest to reach (30 minutes) followed by health centers, family planning clinics, private doctors and midwives (15 to 16 minutes), and pharmacies, traditional healers, health posts, and family planning posts (6 to 10 minutes).

**Table 5.15 Median time to source of supply for users/nonusers of modern contraceptive methods: region and province**

Median time (minutes) to reach source of supply for contraceptive methods among current users of modern methods, nonusers of modern methods, and women who know a method, by region and province, Indonesia 1991

Region/province	Current users of modern methods	Nonusers of modern methods	Women who know a method
<b>Java-Bali</b>	15.4	15.5	15.4
DKI Jakarta	15.4	15.1	15.2
West Java	15.1	15.6	15.4
Central Java	15.7	15.9	15.8
DI Yogyakarta	15.1	15.0	15.0
East Java	15.3	15.1	15.2
Bali	20.9	15.9	20.4
<b>Outer Java-Bali I</b>	15.4	15.6	15.5
DI Aceh	15.6	15.6	15.6
North Sumatra	15.7	16.0	15.9
West Sumatra	15.3	15.5	15.4
South Sumatra	15.4	15.1	15.2
Lampung	15.4	15.6	15.5
West Nusa Tenggara	15.1	15.3	15.2
West Kalimantan	20.9	30.5	30.2
South Kalimantan	15.0	15.1	15.1
North Sulawesi	15.6	15.6	15.6
South Sulawesi	15.4	15.5	15.4
<b>Outer Java-Bali II</b>	15.5	15.8	15.7
Riau	15.6	15.8	15.7
Jambi	15.3	15.4	15.3
Bengkulu	15.2	10.9	15.1
East Nusa Tenggara	20.2	20.5	20.4
East Timor	10.8	20.6	15.9
Central Kalimantan	15.2	20.2	15.7
East Kalimantan	15.4	15.3	15.4
Central Sulawesi	16.0	15.8	15.9
Southeast Sulawesi	15.3	15.3	15.3
Maluku	15.1	15.8	15.6
Irian Jaya	15.5	40.7	30.4
<b>Total</b>	15.4	15.5	15.5

Note: For current users of modern methods, the source is defined as the place they obtained the method the last time. For intended future users of modern methods, the source is defined as the place where they say they can get the method they intend to use. For all others, the source is defined as the place where they can obtain any method of family planning.

**Table 5.16 Median time to source of supply for users/nonusers of modern contraceptive methods: type of source**

Median time (minutes) to reach source of supply for contraceptive methods among current users of modern methods, nonusers of modern methods, and women who know a method, by type of source, Indonesia 1991

Source of supply	Current users of modern methods	Nonusers of modern methods	Women who know a method
<b>Government source</b>	15.4	15.6	15.5
Government hospital	30.5	21.0	30.2
Health center (Puskesmas)	15.9	15.9	15.9
Health post (Posyandu)	5.9	10.3	9.9
FP post/VCDC/Paguyu.	5.8	5.9	5.8
<b>Private source</b>	15.5	15.5	15.5
Private hospital	30.1	20.6	30.0
Private clinic	15.9	15.5	15.7
Private doctor	15.7	15.7	15.7
Private midwife	15.3	15.1	15.2
Pharmacy/Drugstore	10.7	15.3	10.8
<b>Traditional healer (Dukun)</b>	7.6	15.3	15.2
<b>Total</b>	15.4	15.5	15.5

Note: For current users of modern methods, the source is defined as the place they obtained the method the last time. For intended future users of modern methods, the source is defined as the place where they say they can get the method they intend to use. For all others, the source is defined as the place where they can obtain any method of family planning.

## 5.8 SOURCE OF METHODS

Information concerning sources of contraceptives is important for family planning program administrators, especially given the current emphasis on making programs self-sustaining. Government sources, such as health centers and health posts are the most important sources, supplying 76 percent of all users (see Table 5.17 and Figure 5.3). Health centers provide 39 percent of users, health posts supply 16 percent, family planning posts account for 9 percent, and government hospitals supply 8 percent. Private sources include midwives (10 percent), medical doctors (5 percent), and private hospitals (3.5 percent).

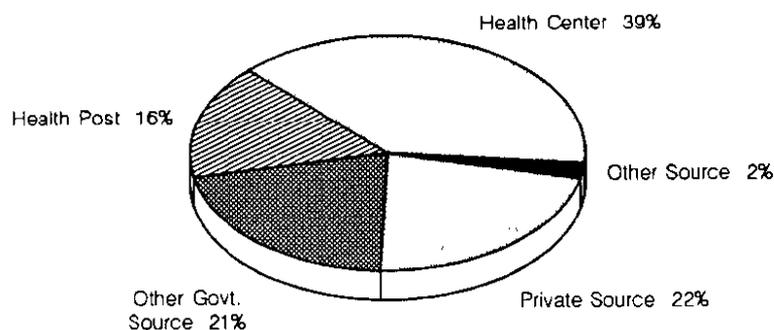
Sources vary by the method used. Pill users rely on health posts (*posyandu*), family planning posts (*paguyuban*), and social grass-roots institutions in the community. This means that community participation in delivering the pill is high. The proportion of pill users whose source is in the private sector is low (11 percent). On the other hand, 47 percent of condom users are supplied by pharmacies, with health centers and health posts supplying 22 and 13 percent, respectively. Users of the IUD, injection and Norplant primarily use health centers. Twenty-six percent of injection users get their method from a private midwife and two-thirds of female sterilization users obtained the operation at a government hospital.

**Table 5.17 Source of supply for modern contraceptive methods**

Percent distribution of current users of modern contraceptive methods by most recent source of supply or information, according to specific methods, Indonesia 1991

Source of supply	Pill	IUD	Injection	Condom	Norplant	Female sterilization	Male sterilization	Total
<b>Government source</b>	85.0	78.2	59.7	43.9	93.9	70.9	79.4	75.8
Government hospital	1.1	7.6	1.8	1.5	6.6	66.8	44.4	8.0
Health center (Puskemas)	24.7	56.3	44.2	22.3	50.5	2.8	12.2	38.7
Health post (Posyandu)	33.0	7.5	9.9	13.0	9.0	0.0	2.1	15.7
FP post/VCDC/Paguyu.	23.6	1.8	2.9	2.6	2.7	0.0	0.0	8.9
Fieldworker-PLKB	2.3	0.1	0.5	4.5	0.8	0.1	0.0	1.0
FP mobile-TKBK/TMK	0.3	2.1	0.2	0.0	3.1	0.4	0.3	1.0
FP Safari	0.0	2.8	0.2	0.0	21.2	0.8	20.4	2.6
<b>Private source</b>	10.5	21.3	39.0	53.6	4.3	28.9	9.6	22.1
Private hospital	1.0	4.6	1.9	2.3	1.3	19.4	9.1	3.5
Private clinic	1.3	2.8	2.2	1.6	1.3	5.6	0.0	2.2
Private doctor	0.9	7.0	8.5	0.9	1.3	4.0	0.6	4.7
Private midwife	4.9	6.9	26.2	1.7	0.5	0.0	0.0	10.1
Pharmacy/Drugstore	2.4	0.0	0.1	47.0	0.0	0.0	0.0	1.6
<b>Other source</b>	4.4	0.5	1.3	0.7	1.7	0.0	10.1	2.1
Traditional healer (Dukun)	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Friends/Relatives	1.3	0.0	0.2	0.4	0.0	0.0	0.0	0.5
Other	2.9	0.4	1.1	0.4	1.7	0.0	10.1	1.5
Don't know	0.0	0.0	0.0	1.8	0.0	0.0	0.6	0.0
Missing	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.0
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Number</b>	3129	2815	2476	167	658	600	121	9969

Figure 5.3  
Distribution of Current Users of  
Contraception by Source of Supply



IDHS 1991

Among the respondents in the survey who had been sterilized, 37 percent were sterilized before age 30, 36 percent between age 30 and 34, and 28 percent at age 35 and over. The median age at the time of sterilization is approximately 31 years and does not exhibit any trend over time (see Table 5.18).

Table 5.18 Timing of sterilization

Percent distribution of sterilized women by age at the time of sterilization, according to the number of years since the operation, Indonesia 1991

Years since sterilization	Age at sterilization						Total percent	Number	Median age at sterilization <sup>a</sup>
	<25	25-29	30-34	35-39	40-44	45-49			
<2	8.5	19.4	42.0	26.7	3.4	0.0	100.0	98	32.8
2-3	5.7	36.3	26.9	17.0	11.9	2.2	100.0	85	30.1
4-5	19.9	22.9	27.5	21.4	8.3	0.0	100.0	65	31.2
6-7	3.0	28.0	29.9	29.4	9.6	0.0	100.0	125	32.3
8-9	11.6	31.8	27.9	27.1	1.5	0.0	100.0	83	30.6
10+	5.2	32.2	49.7	12.9	0.0	0.0	100.0	144	b
Total	7.9	28.8	35.6	22.1	5.4	0.3	100.0	600	31.4

<sup>a</sup>Medians calculated only for women sterilized at less than 40 years of age to avoid problems of censoring.

<sup>b</sup>Not calculated due to censoring

## CHAPTER 6

### FERTILITY PREFERENCES

This chapter addresses questions which allow an assessment of the need for contraception, acceptance of the two-child family norm, and the extent of unwanted fertility. The respondents in the IDHS were asked questions concerning whether they wanted more children; if so, how long they would prefer to wait before the next child; and if they could start afresh, how many children in all they would want. Since an underlying objective of the Indonesian family planning program is to persuade couples to have only two children and to space them at least five years apart, it is important to understand to what extent these fertility preferences have been accepted. Two other issues are examined here as well: the extent to which unwanted or mistimed births occur and the effect that the prevention of such births would have on fertility rates.

Interpretation of data on fertility preferences has always been the subject of controversy. Survey questions have been criticized on the grounds that (1) answers are misleading because they may reflect unformed, ephemeral views, which are held with weak intensity and little conviction, and (2) they do not take into account the effect of social pressures or the attitude of other family members, particularly the husband, who may exert a major influence on reproductive decisions.

The first objection has greater force in non-contracepting societies where the idea of conscious reproductive choice may still be alien; preference data from these settings should be interpreted with caution. This objection probably has little relevance in Indonesia where widespread public exposure to the family planning program has probably caused most people to establish their opinion regarding fertility regulation prior to the interview. The second objection is correct in principle. In practice, however, its importance is doubtful; for instance, the evidence from surveys in which both husbands and wives are interviewed separately suggests that there is no radical difference between the views of the two sides.

The inclusion of women who are currently pregnant complicates the measurement of views on future childbearing. For these women the question on desire for more children is rephrased to refer to desire for another child, after the one that they are expecting. To take into account the way in which the preference variable is defined for pregnant women, the results are classified by number of living children, including current pregnancies. In addition, the question on preferred waiting time before the next birth is rephrased for pregnant women to make clear that the information wanted is the preferred waiting time after the birth of the child the respondent is expecting.

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

#### 6.1 DESIRE FOR ADDITIONAL CHILDREN

Table 6.1 shows the distribution of currently married women by desire for additional children according to the number of living children. The last column indicates that half of currently married women do not want any more children, 25 percent want to wait at least two years before having another child, and 3 percent are sterilized (see Figure 6.1). These figures indicate that 78 percent of married women are potentially in need of family planning services, whether to delay or limit births. Approximately 13 percent of women want another child soon (within two years), while 2 percent want another child but are undecided when, and 5 percent are undecided about whether they want another child.

**Table 6.1 Fertility preferences by number of living children**

Percent distribution of currently married women by desire for children, according to number of living children, Indonesia 1991

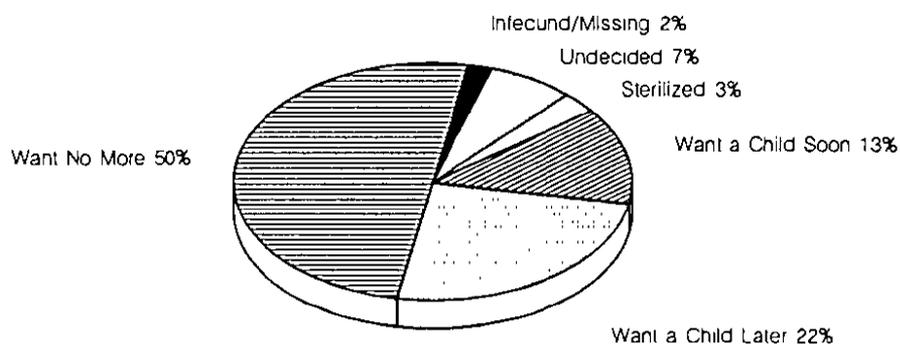
Desire for children	Number of living children <sup>1</sup>							Total
	0	1	2	3	4	5	6+	
Have another soon <sup>2</sup>	70.1	19.7	9.5	4.5	2.3	1.2	0.7	12.8
Have another later <sup>3</sup>	12.7	60.2	29.9	14.4	7.7	4.9	2.0	25.1
Have another, undecided when	5.2	2.4	2.0	0.8	0.8	0.3	0.3	1.6
Undecided	3.7	4.2	6.6	6.3	6.3	5.0	3.5	5.3
Want no more	5.6	11.9	50.0	68.6	73.9	79.9	83.8	50.4
Sterilized	0.0	0.4	1.5	4.4	7.3	6.6	6.1	3.3
Declared infecund	2.4	1.0	0.5	1.0	1.5	2.2	3.5	1.4
Missing	0.3	0.1	0.1	0.1	0.2	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1517	4656	4833	3638	2565	1659	2241	21109

<sup>1</sup>Includes current pregnancy

<sup>2</sup>Want next birth within two years

<sup>3</sup>Want to delay next birth two or more years

**Figure 6.1  
Fertility Preferences of  
Currently Married Women 15-49**



Note. Soon = within 2 yrs  
Later = after 2 yrs.

DHS 1991

It is interesting to note that 12 percent of women with one child do not want any more children, and a few are sterilized. Among women with two children, half want no more children, 2 percent are sterilized, and 39 percent want to have another child. About three-quarters of those with three children and 86 percent of those with five children, are sterilized or want no more children.

Table 6.2 shows the distribution of currently married women by desire for children, according to age. The table indicates that older women are much more likely to want no more children than are younger women. The desire to space children is concentrated among younger women; almost sixty percent of women 15-24 years of age want to delay having their next child. This finding supports the current family planning strategy to provide spacing methods for younger women and recommending long-term or permanent methods for older women.

**Table 6.2 Fertility preferences by age**

Percent distribution of currently married women by desire for more children, according to age, Indonesia 1991

Desire for children	Age of woman							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Have another soon <sup>1</sup>	29.1	15.9	17.2	13.1	9.7	5.1	3.0	12.8
Have another later <sup>2</sup>	58.3	58.7	36.7	16.8	6.8	1.5	0.6	25.1
Have another, undecided when	4.2	2.2	2.0	1.5	1.5	0.9	0.3	1.6
Undecided	3.4	6.6	6.4	6.0	5.0	4.1	2.5	5.3
Want no more	4.5	16.1	36.3	58.3	71.0	79.7	78.9	50.4
Sterilized	0.3	0.3	1.1	3.9	5.4	6.9	5.4	3.3
Declared infecund	0.1	0.1	0.2	0.2	0.5	1.8	9.1	1.4
Missing	0.1	0.1	0.2	0.0	0.1	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1152	3388	4570	4000	3386	2298	2314	21109

<sup>1</sup>Want next birth within two years

<sup>2</sup>Want to delay next birth two or more years

Table 6.3.1 shows the percentage of married women who want no more children by background characteristics. Urban women are generally more likely than rural women to want no more children (58 percent in urban areas and 52 percent in rural areas). The urban-rural differential increases with the number of living children. This pattern was also evident in the 1987 NICPS.

There is an interesting pattern in the data on proportion wanting no more children by education. At parities zero and one, women with less education are more likely to want no more children than women with more education. At parities two and three, those with no education and those with secondary or higher education are most likely to want to stop childbearing. At parities four and higher, the proportion who want no more children increases with increasing education.

**Table 6.3.1 Desire to have no more children: residence and education**

Percentage of currently married women who want no more children, by number of living children, urban-rural residence, and education, Indonesia 1991

Characteristic	Number of living children <sup>1</sup>							Total
	0	1	2	3	4	5	6+	
<b>Residence</b>								
Urban	9.7	12.0	54.8	77.8	87.4	92.5	94.6	58.4
Rural	4.3	12.5	50.0	70.9	78.6	83.9	88.2	51.8
<b>Education</b>								
No education	17.3	33.9	56.6	73.5	80.0	79.2	85.9	64.3
Some primary	5.8	14.7	47.0	71.5	78.3	86.4	89.9	56.2
Completed primary	1.7	7.8	51.3	69.0	82.6	90.0	92.3	47.5
Some secondary +	1.9	6.2	54.8	79.9	88.6	92.6	95.3	48.1
<b>Total</b>	5.6	12.3	51.5	73.0	81.3	86.5	90.0	53.7

Note: Women who have been sterilized are considered to want no more children.

<sup>1</sup>Includes current pregnancy

Table 6.3.2, which shows the percentage of currently married women who want no more children by province, indicates that women in Java-Bali, excluding West Java, are leading the transition to smaller family preferences in Indonesia. While 60 percent of women in Java-Bali with two children want no more children, the comparable percentages in Outer Java-Bali I and Outer Java-Bali II are 33 and 36 percent, respectively.

Among the provinces, Balinese women stand out most clearly as having adopted a two-child norm. More than three-fourths of Balinese women and more than 60 percent of women in Central Java, Yogyakarta, East Java, North Sulawesi and Central Kalimantan are ready to stop childbearing after having two children.

**Table 6.3.2 Desire to have no more children: region and province**

Percentage of currently married women who want no more children, by number of living children, region, and province, Indonesia 1991

Region/province	Number of living children <sup>1</sup>							Total
	0	1	2	3	4	5	6+	
<b>Java-Bali</b>	6.8	14.5	60.0	82.1	87.6	92.5	94.8	56.3
DKI Jakarta	1.5	10.0	57.8	86.4	93.7	97.0	93.5	58.6
West Java	4.7	14.4	49.1	66.1	72.0	88.0	92.8	49.3
Central Java	8.2	16.5	64.3	86.7	95.3	94.7	96.2	63.3
DI Yogyakarta	(8.5)	10.3	70.5	93.4	92.4	91.0	86.2	61.8
East Java	(8.7)	14.4	65.0	93.7	96.9	94.4	97.5	56.4
Bali	12.8	15.9	76.2	89.4	94.3	94.4	93.7	68.3
<b>Outer Java-Bali I</b>	2.3	6.6	33.1	57.8	71.0	81.0	84.5	49.6
DI Aceh	(3.8)	6.0	20.2	33.9	57.3	59.6	80.8	41.2
North Sumatra	(2.0)	5.8	32.4	61.9	72.2	85.2	86.0	54.9
West Sumatra	(2.2)	7.2	27.3	51.8	69.0	85.4	92.6	50.8
South Sumatra	(2.1)	3.3	29.8	55.8	77.3	87.5	88.5	51.6
Lampung	1.7	5.6	41.4	66.7	81.9	90.4	93.8	54.6
West Nusa Tenggara	3.5	3.5	30.8	47.4	63.8	72.7	83.2	43.9
West Kalimantan	3.5	10.4	24.6	50.8	63.3	72.7	71.1	41.3
South Kalimantan	3.3	12.6	46.0	74.4	77.6	78.7	77.8	50.2
North Sulawesi	2.6	12.0	62.1	90.3	98.5	(95.3)	96.1	62.0
South Sulawesi	1.3	5.8	21.8	50.5	58.7	74.0	74.5	41.1
<b>Outer Java-Bali II</b>	3.5	7.5	35.9	59.6	75.8	75.4	85.8	47.9
Riau	*	6.6	33.3	63.8	70.9	(76.2)	94.2	52.4
Jambi	*	10.1	31.5	60.3	69.2	(62.8)	75.2	42.8
Bengkulu	*	8.8	27.7	65.1	77.6	86.2	88.2	54.3
East Nusa Tenggara	(0.0)	5.9	28.1	37.9	76.4	(67.1)	(90.6)	41.2
East Timor	(0.0)	4.9	15.4	33.1	50.9	53.3	57.8	32.9
Central Kalimantan	(0.0)	8.9	63.7	83.8	88.8	(82.5)	(84.6)	58.0
East Kalimantan	*	9.8	47.5	77.2	82.3	(77.1)	(92.5)	53.2
Central Sulawesi	*	6.2	41.6	70.9	79.9	(79.9)	79.9	51.8
Southeast Sulawesi	*	1.7	17.4	46.8	(66.6)	(80.2)	77.7	42.3
Maluku	*	4.7	35.3	48.9	77.9	78.3	81.6	48.0
Irian Jaya	3.9	10.1	43.5	62.6	(91.8)	(93.0)	*	44.7
<b>Total</b>	5.6	12.3	51.5	73.0	81.3	86.5	90.0	53.7

Note: Women who have been sterilized are considered to want no more children.

<sup>1</sup>Includes current pregnancy

\* Less than 25 unweighted cases

( ) Based on 25-49 unweighted cases

## 6.2 IDEAL NUMBER OF CHILDREN

In this chapter, interest has focussed on the respondent's wishes for the future, implicitly taking into account the number of children she already has. In ascertaining the ideal total number of children, the respondent is required to perform the more difficult task of considering, abstractly and independently of her family size, the number of children she would choose if she could start again. About 16 percent of women in the IDHS gave a non-numeric reply when asked this question on ideal family size (see Table 6.4).

**Table 6.4 Ideal number of children**

Percent distribution of ever-married women by ideal number of children and mean ideal number of children for ever-married women and for currently married women, according to number of living children, Indonesia 1991

Ideal number of children	Number of living children <sup>1</sup>							Total
	0	1	2	3	4	5	6+	
0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	4.2	4.6	0.5	0.8	0.4	0.1	0.2	1.7
2	58.4	55.7	46.8	18.3	16.2	12.0	7.4	34.3
3	16.1	21.3	22.1	38.6	12.3	15.9	12.0	21.5
4	8.4	7.9	15.1	19.0	37.3	17.2	17.2	16.7
5	2.0	1.9	3.2	5.4	6.3	16.1	7.9	5.0
6+	1.5	1.0	2.0	3.4	6.0	10.3	21.0	5.1
Non-numeric response	9.3	7.7	10.4	14.5	21.5	28.3	34.3	15.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number</b>	<b>1862</b>	<b>5088</b>	<b>5123</b>	<b>3888</b>	<b>2761</b>	<b>1785</b>	<b>2401</b>	<b>22909</b>
Ever-married women, mean ideal <sup>2</sup>	2.4	2.5	2.8	3.3	3.7	4.1	4.6	3.1
Ever-married women	1689	4697	4592	3324	2168	1281	1577	19327
Currently married women, mean ideal <sup>2</sup>	2.5	2.5	2.8	3.3	3.7	4	4.6	3.1
Currently married women	1408	4349	4366	3140	2058	1206	1481	18008

<sup>1</sup>Includes current pregnancy

<sup>2</sup>Excludes women who gave non-numeric responses.

Between 56 and 58 percent of women with no children or one child regard the two-child family as ideal. Among women with two children, this percentage drops to 47, and among those with more than two children, the number drops sharply.

There is a correlation between actual and ideal family size, which can be seen in the fact that the mean ideal number of children increases from 2.4 among childless women to 4.6 among those with six or more children. The reason is two-fold. First, to the extent that women implement their preferences, those who want larger families will tend to achieve larger families. Second, women may adjust upwards their ideal size of family, as the actual number of children increases (i.e., rationalization). It is also possible that women with larger families, being on average older than women with small families, have larger ideal sizes because of attitudes that they acquired 20 or 30 years ago.

Despite the likelihood that some rationalization occurs, respondents frequently state ideal family sizes that are lower than their actual number of living children. This can be taken as an indicator of surplus or unwanted fertility. At three and higher numbers of surviving children, the proportion of women stating ideal family sizes smaller than their own become sizeable. In fact, among women with five or more children, 45 percent say that if they were to start again they would have fewer children.

Table 6.5.1 shows the mean ideal number of children for married women by age and selected background characteristics. The mean ideal number of children varies across age cohorts, ranging from a low of 2.5 children for women age 15-19 to a high of 3.7 for women age 45-49. Differences in ideal family size between urban and rural areas are not large, differing by only 0.2 children. The difference by educational level shows that the higher the level of education, the lower the ideal number of children.

**Table 6.5.1 Ideal number of children: residence and education**

Mean ideal number of children for ever-married women, by age, urban-rural residence, and education, Indonesia 1991

Characteristic	Age of woman						Total	
	15-19	20-24	25-29	30-34	35-39	40-44		45-49
<b>Residence</b>								
Urban	2.4	2.5	2.7	3.0	3.2	3.3	3.6	3.0
Rural	2.6	2.7	3.0	3.2	3.5	3.6	3.8	3.2
<b>Education</b>								
No education	2.9	2.9	3.1	3.3	3.7	3.7	3.8	3.5
Some primary	2.7	2.8	3.0	3.3	3.6	3.6	3.8	3.2
Completed primary	2.5	2.5	2.9	3.2	3.4	3.4	3.7	3.0
Some secondary +	2.4	2.5	2.7	2.8	2.9	3.3	3.5	2.8
<b>Total</b>	2.5	2.6	2.9	3.2	3.4	3.5	3.7	3.1

The differences between regions and provinces are substantial, ranging from a low of 2.4 children in Bali to 4.5 children in Aceh (see Table 6.5.2). In Java-Bali the highest ideal number of children is reported in West Java (3.0 children). The ideal number of children in Outer Java-Bali I is slightly higher than in Outer Java-Bali II. There are several provinces in which the mean ideal number of children is lower than three children—Jakarta, Central Java, Yogyakarta, East Java, Bali and North Sulawesi.

Table 6.5.2 Ideal number of children: region and province

Mean ideal number of children for ever-married women, by age, region and province, Indonesia 1991

Region/province	Age of woman							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
<b>Java-Bali</b>	2.4	2.4	2.6	2.9	3.0	3.1	3.3	2.8
DKI Jakarta	2.4	2.4	2.5	2.8	3.1	3.1	3.4	2.8
West Java	2.4	2.5	2.8	3.2	3.5	3.4	3.7	3.0
Central Java	(2.5)	2.5	2.6	2.9	3.2	3.3	3.5	2.9
DI Yogyakarta	*	2.2	2.3	2.4	2.5	2.7	2.8	2.5
East Java	2.3	2.2	2.4	2.6	2.6	2.9	2.8	2.5
Bali	1.9	2.1	2.3	2.4	2.5	2.6	3.0	2.4
<b>Outer Java-Bali I</b>	3.0	3.1	3.5	3.7	4.0	4.2	4.6	3.7
DI Aceh	*	4.2	4.2	4.6	4.6	5.0	5.3	4.5
North Sumatra	*	3.2	3.8	4.1	4.2	4.5	5.0	4.0
West Sumatra	*	3.2	3.5	3.6	3.9	4.3	4.2	3.7
South Sumatra	(2.6)	2.8	3.4	3.7	3.9	4.0	4.2	3.5
Lampung	(2.8)	2.9	3.3	3.5	3.7	4.0	4.1	3.5
West Nusa Tenggara	*	3.1	3.4	3.9	4.1	4.6	5.4	3.8
West Kalimantan	(3.5)	3.4	3.6	3.9	4.2	4.6	(5.0)	3.9
South Kalimantan	(2.3)	2.5	2.7	3.0	3.6	3.5	4.2	3.1
North Sulawesi	*	2.2	2.4	2.6	3.3	3.4	3.6	2.8
South Sulawesi	(3.6)	3.2	3.6	3.9	4.2	4.2	4.6	3.9
<b>Outer Java-Bali II</b>	3.0	3.0	3.4	3.6	3.9	4.2	4.3	3.6
Total	2.5	2.6	2.9	3.2	3.4	3.5	3.7	3.1

\* Less than 25 unweighted cases

( ) Based on 25-49 unweighted cases

### 6.3 UNMET NEED

*Unmet need* is defined as the percentage of currently married women who do not use any method of family planning and do not want any more children or intend to space their next birth. Specifically, women with an unmet need for spacing include pregnant women whose pregnancy was mistimed, amenorrheic women whose last birth was mistimed, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and want to wait two or more years for their next birth. Unmet need for limiting refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and who want no more children. Measures of the unmet need for family planning are used to evaluate the extent to which programs are meeting the demand for services.

According to these criteria, the total unmet need in Indonesia is about 13 percent—half of which is for limiting and half for spacing (see Table 6.6.1). *Demand for family planning* is defined as the sum of contraceptive prevalence (including currently pregnant or amenorrheic women whose pregnancy or last birth was the result of a contraceptive failure (Westoff and Ochoa, 1991)) and unmet need. Overall, the total demand for family planning is 63 percent; 80 percent of this demand is satisfied.

Table 6.6.1 Need for family planning services: age, residence, and education

Percentage of currently married women with unmet need for family planning, met need for family planning, and the total demand for family planning services, by age, urban-rural residence, and education, Indonesia 1991

Characteristic	Unmet need for family planning <sup>1</sup>			Met need for family planning (currently using) <sup>2</sup>			Total demand for family planning <sup>3</sup>			Percentage of demand satisfied	
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	Satis- fied	Total
<b>Age</b>											
15-19	15.0	0.6	15.6	28.8	1.2	30.0	43.8	2.5	46.4	66.5	1152
20-24	12.2	1.5	13.6	40.9	10.1	51.0	53.5	12.2	65.7	79.2	3388
25-29	8.5	4.5	13.0	29.6	24.0	53.6	38.6	29.3	67.9	80.8	4570
30-34	5.5	8.6	14.1	14.7	42.1	56.8	20.7	51.2	71.9	80.4	4000
35-39	3.4	10.3	13.7	7.3	50.3	57.5	11.2	60.8	72.0	81.0	3386
40-44	0.6	11.1	11.7	1.7	46.7	48.3	2.7	58.1	60.8	80.7	2298
45-49	0.2	6.2	6.4	0.3	27.1	27.4	0.6	33.3	33.8	81.1	2314
<b>Residence</b>											
Urban	5.4	5.2	10.5	18.2	37.5	55.7	24.2	43.0	67.2	84.3	6120
Rural	6.6	6.9	13.6	18.9	28.3	47.2	25.9	35.8	61.7	78.0	14989
<b>Education</b>											
No education	4.9	9.0	13.9	9.1	27.5	36.5	14.3	36.8	51.1	72.8	3854
Some primary	6.6	8.1	14.8	16.6	30.6	47.2	23.8	39.3	63.0	76.5	7305
Completed primary	6.4	4.7	11.1	23.9	30.5	54.4	30.6	35.7	66.3	83.3	5598
Some secondary +	6.7	3.5	10.2	24.1	35.3	59.4	31.2	39.3	70.5	85.5	4352
Total	6.3	6.4	12.7	18.7	31.0	49.7	25.4	37.9	63.3	79.9	21109

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

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

<sup>3</sup>Total demand includes pregnant or amenorrheic women who became pregnant while using a method (method failure).

The total unmet need varies with the age of the women. It is higher among younger women, mostly as a result of a greater need for spacing. Older women tend to have a greater need for family planning for limiting purposes. Unmet need is slightly lower in urban areas than in rural areas.

The percentage of women with unmet need by education is presented in Table 6.6.1. Total unmet need declines linearly with increasing education; the more educated the women, the less the percentage with unmet need. Women with no education and women with some primary school are in need of family planning for limiting births while more educated women report greater need for spacing. Additional motivational and service delivery efforts should be directed toward the *limiting* needs of older and less educated women and the *spacing* needs of younger and more educated women.

The total unmet need figures for both Outer Island regions are slightly higher than for Java-Bali (see Table 6.6.2). The lower unmet need in Java-Bali might be a result of the order in which family planning was initiated. Of the 27 provinces, Aceh has the highest level of unmet need (24 percent), followed by Irian Jaya (22 percent), while Bali, Yogyakarta, and North Sulawesi have unmet need below 8 percent.

Table 6.6.2 Need for family planning services: region and province

Percentage of currently married women with unmet need for family planning, met need for family planning, and the total demand for family planning services, by region and province, Indonesia 1991

Region/province	Unmet need for family planning <sup>1</sup>			Met need for family planning (currently using) <sup>2</sup>			Total demand for family planning <sup>3</sup>			Percentage of demand satisfied	Total
	For Spacing	For Limiting	Total	For Spacing	For Limiting	Total	For Spacing	For Limiting	Total		
<b>Java-Bali</b>	5.7	6.1	11.8	19.7	33.7	53.4	25.7	40.3	66.0	82.2	13419
DKI Jakarta	4.5	6.0	10.5	16.8	39.2	56.0	21.6	45.7	67.3	84.4	973
West Java	7.2	5.9	13.1	23.9	27.1	51.0	31.5	33.2	64.7	79.7	4386
Central Java	6.3	7.2	13.5	15.9	33.9	49.7	22.6	42.2	64.8	79.2	3331
DI Yogyakarta	2.8	3.2	6.0	21.4	49.9	71.3	25.3	54.2	79.6	92.4	307
East Java	4.3	5.7	10.0	19.0	36.4	55.4	23.5	42.8	66.3	84.9	4119
Bali	2.5	3.4	5.9	16.1	55.7	71.9	18.9	59.6	78.6	92.5	302
<b>Outer Java-Bali I</b>	7.0	7.1	14.1	17.1	26.4	43.5	24.6	33.7	58.3	75.9	5309
DI Aceh	14.5	9.3	23.8	15.3	13.6	28.9	29.9	23.0	52.9	55.1	327
North Sumatra	7.5	9.5	16.9	10.7	26.4	37.2	19.2	36.0	55.2	69.3	1049
West Sumatra	8.2	8.9	17.1	15.6	24.7	40.3	24.4	34.1	58.4	70.8	436
South Sumatra	7.0	5.7	12.7	17.9	29.2	47.1	25.3	35.2	60.6	79.1	792
Lampung	4.3	6.1	10.4	20.2	33.6	53.8	24.9	40.3	65.2	84.0	664
West Nusa Tenggara	7.8	6.8	14.6	17.4	21.7	39.0	25.5	28.5	54.0	72.9	369
West Kalimantan	6.3	5.6	11.9	22.7	21.7	44.4	29.9	27.4	57.2	79.2	373
South Kalimantan	5.4	4.3	9.7	22.5	29.4	51.9	28.1	34.0	62.1	84.4	339
North Sulawesi	1.7	6.1	7.9	22.3	46.2	68.5	24.2	52.3	76.5	89.7	240
South Sulawesi	7.2	6.4	13.6	16.7	20.4	37.1	24.4	27.2	51.6	73.6	719
<b>Outer Java-Bali II</b>	8.0	7.0	15.0	16.9	25.9	42.8	25.4	33.2	58.6	74.5	2382
Riau	9.7	9.0	18.8	15.5	24.3	39.8	25.7	34.2	59.9	68.7	426
Jambi	7.6	5.4	13.0	24.4	23.4	47.9	32.4	28.9	61.3	78.8	265
Bengkulu	4.6	4.6	9.2	22.1	36.3	58.3	26.9	42.3	69.2	86.6	132
East Nusa Tenggara	8.7	4.4	13.1	17.3	21.9	39.2	26.2	26.3	52.5	75.1	367
East Timor	9.7	7.0	16.6	11.3	13.8	25.1	21.2	21.0	42.2	60.6	87
Central Kalimantan	3.6	5.5	9.1	13.1	31.6	44.6	17.9	37.4	55.3	83.5	170
East Kalimantan	5.3	6.1	11.4	24.1	33.9	57.9	29.9	40.5	70.4	83.9	216
Central Sulawesi	6.2	6.0	12.3	17.6	32.7	50.4	23.9	38.8	62.6	80.4	195
Southeast Sulawesi	11.2	7.2	18.4	15.9	26.0	41.9	28.1	33.5	61.6	70.1	122
Maluku	10.4	8.2	18.6	15.7	27.5	43.2	27.2	35.9	63.1	70.5	210
Irian Jaya	8.8	13.1	21.9	5.0	15.6	20.6	14.0	28.7	42.7	48.7	191
<b>Total</b>	6.3	6.4	12.7	18.7	31.0	49.7	25.4	37.9	63.3	79.9	21109

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

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

<sup>3</sup>Total demand includes pregnant or amenorrheic women who became pregnant while using a method (method failure).

For the Java-Bali region, the data show that the total unmet need in West Java and Central Java is slightly higher than the other provinces; West Java is the only province in Java-Bali in which the unmet need for spacing exceeds the unmet need for limiting. In the Outer Island regions, unmet need for limiting and spacing varies by province; for instance, in Irian Jaya the unmet need for limiting is greater while in Aceh the need for spacing is greater.

#### 6.4 UNPLANNED AND UNWANTED FERTILITY

In the IDHS, women were asked a series of questions for each child born in the preceding five years and any current pregnancy to determine whether the current pregnancy was planned, planned but wanted at a later time, or unwanted. These questions form a particularly powerful indicator of the degree to which couples successfully control childbearing. In addition, the data can be used to gauge the effect on period fertility of the prevention of unwanted births.

The questions are extremely demanding. The respondent is required to recall accurately her wishes at one or more points in the last five years and to report them honestly. The danger of rationalization is present; an unwanted conception may well become a cherished child. Despite these potential problems of comprehension, recall and truthfulness, results from previous surveys have proved surprisingly plausible. Respondents are clearly willing to report unwanted conceptions, although some postpartum rationalization probably occurs. The result is probably an underestimate of unwanted fertility.

Table 6.7 shows the percent distribution of births in the five years preceding the survey by fertility planning status, according to birth order and mother's age at birth. The data show that three of four births (around 77 percent) were wanted at the time of conception and that a further 16 percent were wanted but at later time. Only 6.5 percent were not wanted at all. The proportion of births that were wanted at the time of

**Table 6.7 Fertility planning status**

Percent distribution of births in the five years preceding the survey by fertility planning status, according to birth order and mother's age at birth, Indonesia 1991

Birth order/ Mother's age at birth	Planning status of birth				Total	Number of births
	Wanted then	Wanted later	Wanted no more	Missing		
<b>Birth order</b>						
1	90.9	8.7	0.2	0.2	100.0	4567
2	81.4	17.5	0.8	0.3	100.0	3650
3	77.0	17.3	5.3	0.4	100.0	2544
4+	63.2	20.0	16.5	0.2	100.0	5281
<b>Age at birth</b>						
<19	88.2	11.1	0.4	0.3	100.0	2464
20-24	82.0	16.3	1.4	0.2	100.0	4910
25-29	77.5	16.9	5.4	0.2	100.0	4313
30-34	69.3	17.9	12.5	0.3	100.0	2666
35-39	60.9	15.7	23.0	0.5	100.0	1295
40-44	60.2	13.9	25.7	0.2	100.0	332
45-49	65.2	10.5	24.4	0.0	100.0	62
<b>Total</b>	<b>77.4</b>	<b>15.8</b>	<b>6.5</b>	<b>0.3</b>	<b>100.0</b>	<b>16042</b>

Note: Birth order includes current pregnancy.

conception decreases with increasing birth order while the percentage wanted later and unwanted increases. While less than 1 percent of first births were not wanted, 17 percent of fourth and higher births were unwanted.

The pattern of fertility planning status by women's age at the time of birth shows that the older the women, the lower the percentage wanted of children born in the last five years. The proportion wanted later increases up to age 30-39 years, and then decreases. The percent wanted later among women 15-19 years is almost identical to that among those 45-49 years. The percentage of births that are unwanted increases substantially with age. While less than 1 percent of births to women less than 19 years were unwanted, around 25 percent of births to women age 40-49 were unwanted.

Table 6.8 presents *wanted* fertility rates. These are calculated in the same manner as conventional age-specific fertility rates, except that only births classified as wanted are included in the numerator. A birth is considered wanted if the number of living children at the time of conception was less than or equal to the current ideal number of children as reported by the respondent.

Wanted fertility rates express the level of fertility that theoretically would result if all unwanted births were prevented. Comparison of actual rates with wanted rates indicates the potential demographic impact of the elimination of unwanted births.

Overall, the total wanted fertility rate is about 15 percent lower than the total fertility rate. Thus, if unwanted births could be eliminated, total fertility in Indonesia would be around 2.5 births per woman. The difference by region in wanted fertility rates are similar to those for the actual fertility rate, except that they are all slightly lower. In Jakarta, Yogyakarta, East Java and North Sulawesi, the wanted fertility rate ranges from 1.6 to 1.8.

**Table 6.8 Wanted fertility rates**

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by selected background characteristics, Indonesia 1991

Background characteristic	Total wanted fertility rate	Total fertility rate
<b>Residence</b>		
Urban	2.03	2.60
Rural	2.73	3.24
<b>Region/Province</b>		
<b>Java-Bali</b>	2.13	2.68
DKI Jakarta	1.64	2.14
West Java	2.65	3.37
Central Java	2.31	2.85
DI Yogyakarta	1.60	2.04
East Java	1.69	2.13
Bali	1.75	2.22
<b>Outer Java-Bali I</b>	3.03	3.50
DI Aceh	3.30	3.76
North Sumatra	3.60	4.17
West Sumatra	3.05	3.60
South Sumatra	2.97	3.43
Lampung	2.56	3.20
West Nusa Tenggara	3.43	3.82
West Kalimantan	3.43	3.94
South Kalimantan	2.46	2.70
North Sulawesi	1.85	2.25
South Sulawesi	2.67	3.01
<b>Outer Java-Bali II</b>	3.26	3.75
<b>Education</b>		
No education	2.84	3.28
Some primary	2.88	3.51
Completed primary	2.52	3.07
Some secondary +	2.15	2.58
<b>Total</b>	<b>2.50</b>	<b>3.02</b>

Note: Rates are based on births to women 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 3.5.

## CHAPTER 7

### NONUSE AND INTENTION TO USE FAMILY PLANNING

This chapter focuses on women who are not using family planning and the reasons women stop using contraceptive methods. Five topics are discussed: contraceptive discontinuation rates, reasons for discontinuing contraception, reasons for nonuse, intentions to use contraception in the future, and methods potential users intend to use.

#### 7.1 DISCONTINUATION RATES

Improvement in the *quality* of contraceptive use is one of the goals of Indonesia's family planning program. One measure of the quality of use is the rate at which users discontinue using a method of contraception. Reasons for discontinuation may include contraceptive failure, dissatisfaction with the method, side effects, lack of availability, or other reasons. High rates of discontinuation, method failure, and method switching may indicate that improvements are needed in counselling in the selection of methods, follow-up care, and accessibility of services.

Life table contraceptive discontinuation rates derived from the IDHS are presented in Table 7.1. These are cumulative one-year discontinuation rates and represent the proportion of users discontinuing a method 12 months after the start of use. The rates are calculated by dividing the number of discontinuations for each reason at each duration of use in single months by the number of months of exposure at that duration. The single-month rates are then cumulated to produce a one-year rate. The reasons for discontinuation are treated as competing risks (net rates).

Table 7.1 Contraceptive discontinuation rates

One-year contraceptive discontinuation rates due to method failure, desire for pregnancy, side effects/health reasons, or other reasons, according to specific methods, Indonesia 1991

Method	Reason for discontinuation				Total
	Method failure	To become pregnant	Side effects, health concerns	Other <sup>1</sup>	
Pill	2.7	8.7	10.5	7.6	29.5
IUD	1.2	1.7	7.3	5.7	15.9
Injection	1.5	5.0	16.4	9.2	32.1
Condom	9.1	8.5	1.5	31.4	50.5
Norplant	0.6	1.2	1.6	0.2	3.6
Periodic abstinence	14.9	6.2	0.3	16.3	37.7
Withdrawal	8.0	10.1	1.0	29.8	48.9
Other	5.3	5.3	1.1	19.4	31.1
All methods	2.6	5.6	10.1	8.9	27.3

<sup>1</sup>Includes discontinuations with missing reasons

The rates are calculated from information collected in the calendar portion of the IDHS individual questionnaire. All episodes of contraceptive use between January 1986 and the date of interview were recorded in the calendar along with the reason for any discontinuation of use during this period. In addition, in order to obtain the duration of use of the first episode in the calendar period, the date that the respondent started this period of use was collected. Women who were using a method in January 1986 enter the life table at their duration of use as of that date. Thus, discontinuation rates presented here refer to *all episodes* of contraceptive use in the period of time covered by the calendar, not just those episodes that began during this period. Specifically, the rates presented in Table 7.1 refer to the 60 month period 3-63 months prior to the survey—the month of interview and the 2 months prior are ignored in order to avoid the bias that may be introduced by unrecognized pregnancies.

Overall, 27 percent of all users discontinue using a method within 12 months of starting use; 3 percent stop using due to method failure, 6 percent stop to become pregnant, 10 percent stop using because they experience side effects or are concerned about health problems, and 9 percent stop for other reasons (including cost, infrequent sex, availability). The overall one-year discontinuation rates are about 50 percent for users of the condom and withdrawal. Between 30 and 38 percent of users of the pill, injection, periodic abstinence and other traditional methods quit using the method within a year while only 16 percent of IUD users and 4 percent of Norplant users do so.

The rates of discontinuation according to specific reasons vary by method. As expected, the proportion of users who stop because they became pregnant while using a method (contraceptive failure) is very low for Norplant, the IUD, and injection (less than 2 percent, respectively). The one-year failure rate for the pill is slightly higher at 3 percent and the rates for the condom, periodic abstinence and withdrawal are significantly higher at 8-15 percent.

Relatively large proportions of users of the pill, condom, periodic abstinence, and withdrawal abandon their method to become pregnant compared to users of the IUD, Norplant, and injection. A large percentage (16 percent) of injection users stop using the method within the first year due to side effects or health concerns. Among users of the condom, periodic abstinence, withdrawal, and other traditional methods, women are most likely to discontinue use for reasons other than method failure, a desire to get pregnant, or side effects. These reasons include inconvenience of the method and the desire to switch to a more effective method.

## **7.2 REASONS FOR DISCONTINUATION OF CONTRACEPTIVE USE**

Another perspective on contraceptive discontinuation is provided by Table 7.2 which shows the percent distribution of discontinuations in the five years prior to the survey by reason for discontinuing, according to method.

As might be expected, the main reason for stopping use of family planning is the desire to become pregnant (see Figure 7.1). This is true for all methods except Norplant, for which the main reason for termination was health concerns. Injection also has a relatively high percentage of discontinuations due to side effects. For the IUD, 12 percent of IUD discontinuations were due to an accidental pregnancy and 12 percent to the IUD being expelled.

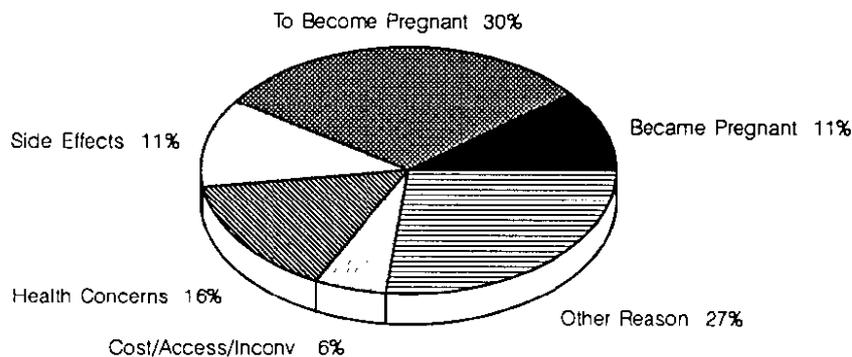
Health concerns are less frequently cited as the reason for discontinuing the condom, periodic abstinence, withdrawal, herbs, and massage than for discontinuing Norplant, the pill, IUD, and injection. Instead, a substantial proportion of women who discontinued the first five methods cite method failure (became pregnant), inconvenience, and husband's disapproval as reasons for discontinuation. Method failure is also cited commonly as a reason for discontinuing traditional methods.

**Table 7.2 Reasons for discontinuation**

Percent distribution of discontinuations of contraceptive methods in the last five years by main reason for discontinuation, according to specific methods, Indonesia 1991

Reason for discontinuation	Pill	IUD	Injection	Condom	Norplant	Abstinence	Withdrawal	All methods
Became pregnant	10.5	12.4	5.5	18.7	4.9	31.4	21.8	10.7
To become pregnant	37.3	28.0	24.4	25.2	25.3	26.3	27.4	29.9
Husband disapproved	0.5	1.2	1.1	2.4	0.0	1.4	6.1	1.1
Side effects	9.8	12.7	15.8	1.9	13.9	1.7	1.3	11.4
Health concerns	13.1	15.5	22.5	2.1	35.9	0.1	1.1	15.5
Access/Availability	2.2	0.1	2.1	1.2	0.0	0.0	0.0	1.7
More effective method	4.1	2.8	4.7	17.8	5.2	9.2	10.3	5.0
Inconvenient to use	1.6	1.2	0.9	14.5	0.0	6.6	7.2	2.1
Infrequent sex	2.2	0.4	1.0	1.1	0.0	1.5	0.6	1.3
Cost	0.0	0.1	5.2	0.1	0.0	0.0	0.3	1.8
Fatalistic	1.2	0.5	0.9	0.4	1.2	0.0	1.8	0.9
Menopause	1.2	1.0	0.2	0.3	0.0	0.9	0.7	0.8
Marital dissolution	2.1	2.4	1.5	0.8	0.6	3.8	1.9	1.9
IUD expelled	0.0	11.7	0.0	0.0	0.0	0.2	0.3	1.9
Medical advice	0.5	1.1	1.3	1.8	0.0	0.3	0.3	0.9
Can't get pregnant	1.5	0.6	0.5	2.5	0.0	0.0	0.0	1.0
Other	4.9	3.4	6.6	4.3	8.1	5.6	11.0	5.6
Don't know	0.1	0.4	0.3	0.0	0.0	0.2	0.0	0.2
Missing	7.2	4.5	5.4	4.7	4.8	11.0	7.9	6.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	3325	1411	3059	364	77	287	232	8934

**Figure 7.1**  
Reasons for Discontinuation of Contraceptive Methods



Note. includes discontinuations in last 5 years

IDHS 1991

### 7.3 INTENTION TO USE CONTRACEPTION IN THE FUTURE

Respondents who were not using any contraception at the time of the interview were asked if they intended to use at any time in the future. Table 7.3 presents the distribution of currently married women who are not using any contraceptive method by intention to use in the future, according to number of living children.

Past experience/ Intention to use in the future	Number of living children <sup>1</sup>					Total
	0	1	2	3	4+	
<b>Never used</b>						
Intend to use in next 12 months	3.7	16.2	8.8	5.4	5.3	8.3
Intend to use later	15.6	7.9	2.9	1.6	1.4	5.0
Unsure as to timing	8.0	2.7	1.6	1.2	0.5	2.3
Unsure as to intent	16.4	9.2	8.3	7.8	7.2	9.2
Does not intend to use	45.4	34.9	31.1	30.3	39.5	36.2
Missing	0.0	0.1	0.0	0.2	0.0	0.1
<b>Previously used</b>						
Intend to use in next 12 months	0.6	5.6	22.0	21.6	14.9	13.2
Intend to use later	2.2	6.7	3.9	2.9	2.1	3.6
Unsure as to timing	1.3	3.1	3.6	3.9	1.1	2.5
Unsure as to intent	2.7	3.4	3.7	5.6	4.4	4.0
Does not intend to use	4.1	9.7	13.5	19.2	23.1	15.2
Missing	0.0	0.4	0.6	0.3	0.5	0.4
<b>Total percent</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>All nonusers</b>						
Intend to use in next 12 months	4.3	21.8	30.8	27.0	20.2	21.5
Intend to use later	17.8	14.5	6.8	4.5	3.5	8.7
Unsure as to timing	9.3	5.8	5.2	5.0	1.6	4.8
Unsure as to intent	28.4	18.5	17.1	18.5	13.2	17.9
Does not intend to use	49.5	44.6	44.6	49.5	62.6	51.4
Missing	0.0	0.5	0.6	0.5	0.5	0.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number</b>	<b>1363</b>	<b>2463</b>	<b>2032</b>	<b>1542</b>	<b>3222</b>	<b>10622</b>

<sup>1</sup>Includes current pregnancy

The data show that 30 percent of currently married nonusers intend to use at some time in the future while half of them do not intend to use; the rest of the women are unsure about their intentions. About 22 percent intend to use in the next 12 months and 9 percent intend to use later. Women who have four or more children are less likely to intend to use than women with fewer children. A higher proportion of ever-users intend to use family planning at some time in the future than women who have never used any contraceptive method.

## 7.4 REASONS FOR NONUSE

One of the ways of assessing obstacles to family planning programs is to ask women why they are not using; this was done in the 1991 IDHS survey. Table 7.4 gives the distribution of currently married nonusers who do not intend to use by reason for not intending to use, according to age. The major reason for not intending to use a contraceptive method is a desire to get pregnant. Overall, almost one-third of nonusers cite this reason. As expected, the proportion who give this reason is greater among younger than older women. More than one-fourth of nonusers age 30 and over said that they do not intend to use contraception because they are menopausal. Health concerns are the next most commonly given reason for nonuse, followed by a lack of family planning knowledge and husband's opposition. Reasons such as cost, religion, inconvenience, and opposition of relatives do not appear to be major reasons for nonuse.

## 7.5 PREFERRED METHOD

Table 7.5 presents data on women who are not currently using family planning but intend to use. Almost all nonusers who intend to use in the next 12 months plan to use either injection (40 percent), pill (32 percent), or IUD (13 percent). There are almost no differences in potential method choice between those who intend to use in the next 12 months and those who intend to use later. Compared to results from the NICPS, a larger proportion of women in the IDHS intend to use injection and Norplant while fewer intend to use the pill.

**Table 7.4 Reasons for not intending to use contraception**

Percent distribution of ever-married women who are not using a contraceptive method and who do not intend to use in the future by main reason for not intending to use, according to age, Indonesia 1991

Reason for not intending to use contraception	Age		Total
	15-29	30-49	
Wants children	57.9	18.7	28.7
Lack of knowledge	8.0	7.1	7.3
Husband opposed	7.2	5.2	5.7
Cost too much	0.5	0.7	0.6
Side effects	2.9	3.5	3.4
Health concerns	5.3	8.6	7.8
Hard to get methods	0.2	0.3	0.3
Religion	1.1	0.7	0.8
Opposed to family planning	2.6	2.4	2.5
Fatalistic	2.8	4.3	3.9
Relatives opposed	1.4	0.9	1.0
Infrequent sex	2.0	3.7	3.3
Difficult to be pregnant	2.8	8.6	7.1
Menopausal, had hysterectomy	0.4	26.6	19.9
Inconvenient	0.6	0.7	0.7
Not married	0.5	0.2	0.3
Other	0.3	2.1	1.6
Don't know	3.5	5.6	5.0
Total	100.0	100.0	100.0
Number	1386	4073	5459

**Table 7.5 Preferred method**

Percent distribution of currently married women who are not using a contraceptive method but who intend to use in the future by preferred method, according to whether they intend to use in the next 12 months or later, Indonesia 1991

Method	Intend to use			Total <sup>1</sup>
	In next 12 months	After 12 months	Unsure as to timing	
Pill	32.4	34.3	22.3	31.5
IUD	13.3	13.0	11.7	13.0
Injection	40.2	36.0	41.1	39.3
Condom	0.5	0.9	1.0	0.6
Norplant	5.0	3.8	3.4	4.5
Female sterilization	2.6	1.6	3.7	2.5
Male sterilization	0.2	0.3	0.7	0.3
Periodic abstinence	0.8	0.6	0.6	0.7
Withdrawal	0.4	0.5	1.3	0.5
Other	1.1	0.5	1.9	1.1
Missing	3.5	8.4	12.2	5.9
Total	100.0	100.0	100.0	100.0
Number	2289	920	506	3720

<sup>1</sup>Includes cases with missing information on timing of future use.

## CHAPTER 8

### OTHER PROXIMATE DETERMINANTS OF FERTILITY

This chapter addresses the principal factors, other than contraception, which affect a woman's risk of becoming pregnant: nuptiality and sexual intercourse, postpartum amenorrhea and abstinence from sexual relations, and secondary infertility.

Marriage is a primary indicator of the exposure of women to the risk of pregnancy and, therefore, is important for the understanding of fertility. Populations in which age at marriage is low tend to be populations with early childbearing and high fertility. Trends in the age at which women marry can help explain trends in fertility levels.

This chapter also includes information on more direct measures of the beginning of exposure to pregnancy and the level of exposure: age at first sexual intercourse and the frequency of intercourse. Measures of several other proximate determinants of fertility are also presented, including the durations of postpartum amenorrhea and postpartum abstinence, and secondary infertility.

In the IDHS, women age 15-49 who had ever been married were interviewed with the individual questionnaire. Ever-married women were identified during the household interview and, during the individual interview, women were asked about their current marital status—currently married, widowed, or divorced. Some of the tables in this report are based on both ever-married and never-married women. These tables are calculated by multiplying the number of interviewed ever-married women by an inflation factor which is the ratio of all women to ever-married women as reported in the household questionnaire. This procedure expands the denominators of the tables so that they represent all women. The inflation factors are calculated by single years of age and, if results are presented by background characteristics, the single-year inflation factors are calculated separately for each category of the background characteristic.

#### 8.1 CURRENT MARITAL STATUS

Table 8.1 shows the marital status of women at the time of the survey by age. Overall, 26 percent of women are never married, 68 percent are currently married, 3 percent are widowed and 3 percent are divorced. These proportions are almost identical to those reported for the 1987 NICPS. The percentage never

Age	Never married	Married	Divorced	Widowed	Total	Number
15-19	80.2	18.3	1.4	0.1	100.0	6280
20-24	35.6	61.3	2.7	0.4	100.0	5523
25-29	11.5	84.5	3.2	0.8	100.0	5408
30-34	4.7	89.8	3.9	1.6	100.0	4456
35-39	2.3	89.8	3.7	4.3	100.0	3772
40-44	2.4	86.9	4.2	6.5	100.0	2646
45-49	1.4	81.3	3.8	13.5	100.0	2847
Total	25.9	68.2	3.1	2.8	100.0	30933

married decreases rapidly from 80 percent among teenagers to 36 percent among women in their early twenties. The proportion of women who are widowed increases steadily with age, from less than 1 percent of women under age 30 to 7 percent among women age 40-44 and then doubles to 14 percent among women age 45-49.

## 8.2 MARITAL EXPOSURE

Table 8.2 is intended to show variations in exposure for a recent period by age and background characteristics of women. The table is calculated using information collected in the calendar and shows the percentage of months in the five years prior to the survey spent married.<sup>1</sup> The percentage of months spent married incorporates the effects of age at first marriage, marital dissolution, and remarriage.

Background characteristic	Age at time of survey							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
<b>Residence</b>								
Urban	2.6	31.4	68.8	85.3	87.9	85.3	81.2	54.7
Rural	10.2	56.3	86.4	92.3	92.4	89.2	83.5	67.5
<b>Region/Province</b>								
<b>Java-Bali</b>	8.9	51.4	82.7	90.2	90.9	88.5	82.4	64.9
DKI Jakarta	2.3	25.0	58.0	82.3	86.3	86.4	84.5	48.6
West Java	12.9	62.4	91.1	93.4	94.5	91.4	87.8	70.4
Central Java	4.6	50.4	81.9	89.9	90.5	87.2	79.9	64.3
DI Yogyakarta	2.3	25.2	67.4	87.5	86.3	88.7	86.7	56.0
East Java	11.4	53.8	84.2	89.7	89.8	87.9	79.5	65.6
Bali	2.6	29.8	74.0	88.1	86.9	78.4	84.9	58.6
<b>Outer Java-Bali I</b>	5.0	38.7	76.4	89.2	90.5	87.4	83.0	59.7
<b>Outer Java-Bali II</b>	7.3	43.6	78.7	90.7	91.5	88.1	85.3	62.3
<b>Education</b>								
No education	15.7	62.7	86.5	90.5	87.6	85.0	79.6	80.7
Some primary	15.8	68.2	88.3	91.8	92.3	89.0	85.0	78.4
Completed primary	9.4	59.5	86.7	92.4	92.5	89.9	85.0	60.7
Some secondary +	2.4	23.7	63.0	83.2	89.8	88.9	85.2	40.9
<b>Total</b>	7.6	47.2	80.6	89.9	91.0	88.0	82.9	63.3

As would be expected, the percentage of months spent married increases with age up to about 90 percent among women age 30-39 and then declines. This pattern reflects the pace of entry into marriage among young women and the increasing incidence of widowhood among women age 40 and above. There are significant differentials in marital exposure between provinces. For example, women age 20-24 in Jakarta and Yogyakarta spent only 25 percent of the months in the five years prior to the survey married, compared to more than 50 percent among women in the same age group in West Java, Central Java and East Java. In addition, the percentage of months spent married is lower among urban than rural women in all age groups.

<sup>1</sup> Note that the table is based on all women, so 60 months are added to the denominator for each never-married woman.

There are large differences in marital exposure by level of education. Overall, women with no education spent 81 percent of the months in the five years preceding the survey married; the comparable percentage among women with some primary education is 78 percent, while among women with complete primary, it is 61 percent, and among women with some secondary or higher education, it is only 41 percent. This pattern is most likely a reflection of higher age at first marriage among more educated women.

### 8.3 AGE AT FIRST MARRIAGE

Table 8.3 presents the percentage of women ever married by selected exact ages and median age at first marriage, according to current age. The table shows clearly an increase in age at marriage across cohorts. Among women age 45-49, 76 percent married by age 20, while only 68 percent of women age 30-34 and 51 percent of women age 20-24 did so. The median age at marriage increased from 16.9 years among the oldest age cohort to 19.8 years among those age 20-24.

Current age	Percentage of women who were first married by exact age:					Percentage who were never married	Number of women	Median age at first marriage
	15	18	20	22	25			
15-19	4.4	NA	NA	NA	NA	80.2	6280	<sup>a</sup>
20-24	10.0	34.1	51.4	NA	NA	35.6	5523	19.8
25-29	14.5	44.7	62.2	73.9	84.5	11.5	5408	18.6
30-34	20.1	52.0	67.7	80.0	89.1	4.7	4456	17.8
35-39	21.8	56.4	70.9	81.7	91.0	2.3	3772	17.4
40-44	27.4	61.9	76.1	85.2	92.0	2.4	2646	16.8
45-49	26.6	61.2	75.8	85.7	92.8	1.4	2847	16.9
20-49	18.4	49.2	65.2	75.9	83.6	12.1	24653	18.1
25-49	20.8	53.5	69.2	80.2	89.2	5.3	19129	17.7

NA = Not applicable  
<sup>a</sup>Median was not calculated because less than 50 percent of the women in the age group  $x$  to  $x + 4$  were first married by age  $x$

There is a great deal of variation in the median age at first marriage by province (see Table 8.4). Within Java-Bali, the median age at first marriage for women age 25-49 ranges from 15.9 years in West Java to 20.2 years in Bali. The age at marriage has increased since 1987 in all of the provinces in Java-Bali, except West Java, as well as in the Outer Islands (see Figure 8.1). Women in Java-Bali marry earliest followed by women in Outer Java-Bali I and those in Outer Java-Bali II. This difference persists in all age groups. The same pattern of differentials by region was found in the 1987 NICPS.

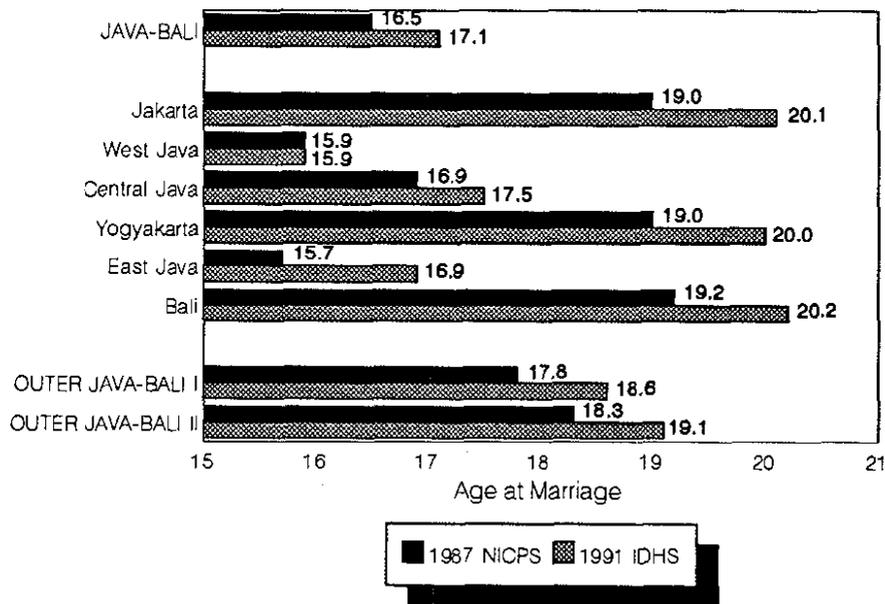
Large differences in age at marriage according to women's level of education are evident in Table 8.4. The difference between women with at least a secondary school education and all other women is especially pronounced. Among women 25-29 years with some secondary or higher education, the median age at marriage is 22.6 years; for women with less than secondary education, age at marriage ranges from 17.1 to 17.9 years. In addition, the gap between women with secondary schooling and other women has increased across age cohorts. For example, the difference in age at marriage between women with at least a secondary education and those with some primary education increased from 4 years in the cohort age 45-49 to 5.3 years in the cohort age 25-29.

**Table 8.4 Median age at first marriage**

Median age at first marriage among women age 25-49 years, by current age and selected background characteristics, Indonesia 1991

Background characteristic	Current age					25-49
	25-29	30-34	35-39	40-44	45-49	
<b>Residence</b>						
Urban	20.6	19.1	18.9	18.1	17.7	19.1
Rural	17.8	17.3	16.9	16.3	16.5	17.1
<b>Region/Province</b>						
Java-Bali	18.1	17.2	16.9	16.1	16.1	17.1
DKI Jakarta	22.2	20.1	19.9	19.0	18.1	20.1
West Java	16.9	16.2	15.6	15.5	15.5	15.9
Central Java	18.4	17.8	17.6	16.2	16.3	17.5
DI Yogyakarta	21.1	20.7	20.0	18.6	18.5	20.0
East Java	17.9	16.8	16.8	15.9	16.0	16.9
Bali	20.7	19.6	20.0	20.4	20.1	20.2
Outer Java-Bali I	19.3	18.7	18.3	17.9	18.0	18.6
Outer Java-Bali II	19.5	19.2	18.7	18.7	19.2	19.1
<b>Education</b>						
No education	17.1	16.0	16.3	15.9	16.2	16.3
Some primary	17.3	17.2	16.6	16.1	16.3	16.9
Completed primary	17.9	17.5	17.3	16.7	17.2	17.5
Some secondary +	22.6	21.8	21.0	20.4	20.3	21.7
<b>Total</b>	18.6	17.8	17.4	16.8	16.9	17.7

**Figure 8.1**  
Median Age at Marriage by Region  
1987 NICPS and 1991 IDHS



## 8.4 AGE AT FIRST SEXUAL INTERCOURSE

Currently married respondents in the IDHS were asked to provide their age when they first had sexual intercourse. This information is presented in Table 8.5. Overall, the patterns shown in this table are almost identical to those for age at first marriage, indicating that most women have first sexual intercourse when they get married. The differentials in age at first intercourse (see Table 8.6) are also similar to the differentials in age at first marriage with rural women and women with less than secondary education first having sexual intercourse at an earlier age than urban women and those with secondary or higher education.

**Table 8.5 Age at first sexual intercourse**

Percentage of women who had first sexual intercourse by exact age 15, 18, 20, 22, and 25, and median age at first intercourse, according to current age, Indonesia 1991

Current age	Percentage of women who had first intercourse by exact age:					Percentage who never had intercourse	Number of women	Median age at first intercourse
	15	18	20	22	25			
15-19	4.4	NA	NA	NA	NA	80.2	6280	a
20-24	9.8	34.3	51.3	NA	NA	35.6	5523	19.8
25-29	14.5	44.7	62.6	74.3	84.4	11.5	5408	18.5
30-34	19.5	52.0	68.1	80.1	89.3	4.7	4456	17.8
35-39	20.5	56.1	70.8	81.8	91.1	2.3	3772	17.5
40-44	24.7	60.3	75.3	84.7	91.6	2.4	2646	17.1
45-49	25.0	60.6	75.3	85.5	92.4	1.4	2847	17.0
20-49	17.6	48.9	65.1	75.9	83.4	12.1	24653	18.1
25-49	19.8	53.2	69.1	80.2	89.0	5.3	19129	17.7

Note: Divorced and widowed women are assigned an age at first intercourse which is the same as the last currently married woman in the data file who got married at the same age. Never-married women are assumed to never have had intercourse.

NA = Not applicable

<sup>a</sup>Median was not calculated because less than 50 percent of the women in the group  $x$  to  $x+4$  had had intercourse by age  $x$

**Table 8.6 Median age at first sexual intercourse**

Median age at first sexual intercourse among women age 25-49 years, by current age and selected background characteristics, Indonesia 1991

Background characteristic	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
<b>Residence</b>						
Urban	20.5	19.0	18.9	18.2	17.7	19.1
Rural	17.8	17.3	16.9	16.6	16.7	17.2
<b>Region/Province</b>						
Java-Bali	18.1	17.2	17.0	16.5	16.4	17.2
DKI Jakarta	22.1	20.1	19.8	19.0	18.2	20.1
West Java	17.0	16.1	15.6	15.5	15.5	15.9
Central Java	18.5	17.9	17.8	17.1	16.6	17.7
DI Yogyakarta	21.0	20.7	19.8	18.9	18.7	20.0
East Java	18.0	16.8	17.0	16.3	16.3	17.0
Bali	20.6	19.5	19.8	20.4	20.1	20.1
Outer Java-Bali I	19.3	18.7	18.2	17.9	18.0	18.5
Outer Java-Bali II	19.4	19.0	18.4	18.4	19.0	18.9
<b>Education</b>						
No education	17.0	16.1	16.3	16.3	16.4	16.4
Some primary	17.3	17.2	16.8	16.4	16.5	16.9
Completed primary	17.9	17.5	17.3	16.9	17.3	17.5
Some secondary +	22.5	21.8	21.0	20.4	20.3	21.6
Total	18.5	17.8	17.5	17.1	17.0	17.7

## 8.5 RECENT SEXUAL ACTIVITY

In the absence of contraception, the probability of pregnancy is related to the frequency of sexual intercourse. Thus, information on intercourse is important for refinement of the measurement of exposure to pregnancy. There were several questions in the IDHS on the topic of recent sexual intercourse. Currently married women were asked how long ago they had last had sexual intercourse, how many times they had sex in the last four weeks, and how many times they usually have sex in a month.

Table 8.7 is based on the question on time since last intercourse and allows an assessment of the overall level of sexual activity according to age, marital duration, and other background characteristics. Overall, 85 percent of married women were sexually active in the month preceding the survey, 4 percent were postpartum abstaining, and 11 percent were not sexually active for reasons other than a recent birth (e.g., spousal separation, illness). The proportion postpartum abstaining declines as age and duration of marriage increase. At the same time, the proportion not sexually active for other reasons increases with increasing age and duration of marriage.

**Table 8.7 Recent sexual activity**

Percent distribution of currently married women by sexual activity in the four weeks preceding the survey and the duration of abstinence by whether or not postpartum, according to selected background characteristics, Indonesia 1991

Background characteristic	Sexually active in last 4 weeks	Not sexually active in last 4 weeks				Missing	Total	Number of women
		Abstaining (postpartum)		Abstaining (not postpartum)				
		0-1 year	2+ years	0-1 year	2+ years			
<b>Age</b>								
15-19	85.9	7.4	0.2	4.3	1.4	0.8	100.0	1152
20-24	87.0	5.5	0.2	7.0	0.1	0.1	100.0	3388
25-29	87.7	5.2	0.3	6.5	0.2	0.1	100.0	4570
30-34	88.1	3.9	0.5	7.1	0.4	0.0	100.0	4000
35-39	87.9	2.8	0.3	8.1	0.8	0.0	100.0	3386
40-44	79.6	1.3	0.6	16.4	2.1	0.1	100.0	2298
45-49	71.4	0.2	0.3	22.4	5.5	0.2	100.0	2314
<b>Duration of marriage</b>								
0-4	86.4	7.1	0.3	5.4	0.5	0.3	100.0	3776
5-9	87.8	5.1	0.2	6.5	0.2	0.2	100.0	4064
10-14	88.2	3.8	0.3	7.2	0.3	0.0	100.0	3922
15-19	88.7	2.6	0.3	7.8	0.5	0.1	100.0	3291
20-24	85.1	2.6	0.7	10.7	0.8	0.1	100.0	2640
25+	72.3	0.6	0.3	21.8	4.9	0.1	100.0	3416
<b>Residence</b>								
Urban	88.8	2.8	0.1	7.3	0.8	0.1	100.0	6120
Rural	83.4	4.2	0.4	10.6	1.3	0.1	100.0	14989
<b>Region/Province</b>								
<b>Java-Bali</b>	82.4	3.9	0.4	11.8	1.4	0.1	100.0	13419
DKI Jakarta	90.4	2.2	0.0	6.4	0.9	0.1	100.0	973
West Java	87.4	3.0	0.1	8.5	0.8	0.2	100.0	4386
Central Java	74.4	5.2	0.5	17.7	2.0	0.1	100.0	3331
DI Yogyakarta	81.4	5.7	1.2	8.7	2.8	0.1	100.0	307
East Java	80.7	4.2	0.6	12.6	1.8	0.1	100.0	4119
Bali	94.3	1.9	0.0	3.5	0.0	0.3	100.0	302
<b>Outer Java-Bali I</b>	89.6	3.4	0.1	5.9	0.8	0.1	100.0	5309
<b>Outer Java-Bali II</b>	88.9	4.0	0.7	5.7	0.5	0.2	100.0	2382
<b>Education</b>								
No education	75.6	3.6	0.7	16.8	3.2	0.1	100.0	3854
Some primary	84.0	4.2	0.4	10.2	1.1	0.1	100.0	7305
Completed primary	87.5	3.9	0.3	7.6	0.5	0.2	100.0	5598
Some secondary +	91.5	3.0	0.1	4.9	0.4	0.1	100.0	4352
<b>Current contraceptive use</b>								
No method	78.4	6.3	0.4	12.5	2.1	0.2	100.0	10622
Pill	93.5	0.1	0.0	6.1	0.2	0.0	100.0	3129
IUD	88.9	1.9	0.6	8.3	0.3	0.0	100.0	2815
Sterilization	91.3	1.0	0.0	7.0	0.6	0.1	100.0	687
Periodic abstinence	92.0	0.4	0.0	7.7	0.0	0.0	100.0	233
Other	92.0	1.7	0.3	5.9	0.1	0.0	100.0	3622
<b>Total</b>	<b>84.9</b>	<b>3.8</b>	<b>0.3</b>	<b>9.6</b>	<b>1.2</b>	<b>0.1</b>	<b>100.0</b>	<b>21109</b>

The percentage of women who were sexually active in the month preceding the survey is closely associated with education. Seventy-six percent of women with no education were sexually active compared to 84 percent of those with some primary education, 88 percent of those who have completed primary school and 92 percent of those with some secondary or higher education. These differences by education are due mainly to higher proportions abstaining for reasons other than a recent birth among those with less education.

Among contraceptive users, the proportion of women sexually active varies little according to the method used. However, women who are not using any method of family planning are less likely to be sexually active than those who are using a method. Among women who were not using family planning, only 78 percent had had sex in the month prior to the survey; 7 percent were postpartum abstaining and 15 percent were abstaining for other reasons.

## 8.6 POSTPARTUM AMENORRHEA, ABSTINENCE AND INSUSCEPTIBILITY

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

Table 8.8 shows the percentage of births whose mothers are postpartum amenorrheic, abstaining, and postpartum insusceptible by the number of months since the birth. Women who are insusceptible are defined as those who are either amenorrheic or abstaining following a birth and, thus, are not exposed to the risk of pregnancy. The estimates shown in Tables 8.8 and 8.9 are based on current status data. That is, they refer to whether or not the woman was amenorrheic or abstaining at the time of the survey. All births occurring during the three years prior to the survey are included. Table 8.8 uses cross-sectional data, representing all women at a single point in time, rather than showing the experience of an actual cohort over time. For this reason, the proportions at increasing durations do not always decline smoothly. To reduce such fluctuations, the births are grouped in two-month intervals.

Eighty percent of women are still amenorrheic 2 to 3 months after a birth. The proportion amenorrheic 6 to 7 months after the birth is 54 percent and 12 to 13 months after the birth, it is 33 percent. The duration of postpartum abstinence is shorter than the duration of amenorrhea (see Figure 8.2). Only 38 percent are still abstaining from sexual relations within 2-3 months after a birth and after a year only about 5 percent are still abstaining. Overall, half of the women are susceptible to the risk of pregnancy 8 months after the birth of a child (not taking into account contraceptive use).

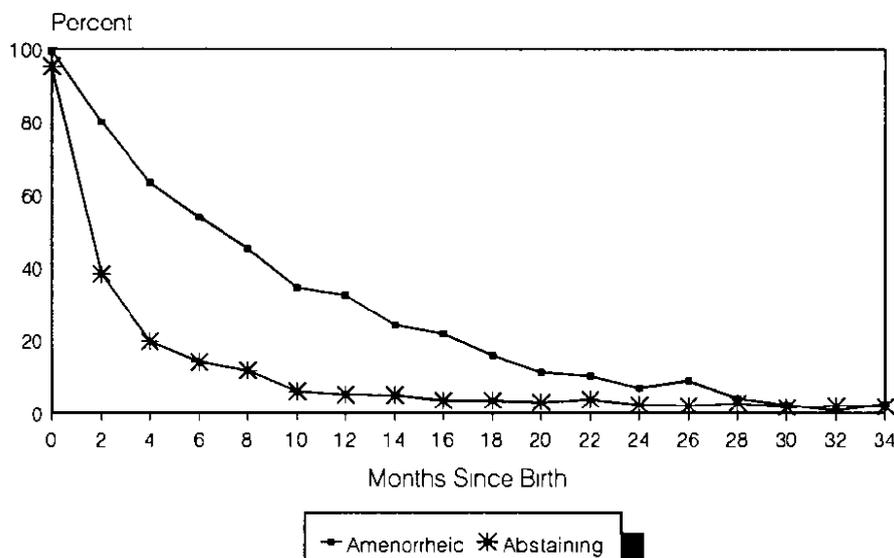
**Table 8.8 Postpartum amenorrhea, abstinence and insusceptibility**

Percentage of births in which the mother is postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Indonesia 1991

Months since birth	Amenorrheic	Abstaining	Insusceptible	Number of births
< 2	99.4	95.2	99.8	383
2-3	80.0	38.3	82.3	505
4-5	63.3	19.7	67.5	450
6-7	53.7	14.1	56.2	486
8-9	45.1	11.8	49.9	574
10-11	34.6	6.0	36.6	441
12-13	32.5	5.2	36.1	509
14-15	24.2	5.0	26.9	501
16-17	21.8	3.5	24.8	481
18-19	15.8	3.5	18.1	449
20-21	11.3	3.0	12.9	489
22-23	10.2	3.8	14.1	441
24-25	6.9	2.3	8.5	573
26-27	8.9	2.0	10.8	596
28-29	4.1	2.7	6.8	477
30-31	2.3	1.6	3.8	403
32-33	0.7	2.0	2.7	384
34-35	2.6	1.9	4.3	469
Total	28.3	11.4	30.9	8613
Median	7.3	2.6	8.0	NA
Mean	10.6	4.7	11.5	NA
Prevalence/ Incidence Mean	10.1	4.1	11.0	NA

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

Figure 8.2  
Percentage of Births Whose Mothers Are  
Amenorrheic or Abstaining



IDHS 1991

The median duration of postpartum amenorrhea, abstinence and insusceptibility by various background characteristics of the women is shown in Table 8.9. On average, women in Indonesia are amenorrheic for 7 months following a birth, abstain for 3 months and are insusceptible to the risk of pregnancy for 8 months. Women less than 30 years of age and urban women are amenorrheic for a shorter period of time than women over age 30 and rural women.

The duration of amenorrhea is practically identical in all three major regions at a little over 7 months. Within Java-Bali, however, there is substantial variation. The median duration of amenorrhea is 3 months in Jakarta, 6 to 7 months in East Java and West Java, 8 to 9 months in Yogyakarta and Bali, and almost 11 months in Central Java. Education has an inverse relationship with the duration of amenorrhea. Women with no education are amenorrheic for twice as long (10.5 months) as women with some secondary or higher education (5.0 months).

Subgroup differences in the duration of abstinence tend to be less pronounced than differences in amenorrhea. In almost all subgroups, women abstain for 2 to 3 months following a birth. In Central Java and East Java, the duration of abstinence is somewhat longer at about 4 months.

The combined effect of amenorrhea and abstinence is reflected in the median duration of insusceptibility shown in Table 8.9. Rural women and women age 30 and over are insusceptible for longer periods than urban women and those under age 30; these differences are largely attributable to longer durations of amenorrhea (and, therefore, breastfeeding, see Table 11.3) among rural and older women. The less education a woman has, the longer she is insusceptible to the risk of pregnancy following a birth. Regional differences in the duration of insusceptibility generally replicate the differences in the duration of amenorrhea.

**Table 8.9 Median duration of postpartum insusceptibility**

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility, by selected background characteristics, Indonesia 1991

Background characteristic	Amenorrheic	Abstaining	Insusceptible	Number of births
<b>Age</b>				
<30	6.7	2.5	7.4	5510
30+	9.6	2.8	10.7	3103
<b>Residence</b>				
Urban	5.0	2.3	5.5	2495
Rural	8.3	2.8	9.2	6118
<b>Region/Province</b>				
<b>Java-Bali</b>	7.3	2.9	8.1	4799
DKI Jakarta	3.1	2.2	3.2	349
West Java	6.3	2.3	6.9	1853
Central Java	10.6	3.8	11.8	1241
DI Yogyakarta	8.5	3.4	9.3	95
East Java	6.9	4.2	7.6	1163
Bali	9.3	2.2	9.9	98
<b>Outer Java-Bali I</b>	7.5	2.3	7.9	2604
<b>Outer Java-Bali II</b>	7.2	2.4	8.1	1210
<b>Education</b>				
No education	10.5	2.7	11.6	1167
Some primary	9.3	2.5	10.2	3064
Completed primary	6.8	3.0	8.0	2353
Some secondary +	5.0	2.3	5.4	2030
<b>Total</b>	<b>7.3</b>	<b>2.6</b>	<b>8.0</b>	<b>8613</b>

## 8.7 TERMINATION OF EXPOSURE

The onset of infertility with increasing age reduces the proportion of women who are exposed to the risk of pregnancy. Two measures of exposure, menopause and long-term abstinence, are shown in Table 8.10. Menopause is an indicator of secondary infertility—the proportion of non-amenorrheic, non-pregnant currently married women whose last menstrual period occurred six or more months prior to the survey or who report that they are menopausal. This proportion rises rapidly with age, particularly after age 40. The proportion menopausal reaches 57 percent in the oldest age group (48-49).

Long-term abstinence is an indicator of terminal abstinence—the percentage of currently married women who did not have sexual intercourse in the three years prior to the survey. Although long-term abstinence is an important factor in the termination of exposure in some countries, especially in sub-Saharan Africa, it is not significant in Indonesia, where only 5 percent of women are terminally abstaining in the oldest age group.

**Table 8.10 Termination of exposure to the risk of pregnancy**

Indicators of menopause and long-term abstinence among currently married women age 30-49, by age, Indonesia 1991

Age	Menopause <sup>1</sup>	Long-term abstinence <sup>2</sup>
30-34	3.9	0.5
35-39	4.9	0.7
40-41	9.4	2.4
42-43	15.2	1.3
44-45	31.0	2.7
46-47	33.2	3.1
48-49	57.2	5.3
<b>Total</b>	<b>14.4</b>	<b>1.5</b>

<sup>1</sup>Percentage of non-pregnant, non-amenorrheic currently married women whose last menstrual period occurred six or more months preceding the survey or who report that they are menopausal;

<sup>2</sup>Percentage of currently married women who did not have intercourse in the three years preceding the survey.

## CHAPTER 9

### INFANT AND CHILD MORTALITY

#### 9.1 BACKGROUND

This chapter reports information on levels, trends and differentials in neonatal, postneonatal, infant and child mortality. This information is relevant both to the demographic assessment of the population and to health policies and programs. Estimates of infant and child mortality may be used as input into population projections, and are useful tools for monitoring and evaluating health programs. These estimates also serve the purpose of identifying sectors of the population which are at high mortality risk.

Infant and child mortality are measured using five rates:

**neonatal mortality:** the probability of dying within the first month of life;

**postneonatal mortality:** the probability of dying after the first month of life but before exact age one year;

**infant mortality:** the probability of dying between birth and exact age one year;

**child mortality:** the probability of dying between exact age one and exact age five;

**under-five mortality:** the probability of dying between birth and exact age five.

The mortality rates presented in this chapter are derived from the birth history section of the IDHS individual questionnaire. First, each woman was asked about the number of sons and daughters living with her in the same household, the number living away, and the number who had died. Next, the respondent was asked to give information on each of the children she had given birth to, including the name, sex, date of birth, whether the birth was single or multiple, and survival status. If the child had died, the age at death was recorded. If the child was still living, information about his/her age at last birthday and whether the child lived with his/her mother was obtained.

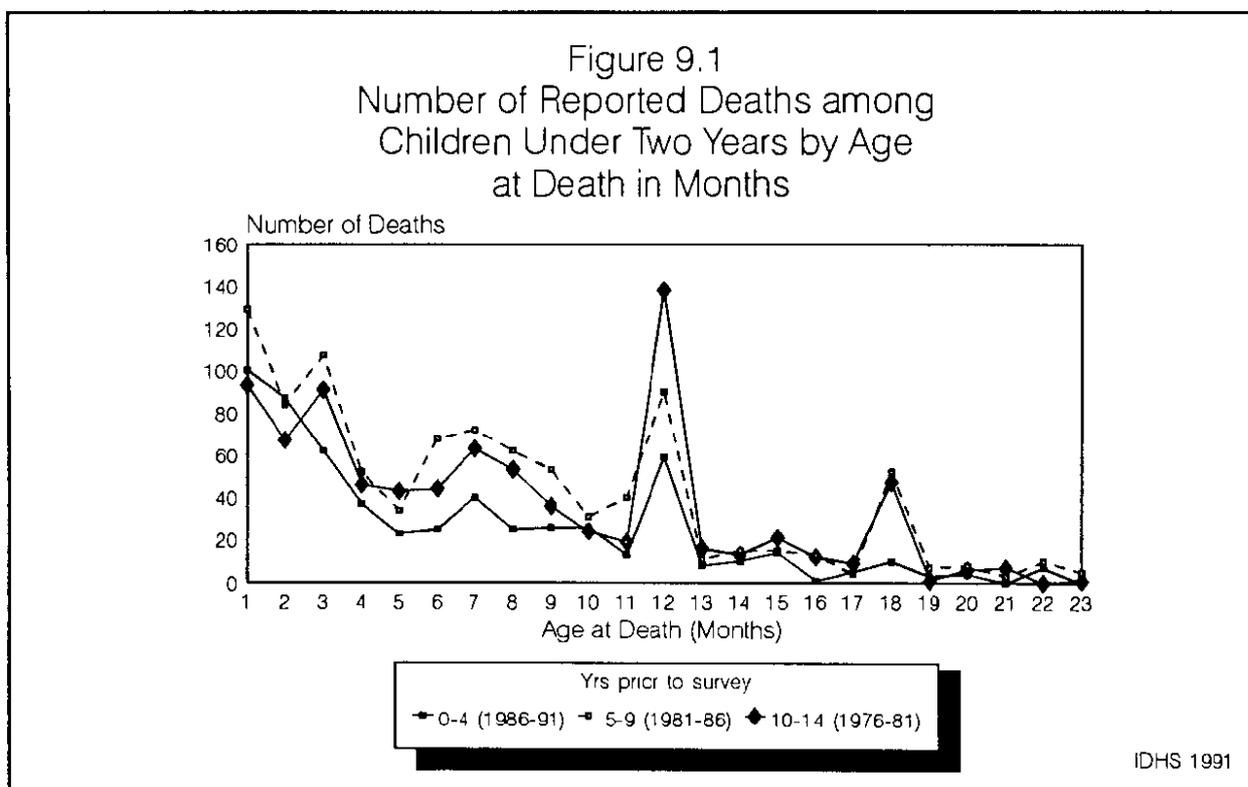
This information is used to directly estimate mortality rates. The reliability of these mortality estimates depends upon full recall of children who have died, the absence of severe differential displacement of birth dates of surviving and dead children, and accurate reporting of ages at death. Despite these potential problems, birth history data provide the possibility of performing detailed analyses that would be impossible with most other data collection formats.

In order to analyze trends in mortality, estimates based on the 1971, 1980, and 1990 population censuses and the 1987 NICPS are also presented in this chapter. Indirect estimation techniques, based on information on the number of children ever born and the number of children dead among female respondents, are applied to the census data. The estimates from the 1987 NICPS are direct estimates obtained from birth history data.

#### 9.2 ASSESSMENT OF DATA QUALITY

The reliability of the mortality estimates derived from the IDHS birth history depends on the completeness of reporting of births and deaths, and the accuracy of reporting dates of birth and ages at death. As shown in Table C.4 in Appendix C, there is a deficit of births in the IDHS in calendar year 1986 and an excess of births in calendar year 1985. This pattern is one which has been found in previous DHS surveys; it is thought to result from the transference of births by interviewers out of the period for which the health and calendar data were collected (January 1986 through the date of the survey) in order to reduce their workload.

The most common source of error in the reporting of children's age at death is a tendency for mothers to report them as occurring at multiples of six months. In part to minimize this type of error, interviewers were instructed to record deaths under one month of age in days, and under 2 years of age in months. There were also instructions in the questionnaire which reminded interviewers to probe for an exact age at death in months when the age at death was reported as "one year" or "12 months." Nevertheless, as shown in Figure 9.1, there is considerable heaping of deaths at age 12 months. This heaping is more severe for deaths that occurred farther in the past compared to those that occurred more recently. It should be noted that although misreporting of age at death may result in biased estimates of infant and child mortality, a simulation study using DHS data indicates that the magnitude of misreporting evident in the IDHS would bias the estimates by no more than 5 percent (Sullivan et al., 1990). Thus, the results presented in this report are unadjusted for misreporting. In particular, all deaths reported as occurring at 12 months are not included in the calculation of the infant mortality rate.



### 9.3 LEVELS AND TRENDS IN INFANT AND CHILD MORTALITY

It is widely known that in many developing countries, the mortality of children under five years of age, particularly that of children who have not reached their first birthday, is very high. Several years ago, Indonesia was in this category, but in the last two decades mortality has declined dramatically. For the five years preceding the IDHS, the infant mortality rate in Indonesia was estimated at 68 deaths per 1000 births and the under-five mortality rate at 97 deaths per 1000 births (see Table 9.1). The IDHS direct estimate of infant mortality is close to the indirect estimate (70 deaths per 1000 births) calculated by the Central Bureau of Statistics based on the 1990 Population Census Tables.<sup>1</sup>

<sup>1</sup> The indirect estimate is based on Trussell method, West model life table, women age 25-29, reference year 1986.

Figure 9.2 shows infant mortality estimates calculated from the last three censuses (1971, 1980, and 1990), the 1987 NICPS, and the 1991 IDHS. The estimates suggest that infant mortality in Indonesia declined by about half during the twenty-year period from 1968 to 1988. The rate of decline may have slowed in recent years but infant mortality continues to fall.

**Table 9.1 Infant and child mortality**

Neonatal, postneonatal, infant, child, and under-five mortality rates for three five-year periods preceding the survey and the ratio of postneonatal to neonatal mortality, Indonesia 1991

Years preceding survey	Approximate calendar periods	Neonatal mortality (NN)	Post-neonatal mortality (PNN)	Infant mortality †‰	Child mortality †‰	Under-five mortality †‰	Ratio Post-neonatal/neonatal
0-4	mid-1986 - mid-1991	31.7	36.1	67.8	31.7	97.4	1.14
5-9	mid-1981 - mid-1986	35.5	44.1	79.7	39.0	115.5	1.24
10-14	mid-1976 - mid-1981	41.3	40.7	82.0	44.4	122.8	0.98
0-9	mid-1981 - mid-1991	33.7	40.4	74.2	35.4	107.0	1.20

**Figure 9.2 Infant Mortality Rates Various Sources, Indonesia 1971-1991**

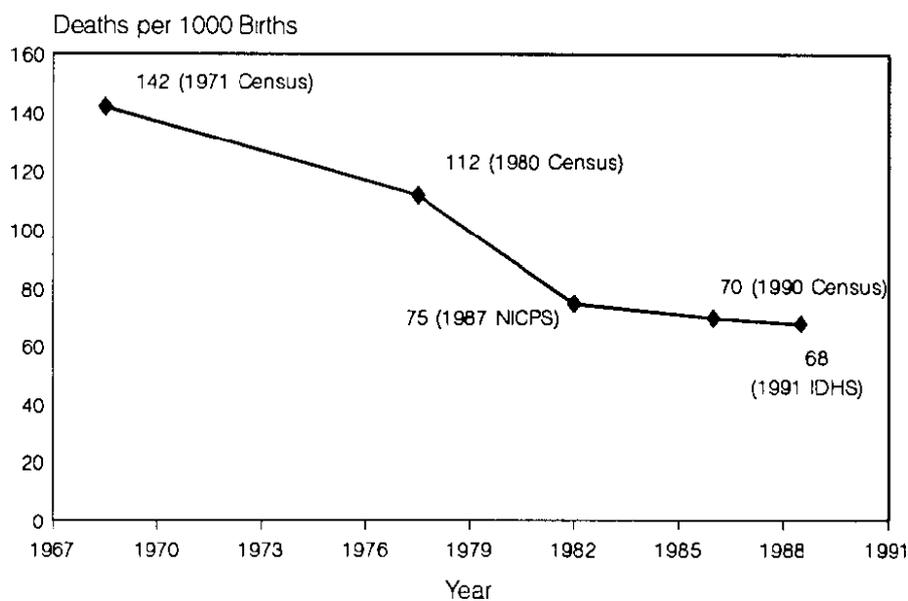


Table 9.1 presents various mortality estimates for children under five based on the IDHS. Infant mortality during the ten-year period prior to the survey was 74 deaths per 1000 live births, and the neonatal mortality rate was 34 deaths per 1000 live births; the ratio of postneonatal to neonatal mortality was 1.2. The probability of dying between birth and the fifth birthday was 107 per 1000 live births.

The data indicate that the under-five mortality rate declined from 123 in the period 10 to 14 years prior to the survey to 97 in the most recent five-year period. A rapid decline also occurred in mortality between the first and the fifth birthday. Considering the ratio of postneonatal to neonatal mortality, there was an increase from 0.98 in the period 10-14 years prior to the survey to 1.14 in the period 0-4 years prior to the survey, which is due to a larger proportion of deaths occurring in the postneonatal period.

The 1987 NICPS and 1991 IDHS results are compared in Table 9.2. The IDHS results indicate that, contrary to expectation, the infant and under-five mortality rates for Java-Bali are higher than those in other regions, and all rates in Outer Java-Bali I are higher than those in Outer Java-Bali II. In contrast, the NICPS results indicated that all mortality rates for Java-Bali were lower than in the Outer Islands but also that mortality rates, except child mortality, in Outer Java-Bali I were higher than Outer Java-Bali II.

**Table 9.2. Infant and child mortality (ten-year rates) by region: NICPS and IDHS**

Infant and child mortality for the ten-year period preceding the survey by region, 1987 NICPS and 1991 IDHS

Region/province	Infant mortality rate		Child mortality rate		Under-five mortality rate	
	NICPS	IDHS	NICPS	IDHS	NICPS	IDHS
<b>Java-Bali</b>	70.3	78.8	36.9	34.3	104.5	110.3
Jakarta	52.9	44.9	26.9	15.7	78.4	59.9
West Java	94.7	116.9	51.3	53.3	141.1	164.0
Central Java	47.8	48.8	35.4	32.6	81.6	79.8
Yogyakarta	37.6	37.5	19.1	11.8	56.0	48.9
East Java	71.4	69.3	27.6	20.6	97.0	88.5
Bali	65.6	49.1	16.3	12.2	80.8	60.7
<b>Outer Java-Bali I</b>	83.7	69.2	42.0	37.3	122.2	104.0
<b>Outer Java-Bali II</b>	75.5	65.9	47.1	36.0	119.1	99.6
<b>Indonesia</b>	75.2	74.2	39.1	35.4	114.1	107.0

Note: Approximate calendar periods covered are: NICPS, 1977-1987; IDHS, 1981-1991.

As in the 1980 Population Census, 1985 SUPAS, and NICPS, the IDHS results show that, among the provinces in Java, West Java has the highest mortality and Yogyakarta has the lowest mortality. The infant mortality rate in West Java was estimated at 95 in the period 1977-1987 and 117 for the period 1981-1991. The rate for 1981-1991 for West Java seems too high compared with estimates from other sources. For example, using the 1990 Population Census results, it was estimated using indirect methods that the infant mortality rate for West Java in the period 1986-1989 was 87 per 1000 live births.

Infant mortality rates in Central Java, Yogyakarta, East Java, and Bali have been declining in the past fifteen years, with the rate of decrease varying somewhat between provinces (see Table 9.3 and Figure 9.3). In Jakarta, the rate has been more or less stable in the last fifteen years following a large decline in the early 1970s. The pattern in West Java is erratic; the rate appears to have increased from 107 in the period 0 to 4 years prior to the survey to 122 in the intermediate five-year period and decreased again to 111 in the most recent five-year period. As has been mentioned above, the infant mortality rate for West Java is puzzling and appears to be inconsistent with estimates from other sources. Several possibilities are worth investigation: infant mortality in West Java may have increased in the mid-1980s and then declined;<sup>2</sup> infant mortality may have been underestimated from the NICPS, or overestimated from the IDHS. Based on the 1990 Population Census and IDHS results, however, it is clear that among provinces in Java-Bali only West Java continues to have a high infant mortality rate whereas other provinces have reached intermediate levels.

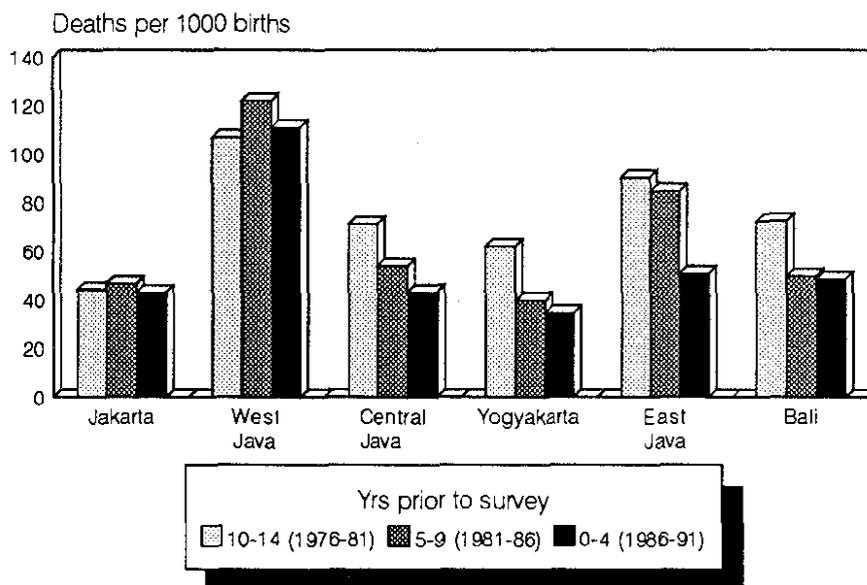
**Table 9.3 Infant mortality for five-year periods by region**

Infant mortality rates for three five-year periods preceding the survey by region, Indonesia 1991

Region/province	Years preceding survey		
	0-4	5-9	10-14
<b>Java-Bali</b>	78.8	85.9	86.8
Jakarta	42.9	46.5	44.2
West Java	111.1	121.9	107.0
Central Java	43.0	53.8	71.3
Yogyakarta	34.7	39.9	62.2
East Java	50.7	84.6	90.1
Bali	48.5	49.6	72.5
<b>Outer Java-Bali I</b>	65.6	72.3	73.9
<b>Outer Java-Bali II</b>	62.4	69.2	78.3

Note: Approximate calendar periods covered are: mid-1986 thru mid-1991 (0-4), mid-1981 thru mid-1986 (5-9), mid-1976 thru mid-1981 (10-14).

**Figure 9.3**  
Infant Mortality Rates by Province  
Java-Bali 1976-1991



IDHS 1991

<sup>2</sup> Trend data from the NICPS also show an increase in infant mortality in the early to mid-1980s, followed by a decrease.

## 9.4 MORTALITY DIFFERENTIALS

Mosley and Chen's (1984) framework for the study of child mortality in developing countries outlines various proximate and socioeconomic determinants of infant mortality. The proximate determinant variables include the age of the mother, parity, and birth interval. The socioeconomic determinants, which operate through the proximate determinants to influence infant mortality, consist of many variables, including place of residence and mother's educational attainment. The following section discusses differential infant and child mortality according to proximate and socioeconomic variables which were included in the 1991 IDHS. Several variables related to health, such as the type of birth attendant and birth weight, are also discussed.

Table 9.4 shows mortality rates by socioeconomic characteristics of the mother for the ten-year period preceding the survey. For all mortality rates, the figures for women living in urban areas are lower than those for women in rural areas. This was also the case in 1987.

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality ( ${}_1Q_0$ )	Child mortality ( ${}_4Q_1$ )	Under-five mortality ( ${}_5Q_0$ )
<b>Residence</b>					
Urban	27.3	29.9	57.2	28.1	83.7
Rural	36.3	44.7	81.0	38.5	116.4
<b>Region/Province</b>					
Java-Bali	36.7	42.0	78.8	34.3	110.3
DKI Jakarta	25.9	19.0	44.9	15.7	59.9
West Java	53.3	63.6	116.9	53.3	164.0
Central Java	19.1	29.7	48.8	32.6	79.8
DI Yogyakarta	26.6	10.9	37.5	11.8	48.9
East Java	35.3	34.1	69.3	20.6	88.5
Bali	27.1	22.0	49.1	12.2	60.7
Outer Java-Bali I	33.0	36.2	69.2	37.3	104.0
Outer Java-Bali II	22.7	43.2	65.9	36.0	99.6
<b>Education</b>					
No education	35.1	53.9	89.0	46.2	131.1
Some primary	38.3	47.1	85.4	43.4	125.1
Completed primary	36.5	38.0	74.5	29.8	102.1
Some secondary +	18.8	15.8	34.6	12.7	46.8
<b>Medical/Maternity care<sup>1</sup></b>					
No antenatal/delivery care	56.5	63.2	119.7	(45.5)	(159.8)
Either antenatal or delivery care	24.2	36.8	61.0	(22.7)	(82.4)
Both antenatal and delivery care	24.9	14.8	39.7	(12.3)	(51.5)
<b>Total</b>	<b>33.7</b>	<b>40.4</b>	<b>74.2</b>	<b>35.4</b>	<b>107.0</b>

Note: Approximate calendar period covered is mid-1981 thru mid-1991.  
 ( ) Based on 250-499 exposed persons  
<sup>1</sup>Rates are for the 5-year period preceding the survey.

The universal pattern of lower mortality rates for children of mothers with higher education compared to those with none or little education can be seen in Table 9.4. In the case of neonatal mortality, the rates for children of mothers with complete primary school or less are quite similar; only children of mothers with some secondary or higher education have considerably reduced mortality risks. In contrast, postneonatal mortality declines steadily with increasing education of the mother.

Mortality among children whose mothers had no antenatal care or medical assistance at the time of delivery is distinctly higher than for other children. This relationship holds for other mortality measures as well, except that neonatal mortality among those whose mothers had either antenatal care or medical assistance at delivery and both antenatal care and medical assistance at delivery are almost the same (24.2 vs 24.9), compared to those who had neither antenatal care nor medical assistance at delivery (56.5). Mortality among male children is higher than among female children.

One of the variables that is known to have an effect on infant mortality is the mother's age at the time of delivery. The level of infant and under-five mortality is extremely high among children whose mothers were less than age 20 at the time of delivery, decreases among mothers age 20-39, and increases among mothers age 40-49 (see Table 9.5). The pattern is different for postneonatal mortality; the rates are highest for mothers under age 20 and then very similar for mothers age 20 and over.

**Table 9.5 Infant and child mortality by demographic characteristics**

Infant and child mortality rates for the ten-year period preceding the survey, by selected demographic characteristics, Indonesia 1991

Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality ( ${}_1Q_0$ )	Child mortality ( ${}_4Q_1$ )	Under-five mortality ( ${}_5Q_0$ )
<b>Sex of child</b>					
Male	35.9	44.1	79.9	36.0	113.1
Female	31.4	36.5	67.9	34.8	100.3
<b>Age of mother at birth</b>					
Less than 20	59.8	53.5	113.3	38.4	147.4
20-29	28.8	36.6	65.3	34.5	97.6
30-39	25.3	40.1	65.4	34.6	97.7
40-49	39.1	35.7	74.8	(49.4)	(120.5)
<b>Birth order</b>					
1	39.6	34.7	74.3	31.0	103.0
2-3	32.5	39.8	72.4	31.9	101.9
4-6	27.8	41.2	69.0	40.0	106.2
7+	38.6	59.0	97.6	51.9	144.5
<b>Previous birth interval</b>					
< 2 years	50.3	64.2	114.5	51.1	159.8
2-3 years	27.8	40.6	68.4	38.8	104.6
4 years or more	19.8	25.5	45.3	18.3	62.8
<b>Size at birth<sup>1</sup></b>					
Very small	((239.5))	((26.4))	((265.9))	((29.1))	((287.2))
Small	58.1	50.5	108.6	(14.3)	(121.3)
Average or larger	23.8	32.8	56.6	25.2	80.4

Note: Approximate calendar period covered is mid-1981 thru mid-1991.

<sup>1</sup>Rates are for the five-year period preceding the survey.

( ) Based on 250-499 exposed persons

(( )) Based on less than 250 exposed persons

Mortality according to birth order shows the expected pattern of higher mortality associated with higher birth order except in the case of neonatal mortality where a U-shaped pattern appears with the highest mortality rates among firstborn infants (39.6) and seventh or higher order children, while fourth to sixth born children have the lowest mortality.

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

Infants who were judged by their mothers to be *very small* at birth were 10 times more likely to die in the neonatal period than infants judged to be *average or larger* at birth (see Table 9.5). After the neonatal period, the mortality risks for very small infants appear to be similar to those for other children.

## 9.5 HIGH-RISK FERTILITY BEHAVIOR

Table 9.6 shows the distribution of women and children according to avoidable fertility behavior characteristics that place children at an elevated risk of mortality. Children at elevated risk include those whose mothers who are too young or too old when they give birth, high parity births, and births born after short intervals. The table also presents the relative risk of mortality for children born in the last five years by comparing the proportion dead in each risk category to the proportion dead of children who are not in any high risk category. This information is useful for designing and monitoring programs both to avoid high-risk behavior and to cope with the elevated risks.

Slightly less than half of children born in the five years preceding the survey are in one or more elevated risk categories. Nineteen percent of births were of birth orders greater than 3 while 8 percent were born after an interval of less than 24 months and 7 percent were born to mothers younger than 18 or older than 34. Approximately 14 percent of births are in more than one elevated risk category with the most prevalent combination being children of birth order greater than 3 whose mothers are older than 34.

The risk ratios shown in the second column of Table 9.6 indicate that children born to mothers less than age 18 are twice as likely to die as children who are not in any elevated risk category. Children who are in more than one high risk category have a risk ratio of 1.75 while those who fall into only one elevated risk category have a risk ratio of 1.41. The overall risk ratio for children who are in any high risk category is 1.51.

The third column of Table 9.6 shows the percentage of currently married women who are at risk of conceiving a child with an elevated risk of mortality. Overall, 31 percent of married women are potentially mothers of children in one elevated risk category and 36 percent are at risk of having a child in multiple high risk categories. Women are most likely to have a child at elevated risk due to high birth order or older age in combination with high birth order.

**Table 9.6 High-risk fertility behavior**

Percentage of children born in the five years preceding the survey who are at elevated risk of mortality, and the percentage of currently married women at risk of conceiving a child with an elevated risk of mortality, by category of increased risk, Indonesia 1991

Risk category	Births in 5 years preceding the survey		Percentage of currently married women <sup>a</sup>
	Percentage of births	Risk ratio	
<b>Not in any high risk category</b>	52.2	1.00	32.8 <sup>b</sup>
<b>Single high risk category</b>			
Mother's age < 18	5.3	2.02	0.9
Mother's age > 34	1.3	1.12	7.6
Birth interval < 24	7.6	1.81	8.3
Birth order > 3	19.4	1.11	14.4
Subtotal	33.6	1.41	31.2
<b>Multiple high risk category</b>			
Age <18 & birth interval <24 <sup>c</sup>	0.4	2.92	0.2
Age >34 & birth interval <24	0.2	1.18	0.2
Age >34 & birth order >3	7.7	1.22	27.8
Age >34 & birth interval <24 & birth order >3	1.0	2.49	2.2
Birth interval <24 & birth order >3	5.0	2.33	5.8
Subtotal	14.2	1.75	36.1
<b>In any high risk category</b>	47.8	1.51	67.2
Total	100.0	NA	100.0
Number	14355	NA	21109

Note: Risk ratio is the ratio of the proportion dead of births in a specific high-risk category to the proportion dead of births in the "not in any high risk category."

<sup>a</sup>Women were assigned to high risk categories according to the status they would have at the birth of a child, if the child were conceived at the time of the survey: age less than 17 years and 3 months or older than 34 years and 2 months, latest birth occurred less than 15 months ago, or latest birth was order 3 or higher.

<sup>b</sup>Includes sterilized women

<sup>c</sup>Includes the combined categories age <18 & birth order >3



## CHAPTER 10

### MATERNAL AND CHILD HEALTH

This chapter presents findings in three important areas of maternal and child health—maternal care and characteristics of the neonate, vaccinations, and common childhood illnesses and their treatment. Coupled with information on neonatal and infant mortality rates, this information can be used to identify subgroups of women whose births are at risk because of nonuse of maternal health services, and to provide information to assist in the planning of appropriate improvements in the services.

In Indonesia, health centers are available in every subdistrict. In addition, five important health services—maternal and child health care, nutrition, immunization, diarrheal disease control and family planning—are provided at the village health post (*posyandu*) on a monthly basis by community volunteers.

#### 10.1 ANTENATAL CARE

Table 10.1.1 shows the percent distribution of live births in the five years preceding the survey by the type of antenatal care received during pregnancy, according to maternal and background characteristics. Antenatal care was defined as pregnancy related health care, provided by a doctor or midwife in hospitals,

Table 10.1.1 Antenatal care: background characteristics

Percent distribution of live births in the five years preceding the survey by source of antenatal care during pregnancy, according to selected background characteristics, Indonesia 1991

Background characteristic	Govern- ment hospital	Private hospital	Health center	Health post	Private clinic	Private doctor	Private midwife	Other	No- where	Missing	Total	Number
<b>Mother's age at birth</b>												
< 20	2.8	1.3	45.8	8.2	1.5	1.0	13.4	4.2	21.5	0.3	100.0	2220
20-24	4.6	3.7	44.1	7.0	2.3	3.0	15.7	2.9	16.6	0.1	100.0	4463
25-29	4.8	3.9	41.5	5.3	2.9	4.0	16.0	3.1	18.4	0.1	100.0	3829
30-34	4.5	3.4	39.0	5.3	2.0	4.3	14.6	4.2	22.6	0.2	100.0	2384
35+	4.5	2.3	35.5	7.6	1.5	2.7	12.4	4.3	29.2	0.2	100.0	1458
<b>Birth order</b>												
1	4.8	3.9	45.1	7.0	2.8	4.4	15.2	2.9	13.8	0.2	100.0	4073
2-3	4.5	3.9	42.5	6.9	2.3	3.5	14.9	3.0	18.4	0.1	100.0	5532
4-6	3.9	2.0	41.0	6.0	1.6	1.9	14.8	4.1	24.6	0.2	100.0	3628
7+	3.5	1.3	31.2	4.7	1.1	1.1	13.8	6.4	36.9	0.1	100.0	1121
<b>Residence</b>												
Urban	7.9	7.7	37.2	2.0	5.1	8.3	23.9	1.5	6.3	0.1	100.0	4163
Rural	2.9	1.4	43.9	8.4	1.0	1.1	11.2	4.4	25.7	0.2	100.0	10191
<b>Education</b>												
No education	2.4	0.7	32.3	6.0	0.6	0.7	7.0	5.8	44.4	0.1	100.0	2095
Some primary	2.5	1.8	43.5	8.3	0.8	1.0	12.7	4.8	24.5	0.1	100.0	5242
Completed primary	4.1	2.0	48.0	7.6	1.9	1.5	16.9	2.7	14.9	0.4	100.0	3909
Some secondary +	9.1	8.7	38.3	2.4	5.9	10.6	21.3	0.9	2.8	0.1	100.0	3109
<b>Total</b>	<b>4.3</b>	<b>3.2</b>	<b>42.0</b>	<b>6.5</b>	<b>2.2</b>	<b>3.2</b>	<b>14.9</b>	<b>3.5</b>	<b>20.1</b>	<b>0.2</b>	<b>100.0</b>	<b>14355</b>

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

clinics, health centers or private clinics. A woman may have visited more than one type of health facility but the interviewers were instructed to record only the one most frequently visited.

The overall level of antenatal care was relatively high. Eighty percent of children born in the five years preceding the survey had mothers who received some antenatal care. The most common providers of antenatal care are health centers (42 percent) followed by private midwives (15 percent) and health posts (7 percent).

The coverage of antenatal care is highest among children whose mothers are age 20-29, and this group tends to visit government hospitals, private hospitals and private clinics more frequently than other age groups. Mothers less than 20 years generally visit health centers and health posts for antenatal care while mothers age 35 years and over are least likely to have received antenatal care. First order births have better antenatal care coverage compared with higher order births.

The proportion of children whose mothers did not have antenatal care is more than four times higher in the rural areas (26 percent) than in the urban areas (6 percent). Urban women are more likely to use facilities such as hospitals and private doctors or midwives while in the rural areas, antenatal care is more frequently provided by health centers and health posts.

There is a strong relationship between the mother's level of education and the proportion of children whose mothers had antenatal care. More than 40 percent of births to mothers with no education did not have any antenatal care while among children of mothers who have some secondary or higher education this figure is only 3 percent. Mothers with some secondary education also tend to seek higher quality health facilities, such as hospitals or private practices, while less educated women tend to go to health centers.

The level of antenatal coverage is higher in Java-Bali than in the Outer Islands (see Table 10.1.2). Overall, women in Java-Bali are also more likely to have used medical facilities for their antenatal care. Within Java-Bali, West Java stands out as having relatively low antenatal coverage. In West Java, 24 percent of births in the last five years were to women who had no antenatal care compared to less than 16 percent in the other 5 provinces in this region. It is worth noting that virtually all births in Jakarta and Yogyakarta received antenatal care. Outside of Java-Bali, there are several provinces in which 40 percent or more of births were to mothers who received no antenatal care—West Nusa Tenggara, West Kalimantan, East Timor, Central Kalimantan, Southeast Sulawesi, Maluku, and Irian Jaya.

The maternal health program in Indonesia recommends that every pregnant woman should have at least four antenatal care visits during her pregnancy as follows: one visit in the first trimester, one visit in the second trimester, and two visits in the third trimester. Table 10.2 and Figure 10.1 show the percent distribution of births in the five years preceding the survey by the number of antenatal care visits and the month of pregnancy at the time of the first visit. The median frequency of antenatal care visits was 5.9 visits. About 55 percent of births were to mothers who went for 4 or more visits.

The median gestational age for the first antenatal visit was 3.5 months. In addition to the 20 percent of live births whose mothers had no antenatal care, 29 percent had their first antenatal care in the first trimester, 39 percent had their first antenatal visit in the second trimester and 11 percent in the third trimester.

Table 10.1.2 Antenatal care: region and province

Percent distribution of live births in the five years preceding the survey by source of antenatal care during pregnancy, according to region and province, Indonesia 1991

Region/province	Government hospital	Private hospital	Health center	Health post	Private clinic	Private doctor	Private midwife	Other	No-where	Missing	Total	Number
<b>Java-Bali</b>	3.3	3.0	46.6	6.7	2.1	3.7	15.6	2.7	16.3	0.1	100.0	8028
DKI Jakarta	5.3	13.3	30.7	0.2	4.0	8.6	34.8	0.6	2.2	0.2	100.0	564
West Java	2.7	0.9	42.3	11.0	0.5	2.5	14.7	1.9	23.5	0.0	100.0	3018
Central Java	3.5	2.4	54.0	3.7	1.7	2.5	15.9	0.9	15.5	0.0	100.0	2095
DI Yogyakarta	4.7	5.7	58.3	1.8	3.5	9.0	14.0	0.6	2.6	0.0	100.0	157
East Java	2.9	3.6	48.5	6.0	4.2	4.9	10.8	6.7	12.2	0.2	100.0	2028
Bali	6.1	2.4	50.3	1.1	2.0	4.3	25.1	0.2	8.4	0.0	100.0	167
<b>Outer Java-Bali I</b>	6.0	3.9	34.7	6.3	2.6	2.6	16.0	4.2	23.4	0.2	100.0	4323
DI Aceh	4.9	2.9	37.8	1.0	1.3	2.6	23.0	3.7	22.4	0.2	100.0	292
North Sumatra	5.4	4.3	24.3	1.8	5.3	4.1	28.3	3.3	22.9	0.3	100.0	1024
West Sumatra	9.8	3.4	38.6	3.4	0.7	4.8	23.7	7.6	7.8	0.3	100.0	364
South Sumatra	6.3	5.1	29.3	16.0	4.1	1.8	13.1	11.2	12.8	0.2	100.0	636
Lampung	2.9	1.4	53.0	6.8	3.0	1.4	19.5	3.2	8.7	0.1	100.0	475
West Nusa Tenggara	3.5	0.9	28.5	13.3	0.1	1.2	3.9	1.6	47.0	0.0	100.0	329
West Kalimantan	2.9	3.2	35.6	3.7	1.5	1.7	6.2	1.4	43.8	0.0	100.0	332
South Kalimantan	5.8	0.2	37.2	8.5	0.0	3.2	10.8	1.9	31.8	0.6	100.0	199
North Sulawesi	14.1	10.1	39.4	11.8	2.2	3.0	4.0	1.8	13.3	0.3	100.0	125
South Sulawesi	9.0	7.1	41.9	2.9	0.4	1.3	2.5	1.6	33.0	0.4	100.0	547
<b>Outer Java-Bali II</b>	5.1	2.5	39.1	6.3	1.8	2.1	9.4	5.2	28.0	0.5	100.0	2003
Riau	2.7	2.1	36.2	5.5	1.2	3.1	26.2	14.4	8.6	0.0	100.0	377
Jambi	5.0	0.6	31.7	6.8	1.2	3.2	14.7	17.1	18.8	1.0	100.0	190
Bengkulu	4.6	0.3	32.7	16.5	0.6	4.0	17.6	2.8	20.2	0.6	100.0	116
East Nusa Tenggara	7.9	2.6	48.0	7.3	3.5	0.0	1.2	1.2	28.1	0.3	100.0	296
East Timor	6.0	0.7	38.4	4.0	1.3	0.7	0.4	0.0	48.7	0.0	100.0	114
Central Kalimantan	1.9	0.7	43.7	1.5	0.0	0.3	4.2	2.2	43.1	2.5	100.0	118
East Kalimantan	6.2	5.9	60.2	2.5	2.1	5.2	9.2	1.1	7.6	0.0	100.0	160
Central Sulawesi	7.9	1.2	44.1	5.7	1.8	2.4	3.9	1.5	30.7	0.9	100.0	157
Southeast Sulawesi	10.3	2.6	19.6	13.9	0.3	0.0	1.9	0.6	50.8	0.0	100.0	123
Maluku	3.0	5.3	36.6	6.0	0.2	1.7	3.8	0.7	42.6	0.2	100.0	211
Irian Jaya	2.6	4.2	31.3	2.3	6.5	1.3	1.0	2.0	48.0	1.0	100.0	140
<b>Total</b>	4.3	3.2	42.0	6.5	2.2	3.2	14.9	3.5	20.1	0.2	100.0	14355

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

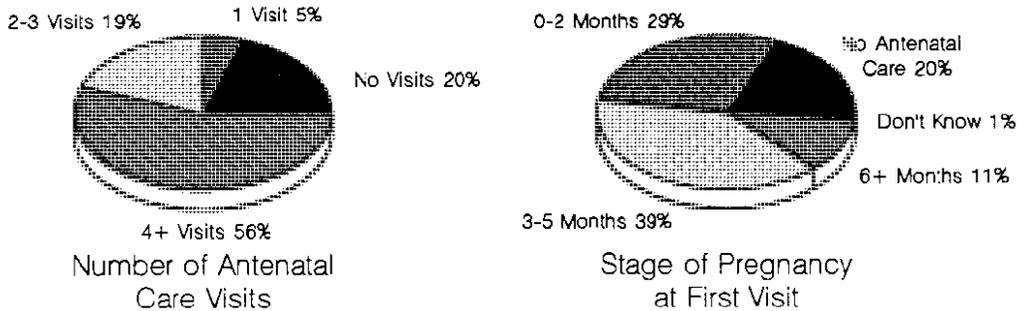
**Table 10.2 Number of antenatal care visits and stage of pregnancy**

Percent distribution of live births in the five years preceding the survey by number of antenatal care (ANC) visits, and by the stage of pregnancy at the time of the first visit, Indonesia 1991

Antenatal visits/ Stage of pregnancy at first visit	Percent of births
<b>Number of ANC visits</b>	
0	20.1
1	4.7
2-3	19.4
4-6	22.9
7-9	17.1
10+	15.4
Don't know, missing	0.4
<b>Total</b>	<b>100.0</b>
<b>Median number of visits (for those with ANC)</b>	<b>5.9</b>
<b>Number of months pregnant at the time of first ANC visit</b>	
No antenatal care	20.1
0-2	28.9
3-5	39.2
6+	11.3
Don't know, missing	0.6
<b>Total</b>	<b>100.0</b>
<b>Median number of months pregnant at first visit (for those with ANC)</b>	<b>3.5</b>
<b>Number of live births</b>	<b>14355</b>

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

Figure 10.1  
 Number of Antenatal Care Visits and  
 Stage of Pregnancy at First Visit



Note: Births in the five years preceding the survey.

IDHS 1991

### 10.1.1 Tetanus Immunization of Pregnant Women

Immunization of pregnant women is a cooperative activity of the Expanded Program on Immunization (EPI) and the Maternal and Child Health Care (MCH) Program. The Ministry of Health in Indonesia recommends that women receive two tetanus toxoid injections during the first pregnancy. Booster injections are given once during each following pregnancy to maintain full protection after the second injection. The first recording of tetanus toxoid vaccinations for pregnant women was the EPI registration book at the village level and the MCH registration book at the health facility. The antenatal card (KMS), on which tetanus toxoid injections are recorded, was introduced much later and has limited distribution.

For all live births in the five years prior to the survey women were asked whether they were given an antenatal card (KMS), and whether they had received a tetanus toxoid injection during the pregnancy. Table 10.3.1 presents information on antenatal cards and tetanus toxoid injections by background characteristics of the respondents. Of 14,355 births in the last five years, only 20 percent of the mothers had ever received an antenatal card. Since few women have antenatal cards, tetanus toxoid vaccination coverage cannot be estimated from these cards. Therefore, the respondents' recall is used as the source of information on vaccination status. It is important to note that women may not recall accurately whether or not they had a particular injection. As a result, the proportion of births which are fully protected against tetanus may be underestimated. On the other hand, women may incorrectly report other types of injections as tetanus injections, which would cause the level of coverage to be overestimated. It is difficult to evaluate the extent to which each of these biases exist in the IDHS data. As such, the information on tetanus immunizations should be regarded as an approximate indicator of the level of coverage.

**Table 10.3.1 Tetanus toxoid vaccinations: background characteristics**

Percent distribution of live births in the five years preceding the survey by number of tetanus toxoid injections and whether the respondent received an antenatal card during pregnancy, according to background characteristics, Indonesia 1991

Background characteristic	Number of tetanus toxoid injections				Total	Percent with antenatal card	Number of births
	None	One dose	Two doses or more	Don't know/missing			
<b>Mother's age at birth</b>							
< 20	44.3	15.2	40.4	0.1	100.0	18.0	2220
20-24	38.2	15.0	46.4	0.5	100.0	21.8	4463
25-29	42.0	13.4	44.2	0.4	100.0	20.9	3829
30-34	45.9	13.4	40.0	0.7	100.0	17.8	2384
35+	51.6	13.9	34.3	0.1	100.0	16.5	1458
<b>Birth order</b>							
1	35.1	14.6	49.9	0.5	100.0	21.8	4073
2-3	41.1	14.4	44.1	0.3	100.0	20.2	5532
4-6	48.6	14.2	36.8	0.3	100.0	18.9	3628
7+	60.3	11.7	27.3	0.7	100.0	13.3	1121
<b>Residence</b>							
Urban	29.1	14.7	55.8	0.4	100.0	25.9	4163
Rural	48.4	14.0	37.2	0.4	100.0	17.3	10191
<b>Education</b>							
No education	67.0	10.3	22.6	0.1	100.0	11.0	2095
Some primary	50.2	14.1	35.2	0.5	100.0	16.9	5242
Completed primary	35.5	15.6	48.4	0.5	100.0	22.9	3909
Some secondary +	23.1	15.2	61.3	0.4	100.0	26.7	3109
<b>Total</b>	<b>42.8</b>	<b>14.2</b>	<b>42.6</b>	<b>0.4</b>	<b>100.0</b>	<b>19.8</b>	<b>14355</b>

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

Overall, 43 percent of births in the last five years had mothers who received no tetanus toxoid vaccination during the pregnancy, 43 percent received two or more injections and 14 percent received one dose. Notable differentials are shown in tetanus toxoid injection coverage by the mother's age at birth, children's birth order, urban-rural residence, and mother's education. Between 40 and 46 percent of mothers who delivered at ages up to 34 received two doses; mothers over age 35 show lower coverage (34 percent). Children of higher birth orders are less likely than children of lower birth orders to be protected with tetanus toxoid vaccine.

In urban areas, the coverage of tetanus toxoid vaccination is substantially higher than in rural areas. The percentage of births protected by tetanus toxoid vaccination rises sharply with increasing mother's education. Only 23 percent of births to mothers with no education were protected with two doses of vaccine while more than 60 percent of births to mothers with some secondary or higher education were protected. Tetanus toxoid coverage is higher in Java-Bali than in the two Outer Java-Bali regions (see Table 10.3.2). This result is encouraging for the neonatal tetanus elimination program in Java-Bali.

Table 10.3.2 Tetanus toxoid vaccinations: region and province

Percent distribution of live births in the five years preceding the survey by number of tetanus toxoid injections and whether the respondent received an antenatal card during pregnancy, according to region and province, Indonesia 1991

Region/province	Number of tetanus toxoid injections				Total	Percent with antenatal card	Number of births
	None	One dose	Two doses or more	Don't know/missing			
<b>Java-Bali</b>	34.8	14.0	50.6	0.6	100.0	19.3	8028
DKI Jakarta	32.8	10.5	56.6	0.0	100.0	29.3	564
West Java	37.5	13.3	49.1	0.1	100.0	25.9	3018
Central Java	28.7	15.1	55.4	0.8	100.0	16.1	2095
DI Yogyakarta	12.2	15.9	71.4	0.6	100.0	29.4	157
East Java	40.6	14.6	43.6	1.2	100.0	10.2	2028
Bali	22.4	15.0	62.5	0.2	100.0	9.8	167
<b>Outer Java-Bali I</b>	53.8	14.5	31.5	0.2	100.0	19.5	4323
DI Aceh	65.3	13.2	21.3	0.2	100.0	10.2	292
North Sumatra	62.9	10.9	25.8	0.3	100.0	8.9	1024
West Sumatra	49.9	15.0	35.1	0.0	100.0	10.2	364
South Sumatra	42.6	18.1	39.2	0.1	100.0	35.0	636
Lampung	37.2	13.7	48.8	0.3	100.0	19.2	475
West Nusa Tenggara	71.0	11.8	17.2	0.0	100.0	24.0	329
West Kalimantan	62.2	10.5	27.2	0.1	100.0	18.2	332
South Kalimantan	52.1	12.1	35.0	0.8	100.0	17.6	199
North Sulawesi	30.3	19.8	49.9	0.0	100.0	34.1	125
South Sulawesi	51.1	21.9	26.8	0.2	100.0	28.2	547
<b>Outer Java-Bali II</b>	50.8	14.3	34.6	0.2	100.0	22.1	2003
Riau	57.6	13.1	29.0	0.3	100.0	9.7	377
Jambi	55.0	11.8	33.2	0.0	100.0	15.2	190
Bengkulu	48.5	18.0	33.5	0.0	100.0	22.7	116
East Nusa Tenggara	42.5	12.2	45.3	0.0	100.0	34.6	296
East Timor	59.0	14.8	26.3	0.0	100.0	3.4	114
Central Kalimantan	54.2	21.7	24.2	0.0	100.0	2.8	118
East Kalimantan	34.2	19.2	46.6	0.0	100.0	45.8	160
Central Sulawesi	37.3	20.6	41.5	0.6	100.0	31.7	157
Southeast Sulawesi	57.4	10.4	32.2	0.0	100.0	26.8	123
Maluku	51.6	7.1	40.2	1.1	100.0	29.0	211
Irian Jaya	64.4	17.6	18.0	0.0	100.0	16.7	140
<b>Total</b>	42.8	14.2	42.6	0.4	100.0	19.8	14355

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

## 10.2 DELIVERY ASSISTANCE

Tables 10.4.1 and 10.4.2 present information on the place of delivery of births in the five years preceding the survey. The proportion of infants delivered at home is very high (79 percent). A similar finding was reported for the 1987 NICPS in which 80 percent of births in the five years prior to the survey were reported to be delivered at the respondent's home or another private home.

**Table 10.4.1 Place of delivery: background characteristics**

Percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics, Indonesia 1991

Background characteristic	Private home	Government hospital	Private hospital	Maternity hospital	Health center	Doctor private clinic	Midwife private clinic	Other	Missing	Total	Number
<b>Mother's age at birth</b>											
< 20	86.7	3.5	0.9	1.1	1.5	5.9	0.1	0.2	0.3	100.0	2220
20-24	76.6	5.5	3.5	2.0	1.8	9.7	0.4	0.4	0.1	100.0	4463
25-29	75.1	6.0	4.4	2.8	1.7	9.1	0.4	0.3	0.1	100.0	3829
30-34	77.5	5.5	3.6	2.4	1.7	8.6	0.3	0.3	0.2	100.0	2384
35+	83.2	5.9	2.3	1.1	1.6	4.9	0.2	0.6	0.2	100.0	1458
<b>Birth order</b>											
1	72.4	7.5	4.4	2.8	1.8	10.2	0.5	0.2	0.2	100.0	4073
2-3	77.3	5.4	3.9	2.3	1.6	8.7	0.3	0.4	0.1	100.0	5532
4-6	83.9	3.7	1.8	1.1	1.9	6.9	0.3	0.4	0.2	100.0	3628
7+	90.2	2.7	0.8	0.6	1.4	3.9	0.0	0.2	0.1	100.0	1121
<b>Residence</b>											
Urban	49.0	12.5	9.0	5.6	3.3	19.0	1.0	0.4	0.1	100.0	4163
Rural	90.7	2.5	0.9	0.6	1.0	3.9	0.1	0.3	0.2	100.0	10191
<b>Education</b>											
No education	93.2	1.9	0.4	0.4	1.0	2.7	0.2	0.1	0.1	100.0	2095
Some primary	89.2	2.7	0.9	0.5	1.3	4.8	0.0	0.5	0.1	100.0	5242
Completed primary	81.9	4.4	1.7	1.0	1.7	8.5	0.1	0.2	0.3	100.0	3909
Some secondary +	46.6	13.4	11.1	6.9	2.8	17.4	1.2	0.5	0.1	100.0	3109
<b>Antenatal care visits</b>											
0	98.1	0.7	0.1	0.1	0.3	0.4	0.0	0.3	0.0	100.0	2884
1-3	92.5	1.6	0.8	0.5	0.9	3.4	0.1	0.2	0.0	100.0	3459
4-6	79.6	4.6	2.7	1.8	1.9	8.7	0.2	0.4	0.0	100.0	3287
7+	55.8	11.6	7.3	4.5	3.0	16.5	0.8	0.4	0.0	100.0	4663
<b>Total<sup>1</sup></b>	<b>78.6</b>	<b>5.4</b>	<b>3.2</b>	<b>2.0</b>	<b>1.7</b>	<b>8.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.2</b>	<b>100.0</b>	<b>14355</b>

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

<sup>1</sup>Includes cases with missing information on number of antenatal care visits

Overall, approximately 5 percent of births were delivered at a government hospital, 11 percent at a private hospital or private clinic and 2 percent at a maternity hospital. Sixty-five percent of deliveries taking place at home were assisted by traditional birth attendants or relatives, and 14 percent were attended by medical personnel (data not shown).

**Table 10.4.2 Place of delivery: region and province**

Percent distribution of live births in the five years preceding the survey by place of delivery, according to region and province, Indonesia 1991

Region/province	Private home	Government hospital	Private hospital	Maternity hospital	Health center	Doctor private clinic	Midwife private clinic	Other	Missing	Total	Number
<b>Java-Bali</b>	76.6	5.4	3.3	2.4	1.8	9.8	0.4	0.2	0.1	100.0	8028
DKI Jakarta	24.3	10.3	14.0	9.4	8.4	31.6	1.3	0.5	0.2	100.0	564
West Java	87.2	2.9	1.4	1.1	1.0	6.4	0.2	0.0	0.0	100.0	3018
Central Java	80.5	4.9	1.9	1.5	1.3	9.5	0.5	0.0	0.0	100.0	2095
DI Yogyakarta	58.2	9.8	10.7	7.0	4.7	8.4	0.8	0.4	0.0	100.0	157
East Java	76.2	7.0	4.0	3.0	1.0	7.6	0.3	0.7	0.2	100.0	2028
Bali	35.4	17.6	3.8	1.1	10.1	31.4	0.2	0.4	0.0	100.0	167
<b>Outer Java-Bali I</b>	79.1	5.1	3.4	1.9	1.8	7.5	0.4	0.5	0.3	100.0	4323
DI Aceh	90.0	2.8	1.0	0.0	0.6	4.9	0.2	0.3	0.2	100.0	292
North Sumatra	80.2	3.5	3.9	1.8	1.2	8.0	0.8	0.4	0.4	100.0	1024
West Sumatra	64.0	8.7	3.1	2.5	3.7	15.7	0.5	1.6	0.3	100.0	364
South Sumatra	69.2	7.0	6.2	1.0	1.2	13.4	0.7	1.0	0.2	100.0	636
Lampung	77.5	3.6	1.6	0.9	0.6	15.2	0.1	0.4	0.1	100.0	475
West Nusa Tenggara	92.4	2.6	0.8	0.2	2.7	0.9	0.1	0.3	0.0	100.0	329
West Kalimantan	87.3	6.1	4.6	0.9	0.3	0.8	0.0	0.0	0.0	100.0	332
South Kalimantan	91.7	4.5	0.8	0.6	0.2	0.6	0.0	1.0	0.6	100.0	199
North Sulawesi	71.8	13.2	6.7	2.5	2.4	2.2	0.0	0.3	0.9	100.0	125
South Sulawesi	78.6	5.6	3.6	6.8	4.6	0.4	0.0	0.0	0.4	100.0	547
<b>Outer Java-Bali II</b>	85.5	5.7	2.7	0.7	0.9	3.7	0.1	0.3	0.4	100.0	2003
Riau	80.3	3.8	1.9	0.5	0.7	12.0	0.2	0.5	0.0	100.0	377
Jambi	88.1	2.7	2.5	0.8	2.5	2.4	0.0	0.0	1.0	100.0	190
Bengkulu	89.2	4.9	0.0	0.3	1.2	2.1	0.3	1.2	0.6	100.0	116
East Nusa Tenggara	89.8	6.7	2.3	0.0	0.3	0.6	0.0	0.0	0.3	100.0	296
East Timor	91.8	5.8	0.5	0.7	0.9	0.2	0.0	0.0	0.0	100.0	114
Central Kalimantan	95.0	3.3	0.0	0.0	0.0	0.6	0.0	0.4	0.7	100.0	118
East Kalimantan	71.7	8.0	6.3	1.4	1.8	10.9	0.0	0.0	0.0	100.0	160
Central Sulawesi	85.5	5.6	1.7	3.3	0.9	0.9	0.0	1.4	0.6	100.0	157
Southeast Sulawesi	90.4	5.8	2.6	0.3	0.3	0.0	0.0	0.6	0.0	100.0	123
Maluku	84.9	6.4	8.0	0.0	0.2	0.2	0.0	0.0	0.2	100.0	211
Irian Jaya	83.2	12.3	0.6	1.6	1.3	0.0	0.0	0.0	1.0	100.0	140
<b>Total</b>	<b>78.6</b>	<b>5.4</b>	<b>3.2</b>	<b>2.0</b>	<b>1.7</b>	<b>8.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.2</b>	<b>100.0</b>	<b>14355</b>

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

Births to mothers under 20 years and those age 35 years or more are more likely to be delivered at home than births to mothers in other age groups. Children of higher birth orders (7+) are more likely to be delivered at home than children of lower birth orders. This implies that a relatively large proportion of high risk pregnancies are delivered at home. More than 90 percent of children of rural mothers were delivered at home, compared to 49 percent of children of urban mothers.

More than 90 percent of births to mothers without any education were delivered at home. Home deliveries decline to 82 percent among those with primary education, and among those with at least secondary education, only 47 percent were delivered at home. Medical assistance at delivery is strongly associated with antenatal care. Among women who made 7 or more antenatal care visits, 44 percent delivered in a medical facility while only 2 percent of those with no antenatal care did so.

Table 10.4.2 presents information on delivery assistance by region and province. Children in Jakarta, Yogyakarta, Bali, and North Sulawesi are more likely to be delivered in a hospital than children in other

provinces. In Jakarta and Bali, less than 60 percent of births are delivered at home while in all other provinces, more than 70 percent are delivered at home.

Tables 10.5.1 and 10.5.2 show information on assistance at delivery. Respondents in the IDHS were asked about all of the persons who assisted with the delivery. For example, if both a midwife and a relative of the woman provided assistance during the delivery, both persons were recorded in the questionnaire. In Table 10.5.1, if more than one *delivery specialist* (traditional birth attendant (TBA), midwife, doctor) was present then only the *least* qualified is included. If the woman was attended by a delivery specialist *and* either a relative or other person, then the delivery specialist is counted. The reason for calculating the table in this manner is to try to identify the first person selected by the woman to assist her during delivery. In general, for example, if both a TBA and a doctor are present at a delivery, it may be because the woman had a problem and was referred by the TBA to a doctor.

**Table 10.5.1 Assistance during delivery: background characteristics**

Percent distribution of births in the five years preceding the survey by type of assistance during delivery, according to selected background characteristics, Indonesia 1991

Background characteristic	Attendant assisting during delivery <sup>1</sup>						Don't know/missing	Total	Number of births
	Doctor	Midwife	Traditional birth attendant	Relative	Other	No one			
<b>Mother's age at birth</b>									
< 20	0.6	19.5	75.5	3.7	0.5	0.0	0.1	100.0	2220
20-24	2.5	30.7	62.6	3.6	0.5	0.2	0.0	100.0	4463
25-29	2.8	34.1	58.4	3.8	0.4	0.5	0.0	100.0	3829
30-34	3.6	28.9	62.1	4.1	0.5	0.7	0.1	100.0	2384
35+	1.7	27.5	65.4	4.4	0.4	0.5	0.0	100.0	1458
<b>Birth order</b>									
1	3.7	33.9	59.0	2.8	0.5	0.0	0.1	100.0	4073
2-3	2.5	29.5	63.7	3.7	0.4	0.1	0.0	100.0	5532
4-6	1.4	26.3	66.4	4.7	0.4	0.8	0.0	100.0	3628
7+	0.7	21.0	71.5	5.3	0.4	1.1	0.0	100.0	1121
<b>Residence</b>									
Urban	6.5	58.2	34.2	0.7	0.4	0.1	0.0	100.0	4163
Rural	0.7	17.5	75.7	5.1	0.5	0.5	0.1	100.0	10191
<b>Education</b>									
No education	0.2	11.3	77.1	10.1	0.3	0.9	0.1	100.0	2095
Some primary	0.8	18.9	75.8	3.7	0.5	0.3	0.0	100.0	5242
Completed primary	1.4	26.8	68.4	2.5	0.6	0.2	0.1	100.0	3909
Some secondary +	7.7	62.0	28.2	1.5	0.4	0.1	0.0	100.0	3109
<b>Antenatal care visits</b>									
0	0.1	5.5	82.4	10.7	0.3	1.0	0.0	100.0	2884
1-3	0.6	16.5	77.7	4.2	0.5	0.5	0.0	100.0	3459
4-6	1.2	32.1	64.4	1.9	0.3	0.1	0.0	100.0	3287
7+	5.9	51.5	41.5	0.7	0.4	0.0	0.0	100.0	4663
<b>Total<sup>2</sup></b>	<b>2.4</b>	<b>29.3</b>	<b>63.7</b>	<b>3.8</b>	<b>0.5</b>	<b>0.3</b>	<b>0.0</b>	<b>100.0</b>	<b>14355</b>

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

<sup>1</sup>If the respondent mentioned more than one attendant, only the *least* qualified attendant is considered (see text for explanation).

<sup>2</sup>Includes cases with missing information on number of antenatal care visits.

**Table 10.5.2 Assistance during delivery: region and province**

Percent distribution of births in the five years preceding the survey by type of assistance during delivery, according to region and province, Indonesia 1991

Region/province	Attendant assisting during delivery <sup>1</sup>							Total	Number of births
	Doctor	Midwife	Traditional birth attendant	Relative	Other	No one	Don't know/missing		
<b>Java-Ball</b>	3.2	26.1	69.7	0.6	0.3	0.0	0.0	100.0	8028
DKI Jakarta	14.3	66.3	19.1	0.0	0.2	0.0	0.0	100.0	564
West Java	1.0	18.3	80.3	0.2	0.1	0.1	0.0	100.0	3018
Central Java	2.7	19.7	76.5	0.7	0.4	0.0	0.0	100.0	2095
DI Yogyakarta	6.6	40.3	52.1	0.2	0.8	0.0	0.0	100.0	157
East Java	3.7	29.1	66.4	0.4	0.3	0.0	0.0	100.0	2028
Bali	3.7	62.7	21.7	11.1	0.4	0.4	0.0	100.0	167
<b>Outer Java-Ball I</b>	1.6	36.1	54.2	6.7	0.7	0.6	0.1	100.0	4323
DI Aceh	1.0	33.2	62.9	2.8	0.0	0.0	0.2	100.0	292
North Sumatra	3.2	51.1	36.4	6.2	1.4	1.6	0.0	100.0	1024
West Sumatra	1.8	49.8	45.9	1.8	0.5	0.0	0.1	100.0	364
South Sumatra	2.3	37.7	56.2	2.9	0.1	0.6	0.2	100.0	636
Lampung	0.3	30.0	68.4	1.0	0.3	0.0	0.0	100.0	475
West Nusa Tenggara	0.4	9.6	85.2	4.4	0.3	0.1	0.0	100.0	329
West Kalimantan	0.7	24.7	64.7	9.1	0.8	0.0	0.0	100.0	332
South Kalimantan	0.6	27.4	69.1	1.3	1.2	0.0	0.4	100.0	199
North Sulawesi	4.3	37.6	53.6	3.0	1.2	0.0	0.3	100.0	125
South Sulawesi	0.2	29.4	43.5	24.9	0.6	1.4	0.0	100.0	547
<b>Outer Java-Ball II</b>	0.6	27.0	59.8	10.6	0.8	0.9	0.2	100.0	2003
Riau	0.5	38.7	59.8	0.8	0.3	0.0	0.0	100.0	377
Jambi	1.1	23.7	72.6	1.3	1.3	0.0	0.0	100.0	190
Bengkulu	2.2	37.4	54.2	3.7	1.9	0.3	0.3	100.0	116
East Nusa Tenggara	0.8	14.2	70.7	13.7	0.0	0.3	0.3	100.0	296
East Timor	0.3	12.7	24.1	47.9	3.8	11.1	0.0	100.0	114
Central Kalimantan	0.0	13.5	84.8	1.0	0.0	0.0	0.7	100.0	118
East Kalimantan	0.7	65.4	28.9	3.6	1.4	0.0	0.0	100.0	160
Central Sulawesi	0.3	19.6	67.7	11.4	0.9	0.0	0.0	100.0	157
Southeast Sulawesi	0.0	13.8	81.8	2.8	0.3	1.2	0.0	100.0	123
Maluku	0.9	26.4	63.9	8.0	0.4	0.4	0.0	100.0	211
Irian Jaya	0.3	18.7	33.1	44.6	0.7	1.6	1.0	100.0	140
<b>Total</b>	2.4	29.3	63.7	3.8	0.5	0.3	0.0	100.0	14355

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

<sup>1</sup>If the respondent mentioned more than one attendant, only the *least* qualified attendant is considered (see text for explanation).

Traditional birth attendants were found to have a very important role in delivery assistance, a finding which is consistent with the high proportion of births taking place at home. Sixty-four percent of births were assisted by a TBA while only 29 percent were assisted by midwives and 2 percent by doctors.

Deliveries among mothers less than 20 years were most likely to be assisted by traditional birth attendants (76 percent), although these women are known to have a high risk of negative pregnancy outcomes. Deliveries assisted by midwives were more common among women with some secondary education (62 percent), as well as those having 7 or more antenatal visits (52 percent). Deliveries in urban areas were more likely to be attended by medical personnel (65 percent) than those in rural areas (18 percent).

In Java-Bali, 70 percent of births were assisted by traditional birth attendants and 29 percent by medical personnel (midwife and doctor). Deliveries in Outer Java-Bali I were more likely to be assisted by medical personnel (38 percent), compared with the other two regions.

Table 10.6 and Figure 10.2 present delivery characteristics for births in the five years preceding the survey. In Indonesia, caesarean sections are generally only performed for certain medical indications and to terminate complicated deliveries. In the survey only 1.3 percent of deliveries were reported as terminated through caesarean section; this percentage seems low, especially in view of the fact that 5.8 percent of births were reported to be *very large* at birth according to the respondent, and among those who were weighed at birth, 11 percent weighed 4 kilograms or more (data not shown).

According to the respondents' reports, 2 percent of births were delivered prematurely. This figure is low in view of the actual percentage of low birth weight deliveries (7 percent)<sup>1</sup> and respondents' judgment of the small size of their newborns (13 percent).

Since most deliveries were attended by traditional midwives at home, birth weights were not recorded for 63 percent of births, 3 percent weighed less than 2.5 kilograms and the remaining 34 percent weighed 2.5 kilos or more. When the figures shown in Table 10.6 are recalculated based on those who were weighed at birth, 7 percent were under 2.5 kilograms. In addition, approximately 13 percent of births were identified by the respondents as *smaller than average* or *very small*.

**Table 10.6 Characteristics of delivery**

Percent distribution of live births in the five years preceding the survey by whether the delivery was by caesarean section, whether premature, and by birth weight and the mother's estimate of baby's size at birth, Indonesia 1991

Delivery characteristic	Percent of births
<b>C-section delivery</b>	
Caesarean	1.3
Not C-section	98.2
Missing	0.4
Total	100.0
<b>Premature birth</b>	
Yes	2.3
No	97.4
Don't know, missing	0.3
Total	100.0
<b>Birth weight</b>	
Less than 2.5 kg	2.7 <sup>a</sup>
2.5 kg or more	34.2 <sup>b</sup>
Don't know, missing	63.1
Total	100.0
<b>Size at birth</b>	
Very large	5.8
Larger than average	24.3
Average	56.0
Smaller than average	11.2
Very small	1.5
Don't know, missing	1.2
Total	100.0
Number	14355

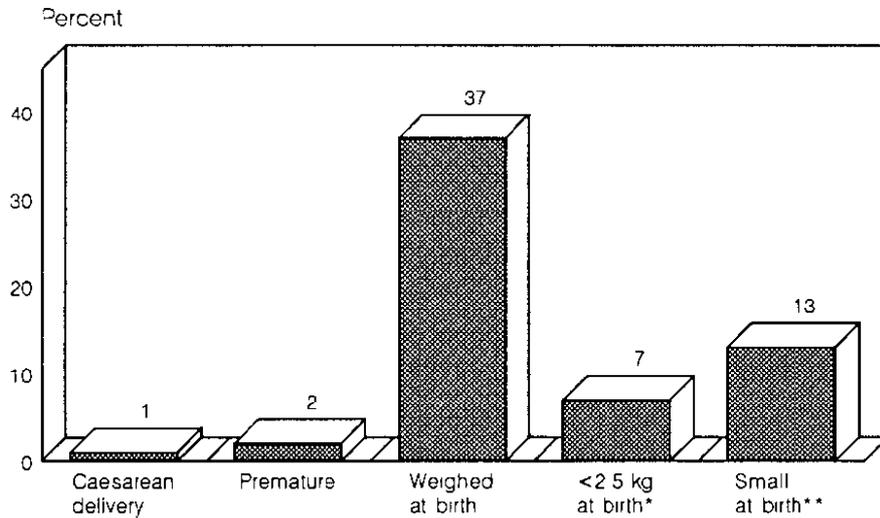
Note: Figures are for births in the period 1-59 months preceding the survey.

<sup>a</sup>Infants weighed at birth only, 7.3 percent

<sup>b</sup>Infants weighed at birth only, 92.7 percent

<sup>1</sup> Infants weighed at birth only.

Figure 10.2  
Delivery Characteristics of Births in  
the Five Years Preceding the Survey



\* Based on infants weighed at birth

\*\* Identified by mother as "very small" or "smaller than average"

IDHS 1991

### 10.3 IMMUNIZATION OF CHILDREN

The Ministry of Health in Indonesia follows the guidelines of the World Health Organization regarding immunization of children. The Expanded Program on Immunization (EPI), which was launched in 1977, recommends that all children receive vaccinations against six diseases—diphtheria, pertussis, tetanus, polio, measles and tuberculosis. Eligible targets at that time were children age 3 to 14 months. Starting in 1987, vaccination series were given as early as 2 months after birth and it is recommended that they be completed by the end of the first year of life.

Recording of vaccinations is one of the procedures given the most attention by the EPI program. At the beginning of the program, registration books at the village level were the only written vaccination record available. With the rapid development of public health services in Indonesia, in this case the EPI, it was recommended that any vaccination received be recorded on a health card as well as in the registration book. Infants who receive postnatal care and those brought for growth monitoring to the health centers and health posts are provided with a health card.

In the IDHS, information on vaccinations was collected for children born in the five years before the survey. For each child, the mother was asked if she had a health card for the child and, if so, the interviewer asked to see it. When a mother was able to show the health card to the interviewer, the dates of vaccinations were copied from the card to the questionnaire.

If the child never received a health card or the mother was unable to show the card to the interviewer, the mother was asked questions about whether the child had received specific vaccines. Mothers were asked whether the child received BCG, measles, and polio vaccine, including the number of doses of polio vaccine.

Since the three doses of DPT vaccine are generally given at the same time as the three doses of polio vaccine, DPT coverage is assumed to be the same as the mother's report of polio coverage.

Table 10.7.1 indicates the percentage of children for whom mothers reported they had a health card and whether or not it was seen by the interviewer. Overall, among children age 12-59 months, 22 percent had health cards that were seen by the interviewer. An additional 47 percent were reported by their mothers to have cards but these were not seen by the interviewer. The large proportion of children reported to have cards but whose mothers could not show them to the interviewers is probably due to the fact that many cards are held at the health centers or kept by health cadres.

**Table 10.7.1 Vaccination cards: background characteristics**

Among children one to four years of age, the percentage who had a vaccination card that was seen by the interviewer, who had a vaccination card that was not seen, and who had no vaccination card, by background characteristics, Indonesia 1991

Background characteristic	Card seen	Card not seen	No card	Missing	Total	Number
<b>Age of child</b>						
12-23 months	35.2	37.4	27.1	0.2	100.0	2670
24-35 months	23.8	45.6	30.2	0.4	100.0	2677
36-47 months	16.2	52.0	31.7	0.2	100.0	2697
48-59 months	11.7	52.0	36.0	0.3	100.0	2625
<b>Sex of child</b>						
Male	22.4	46.6	30.8	0.2	100.0	5541
Female	21.0	46.9	31.7	0.4	100.0	5129
<b>Birth order</b>						
1	27.9	48.8	23.0	0.3	100.0	3015
2-3	20.8	49.3	29.7	0.3	100.0	4118
4-6	19.2	45.7	35.0	0.2	100.0	2174
7+	15.1	36.3	48.2	0.4	100.0	1363
<b>Residence</b>						
Urban	25.7	54.9	19.1	0.3	100.0	3149
Rural	20.1	43.3	36.3	0.3	100.0	7521
<b>Education</b>						
No education	13.6	34.8	51.5	0.0	100.0	1612
Some primary	20.1	43.1	36.3	0.4	100.0	3851
Completed primary	22.9	48.9	27.8	0.3	100.0	2909
Some secondary +	28.6	58.4	12.7	0.3	100.0	2299
<b>Total</b>	<b>21.7</b>	<b>46.7</b>	<b>31.2</b>	<b>0.3</b>	<b>100.0</b>	<b>10670</b>

The percentage of children whose mothers could show their health cards declines with increasing age of the child. The decline with age may either reflect an increase in the use of health cards over time or the fact that, the older the child, the greater the likelihood that the parents have lost or discarded the health card. There is virtually no difference in health card coverage by the sex of the child, while coverage is higher for children of lower order births, urban children, and children of educated women.

Children in Java and Bali are more likely to have a health card than children in other regions (see Table 10.7.2). Provinces in which health card coverage is relatively high include: all provinces in Java-Bali except West Java and Lampung, North Sulawesi, and East Kalimantan.

**Table 10.7.2 Vaccination cards: region and province**

Among children one to four years of age, the percentage who had a vaccination card that was seen by the interviewer, who had a vaccination card that was not seen, and who had no vaccination card, by region and province, Indonesia 1991

Region/province	Card seen	Card not seen	No card	Missing	Total	Number
<b>Java-Bali</b>	26.6	47.4	25.7	0.2	100.0	5969
DKI Jakarta	15.1	64.4	20.1	0.4	100.0	429
West Java	18.6	50.3	31.0	0.1	100.0	2109
Central Java	28.4	45.4	26.0	0.2	100.0	1598
DI Yogyakarta	37.4	58.0	4.6	0.0	100.0	120
East Java	36.6	40.8	22.5	0.2	100.0	1583
Bali	42.7	41.3	15.8	0.2	100.0	129
<b>Outer Java-Bali I</b>	14.7	45.6	39.3	0.5	100.0	3209
DI Aceh	9.8	36.3	53.1	0.8	100.0	220
North Sumatra	16.6	31.6	50.9	0.9	100.0	767
West Sumatra	15.5	54.9	29.5	0.2	100.0	273
South Sumatra	10.8	60.4	28.4	0.3	100.0	478
Lampung	20.4	58.5	20.7	0.4	100.0	369
West Nusa Tenggara	7.6	52.2	40.0	0.2	100.0	224
West Kalimantan	20.3	27.0	52.7	0.0	100.0	231
South Kalimantan	15.4	38.8	45.2	0.6	100.0	142
North Sulawesi	20.9	65.2	13.0	0.8	100.0	93
South Sulawesi	11.4	46.6	41.7	0.2	100.0	411
<b>Outer Java-Bali II</b>	17.3	46.4	35.9	0.4	100.0	1492
Riau	16.6	40.8	42.6	0.0	100.0	291
Jambi	19.0	48.7	32.2	0.0	100.0	148
Bengkulu	13.3	57.5	27.9	1.3	100.0	84
East Nusa Tenggara	16.8	56.2	26.3	0.8	100.0	218
East Timor	17.4	41.9	40.7	0.0	100.0	80
Central Kalimantan	11.3	34.5	53.7	0.5	100.0	87
East Kalimantan	22.5	56.2	20.8	0.5	100.0	122
Central Sulawesi	22.0	44.6	33.1	0.4	100.0	111
Southeast Sulawesi	13.3	52.1	34.2	0.4	100.0	95
Maluku	19.1	31.9	48.3	0.6	100.0	154
Irian Jaya	16.2	49.7	33.7	0.4	100.0	103
<b>Total</b>	21.7	46.7	31.2	0.3	100.0	10670

Vaccination coverage is presented in Table 10.8. Among children age 12-59 months whose health card was seen, the percentage fully immunized is 73 percent (see Table 10.8, top panel). The highest coverage rate is for BCG (93.6 percent), while the other vaccines have slightly lower coverage; 82 percent received polio 3 vaccine with a dropout rate of 14 percent, 81 percent received DPT 3 vaccine with a dropout rate of 15 percent, and 79 percent received measles vaccine.

Immunization coverage rates based on mothers' reports are considerably lower than those based on health cards (see Table 10.8, middle panel). For example, BCG coverage among children age 12-59 months is 64 percent and polio 3 is 44 percent. Measles immunization coverage is 51 percent and the percentage completely immunized is 40 percent.

**Table 10.8 Vaccinations by source of information**

Among children one to four years of age, the percentage who had received specific vaccines at any time before the survey (by whether the information was obtained from vaccination cards or mothers' reports) and the percentage who had received specific vaccines during the first year of life, according to current age of the child, Indonesia 1991

	Age of child in months				Total
	12-23	24-25	36-47	48-59	
Percent ever vaccinated according to vaccination cards					
BCG	94.4	94.2	95.1	87.6	93.6
Polio 1	97.3	96.4	96.7	92.5	96.3
Polio 2	89.4	91.0	87.8	88.6	89.4
Polio 3	80.9	84.2	81.3	81.4	82.0
DPT 1	97.1	96.0	96.0	92.9	96.0
DPT 2	89.4	90.3	87.9	88.9	89.3
DPT 3	79.9	83.3	81.6	81.3	81.3
Measles	76.5	80.9	79.8	79.3	78.7
All <sup>1</sup>	70.6	75.2	74.7	71.2	72.7
None	1.1	1.7	1.8	5.1	1.9
Number of children	940	637	436	306	2320
Percent ever vaccinated according to mothers' reports					
BCG	62.3	65.0	65.2	64.6	64.4
Polio 1	59.2	62.1	62.8	61.1	61.4
Polio 2	52.4	54.2	54.2	54.8	54.0
Polio 3	42.7	44.7	44.8	45.3	44.4
DPT 1	59.2	62.1	62.8	61.1	61.4
DPT 2	52.4	54.2	54.2	54.8	54.0
DPT 3	42.7	44.7	44.8	45.3	44.4
Measles	47.2	51.0	51.3	52.6	50.8
All <sup>1</sup>	36.2	40.2	40.4	40.7	39.6
None	36.4	33.8	33.2	34.2	34.3
Number of children	1730	2040	2261	2319	8350
Percent vaccinated by 12 months according to vaccination cards and mothers' reports					
Vaccination card seen	35.2	23.8	16.2	11.7	21.7
BCG	69.7	62.6	57.1	54.0	60.9
Polio 1	69.1	62.1	55.8	51.5	59.7
Polio 2	61.1	54.7	45.1	42.5	50.9
Polio 3	49.4	40.3	33.6	30.3	38.4
DPT 1	69.1	62.1	55.5	52.0	59.7
DPT 2	61.1	54.6	45.9	43.1	51.2
DPT 3	49.3	40.4	33.2	30.5	38.4
Measles	44.5	34.6	32.5	25.6	34.3
All <sup>1</sup>	36.9	28.8	26.2	19.4	27.9
None	27.1	34.9	40.0	44.5	36.6
Number of children	2670	2677	2697	2625	10670

Note: Mothers were specifically asked whether the child had received polio vaccine. The DPT coverage rate for children without a written record is assumed to be the same as that for polio vaccine. For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccination.

<sup>1</sup>Children who are fully vaccinated (i.e., those who have received BCG, measles and three doses of DPT and polio).

Since the immunization series should be completed by the end of the first year of life, immunization coverage for the first 12 months is evaluated in Table 10.8 (bottom panel). Based on information from both health cards and mothers' reports, 28 percent of children age 12-59 months were completely vaccinated during the first year of life. BCG vaccinations were received by 61 percent of children by the age of 12 months, 38 percent received polio 3 and DPT 3 and 34 percent received measles vaccine.

Patterns of immunization coverage by current age of the children may be interpreted as reflecting time trends in immunization program activities. Based on information from health cards and mothers' reports, the data show increasing coverage for all types of immunizations. Referring to children age 12-23 months (born in 1989-1990), the percentage fully immunized in the first year of life is 37 percent compared to 19 percent among children age 48-59 months (born in 1986-1987). The proportion of children with no vaccinations in the first year of life is also decreasing over time.

Table 10.9 shows vaccination coverage by background characteristics among children age 12-23 months at the time of the survey. The figures in this table are based on both health cards and mothers' reports.

**Table 10.9 Vaccinations by background characteristics**

Among children 12-23 months, the percentage who had received specific vaccines by the time of the survey (according to the vaccination card or the mother's report) and the percentage for whom a vaccination card was seen by the interviewer, by selected background characteristics, Indonesia 1991

Background characteristic	Percentage of children who received:										Percentage with a card	Number of children
	BCG	DPT			Polio			Measles	All <sup>1</sup>	None		
		1	2	3+	1	2	3+					
<b>Sex</b>												
Male	74.8	73.1	65.6	56.8	73.2	65.6	56.2	57.0	48.4	23.3	37.2	1324
Female	72.4	72.1	65.3	55.5	71.9	65.2	55.4	58.0	48.3	24.6	33.3	1346
<b>Birth order</b>												
1	82.0	81.4	74.9	67.3	81.0	74.7	67.1	66.5	59.5	16.0	47.6	744
2-3	76.5	75.1	68.3	58.6	75.1	68.3	58.5	61.4	51.4	21.4	33.7	1048
4-6	68.5	69.2	61.8	49.7	69.4	62.0	48.2	52.0	39.9	27.3	29.9	525
7+	54.8	51.8	42.1	35.0	51.8	42.1	35.0	35.3	28.2	43.6	21.6	353
<b>Residence</b>												
Urban	86.2	85.7	82.7	73.9	85.5	82.5	73.8	74.0	65.2	11.4	42.7	821
Rural	68.0	66.8	57.7	48.2	66.8	57.8	47.7	50.2	40.9	29.6	31.9	1849
<b>Region/Province</b>												
Java-Bali	81.0	80.7	73.7	64.3	80.5	73.8	63.9	66.0	56.3	16.3	43.7	1498
DKI Jakarta	90.6	89.1	86.5	79.2	88.5	86.5	79.2	71.4	65.1	8.9	23.4	115
West Java	75.8	72.2	68.3	59.9	72.2	68.3	59.3	60.9	53.6	21.5	33.0	560
Central Java	83.5	88.0	76.7	61.9	87.4	76.8	61.2	64.0	49.4	12.0	51.8	416
DI Yogyakarta	93.4	94.4	91.6	88.8	94.4	91.6	88.8	82.2	77.6	5.6	59.8	33
East Java	81.0	81.0	71.9	65.7	81.0	71.9	65.7	72.2	62.3	17.2	56.0	344
Bali	91.5	89.4	86.2	78.8	89.4	86.2	78.8	81.0	75.7	8.5	53.5	30
Outer Java-Bali I	61.6	59.4	51.7	42.3	59.4	51.5	41.7	42.2	34.1	36.0	23.9	796
Outer Java-Bali II	69.6	68.2	61.3	53.1	68.7	61.5	53.2	56.0	46.8	29.0	25.2	377
<b>Education</b>												
No education	54.2	55.9	43.8	33.1	55.9	44.7	33.1	34.1	25.9	41.0	26.4	357
Some primary	66.0	67.2	59.0	49.2	67.1	59.3	48.3	51.8	41.7	30.2	32.2	899
Completed primary	77.8	73.6	67.8	57.9	73.6	67.3	57.7	59.8	50.7	21.5	35.2	781
Some secondary +	90.1	88.5	83.7	76.8	88.3	83.3	76.7	76.0	67.4	8.5	44.5	634
<b>Total</b>	73.6	72.6	65.4	56.1	72.6	65.4	55.8	57.5	48.3	24.0	35.2	2670

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

<sup>1</sup>Children who are fully vaccinated (i.e., those who have received BCG, measles and three doses of DPT and polio).

There is practically no difference in vaccination coverage between male and female children. The percentage of children receiving each vaccine decreases with increasing birth order and increases with increasing mother's education. Urban children are more likely to be vaccinated than rural children; the percentage of children with all vaccinations is 65 percent in urban areas and 41 percent in rural areas. Children in Java-Bali are more likely to have received all types of vaccinations than children in other regions. Within Java-Bali, Yogyakarta and Bali show the highest complete vaccination coverage at 76 and 78 percent, respectively.

#### 10.4 ACUTE RESPIRATORY INFECTION

Acute lower respiratory tract infection (ALRI), primarily pneumonia, is a common cause of morbidity and death among children under five years of age. Early diagnosis and treatment with antibiotics can prevent a large proportion of ALRI deaths. The World Health Organization (WHO) has classified the disease by its severity. Cough or difficult breathing (rapid breathing) with chest indrawing is classified as severe pneumonia, which needs hospitalization; otherwise, the disease is classified as non-severe pneumonia, which

Table 10.10.1 Prevalence and treatment of acute respiratory infection: background characteristics

Among all children under five years of age, the percentage who were ill with a cough accompanied by rapid breathing during the two weeks before the survey, and among these the percentage receiving/not receiving advice/treatment, according to background characteristics, Indonesia 1991

Background characteristic	Percent with cough and rapid breathing	Treatment of children with cough and rapid breathing:					Total	No advice, treatment	Number of children
		Taken to a health facility or provider <sup>1</sup>	Traditional healer	Self-treatment visit <sup>2</sup>	No advice sought				
<b>Age of child</b>									
<6 months	8.2	53.1	2.8	19.0	25.1	100.0	21.7	1156	
6-11 months	11.0	69.3	4.8	16.8	9.1	100.0	4.1	1435	
12-23 months	14.2	63.5	3.1	21.9	11.5	100.0	4.0	2670	
24-35 months	10.0	64.0	3.0	22.2	10.8	100.0	3.6	2677	
36-47 months	9.3	68.2	2.9	20.0	8.9	100.0	4.5	2697	
48-59 months	5.5	63.2	4.6	19.6	12.6	100.0	5.1	2625	
<b>Sex of child</b>									
Male	9.9	66.4	3.4	18.9	11.3	100.0	6.4	6907	
Female	9.6	62.3	3.3	22.2	12.1	100.0	4.3	6353	
<b>Birth order</b>									
1	10.6	64.3	2.6	23.6	9.5	100.0	4.5	3787	
2-3	9.5	63.8	3.2	20.5	12.6	100.0	4.8	5123	
4-6	8.9	72.9	4.0	14.1	9.0	100.0	5.5	2682	
7+	10.2	55.0	4.7	22.1	18.1	100.0	9.3	1668	
<b>Residence</b>									
Urban	8.9	75.6	0.3	14.9	9.2	100.0	3.5	3918	
Rural	10.1	60.4	4.5	22.6	12.6	100.0	6.2	9342	
<b>Education</b>									
No education	9.3	49.1	5.5	23.3	22.1	100.0	11.3	1915	
Some primary	11.1	64.3	2.5	23.8	9.3	100.0	6.1	4733	
Completed primary	9.3	65.1	5.3	18.8	10.7	100.0	3.4	3609	
Some secondary +	8.6	74.5	1.1	13.9	10.6	100.0	2.7	3003	
<b>Total</b>	<b>9.8</b>	<b>64.5</b>	<b>3.4</b>	<b>20.5</b>	<b>11.7</b>	<b>100.0</b>	<b>5.4</b>	<b>13260</b>	

<sup>1</sup>Includes hospital, health center, health post, private clinic, doctor, nurse, midwife, health cadre

<sup>2</sup>Pharmacy or shop

can be treated by ambulatory treatment with antibiotics. The WHO has defined rapid breathing based on the respiratory rate per minute by age. It should be noted that, in the IDHS, rapid breathing was based on respondents' judgments about their children's symptoms.

The IDHS results indicate that the prevalence of cough with rapid breathing in the two weeks prior to the survey is 9.8 percent among children under five years of age (see Table 10.10.1). This figure is high for Indonesia compared to routine reports from health services. The highest prevalence is observed among children age 12-23 months, and declines as age increases.

The prevalence of cough with rapid breathing by sex, birth order, urban-rural residence, and mother's education shows negligible differences. As shown in Table 10.10.2, the prevalence by region also shows mostly minor differences except that in West Kalimantan and East Nusa Tenggara, more than 20 percent of children had cough with rapid breathing.

**Table 10.10.2 Prevalence and treatment of acute respiratory infection: region and province**

Among all children under five years of age, the percentage who were ill with a cough accompanied by rapid breathing during the two weeks before the survey and among these the percentage receiving/not receiving advice/treatment, according to region and province, Indonesia 1991

Region/province	Percent with cough and rapid breathing	Treatment of children with cough and rapid breathing:					Total	No advice, treatment	Number of children
		Taken to a health facility or provider <sup>1</sup>	Traditional healer	Self-treatment visit <sup>2</sup>	No advice sought				
<b>Java-Bali</b>	9.1	66.4	2.2	19.5	12.0	100.0	5.0	7417	
DKI Jakarta	9.1	79.3	0.0	17.1	3.7	100.0	1.2	539	
West Java	10.7	63.4	0.0	21.1	15.5	100.0	8.4	2644	
Central Java	7.6	69.2	5.5	21.6	3.7	100.0	0.0	1997	
DI Yogyakarta	7.6	(81.0)	(0.0)	(19.0)	(0.0)	100.0	(0.0)	150	
East Java	8.4	61.3	3.9	17.5	17.3	100.0	5.8	1929	
Bali	14.0	84.3	0.0	5.6	10.1	100.0	1.4	158	
<b>Outer Java-Bali I</b>	10.7	62.0	5.3	22.4	10.3	100.0	5.9	3989	
DI Aceh	11.0	66.4	5.1	21.7	6.8	100.0	6.8	270	
North Sumatra	10.6	68.8	1.0	20.8	9.5	100.0	2.7	946	
West Sumatra	14.1	64.4	16.8	14.9	4.0	100.0	0.0	340	
South Sumatra	5.6	(74.5)	(0.0)	(17.0)	(8.6)	100.0	6.6	602	
Lampung	8.0	63.4	0.0	29.0	7.7	100.0	1.9	449	
West Nusa Tenggara	12.3	65.2	14.3	9.7	10.9	100.0	8.5	285	
West Kalimantan	24.9	42.7	3.8	36.3	17.2	100.0	10.9	288	
South Kalimantan	5.2	*	*	*	*	100.0	*	185	
North Sulawesi	18.2	61.4	3.5	31.6	3.5	100.0	0.0	119	
South Sulawesi	7.9	59.1	8.6	13.5	18.8	100.0	17.1	505	
<b>Outer Java-Bali II</b>	10.5	63.3	3.3	19.7	13.7	100.0	5.9	1854	
<b>Total</b>	9.8	64.5	3.4	20.5	11.7	100.0	5.4	13260	

<sup>1</sup>Includes hospital, health center, health post, private clinic, doctor, nurse, midwife, health cadre

<sup>2</sup>Pharmacy or shop

( ) Based on 25-49 unweighted cases

\* Less than 25 unweighted cases

Approximately 65 percent of all children with cough and rapid breathing were taken to a health facility—hospital, health center, health post, private clinic, doctor, nurse, midwife or health cadre. Twenty-one percent of children received self-treatment, i.e., medicine from a dispensary or a drug store, and 12 percent did not seek advice. Overall, 5 percent of children were neither taken anywhere for consultation nor given any treatment. A small percentage of the cases (3 percent) were brought to a traditional healer.

Infants under 6 months of age were less likely to be treated for symptoms of ALRI compared to older children. Only 53 percent were taken to a health facility, 25 percent did not seek advice, and 22 percent did not get either advice or treatment. Consultation rates by sex and birth order showed little variation, except among children of birth order 7 or over who were less likely to be taken for consultation and less likely to get treatment; only 55 were taken to a health facility, 18 percent did not seek advice, and 9 percent got neither advice nor treatment.

Urban mothers are more likely to seek treatment at a health facility for their children who have cough and rapid breathing than rural mothers. Consultation rates by mother's education indicate that only 49 percent of children born to mothers with no education are taken to a health facility, and 11 percent did not have any treatment or receive any advice while among those with some secondary education, 75 percent were taken to a health facility and only 3 percent received neither advice nor treatment.

Differences in treatment demand by region are less marked (see Table 10.10.2). The proportion of children with symptoms of ALRI taken to a health facility in Java-Bali was 66 percent, which was a little higher than Outer Java-Bali I (62 percent) and Outer Java-Bali II (63 percent). In all three regions, the proportion receiving neither advice nor treatment is approximately 5 to 6 percent. Within the Java-Bali region, West Java and East Java show a relatively low use of health facilities, and a greater proportion of untreated cases.

The Acute Respiratory Infection Program recommends that children with cough and rapid breathing or pneumonia be treated with antibiotics, since bacteria are still the most common cause of fatal cases. In the IDHS, respondents were asked to specify the types of drugs used to treat the symptoms of ALRI in their children. They were not asked to identify the drug's content, but to identify its therapeutic indication, such as antipyretics or cough remedies. Respondents were asked to name all of the treatments given to a child.

The types of medicine most commonly used to treat cough with rapid breathing are cough pills or syrups (66 percent) and antipyretics (42 percent) (see Table 10.11). Although herbs are commonly used in Indonesia, in only 2 percent of cases were herbs used for treatment.

Table 10.11 Treatment of acute respiratory infection by type of facility or provider

Among children under five years of age who were ill with cough accompanied by rapid breathing, the percentage receiving specific treatments by type of facility or provider, Indonesia 1991

Facility or provider	Anti-pyretic	Cough pill or syrup	Other pill or syrup	Herbal medicine	Balm or ointment	Other	None	Number
Health facility <sup>1</sup>	48.4	82.2	17.6	0.5	0.7	10.2	0.4	837
Traditional healer	4.1	9.2	5.2	14.2	5.5	69.6	7.5	44
Self-treatment visit <sup>2</sup>	40.4	53.0	22.8	1.8	2.1	7.4	0.7	266
No advice sought	16.5	17.6	6.6	7.7	2.6	8.5	46.5	152
Total	41.6	66.2	17.0	2.1	1.4	11.4	6.1	1298

Note: Percentages do not add to 100 because child may have received more than one type of treatment.

<sup>1</sup>Includes hospital, health center, health post, private clinic, doctor, nurse, midwife, health cadre

<sup>2</sup>Pharmacy or shop

Among children with cough and rapid breathing who were taken to a health facility, 48 percent got antipyretics and 82 percent got cough pills or syrup. Traditional healers are more likely to give herbs (14 percent) and other types of medication (70 percent), e.g., massage, skin scraping, or putting on some kind of wonder medicine. Of those children who were not taken anywhere for consultation, 47 percent also did not get any treatment.

## 10.5 FEVER

Information about the presence of fever among children under age five was recorded in the survey, although the cause of fever was not specified. Various infectious diseases are accompanied by fever. In Indonesia, the most common diseases with fever are malaria, respiratory infections, measles, typhoid fever and intestinal infections. Therefore, fever cases may overlap with diarrhea and cough or rapid breathing, as a child with fever might at the same time suffer from cough or diarrhea. To make the analysis more specific,

Table 10.12.1 Prevalence and treatment of fever: background characteristics

Among all children under five years of age, the percentage with a fever during the two weeks before the survey and among these the percentage receiving/not receiving advice/treatment, according to background characteristics, Indonesia 1991

Background characteristic	Percent with fever	Percent with fever only <sup>1</sup>	Treatment of children with fever only:					Total	No advice, treatment	Number of children
			Taken to health facility or provider <sup>2</sup>	Traditional healer	Self-treatment visit <sup>3</sup>	No advice sought				
<b>Age of child</b>										
<6 months	22.2	5.7	38.4	6.2	29.3	26.2	100.0	13.9	1156	
6-11 months	38.1	8.9	60.8	6.3	23.8	9.1	100.0	3.7	1435	
12-23 months	35.2	6.8	48.4	2.9	29.8	18.9	100.0	6.2	2670	
24-35 months	29.8	7.6	48.5	7.6	23.6	20.3	100.0	10.9	2677	
36-47 months	22.8	6.3	52.5	2.8	28.7	16.0	100.0	9.7	2697	
48-59 months	15.9	5.0	45.2	6.7	29.4	18.7	100.0	9.1	2625	
<b>Sex</b>										
Male	27.1	6.9	51.8	4.6	26.6	17.1	100.0	7.4	6907	
Female	26.7	6.4	47.5	6.2	27.9	18.5	100.0	10.0	6353	
<b>Birth order</b>										
1	27.1	5.7	51.2	1.9	30.4	16.4	100.0	9.1	3787	
2-3	25.8	6.6	47.4	4.6	29.7	18.3	100.0	10.4	5123	
4-6	28.5	8.1	49.5	6.9	23.5	20.2	100.0	7.3	2682	
7+	27.6	6.7	55.0	10.7	20.4	14.0	100.0	4.5	1668	
<b>Residence</b>										
Urban	26.3	6.1	65.2	2.1	23.6	9.1	100.0	3.7	3918	
Rural	27.2	6.9	44.0	6.5	28.5	21.0	100.0	10.4	9342	
<b>Education</b>										
No education	23.7	5.0	54.7	7.1	17.9	20.3	100.0	14.8	1915	
Some primary	28.3	6.6	46.3	7.5	25.8	20.4	100.0	12.1	4733	
Completed primary	28.7	6.9	38.0	4.6	36.0	21.4	100.0	6.3	3609	
Some secondary +	24.8	7.5	65.7	2.2	23.2	8.9	100.0	3.7	3003	
Total	26.9	6.7	49.8	5.3	27.2	17.8	100.0	8.6	13260	

<sup>1</sup>Includes children who had fever but not cough accompanied by rapid breathing and not diarrhea

<sup>2</sup>Includes hospital, health center, health post, private clinic, doctor, nurse, midwife, health cadre

<sup>3</sup>Pharmacy or shop

children with fever *only* are included in the following tables; children who had fever accompanied by cough, rapid breathing, or diarrhea are excluded.

The overall prevalence of fever (including those who also had cough, rapid breathing, or diarrhea, was 27 percent. By excluding cough, rapid breathing and diarrhea accompanying fever, exclusive fever was found in 7 percent of children under age five (see Table 10.12.1) with the highest prevalence among children age 6-11 months (9 percent).

Fever prevalence by demographic characteristics shows little variation. Fever among children born to mothers with no education was less prevalent than among those born to mothers who had higher education, although this difference might be due to a lack of knowledge and attention from the less educated mothers, so that mild fever suffered by their children was not perceived.

There is little variation in the prevalence of fever by region (see Table 10.12.2). Within Java-Bali, West Java, East Java and Bali have the highest prevalence of fever.

Table 10.12.2 Prevalence and treatment of fever: region and province

Among all children under five years of age, the percentage with a fever during the two weeks before the survey, and among these the percentage receiving/not receiving advice/treatment according to region and province, Indonesia 1991

Region/province	Percent with fever	Percent with fever only <sup>1</sup>	Treatment of children with fever only:					Total	No advice, treatment	Number of children
			Taken to health facility or provider <sup>2</sup>	Traditional healer	Self-treatment visit <sup>3</sup>	No advice sought				
<b>Java-Bali</b>	26.9	6.3	51.4	4.5	28.1	16.0	100.0	9.9	7417	
DKI Jakarta	20.6	3.9	(80.0)	(0.0)	(11.4)	(8.6)	100.0	(0.0)	539	
West Java	33.0	7.5	53.4	4.5	24.5	17.5	100.0	8.0	2644	
Central Java	23.1	4.8	(35.4)	(2.9)	(53.4)	(8.4)	100.0	(8.4)	1997	
DI Yogyakarta	29.3	4.0	*	*	*	*	100.0	*	150	
East Java	24.5	7.0	(54.4)	(7.0)	(18.2)	(20.5)	100.0	(16.0)	1929	
Bali	23.9	7.0	(68.7)	(0.0)	(14.2)	(17.2)	100.0	(0.0)	158	
<b>Outer Java-Bali I</b>	26.2	6.7	48.5	7.4	24.2	19.9	100.0	5.4	3989	
<b>Outer Java-Bali II</b>	28.5	8.0	47.0	4.0	29.5	19.5	100.0	10.4	1854	
<b>Total</b>	26.9	6.7	49.8	5.3	27.2	17.8	100.0	8.6	13260	

<sup>1</sup>Includes children who had fever but not cough accompanied by rapid breathing and not diarrhea

<sup>2</sup>Includes hospital, health center, health post, private clinic, doctor, nurse, midwife, health cadre

<sup>3</sup>Pharmacy or shop

( ) Based on 25-49 unweighted cases

\* Less than 25 unweighted cases

Of all children with fever only, 50 percent were taken to a health facility, 18 percent did not seek advice and 9 percent were neither taken for advice nor treated. A large percentage of cases (27 percent) went to a dispensary or drug store, and only 5 percent were treated by a traditional healer. Fever cases were less likely to be taken to a health facility than those who had cough with rapid breathing.

The percentage taken for treatment to a health facility among infants under 6 months of age is lower than among the older age groups. In addition, no advice was sought in 26 percent of cases and 14 percent were neither taken for advice nor treated. Demand for treatment by sex and birth order did not show any major differences.

Urban children were more likely to be taken for consultation to a health facility (65 percent) than children of rural mothers (44 percent). The proportion of children taken to a health facility in Java-Bali was slightly greater than in Outer Java-Bali I and Outer Java-Bali II. The highest level of demand for advice at a health facility in Java-Bali was observed in DKI Jakarta (80 percent) and Bali (69 percent), where health facilities are easily accessible.

Mother's education is important in whether a child is taken to a health facility or not. The proportion of children taken to a health facility is highest among children born to mothers with some secondary or higher education. The proportion neither taken for advice nor given any treatment is 2 to 3 times higher among women with no education or some primary education than among women with complete primary or higher education.

Table 10.13 presents information on the types of treatment given to children with fever according to the type of facility or provider. Antipyretics were given to 53 percent of children and other pills or syrups to 27 percent. Children taken to health facilities were generally given antipyretics, cough pills, or syrups and other pills or syrups. Traditional healers are more likely to give treatments other than modern medicine, although healers gave antipyretics to 17 percent of children.

**Table 10.13 Treatment of fever by type of facility or provider**

Among children under five years of age with fever only, the percentage receiving specific treatments, by type of facility or provider, Indonesia 1991

Facility or provider	Anti-pyretic	Cough pill or syrup	Other pill or syrup	Herbal medicine	Balm or ointment	Other	None	Number
Health facility or provider <sup>1</sup>	68.2	18.8	33.2	0.0	0.3	6.0	0.1	439
Traditional healer	17.3	0.0	1.0	6.0	2.8	72.9	11.6	47
Self-treatment visit <sup>2</sup>	53.7	6.6	34.6	0.5	2.7	6.7	0.0	240
No advice sought	21.7	4.9	4.3	3.1	9.2	12.6	48.4	157
Total	53.3	12.0	26.7	1.0	2.7	10.9	9.2	882

Note: Percentages do not add to 100 because child may have received more than one type of treatment.

<sup>1</sup>Includes hospital, health center, health post, private clinic, doctor, nurse, midwife, health cadre

<sup>2</sup>Pharmacy or shop

## 10.6 DIARRHEAL DISEASE

Diarrheal diseases are still a public health problem in Indonesia, as indicated by the high morbidity and mortality rates caused by diarrhea, especially among children under five years of age. Diarrhea occurs seasonally at the end of the long dry season or the beginning of the rainy season.

The Diarrhea Control Program within the Ministry of Health has made a special effort to overcome the problem by improving health services in the hospitals, health centers and health posts, as well as intensifying health education through health field workers. Training has been provided for all health cadres on oral rehydration therapy. Oral rehydration centers are established in health centers and health posts, and oral rehydration packets are distributed to every health post throughout the country.

### 10.6.1 Prevalence of Diarrhea

In the IDHS, mothers with children under five years of age were asked if their children had diarrhea at any time in the preceding two weeks, and whether they had diarrhea in the last 24 hours. Mothers were also asked about any action taken to treat their children with diarrhea. The IDHS data collection took place in June-July, during the dry season, which is typically a period of relatively high diarrhea prevalence.

Tables 10.14.1 and 10.14.2 show the percentage of children under five years of age who had diarrhea in the two weeks preceding the survey and in the 24 hours preceding the survey by background characteristics and by region and province. The overall percentage of children with diarrhea in the last 24 hours was 4 percent, and 11 percent had diarrhea in the two weeks preceding the survey. The prevalence of bloody diarrhea was 1 percent in the two-week period. Diarrheal disease

was more common among children age 6-23 months (18 percent) in the two weeks preceding the survey, while in the 24 hours preceding the survey it was more common among children 0-23 months (5 to 6 percent).

The prevalence of diarrhea by background characteristics shows negligible differences. For example, the prevalence of diarrheal disease in the two-week period was 12 percent in urban areas and 11 percent in rural areas. Similarly, approximately 11 percent of children of mothers with no education had diarrhea in the preceding two weeks compared to 9 percent of children of mothers with some secondary education or higher.

**Table 10.14.1 Prevalence of diarrhea: background characteristics**

Percentage of children under five years of age with diarrhea and bloody diarrhea during the two weeks before the survey, and the percentage with diarrhea in the 24 hours before the survey, by background characteristics, Indonesia 1991

Background characteristic	Diarrhea in the preceding 2 weeks <sup>1</sup>		Diarrhea in the past 24 hours	Number of children
	All diarrhea	Diarrhea with blood		
<b>Age of child</b>				
<6 months	9.9	0.6	5.7	1156
6-11 months	18.3	1.1	5.2	1435
12-23 months	18.4	1.5	6.9	2670
24-35 months	10.8	1.6	4.5	2677
36-47 months	7.6	1.2	2.1	2697
48-59 months	4.2	0.4	1.5	2625
<b>Sex</b>				
Male	11.5	1.1	4.1	6907
Female	10.7	1.1	4.0	6353
<b>Birth order</b>				
1	11.3	0.8	4.5	3787
2-3	10.9	1.3	4.0	5123
4-6	10.9	1.2	3.7	2682
7+	11.5	1.1	4.2	1668
<b>Residence</b>				
Urban	12.0	1.0	4.0	3918
Rural	10.7	1.2	4.1	9342
<b>Education</b>				
No education	10.5	1.1	3.7	1915
Some primary	12.5	1.5	4.9	4733
Completed primary	11.3	1.1	4.2	3609
Some secondary +	9.1	0.5	2.9	3003
<b>Total</b>	11.1	1.1	4.1	13260

<sup>1</sup>Includes diarrhea in the past 24 hours

**Table 10.14.2 Prevalence of diarrhea: region and province**

Percentage of children under five years of age with diarrhea and bloody diarrhea during the two weeks before the survey, and the percentage with diarrhea in the 24 hours before the survey, by region and province, Indonesia 1991

Region/province	Diarrhea in the preceding 2 weeks <sup>1</sup>		Diarrhea in the past 24 hours	Number of children
	All diarrhea	Diarrhea with blood		
<b>Java-Bali</b>	12.6	1.4	4.3	7417
DKI Jakarta	8.1	0.2	2.9	539
West Java	17.9	2.1	7.3	2644
Central Java	10.2	0.7	3.1	1997
DI Yogyakarta	8.0	1.0	1.8	150
East Java	9.4	1.6	1.9	1929
Bali	11.3	0.8	6.0	158
<b>Outer Java-Bali I</b>	9.6	0.8	4.3	3989
DI Aceh	9.0	1.6	2.9	270
North Sumatra	11.9	0.8	5.0	946
West Sumatra	10.8	1.1	5.2	340
South Sumatra	6.3	0.3	3.4	602
Lampung	7.3	0.5	2.9	449
West Nusa Tenggara	10.7	1.3	6.6	285
West Kalimantan	15.6	1.4	7.5	288
South Kalimantan	6.4	0.7	3.2	185
North Sulawesi	10.5	1.9	3.5	119
South Sulawesi	7.9	0.3	2.6	505
<b>Outer Java-Bali II</b>	8.4	0.7	2.8	1854
Riau	10.6	1.3	3.1	362
Jambi	7.5	1.1	2.1	174
Bengkulu	14.0	1.4	3.7	106
East Nusa Tenggara	5.6	0.3	1.5	275
East Timor	5.4	0.4	3.5	104
Central Kalimantan	6.5	0.0	2.3	111
East Kalimantan	9.0	0.0	1.2	148
Central Sulawesi	12.0	0.3	2.3	141
Southeast Sulawesi	10.0	0.7	6.5	113
Maluku	6.0	0.7	3.1	197
Irian Jaya	7.3	1.1	3.6	124
<b>Total</b>	11.1	1.1	4.1	13260

<sup>1</sup>Includes diarrhea in the past 24 hours

The prevalence of diarrhea by region varies considerably. The two-week prevalence in Java-Bali is 13 which is higher than in Outer Java-Bali I (10 percent) and Outer Java-Bali II (8 percent). The highest percentage of children with diarrhea in the last two weeks and in the last 24 hours was in West Java.

Table 10.15 Duration, prevalence and incidence of diarrhea

Mean duration of diarrhea (days) for those who had diarrhea in the past two weeks but not in the past 24 hours, prevalence of diarrhea excluding past 24 hours and two-week incidence of diarrhea, Indonesia 1991

Background characteristic	Mean duration of diarrhea episode (days) <sup>1</sup>	Number of children with diarrhea	Prevalence of diarrhea excluding past 24 hours	14-day incidence of diarrhea	Number of children
<b>Age of child</b>					
<6 months	3.0	48	4.2	3.7	1156
6-11 months	3.5	187	13.1	11.1	1435
12-23 months	3.0	303	11.5	10.1	2670
24-35 months	3.5	169	6.3	5.4	2677
36-47 months	3.0	146	5.5	4.8	2697
48-59 months	2.7	69	2.7	2.4	2625
<b>Sex</b>					
Male	3.2	504	7.3	6.3	6907
Female	3.1	419	6.7	5.8	6353
<b>Birth order</b>					
1	3.1	256	6.8	5.9	3787
2-3	3.3	355	7.0	6.0	5123
4-6	3.1	193	7.2	6.3	2682
7+	3.2	119	7.3	6.3	1668
<b>Residence</b>					
Urban	3.3	311	8.0	6.8	3918
Rural	3.1	611	6.6	5.8	9342
<b>Region/Province</b>					
Java-Bali	3.3	611	8.3	7.1	7417
DKI Jakarta	2.8	28	5.2	4.6	539
West Java	3.6	280	10.6	8.9	2644
Central Java	3.0	143	7.1	6.3	1997
DI Yogyakarta	(3.7)	9	6.1	5.2	150
East Java	3.3	144	7.5	6.4	1929
Bali	(2.7)	8	5.2	4.7	158
Outer Java-Bali I	2.9	208	5.4	4.7	3989
Outer Java-Bali II	2.7	103	5.6	5.0	1854
<b>Education</b>					
No education	3.5	127	6.8	5.7	1915
Some primary	3.2	359	7.7	6.6	4733
Completed primary	3.1	253	7.0	6.1	3609
Some secondary +	3.1	184	6.2	5.4	3003
Total	3.2	922	7.0	6.1	13260

<sup>1</sup>Based on children who had diarrhea in the past 2 weeks but not in the past 24 hours and whose diarrhea episode did not last more than 14 days

( ) Based on 25-49 unweighted cases

## 10.6.2 Incidence of Diarrhea

The two-week incidence of diarrhea is defined as the percentage of children having a diarrhea episode which *started* in the last two weeks. The incidence of diarrhea in the 14 days prior to the survey is estimated from the relationship of prevalence to incidence as follows:

$$I_{1-14} = P_{2-14} \times 14 / (13 + D)$$

$I_{1-14}$  = incidence in the 14 days prior to the survey

$P_{2-14}$  = prevalence in days 2-14 prior to the survey

$D$  = average duration of a diarrhea episode in the 2-14 days prior to the survey

The average duration of a diarrhea episode is calculated using information from the survey on duration for all children who had diarrhea in the last two weeks, excluding those who had diarrhea in the last 24 hours (i.e., terminated episodes only).<sup>1</sup> The results indicate that the average duration of a diarrhea episode is 3.2 days (see Table 10.15).

The duration of diarrhea episodes by background characteristics shows negligible differences. Two provinces in Java-Bali, West Java and DI Yogyakarta, have slightly longer durations of diarrhea episodes (3.6 and 3.7 days) than other provinces.

The results indicate that the two-week incidence of diarrhea is 6.1 percent. In comparison, the annual survey conducted by the Diarrhea Control Program in 1991 reported a two-week diarrheal disease incidence among children under 5 years of age as 5.5 percent.

The incidence is highest among infants age 6-11 months and children 12-23 months. The incidence of diarrhea is also higher in urban areas (7 percent) than rural areas (6 percent). Comparing the incidence of diarrhea by region, Java-Bali has a higher incidence of diarrhea (7 percent) than Outer Java-Bali I (5 percent) or Outer Java-Bali II (5 percent). Diarrhea incidence among children born to mothers with some secondary education was slightly lower than among those born to mothers with less education.

## 10.6.3 Treatment with Oral Rehydration Therapy

The recommended treatment for diarrhea is oral rehydration therapy (ORT), which has been introduced in Indonesia through health education and various mass media campaigns. The level of knowledge of ORS packets (prepackaged oral rehydration salts) used in oral rehydration therapy (ORT) is shown in Table 10.16.1 and Table 10.16.2. A mother is classified as knowing about ORS, if she reported using ORS packets to treat one of her children for diarrhea in the two weeks preceding the survey, or if she has ever seen or heard of ORS packets.

A large majority, 85 percent, of mothers knew about ORS packets, and 59 percent had used ORS sometime to treat a member of their household for diarrhea. Knowledge about ORS packets is substantially higher in the urban areas and among more educated mothers. The level of knowledge about ORS packets by regions shows that Outer Java-Bali II is slightly lower (73 percent) than the other two regions.

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<sup>1</sup> Also excluded are persistent cases of diarrhea, i.e., those lasting more than 14 days. Of the 1539 cases of diarrhea in the data file, 10 were identified as persistent cases, the longest lasting 22 days.

**Table 10.16.1 Knowledge and use of ORS packets: age, residence, and education**

Percentage of mothers with births in the last five years who know about and have ever used ORS packets, by age, urban-rural residence, and education, Indonesia 1991

Characteristic	Know about ORS packets	Ever used ORS packets	Number of mothers
<b>Age</b>			
15-19	81.3	44.7	562
20-24	88.0	57.1	2745
25-29	88.2	62.5	3319
30-34	84.6	62.4	2299
35+	78.4	57.3	2173
<b>Residence</b>			
Urban	95.0	68.7	3219
Rural	81.1	55.3	7879
<b>Education</b>			
No education	61.2	41.5	1580
Some primary	81.7	57.6	3979
Completed primary	92.1	64.0	3067
Some secondary +	97.4	67.2	2473
<b>Total</b>	<b>85.1</b>	<b>59.2</b>	<b>11098</b>

A large proportion of children with diarrhea are treated with ORS packets: 43 percent of children under 5 years of age who had diarrhea in the two weeks prior to the survey were given ORS packets (see Table 10.17). One-third of the children were given a recommended home fluid (RHF), including sugar-salt-water solution, rice water, coconut milk, broth or tea—while 51 percent of children had increased fluid intake (either breast milk or other liquids).

The overall percentage of children with diarrhea who did not increase their fluid intake, i.e., no ORS, no RHF, and no increased fluid intake, was 22 percent. This percentage is higher for infants under 6 months of age (36 percent). There is a small increase in the percentage of diarrhea cases without increased fluid intake with rising birth order. This percentage by region is higher in Outer Java-Bali I (28 percent) and Outer Java-Bali II (25 percent), than in Java-Bali (19 percent). The percentage without increased fluids in West Java, which has the highest incidence of diarrhea among children under 5 years, is 21 percent, while the lowest percentage occurs in Bali (4 percent). The percentage of diarrhea cases without increased fluid intake declines with increasing education of the mother.

**Table 10.16.2 Knowledge and use of ORS packets: region and province**

Percentage of mothers with births in the last five years who know about and have ever used ORS packets, by region and province, Indonesia 1991

Region/province	Know about ORS packets	Ever used ORS packets	Number of mothers
<b>Java-Bali</b>	<b>88.6</b>	<b>63.9</b>	<b>6567</b>
DKI Jakarta	98.8	64.4	451
West Java	92.6	71.9	2443
Central Java	87.6	63.3	1675
DI Yogyakarta	95.7	63.1	136
East Java	80.9	52.9	1732
Bali	86.5	66.0	131
<b>Outer Java-Bali I</b>	<b>83.4</b>	<b>54.7</b>	<b>3083</b>
DI Aceh	86.0	64.2	209
North Sumatra	87.5	53.6	657
West Sumatra	78.7	50.1	261
South Sumatra	89.2	59.3	447
Lampung	90.6	63.4	364
West Nusa Tenggara	80.1	58.0	238
West Kalimantan	65.0	49.9	233
South Kalimantan	83.5	38.7	164
North Sulawesi	87.8	50.5	106
South Sulawesi	77.1	50.3	405
<b>Outer Java-Bali II</b>	<b>73.0</b>	<b>47.7</b>	<b>1448</b>
Riau	75.2	57.5	271
Jambi	87.9	60.5	149
Bengkulu	85.8	59.0	84
East Nusa Tenggara	72.2	45.4	212
East Timor	62.3	53.9	66
Central Kalimantan	59.2	11.3	93
East Kalimantan	91.8	66.6	125
Central Sulawesi	69.8	39.8	114
Southeast Sulawesi	79.9	51.9	85
Maluku	64.7	36.4	139
Irian Jaya	44.4	26.2	110
<b>Total</b>	<b>85.1</b>	<b>59.2</b>	<b>11098</b>

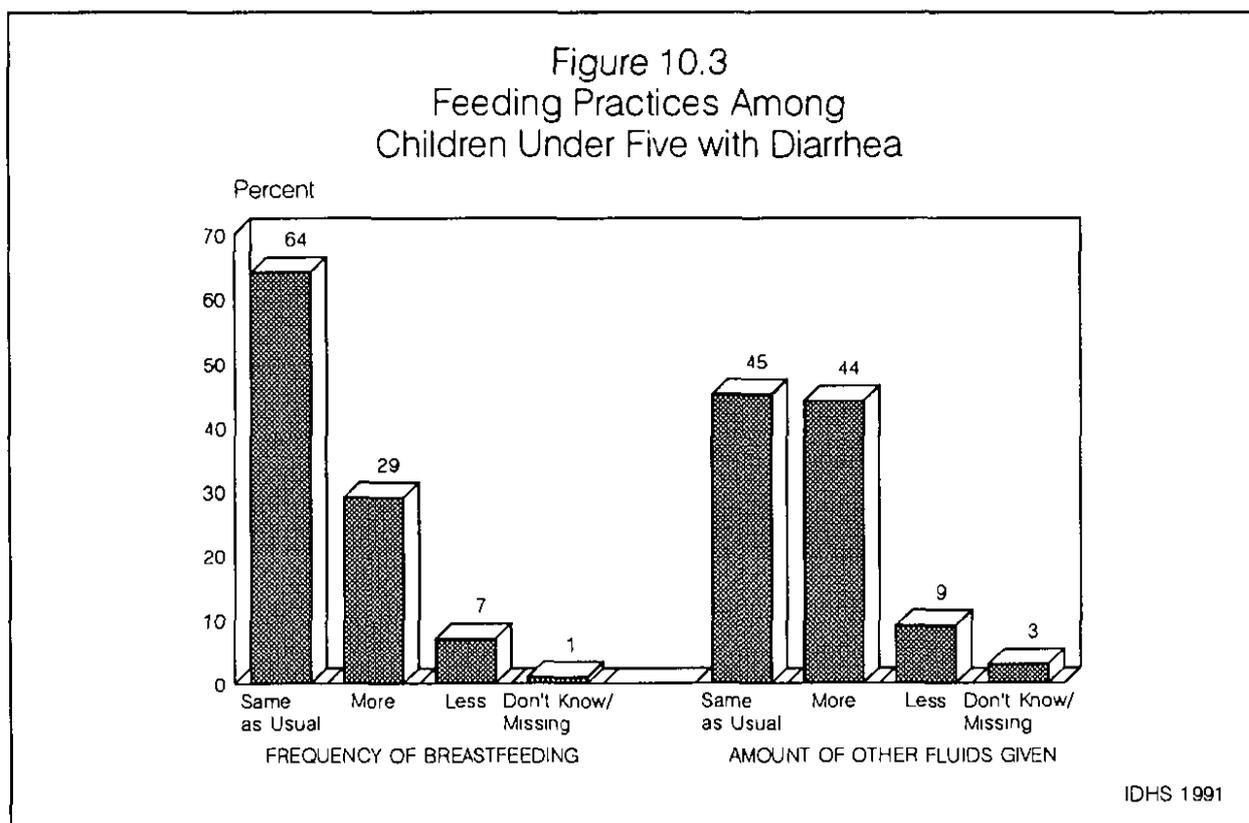
Table 10.17 Treatment of diarrhea: oral rehydration therapy and other treatments

Among children under five years who had diarrhea in the past two weeks, the percentage who received oral rehydration therapy (ORT), either a solution prepared from ORS packets or a recommended home fluid (RHF), and increased fluids, the percentage who received neither ORT nor increased fluids, and the percentage given other treatments, according to background characteristics, Indonesia 1991

Background characteristic	Percentage of children with diarrhea receiving:				Percentage of children with diarrhea receiving other treatments:								Chil-dren with diarrhea
	ORT		In-creased fluids	Neither ORT nor increased fluids	Cap-sule	Pill	Syrup	Herbal medi-cine	Balm or oint-ment	Other	Missing	No advice, treat-ment	
	ORS packet	RHF											
<b>Age of child</b>													
<6 months	12.8	12.0	53.8	36.0	0.8	12.6	10.7	3.6	0.8	7.1	2.1	53.1	115
6-11 months	45.0	33.4	56.3	20.3	11.0	19.6	19.8	4.3	1.6	8.5	1.5	29.2	263
12-23 months	51.2	37.6	48.7	19.5	8.7	41.0	19.7	3.8	0.9	6.3	0.3	19.3	491
24-35 months	42.5	28.6	51.7	23.0	10.1	46.7	10.1	3.8	0.1	4.3	0.0	20.4	289
36-47 months	44.4	34.5	43.2	22.3	7.0	37.8	6.5	3.2	0.8	6.6	0.8	19.7	206
48-59 months	35.0	42.1	54.9	16.4	10.1	36.3	14.7	3.5	1.9	10.8	1.5	25.4	110
<b>Sex</b>													
Male	44.9	33.7	51.9	21.1	8.9	33.0	16.4	3.7	0.7	6.2	1.2	24.0	792
Female	41.2	32.3	49.3	22.6	8.3	37.9	13.2	3.9	1.2	7.4	0.3	25.0	682
<b>Birth order</b>													
1	42.3	32.3	50.4	21.8	5.6	38.1	16.1	5.3	1.0	6.9	0.3	23.7	427
2-3	45.3	31.8	52.0	17.2	10.1	31.3	14.5	3.2	0.8	5.8	0.9	26.9	561
4-6	46.4	32.9	52.7	26.8	8.7	36.2	17.1	3.4	1.6	8.7	0.3	21.6	293
7+	34.5	38.3	44.5	27.2	11.1	39.4	9.9	2.6	0.2	5.9	2.3	23.2	192
<b>Residence</b>													
Urban	41.5	30.5	54.6	21.8	9.4	37.0	22.3	2.9	0.5	5.8	0.2	18.4	469
Rural	44.0	34.2	48.9	21.7	8.3	34.5	11.4	4.2	1.1	7.2	1.0	27.2	1004
<b>Region/Province</b>													
Java-Bali	45.6	32.7	52.0	18.9	9.2	39.7	16.1	3.4	0.1	4.9	0.4	23.4	932
DKI Jakarta	39.7	30.1	52.1	27.4	26.0	19.2	17.8	4.1	1.4	5.5	0.0	27.4	44
West Java	44.5	19.0	57.0	20.6	8.2	50.7	11.4	1.8	0.0	7.3	0.0	23.9	473
Central Java	57.2	55.5	50.1	10.3	10.6	29.5	24.7	0.0	0.0	3.9	0.0	23.6	205
DI Yogyakarta	(59.0)	(59.0)	(53.9)	(15.4)	(12.8)	(51.3)	(23.0)	(12.8)	(2.6)	(2.5)	(2.5)	(10.3)	12
East Java	33.8	40.3	37.3	23.8	6.7	27.2	16.5	10.3	0.0	0.0	1.7	22.2	181
Bali	69.6	46.6	91.1	3.6	0.0	32.1	32.1	9.0	0.0	1.8	0.0	19.7	18
Outer Java-Bali I	39.3	34.1	45.0	27.6	6.9	29.2	13.2	5.0	2.3	9.7	1.3	27.4	384
Outer Java-Bali II	38.6	32.0	56.9	24.6	9.8	24.2	11.8	2.8	2.5	10.4	2.0	23.2	157
<b>Education</b>													
No education	40.5	32.6	44.8	27.4	4.7	32.5	9.6	1.9	1.7	7.7	1.1	28.4	201
Some primary	44.3	30.1	52.5	20.4	8.4	38.1	10.4	5.1	0.7	8.0	1.2	22.5	593
Completed primary	45.1	35.8	45.4	23.7	9.2	37.7	17.9	2.5	0.8	5.5	0.1	25.8	407
Some secondary +	40.1	35.5	59.2	17.6	11.2	27.8	24.2	4.0	1.1	5.2	0.5	23.7	272
<b>Total</b>	<b>43.2</b>	<b>33.0</b>	<b>50.7</b>	<b>21.8</b>	<b>8.6</b>	<b>35.3</b>	<b>14.9</b>	<b>3.8</b>	<b>0.9</b>	<b>6.7</b>	<b>0.8</b>	<b>24.4</b>	<b>1473</b>

( ) Based on 25-49 unweighted cases

Among breastfed children who had diarrhea, 29 percent had an increased frequency of breastfeeding and 7 percent had reduced frequency of breastfeeding (see Figure 10.3). Among all children with diarrhea, 44 percent received more fluids than usual while 9 percent received less than usual.



#### 10.6.4 Medical Treatment

About 46 percent of the children with diarrhea were taken to a health facility (see Table 10.18). These facilities include hospitals, health centers, health posts, private clinics, doctors, nurses and health cadres. Almost one-quarter of children with diarrhea (24 percent) had no advice sought nor any treatment given. Infants under 6 months were more likely not to be treated (53 percent) compared to older children.

The percentage of children with diarrhea taken to a health facility by sex and birth order shows little variation, except children of birth order 7 or over were more likely than other children to receive treatment obtained from a pharmacy or drug store (self-treatment). Urban mothers are more likely to take their children with diarrhea to a health facility than rural mothers.

Children of mothers with no education are least likely to be taken to a health facility and children of mothers with some secondary or higher education are most likely to be taken to a facility. The difference in the proportion of diarrhea cases taken to a health facility by region is less marked. The proportion of diarrhea cases taken to a health facility in Java-Bali was 48 percent, which was slightly higher than in Outer Java-Bali I and Outer Java-Bali II.

**Table 10.18 Treatment of diarrhea: background characteristics**

Among children under five years who had diarrhea in the two weeks preceding the survey, the percentage taken to a health facility or provider, to a traditional healer, for self-treatment, and who sought no advice, according to background characteristics, Indonesia 1991

Background characteristic	Treatment of children with diarrhea:				Total	Children with diarrhea
	Taken to health facility or provider <sup>1</sup>	Traditional healer	Self-treatment visit <sup>2</sup>	No advice sought		
<b>Age of child</b>						
<6 months	28.8	4.9	5.3	61.0	100.0	115
6-11 months	48.1	3.4	10.4	38.1	100.0	263
12-23 months	50.3	2.4	23.3	24.0	100.0	491
24-35 months	47.2	0.8	23.9	28.1	100.0	289
36-47 months	45.0	4.5	25.3	25.2	100.0	206
48-59 months	43.0	4.1	14.9	38.0	100.0	110
<b>Sex of child</b>						
Male	46.7	3.0	19.8	30.5	100.0	792
Female	46.0	2.7	18.9	32.5	100.0	682
<b>Birth order</b>						
1	47.6	3.6	17.8	31.0	100.0	427
2-3	48.7	2.6	16.7	32.0	100.0	561
4-6	47.3	3.0	17.8	31.8	100.0	293
7+	35.2	1.9	33.0	29.9	100.0	192
<b>Residence</b>						
Urban	50.9	0.6	20.4	28.0	100.0	469
Rural	44.2	3.9	18.9	33.0	100.0	1004
<b>Region/Province</b>						
Java-Bali	47.9	2.0	20.4	29.7	100.0	932
DKI Jakarta	54.8	0.0	9.6	35.6	100.0	44
West Java	42.5	0.6	24.9	32.0	100.0	473
Central Java	55.2	1.4	18.5	25.0	100.0	205
DI Yogyakarta	(74.4)	(0.0)	(12.8)	(12.8)	100.0	12
East Java	48.7	6.9	15.5	28.9	100.0	181
Bali	66.0	1.8	5.3	26.9	100.0	18
Outer Java-Bali I	43.1	4.2	16.7	36.0	100.0	384
Outer Java-Bali II	44.8	5.1	19.5	30.6	100.0	157
<b>Education</b>						
No education	37.0	4.1	20.1	38.7	100.0	201
Some primary	45.1	3.2	21.3	30.4	100.0	593
Completed primary	49.1	2.1	20.3	28.4	100.0	407
Some secondary +	51.7	2.4	13.1	32.8	100.0	272
<b>Total</b>	<b>46.3</b>	<b>2.9</b>	<b>19.4</b>	<b>31.4</b>	<b>100.0</b>	<b>1473</b>

<sup>1</sup>Includes hospital, health center, health post, private clinic, doctor, nurse, midwife, health cadre

<sup>2</sup>Pharmacy or shop

( ) Based on 25-49 unweighted cases

The therapeutic indication of medicines used for the treatment of diarrhea were not identified, due to the limited knowledge of the respondents concerning the components of the drugs used. In this survey, the medications used to treat children with diarrhea are classified as: capsules, pills, syrups, herbs, external application of balm or ointment, and other medications not mentioned earlier. Mothers were asked to name all of the types of treatments given to their child to treat diarrhea.

Nine percent of children received a capsule, 35 percent received a pill, and 15 percent received a syrup to treat their diarrhea (see Table 10.17). In addition, 4 percent were treated with herbs and 7 percent with other kinds of treatments. Capsules, pills and syrups are the treatments provided most commonly by health facilities and used for self-treatment (see Table 10.19). Traditional healers are more likely use herbs or other medication to treat diarrhea cases.

**Table 10.19 Treatment of diarrhea by type of facility or provider**

Facility or provider	Capsule	Pill	Syrup	Herbal medicine	Balm or ointment	Other	Don't know/missing	None	Number
Health facility or provider <sup>1</sup>	14.5	44.9	30.1	1.9	0.7	5.8	0.2	22.9	683
Traditional healer	0.0	3.1	0.0	16.2	3.2	30.4	0.0	49.0	42
Self-treatment visit <sup>2</sup>	8.5	64.1	1.7	5.0	1.1	3.6	0.3	17.1	285
No advice sought	0.9	6.4	2.0	4.7	1.0	7.9	1.9	75.8	463
<b>Total</b>	<b>8.6</b>	<b>35.3</b>	<b>14.9</b>	<b>3.8</b>	<b>0.9</b>	<b>6.7</b>	<b>0.8</b>	<b>39.1</b>	<b>1473</b>

Note: Percentages do not add to 100 because child may have received more than one type of treatment.

<sup>1</sup>Includes hospital, health center, health post, private clinic, doctor, nurse, midwife, health cadre

<sup>2</sup>Pharmacy or shop

## CHAPTER 11

### INFANT FEEDING

Infant feeding has an impact on both the child and the mother. Feeding practices are important determinants of the child's nutritional status, which in turn influences the risk of dying. The mother is affected by breastfeeding through its effect on postpartum infertility, which is related to the length of birth intervals and, thus, to fertility levels.

#### 11.1 PREVALENCE OF BREASTFEEDING AND SUPPLEMENTATION

Almost all (97 percent) children born in the five years preceding the survey were breastfed sometime during infancy. The differences in the percentage of children ever breastfed according to background characteristics are negligible (see Table 11.1).

The first breast milk, or colostrum, is beneficial to infants because it contains a high concentration of antibodies that protect children against certain infectious diseases. However, in some places, cultural norms dictate against giving infants colostrum. Results from the IDHS show that the first breast milk was given to 51 percent of last-born children. Slight variations were observed by background characteristics; urban newborns are more likely to receive the first breast milk than rural newborns. The percentage of children receiving colostrum in Java-Bali was 50 percent, which was lower than Outer Java-Bali I (52 percent) and Outer Java-Bali II (55 percent). Within Java-Bali, the lowest percentage of colostrum feeding was found in East Java (40 percent) and Central Java (49 percent) while the highest is found in Jakarta (68 percent). The percentage of children receiving colostrum increases with mothers' education. Newborns from TBA-assisted deliveries and home deliveries were less likely to get colostrum than other babies.

For children born in the five years preceding the survey who were currently being breastfed, mothers were asked if they had given various types of liquids or solid foods to the child "yesterday" or "last night." Children who are *exclusively* breastfed are defined as receiving breast milk only, while *full* breastfeeding is defined as receiving breast milk and plain water only. The results shown in Table 11.2 indicate that, among newborns less than two months of age, 62 percent were exclusively breastfed. However, this percentage drops off rapidly after the first few months of life: among those age 2-3 months, 45 percent were exclusively breastfed and by age 6-7 months, only 13 percent were exclusively breastfed. A small percentage of infants under 6 months of age were given water only in addition to breast milk, but other supplements are introduced very early; supplements were given to 33 percent of infants under 2 months of age and 51 percent of infants age 2-3 months (see Figure 11.1).

Breastfed children are commonly given supplemental foods or liquids at a very early age in Indonesia. Table 11.3 shows the types of supplements given to these children. Among breastfeeding children age 8-9 months, 57 percent received liquids other than breast milk or other milk and more than 80 percent were given solid or mushy food. Other liquids consisted of water or tea with sugar or honey, or fruit juice; solid foods included premasticated rice and mashed bananas. Milk other than breast milk was given to 11 to 17 percent of breastfeeding children age 2-8 months and more than 20 percent of breastfeeding children age 9 months and over.

**Table 11.1 Initial breastfeeding**

Percentage of all children born in the last five years who were ever breastfed and percentage of last-born children who received colostrum, according to background characteristics, Indonesia 1991

Background characteristic	Among children under five		Among last-born children	
	Ever breastfed	Number of births	Percent received colostrum	Number of births
<b>Sex of child</b>				
Male	96.2	7599	50.3	5862
Female	96.9	6893	51.7	5313
<b>Residence</b>				
Urban	94.6	4205	54.9	3256
Rural	97.3	10288	49.4	7918
<b>Region/Province</b>				
Java-Bali	96.7	8105	49.7	6613
DKI Jakarta	92.8	571	67.7	456
West Java	96.8	3053	52.9	2460
Central Java	97.9	2116	48.5	1688
DI Yogyakarta	95.7	157	60.5	137
East Java	96.3	2040	39.9	1741
Bali	97.9	168	59.4	132
Outer Java-Bali I	96.5	4368	51.7	3106
Outer Java-Bali II	96.0	2020	55.4	1456
<b>Education</b>				
No education	97.0	2114	45.8	1592
Some primary	96.7	5291	45.2	4011
Completed primary	96.8	3944	51.6	3086
Some secondary +	95.7	3143	62.7	2486
<b>Assistance at delivery</b>				
Medically trained	95.0	5092	56.7	4018
Traditional midwife	97.4	8728	47.0	6698
Other or none	97.2	665	58.2	455
<b>Place of delivery</b>				
Health facility	93.5	3031	60.3	2401
At home	97.5	11390	48.4	8728
Other	(91.4)	(48)	(54.3)	35
Total <sup>1</sup>	96.5	14493	51.0	11175

<sup>1</sup>Includes cases with missing information on assistance at delivery and place of delivery.

( ) Based on 25-49 unweighted cases.

**Table 11.2 Breastfeeding status**

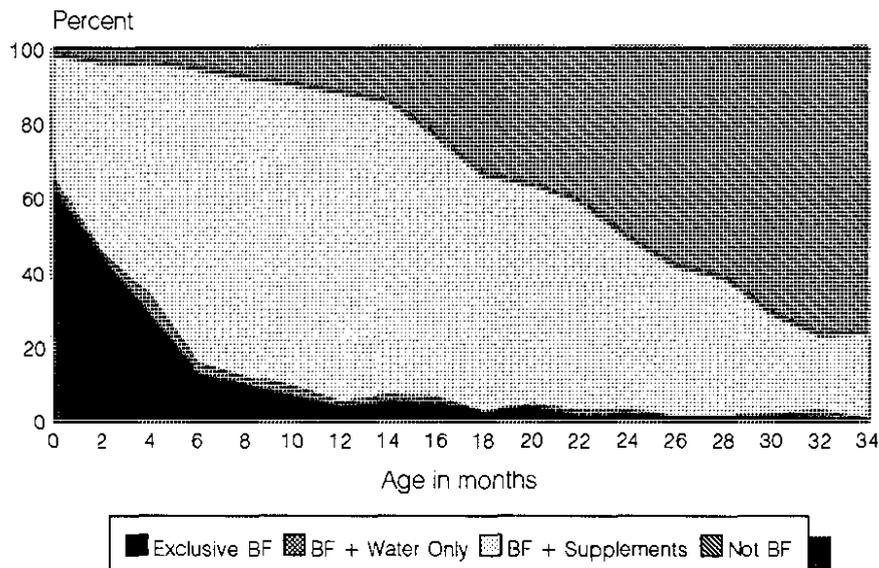
Percent distribution of living children by breastfeeding status, according to child's age in months, Indonesia 1991

Age in months	Percentage of living children who are:				Total	Number of living children
	Not breast-feeding	Exclusively breast-fed	Breastfeeding and:			
			Plain water only	Supplements		
0-1	1.4	62.4	2.7	33.4	100.0	368
2-3	3.4	44.9	1.0	50.7	100.0	486
4-5	3.5	28.9	5.2	62.3	100.0	435
6-7	5.2	12.8	2.7	79.4	100.0	471
8-9	7.5	9.7	2.3	80.6	100.0	555
10-11	9.3	6.5	2.7	81.4	100.0	409
12-13	11.4	3.8	1.2	83.6	100.0	459
14-15	13.7	5.2	1.8	79.2	100.0	468
16-17	23.3	4.6	1.6	70.5	100.0	446
18-19	33.6	2.4	0.1	63.8	100.0	436
20-21	36.4	3.4	1.0	59.1	100.0	457
22-23	40.9	1.4	1.4	56.3	100.0	404
24-25	50.7	1.7	1.1	46.5	100.0	532
26-27	58.1	0.5	0.5	41.0	100.0	554
28-29	61.1	1.3	0.0	37.6	100.0	441
30-31	71.0	1.3	0.3	27.4	100.0	373
32-33	76.7	1.0	1.8	20.5	100.0	356
34-35	76.1	0.2	0.2	23.5	100.0	421

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

Bottles with nipples are used in conjunction with infant formula but also with other types of supplementary foods. Since it is difficult to thoroughly clean feeding bottles, their use is thought to place children at increased risk for developing diarrhea or other diseases. Among breastfeeding newborns age 2-11 months, around 10 to 11 percent were fed using a bottle with a nipple; this percentage declines to 9 percent among children age 12-15 months and drops further to 5 percent among children age two years and over.

Figure 11.1  
Distribution of Children by Breast-feeding (BF) Status According to Age



IDHS 1991

## 11.2 DURATION OF BREASTFEEDING

The overall median duration of breastfeeding is estimated at 23 months, but it differs considerably among subgroups (see Table 11.4). Children who live in rural areas are breastfed about 5 months longer than those who live in urban areas. In Java-Bali, the longest duration of breastfeeding (27 months) is found in West Java, and the shortest duration (16 months) is found in Jakarta. Children whose mothers have some secondary or higher education are breastfed for only 18 months, compared to 26 months among those whose mothers have no education.

Children whose mothers had medical assistance at delivery are breastfed for 19 months, on average, compared to children whose mothers were assisted by a traditional birth attendant who are breastfed for 25 months. There is very little difference in duration of breastfeeding by the sex of the child.

The duration of exclusive and full breastfeeding is very short in Indonesia. On average, children are exclusively breastfed for about 2 months and this duration varies little between subgroups. The median duration of full breastfeeding is also 2 months.

**Table 11.3 Breastfeeding and supplementation by age**

Percentage of breastfeeding children who are receiving specific types of food supplementation, and the percentage who are using a bottle with a nipple, by age in months, Indonesia 1991

Age in months	Percentage of breastfeeding children who are:				Number of children
	Receiving supplement			Using a bottle with a nipple	
	Other milk	Other liquid	Solid/Mushy		
0-1	4.8	12.1	21.6	3.9	368
2-3	13.0	17.7	43.5	10.4	486
4-5	11.3	25.6	58.4	11.0	435
6-7	17.5	49.3	77.6	11.3	471
8-9	15.5	57.0	84.4	7.4	555
10-11	24.0	56.6	84.5	11.3	409
12-13	21.1	65.8	87.6	8.7	459
14-15	21.8	66.4	85.8	8.8	468
16-17	18.8	66.9	84.8	7.4	446
18-19	16.3	67.2	93.4	7.6	436
20-21	24.0	67.7	89.1	7.3	457
22-23	21.8	76.9	89.5	4.6	404
24-25	21.4	62.0	89.7	5.9	532
26-27	20.7	62.6	91.0	8.8	554
28-29	15.9	78.3	90.7	3.0	441
30-31	15.1	65.1	92.3	3.3	373
32-33	17.3	67.5	86.1	12.5	356
34-35	19.3	70.8	92.2	5.4	421

Note: Breastfeeding status refers to preceding 24 hours. Percents by type of supplement among breastfeeding children may sum to more than 100% as child may have received more than one type of supplement.

In addition to the length of time mothers breastfeed, the frequency with which they breastfeed contributes to the duration of postpartum amenorrhea. The child's health and nutritional status are also affected by the frequency of breastfeeding. Most young children in Indonesia are breastfed frequently. Approximately 90 percent of children under six months of age were breastfed six or more times in the 24 hours preceding the survey. The percentage of children breastfed frequently was 85 percent in urban areas and 92 percent in rural areas. The percentage of children breastfed frequently does not show any major variations by region, but in Java-Bali, frequent breastfeeding varies from a low of 84 percent in DKI Jakarta to 97 percent in Central Java (see Table 11.4).

**Table 11.4 Median duration and frequency of breastfeeding**

Median duration of any breastfeeding, exclusive breastfeeding, and full breastfeeding, and the percentage of children under six months of age who were breastfed six or more times in the 24 hours preceding the survey, by selected background characteristics, Indonesia 1991

Background characteristic	Median duration in months			Number of children	Children under 6 months	
	Any breast-feeding	Exclusive breast-feeding	Full breast-feeding <sup>1</sup>		Percentage breastfed 6+ times in preceding 24 hours	Number of children
<b>Residence</b>						
Urban	18.8	1.3	1.7	2526	84.7	369
Rural	24.0	2.0	2.3	6152	92.3	919
<b>Region/Province</b>						
Java-Bali	25.0	0.8	1.3	4835	90.2	717
DKI Jakarta	15.6	1.5	2.1	353	83.9	52
West Java	27.2	0.7	0.7	1867	84.8	281
Central Java	24.7	1.9	2.3	1254	97.0	186
DI Yogyakarta	24.2	1.6	1.6	96	(91.5)	14
East Java	24.1	0.7	0.7	1166	93.0	171
Bali	23.8	0.8	0.8	99	(94.8)	12
Outer Java-Bali I	20.4	2.4	2.8	2626	89.9	393
Outer Java-Bali II	21.0	2.6	2.8	1218	90.7	178
<b>Education</b>						
No education	25.5	1.6	1.9	1175	87.9	163
Some primary	24.5	1.7	2.1	3092	90.2	471
Completed primary	23.4	2.0	2.2	2372	93.3	336
Some secondary +	17.7	1.9	2.2	2039	87.9	319
<b>Assistance at delivery</b>						
Medically trained	19.2	1.7	2.1	3101	86.7	471
Traditional midwife	24.8	1.8	2.0	5169	91.8	767
Other or none	21.3	3.1	3.3	406	97.8	50
<b>Sex of child</b>						
Male	23.6	1.9	2.2	4456	91.2	685
Female	22.9	1.7	2.0	4223	89.0	603
<b>Total<sup>2</sup></b>	<b>23.3</b>	<b>1.8</b>	<b>2.1</b>	<b>8679</b>	<b>90.2</b>	<b>1288</b>
<b>Mean<sup>2</sup></b>	<b>23.0</b>	<b>4.2</b>	<b>4.7</b>	<b>96.5</b>	<b>NA</b>	<b>NA</b>
<b>Prevalence/Incidence<sup>2</sup></b>	<b>22.5</b>	<b>3.4</b>	<b>3.9</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

Note: Medians and means are based on current status.

<sup>1</sup>Either exclusively breastfed or received plain water only in addition to breastfeeding.

<sup>2</sup>Includes cases with missing information on assistance at delivery.

( ) Based on 25-49 cases

NA = Not applicable

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**APPENDIX A**  
**SURVEY DESIGN**



## APPENDIX A

### SURVEY DESIGN

The main objective of the Indonesia Demographic and Health Survey (IDHS) is to provide data concerning fertility, family planning, and maternal and child health that can be used by program managers and policymakers to evaluate and improve existing programs. The survey is a follow-on to the National Indonesia Contraceptive Prevalence Survey.

#### A.1 SAMPLE DESIGN AND IMPLEMENTATION

Indonesia is divided into 27 provinces. For the implementation of its family planning program, the National Family Planning Coordinating Board (BKKBN) has divided these provinces into three regions as follows:

**Java-Bali:** Jakarta, West Java, Central Java, Yogyakarta, East Java, and Bali

**Outer Java-Bali I:** Aceh, North Sumatra, West Sumatra, South Sumatra, Lampung, West Kalimantan, South Kalimantan, North Sulawesi, South Sulawesi, and West Nusa Tenggara

**Outer Java-Bali II:** Riau, Jambi, Bengkulu, East Nusa Tenggara, East Timor, Central Kalimantan, East Kalimantan, Central Sulawesi, Southeast Sulawesi, Maluku, and Irian Jaya.

The 1990 Population Census of Indonesia shows that Java-Bali contains about 62 percent of the national population, while Outer Java-Bali I contains 27 percent and Outer Java-Bali II contains 11 percent. The sample for the Indonesia DHS survey was designed to produce reliable estimates of contraceptive prevalence and several other major survey variables for each of the 27 provinces and for urban and rural areas of the three regions.

In order to accomplish this goal, approximately 1500 to 2000 households were selected in each of the provinces in Java-Bali, 1000 households in each of the ten provinces in Outer Java-Bali I, and 500 households in each of the 11 provinces in Outer Java-Bali II for a total of 28,000 households. With an average of 0.8 eligible women (ever-married women age 15-49) per selected household, the 28,000 households were expected to yield approximately 23,000 individual interviews.

The IDHS sample is drawn from the 1990 Population Census 5 Percent Sample. In most provinces, a two-stage sampling procedure was employed. First, enumeration areas (EAs or *wilcah*) were selected with probability proportional to size within urban and rural domains in each province. In the second stage, individual households were selected from the household listings for each EA. In Java-Bali and Outer Java-Bali I, 25 households were selected in each EA. In Outer Java-Bali II, 20 households were selected in each EA. In the six most remote and logistically difficult provinces (East Timor, Irian Jaya, Maluku, East Nusa Tenggara, Central Kalimantan, East Kalimantan), a three-stage procedure was used. First, regencies (*kabupaten*) were selected. Next, within regencies, EAs and then households were selected. This procedure has the effect of concentrating the sample and reducing the level of effort required during fieldwork.

Since the sample was designed to produce estimates at the provincial level, the number of households selected in each province was nonproportional at the national level. Specifically, households in the Outer Islands were oversampled. The results presented in this report are based on data which are weighted to take account of differential sampling probabilities and nonresponse at both the household and individual level. The weights are used to produce estimates which are representative at the appropriate level of aggregation (e.g., provincial, regional, national).

Results of the sample implementation by province and in urban and rural domains are shown in Tables A.1 and A.2. As shown in Table A.1, 28,141 households were visited by IDHS interviewers. Of these, 95.4 percent yielded complete interviews, 2 percent were found vacant, 1 percent were absent, and the remainder were not interviewed for other reasons. The response rate at the household level (see Table A.1 for definition) is 99 percent. In the interviewed household, 23,470 eligible women were found (see Table A.2). Of these, 98 percent (22,909 women) were successfully interviewed.

Table A.1 Sample implementation: results of the household interview

Percent distribution of households in the sample by results of the interview, and household response rates, according to region, province, and urban-rural residence, Indonesia 1991

Region/province	Household completed (C)	Household present but no competent respondent (HP)	Refused (R)	Dwelling not found (DNF)	Household absent (HA)	Dwelling vacant (DV)	Dwelling destroyed (DD)	Other (O)	Total	Number	Household response rate <sup>1</sup> (HRR)
<b>Java-Bali</b>	95.6	0.5	0.2	0.3	1.0	1.7	0.7	0.0	100.0	10617	98.9
DKI Jakarta	91.9	0.1	0.5	1.6	0.9	3.5	1.4	0.0	100.0	2038	97.6
West Java	93.2	1.1	0.2	0.2	2.4	1.6	1.3	0.0	100.0	2077	98.4
Central Java	97.2	0.2	0.0	0.0	1.5	0.9	0.2	0.0	100.0	1714	99.8
DI Yogyakarta	97.3	0.4	0.0	0.0	0.2	1.8	0.3	0.0	100.0	1651	99.6
East Java	98.3	0.5	0.1	0.0	0.3	0.6	0.2	0.1	100.0	1812	99.3
Bali	97.1	0.6	0.1	0.0	0.0	1.8	0.4	0.0	100.0	1325	99.3
<b>Outer Java-Bali I</b>	95.0	0.8	0.0	0.1	1.5	2.2	0.3	0.0	100.0	12017	99.0
DI Aceh	92.2	0.3	0.0	0.3	0.6	6.6	0.0	0.0	100.0	1000	99.4
North Sumatra	97.3	0.6	0.1	0.1	0.0	1.9	0.1	0.0	100.0	1511	99.3
West Sumatra	96.2	0.1	0.0	0.1	0.5	3.0	0.1	0.0	100.0	1251	99.8
South Sumatra	94.2	3.0	0.0	0.4	1.0	1.0	0.3	0.0	100.0	1250	96.6
Lampung	94.7	0.2	0.0	0.0	3.6	1.2	0.3	0.0	100.0	1251	99.8
West Nusa Tenggara	97.5	0.2	0.0	0.0	0.1	1.8	0.5	0.0	100.0	1250	99.8
West Kalimantan	95.4	2.8	0.0	0.1	0.0	1.2	0.4	0.1	100.0	999	96.9
South Kalimantan	96.3	0.1	0.0	0.0	0.3	3.1	0.2	0.0	100.0	1006	99.9
North Sulawesi	88.9	0.2	0.0	0.4	8.0	1.7	0.8	0.0	100.0	1000	99.3
South Sulawesi	95.5	0.7	0.0	0.1	1.5	1.5	0.7	0.0	100.0	1499	99.2
<b>Outer Java-Bali II</b>	96.0	0.4	0.0	0.1	1.3	1.9	0.3	0.0	100.0	5507	99.5
Riau	99.0	0.6	0.0	0.0	0.4	0.0	0.0	0.0	100.0	500	99.4
Jambi	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	508	100.0
Bengkulu	93.2	1.0	0.0	0.0	4.2	1.6	0.0	0.0	100.0	500	98.9
East Nusa Tenggara	97.8	1.0	0.0	0.0	0.6	0.2	0.4	0.0	100.0	501	99.0
East Timor	98.8	0.0	0.2	0.2	0.0	0.6	0.2	0.0	100.0	499	99.6
Central Kalimantan	94.2	1.2	0.0	0.4	0.8	3.2	0.2	0.0	100.0	500	98.3
East Kalimantan	91.2	0.4	0.0	0.4	3.2	3.8	0.8	0.2	100.0	500	98.9
Central Sulawesi	95.6	0.0	0.0	0.0	1.0	3.4	0.0	0.0	100.0	501	100.0
Southeast Sulawesi	92.8	0.0	0.0	0.0	0.8	5.0	1.4	0.0	100.0	500	100.0
Maluku	96.6	0.0	0.0	0.0	3.2	0.2	0.0	0.0	100.0	500	100.0
Irian Jaya	97.0	0.0	0.0	0.2	0.0	2.8	0.0	0.0	100.0	498	99.8
<b>Residence</b>											
Urban	94.4	0.5	0.2	0.5	1.1	2.6	0.7	0.0	100.0	8911	98.7
Rural	95.9	0.6	0.0	0.1	1.3	1.7	0.3	0.0	100.0	19230	99.2
<b>Total</b>	95.4	0.6	0.1	0.2	1.2	2.0	0.5	0.0	100.0	28141	99.1

<sup>1</sup>The household response rate is calculated as:

$$\text{HRR} = \frac{C}{C + \text{HP} + R + \text{DNF}}$$

Table A.2 Sample implementation: results of the individual interview

Percent distribution of eligible women in the sample by results of the interview, and response rates for eligible women and overall response rates, according to region, province, and urban-rural residence, Indonesia 1991

Region/province	Completed (C)	Not at home (NH)	Post-poned (PP)	Refused (R)	Partly completed (PC)	Other (O)	Total	Number	Eligible women response rate <sup>1</sup> (EWRR)	Overall response rate <sup>2</sup> (ORR)
<b>Java-Bali</b>	96.2	3.5	0.0	0.1	0.1	0.1	100.0	8622	96.2	95.2
DKI Jakarta	99.3	0.5	0.0	0.2	0.0	0.0	100.0	1825	99.3	97.0
West Java	91.3	8.4	0.0	0.1	0.1	0.1	100.0	1736	91.3	89.8
Central Java	94.6	5.2	0.0	0.1	0.0	0.1	100.0	1448	94.6	94.4
DI Yogyakarta	99.0	0.5	0.0	0.0	0.1	0.5	100.0	1077	99.0	98.6
East Java	96.7	3.0	0.1	0.0	0.1	0.1	100.0	1519	96.7	96.1
Bali	97.6	2.4	0.0	0.0	0.0	0.0	100.0	1017	97.6	97.0
<b>Outer Java-Bali I</b>	98.5	1.4	0.0	0.0	0.0	0.1	100.0	9911	98.5	97.5
DI Aceh	97.0	2.9	0.0	0.0	0.0	0.1	100.0	732	97.0	96.4
North Sumatra	98.4	1.5	0.0	0.0	0.1	0.0	100.0	1213	98.4	97.7
West Sumatra	99.1	0.8	0.0	0.0	0.1	0.0	100.0	1009	99.1	98.9
South Sumatra	99.2	0.7	0.0	0.0	0.2	0.0	100.0	1194	99.2	95.7
Lampung	98.7	1.3	0.0	0.0	0.0	0.0	100.0	1030	98.7	98.6
West Nusa Tenggara	99.7	0.2	0.0	0.0	0.0	0.1	100.0	989	99.7	99.5
West Kalimantan	98.0	2.0	0.0	0.0	0.0	0.0	100.0	892	98.0	95.0
South Kalimantan	100.0	0.0	0.0	0.0	0.0	0.0	100.0	935	100.0	99.9
North Sulawesi	98.1	1.9	0.0	0.0	0.0	0.0	100.0	681	98.1	97.4
South Sulawesi	96.4	3.2	0.0	0.0	0.0	0.4	100.0	1236	96.4	95.6
<b>Outer Java-Bali II</b>	98.3	1.6	0.0	0.1	0.0	0.0	100.0	4937	98.3	97.8
Riau	98.8	0.6	0.0	0.4	0.2	0.0	100.0	497	98.8	98.2
Jambi	99.8	0.2	0.0	0.0	0.0	0.0	100.0	475	99.8	99.8
Bengkulu	95.5	4.5	0.0	0.0	0.0	0.0	100.0	404	95.5	94.5
East Nusa Tenggara	100.0	0.0	0.0	0.0	0.0	0.0	100.0	472	100.0	99.0
East Timor	98.3	1.5	0.0	0.2	0.0	0.0	100.0	475	98.3	97.9
Central Kalimantan	99.8	0.2	0.0	0.0	0.0	0.0	100.0	435	99.8	98.1
East Kalimantan	95.6	4.4	0.0	0.0	0.0	0.0	100.0	435	95.6	94.6
Central Sulawesi	99.5	0.5	0.0	0.0	0.0	0.0	100.0	436	99.5	99.5
Southeast Sulawesi	93.0	7.0	0.0	0.0	0.0	0.0	100.0	369	93.0	93.0
Maluku	100.0	0.0	0.0	0.0	0.0	0.0	100.0	477	100.0	100.0
Irian Jaya	99.4	0.6	0.0	0.0	0.0	0.0	100.0	462	99.4	99.1
<b>Residence</b>										
Urban	97.5	2.3	0.0	0.1	0.1	0.1	100.0	7233	97.5	96.3
Rural	97.7	2.2	0.0	0.0	0.0	0.1	100.0	16237	97.7	96.9
<b>Total</b>	97.6	2.2	0.0	0.0	0.0	0.1	100.0	23470	97.6	96.7

<sup>1</sup>The eligible woman response rate is calculated as:

$$EWRR = \frac{C}{C + NH + PP + R + PC}$$

<sup>2</sup>The overall response rate is calculated as:

$$ORR = HRR \times EWRR$$

## **A.2 PRETEST**

The pretest for the IDHS was held in May 1990 in three provinces—Jambi, West Java, and East Nusa Tenggara (NTT). In each location, seven persons were trained to form a team consisting of one field manager, one supervisor, one field editor, and four interviewers. The Chief of the Social and Population Statistics Division in each Provincial Statistical Office (PSO) performed the function of field manager and was responsible for carrying out the pretest activities in his province. All of the interviewers in Jambi and West Java and one in NTT were drawn from the PSO staff. The pretest training lasted for two weeks.

For the pretest fieldwork, 100 individual interviews were conducted in urban and rural areas of the three provinces. During the fieldwork, several errors in the questionnaire were identified. These were mainly skip and filter errors which were easily corrected. It was also discovered that the translations of some of the questions into Bahasa Indonesia were incorrect or misleading. These translation problems were discussed among the survey organizers and corrected.

## **A.3 FIELD STAFF TRAINING**

The training of the more than 250 field staff for the IDHS took place at nine training centers throughout Indonesia. Prior to the training of field staff for the main survey, however, a course was held in order to prepare those who were to serve as instructors at the training centers, those who were responsible for coordination of field activities at the provincial level, and data processing staff. This course took place in Bogor, West Java in April 1991 and was attended by 41 persons including provincial level staff and staff from Central Bureau of Statistics (CBS) headquarters. Instructors for this course were the survey organizers who had previously conducted training for the pretest held in May 1990. The course was identical to the interviewer's training course normally given for DHS surveys, although no field practice was included. In addition, logistical and administrative matters, and issues related to sample implementation were covered.

Since the CBS was occupied with activities related to the October 1990 Census, the main fieldwork for the IDHS was scheduled to take place May-August 1991. Training for the main survey was held in May 1991 in nine locations—Medan, Palembang, Jakarta, Semarang, Surabaya, Kupang, Banjarmasin, Ujung Pandang, and Ambon. The training course lasted 15 working days and covered how to locate selected households, how to conduct interviews, and how to fill in control forms. Classroom lectures on the purpose of the questions, how to ask them, and how to record answers, were followed by mock interviews and finally by practice interviews in the field.

## **A.4 FIELDWORK**

The IDHS data collection was carried out by 178 interviewers, 56 field supervisors, and 34 field editors. Each of the 56 teams consisted of two to four interviewers, one field editor, and one supervisor. As in the 1987 NICPS, the number of interviewers in a team was determined by the number of enumeration areas selected in the respective province, and due to the sensitive nature of the questions asked in the survey, female interviewers were used. For logistical and security reasons, all of the field supervisors were male. The teams worked together in each EA until it was completed and then moved on to the next EA. The teams used public transportation to move between sample points. Provincial statistical office staff and CBS headquarters staff made periodic visits to the field to monitor the work. Fieldwork began in May and was completed in July 1991.

## **A.5 DATA PROCESSING**

The first stage of data editing was done by the field editors who checked the completed questionnaires for completeness and accuracy. Field supervisors also checked the questionnaires. They were then sent to the central office in Jakarta where they were edited again and open-ended questions were coded.

The data were processed using 11 microcomputers and ISSA (Integrated System for Survey Analysis). Data entry and editing were initiated almost immediately after the beginning of fieldwork. Simple range and skip errors were corrected at the data entry stage. Secondary machine editing of the data was initiated as soon as sufficient questionnaires had been entered. The objective of the secondary editing was to detect and correct, if possible, inconsistencies in the data. All of the data were entered and edited by September 1991. A brief report containing preliminary survey results was published in November 1991.



**APPENDIX B**

**ESTIMATES OF SAMPLING ERRORS**



## APPENDIX B

### ESTIMATES OF SAMPLING ERRORS

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

Sampling errors, on the other hand, can be measured statistically. The sample of women selected in the IDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each one would have yielded results that differed somewhat from the actual sample selected. The sampling error is a measure of the variability between all possible samples; although it is not known exactly, it can be estimated from the survey results. Sampling error is usually measured in terms of *standard error* of a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which one can reasonably be assured that, apart from nonsampling errors, the true value of the variable for the whole population falls. For example, for any given statistic calculated from a sample survey, the value of that same statistic as measured in 95 percent of all possible samples with the same design (and expected size) will fall within a range of plus or minus two times the standard error of that statistic.

If the sample of women had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the IDHS sample design depended on stratification, stages and clusters. Consequently, it was necessary to utilize more complex formulas. The computer package CLUSTERS, developed by the International Statistical Institute for the World Fertility Survey, was used to assist in computing the sampling errors with the proper statistical methodology.

The CLUSTERS package 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:

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

in which

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

where	<p><math>h</math> represents the stratum which varies from 1 to H,</p> <p><math>m_h</math> is the total number of EAs selected in the <math>h^{\text{th}}</math> stratum,</p> <p><math>y_{hi}</math> is the sum of the values of variable <math>y</math> in EA <math>i</math> in the <math>h^{\text{th}}</math> stratum,</p> <p><math>x_{hi}</math> is the sum of the number of cases (women) in EA <math>i</math> in the <math>h^{\text{th}}</math> stratum, and</p> <p><math>f</math> is the overall sampling fraction, which is so small that CLUSTERS ignores it.</p>
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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 B.2.1-B.2.15 for variables considered to be of major interest. Results are presented for the whole country, for urban and rural areas, and regions. For each variable, the type of statistic (mean or proportion) and the base population are given in Table B.1. For each variable, Tables B.2.1-B.2.15 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted cases (WN), the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits ( $R \pm 2SE$ ) for each variable.

The confidence limits have the following interpretation. For the mean number of children ever born (CEB), the overall average from the sample is 3.138 and its standard error is .024. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., ( $3.138 \pm (2 \times .024)$ ), which means that there is a high probability (95 percent) that the *true* average number of children ever born falls within the interval of 3.091 and 3.185.

The relative standard error for most estimates for the country as a whole is small, except for estimates of very small proportions. The magnitude of the error increases as estimates for subpopulations such as regions are considered. For the variable CEB, for instance, the relative standard error (as a percentage of the estimated mean) for the whole country and Java-Bali, Outer Java-Bali I, and Outer Java-Bali II is, respectively, (0.8 percent, 1.2 percent, 0.8 percent and 1.5 percent). This means that the survey can provide estimates of CEB with a margin of uncertainty (at the 95 percent confidence level) of plus or minus 1.6 percent, 2.4 percent, 1.6 percent, and 3.0 percent, respectively, for these four domains.

**Table B.1 List of selected variables for sampling errors, Indonesia 1991**

<b>VARIABLE</b>		<b>ESTIMATE</b>	<b>BASE POPULATION</b>
URBAN	Urban	Proportion	Ever-married women
NOEDUC	No education	Proportion	Ever-married women
SECOND	Secondary education or higher	Proportion	Ever-married women
EVBORN	Children ever born	Mean	Currently married women
EVB40	Children ever born to women over 40	Mean	Currently married women age 40-49
SURVIV	Children surviving	Mean	Currently married women
KMETHO	Knowing any contraceptive method	Proportion	Currently married women
KSOURC	Knowing source for any method	Proportion	Currently married women
EVUSE	Ever used any contraceptive method	Proportion	Currently married women
CUSING	Currently using any method	Proportion	Currently married women
CUMOD	Currently using a modern method	Proportion	Currently married women
CUPILL	Currently using pill	Proportion	Currently married women
CUIUD	Currently using IUD	Proportion	Currently married women
CUINJ	Currently using injection	Proportion	Currently married women
CUSTER	Currently using female sterilization	Proportion	Currently married women
PSOURC	Using public sector source	Proportion	Current users of modern methods
NOMORE	Want no more children	Proportion	Currently married women
DELAY	Want to delay at least 2 years	Proportion	Currently married women
IDEAL	Ideal number of children	Mean	Ever-married women
ANTCAR	Mothers received antenatal care	Proportion	Births in last 5 years
TETANU	Mothers received tetanus injection	Proportion	Births in last 5 years
MEDELI	Received medical care at birth	Proportion	Births in last 5 years
BCG12	Received BCG vaccination	Proportion	Children 12-23 months
POL12	Received polio vaccination (3rd dose)	Proportion	Children 12-23 months
DPT12	Received DPT vaccination (3rd dose)	Proportion	Children 12-23 months
MEAS12	Received measles vaccination	Proportion	Children 12-23 months
FULVAC	Fully immunized	Proportion	Children 12-23 months
NOVACC	No vaccinations	Proportion	Children 12-23 months
HCARD	Health card shown	Proportion	Children 12-23 months
RESPIR	Had cough with fast breathing in last 2 weeks	Proportion	Children under 5
FEVER	Had fever in last 2 weeks	Proportion	Children under 5
DIARR2	Had diarrhea in last 2 weeks	Proportion	Children under 5
DIARR1	Had diarrhea in last 24 hours	Proportion	Children under 5
ORSTRE	Treated with ORS packets	Proportion	Children under 5 with diarrhea in last 2 weeks
MEDTRE	Consulted a medical facility	Proportion	Children under 5 with diarrhea in last 2 weeks

Table B.2.1 Sampling errors for entire sample, Indonesia 1991

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.292	.003	22909	22909.0	.943	.010	.286	.298
NOEDUC	.191	.006	22909	22909.0	2.278	.031	.180	.203
SECOND	.200	.006	22909	22909.0	2.277	.030	.188	.212
EVBORN	3.138	.024	21187	21109.0	1.471	.008	3.091	3.185
EVB40	5.127	.066	4665	4612.8	1.663	.013	4.995	5.259
SURVIV	2.732	.021	21187	21109.0	1.538	.008	2.690	2.775
KMETHO	.946	.003	21187	21109.0	2.178	.004	.940	.953
KSOURC	.929	.004	21187	21109.0	2.078	.004	.922	.937
EVUSE	.693	.006	21187	21109.0	1.772	.008	.681	.704
CUSING	.497	.007	21187	21109.0	1.952	.013	.483	.510
CUMOD	.471	.007	21187	21109.0	1.996	.015	.457	.484
CUPILL	.148	.004	21187	21109.0	1.749	.029	.140	.157
CUIUD	.133	.005	21187	21109.0	2.165	.038	.123	.143
CUINJ	.117	.004	21187	21109.0	1.882	.035	.109	.126
CUSTER	.027	.002	21187	21109.0	1.480	.061	.024	.030
PSOURC	.758	.007	9609	9935.2	1.704	.010	.743	.773
NOMORE	.504	.005	21187	21109.0	1.562	.011	.494	.515
DELAY	.251	.005	21187	21109.0	1.543	.018	.241	.260
IDEAL	3.100	.016	19342	19326.8	1.558	.005	3.068	3.131
ANTCAR	.797	.008	15568	14354.6	1.994	.010	.781	.814
TETANU	.572	.009	15568	14354.6	1.837	.016	.554	.590
MEDELI	.317	.008	15568	14354.6	1.841	.027	.300	.333
BCG12	.736	.012	2915	2670.4	1.351	.016	.713	.759
POL12	.561	.014	2915	2670.4	1.485	.026	.533	.590
DPT12	.558	.014	2915	2670.4	1.486	.026	.529	.586
MEAS12	.575	.013	2915	2670.4	1.379	.023	.549	.602
FULVAC	.483	.014	2915	2670.4	1.460	.029	.455	.512
NOVACC	.240	.012	2915	2670.4	1.422	.049	.216	.263
HCARD	.352	.014	2915	2670.4	1.525	.040	.324	.380
RESPIR	.098	.004	14393	13259.9	1.391	.039	.090	.106
FEVER	.269	.006	14393	13259.9	1.473	.022	.257	.281
DIARR2	.111	.004	14393	13259.9	1.558	.040	.102	.120
DIARR1	.041	.003	14393	13259.9	1.397	.061	.036	.046
ORSTRE	.432	.018	1407	1473.3	1.334	.041	.397	.468
MEDTRE	.601	.020	1407	1473.3	1.491	.033	.562	.640

Table B.2.2 Sampling errors for urban areas, Indonesia 1991

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	1.000	.000	7051	6691.5	.000	.000	1.000	1.000
NOEDUC	.095	.006	7051	6691.5	1.844	.068	.082	.107
SECOND	.413	.016	7051	6691.5	2.802	.040	.381	.446
EVBORN	3.090	.032	6458	6120.3	1.144	.010	3.026	3.154
EVB40	4.979	.102	1388	1294.5	1.413	.021	4.775	5.184
SURVIV	2.769	.027	6458	6120.3	1.119	.010	2.714	2.824
KMETHO	.979	.004	6458	6120.3	2.310	.004	.971	.987
KSOURC	.967	.004	6458	6120.3	1.959	.004	.959	.976
EVUSE	.754	.009	6458	6120.3	1.664	.012	.736	.772
CUSING	.557	.010	6458	6120.3	1.685	.019	.536	.578
CUMOD	.511	.010	6458	6120.3	1.649	.020	.491	.532
CUPILL	.138	.006	6458	6120.3	1.468	.046	.126	.151
CUIUD	.142	.008	6458	6120.3	1.742	.053	.127	.158
CUINJ	.144	.006	6458	6120.3	1.469	.045	.131	.157
CUSTER	.052	.004	6458	6120.3	1.472	.078	.044	.060
PSOURC	.575	.015	3251	3127.6	1.734	.026	.544	.605
NOMORE	.529	.009	6458	6120.3	1.437	.017	.511	.547
DELAY	.222	.008	6458	6120.3	1.492	.035	.207	.238
IDEAL	2.983	.027	6284	5912.8	1.576	.009	2.928	3.037
ANTCAR	.935	.012	4421	4163.4	2.576	.012	.912	.959
TETANU	.709	.014	4421	4163.4	1.717	.019	.681	.736
MEDELI	.646	.020	4421	4163.4	2.370	.031	.606	.687
BCG12	.862	.016	876	821.4	1.338	.018	.831	.894
POL12	.739	.024	876	821.4	1.592	.032	.692	.787
DPT12	.738	.024	876	821.4	1.590	.032	.691	.786
MEAS12	.740	.020	876	821.4	1.370	.028	.699	.781
FULVAC	.652	.025	876	821.4	1.542	.038	.601	.702
NOVACC	.114	.013	876	821.4	1.244	.118	.087	.141
HCARD	.427	.021	876	821.4	1.228	.048	.386	.469
RESPIR	.089	.007	4180	3917.8	1.565	.082	.075	.104
FEVER	.263	.011	4180	3917.8	1.571	.042	.241	.286
DIARR2	.120	.008	4180	3917.8	1.540	.067	.104	.136
DIARR1	.040	.005	4180	3917.8	1.585	.129	.030	.050
ORSTRE	.415	.024	397	469.2	1.088	.059	.366	.464
MEDTRE	.680	.029	397	469.2	1.377	.043	.621	.738

Table B.2.3 Sampling errors for rural areas, Indonesia 1991

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.000	.000	15858	16217.5	.000	.000	.000	.000
NOEDUC	.231	.008	15858	16217.5	2.366	.034	.216	.247
SECOND	.112	.005	15858	16217.5	1.956	.044	.102	.122
EVBORN	3.157	.031	14729	14988.6	1.567	.010	3.096	3.218
EVB40	5.184	.083	3277	3318.3	1.740	.016	5.019	5.349
SURVIV	2.718	.027	14729	14988.6	1.662	.010	2.663	2.773
KMETHO	.933	.004	14729	14988.6	2.157	.005	.924	.942
KSOURC	.914	.005	14729	14988.6	2.095	.005	.904	.924
EVUSE	.668	.007	14729	14988.6	1.804	.010	.654	.682
CUSING	.472	.008	14729	14988.6	2.046	.018	.455	.489
CUMOD	.454	.009	14729	14988.6	2.116	.019	.437	.472
CUPILL	.152	.005	14729	14988.6	1.835	.036	.141	.163
CUIUD	.130	.006	14729	14988.6	2.317	.049	.117	.142
CUINJ	.106	.005	14729	14988.6	2.059	.049	.096	.117
CUSTER	.017	.002	14729	14988.6	1.529	.097	.013	.020
PSOURC	.842	.008	6358	6807.6	1.751	.010	.826	.858
NOMORE	.494	.007	14729	14988.6	1.605	.013	.481	.508
DELAY	.262	.006	14729	14988.6	1.554	.021	.251	.273
IDEAL	3.151	.019	13058	13414.0	1.553	.006	3.112	3.190
ANTCAR	.741	.010	11147	10191.2	1.966	.014	.720	.762
TETANU	.516	.011	11147	10191.2	1.905	.022	.494	.539
MEDELI	.182	.008	11147	10191.2	1.765	.044	.166	.198
BCG12	.680	.015	2039	1849.0	1.323	.021	.651	.709
POL12	.482	.017	2039	1849.0	1.459	.036	.448	.517
DPT12	.477	.017	2039	1849.0	1.460	.036	.443	.512
MEAS12	.502	.016	2039	1849.0	1.351	.032	.470	.534
FULVAC	.409	.016	2039	1849.0	1.419	.040	.376	.441
NOVACC	.296	.015	2039	1849.0	1.430	.052	.265	.326
HCARD	.319	.018	2039	1849.0	1.655	.057	.282	.355
RESPIR	.101	.005	10213	9342.1	1.321	.044	.092	.110
FEVER	.272	.007	10213	9342.1	1.435	.026	.258	.286
DIARR2	.107	.005	10213	9342.1	1.567	.049	.097	.118
DIARR1	.041	.003	10213	9342.1	1.313	.069	.036	.047
ORSTRE	.440	.023	1010	1004.1	1.418	.053	.394	.487
MEDTRE	.564	.026	1010	1004.1	1.563	.046	.513	.615

Table B.2.4 Sampling errors for Java-Bali, Indonesia 1991

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.332	.004	8296	14637.3	.823	.013	.323	.340
NOEDUC	.195	.009	8296	14637.3	2.024	.045	.177	.212
SECOND	.187	.009	8296	14637.3	2.014	.046	.170	.204
EVBORN	2.929	.034	7630	13418.6	1.334	.012	2.860	2.997
EVB40	4.866	.097	1738	2942.4	1.516	.020	4.672	5.059
SURVIV	2.526	.031	7630	13418.6	1.413	.012	2.464	2.587
KMETHO	.957	.005	7630	13418.6	2.049	.005	.947	.966
KSOURC	.943	.005	7630	13418.6	1.935	.005	.933	.953
EVUSE	.747	.008	7630	13418.6	1.578	.011	.732	.763
CUSING	.534	.010	7630	13418.6	1.715	.018	.514	.553
CUMOD	.511	.010	7630	13418.6	1.746	.020	.491	.531
CUPILL	.145	.006	7630	13418.6	1.544	.043	.132	.157
CUUD	.161	.008	7630	13418.6	1.802	.047	.146	.176
CUINJ	.130	.006	7630	13418.6	1.625	.048	.117	.142
CUSTER	.029	.002	7630	13418.6	1.243	.082	.024	.034
PSOURC	.745	.010	4125	6857.8	1.462	.013	.725	.765
NOMORE	.527	.008	7630	13418.6	1.387	.015	.511	.543
DELAY	.246	.007	7630	13418.6	1.373	.028	.233	.260
IDEAL	2.778	.022	7299	12488.6	1.549	.008	2.734	2.822
ANTCAR	.836	.013	4440	8028.2	1.994	.015	.811	.862
TETANU	.652	.014	4440	8028.2	1.713	.021	.624	.679
MEDELI	.294	.013	4440	8028.2	1.715	.045	.267	.320
BCG12	.810	.017	852	1498.2	1.245	.021	.776	.844
POL12	.643	.023	852	1498.2	1.365	.035	.597	.688
DPT12	.639	.023	852	1498.2	1.364	.035	.593	.684
MEAS12	.660	.021	852	1498.2	1.255	.031	.619	.701
FULVAC	.563	.022	852	1498.2	1.309	.040	.518	.608
NOVACC	.163	.017	852	1498.2	1.366	.107	.128	.198
HCARD	.437	.023	852	1498.2	1.347	.053	.391	.483
RESPIR	.091	.006	4154	7416.7	1.296	.066	.079	.103
FEVER	.269	.010	4154	7416.7	1.401	.037	.250	.289
DIARR2	.126	.007	4154	7416.7	1.403	.058	.111	.140
DIARR1	.043	.004	4154	7416.7	1.273	.095	.035	.051
ORSTRE	.456	.026	466	932.3	1.172	.056	.405	.508
MEDTRE	.638	.029	466	932.3	1.378	.046	.580	.696

Table B.2.5 Sampling errors for Outer Java-Bali I, Indonesia 1991

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.226	.003	9760	5709.1	.719	.013	.220	.232
NOEDUC	.171	.006	9760	5709.1	1.539	.034	.159	.182
SECOND	.228	.008	9760	5709.1	1.913	.036	.212	.244
EVBORN	3.580	.030	9047	5308.7	1.163	.008	3.520	3.639
EVB40	5.653	.070	2052	1198.6	1.173	.012	5.513	5.792
SURVIV	3.162	.026	9047	5308.7	1.183	.008	3.110	3.215
KMETHO	.936	.005	9047	5308.7	1.810	.005	.927	.945
KSOURC	.915	.005	9047	5308.7	1.824	.006	.904	.926
EVUSE	.599	.008	9047	5308.7	1.610	.014	.582	.615
CUSING	.435	.008	9047	5308.7	1.518	.018	.419	.450
CUMOD	.403	.008	9047	5308.7	1.560	.020	.387	.420
CUPILL	.161	.006	9047	5308.7	1.445	.035	.150	.172
CUJUD	.088	.005	9047	5308.7	1.760	.060	.077	.098
CUINJ	.094	.004	9047	5308.7	1.274	.042	.086	.101
CUSTER	.026	.002	9047	5308.7	1.371	.088	.021	.031
PSOURC	.764	.013	3730	2141.9	1.809	.016	.739	.790
NOMORE	.469	.006	9047	5308.7	1.199	.013	.457	.482
DELAY	.259	.005	9047	5308.7	1.100	.020	.249	.269
IDEAL	3.731	.025	7844	4635.4	1.419	.007	3.681	3.782
ANTCAR	.764	.011	7203	4323.0	1.708	.014	.742	.785
TETANU	.462	.011	7203	4323.0	1.631	.025	.439	.485
MEDELI	.377	.012	7203	4323.0	1.707	.032	.353	.401
BCG12	.616	.018	1323	795.5	1.347	.029	.580	.652
POL12	.423	.017	1323	795.5	1.291	.041	.388	.457
DPT12	.417	.017	1323	795.5	1.297	.042	.382	.452
MEAS12	.422	.017	1323	795.5	1.254	.040	.388	.456
FULVAC	.341	.016	1323	795.5	1.252	.047	.309	.373
NOVACC	.360	.018	1323	795.5	1.336	.049	.325	.395
HCARD	.239	.013	1323	795.5	1.139	.056	.212	.266
RESPIR	.107	.005	6624	3988.9	1.118	.043	.097	.116
FEVER	.262	.006	6624	3988.9	1.050	.023	.250	.275
DIARR2	.096	.004	6624	3988.9	1.176	.046	.087	.105
DIARR1	.043	.003	6624	3988.9	1.173	.072	.037	.049
ORSTRE	.393	.022	642	384.4	1.112	.057	.348	.438
MEDTRE	.539	.023	642	384.4	1.121	.043	.493	.586

Table B.2.6 Sampling errors for Outer Java-Bali II, Indonesia 1991

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.211	.003	4853	2562.6	.580	.016	.204	.218
NOEDUC	.218	.010	4853	2562.6	1.714	.047	.198	.238
SECOND	.210	.012	4853	2562.6	1.990	.055	.187	.234
EVBORN	3.330	.048	4510	2381.7	1.344	.015	3.233	3.426
EVB40	5.417	.118	875	471.8	1.221	.022	5.181	5.653
SURVIV	2.941	.041	4510	2381.7	1.322	.014	2.858	3.023
KMETHO	.910	.008	4510	2381.7	1.855	.009	.894	.926
KSOURC	.885	.008	4510	2381.7	1.696	.009	.869	.902
EVUSE	.595	.012	4510	2381.7	1.704	.021	.570	.620
CUSING	.428	.012	4510	2381.7	1.561	.027	.405	.451
CUMOD	.393	.012	4510	2381.7	1.582	.029	.370	.416
CUPILL	.140	.007	4510	2381.7	1.378	.051	.126	.154
CUIUD	.082	.007	4510	2381.7	1.707	.085	.068	.096
CUINJ	.101	.006	4510	2381.7	1.356	.060	.089	.113
CUSTER	.017	.002	4510	2381.7	1.179	.134	.012	.021
PSOURC	.835	.012	1754	935.5	1.393	.015	.811	.860
NOMORE	.456	.009	4510	2381.7	1.240	.020	.438	.474
DELAY	.256	.009	4510	2381.7	1.353	.034	.238	.274
IDEAL	3.592	.033	4199	2202.9	1.362	.009	3.526	3.659
ANTCAR	.715	.016	3925	2003.5	1.720	.022	.684	.746
TETANU	.492	.019	3925	2003.5	1.927	.038	.454	.529
MEDELI	.277	.013	3925	2003.5	1.476	.046	.251	.302
BCG12	.696	.024	740	376.6	1.404	.035	.647	.744
POL12	.531	.027	740	376.6	1.427	.050	.478	.585
DPT12	.532	.027	740	376.6	1.428	.050	.478	.585
MEAS12	.560	.026	740	376.6	1.385	.046	.508	.611
FULVAC	.468	.026	740	376.6	1.374	.055	.416	.519
NOVACC	.290	.024	740	376.6	1.432	.084	.241	.339
HCARD	.252	.020	740	376.6	1.212	.078	.213	.292
RESPIR	.105	.009	3615	1854.3	1.545	.083	.088	.123
FEVER	.285	.010	3615	1854.3	1.196	.035	.265	.305
DIARR2	.084	.006	3615	1854.3	1.147	.067	.073	.096
DIARR1	.028	.003	3615	1854.3	.938	.098	.023	.034
ORSTRE	.386	.030	299	156.6	1.010	.078	.325	.446
MEDTRE	.533	.031	299	156.6	1.004	.058	.471	.594

Table B.2.7 Sampling errors for Jakarta, Indonesia 1991

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	1.000	.000	1813	1086.0	.000	.000	1.000	1.000
NOEDUC	.068	.008	1813	1086.0	1.415	.123	.052	.085
SECOND	.488	.020	1813	1086.0	1.718	.041	.448	.528
EVBORN	2.876	.077	1624	972.8	1.389	.027	2.721	3.030
EVB40	4.707	.204	355	212.6	1.424	.043	4.300	5.114
SURVIV	2.648	.062	1624	972.8	1.248	.023	2.524	2.772
KMETHO	.998	.001	1624	972.8	.998	.001	.995	.000
KSOURC	.990	.003	1624	972.8	1.058	.003	.985	.995
EVUSE	.725	.015	1624	972.8	1.360	.021	.695	.755
CUSING	.560	.016	1624	972.8	1.284	.028	.529	.592
CUMOD	.518	.015	1624	972.8	1.207	.029	.488	.548
CUPILL	.119	.009	1624	972.8	1.094	.074	.101	.136
CUIUD	.175	.014	1624	972.8	1.519	.082	.146	.204
CUINJ	.127	.010	1624	972.8	1.173	.076	.107	.146
CUSTER	.055	.006	1624	972.8	1.066	.110	.043	.067
PSOURC	.471	.026	841	503.8	1.484	.054	.420	.522
NOMORE	.527	.015	1624	972.8	1.190	.028	.498	.557
DELAY	.202	.012	1624	972.8	1.182	.058	.178	.226
IDEAL	2.792	.037	1615	967.4	1.290	.013	2.718	2.866
ANTCAR	.976	.005	941	563.7	.886	.006	.965	.987
TETANU	.672	.020	941	563.7	1.183	.030	.631	.712
MEDELI	.807	.025	941	563.7	1.720	.032	.756	.858
BCG12	.906	.021	192	115.0	1.020	.024	.863	.949
POL12	.792	.031	192	115.0	1.048	.039	.730	.853
DPT12	.792	.031	192	115.0	1.048	.039	.730	.853
MEAS12	.714	.033	192	115.0	1.004	.046	.648	.779
FULVAC	.651	.033	192	115.0	.964	.051	.584	.718
NOVACC	.089	.021	192	115.0	1.035	.240	.046	.131
HCARD	.234	.037	192	115.0	1.209	.159	.160	.309
RESPIR	.091	.009	900	539.1	.928	.104	.072	.110
FEVER	.206	.013	900	539.1	.952	.064	.179	.232
DIARR2	.081	.008	900	539.1	.914	.102	.065	.098
DIARR1	.029	.005	900	539.1	.952	.183	.018	.039
ORSTRE	.397	.052	73	43.7	.912	.130	.294	.500
MEDTRE	.603	.061	73	43.7	1.064	.102	.480	.726

Table B.2.8 Sampling errors for West Java, Indonesia 1991

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.318	.007	1585	4701.0	.641	.024	.303	.333
NOEDUC	.180	.014	1585	4701.0	1.466	.079	.151	.208
SECOND	.144	.015	1585	4701.0	1.672	.102	.115	.174
EVBORN	3.203	.075	1479	4386.3	1.165	.023	3.053	3.354
EVB40	5.511	.233	290	858.2	1.341	.042	5.045	5.978
SURVIV	2.591	.068	1479	4386.3	1.318	.026	2.456	2.727
KMETHO	.930	.009	1479	4386.3	1.311	.009	.912	.947
KSOURC	.919	.009	1479	4386.3	1.262	.010	.901	.937
EVUSE	.741	.017	1479	4386.3	1.453	.022	.708	.774
CUSING	.510	.019	1479	4386.3	1.431	.036	.473	.548
CUMOD	.497	.019	1479	4386.3	1.452	.038	.459	.535
CUPILL	.177	.011	1479	4386.3	1.144	.064	.155	.200
CUIUD	.075	.009	1479	4386.3	1.390	.127	.056	.094
CUINJ	.190	.015	1479	4386.3	1.439	.077	.160	.219
CUSTER	.012	.004	1479	4386.3	1.349	.321	.004	.019
PSOURC	.767	.018	739	2179.9	1.139	.023	.732	.803
NOMORE	.471	.017	1479	4386.3	1.338	.037	.436	.505
DELAY	.291	.013	1479	4386.3	1.110	.045	.265	.317
IDEAL	2.989	.039	1335	3950.4	1.109	.013	2.910	3.068
ANTCAR	.765	.025	1021	3017.9	1.604	.032	.715	.815
TETANU	.625	.026	1021	3017.9	1.463	.041	.574	.676
MEDELI	.193	.021	1021	3017.9	1.514	.109	.151	.235
BCG12	.758	.034	191	560.1	1.099	.045	.690	.827
POL12	.599	.040	191	560.1	1.129	.067	.518	.679
DPT12	.593	.041	191	560.1	1.146	.069	.511	.675
MEAS12	.609	.041	191	560.1	1.157	.067	.527	.691
FULVAC	.536	.042	191	560.1	1.158	.078	.452	.620
NOVACC	.215	.034	191	560.1	1.123	.156	.148	.283
HCARD	.330	.034	191	560.1	.986	.102	.262	.397
RESPIR	.107	.011	896	2643.5	1.053	.107	.084	.129
FEVER	.330	.017	896	2643.5	1.056	.052	.295	.364
DIARR2	.179	.015	896	2643.5	1.129	.083	.149	.209
DIARR1	.073	.009	896	2643.5	1.035	.128	.054	.092
ORSTRE	.445	.033	163	473.2	.831	.075	.378	.511
MEDTRE	.707	.038	163	473.2	1.070	.054	.630	.784

Table B.2.9 Sampling errors for Central Java, Indonesia 1991

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.236	.009	1370	3708.1	.745	.036	.219	.253
NOEDUC	.229	.016	1370	3708.1	1.442	.072	.196	.261
SECOND	.136	.014	1370	3708.1	1.532	.104	.108	.165
EV BORN	3.039	.063	1231	3331.3	1.018	.021	2.914	3.165
EV B40	4.890	.159	307	831.9	1.141	.033	4.572	5.208
SURVIV	2.723	.058	1231	3331.3	1.056	.021	2.608	2.839
KMETHO	.984	.003	1231	3331.3	.870	.003	.978	.991
KSOURC	.962	.005	1231	3331.3	.958	.005	.952	.973
EVUSE	.727	.013	1231	3331.3	1.036	.018	.701	.753
CUSING	.497	.018	1231	3331.3	1.276	.037	.461	.534
CUMOD	.481	.019	1231	3331.3	1.299	.038	.444	.518
CUPILL	.104	.010	1231	3331.3	1.159	.097	.084	.125
CUIUD	.156	.015	1231	3331.3	1.492	.099	.126	.187
CUINJ	.132	.012	1231	3331.3	1.268	.093	.108	.157
CUSTER	.025	.006	1231	3331.3	1.243	.219	.014	.037
PSOURC	.766	.023	593	1601.9	1.318	.030	.720	.811
NOMORE	.595	.014	1231	3331.3	.999	.024	.567	.623
DELAY	.234	.014	1231	3331.3	1.171	.060	.206	.263
IDEAL	2.902	.057	1108	2995.7	1.393	.020	2.788	3.015
ANTCAR	.845	.020	776	2094.8	1.346	.024	.805	.885
TETANU	.713	.025	776	2094.8	1.362	.035	.663	.763
MEDELI	.224	.025	776	2094.8	1.423	.109	.175	.273
BCG12	.835	.031	154	415.8	1.005	.037	.773	.898
POL12	.619	.050	154	415.8	1.247	.081	.519	.719
DPT12	.612	.049	154	415.8	1.225	.080	.514	.710
MEAS12	.640	.039	154	415.8	.990	.061	.562	.719
FULVAC	.494	.046	154	415.8	1.135	.094	.401	.586
NOVACC	.120	.039	154	415.8	1.408	.323	.042	.197
HCARD	.518	.053	154	415.8	1.305	.103	.411	.624
RESPIR	.076	.011	740	1997.3	1.066	.148	.054	.099
FEVER	.231	.016	740	1997.3	1.020	.071	.198	.264
DIARR2	.102	.012	740	1997.3	1.077	.121	.078	.127
DIARR1	.031	.007	740	1997.3	.997	.213	.018	.044
ORSTRE	.572	.064	76	204.6	1.148	.112	.443	.700
MEDTRE	.579	.058	76	204.6	1.017	.100	.463	.696

Table B.2.10 Sampling errors for Yogyakarta, Indonesia 1991

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.409	.015	1066	328.2	.982	.036	.379	.439
NOEDUC	.180	.016	1066	328.2	1.338	.087	.149	.212
SECOND	.329	.018	1066	328.2	1.274	.056	.293	.366
EVBORN	2.703	.047	998	307.3	.812	.017	2.609	2.798
EVB40	4.411	.135	276	85.1	1.132	.031	4.140	4.682
SURVIV	2.479	.042	998	307.3	.803	.017	2.394	2.564
KMETHO	.992	.003	998	307.3	1.139	.003	.986	.998
KSOURC	.985	.004	998	307.3	1.020	.004	.977	.993
EVUSE	.875	.010	998	307.3	.924	.011	.855	.894
CUSING	.713	.015	998	307.3	1.025	.021	.684	.743
CUMOD	.570	.019	998	307.3	1.220	.034	.532	.608
CUPILL	.082	.010	998	307.3	1.141	.121	.062	.102
CUIUD	.278	.021	998	307.3	1.465	.075	.236	.319
CUINJ	.096	.009	998	307.3	.931	.090	.079	.114
CUSTER	.045	.007	998	307.3	1.083	.158	.031	.059
PSOURC	.744	.022	569	175.2	1.203	.030	.700	.788
NOMORE	.570	.017	998	307.3	1.069	.029	.537	.604
DELAY	.230	.012	998	307.3	.880	.051	.207	.254
IDEAL	2.462	.031	1026	315.9	1.285	.013	2.400	2.524
ANTCAR	.974	.006	510	156.9	.814	.007	.961	.987
TETANU	.878	.021	510	156.9	1.294	.024	.836	.921
MEDELI	.470	.030	510	156.9	1.218	.063	.410	.529
BCG12	.934	.023	107	32.9	.946	.024	.889	.980
POL12	.888	.029	107	32.9	.962	.033	.829	.946
DPT12	.888	.029	107	32.9	.962	.033	.829	.946
MEAS12	.822	.030	107	32.9	.809	.036	.762	.882
FULVAC	.776	.030	107	32.9	.747	.039	.715	.836
NOVACC	.056	.021	107	32.9	.947	.375	.014	.099
HCARD	.598	.051	107	32.9	1.086	.085	.496	.700
RESPIR	.076	.014	488	150.2	1.133	.186	.048	.104
FEVER	.293	.023	488	150.2	1.084	.079	.247	.340
DIARR2	.080	.012	488	150.2	.985	.151	.056	.104
DIARR1	.018	.007	488	150.2	1.097	.361	.005	.032
ORSTRE	.590	.088	39	12.0	1.121	.150	.413	.767
MEDTRE	.820	.069	39	12.0	1.124	.084	.682	.959

Table B.2.11 Sampling errors for East Java, Indonesia 1991

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.266	.008	1469	4500.1	.691	.030	.250	.282
NOEDUC	.206	.020	1469	4500.1	1.924	.099	.165	.247
SECOND	.193	.020	1469	4500.1	1.900	.101	.154	.233
EVBORN	2.580	.054	1344	4119.3	.973	.021	2.473	2.688
EVB40	4.322	.155	288	884.3	1.061	.036	4.012	4.633
SURVIV	2.266	.049	1344	4119.3	1.013	.022	2.169	2.364
KMETHO	.950	.012	1344	4119.3	2.057	.013	.926	.975
KSOURC	.937	.013	1344	4119.3	1.969	.014	.911	.963
EVUSE	.760	.014	1344	4119.3	1.243	.019	.731	.789
CUSING	.554	.020	1344	4119.3	1.443	.035	.515	.594
CUMOD	.530	.020	1344	4119.3	1.483	.038	.490	.571
CUPILL	.160	.014	1344	4119.3	1.376	.086	.133	.188
CUIUD	.223	.018	1344	4119.3	1.564	.080	.187	.258
CUINJ	.069	.007	1344	4119.3	1.077	.108	.054	.084
CUSTER	.039	.004	1344	4119.3	.836	.114	.030	.047
PSOURC	.779	.018	713	2185.3	1.157	.023	.743	.815
NOMORE	.524	.013	1344	4119.3	.987	.026	.498	.551
DELAY	.225	.012	1344	4119.3	1.078	.055	.200	.249
IDEAL	2.522	.034	1296	3968.6	1.267	.013	2.454	2.589
ANTCAR	.877	.026	663	2027.6	1.770	.029	.825	.928
TETANU	.594	.028	663	2027.6	1.327	.047	.539	.650
MEDELI	.329	.029	663	2027.6	1.394	.087	.272	.386
BCG12	.810	.028	113	344.4	.762	.035	.754	.867
POL12	.657	.040	113	344.4	.887	.060	.578	.737
DPT12	.657	.040	113	344.4	.887	.060	.578	.737
MEAS12	.722	.033	113	344.4	.785	.046	.655	.788
FULVAC	.623	.039	113	344.4	.849	.062	.545	.701
NOVACC	.172	.024	113	344.4	.681	.141	.124	.221
HCARD	.560	.053	113	344.4	1.138	.095	.453	.667
RESPIR	.084	.012	631	1928.8	1.069	.147	.059	.108
FEVER	.245	.024	631	1928.8	1.362	.097	.197	.292
DIARR2	.094	.013	631	1928.8	1.135	.141	.067	.120
DIARR1	.019	.005	631	1928.8	.984	.279	.008	.030
ORSTRE	.338	.060	59	180.9	.961	.176	.219	.458
MEDTRE	.522	.076	59	180.9	1.153	.146	.369	.675

Table B.2.12 Sampling errors for Bali, Indonesia 1991

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.234	.010	993	313.9	.731	.042	.214	.254
NOEDUC	.313	.022	993	313.9	1.520	.071	.269	.358
SECOND	.154	.015	993	313.9	1.321	.098	.123	.184
EVBORN	2.882	.061	954	301.6	.971	.021	2.760	3.005
EVB40	4.574	.156	222	70.2	1.005	.034	4.262	4.886
SURVIV	2.574	.057	954	301.6	1.052	.022	2.461	2.688
KMETHO	.970	.007	954	301.6	1.213	.007	.957	.984
KSOURC	.965	.007	954	301.6	1.259	.008	.950	.980
EVUSE	.844	.016	954	301.6	1.338	.019	.812	.875
CUSING	.719	.020	954	301.6	1.382	.028	.678	.759
CUMOD	.702	.022	954	301.6	1.474	.031	.658	.746
CUPILL	.043	.009	954	301.6	1.395	.214	.025	.061
CUIUD	.448	.023	954	301.6	1.422	.051	.402	.493
CUINJ	.099	.011	954	301.6	1.132	.110	.077	.121
CUSTER	.086	.011	954	301.6	1.205	.127	.064	.108
PSOURC	.669	.018	670	211.7	.967	.026	.634	.704
NOMORE	.588	.020	954	301.6	1.233	.033	.549	.627
DELAY	.180	.015	954	301.6	1.199	.083	.150	.210
IDEAL	2.431	.040	919	290.5	1.434	.016	2.352	2.510
ANTCAR	.916	.018	529	167.3	1.129	.019	.881	.952
TETANU	.776	.027	529	167.3	1.247	.035	.722	.831
MEDELI	.665	.031	529	167.3	1.235	.046	.603	.726
BCG12	.915	.044	95	30.0	1.536	.048	.827	1.003
POL12	.788	.068	95	30.0	1.628	.087	.651	.924
DPT12	.788	.068	95	30.0	1.628	.087	.651	.924
MEAS12	.810	.063	95	30.0	1.575	.078	.683	.937
FULVAC	.757	.072	95	30.0	1.635	.095	.613	.901
NOVACC	.085	.044	95	30.0	1.536	.517	-.003	.173
HCARD	.535	.066	95	30.0	1.293	.124	.403	.667
RESPIR	.140	.017	499	157.8	1.106	.124	.106	.175
FEVER	.239	.021	499	157.8	1.043	.086	.198	.280
DIARR2	.113	.020	499	157.8	1.374	.178	.073	.153
DIARR1	.060	.016	499	157.8	1.404	.265	.028	.092
ORSTRE	.696	.064	56	17.8	1.027	.092	.568	.824
MEDTRE	.607	.075	56	17.8	1.089	.123	.457	.756

Table B.2.13 Sampling errors for ages 15-24, Indonesia 1991

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.238	.010	4360	4800.0	1.482	.040	.218	.257
NOEDUC	.070	.007	4360	4800.0	1.687	.093	.057	.083
SECOND	.240	.009	4360	4800.0	1.395	.038	.222	.258
EVBORN	1.125	.020	4132	4539.3	1.423	.018	1.085	1.166
EVB40	.000	.000	0	.0	.000	.000	.000	.000
SURVIV	1.008	.017	4132	4539.3	1.376	.017	.974	1.043
KMETHO	.952	.005	4132	4539.3	1.475	.005	.942	.962
KSOURC	.940	.005	4132	4539.3	1.410	.006	.930	.951
EVUSE	.598	.011	4132	4539.3	1.475	.019	.576	.621
CUSING	.457	.012	4132	4539.3	1.544	.026	.433	.481
CUMOD	.442	.012	4132	4539.3	1.536	.027	.418	.466
CUPILL	.143	.008	4132	4539.3	1.506	.057	.126	.159
CUUD	.090	.008	4132	4539.3	1.715	.085	.075	.105
CUINJ	.173	.010	4132	4539.3	1.742	.059	.153	.194
CUSTER	.001	.000	4132	4539.3	.000	.000	.001	.001
PSOURC	.757	.015	1619	2006.9	1.436	.020	.727	.788
NOMORE	.131	.008	4132	4539.3	1.565	.063	.115	.148
DELAY	.586	.011	4132	4539.3	1.463	.019	.564	.608
IDEAL	2.605	.022	4059	4509.6	1.361	.008	2.562	2.649
ANTCAR	.817	.013	4084	4175.1	1.745	.016	.791	.843
TETANU	.607	.015	4084	4175.1	1.655	.025	.576	.637
MEDELI	.268	.012	4084	4175.1	1.404	.044	.245	.292
BCG12	.766	.020	909	922.4	1.372	.026	.726	.807
POL12	.605	.023	909	922.4	1.337	.037	.560	.650
DPT12	.603	.023	909	922.4	1.335	.037	.558	.649
MEAS12	.641	.022	909	922.4	1.338	.035	.597	.686
FULVAC	.548	.022	909	922.4	1.296	.041	.504	.593
NOVACC	.209	.020	909	922.4	1.431	.096	.169	.250
HCARD	.396	.024	909	922.4	1.405	.060	.349	.444
RESPIR	.116	.007	3753	3828.7	1.281	.063	.102	.131
FEVER	.304	.011	3753	3828.7	1.380	.037	.281	.326
DIARR2	.142	.009	3753	3828.7	1.491	.063	.124	.160
DIARR1	.056	.005	3753	3828.7	1.262	.091	.046	.066
ORSTRE	.425	.033	477	544.6	1.461	.078	.359	.491
MEDTRE	.562	.033	477	544.6	1.474	.059	.495	.628

Table B.2.14 Sampling errors for ages 25-34, Indonesia 1991

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.317	.006	9275	9032.2	1.259	.019	.305	.329
NOEDUC	.159	.008	9275	9032.2	2.090	.050	.143	.175
SECOND	.219	.008	9275	9032.2	1.852	.036	.203	.235
EVBORN	2.743	.026	8822	8570.7	1.521	.009	2.692	2.794
EVB40	.000	.000	0	.0	.000	.000	.000	.000
SURVIV	2.432	.021	8822	8570.7	1.422	.009	2.390	2.474
KMETHO	.963	.003	8822	8570.7	1.728	.004	.956	.970
KSOURC	.951	.004	8822	8570.7	1.758	.004	.943	.960
EVUSE	.770	.007	8822	8570.7	1.467	.009	.757	.783
CUSING	.551	.009	8822	8570.7	1.641	.016	.533	.568
CUMOD	.525	.009	8822	8570.7	1.697	.017	.507	.543
CUPILL	.179	.006	8822	8570.7	1.516	.035	.166	.191
CUIUD	.138	.006	8822	8570.7	1.747	.046	.125	.151
CUINJ	.139	.006	8822	8570.7	1.561	.041	.128	.151
CUSTER	.019	.002	8822	8570.7	1.452	.110	.015	.024
PSOURC	.742	.009	4496	4501.3	1.361	.012	.724	.760
NOMORE	.466	.008	8822	8570.7	1.430	.016	.451	.481
DELAY	.274	.007	8822	8570.7	1.392	.024	.261	.287
IDEAL	3.022	.022	8251	8118.3	1.632	.007	2.978	3.067
ANTCAR	.815	.009	8436	7455.1	1.616	.011	.798	.833
TETANU	.586	.010	8436	7455.1	1.483	.017	.567	.606
MEDELI	.353	.010	8436	7455.1	1.578	.029	.332	.374
BCG12	.742	.014	1523	1315.8	1.175	.019	.714	.770
POL12	.569	.018	1523	1315.8	1.333	.032	.532	.605
DPT12	.562	.018	1523	1315.8	1.347	.033	.525	.599
MEAS12	.564	.016	1523	1315.8	1.151	.028	.533	.596
FULVAC	.470	.017	1523	1315.8	1.274	.037	.436	.505
NOVACC	.229	.013	1523	1315.8	1.145	.058	.202	.255
HCARD	.350	.019	1523	1315.8	1.463	.055	.312	.389
RESPIR	.092	.005	7843	6911.6	1.323	.054	.082	.102
FEVER	.258	.007	7843	6911.6	1.319	.028	.244	.273
DIARR2	.099	.005	7843	6911.6	1.434	.054	.088	.109
DIARR1	.036	.003	7843	6911.6	1.311	.085	.030	.042
ORSTRE	.460	.023	685	682.9	1.195	.051	.413	.506
MEDTRE	.630	.026	685	682.9	1.380	.042	.577	.682

Table B.2.15 Sampling errors for ages 35-49, Indonesia 1991

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
URBAN	.296	.006	9274	9076.8	1.326	.021	.284	.309
NOEDUC	.288	.008	9274	9076.8	1.774	.029	.271	.305
SECOND	.160	.007	9274	9076.8	1.954	.046	.145	.175
EVBORN	4.703	.047	8233	7998.9	1.684	.010	4.609	4.796
EVB40	5.127	.066	4665	4612.8	1.663	.013	4.995	5.259
SURVIV	4.033	.040	8233	7998.9	1.699	.010	3.952	4.113
KMETHO	.925	.005	8233	7998.9	1.663	.005	.916	.935
KSOURC	.900	.005	8233	7998.9	1.570	.006	.889	.910
EVUSE	.664	.009	8233	7998.9	1.634	.013	.647	.681
CUSING	.462	.009	8233	7998.9	1.680	.020	.443	.480
CUMOD	.428	.009	8233	7998.9	1.671	.021	.410	.447
CUPILL	.119	.005	8233	7998.9	1.439	.043	.108	.129
CUIUD	.153	.007	8233	7998.9	1.693	.044	.139	.166
CUINJ	.062	.004	8233	7998.9	1.541	.066	.054	.070
CUSTER	.049	.003	8233	7998.9	1.378	.067	.043	.056
PSOURC	.779	.011	3494	3427.0	1.507	.014	.758	.800
NOMORE	.758	.006	8233	7998.9	1.310	.008	.745	.770
DELAY	.035	.002	8233	7998.9	1.149	.067	.030	.040
IDEAL	3.526	.029	7032	6698.9	1.453	.008	3.467	3.584
ANTCAR	.718	.014	3048	2724.5	1.352	.019	.691	.746
TETANU	.481	.014	3048	2724.5	1.322	.030	.452	.509
MEDELI	.290	.014	3048	2724.5	1.421	.049	.261	.318
BCG12	.654	.031	483	432.2	1.377	.048	.591	.717
POL12	.447	.034	483	432.2	1.435	.076	.378	.515
DPT12	.447	.034	483	432.2	1.435	.076	.378	.515
MEAS12	.467	.030	483	432.2	1.267	.065	.406	.527
FULVAC	.384	.032	483	432.2	1.368	.083	.321	.448
NOVACC	.338	.031	483	432.2	1.372	.092	.276	.400
HCARD	.263	.029	483	432.2	1.358	.109	.206	.321
RESPIR	.086	.008	2797	2519.5	1.269	.089	.071	.102
FEVER	.248	.012	2797	2519.5	1.320	.048	.225	.272
DIARR2	.098	.008	2797	2519.5	1.323	.083	.081	.114
DIARR1	.032	.005	2797	2519.5	1.341	.153	.022	.042
ORSTRE	.372	.035	245	245.8	1.141	.094	.302	.442
MEDTRE	.607	.042	245	245.8	1.319	.069	.523	.691

**APPENDIX C**  
**DATA QUALITY TABLES**



Table C.1 Household age distribution

Single-year age distribution of the de jure household population by sex (weighted), Indonesia 1991

Age	Male		Female		Age	Male		Female	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
<1	1500	2.4	1343	2.1	38	643	1.0	671	1.1
1	1338	2.2	1373	2.2	39	477	0.8	514	0.8
2	1391	2.2	1363	2.2	40	1224	2.0	1001	1.6
3	1550	2.5	1326	2.1	41	522	0.8	484	0.8
4	1441	2.3	1300	2.1	42	492	0.8	477	0.8
5	1449	2.3	1383	2.2	43	469	0.8	447	0.7
6	1748	2.8	1515	2.4	44	277	0.4	302	0.5
7	1580	2.6	1570	2.5	45	932	1.5	829	1.3
8	1693	2.7	1620	2.6	46	431	0.7	540	0.9
9	1692	2.7	1567	2.5	47	392	0.6	430	0.7
10	1639	2.6	1670	2.7	48	436	0.7	660	1.1
11	1599	2.6	1557	2.5	49	460	0.7	479	0.8
12	1608	2.6	1463	2.3	50	946	1.5	767	1.2
13	1508	2.4	1387	2.2	51	441	0.7	510	0.8
14	1375	2.2	1457	2.3	52	405	0.7	463	0.7
15	1472	2.4	1491	2.4	53	351	0.6	378	0.6
16	1331	2.2	1331	2.1	54	279	0.5	300	0.5
17	1272	2.1	1419	2.3	55	690	1.1	715	1.1
18	1292	2.1	1359	2.2	56	324	0.5	316	0.5
19	991	1.6	1240	2.0	57	228	0.4	317	0.5
20	1356	2.2	1603	2.6	58	280	0.5	281	0.4
21	1053	1.7	1084	1.7	59	221	0.4	209	0.3
22	933	1.5	1143	1.8	60	748	1.2	776	1.2
23	935	1.5	985	1.6	61	289	0.5	287	0.5
24	765	1.2	924	1.5	62	274	0.4	247	0.4
25	1487	2.4	1524	2.4	63	234	0.4	213	0.3
26	910	1.5	1088	1.7	64	189	0.3	176	0.3
27	997	1.6	1040	1.7	65	413	0.7	457	0.7
28	849	1.4	1019	1.6	66	152	0.2	108	0.2
29	768	1.2	862	1.4	67	157	0.3	175	0.3
30	1479	2.4	1473	2.4	68	127	0.2	92	0.1
31	746	1.2	833	1.3	69	95	0.2	96	0.2
32	909	1.5	876	1.4	70+	1413	2.3	1621	2.6
33	647	1.0	729	1.2	Don't know/ missing	10	0.0	5	0.0
34	590	1.0	664	1.1					
35	1579	2.6	1232	2.0					
36	707	1.1	760	1.2	Total	61880	100.0	62604	100.0
37	676	1.1	685	1.1					

**Table C.2 Age distribution of eligible and interviewed women**

Percent distribution in five-year age groups of the de jure household population of women aged 10-54, of ever-married women and of interviewed women aged 15-49, and percentage of eligible women who were interviewed (weighted), Indonesia 1991

Age	All women	Ever-married women		Interviewed women		Percent interviewed
		Number	Percent	Number	Percent	
10-14	7534	NA	NA	NA	NA	NA
15-19	6841	1340	5.7	1243	5.4	92.8
20-24	5739	3711	15.7	3557	15.5	95.8
25-29	5533	4894	20.7	4788	20.9	97.8
30-34	4575	4362	18.5	4244	18.5	97.3
25-39	3862	3772	16.0	3687	16.1	97.7
40-44	2711	2648	11.2	2583	11.3	97.5
45-49	2938	2892	12.2	2807	12.3	97.1
50-54	2418	NA	NA	NA	NA	NA
15-49	32200	23620	100.0	22909	100.0	97.0

NA = Not applicable

**Table C.3 Completeness of reporting**

Percentage of observations missing information for selected demographic and health questions (weighted), Indonesia 1991

Number	Reference group	Percentage missing information	Number
Birth date	Births in last 15 years		
Month only		13.57	46500
Month and year		0.04	46500
Age at death	Deceased children born in last 15 years	0.09	5105
Age/Date first union <sup>1</sup>	Ever-married women	--	22909
Educational level	Ever-married women	--	22909
Child's size at birth	Births in last 0-59 months	0.56	5373
Diarrhea last 2 weeks	Living children age 1-59 months	0.96	13392

-- Less than 0.05 percent

<sup>1</sup>Both year and age missing

Table C.4 Births by calendar year since birth

Distribution of births by calendar years for living (L), dead (D), and all (T) children, according to reporting completeness, sex ratio at birth, and ratio of births by calendar year (weighted), Indonesia 1991

Calendar year(s)	Number of births			Percentage with complete birth date <sup>1</sup>			Sex ratio at birth <sup>2</sup>			Calendar year ratio <sup>3</sup>		
	L	D	T	L	D	T	L	D	T	L	D	T
1991	1390	62	1452	100.0	100.0	100.0	112.2	49.4	108.5	NA	NA	NA
1990	2791	204	2995	99.8	98.0	99.7	106.5	128.1	107.9	NA	NA	NA
1989	2806	233	3040	99.8	97.8	99.7	103.5	145.4	106.2	102.6	104.5	102.8
1988	2679	242	2921	99.5	95.4	99.2	110.7	109.1	110.6	98.7	95.3	98.4
1987	2623	274	2898	99.7	98.1	99.5	112.6	147.0	115.4	98.7	115.9	100.1
1986	2639	231	2871	99.5	97.0	99.3	107.0	131.6	108.8	92.4	66.9	89.7
1985	3088	417	3505	93.1	68.6	90.2	112.4	99.6	110.8	112.8	135.0	115.1
1984	2834	387	3220	88.3	54.8	84.3	105.5	132.6	108.4	91.5	97.4	92.2
1983	3104	376	3480	86.5	53.3	82.9	105.4	138.5	108.6	104.5	87.3	102.3
1982	3108	475	3584	85.1	50.6	80.5	108.8	119.6	110.2	NA	NA	NA
1987-1991	12290	1016	13306	99.7	97.5	99.6	108.6	124.3	109.7	NA	NA	NA
1982-1986	14773	1887	16659	90.3	61.7	87.0	107.8	122.2	109.4	NA	NA	NA
1977-1981	13557	2029	15586	79.0	45.4	74.6	101.8	122.0	104.2	NA	NA	NA
1972-1976	10479	1876	12355	74.1	37.9	68.6	100.8	118.3	103.2	NA	NA	NA
Prior to 1972	10854	2706	13560	62.2	31.6	56.1	101.5	123.3	105.5	NA	NA	NA
All	61953	9513	71466	82.0	48.8	77.6	104.3	121.9	106.5	NA	NA	NA

NA = Not applicable

<sup>1</sup>Both year and month of birth given

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

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

**Table C.5 Reporting of age at death in days**

Distribution of reported deaths under 1 month of age by age at death in days and the percentage of early neonatal deaths reported to occur at ages 0-6 days, for four five-year periods preceding the survey (weighted), Indonesia 1991

Age at death (days)	Years preceding survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1	100	114	114	108	437
1	83	88	96	55	322
2	16	32	36	23	106
3	26	29	41	40	136
4	15	24	12	24	76
5	16	31	35	41	121
6	13	33	20	22	88
7	71	122	132	131	456
8	10	7	5	14	35
9	12	12	17	15	57
10	23	16	21	10	71
11	3	6	5	11	25
12	9	12	11	6	38
13	2	1	2	1	5
14	9	7	8	10	34
15	11	17	33	22	83
16	1	1	1	3	6
17	3	0	7	4	14
18	3	0	4	1	9
19	1	1	1	1	4
20	10	19	8	8	46
21	3	4	5	1	13
22	0	3	1	4	8
23	0	0	0	2	2
24	0	0	0	1	1
25	9	4	8	2	23
26	0	1	4	0	5
27	1	0	5	0	6
28	3	2	2	2	9
29	0	1	1	0	3
30	2	12	10	8	32
Missing	0	1	0	0	1
Total 0-30	458	598	644	572	2272
Percent early neonatal <sup>1</sup>	59.0	58.5	54.8	54.7	56.6

<sup>1</sup>0-6 days/0-30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under 2 years of age by age at death in months and the percentage of infant deaths reported to occur at ages under one month, for four five-year periods preceding the survey (weighted), Indonesia 1991

Age at death (months)	Years preceding survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1 <sup>a</sup>	458	599	644	572	2273
1	100	129	93	101	424
2	87	84	67	68	306
3	62	107	91	81	340
4	37	52	46	46	181
5	23	34	43	30	131
6	25	68	44	40	177
7	40	72	63	42	217
8	25	62	53	52	191
9	26	53	36	44	159
10	26	31	24	19	100
11	13	40	19	28	99
12	59	90	138	109	396
13	8	11	16	17	51
14	10	15	13	8	45
15	14	15	21	6	56
16	1	13	12	2	28
17	5	4	9	10	29
18	10	52	47	29	137
19	3	7	1	0	11
20	4	8	6	4	23
21	0	3	7	0	10
22	7	10	0	4	21
23	0	5	1	8	14
Missing	0	0	3	0	3
1 year	1	0	0	0	1
Total 0-23	922	1331	1222	1124	4599
Percent neonatal <sup>b</sup>	49.7	45.0	52.7	50.9	49.4

<sup>a</sup>Includes deaths under 1 month reported in days

<sup>b</sup>Under 1 month/under 1 year

## **APPENDIX D**

# **PERSONS INVOLVED IN THE 1991 INDONESIA DEMOGRAPHIC AND HEALTH SURVEY**



## APPENDIX D

### PERSONS INVOLVED IN THE 1991 INDONESIA DEMOGRAPHIC AND HEALTH SURVEY

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Enumerator	Asma
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Enumerator	Maria Wara
Enumerator	Rosmiati
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**APPENDIX E**

**SURVEY QUESTIONNAIRES**

1991 INDONESIA DEMOGRAPHIC AND HEALTH SURVEY  
HOUSEHOLD SCHEDULE

Confidential

IDENTIFICATION	CODE
1. PROVINCE .....	..... <input type="text"/>
2. REGENCY/MUNICIPALITY *).....	..... <input type="text"/>
3. SUB-DISTRICT _____	
4. VILLAGE _____	
5. AREA .....URBAN - 1.....RURAL - 2 **)	<input type="checkbox"/>
6. LARGE CITY/SMALL CITY/TOWN/COUNTRYSIDE..... (Large city=1, Small City=2, Town=3, Countryside=4)	<input type="checkbox"/>
7. ENUMERATION AREA NUMBER _____	
8. SP90 SAMPLE CODE.....	..... <input type="text"/>
9. IDHS91 SAMPLE CODE .....	..... <input type="text"/>
10. HOUSEHOLD NUMBER.....	..... <input type="text"/>
11. NAME OF HOUSEHOLD HEAD _____	

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE .....	<input type="text"/>	<input type="text"/>	<input type="text"/>	MONTH <input type="text"/>
INTERVIEWER'S NAME....	<input type="text"/>	<input type="text"/>	<input type="text"/>	YEAR <input type="text"/>
RESULT ***).....	<input type="text"/>	<input type="text"/>	<input type="text"/>	INTERV. <input type="text"/>
NEXT VISIT: DATE	<input type="text"/>	<input type="text"/>	<input type="text"/>	FINAL RESULT <input type="text"/>
TIME	<input type="text"/>	<input type="text"/>	<input type="text"/>	TOTAL NUMBER OF VISITS <input type="text"/>
<b>***) RESULT CODES:</b> 1 COMPLETED 2 HOUSEHOLD PRESENT BUT NO COMPETENT RESP. AT HOME 3 HOUSEHOLD ABSENT 4 POSTPONED 5 REFUSED 6 DWELLING VACANT OR ADDRESS NOT A DWELLING 7 DWELLING DESTROYED 8 DWELLING NOT FOUND 9 OTHER _____				TOTAL IN HOUSEHOLD <input type="text"/>  TOTAL ELIGIBLE WOMEN <input type="text"/>

	FIELD EDITED BY	OFFICE EDITED BY	KEYED BY	KEYED BY
NAME	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
DATE	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- \*) Cross out category not used
- \*\*) Circle selected category
- \*\*\*) Choose suitable result

Now we would like some information about the people who usually live in your household.

NO.	USUAL RESIDENTS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX		AGE	EDUCATION FOR ALL PERSONS AGED 5 AND ABOVE					
			Is (NAME) male or female?			Has (NAME) ever been to school?	What is the highest level of school (NAME) attended?***		FOR ALL PERSONS AGED LESS THAN 25 YEARS		
(1)	(2)	(3)	(4)		(5)		(6)	(7)		(8)	
			M	F	YEARS	YES	NO	LEVEL	GRADE	YES	NO
01		<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>		1	2
02		<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>		1	2
03		<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>		1	2
04		<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>		1	2
05		<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>		1	2
06		<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>		1	2
07		<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>		1	2
08		<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>		1	2
09		<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>		1	2
10		<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>		1	2
11		<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>		1	2
12		<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>		1	2
13		<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>		1	2
14		<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>		1	2
15		<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>	1	2	<input type="checkbox"/> <input type="checkbox"/>		1	2

\*) CODES FOR COLUMN (3):  
 RELATIONSHIP TO HEAD OF HOUSEHOLD:  
 01= HEAD OF HOUSEHOLD  
 02= WIFE OR HUSBAND  
 03= CHILD  
 04= SON OR DAUGHTER-IN-LAW  
 05= GRANDCHILD  
 06= PARENT  
 07= PARENT-IN-LAW  
 08= BROTHER OR SISTER  
 09= OTHER RELATIVE  
 10= ADOPTED/FOSTER CHILD  
 11= NOT RELATED  
 98= DK

\*\*) CODES FOR COLUMN (7):  
 LEVEL OF EDUCATION:  
 1= PRIMARY  
 2= JUNIOR HIGH  
 3= SENIOR HIGH  
 4= ACADEMY/UNIVERSITY  
 8= DK  
 GRADE:  
 0= LESS THAN 1 YEAR COMPLETED  
 8= DK

SCHEDULE

FOSTERING***				MARITAL STATUS	ELIGIBILITY
IF AGED LESS THAN 15 YEARS					
Is (NAME)'s natural mother alive?	IF ALIVE	Is (NAME)'s natural father alive?	IF ALIVE	FOR WOMEN AGED 10 AND ABOVE	CIRCLE LINE NUMBER OF ALL EVER-MARRIED WOMEN AGED 15-49
	Does (NAME)'s natural mother live in this household?		Does (NAME)'s natural father live in this household?	Has (NAME) ever been married?	
(9)	IF YES: What is her name? RECORD MOTHER'S LINE NUMBER	(11)	IF YES: What is his name? RECORD FATHER'S LINE NUMBER	(13)	(14)
YES NO DK		YES NO DK		YES NO	
1 2 8		1 2 8		1 2	01
1 2 8		1 2 8		1 2	02
1 2 8		1 2 8		1 2	03
1 2 8		1 2 8		1 2	04
1 2 8		1 2 8		1 2	05
1 2 8		1 2 8		1 2	06
1 2 8		1 2 8		1 2	07
1 2 8		1 2 8		1 2	08
1 2 8		1 2 8		1 2	09
1 2 8		1 2 8		1 2	10
1 2 8		1 2 8		1 2	11
1 2 8		1 2 8		1 2	12
1 2 8		1 2 8		1 2	13
1 2 8		1 2 8		1 2	14
1 2 8		1 2 8		1 2	15

\*\*\*) This question refers to the biological parents of the child.  
Record '00' if parent not member of the household.

TICK HERE IF CONTINUATION SHEET USED	<input type="checkbox"/>	TOTAL NUMBER OF ELIGIBLE WOMEN	<input type="text"/>
Just to make sure I have a complete listing:			
1) Are there any persons such as small children or infants that we have not listed?	YES <input type="checkbox"/>	→ENTER EACH IN TABLE	NO <input type="checkbox"/>
2) Are there any other people who may not be members of your family, like servants, friends, lodgers, but who usually live here?	YES <input type="checkbox"/>	→ENTER EACH IN TABLE	NO <input type="checkbox"/>
3) Are there any other guests or visitors who have been temporarily staying with you for the past 6 months or more?	YES <input type="checkbox"/>	→ENTER EACH IN TABLE	NO <input type="checkbox"/>
4) Are there any persons who usually live here who have been away for less than 6 months?	YES <input type="checkbox"/>	→ENTER EACH IN TABLE	NO <input type="checkbox"/>
5) Are there any persons we have listed who have been away for the past 6 months?	YES <input type="checkbox"/>	→DELETE NAMES FROM TABLE	NO <input type="checkbox"/>

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	TO															
15	What is the source of water your household uses for handwashing and dishwashing?	PIPED INTO RESIDENCE.....01 PIPED INTO YARD OR PLOT.....02 PUBLIC TAP.....03 PUMP.....04 WELL.....05 SPRING.....06 RIVER.....07 RAINWATER.....08 OTHER.....09 (SPECIFY)	17 17															
16	How long does it take to go there, get water, and come back?	MINUTES..... <input type="text"/> <input type="text"/> <input type="text"/> ON PREMISES.....996																
17	Does your household get drinking water from this same source?	YES.....1 NO.....2	17															
18	What is the source of drinking water for members of your household?	PIPED INTO RESIDENCE.....01 PIPED INTO YARD OR PLOT.....02 PUBLIC TAP.....03 PUMP.....04 WELL.....05 SPRING.....06 RIVER.....07 RAINWATER.....08 OTHER.....09 (SPECIFY)																
19	What kind of toilet facility does your household have?	PRIVATE, W. SEPTIC TANK.....1 PRIVATE, NO SEPTIC TANK.....2 SHARED/PUBLIC.....3 OTHER.....4 (SPECIFY)																
20	Does your house have: Electricity? A radio or cassette? A television? A gas, kerosene or electric stove?	<table border="1"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>ELECTRICITY.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>RADIO OR CASSETTE.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>TELEVISION.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>STOVE.....</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		YES	NO	ELECTRICITY.....	1	2	RADIO OR CASSETTE.....	1	2	TELEVISION.....	1	2	STOVE.....	1	2	
	YES	NO																
ELECTRICITY.....	1	2																
RADIO OR CASSETTE.....	1	2																
TELEVISION.....	1	2																
STOVE.....	1	2																
21	Does any member of your household have or have access to: A bicycle/boat? A motor vehicle?	<table border="1"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>BICYCLE/BOAT.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>MOTOR VEHICLE.....</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		YES	NO	BICYCLE/BOAT.....	1	2	MOTOR VEHICLE.....	1	2							
	YES	NO																
BICYCLE/BOAT.....	1	2																
MOTOR VEHICLE.....	1	2																
22	MAIN MATERIAL OF THE FLOOR.  (RECORD OBSERVATION.)	TILE.....1 CONCRETE/BRICK.....2 WOOD.....3 BAMBOO.....4 DIRT/EARTH.....5 OTHER.....6 (SPECIFY)																

1991 INDONESIA DEMOGRAPHIC AND HEALTH SURVEY  
INDIVIDUAL WOMAN'S QUESTIONNAIRE

Confidential

IDENTIFICATION	CODE
1. PROVINCE .....	<input type="text"/>
2. REGENCY/MUNICIPALITY *).....	<input type="text"/>
3. SUB-DISTRICT _____	
4. VILLAGE _____	
5. AREA .....URBAN - 1.....RURAL - 2 **)	<input type="checkbox"/>
6. LARGE CITY/SMALL CITY/TOWN/COUNTRYSIDE..... (Large city=1, Small City=2, Town=3, Countryside=4)	<input type="checkbox"/>
7. ENUMERATION AREA NUMBER _____	
8. SP90 SAMPLE CODE.....	<input type="text"/>
9. IDHS91 SAMPLE CODE .....	<input type="text"/>
10. HOUSEHOLD NUMBER.....	<input type="text"/>
11. NAME OF HOUSEHOLD HEAD _____	
12. LINE NUMBER OF WOMAN FROM HOUSEHOLD SCHEDULE.....	<input type="text"/>
13. NAME OF WOMAN _____	

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE .....	<input type="text"/>	<input type="text"/>	<input type="text"/>	MONTH <input type="text"/>
INTERVIEWER'S NAME....	<input type="text"/>	<input type="text"/>	<input type="text"/>	YEAR <input type="text"/>
RESULT ***).....	<input type="text"/>	<input type="text"/>	<input type="text"/>	INTERV. <input type="text"/>
NEXT VISIT: DATE	<input type="text"/>	<input type="text"/>	<input type="text"/>	FINAL RESULT <input type="text"/>
TIME	<input type="text"/>	<input type="text"/>	<input type="text"/>	TOTAL NUMBER OF VISITS <input type="text"/>
<b>***) RESULT CODES:</b> 1 COMPLETED                      4 REFUSED 2 NOT AT HOME                      5 PARTLY COMPLETED 3 POSTPONED                         6 OTHER _____				

	FIELD EDITED BY	OFFICE EDITED BY	KEYED BY	KEYED BY
NAME	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
DATE	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

\*) Cross out category not used  
 \*\*) Circle selected category  
 \*\*\*) Choose suitable result



SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
101	RECORD THE TIME.	HOUR..... MINUTES.....	
102	First I would like to ask some questions about you. For most of the time until you were 12 years old, did you live in a village, in a town, or in a city?	CITY.....1 TOWN.....2 VILLAGE.....3	
103	In what month and year were you born? IF MONTH NOT IN WESTERN CALENDAR, WRITE NAME: _____	MONTH..... DK MONTH.....98 YEAR..... DK YEAR.....98	
104	How old were you at your last birthday? COMPARE AND CORRECT 103 AND/OR 104 IF INCONSISTENT. IF AGE LESS THAN 15 OR 50+, END INTERVIEW.	AGE IN COMPLETED YEARS.....	
104A	Are you now married, widowed, or divorced?	MARRIED.....1 DIVORCED.....2 WIDOWED.....3	
105	Have you ever attended school?	YES.....1 NO.....2	→109
106	What is the highest level of school you attended: primary, junior high, senior high, academy, or university?	PRIMARY.....1 JUNIOR HIGH SCHOOL.....2 SENIOR HIGH SCHOOL.....3 ACADEMY/UNIVERSITY.....4	
107	What is the highest (GRADE, FORM, YEAR) you completed at that level?	GRADE.....	
108	CHECK 106: PRIMARY <input type="checkbox"/> JUNIOR HIGH OR HIGHER <input type="checkbox"/>		→110
109	Can you read and understand a letter or newspaper easily, with difficulty, or not at all?	EASILY.....1 WITH DIFFICULTY.....2 NOT AT ALL.....3	→111
110	Do you usually read a newspaper or magazine at least once a week?	YES.....1 NO.....2	
111	Do you usually listen to the radio every day?	YES.....1 NO.....2	
112	Do you usually watch television at least once a week?	YES.....1 NO.....2	
113	What religion are you?	MUSLIM.....1 PROTESTANT/CHRISTIAN.....2 CATHOLIC.....3 HINDU.....4 BUDDHIST.....5 OTHER.....6 (SPECIFY)	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO				
201	How I would like to ask about all the births you have had during your life. Have you ever given birth?	YES.....1 NO.....2	→206				
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES.....1 NO.....2	→204				
203	How many sons live with you? And how many daughters live with you? IF NONE ENTER '00'.	SONS AT HOME..... DAUGHTERS AT HOME.....	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>				
204	Do you have any sons or daughters to whom you have given birth who are 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 ENTER '00'.	SONS ELSEWHERE..... DAUGHTERS ELSEWHERE.....	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>				
206	Have you ever given birth to a boy or a girl who was born alive but later died? IF NO, PROBE: Any (other) baby who cried or showed any sign of life but only survived a few hours or days?	YES.....1 NO.....2	→208				
207	In all, how many boys have died? And how many girls have died? IF NONE ENTER '00'.	BOYS DEAD..... GIRLS DEAD.....	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>				
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE ENTER '00'.	TOTAL.....	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>				
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL _____ live births during your life. Is that correct?  YES <input type="checkbox"/> NO <input type="checkbox"/> → PROBE AND CORRECT 201-209 AS NECESSARY						
210	CHECK 208: ONE OR MORE <input type="checkbox"/> NO BIRTHS <input type="checkbox"/>		→225				

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

(RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES).

212	213	214	215	216	217	218	220
What name was given to your (first,next) baby?	RECORD SINGLE OR MULTIPLE BIRTH STATUS	Is (NAME) a boy or a girl?	In what month and year was (NAME) born?  PROBE: What is his/her birthday? DR: In what season?	Is (NAME) still alive?	How old was (NAME) at his/her last birthday?  RECORD AGE IN COMPLETED YEARS	Is (NAME) living with you?	How old was he/she when he/she died?  IF "1 YR.", PROBE: How many months old was (NAME)?  RECORD DAYS IF LESS THAN 1 MONTH, MONTHS IF LESS THAN TWO YEARS, OR YEARS. IF LESS THAN ONE DAY, WRITE '00'
01   _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 NO.....2 (GO TO NEXT BIRTH)<	DAYS...1 MONTHS..2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
02   _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 NO.....2 (GO TO NEXT BIRTH)<	DAYS...1 MONTHS..2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
03   _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 NO.....2 (GO TO NEXT BIRTH)<	DAYS...1 MONTHS..2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
04   _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 NO.....2 (GO TO NEXT BIRTH)<	DAYS...1 MONTHS..2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
05   _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 NO.....2 (GO TO NEXT BIRTH)<	DAYS...1 MONTHS..2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
06   _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 NO.....2 (GO TO NEXT BIRTH)<	DAYS...1 MONTHS..2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
07   _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="text"/> <input type="text"/>	YES.....1 NO.....2 (GO TO NEXT BIRTH)<	DAYS...1 MONTHS..2 YEARS...3 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

212	213	214	215	216	217 IF ALIVE:	218 IF ALIVE:	220 IF DEAD:
What name was given to your (first,next) baby?	RECORD SINGLE OR MULTIPLE BIRTH STATUS	Is (NAME) a boy or a girl?	In what month and year was (NAME) born?  PROBE: What is his/her birthday? OR: In what season?	Is (NAME) still alive?	How old was (NAME) at his/her last birthday?  RECORD AGE IN COMPLETED YEARS	Is (NAME) living with you?	How old was he/she when he/she died?  IF "1 YR.", PROBE: How many months old was (NAME)?  RECORD DAYS IF LESS THAN 1 MONTH, MONTHS IF LESS THAN TWO YEARS, OR YEARS. IF LESS THAN ONE DAY, WRITE '00'
08  (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="checkbox"/> <input type="checkbox"/>	YES.....1 NO.....2 (GO TO NEXT BIRTH)<	DAYS...1 MONTHS...2 YEARS...3 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
09  (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="checkbox"/> <input type="checkbox"/>	YES.....1 NO.....2 (GO TO NEXT BIRTH)<	DAYS...1 MONTHS...2 YEARS...3 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
10  (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="checkbox"/> <input type="checkbox"/>	YES.....1 NO.....2 (GO TO NEXT BIRTH)<	DAYS...1 MONTHS...2 YEARS...3 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
11  (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="checkbox"/> <input type="checkbox"/>	YES.....1 NO.....2 (GO TO NEXT BIRTH)<	DAYS...1 MONTHS...2 YEARS...3 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
12  (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="checkbox"/> <input type="checkbox"/>	YES.....1 NO.....2 (GO TO NEXT BIRTH)<	DAYS...1 MONTHS...2 YEARS...3 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
13  (NAME)	SING...1 MULT...2	BOY...1 GIRL...2	MONTH... YEAR... <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	YES...1 NO...2 ↓ 220	AGE IN YEARS <input type="checkbox"/> <input type="checkbox"/>	YES.....1 NO.....2 (GO TO NEXT BIRTH)<	DAYS...1 MONTHS...2 YEARS...3 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
221 COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK:  NUMBERS ARE SAME <input type="checkbox"/> NUMBERS ARE DIFFERENT <input type="checkbox"/> (PROBE AND RECONCILE) ↓ CHECK: FOR EACH LIVE BIRTH: YEAR OF BIRTH IS RECORDED <input type="checkbox"/> FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED <input type="checkbox"/> FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED <input type="checkbox"/> FOR AGE AT DEATH 12 MONTHS: PROBE TO DETERMINE EXACT NUMBER OF MONTHS <input type="checkbox"/>							
222 CHECK 215 AND ENTER THE NUMBER OF BIRTHS SINCE JANUARY 1986 IF NONE, ENTER 0 AND GO TO 224. <input type="checkbox"/>							
223 FOR EACH BIRTH SINCE JANUARY 1986, ENTER "B" IN MONTH OF BIRTH IN COLUMN 1 OF CALENDAR AND "P" IN EACH OF THE 8 PRECEDING MONTHS. WRITE NAME IN FRONT OF THE "B" CODE.							
224 AT THE BOTTOM OF THE CALENDAR, ENTER THE NAME AND BIRTH DATE OF THE LAST CHILD BORN PRIOR TO JANUARY 1986, IF APPLICABLE.							

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
225	Are you pregnant now?	YES.....1 NO.....2 UNSURE.....8	}228
226	How many months pregnant are you?  ENTER "P" IN COLUMN 1 OF CALENDAR IN MONTH OF INTERVIEW AND IN EACH PRECEDING MONTH PREGNANT	MONTHS..... <input type="text"/>	
227	At the time you became pregnant, did you want to become pregnant <u>then</u> , did you want to wait until <u>later</u> , or did you <u>not want</u> to become pregnant at all?	THEN.....1 LATER.....2 NOT AT ALL.....3	
228	Have you ever had a pregnancy that ended in a stillbirth, miscarriage, or abortion?	YES.....1 NO.....2	}234
229	When did the last such pregnancy end?	MONTH..... <input type="text"/> YEAR..... <input type="text"/>	
230	CHECK 229: DATE LAST PREGNANCY ENDED SINCE JANUARY 1986 <input type="text"/>	BEFORE JANUARY 1986 <input type="text"/>	}234
231	How many months pregnant were you when the pregnancy ended?  ENTER "T" IN COLUMN 1 OF CALENDAR IN MONTH PREGNANCY TERMINATED, AND "P" IN EACH PRECEDING MONTH PREGNANT.	MONTHS..... <input type="text"/>	
232	Did you ever have any other such pregnancies?	YES.....1 NO.....2	}234
233	ASK FOR DATES AND DURATIONS OF ANY OTHER PREGNANCIES BACK TO JANUARY 1986. ENTER "T" IN COLUMN 1 OF CALENDAR IN MONTH PREGNANCY TERMINATED, AND "P" IN EACH PRECEDING MONTH PREGNANT.		
234	When did your last menstrual period start?	DAYS AGO.....1 <input type="text"/> WEEKS AGO.....2 <input type="text"/> MONTHS AGO.....3 <input type="text"/> YEARS AGO.....4 <input type="text"/>  IN MENOPAUSE.....994 BEFORE LAST PREGNANCY.....995 NEVER MENSTRUATED.....996	
235	Between the first day of a woman's period and the first day of her <u>next</u> period, are there certain times when she has a greater chance of becoming pregnant than other times?	YES.....1 NO.....2 DK.....8	}301
236	During which times of the month does a woman have the greatest chance of becoming pregnant?	DURING HER PERIOD.....1 RIGHT AFTER HER PERIOD HAS ENDED.....2 IN THE MIDDLE OF THE CYCLE.....3 JUST BEFORE HER PERIOD BEGINS.....4 OTHER.....5 (SPECIFY) DK.....8	

**SECTION 3: FAMILY PLANNING**

301 Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Which of these ways or methods have you heard about?  
 CIRCLE CODE 1 IN 302 FOR EACH METHOD MENTIONED SPONTANEOUSLY.  
 THEN PROCEED DOWN THE COLUMN, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY.  
 CIRCLE CODE 2 IF METHOD IS RECOGNIZED, AND CODE 3 IF NOT RECOGNIZED.  
 THEN, FOR EACH METHOD WITH CODE 1 OR 2 CIRCLED IN 302, ASK 303-304 BEFORE PROCEEDING TO THE NEXT METHOD.

	302 Have you ever heard of (METHOD)? READ DESCRIPTION OF EACH METHOD.	303 Have you ever used (METHOD)?	304 Where would someone go if he/she wanted to use (METHOD)? (USE CODES BELOW)**
01] PILL "Women can take a pill every day".	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	<input type="checkbox"/> <input type="checkbox"/> OTHER _____
02] IUD "Women can have a loop or coil placed inside them by a doctor or a nurse".	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	<input type="checkbox"/> <input type="checkbox"/> OTHER _____
03] INJECTIONS "Women can have an injection by a doctor or nurse which stops them from becoming pregnant for several months".	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	<input type="checkbox"/> <input type="checkbox"/> OTHER _____
04] INTRAVAG "Women can place a tissue inside them before intercourse".	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	<input type="checkbox"/> <input type="checkbox"/> OTHER _____
05] CONDOM "Men can use a rubber sheath during sexual intercourse".	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	<input type="checkbox"/> <input type="checkbox"/> OTHER _____
06] NORPLANT/IMPLANT "Women can have small rods put in the arm to prevent pregnancy".	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	<input type="checkbox"/> <input type="checkbox"/> OTHER _____
07] FEMALE STERILIZATION "Women can have an operation to avoid having any more children".	YES/SPONT.....1 YES/PROBED.....2 NO.....3	Have you ever had an operation to avoid having any more children? YES.....1 NO.....2	<input type="checkbox"/> <input type="checkbox"/> OTHER _____
08] MALE STERILIZATION "Men can have an operation to avoid having any more children".	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	<input type="checkbox"/> <input type="checkbox"/> OTHER _____
09] PERIODIC ABSTINENCE/CALENDAR "Couples can avoid having sexual intercourse on certain days of the month when the woman is more likely to become pregnant".	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	Do you know where a person can obtain advice on how to use periodic abstinence? <input type="checkbox"/> <input type="checkbox"/> OTHER _____
10] WITHDRAWAL "Men can be careful and pull out before climax".	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	<input type="checkbox"/> <input type="checkbox"/> OTHER _____
11] ABORTION/MENSTRUAL REGULATION "Women can do something to end a pregnancy".	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	<input type="checkbox"/> <input type="checkbox"/> OTHER _____
12] ANY OTHER METHODS? "Have you heard of any other ways or methods that women or men can use to avoid pregnancy?"  1 _____ (SPECIFY)  2 _____ (SPECIFY)  3 _____ (SPECIFY)	YES/SPONT.....1 NO.....3	YES.....1 NO.....2	** CODES FOR 304 GOVERNMENT HOSPITAL.....01 PRIVATE HOSPITAL.....02 HEALTH CENTER (PUSKESMAS).....03 PRIVATE CLINIC.....04 HEALTH POST (POSTYANDU).....05 FP POST/VEOC/PAGUYUBAN.....06 FIELDWORKER (PLKB).....07 FP MOBILE UNIT.(TKBK/TMK).....08 PHARMACY/DRUGSTORE.....09 PRIVATE DOCTOR.....10 PRIVATE MIDWIFE.....11 TRADITIONAL HEALER (DUKUN).....12 FRIENDS/RELATIVES.....13 FP SAFARI.....14 NOWHERE.....15 OTHER.....16 (SPECIFY) DON'T KNOW.....98

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

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
306	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES..... <input type="checkbox"/> NO..... <input type="checkbox"/>	→308
307	ENTER "0" IN COLUMN 1 OF CALENDAR IN EACH BLANK MONTH		→309
308	What have you used or done? CORRECT 303-305 (AND 302 IF NECESSARY).		
309	What is the first thing you ever did or method you ever used to delay or avoid getting pregnant?	PILL.....01 IUD.....02 INJECTIONS.....03 INTRAVAG.....04 CONDOM.....05 NORPLANT.....06 FEMALE STERILIZATION.....07 MALE STERILIZATION.....08 PERIODIC ABSTINENCE.....09 WITHDRAWAL.....10 OTHER.....11 (SPECIFY)	→311
310	Where did you go to get this method the first time?	GOVERNMENT HOSPITAL.....01 PRIVATE HOSPITAL.....02 HEALTH CENTER (PUSKESMAS).....03 PRIVATE CLINIC.....04 HEALTH POST (POSYANDU).....05 FP POST/VCDC/PAGUYUBAN.....06 FIELDWORKER (PLKB).....07 FP MOBILE UNIT (TKBK/TMK).....08 PHARMACY/DRUGSTORE.....09 PRIVATE DOCTOR.....10 PRIVATE MIDWIFE.....11 TRADITIONAL HEALER (DUKUN).....12 FRIENDS/RELATIVES.....13 FP SAFARI.....14 NOWHERE.....15 OTHER.....16 (SPECIFY) DON'T KNOW.....98	
311	How many living children did you have at that time, if any? IF NONE ENTER '00'.	NUMBER OF CHILDREN..... <input type="text"/>	
312	CHECK 225: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/>		→331
313	CHECK 303: WOMAN NOT STERILIZED <input type="checkbox"/> WOMAN STERILIZED <input type="checkbox"/>		→315A
313A	CHECK 104A: CURRENTLY MARRIED <input type="checkbox"/> WIDOWED/DIVORCED <input type="checkbox"/>		→331
314	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES.....1 NO.....2	→331
315	Which method are you using?	PILL.....01 IUD.....02 INJECTIONS.....03 INTRAVAG.....04 CONDOM.....05 NORPLANT.....06 FEMALE STERILIZATION.....07 MALE STERILIZATION.....08 PERIODIC ABSTINENCE.....09 WITHDRAWAL.....10 OTHER.....11 (SPECIFY)	→323 →316J →323 →316M →323 →321 →326
315A	CIRCLE '07' FOR FEMALE STERILIZATION.		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
316	At the time you first started using the pill, did you consult a doctor or a midwife?	YES.....1 NO.....2 DK.....8	
316A	Do you have a package of pills in the house?	YES.....1 NO.....2	->316E
316B	Please show me the package of pills you are now using. (RECORD NAME OF BRAND)	BRAND: <input type="checkbox"/> <input type="checkbox"/>	
316C	CHECK PACKET FOR PILL USE AND MARK CORRECT CODE.	PILLS MISSING IN ORDER.....1 PILLS MISSING OUT OF ORDER.....2 NO PILLS MISSING.....3	->316G
316D	Why is it that you have not taken the pills (in order)?	DOESN'T KNOW WHAT TO DO.....1 HEALTH REASONS.....2 FOLLOWING PLKB'S INSTRUCTIONS.....3 NEW PACKET.....4 MENSTRUATING.....5 OTHER.....6 (SPECIFY)	->316G
316E	Why don't you have a package of pills in the house?	RAN OUT.....1 COST TOO MUCH.....2 HUSBAND AWAY.....3 HAS PERIOD.....4 OTHER.....5 (SPECIFY)	
316F	SHOW BRAND CHART FOR PILLS: Please tell me which of these is the brand of pills that you are using.	BRAND: <input type="checkbox"/> <input type="checkbox"/> DOESN'T KNOW.....98	
316G	When was the last time you took a pill?	DAYS AGO..... <input type="checkbox"/> <input type="checkbox"/> MORE THAN ONE MONTH AGO.....97	
316H	CHECK 316G: MORE THAN TWO DAYS AGO <input type="checkbox"/> TWO DAYS AGO OR LESS <input type="checkbox"/>		->323
316I	Why aren't you taking the pill these days?	HUSBAND AWAY.....01 FORGOT.....02 HEALTH REASONS.....03 COST TOO MUCH.....04 NO NEED TO TAKE DAILY.....05 RAN OUT.....06 HAS PERIOD.....07 OTHER.....08 (SPECIFY)	->323

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
316J	When did you last have an injection?	MONTHS AGO.....	<input type="text"/>
316K	CHECK 316J: MORE THAN THREE MONTHS AGO <input type="checkbox"/> ↓ THREE MONTHS AGO OR LESS <input type="checkbox"/>		→323
316L	Why haven't you had an injection recently?	HUSBAND AWAY.....1 FORGOT.....2 HEALTH REASONS.....3 COST TOO MUCH.....4 OTHER.....8 (SPECIFY)	→323
316M	Please show me the package of condoms that your husband is using.  RECORD NAME OF BRAND	BRAND: <input type="text"/>  NOT ABLE TO SHOW.....98	→323
316N	Why can't you show me the package of condoms that your husband is using?	HUSBAND KEEPS.....1 RAN OUT.....2 OTHER.....3 (SPECIFY)	
316O	SHOW BRAND CHART FOR CONDOMS: Please tell me which of these is the brand of condoms that your husband is using.	BRAND: <input type="text"/>  DOESN'T KNOW.....98	→323
321	In what month and year was the sterilization operation performed?	MONTH..... <input type="text"/> YEAR..... <input type="text"/>	
322	ENTER STERILIZATION METHOD CODE IN MONTH OF INTERVIEW IN COLUMN 1 OF CALENDAR AND IN EACH MONTH BACK TO DATE OF OPERATION OR TO JANUARY 1986 IF OPERATION OCCURRED BEFORE 1985		→323A
323	Where did you obtain (CURRENT METHOD FROM 315) the last time?  _____ (NAME OF PLACE)	GOVERNMENT HOSPITAL.....01 PRIVATE HOSPITAL.....02 HEALTH CENTER (PUSKESMAS).....03 PRIVATE CLINIC.....04 HEALTH POST (POSYANDU).....05 FP POST/VCDC/PAGUYUBAN.....06 FIELDWORKER (PLKB).....07 FP MOBILE UNIT. (TKBK/TMK).....08 PHARMACY/DRUGSTORE.....09 PRIVATE DOCTOR.....10 PRIVATE MIDWIFE.....11 TRADITIONAL HEALER (DUKUN).....12 FRIENDS/RELATIVES.....13 FP SAFARI.....14 NOWHERE.....15 OTHER.....16 (SPECIFY)	→325A
323A	Where did the sterilization take place?  _____ (NAME OF PLACE)	DON'T KNOW.....98	→325A

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
324	How long does it take to travel from your home to this place?	MINUTES.....1 HOURS.....2 DON'T KNOW.....998	<input type="text"/> <input type="text"/>
324A	How much does the travel cost?	COST (Rp): <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> FREE.....999996 DON'T KNOW.....999998	
325	Is it easy or difficult to get there?	EASY.....1 DIFFICULT.....2	
325A	CHECK 315 AND 315A:  CURRENT METHOD IS PILL, IUD, NORPLANT, STERILIZATION, INJECTION, CONDOM, INTRAVAG  <input type="checkbox"/> V	ANY OTHER METHOD  <input type="checkbox"/> → 326	
325B	How much does (did) it cost you for:  1 cycle (packet) of pills... the IUD insertion... the norplant/implant... the sterilization operation... an injection... a package of condoms... intravag...  including service and registration fee, if any?	COST (Rp): <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> FREE.....999996 DON'T KNOW.....999998	
326	What is the main reason you decided to use (CURRENT METHOD FROM 315) rather than some other method of family planning?	RECOMMENDATION OF FAMILY PLANNING WORKER.....01 RECOMMENDATION OF FRIEND/RELATIVE.....02 SIDE EFFECTS OF OTHER METHODS..03 CONVENIENCE.....04 ACCESS/AVAILABILITY.....05 COST.....06 WANTED PERMANENT METHOD.....07 HUSBAND PREFERRED.....08 WANTED MORE EFFECTIVE METHOD...09 OTHER.....10 (SPECIFY) DON'T KNOW.....98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
327	Are you having any health problems in using (CURRENT METHOD)?	YES.....1 NO.....2	->328A
328	What is the main health problem?	WEIGHT GAIN.....01 WEIGHT LOSS.....02 BLEEDING.....03 HYPERTENSION.....04 HEADACHE.....05 NAUSEA.....06 AMENORRHEA.....07 WEAK/TIRED.....08 OTHER.....09 (SPECIFY) DK.....98	
328A	Are you having any other problems in using (CURRENT METHOD)?	YES.....1 NO.....2	->329
328B	What is the main problem?	HUSBAND DISAPPROVES.....01 ACCESS/AVAILABILITY.....02 COSTS TOO MUCH.....03 INCONVENIENT TO USE.....04 STERILIZED, WANTS CHILDREN.....05 OTHER.....06 (SPECIFY) DK.....98	
329	CHECK 315 AND 321:	NEITHER STERILIZED <input type="checkbox"/> STERILIZED BEFORE JANUARY 1986 <input type="checkbox"/> STERILIZED SINCE JANUARY 1986 <input type="checkbox"/>	->348 ->331
330	ENTER METHOD CODE FROM 315 IN CURRENT MONTH IN COL.1 OF CALENDAR. THEN DETERMINE WHEN SHE STARTED USING THIS METHOD THIS TIME. ENTER METHOD CODE IN EACH MONTH OF USE.  ILLUSTRATIVE QUESTIONS: - When did you start using this method continuously? - How long have you been using this method continuously?		
331	I would like to ask some questions about all of the (other) periods in the last few years during which you used a method to avoid getting pregnant.  USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO JANUARY 1986.  USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS.  IN EACH MONTH, ENTER CODE FOR METHOD OR "0" FOR NONUSE IN COLUMN 1. IN COLUMN 2, ENTER CODES FOR DISCONTINUATION NEXT TO LAST MONTH OF USE.  NUMBER OF CODES ENTERED IN COLUMN 2 MUST BE THE SAME AS THE NUMBER OF INTERRUPTIONS OF CONTRACEPTIVE USE IN COLUMN 1  ASK WHY SHE STOPPED USING THE METHOD. IF A PREGNANCY FOLLOWED, ASK WHETHER SHE BECAME PREGNANT UNINTENTIONALLY WHILE USING THE METHOD OR DELIBERATELY STOPPED TO GET PREGNANT.  ILLUSTRATIVE QUESTIONS: COLUMN 1: -When was the last time you used a method? Which method was that? -When did you start using that method? How long after the birth of (NAME)? -How long did you use the method then?  COLUMN 2: -Why did you stop using the (METHOD)? -Did you become pregnant while using (METHOD), or did you stop to get pregnant, or stop for some other reason?  IF DELIBERATELY STOPPED TO BECOME PREGNANT, ASK: "How many months did it take you to get pregnant after you stopped using (METHOD)? AND ENTER "0" IN EACH SUCH MONTH IN COLUMN 1.		



NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
338	CHECK 315: NOT CURRENTLY USING A METHOD <input type="checkbox"/> CURRENTLY USING PERIODIC ABSTINENCE WITHDRAWAL, OTHER TRADITIONAL METHOD <input type="checkbox"/> CURRENTLY USING A MODERN METHOD <input checked="" type="checkbox"/> (SKIP TO 344)		348
339	Do you intend to use a method to delay or avoid pregnancy at any time in the future?	YES.....1 NO.....2 DK.....8	341 344
340	What is the main reason you do not intend to use a method?	WANTS CHILDREN.....01 LACK OF KNOWLEDGE.....02 PARTNER OPPOSED.....03 COST TOO MUCH.....04 SIDE EFFECTS.....05 HEALTH CONCERNS.....06 HARD TO GET METHODS.....07 RELIGION.....08 OPPOSED TO FAMILY PLANNING.....09 FATALISTIC.....10 RELATIVES OPPOSED.....11 INFREQUENT SEX.....12 DIFFICULT TO GET PREGNANT.....13 MENOPAUSAL/HAD HYSTERECTOMY.....14 INCONVENIENT.....15 NOT MARRIED.....16 OTHER.....17 (SPECIFY) DK.....98	344
341	Do you intend to use a method within the next 12 months?	YES.....1 NO.....2 DK.....8	
342	When you use a method, which method would you prefer to use?	PILL.....01 IUD.....02 INJECTIONS.....03 INTRAVAG.....04 CONDOM.....05 NORPLANT.....06 FEMALE STERILIZATION.....07 MALE STERILIZATION.....08 PERIODIC ABSTINENCE.....09 WITHDRAWAL.....10 OTHER.....11 (SPECIFY) UNSURE.....98	344
343	Where can you get (METHOD MENTIONED IN 342)?	GOVERNMENT HOSPITAL.....01 PRIVATE HOSPITAL.....02 HEALTH CENTER (PUSKESMAS).....03 PRIVATE CLINIC.....04 HEALTH POST (POSYANDU).....05 FP POST/VCDC/PAGUYUBAN.....06 FIELDWORKER (PLKB).....07 FP MOBILE UNIT.(TKBK/TMK).....08 PHARMACY/DRUGSTORE.....09 PRIVATE DOCTOR.....10 PRIVATE MIDWIFE.....11 TRADITIONAL HEALER (DUKUN).....12 FRIENDS/RELATIVES.....13 FP SAFARI.....14 NOWHERE.....15 OTHER.....16 (SPECIFY) DON'T KNOW.....98	346 348 346 348
344	Do you know of a place where you can obtain a method of family planning?	YES.....1 NO.....2	348
345	Where is that?	GOVERNMENT HOSPITAL.....01 PRIVATE HOSPITAL.....02 HEALTH CENTER (PUSKESMAS).....03 PRIVATE CLINIC.....04 HEALTH POST (POSYANDU).....05 FP POST/VCDC/PAGUYUBAN.....06 FIELDWORKER (PLKB).....07 FP MOBILE UNIT.(TKBK/TMK).....08 PHARMACY/DRUGSTORE.....09 PRIVATE DOCTOR.....10 PRIVATE MIDWIFE.....11 TRADITIONAL HEALER (DUKUN).....12 FRIENDS/RELATIVES.....13 FP SAFARI.....14 NOWHERE.....15 OTHER.....16 (SPECIFY)	348 348

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO								
346	How long does it take to travel from your home to this place?	MINUTES.....1 HOURS.....2 DK.....998	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>								
346A	How much does the travel cost?	COST (Rp): <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></table> FREE.....999996 DON'T KNOW.....999998									
347	Is it easy or difficult to get there?	EASY.....1 DIFFICULT.....2									
348	Has any family planning worker given you an explanation about family planning in the last six months?  IF YES: Who visited you?  Anyone else?  CIRCLE ALL PERSONS WHO VISITED	FIELDWORKER(SUB-DISTRICT LEVEL).A PKK (WOMEN'S ORG.).....B VCDC/PPKBD (VILLAGE LEVEL).....C CADRE.....D NURSE.....E MIDWIFE.....F OTHER.....G (SPECIFY)									
348A	Have you ever heard of Blue Circle?	YES.....1 NO.....2 DK.....B	B → 348C								
348B	Can you tell me what it is?	PRIVATE FAMILY PLANNING SERVICE.1 OTHER.....2 (SPECIFY) DK.....8									
348C	Are you a member of any acceptor or family planning group?	YES, VILLAGE LEVEL.....1 YES, SUB-VILLAGE LEVEL.....2 YES, DASA WISMA LEVEL.....3 YES, OTHER LEVEL.....4 NO.....5 DON'T KNOW.....8									
348D	If a woman wants to delay the next birth, which method do you think would be best for her to use?	PILL.....01 IUD.....02 INJECTIONS.....03 INTRAVAG.....04 CONDOM.....05 NORPLANT.....06 FEMALE STERILIZATION.....07 MALE STERILIZATION.....08 PERIODIC ABSTINENCE.....09 WITHDRAWAL.....10 OTHER.....11 (SPECIFY) DK.....98									
348E	If a woman has all the children she wants, which method do you think would be best for her to use?	PILL.....01 IUD.....02 INJECTIONS.....03 INTRAVAG.....04 CONDOM.....05 NORPLANT.....06 FEMALE STERILIZATION.....07 MALE STERILIZATION.....08 PERIODIC ABSTINENCE.....09 WITHDRAWAL.....10 OTHER.....11 (SPECIFY) DK.....98									
348F	Of the sources I am going to mention, which do you think are an appropriate source for family planning information?  READ RESPONSES.	YES NO PRIVATE DOCTOR.....1 2 PRIVATE MIDWIFE.....1 2 FP FIELDWORKER.....1 2 VILLAGE OFFICIAL.....1 2 RELIGIOUS LEADER.....1 2 WOMEN'S ORG. (PKK).....1 2 PHARMACIST.....1 2 TEACHER.....1 2 TELEVISION.....1 2 RADIO.....1 2									

SECTION 4A. PREGNANCY AND BREASTFEEDING

<p>401 CHECK 222 : ONE OR MORE LIVE BIRTHS SINCE JAN. 1986 <input type="checkbox"/></p>	<p>NO LIVE BIRTHS SINCE JAN. 1986 <input type="checkbox"/> → (SKIP TO 441)</p>		
<p>402 ENTER THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH SINCE JANUARY 1986 IN THE TABLE. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE ADDITIONAL FORMS).</p> <p>Now I would like to ask you some more questions about the health of children you had in the past five years. (We will talk about one child at a time.)</p>			
<p>LINE NUMBER FROM Q. 212</p>	<p><input type="text"/></p>	<p><input type="text"/></p>	<p><input type="text"/></p>
<p>FROM Q. 212 AND Q. 216</p>	<p>LAST BIRTH NAME _____ ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/></p>	<p>NEXT-TO-LAST-BIRTH NAME _____ ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/></p>	<p>SECOND-FROM-LAST-BIRTH NAME _____ ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/></p>
<p>403 At the time you became pregnant with (NAME), did you want to become pregnant <u>then</u>, did you want to wait until <u>later</u> or did you want <u>no more</u> children at all?</p>	<p>THEN.....1 LATER.....2 NO MORE.....3</p>	<p>THEN.....1 LATER.....2 NO MORE.....3</p>	<p>THEN.....1 LATER.....2 NO MORE.....3</p>
<p>405 When you were pregnant with (NAME), did you go anywhere for antenatal care for this pregnancy?  IF YES, where did you go?</p>	<p>GOVERNMENT HOSPITAL.....01 PRIVATE HOSPITAL.....02 HEALTH CENTER (PUSKESMAS)03 HEALTH POST (POSYANDU)...04 PRIVATE CLINIC.....05 PRIVATE DOCTOR.....06 MIDWIFE.....07 OTHER.....08 (SPECIFY) (SKIP TO 407)← NOWHERE.....09 (SKIP TO 409)←</p>	<p>GOVERNMENT HOSPITAL.....01 PRIVATE HOSPITAL.....02 HEALTH CENTER (PUSKESMAS)03 HEALTH POST (POSYANDU)...04 PRIVATE CLINIC.....05 PRIVATE DOCTOR.....06 MIDWIFE.....07 OTHER.....08 (SPECIFY) (SKIP TO 407)← NOWHERE.....09 (SKIP TO 409)←</p>	<p>GOVERNMENT HOSPITAL.....01 PRIVATE HOSPITAL.....02 HEALTH CENTER (PUSKESMAS)03 HEALTH POST (POSYANDU)...04 PRIVATE CLINIC.....05 PRIVATE DOCTOR.....06 MIDWIFE.....07 OTHER.....08 (SPECIFY) (SKIP TO 407)← NOWHERE.....09 (SKIP TO 409)←</p>
<p>406 Were you given an antenatal card (KMS for pregnant mother) for this pregnancy?</p>	<p>YES.....1 NO.....2 DK.....8</p>	<p>YES.....1 NO.....2 DK.....8</p>	<p>YES.....1 NO.....2 DK.....8</p>
<p>407 How many months pregnant were you when you first saw someone for an antenatal check on this pregnancy?</p>	<p>MONTHS..... <input type="text"/> DK.....98</p>	<p>MONTHS..... <input type="text"/> DK.....98</p>	<p>MONTHS..... <input type="text"/> DK.....98</p>
<p>408 How many antenatal visits did you have during that pregnancy?</p>	<p>NO. OF VISITS..... <input type="text"/> DK.....98</p>	<p>NO. OF VISITS..... <input type="text"/> DK.....98</p>	<p>NO. OF VISITS..... <input type="text"/> DK.....98</p>
<p>409 When you were pregnant with (NAME) were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?</p>	<p>YES.....1 NO.....2 (SKIP TO 411)← DK.....8</p>	<p>YES.....1 NO.....2 (SKIP TO 411)← DK.....8</p>	<p>YES.....1 NO.....2 (SKIP TO 411)← DK.....8</p>
<p>410 How many times did you get this injection?</p>	<p>TIMES..... <input type="text"/> DK.....8</p>	<p>TIMES..... <input type="text"/> DK.....8</p>	<p>TIMES..... <input type="text"/> DK.....8</p>

		LAST BIRTH NAME _____	NEXT-TO-LAST-BIRTH NAME _____	SECOND-FROM-LAST-BIRTH NAME _____
411	Where did you give birth to (NAME)?	PRIVATE HOME.....01 GOV. HOSPITAL.....02 PRIVATE HOSPITAL.....03 MATERNITY HOSPITAL.....04 HEALTH CENTER.....05 MIDWIFE'S PRIVT CLINIC..06 DOCTOR'S PRIVATE CLINIC.07 OTHER.....08 (SPECIFY)	PRIVATE HOME.....01 GOV. HOSPITAL.....02 PRIVATE HOSPITAL.....03 MATERNITY HOSPITAL.....04 HEALTH CENTER.....05 MIDWIFE'S PRIVT CLINIC..06 DOCTOR'S PRIVATE CLINIC.07 OTHER.....08 (SPECIFY)	PRIVATE HOME.....01 GOV. HOSPITAL.....02 PRIVATE HOSPITAL.....03 MATERNITY HOSPITAL.....04 HEALTH CENTER.....05 MIDWIFE'S PRIVT CLINIC..06 DOCTOR'S PRIVATE CLINIC.07 OTHER.....08 (SPECIFY)
412	Who assisted with the delivery of (NAME)?  PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING.	DOCTOR.....A MIDWIFE.....B TRADITIONAL BIRTH ATTENDANT.....C RELATIVE.....D OTHER.....E (SPECIFY) NO ONE.....F	DOCTOR.....A MIDWIFE.....B TRADITIONAL BIRTH ATTENDANT.....C RELATIVE.....D OTHER.....E (SPECIFY) NO ONE.....F	DOCTOR.....A MIDWIFE.....B TRADITIONAL BIRTH ATTENDANT.....C RELATIVE.....D OTHER.....E (SPECIFY) NO ONE.....F
413	Was (NAME) born on time or prematurely?	ON TIME.....1 PREMATURELY.....2 DK.....8	ON TIME.....1 PREMATURELY.....2 DK.....8	ON TIME.....1 PREMATURELY.....2 DK.....8
414	Was (NAME) delivered by caesarian section?	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
415	Was (NAME) weighed at birth?	YES.....1 NO.....2 (SKIP TO 417)←	YES.....1 NO.....2 (SKIP TO 417)←	YES.....1 NO.....2 (SKIP TO 417)←
416	How much did (NAME) weigh?	KILOGRAMS... <input type="text"/> <input type="text"/> <input type="text"/> DK.....9998	KILOGRAMS... <input type="text"/> <input type="text"/> <input type="text"/> DK.....9998	KILOGRAMS... <input type="text"/> <input type="text"/> <input type="text"/> DK.....9998
417	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  (SKIP TO 420)	VERY LARGE.....1 LARGER THAN AVERAGE....2 AVERAGE.....3 SMALLER THAN AVERAGE....4 VERY SMALL.....5 DK.....8  (SKIP TO 420)
418	Has your period returned since the birth of (NAME)?	YES.....1 (SKIP TO 420)← NO.....2		
419	ENTER "X" IN COL.3 OF CALENDAR IN MONTH AFTER BIRTH AND IN EACH MONTH TO CURRENT MONTH (OR TO CURRENT PREGNANCY)	(SKIP TO 420A)		
420	For how many months after the birth of (NAME) did you not have a period?	ENTER "X" IN COL.3 OF CALENDAR FOR THE NUMBER OF SPECIFIED MONTHS WITHOUT A PERIOD, STARTING IN THE MONTH AFTER BIRTH.  IF LESS THAN ONE MONTH WITHOUT A PERIOD, ENTER "0" IN COL.3 IN MONTH AFTER BIRTH.		
420A	CHECK 225: WOMAN PREGNANT?	NOT PREGNANT <input type="checkbox"/> PREGNANT OR UNSURE <input type="checkbox"/> v (SKIP TO 423)		
421	Have you resumed sexual relations since the birth of (NAME)?	YES.....1 (SKIP TO 423)← NO.....2		
422	ENTER "X" IN COL.4 OF CALENDAR IN MONTH AFTER BIRTH AND IN EACH MONTH TO CURRENT MONTH.	(SKIP TO 424)		
423	For how many months after the birth of (NAME) did you not have sexual relations?	ENTER "X" IN COL.4 OF CALENDAR FOR THE NUMBER OF SPECIFIED MONTHS WITHOUT SEXUAL RELATIONS, STARTING IN THE MONTH AFTER BIRTH.  IF LESS THAN ONE MONTH WITHOUT SEXUAL RELATIONS, ENTER "0" IN COL.4 OF CALENDAR IN THE MONTH AFTER BIRTH.		

	NAME	LAST BIRTH	NAME	NEXT-TO-LAST-BIRTH	NAME	SECOND-FROM-LAST-BIRTH																																					
424	Did you ever breastfeed (NAME)?	YES.....1 (SKIP TO 426)←	NO.....2	YES.....1 (SKIP TO 433)←	NO.....2	YES.....1 (SKIP TO 433)←	NO.....2																																				
424A ENTER "M" IN COL.5 OF CALENDAR IN MONTH AFTER BIRTH																																											
425	Why did you not breastfeed (NAME)?	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM.04 NO MILK.....05 WORKING.....06 CHILD REFUSED.....07 OTHER.....08 (SPECIFY) (SKIP TO 435) ←	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM.04 NO MILK.....05 WORKING.....06 CHILD REFUSED.....07 OTHER.....08 (SPECIFY) (SKIP TO 435) ←	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM.04 NO MILK.....05 WORKING.....06 CHILD REFUSED.....07 OTHER.....08 (SPECIFY) (SKIP TO 435) ←																																							
426	Was the first breastmilk given to (NAME) or thrown away?	GIVEN TO CHILD.....1 THROWN AWAY.....2																																									
426A	CHECK 216: CHILD ALIVE?	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> ↓ (SKIP TO 433)																																									
427	Are you still breast-feeding (NAME)?	YES.....1 NO.....2 (SKIP TO 433)←																																									
428 ENTER "X" IN COL.5 OF CALENDAR IN MONTH AFTER BIRTH AND IN EACH MONTH TO CURRENT MONTH																																											
429	How many times did you breastfeed last night between sundown and sunup? (IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NO.)	NUMBER OF NIGHTTIME FEEDINGS	<input type="text"/>	<input type="text"/>																																							
430	How many times did you breastfeed yesterday during the daylight hours? (IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NO.)	NUMBER OF DAYLIGHT FEEDINGS	<input type="text"/>	<input type="text"/>																																							
431	At any time yesterday or last night was (NAME) given any of the following?:	<table border="0"> <tr> <td></td> <td>YES</td> <td>NO</td> </tr> <tr> <td>Plain water?</td> <td>PLAIN WATER.....1</td> <td>2</td> </tr> <tr> <td>Sugar water?</td> <td>SUGAR WATER.....1</td> <td>2</td> </tr> <tr> <td>Juice?</td> <td>JUICE.....1</td> <td>2</td> </tr> <tr> <td>Honey?</td> <td>HONEY.....1</td> <td>2</td> </tr> <tr> <td>Tea or herbs?</td> <td>TEA/HERBS.....1</td> <td>2</td> </tr> <tr> <td>Mashed food?</td> <td>MASHED FOOD.....1</td> <td>2</td> </tr> <tr> <td>Fresh milk?</td> <td>FRESH MILK.....1</td> <td>2</td> </tr> <tr> <td>Sweetened condensed milk?</td> <td>SWEETENED MILK.....1</td> <td>2</td> </tr> <tr> <td>Powdered milk?</td> <td>POWDERED MILK.....1</td> <td>2</td> </tr> <tr> <td>Rice water or other liquids?</td> <td>RICE WATER/ OTHER LIQUIDS.....1</td> <td>2</td> </tr> <tr> <td>Any solid food or porridge?</td> <td>SOLID FOOD/PORRIDGE..1</td> <td>2</td> </tr> </table>		YES	NO	Plain water?	PLAIN WATER.....1	2	Sugar water?	SUGAR WATER.....1	2	Juice?	JUICE.....1	2	Honey?	HONEY.....1	2	Tea or herbs?	TEA/HERBS.....1	2	Mashed food?	MASHED FOOD.....1	2	Fresh milk?	FRESH MILK.....1	2	Sweetened condensed milk?	SWEETENED MILK.....1	2	Powdered milk?	POWDERED MILK.....1	2	Rice water or other liquids?	RICE WATER/ OTHER LIQUIDS.....1	2	Any solid food or porridge?	SOLID FOOD/PORRIDGE..1	2					
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432	CHECK 431 : FOOD OR LIQUID GIVEN YESTERDAY?	YES TO ONE OR MORE <input type="checkbox"/> NO TO ALL <input type="checkbox"/> ↓ (SKIP TO 437)	(SKIP TO 437)	(SKIP TO 436)																																							

		LAST BIRTH NAME _____	NEXT-TO-LAST-BIRTH NAME _____	SECOND-FROM-LAST-BIRTH NAME _____
433	For how many months did you breastfeed (NAME)?	ENTER "X" IN COL.5 OF CALENDAR FOR THE NUMBER OF SPECIFIED MONTHS OF BREASTFEEDING, STARTING IN THE MONTH AFTER BIRTH.  IF BREASTFED LESS THAN ONE MONTH, ENTER "0" IN COL.5 IN MONTH AFTER BIRTH.		
434	Why did you stop breastfeeding (NAME)?	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 NO MILK.....05 WORKING.....06 CHILD REFUSED.....07 WEANING AGE.....08 BECAME PREGNANT.....09 OTHER.....10 (SPECIFY)	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 NO MILK.....05 WORKING.....06 CHILD REFUSED.....07 WEANING AGE.....08 BECAME PREGNANT.....09 OTHER.....10 (SPECIFY)	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 NO MILK.....05 WORKING.....06 CHILD REFUSED.....07 WEANING AGE.....08 BECAME PREGNANT.....09 OTHER.....10 (SPECIFY)
435	CHECK 216: CHILD ALIVE?	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> (SKIP TO 437)	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> (SKIP TO 437)	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> (SKIP TO 437)
436	Was (NAME) ever given any water, or something else to drink or eat (other than breastmilk)?	YES.....1 NO.....2 (SKIP TO 440)←	YES.....1 NO.....2 (SKIP TO 440)←	YES.....1 NO.....2 (SKIP TO 440)←
437	How many months old was (NAME) when you started giving the following on a regular basis:  Formula or milk other than breastmilk?  Fruit?  Any mushy or solid food?	AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96  AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96  AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96  (IF LESS THAN ONE MONTH, RECORD '00')	AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96  AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96  AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96  (IF LESS THAN ONE MONTH, RECORD '00')	AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96  AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96  AGE IN MONTHS..... <input type="text"/> <input type="text"/> NOT GIVEN.....96  (IF LESS THAN ONE MONTH, RECORD '00')
438	CHECK 216: CHILD ALIVE?	ALIVE <input type="checkbox"/> DEAD <input type="checkbox"/> (SKIP TO 440)		
439	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES.....1 NO.....2 OK.....8		
440	GO BACK TO 403 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, GO TO 441			

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
441	CHECK 215: ANY BIRTH IN 1983, 1984, OR 1985?	YES <input type="checkbox"/>	->446
	NO <input type="checkbox"/>		
	NAME OF LAST BIRTH PRIOR TO 1986: _____ (NAME)		
442	Did you ever breastfeed (NAME)?	YES.....1	
		NO.....2	->446
443	How many months did you breastfeed (NAME)?	MONTHS..... <input type="text"/>	
444	For how many months after the birth of (NAME) did you not have a period?	MONTHS..... <input type="text"/>	
		NOT RETURNED.....96	
445	For how many months after the birth of (NAME) did you not have sexual relations?	MONTHS..... <input type="text"/>	
		DK.....96	
446	CHECK 401: ONE OR MORE LIVE BIRTHS SINCE JAN. 1986	NO LIVE BIRTHS SINCE JAN. 1986	->501
	<input type="checkbox"/>	<input type="checkbox"/>	

**SECTION 4B. IMMUNIZATION AND HEALTH**

<b>446A</b> ENTER THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH SINCE JANUARY 1966 IN THE TABLE. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE ADDITIONAL FORMS).																																																																																																																																										
LINE NUMBER FROM Q. 212	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																																																																																																							
	LAST BIRTH NAME <input style="width: 80%;" type="text"/>	NEXT-TO-LAST-BIRTH NAME <input style="width: 80%;" type="text"/>	SECOND-FROM-LAST-BIRTH NAME <input style="width: 80%;" type="text"/>																																																																																																																																							
<b>447</b> Do you have a card where (NAME'S) vaccinations are written down?  IF YES: May I see it, please?	YES, SEEN.....1 (SKIP TO 449) < <input style="width: 50px;" type="text"/>  YES, NOT SEEN.....2 (SKIP TO 451) < <input style="width: 50px;" type="text"/>  NO CARD.....3	YES, SEEN.....1 (SKIP TO 449) < <input style="width: 50px;" type="text"/>  YES, NOT SEEN.....2 (SKIP TO 451) < <input style="width: 50px;" type="text"/>  NO CARD.....3	YES, SEEN.....1 (SKIP TO 449) < <input style="width: 50px;" type="text"/>  YES, NOT SEEN.....2 (SKIP TO 451) < <input style="width: 50px;" type="text"/>  NO CARD.....3																																																																																																																																							
<b>448</b> Did you ever have a vaccination card for (NAME)?	YES.....1 (SKIP TO 451) < <input style="width: 50px;" type="text"/>  NO.....2	YES.....1 (SKIP TO 451) < <input style="width: 50px;" type="text"/>  NO.....2	YES.....1 (SKIP TO 451) < <input style="width: 50px;" type="text"/>  NO.....2																																																																																																																																							
<b>449</b> (1) COPY VACCINATION DATES FOR EACH VACCINE FROM THE CARD.  (2) WRITE '44' IN 'DAY' COLUMN, IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE RECORDED.	GOVERNMENT HOSPITAL.....1 PRIVATE HOSPITAL.....2 HEALTH CENTER (PUSKESMAS).3 PRIVATE CLINIC.....4 HEALTH POST (POSYANDU).....5 PRIVATE DOCTOR.....6 NURSE/MIDWIFE.....7 OTHER.....8	GOVERNMENT HOSPITAL.....1 PRIVATE HOSPITAL.....2 HEALTH CENTER (PUSKESMAS).3 PRIVATE CLINIC.....4 HEALTH POST (POSYANDU).....5 PRIVATE DOCTOR.....6 NURSE/MIDWIFE.....7 OTHER.....8	GOVERNMENT HOSPITAL.....1 PRIVATE HOSPITAL.....2 HEALTH CENTER (PUSKESMAS).3 PRIVATE CLINIC.....4 HEALTH POST (POSYANDU).....5 PRIVATE DOCTOR.....6 NURSE/MIDWIFE.....7 OTHER.....8																																																																																																																																							
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<b>450</b> Has (NAME) received any vaccinations that are not recorded on this card?	YES.....1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 449) < <input style="width: 50px;" type="text"/>  NO.....2 DK.....8  (SKIP TO 453)	YES.....1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 449) < <input style="width: 50px;" type="text"/>  NO.....2 DK.....8  (SKIP TO 453)	YES.....1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 449) < <input style="width: 50px;" type="text"/>  NO.....2 DK.....8  (SKIP TO 453)																																																																																																																																							
<b>451</b> Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases?	YES.....1 NO.....2 (SKIP TO 453) < <input style="width: 50px;" type="text"/> DK.....8	YES.....1 NO.....2 (SKIP TO 453) < <input style="width: 50px;" type="text"/> DK.....8	YES.....1 NO.....2 (SKIP TO 453) < <input style="width: 50px;" type="text"/> DK.....8																																																																																																																																							
<b>452</b> Please tell me if (NAME) (has) received any of the following vaccinations:	A BCG vaccination against tuberculosis, that is, an injection in the upper arm that left a scar?  YES.....1 NO.....2 DK.....8  Polio vaccine, that is, pink or white drops taken orally?  YES.....1 NO.....2 OK.....8  IF YES: How many times? NUMBER OF TIMES..... <input style="width: 50px;" type="text"/>  An injection against measles?  YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8  YES.....1 NO.....2 OK.....8  IF YES: How many times? NUMBER OF TIMES..... <input style="width: 50px;" type="text"/>  YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8  YES.....1 NO.....2 OK.....8  IF YES: How many times? NUMBER OF TIMES..... <input style="width: 50px;" type="text"/>  YES.....1 NO.....2 DK.....8																																																																																																																																							
<b>453</b> CHECK 216:  CHILD ALIVE?	ALIVE <input style="width: 20px;" type="checkbox"/> DEAD <input style="width: 20px;" type="checkbox"/> (SKIP TO 455)	ALIVE <input style="width: 20px;" type="checkbox"/> DEAD <input style="width: 20px;" type="checkbox"/> (SKIP TO 455)	ALIVE <input style="width: 20px;" type="checkbox"/> DEAD <input style="width: 20px;" type="checkbox"/> (SKIP TO 455)																																																																																																																																							
<b>454</b> GO BACK TO 447 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, SKIP TO 481																																																																																																																																										

		LAST BIRTH	NEXT-TO-LAST-BIRTH	SECOND-FROM-LAST-BIRTH
		NAME _____	NAME _____	NAME _____
455	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
456	Has (NAME) been ill with a cough at any time in the last 2 weeks?	YES.....1 NO.....2 (SKIP TO 459)← DK.....8	YES.....1 NO.....2 (SKIP TO 459)← DK.....8	YES.....1 NO.....2 (SKIP TO 459)← DK.....8
456A	When (NAME) had the illness with a cough, did he/she breathe faster than usual with short, rapid breaths?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
459	CHECK 455 AND 456: FEVER OR COUGH?	"YES" IN EITHER 455 OR 456 <input type="checkbox"/> V <input type="checkbox"/> OTHER →(SKIP TO 463)	"YES" IN EITHER 455 OR 456 <input type="checkbox"/> V <input type="checkbox"/> OTHER →(SKIP TO 463)	"YES" IN EITHER 455 OR 456 <input type="checkbox"/> V <input type="checkbox"/> OTHER →(SKIP TO 463)
460	Did you seek advice or treatment for the fever/cough?	YES.....1 NO.....2 (SKIP TO 462)←	YES.....1 NO.....2 (SKIP TO 462)←	YES.....1 NO.....2 (SKIP TO 462)←
461	Where did you seek advice or treatment? Anyone else? (CIRCLE EACH MENTIONED)	GOVERNMENT HOSPITAL.....A PRIVATE HOSPITAL.....B HEALTH CENTER (PUSKESMAS).C PRIVATE CLINIC.....D HEALTH POST (POSYANDU)....E PRIVATE DOCTOR.....F PRIVATE MIDWIFE.....G HEALTH CADRE.....H TRADITIONAL HEALER (DUKUN).I PHARMACY/DRUGSTORE.....J SHOP.....K OTHER.....L (SPECIFY)	GOVERNMENT HOSPITAL.....A PRIVATE HOSPITAL.....B HEALTH CENTER (PUSKESMAS).C PRIVATE CLINIC.....D HEALTH POST (POSYANDU)....E PRIVATE DOCTOR.....F PRIVATE MIDWIFE.....G HEALTH CADRE.....H TRADITIONAL HEALER (DUKUN).I PHARMACY/DRUGSTORE.....J SHOP.....K OTHER.....L (SPECIFY)	GOVERNMENT HOSPITAL.....A PRIVATE HOSPITAL.....B HEALTH CENTER (PUSKESMAS).C PRIVATE CLINIC.....D HEALTH POST (POSYANDU)....E PRIVATE DOCTOR.....F PRIVATE MIDWIFE.....G HEALTH CADRE.....H TRADITIONAL HEALER (DUKUN).I PHARMACY/DRUGSTORE.....J SHOP.....K OTHER.....L (SPECIFY)
462	What was given to treat the fever/cough, if anything? Anything else? (CIRCLE EACH MENTIONED)	NO TREATMENT.....A ANTIPYRETIC (PILL OR SYRUP).....B COUGH PILL/SYRUP.....C OTHER PILL OR SYRUP.....D HERBAL MEDICINE (JAMU)...E EXTERNAL MEDICINE.....F OTHER.....G (SPECIFY)	NO TREATMENT.....A ANTIPYRETIC (PILL OR SYRUP).....B COUGH PILL/SYRUP.....C OTHER PILL OR SYRUP.....D HERBAL MEDICINE (JAMU)...E EXTERNAL MEDICINE.....F OTHER.....G (SPECIFY)	NO TREATMENT.....A ANTIPYRETIC (PILL OR SYRUP).....B COUGH PILL/SYRUP.....C OTHER PILL OR SYRUP.....D HERBAL MEDICINE (JAMU)...E EXTERNAL MEDICINE.....F OTHER.....G (SPECIFY)

		LAST BIRTH NAME _____	NEXT-TO-LAST-BIRTH NAME _____	SECOND-FROM-LAST-BIRTH NAME _____
463	Has (NAME) had diarrhea in the last two weeks?*	YES.....1 (SKIP TO 465)←.....1 NO.....2 DK.....8	YES.....1 (SKIP TO 465)←.....1 NO.....2 DK.....8	YES.....1 (SKIP TO 465)←.....1 NO.....2 DK.....8
464	GO BACK TO 447 FOR NEXT CHILD; OR, IF NO MORE CHILDREN, SKIP TO 481			
465	Has (NAME) had diarrhea in the last 24 hours?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
466	How long has the diarrhea lasted/did the diarrhea last?	DAYS..... <input type="text"/> <input type="text"/> (IF LESS THAN 1 DAY, ENTER '00')	DAYS..... <input type="text"/> <input type="text"/> (IF LESS THAN 1 DAY, ENTER '00')	DAYS..... <input type="text"/> <input type="text"/> (IF LESS THAN 1 DAY, ENTER '00')
466A	Was there any mucus in the stools?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
467	Was there any blood in the stools?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8 (SKIP TO 471)	YES.....1 NO.....2 DK.....8 (SKIP TO 471)
468	CHECK 427: LAST CHILD STILL BREASTFED?	YES <input type="checkbox"/> NO <input type="checkbox"/> (SKIP TO 471)		
469	During (NAME)'s diarrhea, did you change the frequency of breastfeeding?	YES.....1 NO.....2 (SKIP TO 471)←.....2		
470	Did you <u>increase</u> the number of feeds or <u>reduce</u> them, or did you <u>stop</u> completely?	INCREASED.....1 REDUCED.....2 STOPPED COMPLETELY.....3		
471	(Aside from breastmilk) Was he/she given the same amount to drink as before the diarrhea, or more, or less?	SAME.....1 MORE.....2 LESS.....3 DK.....8	SAME.....1 MORE.....2 LESS.....3 DK.....8	SAME.....1 MORE.....2 LESS.....3 DK.....8
472	Was (NAME) given a fluid made from a special packet called ORALIT?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
473	Was (NAME) given a recommended home-made fluid such as a solution made of sugar, salt, and water, or soup, rice water, coconut water, broth or tea?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8

	LAST BIRTH NAME _____	NEXT-TO-LAST-BIRTH NAME _____	SECOND-FROM-LAST-BIRTH NAME _____	
474	CHECK 472 AND 473: CHILD GIVEN FLUID FROM PACKET (ORALIT, CHECK 472) AND/OR RECOMMENDED HOME-MADE FLUID (473)?	YES GIVEN FLUID (ORALIT) (PKT./HOME) <input type="checkbox"/> ↓ NO FLUID <input type="checkbox"/> ↓ (SKIP TO 476)	YES GIVEN FLUID (ORALIT) (PKT./HOME) <input type="checkbox"/> ↓ NO FLUID <input type="checkbox"/> ↓ (SKIP TO 476)	YES GIVEN FLUID (ORALIT) (PKT./HOME) <input type="checkbox"/> ↓ NO FLUID <input type="checkbox"/> ↓ (SKIP TO 476)
475	For how many days was (NAME) given this fluid?	DAYS..... <input type="text"/> OK.....98 (IF LESS THAN ONE DAY, RECORD '00')	DAYS..... <input type="text"/> OK.....98 (IF LESS THAN ONE DAY, RECORD '00')	DAYS..... <input type="text"/> OK.....98 (IF LESS THAN ONE DAY, RECORD '00')
476	Did you seek advice or treatment for the diarrhea?	YES.....1 NO.....2 (SKIP TO 478)←	YES.....1 NO.....2 (SKIP TO 478)←	YES.....1 NO.....2 (SKIP TO 478)←
477	Where did you seek advice or treatment from?  Any other place?  (CIRCLE EACH MENTIONED)	GOVERNMENT HOSPITAL.....A PRIVATE HOSPITAL.....B HEALTH CENTER (PUSKESMAS)..C PRIVATE CLINIC.....D HEALTH POST (POSYANDU)....E PRIVATE DOCTOR.....F NURSE/MIDWIFE.....G HEALTH CADRE.....H TRADITIONAL HEALER.....I PHARMACY/DRUGSTORE.....J SHOP.....K OTHER.....L	GOVERNMENT HOSPITAL.....A PRIVATE HOSPITAL.....B HEALTH CENTER (PUSKESMAS)..C PRIVATE CLINIC.....D HEALTH POST (POSYANDU)....E PRIVATE DOCTOR.....F NURSE/MIDWIFE.....G HEALTH CADRE.....H TRADITIONAL HEALER.....I PHARMACY/DRUGSTORE.....J SHOP.....K OTHER.....L	GOVERNMENT HOSPITAL.....A PRIVATE HOSPITAL.....B HEALTH CENTER (PUSKESMAS)..C PRIVATE CLINIC.....D HEALTH POST (POSYANDU)....E PRIVATE DOCTOR.....F NURSE/MIDWIFE.....G HEALTH CADRE.....H TRADITIONAL HEALER.....I PHARMACY/DRUGSTORE.....J SHOP.....K OTHER.....L
478	Was anything given for the diarrhea (other than ORALIT or a home fluid)?	YES.....1 NO.....2 (SKIP TO 480)← DK.....B	YES.....1 NO.....2 (SKIP TO 480)← DK.....B	YES.....1 NO.....2 (SKIP TO 480)← DK.....B
479	What was given to treat the diarrhea?  Anything else?  (CIRCLE EACH MENTIONED)	CAPSULE.....A PILL.....B SYRUP.....C HERBAL MEDICINES.....D EXTERNAL MEDICINE.....E OTHER.....F (SPECIFY)	CAPSULE.....A PILL.....B SYRUP.....C HERBAL MEDICINES.....D EXTERNAL MEDICINE.....E OTHER.....F (SPECIFY)	CAPSULE.....A PILL.....B SYRUP.....C HERBAL MEDICINES.....D EXTERNAL MEDICINE.....E OTHER.....F (SPECIFY)
480	GO BACK TO 477 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, GO TO 481			

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
481	CHECK 472:  ORALIT SOLUTION MENTIONED FOR ANY CHILD IN 472 <input type="checkbox"/>	ORALIT SOLUTION NOT MENTIONED OR 472 NOT ASKED <input type="checkbox"/>	→484
482	Before this interview, had you ever heard of a special product called ORALIT you can get for the treatment of diarrhea?	YES.....1 NO.....2	→484
483	Have you ever seen a packet like this before? (SHOW PACKET)	YES.....1 NO.....2	→487
484	Have you ever prepared a solution with one of these packets to treat diarrhea in your household or in someone else? (SHOW PACKET)	YES.....1 NO.....2	→486
485	Where did you get the water you used to prepare ORALIT?	PIPED INTO RESIDENCE.....01 PIPED INTO YARD OR PLOT.....02 PUBLIC TAP.....03 PUMP.....04 WELL.....05 SPRING.....06 RIVER.....07 RAINWATER.....08 OTHER.....09 (SPECIFY)	
485A	Did you boil the water?	YES.....1 NO.....2 DON'T KNOW.....8	
486	Where can you get the ORALIT packet?  PROBE: Anywhere else? (CIRCLE ALL PLACES MENTIONED)	GOVERNMENT HOSPITAL.....A PRIVATE HOSPITAL.....B HEALTH CENTER (PUSKESMAS).....C PRIVATE CLINIC.....D HEALTH POST (POSYANDU).....E PRIVATE DOCTOR.....F NURSE/MIDWIFE.....G HEALTH CADRE.....H TRADITIONAL HEALER (DUKUN).....I PHARMACY/DRUGSTORE.....J SHOP.....K OTHER.....L (SPECIFY)	
487	CHECK 473:  RECOMMENDED HOME-MADE FLUID MENTIONED (ANY YES IN 473) <input type="checkbox"/>	RECOMMENDED HOME-MADE FLUID NOT MENTIONED OR 473 NOT ASKED <input type="checkbox"/>	→5D1
488	Who taught you about the home fluid given to (NAME)?	GOVERNMENT HOSPITAL.....A PRIVATE HOSPITAL.....B HEALTH CENTER (PUSKESMAS).....C PRIVATE CLINIC.....D HEALTH POST (POSYANDU).....E PRIVATE DOCTOR.....F NURSE/MIDWIFE.....G HEALTH CADRE.....H TRADITIONAL HEALER (DUKUN).....I PHARMACY/DRUGSTORE.....J SHOP.....K TELEVISION/RADIO/NEWSPAPER.....L OTHER.....M (SPECIFY)	

**SECTION 5. MARRIAGE**

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO															
501	Have you been married only once, or more than once?	ONCE.....1 MORE THAN ONCE.....2																
502	How old were you when you started living with your (first) husband?	AGE..... <input type="text"/> <input type="text"/>																
503	In what month and year did you start living with him? COMPARE AND CORRECT 502 AND/OR 503 IF INCONSISTENT.	MONTH..... <input type="text"/> <input type="text"/> DK MONTH.....98 YEAR..... <input type="text"/> <input type="text"/> DK YEAR.....98																
504	DETERMINE MONTHS MARRIED SINCE JANUARY 1986. ENTER "X" IN COLUMN 6 OF CALENDAR FOR EACH MONTH MARRIED, AND ENTER "0" FOR EACH MONTH NOT MARRIED, SINCE JANUARY 1986.  FOR WOMEN NOT CURRENTLY MARRIED OR WITH MORE THAN ONE MARRIAGE: PROBE FOR DATE COUPLE TERMINATED THEIR MARRIAGE OR DATE WIDOWED, AND FOR STARTING DATE OF ANY SUBSEQUENT MARRIAGE.																	
505	CHECK 104A: CURRENTLY MARRIED <input type="checkbox"/> WIDOWED, DIVORCED <input type="checkbox"/>		→510															
506	Now we need some details about your sexual activity in order to get a better understanding of family planning and fertility.  How many times did you have sexual intercourse in the last four weeks?	TIMES..... <input type="text"/> <input type="text"/>																
507	How many times in a month do you <u>usually</u> have sexual intercourse?	TIMES..... <input type="text"/> <input type="text"/>																
508	When was the last time you had sexual intercourse?	DAYS AGO.....1 <input type="text"/> <input type="text"/> WEEKS AGO.....2 <input type="text"/> <input type="text"/> MONTHS AGO.....3 <input type="text"/> <input type="text"/> YEARS AGO.....4 <input type="text"/> <input type="text"/> BEFORE LAST BIRTH.....996																
509	How old were you when you first had sexual intercourse?	AGE..... <input type="text"/> <input type="text"/> FIRST TIME WHEN MARRIED.....96																
510	PRESENCE OF OTHERS AT THIS POINT.	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">YES</th> <th style="text-align: center;">NO</th> </tr> </thead> <tbody> <tr> <td>CHILDREN UNDER 10.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>HUSBAND.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>OTHER MALES.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>OTHER FEMALES.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </tbody> </table>		YES	NO	CHILDREN UNDER 10.....	1	2	HUSBAND.....	1	2	OTHER MALES.....	1	2	OTHER FEMALES.....	1	2	
	YES	NO																
CHILDREN UNDER 10.....	1	2																
HUSBAND.....	1	2																
OTHER MALES.....	1	2																
OTHER FEMALES.....	1	2																

SECTION 6. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
601	CHECK 315: NEITHER STERILIZED <input type="checkbox"/> HE OR SHE STERILIZED <input type="checkbox"/>		606
602	CHECK 104A: CURRENTLY MARRIED <input type="checkbox"/> WIDOWED/DIVORCED <input type="checkbox"/>		611
603	CHECK 225: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/> How I have some questions about the future. Would you like to have (a/another) child or would you prefer not to have any (more) children? How I have some questions about the future. After the child you are expecting, would you like to have another child or would you prefer not to have any more children?	HAVE A (ANOTHER) CHILD.....1 NO MORE/NONE.....2 SAYS SHE CAN'T GET PREGNANT.....3 UNDECIDED OR DK.....8	609
603A	How many additional children do you want?	NUMBER OF CHILDREN.....	
604	CHECK 225: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/> How long would you like to wait from now before the birth of (a/another) child? How long would you like to wait after the birth of the child you are expecting before the birth of another child?	MONTHS.....1 YEARS.....2 SOON/NOW.....994 SAYS SHE CAN'T GET PREGNANT...995 OTHER (SPECIFY) 996 DK.....998	609
604A	CHECK 216 AND 225: HAS LIVING CHILDREN OR PREGNANT? YES <input type="checkbox"/> NO <input type="checkbox"/>		609
605	CHECK 225: NOT PREGNANT OR UNSURE <input type="checkbox"/> PREGNANT <input type="checkbox"/> How old would you like your youngest child to be when your next child is born? How old would you like the child you are expecting to be when your next child is born?	AGE OF CHILD YEARS..... DK.....98	609
606	Do you regret that you (your husband) had the operation not to have any (more) children?	YES.....1 NO.....2	611
607	Why do you regret it?	RESPONDENT WANTS ANOTHER CHILD...1 HUSBAND WANTS ANOTHER CHILD...2 SIDE EFFECTS.....3 OTHER REASON (SPECIFY) 4	611

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
609	Have you and your husband ever discussed the number of children you would like to have?	YES.....1 NO.....2	
610	Do you think your husband wants the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER.....1 MORE CHILDREN.....2 FEWER CHILDREN.....3 OK.....8	
611	<p>CHECK 216:</p> <p>NO LIVING CHILDREN <input type="checkbox"/></p> <p><input type="checkbox"/> If you could choose exactly the number of children to have in your whole life, how many would that be?</p> <p>MAS LIVING CHILDREN <input type="checkbox"/></p> <p><input type="checkbox"/> If you could go back to the time you did not have any children and could choose exactly the number to have in your whole life, how many would that be?</p> <p>RECORD SINGLE NUMBER OR OTHER ANSWER.</p>	<p>NUMBER..... <input type="text"/></p> <p>OTHER ANSWER _____ 96 (SPECIFY)</p>	701
611A	How many boys and how many girls?	<p>BOYS..... <input type="text"/></p> <p>GIRLS..... <input type="text"/></p> <p>OTHER ANSWER _____ 96 (SPECIFY)</p>	

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

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
701	ASK QUESTIONS ABOUT CURRENT OR MOST RECENT HUSBAND.		
	Now I have some questions about your (most recent) husband.		
702	Did your (last) husband ever attend school?	YES.....1 NO.....2	→705
703	What was the highest level of school he attended: primary, junior high, senior high, academy, or university?	PRIMARY .....1 JUNIOR HIGH SCHOOL.....2 SENIOR HIGH SCHOOL.....3 ACADEMY/UNIVERSITY.....4 DK.....8	
704	What was the highest grade or class he completed at that level?	GRADE..... <input type="checkbox"/> DK.....8	
705	What kind of work does (did) your (last) husband mainly do?  DO NOT CIRCLE, EXCEPT CODE "00".  _____  _____  _____	NEVER WORKED.....00 PROFESSIONAL, TECHNICAL.....01 MANAGERS AND ADMINISTRATORS.....02 CLERICAL.....03 SALES.....04 SERVICE.....05 AGRICULTURAL WORKER.....06 INDUSTRIAL WORKER.....07 OTHER.....08 MILITARY MEMBERS.....09 DON'T KNOW.....98	→708
706	CHECK 705:  WORKS (WORKED) <input type="checkbox"/> IN AGRICULTURE ↓ V	DOES (DID) NOT WORK IN AGRICULTURE <input type="checkbox"/>	→707B
707	Does (did) your husband work mainly on his own land or family land, or does he rent land or does he work on someone else's land?	HIS/FAMILY LAND.....1 RENTED LAND.....2 SOMEONE ELSE'S LAND.....3	→708
707A	Does (did) he work mainly for money or a share of the crops?	MONEY.....1 SHARE OF THE CROPS.....2 DK.....8	→708
707B	Does (did) he earn a regular wage or salary?	YES.....1 NO.....2 DK.....8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
708	Since you were first married, how many different communities (desas) have you lived in for 6 months or more?	NUMBER OF DESAS.....	<input type="text"/>
713	I would like to ask you some questions about working. As you know, many women work - I mean aside from doing their own housework. Some take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. Before you married your (first) husband, did you ever do any of these things or any other work?	YES.....1 NO.....2	
714	Since you were first married, have you ever worked?	YES.....1 NO.....2	
715	CHECK 713 AND 714: EVER WORKED <input type="checkbox"/> NEVER WORKED <input type="checkbox"/>		718
716	Are you currently working?	YES.....1 NO.....2	
717	What is (was) your (most recent) occupation? That is, what kind of work do (did) you mainly do? _____ _____ _____	PROFESSIONAL, TECHNICAL.....01 MANAGERS AND ADMINISTRATORS.....02 CLERICAL.....03 SALES.....04 SERVICE.....05 AGRICULTURAL WORKER.....06 INDUSTRIAL WORKER.....07 OTHER.....08 MILITARY MEMBERS.....09	
718	RECORD THE TIME	HOURS..... MINUTES.....	<input type="text"/> <input type="text"/>

**SECTION 8: INTERVIEW PARTICULARS**

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
801	In what language did you conduct the interview?	INDONESIAN.....1 JAVANESE.....2 SUNDANESE.....3 MADURANESE.....4 BALINESE.....5 OTHER.....6 (SPECIFY)	
802	For how much of the interview did you depend on a third person to interpret for you?	NONE OF THE INTERVIEW.....1 SOME OF THE INTERVIEW.....2 MOST OF THE INTERVIEW.....3 ALL OF THE INTERVIEW.....4 OTHER.....5 (SPECIFY)	

INTERVIEWER'S OBSERVATIONS

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Name of Interviewer: \_\_\_\_\_ Date: \_\_\_\_\_

SUPERVISOR'S OBSERVATIONS

\_\_\_\_\_  
 \_\_\_\_\_  
 Name of Supervisor: \_\_\_\_\_ Date: \_\_\_\_\_

EDITOR'S OBSERVATIONS

\_\_\_\_\_  
 \_\_\_\_\_  
 Name of Field Editor: \_\_\_\_\_ Date: \_\_\_\_\_

CALENDAR

ONLY ONE CODE SHOULD APPEAR IN ANY BOX.  
 IN COLUMNS 1 AND 6, ALL BOXES SHOULD BE FILLED IN.

INFORMATION TO BE CODED FOR EACH COLUMN.

COL 1: Births, Pregnancies, Contraceptive Use

- L BIRTHS
- H PREGNANCIES
- K STILLBIRTHS/MISCARRIAGES/ABORTIONS

0 NO METHOD

1 PILL

2 IUD

3 INJECTION

4 INTRAVAG

5 CONDOM

6 MORPLANT

7 FEMALE STERILIZATION

8 MALE STERILIZATION

9 PERIODIC ABSTINENCE/CALENDAR

S WITHDRAWAL

N OTHER \_\_\_\_\_

(SPECIFY)

COL. 2: Discontinuation of Contraceptive Use

1 BECAME PREGNANT WHILE USING

2 WANTED TO BECOME PREGNANT

3 HUSBAND DISAPPROVED

4 SIDE EFFECTS

5 HEALTH CONCERNS

6 ACCESS/AVAILABILITY

7 WANTED MORE EFFECTIVE METHOD

8 INCONVENIENT TO USE

9 INFREQUENT SEX/ HUSBAND AWAY

B COST

F FATALISTIC

M MENOPAUSAL

C DIVORCED/SEPARATED/WIDOWED

X IUD EXPELLED

N OTHER \_\_\_\_\_

(SPECIFY)

T DON'T KNOW

COL. 3: Post-partum Amenorrhea

X PERIOD DID NOT RETURN

0 LESS THAN 1 MONTH

COL. 4: Post-partum Abstinence

X NO SEXUAL RELATIONS

0 LESS THAN 1 MONTH

COL. 5: Breastfeeding

X BREASTFEEDING

0 LESS THAN 1 MONTH

N NEVER BREASTFED

COL. 6: Marriage/Union

X IN UNION (MARRIED OR LIVING TOGETHER)

0 NOT IN UNION

		1	2	3	4	5	6		
SEP	01							01	SEP
AUG	02							02	AUG
1	JUL	03						03	JUL 1
9	JUN	04						04	JUN 9
9	MAY	05						05	MAY 9
1	APR	06						06	APR 1
	MAR	07						07	MAR
	FEB	08						08	FEB
	JAN	09						09	JAN
DEC	10							10	DEC
NOV	11							11	NOV
OCT	12							12	DCT
SEP	13							13	SEP
1	AUG	14						14	AUG 1
9	JUL	15						15	JUL 9
9	JUN	16						16	JUN 9
0	MAY	17						17	MAY 0
	APR	18						18	APR
	MAR	19						19	MAR
	FEB	20						20	FEB
	JAN	21						21	JAN
DEC	22							22	DEC
NOV	23							23	NOV
OCT	24							24	OCT
SEP	25							25	SEP
1	AUG	26						26	AUG 1
9	JUL	27						27	JUL 9
8	JUN	28						28	JUN 8
9	MAY	29						29	MAY 9
	APR	30						30	APR
	MAR	31						31	MAR
	FEB	32						32	FEB
	JAN	33						33	JAN
DEC	34							34	DEC
NOV	35							35	NOV
OCT	36							36	OCT
SEP	37							37	SEP
1	AUG	38						38	AUG 1
9	JUL	39						39	JUL 9
8	JUN	40						40	JUN 8
8	MAY	41						41	MAY 8
	APR	42						42	APR
	MAR	43						43	MAR
	FEB	44						44	FEB
	JAN	45						45	JAN
DEC	46							46	DEC
NOV	47							47	NOV
OCT	48							48	OCT
SEP	49							49	SEP
1	AUG	50						50	AUG 1
9	JUL	51						51	JUL 9
8	JUN	52						52	JUN 8
7	MAY	53						53	MAY 7
	APR	54						54	APR
	MAR	55						55	MAR
	FEB	56						56	FEB
	JAN	57						57	JAN
DEC	58							58	DEC
NOV	59							59	NOV
OCT	60							60	OCT
SEP	61							61	SEP
1	AUG	62						62	AUG 1
9	JUL	63						63	JUL 9
8	JUN	64						64	JUN 8
6	MAY	65						65	MAY 6
	APR	66						66	APR
	MAR	67						67	MAR
	FEB	68						68	FEB
	JAN	69						69	JAN

LAST CHILD BORN PRIOR TO JANUARY 1986

NAME: \_\_\_\_\_ MONTH... 

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 YEAR... 

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