

# Indonesia

2002-2003

Demographic and Health Survey

Key Findings



This report summarizes the key findings of the 2002-2003 Indonesia Demographic and Health Survey (IDHS) carried out by Badan Pusat Statistik-Statistics Indonesia (BPS). 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.

The Government of Indonesia provided most of the survey costs through a loan from the World Bank. The United States Agency for International Development (USAID) provided funding for implementation of the survey in three newly established provinces and for technical assistance from ORC Macro.

Additional information about the survey may be obtained from the Directorate for Population Statistics, BPS, Jalan Dr. Sutomo No. 6-8, Jakarta 10710, Indonesia (Telephone/fax 345-6285, email: kependudukan@mailhost.bps.go.id), or the National Family Planning Coordinating Board, BKKBN, Jalan Permata 1, Halim Perdanakusumah, Jakarta 13650, Indonesia (Telephone/fax 800-8535), or the Institute for Research and Development, Ministry of Health, Jalan Percetakan Negara 29, Jakarta 10560, Indonesia (Telephone/fax 4287-1604).

Additional information about the DHS program may be obtained by writing to: MEASURE DHS, ORC Macro, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705, USA (Telephone 301-572-0200; Fax 301-572-0999; email: reports@orcmacro.com).

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# 2002-2003 INDONESIA DEMOGRAPHIC AND HEALTH SURVEY

## KEY FINDINGS

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## SURVEY METHODOLOGY

The 2002-2003 IDHS was specifically designed to meet the following objectives:

- Provide data concerning fertility, family planning, maternal and child health, maternal mortality, and awareness of AIDS, that can be used by program managers, policymakers, and researchers to evaluate and improve existing programs;
- Measure changes in fertility and contraceptive prevalence rates and at the same time study factors that affect the changes, such as marriage patterns, education, breastfeeding habits, and the availability of contraception;
- Measure the development and achievements of programs related to health policy, particularly those concerning the maternal and child health development program;
- Produce data which can be used to study men's participation in the health care of their families; and
- Provide an international database which can be used by the program managers, policymakers, and researchers related to fertility, family planning, and health.

The 2002-2003 Indonesia Demographic and Health Survey (IDHS) is a follow-on project to the 1987 National Indonesia Contraceptive Prevalence Survey (NICPS), and the 1991, 1994, and the 1997 IDHS.

The 2002-2003 IDHS used three questionnaires: the Household Questionnaire, the Women's Questionnaire for ever-married women 15-49 years old, and the Men's Questionnaire for currently married men 15-54 years old.

The Household Questionnaire was used to list all the usual members and visitors in the selected households. Basic information collected for each person listed includes: age, sex, education, and relationship to the head of the household. Information on characteristics of the household's dwelling unit, such as the source of water, type of toilet facilities, construction materials used for the floor and outer walls of the house, and ownership of various durable goods was also recorded in the household questionnaire.

The Women's Questionnaire was used to collect information from all ever-married women age 15-49. These women were asked questions on the following topics: background characteristics, such as age, marital status, education, and media exposure; knowledge and use of family planning methods; fertility preferences; antenatal, delivery and postnatal care; breastfeeding and infant feeding practices; vaccinations and childhood illnesses; marriage and sexual activity; woman's work and husband's background characteristics; childhood mortality; awareness and behavior regarding AIDS and other sexually transmitted infections (STIs); and sibling mortality, including maternal mortality.

The Men's Questionnaire was administered to all currently married men age 15-54 living in every third household in the IDHS sample. The Men's Questionnaire collected much of the same information included in the Women's Questionnaire, but was shorter because it did not contain detailed questions on reproductive history, maternal and child health, nutrition and maternal mortality. Instead, men were asked about their knowledge and participation in health-seeking practices for their children.

As in previous IDHS surveys, the 2002-2003 IDHS sample was designed to produce estimates at the national, urban-rural, and provincial levels. However, due to security reasons, four provinces were excluded from the sample: Nanggroe Aceh Darussalam, Maluku, North Maluku, and Papua. Previous IDHS surveys also included East Timor. Because of these exclusions, caution should be exercised when comparing results from the 2002-2003 IDHS to previous IDHS surveys.

## **SURVEY RESPONDENTS AND HOUSEHOLD LIVING CONDITIONS**

Housing conditions both reflect the socioeconomic level of the household and influence the health status of household members. Ownership of consumer durables also provides an indication of the household's socioeconomic level.

### **Survey Respondents**

In total, 33,088 households were interviewed for a 99 percent response rate. In these households, 29,483 ever-married women 15-49 were interviewed. From the households selected for the male interviews, complete interviews were obtained from 8,310 men.

Approximately one-third of the women and 20 percent of the men who participated in the survey are under 30 years of age. Overall, men are more likely to have attended school than women. However, women are becoming better educated. The percentage of women with some secondary education increased from 28 percent in 1997 to 38 percent in 2002-2003.

### **Housing Conditions**

In all, 91 percent of households have electricity, a large increase from the 80 percent found in the 1997 IDHS. Nationwide, 61 percent of households get their drinking water from a protected source (either piped, protected well, or tanker truck). Households in rural areas are less likely to get their water from a protected source than are urban households (49 percent and 75 percent, respectively). Thirty-nine percent of Indonesian households have no toilet facilities. In urban areas, 17 percent have no facilities, while in rural areas, the figure is 57 percent.

### **Asset Ownership**

Durable goods and means of transportation are an indicator of a household's socioeconomic status. Overall, 62 percent of households have a television, 56 percent have a radio, 18 percent have a refrigerator, and 13 percent have a telephone. For transportation, 44 percent of households have a bicycle or boat, and 30 percent have a motorcycle or motorboat, and 6 percent have a car/truck. Nationwide, 16 percent of households have none of the above goods.



## FERTILITY AND ITS DETERMINANTS

The IDHS looks at a number of fertility indicators, including levels, patterns, and trends in both current and cumulative fertility; the length of birth intervals; and the age at which women marry and initiate child bearing. Information on current and cumulative fertility is essential in monitoring the progress and evaluating the impact of the population programs in Indonesia.

### Levels and Trends

At current fertility levels, a woman in Indonesia would have an average of 2.6 children by the end of her reproductive life. There has been a steady decline in fertility rates from 3.0 children per woman in the 1991 IDHS, a decrease of almost half a child.

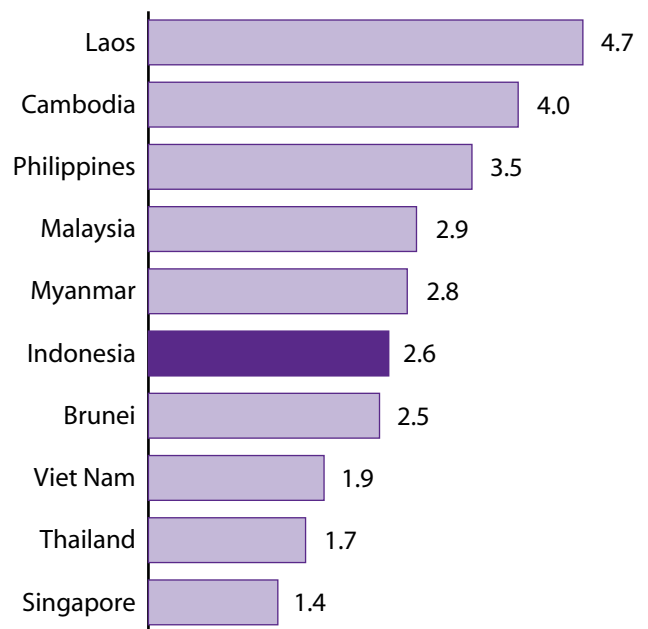
Rural women have higher fertility rates than urban women (2.7 children per woman compared to 2.4). In addition, women from poorer households have significantly higher fertility than those from richer households (3.0 children compared with 2.2 children).

Fertility varies widely according to province. Women in East Nusa Tenggara and Southeast Sulawesi have 4.1 children and 3.6 children, respectively.

On the other hand, women in Central Java, DI Yogyakarta, East Java, and Bali have reached or surpassed the fertility replacement level of 2.1 children per woman.

The total fertility rate in Indonesia is lower than in selected southeast Asian countries, such as Cambodia, Philippines, Malaysia, and Myanmar.

Fertility Rates, ASEAN Countries



Number of children per woman



### Age at First Marriage and at First Sexual Intercourse

Between 1997 and 2002-2003, the median age at first marriage among women age 25-49 increased from 18.6 years to 19.2 years. Urban women marry two years later than rural women; the median age at first marriage for urban women is 20.3 years, compared with 18.3 years for rural women.

### Age at First Birth

Women are also delaying having their first births. The median age at first birth for women age 25-49 has increased from 20.8 years in 1997 to 21.0 years in 2002-2003. Furthermore, the percent of teenagers who have given birth or are pregnant with their first birth has also declined from 12 percent in the 1997 IDHS to 10 percent in the 2002-2003 IDHS.

### Fertility Preferences

Half of currently married women report wanting to have no more children and 4 percent have been sterilized. Forty percent reported wanting to have another child; 13 percent wanted the child within two years and 24 percent wanting a child after two years or more.

Among women with two children, 58 percent either do not want any more children or have been sterilized. Among women with three children, this figure is 79 percent.

### Need for Family Planning Services

The percentage of currently married women who either do not want any more children or want to wait before having their next birth, but are not using any method of family planning are defined as having an “unmet need” for family planning services.

The total unmet need in Indonesia is 9 percent, of which 5 percent is for limiting and 4 percent is for spacing. The level of unmet need has remained the same as that found in the 1997 IDHS.

The National Development Program has set a target of unmet need for family planning in Indonesia to decrease from 9 percent in 1997 to 7 percent or lower in 2004. Thus far, 11 provinces have reached or surpassed that target: Jambi, South Sumatera, Bangka Belitung, DKI Jakarta, Central Java, DI Yogyakarta, East Java, Bali, Central Kalimantan, East Kalimantan, and North Sulawesi.

The total demand for family planning—defined as the sum of contraceptive prevalence and unmet need—is 68 percent, of which 88 percent has been satisfied. If all of this need were to be satisfied, a contraceptive prevalence rate of about 70 percent could, theoretically, be expected.

### Birth Intervals

Women in Indonesia generally favor long intervals between births. The overall median birth interval is 54 months, which is much higher than the results of the 1997 IDHS and the 1994 IDHS (45 months and 42 months, respectively).

Fifty-seven percent of births in the last five years occurred at least 48 months after the preceding birth, and only 14 percent of births took place within two years of a previous birth. Women 15-19 have the shortest birth interval (32 months).

### What is the fertility gap?

The total wanted fertility rate represents the level of fertility that would result if women had only the number of children that they want. A comparison of the actual fertility rate with the wanted fertility rate indicates the potential demographic impact of enabling women to achieve the family size they desire.

Overall, the total wanted fertility rate is almost half a birth lower than the total fertility rate. Thus, if unwanted births could be eliminated, total fertility in Indonesia would be 2.2 births per woman, instead of 2.6. The total wanted fertility rate is lower than that recorded in the 1997 IDHS (2.4 children per woman).



## FAMILY PLANNING

Information on the intention to use family planning in the future is of particular interest to policymakers and program managers as they seek to address the contraceptive needs of nonusers who are concerned about spacing or limiting their childbearing.

### Knowledge of Family Planning

Knowledge of contraceptive methods in Indonesia has been universal for some time. In 2002-2003, 99 percent of currently married women and 96 percent of currently married men knew at least one modern contraceptive method. Injectables and the pill are the most widely known methods (97 percent and 96 percent of currently married women, respectively), followed by the IUD and implants (87 percent).

**Sixty percent of married women are currently using contraception, up from 57 percent in 1997.**

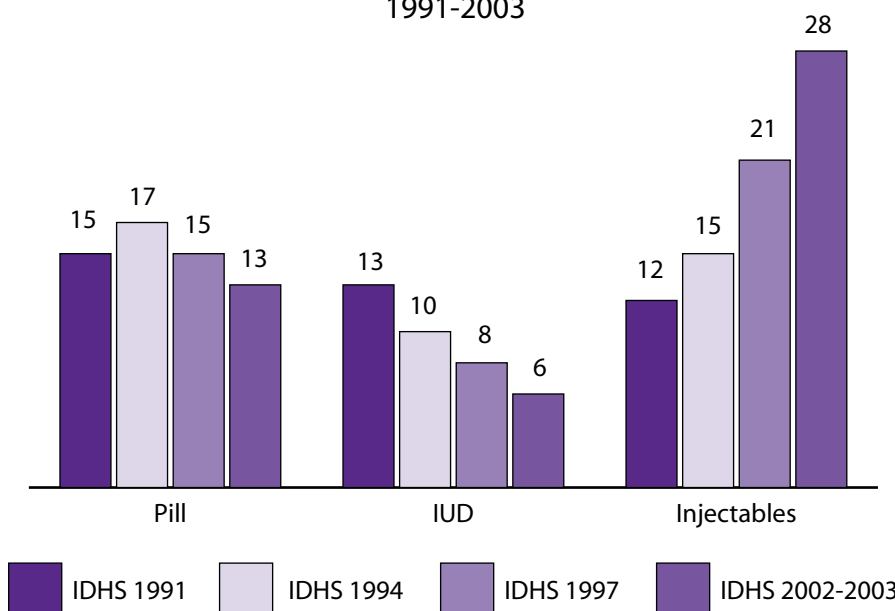
### Current Use of Family Planning

Sixty percent of currently married women are currently using contraception; 57 percent are using modern methods and 4 percent are using traditional methods. The percentage of women using contraception has risen from 50 percent in 1991 and 57 percent in 1997.

Today, the most commonly used methods are injectables (28 percent of women), the pill (13 percent), and the IUD (6 percent). In 1997, 21 percent of women were using injectables, 15 percent were using the pill, and 8 percent were using the IUD.

Contraceptive use increases with a woman's level of education. Forty-seven percent of married women with no education are using a method, compared with 64 percent of women with secondary or higher education.

Trends in Current Use of Specific Contraceptive Methods, 1991-2003



Contraceptive use also varies by province. Over 65 percent of married women in DI Yogyakarta, North Sulawesi, Bengkulu, East Java, and Bangka Belitung are currently using contraception. On the other hand, in East Nusa Tenggara, this figure is only 35 percent.

Note: The 2002-2003 IDHS did not include Nanggroe Aceh Darussalam, Maluku, North Maluku, and Papua provinces. Previous surveys included East Timor.



### Quality of Use

Program managers need to know not only what methods are being used, but to find out if popular methods of contraception are being used properly.

Ninety-five percent of users of one-month injectables received an injection in the past four weeks and 98 percent of users of three-month injectables received an injection in the past three months.

Ninety percent of users of the pill were able to show a package to the interviewer, 83 percent of these women had taken the pills in order, and 87 percent took the pill less than two days before the survey.

### Source of Methods

Users of modern contraceptive methods are gradually more likely to rely on private medical sources than government sources. Use of private medical sources increased from 42 percent in 1997 to 63 percent in 2002-2003, while use of government sources declined from 43 to 28 percent in the same period.

### Discontinuation Rates

Overall, 21 percent of contraceptive users discontinued using a method within 12 months of starting use. The highest overall one-year discontinuation rates for modern methods are for the male condom (39 percent), the pill (32 percent), and injectables (18 percent). The proportion of users who stopped using because they became pregnant (method failure) is highest for users of withdrawal and the male condom (6 and 5 percent, respectively).

It is interesting to note that while discontinuation rates for condoms and the pill remain high, the rates for injectables and the IUD have been declining steadily since 1994.

### Intention to Use

Forty-three percent of married women who are not using contraception intend to use a family planning method sometime in the future. More than half (56 percent) of these women prefer to use injectables. Nine percent of married men nonusers intend to use a method, and half of them prefer to use condoms.

### Reasons for Nonuse

Among women, fertility-related factors are the most commonly cited reasons for not intending to use contraception, followed by method-related reasons (58 percent and 26 percent of nonusers, respectively). Among male nonusers, 24 percent cited method-related reasons for not intending to use contraception in the future.



## REPRODUCTIVE AND CHILD HEALTH

The 2002-2003 IDHS measures the extent to which women obtain medical care during pregnancy, at the time of delivery, and in the postpartum period. For children, vaccination against six serious but preventable diseases, along with early diagnosis and treatment of common childhood illnesses, can prevent a large proportion of childhood deaths.

### Antenatal Care

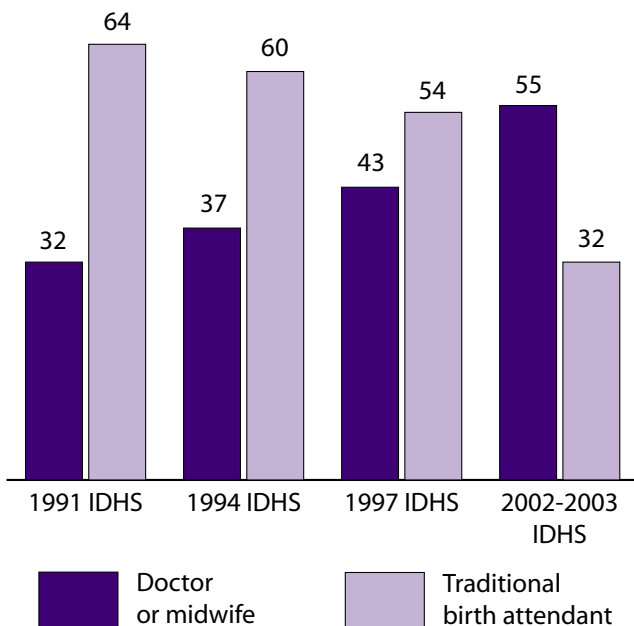
Antenatal care is widespread in Indonesia; 92 percent of mothers who had a live birth in the past five years received at least one antenatal checkup from a health professional. Eighty-one percent of mothers had four or more antenatal care visits, as is recommended by the Indonesian maternal health program. Coverage of  $K_4$  — at least one visit in the first trimester, and at least two visits in the third trimester — is 64 percent.



Slightly more than half of mothers received two or more tetanus toxoid injections during their last pregnancy. However, this varies widely by province. Mothers in North Sulawesi, DI Yogyakarta, and East Nusa Tenggara were most likely to receive two or more injections (71 percent, 67 percent, and 64 percent, respectively). On the other hand, only 21 percent of mothers in North Sumatera received two or more injections.

Distribution of iron supplements is an important component of antenatal care. In 2002-2003, 78 percent of women who received antenatal care received iron tablets, a decline from 83 percent in 1997. Three in ten of these women took the recommended 90 or more tablets during pregnancy.

Trends in Delivery Assistance, Indonesia 1991-2003



### Delivery Care

Despite the large proportion of women who receive antenatal care from a health professional, six in ten births in Indonesia are still delivered at home. Births in rural areas are almost twice as likely to be delivered at home than those in urban areas (76 percent and 40 percent, respectively). Births to mothers who have no education are three times more likely to be delivered at home than births to mothers who have secondary and higher education (89 percent and 27 percent, respectively).

Two-thirds of births in the five years before the survey were assisted by medical staff, either a doctor or a midwife. There has been a tremendous increase in the proportion of births assisted at delivery by a medical professional. In 2002-2003, 55 percent of births were assisted, while in 1991, 32 percent of births were assisted by a doctor or midwife.

Urban deliveries are much more likely to be assisted by medical personnel than rural deliveries (79 percent and 55 percent, respectively). The coverage of deliveries assisted by a medical professional varies widely across provinces, from 94 percent in DKI Jakarta to 36 percent in East Nusa Tenggara and 42 percent in Southeast Sulawesi. Traditional birth attendants continue to play an important role in assisting deliveries in East Nusa Tenggara and Southeast Sulawesi (55 percent).

Only 4 percent of births were reported as being delivered by caesarean section.

### Postnatal Care

Among women who did not give birth in a health facility, eight in ten received postnatal care within six weeks of delivery. Sixty-two percent of these consultations took place within 2 days of delivery and 13 percent 3-6 days after delivery.

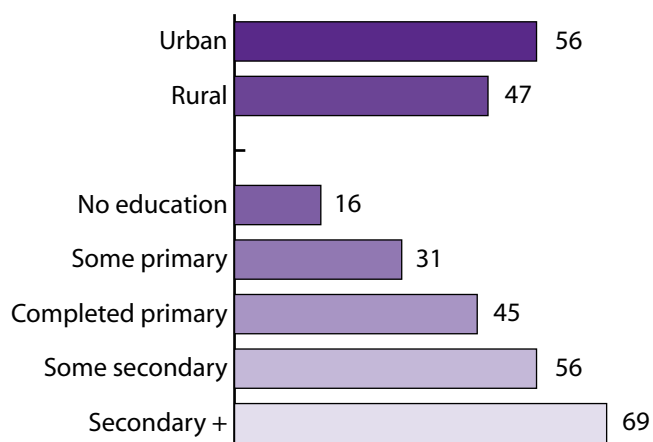
### Immunization of Children

Slightly more than half of children age 12-23 months (52 percent) have been fully vaccinated, that is they have received immunizations against tuberculosis; three doses against diphtheria, pertussis, and tetanus; three doses against polio; and measles. Additionally, 45 percent of children received three doses of vaccination against hepatitis B.

Male children (51 percent) are as likely as female children (52 percent) to have been fully vaccinated. However, vaccination coverage differs significantly across other characteristics. High-order births – i.e. sixth and higher – are far less likely to be fully immunized than first births (17 percent and 59 percent, respectively). Children of mothers with no education are much less likely to have received all their vaccinations (16 percent) than children of mothers with secondary or higher education (69 percent). Children in urban households are more likely to be fully vaccinated than children from rural households (56 percent and 47 percent, respectively).

Over 80 percent of children in DI Yogyakarta and Bali have received all their vaccinations, compared with less than 40 percent of children in Banten, North Sumatera, and West Kalimantan.

Children 12-23 Months Fully Vaccinated by Mother's Background Characteristics



## Breastfeeding

The World Health Organization (WHO) and UNICEF recommend that during the first six months of life, children should be exclusively breastfed and that they should be given solid or mushy complementary foods in addition to breast milk starting at seven months of age. These recommendations have been adopted by the Government of Indonesia.

The pattern of infant feeding has important effects on both the child and the mother. Appropriate feeding practices are of fundamental importance for the survival, growth, development, health, and nutrition of infants and children. Poor nutrition in children exposes them to a greater risk of illness and death.

Breastfeeding also affects mothers through the physiological suppression of the return to fertile status, thereby affecting the length of the interval between pregnancies.

Breastfeeding is nearly universal in Indonesia; 96 percent of children are breastfed. However, only 27 percent of children under five years were breastfed within 24 hours of birth.

Only 14 percent of children age 4-5 months are exclusively breastfed, as the Government of Indonesia recommends. Three-fourths of children age 6-9 months are given complementary foods in addition to being breastfed, as is recommended.

## Micronutrient Intake

About two out of three children age 6-59 months consumed fruits and vegetables rich in vitamin A in the seven days prior to the interview. These include pumpkin, carrots, red sweet potatoes, green leafy vegetables, mango, papaya, and other fruits and vegetables that are rich in vitamin A.

Sixty-four percent of children age 6-59 months consumed vitamin A supplements in the six months preceding the survey.<sup>1</sup> Children in DI Yogyakarta have the highest consumption of vitamin A supplements (81 percent of children 6-59 months), while children in North Sumatera have the lowest rate (45 percent).

Forty-three percent of mothers received a vitamin A dose within two months of delivering. Urban women were more likely to receive vitamin A postpartum (48 percent) than rural women (38 percent). The percentage of mothers receiving vitamin A postpartum varied by province. Between 55 and 60 percent of mothers received vitamin A in East Java, East Kalimantan, and Gorontalo. However, less than 30 percent of mothers from Lampung, North Sumatera, and Bangka Belitung did.



<sup>1</sup> Vitamin A supplementation was also given as part of the National Immunization Days in selected provinces in 2002.

# MORTALITY AND MORBIDITY

Identifying segments of the population that are at greater risk of dying and disease contributes to efforts to improve adult and child survival and lower exposure of individuals to risk.

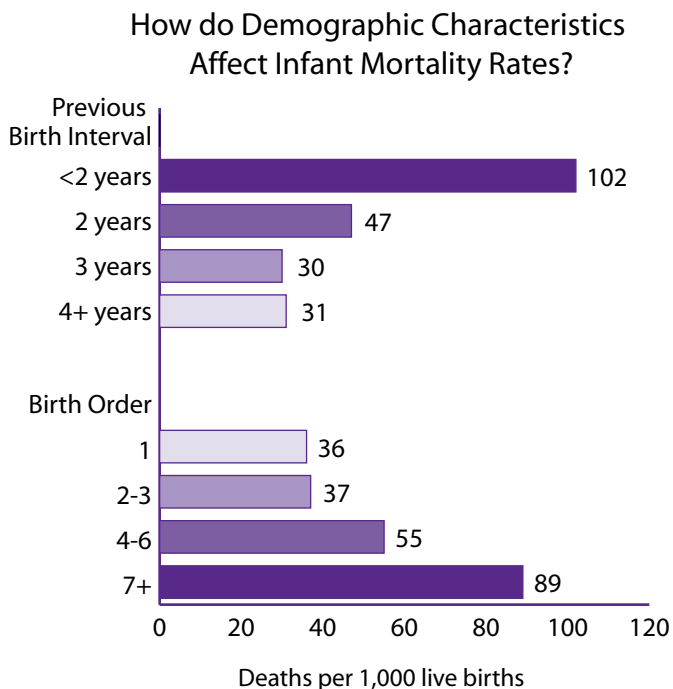
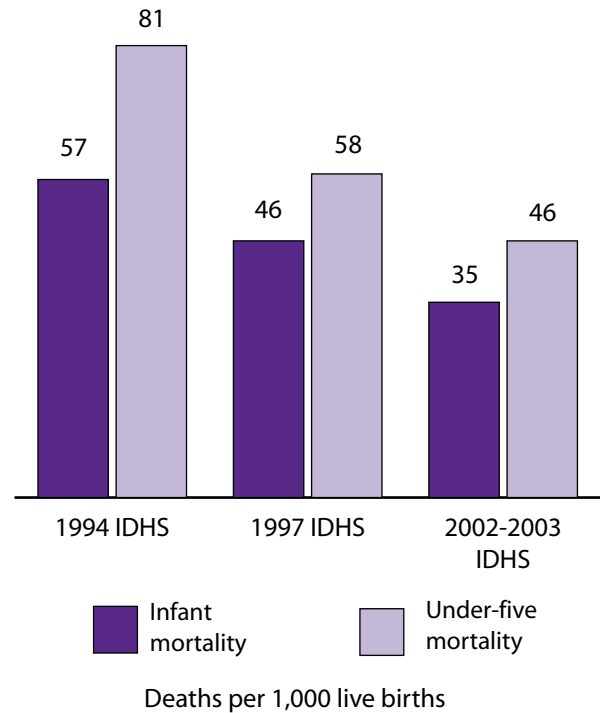
## Infant and Child Mortality

Infant mortality has declined 41 percent over the last fifteen years, from 59 deaths per 1,000 live births in 1988-1992 to 35 deaths per 1,000 live births in 1998-2002.

In general, children born to mothers living in urban areas have lower mortality rates than those born to women in rural areas. For example, the infant mortality rate in urban areas is slightly more than half that in rural areas (32 per 1,000 live births compared with 52 per 1,000 live births).

Childhood mortality rates also differ significantly according to province. Under-five mortality rates, for example, are particularly high in West Nusa Tenggara, Gorontalo, and Southeast Sulawesi (103, 97, and 92 deaths per 1,000 live births, respectively). Bali has the lowest under-five mortality rates (19 deaths per 1,000 live births).

Trends in Infant and Under-five Mortality Rates, 1994-2003



**The infant mortality rate for children born less than two years after a previous birth is more than twice as high as for children born after an interval of two years.**

## Demographic Differentials in Childhood Mortality

Childhood mortality rates decline sharply as the interval since the previous birth increases; the infant mortality rate for children born less than two years after a previous birth is more than twice as high as for children born after an interval of two years (102 compared with 47 deaths per 1,000 live births). Higher order births have higher mortality risks (36 for first-order births compared with 89 deaths per 1,000 live births for seven or higher order births).



Mother's age at delivery also affects a child's chance of survival. Infant mortality for children born to teenage mothers (age 15-19) is 53 deaths per 1,000 live births. The rates are 39 and 46 deaths per 1,000 live births for women who gave birth at age 20-29 and 30-39, then it increases again to 50 deaths per 1,000 for women who gave birth at age 40-49.

### Maternal Mortality

It is estimated that during the period 1998-2002, there were 307 maternal deaths per 100,000 live births. Maternal deaths are defined as any death that occurred during pregnancy, childbirth, or in the two months following the birth or termination of the pregnancy.

The 1994 IDHS showed a maternal mortality ratio of 390 deaths per 100,000 live births. Because maternal mortality figures are subject to high sampling errors and wide confidence intervals, it is not possible to conclude that there has been any decline in maternal mortality levels over the past 10-15 years.

### Childhood Diseases

Information on childhood diseases in the two weeks preceding the survey was collected for children under five. Eight percent of children under five had symptoms of acute respiratory infection (ARI)—cough accompanied by short and rapid breathing—and 26 percent had fever in the two weeks before the survey. Treatment was sought from a health facility or providers for 57 percent of children with ARI and/or fever. Forty-seven percent of children with fever were only given acetaminophen or paracetamol, while less than 1 percent of children were given antimalarial drugs.



During the two weeks prior to the survey, 11 percent of children under five suffered from diarrhea. Overall, 92 percent of mothers know about prepackaged oral rehydration salts (ORS), however, only 36 percent of children with diarrhea were treated with ORS. This percentage is much lower than in 1997 (48 percent). Slightly more than half of children who had diarrhea were taken to a health care facility or provider.

### Knowledge of HIV/AIDS

Knowledge of AIDS is fairly low in Indonesia. Only 59 percent of ever-married women and 73 percent of currently married men say that they have heard of AIDS. Only 34 percent of ever-married women and 54 percent of currently married men say that there is a way to avoid AIDS.

Knowledge of the three principal means to reduce HIV transmission—abstinence, reducing the number of partners, and use of condoms—is very limited. When asked about means to prevent AIDS, one percent of women and men mention abstinence, 6 percent of women and 10 percent of men mention limiting the number of sexual partners, and 5 percent of women and 13 percent of men cite using condoms. Sixteen percent of women and 41 percent of men cite avoiding having sex with prostitutes as a way to avoid getting AIDS.

## FATHER'S PARTICIPATION IN FAMILY HEALTH CARE

*Currently married men who have had at least one child since 1997 were asked several questions regarding the care of their last-born child. A newly established policy of the Indonesian government is to involve men in the health care of their wives and children.*

### Contact with Health Care Providers

Only four in ten fathers had any contact with a health care provider during their wife's pregnancy. Fathers in their thirties and urban fathers are more likely to talk with a health care provider.

East Nusa Tenggara consistently shows the most limited contact between fathers and health care providers, while Bali shows the opposite. For example, while 12 percent of fathers talked with a health care provider in East Nusa Tenggara, virtually all fathers in Bali did.

### Care During Antenatal, Delivery, and Postnatal Period

For 87 percent of births, husbands reported that the mothers received advice or care during pregnancy. In 77 percent of births, the mothers received care during delivery, and 71 percent received care in the six weeks after delivery.

### Preparation for Delivery

Overall, 77 percent of fathers discussed the preparations for their child's delivery, that is the place to deliver, transportation to the place of delivery, who would assist the delivery, costs, and blood donation, if necessary.

Ninety percent or more of fathers in West Sumatera, South Sumatera, DKI Jakarta, and Bali discussed the preparations for their child's birth. On the other hand, fathers in Lampung and West Kalimantan are the least likely to have discussed preparations (55 percent and 59 percent, respectively).

### Knowledge of Children's Immunization

The majority of fathers know that their children have been immunized against specific diseases. Sixty-four percent report that their children are immunized against measles, while 82 percent report that their children have been immunized against polio. In general, knowledge is highest among fathers age 30-39, urban fathers, and better-educated fathers. Knowledge of BCG immunization is 49 percent for fathers with no education and 89 percent among fathers with secondary or higher education.



## SUMMARY AND RECOMMENDATIONS

### Fertility and Family Planning

The total fertility rate has declined steadily from 3.0 children per woman in 1991 to 2.6 children per woman in 2002-2003. At the same time, use of contraception has risen from 50 percent of married women to 60 percent during the same period. Demand for contraception has also increased.

While these trends are generally positive, change in these indicators has been slower than expected. In general, there is too much reliance on two supply methods (injectables and the pill) which comprise over two-thirds of all contraceptive usage. Making alternative contraceptive methods more widely available and publicized might increase use, as well as providing a broader selection to meet women's needs.

Given the large percentage of women who want no more children—79 percent of women with three children—greater program emphasis needs to be placed on promoting permanent methods of contraception such as female sterilization (used by only 4 percent of married women) and male sterilization (used by the husbands of only 0.4 percent of married women) and long-term methods such as implants (4 percent) and the IUD (6 percent).

The public sector's share of contraceptive supply has decreased steadily since 1991. At the same time, the role of midwives has increased, especially as a source of supply of injectables and the pill. The private sector should be encouraged to continue its role in supplying hormonal methods, while the public sector should take a more active role in promoting permanent methods such as female and male sterilization.

Greater emphasis needs to be placed on postpartum counseling for postnatal maternal health care and future family planning needs, especially among women who do not deliver in a health institution. Since antenatal care is widespread, women can begin to be advised of postpartum family planning at that time.

### Childhood Mortality

In general, birth intervals in Indonesia are very long. Half of all second- or higher-order births occur more than four years after the birth of an older sibling. However, among those children who are born less than two years after an older sibling, childhood mortality rates are extremely high. Mortality rates among these children are twice as high as for children born after an interval of at least two years.

Mother's age at delivery is also an important factor in childhood mortality. Children born to teenage mothers have higher mortality rates than children born to older mothers. Between the 1991 IDHS and the 2002-2003 IDHS, teenage childbearing experienced a moderate decline. Efforts to discourage teenage childbearing should be continued.

## Reproductive Health

Despite the large proportion of women who receive antenatal care from a health professional, delivery care is still problematic. The proportion of women who deliver at home is still high, especially in rural areas (76 percent). In some provinces, more than 90 percent of births take place at home (Central Kalimantan, Southeast Sulawesi, and South Kalimantan).

There has been a substantial increase since 1991 in the proportion of births assisted by trained medical personnel. In 2002-2003, two-thirds of births were assisted by medical staff, compared with less than half that in 1991. However, reliance on traditional birth attendants is still high, especially in the provinces of East Nusa Tenggara, Southeast Sulawesi, Gorontalo, and West Java. Continued efforts should be made to increase the role of medically-trained personnel in assisting deliveries, especially in rural areas.

Inadequate maternal health coverage affects child mortality. In general, provinces with the highest proportion of deliveries at home and lowest proportion of deliveries assisted by a medically-trained person also have the highest childhood mortality rates. Efforts need to be made to improve reproductive health services in these provinces.

## Child Health

Nationwide, immunization rates are still very low; more than half of children 12-23 months have not been fully vaccinated. Greater resources should be put into supporting immunization campaigns, especially in rural provinces.

While knowledge of oral rehydration salt (ORS) packets is very high, only about one-third of children with diarrhea are treated with ORS. Less than two-thirds of children with diarrhea are given any form of rehydration therapy at all. Mothers need to be made aware that children with diarrhea need rehydration therapy in the form of ORS packets, a homemade solution, or increased fluids.

While breastfeeding is nearly universal, only 14 percent of children age 4-5 months are exclusively breastfed as is recommended by WHO, UNICEF, and the Government of Indonesia.

## HIV/AIDS

Nationwide, knowledge of HIV/AIDS and of the three programmatically-important ways to prevent AIDS is very low, even in urban areas. Education campaigns should target AIDS awareness and prevention issues—specifically, abstinence, being faithful to one partner, and condom use—in order to keep Indonesia's HIV prevalence low.

# KEY INDICATORS BY PROVINCE

	Indonesia	North Sumatera	West Sumatera	Riau	Jambi	South Sumatera	Bengkulu	Lampung	Bangka-Belitung	DKI Jakarta	West Java
<b>Fertility</b>											
<i>Births per woman age 15-49</i>											
Total Fertility Rate	2.6	3.0	3.2	3.2	2.7	2.3	3.0	2.7	2.4	2.2	2.8
Total Wanted Fertility Rate	2.2	2.6	2.9	2.7	2.4	2.0	2.5	2.0	2.1	2.0	2.4
Median Birth Intervals (months)	54	39	42	46	53	51	54	52	57	53	62
<b>Childhood Mortality</b>											
<i>Deaths per 1,000 live births in the ten years before the survey</i>											
Neonatal Mortality Rate	20	24	28	26	14	19	27	24	28	18	25
Infant Mortality Rate	35	42	48	43	41	30	53	55	43	35	44
Under-Five Mortality Rate	46	57	59	60	51	49	68	64	47	41	50
<b>Reproductive Health</b>											
<i>Percentage of women with a live birth in the five years before the survey</i>											
Antenatal Care from Health Provider	92	86	95	90	82	94	92	93	89	99	94
Women Receiving 2+ Doses of Tetanus Toxoid	51	21	51	45	41	52	62	45	45	49	54
Births Delivered in Health Facility	40	33	59	37	37	38	13	42	33	89	29
Mothers with Medical Assistance at Delivery	66	80	80	74	71	76	69	62	67	94	49
<b>Family Planning</b>											
<i>Percentage of currently married woman age 15-49</i>											
Women Knowing Any Contraceptive Method	99	95	97	99	99	100	100	100	98	100	100
Women Currently Using Any Method	60	53	53	58	59	61	68	61	65	63	59
Women Currently Using Any Modern Method	57	43	46	56	58	59	64	59	63	57	58
Women Currently Using:											
Injectables	28	16	22	30	29	30	30	31	27	28	33
Pill	13	13	9	18	15	10	13	14	27	13	16
IUD	6	3	6	3	5	2	6	4	2	10	4
Implants	4	3	5	3	8	11	9	8	4	1	2
Female Sterilization	4	6	4	1	1	5	4	2	2	3	2
Traditional Methods	4	9	7	2	1	3	4	3	2	6	2
Unmet Need for Family Planning	9	13	12	10	6	7	8	7	6	7	10
<b>Child Health</b>											
Children 12-23 Months Fully Immunized (BCG, Measles, and Three Doses of DPT and Polio)	52	37	59	57	51	51	69	46	65	67	41
Median Duration of Any Breastfeeding (Months)	22	19	22	23	22	22	21	20	23	14	24
Mothers Receiving Vitamin A Postpartum	43	29	41	45	52	39	34	26	29	52	42
Children 6-59 Months Receiving Vit. A Supplements	64	45	59	66	71	69	74	56	64	52	65
<b>HIV/AIDS</b>											
Women Having Heard of AIDS	59	59	68	67	46	49	60	54	65	90	63
Men Having Heard of AIDS	73	75	75	80	81	64	68	74	89	96	70
Women Knowing 2 or 3 Programmatically-Important Ways to Avoid AIDS	21	21	24	23	13	16	23	19	15	42	16



Central Java	DI Yogyakarta	East Java	Banten	Bali	West Nusa Tenggara	East Nusa Tenggara	West Kalimantan	Central Kalimantan	South Kalimantan	East Kalimantan	North Sulawesi	Central Sulawesi	South Sulawesi	Southeast Sulawesi	Gorontalo
2.1	1.9	2.1	2.6	2.1	2.4	4.1	2.9	3.2	3.0	2.8	2.6	3.2	2.6	3.6	2.8
1.8	1.5	1.8	2.3	1.9	2.1	3.5	2.4	3.0	2.6	2.2	2.2	2.5	2.2	3.1	2.3
64	61	69	59	58	55	38	50	56	61	52	52	44	39	40	45
19	17	28	16	9	24	31	24	22	23	20	16	24	12	36	24
36	20	43	38	14	74	59	47	40	45	42	25	52	47	67	77
44	23	52	56	19	103	73	63	47	57	50	33	71	72	92	97
96	99	91	86	98	91	88	83	67	89	91	94	82	94	85	92
62	67	52	46	56	49	64	56	40	53	58	71	56	47	54	45
41	71	61	42	85	27	13	25	3	9	45	49	17	35	6	15
67	85	81	63	88	50	36	64	46	57	79	86	54	62	42	49
99	100	99	98	99	100	91	98	100	100	100	99	98	97	95	99
65	76	67	59	61	54	35	58	64	58	56	70	55	49	49	52
62	63	63	57	59	53	28	56	63	56	52	66	50	42	41	48
33	23	27	35	22	29	15	31	26	23	22	24	17	23	22	16
9	8	13	11	3	11	3	16	33	27	20	20	19	14	11	17
6	19	11	5	26	4	5	3	1	1	6	12	5	1	1	6
7	3	5	3	1	7	2	5	2	3	1	8	6	3	5	9
5	6	6	2	5	2	2	1	<1	2	3	2	3	2	2	1
3	13	4	1	2	1	7	2	1	1	4	4	5	7	8	4
7	5	6	10	7	16	17	10	7	9	7	4	10	12	13	11
64	84	64	25	80	43	63	38	49	52	67	69	67	44	53	57
25	22	23	25	22	22	21	33	24	26	21	18	21	17	24	25
38	49	59	34	35	42	45	38	37	36	55	51	32	42	45	55
71	81	70	57	68	74	66	66	48	71	65	76	54	65	68	70
53	76	60	54	50	35	31	52	71	59	78	74	55	46	43	49
73	84	70	74	79	61	48	71	82	74	87	90	69	73	58	29
20	41	26	18	22	11	9	16	50	23	29	20	11	14	13	12

