Nepal

2001 Demographic and Health Survey

Key Findings

This report highlights the findings of the 2001 Nepal Demographic and Health Survey (NDHS), a nationally representative survey of 8,726 women age 15-49 and 2,261 men age 15-59. The primary purpose of the 2001 NDHS is to generate recent and reliable information on fertility, family planning, infant and child mortality, maternal and child health, and nutrition. The survey also collected information on respondents' knowledge of HIV/AIDS. Collecting these types of information is essential for making informed policy decisions, and for planning, monitoring, and evaluating programs on health in general and reproductive health in particular, at both the national and regional levels. This survey is the sixth in a series of national-level population and health surveys and the second comprehensive survey conducted as part of the global Demographic and Health Surveys (DHS) program, the first having been the 1996 Nepal Family Health Survey (NFHS).

The 2001 NDHS was carried out under the aegis of the Family Health Division of the Department of Health Services, in the Ministry of Health, and was implemented by New ERA, a local research organization. ORC Macro provided support through its MEASURE *DHS+* project. The survey was funded by the United States Agency for International Development (USAID) through its mission in Nepal.

Additional information on the 2001 NDHS may be obtained from the Family Health Division, Department of Health Services, Ministry of Health, P.O.Box 820, Teku, Kathmandu, Nepal (telephone: 262155; fax: 262238) and from New ERA, P.O. Box 722, Rudramati Marga, Kalopul, Kathmandu, Nepal (telephone: 413603 or 423176; fax: 419562; email: info@newera.wlink.com.np). Additional information about the DHS project may be obtained from ORC Macro, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705 (telephone: 301-572-0200; fax: 301-572-0999; e-mail: reports@macroint.com; web site: http://www.measuredhs.com).

Cover photo: Pav Govindasamy

2001 NEPAL DEMOGRAPHIC AND HEALTH SURVEY

KEY FINDINGS

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Population and Household Living Conditions

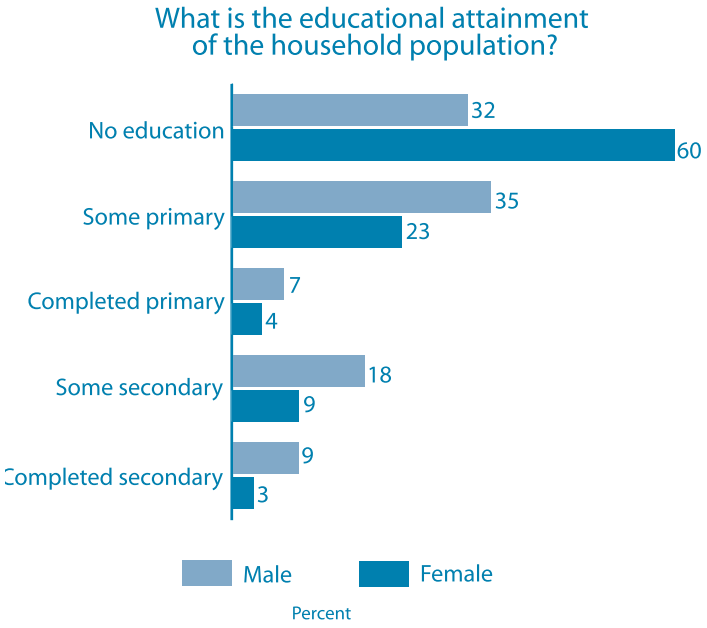
Data collected on the age and sex distribution of the population and on various socioeconomic indicators provide the household-level context within which demographic and health choices are made and changes occur.

Age/sex distribution of the household population

Nepal has a pyramidal age structure because of the large number of children below 15 years of age. Forty-four percent of the population is below age 15, while only 4 percent is above age 65. Females outnumber males, with the overall sex ratio (the number of males per 100 females) being 90.

Household composition

Households in Nepal are headed predominantly by men. Nevertheless, 16 percent of households are female headed. The average household size is 5.3 persons. Four percent of all households are single-person households, with little difference between urban and rural households.



Education of household population

About one-third of males (32 percent) and three in five females (60 percent) have no education, with females being far less educated than males (see figure). Nearly three in four children who should be attending primary school are doing so at that level. However, fewer than one-third of children who should be attending secondary school are in school at that level.

Housing characteristics

One in four households in Nepal has access to electricity, with five times more urban than rural households being electrified. More than one-third of households (55 percent in urban areas and 33 percent in rural areas) have access to piped drinking water. Thirty-seven percent of Nepalese households also get drinking water from tubewells or boreholes. The majority of households (70 percent) do not have sanitation facilities, with three in four rural households and one in five urban households lacking sanitation facilities. The vast majority of households (88 percent) use traditional fuel (firewood, charcoal, dung) for cooking. Most households (86 percent) also have earth, mud or dung flooring.

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Asset ownership

In general, rural households in Nepal are much less likely to possess various consumer items than urban households. Forty-four percent of households own a radio, 26 percent own a bicycle, 13 percent own a television, and 3 percent own a telephone. The urban-rural difference in ownership of consumer items is especially pronounced for ownership of televisions and telephones.

EDUCATION, WOMEN'S EMPLOYMENT, AND WOMEN'S STATUS

In the 2001 NDHS, information on literacy, education, media exposure, employment status, and earnings was collected from both women age 15-49 and men age 15-59. Having such information is useful in understanding the factors that affect women's reproductive and health-seeking behavior and also men's role in women's reproductive health, and is essential to achieving the country's goals for population and reproductive health.

Literacy

Men are twice as likely to be literate as women (70 percent and 35 percent, respectively), with rural women and men being much less literate than their urban counterparts. However, women are much more likely to participate in an adult literacy program than men. The median years of schooling for men is 2.5 years and close to 0 for women. The level of education decreases with age, reflecting an improvement in educational attainment among both men and women over time. However, the male-female gap in education has not narrowed much over the years. Women and men residing in the mountain ecological zone are least educated, while those residing in the hill zone are most educated.

Employment

Eighty-three percent of women were working at the time of the survey, 1 percent were not currently employed but had worked in the 12 months prior to the survey, and 16 percent had not worked in the 12 months prior to the survey. The comparable data for men were 97 percent, 1 percent, and 2 percent, respectively. The majority of Nepalese women and men work in the agricultural sector, with more women than men (91 percent and 64 percent, respectively) involved in it. Seventy-one percent of employed women are not paid for their work, compared to 43 percent of men. Only 15 percent of employed women receive cash or cash and in-kind payment, compared to 42 percent of men. Just over two-fifths of women are solely responsible for decisions on the use of their earnings, just over a third report that they and their husband jointly decide on how their earnings should be spent, and one in five women state that they have no say in how their earnings should be spent.

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Women's empowerment and status

With the exception of what food to cook, husbands in Nepal have a greater say in decision making than their wives. One in two married women stated that her husband alone had the final say in her health care, two in five married women stated that her husband made the sole decision on the purchase of large household items, and one in three stated that she needed her husband's permission to visit family or relatives and to make daily household purchases. Women's attitudes toward wife beating is another proxy for women's status. One in four women agrees that wife beating is justified if a woman neglects her children, 12 percent agree that a husband is justified in beating his wife if she goes out without telling him. Nevertheless, less than 10 percent of women feel that a husband is justified in beating his wife if she refuses to have sex with him, or burns the food, or argues with him. Overall, 29 percent of women agree that a husband is justified in beating his wife for at least one of the five specified reasons. An overwhelming majority of Nepalese women (90 percent) agree that a woman can refuse sex with her husband if she knows that he has a sexually transmitted disease, if he has sex with other women, if she has recently given birth, or if she is not in the mood.

FERTILITY

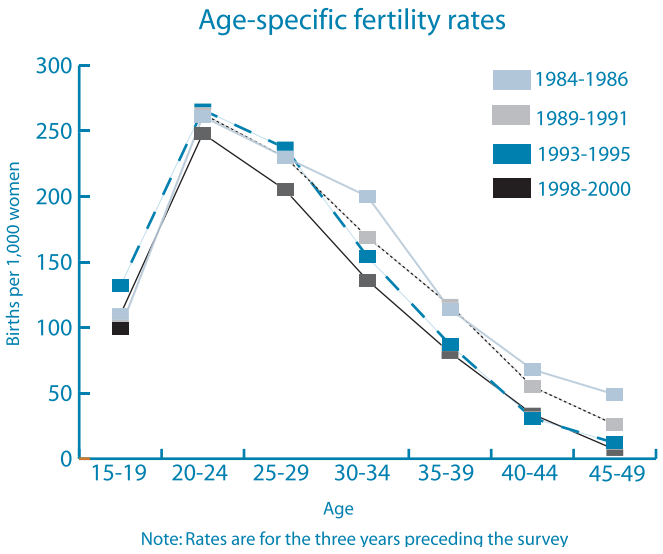
There has been a steady decline in fertility in Nepal. The proportion never married among women and men below age 25 has increased gradually over time, with a small but noticeable trend toward later marriage among all age groups.

Fertility levels and trends

Comparison of data from the 2001 NDHS with earlier surveys conducted in Nepal indicates that fertility has declined steadily from 5.1 births per woman in 1984-1986 to 4.1 births per woman in 1998-2000. Further evidence of recent fertility decline comes from data collected in the 2001 NDHS, which show an 18 percent decline in fertility among women below age 30, from 3.6 births per woman during the period 15-19 years before the survey to 2.9 births per woman during the period 0-4 years before the survey, with the largest decline in fertility (14 percent) occurring between 5-9 and 0-4 years before the survey.

Differences by place of residence are marked, with rural women having more than twice as many children (4.4) as urban women (2.1). Fertility is highest in the mountain (4.8 births per woman), with little difference in fertility between the hill (4.0 births per woman) and the *terai* (4.1 births per woman). Education has a dramatic impact on fertility with uneducated women having more than twice as many children (4.8 children per woman) as women with some secondary education (2.3 children per woman).

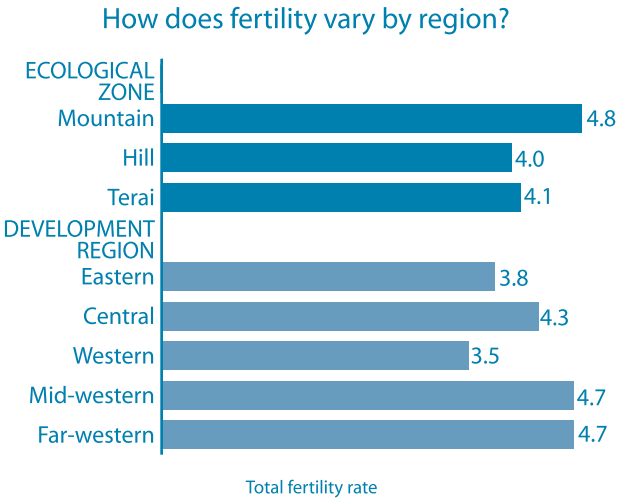
Caroline Jacoby



Note: Rates are for the three years preceding the survey

Marriage and exposure to the risk of pregnancy

One of the factors influencing fertility levels in Nepal is change in marriage patterns. In 1961, one in four women age 15-19 was not married compared to three in five women in 2001. Similarly, 5 percent of women age 20-24 were never married in 1961 compared to more than three times as many in the same age group four decades later. A similar pattern of decline in nuptiality is observed among men as well, with again a proportionately larger change observed among the youngest age group. There is also a small but noticeable trend toward later marriage. The median age at marriage has risen slowly over the last two decades, from 16.1 years for women age 45-49 to 16.8 years among women age 20-24. Data also show a small change in the median age at marriage among males, with men marrying about 3 years later than women.



Overall, the median age at first sexual intercourse among Nepalese women in the reproductive age group is nearly identical to their median age at first marriage, implying that women's first sexual experience usually occurs within the context of marriage. There has been little change in the median age at first sexual intercourse among women by age indicating that there has been little change in the median age at first sexual intercourse among women over the years. Women have their first sexual experience 2 years earlier than men. Men marry three years later than women. However, men initiate sex about 1 year before marriage.

The median age at first birth is about 20 years across all age cohorts, indicating virtually no change in the age at first birth over the last two decades.

Adolescent fertility

Twenty-one percent of women age 15-19 are already mothers or are pregnant with their first child. The proportion of teenage women who have started childbearing increases with age from 2 percent among women age 15 to 41 percent among women age 19. The proportion of teenagers who have begun childbearing is relatively high because 40 percent of women age 15-19 are married already. Twenty-three percent of rural adolescents have begun childbearing, compared with only 13 percent of urban adolescents. Seventeen percent of adolescents living in the hill ecological zone have begun childbearing compared with 20 percent in the mountain and 26 percent in the *terai*.

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FAMILY PLANNING

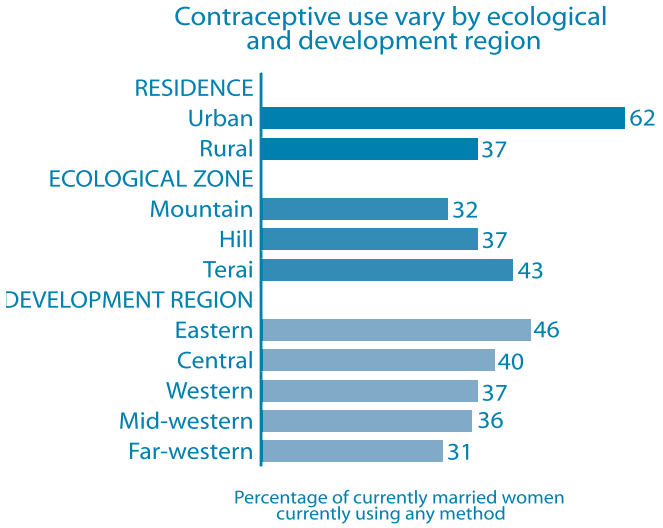
There has been an impressive increase in the use of contraception over the last 25 years in Nepal. This could be due to the fact that knowledge of family planning is very high in Nepal, with the media playing an important role as a source of information on family planning. Although the large majority of Nepalese couples approve of family planning, discussion of family planning between spouses is low.

Knowledge of family planning

Knowledge of family planning is nearly universal among Nepalese women and men. Knowledge of modern methods is generally much higher than knowledge of traditional methods, with women and men being most familiar with female and male sterilization, injectables, pill, and condoms. Three in five women and seven in 10 men have heard or seen messages on family planning on the radio, on television or in the print media. Findings from the 2001 NDHS shows that using contraception was usually a joint decision among couples. Only two in five women and one in two men who know of a contraceptive method have discussed family planning with their spouse.

Use of contraceptives

Two in five currently married Nepalese women are using a method of family planning. Contraceptive use increased by 35 percent over the last 5 years. Between 1996 and 2001, the use of modern methods increased from 29 percent to 39 percent among currently married non-pregnant women, with the increase largely attributed to an increased use of injectables and female sterilization. There has been a twofold increase in the share of temporary methods over all methods in the last decade and a decline in the share of female and male sterilization overall. There continues to be a marked discrepancy between ever use of contraception and current use. One in two currently married women has ever used a modern method of family planning compared to only one in three women who are currently using. Similarly, three-fifths of currently married men have ever used a modern method compared to two-fifths of men who are currently using.



The most widely used modern method is female sterilization, followed by injectables and male sterilization.

The most widely used modern method is female sterilization (15 percent among currently married women), followed by injectables (8 percent) and male sterilization (6 percent). Currently married men report a higher use of contraceptives, with the largest male-female discrepancy being in the use of condoms, where twice as many currently married men as currently married women report using it (6 percent versus 3 percent). Married men also report a much higher use of female sterilization (17 percent) and injectables (10 percent).

Source of contraceptives

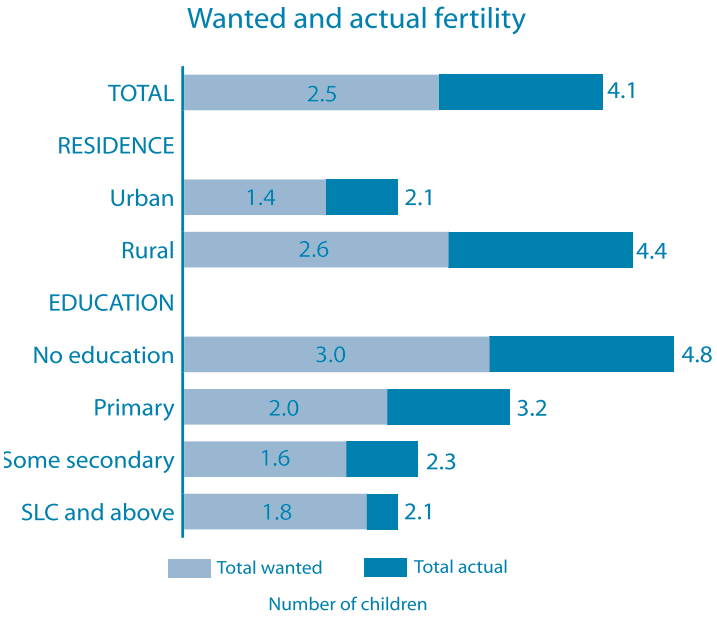
The government sector is the major source of contraceptive methods in Nepal, providing methods to four in five current users. One in four users obtains her method from government hospitals/clinics, 14 percent from government sub-health posts, and 26 percent from mobile camps. The most important nongovernment supplier of contraceptives is the Family Planning Association of Nepal (FPAN), serving 5 percent of users; the private medical sector supplies contraceptives to 7 percent of users, most of whom obtain their supplies from pharmacies.

Fertility Preferences

In spite of the marked increase in the use of contraceptives in Nepal, there continues to be considerable scope for increased use of family planning and improved information, education, and communication services.

Desire for children

The mean ideal number of children declined only slightly, from 2.9 in 1996 to 2.6 in 2001. Nevertheless, women in Nepal continue to revise downward the number of children they would like to have. Sixty-nine percent of currently married women either wanted no more children or had been sterilized in 2001, compared with 59 percent in 1996. The gap between wanted fertility (2.5 births per woman) and observed fertility (4.1 births per woman) is one and a half children, an indication of the prevalence of unwanted births in Nepal. The gap between wanted and observed fertility is wider in rural than urban areas, widest in the mountain zone and in the Mid-western development region. Women with little or no education are less likely to achieve their ideal fertility than women with higher education.



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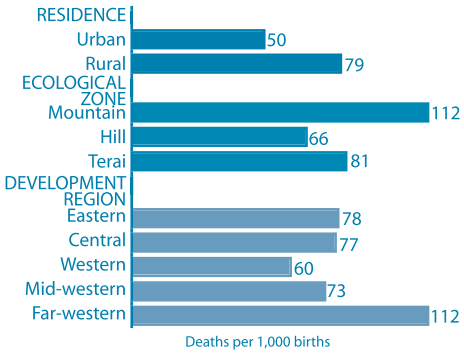
Unmet need for family planning

Twenty-eight percent of currently married women in Nepal have an unmet need for family planning services; 11 percent for spacing and 16 percent for limiting. At the same time, among women currently using a method of family planning, 36 percent are using it for limiting and 4 percent for spacing. Taken together, two in three Nepalese women have a demand for family planning. However, only three-fifths of these women's need is currently being met. If all women with unmet need were to use family planning, the contraceptive prevalence rate would increase from 39 percent to 67 percent. Unmet need for family planning varies by age, declining from a high of 36 percent among women age 15-19 to 12 percent among women age 45-49. As expected, younger women are more likely to have a need for spacing births, whereas older women need family planning for limiting births. One in three women in the mountain zone has an unmet need for family planning compared to three-tenths of women in the hill zone and one in four women living in the *terai*. Unmet need is highest in the Far-western development region. The need for family planning is negatively associated with women's education; women who have little or no formal education have both a higher unmet need and lower demand for family planning than better educated women.

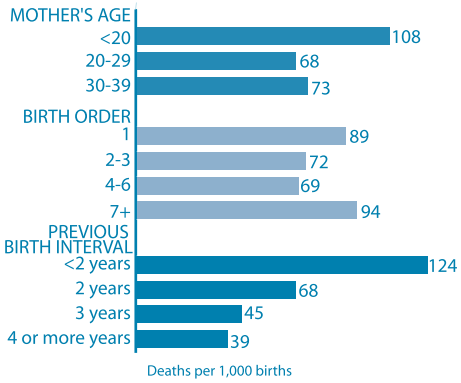
Mortality differentials

Besides socioeconomic factors, demographic characteristics of the child and the mother have been found to affect mortality rates. High-risk births, that is children born to mothers who are either very young or very old, children born after a short birth interval, or children born to mothers with high parity, have a greater probability of dying in infancy.

How does infant mortality vary by socioeconomic characteristics?



How does infant mortality vary by demographic characteristics?



Child Health

Childhood mortality levels in Nepal have declined substantially since the early 1980s. The decline could be attributed to the marked improvement in the percentage of children 12-23 months who have been fully immunized, the success of the national immunization day campaigns and other polio eradication activities, and the success of the National Vitamin A Program in Nepal.

Childhood mortality

One out of every 11 children born in Nepal dies before reaching the age of 5. Slightly over two in three under-5 deaths occur in the first year of life—infant mortality is 64 deaths per 1,000 live births whereas under-five mortality is 91 deaths per 1,000 live births. During infancy, the risk of neonatal deaths (39 per 1,000) is one-and-a-half times higher than the risk of post-neonatal death (26 per 1,000). According to data collected in the 2001 NDHS, mortality levels have declined rapidly since the early 1980s. Under-5 mortality in the 5 years before the survey is 58 percent of what it was 10 to 14 years before the survey. Comparable data indicate that the pace of decline is somewhat faster for child mortality than for infant mortality. The corresponding figures for neonatal and postneonatal mortality are 61 percent and 58 percent, respectively.

According to data collected in the 2001 NDHS, mortality levels have declined rapidly since the early 1980s.

Mortality is consistently lower in urban areas than in rural areas. There is also considerable variation in mortality by ecological zone, with children living in the mountain faring much worse than children living in the hill or *terai*. Maternal education is strongly related to mortality. Children born to mothers with no education experience much higher levels of mortality than children born to mothers with some educa-

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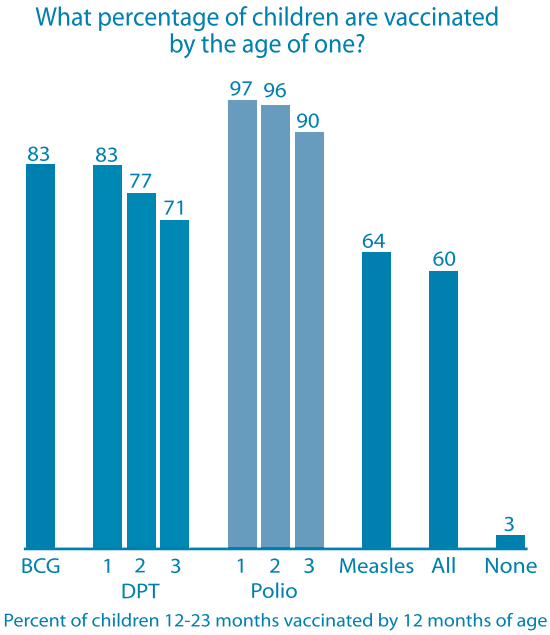
tion, children born to the most highly educated mothers being the group least likely to die young.

Vaccination coverage

The percentage of children 12-23 months old fully immunized by age one has increased in the last 5 years, by 67 percent, from 36 percent in 1996 to 60 percent in 2001. Coverage with all three doses of DPT increased from 51 to 71 percent of children, while complete polio coverage increased from 48 percent to 90 percent of children. BCG coverage increased from 73 percent to 83 percent, and measles vaccination from 45 percent to 64 percent. The much higher increase in polio coverage was primarily due to the success of the intensive national immunization day campaigns and other polio eradication activities.



Childhood illnesses

Twenty-three percent of children under five years of age had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey, while 32 percent of children below age 5 had a fever in the preceding 2 weeks. Use of a health facility for the treatment of symptoms of ARI, fever, or both, is low, with less than one in four children being taken to a health facility or provider.

One in five children under five years of age had diarrhea in the 2 weeks before the survey. Among these children, only one in five was taken to a health facility for treatment. Nearly one in two children received some sort of oral rehydration therapy, with 32 percent of children being treated with oral rehydration salts (ORS) and 27 percent receiving increased fluids. More than one-third of children with diarrhea were not given any treatment at all.

Caroline Jacoby

Tetanus toxoid coverage

Tetanus toxoid injections are given to pregnant women for the prevention of neonatal tetanus, an important cause of death among infants. For full protection, a pregnant woman should receive at least two doses during her first pregnancy administered one month apart and a booster shot during each subsequent pregnancy. If a woman was vaccinated during a previous pregnancy, however, she may only require one dose for the current pregnancy. However, if a pregnant woman does not have a card showing that she has received previous doses (as is often the case), she is likely to be given two doses, one month apart for each pregnancy to ensure adequate protection. Five doses are considered to provide lifetime protection.

Among women who have had a live birth in the 5 years preceding the survey, 45 percent received two or more doses of the tetanus toxoid vaccine during their pregnancy, 9 percent received one dose, and 45 percent did not receive any tetanus toxoid injection during their pregnancy.

A mother's education is strongly related to tetanus toxoid coverage. Women with SLC education and above are twice as likely to have received two or more doses than women with no education.

REPRODUCTIVE HEALTH

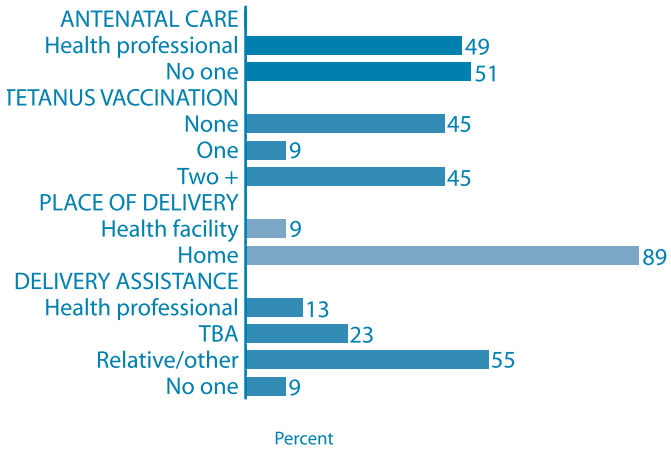
There have been some improvement in the utilization of antenatal and delivery care services in the last 5 years. However, utilization of health services, and especially postnatal care services, remains low in Nepal. Education and urban-rural residence are important determinants of health care utilization.

Antenatal care

D. Hinrichsen

One in two pregnant women received antenatal care from a health professional in Nepal. Twenty-eight percent of mothers received antenatal care from a doctor, nurse or auxiliary nurse midwife. In addition, 11 percent of women received antenatal care from a health assistant or auxiliary health worker, 6 percent received care from a village health worker and 3 percent received care from a maternal and child health worker. Most of the Nepalese women who receive antenatal care get it at a relatively late stage in their pregnancy and do not make the minimum recommended number of antenatal visits. Only one in seven women (14 percent) make four or more visits during her entire pregnancy, while 16 percent of women report that their first visit took place before the fourth month of pregnancy. About one in two mothers who received antenatal care report having been informed about the danger signs associated with

Reproductive health indicators



pregnancy complications, while three in five women reported that their blood pressure was measured as part of their routine antenatal care checkup.

Younger women are more likely to utilize antenatal care services, as are urban women and women residing in the *terai*, and women from the Western, Eastern, and Central development regions. The majority of women with SLC and above (95 percent) received antenatal care, compared with just two-fifths of women with no education.

Delivery care

Institutional deliveries are not common in Nepal. Only 9 percent of births in the 5 years preceding the survey took place in a health facility. Thirteen percent of births are assisted at delivery by a health professional, with just 8 percent of births attended by a doctor and 3 percent by a nurse or auxiliary nurse midwife. Nearly one in four births are attended by a traditional birth attendant. Clean home delivery kits were used in 9 percent of births delivered at home.

A child born in an urban area is six times as likely to be delivered at a health facility as a child born in a rural area (45 percent versus 7 percent). Institutional deliveries are about five times more common among births to mothers who had four or more antenatal checkups (40 percent) as among births to mothers who had 1-3 antenatal checkups (8 percent). Doctors are much more likely to assist with deliveries to educated mothers, deliveries in urban areas, and deliveries in the hill and *terai* ecological zones, and in the Central development region.

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Postnatal care

Postnatal care, an important component of maternity care, is crucial for monitoring and treating complications during the first 2 days of delivery, when a large number of maternal and neonatal deaths occur. Less than one in five mothers who delivered outside a health facility received care within the first two days following delivery. Four in five mothers who delivered outside a health facility in Nepal received no postnatal care at all.

Caroline Jacoby

Recommendations for infant feeding

Infant feeding practices affect the health of both the mother and her child.They are important determinants of children's nutritional status and many studies have shown that breastfeeding has beneficial effects on the nutritional status,morbidity, and mortality of young children. Breastfeeding is also associated with longer periods of postpartum amenorrhea, which in turn leads to longer birth intervals and lower fertility levels. A longer birth interval allows mothers to recover fully before the next pregnancy and averts maternal depletion, which may follow births that are too closely spaced.

Guidelines for infant feeding practices include the following:

- Breastfeeding should be initiated immediately after childbirth.The first breast milk (colostrum) should be given to the infant rather than discarded, because it provides the infant with natural immunity.
- Infants should be given only breast milk for the first 6 months of their lives. Most babies do not require any other foods or liquids during that period.
- By the age of 7 months, adequate and appropriate complementary foods should be added to the infant's diet in order to provide sufficient nutrients for optimal growth.
- Breastfeeding should continue, along with complementary foods, through the second year of life or beyond.
- A feeding bottle with a nipple should not be used at any age (primarily for reasons of sanitation and prevention of infections).

Breastfeeding and Nutrition

Breastfeeding is nearly universal in Nepal, and the median duration of breastfeeding is long. Undernutrition among children under 5 years of age is significant in Nepal, with little improvements in the last decade. The level of chronic energy deficiency among women is also relatively high.

Breastfeeding and supplementation

The median duration of breastfeeding in Nepal is long (33 months). Nearly one in three children born in the 5 years preceding the survey was breastfed within an hour of birth, and two in three were breastfed within one day of birth. These statistics represent an improvement over the last 5 years. However, contrary to the recommendations of the World Health Organization, only two-thirds of children less than 6 months of age are exclusively breastfed.

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In accordance with WHO recommendations, there is a marked increase in the type of food given to children after 6 months of age, with more than half of children in the age group 6-7 months given any solid or semisolid food. About two in three children 6-9 months consumed food made from grains. The use of a bottle with a nipple is relatively rare in Nepal, with just 4 percent of children under 6 months of age and 3 percent of children 6-9 months of age given something to drink from a bottle with a nipple.

Micronutrient intake

Twenty-eight percent of children under 3 years of age consumed fruits and vegetables rich in vitamin A at least once in the 7 days preceding the survey, with the consumption of foods rich in vitamin A being higher among older children than younger ones.

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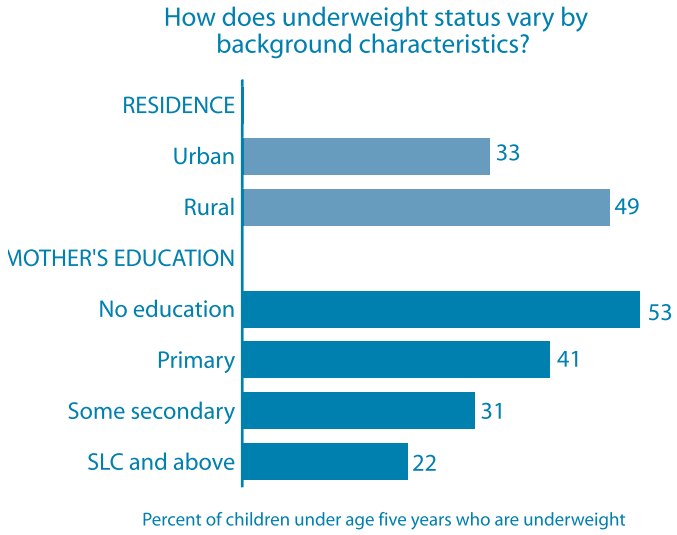
Nearly four-fifths of children age 6-59 months had received a vitamin-A supplement during the most recent distribution, as part of the Nepal National Vitamin A Program.

The 2001 NDHS also collected information on mothers' nutritional status. Overall, 10 percent of recent mothers received a vitamin A supplement within two months postpartum. Eight percent of women reported night blindness during their last pregnancy. Three in four women who gave birth in the 5 years preceding the survey did not take iron/folic acid tablets during their pregnancy, and 14 percent reported taking the tablets for less than 60 days.

Nutrition

One in two Nepalese children under 5 years of age is stunted (short for his or her age), 21 percent severely stunted; 10 percent are wasted (thin for their age), 1 percent severely wasted; and 48 percent are underweight, and 13 percent severely underweight. A comparison of the 2001 NDHS data with other data on the nutritional status of children from surveys conducted in previous years shows that there has been little improvement over the last decade.

Survey results also show that the level of chronic energy deficiency among Nepalese women age 15-49 is relatively high. One in four women (27 percent) falls below the cutoff point of 18.5 for body mass index (BMI), which utilizes both the height and weight to measure thinness. One in seven women is below 145 centimeters tall and can be considered to be at nutritional risk.



Knowledge and use of condoms

HIV/AIDS prevention and control programs in Nepal have been promoting the use of condoms. Therefore, knowledge of condoms is important information from a program perspective.

Most women (70 percent) and men (84 percent) know a source for condoms. Knowledge of a condom source is higher among women age 20-29, men age 15-29, and urban residents. Although 70 percent of women know a source for condoms, only half of them said they could get a condom by themselves if they wanted to.

Condom use by men with a spouse is less common than with a non-cohabiting partner. Only 6 percent of men have used a condom with a spouse compared with 45 percent of men who have used a condom with a noncohabiting partner. Condom use is most common among urban men, men in the Far-western region, and men with at least an SLC level of education.

HIV/AIDS Awareness

According to UNAIDS, as of 2000, an estimated 36 million adults and children around the world were living with the human immunodeficiency virus (HIV) and AIDS. The first HIV infection in Nepal was identified in 1988. As of October 2001, a total of 533 AIDS cases and 1,564 cases of HIV infection had been reported to the Ministry of Health, National Center for AIDS and STD Control.

HIV/AIDS knowledge

Only one in two women (50 percent), compared with nearly three in four men (72 percent), has heard of AIDS. At the same time, 38 percent of women and 67 percent of men believe there is a way to avoid HIV/AIDS. The depth of women's knowledge about HIV/AIDS is also much lower than that of men's. One in three women and one in two men knows of two or three programmatically important ways to avoid HIV/AIDS: abstaining from sex; using condoms; and limiting the number of sexual partners. In addition, about two-fifths of women and three-fifths of men say a healthy-looking person can have AIDS and that HIV/AIDS can be transmitted from a mother to her child. Discussion of HIV/AIDS is also more common among men than women. Fourteen percent of women and 23 percent of men have discussed HIV/AIDS with their spouse.

Fourteen percent of women and 23 percent of men have discussed HIV/AIDS with their spouse.

E. Whitney, JHU/CCP

Safe sex

The promotion of safe sex, encouraging monogamous relationships, discouraging multiple sexual partners and the promotion of condom use are important components of AIDS prevention programs. The 2001 NDHS sought to determine the proportion of men who had sexual relationships with women other than their wives. The data show that the overwhelming majority of married Nepalese men (98 percent) did not have sex with anyone other than their wives in the 12 months preceding the survey. Knowledge of the condom and its use is important information from the program perspective. Sexual intercourse outside of marriage is slightly higher among younger men (age 15-24), residents of the Far-western *terai* region, and those who have attained some secondary level of education.

H. Nelson

SUMMARY AND RECOMMENDATIONS

FERTILITY AND FAMILY PLANNING

Pav Govindasamy

■ Data from the 2001NDHS and earlier surveys show that the government's policy to reduce the total fertility rate to 4.1 by the year 2001 and bring about a balance between population growth and economic development has in fact been achieved. Fertility has steadily declined, from 5.1 births per woman in 1984-1986 to 4.1 births per woman in 1998-2000.

■ However, at an average of 4.1 children per woman, fertility far exceeds the 2.1 children per woman needed to maintain the population over the long term. The rapid rate of population growth is exacerbated by the facts that one in three births in the country is mistimed or unwanted and that wanted fertility is 1.6 children below the actual fertility rate.

■ It is encouraging to note that most women and men in the reproductive age group are aware of contraceptives. At the same time, approval of contraceptive use is high. However, only two-fifths of currently married women report using a method of family planning. Nevertheless, the country is moving in the right direction, with the dramatic 35 percent increase in the use of modern contraceptive methods among currently married women over the last 5 years. This progress should act as incentive for planners to revitalize ongoing programs in ways that will encourage new users.

■ There is much scope for improved media coverage, to encourage use of contraceptives and to dispel misconceptions about the use of contraceptives in general and fears of specific methods. The government sector should be more receptive to clients' needs. One important area of intervention entails improving contact with and encouraging counseling by family planning providers.

■ The unmet need for family planning has decreased slightly during the last 5 years; during the same period the percentage of demand satisfied has increased. Nevertheless, Nepal's family planning program has some ways to go before it meets couples' needs for spacing and limiting births, since only three-fifths of the family planning needs of currently married women are being met.

MATERNAL AND CHILD HEALTH

■ There is much scope for improving maternal health in Nepal. Survey data show that the utilization of maternity care is low. One in two mothers did not receive antenatal care. Only one in two mothers was informed about signs of pregnancy complications. At the same time, an overwhelming majority of births are delivered at home without the supervision of health professionals, and four-fifths of the mothers who delivered outside of a health facility received no postnatal care.

- Micronutrient intake among mothers is poor, and the intake of iron/folic acid tablets during pregnancy is low. One in seven mothers is at nutritional risk, and the level of chronic energy deficiency among women age 15-49 is relatively high.

- It is heartening to note that childhood mortality has improved markedly since the early eighties. The improvement could be attributed in part to improvements in immunization coverage—there has been a 67 percent increase over the last five years in the percentage of children age 12-23 months who have been fully immunized by 12 months of age. Polio coverage is extremely high and this is due to the success of the intensive national immunization day campaigns and other polio eradication activities. A large majority of children 6-59 months of age also received vitamin A supplements.

- Use of a health facility to treat childhood illnesses remains low in Nepal. Fewer than one-fourth of children with symptoms of ARI, fever, or both, were taken to a health facility for treatment. At the same time, only one in five children with diarrhea was taken to a health facility. However, knowledge of oral rehydration salts (ORS) is nearly universal among mothers, and about one in two children with diarrhea was treated with oral rehydration therapy (ORS or increased fluids).

- There is considerable chronic malnutrition among Nepalese children. One in two children is stunted or underweight while one in ten is wasted. There has been little improvement in the nutritional status of children since the mid-nineties. The government has to step up efforts to promote infant feeding practices in line with the recommendations of the World Health Organization. At the same time, the marked differences in childhood mortality and morbidity on the basis of socioeconomic characteristics point to the importance of urbanization and its resultant improved access to health facilities, and also to education, especially among women, as important prerequisites for improving children's nutritional status and lowering child morbidity and mortality.

Caroline Jacoby