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Demographic and Health Survey

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National Committee for Population, Family and Children
Population and Family Health Project

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Committee for
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Vietnam Demographic and Health Survey 2002

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General Statistical Office
Hanoi, Vietnam

ORC Macro
Calverton, Maryland USA

This report summarizes the findings of the 2002 Vietnam Demographic and Health Survey (VNDHS) carried out by the General Statistical Office. ORC Macro provided technical assistance for the survey through the worldwide Demographic and Health Surveys program, which is designed to assist developing countries to collect data on fertility, family planning, maternal and child health, nutrition, and HIV/AIDS.

Additional information about the VNDHS may be obtained from the Committee for Population, Family and Children, 12 Ngo Tat To Street, Hanoi, Vietnam (telephone 843-2351; fax 843-8514). Additional information about the MEASURE *DHS*+ project may be obtained by contacting: MEASURE *DHS*+, ORC Macro, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705 (telephone 301-572-0200; fax 301-572-0999; e-mail: reports@orcmacro.com; internet: www.measuredhs.com).

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PREFACE

The 2002 Vietnam Demographic and Health Survey (VNDHS 2002) was the third DHS survey to be implemented in Vietnam, following similar surveys in 1988 and 1997. This survey was sponsored by the Population and Family Health Project of the National Committee for Population and Family Planning, which is now renamed the Committee for Population, Family and Children (CPFC). Technical assistance was provided by ORC Macro. The General Statistical Office was responsible for execution of the survey.

The main objective of the VNDHS 2002 was to obtain current information on demographic conditions, family planning, infant and child mortality, and health-related information about breastfeeding, antenatal care, child immunizations, common children's diseases, and HIV/AIDS. A major goal of the survey was to measure changes in family planning indicators since the 1997 survey, especially in areas covered by the CPFC project.

This report presents the major findings from the VNDHS 2002 survey. Although the data were obtained from a sample survey, and weighted for the nation by main indicators, we hope the survey findings will be used by policymakers to formulate appropriate population and health policies and programs in Vietnam. It thus gives us great pleasure to present this report to all planners, policymakers, scholars, researchers, and concerned users. I wish to warmly thank all the institutions and individuals who participated in the implementation of the survey and the compilation of this report.

Although this is not the first time we have written a DHS report, it is hardly free from errors. We warmly welcome all comments from planners, policymakers and researchers, both within and outside Vietnam.

Dr. Nguyen Thien Truong
Vice-Chairman
Committee for Population, Family and Children

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I am grateful to ORC Macro for its technical assistance in fieldworker training, fieldwork supervision and data processing, and to the staff of the General Statistical Office and the Committee for Population, Family and Children, both at the central and local levels, who have worked with enthusiasm and whole-heartedness for the survey's success.

Finally, I owe much gratitude to the survey respondents who generously donated their time to fully answer the survey's many questions.

Dr. Ngo Khang Cuong
Director
Population and Family Health Project
Committee for Population, Family and Children

SUMMARY OF FINDINGS

The 2002 Vietnam Demographic and Health Survey (VNDHS 2002) is a nationally representative sample survey of 5,665 ever-married women age 15-49 selected from 205 sample points (clusters) throughout Vietnam. It provides information on levels of fertility, family planning knowledge and use, infant and child mortality, and indicators of maternal and child health. The survey included a Community/ Health Facility Questionnaire that was implemented in each of the sample clusters.

The survey was designed to measure change in reproductive health indicators over the five years since the VNDHS 1997, especially in the 18 provinces that were targeted in the Population and Family Health Project of the Committee for Population, Family and Children. Consequently, all provinces were separated into "project" and "nonproject" groups to permit separate estimates for each. Data collection for the survey took place from 1 October to 21 December 2002.

VNDHS 2002 data confirm the pattern of rapidly declining fertility that was observed in the VNDHS 1997. It also shows a sharp decline in child mortality, as well as a modest increase in contraceptive use. Differences between project and non-project provinces are generally small.

FERTILITY

Fertility Levels and Trends. The total fertility rate (TFR) for the five-year period prior to the survey (roughly 1998-2002) is only 1.9 children per woman, which places Vietnam at "below-replacement level" fertility. It also implies that Vietnam has experienced a precipitous decline in fertility from the level of 2.7 reported in the 1997 survey for the period 1992-96. This is especially remarkable, considering the steep declines recorded over the previous five-year period and the already low level of fertility in Vietnam.

Fertility Differentials. There are substantial differences in fertility levels in Vietnam. The TFR is a half a child higher in rural areas than in urban areas (2.0 children per woman compared with 1.4 children per woman). Regional differences are also marked; the highest fertility is in the Central Highlands (2.9 children per woman), while the lowest is in the Southeast region (1.5 children per woman), which includes Ho Chi Minh City. Differences between project and nonproject provinces are minimal.

As in most countries, fertility is inversely related to women's education. Women who completed higher secondary school have the lowest fertility (1.4 children per woman) while those with no education have the highest fertility (2.8 per woman).

Unplanned Fertility. Despite the high level of contraceptive use in Vietnam, the VNDHS 2002 data indicate that unplanned pregnancies are common. Overall, one-fourth of births in the three years preceding the survey were reported as unplanned: 14 percent were mistimed (wanted later) and 9 percent were unwanted. Nevertheless, this represents a slight improvement since 1997, when 15 percent of births were mistimed and 12 percent were unwanted. The total induced abortion rate shows a slight increase since 1997, from 0.5 to 0.6 abortions per woman.

Marriage Patterns. One factor that may help to explain the rapid decline in fertility is that women are staying single longer. Although there has been a slight increase in the overall proportion of women who are currently married from 63 percent in 1997 to 64 percent in 2002, the proportion of women age 15-24 who are currently married has declined. For example, 52 percent of women age 20-24 were married in 1997, compared with 46 percent in 2002. Since the age-specific fertility rates are highest at ages 20-24, reductions in the proportions of women married in that age group would be expected to have a larger effect on the overall level of fertility.

FERTILITY REGULATION

Knowledge of Contraception. Virtually all married women of reproductive age know of at least one method of contraception. As in the previous VNDHS surveys, the most widely known methods are the IUD (99 percent), the condom (96 percent), the pill (95 percent), female sterilization (92 percent), and male sterilization (90 percent). Comparison with the VNDHS 1997 indicates that the percentage of currently married women knowing specific methods has increased for every method, albeit only slightly for some.

Use of Contraception. Increased use of contraception can only partially explain the steep decline in fertility over the past five years. Between 1997 and 2002, the contraceptive prevalence rate among married women increased from 75 to 79 percent, while use of modern methods barely changed, from 56 to 57 percent.

Contraceptive Method Mix. Over the last two decades, the IUD has been the most popular method of contraception in Vietnam. The VNDHS 2002 found that 38 percent of married women are currently using the IUD. Other modern methods used are the pill (6 percent), female sterilization (6 percent), and the condom (6 percent). Use of the IUD has declined slightly since 1997, while use of the pill has increased slightly.

Two traditional methods account for a significant amount of current use, namely withdrawal (14 percent) and periodic abstinence (8 percent).

Differential Contraceptive Use. Given the overall high rate of contraceptive use in Vietnam, there is little room for variation between population subgroups. Nevertheless, the Central Highlands stands out from other regions as having a particularly low level of contraceptive use (66 percent). There are also substantial differences by education, with contraception rates being higher among more educated women. Differentials in contraceptive use by urban-rural residence are insignificant, as are differentials between project and nonproject provinces.

Source of Modern Methods. In Vietnam, provision of modern contraceptive methods is dominated by the public sector. Eighty-six percent of current users obtain their family planning method from the public sector. By far the most important source of contraception is the commune health center (45 percent), followed by government hospitals (22 percent) and mobile clinics (9 percent). Nevertheless, as the method mix moves away from dependence on the IUD and sterilization and toward supply methods like the pill, private sources of supply may take on a somewhat larger role.

Unmet Need for Family Planning. Only 5 percent of currently married women in Vietnam have an unmet need for family planning services, a very slight decline from 7 percent in 1997. Just under half of the unmet need is comprised of women who want to wait two or more years before their next child (spacers), while over half is comprised of women who want no more children (limiters).

Discontinuation Rates. Overall, one in four women (25 percent) discontinues use within 12 months of adopting a method. The 12-month discontinuation rate for the IUD is particularly low (13 percent), but rates are several times higher for the pill (36 percent), the condom (38 percent), periodic abstinence (32 percent), and withdrawal (30 percent). The desire for pregnancy and method failure are the two major reasons for discontinuing method use. Discontinuation rates have increased since 1997 for all methods analyzed.

Availability of Services. Family planning services are widely available in Vietnam. The VNDHS 2002 data indicate that over 95 percent of married women live in communities served by both community-based distribution (CBD) workers and family planning fieldworkers. Moreover, almost all CBD workers and family planning fieldworkers provide pills and condoms. In addition, about two-thirds of married women live within one kilometer of a health facility that offers family planning services and over 90 percent live within five kilometers of such a facility. Mobile family planning clinics visit communities where about 72 percent of women live.

MATERNAL HEALTH

Maternal Health Care. The VNDHS 2002 data indicate substantial increases in the number of women receiving maternal care. Comparison with the VNDHS 1997 indicates that the percentage of women who receive antenatal services from a doctor, nurse, or midwife, has increased from 71 percent in 1995-97 to 86 percent in 2000-02. All of the increase has occurred for doctors (25 to 46 percent), while the proportion of women receiving antenatal care from nurses and midwives has actually declined from 46 to 40 percent since 1995-97. The percent receiving no antenatal care also decreased over the same period from 28 to 13 percent.

There has been a similar increase in the proportion of births for which the mother said she received two or more tetanus toxoid injections during pregnancy—from 55 to 71 percent.

Proper medical attention and hygienic conditions during delivery can reduce the risk of serious illness among mothers and their babies. The VNDHS 2002 found that four out of five deliveries (79 percent) occurred in health facilities, a substantial increase from 62 percent reported in the VNDHS 1997.

Awareness of AIDS. Knowledge of acquired immunodeficiency syndrome (AIDS) is high among ever-married women in Vietnam (95 percent). Television and radio are the primary sources of information about AIDS. Among women who know about AIDS, most are aware that condom use and having only one sexual partner are ways to reduce the risk of becoming infected with the virus. Almost four in five are aware that a healthy-looking person can have the AIDS virus, while 88 percent know that AIDS is a fatal disease. Three-fourths of ever-married women say they have no risk of contracting the disease.

CHILD HEALTH

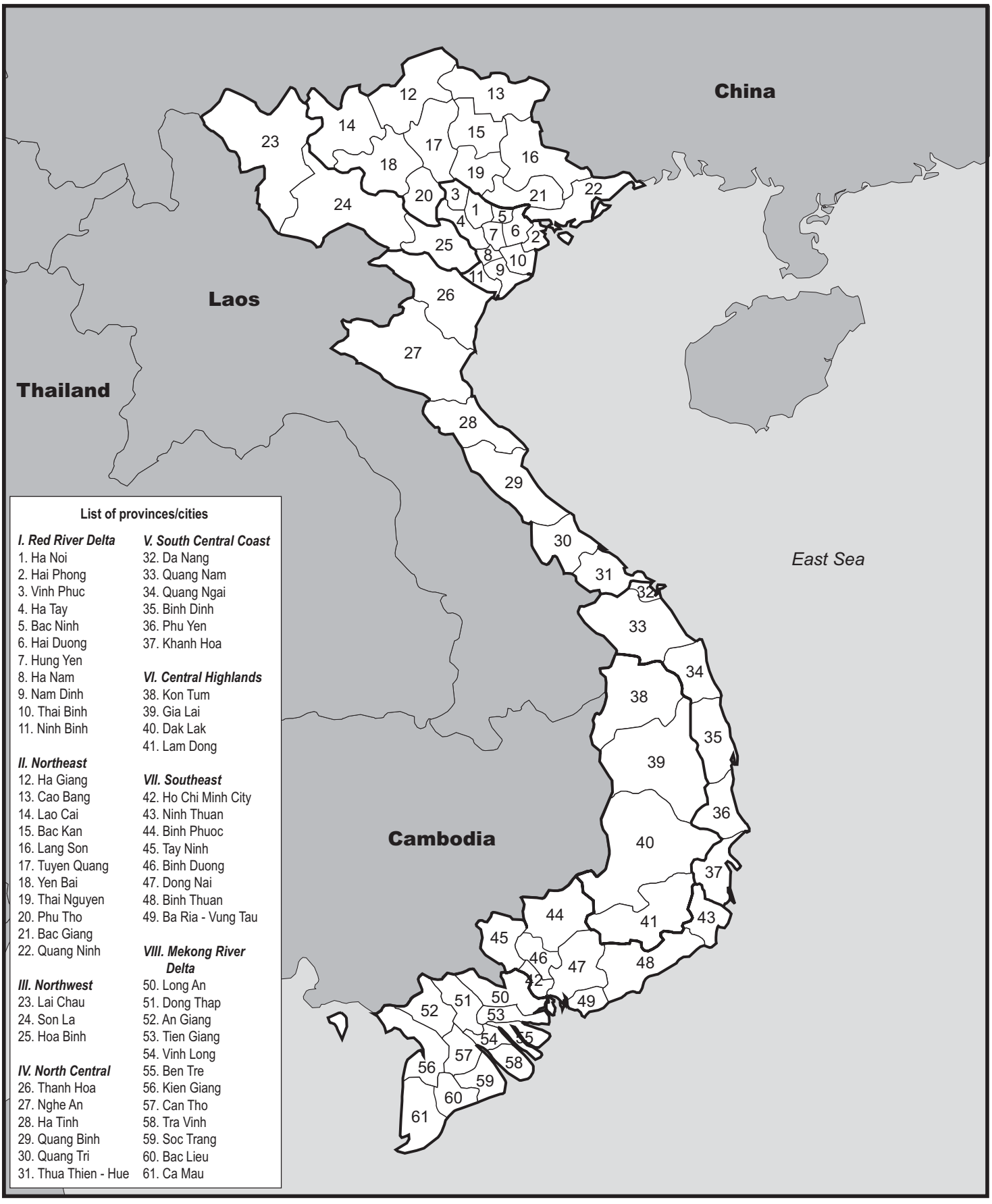
Child Mortality. VNDHS 2002 data imply a steep decline in child mortality over the past five years. Between 1992-96 and 1998-2002, infant mortality has declined from 28 to 18 deaths per 1,000 births, while under five mortality has declined from 38 to 24 per 1,000. Although a review of the data does not show any obvious defects in reporting, such extraordinarily low rates and rapid decline should be viewed cautiously.

Breastfeeding Practices. Breastfeeding is nearly universal in Vietnam; 98 percent of children are breastfed. The median duration of breastfeeding is 16 to 17 months. The VNDHS 2002 data indicate that supplementary feeding of children begins early. For example, among newborns less than two months of age, 46 percent are receiving supplementary foods or liquids.

Childhood Vaccination Coverage. In the VNDHS 2002, mothers were able to show a health card with immunization data for only 40 percent of children age 12-23 months, although this represents a substantial increase from 13 percent in 1997. Accordingly, estimates of coverage are based on both data from health cards and mothers' recall. The data show that 67 percent of children 12-23 months are fully vaccinated against the major childhood illnesses, an increase from 57 percent in 1997.

Child Illness and Treatment. Among children under three years of age, one in five was reported to have had symptoms of acute respiratory illness in the two weeks preceding the survey, of whom about seven in ten were taken to a health facility or provider for treatment. Slightly more than one-fourth of children under five had a fever in the two weeks preceding the survey, while 11 percent had diarrhea. Forty percent of children with diarrhea were given solution prepared from oral rehydration salt (ORS) packets, while 63 percent received increased fluids.

VIETNAM



List of provinces/cities

I. Red River Delta
1. Ha Noi
2. Hai Phong
3. Vinh Phuc
4. Ha Tay
5. Bac Ninh
6. Hai Duong
7. Hung Yen
8. Ha Nam
9. Nam Dinh
10. Thai Binh
11. Ninh Binh

II. Northeast
12. Ha Giang
13. Cao Bang
14. Lao Cai
15. Bac Kan
16. Lang Son
17. Tuyen Quang
18. Yen Bai
19. Thai Nguyen
20. Phu Tho
21. Bac Giang
22. Quang Ninh

III. Northwest
23. Lai Chau
24. Son La
25. Hoa Binh

IV. North Central
26. Thanh Hoa
27. Nghe An
28. Ha Tinh
29. Quang Binh
30. Quang Tri
31. Thua Thien - Hue

V. South Central Coast
32. Da Nang
33. Quang Nam
34. Quang Ngai
35. Binh Dinh
36. Phu Yen
37. Khanh Hoa

VI. Central Highlands
38. Kon Tum
39. Gia Lai
40. Dak Lak
41. Lam Dong

VII. Southeast
42. Ho Chi Minh City
43. Ninh Thuan
44. Binh Phuoc
45. Tay Ninh
46. Binh Duong
47. Dong Nai
48. Binh Thuan
49. Ba Ria - Vung Tau

VIII. Mekong River Delta
50. Long An
51. Dong Thap
52. An Giang
53. Tien Giang
54. Vinh Long
55. Ben Tre
56. Kien Giang
57. Can Tho
58. Tra Vinh
59. Soc Trang
60. Bac Lieu
61. Ca Mau

INTRODUCTION 1

1.1 GEOGRAPHY, HISTORY, AND THE ECONOMY

Geography

The Socialist Republic of Vietnam is located in southeast Asia bordering the Peoples Republic of China to the north, the Peoples Democratic Republic of Laos and the Kingdom of Cambodia to the west, and the Pacific Ocean to the east. With a coastline of thousands of kilometers from north to south, Vietnam has a land area of 330,000 square kilometers and a sea area of one million square kilometers. There are thousands of small and large islands, some of which are isolated, while others form archipelagos in the East Sea.

Vietnam lies in the hot region of the tropics. The climate is monsoon and subtropical in the North, which has four distinct seasons. The southern provinces experience two seasons, a rainy season and a dry season. Some provinces in the center of the country are characterized by the 'hot wind' influence in summer caused by the Truong Son mountain range in the west adjacent to Laos.

Vietnam includes tropical rain forests, hills and mountains, and fertile agricultural land. Mountains, highland and forests cover about 80 percent of Vietnam's land area. These areas have low agricultural productivity. The Red River Delta in the North and the Cuu Long River Delta in the South provide the main source of food for the whole country.

The country is divided into 61 provinces and cities directly belonging to the central government. There are three administrative levels in Vietnam: provinces, districts, and communes. At present, there are 600 administrative units at district level (districts, urban districts, cities belonging to provinces, and towns) and about 11,000 administrative units at commune level or equivalent (ward, town, let).

History

Feudalism existed in Vietnam for centuries until the French Empire came to dominate the country late in the 19th century. Thanks to the victory of the August Revolution, the Democratic Republic of Vietnam was founded on 2nd September 1945.

Under the guise of disarming the Japanese army in the south, English troops paved the way for the return of French colonialism to Indochina. The Vietnamese launched a national war of resistance against the French from 1945 to 1954 to finally gain independence in the North. Vietnamese people established socialism in the North and continued the war of liberation in the South, which was won in 1975.

Since 1975, along with overcoming the consequences of war, recovering and developing the economy, stabilizing the sociopolitical situation in the South, Vietnam had to develop a sense of national unity. In late June and early July 1976, Vietnam's National Assembly was elected through a general election held throughout the country. The National Assembly decided to name the country the Socialist Republic of Vietnam, with Hanoi as the capital.

Economy

In the period of 1954-1975, the economy in North Vietnam was centrally planned and based mainly on agriculture. There were only two socialist sectors in the economy, the state sector and the co-operative sector. From 1975 to 1980, after the unification of the North and the South, the centrally planned model was applied in the South, pursuant to the second five-year plan (1976-1980). In the period 1981-1985, the contractual system was improved, with contractual quotas being given to working groups and individuals in agricultural co-operatives.

In 1986-1991, Vietnam implemented institutional reforms with a market orientation and endeavored to stabilize the economy. In the 6th Assembly, the Vietnamese Communist Party recognized the existence of the private sector and established a policy of eliminating subsidies. In the period 1991-1995, Vietnam accelerated economic reforms and built up "the multi-sector economy operating along market mechanisms with state management and a socialist orientation."

The period since 1995 has been characterized by a marked effort at reform and development. The structure of gross output in 2002 is as follows: agriculture-forestry-aquaculture sector (23.0 percent); industry and construction sector (38.5 percent); and service sector (38.5 percent).

1.2 POPULATION AND FAMILY PLANNING POLICIES AND PROGRAMS

Population

The major source of demographic data in Vietnam is the population census. Since unification in 1975, there have been three national population censuses, carried out in 1979, 1989, and 1999. Additional population data have been collected in nationwide demographic sample surveys and other related surveys.

Some demographic indicators from the two most recent censuses are shown in Table 1.1. According to the 1999 census, Vietnam's population grew at the rate of 1.7 percent annually, a decline from 2.1 percent as of the 1989 census. The total population in 2002 was estimated to be around 79.7 million persons. Thus, the population growth rate in the period 1999-2002 continued to decline.

Table 1.1 Basic demographic indicators

Selected demographic indicators, Vietnam

	Census year	
Indicator	1989	1999
Population	64,375,762	76,323,173
Intercensal growth rate (percent)	2.1[a]	1.7
Total area (km^2)	329,241	329,241
Density (persons/ km^2)	196	232
Percent urban	19.0	23.7
Sex ratio (number of men per 100 women)	94	96
Crude birth rate ($^o/_{oo}$)	30.0	19.9
Crude death rate ($^o/_{oo}$)	8.0	5.6
Total fertility rate (births per woman)	3.8	2.3

[a] Compared with the 1979 census

Family Planning Policies and Programs

The Democratic Republic of Vietnam in the North was among the first developing countries to adopt a policy to reduce the population growth rate. As early as 1961, spurred by the results of the 1960 population census in the North, the government of the Democratic Republic of Vietnam promulgated a decree to encourage married couples to restrict family size and space births to reduce population growth. The policy was motivated by pressure on cultivated land and chronic food shortages in the North, as well as by the related desire to improve women's and children's welfare, being part of the strategy to enhance labor productivity to meet the needs of the struggle for independence and reunification of the country. In the South of Vietnam, prior to unification, the standing government did not promote family planning until the U.S. Agency for International Development encouraged it to do so in 1971. Nevertheless, the family planning program in the South remained incomplete until the end of the war.

After unification, the policies to reduce population growth received increasing attention of the government and efforts to extend coverage of birth control services throughout the country gained the highest priority. A series of government decisions and decrees in late 1988 showed the formal approval at the national level of a policy advocating a family norm of one to two children. The National Health Law approved by the National Assembly on 30 June 1989 legalized the principle of freedom for couples in choosing family planning practices. It emphasized that individuals must be free to choose the family planning method they wished and stated that "all acts of preventing or forcing the implementation of family planning are prohibited."

In January 1993, the Communist Party Central Committee for the first time approved a resolution on population and family planning. In a strong statement, they identified excessive population growth as contributing to a wide range of social, economic, and ecological problems. The resolution proposed the objective of "applying small-sized family," and recommended that "each family should have one or two children" in order to lower fertility and stabilize population. The *Strategy in Population and Family Planning to the Year 2000*, the *Strategy in Population for the Period 2001-2010,* the *Strategy in Reproductive Health for the Period 2001-2010,* and the *State Law on Population* launched by the National Assembly's Standing Committee are comprehensive and official plans to guide efforts to implement the above resolution.

1.3 HEALTH PRIORITIES AND PROGRAMS

Health care activities in each community are influenced by a series of economic, social, cultural, and environmental factors. Although the economy is poor, Vietnam's health care services are more advanced than that of many other developing countries in the world. The death rate of infants and children has declined sharply in recent years, presumably as a result of providing health education and primary health care services more widely. The Ministry of Health has expanded the system of primary health care services throughout the country. Almost all communes have their own health stations staffed with trained workers. Problems that cannot be handled at the commune level are referred to district, provincial or specialized hospitals. The efficiency of health services has increased. Even in the rural areas, 93 percent of communes have their own heath stations (GSO, 1995:7)

1.4 OBJECTIVES, ORGANIZATION, AND DESIGN OF THE SURVEY

Objectives

The Vietnam Demographic and Health Survey 2002 (VNDHS 2002) was the third DHS in Vietnam, with prior surveys implemented in 1988 and 1997. The VNDHS 2002 was carried out in the

framework of the activities of the Population and Family Health Project of the Committee for Population, Family and Children (previously the National Committee for Population and Family Planning).

The main objectives of the VNDHS 2002 were to collect up-to-date information on family planning, childhood mortality, and health issues such as breastfeeding practices, pregnancy care, vaccination of children, treatment of common childhood illnesses, and HIV/AIDS, as well as utilization of health and family planning services. The primary objectives of the survey were to estimate changes in family planning use in comparison with the results of the VNDHS 1997, especially on issues in the scope of the project of the Committee for Population, Family and Children.

Organization

The VNDHS 2002 was conducted by the General Statistical Office (GSO) on behalf of the Population and Family Health Project of the Committee of Population, Family and Children. Fieldwork took place from October to December 2002. The Demographic and Health Surveys division of ORC Macro in Calverton Maryland provided technical assistance to the project through several visits and through e-mails.

Sample Design

The sample for the VNDHS 2002 was based on that used in the VNDHS 1997, which in turn was a subsample of the 1996 Multi-Round Demographic Survey (MRS), a semi-annual survey of about 243,000 households undertaken regularly by GSO. The MRS sample consisted of 1,590 sample areas known as enumeration areas (EAs) spread throughout the 53 provinces/cities of Vietnam, with 30 EAs in each province. On average, an EA comprises about 150 households. For the VNDHS 1997, a subsample of 205 EAs was selected, with 26 households in each urban EA and 39 households for each rural EA. A total of 7,150 households was selected for the survey. The VNDHS 1997 was designed to provide separate estimates for the whole country, urban and rural areas, for 18 project provinces and the remaining nonproject provinces as well.[1]

Because the main objective of the VNDHS 2002 was to measure change in reproductive health indicators over the five years since the VNDHS 1997, the sample design for the VNDHS 2002 was as similar as possible to that of the VNDHS 1997. Although it would have been ideal to have returned to the same households or at least the same sample points as were selected for the VNDHS 1997, several factors made this undesirable. Revisiting the same households would have held the sample artificially rigid over time and would not allow for newly formed households. This would have conflicted with the other major survey objective, which was to provide up-to-date, representative data for the whole of Vietnam. Revisiting the same sample points that were covered in 1997 was complicated by the fact that the country had conducted a population census in 1999, which allowed for a more representative sample frame.

In order to balance the two main objectives of measuring change and providing representative data, it was decided to select enumeration areas from the 1999 Population Census, but to cover the same communes that were sampled in the VNDHS 1997 and attempt to obtain a sample point as close as possible to that selected in 1997. Consequently, the VNDHS 2002 sample also consisted of 205 sample

[1] Project provinces refer to 18 focus provinces targeted for the strengthening of their primary health care systems by the Government's Population and Family Health Project to be implemented over a period of seven years, from 1996 to 2002 (At the outset of this project there were 15 focus provinces, which became 18 by the creation of 3 new provinces from the initial set of 15). These provinces were selected according to criteria based on relatively low health and family planning status, no substantial family planning donor presence, and regional spread. These criteria resulted in the selection of the country's poorer provinces. Nine of these provinces have significant proportions of ethnic minorities among their population (World Bank, 1995).

points and reflects the oversampling in the 20 provinces that fall in the World Bank-supported Population and Family Health Project. The sample was designed to produce about 7,000 completed household interviews and 5,600 completed interviews with ever-married women age 15-49.[2]

Prior to the fieldwork, GSO conducted a household listing operation in the 205 selected enumeration areas. All households residing in the selected areas were listed in a systematic manner by the teams, who also drew a sketch map of each of the selected area units, using mapping and listing forms specifically designed for the task.

Questionnaire Content

As in the VNDHS 1997, three types of questionnaires were used in the 2002 survey: the Household Questionnaire, the Individual Woman's Questionnaire, and the Community/Health Facility Questionnaire. The first two questionnaires were based on the DHS Model A Questionnaire, with additions and modifications made during an ORC Macro staff visit in July 2002. The questionnaires were pretested in two clusters in Hanoi (one in a rural area and another in an urban area). After the pretest and consultation with ORC Macro, the drafts were revised for use in the main survey.

The Household Questionnaire was used to enumerate all usual members and visitors in selected households and to collect information on age, sex, education, marital status, and relationship to the head of household. The main purpose of the Household Questionnaire was to identify persons who were eligible for individual interview (i.e. ever-married women age 15-49). In addition, the Household Questionnaire collected information on characteristics of the household such as water source, type of toilet facilities, material used for the floor and roof, and ownership of various durable goods.

The Individual Questionnaire was used to collect information on ever-married women aged 15-49 in surveyed households. These women were interviewed on the following topics:

- Respondent's background characteristics (education, residential history, etc.);
- Reproductive history;
- Contraceptive knowledge and use;
- Antenatal and delivery care;
- Infant feeding practices;
- Child immunization;
- Fertility preferences and attitudes about family planning;
- Husband's background characteristics;
- Women's work information; and
- Knowledge of AIDS.

The Community/Health Facility Questionnaire was used to collect information on all communes in which the interviewed women lived and on services offered at the nearest health stations. The Community/Health Facility Questionnaire consisted of four sections. The first two sections collected information from community informants on some characteristics such as the major economic activities of residents, distance from people's residence to civic services and the location of the nearest sources of health care. The last two sections involved visiting the nearest commune health centers and intercommune health centers, if these centers were located within 30 kilometers from the surveyed cluster. For each visited health center, information was collected on the type of health services offered and the number of days services were offered per week; the number of assigned staff and their training; medical equipment and medicines available at the time of the visit.

[2] For a more detailed description of the sample design of the VNDHS 1997, see NCPFP, 1999.

1.5 DATA COLLECTION AND PROCESSING

Training and Fieldwork

Training courses for field staff were carried out in two places. The first course was in Hanoi from 9 to 27 September 2002, and the second course was in Dalat City in Lam Dong Province from 16 September to 4 October 2002. Both courses consisted of instruction on interviewing skills and fieldwork procedures, detailed editing of questionnaires, mock interviews among trainees and practice interviews in households in areas outside the VNDHS sample points. Team leaders and field editors were trained in methods of editing, procedures for checking the data quality, and logistics of fieldwork coordination.

Data collection was carried out by eight interviewing teams, each team consisting of one team leader, one field editor, four female interviewers, one interviewer for the Community/Health Facility interview, and one driver. Supervisors from the GSO were responsible for coordinating and directly supervising fieldwork activities. Data collection took place from 1 October to 21 December 2002.

Data Processing

The first stage of data editing was implemented by the field editors soon after each interview. Field editors and team leaders checked the completeness and consistency of all items in the questionnaires. The completed questionnaires were sent to the GSO headquarters in Hanoi by post for data processing. The editing staff of the GSO first checked the questionnaires for completeness. The data were then entered into microcomputers and edited using a software program specially developed for the DHS program, the Census and Survey Processing System, or CSPro. Data were verified on a 100 percent basis, i.e., the data were entered separately twice and the two results were compared and corrected. The data processing and editing staff of the GSO were trained and supervised for two weeks by a data processing specialist from ORC Macro. Office editing and processing activities were initiated immediately after the beginning of the fieldwork and were completed in late December 2002.

Survey Response Rates

Table 1.2 presents information on the results of the household and individual interviews. The table shows high response rates. Of the 7,150 households selected in the sample, 7,056 households were occupied at the time of the interview, and 7,048 were successfully interviewed, for a household response rate of almost 100 percent. The household response rate was high in both urban and rural areas.

Table 1.2 Sample results

Number of households, number of eligible women, and response rates, Vietnam 2002

	Residence		
Result	Urban	Rural	Total
Household interviews			
Households selected	1,690	5,460	7,150
Households occupied	1,664	5,392	7,056
Households interviewed	1,660	5,388	7,048
Household response rate	**99.8**	**99.9**	**99.9**
Individual interviews			
Number of eligible women	1,316	4,390	5,706
Number of women interviewed	1,300	4,365	5,665
Individual response rate	**98.8**	**99.4**	**99.3**

A total of 5,706 eligible women were identified in the interviewed households, of whom 5,665 were successfully interviewed, yielding a response rate of 99 percent. Nonresponse was mainly due to the fact that respondents were not at home at the time of interview, nor for any of the return visits (callbacks) to try to find them. As for the household interview, response rates for the individual interview were high in both urban (99 percent) and rural (99 percent) areas.

CHARACTERISTICS OF HOUSEHOLDS AND RESPONDENTS

2

The main objective of this chapter is to describe the general characteristics of the sample population, which include age and sex composition, residence, education, housing facilities, and presence of durable goods. This information is not only useful by itself, but can also be used to evaluate the quality of the 2002 VNDHS data and to investigate changes in social and economic conditions over time. Data in this chapter will be presented for households, persons within households, and women eligible for the individual interview. The other objective of this chapter is to describe the environment in which the respondents (ever-married women aged 15-49) and their children live. Factors believed to influence nuptiality, fertility, and contraceptive behavior, as well as maternal care and child morbidity and mortality, are discussed.

2.1 CHARACTERISTICS OF THE HOUSEHOLD POPULATION

In the VNDHS 2002, information was collected for usual residents of the selected households and visitors who had spent the previous night in the households. A household was defined as a person living alone or a group of persons who live and eat together.

Age and Sex Composition

The percent distribution of the de facto population by five-year age groups, according to urban-rural residence and sex is presented in Table 2.1. By residence, the distribution of the population was 19 percent urban and 81 percent rural.

Table 2.1 Household population by age, residence, and sex

Percent distribution of the de facto household population by five-year age groups, according to urban-rural residence and sex, Vietnam 2002

	Urban			Rural			Total		
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	6.6	5.6	6.1	8.1	7.4	7.8	7.8	7.1	7.4
5-9	8.5	6.7	7.5	11.8	10.7	11.2	11.2	9.9	10.5
10-14	10.3	8.7	9.5	14.0	13.2	13.6	13.3	12.3	12.8
15-19	10.7	9.5	10.1	11.9	10.7	11.3	11.7	10.5	11.0
20-24	7.8	8.6	8.2	7.3	7.3	7.3	7.4	7.5	7.4
25-29	8.7	8.8	8.8	6.6	7.6	7.1	7.0	7.8	7.5
30-34	7.3	7.9	7.6	7.9	7.6	7.7	7.8	7.6	7.7
35-39	6.9	8.2	7.6	7.4	7.3	7.3	7.3	7.5	7.4
40-44	9.2	8.4	8.8	6.8	6.9	6.9	7.3	7.2	7.2
45-49	6.7	6.6	6.7	5.1	5.1	5.1	5.4	5.4	5.4
50-54	4.3	5.3	4.8	3.5	3.4	3.5	3.6	3.8	3.7
55-59	2.9	4.0	3.5	1.8	2.2	2.0	2.1	2.6	2.3
60-64	3.0	3.3	3.1	1.7	2.5	2.1	1.9	2.7	2.3
65-69	3.1	2.9	3.0	1.8	2.6	2.2	2.1	2.6	2.4
70-74	2.1	2.2	2.1	2.1	2.3	2.2	2.1	2.3	2.2
75-79	1.0	1.7	1.3	1.1	1.5	1.3	1.1	1.5	1.3
80 +	0.9	1.6	1.3	1.0	1.8	1.4	1.0	1.7	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,869	2,987	5,856	11,735	12,666	24,401	14,604	15,654	30,258

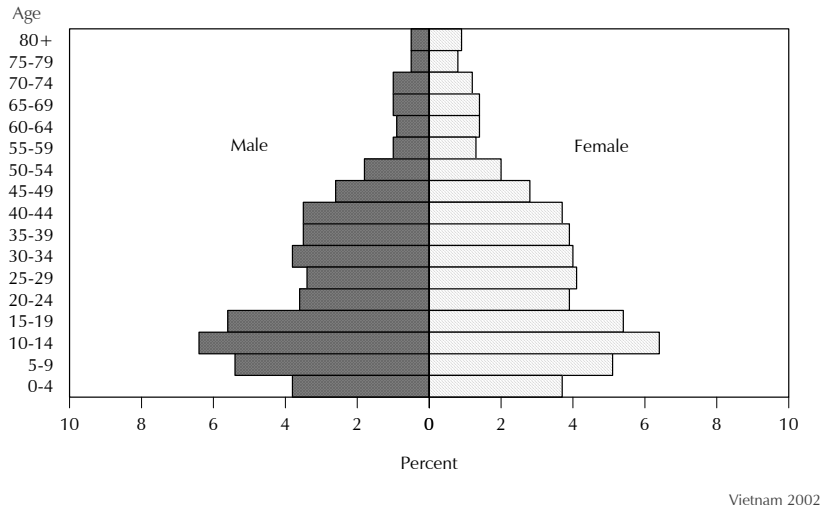
As shown in Figure 2.1, there is a preference for certain ages, particularly those ending in 0, 5, 2 or 4. Errors are more obvious among the population age 40 and over, partly because younger people tend to have more education than older people and are more likely to know their date of birth. To obtain the most accurate age reporting for respondents, the VNDHS 2002 interviewers were instructed to (1) ask for legal documents or identity cards, (2) relate the respondent's age to the age of another household member whose age was known or to a household event whose date had 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 lunar year calendar (named by 12 animals) to the solar year calendar was appended to the interviewers' manual. The age pattern presented in Figure 2.1 show that age heaping is moderate.

Figure 2.1 **Number of Persons Reported at Each Age by Sex**

Age composition is affected by past levels of fertility, mortality and migration. The population pyramid (Figure 2.2) has a narrow top and a wide base, reflecting a pattern typical of countries with relatively high fertility in the past. The narrowing at the base was brought about by a rapid decline in fertility in the last decade.

There appears to be an excess of males over females at ages under 20. For ages over 20 and especially over 50, there are more females than males. The population pyramid shows no excess of women in the age group 50-54 compared with 45-49, which suggests that there has been no shifting of eligible women out of age group 45-49 by interviewers seeking to reduce their workload (as has occurred in some countries where similar surveys have been conducted).

Figure 2.2 Population Pyramid, Vietnam 2002



Population by Age from Selected Sources

Table 2.2 compares the broad age structure of the population from the 1989 Population Census, the 1994 Intercensal Demographic Survey (ICDS), the 1997 VNDHS, and the 2002 VNDHS. The proportion of the population less than 15 years has declined over time from 40 percent in 1989 to 30 percent in 2002. During the same period, the percentage of the population aged 15-64 increased from 55 percent in 1989 to 63 percent in 2002. The most likely explanation for these changes is the recent rapid decline in fertility.

Table 2.2 Population by broad age groups from selected sources

Percent distribution of the population by broad age group, selected sources, Vietnam 1989-2002

Age group	1989 census	1994 ICDS	1997 VNDHS	2002 VNDHS
Less than 15	39.8	36.8	35.0	30.1
15-64	55.4	57.5	58.6	62.7
65+	4.8	5.7	6.3	7.2
Total	100.0	100.0	100.0	100.0
Median age	19.8	22.1	22.8	25.7

Note: Percentages may not add to 100 due to rounding.
Sources: 1989 Population Census (GSO, 1991), Intercensal Demographic Survey 1994 (GSO, 1996a); Vietnam Demographic and Health Survey 1997 (NCPFP, 1999)

Household Composition

Table 2.3 persents information on the percent distribution of households by various characteristics such as sex of head of household and size of household. The size and composition of the household may affect the allocation of financial resources among household members, which in turn influences the wellbeing of these individuals. Household size may be associated with crowding in the dwelling, which can also lead to unfavorable health conditions. Single-parent families, especially if they are headed by females, usually have limited financial resources.

Table 2.3 shows that men head 73 percent of the households in Vietnam, with only 27 percent headed by women. Female-headed households are more common in urban areas than in rural areas (45 percent versus 22 percent).

The average household size has decreased from 4.8 persons in the ICDS-94 to 4.7 persons in the VNDHS 1997, and 4.4 persons in the VNDHS 2002, possibly due to a decline in fertility. The average

household size in urban areas is only slightly lower than that in rural areas (4.3 versus 4.4). Almost two-thirds (64 percent) of households consist of 3 to 5 persons.

As in the VNDHS 1997, four-person households are most common (24 percent in 1997 compared with 29 percent in 2002). The proportion of households with 5 or more persons has declined from 69 percent in the ICDS-94 to 50 percent in the VNDHS 1997 and 43 percent in the VNDHS 2002. This may be due to smaller family sizes as well as to improved socioeconomic conditions that have resulted in more young couples moving out to live on their own.

Table 2.3 Household composition

Percent distribution of households by sex of household head and household size, according to urban-rural residence, Vietnam 2002

Characteristic	Residence		Total
	Urban	Rural	
Head of household			
Male	55.1	77.6	73.2
Female	44.9	22.4	26.8
Number of usual members			
1	3.2	4.6	4.3
2	10.9	8.7	9.1
3	18.7	14.0	14.9
4	31.6	28.1	28.8
5	15.6	21.8	20.6
6	8.9	12.4	11.7
7	5.6	5.6	5.6
8	2.6	2.5	2.5
9+	3.0	2.5	2.6
Total	100.0	100.0	100.0
Mean size	4.3	4.4	4.4

Note: Table is based on de jure household members, i.e., usual residents.

Education Level of Household Population

Educational attainment is closely associated with other socioeconomic factors such as income, housing conditions and with factors related to reproductive behavior, use of contraception, and health status of children. Education also influences an individual's world view, and can open one's mind to new ideas and technology.

Formal education in Vietnam is based on a three-tier system, known as the 5-4-3 system. It consists of 5 years of primary school education, 4 years of lower secondary education, and 3 years of higher secondary education. Graduates of higher secondary school may then further their education by enrolling at any of the various national universities or colleges or technical schools throughout the country to acquire more specific skills.

Tables 2.4 and Table 2.5 indicate that among men and women there are significant differences in level of education by background characteristics. Overall, men are slightly better educated than women: 7 percent of men and 12 percent of women age six and above have not received any formal education. While there is a male-female gap at all levels of education, this gap has narrowed substantially in recent years, which is especially evident in the age group 6-24. Above age 45 the gap widens substantially.

Table 2.4 Educational level of the male household population

Percent distribution of the de facto male household population age 6 and over by highest level of education attended, and median number of years of schooling, according to background chracteristics, Vietnam 2002

Background characteristic	Level of education					Total	Number of men	Median years of schooling
	No education	Some primary	Completed primary	Completed lower secondary	Completed higher secondary+			
Age								
6-9	24.2	75.8	0.0	0.0	0.0	100.0	1,349	1.0
10-14	1.5	30.4	67.0	1.1	0.0	100.0	1,943	4.8
15-19	2.6	9.3	29.9	46.7	11.6	100.0	1,702	8.4
20-24	5.6	15.6	32.7	18.6	27.5	100.0	1,076	7.3
25-29	4.9	13.3	32.7	25.1	23.9	100.0	1,029	7.9
30-34	5.2	12.0	27.0	32.1	23.6	100.0	1,141	8.2
35-39	3.9	11.6	25.0	38.5	21.0	100.0	1,068	8.3
40-44	3.6	10.2	23.6	39.7	23.0	100.0	1,060	8.4
45-49	4.4	13.1	22.8	37.1	22.6	100.0	789	8.3
50-54	3.7	16.6	20.9	31.1	27.8	100.0	532	8.4
55-59	5.8	14.4	23.2	33.2	23.5	100.0	301	8.2
60-64	5.6	17.3	25.3	25.8	25.9	100.0	282	8.1
65+	13.9	32.6	25.4	14.9	13.1	100.0	904	4.2
Residence								
Urban	4.3	13.6	25.2	21.2	35.7	100.0	2,636	8.5
Rural	7.1	25.3	31.5	25.4	10.7	100.0	10,539	6.0
Project province								
No	6.3	23.1	30.5	23.9	16.1	100.0	8,868	6.4
Yes	7.0	22.6	29.7	26.0	14.8	100.0	4,307	6.5
Region								
Northern Uplands	8.1	25.7	32.7	23.3	10.1	100.0	2,432	5.7
Red River Delta	2.9	13.3	20.9	36.2	26.7	100.0	2,949	8.4
North Central	4.7	22.5	30.9	30.4	11.4	100.0	1,729	6.8
Central Coast	6.6	22.8	32.3	23.1	15.2	100.0	1,398	6.2
Central Highlands	16.9	25.1	29.5	16.4	12.0	100.0	452	4.8
Southeast	5.6	20.1	32.2	19.9	22.2	100.0	1,580	6.8
Mekong River Delta	9.2	32.7	36.0	13.9	8.3	100.0	2,635	4.7
Total	6.5	22.9	30.3	24.6	15.7	100.0	13,175	6.5

The level of educational attainment in Vietnam is relatively high compared with other developing countries and the high level of education was achieved many years ago. Thus, the data on education do not show a clear trend of improvement in education, except above age 50 compared with younger women and above age 65 compared with younger men.

The last columns of Tables 2.4 and 2.5 show the median number of years of schooling attained by males and females. Overall, males have a median duration of schooling of 6.5 years, a full year longer than females. The gap in the median number of years of schooling between males and females is negligible up to age 45 after which the gap favoring males becomes wider.

Table 2.5 Educational level of the female household population

Percent distribution of the de facto female household population age 6 and over by highest level of education attended, and median number of years of schooling, according to background chracteristics, Vietnam 2002

Background characteristic	Level of education					Total	Number or women	Median years of schooling
	No education	Some primary	Completed primary	Completed lower secondary	Completed higher secondary+			
Age								
6-9	22.5	77.1	0.4	0.0	0.0	100.0	1,287	1.1
10-14	1.8	28.8	67.8	1.5	0.0	100.0	1,925	4.9
15-19	2.8	8.2	30.1	48.6	10.2	100.0	1,636	8.3
20-24	5.9	12.7	35.2	18.6	27.7	100.0	1,176	7.3
25-29	7.1	13.9	34.3	25.1	19.6	100.0	1,227	7.2
30-34	5.2	14.6	27.2	31.7	21.4	100.0	1,196	8.1
35-39	4.9	17.4	23.2	35.0	19.5	100.0	1,168	8.1
40-44	6.7	17.7	24.6	35.2	15.8	100.0	1,130	8.0
45-49	8.5	22.0	23.0	33.7	12.8	100.0	846	7.0
50-54	13.4	23.8	24.9	24.6	13.3	100.0	594	5.1
55-59	13.0	29.5	24.5	19.8	13.3	100.0	402	4.6
60-64	19.2	42.0	21.9	9.2	7.7	100.0	416	3.0
65+	49.4	37.6	10.2	1.9	0.9	100.0	1,280	0.1
Residence								
Urban	5.8	18.1	25.4	21.3	29.3	100.0	2,788	8.0
Rural	12.8	27.6	30.2	21.9	7.5	100.0	11,494	4.9
Project province								
No	10.8	26.7	29.8	20.8	11.9	100.0	9,586	5.2
Yes	12.9	23.8	28.0	23.9	11.5	100.0	4,696	5.6
Region								
Northern Uplands	15.3	26.9	30.9	20.1	6.9	100.0	2,601	4.7
Red River Delta	7.8	15.4	22.6	34.9	19.2	100.0	3,305	8.1
North Central	10.2	23.1	31.2	26.5	8.9	100.0	1,948	5.8
Central Coast	10.4	27.9	31.4	17.8	12.3	100.0	1,507	5.0
Central Highlands	21.8	29.1	25.9	14.6	8.6	100.0	485	3.9
Southeast	8.2	25.0	31.6	16.1	19.0	100.0	1,724	5.8
Mekong River Delta	14.0	37.9	32.0	11.1	5.0	100.0	2,714	3.8
Total	11.5	25.8	29.2	21.8	11.8	100.0	14,282	5.3

Tables 2.4 and 2.5 also show that educational attainment is negatively associated with age: older persons are more likely to have no education or to stay in school for shorter periods. Urban residents are much more likely to have been to school and to have stayed in school longer than residents of rural areas. The proportion of the population with no education is twice as high in rural areas as in urban areas. As expected, the median number of years of schooling is also much higher in urban than in rural areas.

Tables 2.4 and 2.5 present the differences in educational attainment by region for male and female population, respectively. The median duration of schooling for males is longer than for females in all regions. The median number of years of schooling is highest in the Red River Delta region (8.4 for males and 8.1 for females), followed by the Southeast and North Central region (6.8 for males and 5.8 for

females). The median number of years of schooling is lowest in the Central Highlands and the Mekong River Delta region.

School Enrollment

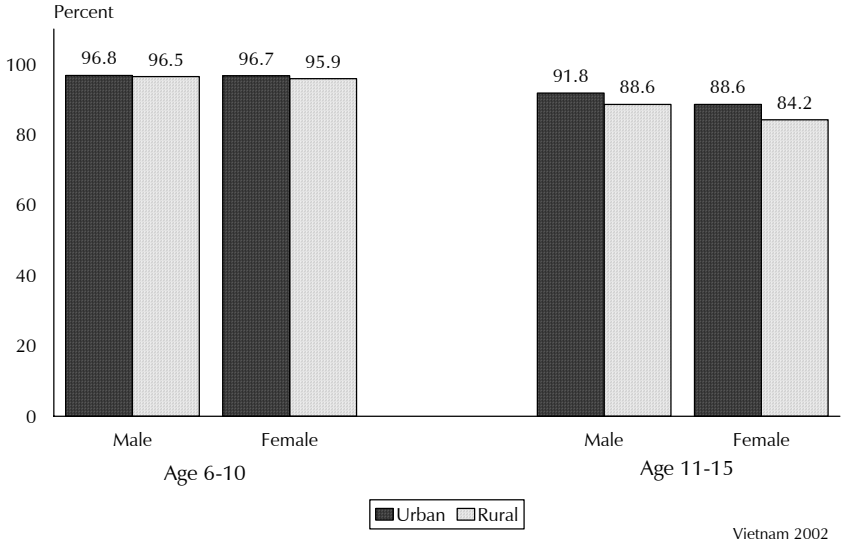
Table 2.6 presents the school enrollment rate for the population age 6-24 by age, sex and urban-rural residence. The data confirm that differences between boys and girls at the younger ages are minimal, with around 96 percent of both boys and girls age 6-10 enrolled in school (Figure 2.3). Urban-rural differences are also negligible. Nine in ten children age 6 to 15 years (91 percent) are attending school. School enrollment drops substantially after age 15 to only 41 percent among those age 16-20 years, and to 7 percent among those age 21-24 years. This sudden drop may be partially due to a lack of financial resources to continue schooling and partially due to the need to work to support the family. Nevertheless, enrollment rates have increased substantially since 1997.

Table 2.6 School enrollment

Percentage of the de facto household population age 6-24 years enrolled in school, by age, sex, and urban-rural residence, Vietnam 2002

	Male			Female			Total		
Age group	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
6-10	96.8	96.5	96.5	96.7	95.9	96.0	96.7	96.2	96.2
11-15	91.8	88.6	89.1	88.6	84.2	84.8	90.2	86.3	86.9
6-15	94.1	92.4	92.7	91.8	89.7	90.0	93.0	91.1	91.3
16-20	59.6	42.2	45.4	53.2	33.7	37.1	56.6	38.0	41.4
21-24	22.1	5.2	9.0	13.3	3.4	5.7	17.4	4.3	7.2

Figure 2.3 **School Enrollment Among Children Age 6-15 by Age, Sex, and Urban-Rural Residence**



2.2 Housing Characteristics

Socioeconomic conditions of households were assessed by asking respondents questions about their household environment. This information is summarized in Table 2.7. Housing characteristics are often important determinants of the health status of household members, particularly children. Proper hygiene and sanitation practices can help to prevent major childhood diseases, such as diarrhea. Such characteristics can also be used as indicators of household socioeconomic status.

Overall, 89 percent of households have electricity, with all but a tiny fraction of urban households being electrified, compared with nearly 9 in 10 households in rural areas. The proportion of households with electricity in rural areas increased from 74 percent in 1997 to 87 percent in 2002.

Sources of drinking water differ widely by area of residence. In urban areas, piped water is a major source; 74 percent of households have water piped into their residence and another 2 percent obtain water from a public tap. One-fifth of urban households still use well water. In rural areas, only 7 percent of households have piped water. Well water is the main source for rural households (63 percent). Fifteen percent of rural households use rainwater. Because of the availability of piped water and wells in residences, the vast majority of households (96 percent) require less than 15 minutes to go to the water source, collect water and return, including waiting time.

More than half of all households (56 percent) have a pit toilet, either a traditional pit toilet (45 percent) or a ventilated improved latrine (11 percent). In urban areas, 79 percent of households have their own flush toilet while 3 percent share a flush toilet. In contrast, pit toilets are the main type of toilet facility (66 percent) in rural areas. Notable is the fact that one-fifth of rural households have no toilet facility, compared with 4 percent in urban areas.

Seventy percent of households in Vietnam have a finished floor made of ceramic tiles, cement, etc. Finished floors are more common in urban areas (95 percent) than in rural areas (64 percent). More than one third of rural households reside in houses with earth, sand, or rough wood/bamboo flooring (36 percent). Since 1997, access to adequate sanitation facilities and material used for flooring has improved in Vietnam, especially in rural areas.

Table 2.7 Housing characteristics

Percent distribution of households by housing characteristics, according to urban-rural residence, Vietnam 2002

Characteristic	Residence		
	Urban	Rural	Total
Electricity			
Yes	99.4	86.6	89.1
No	0.6	13.4	10.9
Total	100.0	100.0	100.0
Source of drinking water			
Piped water			
Piped into residence	74.0	6.1	19.4
Public tap	1.9	0.4	0.7
Well water			
Well in residence	18.9	59.9	51.9
Public well	1.1	2.9	2.5
Spring	0.3	6.7	5.4
River, stream	1.2	7.7	6.5
Pond, lake	0.0	0.3	0.3
Dam	0.0	0.1	0.1
Rain water	1.7	14.7	12.1
Other	0.8	1.2	1.1
Total	100.0	100.0	100.0
Time to water source			
Less than 15 minutes	98.7	95.9	96.4
Sanitation facility			
Flush toilet			
Own flush toilet	78.8	11.6	24.7
Shared flush toilet	3.3	0.3	0.9
Pit toilet			
Traditional pit toilet	9.9	53.6	45.1
Vent. imp. pit toilet	4.0	12.8	11.1
No facility, bush	3.9	20.6	17.4
Other/missing	0.0	1.1	0.9
Total	100.0	100.0	100.0
Flooring			
Earth, sand	4.8	27.6	23.1
Rough wood/bamboo	0.5	8.7	7.1
Finished floor	94.6	63.6	69.7
Missing	0.1	0.0	0.1
Total	100.0	100.0	100.0
Persons per sleeping room			
<2	65.3	53.8	56.1
3-4	26.3	29.6	28.9
5-6	6.0	13.1	11.7
7 +	1.4	3.0	2.7
Missing /Don't know	0.9	0.6	0.6
Total	100.0	100.0	100.0
Mean	2.5	3.0	2.9
Number of households	1,377	5,671	7,048

As a way of estimating the extent of crowding, information was gathered on the number of rooms in each household that are used for sleeping. Fifty-six percent of households have 1-2 persons per sleeping room, while about one-third (29 percent) have 3-4 persons per sleeping room. The mean number of persons per sleeping room is 2.9 and is somewhat lower for urban than rural households. The figure has declined from 3.3 persons per sleeping room in 1997.

2.3 HOUSEHOLD DURABLE GOODS

Respondents were asked about ownership of particular household durable goods such as radios, televisions and telephones (to assess access to mass media), refrigerators (to assess access to food storage), bicycles, motorcycles and private cars (to assess access to modes of transportation).

Table 2.8 shows that half of households have a radio, 70 percent have a television, 18 percent have a telephone, and 14 percent have a refrigerator. Urban-rural differences are marked, especially in terms of possession of a television set, a telephone, and a refrigerator. For example, half of urban households have a refrigerator, compared with only 6 percent of rural households.

Table 2.8 Household durable goods

Percentage of households possessing various durable consumer goods, by urban-rural residence, Vietnam 2002

	Residence		
Consumer goods	Urban	Rural	Total
Radio	64.4	46.2	49.8
Television	91.1	64.9	70.0
Telephone	57.4	8.3	17.9
Refrigerator	49.4	5.8	14.3
Bicycle	79.3	77.3	77.7
Motorcycle	74.7	36.9	44.2
Private car	2.4	0.7	1.1
None of the above	1.7	7.9	6.7
Number of households	1,377	5,671	7,048

Urban-rural differentials can be also seen in the access to modes of transport: three-quarters of urban households own a motorcycle, compared to just over one-third of rural households. However, bicycles are the exception to this pattern, with almost 80 percent of both urban and rural households possessing a bicycle. Overall, very few households have a car. Only 7 percent of households do not own any of these consumer goods: 2 percent of urban households and 8 percent of rural households.

Ownership of most durable goods has increased since 1997. For example, the proportion of households owning a telephone has increased from 50 percent to 70 percent, while the proportion owning a television has more than doubled from 7 to 18 percent. Motorcycle ownership has increased from 24 to 44 percent. The only exception to this pattern is radios, which have declined since 1997.

2.4 BACKGROUND CHARACTERISTICS OF WOMEN RESPONDENTS

General Characteristics

Table 2.9 shows the distribution of respondents by selected background characteristics including age, marital status, residence, education, religion, and ethnic group. Respondents were ever-married women age 15-49 who slept in the selected households the night before the interview.

The table shows both the actual (unweighted) and weighted number of women interviewed. Weighting is necessary to compensate for differences in the selection probabilities and response rates. Because the sample design was not proportional, but rather included oversampling in certain areas, weighting is required to make the data reflect the actual proportional distribution in Vietnam. All results presented in this report are weighted. As indicated in Chapter 1, interviews were completed for a total of 5,665 ever-married women age 15-49.

Table 2.9 Background characteristics of respondents

Percent distribution of ever-married women by background characteristics, Vietnam 2002

Characteristic	Weighted percent	Number of women	
		Weighted	Unweighted
Age			
15-19	1.2	69	67
20-24	9.7	552	550
25-29	17.6	1,000	983
30-34	19.5	1,105	1,063
35-39	19.4	1,098	1,125
40-44	18.5	1,046	1,056
45-49	14.0	795	821
Current marital status			
Married	94.2	5,338	5,341
Widowed	2.4	135	131
Divorced	2.2	126	131
Not living together	1.2	66	62
Residence			
Urban	19.1	1,081	1,300
Rural	80.9	4,584	4,365
Project province			
No	67.3	3,814	3,591
Yes	32.7	1,851	2,074
Region			
Northern Uplands	19.4	1,099	1,081
Red River Delta	24.1	1,363	1,119
North Central	12.7	722	767
Central Coast	10.5	594	580
Central Highlands	3.2	183	218
Southeast	11.4	648	677
Mekong River Delta	18.6	1,056	1,223
Education			
No education	6.4	364	355
Some primary	17.0	966	993
Completed primary	28.2	1,599	1,593
Compl. lower secondary	31.5	1,783	1,768
Compl. higher secondary+	16.8	953	956
Currently attending school			
Yes	0.1	8	11
No	99.8	5,656	5,653
Religion			
No religion	79.1	4,480	4,344
Buddhist	12.0	679	805
Catholic	5.1	287	310
Protestant	0.3	18	12
Cao Dai	1.7	97	90
Hoa Hao	1.4	81	90
Other	0.4	22	12
Ethnic group			
Vietnamese	83.9	4,755	4,885
Tay	2.7	155	125
Thai	4.4	248	161
Chinese	0.9	50	70
Khmer	1.7	95	78
Muong	1.0	58	74
Nung	1.5	84	39
Hre	0.4	22	37
Phu la	0.0	1	2
E de	0.3	17	19
Dao	0.5	28	34
Co tu	0.3	19	21
Cham	0.4	25	14
Other	1.8	103	102
Missing	0.1	4	4
Total	100	5,665	5,665

Women were asked two questions in the individual interview to assess their age: "In what month and year were you born?" and "How old are you?" Interviewers were trained to convert from the lunar calendar into Gregorian calendar whenever necessary. They were also trained to probe in situations where a respondent did not know her age or date of birth, and they were instructed as a last resort to record a best estimate of the respondent's age.

The age distribution of women reveals that only about one in nine ever-married women is under age 25, while one-third are 40 or above. Women are mostly concentrated in the age group 30-39. This is because the survey interviewed ever-married women only, and there are fewer ever-married women in the younger age groups. The majority of ever-married women are currently married (94 percent) with a small minority widowed, divorced or separated (6 percent).

Eighty-one percent of women reside in rural areas, the same proportion as in the VNDHS 1997. The distribution of women by region shows that almost two-thirds (62 percent) are from the Northern Uplands, Red River Delta, and Mekong River Delta regions; and 38 percent are from the other four regions of the country.

The majority of ever-married women (94 percent) have been to school, 17 percent have some primary education but did not finish primary school, and about one-third of women have completed lower secondary (32 percent). Seventeen percent of women have completed at least higher secondary, which is slightly higher than the proportion reported in the ICDS-94 (13 percent) and the VNDHS 1997 (14 percent). Almost none of the respondents were enrolled in school at the time of the survey.

A vast majority of the women surveyed are not religious (79 percent), while 12 percent are Buddhist, 5 percent are Catholic, and 4 percent belong to other religions. As for ethnic groups, 84 percent of ever-married women belong to the Kinh (Vietnamese) ethnic group, while 4 percent are Thai and 3 percent are Tay. Other ethnic groups account for less than 2 percent each.

Differentials in Education Level

The distribution of respondents by education and selected background characteristics is presented in Table 2.10. As noted in Table 2.9, 6 percent of women have no education, 17 percent of women have some primary education, 28 percent have completed primary education, 32 percent have completed lower secondary school, and 17 percent have completed higher secondary school.

Rural women are more educationally disadvantaged than urban women; 8 percent of rural women have no education, compared with 2 percent of urban women. The urban-rural gap narrows somewhat at higher levels of education; nevertheless, nearly four times as many urban women have completed higher secondary school as rural women.

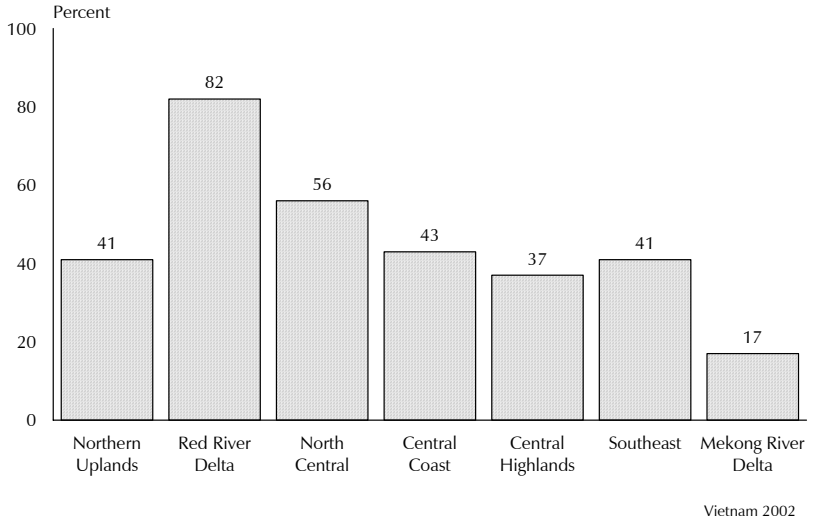
There are also wide differentials in level of education between regions, with women in the Central Highlands being least educated and women in the Red River Delta being most educated (based on the percentage with no education). By another measure, Figure 2.4 shows the distribution of women who have completed at least lower secondary education by region. The percentage of women who have completed lower secondary school is highest in the Red River Delta (82 percent) and lowest in the Mekong River Delta (17 percent).

Table 2.10 Level of education

Percent distribution of ever-married women by the highest level of education completed, according to background characteristics, Vietnam 2002

Background characteristic	Education					Total	Number of women
	No education	Some primary	Completed primary	Completed lower secondary	Completed higher secondary+		
Age							
15-19	6.6	20.8	42.9	27.0	2.6	100.0	69
20-24	8.8	16.5	41.3	20.6	12.8	100.0	552
25-29	7.6	15.0	34.6	25.8	17.1	100.0	1,000
30-34	5.3	14.5	27.5	32.1	20.6	100.0	1,105
35-39	4.5	17.7	23.3	35.0	19.5	100.0	1,098
40-44	6.2	17.3	24.6	36.1	15.9	100.0	1,046
45-49	7.8	22.0	22.6	34.8	12.8	100.0	795
Residence							
Urban	1.6	10.5	20.4	26.0	41.5	100.0	1,081
Rural	7.6	18.6	30.1	32.8	11.0	100.0	4,584
Project province							
No	6.2	18.3	29.3	29.9	16.2	100.0	3,814
Yes	6.8	14.4	26.0	34.6	18.2	100.0	1,851
Region							
Northern Uplands	12.5	17.5	29.0	29.0	11.8	100.0	1,099
Red River Delta	0.1	2.1	16.1	53.8	27.9	100.0	1,363
North Central	2.4	9.5	32.6	41.9	13.7	100.0	722
Central Coast	5.4	16.9	34.8	23.1	19.9	100.0	594
Central Highlands	24.6	14.1	24.6	20.3	16.5	100.0	183
Southeast	3.8	21.4	33.4	20.3	21.0	100.0	648
Mekong River Delta	10.1	38.9	33.8	11.7	5.6	100.0	1,056
Total	6.4	17.0	28.2	31.5	16.8	100.0	5,665

Figure 2.4 Percentage of Ever-Married Women Who Completed at Least Lower Secondary Education, by Region



Vietnam 2002

Educational Attainment and Reasons for Leaving School

Respondents age 15-24 were asked whether they were attending school at the time of the survey, and if not, the main reason for leaving school. Table 2.11 shows the distribution of those who had ever attended school by reason for leaving school.

Table 2.11 School attendance and reasons for leaving school

Percent distribution of ever-married women age 15-24 who have ever attended school by whether currently attending school and reason for leaving school, according to highest level of education attended, Vietnam 2002

	Educational attainment				
Attendance/ reason for leaving school	Some primary	Completed primary	Completed lower secondary	Completed higher secondary+	Total
Currently attending	1.0	1.4	0.6	4.1	1.5
Reason for leaving school					
Got married	11.0	11.1	11.5	17.2	12.0
Care for younger children	0.7	0.0	0.0	2.6	0.5
Family needed help	50.7	52.0	39.6	7.7	43.2
Could not pay school fees	0.7	1.4	0.8	3.6	1.4
Needed to earn money	5.5	2.5	4.8	2.3	3.5
Graduated/had enough schooling	0.4	2.4	4.1	32.8	6.3
Did not pass exams	1.1	1.7	18.0	25.2	8.4
Did not like school	8.9	22.9	13.7	4.5	15.8
School not accessible	12.3	0.9	1.7	0.0	3.1
Other	7.2	2.3	4.6	0.0	3.4
Don't know/missing	0.4	1.5	0.5	0.0	0.9
Total	100.0	100.0	100.0	100.0	100.0
Number who ever attended school	105	257	132	73	568

Less than 2 percent of ever-married women age 15-24 were in school at the time of survey. The most common reason for dropping out of school was to help the family (43 percent). Sixteen percent stopped school because they did not like it, and another 12 percent dropped out to get married; 8 percent left school because they did not pass their exams.

Employment Status

In the VNDHS 2002, respondents were asked if they worked aside from doing their housework, regardless of whether they were paid or not. Table 2.12 presents the distribution of ever-married women by employment status, according to background characteristics.

Table 2.12 Employment status

Percent distribution of ever-married women by employment status, according to background characteristics, Vietnam 2002

Background characteristic	Currently unemployed: Did not work in the last 12 months	Currently unemployed: Worked in the last 12 months	Currently employed	Total	Number of women
Age					
15-19	14.4	9.4	76.2	100.0	69
20-24	11.0	4.1	84.9	100.0	552
25-29	6.6	1.9	91.5	100.0	1,000
30-34	5.6	0.8	93.5	100.0	1,105
35-39	4.9	0.8	94.2	100.0	1,098
40-44	4.8	0.9	94.3	100.0	1,046
45-49	8.2	0.4	91.4	100.0	795
Residence					
Urban	15.0	2.0	83.0	100.0	1,081
Rural	4.5	1.2	94.2	100.0	4,584
Project province					
No	7.2	1.4	91.4	100.0	3,814
Yes	5.1	1.4	93.5	100.0	1,851
Region					
Northern Uplands	1.5	1.1	97.3	100.0	1,099
Red River Delta	2.6	0.9	96.5	100.0	1,363
North Central	2.9	0.4	96.7	100.0	722
Central Coast	7.0	0.5	92.5	100.0	594
Central Highlands	7.2	2.8	90.0	100.0	183
Southeast	17.8	2.7	79.6	100.0	648
Mekong River Delta	11.9	2.4	85.6	100.0	1,056
Education					
No education	6.3	1.4	92.3	100.0	364
Some primary	7.8	2.1	90.0	100.0	966
Completed primary	8.2	2.3	89.5	100.0	1,599
Compl. lower secondary	4.7	0.3	95.0	100.0	1,783
Compl. higher secondary+	5.8	1.1	93.1	100.0	953
Total	6.5	1.4	92.1	100.0	5,665

The data indicate that a large majority of women are currently working (92 percent). An additional one percent of women worked in the last 12 months, but are currently unemployed, and 7 percent did not work in the last 12 months.

Rural women are more likely to be employed (94 percent) than urban women (83 percent). There is little difference in terms of current employment between women living in project provinces (94 percent) and nonproject provinces (91 percent).

Work status differs by region. Employment is highest in the Northern Uplands, North Central and Red River Delta regions (97 percent each) and lowest in the Southeast region where Ho Chi Minh City is located (80 percent). Surprisingly, work status differs little by education, ranging from a high of

95 percent among those who have completed lower secondary education to a low of 90 percent among those who have primary education.

Type of Employer

Table 2.13 shows that 39 percent of currently employed women work for a family member, 37 percent are self-employed, 10 percent work for the government, 7 percent work in a cooperative, and 6 percent work for someone else.

Table 2.13 Type of employer

Percent distribution of currently employed, ever-married women by type of employer and background characteristics, Vietnam 2002

Background characteristic	Employer					Total	Number of women
	Family member	Cooperative	Government	Someone else	Self-employed		
Age							
15-19	68.3	1.9	3.0	1.9	24.9	100.0	53
20-24	51.8	4.0	7.5	8.1	28.2	100.0	469
25-29	40.3	7.7	12.5	6.2	33.3	100.0	914
30-34	41.2	7.7	7.9	7.4	35.7	100.0	1,033
35-39	37.0	7.3	9.1	6.4	40.3	100.0	1,035
40-44	34.5	8.5	11.1	5.0	40.8	100.0	987
45-49	35.8	7.8	9.9	4.8	41.7	100.0	727
Residence							
Urban	20.1	1.0	31.8	10.1	37.0	100.0	897
Rural	43.4	8.7	5.2	5.4	37.3	100.0	4,320
Project province							
No	41.4	6.0	9.7	7.5	35.3	100.0	3,487
Yes	35.5	10.1	9.8	3.5	41.1	100.0	1,730
Region							
Northern Uplands	50.2	5.7	6.6	1.0	36.5	100.0	1,069
Red River Delta	31.3	23.8	13.5	4.2	27.1	100.0	1,315
North Central	73.6	0.2	4.9	0.5	20.8	100.0	698
Central Coast	54.2	0.1	13.7	2.8	29.2	100.0	550
Central Highlands	32.7	0.2	14.2	2.8	50.1	100.0	165
Southeast	5.0	1.0	15.0	15.9	62.9	100.0	516
Mekong River Delta	23.9	0.4	5.6	16.7	53.3	100.0	905
Education							
No education	47.2	12.3	0.0	11.4	29.1	100.0	336
Some primary	40.4	3.7	1.0	11.4	43.4	100.0	869
Completed primary	45.5	3.8	2.4	4.9	43.3	100.0	1,431
Compl. lower secondary	42.3	11.8	3.9	4.5	37.4	100.0	1,694
Compl. higher secondary+	20.1	6.6	44.9	4.3	24.1	100.0	887
Total	39.4	7.4	9.8	6.2	37.2	100.0	5,217

Rural women are much more likely to work for a family member (43 percent) than urban women (20 percent). On the other hand, 32 percent of urban women work for the government, compared with 5 percent of rural women. There is little variation in the type of employer between project and nonproject provinces.

A high proportion of women who live in the Southeast, Mekong River Delta and Central Highlands are self-employed (63, 53, and 50 percent, respectively). Nearly one in four (24 percent)

women living in the Red River Delta region works in a cooperative. Women in the North Central and Central Coast regions predominantly work for a family member (74 and 54 percent, respectively).

Level of education is related to type of employer. In general, as the level of education rises, the percentage of women working for a family member declines and the percentage working for the government increases. This is especially evident among women who have completed higher secondary school, 45 percent of whom work for the government. Women with primary education are equally likely to be self-employed or work for a family member.

Cash Earnings

All but a tiny fraction of women who work earn cash. Women earning cash for their work were asked who mainly decides how their earnings will be used. Table 2.14 indicates that 48 percent of respondents report that they decide jointly with their husband how their earnings will be used, while 31 percent decide by themselves, and 17 percent report that their husband decides. Among ever-married women who are not currently married, nine in ten decide themselves how to use their earnings.

Urban working women are more likely to decide themselves on the use of their own cash earnings (42 percent) than rural women (28 percent).

By region, the proportion of women who decide themselves on how to use their cash earnings is highest in the Central Coast (47 percent), followed by the Central Highlands (41 percent). Sole decision-making by women themselves is lowest in the Northern Uplands (20 percent), and Red River Delta (25 percent) regions. However, three in ten women in the Northern Uplands region state that their husband alone makes decisions about using cash earnings, whereas one in ten women in the Red River Delta decide jointly with their husband how cash earnings are used.

There is a strong relationship between decisionmaking and level of education. The more educated a woman is, the less likely her husband is the sole decisionmaker. While 41 percent of women with no education report that their husbands alone make decisions as to how to use their earnings, the proportion drops to 9 percent among women with completed higher secondary education.

Table 2.14 Decision on use of earnings

Percent distribution of employed women who receive cash earnings by person who decides how earnings will be used, according to background characteristics, Vietnam 2002

Background characteristic	Person who decides how earnings are used					Total	Number of women
	Respondent	Husband	Jointly with husband	Someone else	Jointly with someone else		
Age							
15-19	22.7	9.0	18.5	41.3	8.3	100.0	51
20-24	18.3	17.3	43.9	18.4	2.2	100.0	467
25-29	23.7	19.9	48.7	6.8	0.8	100.0	914
30-34	31.0	18.1	48.5	2.0	0.4	100.0	1,033
35-39	30.9	16.7	51.2	0.8	0.4	100.0	1,034
40-44	36.2	14.6	48.8	0.3	0.1	100.0	986
45-49	40.6	12.9	45.3	0.3	0.9	100.0	726
Residence							
Urban	42.4	7.3	46.1	3.2	1.0	100.0	895
Rural	28.4	18.5	48.4	4.1	0.7	100.0	4,315
Project province							
No	31.2	18.1	45.4	4.4	0.9	100.0	3,484
Yes	30.0	13.6	53.2	2.9	0.3	100.0	1,726
Region							
Northern Uplands	20.3	29.2	44.2	5.5	0.8	100.0	1,069
Red River Delta	24.7	10.7	62.1	2.1	0.3	100.0	1,315
North Central	34.8	18.3	44.0	2.6	0.2	100.0	698
Central Coast	46.5	16.9	33.4	2.6	0.6	100.0	550
Central Highlands	40.9	13.1	43.2	2.2	0.6	100.0	164
Southeast	38.0	9.4	47.8	3.0	1.8	100.0	513
Mekong River Delta	33.4	13.4	44.8	7.2	1.1	100.0	902
Education							
No education	24.1	41.2	30.0	4.4	0.4	100.0	335
Some primary	32.7	20.8	40.6	5.0	0.9	100.0	869
Completed primary	30.7	15.8	47.2	5.1	1.2	100.0	1,427
Compl. lower secondary	29.5	14.5	52.1	3.4	0.4	100.0	1,692
Compl. higher secondary+	33.9	8.5	55.5	1.6	0.5	100.0	887
Current marital status							
Not married	89.3	0.0	0.0	6.5	4.0	100.0	314
Currently married	27.1	17.7	51.0	3.7	0.5	100.0	4,896
Total	30.8	16.6	48.0	3.9	0.7	100.0	5,210

Child Care While Working

Table 2.15 presents the distribution of currently employed ever-married women who have a child under 6 years of age by the person who cares for the child while they are at work.

Table 2.15 Child care while working

Percent distribution of currently employed women by whether they have a child under six years of age and the percent distribution of employed mothers with a child under six by person who cares for the youngest such child while mother is at work, according to background characteristics, Vietnam 2002

Background characteristic	Employed women			Child's caretaker, among employed women who have a child <6 years											Number of employed women with child <6
	No child <6	One or more children <6	Number of employed women	Respondent	Husband	Other relative	Neighbor/ friend	Servant/ hired help	School inst. care	Other female child	Other male child	Not worked since birth	Other	Total	
Residence															
Urban	66.1	33.9	0,897	12.0	2.2	32.8	0.8	4.4	40.9	3.0	0.6	2.4	0.7	100.0	304
Rural	62.1	37.9	4,320	13.2	4.0	45.9	0.9	0.1	19.5	10.2	3.2	1.7	0.4	100.0	1,637
Project province															
No	62.5	37.5	3,487	14.9	2.7	43.9	0.7	0.9	22.5	9.0	2.8	1.1	0.5	100.0	1,308
Yes	63.5	36.5	1,730	9.1	5.9	43.7	1.1	0.4	23.5	9.3	2.8	3.2	0.4	100.0	631
Region															
Northern Uplands	63.2	36.8	1,069	9.1	3.8	53.0	0.9	0.3	16.5	12.5	2.4	0.1	0.1	100.0	393
Red River Delta	67.2	32.8	1,315	5.6	3.2	38.2	0.3	0.5	40.5	4.0	0.0	6.3	0.1	100.0	431
North Central	61.1	38.9	698	5.0	5.9	47.7	1.4	0.0	21.9	11.4	4.8	1.5	0.2	100.0	272
Central Coast	49.9	50.1	550	26.1	3.5	34.1	1.3	1.0	19.3	10.2	2.5	0.2	1.0	100.0	276
Central Highlands	48.1	51.9	165	13.5	3.5	37.6	2.1	0.5	18.3	17.5	4.0	1.2	1.7	100.0	86
Southeast	67.3	32.7	516	17.9	2.6	32.2	0.0	4.2	28.8	6.5	4.9	0.7	0.4	100.0	169
Mekong River Delta	65.2	34.8	905	20.3	3.2	53.0	0.7	0.3	8.3	8.1	4.0	0.0	0.8	100.0	315
Education															
No education	53.5	46.5	336	11.3	1.9	48.5	1.1	0.0	0.6	26.8	7.2	0.0	0.9	100.0	156
Some primary	68.2	31.8	869	14.5	3.0	52.8	0.5	0.0	7.1	14.8	5.8	0.0	0.4	100.0	276
Completed primary	55.8	44.2	1,431	16.2	3.5	49.8	0.3	0.1	18.1	6.7	2.3	1.3	0.7	100.0	633
Compl. lower secondary	67.9	32.1	1,694	11.1	4.5	38.0	1.9	0.5	31.7	6.3	1.7	3.0	0.1	100.0	544
Compl. higher secondary+	62.6	37.4	887	9.4	4.2	32.2	0.3	3.4	40.8	5.2	0.7	3.0	0.4	100.0	332
Work for family, others, self															
For family member	57.9	42.1	2,057	12.0	3.8	49.0	0.7	0.1	19.2	9.6	2.9	1.6	0.1	100.0	866
For someone else	64.5	35.5	1,216	5.6	3.4	42.5	0.5	2.4	32.6	9.0	1.0	2.5	0.5	100.0	432
Self-employed	67.0	33.0	1,942	19.1	3.8	37.6	1.3	0.6	21.1	8.5	3.8	1.6	0.8	100.0	641
Total	62.8	37.2	5,217	13.0	3.7	43.8	0.8	0.8	22.8	9.1	2.8	1.8	0.4	100.0	1,941

Overall, almost four in ten currently employed women have a child under 6 years of age. These women report that while they are at work, their children are cared for primarily by relatives (44 percent), by a school or institution that the children attend (23 percent), by the women themselves (13 percent), and by other female children (9 percent).

Relatives other than the respondent's husband and schools/childcare institutions are the most common caretakers for children of working women in both urban and rural areas. However, rural children are more likely than urban children to be looked after by other relatives (46 versus 33 percent), whereas urban children are more likely to attend school or receive institutional care than rural children (41 versus 20 percent). The role of female siblings in childcare in the absence of their mother is significant in rural areas and in families where the mother has limited education. Children living in nonproject provinces are more likely to be cared for by their mothers than children living in project provinces.

Educated women are more likely than women with little or no education to have their children attend school or receive institutional care or care by servants or hired help. Less educated women are more likely to have a child cared for by another female or male child or another relative other than the husband. Women who reside in the south of Vietnam more frequently care for their children themselves than those who reside in the north.

Access to Media

In order to assess exposure to the mass media, women were asked if they usually read a newspaper, listen to the radio, or watch television at least once a week. This information is important for planning the dissemination of family planning messages. Table 2.16 shows that 30 percent of women read a newspaper, 54 percent listen to the radio, and 86 percent watch television at least once a week. Nine percent of all respondents are not exposed to any of these mass media.

Women in rural areas are less exposed to mass media than urban women. Ten percent of rural women have no exposure to mass media compared with 3 percent of urban women.

Another significant finding is that 14-15 percent of women in the Mekong River Delta and Central Highlands reported having no media exposure, which is about twice as high as the national level. Conversely, one-third of women in the Red River Delta are exposed to all three media.

There is a strong positive association between media exposure and level of education: as education increases, exposure to mass media increases. The proportion of women exposed to all three media rises from 0 among women with no education to almost half of those who have completed higher secondary school.

Comparison with data from the VNDHS 1997 shows that exposure to television has increased over the last 5 years, from 77 to 86 percent of ever-married women. However, radio listenership has declined from 64 percent of women in 1997 to 54 percent in 2002, while newspaper readership has remained steady at 30-31 percent.

Table 2.16 Access to mass media

Percentage of ever-married women who usually read a newspaper, listen to the radio, or watch television at least once a week, by background characteristics, Vietnam 2002

Background characteristic	No media exposure	Media exposure: Reads newspaper	Media exposure: Listens to radio	Media exposure: Watches television	Media exposure: All three media	Number of women
Age						
15-19	16.2	30.5	52.4	78.5	24.5	69
20-24	11.5	30.7	52.7	81.2	19.8	552
25-29	10.3	30.0	51.6	83.1	19.2	1,000
30-34	7.1	28.6	54.8	86.6	19.6	1,105
35-39	7.0	29.8	52.3	87.9	19.4	1,098
40-44	8.4	31.4	56.3	86.8	21.1	1,046
45-49	7.7	27.3	55.3	87.9	20.0	795
Residence						
Urban	3.3	61.1	51.6	95.0	38.3	1,081
Rural	9.7	22.3	54.4	83.7	15.5	4,584
Project province						
No	8.9	30.4	52.4	85.3	20.2	3,814
Yes	7.7	28.0	56.9	86.9	19.1	1,851
Region						
Northern Uplands	11.8	20.6	60.4	74.3	14.2	1,099
Red River Delta	1.0	42.1	72.0	97.1	32.9	1,363
North Central	7.4	20.2	47.5	87.9	12.3	722
Central Coast	9.1	28.0	39.3	86.4	13.4	594
Central Highlands	14.2	25.4	32.5	80.7	13.7	183
Southeast	7.0	48.5	48.6	89.9	28.6	648
Mekong River Delta	15.0	19.6	43.2	79.9	13.7	1,056
Education						
No education	32.7	0.2	36.5	44.3	0.0	364
Some primary	19.2	10.0	42.1	72.9	6.6	966
Completed primary	7.3	21.5	50.4	87.5	13.2	1,599
Compl. lower secondary	3.2	31.0	60.5	93.2	21.6	1,783
Compl. higher secondary+	0.4	71.9	65.7	98.3	49.0	953
Total	8.5	29.7	53.9	85.8	19.9	5,665

FERTILITY 3

An important objective of the VNDHS 2002 is to estimate fertility levels, trends, and differentials. Information on fertility will help to determine the impact of family planning use and changes in the age at marriage, use of induced abortion and other proximate determinants of fertility. In addition, data on fertility will help in monitoring the achievements of the government's population policies and programs.

The fertility measures presented in this chapter are based on the reported reproductive histories of ever-married women age 15-49. Each woman was first asked to report the number of sons and daughters living with her, the number living elsewhere, the number that had died, and the number of pregnancies that did not end in a live birth (i.e., abortion, menstrual regulation, miscarriage or stillbirth). She was then asked to report an event-by-event history of her pregnancies. For each live birth, questions were asked about the sex of the child, date of birth, survivorship status, and current age (for surviving children) or age at death (for deceased children).

3.1 FERTILITY LEVELS AND TRENDS

Fertility Levels

Measures of current fertility are presented in Table 3.1 for the five-year period preceding the survey, which corresponds to the period 1998-2002. This period was chosen in order to be comparable to the VNDHS 1997 as well as to provide data on the inter-survey period.

Several measures of current fertility are shown. Age-specific fertility rates (ASFR) are calculated by dividing the number of births to women in a specific age group by the number of woman-years lived during a given period.[1] Age-specific fertility rates are useful in understanding the age pattern of fertility. In an ever-married sample of women such as in the VNDHS, the calculation of all-women fertility rates makes the implicit assumption that no births occurred among women who have never married.

The total fertility rate (TFR) is a useful summary measure of fertility levels. The TFR is calculated by summing the age-specific fertility rates and multiplying by five. It is interpreted as the number of children a woman would bear during her lifetime if she were to experience the age-specific fertility rates prevailing during a given period.

Two additional measures of fertility reported in this chapter are the general fertility rate (GFR) which represents the annual number of births per 1,000 women age 15-44, and the crude birth rate (CBR) which represents the annual number of births per 1,000 population. The CBR was estimated using the birth history data in conjunction with the population data collected in the household schedule.

[1] Numerators for the age-specific fertility rates were obtained by classifying births during the 5-year period prior to the survey into standard five-year age groups, according to the mother's age at the time of birth, and summing. Denominators for the rates were the number of person-years lived by all women in each five-year age group during the period. Since only ever-married women were interviewed in the VNDHS, it was necessary to inflate the number of person-years lived by ever-married women by factors representing the proportion of women who were ever-married in each age group. These factors were calculated from the data collected in the household schedule. Never-married women were presumed not to have given birth. In Vietnam, few births occur outside of marriage so that any underestimation of fertility from this source is negligible.

Fertility estimates for Vietnam are shown in Table 3.1 and Figure 3.1. At the national level the TFR is 1.9 children per woman, which indicates that on average, a Vietnamese woman will give birth to fewer than two children during her lifetime. In rural areas, the TFR is 2.0 children per woman, or 42 percent higher than the rate for urban areas (1.4 children per woman). On the other hand, the difference in the TFR between project and nonproject provinces is relatively small (1.9 and 1.8 children per woman, respectively).

Table 3.1 Current fertility rates

Age-specific and cumulative fertility rates and crude birth rate for the five-year period preceding the survey, by urban-rural residence and project-nonproject province, Vietnam 2002

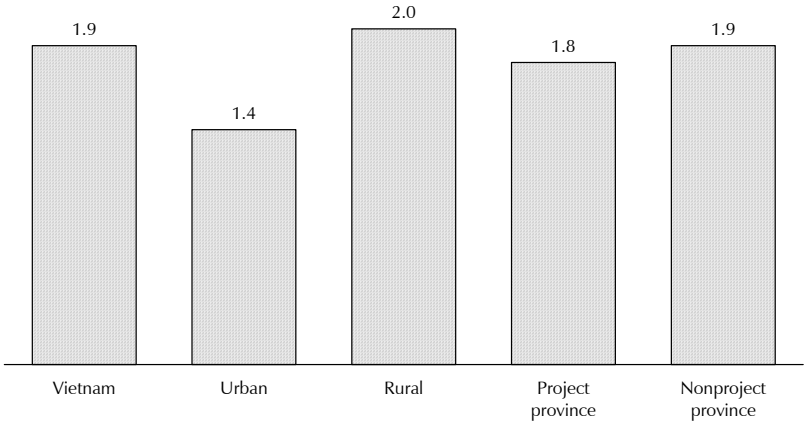
	Residence		Project province		
Age	Urban	Rural	No	Yes	Total
15-19	10	28	26	19	25
20-24	69	158	132	151	138
25-29	107	116	114	114	114
30-34	68	58	59	60	60
35-39	23	26	25	27	26
40-44	3	12	8	13	10
45-49	2	2	1	2	2
TFR 15-49	1.40	1.99	1.83	1.93	1.87
TFR 15-44	1.39	1.99	1.82	1.92	1.86
GFR	46	66	61	62	62
CBR	12.1	15.8	15.0	14.9	15.0

Note: Rates are for the period 1-60 months preceding the survey. Rates for age group 45-49 may be slightly biased due to truncation.
TFR: Total fertility rate for ages 15-49, 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

Fertility Trends

A series of fertility estimates from five national surveys is shown in Table 3.2. The total fertility rate in Vietnam has declined precipitously from 4.0 children per woman in 1987 to 1.9 in 1998-2002. Between the 1997 and VNDHS 2002 surveys, the TFR declined by 0.8 children or 30 percent in a period of five and a half years.[2] This is a remarkable decline, especially considering the steep decline recorded for the 1992-96 period and the already low level of fertility in Vietnam.

Figure 3.1 Total Fertility Rates by Residence



Vietnam 2002

[2] The TFR for the VNDHS 1997 was calculated for the calendar period 1992-96, with a mid-point of mid-1994. For the VNDHS 2002, fertility rates refer to the 5-year period prior to the survey which corresponds roughly to mid-1998 to mid-2002, with a mid-point of early 2000.

Table 3.2 Trends in fertility rates

Age-specific and total fertility rates, selected sources, Vietnam 1987-2002

Age	1988 VNDHS (1987)	1989 Census (1988-89)	1994 ICDS (1989-93)	1997 VNDHS (1992-96)	2002 VNDHS (1998-02)
15-19	20	35	38	39	25
20-24	235	197	196	178	138
25-29	243	209	189	148	114
30-34	151	155	124	95	60
35-39	85	100	69	52	26
40-44	51	49	31	20	10
45-49	11	14	2	4	2
TFR 15-49	3.98	3.80	3.25	2.67	1.87

Source: NCPFP, 1990; GSO, 1995:33; NCPFP, 1999:30

Nevertheless, several countries have experienced declines in the TFR of roughly this magnitude, e.g., Thailand, Sri Lanka, Turkey, and Morocco (Chayovan et al., 1988; DCS and IRD, 1988; Mboup and Saha, 1998; and Azelmat et al., 1996). However, a review of the rates of fertility decline between surveys in the DHS program would imply that the rate of decline measured in the VNDHS 2002 is unprecedented (Mboup and Saha, 1998; Rutstein, 2002).[3]

A review of the VNDHS 2002 data does not indicate any obvious flaws with the data. The most commonly suspected errors such as biases in the age reporting of women or deliberate displacement of the dates of births outside of the reference period used for fertility calculations are not likely to have much of an effect on the TFR for the five years before the survey. Similarly, examination of the weighting factors used to inflate ever-married women to represent all women does not show any significant problem. Omission of births—either because respondents avoid or forget mentioning them or because interviewers deliberately omit them to reduce their work—could be a factor in the low reported fertility rates and analysis of the recent childhood mortality rates suggests possible omission of recent neonatal deaths (see Chapter 7). Outright omission of births is difficult to detect.

On the other hand, there is evidence to support the fact that there has been an extremely rapid fertility decline. Internal evidence from the pregnancy history in the VNDHS 2002 shows that the TFR for the period 5-9 years prior to the survey (roughly equivalent to 1992-96) was 2.8, very close to the TFR of 2.7 reported from the VNDHS 1997. Although contraceptive use has not increased significantly between the two surveys, there has been a decline in the proportions of women married at ages 15-24 (see Table 5.1). An increase in the total abortion rate (see Table 4.19) would also depress the TFR.

A comparison of age-specific fertility rates from the VNDHS 2002 and from the earlier sources, indicates that fertility declines are proportionately greater for women aged 25 and older than for younger women. This pattern is common and plausible for populations experiencing a fertility decline. It occurs during the fertility transition when older women, who are more likely to have reached their desired family size, make a greater effort to limit their births than do younger women, who are likely to have not yet achieved their desired family size.

[3] Using the annual percentage decline formula: $r = \ln (TFR_0/TFR_1)/ t \times 100$, the decline in Vietnam is 6.4 percent. Of the 10 DHS countries examined by Mboup and Saha, the highest rate of decline between two surveys occurred in Kenya with 5.2 percent. Of the 21 DHS countries examined by Rutstein, the highest rate of decline was noted for Jordan at 3.5 percent (Rutstein, 2002:25).

In summary, although there has no doubt been a precipitous decline in fertility over the past five years in Vietnam, it is also likely that there was some underreporting of births in 2002 relative to the previous surveys. Consequently, the steepness of the decline may be exaggerated somewhat.

Fertility Differentials

Table 3.3 presents fertility levels by urban-rural residence, project province status, region, and educational attainment. Three measures of fertility are shown: the total fertility rate, the percentage of women who were pregnant at the time of the survey and the average number of children ever born to women age 40-49.

Differentials in fertility by urban-rural residence have already been discussed. There is very little difference in fertility by whether the province falls within the NCPFP project or not. The highest fertility is observed in the Central Highlands (2.9 children per woman). This is considerably higher than in any other region. The lowest fertility levels are observed in the Southeast region, which includes Ho Chi Minh City (1.5), in the Red River Delta, which includes Hanoi City (1.7), and in the Mekong River Delta (1.7).

Fertility differentials by education are substantial and are inversely related to educational attainment. Women who completed higher secondary school have the lowest fertility (1.4 children per woman) while those with no education have the highest fertility (2.8 per woman) or twice as high

Another interesting fertility indicator is the percentage of women who are pregnant at the time of the survey. Although some women may not be aware that they are pregnant, while others may be reluctant to disclose a pregnancy, the indicator can be useful as a rough gauge of future fertility, especially since it is not subject to recall errors. Only 3 percent of the ever-married women interviewed reported that they were pregnant at the time of interview. Differentials in current pregnancy generally follow the same patterns as the TFR.

Table 3.3 Fertility by background characteristics

Total fertility rate for the five years preceding the survey, percentage currently pregnant, and mean number of children ever born to women age 40-49, by background characteristics, Vietnam 2002

	Fertility indicator		
Background characteristic	Total fertility rate[1]	Percent currently pregnant[1]	Mean CEB (40-49)
Residence			
Urban	1.40	2.21	2.43
Rural	1.99	3.44	3.64
Project province			
No	1.83	3.18	3.34
Yes	1.93	3.21	3.40
Region			
Northern Uplands	2.01	2.52	3.89
Red River Delta	1.65	3.18	2.61
North Central	1.92	3.14	3.82
Central Coast	2.37	3.90	3.57
Central Highlands	2.90	3.51	4.64
Southeast	1.51	3.35	2.81
Mekong River Delta	1.69	3.31	3.73
Education			
No education	2.82	5.22	4.70
Some primary	1.98	2.89	4.04
Completed primary	2.13	3.52	3.59
Compl. lower secondary	1.71	2.29	3.01
Compl. higher secondary+	1.39	3.92	2.25
Total	1.87	3.19	3.36

[1] Women age 15-49

One procedure for examining fertility trends over time is to compare the total fertility rate with the average number of children ever born to women age 40-49. The former is a measure of the number of children a woman will have at current age-specific fertility rates while the latter is a measure of the actual fertility performance of women at the end of their childbearing years. Comparison of the two measures provides an indication of the direction and magnitude of changes in fertility during the past 20-25 years.

The results of this comparison in Table 3.3 indicate that there has been a significant fertility decline in Vietnam during the past several decades and that the decline has been broadly experienced throughout the population. At the national level, women age 40-49 have given birth to an average of 3.4 children, or one and a half children more than the current total fertility rate of 1.9 children per women. The data for all population subgroups also indicate a fertility decline, although there are differences in the magnitude of the decline. The difference between the two fertility measures is greater for rural areas (1.7) than for urban areas (1.0).

3.2 CHILDREN EVER BORN

The distribution of all women and currently married women by age and number of children ever born is presented in Table 3.4. The table also shows the mean number of children ever born and mean number of living children. The data indicate that only 2 percent of all women age 15-19 have given birth.

On average, women in their early thirties have given birth to two children, while women in their early 40s have given birth to a three children. The statistics for currently married women do not differ greatly from those for all women at older ages; however, at younger ages the percentage of currently married women who have had children is much higher than the percentage among all women.

Table 3.4 Children ever born and living

Percent distribution of all women and currently married women by number of children ever born (CEB) and mean number ever born and living, according to age, Vietnam 2002

Age	Children ever born											Total	Number of women	Mean CEB	Mean living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
15-19	98.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1,630	0.02	0.02
20-24	61.2	28.5	9.5	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1,155	0.50	0.49
25-29	22.8	29.8	36.0	8.3	2.8	0.3	0.0	0.0	0.0	0.0	0.0	100.0	1,221	1.39	1.34
30-34	10.3	14.1	46.7	19.5	7.7	1.2	0.4	0.1	0.0	0.0	0.0	100.0	1,197	2.06	1.98
35-39	6.6	9.6	36.5	25.8	13.2	4.9	2.0	0.8	0.5	0.1	0.0	100.0	1,162	2.59	2.45
40-44	8.4	5.3	25.7	22.5	19.4	10.4	5.4	2.0	0.7	0.2	0.2	100.0	1,128	3.08	2.89
45-49	6.7	4.9	18.1	19.3	21.6	10.8	8.0	4.9	2.4	1.6	1.7	100.0	838	3.74	3.43
Total	35.3	13.2	23.7	12.7	8.2	3.4	1.9	0.9	0.4	0.2	0.2	100.0	8,330	1.73	1.63
CURRENTLY MARRIED WOMEN															
15-19	59.1	40.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	67	0.41	0.41
20-24	19.2	59.1	19.9	1.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	536	1.04	1.02
25-29	5.8	35.3	44.6	10.4	3.5	0.3	0.1	0.0	0.0	0.0	0.0	100.0	977	1.72	1.65
30-34	2.5	13.5	51.9	21.7	8.5	1.3	0.4	0.1	0.0	0.0	0.0	100.0	1,062	2.27	2.18
35-39	0.8	8.3	40.4	27.9	14.4	4.9	1.9	0.9	0.5	0.1	0.0	100.0	1,042	2.77	2.61
40-44	1.3	4.3	27.3	24.8	21.7	11.1	6.0	2.3	0.8	0.3	0.2	100.0	966	3.38	3.17
45-49	1.7	3.1	17.6	20.4	23.4	12.1	9.2	6.0	2.6	2.0	2.1	100.0	687	4.10	3.78
Total	4.9	18.4	35.6	19.0	12.1	4.8	2.7	1.4	0.6	0.3	0.3	100.0	5,338	2.56	2.41

A comparison of the mean number of children ever born (CEB) reported in the 1989 census (1.9), the ICDS-94 (1.9), the VNDHS 1997 (1.9), and the VNDHS 2002 (1.6) is shown in Table 3.5. The comparison does not highlight recent changes in fertility, but rather is an indication of the cumulative changes in fertility over the decades prior to the surveys. The data show almost no change in mean number of

children ever born among younger women until the VNDHS 2002. The decline in fertility is seen almost exclusively among older women; for example, the mean number of children ever born among women age 45-49 has declined from 4.9 to 3.4 in 13 years. The fact that the overall mean has not fallen until 2002 is in part due to the increasingly older age distribution among women.

Table 3.5 Trends in mean number of children ever born

Mean number of children ever born by age group, selected sources, Vietnam 1989-2002

Age	1989 Census	1994 ICDS	1997 VNDHS	2002 VNDHS
15-19	0.05	0.04	0.04	0.02
20-24	0.63	0.64	0.61	0.49
25-29	1.67	1.66	1.50	1.34
30-34	2.77	2.57	2.33	1.98
35-39	3.64	3.49	3.01	2.45
40-44	4.36	4.12	3.64	2.89
45-49	4.94	4.62	4.08	3.43
Total	1.94	1.90	1.86	1.63

Source: NCPFP, 1999:32

3.3 BIRTH INTERVALS

There is a considerable body of research that indicates that short birth intervals are harmful to the health of babies. This is particularly true for babies born at intervals of less than 24 months. Table 3.6 shows the percent distribution of non-first births that occurred in the five-year period before the VNDHS 2002 by the number of months since the previous birth.

The data show that birth intervals are generally long in Vietnam. Almost half (49 percent) of non-first births occur four or more years after the previous birth, while over one-third (36 percent) take place 24-47 months after the previous birth. Fewer than one in six births (16 percent) occurs after an interval of less than 24 months. The median birth interval is 47 months. This is considerably longer than the median birth interval of 36 months reported for the VNDHS 1997 (NCPFP, 1999) and the 32 months reported in the ICDS-94 (GSO, 1995).

Younger women, who are more fecund and still in the process of family building, have shorter birth intervals than older women. The median birth interval for women age 20-29 is 32 months, compared with more than 60 months for other women. The shortest median birth interval prevails for children whose preceding sibling has died. This pattern presumably reflects a shortened breastfeeding period due to the death of the prior sibling, as well as minimal use of contraception among women who have recently experienced the loss of a child.

Table 3.6 Birth interval

Percent distribution of births in the five years before the survey by length of interval (months) since previous birth and median length of birth interval, according to demographic and background characteristics, Vietnam 2002

Characteristic	Months since previous birth					Total	Number of births	Median length of birth interval
	7-17	18-23	24-35	36-47	48+			
Mother's age								
20-29	9.4	14.7	31.8	12.0	32.1	100.0	594	32.1
30-39	2.5	6.0	15.8	13.9	61.8	100.0	622	60.0
40+	4.9	6.5	17.6	6.7	64.3	100.0	102	59.5
Birth order								
2-3	5.9	10.3	21.8	11.9	50.1	100.0	1,053	48.1
4-6	5.1	5.1	28.6	15.2	46.0	100.0	224	43.7
7+	(7.9)	(27.9)	(27.1)	(12.7)	(24.4)	100.0	41	(29.8)
Sex of prior birth								
Male	5.0	10.3	24.5	12.3	47.9	100.0	610	46.9
Female	6.5	9.7	22.0	12.6	49.3	100.0	707	46.8
Survival of prior birth								
No	31.0	14.5	33.5	4.6	16.5	100.0	52	26.3
Yes	4.8	9.8	22.7	12.8	49.9	100.0	1,266	47.9
Residence								
Urban	0.9	4.5	11.8	9.6	73.2	100.0	166	65.7
Rural	6.5	10.8	24.8	12.9	45.1	100.0	1,152	43.2
Project province								
No	5.6	9.6	22.4	13.7	48.7	100.0	869	47.0
Yes	6.2	10.8	24.5	10.0	48.5	100.0	449	46.6
Region								
Northern Uplands	14.8	10.5	24.4	14.4	35.9	100.0	262	36.1
Red River Delta	4.1	5.5	13.9	12.5	64.1	100.0	246	58.3
North Central	3.9	9.5	25.6	14.3	46.7	100.0	195	46.3
Central Coast	2.6	12.3	25.9	12.8	46.4	100.0	199	46.0
Central Highlands	7.2	15.6	41.6	9.7	25.9	100.0	80	31.6
Southeast	2.2	10.7	23.5	11.0	52.6	100.0	130	50.2
Mekong River Delta	3.0	10.4	20.2	9.8	56.5	100.0	206	53.1
Mother's education								
No education	16.8	18.9	31.6	8.0	24.6	100.0	151	30.2
Some primary	6.5	13.8	23.4	8.2	48.1	100.0	200	45.4
Completed primary	3.6	10.9	27.2	14.4	43.9	100.0	440	42.8
Compl. lower secondary	4.8	7.0	19.2	15.8	53.2	100.0	355	50.4
Compl. higher secondary+	3.0	1.5	13.0	9.5	72.9	100.0	171	67.7
Total	5.8	10.0	23.1	12.5	48.6	100.0	1,318	46.9

Note: First births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth. Figures in parentheses are based on 25-49 unweighted cases.

Differentials in the length of birth intervals by background characteristics are inversely related to fertility levels. The median duration is greater in urban areas (66 months) than in rural areas (43 months). Birth intervals are longest in the three regions where fertility is lowest: the Red River Delta, the Southeast region and the Mekong River Delta (50-58 months). By level of education, mothers with a higher secondary education have a median birth interval of 68 months, compared with 30 months for mothers with no education.

3.4 AGE AT FIRST BIRTH

The age at which a woman has her first child has implications for her health and the health of her child, as well as for her economic opportunities in life. In many countries, postponement of first births, reflecting an increase in the age at marriage, has contributed to overall fertility decline. Alternatively, early onset of childbearing tends to increase the number of children a woman will have during her reproductive years. Even when family planning is widespread, the timing of first births can affect completed family size.

Table 3.7 presents the distribution of women by age at first birth, according to the current age. For women age 25 years and over, the median age at first birth is shown in the last column of the table. The median age at first birth increases across age cohorts, from 22.6 years among women age 25-29 to 23.5 years among women age 45-49. Compared with data from the VNDHS 1997, the median age at first birth has either remained the same or declined slightly.

Table 3.7 Age at first birth

Percent distribution of women by exact age at first birth and median age at first birth, according to current age, Vietnam 2002

		Age at first birth							Number of	Median age at
Age	No birth	<15	15-17	18-19	20-21	22-24	25+	Total	women	first birth
15-19	98.3	0.2	0.6	1.0	na	na	na	100.0	1,630	a
20-24	61.2	0.2	3.7	12.0	14.2	8.6	na	100.0	1,155	a
25-29	22.8	0.3	7.3	17.6	20.9	20.9	10.1	100.0	1,221	22.6
30-34	10.3	0.0	2.3	18.0	30.4	25.4	13.5	100.0	1,197	21.9
35-39	6.6	0.2	4.2	14.1	23.5	29.3	22.1	100.0	1,162	22.7
40-44	8.4	0.0	2.8	12.8	19.0	32.1	24.9	100.0	1,128	23.2
45-49	6.7	0.3	3.6	11.5	19.2	28.8	30.0	100.0	838	23.5

na = Not applicable
a = Omitted because less than 50 percent of women had a birth before reaching the age group

Table 3.8 shows the median age at first birth for different subgroups of the population. The measures are presented for all women age 25-49 and for five-year age groups. There are substantial differences between urban and rural women in the median age at first birth. In all age groups, the median age at first birth is higher for urban women than for rural women.

The median age at first birth is highest in the Southeast region (24.6 years) and lowest in the Northern Uplands (21.9 years). Median age at first birth is positively related to women's level of education. It does not differ by project province status.

Table 3.8 Median age at first birth by background characteristics

Median age at first birth among women aged 25-49 years, by current age and background characteristics, Vietnam 2002

Background characteristic	Current age					
	25-29	30-34	35-39	40-44	45-49	25-49
Residence						
Urban	a	24.4	24.4	24.9	24.9	24.9
Rural	21.7	21.6	22.3	22.8	23.1	22.3
Project province						
No	22.7	22.0	22.7	23.3	23.4	22.8
Yes	22.2	21.8	22.8	23.0	23.7	22.7
Region						
Northern Uplands	20.5	21.8	21.7	22.6	23.4	21.9
Red River Delta	23.3	21.4	23.4	23.9	24.1	23.2
North Central	21.9	21.6	22.6	22.8	23.5	22.4
Central Coast	23.3	22.2	22.9	24.1	23.1	23.0
Central Highlands	22.9	22.1	25.2	22.1	23.0	23.0
Southeast	a	25.6	23.6	23.8	24.9	24.6
Mekong River Delta	23.5	22.0	22.3	22.1	22.6	22.5
Education						
No education	19.9	21.1	21.8	21.6	21.9	21.2
Some primary	20.8	21.2	21.2	22.1	22.4	21.6
Completed primary	22.2	22.0	22.0	22.4	23.2	22.3
Compl. lower secondary	21.9	21.7	22.7	23.3	23.7	22.7
Compl. higher secondary+	a	23.3	24.6	25.0	25.8	24.9
Total	22.6	21.9	22.7	23.2	23.5	22.7

a = Omitted because less than 50 percent of women had a birth before reaching the age group.

3.5 ADOLESCENT FERTILITY

Table 3.9 shows the percentage of women age 15-19 who are mothers or pregnant with their first child. The sum of these two categories is defined as the percentage of teenage women who have begun childbearing. This statistic is important because of the association between early childbearing and high morbidity and mortality for both mothers and their children. The overall level of teenage childbearing in Vietnam is slightly over 3 percent, of which half have given birth and half are pregnant with their first child.

There are significant differences in the level of teenage childbearing by residence. The level in rural areas (4 percent) is double the level in urban areas (2 percent). By comparison, the difference in the level of teenage childbearing between project provinces and nonproject provinces is small.

By region, the percentage of teenage childbearing varies from 2 percent in the Central Highlands to 5 percent in the Central Coast. Teenage childbearing is strongly and inversely related to level of education. Teenage childbearing is highest among women with some primary education (10 percent), substantially lower among women who have completed lower secondary school (2 percent), and lowest among those who have completed higher secondary school (less than one percent).

Table 3.9 Adolescent fertility

Percentage of teenagers 15-19 who are mothers or pregnant with their first child, by background characteristics, Vietnam 2002

Background characteristic	Teenage pregnancy			Number of teenagers
	Mothers	Pregnant with first child	Percentage who have begun childbearing	
Age[1]				
15	0.6	0.0	0.6	398
17	0.2	0.3	0.5	646
18	3.2	3.4	6.6	321
19	5.3	5.2	10.5	265
Residence				
Urban	0.7	0.9	1.6	275
Rural	2.0	1.8	3.7	1,351
Project province				
No	2.0	1.4	3.5	1,099
Yes	1.1	2.0	3.1	531
Region				
Northern Uplands	2.8	1.5	4.3	336
Red River Delta	0.7	1.8	2.5	330
North Central	1.6	1.1	2.8	235
Central Coast	3.1	1.7	4.8	152
Central Highlands	0.0	1.8	1.8	53
Southeast	0.7	2.3	3.0	184
Mekong River Delta	2.1	1.4	3.4	335
Education				
No education	(1.3)	(6.2)	(7.5)	45
Some primary	7.0	3.0	10.0	135
Completed primary	3.0	1.5	4.5	490
Compl. lower secondary	0.5	1.4	1.9	794
Compl. higher secondary+	0.0	0.5	0.5	167
Total	1.7	1.6	3.4	1,630

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] No ever-married women age 16 were interviewed.

FERTILITY REGULATION 4

4.1 KNOWLEDGE OF FAMILY PLANNING METHODS

Knowledge of family planning methods and places to obtain them are crucial elements in the decision of whether to use a method and which method to use. In the VNDHS 2002, each respondent was first asked to mention all the methods she had heard of. When the respondent failed to mention a particular method spontaneously, the interviewer read the name and a short description of the method and asked if she knew it. All methods recognized by the respondent after the method was described were recorded as known after probing (prompted knowledge). In this analysis, overall levels of knowledge are presented, i.e., respondents are classified as knowing a method if they recognized it spontaneously or after probing.

Information on knowledge was collected for eight modern methods—the pill, IUD, injectables, implants, vaginal methods (foam, jelly, cream and diaphragm), the condom, female sterilization, and male sterilization—and two traditional methods—periodic abstinence and withdrawal. In addition, provision was made in the questionnaire to record any other methods named spontaneously by the respondent.

Table 4.1 indicates that virtually all women of reproductive age know of at least one method of contraception. As in the previous VNDHS surveys, the most widely known methods are the IUD (99 percent of currently married women), the condom (96 percent), the pill (95 percent), female sterilization (92 percent), and male sterilization (90 percent). Eighty-one percent of currently married women have heard of withdrawal and 70 percent know about the rhythm method or periodic abstinence. The proportion of currently married women who have heard of injectables is 60 percent. The least recognized methods—implants and vaginal methods—were known by 15 and 10 percent of currently married women, respectively.

Table 4.1 Trends in knowledge of contraceptive methods

Percentage of ever-married women and of currently married women who know of at least one contraceptive method, by specific method, Vietnam 1988-2002

	Ever-married women			Currently married women		
Contraceptive method	1988 VNDHS	1997 VNDHS	2002 VNDHS	1988 VNDHS	1997 VNDHS	2002 VNDHS
Any method	94.1	98.8	99.5	94.7	98.9	99.6
Any modern method	93.6	98.5	99.4	94.3	98.7	99.5
Pill	46.4	89.0	95.0	46.8	89.5	95.3
IUD	91.8	97.3	98.3	92.5	97.6	98.5
Injections	u	55.8	59.4	u	55.9	60.1
Vaginals	u	10.0	10.1	u	10.1	10.3
Condom	44.5	92.1	96.0	45.0	92.5	96.3
Female sterilization	60.2	91.0	92.0	60.4	91.4	92.4
Male sterilization	49.2	89.0	89.8	49.7	89.5	90.3
Implant	u	12.3	14.2	u	12.4	14.6
Any traditional method	43.0	80.0	84.1	u	80.8	85.3
Periodic abstinence	40.3	68.3	69.3	43.6	69.0	70.2
Withdrawal	6.7	70.4	79.5	41.1	71.5	80.6
Other methods	u	2.0	0.8	6.8	2.0	0.8
Number of women	u	5,664	5,665	u	5,340	5,338

u = Unknown (not available)

Comparison of the levels of contraceptive knowledge between the VNDHS 1988, the VNDHS 1997 and the VNDHS 2002 indicates that the percentage of currently married women knowing specific methods has increased for every method. Knowledge of the IUD has increased the least (6 percentage points in comparison with the VNDHS 1988 and 1 percentage point in comparison with the VNDHS 1997) due to the fact that knowledge of the IUD was already very high in 1988. Other methods, however, show large increases: knowledge of the condom, the pill, male sterilization and withdrawal all doubled during period from 1988 to 2002. Knowledge of female sterilization increased from 60 to 92 percent over the same period.

Increases in contraceptive knowledge since the VNDHS 1997 are more modest. The largest gain is in knowledge of withdrawal, which increased from 72 to 81 percent of currently married women and for injectables, which increased from 56 to 60 percent.

Knowledge of at least one modern method of contraception is so high that there are almost no differences by background characteristics (data not shown). For example, there is only one group of currently married women—those age 15-19—for whom the percentage knowing any modern method is less than 95 percent.

4.2 Ever Use of Family Planning Methods

All women interviewed in the VNDHS 2002 who said they had heard of a method of family planning were asked if they had ever used that method. Table 4.2 indicates that 9 out of 10 currently married women have used a method (91 percent). As in the previous surveys, the IUD is by far the most widely used method among currently married women (65 percent), having increased by 7 percentage points since 1997. The proportions of women who have ever used other modern methods have also increased. For example, the proportion of currently married women who have ever used condoms has increased from 13 percent in 1997 to 19 percent in 2002, while the proportion who have ever used the pill has increased from 10 to 18 percent. Six percent of currently married women reported having been sterilized. Few women have used other modern methods. The level of ever use of traditional methods is high in Vietnam. More than one in three currently married women (38 percent) has used withdrawal, while almost one-fourth have used periodic abstinence (23 percent). In 1997, 26 and 18 percent, respectively, had used these methods at some time.

Ever-use rates vary by age group and are lowest among the youngest women. However, the fact that 29 percent of currently married women age 15-19 and 70 percent of those age 20-24 have used contraception at some time indicates that women in Vietnam understand the advantages of practicing family planning early in their reproductive years. The level of ever use rises to an astoundingly high level of 96 percent for currently married women age 35-39, then declines to 92 percent among those age 45-49.

Table 4.2 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, Vietnam 2002

Age	Any method	Any modern method	Contraceptive method: Pill	IUD	Injections	Diaphragm foam, jelly	Condom	Female sterilization	Male sterilization	Any traditional method	Periodic abstinence	Withdrawal	Other methods	Number of women
EVER-MARRIED WOMEN														
15-19	31.0	21.2	3.2	15.0	0.0	0.0	4.7	0.0	0.0	13.8	5.1	11.3	0.0	69
20-24	69.9	58.5	17.4	41.3	0.5	0.0	9.9	0.1	0.0	26.0	9.6	21.8	0.0	552
25-29	89.3	78.5	20.3	62.6	0.9	0.2	16.7	0.7	0.2	39.0	15.9	33.7	0.0	1,000
30-34	92.8	82.7	21.9	68.1	1.4	0.0	21.8	3.3	0.3	47.6	24.0	38.5	0.2	1,105
35-39	94.1	83.1	18.2	68.7	1.1	0.2	21.7	9.0	0.9	50.3	26.4	42.8	0.1	1,098
40-44	91.5	80.6	14.6	67.2	2.2	0.2	19.8	9.9	0.7	50.0	29.1	41.1	0.4	1,046
45-49	86.7	76.0	11.4	62.8	1.2	0.0	13.1	10.3	0.5	45.9	25.0	37.5	0.5	795
Total	88.4	77.6	17.4	63.1	1.3	0.1	17.9	5.8	0.5	44.3	22.5	36.8	0.2	5,665
CURRENTLY MARRIED WOMEN														
15-19	29.3	19.2	0.9	15.4	0.0	0.0	4.8	0.0	0.0	14.2	5.2	11.6	0.0	67
20-24	70.0	58.7	17.4	41.4	0.5	0.0	10.2	0.1	0.0	26.2	9.9	21.9	0.0	536
25-29	90.2	79.4	20.7	63.6	0.9	0.2	16.7	0.7	0.2	39.4	16.1	34.1	0.0	977
30-34	94.6	84.5	22.5	69.5	1.5	0.0	22.2	3.4	0.3	48.7	24.6	39.6	0.2	1,062
35-39	96.3	85.3	18.7	70.6	1.1	0.2	22.5	9.3	0.9	51.6	26.9	44.1	0.1	1,042
40-44	95.1	83.9	15.6	70.2	2.0	0.2	21.1	10.4	0.8	52.7	30.7	43.4	0.3	966
45-49	91.5	80.2	12.3	66.4	1.4	0.0	14.1	11.1	0.6	49.1	26.6	40.6	0.5	687
Total	90.5	79.6	18.1	64.9	1.3	0.1	18.6	5.9	0.5	45.7	23.1	38.1	0.2	5,338

4.3 CURRENT USE OF FAMILY PLANNING

The level of current use of contraception is one of the indicators most frequently used to assess the success of family planning programs. It is also a widely used measure in the analysis of fertility determinants. Data on current use of contraception is presented in Table 4.3 for currently married women age 15-49.

The survey results indicate that almost 79 percent of currently married women are using family planning, an increase of 3 percentage points from the rate in the VNDHS 1997 (75 percent). Use of modern methods (57 percent) is much higher than use of traditional methods (22 percent).

By far, the most commonly used method in Vietnam is the IUD, which is being used by 38 percent of currently married women (Figure 4.1); the next most common method is withdrawal (14 percent). Current use of modern methods other than the IUD is much lower; female sterilization, the condom, and the pill are each used by 6 percent of married women, while use of male sterilization and injectables are reported by less than 1 percent of women. Despite its predominance as the leading method in Vietnam, use of the IUD has actually declined slightly since 1997 (from 39 to 38 percent). Use of the pill has increased slightly (from 4 to 6 percent).

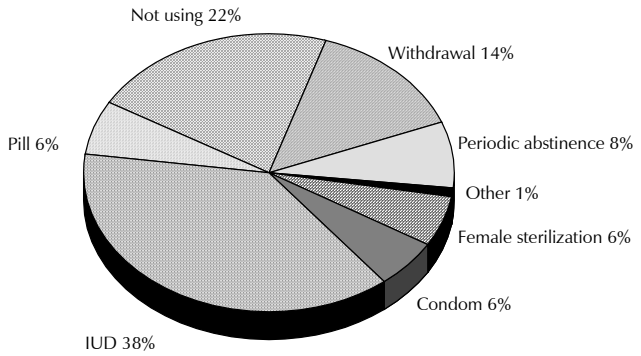
Table 4.3 Current use of contraception

Percent distribution of currently married women by contraceptive method currently used, according to age, Vietnam 2002

			Contraceptive method												
Age	Any method	Any modern method	Pill	IUD	Injec-tions	Condom	Female steri-lization	Male steri-lization	Any tradi-tional method	Periodic absti-nence	With-drawal	Other methods	Not currently using	Total	Number of women
15-19	22.8	14.1	0.0	14.1	0.0	0.0	0.0	0.0	8.6	2.6	6.0	0.0	77.2	100.0	67
20-24	57.7	44.5	9.0	30.9	0.4	4.1	0.1	0.0	13.2	1.6	11.6	0.0	42.3	100.0	536
25-29	73.4	56.9	8.0	42.2	0.4	5.4	0.7	0.2	16.5	3.8	12.8	0.0	26.6	100.0	977
30-34	83.1	63.3	9.2	42.9	0.4	7.1	3.4	0.3	19.6	7.8	11.8	0.2	16.9	100.0	1,062
35-39	90.2	65.0	5.3	42.3	0.3	7.0	9.3	0.8	25.2	8.5	16.8	0.0	9.8	100.0	1,042
40-44	88.8	60.1	4.7	36.9	0.5	6.9	10.4	0.7	28.7	11.2	17.5	0.0	11.2	100.0	966
45-49	68.2	42.3	1.9	25.4	0.2	3.0	11.1	0.6	25.8	10.5	15.3	0.1	31.8	100.0	687
Total	78.5	56.7	6.3	37.7	0.4	5.8	5.9	0.5	21.8	7.5	14.3	0.1	21.5	100.0	5,338

Rates of current use increase with age, reaching a maximum among women age 35-39 (90 percent). Beginning with age group 20-24, more than half of women are using contraception. Women in all age groups strongly prefer the IUD. The proportion using the IUD peaks at 43 percent among women age 30-34, while the proportion using female sterilization is highest among women age 45-49 (11 percent).

Figure 4.1 Current Contraceptive Use Among Currently Married Women



Vietnam 2002

Differentials in Current Use of Methods

Differentials in the use of contraception among currently married women are shown in Table 4.4 and Figure 4.2. The urban-rural differential is almost nonexistent, with 79 percent of urban women using, compared to 78 percent of rural women. Surprisingly, urban women are slightly more likely than rural

women to use traditional methods, while rural women are more likely than urban women to use modern methods (57 versus 55 percent, respectively). Women living in project and nonproject provinces are about equally likely to be current users (78 and 79 percent, respectively) and their method mix is similar. While contraceptive use has barely changed in the project provinces since 1997 (from 77 to 77.5 percent), it has increased slightly faster in the nonproject provinces (from 75 to 79 percent).

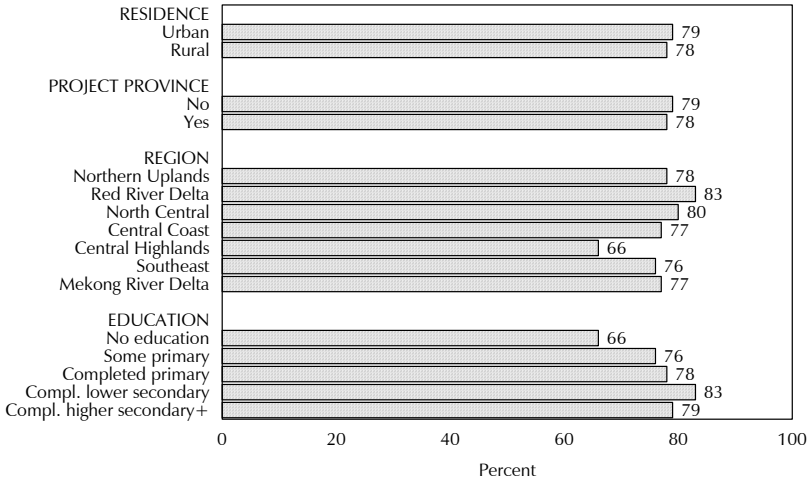
Currently married women in the Central Highlands report the lowest rate of current use of any method (66 percent) and of modern methods (42 percent). In contrast, the highest level of current use is in the Red River Delta (83 percent for any method and 59 percent for modern methods). The North Central region is the next highest for overall use (80 percent for any method), while the Central Coast is the next highest for use of modern methods (59 percent). There is little difference in current use in the remaining four regions where use of any method varies from 76 to 78 percent.

Table 4.4 Current use of contraception by background characteristics

Percent distribution of currently married women by contraceptive method currently used, according to background characteristics, Vietnam 2002

			Contraceptive method												
Background characteristic	Any method	Any modern method	Pill	IUD	Injec-tions	Con-dom	Female steri-lization	Male steri-lization	Any tradi-tional method	Periodic absti-nence	With-drawal	Other methods	Not currently using	Total	Number of women
Residence															
Urban	79.1	54.9	6.9	30.3	0.2	12.6	4.8	0.2	24.1	11.8	12.3	0.1	20.9	100.0	1,005
Rural	78.4	57.1	6.2	39.5	0.5	4.2	6.2	0.6	21.2	6.5	14.8	0.0	21.6	100.0	4,333
Project province															
No	79.0	56.9	7.0	37.5	0.4	6.3	5.5	0.3	22.1	7.1	14.9	0.0	21.0	100.0	3,586
Yes	77.5	56.2	5.0	38.3	0.5	4.8	6.8	0.9	21.2	8.2	13.0	0.1	22.5	100.0	1,752
Region															
Northern Uplands	78.4	56.6	4.7	44.4	0.2	3.7	3.2	0.3	21.7	5.3	16.4	0.1	21.6	100.0	1,049
Red River Delta	82.8	59.4	4.5	42.2	0.3	7.0	5.0	0.4	23.4	10.8	12.6	0.0	17.2	100.0	1,307
North Central	79.8	57.3	3.1	42.4	0.4	3.9	6.2	1.2	22.3	8.4	13.9	0.2	20.2	100.0	677
Central Coast	77.2	58.7	3.5	36.2	0.4	10.8	7.0	0.8	18.5	3.5	15.0	0.0	22.8	100.0	547
Central Highlands	66.3	41.6	2.0	21.2	0.6	5.5	12.3	0.0	24.7	8.1	16.6	0.0	33.7	100.0	172
Southeast	75.7	52.9	10.1	25.7	0.4	7.6	9.2	0.0	22.8	10.1	12.7	0.0	24.3	100.0	598
Mekong River Delta	76.7	56.6	12.7	32.5	0.7	3.9	6.3	0.4	20.0	5.2	14.9	0.1	23.3	100.0	989
Education															
No education	65.7	53.9	9.3	33.4	0.4	0.6	9.3	0.8	11.5	4.6	7.0	0.2	34.3	100.0	343
Some primary	76.1	57.7	11.1	34.5	0.6	2.9	8.2	0.4	18.3	4.0	14.3	0.1	23.9	100.0	886
Complete primary	77.7	56.4	5.8	38.7	0.5	4.3	6.6	0.5	21.2	5.3	15.9	0.1	22.3	100.0	1,506
Compl. lower secondary	82.8	58.4	3.9	42.2	0.4	5.5	5.7	0.7	24.4	9.2	15.2	0.0	17.2	100.0	1,684
Compl. higher secondary+	79.2	54.1	5.8	32.7	0.1	13.6	2.0	0.0	25.1	12.3	12.8	0.0	20.8	100.0	919
No. of living children															
0	6.7	3.8	2.2	0.3	0.0	1.0	0.3	0.0	2.9	1.6	1.3	0.0	93.3	100.0	265
1	67.6	46.6	7.8	32.2	0.1	5.5	1.0	0.0	21.0	6.0	15.0	0.0	32.4	100.0	1,022
2	88.8	66.6	6.8	46.7	0.6	8.4	3.7	0.5	22.0	8.4	13.6	0.1	11.2	100.0	2,007
3	86.7	61.0	6.4	40.7	0.4	4.4	8.6	0.5	25.7	8.3	17.5	0.0	13.3	100.0	1,050
4+	79.6	56.5	4.7	32.3	0.4	3.7	14.2	1.1	23.0	7.9	15.1	0.1	20.4	100.0	994
Total	78.5	56.7	6.3	37.7	0.4	5.8	5.9	0.5	21.8	7.5	14.3	0.1	21.5	100.0	5,338

Figure 4.2 **Current Use of Any Contraceptive Method Among Currently Married Women Age 15-49, by Background Characteristics**



Vietnam 2002

A strong positive relationship exists between education and current use of contraception. Significant differences in family planning are observed between women who never attended school and women who did attend school, even if they did not complete the primary level. Overall, the percentage of currently married women currently using contraception varies from 66 percent among women with no education to 83 percent among women who completed lower secondary school. It falls back slightly among women who have completed at least higher secondary school (79 percent). While contraceptive use has increased since 1997 for all education categories except the highest, the increase is the largest for women with no education. In 1997, only 53 percent of married women with no education were using contraception; in 2002, the rate was 66 percent.

The pattern of contraceptive use by number of living children is as expected. Prevalence is very low among women who have no children (7 percent), peaks among women with two children (89 percent), and declines slightly among women with three or more children.

4.4 Number of Children at First Use of Contraception

In order to investigate when during the family building process couples initiate contraceptive use, the VNDHS 2002 included a question about the number of living children a woman had when she first used a method. Table 4.5 shows the percent distribution of ever-married women by the number of living children at the time of first use. Overall, almost half (46 percent) of women first used contraception before having their second child and 70 percent first used before having their third child.

The data in Table 4.5 can be used to investigate changes between age cohorts in the stage of the family building process at which contraception is first used. Such an analysis indicates that younger Vietnamese women began using contraception earlier than older women. For example, 61 percent of women age 20-24 first used contraception before having the second child, compared to only 43 percent of women age 35-39 and 24 percent of women age 45-49.

Table 4.5 Number of children at first use of contraception

Percent distribution of ever-married women by number of living children at time of first use of contraception and median number of children at first use, according to current age, Vietnam 2002

Age	Never used contraception	Number of living children at first use of contraception					Total	Number of women
		0	1	2	3	4+		
15-19	69.0	8.7	22.4	0.0	0.0	0.0	100.0	69
20-24	30.1	10.4	50.9	8.5	0.1	0.0	100.0	552
25-29	10.7	7.5	56.0	21.9	2.9	1.0	100.0	1,000
30-34	7.2	4.7	52.0	26.7	6.6	2.7	100.0	1,105
35-39	5.9	3.1	40.3	29.0	13.9	7.7	100.0	1,098
40-44	8.5	2.0	30.9	26.0	15.4	17.1	100.0	1,046
45-49	13.3	1.5	22.6	22.8	15.2	24.5	100.0	795
Total	11.6	4.5	41.9	23.5	9.5	8.8	100.0	5,665

The trend toward earlier use of contraception in the family building process can also be seen by comparing data from the VNDHS 1997 and the VNDHS 2002. For example, focusing on the youngest age cohorts—ever-married women age 15-19 and 20-24—the percentages reporting first use of contraception before their second child are higher in 2002 (31 and 61 percent, respectively) than in 1997 (21 and 49 percent, respectively).

4.5 KNOWLEDGE OF THE FERTILE PERIOD

Eight percent of currently married women in the VNDHS 2002 reported current use of periodic abstinence. For this method to be practiced successfully, a basic understanding of the monthly ovulation cycle and an awareness of the fertile period in that cycle are necessary.

In the survey, all respondents were asked when in the ovulatory cycle a woman is at greatest risk of becoming pregnant. The response categories for this question are designed to distinguish the correct response (i.e., the middle of the cycle) from other phases of the cycle. However, it is often difficult for respondents to understand what this question means and it is also difficult to divide the ovulatory cycle into precise time periods.

Table 4.6 Knowledge of fertile period

Percent distribution of women by knowledge of the fertile period during the ovulatory cycle, ever-married women and currently married women using periodic abstinence, Vietnam 2002

Perceived fertile period	Periodic abstinence	
	Current users of periodic abstinence	All ever-married women
During period	0.0	0.1
After period ends	5.4	8.7
Middle of the cycle	84.9	46.5
Before period begins	1.2	1.3
At any time	4.6	18.1
Other	0.0	0.2
Don't know	3.8	25.0
Missing	0.0	0.1
Total	100.0	100.0
Number of women	399	5,665

Table 4.6 shows the distribution of responses to the question on the ovulatory cycle. Among all ever-married women, slightly less than half (47 percent) correctly identified the fertile period as falling in the middle of the cycle. One-fourth of all ever-married women said they do not know when the fertile period is, while 18 percent believe that it can be at any time. Current users of periodic abstinence are clearly more knowledgeable about the ovulatory cycle than other women, with 85 percent correctly identifying the ovulatory cycle.

There has been an enormous improvement in knowledge of the ovulatory cycle. In 1997, only 28 percent of ever-married women and 60 percent of periodic abstinence users could correctly identify the fertile period.

4.6 AGE AT STERILIZATION

Information about the age at which women are sterilized is shown in Table 4.7. Of the 317 sterilized women, 28 percent were sterilized before age 30, while 37 percent were sterilized in their early 30s. Overall, the median age at sterilization was 32 years. There is no discernable time trend in the median age at sterilization. There has also been no change in the median age at sterilization since 1997.

Table 4.7 Timing of sterilization

Percent distribution of currently married sterilized women by age at the time of sterilization, according to the number of years since the operation, Vietnam 2002

Years since sterilization	Age at sterilization						Total	Number of women	Median age at sterilization[1]
	<25	25-29	30-34	35-39	40-44	45-49			
<2	(2.0)	(8.8)	(26.0)	(39.5)	(15.4)	(8.3)	100.0	29	35.2
2-3	(9.4)	(16.0)	(34.6)	(23.2)	(16.7)	(0.0)	100.0	40	32.0
4-5	2.6	12.7	38.5	30.4	15.8	0.0	100.0	49	33.4
6-7	3.8	22.9	28.4	37.7	7.2	0.0	100.0	67	33.5
8-9	0.0	29.7	41.0	25.1	4.2	0.0	100.0	52	32.5
10+	6.7	36.0	46.3	11.1	0.0	0.0	100.0	80	a
Total	4.3	23.6	37.1	26.1	8.1	0.8	100.0	317	32.4

Note: Numbers in parentheses are based on 25-49 unweighted cases.
a = Not calculated due to censoring
[1] Median age is calculated only for women sterilized at less than 40 years of age to avoid problems of censoring.

4.7 SOURCE OF SUPPLY

In order to evaluate the relative importance of various sources of contraceptive methods, current users of modern methods were asked to report the place from which they last obtained their method. Table 4.8 shows results for all modern methods combined and for specific methods.

Table 4.8 and Figure 4.3 indicate the dominance of the public sector in providing contraceptive services in Vietnam. Eighty-six percent of current users last obtained their method from the public sector, compared to 14 percent who obtained their methods from the private sector. By far the single most important source of contraception is the commune health center (45 percent), followed by government hospitals (22 percent) and mobile clinics (9 percent). In total, these three sources were the source of supply for 76 percent of current users.

For specific methods, the most important sources of supply differ. Women using the IUD obtained their supplies primarily from commune health centers, although government hospitals are also an important source for the IUD. Pills are almost equally obtained from public fieldworkers, pharmacies, and commune health centers. Sterilization services are almost always provided by government hospitals for women and by government hospitals and mobile clinics for men. For condom users, the leading source of supply is the pharmacy, followed by commune health centers and fieldworkers. There has been a shift since 1997 in source of supply from the public sector to the private sector. A majority of condom users now obtain their method from pharmacies.

Since 1997, there has also been a shift in the source of supply for pill users, away from reliance on commune health centers towards greater use of fieldworkers.

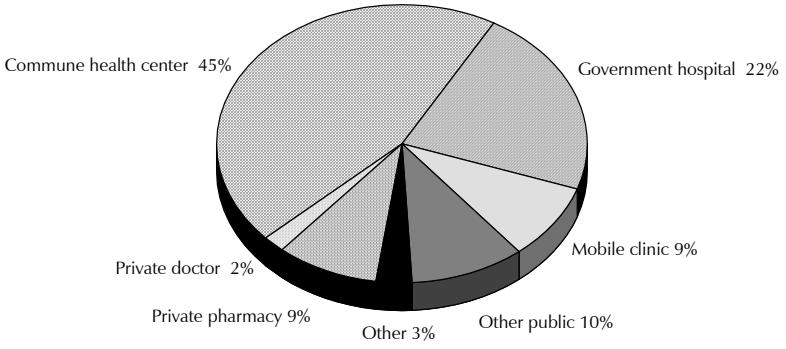
Table 4.8 Source of supply

Percent distribution of currently married women who currently use a modern contraceptive method by most recent source of supply, according to specific method, Vietnam 2002

	Method					
Source of current method	Pill	IUD	Condom	Female sterilization	Male sterilization	Total
Public	65.1	93.9	40.4	99.8	(100.0)	85.7
Government hospital	1.2	18.6	1.1	81.1	(55.7)	21.7
Delivery house	0.0	0.5	0.2	0.0	(0.0)	0.3
Commune health center	28.3	58.5	18.0	2.6	(2.4)	44.7
Family planning clinic	0.4	3.9	1.0	4.9	(4.3)	3.3
Mobile clinic	0.0	11.3	1.8	11.0	(37.6)	9.1
Public fieldworker	33.1	0.2	16.1	0.0	(0.0)	5.5
Other public	2.0	1.0	2.3	0.2	(0.0)	1.1
Private medical	33.1	5.9	57.0	0.0	(0.0)	13.7
Private hospital, clinic	0.4	3.5	0.5	0.0	(0.0)	2.4
Pharmacy	30.1	0.0	52.6	0.0	(0.0)	8.8
Private doctor	2.3	2.2	3.8	0.0	(0.0)	2.3
Other private	0.3	0.2	0.1	0.0	(0.0)	0.2
Other source	1.8	0.0	2.3	0.0	(0.0)	0.4
Friends, relatives	0.2	0.0	1.4	0.0	(0.0)	0.2
Other	1.6	0.0	0.8	0.0	(0.0)	0.3
Missing	0.0	0.1	0.3	0.2	(0.0)	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	337	2,015	310	317	25	3,026

Note: Total includes 21 users of injection. Figures in parentheses are based on 25-49 unweighted cases.

Figure 4.3 Sources of Family Planning Among Current Users of Modern Contraceptive Methods



Vietnam 2002

4.8 CONTRACEPTIVE DISCONTINUATION

Two important issues for family planning programs are the rate at which women discontinue use of contraception and their reasons for discontinuation. Life table discontinuation rates calculated from information collected in the five-year, month-by-month calendar in the VNDHS 2002 questionnaires are presented in Table 4.9. All episodes of contraceptive use between January 1997 and the date of the interview were recorded in the calendar, along with the main reason for discontinuation of use during this period.

The discontinuation rates presented here are based on all segments of use that started between 3 and 62 months before the interview date for each woman. A segment is an uninterrupted period of use of a particular contraceptive method. The month of interview and the two preceding months are excluded from the analysis in order to avoid the bias likely to be introduced by unrecognized pregnancy.

The rates presented in Table 4.9 are cumulative one-year discontinuation rates and represent the proportion of users who discontinue within 12 months of starting use. In calculating rates, the reasons for discontinuation are treated as competing risks (net rates). The reasons are classified into four mutually exclusive and exhaustive categories: method failure (pregnancy), desire to become pregnant, side effects/health reasons, and all other reasons.

Table 4.9 First-year contraceptive discontinuation rates

Percentage of currently married contraceptive users who discontinued use of a method within 12 months of starting its use, by reasons for discontinuation and method, Vietnam 2002

	Reason for discontinuation				
Contraceptive method	Method failure	To become pregnant	Side effects, health	All other reasons[1]	Total
Pill	6.0	6.9	13.8	9.5	36.1
IUD	2.0	1.2	8.2	1.1	12.5
Condom	8.3	9.7	3.4	16.5	37.8
Periodic abstinence	15.1	6.0	0.3	11.0	32.4
Withdrawal	13.6	4.1	0.0	12.2	29.9
Total	7.5	4.1	5.3	7.9	24.8

Note: Table is based on episodes of contraceptive use that began 3-59 months prior to the survey.
[1] Includes missing reasons

Discontinuation rates are relatively low in Vietnam, although they have been increasing. The data in Table 4.9 shows that one-fourth of all users stop using within 12 months of starting use. Not surprisingly, discontinuation rates for the condom (38 percent), the pill (36 percent), periodic abstinence (32 percent), and withdrawal (30 percent) are higher than the rate for the IUD (13 percent).

For all methods combined, the reasons for discontinuation during the first year of use were method failure (8 percent); desire to become pregnant (4 percent); side effects or health concerns (5 percent); and other reasons (8 percent). However, the relative ranking of reasons for discontinuation varies by method. Women who discontinued use of periodic abstinence and withdrawal most frequently reported method failure. IUD and pill users most frequently cited side effects or health concerns as the reason for discontinuing use. Those who discontinue condom use are likely to cite a desire to get pregnant and method failure.

Compared with data from the VNDHS 1997, discontinuation rates have increased. Overall, discontinuation in the first year of use has risen from 18 to 25 percent of users. Rates have increased for all five of the major methods used in Vietnam.

Further information on the reasons for discontinuation is presented in Table 4.10 and Figure 4.4. The table shows the percent distribution of all discontinuations in the five years preceding the survey, regardless of whether they occurred during or after the first 12 months of use. For all methods combined, the most common reasons for discontinuation are desire to become pregnant (26 percent) and method failure (25 percent). Side effects (17 percent) and switching to a more effective method (12 percent) also account for a sizeable proportion of discontinuations.

Reasons for discontinuation vary by individual method. For pill and IUD users, side effects are the most frequently reported reasons, followed by the desire to become pregnant. For periodic abstinence and withdrawal users, method failure is the most commonly reported reason, followed by switching to a more effective method and the desire to become pregnant. For condom users, the desire to get pregnant, failure of the method, and inconvenience of the method are the most common reasons for discontinuation.

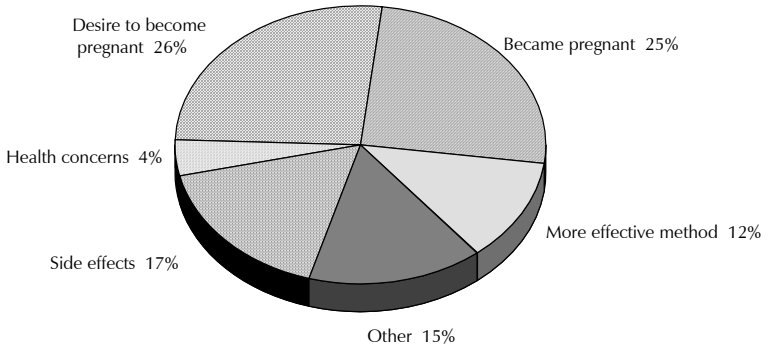
Table 4.10 Reasons for discontinuation

Percent distribution of discontinuations of contraceptive methods in the five years preceding the survey among currently married women by main reason for discontinuation, according to specific method, Vietnam 2002

	Contraceptive method					
Reason for discontinuation	Pill	IUD	Condom	Periodic abstinence	With-drawal	Total
Became pregnant	15.5	9.9	21.0	43.2	44.2	25.3
To become pregnant	22.1	32.2	32.0	21.6	20.0	26.0
Husband disapproved	0.4	0.1	4.5	1.7	2.6	1.5
Side effects	26.4	37.1	5.2	0.3	0.0	17.4
Health concerns	8.5	7.1	0.2	0.2	0.4	3.8
Access/availability	0.8	0.0	1.0	0.0	0.0	0.2
More effective method	5.7	1.7	10.9	24.2	24.3	12.2
Inconvenient to use	7.0	0.4	14.9	1.0	1.6	3.4
Infrequent sex	5.6	1.5	3.9	1.3	2.7	2.6
Cost	0.0	0.0	2.5	0.0	0.0	0.3
Menopause	1.3	3.6	1.6	2.7	2.9	2.9
Other	6.7	6.2	2.4	3.9	1.1	4.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	364	942	316	359	698	2,697

Note: Total includes discontinuations of injection (14), vaginal methods (2), and other methods (2).

Figure 4.4 Reasons for Discontinuing Use of Family Planning Methods



Vietnam 2002

4.9 NONUSE OF CONTRACEPTION

Intentions Regarding Future Use

To obtain information about future use of contraception, currently married women who were not using contraception at the time of the survey were asked about their interest in using family planning methods in the future. Table 4.11 presents the distribution of currently married nonusers by their intention to use in the future, according to the number of living children.

Table 4.11 Future use of contraception

Percent distribution of currently married women who are not using a contraceptive method by intention to use in the future, according to number of living children, Vietnam 2002

Timing of intention to use contraception	Number of living children[1]					Total
	0	1	2	3	4+	
In next 12 months	6.5	57.5	58.7	56.3	17.4	44.8
After 12 months	39.9	15.1	12.9	5.2	1.7	13.3
Unsure about timing	2.9	1.4	0.8	1.0	0.0	1.1
Unsure about use	9.8	3.0	1.8	2.9	1.5	3.1
Does not intend to use	41.0	23.0	25.3	32.4	79.4	37.3
Missing	0.0	0.0	0.5	2.2	0.0	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	122	360	290	162	212	1,146

[1] Includes current pregnancy

Fifty-nine percent of currently married nonusers say that they intend to use family planning in the future: 45 percent within the next 12 months, 13 percent some time after 12 months, and 1 percent unsure about timing. Three percent of nonusers indicate they are unsure about using contraception at all in the future and 37 percent indicate that do not intend to use in the future.

Among nonusers, the timing of intended use varies with the number of living children. Nonusers with no children are much less likely than nonusers with children to express an intention to use within the next 12 months.

Reasons for Nonuse

The reasons women do not intend to use family planning are of particular interest to family planning program managers. In the VNDHS 2002, currently married women who were not using contraception and who said that they did not intend to use in the future were asked the main reason they did not intend to use family planning. Table 4.12 shows the results. The primary reasons women give for not intending to use a contraceptive method are that they are menopausal or had a hysterectomy (32 percent) or that they want more children (17 percent).

Other often-mentioned reasons included infrequent sex (10 percent), difficulty in becoming pregnant—i.e., subfecund or infecund (7 percent), and health concerns (7 percent). Relatively few women mentioned religious proscriptions (2 percent) or their husband's opposition to family planning (less than 1 percent) as the main reason they do not intend to use contraception.

Table 4.12 Reason for nonuse of contraception

Percent distribution of currently married women who are not using any contraceptive method and who do not intend to use one in the future by main reason for not intending to use, according to age, Vietnam 2002

Main reason not intending to use a method	Age <30	Age 30+	Total
Infrequent sex	(3.1)	10.6	9.9
Menopausal, hysterectomy	(3.5)	35.5	32.2
Subfecund, infecund	(5.1)	7.7	7.4
Wants more children	(52.7)	13.2	17.2
Husband opposed	(3.8)	0.2	0.5
Religious prohibition	(0.0)	2.2	2.0
Knows no method	(3.5)	0.8	1.1
Knows no source	(5.4)	1.5	1.9
Health concerns	(11.1)	6.2	6.7
Fear side effects	(2.7)	2.9	2.9
Lack of access	(0.0)	0.3	0.2
Inconvenient to use	(1.3)	0.9	1.0
Interferes with body	(3.9)	3.3	3.4
Other	(0.0)	14.5	13.1
Don't know	(3.7)	0.1	0.5
Total	100.0	100.0	100.0
Number of women	43	384	427

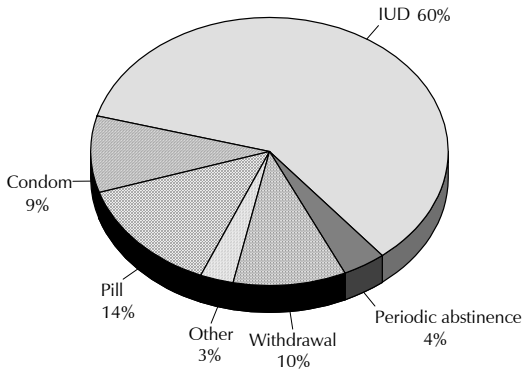
Note: Figures in parentheses are based on 25-49 cases.

There are significant differences in the answers given by women under age 30 and those age 30 and over. Nonusers under age 30 are much more likely than older nonusers to mention the desire to have more children (53 percent and 13 percent, respectively), while infrequent sex is mentioned more by older nonusers than by younger nonusers (11 percent and 3 percent, respectively). The lack of need for contraception because of menopause or hysterectomy was mentioned almost exclusively by older women.

Preferred Methods

Method preferences among women not using contraception at the time of the survey but who intend to use in the future are shown in Figure 4.5. The chart indicates that the vast majority of women who intend to use prefer modern methods (84 percent). Given the high level of IUD use in Vietnam, it is not surprising that 60 percent of nonusers who intend to use in the future report the IUD as their preferred method. Fourteen percent say they prefer to use the pill, while another 14 percent prefer traditional methods, withdrawal and periodic abstinence.

Figure 4.5 Preferred Method Among Nonusers Who Intend to Use in the Future



Vietnam 2002

4.10 FAMILY PLANNING MESSAGES

Activities to inform and educate couples about the use of contraception are an important component of the Vietnamese family planning program. The VNDHS 2002 obtained information on a number of aspects of women's exposure to family planning information. Table 4.13 shows the percentage of ever-married women who had heard a message about family planning on radio or television during the last few months prior to the interview.

At the national level, the effort to spread family planning information through radio and television has succeeded in reaching almost nine in ten ever-married women (88 percent). Table 4.13 also indicates that the majority of ever-married women have been exposed to messages on both radio and television (66 percent).

There are some differences in the level of exposure to family planning messages by age. Younger women (under 25) are less likely to have been exposed to broadcast media than older women. Three in ten ever-married women age 15-19 and two in ten women age 20-24 reported that they had neither heard a family planning message on the radio nor seen one on television in the few months prior to the interview, while among women age 25 and older only 9 to 13 percent reported no exposure to messages through the broadcast media.

Urban women are slightly more likely than rural women to have been exposed to family planning messages, especially those on television. There are only very slight differences in exposure to family planning messages between women in project provinces and nonproject provinces.

Among regions, the proportion of ever-married women who have been exposed to a family planning message during the months before the interview varied from a high of 98 percent in the Red River Delta, 81 percent in the Mekong River Delta and 79 percent in the Central Highlands.

Exposure to family planning messages is strongly correlated with educational attainment. Only 68 percent of women with no education reported hearing a family planning message on radio or television, compared with 96 percent of women with completed higher secondary education. Except for women in Northern Uplands and women without schooling, all women are more likely to see family planning messages on television than to hear them on the radio.

Table 4.13 Exposure to family planning messages on radio and television

Percent distribution of ever-married women by whether they had heard a radio or television message about family planning in the few months preceding the interview, according to background characteristics, Vietnam 2002

Background characteristic	Heard family planning message on radio or TV: Radio and television	Radio only	Television only	Neither radio nor television	Total	Number of women
Age						
15-19	46.6	4.7	18.9	29.8	100.0	69
20-24	58.6	7.0	15.6	18.9	100.0	552
25-29	63.8	7.4	16.4	12.4	100.0	1,000
30-34	68.8	4.5	17.1	9.7	100.0	1,105
35-39	67.8	4.9	17.3	10.0	100.0	1,098
40-44	67.6	5.5	17.1	9.8	100.0	1,046
45-49	65.1	3.6	18.5	12.8	100.0	795
Residence						
Urban	68.1	1.1	21.6	9.2	100.0	1,081
Rural	65.2	6.4	16.0	12.4	100.0	4,584
Project province						
No	64.8	5.3	17.8	12.1	100.0	3,814
Yes	67.7	5.6	15.5	11.2	100.0	1,851
Region						
Northern Uplands	64.9	14.2	11.4	9.6	100.0	1,099
Red River Delta	82.7	2.7	12.4	2.2	100.0	1,363
North Central	67.2	6.7	13.6	12.5	100.0	722
Central Coast	55.4	2.0	28.0	14.7	100.0	594
Central Highlands	46.8	3.2	29.2	20.8	100.0	183
Southeast	60.9	1.7	19.9	17.4	100.0	648
Mekong River Delta	55.7	3.5	21.4	19.4	100.0	1,056
Education						
No education	26.4	24.1	17.9	31.6	100.0	364
Some primary	49.2	7.7	20.6	22.5	100.0	966
Complete primary	66.0	4.6	17.7	11.7	100.0	1,599
Compl. lower secondary	75.4	3.2	15.2	6.2	100.0	1,783
Compl. higher secondary+	79.0	1.3	15.7	4.0	100.0	953
Total	65.7	5.4	17.1	11.8	100.0	5,665

Women were also asked whether or not they considered it acceptable for family planning information to be provided on radio or television. Table 4.14 indicates that 93 percent of women consider such messages to be acceptable. Ambivalence ("unsure") regarding the acceptability of broadcasting family planning messages on radio and television is more common among younger women, women in the Mekong River Delta, and Southeast regions, and women with little or no education. More than one-fourth of uneducated women were not sure about using electronic mass media to broadcast messages about family planning.

Table 4.14 Acceptability of family planning messages in the media

Percentage of ever-married women who believe that it is acceptable to have messages about family planning (FP) on the radio or television, by background characteristics, Vietnam 2002

Background characteristic	Acceptability of FP messages in the media: Not acceptable	Acceptable	Unsure	Total	Number of women
Age					
15-19	0.0	82.5	17.5	100.0	69
20-24	0.4	91.7	7.9	100.0	552
25-29	0.8	93.1	6.1	100.0	1,000
30-34	0.8	93.5	5.7	100.0	1,105
35-39	0.2	95.6	4.2	100.0	1,098
40-44	0.6	93.7	5.7	100.0	1,046
45-49	1.1	90.1	8.8	100.0	795
Residence					
Urban	1.1	94.5	4.3	100.0	1,081
Rural	0.5	92.8	6.7	100.0	4,584
Project province					
No	0.5	92.6	6.9	100.0	3,814
Yes	0.8	94.1	5.1	100.0	1,851
Region					
Northern Uplands	0.3	93.0	6.7	100.0	1,099
Red River Delta	0.4	99.0	0.6	100.0	1,363
North Central	0.7	96.0	3.3	100.0	722
Central Coast	0.3	94.9	4.7	100.0	594
Central Highlands	1.3	90.9	7.8	100.0	183
Southeast	1.1	89.7	9.3	100.0	648
Mekong River Delta	1.0	85.1	13.9	100.0	1,056
Education					
No education	1.0	71.4	27.5	100.0	364
Some primary	0.6	86.5	12.9	100.0	966
Complete primary	0.6	94.4	4.9	100.0	1,599
Compl. lower secondary	0.5	97.1	2.4	100.0	1,783
Compl. higher secondary+	0.7	98.5	0.9	100.0	953
Currently married women	0.6	93.1	6.3	100.0	5,665

Women were also asked if they had read about family planning in a newspaper, magazine, poster, or leaflet during the last few months before the interview. Responses to these questions are presented in Table 4.15.

Far fewer women receive information about family planning through the print media than through the electronic media. Overall, 59 percent of women said that they had read about family planning: 31 percent through newspapers or magazines, 48 percent through posters, and 22 percent through leaflets or brochures. As expected, women in rural areas are less likely to have read messages on family planning than urban women (54 and 78 percent, respectively). Women in Red River Delta and Southeast regions, as well as better educated women, are more likely to have received a family planning message through the printed media.

Table 4.15 Family planning messages in print media

Percentage of ever-married women who saw a message about family planning in the print media in the few months preceding the interview, by background characteristics, Vietnam 2002

Background characteristic	Any print source	Newspaper, magazine	Poster	Leaflet/ brochure	Number of women
Age					
15-19	41.6	31.7	27.3	24.1	69
20-24	54.8	30.1	44.0	19.5	552
25-29	58.8	29.1	47.9	21.7	1,000
30-34	58.8	28.9	49.9	22.5	1,105
35-39	61.4	32.7	50.1	23.3	1,098
40-44	60.5	32.1	49.6	23.5	1,046
45-49	56.1	29.8	47.8	21.1	795
Residence					
Urban	78.2	57.6	65.0	27.8	1,081
Rural	54.1	24.2	44.5	20.9	4,584
Project province					
No	58.3	31.2	47.8	21.2	3,814
Yes	59.5	29.2	49.7	24.5	1,851
Region					
Northern Uplands	50.6	23.6	40.6	22.9	1,099
Red River Delta	78.1	43.8	64.7	37.2	1,363
North Central	54.1	23.6	43.7	24.9	722
Central Coast	52.2	31.3	41.4	16.1	594
Central Highlands	49.4	27.8	41.7	6.6	183
Southeast	67.3	47.7	54.6	16.5	648
Mekong River Delta	45.0	14.9	40.1	10.2	1,056
Education					
No education	23.0	1.3	22.2	3.4	364
Some primary	35.2	11.7	30.4	7.6	966
Complete primary	52.2	22.1	42.5	18.5	1,599
Compl. lower secondary	69.0	33.2	56.0	29.0	1,783
Compl. higher secondary+	87.5	70.0	72.2	38.0	953
Total	58.7	30.5	48.4	22.3	5,665

There has been a substantial increase in reported exposure to family planning messages in the print media since 1997. The proportion of women who say they have read a message in the few months prior to the survey increased from 37 percent in 1997 to 59 percent in 2002.

4.11 FAMILY PLANNING OUTREACH ACTIVITIES

Visits by family planning fieldworkers from the Vietnamese Family Planning Program to nonusers are an important outreach activity. Additionally, when women visit health facilities, the staff there should inform them about the benefits of family planning and the methods available through the Vietnamese program. Failure to do so represents a missed opportunity to provide services to potential users of contraception.

Overall, 15 percent of nonusers reported being visited by a family planning fieldworker in the last 12 months (Table 4.16). Another 19 percent were not visited by a fieldworker but reported visiting a health facility where they were told about the benefits of family planning. However, two-thirds of nonus-

ers have neither received a visit from a fieldworker nor been informed about family planning by health facility staff in the last year (66 percent).

The data indicate that there is a large pool of nonusers who have not been recently contacted by either family planning fieldworkers or health facility staff. Moreover, most of these women did not visit a health facility during the past year, so the primary means of reaching them is through outreach efforts by family planning fieldworkers. However, those workers have contacted only one in seven nonusers in the past year. If the nonusers who are not being contacted are primarily women who do not want or need contraception (e.g., young women trying to become pregnant or older menopausal women), the failure of fieldworkers to contact nonusers might be understandable, but that does not appear to be the case. In all age groups, less than 20 percent of nonusers were visited by a family planning fieldworker. The data suggest a need for greater effort by the outreach component of the family planning program.

Table 4.16 Contact of nonusers with family planning providers

Percent distribution of currently married nonusers by whether they were visited by a family planning (FP) worker or spoke with a health facility staff member about family planning methods during the 12 months preceding the interview, according to background characteristics, Vietnam 2002

	Visited by FP worker			Not visited by FP worker					
Background characteristic	Visited health facility, discussed FP	Visited health facility, did not discuss FP	Did not visit health facility	Visited health facility, discussed FP	Visited health facility, did not discuss FP	Did not visit health facility	No FP services or information	Total	Number of women
Age									
15-19	0.0	0.0	1.7	31.3	37.9	29.1	67.0	100.0	52
20-24	11.1	6.2	1.1	18.8	39.6	23.2	62.8	100.0	227
25-29	12.2	4.0	2.1	24.2	36.3	21.2	57.5	100.0	260
30-34	8.7	3.2	3.3	24.4	35.0	25.4	60.4	100.0	180
35-39	9.9	3.2	4.3	18.2	28.0	36.2	64.0	100.0	102
40-44	6.3	4.2	8.0	10.0	27.5	44.0	71.5	100.0	108
45-49	5.8	0.0	3.8	11.0	26.7	52.7	79.4	100.0	218
Residence									
Urban	5.2	2.0	4.3	13.4	41.9	33.4	75.2	100.0	210
Rural	9.7	3.6	2.9	20.4	31.5	31.8	63.3	100.0	936
Project province									
No	8.6	3.0	2.7	19.3	32.2	34.1	66.3	100.0	753
Yes	9.5	3.9	3.9	18.7	35.8	28.2	64.0	100.0	394
Region									
Northern Uplands	5.9	4.8	2.0	26.9	26.9	33.5	60.4	100.0	226
Red River Delta	17.4	4.9	1.3	25.0	36.2	15.2	51.4	100.0	225
North Central	6.7	0.9	2.3	23.9	33.3	32.5	65.8	100.0	137
Central Coast	13.2	0.5	5.3	12.3	29.4	39.3	68.7	100.0	125
Central Highlands	15.8	4.2	8.4	25.3	23.5	22.7	46.2	100.0	58
Southeast	4.0	3.6	1.0	14.1	37.5	39.8	77.3	100.0	145
Mekong River Delta	3.9	2.8	5.4	8.1	39.2	40.5	79.8	100.0	231
Education									
No education	9.3	3.7	2.8	18.6	24.0	41.6	65.6	100.0	118
Some primary	5.6	4.7	3.6	9.4	31.7	45.0	76.7	100.0	212
Complete primary	8.5	3.6	3.1	22.0	33.9	28.7	62.6	100.0	337
Compl. lower secondary	13.4	3.4	3.4	21.9	31.9	26.1	58.0	100.0	289
Compl. higher secondary+	6.1	1.0	2.6	20.7	42.6	27.1	69.7	100.0	191
Total	8.9	3.3	3.1	19.1	33.4	32.1	65.5	100.0	1,146

4.12 DISCUSSION OF FAMILY PLANNING WITH HUSBAND

All currently married women who knew a method of contraception and who were not sterilized were asked how often they talked with their husband about family planning in the past year. These women were also asked whether they approved or disapproved of the use of family planning and their perception about their husband's attitude toward family planning.

Table 4.17 indicates that 77 percent of currently married women reported discussing family planning with their husbands—36 percent on one or two occasions and 41 percent more frequently. Only one woman in four (23 percent) said she had not discussed the topic with her husband in the previous year. Two age groups of women were less likely to have discussed family planning with their husband than other women: the youngest and the oldest age groups (women age 15-19 and 45-49).

Table 4.17 Discussion of family planning with husband

Percent distribution of currently married non-sterilized women who know a contraceptive method by the number of times they discussed family planning with their husbands in the past year, according to current age, Vietnam 2002

	Number of times family planning discussed with partner					
Age	Never	Once or twice	Three or more times	Missing	Total	Number of women
15-19	45.2	29.9	24.9	0.0	100.0	63
20-24	23.6	35.6	40.7	0.0	100.0	530
25-29	18.4	36.3	45.3	0.0	100.0	965
30-34	18.6	38.9	42.5	0.0	100.0	1,022
35-39	20.4	37.4	42.2	0.1	100.0	936
40-44	25.6	33.1	41.0	0.2	100.0	858
45-49	36.7	33.4	29.9	0.0	100.0	601
Total	23.2	36.0	40.8	0.1	100.0	4,975

4.13 ATTITUDES TOWARD FAMILY PLANNING

A positive attitude toward family planning is one of the prerequisites for the successful use of contraception. Data on respondents' attitudes and their perceptions of their husband's attitude toward family planning are shown in Table 4.18. Overall, the data indicate a high degree of approval of family planning among Vietnamese couples. According to women, in 92 percent of couples both the wife and her husband approve of family planning. In only 3 percent of couples do either one partner or both partners disapprove of family planning.

Because of the high level of approval of family planning by both husbands and wives, there is little room for variation by respondents' background characteristics. Nevertheless, it is worth noting that there is a positive correlation between respondent's education and approval of family planning by both spouses. Joint approval was reported by 79 percent of women with no education and by 96 percent of women who had completed higher secondary school.

Table 4.18 Attitudes of couples toward family planning

Percent distribution of currently married, nonsterilized women who know a method of family planning (FP) by approval of family planning and their perception of their husband's attitude toward family planning,, according to background characteristics, Vietnam 2002

Background characteristic	Respondent approves of family planning			Respondent disapproves of family planning						Percentage of respondents who approve of FP	Percentage of husbands who approve of FP	Number of women
	Both approve	Husband disapproves	Husband's attitude unknown	Husband approves	Husband's attitude unknown	Both disapprove	Respondent unsure	Missing	Total			
Age												
15-19	83.9	0.0	3.5	0.0	0.9	1.0	10.7	0.0	100.0	87.4	86.0	63
20-24	89.5	0.5	5.0	0.0	0.3	0.1	4.5	0.0	100.0	95.0	90.5	530
25-29	93.1	0.5	1.7	0.5	1.5	0.1	2.7	0.0	100.0	95.3	94.1	965
30-34	93.2	0.6	1.8	0.4	1.3	0.3	2.2	0.1	100.0	95.7	94.1	1,022
35-39	93.5	0.4	1.5	0.5	1.5	0.1	2.3	0.1	100.0	95.5	94.9	936
40-44	92.0	1.0	1.9	0.5	1.0	0.6	2.9	0.2	100.0	95.1	92.6	858
45-49	87.8	0.8	3.7	1.5	1.2	0.6	4.5	0.0	100.0	92.3	90.1	601
Residence												
Urban	91.8	0.8	2.2	0.6	1.6	0.1	2.8	0.0	100.0	94.8	93.1	954
Rural	91.9	0.6	2.3	0.5	1.1	0.3	3.1	0.1	100.0	94.9	93.0	4,021
Project province												
No	91.8	0.6	2.3	0.4	1.2	0.3	3.3	0.1	100.0	94.8	93.0	3,369
Yes	91.9	0.7	2.4	0.7	1.2	0.3	2.7	0.0	100.0	95.1	93.1	1,607
Region												
Northern Uplands	96.3	0.1	1.5	0.1	0.1	0.1	1.8	0.0	100.0	97.9	96.7	1,012
Red River Delta	98.5	0.2	0.3	0.2	0.1	0.0	0.7	0.0	100.0	99.0	98.7	1,237
North Central	92.9	0.4	0.8	0.8	1.8	0.4	2.9	0.1	100.0	94.2	94.3	623
Central Coast	89.6	0.8	0.3	0.6	6.1	0.1	2.5	0.0	100.0	90.7	90.5	501
Central Highlands	84.3	1.1	2.2	2.1	7.5	1.0	1.9	0.0	100.0	87.5	86.3	147
Southeast	88.0	0.6	4.5	0.8	0.7	0.6	4.3	0.5	100.0	93.5	89.4	543
Mekong River Delta	82.0	1.9	6.8	0.8	0.2	0.7	7.5	0.1	100.0	90.7	85.1	913
Education												
No education	79.0	0.2	5.3	1.3	0.4	1.7	12.1	0.0	100.0	84.5	81.6	302
Some primary	84.8	1.1	5.4	1.0	1.6	0.4	5.4	0.3	100.0	91.5	87.3	804
Completed primary	93.0	0.6	2.2	0.4	0.9	0.3	2.6	0.0	100.0	95.8	93.8	1,391
Compl. lower secondary	94.8	0.6	1.1	0.4	1.2	0.1	1.7	0.1	100.0	96.5	95.6	1,577
Compl. higher secondary+	95.7	0.4	0.9	0.3	1.6	0.1	1.0	0.0	100.0	97.0	96.3	901
Total	91.9	0.6	2.3	0.5	1.2	0.3	3.1	0.1	100.0	94.9	93.0	4,975

4.14 ABORTION AND MENSTRUAL REGULATION

Childbearing can be regulated by deliberate pregnancy termination as well as by contraception. In Vietnam, pregnancy termination is legal and available at both public and private health facilities. Two procedures are used for pregnancy termination: menstrual regulation (vacuum aspiration) for pregnancies within five weeks of conception, and abortion (dilation and curettage) for pregnancies up to 12 weeks duration and sometimes longer.

Information on pregnancy termination was collected in the reproductive section of the VNDHS 2002 questionnaire.[1] A word of caution is in order concerning the completeness of the data. International experience with the collection of data on deliberate pregnancy termination in household surveys is poor. Seriously defective data is virtually guaranteed for countries where pregnancy termination is illegal or where social stigma is attached to its use. While the practice of terminating unwanted pregnancies is legal and widely practiced in Vietnam, a comparison of data from surveys and the Ministry of Health indicates that there can be serious underreporting in surveys (GSO, 1996b and NCPFP and GTZ, 1995). Nevertheless, data from the VNDHS 2002 indicate that 22 percent of pregnancies in the three years prior to the survey were intentionally terminated either through menstrual regulation (17 percent) or induced abortion (5 percent) (data not shown).

Rates of Pregnancy Termination

Table 4.19 shows age-specific induced abortion rates for the five-year period preceding the survey. The age-specific rates are all-woman rates and, as was the case with fertility rates, are derived by inflating the respondents to the women questionnaire (ever-married women) by a factor that compensates for never-married women. Overall, the data indicate that a Vietnamese woman will have an average of 0.6 induced abortions during her reproductive years. The total abortion rate for rural women (0.7) is higher than that of urban women (0.5). The rate is also slightly higher among women who live in the provinces that fall in the NCPFP project (0.7 versus 0.6).

Table 4.19 Induced abortion rates

Age-specific induced abortion rates and total abortion rates for all women for the five-year period preceding the survey, Vietnam 2002

	Residence		Project province		
Mother's age	Urban	Rural	No	Yes	Total
15-19	0.000	0.001	0.001	0.000	0.001
20-24	0.009	0.018	0.015	0.018	0.016
25-29	0.031	0.032	0.029	0.039	0.032
30-34	0.019	0.033	0.027	0.036	0.030
35-39	0.017	0.028	0.024	0.029	0.026
40-44	0.016	0.013	0.015	0.012	0.014
45-49	0.007	0.005	0.002	0.012	0.006
Total induced abortion rate					
TAR 15-49	0.495	0.650	0.564	0.730	0.617
TAR 15-44	0.461	0.625	0.553	0.670	0.589

[1] Survey eligibility was limited to ever-married women. The omission of never-married women from the survey is not a serious concern for the calculation of fertility rates because relatively few births occur among never-married women. However, this is not the case when calculating abortion rates where it is estimated that about 10 percent of pregnancy terminations occur among never-married women.

Table 4.20 presents abortion rates for the five-year period preceding the survey by background characteristics. These are total abortion rates (TAR) and are based on reporting of both menstrual regulation and abortion. The TAR is interpreted as the number of pregnancy terminations a woman would have in her lifetime at the observed age-specific rates.[2] Table 4.20 also shows the mean number of abortions per woman age 40-49.

Table 4.20 Abortion rates by background characteristics

Total induced abortion rate for the five-year period preceding the survey and mean number of abortions among women age 40-49, by background characteristics, Vietnam 2002

Background characteristic	Abortion rates	
	Total induced abortion rate[1]	Mean number of abortions among women 40-49
Residence		
Urban	0.49	0.50
Rural	0.65	0.39
Project province		
No	0.56	0.39
Yes	0.73	0.46
Region		
Northern Uplands	1.35	0.66
Red River Delta	0.84	0.63
North Central	0.52	0.33
Central Coast	0.09	0.07
Central Highlands	0.27	0.31
Southeast	0.31	0.23
Mekong River Delta	0.27	0.25
Education		
No education	0.63	0.14
Some primary	0.52	0.25
Complete primary	0.58	0.35
Compl. lower secondary	0.72	0.54
Compl. higher secondary+	0.59	0.57
Total	0.62	0.42

[1] Women 15-49 years; includes both menstrual regulation and abortion

Similar to the VNDHS 1997, the data show that abortion is reportedly higher among rural women, women who live in the project provinces, and women who live in the Northern Uplands. Unlike the 1997 survey, the VNDHS 2002 does not show a clear relationship between the TAR and education of women; however, the mean number of abortions per woman 40-49 does increase with education.

Use of Contraception before Pregnancy Termination

Additional questions were included in the VNDHS 2002 for pregnancy terminations occurring in the three years immediately preceding the survey. These questions concerned the desired status of the pregnancy at the time of conception, whether contraception was used at that time, whether there were any health problems following the termination and, if so, whether in-patient medical treatment was required.

[2] Total abortion rates are analogous to total fertility rates and are calculated from age-specific rates of pregnancy termination in the same manner as total fertility rates are calculated from age-specific rates.

Table 4.21 indicates that almost two-thirds (64 percent) of pregnancy terminations occurred among women who were using contraception at the time of becoming pregnant. The percentage is higher for terminations by menstrual regulation (67 percent) than by abortion (54 percent).

Table 4.21 Use of contraceptive method prior to pregnancy termination

Percent distribution of pregnancy terminations in the three years preceding the survey, by method of contraception used prior to the termination, according to type of termination, Vietnam 2002

	Type of termination		
Method of contraception	Menstrual regulation	Induced abortion	Total
No contraceptive method	32.7	46.5	35.6
Any contraceptive method	67.3	53.5	64.4
Any modern method	13.7	20.7	15.2
Pill	4.0	4.7	4.1
IUD	6.5	10.3	7.3
Injections	0.2	0.0	0.2
Condom	3.0	5.7	3.6
Traditional method	53.5	32.7	49.1
Periodic abstinence	19.7	10.8	17.8
Withdrawal	33.9	22.0	31.4
Total	100.0	100.0	100.0
Number of women	327	88	415

Half of all pregnancy terminations occurred among women using traditional methods, especially withdrawal (31 percent). This is disconcerting, given the fact that withdrawal is one of the few methods whose use has increased since 1997. Greater diligence in the use of withdrawal and periodic abstinence, or the use of more reliable methods of contraception, would reduce the need for pregnancy termination.

Complications and Treatment

Table 4.22 indicates that about half of women reported having a health problem following a pregnancy termination. Of these women, 69 percent sought medical advice or treatment. As expected, fewer complications were associated with menstrual regulation than with abortion, although differences are small.

Table 4.22 Health problems and treatment seeking following pregnancy termination

Percentage of pregnancy terminations followed by health problems and the percentage for which medical treatment was sought, by type of pregnancy termination, Vietnam 2002

	Type of pregnancy termination		
Health problem/treatment	Menstrual regulation	Induced abortion	Total
Health problem reported	47.0	51.4	48.0
Sought medical advice or treatment	70.6	63.4	69.0
Number of pregnancy terminations	344	92	437

PROXIMATE DETERMINANTS OF FERTILITY 5

As in many countries of the world, marriage in Vietnam indicates the start of women's exposure to the risk of childbearing; postpartum amenorrhea and sexual abstinence affect the intervals between births; and the onset of menopause marks the end of women's reproductive years. These factors are important for understanding fertility, since they determine the length and pace of reproductive activity. This chapter presents discussions on these proximate determinants of fertility.

Questions pertaining to the above-mentioned proximate determinants of fertility were included in the Women's Questionnaire, which was used to interview ever-married women age 15-49. In this chapter, a number of tables are based on all women, that is, they consist of both ever-married and never-married women. In producing these tables, the denominators have been expanded to represent all women by multiplying the number of ever-married women by an inflation factor equal to the ratio of all women to ever-married women reported in the Household Questionnaire. The inflation factors are computed by single year of age, either for the population as a whole or, in cases where the results are presented by background characteristics, separately for each category of the characteristic in question.

5.1 MARITAL STATUS

Table 5.1 presents the distribution of all women age 15-49 by marital status. The data indicate that 32 percent of women of reproductive age have never been married, 64 percent are currently married, 2 percent are widowed, and over 2 percent are either divorced or separated (not living together). Compared to 1997, there has been a very slight increase in the overall proportion of women who are currently married, from 63 to 64 percent. Since in Vietnam births are largely confined to married couples, this would imply that changes in marriage are not the factors in explaining the steep decline in fertility over the recent past. Nevertheless, although the overall proportion of women who are currently married has increased very slightly between the two surveys, the proportion of women age 15-24 who are currently married has declined. For example, 52 percent of women age 20-24 were married in 1997, compared with 46 percent in 2002. Since the age-specific fertility rates are highest at ages 20-24 (see Table 3.1), reductions in the proportions of women married in that age group would be expected to have a larger effect on the overall level of fertility. Changes in the proportion of women who have never married are shown in Table 5.2 by age group for several recent surveys.

Table 5.1 Current marital status

Percent distribution of women by current marital status, according to age, Vietnam 2002

	Current marital status						
Age	Never married	Married	Widowed	Divorced	Not living together	Total	Number of women
15-19	95.8	4.1	0.0	0.0	0.1	100.0	1,630
20-24	52.2	46.4	0.0	0.8	0.5	100.0	1,155
25-29	18.1	80.0	0.2	1.2	0.5	100.0	1,221
30-34	7.7	88.8	0.9	1.7	1.0	100.0	1,197
35-39	5.5	89.7	2.1	2.1	0.6	100.0	1,162
40-44	7.2	85.7	3.4	2.6	1.1	100.0	1,128
45-49	5.1	82.0	7.0	3.4	2.5	100.0	838
Total	32.0	64.1	1.6	1.5	0.8	100.0	8,330

The proportion of women who are widowed increases steadily with age, from less than 1 percent among women under 35 years old to 7 percent among women age 45-49. The proportion divorced or separated also increases with age (Table 5.1).

Table 5.2 Never-married women

Percentage of women who have never married, by age, various sources, Vietnam 1988-2002

Age	1988 VNDHS	1989 Census	1994 ICDS	1997 VNDHS	2002 VNDHS
15-19	95.3	89.1	91.4	92.3	95.8
20-24	47.8	43.1	46.3	46.9	52.2
25-29	15.2	18.0	20.4	21.1	18.1
30-34	8.4	11.2	10.5	10.9	7.7
35-39	6.5	8.9	9.1	8.7	5.5
40-44	4.0	6.0	6.9	8.3	7.2
45-49	1.3	3.5	6.4	9.9	5.1

Source: NCPFP, 1999:66

5.2 AGE AT MARRIAGE

In Vietnam, marriage generally indicates the earliest point at which a woman begins her childbearing. Early age at marriage often results in early age at childbearing and high fertility since women who marry early will have, on average, longer exposure to the risk of pregnancy. In the VNDHS 2002, information on age at marriage was obtained by asking women the month and year (or age, if year was not known) when they started living together with their husband (or first husband, in the case of women who married more than once).

Table 5.3 presents the percentage of women who were first married by exact ages and the median age at first marriage for different age groups. The latter indicates the exact age by which half of an entire cohort has married. Unlike the pattern observed in many countries, the median age at first marriage in Vietnam has not increased over the last 25 years. Instead, the median age has been stable at about 21 years for age cohorts 25-29 through 45-49.

Table 5.3 Age at first marriage

Percentage of women who were first married by specific exact ages and median age at first marriage, by current age, Vietnam 2002

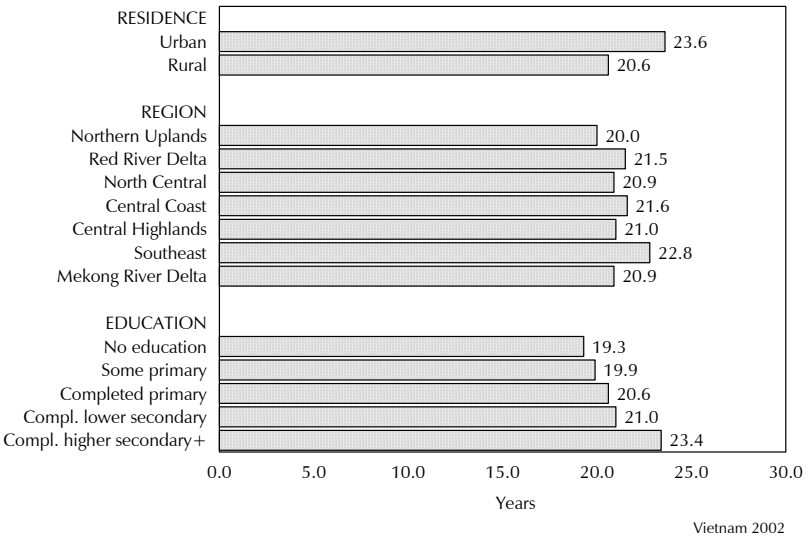
	First married by exact age							
Age	15	18	20	22	25	Never married	Number of women	Median age at first marriage
15-19	0.3	na	na	na	na	95.8	1,630	a
20-24	0.7	11.1	27.6	na	na	52.2	1,155	a
25-29	1.6	17.1	40.2	56.3	73.8	18.1	1,221	21.1
30-34	0.9	12.1	44.1	67.1	84.1	7.7	1,197	20.5
35-39	1.0	14.6	37.8	57.0	79.3	5.5	1,162	21.3
40-44	0.7	12.2	32.9	55.7	76.4	7.2	1,128	21.4
45-49	1.2	11.6	32.6	54.9	76.7	5.1	838	21.5
Median for women 20-49	1.0	13.2	36.1	55.6	72.9	16.5	6,700	a
Median for women 25-49	1.1	13.7	37.9	58.4	78.1	9.0	5,545	21.1

na = Not applicable
a = Omitted because less than 50 percent of the women were married for the first time before reaching the age group

Figure 5.1 provides data on the median age at first marriage by background characteristics. The difference in median age at first marriage by urban-rural residence is three years (24 years for urban women and 21 years for rural women). Women living in the highly urbanized region of Southeast are more likely to marry late—almost three years later than women living in the Northern Uplands.

There is a close association between level of education and age at first marriage. The lowest median age at marriage is found for women with no education (19.3 years), followed by women with some primary (19.9 years) and women with primary level completed (20.6 years). Women who have completed higher secondary education have the highest median age at first marriage (23.4 years).

Figure 5.1 **Median Age at Marriage by Background Characteristics**



5.3 POSTPARTUM AMENORRHEA, ABSTINENCE AND INSUSCEPTIBILITY

The risk of pregnancy is much lower during postpartum amenorrhea—the interval between childbirth and the return of menstruation. The duration and intensity of breastfeeding (which delays the resumption of menstruation) affects the length of this interval, as does the length of time sexual intercourse is delayed following a birth. Women who are not exposed to the risk of pregnancy, either because they are amenorrheic or are still abstaining from sex are considered insusceptible. In the VNDHS 2002, questions on the duration of postpartum amenorrhea and sexual abstinence were asked of all women who had a birth since January 1999.

Table 5.4 shows the percentage of births occurring in the 36 months prior to the survey for which the mother was postpartum amenorrheic, abstaining and insusceptible, by the number of months since the birth. The results indicate that postpartum amenorrhea is substantially longer than the period of sexual abstinence and is, therefore, the principle determinant of the length of postpartum insusceptibility to pregnancy in Vietnam. The median duration of amenorrhea is almost 8 months, while the median duration of abstinence is 4 months. The median duration of postpartum insusceptibility to pregnancy is almost 9 months.

The table also shows that almost all women are insusceptible during the first two months after giving birth at which time, both amenorrhea and abstinence are contributing factors. However, from the second month onwards, abstinence is less important as more and more women resume sexual relations. At 10-11 months following birth, 39 percent of women are still amenorrheic, while only 7 percent are abstaining. By 16-17 months after birth, 11 percent are amenorrheic, while only 4 percent are abstaining.

Table 5.4 Postpartum amenorrhea, abstinence and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Vietnam 2002

Months since birth	Percentage of births for which the mother is:			Number of births
	Amenorrheic	Abstaining	Insusceptible	
< 2	98.5	89.3	100.0	50
2-3	79.8	72.2	91.1	78
4-5	71.5	39.3	76.2	65
6-7	47.5	14.5	53.4	65
8-9	47.2	13.0	52.3	64
10-11	38.7	6.6	43.7	65
12-13	23.7	4.0	24.8	87
14-15	9.0	1.6	9.9	78
16-17	10.5	3.5	12.1	83
18-19	6.4	3.5	8.9	77
20-21	7.7	0.0	7.7	61
22-23	0.0	2.9	2.9	73
24-25	1.1	1.2	2.3	90
26-27	3.5	2.7	6.2	67
28-29	1.4	0.8	2.2	75
30-31	0.0	0.7	0.7	73
32-33	0.0	4.5	4.5	78
34-35	0.0	1.2	1.2	83
Total	22.5	13.0	25.4	1,313
Median	7.5	3.9	8.5	na
Mean	9.2	5.5	10.3	na

Note: Estimates are based on status at the time of the survey.
na = Not applicable

Data in Table 5.5 show that postpartum insusceptibility varies only moderately by age of mother. Insusceptibility is slightly longer for rural than for urban women and for mothers residing in project provinces as opposed to those who do not. Some regional variation is apparent. The longest insusceptibility is found in the Central Highlands and the shortest in the Northern Uplands. A roughly inverse relationship between duration of insusceptibility and education is evident from Table 5.5. Mothers with some primary have a median duration of postpartum insusceptibility of 10 months, in contrast to 6 months for mothers who have completed higher secondary education. The small number of births occurring at specific periods prior to the survey for some background characteristics makes it difficult to interpret the medians in Table 5.5 and caution is advised.

Table 5.5 Median duration of postpartum insusceptibility by background characteristics

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility, by background characteristics, Vietnam 2002

Background characteristic	Postpartum			Number of births
	Amenorrheic	Abstaining	Insusceptible	
Age				
<30	7.4	3.8	8.2	901
30+	7.9	4.4	9.3	412
Residence				
Urban	6.6	4.4	7.5	225
Rural	7.6	3.8	8.8	1,088
Project province				
No	6.2	3.7	7.5	881
Yes	8.9	4.4	9.5	432
Region				
Northern Uplands	4.3	2.2	6.0	254
Red River Delta	10.5	3.0	10.7	272
North Central	6.2	6.0	7.2	161
Central Coast	10.3	5.6	10.3	196
Central Highlands	10.1	3.9	11.9	65
Southeast	4.7	5.3	6.3	132
Mekong River Delta	6.4	3.8	7.1	234
Education				
No education	3.1	3.1	3.6	108
Some primary	9.2	3.8	9.8	188
Completed primary	7.9	4.7	8.6	474
Compl. lower secondary	7.4	3.4	8.6	325
Compl. higher secondary+	5.6	4.0	6.2	218
Total	7.5	3.9	8.5	1,313

Note: Medians are based on current status.

5.4 TERMINATION OF EXPOSURE TO PREGNANCY

The risk of pregnancy declines with age as women increasingly become infecund or subfecund. The age at which fecundity begins to decline is difficult to determine for an individual woman, but it can be estimated for a population. One indicator of the reduction of exposure to the risk of pregnancy is menopause.

In the VNDHS 2002, a woman is considered menopausal if she is neither pregnant nor postpartum amenorrheic and has not had a menstrual period in the six months prior to the survey or if she reports as being menopausal. Table 5.6 shows that the proportion of currently married women who have reached menopause increases with age from 1 percent of women age 30-39 to 11 percent of women age 44-45 and 36 percent of women age 48-49.

Table 5.6 Menopause

Percentage of currently married women age 30-49 who are menopausal, by age, Vietnam 2002

Age	Percent menopausal[1]	Number of women
30-34	0.7	1,062
35-39	1.1	1,042
40-41	2.1	359
42-43	2.0	426
44-45	10.6	339
46-47	17.9	270
48-49	36.0	259
Total	5.7	3,758

[1] Percentage of currently married women who are not pregnant and not postpartum amenorrheic whose last menstrual period occurred six or more months preceding the survey

FERTILITY PREFERENCES 6

This chapter addresses questions that allow an assessment of the extent of unwanted fertility in Vietnam, the degree of acceptance of the two-child family norm, and the level of need for contraceptive services. Respondents in the VNDHS 2002 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 Vietnamese 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.

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

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

6.1 DESIRE FOR MORE CHILDREN

In order to obtain information on future childbearing intentions, currently married respondents were asked: "Would you like to have another child or would you prefer not to have any more children?" If they did indeed want another child, they were asked: "How long would you like to wait from now before the birth of another child?" If the woman had not yet had any children, these questions were appropriately rephrased, and if the woman was pregnant, she was asked about her desire for more children after the baby she was expecting.

Table 6.1 presents the percent distribution of currently married women by desire for more children, according to the number of living children. Almost seven in ten currently married women (69 percent) do not want any more children, three percentage points more than in 1997. Another 6 percent have been sterilized or have husbands who have been sterilized. Among women who express a desire for another child, the majority want to delay the next birth by two or more years (15 percent); only 6 percent of currently married women want another child soon (within two years) (see Figure 6.1).

There is a close association between the number of living children and the percentage of women who want no more children. Desire for additional children decreases as the number of living children increases. Only 1 percent of women who have not yet begun childbearing reported wanting no children; this increases to 15 percent among women with one living child and reaches a high of 88 percent among women with two children, four percentage points more than in 1997. Not surprisingly, the desire to have a child soon is most prevalent among women who have not yet begun childbearing; 81 percent of women

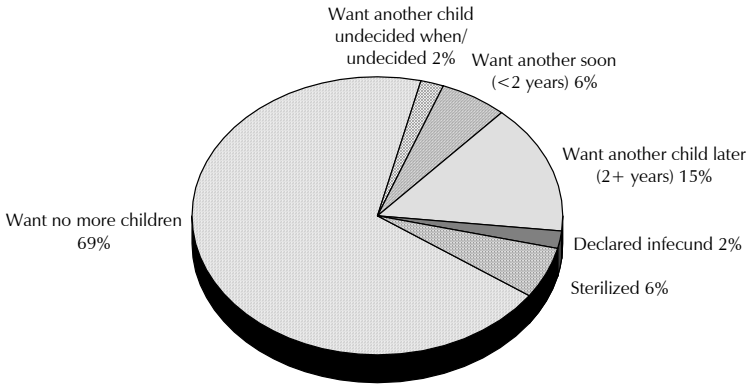
Table 6.1 Fertility preferences

Percent distribution of currently married women by desire for children, according to number of living children, Vietnam 2002

	Number of living children[1]							
Desire for more children	0	1	2	3	4	5	6+	Total
Have another soon[2]	80.5	14.3	1.1	0.8	0.2	0.0	0.3	5.6
Have another later[3]	5.0	62.9	4.2	2.9	1.4	0.3	1.0	14.9
Wants, unsure timing	1.1	1.9	0.4	0.3	0.3	0.0	0.0	0.7
Undecided	1.3	3.9	1.3	1.5	0.1	0.0	0.8	1.7
Wants no more	1.1	14.8	87.9	85.0	81.0	76.4	76.5	69.0
Sterilized[4]	0.5	0.9	4.0	8.9	13.6	19.8	14.8	6.4
Declared infecund	10.2	1.3	1.0	0.5	3.4	3.5	6.7	1.8
Missing	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	140	1,051	2,072	1,073	597	220	186	5,338

[1] Includes current pregnancy
[2] Wants next birth within 2 years
[3] Wants to delay next birth for 2 or more years
[4] Includes both female and male sterilization

Figure 6.1 Fertility Preferences Among Currently Married Women



Vietnam 2002

with no children want a child soon. Among women with one child, the majority (63 percent) wants to delay the next birth.

Table 6.2 shows the distribution of currently married women by the desire for more children, according to current age. The proportion wanting more children decreases sharply with age. While 87 percent of women in the youngest cohort want more children, by age group 30-34, the proportion drops to only 18 percent. The desire to space births is concentrated among young women (under age 25). Interest in limiting childbearing increases rapidly with age, from 7 percent among women age 15-19 to 84 percent among women age 40-44.

Table 6.2 Fertility preference by age

Percent distribution of currently married women by desire for children, according to age, Vietnam 2002

	Current age[1]							
Desire for more children	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Have another soon[2]	22.7	8.9	8.2	7.5	4.2	2.6	0.9	5.6
Have another later[3]	64.4	58.3	31.0	9.9	2.6	0.7	0.0	14.9
Wants, unsure timing	0.0	1.2	1.0	0.9	0.7	0.2	0.1	0.7
Undecided	5.8	4.2	2.8	1.7	1.3	0.3	0.1	1.7
Wants no more	7.1	27.3	56.0	75.4	80.5	84.1	77.5	69.0
Sterilized[4]	0.0	0.1	0.9	3.7	10.1	11.1	11.8	6.4
Declared infecund	0.0	0.0	0.3	0.9	0.6	1.0	9.6	1.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	67	536	977	1,062	1,042	966	687	5,338

[1] Includes current pregnancy
[2] Wants next birth within 2 years
[3] Wants to delay next birth for 2 or more years
[4] Includes both female and male sterilization

The proportion of women who want no more children is an important measure of fertility preference. Table 6.3 presents the percentage of currently married women who want no more children or have been sterilized, according to the number of living children. The results indicate that more urban women want to limit family size at lower parities than rural women, but the differences are not marked. For example, 94 percent of urban women with two children say they do not want another child, compared with 91 percent of rural women. Women who live in project provinces are somewhat more likely than women in nonproject provinces to want no more children (78 versus 74 percent).

The proportion of married women who want no more children in Northern Vietnam—the Northern Uplands, Red River Delta, and North Central regions—ranges from 79 to 81 percent, compared with less than 73 percent among women living in the remaining four regions.

The absence of a definite association between level of education and the proportion wanting no more children among all currently married women is at least partially a result of the concentration of more educated women at lower parities, where women are more likely to express a desire for more children. However, among currently married women with two or more children, there is a generally positive relationship between level of education and the percentage wanting no more children. For example, among women with two children, 97 percent of those who have completed higher secondary school want no more children, compared with 85 percent of women with no education. The small sample sizes in some cells of the table make interpretation difficult.

Table 6.3 Want no more children by background characteristics

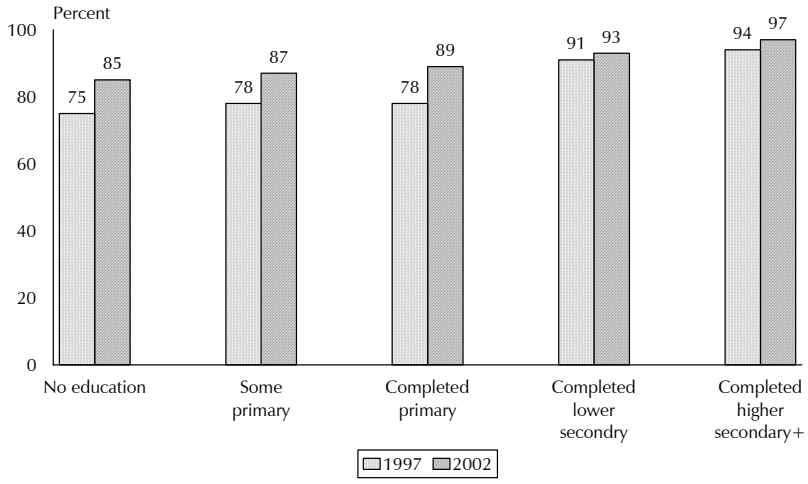
Percentage of currently married women who want no more children by number of living children and background characteristics, Vietnam 2002

Background characteristic	Number of living children							Total
	0	1	2	3	4	5	6+	
Rsidence								
Urban	(2.4)	21.2	94.2	96.3	94.2	*	*	70.5
Rural	1.3	13.6	91.3	93.6	94.6	96.5	90.7	76.5
Project province								
No	1.4	14.6	91.1	93.6	94.5	96.4	88.1	74.2
Yes	(1.9)	18.1	93.6	94.4	94.8	95.8	96.2	77.9
Region								
Northern Uplands	*	16.6	93.7	94.4	93.7	95.3	86.6	80.4
Red River Delta	(0.0)	17.5	97.9	97.9	96.7	*	*	79.2
North Central	*	7.8	90.8	94.1	93.3	(92.1)	(89.3)	80.6
Central Coast	*	4.5	88.1	91.5	94.7	(97.2)	(89.5)	72.9
Central Highlands	*	(10.2)	75.7	(79.6)	(95.7)	*	*	67.2
Southeast	(2.8)	21.7	86.1	94.6	93.8	(100.0)	*	69.7
Mekong River Delta	(2.0)	17.8	87.0	91.2	95.9	98.4	98.6	67.8
Education								
No education	*	11.6	85.1	88.4	93.4	100.0	91.2	77.7
Some primary	*	21.7	87.2	91.9	95.9	95.7	96.8	78.8
Completed primary	1.9	11.1	88.9	92.7	96.2	94.4	95.0	70.9
Compl. lower secondary	3.5	17.9	93.3	96.3	94.1	98.2	*	80.3
Compl. higher secondary+	0.0	17.1	97.0	94.8	(80.3)	*	*	69.7
Total	1.6	15.7	91.9	93.9	94.6	96.2	91.2	75.4

Note: Women who have been sterilized are considered to want no more children. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

There has been an increase at all education levels in the number of women who want no more children. As Figure 6.2 shows, the proportion of currently married women with two children who want no more children increased substantially between 1997 and 2002 for all levels of education, and substantially for less educated women.

Figure 6.2 **Trend in Proportion of Currently Married Women with Two Children Who Want No More Children, by Level of Education**



Vietnam 2002

6.2 NEED FOR FAMILY PLANNING SERVICES

Information on fertility preferences alone is not sufficient to assess the need for family planning services. Many women who do not want to have another child or who want to space the next birth are already using contraception or are not exposed to the risk of pregnancy because they are menopausal or infecund. It is possible to estimate the extent to which couples' need for family planning is being met by examining information about contraceptive practice, desire for additional children, desired timing of the next child for women who want more children, and indicators of women's fecund status.

Currently married women who are fecund and who say that they do not want any more children or that they want to wait two or more years before having another child, but are not using contraception, are considered to have an *unmet need*[1] for family planning. Current users of family planning methods are said to have a met need for family planning. The total demand for family planning is the sum of the met and unmet need plus women whose method failed.

Table 6.4 shows the percentage of currently married women with unmet need and met need for family planning and the total demand for family planning services by background characteristics. Only 5 percent of currently married women in Vietnam have an unmet need for family planning services. Combined with the 79 percent of currently married women, who are currently using a contraceptive method, the total demand for family planning is 84 percent. It is estimated that 94 percent of the total demand for family planning is being met, though the level is far lower (67 percent) for women age 15-19.

Unmet need is highest among the youngest age group (15-19), and among women in the Central Highlands. It is lowest among women in the Red River Delta (3 percent) and the Mekong River Delta (4 percent). Except for the Central Highlands (84 percent), all the other six regions have a very high percentage of demand satisfied (93 to 96 percent).

There is an inverse relationship between level of education and the percentage having an unmet need for family planning. Unmet need varies from a high of 10 percent among women with no education to a low of 3 percent among women who have completed higher secondary school.

[1] A more complete description of the procedure for calculating unmet need is given in Table 6.4, footnote 1.

Table 6.4 Need for family planning

Percentage of currently married women with unmet need for family planning, and with met need for family planning, and the total demand for family planning, by background characteristics, Vietnam 2002

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning[3]			Percentage of demand satisfied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
15-19	12.1	1.3	13.4	17.8	5.0	22.8	34.3	6.2	40.6	67.1	67
20-24	7.8	1.6	9.4	41.2	16.5	57.7	50.8	18.2	68.9	86.4	536
25-29	3.6	3.1	6.7	29.8	43.6	73.4	33.8	47.4	81.2	91.8	977
30-34	0.9	4.0	4.8	14.0	69.1	83.1	15.3	74.1	89.4	94.6	1,062
35-39	1.1	2.1	3.2	5.1	85.2	90.2	6.3	87.9	94.2	96.6	1,042
40-44	0.1	2.6	2.7	1.8	87.0	88.8	1.9	89.8	91.8	97.1	966
45-49	0.0	3.4	3.4	0.1	68.1	68.2	0.1	71.5	71.6	95.3	687
Residence											
Urban	1.5	2.1	3.6	16.7	62.5	79.1	18.6	64.6	83.3	95.7	1,005
Rural	2.1	3.0	5.1	13.3	65.1	78.4	15.9	68.7	84.6	93.9	4,333
Project province											
No	1.9	2.5	4.5	14.7	64.3	79.0	17.0	67.1	84.1	94.7	3,586
Yes	2.1	3.5	5.6	12.4	65.2	77.5	15.0	69.7	84.7	93.4	1,752
Region											
Northern Uplands	2.3	3.7	6.0	9.5	69.0	78.4	12.0	73.0	85.0	92.9	1,049
Red River Delta	1.0	2.1	3.1	12.2	70.6	82.8	13.9	73.5	87.4	96.4	1,307
North Central	2.8	3.4	6.2	10.4	69.5	79.8	13.7	73.6	87.3	92.9	677
Central Coast	2.3	2.1	4.4	15.7	61.5	77.2	18.6	64.5	83.1	94.7	547
Central Highlands	4.9	7.4	12.3	18.0	48.3	66.3	23.1	55.7	78.8	84.4	172
Southeast	2.5	2.5	5.0	17.5	58.2	75.7	20.6	60.9	81.5	93.8	598
Mekong River Delta	1.4	2.3	3.7	19.6	57.0	76.7	21.2	59.7	80.9	95.4	989
Education											
No education	2.3	7.8	10.1	9.7	55.9	65.7	12.8	64.2	76.9	86.9	343
Some primary	1.3	4.2	5.5	11.5	64.6	76.1	12.8	69.2	82.0	93.3	886
Completed primary	3.1	2.2	5.3	17.6	60.0	77.7	20.9	62.8	83.7	93.6	1,506
Compl. lower secondary	1.5	2.5	3.9	10.9	71.9	82.8	12.9	75.1	88.0	95.5	1,684
Compl. higher secondary+	1.6	1.5	3.1	17.3	61.9	79.2	20.1	63.5	83.6	96.3	919
Total	2.0	2.8	4.8	13.9	64.6	78.5	16.4	67.9	84.3	94.3	5,338

[1] *Unmet need for spacing* includes pregnant women whose pregnancy was mistimed, amenorrheic women who are not using family planning and whose last birth was mistimed, and fecund 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. Also included in unmet need for spacing are fecund women who are not using any method of family planning and say they are unsure whether they want another child or who want another child but are unsure when to have the birth unless they say it would not be a problem if they discovered they were pregnant in the next few weeks. *Unmet need for limiting* refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and to fecund 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).

[2] *Using for spacing* is defined as women who are using some method of family planning and say they want to delay their next child or are undecided whether to have another. *Using for limiting* is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account.

[3] Nonusers who are pregnant or amenorrheic and women whose pregnancy was the result of a contraceptive failure are not included in the category of unmet need, but are included in total demand for contraception (since they would have been using had their method not failed).

6.3 IDEAL FAMILY SIZE

Another attitudinal dimension of childbearing considered in the survey is the total number of children a woman would ideally like to have, if it were entirely up to her. In the VNDHS 2002, the ideal family size (preferred number of children) for women is estimated from responses to two questions. Women who had no living children were asked: "If you could choose exactly the number of children to have in your whole life, how many would that be?" For women who had children, the question was rephrased as follows: "If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?"

Table 6.5 shows the distribution of ever-married women by ideal family size, according to the number of living children. In spite of the hypothetical nature of these two questions, all but a tiny fraction of women were able to give a numeric response.

Household surveys typically find a correlation between actual family size and the ideal number of children women desire. There are several reasons for this. First, women who desire larger families tend to achieve larger families. Second, women may adjust their ideal family size upwards, as the actual number of children increases. It is possible that women with large families, being on average older than women with small families, have a larger ideal family size, because of attitudes they acquired 20 to 30 years ago. Despite the likelihood that some rationalization occurs, it is common to find that respondents' stated ideal family size is lower than their actual number of living children.

Table 6.5 Ideal and actual 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 currently married women, according to number of living children, Vietnam 2002

	Number of iving children[1]							
Ideal number of children	0	1	2	3	4	5	6+	Total
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	12.8	10.9	1.7	1.6	0.5	0.9	0.4	3.7
2	80.1	82.0	85.1	56.1	52.5	35.3	16.3	70.5
3	3.3	5.1	7.8	29.9	11.9	22.5	8.9	12.6
4	2.2	1.7	5.1	11.9	33.6	25.9	51.4	11.3
5	0.4	0.0	0.1	0.4	0.7	12.8	5.8	1.0
6+	0.0	0.0	0.1	0.0	0.8	2.2	13.6	0.7
Non-numeric response	1.1	0.2	0.0	0.1	0.0	0.4	3.6	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	155	1,185	2,144	1,119	627	242	193	5,665
Mean ideal number for:[2]								
Ever-married women	2.0	2.0	2.2	2.5	2.8	3.2	4.0	2.4
Number of women	153	1,182	2,143	1,118	627	241	186	5,650
Mean ideal number for:[2]								
Currently married women	2.0	2.0	2.2	2.5	2.9	3.2	4.1	2.4
Number of women	138	1,049	2,071	1,071	597	219	179	5,324

[1] Includes current pregnancy
[2] Means are calculated excluding the women giving non-numeric responses.

Table 6.5 indicates that, on average, the ideal family size for ever-married women is 2.4 children. This is identical to the mean found in the VNDHS 1997 and a decline of 0.9 children from a mean of 3.3 found in the VNDHS 1988.

Table 6.5 indicates that most women want small families. Three-fourths of ever-married women (74 percent) prefer the one- or two-child family norm that the government family planning program has been promoting. Less than one-fourth (24 percent) consider a three- or four-child family ideal. Less than 2 percent of Vietnamese women want five or more children.

As expected, higher parity women show a preference for more children; the mean ideal number of children among ever-married women increases from 2 among childless women to 2.5 among women with three children and to 4 among women with six or more living children.

The table also shows that many women already have more children than they would consider ideal. For example, well over half of women with three children (58 percent) say their ideal family size is only one or two children. Similarly, 65 percent of women with four children would ideally like fewer than four.

Table 6.6 presents the mean ideal number of children for ever-married women by age and selected background characteristics. The mean ideal family size increases directly with age, from 2.2 children among ever-married women age 15-19 to 2.3 children among women age 30-34 and to 2.7 children among women age 45-49.

Table 6.6 Ideal number of children by background characteristics

Mean ideal number of children for ever-married women by age and background characteristics, Vietnam 2002

	Current age							
Background characteristic	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Residence								
Urban	*	2.0	2.0	2.1	2.2	2.4	2.4	2.2
Rural	2.2	2.1	2.2	2.3	2.4	2.6	2.8	2.4
Project province								
No	2.2	2.1	2.2	2.3	2.4	2.6	2.8	2.4
Yes	*	2.1	2.2	2.3	2.3	2.5	2.7	2.3
Region								
Northern Uplands	*	2.1	2.2	2.2	2.4	2.5	2.6	2.3
Red River Delta	*	2.1	2.0	2.0	2.1	2.1	2.3	2.1
North Central	*	2.1	2.2	2.3	2.6	2.6	2.6	2.4
Central Coast	*	2.2	2.3	2.5	2.5	2.6	3.1	2.5
Central Highlands	*	*	(2.6)	(3.1)	(2.4)	(2.9)	(4.1)	2.9
Southeast	*	2.0	2.1	2.3	2.5	2.8	2.7	2.4
Mekong River Delta	*	2.0	2.2	2.3	2.5	3.0	3.3	2.6
Education								
No education	*	2.4	2.4	2.9	3.0	3.5	4.2	3.1
Some primary	*	2.1	2.3	2.4	2.7	3.0	3.2	2.7
Completed primary	(2.2)	2.1	2.2	2.4	2.5	2.7	2.7	2.4
Compl. lower secondary	*	2.1	2.1	2.2	2.2	2.3	2.4	2.2
Compl. higher secondary+	*	1.9	2.0	2.1	2.1	2.1	2.3	2.1
Total	2.2	2.1	2.2	2.3	2.4	2.6	2.7	2.4

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Other differentials for ideal number of children in Table 6.6 parallel those observed for fertility. There is little difference by residence, although the mean for rural women is slightly higher than the mean for urban women. Strong regional variations are apparent. The lowest ideal family size is found in the Red River Delta where women want only 2.1 children. In contrast, the highest ideal family size is found in the Central Highlands, where women want to have an average of 2.9 children. Women in the Northern Uplands want only 2.3 children, the second lowest level in the country.

Educational attainment is closely associated with ideal family size—the higher the level of education, the lower the preferred number of children. Thus, women with no education reported an average ideal family size of just over 3 children, while women with completed higher secondary school want, on average, one child fewer.

6.4 FERTILITY PLANNING

In order to estimate the levels of unwanted fertility, the VNDHS 2002 included a question on whether each birth in the three years before the survey was planned (wanted then), mistimed (wanted but at a later time), or unwanted (not wanted at all). Measures based on these data are likely to underestimate unwanted fertility because women may rationalize mistimed and unwanted pregnancies and declare them as wanted once the children are born.

Table 6.7 shows the percent distribution of births in three years before the survey by planning status. Overall, three-fourths (76 percent) of births were planned, 14 percent were mistimed, and 9 percent were not wanted at all. Comparison with data from the VNDHS 1997 indicates that birth planning has improved somewhat. The proportion of births that were planned increased from 73 to 76 percent, while the proportion of births that were unwanted dropped from 12 to 9 percent.

Table 6.7 Fertility planning

Percent distribution of births in the three years preceding the survey by fertility planning status, according to birth order and mother's age at birth, Vietnam 2002

Birth order and mother's age at birth	Planning status of birth				Total	Number of births
	Wanted then	Wanted later	Wanted no more	Missing		
Birth order						
1	89.0	8.9	0.4	1.7	100.0	682
2	75.7	20.8	2.6	0.9	100.0	556
3	53.2	13.5	33.0	0.3	100.0	203
4+	47.0	8.7	43.9	0.4	100.0	145
Age at birth						
<20	85.4	13.2	0.0	1.4	100.0	137
20-24	79.9	17.9	1.8	0.5	100.0	558
25-29	74.6	13.6	10.3	1.5	100.0	528
30-34	68.9	8.7	21.8	0.6	100.0	245
35-39	66.3	6.5	23.4	3.8	100.0	90
40-49	(66.6)	(0.0)	(33.3)	(0.0)	100.0	28
Total	75.9	13.6	9.3	1.1	100.0	1,586

Note: Figures in parentheses are based on 25-49 unweighted cases.

As expected, the proportion of unplanned births is smallest for first births and increases directly with birth order. Less than one percent of first births were not wanted, compared with 44 percent of fourth and higher births. Similarly, a larger proportion of births to older women 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 reported by the respondent. Wanted fertility rates express the level of fertility that would theoretically result if all unwanted births were prevented. Comparison of actual fertility rates and wanted fertility rates suggests the potential demographic impact of the elimination of unwanted births.

Overall, the total wanted fertility rate is 16 percent lower than the total fertility rate. Thus, if unwanted births could be eliminated, total fertility in Vietnam would be around 1.6 births per woman, instead of 1.9. The differences in wanted fertility rates by various background characteristics are similar to those for actual fertility rates, except they are all slightly lower. Wanted fertility rates range from lows of 1.4 to 1.6 children per woman in Southeast, Mekong River Delta, Red River Delta, Northern Uplands and North Central to a high of 2.0 and 2.2 children in Central Coast and Central Highlands.

Table 6.8 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three and five years preceding the survey, respectively, by background characteristics, Vietnam 2002

Background characteristic	Total wanted fertility rates	Total fertility rates
Residence		
Urban	1.5	1.4
Rural	1.6	2.0
Project province		
No	1.6	1.8
Yes	1.7	1.9
Region		
Northern Uplands	1.6	2.0
Red River Delta	1.6	1.7
North Central	1.6	1.9
Central Coast	2.0	2.4
Central Highlands	2.3	2.9
Southeast	1.4	1.5
Mekong River Delta	1.5	1.7
Education		
No education	1.7	2.8
Some primary	1.6	2.0
Completed primary	1.8	2.1
Compl. lower secondary	1.5	1.7
Compl. higher secondary+	1.4	1.4
Total	1.6	1.9

Note: Total wanted fertility rates are calculated based on births to women age 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 3.3.

INFANT AND CHILD MORTALITY 7

This chapter contains information on the levels, trends, and differentials in neonatal, postneonatal, infant, child, and under-five mortality, and the prevalence of high-risk fertility behavior. This information is important for the assessment of the demographic situation in Vietnam. It is also central to the design of policies and programs geared towards the reduction of infant and child mortality and the avoidance of high-risk fertility behavior.

Mortality estimates are calculated from information in the pregnancy history section of the Woman's Questionnaire in the VNDHS 2002. In this survey, reproductive histories were obtained from all ever-married women age 15-49. Each woman was first asked about the number of sons and daughters living with her, the number living elsewhere, the number who had died, and the number of pregnancies that did not end in a live birth. She was then asked for a history of all her pregnancies, including the type of pregnancy outcome and the month and year of pregnancy termination. For each pregnancy ending in a live birth, the mother was asked the child's name, sex, age (if alive) or age at death (if dead), and whether the child was living with her.

The information on live births is used to directly estimate mortality rates. In this report, infant and child mortality are measured using the following five rates:

Neonatal mortality: the probability of dying within the first month of life;
Postneonatal mortality: the difference between infant and neonatal mortality;
Infant mortality: the probability of dying before the first birthday;
Child mortality: the probability of dying between the first and fifth birthday;
Under-five mortality: the probability of dying before the fifth birthday.

All rates are expressed per 1,000 live births, except for child mortality, which is expressed per 1,000 children surviving to 12 months of age.

7.1 LEVELS AND TRENDS IN INFANT AND CHILD MORTALITY

Under-five mortality in the most recent five-year calendar period is 24 per 1,000 births (Table 7.1). This means that about one in every 42 children born in Vietnam dies before reaching age five. Nearly three in four of these deaths occur in the first year of life—infant mortality is 18 deaths per 1,000 births. Child mortality accounts for 6 deaths before age five among 1,000 children who survive to 12 months of age. Similarly, during infancy, the risk of neonatal deaths (12 per 1,000) is double the risk of postneonatal death (6 per 1,000).

These rates imply an extraordinary decline in child mortality levels in Vietnam over the past decade. Under-five mortality is 40 percent lower for the five years before the survey than it was for the period 5-9 years before the survey. The decline in child mortality is slightly greater (45 percent) than the decline in infant mortality (39 percent). The corresponding declines in neonatal and postneonatal mortality are 29 percent and 42 percent, respectively.

Mortality trends can also be examined by comparing data from the VNDHS 2002 with data from earlier sources. Because of the similarities in survey design, method of analysis, time references, and

Table 7.1 Infant and child mortality

Neonatal, postneonatal, infant, child, and under-five mortality for five-year periods preceding the survey, Vietnam 2002

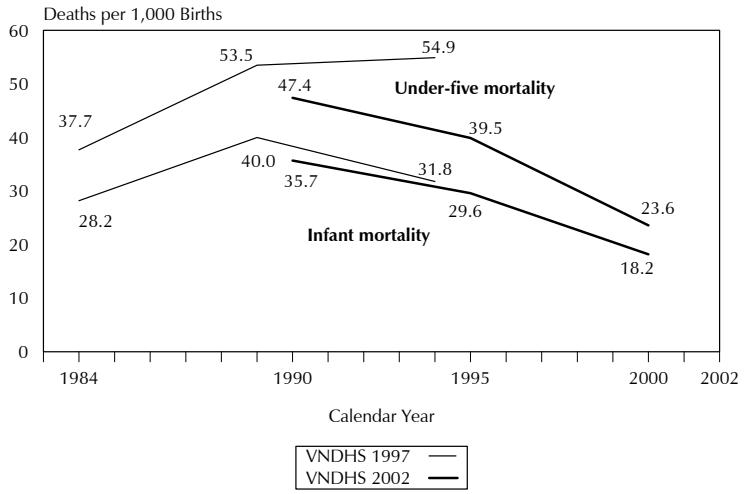
Years before survey	Approximate calendar period	Mortality rate: Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
0-4	1998-2002	12.2	6.0	18.2	5.6	23.6
5-9	1993-1997	21.2	8.4	29.6	10.2	39.5
10-14	1988-1992	24.4	11.3	35.7	12.1	47.4

[1] Computed as the difference between infant and neonatal mortality rates

sample coverage, a logical comparison is between the VNDHS 1997 and the VNDHS 2002. Such a comparison shows a substantial decline for all five mortality rates calculated. The decline is particularly sharp for infant mortality (Figure 7.1).

Such low levels of mortality and such rapid declines—particularly for neonatal mortality—without evidence of major success in child survival programs, call into question the quality of the data. One concern is possible underreporting of births that die early in the early neonatal period (i.e., within the first week of life). Evidence of this type of error can be found by examining the ratio of deaths under the age of seven days to all deaths in the first month of life.[1] Appendix Table C.4 shows that this ratio is 0.89 for the period 0-4 years prior to the survey, which suggests that underreporting of births ending in early neonatal deaths was not a problem, though the ratio is lower (0.71) for the period 5-9 years before the survey.

Figure 7.1 **Trends in Infant and Under-five Mortality, VNDHS 1997and VNDHS 2002**



[1] There are no models for mortality patterns during the neonatal period. However, one review of data from several developing countries concluded that, at neonatal mortality levels of 20 per 1,000 or higher, approximately 70 percent of neonatal deaths occur within the first six days of life (Boerma, 1988).

Another possible source of error in retrospective surveys is digit preference in the reporting of age at death. Estimates of age-specific mortality rates could be biased if digit preference results in a net transfer of deaths into or out of an age group. Of particular interest here is the possibility that children who died late in infancy are reported as deaths at 12 months of age, which would result in an underestimate of infant mortality. In an effort to minimize this type of error (and to detect the error if it occurs), interviewers were instructed to record deaths in days, if they occurred in the first month of life, and in months, if they occurred under two years of age. The data show little or no excess reporting of deaths at 12 months of age in the periods 0-4 or 5-9 years before the survey, suggesting that digit preference was not a problem for the reporting of infant deaths (Appendix Table C.5).

The reliability of mortality estimates depends on the completeness of the counts for births and child deaths and the accuracy with which their dates of birth and ages at death are reported. Omission of births and deaths directly affects mortality estimates; displacement of dates has an impact on mortality trends; and misreporting of age at death may distort the age pattern of mortality. An examination of the data shows that complete information on both month and year of birth was given for all children, regardless of their survival status (Appendix Table C.3). Although there is some fluctuation in the number of births by calendar year, it does not seem to be systematic and the impact on mortality estimates is probably minimal because those estimates are for five-year and ten-year periods.

Another indicator of data quality is the ratio of male to female births (sex ratio). International experience from countries with reliable data indicates that this ratio typically lies between 104 and 107 (Shryock and Siegel, 1973). Appendix Table C.3 shows a sex ratio of births within this range for the period 1998-2002 (106), which suggests that underreporting of female births was not a problem in the VNDHS 2002.

The review of the quality of the mortality data has not revealed any data defects. Additional reassurance of data quality is provided by the fact that the mortality rates for the period 5-9 years prior to the 2002 survey approximate very closely those for the period 0-4 years prior to the VNDHS 1997, roughly the same time period. For example, the under-five mortality rate for the 5-9 years prior to the VNDHS 2002 was 40, compared to 38 for the period 0-4 years before the VNDHS 1997.

Nevertheless, the extremely low mortality levels measured in the VNDHS 2002 require cautious interpretation. Omission of even a few births that died in early infancy could account for some of the apparent declines in mortality, yet be so subtle as to be undetectable. Another reason for caution is that at such low mortality levels, sampling errors are quite large. The 95 percent confidence intervals for the infant mortality estimate of 18 per 1,000 are 9 and 27 per 1,000 (Appendix B) indicating that, given the sample size of the VNDHS 2002, the estimate of 18 per 1,000 is possible when the true value is as much as 9 points higher.

7.2 Socioeconomic Differentials in Infant and Child Mortality

Table 7.2 presents socioeconomic differentials in childhood mortality. Mortality rates are calculated for the 10-year period before the survey (approximately 1993-2002) in order to ensure a sufficient number of cases for statistical reliability.

Mortality is consistently lower in urban areas than in rural areas; most of the rates are less than half as high in urban areas as they are in rural areas (Table 7.2 and Figure 7.2). Mortality is also lower in the project provinces compared with the nonproject provinces. Rates by region should be interpreted cautiously due to the high level of sampling errors (see Appendix B).

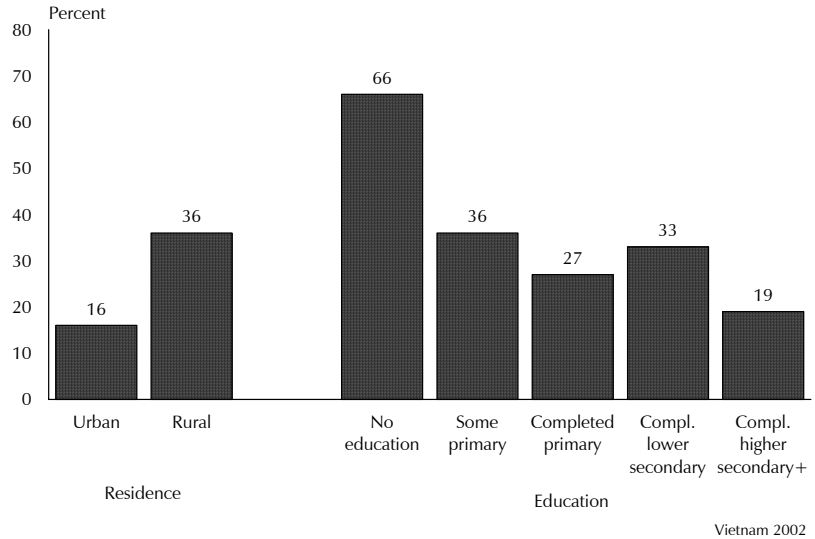
Table 7.2 Infant and child mortality by socioeconomic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality, by socioeconomic characteristics for the ten-year period preceding the survey, Vietnam 2002

Socioeconomic characteristic	Mortality rate				
	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Residence					
Urban	9.0	3.1	12.1	4.1	16.2
Rural	18.9	8.1	26.9	8.9	35.6
Project province					
No	18.7	7.5	26.2	8.1	34.1
Yes	14.8	7.0	21.8	8.5	30.1
Region					
Northern Uplands	31.6	9.2	40.9	11.4	51.8
Red River Delta	15.9	4.7	20.5	5.9	26.3
North Central	17.8	13.1	30.9	5.5	36.3
Central Coast	6.1	7.1	13.1	2.8	15.9
Central Highlands	15.3	7.3	22.7	18.6	40.9
Southeast	9.2	2.1	11.3	11.6	22.8
Mekong River Delta	16.0	6.3	22.3	8.8	30.9
Education					
No education	53.0	5.6	58.6	8.1	66.2
Some primary	14.7	9.9	24.5	11.5	35.7
Completed primary	8.9	9.1	17.9	8.9	26.7
Compl. lower secondary	19.8	7.1	26.9	6.5	33.3
Compl. higher secondary+	10.8	2.4	13.2	5.9	19.0
Total	17.5	7.4	24.8	8.2	32.9

[1] Computed as the difference between infant and neonatal mortality rates

Figure 7.2 Under-five Mortality by Residence and Education



As expected, mother's 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 education. For example, under-five mortality for children of mothers with no education (66 per 1,000) is double that for children of mothers who have completed lower secondary schooling (33 per 1,000) and three and a half times that for children of women with higher secondary education (19 per 1,000—Figure 7.2).

7.3 DEMOGRAPHIC DIFFERENTIALS IN INFANT AND CHILD MORTALITY

Mortality risks are also affected by demographic characteristics. Table 7.3 and Figure 7.3 show the relationship between mortality and sex of the child, mother's age at birth, birth order and birth intervals. Contrary to expectations infant mortality is not higher for males than females, and neonatal mortality is almost the same for males and females. However, under-five mortality is higher for males than females.

The data in Table 7.3 indicate that children born to women age 20-29 have the lowest mortality rates while the highest rates are among children born to younger mothers. For example, infant mortality for children born to mothers under 20 is twice as high as for children born to mothers age 20-29. Children born to mothers age 30-39 are one and a half times as likely to die before 12 months of age as children born to mothers age 20-29.

As expected, higher-order births experience higher mortality, with infant mortality being considerably higher among births of order 4-6 (30 per 1,000) than among first births (20 per 1,000).

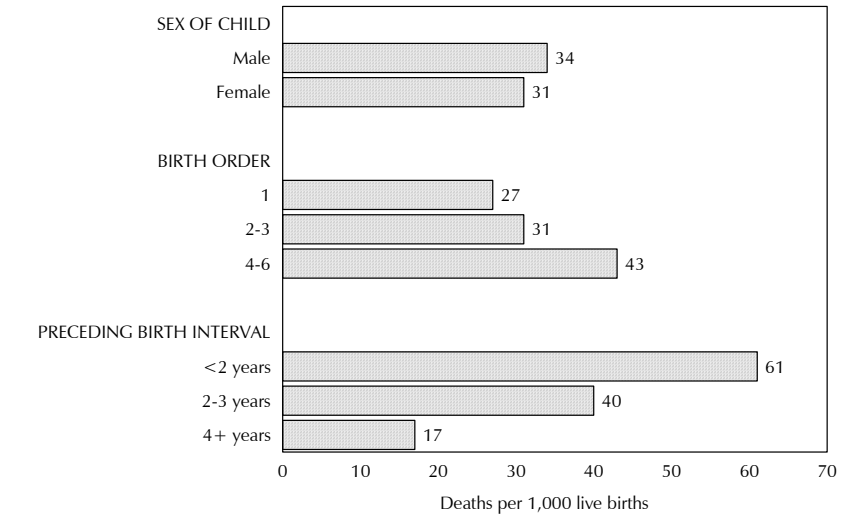
Table 7.3 Infant and child mortality by demographic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality by demographic characteristics for the ten-year period preceding the survey, Vietnam 2002

	Mortality rate				
Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Childhood mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Sex of child					
Male	17.5	7.0	24.5	9.9	34.2
Female	17.4	7.8	25.1	6.5	31.4
Mother's age at birth					
<20	26.9	11.9	38.8	9.7	48.1
20-29	15.0	5.0	20.1	8.1	28.0
30-39	19.5	12.4	31.9	8.5	40.1
Birth order					
1	15.1	4.8	19.9	7.3	27.1
2-3	16.3	9.0	25.2	5.7	30.8
4-6	21.2	8.7	29.9	13.6	43.1
Previous birth interval					
< 2 years	45.4	6.0	51.4	9.6	60.5
2-3 years	18.4	11.3	29.6	10.5	39.9
4 years or more	5.5	6.5	11.9	5.4	17.2

Note: Data for children born to women age 40-49 and of birth order 7 or higher are not shown because of the small number of cases.
[1] Computed as the difference between infant and neonatal mortality rates

Figure 7.3 Under-five Mortality by Demographic Characteristics



Note: Rates are for the 10-year period preceding the survey. Vietnam 2002

Birth intervals are strongly related to mortality risk. Mortality is generally much higher among children born within two years of a previous birth. For example, infant mortality is 51 per 1,000 for this group, compared with 12 per 1,000 for children born after an interval of four years or more.

7.4 High-risk Fertility Behavior

Numerous studies have found a strong relationship between children's chances of dying and certain fertility behaviors. Typically, the probability of dying in infancy is much greater for children born to mothers who are too young or too old, if they are born after a short birth interval, or if they are born to mothers with high parity. For purposes of this analysis a mother is classified as "too young" if she is less than 18 years of age and "too old" if she is over 34 years of age at the time of delivery; a "short birth interval" is defined as a birth occurring within 24 months of a previous birth; and a mother is considered to be of "high parity" if she has had three or more children at the time of birth.

Table 7.4 shows the percent distribution of children born in the five years before the survey by these risk factors. The table also shows the risk ratio of mortality for children by comparing the proportion of dead children in each high-risk category with the proportion of dead children not in any high-risk category.

One-fourth of children born in Vietnam in the five years before the survey fall into a high-risk category (25 percent), with 20 percent in a single high-risk category and 6 percent in a multiple high-risk category. The most common high-risk factor is high birth order; however, only 12 percent of children fall into this category.

The relationship between risk factors and mortality is represented by the risk ratios shown in the second column of Table 7.4. In general, risk ratios are higher for children in a multiple high-risk category than children in a single high-risk category. Four percent of births occur to mothers who are both more than 34 years old and have had 3 or more births, with these children three times more likely to die as children who are not in any high-risk category.

The final column of Table 7.4 addresses the question of what percentage of currently married women have the potential for a high-risk birth. This was obtained by simulating the distribution of currently married women by the risk category in which a birth would fall, if a woman were to conceive at the time of the survey. Overall, 62 percent of currently married women have the potential for having a high-risk birth.

Table 7.4 High-risk fertility behavior

Percent of children born in the last five years at elevated risk of mortality and percent of currently married women at risk of conceiving a child with an elevated risk of mortality, according to category of increased risk, Vietnam 2002

Risk category	Births in the 5 years preceding the survey		Percentage of currently married women[1]
	Percentage of births	Risk ratio	
Not in any high-risk category	36.7	1.00	33.7[a]
Unavoidable risk category			
First birth, mother's age 18-34	37.9	0.83	4.2
Single high-risk category			
Mother's age < 18	1.4	(0.00)	0.0
Mother's age > 34	4.3	1.43	18.5
Birth interval < 24 months	7.5	4.42	6.6
Birth order > 3	6.4	2.11	6.0
Subtotal	19.5	2.70	31.1
Multiple high-risk category			
Age<18 & birth interval <24 months[2]	0.1	*	0.0
Age>34 & birth order >3	3.9	3.06	28.2
Age>34 & birth interval <24 months	0.2	*	0.4
Age>34 & birth interval <24 months & birth order >3	0.6	*	0.6
Birth interval <24 & birth order>3	1.1	(9.88)	1.8
Subtotal	5.8	5.13	31.0
In any avoidable high-risk category	25.4	3.26	62.1
Total	100.0	na	100.0
Number of births	2,210	na	5,338

Note: Risk ratio is the ratio of the proportion dead of births in a specific high-risk category to the proportion dead of births not in any high risk category. Figures in parentheses are based on 25-49 births; an asterisk indicates that a figure is based on fewer than 25 births and has been suppressed.
na = Not applicable
[1] Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current 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 being of order 3 or higher.
[2] Includes the combined categories age<18 & birth order >3
[a] Includes sterilized women

MATERNAL AND CHILD HEALTH 8

This chapter presents findings related to maternal and child health (MCH) including antenatal and delivery care, immunization coverage, and childhood illnesses and treatment (i.e., acute respiratory infection, fever and diarrhea). This information can be used to identify groups of women and children who are "at risk" because of nonuse of services and to develop programs to supply services to those groups. The findings presented in this chapter are based on data obtained from women who had a live birth in the three years preceding the survey.

8.1 ANTENATAL CARE

Coverage and Source of Care

Table 8.1 shows the percent distribution of births in the three years preceding the survey by source of antenatal care received during pregnancy, according to background characteristics. Interviewers were instructed to record all persons a woman had seen for care, but the statistics in Table 8.1 are based on the provider with the highest qualifications. For almost nine in ten births in Vietnam, the mothers received antenatal care from a doctor (46 percent) or trained nurse or midwife (40 percent). Mothers received care from a traditional birth attendant (TBA) in less than 1 percent of births. A significant finding is that mothers received no antenatal care for 13 percent of births.

Comparison with the VNDHS 1997 indicates that the utilization of antenatal services has increased dramatically during the last five years, especially from doctors. The percentage of women who receive antenatal services from a doctor, nurse, or midwife, has increased from 71 percent in 1995-97 to 86 percent in 2000-02. All of the increase has occurred for doctors (25 to 46 percent), while the proportion of women receiving antenatal care from nurses and midwives has actually declined from 46 to 40 percent since 1995-97. The percent receiving no antenatal care also decreased over the same period from 28 to 13 percent.

Women in the age group 20-34 are more likely to use antenatal services than older women (age 35 and above) or younger women (age less than 20). This is especially true with regard to care from doctors. Similarly, lower birth order is associated with greater use of services provided by medically trained health workers, especially doctors. This pattern could occur because young women tend to be more educated than older women and are more likely to have knowledge about the benefits of antenatal care. It could also be that women who are pregnant for the first time are more anxious because of their lack of previous experience and are more likely to seek care from trained professionals.

There are substantial differences in the use of antenatal services between urban and rural areas. Overall, the percentage of women seeing trained medical staff for antenatal care is higher in urban than in rural areas (96 versus 84 percent) and urban women receive care from doctors much more frequently than rural women. In contrast, rural women are more likely to see trained nurses or midwives for antenatal care. Utilization of antenatal services is slightly higher in the nonproject provinces than in the project provinces. Regionally, antenatal care coverage is highest in the Red River Delta (98 percent). The Central Highlands and the Northern Uplands are comparatively underserved, with about one-fourth of mothers having received no antenatal services.

Table 8.1 Antenatal care

Percent distribution of live births in the last 3 years by source of antenatal care (ANC) during pregnancy, according to background characteristics, Vietnam 2002

Background characteristic	Antenatal care					Total	Number of births
	Doctor	Trained nurse/ midwife	Traditional birth attendant	No one	Missing		
Age at birth							
< 20	34.8	45.3	0.0	19.9	0.0	100.0	115
20-34	48.2	39.5	0.3	12.0	0.0	100.0	1,107
35+	40.0	39.0	0.8	19.6	0.6	100.0	100
Birth order							
1	53.9	36.6	0.1	9.4	0.0	100.0	560
2-3	43.5	43.7	0.6	12.1	0.0	100.0	630
4-5	34.0	36.7	0.0	28.7	0.6	100.0	103
6+	(9.7)	(34.8)	(0.0)	(55.5)	(0.0)	100.0	29
Residence							
Urban	85.2	10.8	0.9	3.1	0.0	100.0	229
Rural	38.3	46.1	0.2	15.3	0.1	100.0	1,092
Project province							
No	47.7	40.3	0.4	11.5	0.1	100.0	888
Yes	43.9	39.2	0.3	16.7	0.0	100.0	433
Region							
Northern Uplands	34.2	42.5	0.0	23.2	0.0	100.0	254
Red River Delta	47.0	50.7	0.0	2.3	0.0	100.0	277
North Central	38.3	51.9	0.0	9.8	0.0	100.0	161
Central Coast	48.8	36.3	0.4	14.3	0.3	100.0	196
Central Highlands	48.5	23.8	0.6	27.2	0.0	100.0	65
Southeast	65.7	25.3	0.0	9.1	0.0	100.0	133
Mekong River Delta	51.2	32.2	1.4	15.2	0.0	100.0	235
Education							
No education	23.1	27.1	1.4	48.4	0.0	100.0	109
Some primary	37.8	29.3	0.7	32.2	0.0	100.0	188
Completed primary	44.3	45.4	0.2	10.1	0.0	100.0	475
Compl. lower secondary.	43.2	52.4	0.2	3.9	0.2	100.0	326
Compl. higher secondary+	74.4	25.4	0.0	0.2	0.0	100.0	223
Total	46.4	40.0	0.3	13.2	0.0	100.0	1,321

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation. Figures in parentheses are based on 25-49 unweighted cases.

Table 8.1 shows that as a woman's education increases the likelihood that she will receive no antenatal care decreases sharply, from 48 percent for births to women with no education to less than 1 percent for births to women who have completed higher secondary school. Use of a doctor for antenatal care increases from 23 percent for births to uneducated women to 74 percent for births to women who have completed higher secondary school.

Antenatal care can be more effective in avoiding adverse pregnancy outcomes when it is sought early in the pregnancy and continues through to delivery. Obstetricians generally recommend that antenatal visits be made on a monthly basis to the 28th week (seventh month), fortnightly to the 36th week (eighth month), and then weekly until the 40th week (i.e., the time of birth). If the first antenatal visit is

made at the third month of pregnancy, this optimum schedule translates into a total of 12 or 13 visits during the pregnancy.

Information about the number and timing of antenatal visits made by pregnant women is presented in Table 8.2. As mentioned above, for 13 percent of births mothers did not make any visit for antenatal care during pregnancy. For births in the three years before the survey, 10 percent had only one antenatal visit, while almost half of women had 2-3 visits, and 29 percent had four or more visits. The median number of antenatal care visits for those who received antenatal care was only 2.5, which is far fewer than the recommended 12-13 visits. Eighty-five percent of births for which mothers received antenatal care in Vietnam (74 percent of all births) benefit from antenatal care during the first five months of gestation. Among women who received antenatal care, the median duration of the pregnancy at the first visit was 3.6 months.

Table 8.2 Number of antenatal care visits and stage of pregnancy

Percent distribution of live births in the last 3 years by number of antenatal care (ANC) visits, and by the stage of pregnancy at the time of the first visit, Vietnam 2002

Number and timing of ANC visits	Total
Number of ANC visits	
None	13.2
1	10.1
2-3 visits	47.4
4+ visits	29.3
Don't know/missing	0.0
Total	100.0
Median number of visits (for those with ANC)	2.5
Number of months pregnant at time of first ANC visit	
No antenatal care	13.2
Less than 6 months	73.8
6-7 months	10.5
8+ months	2.4
Don't know/missing	0.1
Total	100.0
Median (for those with ANC)	3.6
Number of births	1,321

Tetanus Toxoid Coverage

An important component of antenatal care is ensuring that pregnant women and children are adequately protected against tetanus. Tetanus toxoid injections are given during pregnancy for the prevention of neonatal tetanus, an important cause of death among infants. For full protection, a pregnant woman should receive two doses of the toxoid. However, if a woman has been vaccinated during a previous pregnancy, she may require only one dose during the current pregnancy.

Table 8.3 provides information on tetanus toxoid coverage during pregnancy for all births in the three years preceding the survey. For seven in ten births (71 percent), mothers received two or more doses of tetanus toxoid during pregnancy, while 14 percent received one dose. For 15 percent of births, mothers did not receive any tetanus toxoid injections.

The differentials in tetanus toxoid coverage closely resemble those observed for antenatal care. Women in the age group 20-34, women with higher education, those living in urban areas, and those living in the Red River Delta region have higher levels of tetanus toxoid coverage. Mothers pregnant with their first birth are three times more likely to receive at least two doses of tetanus toxoid than women who are pregnant with a sixth or higher child. Mothers living in nonproject provinces are slightly more likely to receive tetanus injections than mothers who live in project provinces.

Table 8.3 Tetanus toxoid vaccinations

Percent distribution of live births in the last 3 years by number of tetanus toxoid injections mother received during pregnancy, according to background characteristics, Vietnam 2002

Background characteristic	Tetanus injections before birth				Total	Number of births
	None	One dose	Two or more doses	Don't know/ missing		
Age at birth						
< 20	23.4	10.5	66.1	0.0	100.0	115
20-34	13.2	14.5	72.1	0.2	100.0	1,107
35+	24.2	16.2	57.1	2.6	100.0	100
Birth order						
1	10.2	9.4	80.3	0.2	100.0	560
2-3	13.9	18.5	67.4	0.2	100.0	630
4-5	38.3	11.9	48.3	1.5	100.0	103
6+	(46.3)	(25.4)	(26.2)	(2.1)	100.0	29
Residence						
Urban	6.4	10.9	81.6	1.0	100.0	229
Rural	16.7	15.0	68.1	0.2	100.0	1,092
Project province						
No	13.6	12.0	74.1	0.3	100.0	888
Yes	17.6	18.9	63.0	0.5	100.0	433
Region						
Northern Uplands	26.9	11.4	61.5	0.2	100.0	254
Red River Delta	2.9	16.0	81.1	0.0	100.0	277
North Central	10.7	16.8	72.6	0.0	100.0	161
Central Coast	12.5	8.9	78.3	0.3	100.0	196
Central Highlands	23.1	37.7	39.2	0.0	100.0	65
Southeast	12.9	13.2	72.5	1.4	100.0	133
Mekong River Delta	20.0	12.2	67.1	0.6	100.0	235
Education						
No education	48.8	15.5	35.1	0.6	100.0	109
Some primary	27.9	14.2	57.5	0.5	100.0	188
Completed primary	12.7	14.3	72.5	0.5	100.0	475
Compl. lower secondary	7.1	15.7	77.1	0.2	100.0	326
Compl. higher secondary+	3.8	11.6	84.6	0.0	100.0	223
Total	14.9	14.3	70.5	0.3	100.0	1,321

Note: Figures in parentheses are based on 25-49 unweighted cases.

8.2 DELIVERY CARE

Place of Delivery

An important component of the effort to reduce the health risks of mothers and children is to increase the proportion of babies delivered under medical supervision. Proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that can cause the death or serious illness of the mother and/or the baby.

Respondents in the VNDHS 2002 were asked to report the place of delivery for all births occurring in the three years before the survey (Table 8.4). At the national level, four in five births (79 percent) were delivered in health facilities, while 21 percent delivered at home. This represents a sizeable increase from 62 percent of births delivered in health facilities in 1997 (NCPFP, 1999:95).

Table 8.4 Place of delivery

Percent distribution of live births in the last 3 years by place of delivery, according to background characteristics, Vietnam 2002

Background characteristic	Place of delivery: Health facility	Place of delivery: At home	Place of delivery: Don't know/ missing	Total	Number of births
Age at birth					
< 20	65.1	34.9	0.0	100.0	115
20-34	79.4	20.4	0.2	100.0	1,107
35+	83.9	15.5	0.6	100.0	100
Birth order					
1	84.8	15.1	0.1	100.0	560
2-3	77.9	21.7	0.4	100.0	630
4-5	59.2	40.3	0.6	100.0	103
6+	(35.7)	(64.3)	(0.0)	100.0	29
Residence					
Urban	99.2	0.7	0.2	100.0	229
Rural	74.1	25.6	0.3	100.0	1,092
Project province					
No	80.2	19.5	0.3	100.0	888
Yes	74.9	25.0	0.1	100.0	433
Region					
Northern Uplands	43.7	56.1	0.3	100.0	254
Red River Delta	98.7	1.3	0.0	100.0	277
North Central	74.3	25.7	0.0	100.0	161
Central Coast	74.8	24.9	0.3	100.0	196
Central Highlands	63.6	36.4	0.0	100.0	65
Southeast	96.0	4.0	0.0	100.0	133
Mekong River Delta	92.4	6.8	0.8	100.0	235
Education					
No education	34.5	65.5	0.0	100.0	109
Some primary	63.6	35.4	1.0	100.0	188
Completed primary	78.9	21.0	0.1	100.0	475
Compl. lower secondary	89.3	10.5	0.2	100.0	326
Compl. higher secondary+	95.8	4.2	0.0	100.0	223
Antenatal care visits					
None	46.4	53.0	0.5	100.0	175
1-3 visits	77.4	22.4	0.1	100.0	759
4+ visits	95.1	4.7	0.2	100.0	387
Total	78.5	21.3	0.2	100.0	1,321

Note: Figures in parentheses are based on 25-49 unweighted cases.

Older women and low parity women are more likely than young women and high parity women to deliver at a health facility. Almost all urban children and three-fourths of rural children are delivered at a health facility. However, the urban-rural differentials have narrowed considerably since 1997. There is little difference between project and nonproject provinces by place of delivery. A child born in the Red River Delta, the Southeast, or the Mekong River Delta is more than twice as likely to have been delivered in a health facility than a child born in the Northern Uplands. Use of delivery facilities rises sharply with maternal education from 35 percent of births among women with no education to 96 percent of births among women in the highest education category.

Women who receive antenatal services are more likely to deliver in a health facility. While the majority of births among women with no antenatal visits were delivered at home (53 percent), the majority of births among women with one or more antenatal visits were delivered in a health facility. In fact, only 5 percent of women with four or more antenatal visits delivered at home.

Assistance at Delivery

The level of assistance a woman receives during birth has important health consequences for both the mother and the child. Births delivered at home are more likely to be delivered without professional assistance, whereas births delivered at a health facility are more likely to be delivered by trained medical personnel. Table 8.5 shows that 85 percent of births are delivered under the supervision of a doctor (50 percent) or nurse or midwife (35 percent). This has changed dramatically since 1997, with the proportion of births attended by doctors almost doubling from 27 to 50 percent. The proportion of births attended by nurses and midwives actually declined from 50 percent to 35 percent. Traditional birth attendants assist in the delivery of 5 percent of births, while another 10 percent of births are assisted by relatives and others.

Teenagers are more likely to have received delivery assistance from a relative or friend than older women, who are more likely to have been assisted by a doctor. First births are also more frequently delivered under a doctor's supervision than higher order births.

Urban women are much more likely than rural women to receive the benefit of medical supervision during delivery; births in urban areas are more than twice as likely to be delivered with the assistance of a doctor than births in rural areas. Also, as the differentials in place of delivery would suggest, more educated women and women living in the Southeast region are much more likely to have the advantage of a medically-supervised delivery.

Supervision of births by a doctor is positively related to the number of antenatal care visits. Only 25 percent of births to women who had no antenatal care visits were attended by a doctor, in contrast to 43 percent of births to women who had 1-3 visits and 74 percent of births to women who had four or more visits. More than one-third of births (36 percent) to women without any antenatal care are assisted at delivery by friends and other non-medical persons.

Table 8.5 Assistance during delivery

Percent distribution of live births in the last 3 years by type of assistance during delivery, according to background characteristics, Vietnam 2002

Background characteristic	Assistance during delivery: Doctor	Trained nurse/ midwife	Traditional birth attendant	Relative/ other	No one/ don't know/ missing	Total	Number of births
Age at birth							
< 20	40.1	33.9	2.0	24.0	0.0	100.0	115
20-34	50.0	35.9	6.1	7.9	0.1	100.0	1,107
35+	58.2	30.7	0.5	10.0	0.6	100.0	100
Birth order							
1	61.8	28.0	4.2	6.0	0.0	100.0	560
2-3	43.7	41.4	5.3	9.5	0.0	100.0	630
4-5	29.4	40.6	8.1	20.7	1.2	100.0	103
6+	(19.3)	(26.9)	(14.9)	(36.8)	(2.0)	100.0	29
Residence							
Urban	92.3	6.7	0.5	0.5	0.0	100.0	229
Rural	40.8	41.4	6.3	11.4	0.2	100.0	1,092
Project province							
No	50.8	35.9	3.1	10.0	0.2	100.0	888
Yes	47.6	34.2	9.7	8.4	0.1	100.0	433
Region							
Northern Uplands	27.9	28.0	6.5	37.3	0.2	100.0	254
Red River Delta	62.8	37.2	0.0	0.0	0.0	100.0	277
North Central	39.3	42.3	11.4	6.9	0.0	100.0	161
Central Coast	49.1	40.5	2.2	7.6	0.6	100.0	196
Central Highlands	54.8	29.0	11.0	5.1	0.0	100.0	65
Southeast	68.8	30.5	0.7	0.0	0.0	100.0	133
Mekong River Delta	53.5	36.4	9.6	0.4	0.0	100.0	235
Education							
No education	23.7	17.9	6.9	50.4	1.1	100.0	109
Some primary	40.8	29.4	11.6	18.2	0.0	100.0	188
Completed primary	45.2	43.2	6.7	4.8	0.0	100.0	475
Compl. lower secondary	51.8	43.5	0.5	4.1	0.2	100.0	326
Compl. higher secondary+	76.7	20.1	3.2	0.0	0.0	100.0	223
Antenatal care visits							
None	24.8	27.7	10.8	36.4	0.3	100.0	175
1-3 visits	43.4	43.6	5.4	7.5	0.1	100.0	759
4+ visits	73.5	22.6	2.7	1.2	0.0	100.0	387
Total	49.7	35.3	5.3	9.5	0.1	100.0	1,321

Note: If more than one provider was mentioned, only the provider with the highest qualifications is considered in this tabulation. Figures in parentheses are based on 25-49 unweighted cases.

Characteristics of Delivery

According to mothers' reports, 10 percent of babies born in Vietnam are delivered by caesarean section (Table 8.6), a large increase from the 3 percent reported in 1997. Caesarean sections (C-sections) are less common among young women, women with a large number of children, rural women, and those with little or no education. Surprisingly, more than one-fourth of births to women age 35 or older are delivered by C-section. The Red River Delta and Southeast regions have exceptionally high percentages of births delivered by C-section (17 and 14 percent, respectively). Deliveries by caesarean section have increased substantially among women living in urban areas (23 percent) and women who have completed higher secondary education (22 percent). Corresponding figures from the VNDHS 1997 for these two subgroups were 12 percent and 8 percent, respectively.

Table 8.6 Delivery characteristics: Caesarean section, birth weight, and size

Among births in the three years preceding the survey, the percentage delivered by caesarean section, and percent distribution by birth weight and size of child at birth, according to background characteristics, Vietnam 2002

		Birth weight			Size of child at birth				
Background characteristic	C-section	Less than 2.5 kg	2.5 kg or more	Don't know/ missing	Very small	Smaller than average	Average or larger	Don't know/ missing	Number of births
Age at birth									
< 20	3.5	9.0	59.7	31.2	6.8	10.6	82.7	0.0	115
20-34	9.1	4.5	76.4	19.1	0.8	7.3	91.9	0.1	1,107
35+	26.0	13.9	73.5	12.6	2.4	16.0	81.0	0.6	100
Birth order									
1	12.9	6.0	79.9	14.1	1.0	9.9	89.1	0.0	560
2-3	8.8	4.6	75.5	19.9	1.6	5.8	92.5	0.1	630
4-5	3.1	9.3	49.4	41.3	2.9	14.1	82.4	0.6	103
6+	(0.0)	(6.0)	(48.2)	(45.8)	(0.0)	(8.5)	(91.5)	(0.0)	29
Residence									
Urban	22.9	3.9	95.4	0.6	1.1	4.0	94.9	0.0	229
Rural	7.2	5.9	70.4	23.7	1.5	9.1	89.3	0.1	1,092
Project province									
No	11.1	5.4	76.3	18.3	1.8	8.4	89.8	0.1	888
Yes	7.4	5.9	71.6	22.5	0.6	8.0	91.2	0.1	433
Region									
Northern Uplands	5.5	3.9	42.6	53.5	4.2	9.3	86.2	0.2	254
Red River Delta	17.2	4.5	94.2	1.3	0.0	8.8	91.2	0.0	277
North Central	4.1	2.7	71.4	25.9	0.4	7.1	92.5	0.0	161
Central Coast	9.6	5.7	73.7	20.6	1.9	9.3	88.5	0.3	196
Central Highlands	3.3	16.6	62.5	20.8	2.5	7.5	89.9	0.0	65
Southeast	14.2	7.3	88.7	4.0	1.4	4.3	94.3	0.0	133
Mekong River Delta	9.6	6.5	85.1	8.4	0.0	8.7	91.3	0.0	235
Education									
No education	4.4	6.3	32.0	61.7	0.0	8.1	91.3	0.6	109
Some primary	9.3	7.6	60.3	32.1	4.5	9.1	86.4	0.0	188
Completed primary	5.8	5.1	74.4	20.5	1.3	9.1	89.6	0.0	475
Compl. lower secondary.	9.8	6.5	84.9	8.7	0.6	7.6	91.6	0.2	326
Compl. higher secondary+	22.0	3.3	93.8	2.9	1.0	6.6	92.4	0.0	223
Total	9.9	5.6	74.7	19.7	1.4	8.2	90.3	0.1	1,321

Note: Figures in parentheses are based on 25-49 unweighted cases.

Respondents were asked for the weight of their child at birth. For a significant number of children (20 percent), mothers did not know the birth weight. However, for the children for whom a birth weight was reported, the birth weight was 2.5 kilograms or more in 9 out of 10 cases. Mothers were also asked for their own subjective assessment of whether their child was very large, larger than average, average, smaller than average, or very small in size at birth. While information of this type is subject to considerable error for individual births, at the population level, the proportion of births that are reported as very small or small is strongly correlated with the prevalence of low birth weight. The VNDHS 2002 data indicate that about 10 percent of births were reported as being very small or smaller than average at birth, and that such births are associated with young and old maternal age at birth (Table 8.6).

8.3 VACCINATION OF CHILDREN

The VNDHS collected information on vaccination coverage for all children born in the three years preceding the survey. The data presented here are for children age 12-23 months, the youngest cohort of children who have reached the age by which they should be fully vaccinated. The Vietnamese Government is closely following the guidelines of the Expanded Program on Immunization set by the World Health Organization. In order to be considered fully vaccinated, a child should receive the following vaccinations: one dose of BCG, three doses each of DPT and polio, and one dose of measles vaccine.[1]

Information on vaccination coverage was collected in two ways: from children's health cards seen by the interviewer and from mothers' verbal reports. If a mother was able to present a health card to the interviewer, this was used as the source of information, with the interviewer recording vaccination dates directly from the card. In addition to collecting vaccination information from cards, there were two ways of collecting the information from the mother herself. Even in cases when the mother had a health card, she was asked if the child had received any vaccinations that were not recorded on the card. If the mother was not able to provide a card for the child at all, she was asked to recall whether or not the child had received BCG, polio and DPT (including the number of doses for each), and measles vaccinations. In the VNDHS 2002, mothers were able to provide health cards for only 40 percent of children 12-23 months of age, a tremendous increase from 13 percent in the VNDHS 1997.

Information on vaccination coverage is presented in Table 8.7, according to the source of information used to determine coverage, i.e., the child health card or mother's report. Forty percent of children age 12-23 months had a BCG vaccination recorded on their health card. However, not all children who are vaccinated have cards available since health cards are often retained at the health centers; an additional 54 percent of children did not have a card but were reported by their mothers to have received the BCG vaccine. Thus, overall, 93 percent of children age 12-23 months are reported to have been vaccinated against tuberculosis. Vaccinations are most effective when given at the proper age; according to the health cards, 91 percent of children received the BCG vaccine by 12 months of age.

[1] BCG, which should be given at birth or first clinical contact, protects against tuberculosis. DPT protects against diphtheria, pertussis, and tetanus. DPT and polio require three vaccinations at approximately 6, 10 and 14 weeks of age (since this regime is not always followed, emphasis is placed on getting all three doses by the time the child reaches the age of 12 months). Measles should be given at or soon after reaching nine months. It is recommended that children receive the complete schedule of vaccinations before 12 months of age.

Table 8.7 Vaccinations by source of information

Among children 12-23 months of age, the percentage who have received each vaccine at any time before the interview and before 12 months of age, according to whether the information is from the vaccination card or from the mother, Vietnam 2002

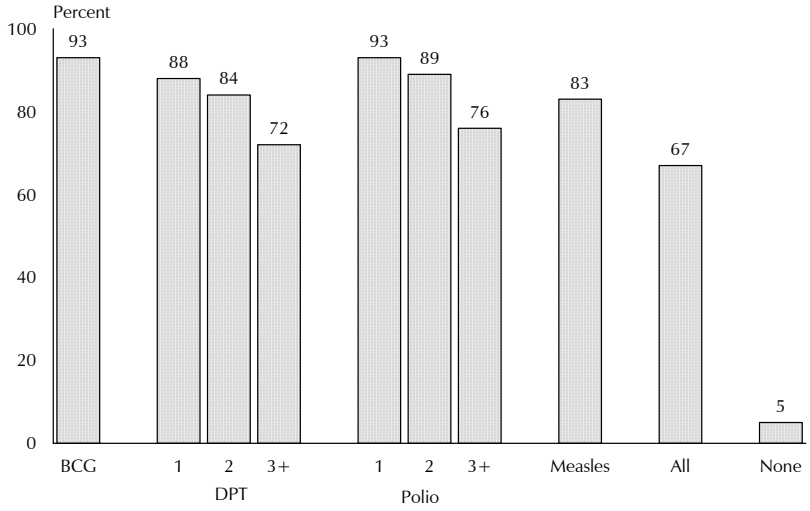
	Percentage of children who had received:										Percentage with a vaccination card	Number of children
		DPT			Polio							
Source of information	BCG	1	2	3+	1	2	3+	Measles	All[1]	None		
Vaccinated at any time before the survey												
Vaccination card	39.7	38.2	36.6	34.7	39.2	38.1	36.5	36.4	32.9	0.0	39.9	182
Mother's report	53.7	50.1	47.1	37.6	54.1	50.5	39.3	46.8	33.8	4.7	60.1	275
Either source	93.4	88.3	83.8	72.4	93.4	88.6	75.8	83.2	66.7	4.7	100.0	457
Vaccinated by 12 months of age[2]	90.9	85.7	80.0	67.6	91.1	85.3	73.1	77.0	58.1	6.3	-	457

[1] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)
[2] 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.

Coverage for the first dose of DPT (88 percent) is slightly lower than for BCG (93 percent), while coverage for the first dose of polio is the same as for BCG—93 percent (Figure 8.1). Coverage declines after the first dose, and dropout rates are high. For DPT, coverage falls to 72 percent for the third dose; therefore, one-fifth of children who start the DPT series do not complete it. The dropout rate is similar for the polio series as expected, since polio and DPT are commonly administered together. Eighty-three percent of children age 12-23 months are vaccinated against measles.

Overall, 67 percent of children age 12-23 months had all the recommended vaccinations, 58 percent before their first birthday. Five percent of children age 12-23 months had not received any vaccinations.

Figure 8.1 **Vaccination Coverage Among Children Age 12-23 Months**



Note: Based on health card information and mothers' reports

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Differentials in Vaccination Coverage

Table 8.8 presents vaccination coverage (according to information from health cards and mothers' reports) among children age 12-23 months, by background characteristics. There is little difference in full immunization coverage by sex of the child, by birth order, and by whether the children lived in a project or nonproject province.

Table 8.8 Vaccinations by background characteristics

Among children 12-23 months, the percentage who had received each vaccine by the time of the survey (according to vaccination card or mother's report) and the percentage with a vaccination card, by background characteristics, Vietnam 2002

	Percentage of children who had received:										Percentage with a vaccination card	Number of children
		DPT			Polio[1]							
Background characteristic	BCG	1	2	3	1	2	3	Measles	All[2]	None		
Child's sex												
Male	94.4	87.7	84.0	72.0	93.2	88.3	75.4	84.2	65.9	4.0	39.6	237
Female	92.2	88.9	83.5	72.7	93.6	88.9	76.2	82.2	67.6	5.6	40.2	219
Birth order												
1	93.7	89.9	85.2	73.3	94.6	90.6	79.1	83.8	67.3	4.1	42.3	195
2-3	93.3	86.8	82.3	72.6	92.4	87.5	75.0	83.0	67.4	4.8	41.8	218
4-5	(93.4)	(89.4)	(86.9)	(74.3)	(93.4)	(86.6)	(74.0)	(85.2)	(68.4)	(6.6)	(27.0)	31
Residence												
Urban	99.1	99.1	95.4	89.7	99.1	98.6	94.8	94.3	87.1	0.9	58.9	85
Rural	92.1	85.8	81.1	68.4	92.1	86.3	71.4	80.7	62.1	5.6	35.6	372
Project province												
No	94.5	87.6	83.8	72.9	93.7	89.5	75.9	84.3	68.1	4.3	37.3	303
Yes	91.2	89.6	83.7	71.3	92.7	86.8	75.5	81.1	63.9	5.7	45.0	154
Region												
Northern Uplands	90.5	75.3	70.0	49.8	86.8	81.9	56.2	79.5	45.1	8.9	14.1	95
Red River Delta	100.0	98.2	94.3	90.4	100.0	100.0	96.0	98.0	88.4	0.0	65.3	88
North Central	93.4	87.6	79.6	59.1	93.6	85.7	63.7	81.9	55.9	5.2	28.8	63
Central Coast	95.9	96.3	91.1	78.8	97.2	90.7	81.0	89.5	76.0	0.0	34.7	64
Southeast	91.1	86.9	83.4	83.4	93.4	84.7	79.0	82.9	76.0	6.6	58.9	52
Mekong River Delta	92.5	86.2	83.5	72.4	90.4	85.4	75.3	65.8	60.8	6.8	48.7	74
Mother's education												
No education	(62.9)	(52.2)	(52.2)	(46.6)	(52.2)	(52.2)	(45.1)	(49.2)	(39.5)	(30.9)	(14.0)	32
Some primary	90.2	78.2	74.9	65.8	94.9	84.7	74.5	59.7	50.0	4.1	30.2	72
Completed primary	94.5	89.2	83.2	67.4	94.5	87.3	72.3	86.3	63.5	3.9	38.6	153
Compl. lower secondary.	97.7	95.1	90.1	80.5	97.7	95.1	82.7	92.1	77.4	2.3	38.5	119
Compl. higher secondary+	100.0	100.0	96.1	85.9	100.0	99.3	85.5	98.9	82.9	0.0	63.4	81
Total	93.4	88.3	83.8	72.4	93.4	88.6	75.8	83.2	66.7	4.7	39.9	457

Note: Total includes 13 children of sixth or higher birth order and 21 children in Central Highlands, who are not shown separately. Figures in parentheses are based on 25-49 unweighted cases.

[1] Polio 0 is the polio vaccination given at birth and is not shown in the table.

[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

However, there are substantial differences in the percentage of children fully immunized by residence, region, and mother's education. Children in urban areas are much more likely to be fully immunized than rural children (87 versus 62 percent). Coverage is highest in the Red River Delta (88 percent) and lowest in the Northern Uplands region (45 percent). Maternal education is strongly linked to immunization status: 83 percent of children whose mothers have completed higher secondary school are fully vaccinated, compared with only 40 percent of children whose mothers have no education.

8.4 CHILDHOOD ILLNESS AND TREATMENT

Acute Respiratory Infection

Pneumonia, or acute respiratory infection (ARI), is a leading cause of childhood mortality in developing countries. Early diagnosis of ARI and treatment with antibiotics can prevent a large proportion of deaths due to pneumonia. Accordingly, health programs in developing countries place emphasis on the recognition of signs of ARI so that appropriate medical help can be sought.

The symptoms of ARI for a sick child are a cough accompanied by short rapid breathing. In the VNDHS, mothers of children under age three were asked if their child had these symptoms in the two weeks preceding the survey and if medical treatment was sought. It should be borne in mind that morbidity data collected in this manner are subjective (i.e., they are based on the mother's perception of illness and not validated by medical personnel) and that the prevalence of ARI is subject to seasonality.

Table 8.9 shows that 20 percent of children under three years of age were reported to have symptoms compatible with ARI at some time in the two weeks preceding the survey. The prevalence of ARI is higher among male children (22 percent) than female children (17 percent). The prevalence of ARI is also higher among children in rural areas than urban areas. Children living in the Southeast region are least likely to show symptoms of ARI (13 percent), in contrast to children living in the Northern Uplands region (28 percent).

Table 8.9 Prevalence and treatment of acute respiratory infection (ARI) and fever

Among children under three years of age, the percentage who were ill with a cough accompained by rapid breathing (ARI) and the percentage who were ill with fever during the two weeks before the survey, and percentage of children with ARI for whom treatment was sought from a health facility or provider, by background characteristics, Vietnam 2002

Background characteristic	Percentage of children with:		Percentage of children with symptoms of ARI for whom treatment was sought from a health facility/ provider	Number of children
	Cough and rapid breathing	Fever		
Child's age				
Under 6 months	12.7	14.8	(60.9)	195
6-11 months	18.8	35.0	(75.9)	194
12-23 months	22.6	28.2	71.9	457
24-35 months	19.7	26.5	71.8	458
Child's sex				
Male	21.9	27.0	76.0	679
Female	17.0	26.2	64.8	626
Birth order				
1	17.2	26.5	74.7	557
2-3	21.0	26.2	67.1	622
4-5	25.7	30.6	(85.1)	97
6+	(12.2)	(23.8)	*	29
Residence				
Urban	14.0	19.8	(75.4)	228
Rural	20.7	28.1	70.7	1,076
Project province				
No	19.1	25.7	70.1	875
Yes	20.3	28.5	73.7	429
Region				
Northern Uplands	27.7	29.9	60.8	247
Red River Delta	17.8	25.4	75.1	275
North Central	16.7	19.4	(64.6)	159
Central Coast	21.8	27.4	(74.3)	195
Central Highlands	21.0	49.3	*	64
Southeast	13.4	23.9	*	133
Mekong River Delta	16.1	24.2	*	232
Mother's education				
No education	20.5	31.1	*	103
Some primary	27.0	35.1	56.3	185
Completed primary	21.1	27.3	76.5	471
Compl. lower secondary.	17.6	22.5	65.4	323
Compl. higher secondary+	12.2	21.9	(79.5)	223
Total	19.5	26.6	71.3	1,304

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indictes that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Use of a health facility for treatment when a child has symptoms compatible with ARI is high in Vietnam; almost three out of 4 children (71 percent) with symptoms were taken to a health facility. Male children are more likely to be treated at a health facility than female children. Children in urban areas and children in the Southeast are most likely to be taken to a health facility for treatment. Children of more educated mothers are also more likely to receive treatment in a facility than children of less educated women.

Fever

A major manifestation of acute infection in children is fever. In the VNDHS, mothers were asked whether their children under age three had a fever in the two weeks preceding the survey. Table 8.9 shows that 27 percent of children were reported to have had fever in the last two weeks. Prevalence of fever peaks at 35 percent among children age 6-11 months. Differentials by sex, project province status, and birth order are either negligible or show no clear pattern. However, there is significant variation in the prevalence of fever among regions. Fever is most prevalent in the Central Highlands and Northern Uplands regions (50 percent and 30 percent, respectively) and much less prevalent in the North Central region (19 percent). Fever is more prevalent among rural children than urban children.

Diarrhea

Dehydration caused by severe diarrhea is a major cause of morbidity and mortality among young children. A simple and effective response to dehydration is a prompt increase in fluid intake, that is, oral rehydration therapy (ORT). Rehydration therapy may include the use of a solution prepared from packets of oral rehydration salts (ORS) or recommended home fluids (RHF) such as sugar-salt-water solution.

Table 8.10 Diarrhea prevalence

Percentage of children under three years of age with diarrhea and bloody diarrhea during the two weeks before the survey, by demographic and background characteristics, Vietnam 2002

Characteristic	Diarrhea prevalence: Diarrhea in past 2 weeks	Diarrhea with blood in past 2 weeks	Number of children
Child's age			
Under 6 months	11.4	0.7	195
6-11 months	19.0	0.3	194
12-23 months	11.7	1.0	457
24-35 months	7.7	1.0	458
Child's sex			
Male	12.6	0.9	679
Female	9.9	0.8	626
Birth order			
1	8.4	0.3	557
2-3	12.7	1.0	622
4-5	20.4	3.2	97
6+	(7.1)	(0.0)	29
Residence			
Urban	3.5	0.0	228
Rural	13.0	1.0	1,076
Project province			
No	11.7	0.8	875
Yes	10.5	1.0	429
Region			
Northern Uplands	16.2	0.8	247
Red River Delta	7.8	0.5	275
North Central	8.9	0.0	159
Central Coast	18.6	2.4	195
Central Highlands	15.3	3.9	64
Southeast	5.2	0.6	133
Mekong River Delta	8.4	0.0	232
Mother's education			
No education	19.1	1.1	103
Some primary	13.1	1.6	185
Completed primary	12.8	1.3	471
Compl. lower secondary.	10.7	0.3	323
Compl. higher secondary+	4.0	0.0	223
Total	11.3	0.9	1,304

Note: Figures in parentheses are based on 25-49 unweighted cases.

In Vietnam, the Ministry of Health utilizes both preventive as well as curative strategies to minimize the effect of diarrhea on child health. The Ministry emphasizes health education programs to reduce the incidence of diarrhea among children, and promotes the use of oral rehydration therapy mostly through ORS.

In the VNDHS 2002, women who had a birth in the three years preceding the survey were asked about their knowledge of ORS and treatment of diarrhea in general. For all children under three years who experienced a bout of diarrhea in the last two weeks, mothers were asked whether there was blood in the stools, whether fluid intake was increased or decreased, whether the child was given ORS, and what else was given to treat the child's diarrhea. Since the incidence of diarrhea in Vietnam is seasonal, care should be taken in the interpretation of the data.

Table 8.10 presents data on the prevalence of diarrhea in children under three years of age. Eleven percent of children had experienced diarrhea at some time in the two weeks preceding the survey; less than 1 percent of children had experienced bloody diarrhea that can be an indication of dysentery. Diarrhea prevalence increases with age to peak at age 6-11 months (19 percent).

Diarrhea is more prevalent among male children and children living in rural areas. It is least prevalent in the Southeast region (5 percent) and more prevalent in the Central Coast (19 percent) and Northern Uplands (16 percent). The higher the birth order, the higher is the prevalence of diarrhea. The relationship between maternal education and diarrheal prevalence in children is marked. It ranges from only 4 percent among children of women who have completed higher secondary education to 19 percent among children whose mothers have no education.

General knowledge of ORS is quite widespread among mothers in Vietnam (Table 8.11). Seven in ten mothers who gave birth in the three years preceding the survey knows about ORS (70 percent). Regarding specific eating and drinking regimes for sick children, the findings are encouraging. Three-quarters of recent mothers know that a child with diarrhea should get more to drink, while 13 percent think the child should receive the same amount to drink as usual; only 9 percent think a sick child should be given less to drink.

Differentials in mothers' knowledge of appropriate child feeding practices during a diarrhea episode indicate that the percentage who report that a child should receive greater amounts of liquids is smaller among younger mothers, those living in rural areas and in project provinces, and among women with less education. Additionally, North Central and Northern Uplands stand out as areas where fewer mothers know that children with diarrhea should be given more liquids than usual.

Table 8.11 Knowledge of diarrhea care

Percentage of mothers with births in the last three years who know about ORS packets and appropriate feeding during diarrhea, by background characteristics, Vietnam 2002

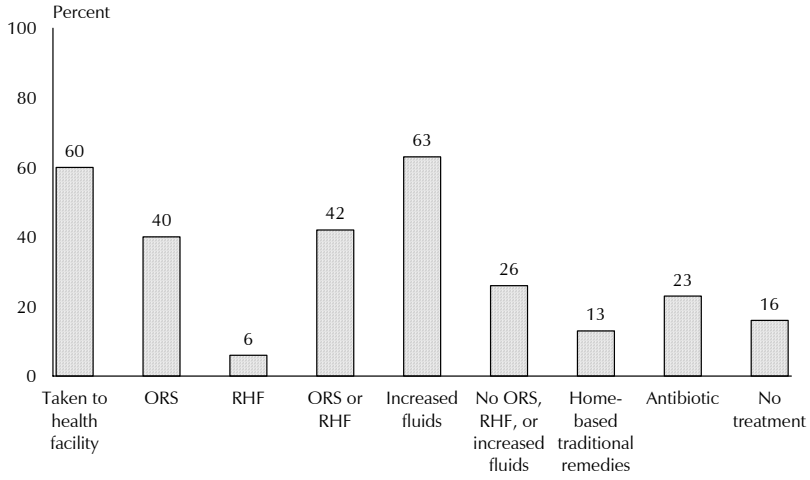
Background characteristic	Knows about ORS	Drinking pattern with diarrhea				Eating pattern with diarrhea				Total
		Less to drink	Same amount to drink	More to drink	Don't know/ missing	Less to eat	Same amount to eat	More to eat	Don't know missing	
Age										
15-19	(19.4)	(16.9)	(19.4)	(44.2)	(19.5)	(45.6)	(29.8)	(7.7)	(16.9)	28
20-24	61.9	13.7	18.1	66.3	1.9	34.7	47.3	15.2	2.9	358
25-29	73.2	6.3	11.5	80.6	1.6	36.6	46.6	14.8	2.0	435
30-34	79.9	6.9	10.0	82.5	0.6	40.3	41.8	16.6	1.2	259
35+	73.1	5.6	11.3	79.1	4.0	40.4	44.5	12.4	2.7	135
Residence										
Urban	83.4	3.3	4.5	91.7	0.4	28.0	51.7	19.0	1.2	220
Rural	67.1	10.0	15.2	72.3	2.5	39.6	43.7	14.0	2.8	995
Project province										
No	70.8	7.4	11.5	79.0	2.1	37.6	45.3	14.6	2.4	812
Yes	68.5	11.6	16.9	69.3	2.2	37.1	44.7	15.4	2.7	403
Region										
Northern Uplands	60.5	11.3	24.1	63.8	0.8	40.3	43.5	15.6	0.6	225
Red River Delta	82.5	4.9	4.7	90.2	0.2	28.0	42.3	29.7	0.0	259
North Central	74.8	19.7	21.1	57.6	1.6	56.1	34.9	6.6	2.4	148
Central Coast	66.9	4.1	9.4	85.5	1.0	41.4	51.5	6.1	1.0	178
Central Highlands	45.3	10.8	14.3	74.8	0.0	31.5	60.0	8.5	0.0	58
Southeast	65.8	6.8	4.0	85.8	3.4	36.7	49.6	9.2	4.5	124
Mekong River Delta	73.4	7.6	15.3	70.1	7.0	32.1	45.4	14.3	8.1	223
Education										
No education	38.5	6.2	39.8	50.6	3.5	29.9	59.5	6.7	3.9	89
Some primary	59.2	11.8	19.9	62.5	5.8	38.0	46.4	9.2	6.5	178
Completed primary	64.8	12.7	11.5	73.0	2.8	43.4	38.9	14.6	3.1	426
Compl. lower secondary.	79.4	5.6	10.7	83.5	0.2	38.7	45.4	15.7	0.2	307
Compl. higher secondary+	89.1	4.1	4.1	91.8	0.0	26.7	50.2	22.4	0.7	215
Total	70.1	8.8	13.3	75.8	2.1	37.5	45.1	14.9	2.5	1,215

Note: Figures in parentheses are based on 25-49 unweighted cases.
ORS = Oral rehydration salts

Figure 8.2 presents data on the types of treatment received by children with diarrhea in the two weeks preceding the survey. The VNDHS 2002 indicates that three out of five children with diarrhea (60 percent) were taken to a health facility or health provider for treatment.

Forty percent of children with diarrhea were given a solution prepared from ORS packets, while 6 percent were treated with recommended home fluids (RHF). Almost two-thirds (63 percent) of children with diarrhea were given more to drink than before the diarrhea. Overall, 26 percent of children received neither oral rehydration therapy (ORS or RHF) nor increased fluids. One in four children with diarrhea was given antibiotics, and 13 percent were provided some sort of home-based traditional remedies. One in six children with diarrhea received no treatment.

Figure 8.2 Treatment of Children Under Three with Diarrhea



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INFANT FEEDING 9

Infant feeding practices have important and well-established consequences for the health of a child and the fecundity status of the mother. Worldwide, breastfeeding is advocated by health personnel for young infants because it is more nutritious, more hygienic, and cheaper than alternative feeding methods. Moreover, breastfeeding following childbirth may have the effect of extending a woman's postpartum anovulatory period, thus affording temporary protection against prematurely becoming pregnant again.

To measure breastfeeding practices, mothers were asked a series of questions for each birth occurring in the three years preceding the survey. Mothers were asked if the child was breastfed and, if so, how long after childbirth breastfeeding was initiated. For surviving children, additional questions were asked to determine if the mother was still breastfeeding, and, if not, how long she had breastfed each child and why she stopped. Mothers who were still breastfeeding were asked questions about the frequency of breastfeeding and about supplemental feeding.

9.1 PREVALENCE OF BREASTFEEDING

The data in Table 9.1 indicate that breastfeeding is very common in Vietnam. Overall, 98 percent of Vietnamese children are breastfed for some period of time. Differentials in the proportion of children breastfed are small; at least 90 percent of children in every subgroup are breastfed.

An important aspect of breastfeeding is the timing of its initiation. Early initiation of breastfeeding is important for both the mother and the child. From the mother's perspective, early suckling stimulates the release of a hormone that helps the uterus contract. From the child's perspective, the first breast milk (colostrum) is important since it is very rich in antibodies. Thus, health professionals advocate starting breastfeeding within the first hour after the child is born. This practice is advocated by the Ministry of Health as part of its breastfeeding promotion campaign and has been part of earlier activities, including those of the Primary Health Care Program.

The timing of initiation of breastfeeding is also examined in Table 9.1. Fifty-seven percent of recent mothers reported initiating breastfeeding within an hour of giving birth and 87 percent reported initiating breastfeeding within one day of birth. The proportion of women who reported starting breastfeeding within an hour after childbirth is significantly higher in the VNDHS 2002 than in the 1997 survey (28 percent).

The most striking differentials in the initiation of breastfeeding are by region. Only 39 percent of children in the Central Highlands were breastfed within an hour following childbirth, compared with 68 percent of children in the Northern Uplands. Differences by other background characteristics are small, though children living in the nonproject provinces are more likely than those living in the project provinces to be breastfed in the first hour after birth. Despite variations in starting breastfeeding in the first hour of life, at least eight in ten newborns are put to the breast within a day of birth.

Table 9.1 Initial breastfeeding

Percentage of all children who were ever breastfed, and percentage who started breastfeeding within one hour and within one day of birth, among children born in the three years before the survey, by background characteristics, Vietnam 2002

Background characteristic	Percentage ever breastfed	Percentage who started breastfeeding: Within 1 hour of birth	Within 1 day of birth[1]	Number of children
Sex				
Male	97.9	58.1	87.1	682
Female	97.5	55.9	86.8	638
Residence				
Urban	93.9	52.2	81.5	229
Rural	98.5	58.0	88.1	1,092
Project province				
No	97.4	61.2	87.1	888
Yes	98.3	48.6	86.8	433
Region				
Northern Uplands	96.7	67.6	87.3	254
Red River Delta	99.8	59.0	88.5	277
North Central	100.0	65.3	93.8	161
Central Coast	97.7	62.9	91.3	196
Central Highlands	100.0	39.1	83.3	65
Southeast	93.2	47.5	85.9	133
Mekong River Delta	96.6	42.5	77.8	235
Mother's education				
No education	90.8	50.3	82.4	109
Some primary	97.8	46.0	79.8	188
Completed primary	98.2	57.5	88.3	475
Compl. lower secondary	98.1	64.6	90.4	326
Compl. higher secondary+	99.3	57.2	87.2	223
Assistance at delivery[2]				
Medically trained	97.6	56.5	88.0	1,124
Traditional midwife	100.0	50.6	79.4	70
Other or none	97.3	65.6	82.2	127
Place of delivery				
Health facility	97.6	56.7	87.8	1,036
At home	97.9	58.8	84.2	281
Total	97.7	57.0	87.0	1,321

Note: Table is based on all births whether the children are living or dead at the time of interview.

[1] Includes children who started breastfeeding within one hour of birth

[2] Doctor, nurse/midwife, or auxiliary midwife

9.2 SUPPLEMENTATION

Breast milk alone is considered to be a nutritionally ideal food during the first four to six months of infancy. Neither plain water, other liquids, nor solid or semi-solid foods are recommended by health specialists during early infancy. Children who receive breast milk only are defined as exclusively breastfed. Children who are given breast milk and plain water only are defined as fully breastfed. The breastfeeding promotion campaign in Vietnam recommends that children be exclusively breastfed during the first four months of life and that no solid food be given before six months of age.

In the VNDHS 2002, mothers who were breastfeeding a child were asked whether various types of liquids or solid foods were given to the child at any time during the preceding day or night. This information is used to determine the proportion of children who are exclusively breastfeeding, breastfeeding and receiving supplemental foods, or not breastfeeding at all.

Information on exclusive breastfeeding and the supplementary feeding status of children is presented in Table 9.2 and Figure 9.1, by age in months. The data indicate that only 31 percent of children less than two months of age are exclusively breastfed. This percentage drops to 12 percent for children 2-3 months of age and to 8 percent for children 4-5 months of age. After 5 months of age, no children receive only breast milk.

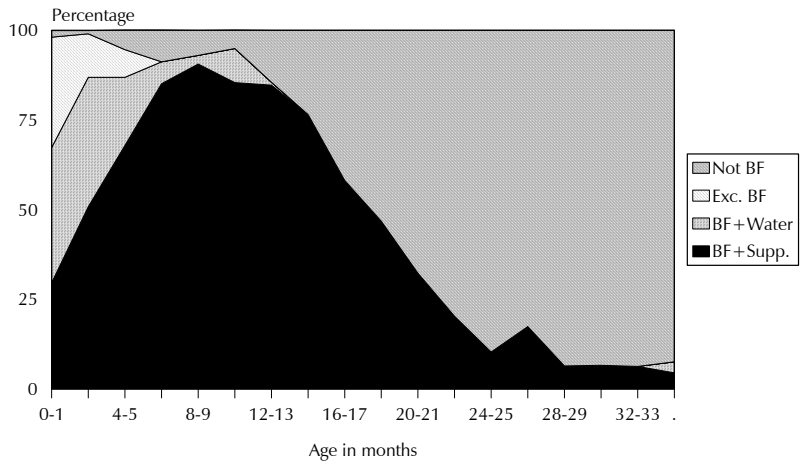
Table 9.2 Breastfeeding status by child's age

Percent distribution of living children under three years of age by breastfeeding status, according to child's age in months, Vietnam 2002

Age in months	Not breastfeeding	Exclusive breastfeeding	Breastfeeding and consuming: Plain water only	Breastfeeding and consuming: Supple-ments	Total	Number of children
0-1	1.8	30.8	37.7	29.6	100.0	50
2-3	0.9	12.1	36.1	50.8	100.0	78
4-5	5.5	7.7	19.0	67.9	100.0	67
6-7	8.9	0.0	6.1	85.1	100.0	64
8-9	7.0	0.0	2.4	90.6	100.0	64
10-11	5.2	0.0	9.5	85.4	100.0	66
12-13	14.5	0.0	0.8	84.7	100.0	87
14-15	23.5	0.0	0.0	76.5	100.0	78
16-17	41.9	0.0	0.0	58.1	100.0	82
18-19	53.2	0.0	0.0	46.8	100.0	76
20-21	67.7	0.0	0.0	32.3	100.0	60
22-23	79.7	0.0	0.0	20.3	100.0	73
24-25	89.7	0.0	0.0	10.3	100.0	87
26-27	82.6	0.0	0.0	17.4	100.0	66
28-29	93.6	0.0	0.0	6.4	100.0	73
30-31	93.4	0.0	0.0	6.6	100.0	76
32-33	93.7	0.0	0.0	6.3	100.0	72
34-35	92.4	0.0	3.1	4.5	100.0	83
0-3 months	1.3	19.5	36.8	42.5	100.0	128
4-6 months	6.2	5.1	15.6	73.1	100.0	101
7-9 months	8.0	0.0	2.6	89.3	100.0	94

The percentage of children who are fully breastfed (breast milk and plain water only) drops from 38 percent for children less than two months of age and 36 percent for children 2-3 months of age to 19 percent for children 4-5 months old.

Figure 9.1 Distribution of Children by Breastfeeding Status According to Age



Vietnam 2002

In Vietnam, supplemental foods other than plain water are given to children at an early age. Among children less than two months of age, 30 percent are given supplements and that proportion increases to 51 percent among children 2-3 months of age.

Comparison with data from the VNDHS 1997 implies a trend away from exclusive breastfeeding towards earlier supplementation. For example, the proportion of children under 4 months who are exclusively breastfed has declined from 27 percent in 1997 to 20 percent in 2002, while the proportion who are receiving supplementary food in addition to breast milk has increased from 39 to 43 percent.

9.3 Duration and Frequency of Breastfeeding

Estimates of the median duration of breastfeeding are shown in Table 9.3. At the national level, the median duration of breastfeeding is 18 months. The early introduction of supplements is reflected in the short duration of exclusive breastfeeding (0.5 months). In addition, relatively few children receive only plain water in addition to breast milk so that the median duration of full breastfeeding (2.2 months) also is quite short.

Differentials in the median duration of breastfeeding by background characteristics are not large. The median duration for each population subgroup is within one or two months of the national median (18 months) in all groups except for children of uneducated women, who are breastfed for only 15 months on average. Differentials in exclusive breastfeeding are smaller, with only North Central and the Central Highlands standing out as having slightly longer durations than average.

Health specialists generally recommend that throughout the first six months of infancy mothers breastfeed frequently and allow the infant to feed whenever hungry, both day and night, rather than feeding on a fixed schedule. Frequent suckling stimulates milk production and tends to increase the birth spacing impact of breastfeeding.

Table 9.3 Median duration and frequency of breastfeeding by background variables

Median durations of any, exclusive, 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 interview, by background characteristics, Vietnam 2002

Background characteristic	Median duration of breastfeeding				Breastfeeding children under 6 months[1]	
	Any breastfeeding	Exclusive breastfeeding	Full breastfeeding[2]	Number of children	Breastfed 6+ times in past 24 hours	Number of children under 6 months
Sex						
Male	17.7	0.6	2.1	682	97.8	97
Female	18.4	0.5	2.6	638	93.9	98
Residence						
Urban	18.1	0.6	0.8	229	(84.3)	35
Rural	18.0	0.5	2.4	1,092	98.4	160
Project province						
No	17.7	0.5	1.9	888	94.3	121
Yes	18.5	0.7	2.8	433	98.4	74
Region						
Northern Uplands	19.1	0.5	0.6	254	(95.0)	25
Red River Delta	18.3	0.6	2.1	277	100.0	56
North Central	18.5	1.8	3.1	161	*	20
Central Coast	16.6	0.4	2.2	196	(100.0)	24
Central Highlands	20.3	2.5	3.6	65	*	7
Southeast	17.4	0.5	1.3	133	*	20
Mekong River Delta	16.2	0.4	2.9	235	(98.4)	44
Education						
No education	15.3	0.4	3.1	109	*	6
Some primary	16.9	0.5	3.2	188	(100.0)	23
Completed primary	17.9	0.5	1.8	475	95.4	86
Compl. lower secondary	19.1	0.6	2.3	326	(93.8)	47
Compl. higher secondary+	18.0	0.6	2.4	223	(100.0)	34
Assistance at delivery						
Medically trained	17.4	0.5	2.2	1,124	96.2	182
Traditional midwife	19.7	0.4	2.2	70	*	7
Other or none	20.6	0.4	2.4	127	*	6
Total	18.0	0.5	2.2	1,321	95.9	195
Mean for all children	19.0	1.7	3.8	na	na	na

Note: Median and mean durations are based on current status. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] Excludes children who do not have a valid answer on the number of times breastfed
[2] Either exclusively breastfed or received breast milk and plain water only (excludes other milk)

Table 9.3 also shows information on the frequency of breastfeeding for children under six months of age during the 24 hours preceding the survey interview. Overall, 96 percent of children under six months of age were breastfed six or more times in the 24 hours preceding the survey. There are only small differences in this indicator between population subgroups.

KNOWLEDGE OF AIDS 10

The VNDHS 2002 included a series of eight questions used to interview woman respondents in order to assess the level of general and specific knowledge concerning the modes of HIV/AIDS transmission and prevention of AIDS in the country.

10.1 KNOWLEDGE OF AIDS

Table 10.1 presents the percentage of women who have ever heard about AIDS and their sources of information on this issue. In Vietnam, the HIV/AIDS Prevention Office in the Ministry of Health, which is a member of the National Committee of HIV/AIDS and Social Evils Prevention headed by the Deputy Prime Minister, is responsible for propagating information on HIV/AIDS. The information imparted to people includes information on the modes of HIV/AIDS transmission as well as strategies to prevent its spread. Vietnamese people receive this information through different channels.

The results in Table 10.1 indicate that knowledge of AIDS is very widespread; 95 percent of women have heard of AIDS, an increase of 4 percentage points since 1997. Young women (age 15-19) are the least likely to have heard of AIDS; nevertheless, 91 percent of them said they knew about the disease. The level of knowledge of AIDS differs by marital status. Ninety-six percent of currently married women have heard of AIDS, compared with only 89 percent of formerly married (widowed, divorced and separated) women. Urban women are slightly more likely to have heard of AIDS than rural women (99 vs. 95 percent). The proportion who know of AIDS is the same in the project and nonproject provinces. Women in the Central Highlands are the least likely to have heard of AIDS (86 percent), while almost all women in Red River Delta know about AIDS. The largest differentials in knowledge of AIDS are by level of education. While only three-fourths of uneducated women report knowing of AIDS, virtually all women who have completed secondary education have heard of AIDS.

Table 10.1 shows that information on AIDS is propagated broadly through different sources. The most commonly mentioned source of information is television, reported by 85 percent of women, followed by radio, reported by 63 percent of women. About one-third of women mention friends and relatives as major sources of information about AIDS, while about one-quarter mention newspapers. Pamphlets (18 percent), community meetings (15 percent), and health workers (13 percent) are less frequently reported sources of information.

In comparison with 1997, only the proportion of women who have heard of AIDS on the radio declined, while the proportions citing all other sources increased. The proportions of respondents who indicated pamphlets and leaflets, health workers, and friends or relatives as sources of AIDS information increased remarkably. For example, pamphlets were mentioned by only 5 percent of respondents in 1997, but by 18 percent of respondents in 2002. These increases might be caused by the following reasons. First, in recent years, many pamphlets and leaflets have been printed and distributed free of charge in order to diffuse knowledge on AIDS. Second, health workers have been trained on AIDS and have been encouraged to discuss AIDS with people in the field. The decrease in the proportion of women hearing AIDS information on the radio (from 68 to 63 percent) and the increase in television coverage (from 76 to 85 percent) might be caused by respondents' preference for television over radio. This is understandable, because television is an audio-visual media, so that television programs are more interesting and attract more viewers. Also, living standards have increased in recent years, giving more people the chance to watch television.

Differences in the sources of information about AIDS by background characteristics largely follow the expected pattern. Urban women and women with more education are more likely than rural women and women with less education to receive information from television, newspapers and pamphlets. Television and newspapers as sources of AIDS information were most frequently mentioned by women in the Red River Delta and Southeast regions. Almost half of women in Southeast received information from pamphlets.

Table 10.1 Knowledge of AIDS

Percentage of ever-married women who have heard of AIDS and percentage reporting various sources of information, according to background characteristics, Vietnam 2002

Background characteristic	Has heard of AIDS	Source of information about AIDS											Number of women
		Radio	Tele-vision	News-papers	Pamph-lets	Health worker	Church/ temple	School	Community meet-ings	Friends/ relatives	Work-place	Other sources	
Age													
15-19	90.6	67.0	72.9	23.7	13.0	16.0	2.6	6.1	5.1	32.1	2.3	2.0	69
20-24	94.7	60.7	81.4	27.5	15.0	11.8	1.0	2.2	9.3	31.3	2.8	2.1	552
25-29	95.6	61.1	82.2	28.8	17.3	16.9	0.4	2.4	14.7	28.1	4.7	2.3	1,000
30-39	95.7	62.2	85.8	26.7	17.8	12.6	0.5	1.8	15.2	33.6	4.0	2.9	2,203
40-49	95.1	63.9	86.2	26.9	18.6	10.0	0.5	1.6	16.7	31.5	4.5	2.3	1,842
Marital status													
Currently married	95.7	62.9	85.1	27.2	17.6	12.8	0.6	1.9	15.1	32.1	4.3	2.5	5,338
Formerly married	89.4	55.8	77.7	25.9	18.1	6.6	0.3	1.2	11.7	25.5	2.2	2.2	327
Residence													
Urban	98.8	63.6	94.5	54.1	30.8	9.9	0.8	2.5	11.7	30.5	8.9	4.6	1,081
Rural	94.5	62.2	82.4	20.8	14.5	13.1	0.5	1.8	15.6	32.0	3.0	2.0	4,584
Project province													
No	95.4	61.0	84.3	27.7	19.8	12.8	0.6	1.7	15.3	32.5	4.4	3.0	3,814
Yes	95.3	65.5	85.5	26.1	13.2	11.8	0.4	2.3	14.1	30.1	3.7	1.4	1,851
Region													
Northern Uplands	93.9	71.0	72.9	20.5	6.6	15.5	0.2	0.5	19.7	28.8	2.2	0.4	1,099
Red River Delta	99.8	81.2	97.2	39.1	19.1	17.3	0.2	2.2	19.8	45.0	5.9	0.1	1,363
North Central	93.8	54.9	82.3	20.0	7.8	11.1	0.7	2.2	15.6	20.6	0.2	0.4	722
Central Coast	91.4	41.1	87.4	29.5	20.2	11.5	0.4	3.4	18.4	26.3	3.1	2.0	594
Central Highlands	85.8	43.2	79.3	25.1	14.1	14.5	3.2	4.1	9.4	27.9	5.7	2.4	183
Southeast	98.2	57.6	91.0	43.0	45.6	6.8	1.6	2.6	12.2	27.0	6.9	5.5	648
Mekong River Delta	94.3	52.9	78.1	13.0	16.0	7.7	0.2	1.0	3.7	31.8	5.2	7.7	1,056
Education													
No education	76.4	39.3	39.5	1.6	7.7	14.7	1.1	0.0	9.7	36.9	2.6	3.2	364
Some primary	90.0	47.0	71.0	6.8	14.1	8.9	0.7	0.1	7.7	33.4	2.6	4.5	966
Completed primary	96.7	58.9	86.5	18.6	16.9	11.2	0.4	0.7	14.3	28.6	1.9	2.6	1,599
Compl. lower level	98.5	70.4	93.1	28.8	16.3	13.8	0.4	0.7	17.4	33.2	3.3	1.6	1,783
Compl. higher secondary+	99.7	78.1	97.3	68.9	28.7	14.7	0.7	8.6	20.4	30.3	11.8	1.8	953
Total	95.3	62.5	84.7	27.2	17.6	12.5	0.5	1.9	14.9	31.7	4.2	2.5	5,665

10.2 AIDS Prevention

Two questions were asked to determine whether respondents know about ways of AIDS prevention. Respondents were first asked "Is there anything a person can do to avoid getting AIDS or the virus that causes AIDS?" Those who answered affirmatively were asked what a person could do. Table 10.2 shows data on knowledge of AIDS prevention.

Table 10.2 Knowledge of ways to avoid AIDS

Percentage of ever-married women who have heard of AIDS who know of specific ways to avoid AIDS and percentage who have misinformation, by background characteristics, Vietnam 2002

Background characteristic	No way to avoid AIDS	Abstain from sex	Use condoms	One sexual partner	Avoid sex with prostitutes	Avoid sex with homosexuals	Avoid transfusions	Avoid injections	Avoid kissing	Avoid mosquito bites	Other ways	Don't know any way[1]	Misinformation about AIDS	Number of women
Age														
15-19	0.9	8.6	41.8	49.4	29.2	5.6	4.2	55.3	0.0	0.0	4.1	18.0	4.1	62
20-24	3.9	3.6	49.7	61.2	27.4	2.4	12.9	52.0	0.2	0.1	7.3	13.1	7.6	522
25-29	1.6	5.7	52.4	68.2	28.3	2.1	14.1	51.7	0.1	0.3	6.6	8.5	7.0	956
30-39	1.6	4.5	51.7	70.8	33.6	3.1	13.3	54.3	0.2	0.8	8.5	7.9	9.3	2,109
40-49	2.4	4.5	47.5	68.2	34.4	2.8	13.6	55.0	0.1	0.5	9.2	10.0	9.8	1,751
Marital status														
Currently married	2.1	4.7	50.3	68.7	32.1	2.8	13.5	54.1	0.2	0.5	8.3	9.1	8.9	5,109
Formerly married	1.9	4.4	46.5	60.8	35.6	3.2	11.2	49.9	0.0	0.7	6.3	12.8	7.0	292
Residence														
Urban	1.8	3.3	52.4	74.2	42.7	4.9	17.8	59.1	0.1	0.7	8.9	7.0	9.6	1,068
Rural	2.1	5.0	49.6	66.9	29.7	2.3	12.3	52.6	0.2	0.5	8.0	9.9	8.6	4,333
Project province														
No	2.1	3.8	51.1	70.1	32.7	2.8	12.9	54.2	0.1	0.6	8.2	9.7	8.8	3,638
Yes	1.9	6.4	48.1	64.7	31.5	2.9	14.4	53.1	0.3	0.4	8.2	8.5	8.8	1,763
Region														
Northern Uplands	3.0	5.1	55.2	68.5	13.0	0.8	8.6	56.7	0.0	0.3	10.6	8.6	10.9	1,031
Red River Delta	0.4	7.4	63.9	88.9	28.8	1.9	12.8	81.3	0.2	0.3	9.2	1.1	9.7	1,359
North Central	1.5	6.7	34.0	59.6	23.7	0.9	8.4	33.5	0.2	0.8	8.0	10.1	8.4	677
Central Coast	1.4	0.6	64.7	74.6	31.6	3.5	9.0	43.6	0.0	1.5	3.7	5.7	5.1	543
Central Highlands	0.3	4.1	52.4	77.9	44.4	15.4	10.3	42.0	0.0	0.4	2.5	8.2	2.9	157
Southeast	3.4	3.3	47.6	67.1	54.3	7.5	19.4	50.6	0.5	0.8	8.0	12.7	9.2	637
Mekong River Delta	3.6	2.2	30.4	41.8	47.2	2.1	21.7	37.0	0.1	0.3	8.1	20.8	8.4	996
Education														
No education	11.3	7.9	25.2	40.9	21.1	4.0	8.9	25.7	0.4	0.0	2.5	39.8	2.9	278
Some primary	3.7	3.6	36.4	45.7	32.3	2.7	13.9	37.0	0.0	0.2	5.2	21.0	5.4	869
Completed primary	1.9	4.1	47.9	65.3	32.4	2.2	12.1	48.0	0.2	0.6	6.3	9.3	7.0	1,547
Compl. lower level	0.7	4.7	55.3	76.0	29.5	2.0	12.2	62.7	0.2	0.4	11.4	3.4	11.8	1,757
Compl. higher secondary+	0.6	5.4	64.1	87.8	40.3	5.0	18.5	70.6	0.1	1.1	9.9	0.6	11.1	950
Total	2.1	4.6	50.1	68.3	32.3	2.8	13.4	53.9	0.1	0.5	8.2	9.3	8.8	5,401

[1] Believes there is something a person can do to avoid AIDS, but cannot spontaneously mention any specific way

The data indicate that AIDS prevention knowledge is widespread. Only 2 percent of women believe that there is no way to prevent AIDS. More than two-thirds (68 percent) say that staying with only one sexual partner can help prevent the spread of the disease, while just over half (54 percent) mentioned avoiding injections and half mentioned using condoms as means of preventing AIDS. One-third of women say that AIDS can be prevented by avoiding prostitutes. Nine percent of women say they do not know any specific way to avoid AIDS but believe that AIDS can be avoided. Younger women and rural women are generally less likely than other women to know of the various ways to prevent transmission of HIV. Women in the Mekong River Delta and North Central regions are less likely than women in other regions to know about the programmatically important ways to prevent AIDS, especially condom use and remaining faithful to one partner. Table 10.2 also shows differentials in knowledge of AIDS prevention by education. For most of the major means of transmission, the higher the level of education, the larger the proportion of women mentioning the means.

Comparison of the VNDHS 2002 with the 1997 survey shows that knowledge about AIDS has increased considerably. Although the proportion of women who mention staying with one sexual partner as a method of AIDS prevention has actually declined slightly (from 70 to 68 percent of women), the proportion who mention condom use has increased dramatically from 32 to 50 percent, while the proportion who mention avoiding injections has doubled from 27 to 54 percent.

10.3 Perceptions of AIDS Risk

In order to collect information on respondents' perceptions about the risk of getting AIDS, three questions were included in the VNDHS 2002, namely: "Is it possible for a healthy-looking person to have the AIDS virus?" "Do you think that persons with AIDS almost never die from the disease, sometimes die or almost always die from the disease?" and "Do you think your chances of getting AIDS are small, moderate, great or no risk at all?" The results are presented in Table 10.3.

It is encouraging to note that more than three-fourths of women (78 percent) know that a healthy-looking person can be infected with the AIDS virus, an increase of nine percentage points since 1997 (69 percent). Urban women are more likely to know this fact than rural women (85 vs. 76 percent). The proportion of women who believe that a healthy-looking person can be infected with the AIDS virus is highest in Red River Delta (94 percent), and lowest in Mekong River Delta region (56 percent). However, in both regions, there has been considerable improvement in knowledge since 1997. The proportion of women who know that a healthy-looking person can be infected with the AIDS virus increases dramatically with level of education, from 36 percent of women with no education to 94 percent of those who completed higher secondary school.

Almost nine in ten women (88 percent) know that AIDS is almost always fatal. This represents an increase from the 76 percent who knew this in 1997. In 2002, only 2 percent of women said that AIDS rarely results in death and only 4 percent said that it sometimes is fatal.

With regard to perceptions of personal risk of getting AIDS, Table 10.3 shows that three-quarters of women (75 percent) believe that they have no risk at all of getting AIDS, while 23 percent think their chances are small. Only 2 percent of women think their chances of getting AIDS is moderate or great. Currently married women and urban women are somewhat more likely than other women to feel they have some chance of getting AIDS. Women in the Red River Delta region are the most likely to think they have a small chance of getting AIDS, whereas women in Central Coast region are least likely to believe they are at any risk.

Table 10.3 Knowledge of HIV/AIDS-related issues and perception of the risk of AIDS

Percent distribution of ever-married women who know of AIDS by knowledge of HIV/AIDS-related issues and perceptions of risk of AIDS, according to background characteristics, Vietnam 2002

Background characteristic	Can a healthy-looking person have the AIDS virus?			Is AIDS a fatal disease?				Respondent's perception of the risk of getting AIDS					Total	Number of women
	No	Yes	Don't know/ missing	Almost never	Some-times	Almost always	Don't know/ missing	No risk at all	Small risk	Moderate risk	Great risk	Don't know/ missing		
Age														
15-19	7.8	73.6	18.5	0.0	14.3	76.3	9.4	77.6	19.6	0.0	1.9	0.9	100.0	62
20-24	9.8	77.4	12.9	2.8	4.6	86.3	6.3	73.9	24.0	0.8	1.3	0.0	100.0	522
25-29	10.9	75.5	13.6	1.9	5.1	86.3	6.7	74.5	23.1	1.3	0.8	0.3	100.0	956
30-39	9.0	78.4	12.5	2.1	3.5	88.8	5.7	73.5	23.9	1.5	1.0	0.1	100.0	2,109
40-49	8.3	78.7	13.0	1.8	3.6	88.4	6.2	77.0	20.9	1.3	0.7	0.1	100.0	1,751
Marital status														
Currently married	9.2	77.9	12.9	2.1	4.0	87.8	6.1	74.4	23.2	1.3	0.9	0.1	100.0	5,109
Formerly married	8.5	76.4	15.1	0.9	3.8	89.0	6.3	82.7	14.8	1.9	0.7	0.0	100.0	292
Residence														
Urban	5.2	84.5	10.3	1.7	4.3	89.6	4.4	69.4	26.6	1.6	2.1	0.3	100.0	1,068
Rural	10.2	76.2	13.6	2.1	4.0	87.4	6.6	76.2	21.8	1.3	0.6	0.1	100.0	4,333
Project province														
No	9.3	77.1	13.5	1.7	3.3	88.4	6.6	74.9	22.6	1.3	1.1	0.1	100.0	3,638
Yes	8.8	79.3	11.8	2.7	5.4	86.6	5.3	74.9	23.1	1.4	0.5	0.1	100.0	1,763
Region														
Northern Uplands	10.2	80.0	9.8	2.4	5.0	87.7	4.9	68.4	29.6	1.7	0.3	0.0	100.0	1,031
Red River Delta	4.6	93.7	1.6	2.8	4.9	92.0	0.3	58.0	41.6	0.3	0.0	0.0	100.0	1,359
North Central	11.8	76.0	12.2	2.2	5.4	86.9	5.4	85.1	12.7	2.1	0.1	0.0	100.0	677
Central Coast	4.7	80.3	15.1	0.0	0.7	94.5	4.8	94.6	5.3	0.0	0.0	0.1	100.0	543
Central Highlands	5.0	80.9	14.2	2.4	2.3	83.5	11.8	83.3	16.3	0.3	0.0	0.0	100.0	157
Southeast	9.3	73.6	17.0	1.0	3.1	86.2	9.7	80.8	14.2	1.8	2.9	0.3	100.0	637
Mekong River Delta	15.5	56.1	28.4	1.9	3.5	81.0	13.5	81.7	12.8	2.4	2.7	0.4	100.0	996
Education														
No education	20.6	36.1	43.3	0.8	2.2	69.5	27.6	78.1	20.4	0.4	0.6	0.5	100.0	278
Some primary	14.2	58.2	27.6	1.9	3.1	78.4	16.6	78.4	18.2	1.9	1.0	0.4	100.0	869
Completed primary	10.4	75.5	14.2	1.5	4.0	89.9	4.6	79.5	18.0	1.1	1.5	0.0	100.0	1,547
Compl. lower level	6.6	87.3	6.1	1.8	5.1	90.9	2.2	73.0	25.3	1.1	0.6	0.1	100.0	1,757
Compl. higher secondary+	4.1	94.4	1.5	3.5	3.6	92.7	0.2	66.8	30.6	1.8	0.7	0.0	100.0	950
Total	9.2	77.8	13.0	2.0	4.0	87.8	6.1	74.9	22.7	1.3	0.9	0.1	100.0	5,401

10.4 KNOWLEDGE OF CONDOMS AND SOURCES FOR CONDOMS

Table 10.4 shows the percentage of women with knowledge of condoms and, among these, the percentage who know of a source for obtaining them. Almost all ever-married women know about condoms (98 percent). There are only small differences in this percentage by background characteristics.

Table 10.4 indicates that the main source for condoms is the public sector (61 percent). The proportion of women who do not know a source for condoms is quite high (18 percent). Lack of knowledge of a source for condoms among women in the Mekong River Delta, women without education, and younger women (age 15-19) is twice as high as among all ever-married women in Vietnam. More than three in ten women who have not completed primary school also do not know a source for condoms. In contrast, only 5 percent of women who have at least completed higher secondary school do not know a source.

Table 10.4 Knowledge of condoms and source for condoms

Among ever-married women who know about AIDS, percentage who know about condoms and among these, percent distribution by knowledge of a source for condoms, according to background characteristics, Vietnam 2002

Background characteristic	Knows about condoms	Knows of a source for condoms: Public	Private medical	Pharmacy	Other source	Don't know/ missing	Total	Number of women
Age								
15-19	92.5	44.2	0.0	19.2	0.0	36.6	100.0	62
20-24	95.9	58.7	0.6	21.5	0.0	19.2	100.0	522
25-29	97.5	64.7	0.5	19.1	0.4	15.3	100.0	956
30-39	98.1	61.5	0.5	22.3	0.5	15.1	100.0	2,109
40-49	97.7	61.0	0.5	17.8	0.3	20.4	100.0	1,751
Marital status								
Currently married	97.8	62.3	0.6	20.5	0.4	16.2	100.0	5,109
Formerly married	93.7	45.4	0.1	14.9	0.0	39.6	100.0	292
Residence								
Urban	98.1	43.6	1.6	35.7	0.7	18.3	100.0	1,068
Rural	97.5	65.8	0.3	16.3	0.3	17.3	100.0	4,333
Project province								
No	97.6	62.4	0.6	19.2	0.4	17.4	100.0	3,638
Yes	97.5	59.4	0.3	22.2	0.5	17.6	100.0	1,763
Region								
Northern Uplands	99.3	77.7	0.2	11.6	0.2	10.3	100.0	1,031
Red River Delta	99.9	57.4	0.1	38.1	0.2	4.1	100.0	1,359
North Central	98.0	68.4	0.0	12.1	0.4	19.2	100.0	677
Central Coast	97.4	64.4	0.8	16.9	0.3	17.6	100.0	543
Central Highlands	94.4	58.0	0.0	12.6	3.3	26.2	100.0	157
Southeast	97.3	49.4	2.4	23.0	0.8	24.4	100.0	637
Mekong River Delta	93.2	51.8	0.6	11.2	0.2	36.1	100.0	996
Education								
No education	90.3	58.2	0.2	5.8	0.4	35.4	100.0	278
Some primary	94.8	59.2	0.4	9.0	0.4	31.1	100.0	869
Complete primary	97.3	60.3	0.6	17.1	0.3	21.7	100.0	1,547
Completed lower secondary	99.2	67.0	0.4	21.3	0.3	11.0	100.0	1,757
Compl. higher secondary+	99.8	55.8	0.9	37.5	0.7	5.1	100.0	950
Total	97.6	61.4	0.5	20.2	0.4	17.5	100.0	5,401

AVAILABILITY OF HEALTH SERVICES 11

A separate questionnaire was included in the VNDHS 2002 to investigate the availability of health services to women and children. The Community/Health Facility Questionnaire (Appendix E), was applied at the level of the sample enumeration areas (EAs): that is, one questionnaire was filled out for each sample cluster in which the Individual Questionnaire was administered to female respondents.

The questionnaire consisted of four sections. The first two sections were completed in a sample cluster by obtaining information from "knowledgeable" community informants. Section 1 contained questions to determine the characteristics of the community and the types of health workers serving the community (community-based distribution (CBD) workers, family planning fieldworkers, mobile family planning clinics, etc.). Section 2 collected information on the location of the nearest health facilities (commune health center, pharmacy, private doctor, etc.) and the services offered at those facilities.

The third and fourth sections of the questionnaire were completed when visiting a) the nearest commune health center and b) the nearest health center or hospital, if those facilities were located within 30 kilometers of a sample cluster. For each facility visited, information was collected about the services offered, hours of operation and the staff, equipment, and medicines available at the facility.

This chapter focuses on the information collected in the first two sections of the Community/Health Facility Questionnaire. For analysis purposes, the information collected for each sample cluster was linked to the data from the Individual Questionnaires. This linkage allows the analysis to be presented in terms of the percentage of women and children having access to various types of health services.[1]

11.1 AVAILABILITY OF FAMILY PLANNING SERVICES

Community-based Services

Information on the kinds of family planning services provided at the community level is shown in Table 11.1. The table indicates that family planning services are available to nearly all currently married women in the community in which they live. In the project provinces, a high proportion of currently married women reside in communities visited by a community-based distribution (CBD) worker (93 percent), a family planning fieldworker (94 percent), and a mobile family planning clinic (60 percent). In the nonproject provinces, coverage of currently married women is somewhat higher—a CBD worker (97 percent), a family planning fieldworker (98 percent) and a mobile family planning clinic (77 percent).

CBD workers almost always provide pills and condoms to women in the communities they visit, so that those methods are available from CBD workers to more than 98 percent of currently married women. Similarly, almost all family planning fieldworkers provide pills and condoms so that they are an

[1] The analysis of this chapter is presented in terms of the population-based statistics. However, the number of independent data observations is the number of sample clusters in the various reporting domains: 50 in rural project areas, 90 in rural nonproject areas, 26 in urban project areas and 39 in urban nonproject areas. One Community/Health Facility Questionnaire was conducted per sample cluster so that the health services data are the same for all women and children in the sample cluster. As a result of the relatively small number of independent observations, estimates pertaining to access to health facilities have relatively large sampling variance.

additional source of supply to the majority of women in the communities visited by these workers (93 percent of currently married women). Mobile family planning clinics primarily provide pills and IUDs and sometimes perform female sterilizations and provide injectables. In the communities visited by mobile clinics, pills and IUDs are available to at least 83 percent of currently married women, while female sterilization is available to approximately 20 percent of women and injections to approximately 25 percent of women.

Table 11.1 Availability of family planning services in the community

Percentage of currently married women 15-49 living in communities with family planning providers, by type of provider and method provision, residence, and project province (PP) versus nonproject province (NPP), Vietnam 2002

Type of provider/ method provision	Urban		Rural		Total	
	NPP	PP	NPP	PP	NPP	PP
CBD worker						
Present in community	92.6	96.0	97.6	92.6	96.6	93.2
Provides pills	97.3	100.0	98.2	100.0	98.0	100.0
Provides condoms	100.0	96.0	99.0	100.0	99.2	99.3
CBD worker in community 5 years or less	22.2	14.6	6.2	18.7	9.2	18.0
Family planning fieldworker						
Present in community	95.2	94.1	99.2	94.3	98.4	94.2
Provides counseling	100.0	100.0	100.0	100.0	100.0	100.0
Provides pills	89.5	100.0	96.0	92.0	94.7	93.3
Provides condoms	89.5	95.9	97.6	92.0	96.0	92.6
Visits at least quarterly	85.2	87.8	87.2	82.2	86.8	83.1
Available 1 year or less	0.0	0.0	0.0	2.8	0.0	2.3
Available 1-5 years	21.3	16.6	11.3	16.1	13.3	16.1
Mobile family planning clinic						
Visits community	47.8	60.6	84.6	60.1	77.3	60.2
Provides pills	100.0	76.7	93.6	95.1	94.4	92.0
Provides IUDs	75.5	82.8	84.3	85.1	83.2	84.7
Provides female sterilization	17.7	23.5	24.7	15.8	23.9	17.1
Provides injections	31.6	27.7	27.7	18.0	28.1	19.6
Visits at least quarterly	57.3	54.5	47.7	43.4	48.9	45.3
Available 1 year or less	0.0	0.0	1.7	0.0	1.5	0.0
Available 1-5 years	7.8	6.0	23.9	31.9	21.9	27.6
Number of women	713	292	2,873	1,460	3,586	1,752
Number of clusters	39	26	90	50	129	76

Table 11.2 indicates that the vast majority of currently married women live in communities in which there was a family planning campaign in the year preceding the survey (more than 90 percent of women). The family planning campaigns covered a broad range of topics with the most prominent being use of family planning and the benefits of child spacing. Health campaigns covered 85 percent of currently married women in the year before the survey. Immunization is by far the major topic covered by health campaigns.

Table 11.2 Family planning and health campaigns in the past year

Percentage of currently married women 15-49 who reside in communities with a family planning and/or health campaign and the message of the campaign in the year preceding the survey, by residence and project province (PP) versus nonproject province (NPP), Vietnam 2002

	Urban		Rural		Total	
Type of campaign/message	NPP	PP	NPP	PP	NPP	PP
Family planning campaign	81.7	96.0	91.6	95.9	89.7	95.9
Child spacing	46.2	25.2	59.1	50.3	56.8	46.1
Benefits of birth control	93.6	50.9	65.7	52.7	70.7	52.4
Use of family planning	96.9	98.0	96.0	95.6	96.2	96.0
Breastfeeding	54.6	55.3	55.4	32.5	55.2	36.3
Specific method promotion	22.4	57.1	29.6	32.3	28.3	36.5
Where methods available	44.6	23.4	25.4	36.8	28.9	34.6
Health campaign	81.8	87.3	86.3	84.2	85.4	84.7
Benefits of breastfeeding	59.8	33.0	56.5	51.4	57.1	48.2
Immunization	84.3	72.4	89.8	83.4	88.8	81.5
Diarrheal disease control	71.0	67.1	43.6	46.4	48.8	49.9
AIDS	85.5	51.5	48.2	42.6	55.3	44.1
Drug abuse	54.3	42.2	35.3	39.7	38.9	40.1
Growth promotion/nutrition	38.3	55.0	34.8	40.7	35.5	43.2
Vitamin A	39.8	28.0	50.7	28.7	48.6	28.6
Iodine deficiency	52.1	34.7	60.3	38.1	58.7	37.5
Sanitation	66.3	58.7	57.1	45.8	58.9	48.0
Number of women	713	292	2,873	1,460	3,586	1,752
Number of clusters	39	26	90	50	129	76

Facility-based Services

In section two of the Community/Health Facility Questionnaire, information was collected on the distance and travel time to the nearest private doctor, pharmacy, commune health center, and hospital or intercommune health center from which a woman could obtain family planning supplies. Table 11.3 shows the percent distribution of currently married women by distance to the nearest of these facilities. Overall in the project provinces, 59 percent of currently married women reside within one kilometer of a family planning provider and another 32 percent are 1 to 4 kilometers from a provider. The situation is slightly better in the nonproject provinces, where 67 percent of women reside within one kilometer of a provider and another 27 percent are 1 to 4 kilometers from a provider.

As expected, urban women live closer to a facility providing family planning services than rural women. In urban areas, for both project and nonproject provinces, at least 84 percent of currently married women reside within one kilometer of a provider. In rural areas this statistic ranges from 53 percent in project provinces to 62 percent in nonproject provinces.

Table 11.3 Distance to nearest family planning services

Percent distribution of currently married women 15-49 by distance in kilometers to nearest family planning provider, according to residence and project province (PP) versus nonproject province (NPP), Vietnam 2002

Distance to nearest family planning provider	Urban		Rural		Total	
	NPP	PP	NPP	PP	NPP	PP
<1 km	84.3	87.9	62.4	52.9	66.8	58.8
1-4 km	15.7	12.1	30.2	35.4	27.3	31.5
5-9 km	0.0	0.0	7.4	10.2	5.9	8.5
15-29 km	0.0	0.0	0.0	1.5	0.0	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	713	292	2,873	1,460	3,586	1,752
Number of clusters	39	26	90	50	129	76

Availability of Specific Methods

The Community/Health Facility Questionnaire also obtained information on the distance to the nearest facility from which a woman could obtain specific modern contraceptive methods. As indicated in Table 11.4, not all methods are equally accessible. Condoms, the pill, and the IUD are more readily available to women than are injections and female sterilization. Overall, the median distance for currently married women to a facility providing the pill, the IUD, or condoms is less than two kilometers, while the median distance to a facility providing injections is 3 kilometers and the median distance to a facility providing female sterilization is seven kilometers or more. Not surprisingly, rural women have less access to contraceptive methods than their urban counterparts. The medians and distances are much higher for rural women wanting to use injections or female sterilization.

Table 11.4 Distance to nearest provider of specific contraceptive methods

Percent distribution of currently married women 15-49 by distance in kilometers to nearest provider of contraceptive methods and residence, according to specific method and project province (PP) versus nonproject province (NPP), Vietnam 2002

Distance to nearest provider of specific family planning method	Pill		IUD		Condom		Injection		Female sterilization	
	NPP	PP	NPP	PP	NPP	NP	NPP	NP	NPP	PP
Urban										
<1 km	62.9	74.8	53.4	61.0	62.9	80.6	39.4	46.8	14.6	8.4
1-4 km	37.1	25.2	46.6	39.0	37.1	19.4	54.8	40.3	57.0	79.0
5-14 km	0.0	0.0	0.0	0.0	0.0	0.0	5.8	6.8	26.3	12.6
15-29 km	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	2.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median distance	<1	<1	<1	<1	<1	<1	1.3	1.7	3.2	2.5
Rural										
<1 km	46.2	36.8	24.1	30.3	56.1	42.8	19.5	13.9	2.1	2.5
1-4 km	43.6	49.0	53.2	46.6	35.0	43.0	37.6	43.9	20.4	25.5
5-14 km	9.2	12.8	21.1	20.5	8.8	12.8	26.8	26.4	41.7	49.4
15-29 km	0.0	1.5	0.7	1.5	0.0	1.5	9.4	10.0	29.3	15.1
>= 30 km	1.0	0.0	1.0	1.3	0.0	0.0	6.7	5.8	6.5	7.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median distance	1.3	1.5	2.6	1.8	<1	1.3	4.2	3.7	8.5	9.5
Total										
<1 km	49.5	43.2	29.9	35.4	57.5	49.1	23.4	19.4	4.6	3.5
1-4 km	42.3	45.0	51.9	45.3	35.4	39.0	41.0	43.3	27.7	34.5
5-14 km	7.4	10.6	16.9	17.1	7.1	10.6	22.6	23.1	38.6	43.3
15-29 km	0.0	1.2	0.6	1.2	0.0	1.2	7.5	9.3	23.9	12.5
>= 30 km	0.8	0.0	0.8	1.0	0.0	0.0	5.4	4.9	5.2	6.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median distance	1.0	1.3	2.1	1.6	<1	1.0	3.3	3.3	7.6	7.1

11.2 AVAILABILITY OF OTHER HEALTH SERVICES

Community-based Services

Information on the kinds of health workers (traditional birth attendants, trained midwives and health fieldworkers) who provide services in the sample clusters is shown in Table 11.5. Overall, the data show that, according to community informants, the vast majority of women typically give birth in a modern health facility (around 90 percent). The proportion of women residing in communities served by a traditional birth attendant is lowest in urban areas (about 3 percent) than in rural areas (16 for nonproject areas and 23 percent for project areas). Similarly, the proportion of women in communities where there is a trained midwife tends to be lower in urban areas.

Overall, 77 percent of women live in communities served by a health fieldworker. Rural areas are better covered by health fieldworkers than urban areas. The most common health topics covered by the health fieldworkers are oral rehydration therapy (ORT), child growth promotion, and vitamin A. Almost all communities that are visited by health fieldworkers are visited at least quarterly (more than 83 percent).

Table 11.5 Availability of health services in the community

Percentage of currently married women 15-49 with community-based health care available, by residence and project province (PP) versus nonproject province (NPP), Vietnam 2002

	Urban		Rural		Total	
Health provider and services offered	NPP	PP	NPP	PP	NPP	PP
Birth typically occurs in modern facility	100.0	100.0	85.7	90.3	88.5	91.9
Traditional birth attendant in community	2.5	3.0	16.3	23.4	13.5	20.0
Trained midwife serves community	18.7	22.8	21.4	27.7	20.8	26.9
Gives iron supplements	100.0	100.0	89.2	92.3	91.1	93.4
Health fieldworker serves community	49.9	60.9	84.1	80.5	77.3	77.3
Health worker provides:						
Basic medicines	78.0	52.6	68.9	74.7	70.0	71.8
ORS instruction/packets	100.0	93.7	98.1	97.2	98.4	96.7
Vitamin A	82.1	89.6	78.3	79.3	78.8	80.6
Growth promotion	85.6	85.6	81.6	88.1	82.2	87.8
Iron tablets	69.8	79.3	64.2	62.8	64.9	65.0
Iodized oil capsules/injections	24.4	43.9	10.1	14.6	12.0	18.5
Antenatal care	26.7	73.4	38.9	35.6	37.3	40.6
Immunization	50.6	73.6	62.6	47.0	61.1	50.5
family planning services	79.6	83.4	71.3	59.0	72.4	62.2
Health fieldworker visits at least quarterly	83.5	100.0	90.7	96.5	89.8	97.0
Number of women	713	292	2,873	1,460	3,586	1,752
Number of clusters	39	26	90	50	129	76

Facility-based Services

The availability of maternal and child health (MCH) services from fixed facilities is investigated in terms of the distance women travel to reach such services. The analysis looks at both distance to facilities and distance to specific types of services.

Table 11.6 shows the percentage of currently married women age 15-49 by distance to the nearest facility providing MCH services. Overall, 40 percent of currently married women are within 1 kilometer of a facility providing MCH services, while an additional 46 percent are 1-4 kilometers from such a facility. Thus, more than eight out of ten women (86 percent) live within five kilometers of a facility offering MCH services. For most women, the commune health center is the closest facility providing MCH services, with hospitals and intercommune health centers being farther away and private doctors being mostly unavailable. Women in project provinces appear to be slightly closer to MCH services than women in nonproject provinces.

Table 11.6 Distance to nearest provider of maternal and child health services

Percent distribution of currently married women 15-49 by distance in kilometers to nearest maternal and child health provider, according to provider of maternal and child health services, Vietnam 2002

Distance to nearest provider of maternal and child health services	Provider of maternal and child health services			Total
	Hospital or Inter-commune health center	Commune health center	Private doctor	
Nonproject province				
< 1 km	4.4	28.8	10.1	36.3
1-4 km	32.7	53.4	12.2	48.7
5-9 km	30.1	15.3	3.5	12.4
10-14 km	9.6	2.6	0.0	2.6
15-29 km	19.5	0.0	0.0	0.0
30+ km	2.2	0.0	0.0	0.0
Distance unknown/no service given	1.6	0.0	74.3	0.0
Total	100.0	100.0	100.0	100.0
Median distance	7.1	2.1	1.7	1.6
Project province				
< 1 km	5.4	37.1	11.9	46.4
1-4 km	29.9	49.7	2.9	40.4
5-9 km	26.3	11.1	2.0	12.0
10-14 km	18.8	0.8	1.4	0.0
15-29 km	11.5	1.2	3.3	1.2
30+ km	3.9	0.0	0.0	0.0
Distance unknown/no service given	4.1	0.0	78.5	0.0
Total	100.0	100.0	100.0	100.0
Median distance	6.3	1.5	<1	1.2
Total				
< 1 km	4.7	31.5	10.7	39.7
1-4 km	31.8	52.2	9.1	46.0
5-9 km	28.8	13.9	3.0	12.2
10-14 km	12.6	2.0	0.5	1.7
15-29 km	16.9	0.4	1.1	0.4
30+ km	2.7	0.0	0.0	0.0
Distance unknown/no service given	2.4	0.0	75.7	0.0
Total	100.0	100.0	100.0	100.0

Table 11.7 shows the percentage of currently married women by distance to the nearest provider of antenatal and delivery care. Overall, approximately 80-85 percent of women live within five kilometers of a facility that offers antenatal care and delivery care. There is little difference in the proportion of women within five kilometers of these facilities by whether they live in project or nonproject provinces. The most significant difference in Table 11.7 is that a substantially greater proportion of urban women than rural women live within 1 kilometer of antenatal and delivery services. Almost all urban women live within 5 kilometers of such a facility, while around 20 percent of rural women live more than 5 kilometers from a facility providing antenatal or delivery care. The proportion of rural women in project provinces who live more than 5 kilometers from a facility providing antenatal care is slightly lower (16 percent).

Table 11.7 Distance to nearest facility providing antenatal and delivery care

Percent distribution of currently married women 15-49 by distance to nearest facility providing antenatal care and delivery care, according to type of care and project province (PP) versus nonproject province (NPP), Vietnam 2002

Distance to nearest facility providing services	Antenatal care		Delivery care	
	NPP	PP	NPP	PP
Urban				
< 1 km	57.1	84.8	32.5	57.3
1-4 km	37.6	15.2	57.2	39.7
5-9 km	5.3	0.0	10.3	3.0
Total	100.0	100.0	100.0	100.0
Median distance	<1	<1	2.3	<1
Rural				
< 1 km	29.9	34.1	26.1	33.7
1-4 km	51.5	50.0	51.1	46.1
5-9 km	15.4	14.3	18.9	14.3
10-14 km	3.2	0.0	3.2	4.4
15-29 km	0.0	1.5	0.7	1.5
Total	100.0	100.0	100.0	100.0
Median distance	2.0	1.6	2.2	1.7
Total				
< 1 km	35.3	42.6	27.4	37.7
1-4 km	48.7	44.2	52.3	45.0
5-9 km	13.4	12.0	17.2	12.5
10-14 km	2.6	0.0	2.6	3.7
15-29 km	0.0	1.2	0.6	1.2
Total	100.0	100.0	100.0	100.0
Median distance	1.7	1.3	2.2	1.5

Table 11.8 presents the distribution of children less than 36 months of age by distance to the nearest facility providing child health care. A large proportion of children live in communities that are within 5 kilometers of a facility offering immunization services for children (81-89 percent), ORS treatment for diarrhea (81-92 percent), and treatment for children with a cough (76-91 percent). At least 75 percent of children in both project and nonproject provinces live within 5 kilometers of a facility that provides these child health services; however, children in project provinces tend to be farther from such facilities than children in nonproject provinces.

Children in urban areas generally live closer to a facility offering immunization, ORS, and treatment of cough than rural children. The median distance to the nearest health facility providing these services is less than one kilometer in urban areas. In rural areas of project provinces the median distance to a facility providing child care is about 1.9 kilometers for immunization, 2.1 kilometers for ORS and 2.3 kilometers for treatment of cough.

The data on distance to health facilities and services available at those facilities indicate that physical proximity to maternal and child health services is not a major problem in Vietnam. Of course, there are other dimensions of access than physical proximity and some of those (e.g., staff, equipment, and medicines at the health facilities) could be investigated through a more extensive analysis of the data collected by the Community/Health Facility Questionnaire.

Table 11.8 Distance to nearest facility providing specific health services for children

Percent distribution of children under 36 months by distance to nearest facility providing specific health services for children, according to type of service and project province (PP) versus nonproject province (NPP), Vietnam 2002

Distance to nearest facility providing services	Immunization		Oral rehydration salts		Treatment for cough	
	NPP	PP	NPP	PP	NPP	PP
Urban						
< 1 km	61.9	75.4	63.3	67.9	58.1	45.6
1-4 km	38.1	24.6	36.7	32.1	36.2	54.4
5-9 km	0.0	0.0	0.0	0.0	5.7	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Median distance	<1	<1	<1	<1	<1	1.2
Rural						
< 1 km	32.8	30.7	40.6	26.9	34.5	26.4
1-4 km	54.1	46.5	49.6	51.0	55.3	45.0
5-9 km	13.1	18.2	9.7	17.4	10.2	24.0
15-29 km	0.0	4.6	0.0	4.6	0.0	4.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Median distance	1.8	1.9	2.0	2.1	2.0	2.3
Total						
< 1	38.3	37.2	45.0	32.9	39.0	29.2
1-4 km	51.0	43.4	47.2	48.3	51.7	46.4
5-9 km	10.6	15.5	7.9	14.9	9.3	20.5
15-29 km	0.0	3.9	0.0	3.9	0.0	3.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
Median distance	1.5	1.7	1.4	1.9	1.7	1.9

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SAMPLE IMPLEMENTATION

APPENDIX A

Table A.1 Sample implementation

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall response rates, according to region and urban-rural residence, Vietnam 2002

	Region							Residence		
Result	Northern Uplands	Red River Delta	North Central	Central Coast	Coastal Highlands	Southeast	Mekong River Delta	Urban	Rural	Total
Selected households										
Completed (C)	99.6	99.3	98.6	99.6	98.8	98.4	96.6	98.2	98.7	98.6
HH present but no competent respondent at home (HP)	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.2	0.0	0.1
Refused (R)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Dwelling not found (DNF)	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Household absent (HA)	0.2	0.2	0.4	0.1	1.2	0.1	0.6	0.3	0.4	0.3
Dwelling vacant/ address not a dwelling (DV)	0.2	0.1	0.7	0.1	0.0	0.3	1.1	0.7	0.4	0.4
Dwelling destroy (DD)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.0
Other (O)	0.0	0.1	0.0	0.1	0.0	1.0	1.5	0.6	0.4	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	1,248	1,469	1,014	728	260	858	1,573	1,690	5,460	7,150
Household response rate (HRR)	100.0	99.7	99.7	100.0	100.0	99.9	100.0	99.8	99.9	99.9
Eligible women										
Completed (EWC)	99.6	99.8	99.2	99.8	100.0	98.0	98.9	98.8	99.4	99.3
Not at home (EWNH)	0.4	0.1	0.5	0.0	0.0	1.2	0.9	0.6	0.5	0.5
Refused (EWR)	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.4	0.0	0.1
Partly completed (EWPC)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incapacitated (EWI)	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.0	0.1
Other (EWO)	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.1	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,085	1,121	773	581	218	691	1,237	1,316	4,390	5,706
Eligible woman response rate (EWRR)	99.6	99.8	99.2	99.8	100.0	98.0	98.9	98.8	99.4	99.3
Overall response rate (ORR)	99.6	99.5	98.9	99.8	100.0	97.9	98.9	98.5	99.4	99.2

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

$$\frac{100 \times EWC}{C + HP + R + DNF}$$

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

$$\frac{100 \times EWC}{EWC + EWNH + EWR + EWPC + EWI + EWO}$$

SAMPLING ERRORS

APPENDIX B

The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors, and (2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the VNDHS 2002 to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the VNDHS 2002 is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the *standard error* for 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 the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the VNDHS 2002 sample is the result of a multistage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the VNDHS 2002 is the ISSA Sampling Error Module (ISSAS). This module used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method 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

$$z_{hi} = y_{hi} - rx_{hi}, \text{ and } z_h = y_h - rx_h$$

where h represents the stratum which varies from 1 to H,
m_h is the total number of enumeration areas selected in the h^{th} stratum,
y_{hi} is the sum of the values of variable y in i^{th} cluster in the h^{th} stratum,
x_{hi} is the sum of the number of cases in i^{th} cluster in the hth stratum, and
f is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers all but one clusters in the calculation of the estimates. Pseudo-independent replications are thus created. In the VNDHS 2002, there were 205 non-empty clusters (PSUs). Hence, 205 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) = \text{var}(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = kr - (k-1)\, r_{(i)}$$

where r is the estimate computed from the full sample of 205 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 204 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, ISSAS 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. ISSAS also computes the relative error and confidence limits for the estimates.

Sampling errors for the VNDHS 2002 are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, for urban and rural areas, for the two program types and for each of 7 regions in the country. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 to B.13 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1).

In general, the relative standard error for most estimates for the country as a whole is small, except for estimates of very small proportions. There are some differentials in the relative standard error for the estimates of sub-populations. For example, for the variable *contraceptive use for currently married women age 15-49*, the relative standard errors as a percent of the estimated mean for the whole country, for urban areas, and for rural areas are 0.9 percent, 1.4 percent, and 1.1 percent, respectively.

The confidence interval (e.g., as calculated for *contraceptive use for currently married women age 15-49*) can be interpreted as follows: the overall national sample proportion is 0.785 and its standard error is 0.007. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e. 0.785±2(0.007). There is a high probability (95 percent) that the *true* average proportion of contraceptive use for currently married women age 15 to 49 is between 0.771 and 0.800.

Table B.1 List of selected variables for sampling errors, Vietnam 2002

Variable	Estimate	Base population
No education	Proportion	Ever-married women 15-49
With secondary education or higher	Proportion	Ever-married women 15-49
Currently married (in union)	Proportion	Ever-married women 15-4
Children ever born	Mean	All women 15-49
Children ever born to women 40-49	Mean	All women 15-49
Chlidren ever born to women 35-39	Mean	All women 15-49
Children ever born to women 40-44	Mean	All women 15-49
Children ever born to women 45-49	Mean	All women 15-49
Children surviving	Mean	All women 15-49
Knowing any contraceptive method	Proportion	Currently married women 15-49
Knowing any modern contraceptive method	Proportion	Currently married women 15-49
Ever used any contraceptive method	Proportion	Currently married women 15-49
Currently using any method	Proportion	Currently married women 15-49
Currently using any modern contraceptive method	Proportion	Currently married women 15-49
Currently using pill	Proportion	Currently married women 15-49
Currently using IUD	Proportion	Currently married women 15-49
Currently using condom	Proportion	Currently married women 15-49
Currently female sterilization	Proportion	Currently married women 15-49
Currently using periodic abstinence	Proportion	Currently married women 15-49
Currently using withdrawal	Proportion	Currently married women 15-49
Using public sector source	Proportion	Currently married women 15-49
Want no more children	Proportion	Currently married women 15-49
Want to delay at least 2 years	Proportion	Currently married women 15-49
Ideal number of children	Mean	Ever-married women 15-49
Mother received tetanus injection	Proportion	Births in last 3 years
Mother received medical care at birth	Proportion	Births in last 3 years
Child has diarrhea in the last 2 weeks	Proportion	Children under 3 with diarrhea in last 2 weeks
Child treated with ORS packets	Proportion	Children under 3 with diarrhea in last 2 weeks
Consulted medical personnel	Proportion	Children 12-23 months
Child having health card, seen	Proportion	Children 12-23 months
Child received BCG vaccination	Proportion	Children 12-23 months
Child received DPT vaccination (3 doses)	Proportion	Children 12-23 months
Child received polio vaccination (3 doses)	Proportion	Children 12-23 months
Child received measles vaccination	Proportion	Children 12-23 months
Child fully inmunized	Proportion	Children 12-23 months
Total fertility rate (last 5 years)	Rate	All women
Neonatal mortality rate	Rate	Number of births in last 5 (10 years)
Infant mortality rate	Rate	Number of births in last 5 (10 years)
Child mortality rate	Rate	Number of births in last 5 (10 years)
Under-five mortality rate	Rate	Number of births in last 5 (10 years)
Postneonatal mortality rate	Rate	Number of births in last 5 (10 years)

Table B.2 Sampling errors for selected variables, total sample, Vietnam 2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
No education	0.064	0.012	5665	5665	3.724	0.189	0.040	0.089
With secondary education or higher	0.483	0.014	5665	5665	2.129	0.029	0.455	0.511
Currently married (in union)	0.942	0.004	5665	5665	1.348	0.004	0.934	0.951
Children ever born	1.728	0.128	8264	8330	1.436	0.074	1.472	1.984
Children ever born to women 40-49	3.362	0.059	2003	1965	1.502	0.018	3.244	3.481
Chlidren ever born to women 35-39	2.595	0.049	1191	1162	1.355	0.019	2.496	2.693
Children ever born to women 40-44	3.084	0.054	1138	1128	1.200	0.017	2.977	3.191
Children ever born to women 45-49	3.736	0.101	865	838	1.488	0.027	3.534	3.939
Children surviving	1.631	0.120	8264	8330	1.427	0.073	1.391	1.870
Knowing any contraceptive method	0.996	0.001	5341	5338	1.234	0.001	0.994	0.998
Knowing any modern contraceptive method	0.995	0.001	5341	5338	1.182	0.001	0.993	0.998
Ever used any contraceptive method	0.905	0.006	5341	5338	1.547	0.007	0.893	0.918
Currently using any method	0.785	0.007	5341	5338	1.290	0.009	0.771	0.800
Currently using any modern contraceptive method	0.567	0.012	5341	5338	1.765	0.021	0.543	0.591
Currently using pill	0.063	0.006	5341	5338	1.678	0.088	0.052	0.074
Currently using IUD	0.377	0.012	5341	5338	1.812	0.032	0.353	0.401
Currently using condom	0.058	0.004	5341	5338	1.173	0.065	0.051	0.066
Currently female sterilization	0.059	0.004	5341	5338	1.371	0.075	0.050	0.068
Currently using periodic abstinence	0.075	0.005	5341	5338	1.474	0.071	0.064	0.085
Currently using withdrawal	0.143	0.007	5341	5338	1.486	0.050	0.129	0.157
Using public sector source	0.857	0.009	3041	3026	1.340	0.010	0.840	0.874
Want no more children	0.690	0.009	5341	5338	1.471	0.013	0.671	0.709
Want to delay at least 2 years	0.149	0.006	5341	5338	1.188	0.039	0.138	0.161
Ideal number of children	2.377	0.023	5652	5650	2.051	0.010	2.330	2.424
Mother received tetanus injection	0.847	0.016	1317	1321	1.552	0.019	0.815	0.880
Mother received medical care at birth	0.851	0.018	1317	1321	1.640	0.021	0.816	0.886
Child has diarrhea in the last 2 weeks	0.113	0.013	1302	1304	1.495	0.116	0.087	0.140
Child treated with ORS packets	0.404	0.042	138	148	1.025	0.104	0.320	0.488
Consulted medical personnel	0.596	0.055	138	148	1.354	0.093	0.486	0.707
Child having health card, seen	0.399	0.032	467	457	1.401	0.081	0.335	0.463
Child received BCG vaccination	0.934	0.017	467	457	1.444	0.018	0.900	0.968
Child received DPT vaccination (3 doses)	0.724	0.024	467	457	1.143	0.033	0.675	0.772
Child received polio vaccination (3 doses)	0.758	0.020	467	457	1.004	0.027	0.717	0.798
Child received measles vaccination	0.832	0.021	467	457	1.215	0.026	0.789	0.875
Child fully immunized	0.667	0.026	467	457	1.191	0.040	0.614	0.720
Total fertility rate (last 5 years)	1.866	0.056	na	37350	1.334	0.030	1.753	1.978
Neonatal mortality rate (last 5 years)	12.187	4.464	5384	5432	1.663	0.366	3.259	21.115
Infant mortality rate (last 5 years)	18.170	4.603	5385	5432	1.518	0.253	8.965	27.375
Child mortality rate (last 5 years)	5.563	1.532	5406	5453	1.127	0.275	2.499	8.626
Under-five mortality rate (last 5 years)	23.632	4.792	5407	5454	1.457	0.203	14.047	33.217
Postneonatal mortality rate (last 5 years)	5.983	1.538	5385	5432	1.113	0.257	2.907	9.059

na = Not applicable

Table B.3 Sampling errors for selected variables, Urban area, Vietnam 2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
Urban residence	1.000	0.000	1300	1081	na	0.000	1.000	1.000
No education	0.016	0.004	1300	1081	1.227	0.265	0.008	0.025
With secondary education or higher	0.675	0.038	1300	1081	2.911	0.056	0.599	0.750
Currently married (in union)	0.930	0.008	1300	1081	1.080	0.008	0.914	0.945
Children ever born	1.246	0.075	2149	1716	0.774	0.060	1.097	1.396
Children ever born to women 40-49	2.431	0.078	566	449	1.454	0.032	2.275	2.587
Chlidren ever born to women 35-39	1.875	0.060	301	246	1.224	0.032	1.756	1.994
Children ever born to women 40-44	2.228	0.079	308	250	1.250	0.036	2.069	2.386
Children ever born to women 45-49	2.687	0.102	258	199	1.152	0.038	2.484	2.891
Children surviving	1.208	0.072	2149	1716	0.766	0.059	1.064	1.351
Knowing any contraceptive method	0.999	0.001	1208	1005	0.901	0.001	0.997	1.000
Knowing any modern contraceptive method	0.999	0.001	1208	1005	0.901	0.001	0.997	1.000
Ever used any contraceptive method	0.916	0.010	1208	1005	1.203	0.010	0.897	0.935
Currently using any method	0.791	0.011	1208	1005	0.969	0.014	0.768	0.814
Currently using any modern contraceptive method	0.549	0.015	1208	1005	1.014	0.026	0.520	0.578
Currently using pill	0.069	0.009	1208	1005	1.261	0.134	0.050	0.087
Currently using IUD	0.303	0.017	1208	1005	1.251	0.055	0.270	0.336
Currently using condom	0.126	0.011	1208	1005	1.119	0.085	0.105	0.148
Currently female sterilization	0.048	0.006	1208	1005	1.043	0.134	0.035	0.060
Currently using periodic abstinence	0.118	0.017	1208	1005	1.805	0.142	0.084	0.151
Currently using withdrawal	0.123	0.011	1208	1005	1.169	0.090	0.101	0.145
Using public sector source	0.682	0.018	655	552	0.983	0.026	0.646	0.718
Want no more children	0.656	0.022	1208	1005	1.575	0.033	0.613	0.699
Want to delay at least 2 years	0.169	0.015	1208	1005	1.393	0.089	0.139	0.199
Ideal number of children	2.202	0.039	1296	1076	1.924	0.018	2.123	2.281
Mother received tetanus injection	0.926	0.018	267	229	1.077	0.019	0.891	0.961
Mother received medical care at birth	0.990	0.006	267	229	1.006	0.006	0.978	1.000
Child has diarrhea in the last 2 weeks	0.035	0.011	266	228	0.980	0.311	0.013	0.056
Child treated with ORS packets	0.451	0.150	12	8	0.929	0.332	0.151	0.750
Consulted medical personnel	0.448	0.150	12	8	0.929	0.334	0.149	0.748
Child having health card, seen	0.589	0.054	99	85	1.105	0.092	0.481	0.697
Child received BCG vaccination	0.991	0.001	99	85	0.145	0.001	0.988	0.994
Child received DPT vaccination (3 doses)	0.897	0.034	99	85	1.117	0.038	0.829	0.964
Child received polio vaccination (3 doses)	0.948	0.017	99	85	0.758	0.018	0.915	0.982
Child received measles vaccination	0.943	0.021	99	85	0.909	0.022	0.901	0.984
Child fully immunized	0.871	0.040	99	85	1.196	0.046	0.791	0.950
Total fertility rate (last 5 years)	1.401	0.059	na	25714	1.089	0.042	1.283	1.519
Neonatal mortality rate (last 10 years)	8.992	3.378	935	773	0.998	0.376	2.236	15.747
Infant mortality rate (last 10 years)	12.116	3.984	935	773	1.042	0.329	4.149	20.084
Child mortality rate (last 10 years)	4.092	2.121	938	775	1.128	0.518	0.000	8.334
Under-five mortality rate (last 10 years)	16.159	4.355	938	775	1.046	0.270	7.448	24.869
Postneonatal mortality rate (last 10 years)	3.125	1.775	935	773	0.969	0.568	0.000	6.674

na = Not applicable

Table B.4 Sampling errors for selected variables, Rural area, Vietnam 2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
Urban residence	0.000	0.000	4365	4584	na	na	0.000	0.000
No education	0.076	0.015	4365	4584	3.726	0.197	0.046	0.105
With secondary education or higher	0.438	0.015	4365	4584	1.954	0.034	0.408	0.467
Currently married (in union)	0.945	0.005	4365	4584	1.406	0.005	0.936	0.955
Children ever born	1.857	0.146	6284	6599	1.422	0.079	1.564	2.150
Children ever born to women 40-49	3.643	0.073	1440	1514	1.523	0.020	3.497	3.789
Chlidren ever born to women 35-39	2.788	0.060	891	916	1.399	0.022	2.669	2.908
Children ever born to women 40-44	3.345	0.063	829	873	1.178	0.019	3.219	3.471
Children ever born to women 45-49	4.049	0.126	611	641	1.510	0.031	3.796	4.301
Children surviving	1.745	0.137	6284	6599	1.414	0.078	1.472	2.018
Knowing any contraceptive method	0.996	0.001	4133	4333	1.227	0.001	0.993	0.998
Knowing any modern contraceptive method	0.995	0.001	4133	4333	1.170	0.001	0.992	0.997
Ever used any contraceptive method	0.903	0.007	4133	4333	1.585	0.008	0.888	0.918
Currently using any method	0.784	0.009	4133	4333	1.332	0.011	0.767	0.801
Currently using any modern contraceptive method	0.571	0.014	4133	4333	1.861	0.025	0.542	0.600
Currently using pill	0.062	0.007	4133	4333	1.743	0.106	0.049	0.075
Currently using IUD	0.395	0.014	4133	4333	1.858	0.036	0.366	0.423
Currently using condom	0.042	0.004	4133	4333	1.191	0.088	0.035	0.050
Currently female sterilization	0.062	0.005	4133	4333	1.397	0.084	0.052	0.073
Currently using periodic abstinence	0.065	0.005	4133	4333	1.329	0.079	0.054	0.075
Currently using withdrawal	0.148	0.008	4133	4333	1.526	0.057	0.131	0.165
Using public sector source	0.896	0.009	2386	2474	1.501	0.010	0.877	0.915
Want no more children	0.698	0.010	4133	4333	1.430	0.015	0.677	0.718
Want to delay at least 2 years	0.145	0.006	4133	4333	1.122	0.042	0.133	0.157
Ideal number of children	2.418	0.027	4356	4574	2.024	0.011	2.364	2.472
Mother received tetanus injection	0.831	0.019	1050	1092	1.529	0.023	0.793	0.869
Mother received medical care at birth	0.822	0.020	1050	1092	1.571	0.025	0.781	0.862
Child has diarrhea in the last 2 weeks	0.130	0.015	1036	1076	1.449	0.118	0.099	0.160
Child treated with ORS packets	0.401	0.043	126	140	1.010	0.108	0.314	0.488
Consulted medical personnel	0.605	0.058	126	140	1.349	0.096	0.489	0.720
Child having health card, seen	0.356	0.037	368	372	1.432	0.103	0.283	0.429
Child received BCG vaccination	0.921	0.021	368	372	1.422	0.023	0.879	0.962
Child received DPT vaccination (3 doses)	0.684	0.026	368	372	1.060	0.038	0.632	0.737
Child received polio vaccination (3 doses)	0.714	0.023	368	372	0.945	0.032	0.669	0.760
Child received measles vaccination	0.807	0.025	368	372	1.201	0.031	0.756	0.858
Child fully inmunized	0.621	0.028	368	372	1.098	0.046	0.564	0.678
Total fertility rate (last 5 years)	1.995	0.069	na	29477	1.366	0.035	1.856	2.133
Neonatal mortality rate (last 10 years)	18.867	3.826	4449	4658	1.652	0.203	11.214	26.519
Infant mortality rate (last 10 years)	26.934	3.968	4450	4659	1.497	0.147	18.998	34.870
Child mortality rate (last 10 years)	8.879	1.622	4468	4678	1.098	0.183	5.634	12.123
Under-five mortality rate (last 10 years)	35.574	4.309	4469	4679	1.424	0.121	26.955	44.193
Postneonatal mortality rate (last 10 years)	8.067	1.461	4450	4659	1.105	0.181	5.145	10.990

na = Not applicable

Table B.5 Sampling errors for selected variables, no special project, Vietnam 2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
Urban residence	0.203	0.015	3591	3814	2.239	0.074	0.173	0.233
No education	0.062	0.014	3591	3814	3.481	0.225	0.034	0.091
With secondary education or higher	0.461	0.017	3591	3814	2.025	0.037	0.427	0.495
Currently married (in union)	0.940	0.005	3591	3814	1.380	0.006	0.929	0.951
Children ever born	1.715	0.150	5424	5641	1.103	0.087	1.415	2.015
Children ever born to women 40-49	3.344	0.075	1276	1308	1.506	0.022	3.193	3.494
Chlidren ever born to women 35-39	2.613	0.061	763	791	1.314	0.023	2.492	2.735
Children ever born to women 40-44	3.056	0.069	719	750	1.204	0.023	2.918	3.194
Children ever born to women 45-49	3.729	0.125	557	558	1.476	0.034	3.479	3.980
Children surviving	1.612	0.140	5424	5641	1.095	0.087	1.332	1.891
Knowing any contraceptive method	0.997	0.001	3378	3586	0.973	0.001	0.996	0.999
Knowing any modern contraceptive method	0.997	0.001	3378	3586	0.926	0.001	0.995	0.998
Ever used any contraceptive method	0.907	0.008	3378	3586	1.558	0.009	0.891	0.922
Currently using any method	0.790	0.008	3378	3586	1.108	0.010	0.775	0.806
Currently using any modern contraceptive method	0.569	0.016	3378	3586	1.823	0.027	0.538	0.600
Currently using pill	0.070	0.007	3378	3586	1.707	0.107	0.055	0.085
Currently using IUD	0.375	0.015	3378	3586	1.768	0.039	0.345	0.404
Currently using condom	0.063	0.005	3378	3586	1.198	0.080	0.053	0.073
Currently female sterilization	0.055	0.005	3378	3586	1.215	0.087	0.046	0.065
Currently using periodic abstinence	0.071	0.006	3378	3586	1.341	0.083	0.059	0.083
Currently using withdrawal	0.149	0.010	3378	3586	1.566	0.064	0.130	0.169
Using public sector source	0.845	0.012	1943	2041	1.428	0.014	0.821	0.868
Want no more children	0.684	0.012	3378	3586	1.487	0.017	0.660	0.707
Want to delay at least 2 years	0.152	0.007	3378	3586	1.180	0.048	0.137	0.166
Ideal number of children	2.390	0.024	3585	3808	1.732	0.010	2.342	2.439
Mother received tetanus injection	0.861	0.016	822	888	1.260	0.019	0.829	0.893
Mother received medical care at birth	0.867	0.019	822	888	1.528	0.022	0.828	0.906
Child has diarrhea in the last 2 weeks	0.117	0.018	812	875	1.598	0.154	0.081	0.153
Child treated with ORS packets	0.398	0.048	89	103	0.943	0.120	0.302	0.493
Consulted medical personnel	0.587	0.069	89	103	1.357	0.117	0.450	0.724
Child having health card, seen	0.373	0.036	294	303	1.252	0.096	0.302	0.445
Child received BCG vaccination	0.945	0.021	294	303	1.536	0.022	0.903	0.986
Child received DPT vaccination (3 doses)	0.729	0.032	294	303	1.216	0.044	0.665	0.793
Child received polio vaccination (3 doses)	0.759	0.027	294	303	1.057	0.035	0.705	0.812
Child received measles vaccination	0.843	0.028	294	303	1.321	0.034	0.786	0.900
Child fully inmunized	0.681	0.033	294	303	1.193	0.048	0.615	0.747
Total fertility rate (last 5 years)	1.830	0.066	na	25714	1.207	0.036	1.698	1.962
Neonatal mortality rate (last 10 years)	18.669	4.711	3425	3705	1.758	0.252	9.248	28.091
Infant mortality rate (last 10 years)	26.212	4.863	3425	3705	1.617	0.186	16.486	35.938
Child mortality rate (last 10 years)	8.095	1.908	3440	3721	1.221	0.236	4.278	11.912
Under-five mortality rate (last 10 years)	34.094	5.281	3440	3721	1.553	0.155	23.533	44.655
Postneonatal mortality rate (last 10 years)	7.542	1.623	3425	3705	1.123	0.215	4.296	10.788

na = Not applicable

Table B.6 Sampling errors for selected variables, special project, Vietnam 2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
Urban residence	0.165	0.019	2074	1851	2.354	0.116	0.127	0.203
No education	0.068	0.023	2074	1851	4.212	0.342	0.022	0.115
With secondary education or higher	0.528	0.026	2074	1851	2.369	0.049	0.476	0.580
Currently married (in union)	0.947	0.006	2074	1851	1.197	0.006	0.935	0.959
Children ever born	1.756	0.150	3064	2687	1.058	0.085	1.456	2.055
Children ever born to women 40-49	3.404	0.095	724	657	1.478	0.028	3.214	3.595
Chlidren ever born to women 35-39	2.553	0.079	428	371	1.368	0.031	2.394	2.711
Children ever born to women 40-44	3.157	0.085	416	376	1.188	0.027	2.987	3.327
Children ever born to women 45-49	3.736	0.170	308	281	1.495	0.046	3.395	4.076
Children surviving	1.673	0.143	3064	2687	1.061	0.085	1.387	1.959
Knowing any contraceptive method	0.993	0.003	1963	1752	1.462	0.003	0.988	0.999
Knowing any modern contraceptive method	0.993	0.003	1963	1752	1.462	0.003	0.988	0.999
Ever used any contraceptive method	0.903	0.010	1963	1752	1.506	0.011	0.883	0.923
Currently using any method	0.775	0.015	1963	1752	1.632	0.020	0.745	0.806
Currently using any modern contraceptive method	0.562	0.018	1963	1752	1.587	0.032	0.527	0.598
Currently using pill	0.050	0.008	1963	1752	1.534	0.152	0.035	0.065
Currently using IUD	0.383	0.021	1963	1752	1.897	0.054	0.341	0.424
Currently using condom	0.048	0.005	1963	1752	1.001	0.100	0.039	0.058
Currently female sterilization	0.068	0.009	1963	1752	1.641	0.137	0.049	0.087
Currently using periodic abstinence	0.082	0.011	1963	1752	1.708	0.129	0.061	0.103
Currently using withdrawal	0.130	0.009	1963	1752	1.220	0.071	0.112	0.149
Using public sector source	0.882	0.010	1098	985	0.983	0.011	0.863	0.901
Want no more children	0.703	0.015	1963	1752	1.418	0.021	0.673	0.732
Want to delay at least 2 years	0.144	0.009	1963	1752	1.196	0.066	0.125	0.163
Ideal number of children	2.349	0.052	2067	1842	2.579	0.022	2.245	2.452
Mother received tetanus injection	0.819	0.037	495	433	2.000	0.046	0.745	0.894
Mother received medical care at birth	0.817	0.036	495	433	1.865	0.044	0.746	0.889
Child has diarrhea in the last 2 weeks	0.105	0.016	490	429	1.122	0.149	0.074	0.136
Child treated with ORS packets	0.418	0.085	49	45	1.208	0.203	0.249	0.588
Consulted medical personnel	0.618	0.091	49	45	1.302	0.147	0.436	0.800
Child having health card, seen	0.450	0.061	173	154	1.609	0.137	0.327	0.572
Child received BCG vaccination	0.912	0.031	173	154	1.373	0.034	0.850	0.974
Child received DPT vaccination (3 doses)	0.713	0.034	173	154	0.974	0.048	0.646	0.781
Child received polio vaccination (3 doses)	0.755	0.029	173	154	0.872	0.038	0.697	0.813
Child received measles vaccination	0.811	0.030	173	154	0.998	0.037	0.750	0.871
Child fully inmunized	0.639	0.045	173	154	1.215	0.070	0.549	0.729
Total fertility rate (last 5 years)	1.934	0.117	na	12357	1.431	0.060	1.701	2.168
Neonatal mortality rate (last 10 years)	14.845	2.996	1959	1727	1.076	0.202	8.852	20.837
Infant mortality rate (last 10 years)	21.846	3.481	1960	1727	1.023	0.159	14.883	28.808
Child mortality rate (last 10 years)	8.480	2.090	1966	1733	0.957	0.246	4.301	12.660
Under-five mortality rate (last 10 years)	30.141	4.130	1967	1733	1.052	0.137	21.881	38.401
Postneonatal mortality rate (last 10 years)	7.001	2.055	1960	1727	1.098	0.294	2.891	11.111

na = Not applicable

Table B.7 Sampling errors for selected variables, Northern Uplands, Vietnam 2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
Urban residence	0.098	0.018	1081	1099	1.941	0.180	0.063	0.133
No education	0.125	0.049	1081	1099	4.893	0.393	0.027	0.224
With secondary education or higher	0.409	0.024	1081	1099	1.614	0.059	0.360	0.457
Currently married (in union)	0.954	0.010	1081	1099	1.626	0.011	0.934	0.975
Children ever born	2.036	0.282	1518	1525	1.195	0.139	1.471	2.600
Children ever born to women 40-49	3.886	0.169	356	354	1.654	0.044	3.548	4.225
Chlidren ever born to women 35-39	3.018	0.129	229	212	1.480	0.043	2.760	3.277
Children ever born to women 40-44	3.541	0.142	209	212	1.346	0.040	3.257	3.825
Children ever born to women 45-49	4.399	0.312	148	143	1.628	0.071	3.774	5.024
Children surviving	1.893	0.259	1518	1525	1.181	0.137	1.375	2.411
Knowing any contraceptive method	1.000	0.000	1032	1049	na	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	1032	1049	na	0.000	1.000	1.000
Ever used any contraceptive method	0.910	0.022	1032	1049	2.482	0.024	0.866	0.954
Currently using any method	0.784	0.017	1032	1049	1.324	0.022	0.750	0.818
Currently using any modern contraceptive method	0.566	0.043	1032	1049	2.797	0.076	0.479	0.652
Currently using pill	0.047	0.015	1032	1049	2.277	0.319	0.017	0.077
Currently using IUD	0.444	0.039	1032	1049	2.537	0.088	0.366	0.523
Currently using condom	0.037	0.006	1032	1049	1.069	0.169	0.025	0.050
Currently female sterilization	0.032	0.009	1032	1049	1.624	0.279	0.014	0.050
Currently using periodic abstinence	0.053	0.013	1032	1049	1.825	0.240	0.028	0.078
Currently using withdrawal	0.164	0.029	1032	1049	2.536	0.178	0.106	0.223
Using public sector source	0.936	0.013	589	593	1.273	0.014	0.910	0.961
Want no more children	0.769	0.026	1032	1049	2.009	0.034	0.716	0.822
Want to delay at least 2 years	0.121	0.013	1032	1049	1.292	0.108	0.095	0.148
Ideal number of children	2.342	0.070	1081	1099	2.931	0.030	2.202	2.482
Mother received tetanus injection	0.729	0.065	248	254	2.042	0.089	0.600	0.858
Mother received medical care at birth	0.559	0.045	248	254	1.311	0.080	0.469	0.649
Child has diarrhea in the last 2 weeks	0.162	0.041	244	247	1.769	0.255	0.079	0.244
Child treated with ORS packets	0.334	0.109	31	40	1.441	0.325	0.117	0.551
Consulted medical personnel	0.510	0.146	31	40	1.824	0.286	0.219	0.801
Child having health card, seen	0.141	0.069	94	95	1.913	0.489	0.003	0.279
Child received BCG vaccination	0.905	0.032	94	95	0.994	0.035	0.841	0.969
Child received DPT vaccination (3 doses)	0.498	0.053	94	95	1.021	0.107	0.392	0.604
Child received polio vaccination (3 doses)	0.562	0.054	94	95	1.051	0.097	0.453	0.670
Child received measles vaccination	0.795	0.060	94	95	1.411	0.076	0.674	0.916
Child fully inmunized	0.451	0.056	94	95	1.086	0.125	0.338	0.563
Total fertility rate (last 5 years)	2.007	0.191	na	6719	1.358	0.095	1.625	2.388
Neonatal mortality rate (last 10 years)	31.612	13.040	1053	1139	2.010	0.412	5.532	57.691
Infant mortality rate (last 10 years)	40.860	12.154	1053	1139	1.744	0.297	16.551	65.169
Child mortality rate (last 10 years)	11.380	4.934	1059	1149	1.485	0.434	1.512	21.249
Under-five mortality rate (last 10 years)	51.775	11.208	1059	1149	1.477	0.216	29.360	74.191
Postneonatal mortality rate (last 10 years)	9.248	3.954	1053	1139	1.401	0.428	1.340	17.157

na = Not applicable

Table B.8 Sampling errors for selected variables, Red River Delta, Vietnam 2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
Urban residence	0.210	0.036	1119	1363	2.997	0.174	0.137	0.282
No education	0.001	0.001	1119	1363	0.904	0.998	0.000	0.002
With secondary education or higher	0.817	0.023	1119	1363	2.027	0.029	0.771	0.864
Currently married (in union)	0.959	0.005	1119	1363	0.835	0.005	0.949	0.969
Children ever born	1.547	0.142	1528	1891	1.253	0.092	1.262	1.831
Children ever born to women 40-49	2.608	0.081	421	502	1.493	0.031	2.446	2.770
Chlidren ever born to women 35-39	2.243	0.073	244	289	1.404	0.033	2.097	2.390
Children ever born to women 40-44	2.450	0.078	239	290	1.263	0.032	2.293	2.607
Children ever born to women 45-49	2.824	0.108	182	212	1.156	0.038	2.609	3.039
Children surviving	1.487	0.137	1528	1891	1.254	0.092	1.214	1.760
Knowing any contraceptive method	1.000	0.000	1070	1307	na	0.000	1.000	1.000
Knowing any modern contraceptive method	0.999	0.001	1070	1307	0.952	0.001	0.997	1.000
Ever used any contraceptive method	0.939	0.008	1070	1307	1.133	0.009	0.922	0.955
Currently using any method	0.828	0.014	1070	1307	1.253	0.017	0.799	0.857
Currently using any modern contraceptive method	0.594	0.024	1070	1307	1.627	0.041	0.545	0.643
Currently using pill	0.045	0.011	1070	1307	1.709	0.241	0.023	0.067
Currently using IUD	0.422	0.027	1070	1307	1.801	0.064	0.368	0.477
Currently using condom	0.070	0.009	1070	1307	1.197	0.133	0.052	0.089
Currently female sterilization	0.050	0.008	1070	1307	1.239	0.166	0.033	0.066
Currently using periodic abstinence	0.108	0.014	1070	1307	1.503	0.132	0.080	0.137
Currently using withdrawal	0.126	0.009	1070	1307	0.933	0.075	0.107	0.145
Using public sector source	0.889	0.013	635	776	1.003	0.014	0.864	0.914
Want no more children	0.738	0.021	1070	1307	1.586	0.029	0.696	0.781
Want to delay at least 2 years	0.134	0.014	1070	1307	1.313	0.102	0.106	0.161
Ideal number of children	2.096	0.022	1118	1361	1.434	0.010	2.053	2.140
Mother received tetanus injection	0.971	0.009	221	277	0.786	0.009	0.953	0.990
Mother received medical care at birth	1.000	0.000	221	277	na	0.000	1.000	1.000
Child has diarrhea in the last 2 weeks	0.078	0.020	220	275	1.112	0.252	0.038	0.117
Child treated with ORS packets	0.464	0.121	18	21	1.016	0.261	0.222	0.706
Consulted medical personnel	0.616	0.113	18	21	0.973	0.184	0.390	0.842
Child having health card, seen	0.653	0.053	71	88	0.948	0.081	0.546	0.759
Child received BCG vaccination	1.000	0.000	71	88	na	0.000	1.000	1.000
Child received DPT vaccination (3 doses)	0.904	0.044	71	88	1.267	0.048	0.817	0.992
Child received polio vaccination (3 doses)	0.960	0.021	71	88	0.912	0.022	0.917	1.000
Child received measles vaccination	0.980	0.016	71	88	0.984	0.017	0.947	1.000
Child fully inmunized	0.884	0.052	71	88	1.380	0.059	0.780	0.988
Total fertility rate (last 5 years)	1.645	0.095	na	9006	1.371	0.058	1.454	1.836
Neonatal mortality rate (last 10 years)	15.853	5.612	855	1044	1.325	0.354	4.629	27.078
Infant mortality rate (last 10 years)	20.537	6.262	855	1044	1.304	0.305	8.014	33.061
Child mortality rate (last 10 years)	5.926	2.287	856	1045	0.946	0.386	1.352	10.499
Under-five mortality rate (last 10 years)	26.341	6.863	856	1045	1.252	0.261	12.615	40.067
Postneonatal mortality rate (last 10 years)	4.684	2.245	855	1044	0.973	0.479	0.195	9.173

na = Not applicable

Table B.9 Sampling errors for selected variables, North Central, Vietnam 2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
Urban residence	0.091	0.011	767	722	1.100	0.125	0.069	0.114
No education	0.024	0.011	767	722	1.980	0.460	0.002	0.045
With secondary education or higher	0.555	0.043	767	722	2.371	0.077	0.470	0.641
Currently married (in union)	0.938	0.021	767	722	2.378	0.022	0.896	0.979
Children ever born	1.933	0.327	1156	1074	1.195	0.169	1.280	2.587
Children ever born to women 40-49	3.816	0.156	276	248	1.601	0.041	3.503	4.128
Chlidren ever born to women 35-39	2.898	0.139	158	150	1.453	0.048	2.619	3.176
Children ever born to women 40-44	3.551	0.169	154	143	1.519	0.048	3.213	3.888
Children ever born to women 45-49	4.173	0.200	122	106	1.197	0.048	3.772	4.574
Children surviving	1.836	0.312	1156	1074	1.200	0.170	1.213	2.459
Knowing any contraceptive method	0.995	0.002	729	677	0.900	0.002	0.990	1.000
Knowing any modern contraceptive method	0.994	0.003	729	677	0.894	0.003	0.989	0.999
Ever used any contraceptive method	0.925	0.015	729	677	1.525	0.016	0.895	0.954
Currently using any method	0.798	0.016	729	677	1.085	0.020	0.766	0.830
Currently using any modern contraceptive method	0.573	0.022	729	677	1.209	0.039	0.529	0.617
Currently using pill	0.031	0.010	729	677	1.506	0.311	0.012	0.051
Currently using IUD	0.424	0.022	729	677	1.188	0.051	0.381	0.468
Currently using condom	0.039	0.004	729	677	0.616	0.113	0.031	0.048
Currently female sterilization	0.062	0.014	729	677	1.588	0.229	0.034	0.090
Currently using periodic abstinence	0.084	0.010	729	677	0.940	0.115	0.065	0.104
Currently using withdrawal	0.139	0.010	729	677	0.798	0.074	0.118	0.159
Using public sector source	0.969	0.009	439	388	1.094	0.009	0.951	0.987
Want no more children	0.732	0.023	729	677	1.424	0.032	0.686	0.779
Want to delay at least 2 years	0.126	0.014	729	677	1.103	0.108	0.099	0.153
Ideal number of children	2.407	0.034	766	721	1.172	0.014	2.338	2.476
Mother received tetanus injection	0.893	0.028	171	161	1.185	0.031	0.837	0.949
Mother received medical care at birth	0.817	0.057	171	161	1.820	0.070	0.702	0.932
Child has diarrhea in the last 2 weeks	0.089	0.035	168	159	1.616	0.390	0.019	0.158
Child treated with ORS packets	0.467	0.094	13	14	0.730	0.202	0.278	0.655
Consulted medical personnel	0.565	0.109	13	14	0.847	0.192	0.348	0.783
Child having health card, seen	0.288	0.093	74	63	1.684	0.325	0.101	0.474
Child received BCG vaccination	0.934	0.021	74	63	0.684	0.022	0.892	0.975
Child received DPT vaccination (3 doses)	0.591	0.056	74	63	0.928	0.095	0.480	0.703
Child received polio vaccination (3 doses)	0.637	0.048	74	63	0.807	0.075	0.541	0.732
Child received measles vaccination	0.819	0.035	74	63	0.740	0.043	0.749	0.889
Child fully inmunized	0.559	0.050	74	63	0.815	0.089	0.460	0.658
Total fertility rate (last 5 years)	1.922	0.096	na	4886	0.979	0.050	1.731	2.114
Neonatal mortality rate (last 10 years)	17.818	5.160	872	820	1.043	0.290	7.498	28.139
Infant mortality rate (last 10 years)	30.889	8.302	872	820	1.303	0.269	14.285	47.494
Child mortality rate (last 10 years)	5.547	2.757	875	822	1.110	0.497	0.033	11.061
Under-five mortality rate (last 10 years)	36.265	9.613	875	822	1.430	0.265	17.039	55.490
Postneonatal mortality rate (last 10 years)	13.071	4.660	872	820	1.249	0.357	3.751	22.391

na = Not applicable

Table B.10 Sampling errors for selected variables, Central Coast, Vietnam 2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
Urban residence	0.221	0.019	580	594	1.088	0.085	0.183	0.258
No education	0.054	0.020	580	594	2.116	0.366	0.015	0.094
With secondary education or higher	0.429	0.040	580	594	1.943	0.093	0.349	0.509
Currently married (in union)	0.921	0.012	580	594	1.066	0.013	0.897	0.945
Children ever born	1.865	0.231	813	855	1.293	0.124	1.404	2.326
Children ever born to women 40-49	3.572	0.217	181	174	1.481	0.061	3.138	4.005
Chlidren ever born to women 35-39	3.007	0.157	118	116	1.104	0.052	2.694	3.321
Children ever born to women 40-44	3.181	0.187	102	94	1.107	0.059	2.808	3.555
Children ever born to women 45-49	4.031	0.397	79	80	1.650	0.098	3.237	4.825
Children surviving	1.753	0.212	813	855	1.274	0.121	1.328	2.177
Knowing any contraceptive method	0.993	0.004	537	547	1.225	0.004	0.985	1.000
Knowing any modern contraceptive method	0.991	0.005	537	547	1.185	0.005	0.982	1.000
Ever used any contraceptive method	0.891	0.016	537	547	1.220	0.018	0.858	0.924
Currently using any method	0.772	0.024	537	547	1.327	0.031	0.724	0.820
Currently using any modern contraceptive method	0.587	0.027	537	547	1.280	0.046	0.533	0.642
Currently using pill	0.035	0.011	537	547	1.440	0.326	0.012	0.058
Currently using IUD	0.362	0.033	537	547	1.582	0.091	0.297	0.428
Currently using condom	0.108	0.017	537	547	1.302	0.162	0.073	0.143
Currently female sterilization	0.070	0.013	537	547	1.154	0.182	0.044	0.095
Currently using periodic abstinence	0.035	0.006	537	547	0.738	0.168	0.023	0.046
Currently using withdrawal	0.150	0.017	537	547	1.097	0.113	0.116	0.184
Using public sector source	0.823	0.036	315	321	1.690	0.044	0.750	0.895
Want no more children	0.652	0.035	537	547	1.689	0.053	0.582	0.721
Want to delay at least 2 years	0.192	0.023	537	547	1.340	0.119	0.146	0.237
Ideal number of children	2.513	0.061	579	594	1.614	0.024	2.392	2.635
Mother received tetanus injection	0.872	0.018	186	196	0.749	0.021	0.836	0.908
Mother received medical care at birth	0.896	0.045	186	196	1.956	0.050	0.807	0.985
Child has diarrhea in the last 2 weeks	0.186	0.040	184	195	1.402	0.218	0.105	0.267
Child treated with ORS packets	0.430	0.059	34	36	0.694	0.137	0.312	0.549
Consulted medical personnel	0.678	0.087	34	36	1.099	0.129	0.503	0.852
Child having health card, seen	0.347	0.071	63	64	1.183	0.206	0.205	0.490
Child received BCG vaccination	0.959	0.031	63	64	1.237	0.033	0.896	1.000
Child received DPT vaccination (3 doses)	0.788	0.048	63	64	0.918	0.060	0.692	0.883
Child received polio vaccination (3 doses)	0.810	0.046	63	64	0.927	0.057	0.718	0.902
Child received measles vaccination	0.895	0.064	63	64	1.656	0.072	0.766	1.024
Child fully inmunized	0.760	0.069	63	64	1.265	0.090	0.622	0.897
Total fertility rate (last 5 years)	2.365	0.107	na	4024	0.726	0.045	2.151	2.579
Neonatal mortality rate (last 10 years)	6.054	2.652	699	735	0.856	0.438	0.751	11.357
Infant mortality rate (last 10 years)	13.122	4.608	699	735	1.044	0.351	3.906	22.339
Child mortality rate (last 10 years)	2.824	2.049	700	735	1.014	0.726	0.000	6.922
Under-five mortality rate (last 10 years)	15.909	5.791	700	735	1.174	0.364	4.326	27.492
Postneonatal mortality rate (last 10 years)	7.069	3.367	699	735	1.089	0.476	0.334	13.804

na = Not applicable

Table B.11 Sampling errors for selected variables, Central Highlands, Vietnam 2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
Urban residence	0.223	0.025	218	183	0.873	0.111	0.174	0.273
No education	0.246	0.173	218	183	5.933	0.706	0.000	0.592
With secondary education or higher	0.367	0.120	218	183	3.665	0.326	0.128	0.607
Currently married (in union)	0.939	0.025	218	183	1.512	0.026	0.890	0.988
Children ever born	2.018	0.642	316	274	1.647	0.318	0.734	3.302
Children ever born to women 40-49	4.639	0.364	67	58	1.153	0.078	3.911	5.367
Chlidren ever born to women 35-39	2.407	0.323	47	36	1.442	0.134	1.760	3.054
Children ever born to women 40-44	3.980	0.359	39	32	1.154	0.090	3.263	4.697
Children ever born to women 45-49	5.435	0.894	28	26	1.560	0.164	3.647	7.224
Children surviving	1.908	0.602	316	274	1.637	0.316	0.704	3.111
Knowing any contraceptive method	0.975	0.022	206	172	2.031	0.023	0.931	1.000
Knowing any modern contraceptive method	0.975	0.022	206	172	2.031	0.023	0.931	1.000
Ever used any contraceptive method	0.806	0.033	206	172	1.196	0.041	0.740	0.872
Currently using any method	0.663	0.055	206	172	1.664	0.083	0.553	0.773
Currently using any modern contraceptive method	0.416	0.022	206	172	0.646	0.053	0.372	0.461
Currently using pill	0.020	0.009	206	172	0.949	0.460	0.002	0.039
Currently using IUD	0.212	0.029	206	172	1.013	0.137	0.154	0.269
Currently using condom	0.055	0.012	206	172	0.744	0.216	0.031	0.079
Currently female sterilization	0.123	0.032	206	172	1.399	0.260	0.059	0.188
Currently using periodic abstinence	0.081	0.035	206	172	1.842	0.432	0.011	0.152
Currently using withdrawal	0.166	0.058	206	172	2.227	0.349	0.050	0.281
Using public sector source	0.851	0.048	87	72	1.251	0.057	0.754	0.947
Want no more children	0.548	0.019	206	172	0.541	0.034	0.511	0.586
Want to delay at least 2 years	0.202	0.040	206	172	1.440	0.200	0.121	0.283
Ideal number of children	2.890	0.365	215	179	3.793	0.126	2.160	3.620
Mother received tetanus injection	0.769	0.031	68	65	0.610	0.040	0.707	0.830
Mother received medical care at birth	0.839	0.071	68	65	1.510	0.085	0.696	0.981
Child has diarrhea in the last 2 weeks	0.153	0.028	67	64	0.687	0.184	0.097	0.209
Child treated with ORS packets	0.147	0.115	9	10	1.105	0.785	0.000	0.377
Consulted medical personnel	0.545	0.284	9	10	1.939	0.521	0.000	1.114
Child having health card, seen	0.216	0.137	23	21	1.670	0.633	0.000	0.489
Child received BCG vaccination	0.800	0.185	23	21	2.324	0.231	0.430	1.169
Child received DPT vaccination (3 doses)	0.905	0.069	23	21	1.180	0.076	0.767	1.043
Child received polio vaccination (3 doses)	0.933	0.062	23	21	1.242	0.066	0.810	1.056
Child received measles vaccination	0.850	0.123	23	21	1.732	0.145	0.603	1.096
Child fully inmunized	0.755	0.187	23	21	2.188	0.248	0.380	1.129
Total fertility rate (last 5 years)	2.904	0.589	na	1285	2.227	0.203	1.727	4.081
Neonatal mortality rate (last 10 years)	15.348	3.629	284	260	0.532	0.236	8.091	22.605
Infant mortality rate (last 10 years)	22.687	4.538	284	260	0.548	0.200	13.610	31.763
Child mortality rate (last 10 years)	18.625	8.416	285	262	0.857	0.452	1.793	35.456
Under-five mortality rate (last 10 years)	40.889	8.201	285	262	0.642	0.201	24.487	57.290
Postneonatal mortality rate (last 10 years)	7.338	5.207	284	260	1.066	0.710	0.000	17.753

na = Not applicable

Table B.12 Sampling errors for selected variables, Southeast, Vietnam 2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
Urban residence	0.417	0.023	677	648	1.202	0.055	0.371	0.462
No education	0.038	0.017	677	648	2.248	0.433	0.005	0.072
With secondary education or higher	0.413	0.050	677	648	2.617	0.120	0.314	0.512
Currently married (in union)	0.922	0.008	677	648	0.750	0.008	0.906	0.937
Children ever born	1.415	0.148	1077	1070	1.254	0.104	1.119	1.710
Children ever born to women 40-49	2.815	0.142	301	280	1.471	0.050	2.531	3.099
Chlidren ever born to women 35-39	2.298	0.134	147	144	1.402	0.058	2.029	2.567
Children ever born to women 40-44	2.686	0.160	158	152	1.256	0.060	2.365	3.007
Children ever born to women 45-49	2.968	0.180	143	128	1.228	0.061	2.609	3.328
Children surviving	1.344	0.143	1077	1070	1.286	0.107	1.057	1.630
Knowing any contraceptive method	1.000	0.000	623	598	na	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	623	598	na	0.000	1.000	1.000
Ever used any contraceptive method	0.883	0.016	623	598	1.260	0.018	0.851	0.916
Currently using any method	0.757	0.018	623	598	1.052	0.024	0.721	0.793
Currently using any modern contraceptive method	0.529	0.026	623	598	1.288	0.049	0.477	0.580
Currently using pill	0.101	0.016	623	598	1.340	0.161	0.068	0.133
Currently using IUD	0.257	0.020	623	598	1.146	0.078	0.217	0.297
Currently using condom	0.076	0.012	623	598	1.111	0.155	0.052	0.099
Currently female sterilization	0.092	0.014	623	598	1.221	0.154	0.064	0.120
Currently using periodic abstinence	0.101	0.017	623	598	1.384	0.166	0.068	0.134
Currently using withdrawal	0.127	0.013	623	598	0.954	0.100	0.102	0.153
Using public sector source	0.705	0.030	335	316	1.197	0.042	0.645	0.764
Want no more children	0.605	0.019	623	598	0.974	0.032	0.567	0.644
Want to delay at least 2 years	0.166	0.012	623	598	0.795	0.071	0.142	0.190
Ideal number of children	2.441	0.054	675	646	1.530	0.022	2.333	2.549
Mother received tetanus injection	0.857	0.032	141	133	1.096	0.038	0.792	0.922
Mother received medical care at birth	0.993	0.008	141	133	1.036	0.008	0.977	1.000
Child has diarrhea in the last 2 weeks	0.052	0.024	141	133	1.166	0.467	0.003	0.100
Child treated with ORS packets	0.385	0.148	8	7	0.761	0.384	0.090	0.681
Consulted medical personnel	0.611	0.149	8	7	0.763	0.243	0.313	0.908
Child having health card, seen	0.589	0.065	53	52	0.973	0.110	0.459	0.719
Child received BCG vaccination	0.911	0.091	53	52	2.353	0.100	0.730	1.000
Child received DPT vaccination (3 doses)	0.834	0.058	53	52	1.158	0.070	0.717	0.951
Child received polio vaccination (3 doses)	0.790	0.031	53	52	0.563	0.039	0.728	0.853
Child received measles vaccination	0.829	0.060	53	52	1.173	0.072	0.709	0.949
Child fully inmunized	0.760	0.045	53	52	0.773	0.059	0.670	0.850
Total fertility rate (last 5 years)	1.508	0.089	na	5218	1.266	0.059	1.330	1.685
Neonatal mortality rate (last 10 years)	9.238	3.624	559	550	0.914	0.392	1.990	16.485
Infant mortality rate (last 10 years)	11.345	4.801	559	550	1.101	0.423	1.744	20.947
Child mortality rate (last 10 years)	11.629	4.915	562	552	1.161	0.423	1.800	21.458
Under-five mortality rate (last 10 years)	22.842	8.322	562	552	1.320	0.364	6.198	39.487
Postneonatal mortality rate (last 10 years)	2.108	2.131	559	550	1.116	1.011	0.000	6.370

na = Not applicable

Table B.13 Sampling errors for selected variables, Mekong River Delta, Vietnam 2002

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
Urban residence	0.170	0.024	1223	1056	2.265	0.143	0.122	0.219
No education	0.101	0.011	1223	1056	1.279	0.109	0.079	0.123
With secondary education or higher	0.172	0.023	1223	1056	2.150	0.135	0.126	0.219
Currently married (in union)	0.936	0.008	1223	1056	1.076	0.008	0.921	0.951
Children ever born	1.604	0.133	1990	1638	0.899	0.083	1.338	1.870
Children ever born to women 40-49	3.727	0.129	404	348	1.403	0.034	3.470	3.984
Children ever born to women 35-39	2.441	0.092	250	216	1.101	0.038	2.257	2.625
Children ever born to women 40-44	3.341	0.103	237	203	0.945	0.031	3.134	3.547
Children ever born to women 45-49	4.270	0.203	167	145	1.386	0.048	3.864	4.677
Children surviving	1.500	0.126	1990	1638	0.911	0.084	1.249	1.752
Knowing any contraceptive method	0.991	0.002	1144	989	0.833	0.002	0.986	0.995
Knowing any modern contraceptive method	0.990	0.002	1144	989	0.777	0.002	0.985	0.995
Ever used any contraceptive method	0.882	0.011	1144	989	1.129	0.012	0.861	0.904
Currently using any method	0.767	0.017	1144	989	1.366	0.022	0.732	0.801
Currently using any modern contraceptive method	0.566	0.018	1144	989	1.242	0.032	0.529	0.602
Currently using pill	0.127	0.015	1144	989	1.521	0.118	0.097	0.157
Currently using IUD	0.325	0.018	1144	989	1.303	0.056	0.289	0.361
Currently using condom	0.039	0.005	1144	989	0.937	0.137	0.029	0.050
Currently female sterilization	0.063	0.010	1144	989	1.451	0.165	0.042	0.084
Currently using periodic abstinence	0.052	0.008	1144	989	1.214	0.154	0.036	0.067
Currently using withdrawal	0.149	0.009	1144	989	0.896	0.063	0.130	0.168
Using public sector source	0.757	0.024	641	559	1.426	0.032	0.709	0.806
Want no more children	0.610	0.013	1144	989	0.867	0.020	0.585	0.635
Want to delay at least 2 years	0.174	0.012	1144	989	1.044	0.067	0.150	0.197
Ideal number of children	2.552	0.034	1218	1050	1.155	0.013	2.485	2.619
Mother received tetanus injection	0.794	0.032	282	235	1.284	0.040	0.730	0.858
Mother received medical care at birth	0.900	0.028	282	235	1.497	0.031	0.844	0.955
Child has diarrhea in the last 2 weeks	0.084	0.018	278	232	1.046	0.216	0.048	0.120
Child treated with ORS packets	0.522	0.130	25	20	1.198	0.249	0.262	0.782
Consulted medical personnel	0.643	0.083	25	20	0.784	0.129	0.477	0.810
Child having health card, seen	0.487	0.055	89	74	1.007	0.113	0.377	0.597
Child received BCG vaccination	0.925	0.029	89	74	1.034	0.032	0.866	0.984
Child received DPT vaccination (3 doses)	0.724	0.046	89	74	0.952	0.064	0.632	0.817
Child received polio vaccination (3 doses)	0.753	0.042	89	74	0.886	0.055	0.669	0.836
Child received measles vaccination	0.658	0.051	89	74	0.985	0.077	0.556	0.760
Child fully inmunized	0.608	0.051	89	74	0.948	0.083	0.507	0.709
Total fertility rate (last 5 years)	1.693	0.087	na	7508	1.043	0.051	1.519	1.866
Neonatal mortality rate (last 10 years)	16.025	4.858	1062	884	1.251	0.303	6.309	25.741
Infant mortality rate (last 10 years)	22.296	5.232	1063	885	1.155	0.235	11.832	32.761
Child mortality rate (last 10 years)	8.833	2.457	1069	889	0.912	0.278	3.919	13.747
Under-five mortality rate (last 10 years)	30.932	5.654	1070	890	1.060	0.183	19.625	42.240
Postneonatal mortality rate (last 10 years)	6.272	2.260	1063	885	0.926	0.360	1.751	10.792

na = Not applicable

DATA QUALITY TABLES

APPENDIX C

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Vietnam 2002

	Male		Female			Male		Female	
Age	Number	Percentage	Number	Percentage	Age	Number	Percentage	Number	Percentage
0	198	1.4	199	1.3	37	203	1.4	247	1.6
1	251	1.7	222	1.4	38	249	1.7	258	1.6
2	254	1.7	220	1.4	39	210	1.4	230	1.5
3	212	1.4	211	1.3	40	237	1.6	242	1.5
4	230	1.6	254	1.6	41	194	1.3	186	1.2
5	284	1.9	266	1.7	42	278	1.9	267	1.7
6	302	2.1	257	1.6	43	199	1.4	216	1.4
7	335	2.3	316	2.0	44	153	1.0	218	1.4
8	361	2.5	339	2.2	45	205	1.4	194	1.2
9	350	2.4	375	2.4	46	157	1.1	160	1.0
10	410	2.8	383	2.4	47	153	1.0	173	1.1
11	398	2.7	393	2.5	48	163	1.1	184	1.2
12	407	2.8	437	2.8	49	112	0.8	136	0.9
13	380	2.6	348	2.2	50	136	0.9	171	1.1
14	348	2.4	365	2.3	51	88	0.6	87	0.6
15	351	2.4	398	2.5	52	119	0.8	134	0.9
16	361	2.5	332	2.1	53	92	0.6	104	0.7
17	378	2.6	314	2.0	54	97	0.7	98	0.6
18	364	2.5	321	2.1	55	80	0.5	102	0.7
19	248	1.7	270	1.7	56	58	0.4	77	0.5
20	253	1.7	279	1.8	57	70	0.5	85	0.5
21	213	1.5	235	1.5	58	48	0.3	71	0.5
22	198	1.4	217	1.4	59	45	0.3	67	0.4
23	203	1.4	218	1.4	60	49	0.3	97	0.6
24	208	1.4	227	1.5	61	51	0.3	82	0.5
25	201	1.4	234	1.5	62	86	0.6	90	0.6
26	217	1.5	256	1.6	63	56	0.4	72	0.5
27	222	1.5	259	1.7	64	41	0.3	74	0.5
28	202	1.4	237	1.5	65	83	0.6	108	0.7
29	187	1.3	241	1.5	66	71	0.5	86	0.5
30	246	1.7	248	1.6	67	48	0.3	66	0.4
31	208	1.4	234	1.5	68	49	0.3	63	0.4
32	225	1.5	232	1.5	69	53	0.4	86	0.5
33	217	1.5	253	1.6	70+	600	4.1	871	5.6
34	244	1.7	229	1.5					
35	191	1.3	202	1.3	Total	14,604	100.0	15,654	100.0
36	214	1.5	231	1.5					

Table C.2 Completeness of reporting

Percentage of observations with missing information for selected demographic and health questions, Vietnam 2002

Subject	Reference group	Percentage missing information	Number of cases
Birth Date	Births in the past 15 years		
Month only		0.60	8,929
Month and year		0.00	8,929
Age at death	Dead children born in the past 15 years	0.00	341
Age/date at first union[1]	Ever-married women age 15-49	0.01	5,665
Respondent's education	All women age 15-49	0.00	5,665
Child's size at birth	Living children age 0-59 months	0.12	1,062
Diarrhea in past 2 weeks	Living children age 0-59 months	0.27	1,304

[1] Both year and age missing

Table C.3 Births by calendar years

Distribution of births by calendar yeas since birth for living, dead, and all children, according to completeness of birth dates, sex ratio at birth, and ratio of births by calendar year (weighted), Vietnam 2002

	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
Year	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total
2002	333	1.0	334	100.0	100.0	100.0	110.4	0.0	109.4	na	na	na
2001	461	3.0	464	100.0	100.0	100.0	103.4	29.9	102.8	117.5	37.6	116.1
2000	453	13.0	465	100.0	100.0	100.0	114.6	34.7	111.2	103.0	227.6	104.5
1999	418	8.0	426	100.0	100.0	100.0	107.8	61.7	106.6	93.7	57.5	92.6
1998	439	17.0	456	99.9	100.0	99.9	98.2	127.3	99.2	94.1	156.3	95.5
1997	515	13.0	528	100.0	100.0	100.0	96.9	212.3	98.7	106.4	67.5	104.9
1996	530	22.0	552	99.4	96.7	99.3	106.4	141.5	107.6	94.8	118.7	95.5
1995	603	24.0	627	99.0	96.5	98.9	113.3	86.5	112.2	102.2	97.0	102.0
1994	650	27.0	677	99.1	94.7	98.9	99.8	120.3	100.6	103.7	103.5	103.7
1993	650	29.0	679	99.5	100.0	99.5	94.7	110.8	95.3	na	na	na
1998-2002	2,103	42.0	2,145	100.0	100.0	100.0	106.5	64.9	105.5	na	na	na
1993-1997	2,948	114.0	3,062	99.4	97.4	99.3	101.9	120.6	102.5	na	na	na
1988-1992	3,473	181.0	3,654	99.2	98.6	99.1	100.4	194.6	103.6	na	na	na
1983-1987	2,870	256.0	3,126	99.2	94.4	98.8	107.1	128.6	108.7	na	na	na
< 1983	2,191	215.0	2,407	98.7	94.5	98.3	104.2	115.8	105.1	na	na	na
All	13,586	808.0	14,393	99.3	96.1	99.1	103.7	130.7	105.0	na	na	na

na = Not applicable

[1] Both year and month of birth given

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

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

Table C.4 Reporting of age at death in days

Distribution of reported deaths under 1 month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five year periods of birth preceding the survey, Vietnam 2002

Age at death (days)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
0	15	17	27	21	80
1	6	18	28	21	74
2	2	5	7	7	21
3	0	0	5	2	8
4	1	0	0	1	1
5	0	3	0	7	9
6	1	1	1	3	6
7	0	2	3	10	15
8	0	1	1	0	2
9	1	2	0	0	2
10	0	3	6	5	14
11	0	0	1	0	1
12	0	1	4	1	5
14	0	1	0	1	2
15	1	1	2	0	4
20	2	7	2	1	11
22	0	0	0	1	1
23	0	0	0	1	1
25	0	1	0	0	1
27	0	0	0	3	3
28	0	0	2	0	2
Total 0-30	27	62	88	84	262
Percent early neonatal	89.2	70.8	77.5	73.4	75.8

[1] 0-6 days/0-30 days

Table C.5 Reporting of age at death in months

Distribution of reported deaths under 2 years of age by age at death in months and the percentage of infant deaths reported to occur at ages under one month, for five-year periods of birth preceding the survey, Vietnam 2002

Age at death (months)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
< 1 month[1]	27	62	88	84	262
1	4	7	13	22	46
2	0	6	7	12	25
3	1	2	2	9	14
4	1	3	2	2	8
5	0	1	1	3	6
6	1	3	5	2	11
7	2	2	0	3	6
8	1	1	1	4	7
9	1	2	3	6	11
10	0	1	2	4	6
11	0	0	2	2	4
12	1	2	8	14	25
13	0	3	0	2	5
15	0	0	0	2	2
16	1	0	1	1	2
17	0	4	1	3	8
18	0	1	1	4	6
22	1	0	1	0	2
Total 0-11	38	90	126	152	406
Percent neonatal[2]	71.2	69.4	70.0	55.4	64.5

[1] Includes deaths under one month reported in days
[2] Under one month/under one year

SURVEY STAFF

APPENDIX D

Team 1: Responsible for fieldwork in five provinces: Bac Ninh, Bac Giang, Lang Son, Nam Dinh and Thai Binh:

Le Thi Rom	F	Supervisor & Community Interviewer
Le Thi Chuyen	F	Editor
Be Thi Hong	F	Interviewer
Nguyen Thi Khoa	F	Interviewer
Cu Thi Hanh	F	Interviewer
Le Thi Hang	F	Interviewer
Ho Thi Hoa	F	Interviewer
Hoang Van Thanh	M	Driver

Team 2: Responsible for fieldwork in six provinces: Tuyen Quang, Lao Cai, Thai Nguyen, Phu Tho, Vinh Phuc and Hai Phong:

To Thi Oanh	F	Supervisor
Le Thanh Huyen	F	Editor
Pham Thi Don	F	Interviewer
Nguyen Thi Hue	F	Interviewer
Le Tuong Minh	F	Interviewer
Le Thi Ninh	F	Interviewer
Nguyen Tuan Anh	M	Community Interviewer
Tran Ba Cuong	M	Driver

Team 3: Responsible for fieldwork in six provinces: Lai Chau, Son La, Ha Tay, Ha Noi, Hai Duong and Hung Yen:

Nguyen Huu Ba	M	Supervisor
Tran Thu Hang	F	Editor
Hoang Thi Minh Huong	F	Interviewer
Nguyen Thuy Quynh	F	Interviewer
Tran Thi Thanh Huyen	F	Interviewer
Nguyen Thi Huyen	F	Interviewer
Doan Quang Son	M	Community Interviewer
Pham Gia Hoi	M	Driver

Team 4: Responsible for fieldwork in three provinces: Ha Nam, Thanh Hoa and Nghe An:

Nguyen Duc Tung	M	Supervisor
Do Thi Hong	F	Editor
Pham Thi Hoi	F	Interviewer
Nguyen Thi Phuong Thao	F	Interviewer
Tran Thi Mai Huong	F	Interviewer
Pham Thuy Linh	F	Interviewer
Nguyen Thi Thuoc	F	Community Interviewer
Nguyen Van Tu	M	Driver

Team 5: Responsible for fieldwork in six provinces: Quang Tri, Thua Thien - Hue, Da Nang, Quang Nam, Binh Dinh and Dak Lak:

Nguyen Van Minh	M	Supervisor
Phan Dac Loc	M	Editor & Community Interviewer
Nguyen Thi Kim Dung	F	Interviewer
Nguyen Thi Binh	F	Interviewer
Nguyen Thi Ly	F	Interviewer
Sam Thi Ha	F	Interviewer
Tu Nhu Quynh	F	Interviewer
Nguyen Van Ngu	M	Driver

Team 6: Responsible for fieldwork in five provinces: Tien Giang, Tay Ninh, Ninh Thuan, Lam Dong and Dong Nai:

Do Bich Ngo	F	Supervisor
Huynh Thanh Toan	M	Editor
Pham Thi Hong	F	Interviewer
Nguyen Thi Hong Loan	F	Interviewer
Vo Thi Huong Giang	F	Interviewer
Luu Thi Dung	F	Interviewer
Tran Thi Phuong	F	Community Interviewer
Nguyen Van Thong	M	Driver

Team 7: Responsible for fieldwork in provinces: Ho Chi Minh City (1/2), Can Tho, Soc Trang, Tra Vinh, Bac Lieu and Ca Mau:

Trinh Thi The	F	Supervisor
Nguyen Van Son	M	Editor
Nguyen Phuong Hang	F	Interviewer
Pham Thi Phung	F	Interviewer
Pham Thi Lam	F	Interviewer
Vu Thi Oanh	F	Interviewer
Ngo Van Son	M	Community Interviewer
Duong Van Phuoc	M	Driver

Team 8: Responsible for fieldwork in provinces: Ho Chi Minh City (1/2), Vinh Long, Dong Thap, An Giang and Kien Giang:

Le Thanh Son	M	Supervisor
Nguyen Thi Ninh	F	Editor
Nguyen Thuy Van	F	Interviewer
Tran Thi Hoa	F	Interviewer
Ngo Thi Dao	F	Interviewer
Hang Ngoc Huong	F	Interviewer
Tran Thien Trieu	M	Community Interviewer
Chi Ngoc Khanh	M	Driver

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Sushil Kumar, Survey Specialist/Report Reviewer
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QUESTIONNAIRES

APPENDIX **E**

General Statistical Office
Vietnam Demographic and Health Survey - III

VNDHS-III 2002

household schedule

identification	
province/ municipality: _____ district: _____ commune: _____ cluster name: _____ cluster number: ..... name of household head: _____ household number: ..... address: _____ urban/rural (Urban = 1, Rural = 2): ..... large city/small city/ town/ countryside (Large city = 1, Small city = 2, Town = 3, Countryside = 4):	

interviewer visits

	1	2	3	final visit
date	_____	_____	_____	date month year
interviewer's name				name
result (*)	_____	_____	_____	result (*)
	_____	_____	_____	
next visit - date	_____	_____		total number of visits
- time	_____	_____		

(*) result codes:
1. completed
2. no household member at home or no competent respondent at home at time of visit
3. entire household absent for extended period of time
4. postponed
5. refused
6. dwelling vacant or address not a dwelling
7. dwelling destroyed
8. dwelling not found
9. other _____ (specify)

total in household

total eligible women

line number of respondent to household schedule

supervisor	field editor	office editor	keyed by
name _____	name _____		
date _____	date _____		

line no.	Usual residents and visitors	relation-ship to head of household	residence		sex	month and year of birth	age	education (if age 5 years or older)			marital status (if age 13 years or older)	eligi-bility
									If attended school			
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.	What is the relation-ship of [NAME] to the head of the household?	Does [NAME] usually live here?	Did [NAME] stay here last night?	Is [NAME] male or female?	In what month and year was [NAME] born?	How old is [name]? If age 95 or above, write '95'	Has [NAME] ever been to school?	What is the highest grade of education [NAME] completed? use equivalency table	If age < 25 years Is [NAME] still in school?	What is the current marital status of [NAME]?	Circle line number of ever-married women age 15-49
(1)	(2)	(3)	(4)	(5)	(6)	(6A)	(7)	(8)	(9)	(10)	(11)	(15)
01			Y N 1 2	Y N 1 2	Mal. 1 Fem. 2	month yr.		y n 1 2 11	Grade	y n 1 2	CMS W NM D 1 2 3 4 5	01
02			Y N 1 2	Y N 1 2	Mal. 1 Fem. 2	month yr.		y n 1 2 11	Grade	y n 1 2	CMS W NM D 1 2 3 4 5	02
03			Y N 1 2	Y N 1 2	Mal. 1 Fem. 2	month yr.		y n 1 2 11		y n 1 2	CMS W NM D 1 2 3 4 5	03
04			Y N 1 2	Y N 1 2	Mal. 1 Fem. 2	month yr.		y n 1 2 11	Grade	y n 1 2	CMS W NM D 1 2 3 4 5	04
05			Y N 1 2	Y N 1 2	Mal. 1 Fem. 2	month yr.		y n 1 2 11	Grade	y n 1 2	CMS W NM D 1 2 3 4 5	05
06			Y N 1 2	Y N 1 2	Mal. 1 Fem. 2	month yr.		y n 1 2 11		y n 1 2	CMS W NM D 1 2 3 4 5	06
07			Y N 1 2	Y N 1 2	Mal. 1 Fem. 2	month yr.		y n 1 2 11	Grade	y n 1 2	CMS W NM D 1 2 3 4 5	07

08			Y N 1 2	Y N 1 2	Mal. 1 Fem. 2	month yr.		y n 1 2 11	Grade	y n 1 2	CM S NM 1 2 3 4 5	D	08
09			Y N 1 2	Y N 1 2	Mal. 1 Fem. 2	month yr.		y n 1 2 11	Grade	y n 1 2	CM S NM 1 2 3 4 5	D	09
10			Y N 1 2	Y N 1 2	Mal. 1 Fem. 2	month yr.		y n 1 2 11	Grade	y n 1 2	CM S NM 1 2 3 4 5	D	10

line no.	Usual residents and visitors	relation-ship to head of household	residence		sex	month and year of birth	age	education (if age 5 years or older)			marital status (if age 13 years or older)	eligi-bility
									If attended school			
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.	What is the relation-ship of [NAME] to the head of the household?	Does [NAME] usually live here?	Did [NAME] stay here last night?	Is [NAME] male or female?	In what month and year was [NAME] born?	How old is [name]? If age 95 or above, write '95'	Has [NAME] ever been to school?	What is the highest grade of education [NAME] completed? use equivalency table	If age < 25 years Is [NAME] still in school?	What is the current marital status of [NAME]?	Circle line number of ever-married women age 15-49
(1)	(2)	(3)	(4)	(5)	(6)	(6A)	(7)	(8)	(9)	(10)	(11)	(15)
11			Y N 1 2	Y N 1 2	Mal. 1 Fem. 2	month yr.		y n 1 2 11	Grade	y n 1 2	CM S NM 1 2 3 4 5 D	11
12			Y N 1 2	Y N 1 2	Mal. 1 Fem. 2	month yr.		y n 1 2 11	Grade	y n 1 2	CM S NM 1 2 3 4 5 D	12
13			Y N 1 2	Y N 1 2	Mal. 1 Fem. 2	month yr.		y n 1 2 11		y n 1 2	CM S NM 1 2 3 4 5 D	13
14			Y N 1 2	Y N 1 2	Mal. 1 Fem. 2	month yr.		y n 1 2 11	Grade	y n 1 2	CM S NM 1 2 3 4 5 D	14

15			Y N 1 2	Y N 1 2	Mal. 1 Fem. 2	month yr.		y n 1 2 11	Grade	y n 1 2	CM S 1 2 3 4 5 W NM D	15

tick here if continuation sheet used

Just to make sure that I have a complete listing:

1) Are there any other persons such as small children or infants that we have not listed? yes (enter each in table) no

2) In addition, are there any other people who may not be members of your family, such as domestic servants, lodgers or friends who usually live here? yes (enter each in table) no

3) Are there any guests or temporary visitors staying here, or anyone else who slept here last night that have not been listed? yes (enter each in table) no

Codes for Q.3 *(Relationship to household head)*

01 = Head
02 = Wife/husband
03 = Son/daughter
04 = Son-in-law/Dtr.-in-law
05 = Grandchild
06 = Parent
07 = Parent-in-law
08 = Brother/sister
10 = Other relative
11 = Adopted/Foster/Step child
12 = Not related
98 = Don’t know

No.	questions and filters	Coding categories	Skip
16	What is the main source of drinking water for members of your household?	piped in to residence/plot ..... 11 piped to public tap ..... 12 well in residence/plot ..... 21 public well ..... 22 Spring ..... 31 River/stream ..... 32 Pond/lake ..... 33 Dam ..... 34 Rainwater ..... 41 tanker truck ..... 51 Bottled water ..... 61 Other ..... 96 _____ (Specify)	→ 18 → 18 → → 18 18
17	How long does it take you to go there, get water, and come back?	minutes ..... ☐☐☐	
18	What kind of toilet facility does your household have?	Flush toilet own ..... 11 shared ..... 12 traditional pit toilet/latrine ..... 21 ventilated improved pit Toi./lar. ..... 22 no facility/bush/field ..... 31 Other ..... 96 _____ (Specify)	
19	Does your household have: Electricity? A radio? A television? A telephone? A refrigerator? A sewing machine? A washing machine?	Yes no Electricity ..... 1 2 Radio ..... 1 2 Television ..... 1 2 Telephone ..... 1 2 Refrigerator ..... 1 2 Sewing machine ..... 1 2 Washing machine 1 2	
20	How many rooms in your household are used for sleeping?	Rooms ..... ☐☐	
21	Main material of the floor? Record observation	earth/sand ..... 11 Rough wood/bamboo ..... 21 Finished floor (polished wood/ ceramic tiles/stone/etc) ..... 31 Other ..... 96 _____ (Specify)	
21A	Main material of the roof? Record observation	Concrete ..... 1 Tile/fibro/asbestos ..... 2 Galvanized iron/aluminum/tin ..... 3 Grass/straw ..... 4 Other ..... 6 _____ (Specify)	

No.	questions and filters	Coding categories	Skip
22	Does any member of your household own: A bicycle? A motorcycle? A car? A boat? A ploughing machine? A motor scooter?	Yes no Bicycle ..... 1 2 Motorcycle ..... 1 2 Car ..... 1 2 Boat ..... 1 2 Ploughing ..... 1 2 Motor scooter 1 2	
23	What type of salt is usually used for cooking in your household? (Ask to see salt package)	Local salt ..... 01 Packaged salt (iodized) ..... 02 Packaged salt (not iodized) ..... 03 Loose salt ..... 05 Other ..... 96 _____ (Specify)	

General Statistical Office
Vietnam Demographic and Health Survey - III

VNDHS-III 2002

Women's questionnaire

Identification	
Province/municipality: _____	☐☐☐
District: _____	
Commune: _____	
Cluster name: _____	
Cluster number:	☐☐☐
Name of household head: _____	
Household number:	☐☐☐
Address: _____	
Urban/rural (Urban = 1, Rural = 2):	☐
Large city/ small city/ town/ countryside (Large city = 1, Small city = 2, Town = 3, Countryside = 4):	☐
Name and line number of women: _____	☐☐

Interviewer visits

	1	2	3	Final visit
Date	_____	_____	_____	Date ☐☐ Month ☐☐
Interviewer's name				Year ☐☐☐☐ Name ☐☐
Result (*)	_____	_____	_____	Result (*) ☐
	_____	_____	_____	
Next visit - Date	_____	_____		Total number of visits ☐
- Time	_____	_____		

(*) Result codes:

1 = Completed
2 = Not at home
3 = Postponed
4 = Refused
5 = Partly completed
6 = Incapacitated
7 = Other _____ (Specify)

Supervisor	Field editor	Office editor	Keyed by
Name _____ ☐☐	Name _____ ☐	☐☐	☐☐
Date _____	Date _____		

Sections 1. Respondent's background

No.	Questions and filters	Coding categories	Skip
101	Record the time	Hour ..... ☐☐ Minutes ..... ☐☐	
102	First I would like to ask some questions about you and your household. For most of the time until you were 12 years old, did you live in a city, in a town, or in the countryside?	City ..... 1 Town ..... 2 Countryside 3	
103	How long have you been living continuously in [Name of current place of residence]?	Years ..... ☐☐ Always ..... 95 → 105 Visitor ..... 96 → 105	
104	Just before you moved here, did you live in a city, in a town, or in the countryside?	City ..... 1 Town ..... 2 Countryside 3	
105	In what month and year were you born?	Month ..... ☐☐ Don't know month ..... 98 Year ..... ☐☐☐☐ Don't know year 9998	
106	How old were you at your last birthday? Compare and correct 105 and/or 106 if inconsistent	Age in completed year ..... ☐☐	
106A	What is your current marital status?	Currently married ..... 1 Widowed ..... 2 Divorced ..... 3 Separated 4	
107	Have you ever attended school?	Yes ..... 1 No ..... 2 → 114	
108	What is the highest grade of education you completed? Use equivalency table	Grade ..... ☐☐ College/university 15	
110	Check 106: Less than Age 25 ☐ ↓	Age 25 or above ☐ →	113
111	Are you currently attending school?	Yes ..... 1 → 113 No 2	

No.	Questions and filters	Coding categories	Skip
112	What was the main reason you stopped attending school?	Got pregnant ..... 01 Got married ..... 02 To care for younger children..... 03 Family needed help on farm or in business..... 04 Could not pay school fees ..... 05 Needed to earn money..... 06 Graduated/had enough schooling ..... 07 Did not pass entrance exams..... 08 Did not like school ..... 09 School not accessible/too far..... 10 Other ..... 96 _____ (Specify) Don't know..... 98	
113	Check 108: Grade 5 or Less ☐	Grade 6 or higher ☐ →	→ 115
114	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 →	→ 116
115	Do you usually read a newspaper or magazine at least once a week?	Yes ..... 1 No..... 2	
116	Do you usually listen to a radio every day?	Yes ..... 1 No..... 2	
117	Do you usually watch television at least once a week?	Yes ..... 1 No..... 2	
118	What is your religion?	No religion ..... 01 Buddhist ..... 02 Catholic ..... 03 Protestant..... 04 Cao Dai ..... 05 Hoa Hao ..... 06 Islam..... 07 Other ..... 96 _____ (Specify)	

No.	Questions and filters	Coding categories	Skip
119	What ethnic group do you belong to?	Vietnamese ..... 01 tay ..... 02 thai ..... 03 Chinese ..... 04 Khmer ..... 05 muong ..... 06 nung ..... 07 hre ..... 08 Phu la ..... 10 E de ..... 11 Dao ..... 12 Co tu ..... 13 Cham ..... 14 Other ..... 96 _____ (Specify)	
120	Check Q.4 in the household The woman interviewed is not a usual resident ☐	Questionnaire: The woman interviewed is a usual resident ☐ →	201
121	Now I would like to ask about the place in which you usually live. What is the name of the place in which you usually live? _____ (name of place) Is that a city, town, or in the countryside?	Large city ..... 1 Small city ..... 2 Town ..... 3 Countryside 4	
122	In which province is that located? _____ (Name of province/municipality)	Province/municipality ..... ☐☐☐	
123	Now I would like to ask about the household in which you usually live. What is the main source of drinking water for members of your household?	Piped into residence/Plot ..... 11 → Piped to public tap ..... 12 Well in residence/plot ..... 21 → Public well ..... 22 Spring ..... 31 River/stream ..... 32 Pond/lake ..... 33 Dam ..... 34 Rain water ..... 41 → Tanker truck ..... 51 Bottled water ..... 61 → Other ..... 96 _____ (Specify)	125 125 125 125

No.	Questions and filters	Coding categories	Skip
124	How long does it take to go there, get water, and come back?	Minutes ..... ☐☐☐	
125	What kind of toilet facility does your household have?	Flush toilet Own ..... 11 Shared ..... 12 Traditional pit toilet/latrine ..... 21 Ventilated improved pit toilet/lar. ..... 22 No facility/bush/field ..... 31 Other ..... 96 _____ (Specify)	
126	Does your household have: Electricity? A radio? A television? A telephone? A refrigerator? A sewing machine? A washing machine?	yes no Electricity ..... 1 2 Radio ..... 1 2 television ..... 1 2 Telephone ..... 1 2 Refrigerator ..... 1 2 sewing machine ..... 1 2 Washing machine 1 2	
126A	How many rooms in your household are used for sleeping?	Number of rooms ..... ☐☐	
127	Could you describe the main material of the floor of your home?	Earth/sand ..... 11 Rough wood/bamboo ..... 21 Finished floor (polished wood/ ceramic tiles/stone/ETc) ..... 31 Other ..... 96 _____ (Specify)	
127A	Could you describe the main material of the roof of your home?	Concrete ..... 1 Tile/fibro/asbestos ..... 2 Galvanized iron/aluminum/tin ..... 3 Grass/straw ..... 4 Other ..... 6 _____ (Specify)	
128	Does any member of your household own: A bicycle? A motorcycle? A car? A boat? A ploughing machine? A motor scooter?	yes no Bicycle ..... 1 2 Motorcycle ..... 1 2 Car ..... 1 2 Boat ..... 1 2 Ploughing machine ..... 1 2 Motor scooter 1 2	

Section 2. reproduction

Now I would like to ask you about all the pregnancies that you have had in your lifetime. By this I mean all the children born to you, whether they were born alive or dead, whether still living or not, whether living with you or elsewhere, and all the pregnancies that you have had that did not result in a live birth. I understand that is not easy to talk about children who have died, or pregnancies that have terminated before full term, but it is extremely important that you tell us about all of them, so that we can develop programs that will help the Government of Vietnam improve children's health in the future.

No.	questions and filters	Coding categories	Skip
201	First I would like to ask about all the births you have had during your life. Have you ever given birth?	yes ..... 1 No ..... 2 →	206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	yes ..... 1 No ..... 2 →	204
203	How many sons live with you? And how many daughters live with you? If none, record '00'	Sons at home ..... ☐☐ Daughters at home ..... ☐☐	
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	Yes ..... 1 No ..... 2 →	206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? If none, record '00'	Sons elsewhere ..... ☐☐ Daughters elsewhere ..... ☐☐	
206	Have you ever given birth to a boy or girl who was born alive but later died? If no, probe: Any baby who cried or showed signs of life but survived only a few hours or days?	Yes ..... 1 No ..... 2 →	208
207	How many boys have died? And how many girls have died? If none, record '00'	Boys dead ..... ☐☐ Girls dead ..... ☐☐	
208	Women sometimes have pregnancies that do not result in a live born child. That is, a pregnancy can end early, in an induced abortion or through menstrual regulation. A pregnancy may also end in a miscarriage or a stillbirth. Have you had any such pregnancy that did not result in a live birth?	Yes ..... 1 No ..... 2 →	210
209	In all, how many such pregnancies have there been?	Pregnancy losses ..... ☐☐	
210	Sum answers to 203, 205, 207 and 209, and enter total If none, record '00'	Total ..... ☐☐	
211	Check 210: Just to make sure that I have this right: you have had in TOTAL pregnancies during you life. Is that correct? YES ☐ ↓ No ☐ → Probe and correct 201-210 as necessary		
212	Check 210: One or more pregnancies ☐ ↓	No pregnancies ☐ →	229

213	Now I would like to ask you about all of your pregnancies, whether born alive, born dead, or lost before full term, starting with your most recent live birth or terminated pregnancy. Record all the pregnancies. Record twins and triplets on separate lines.

No.	questions and filters	Coding categories	Skip
225	Compare 210 with number of pregnancies in history above and mark: Numbers are same ☐ → numbers are diffirent ☐ → (Probe and reconcile) Check: for each pregnancy: year of birth is recorded in 214 ☐ For each pregnancy loss: duration is recorded in 217 ☐ For each living child: current age is recorded in 221 ☐ For each dead child: age at death is recorded in 222 ☐ For age at death 12 months or 1 year: probe to determine exact number of months ☐		
226	Check 214 and 216, and enter the number of live births since january 1999 ☐ If none, record '0'		
227	For each live birth since january 1997 enter "B" in the month of birth in column 1 of the calendar and "P" in each of the 8 preceding months. Write the name to the left of the "b" code.		
228	For each non-live birth since 1997, enter "T" in the month of pregnancy termination in column 1 of the calendar and "P" in each preceding month of pregnancy.		
229	Check 106A: currently married ☐ Widowed Divorced Separated ☐ →		233
230	Are you pregnant?	Yes ... 1 No ... 2 Unsure ... 8 →	233
231	How many months pregnant are you? Record number of completed months. Enter "P" in column 1 of calendar, beginning with the month of interview and for total number of completed months	Months ☐☐	
232	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	
233	When did your last menstrual period start? _____ (Date, if given)	Days ago ... 1 ☐☐ Weeks ago ... 2 ☐☐ Months ago ... 3 ☐☐ Years ago ... 4 ☐☐ In menopause ... 994 Before last birth ... 995 Never menstruated ... 996	
234	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 Don't know ... 8 →	301
235	During which times of the monthly cycle does a woman have the greatest chance of becoming pregnant?	During her period ... 01 Right after her period has ended ... 02 In the middle of the cycle ... 03 Just before her period begins ... 04 Other ... 96 _____ (Specify) Don't know ... 98	

Line no.								If born alive and still living		If born alive but now dead		
	214 Think back to the time of your (last/ next to last/etc.) pregnancy. In what month and year did that pregnancy end? Probe: In what season did the pregnancy end?	215 Was that a single or multiple pregnancy ?	216 Did that pregnancy end in a live birth, an induced abortion, menstrual regulation, a miscarriage or a stillbirth?	217 How many months did the preg. last? Record in completed months. Record '00' if less than one full month.	218 What was the name given to that child?	219 Is [name] a boy or girl?	220 Is [name] still alive?	221 How old was [Name] at his/her last birthday? Record age in completed years	221A Is [Name] living with you?	222 How old was [Name] when he/she died? If '1 year' probe: How many months old was [Name]? Record days if under 1 month; months if under 2 years; or years.	223 From the year of termination of the pregnancy listed above subtract the year of termination of this pregnancy. Is the difference 3 or more years?	224 Probe: Were there any other pregnancies between this pregnancy and the previous pregnancy you told me about?
01	Month..... Year	Single..... 1 Mult. 2	Live birth..... 1 218 Ind. abor. ..... 2 Mens. regu. ..... 3 Miscarriage..... 4 Stillbirth 5	(next preg.)	(Name)	Boy .... 1 Girl 2	Y N 1 2 222	Age in years	Yes ..... 1 No ..... 2 (Next pregnancy)	Days ..... 1 Months... 2 Years 3		
02	Month..... Year	Single..... 1 Mult. 2	Live birth..... 1 218 Ind. abor. ..... 2 Mens. regu. ..... 3 Miscarriage..... 4 Stillbirth 5	223	(Name)	Boy .... 1 Girl 2	Y N 1 2 222	Age in years	Yes ..... 1 No 2 223	Days ..... 1 Months... 2 Years 3	Yes ..... 1 No ..... 2 (Next pregnancy)	Yes ..... 1 No..... 2
03	Month..... Year	Single..... 1 Mult. 2	Live birth..... 1 218 Ind. abor. ..... 2 Mens. regu. ..... 3 Miscarriage..... 4 Stillbirth 5	223	(Name)	Boy .... 1 Girl 2	Y N 1 2 222	Age in years	Yes ..... 1 No 2 223	Days ..... 1 Months... 2 Years 3	Yes ..... 1 No ..... 2 (Next pregnancy)	Yes ..... 1 No..... 2
04	Month..... Year	Single..... 1 Mult. 2	Live birth..... 1 218 Ind. abor. ..... 2 Mens. regu. ..... 3 Miscarriage..... 4 Stillbirth 5	223	(Name)	Boy .... 1 Girl 2	Y N 1 2 222	Age in years	Yes ..... 1 No 2 223	Days ..... 1 Months... 2 Years 3	Yes ..... 1 No ..... 2 (Next pregnancy)	Yes ..... 1 No..... 2
05	Month..... Year	Single..... 1 Mult. 2	Live birth..... 1 218 Ind. abor. ..... 2 Mens. regu. ..... 3 Miscarriage..... 4 Stillbirth 5	223	(Name)	Boy .... 1 Girl 2	Y N 1 2 222	Age in years	Yes ..... 1 No 2 223	Days ..... 1 Months... 2 Years 3	Yes ..... 1 No ..... 2 (Next pregnancy)	Yes ..... 1 No..... 2

Line								If born alive and still living		If born alive but now dead		
	214 Think back to the time of your (last/ next to last/etc.) pregnancy. In what month and year did that pregnancy end? Probe: In what season did the pregnancy end?	215 Was that a single or multiple pregnancy ?	216 Did that pregnancy end in a live birth, an induced abortion, menstrual regulation, a miscarriage or a stillbirth?	217 How many months did the preg. last? Record in completed months. Record '00' if less than one full month.	218 What was the name given to that child?	219 Is [name] a boy or girl?	220 Is [name] still alive?	221 How old was [Name] at his/her last birthday? Record age in completed years	221A Is [Name] living with you?	222 How old was [Name] when he/she died? If '1 year' probe: How many months old was [Name]? Record days if under 1 month; months if under 2 years; or years.	223 From the year of termination of the pregnancy listed above subtract the year of termination of this pregnancy. Is the difference 3 or more years?	224 Probe: Were there any other pregnancies between this pregnancy and the previous pregnancy you told me about?
06	Month ..... Year	Single ..... 1 Mult. 2	Live birth ..... 1 218 Ind. abor. ..... 2 Mens. regu. ..... 3 Miscarriage ..... 4 Stillbirth 5	223	(Name)	Boy .... 1 Girl 2	y n 1 2 222	age in years	Yes ..... 1 No 2 223	Days ..... 1 Months ... 2 Years 3	Yes ..... 1 No ..... 2 (Next pregnancy)	Yes ..... 1 No 2
07	Month ..... Year	Single ..... 1 Mult. 2	Live birth ..... 1 218 Ind. abor. ..... 2 Mens. regu. ..... 3 Miscarriage ..... 4 Stillbirth 5	223	(Name)	Boy .... 1 Girl 2	Y N 1 2 222	Age in years	Yes ..... 1 No 2 223	Days ..... 1 Months ... 2 Years 3	Yes ..... 1 No ..... 2 (Next pregnancy)	Yes ..... 1 No 2
08	Month ..... Year	Single ..... 1 Mult. 2	Live birth ..... 1 218 Ind. abor. ..... 2 Mens. regu. ..... 3 Miscarriage ..... 4 Stillbirth 5	223	(Name)	Boy .... 1 Girl 2	Y N 1 2 222	Age in years	Yes ..... 1 No 2 223	Days ..... 1 Months ... 2 Years 3	Yes ..... 1 No ..... 2 (Next pregnancy)	Yes ..... 1 No 2
09	Month ..... Year	Single ..... 1 Mult. 2	Live birth ..... 1 218 Ind. abor. ..... 2 Mens. regu. ..... 3 Miscarriage ..... 4 Stillbirth 5	223	(Name)	Boy .... 1 Girl 2	Y N 1 2 222	Age in years	Yes ..... 1 No 2 223	Days ..... 1 Months ... 2 Years 3	Yes ..... 1 No ..... 2 (Next pregnancy)	Yes ..... 1 No 2
10	Month ..... Year	Single ..... 1 Mult. 2	Live birth ..... 1 218 Ind. abor. ..... 2 Mens. regu. ..... 3 Miscarriage ..... 4 Stillbirth 5	223	(Name)	Boy .... 1 Girl 2	Y N 1 2 222	Age in years	Yes ..... 1 No 2 223	Days ..... 1 Months ... 2 Years 3	Yes ..... 1 No ..... 2 (Next pregnancy)	Yes ..... 1 No 2

Line								If born alive and still living		If born alive but now dead		
	214 Think back to the time of your (last/ next to last/etc.) pregnancy. In what month and year did that pregnancy end? Probe: In what season did the pregnancy end?	215 Was that a single or multiple pregnancy ?	216 Did that pregnancy end in a live birth, an induced abortion, menstrual regulation, a miscarriage or a stillbirth?	217 How many months did the preg. last? Record in completed months. Record '00' if less than one full month.	218 What was the name given to that child?	219 Is [name] a boy or girl?	220 Is [name] still alive?	221 How old was [Name] at his/her last birthday? Record age in completed years	221A Is [Name] living with you?	222 How old was [Name] when he/she died? If '1 year' probe: How many months old was [Name]? Record days if under 1 month; months if under 2 years; or years.	223 From the year of termination of the pregnancy listed above subtract the year of termination of this pregnancy. Is the difference 3 or more years?	224 Probe: Were there any other pregnancies between this pregnancy and the previous pregnancy you told me about?
11	Month ..... Year	Single ..... 1 MulT. 2	Live birth ..... 1 218 Ind. Abor. ..... 2 Mens. regu. ..... 3 Miscarriage ..... 4 Stillbirth 5	223	(Name)	Boy .... 1 Girl 2	y n 1 2 222	Age in years	Yes ..... 1 No 2 223	Days ..... 1 Months ... 2 Years 3	Yes ..... 1 No ..... 2 (Next pregnancy)	Yes ..... 1 No 2
12	Month ..... Year	Single ..... 1 MulT. 2	Live birth ..... 1 218 Ind. abor. ..... 2 Mens. regu. ..... 3 Miscarriage ..... 4 Stillbirth 5	223	(Name)	Boy .... 1 Girl 2	Y N 1 2 222	Age in years	Yes ..... 1 No 2 223	Days ..... 1 Months ... 2 Years 3	Yes ..... 1 No ..... 2 (Next pregnancy)	Yes ..... 1 No 2
13	Month ..... Year	Single ..... 1 Mult. 2	Live birth ..... 1 218 Ind. abor. ..... 2 Mens. regu. ..... 3 Miscarriage ..... 4 Stillbirth 5	223	(Name)	Boy .... 1 Girl 2	Y N 1 2 222	Age in years	Yes ..... 1 No 2 223	Days ..... 1 Months ... 2 Years 3	Yes ..... 1 No ..... 2 (Next pregnancy)	Yes ..... 1 No 2
14	Month ..... Year	Single ..... 1 Mult. 2	Live birth ..... 1 218 Ind. abor. ..... 2 Mens. regu. ..... 3 Miscarriage ..... 4 Stillbirth 5	223	(Name)	Boy .... 1 Girl 2	Y N 1 2 222	Age in years	Yes ..... 1 No 2 223	Days ..... 1 Months ... 2 Years 3	Yes ..... 1 No ..... 2 (Next pregnancy)	Yes ..... 1 No 2
15	Month ..... Year	Single ..... 1 Mult. 2	Live birth ..... 1 218 Ind. abor. ..... 2 Mens. regu. ..... 3 Miscarriage ..... 4 Stillbirth 5	223	(Name)	Boy .... 1 Girl 2	Y N 1 2 222	Age in years	Yes ..... 1 No 2 223	Days ..... 1 Months ... 2 Years 3	Yes ..... 1 No ..... 2 (Next pregnancy)	Yes ..... 1 No 2

Section 3. Contraception

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.

Circle code 1 in 301 for each method mentioned spontaneously.
Then proceed down column 302, 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 301 or 302, ask 303.

301 Which ways or methods have you heard about?		302 Have you ever heard of [method]?			303 Have you ever used [Method]?
		Spontaneous yes	Probed yes	No	
01	Pill. Women can take a pill every day.	1	2	3	Yes ..... 1 No 2
02	IUD. Women can have a loop or coil placed inside them by a doctor or a nurse.	1	2	3	Yes ..... 1 No 2
03	Injections. Women can have an injection by a doctor or nurse which stops them from becoming pregnant for several months.	1	2	3	Yes ..... 1 No 2
04	Implants. Women can have several small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for several years.	1	2	3	Yes ..... 1 No 2
05	Diaphragm, foam, jelly. Women can place a sponge, suppository, diaphragm, jelly, or cream inside themselves before intercourse.	1	2	3	Yes ..... 1 No 2
06	Condom. men can put a rubber sheath on their penis during sexual intercourse.	1	2	3	Yes ..... 1 No 2
07	Female sterilization. Women can have an operation to avoid having any more children.	1	2	3	Have you ever had an operation to avoid having any more children? Yes ..... 1 No 2
08	Male sterilization. Men can have an operation to avoid having any more children.	1	2	3	Have you ever had a partner who had an operation to avoid having children? Yes ..... 1 No 2
09	Rhythm, periodic abstinence. Every month that a woman is sexually active she can avoid having sexual intercourse on the days of the month she is most likely to get pregnant.	1	2	3	Yes ..... 1 No 2
10	Withdrawal. Men can be careful and pull out before climax.	1	2	3	Yes ..... 1 No 2
11	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	1		3	Yes ..... 1 No 2

avoid pregnancy?	_____ (Specify) _____ (Specify)	Yes ..... 1 No 2

No.	Questions and filters	Coding categories	Skip
304	Check 303: Not a single 'yes' (never used) ☐	At least one 'yes' (ever used) ☐ →	308
305	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	Yes ..... 1 No ..... 2 →	307
306	Enter '0' in column 1 of calendar in each blank month →		330
307	What have you used or done? Correct 303 and 304 (and 302 if necessary)		
308	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant. What was the first method you ever used?	Pill ..... 01 IUD ..... 02 Injections ..... 03 Implants ..... 04 Diaphragm/foam/jelly ..... 05 Condom ..... 06 Female sterilization ..... 07 Male sterilization ..... 08 Periodic abstinence ..... 09 Withdrawal ..... 10 Other ..... 96 _____ (Specify)	
309	How many living children did you have at that time, if any? If none, record '00'	Number of children ..... ☐☐	
310	Check 106A: Currently married ☐	Widowed Divorced Separated ☐ →	337
311	Check 303: Woman not sterilized ☐	Woman Sterilized ☐ →	314A
312	Check 230: Not pregnant Or unsure ☐	Pregnant ☐ →	325
313	Are you currently doing something or using any method to delay or avoid getting pregnant?	Yes ..... 1 No ..... 2 →	325
314 314A	Which method are you using? Circle '07' for female sterilization	Pill ..... 01 IUD ..... 02 Injections ..... 03 Implants ..... 04 Diaphragm/foam/jelly ..... 05 Condom ..... 06 Female sterilization ..... 07 Male sterilization ..... 08 Periodic abstinence ..... 09 Withdrawal ..... 10 Other ..... 96 _____ (Specify)	324 318 323 324

No.	Questions and filters	Coding categories	Skip
317	How much does one packet (cycle) of pills cost you?	Cost (Dong) ..... ☐☐☐☐☐ Free ..... 99996 Don't know 99998	→ 324
318	Where did the sterilization take place? If source is hospital or clinic, write the name of the place. Probe to identify the type of source and circle the appropriate code. _____ (Name of place)	Public sector Government hospital ..... 10 Delivery house ..... 11 Commune health center ..... 12 Family planning center ..... 13 Mobile clinic ..... 14 Other public ..... 16 _____ (Specify) Private medical sector Private hospital/clinic ..... 21 Private doctor ..... 23 Other private medical ..... 26 Other ..... 96 _____ (Specify) Don't know 98	→ 319 319 319
318A	How long does it take to travel from your house to this place? If less than 2 hours, record minutes. Otherwise, record hours.	Minutes ..... 1 ☐☐ Hours ..... 2 0☐ Don't know 9998	
318B	Is it easy or difficult to get there?	Easy ..... 1 Difficult 2	
319	Do you regret (you/your husband) had the operation not to have any (more) children?	Yes ..... 1 No 2	→ 321
320	Why do you regret the operation?	Respondent wants another child ..... 01 Husband wants another child ..... 02 Side effects ..... 03 Child died ..... 04 Other ..... 96 _____ (Specify)	
321	In what month and year was the sterilization performed?	Month ..... ☐☐ Year ..... ☐☐☐☐	
322	Check 321: Sterilized before January 1997 ☐ Enter code for sterilization in month of interview in column 1 of the calendar and each month back to January 1997. Then skip to 334 Sterilized in or After January 1997 ☐ Enter code for sterilization in month of interview in column 1 of the calendar and in each month back to the date of the operation. Then skip to 325		

No.	Questions and filters	Coding categories	Skip
323	How do you determine which days of your monthly cycle not to have sexual relations?	Based on calendar ..... 01 Based on body temperature ..... 02 based on cervical mucus ..... 03 Based on body temperature And cervical mucus ..... 04 No specific system ..... 05 Other ..... 96 _____ (Specify)	
324	Enter method code from 314 in current month in column 1 of calendar. Then determine when she started using method this time. Enter method code in each month of use. Illustrative questions: + When did you start using continuously? + How long have you been using this method continuously?		
325	I would like to ask you some questions about the times you or your partner may have used a method to avoid getting pregnant during the last few years. Use calendar to probe for earlier periods of use and nonuse, starting with most recent use, back to January 1997. Use name of children, dates of birth, and periods of pregnancy as reference points . In column 1, enter code in each month of method use or '0' for nonuse. Illustrative questions: Column 1: + When was the last time you use 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? In column 2, enter codes for discontinuation next to last month of use. Number of codes in column 2 must be same as number of interruptions of method use in column 1. Ask why she stopped using the method. If a pregnancy followed, ask whether she became pregnant uniitentionally while using the method or deliberately stopped using to get pregnant. Illustrative questions: Column 2: + Why did you stop using the [Method]? + Did you become pregnant while using [Method], or did you stop to get pregnant, or did you 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.		
327	Check 314: Circle method code	Not asked ..... 00 → 330 Pill ..... 01 IUD ..... 02 Injections ..... 03 Implants ..... 04 Diaphragm/foam/jelly ..... 05 Condom ..... 06 Female sterilization ..... 07 Male sterilization ..... 08 → 334 Periodic abstinence ..... 09 Withdrawal ..... 10 → 332 Other method 96	

No.	Questions and filters	Coding categories	Skip
328	Where did you obtain [Method] the last time? If source is hospital or clinic, write the name of the place. Probe to identify the type of source and circle the appropriate code. _____ (Name of place)	Public sector Government hospital ..... 10 Delivery house ..... 11 Commune health center ..... 12 Family planning center ..... 13 Mobile clinic ..... 14 Field worker ..... 15 → 334 Other public ..... 16 _____ (Specify) Private medical sector Private hospital/clinic ..... 21 Pharmacy ..... 22 Private doctor ..... 23 Other private medical ..... 26 _____ (Specify) Other source Friends/relatives ..... 33 → 334 Other ..... 36 _____ (Specify)	
328A	How long does it take to travel from your house to this place? If less than 2 hours, record minutes. Otherwise, record hours.	Minutes ..... 1 ☐☐☐ Hours ..... 2 0 ☐☐ Don't know 9998	
328B	Is it easy or difficult to get there?	Easy ..... 1 Difficult ..... 2 → 334	
330	Check 230: Not pregnant Or unsure ☐ ↓ Pregnant ☐ → 334		
330A	Check 106A: Currently married ☐ ↓ Widowed / Divorced / Separated ☐ → 337		
331	What is the main reason you are not using a method of contraception to avoid pregnancy?	Fertility-related reasons Not having sex ..... 21 Infrequent sex ..... 22 Menopausal/hysterectomy ..... 23 Sub-fecund/Infecund ..... 24 Postpartum/Breastfeeding ..... 25 Wants (more) children ..... 26 Opposition to use Respondent opposed ..... 31 Husband opposed ..... 32 Others opposed ..... 33 Religious prohibition ..... 34 Lack of knowledge Knows no method ..... 41 Knows no source ..... 42 → 334 Method-relative reasons Heath concerns ..... 51 Fear of side effects ..... 52 Lack of access/too far ..... 53 Cost to much ..... 54 inconvenient to use ..... 55 Interferes with body's natural processes ..... 56 Other ..... 96 _____ (Specify) Don't know 98	

No.	Questions and filters	Coding categories	Skip
332	Do you know of a place where you can obtain a method of family planning?	Yes ..... 1 No ..... 2 →	334
333	Where is that? If source is hospital or clinic, write the name of the place. Probe to identify the type of source and circle the appropriate code. _____ (Name of place)	Public sector Government hospital ..... 10 Delivery house ..... 11 Commune heath center ..... 12 Family planning center ..... 13 Mobile clinic ..... 14 Field worker ..... 15 Other public ..... 16 _____ (Specify) Private medical sector Private hospital/clinic ..... 21 Pharmacy ..... 22 Private doctor ..... 23 Other private medical ..... 26 _____ (Specify) Other source Friends/relatives ..... 33 Other ..... 36 _____ (Specify)	
333A	How long does it take to travel from your house to this place? If less than 2 hours, record minutes. Otherwise, record hours.	Minutes ..... 1 ☐☐☐ Hours ..... 2 0☐☐ Don't know 9998	
333B	Is it easy or difficult to get there?	Easy ..... 1 Difficult 2	
334	Were you visited by a family planning program worker in the last 12 months?	Yes ..... 1 No ..... 2 →	335
334A	Do you feel that the family planning staff treated you with respect?	Yes ..... 1 No 2	
334B	Were you satisfied with the family planning field worker?	Yes ..... 1 No 2	
335	Have you visited a health facility for any reason in the last 12 months?	Yes ..... 1 No ..... 2 →	337
336	Did any staff member at the health facility speak to you about family planning methods?	Yes ..... 1 NO ..... 2 →	337
336A	Do you feel that the family planning staff treated you with respect?	Yes ..... 1 No 2	
336B	Were you satisfied with the health worker?	Yes ..... 1 NO 2	
337	Do you think that breastfeeding can affect a woman's chance of becoming pregnant?	Yes ..... 1 No ..... 2 Don't know ..... 8 →	343
338	Do you think a woman's chance of becoming pregnant is increased or decreased by breastfeeding?	Increased ..... 1 → Decreased ..... 2 Depends ..... 3 Don't know 8	343

No.	Questions and filters	Coding categories	Skip
339	Check 216: One or more births ☐	No births ☐ →	343
340	Have you ever relied on breastfeeding as a method of avoiding pregnancy?	Yes ..... 1 No ..... 2 →	343
341	Check 230 and 311: Not pregnant or unsure And not sterilized ☐	Either pregnant Or sterilized ☐ →	343
342	Are you currently relying on breastfeeding to avoid getting pregnant?	Yes ..... 1 No 2	
343	Check 216 and 214: One or more induced Abortions or menstrual Regulations since Jan. 1999 ☐	No induced abortions or menstrual Regulations since Jan. 1999 ☐ →	401
344	In Q.345, enter the line number of each pregnancy since January 1999 which ended in an induced abortion or menstrual regulation. Ask the questions about all of these pregnancy outcomes beginning with the last one. (If there are more than 2 pregnancy outcomes since 1999, use additional questionnaires). Now I would like to ask you some questions about pregnancies which ended in an induced abortion or menstrual regulation in the last three years. (We will talk about your most recent [induced abortion/menstrual regulation] first).		

No.	Questions and filters	Last induced abortion or menstrual regulation	Next-to-last induced abortion or menstrual regulation
345	Enter line number from Q.214	Line number ..... ☐☐	Line number ..... ☐☐
346	At the time you became pregnant with the pregnancy which ended in your [last/next-to-last i.a./m.r.], 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?	Then ..... 1 → 348 Later ..... 2 No more ..... 3 → 348	Then ..... 1 → 348 Later ..... 2 No more ..... 3 → 348
347	How much longer would you like to have waited?	Months ..... 1 ☐☐ Years ..... 2 ☐☐ Don't know 998	Months ..... 1 ☐☐ Years ..... 2 ☐☐ Don't know 998
348	At the time you became pregnant, were you using a method of contraception?	Yes ..... 1 No ..... 2 → 350	Yes ..... 1 No ..... 2 → 350
349	Which method were you using?	Pill ..... 01 IUD ..... 02 Injections ..... 03 Implants ..... 04 Diaphragm/foam/jelly ..... 05 Condom ..... 06 Female sterilization ..... 07 Male sterilization ..... 08 Periodic abstinence ..... 09 Withdrawal ..... 10 Other ..... 96 _____ (Specify)	Pill ..... 01 IUD ..... 02 Injections ..... 03 Implants ..... 04 Diaphragm/foam/jelly ..... 05 Condom ..... 06 Female sterilization ..... 07 Male sterilization ..... 08 Periodic abstinence ..... 09 Withdrawal ..... 10 Other ..... 96 _____ (Specify)

350	Can you tell me what procedure was used to terminate the pregnancy?	Dilation and curatage ..... 1 Menstrual regulation ..... 2 Caesarian section ..... 3 Traditional method ..... 4 _____ (Specify) Other ..... 6 _____ (Specify) Don't know 8	Dilation and curatage ..... 1 Menstrual regulation ..... 2 Caesarian section ..... 3 Traditional method ..... 4 _____ (Specify) Other ..... 6 _____ (Specify) Don't know 8
351	Sometimes a women has a health problem after [an i.a/m.r.]. Did you have any health problems afterwards?	Yes ..... 1 No ..... 2 Don't know ..... 8 → 357	Yes ..... 1 No ..... 2 Don't know ..... 8 → 357
352	What health problems did you have: sterility, infection, lack of menstruation, excessive bleeding or another problem? Record all reported problems	Sterility ..... a Infection ..... b Lack of menstruation ..... c Bleeding ..... d Pelvic pain ..... e Other ..... x _____ (Specify) Don't know ..... z	Sterility ..... a Infection ..... b Lack of menstruation ..... c Bleeding ..... d Pelvic pain ..... e Other ..... x _____ (Specify) Don't know ..... z
353	Did you seek advice or treatment because of these problems?	Yes ..... 1 No ..... 2 → 357	Yes ..... 1 NO ..... 2 → 357
354	Where did you seek advice or treatment? Anywhere else? Record all mentioned	Public sector Government hospital ..... a Delivery house ..... b Comm. health center ..... c Comm. health worker ..... d Other public ..... e _____ (Specify) Private medical sector Pvt. hospital/clinic ..... f Private doctor ..... g PVT. doctor's assistant ..... h Pharmacy ..... i Other public ..... j _____ (Specify) Other source Shop ..... k Trad. practitioner ..... l Other ..... x _____ (Specify)	Public sector Government hospital ..... a Delivery house ..... b Comm. health center ..... c Comm. health worker ..... d Other public ..... e _____ (Specify) Private medical sector Pvt. hospital/clinic ..... f Private doctor ..... g PVT. doctor's assistant ..... h Pharmacy ..... i Other public ..... j _____ (Specify) Other source Shop ..... k Trad. practitioner ..... l Other ..... x _____ (Specify)
355	Because of these problems, did you become an in-patient (stay over night) at any health facility?	Yes ..... 1 No ..... 2 → 357	Yes ..... 1 No ..... 2 → 357
356	For how many nights?	Nights ..... ☐☐ Don't know 98	Nights ..... ☐☐ Don't know 98
357		Go back to 346 in next column; or, if no more events, go to 401	Go back to 346 in next column; or, if no more events, go to 401

Section 4a. Pregnancy and breastfeeding

401	Check 226: One or more births since January 1999 ☐ → No births since January 1999 ☐ → 465	
402	Enter the name, line number, and survival status of each birth since 1/1999 in the table. Ask the questions about all of these births. begin with the last birth. (If there are more than 2 births, use additional questionnaires). - Now I would like to ask you some questions about the health of all your children born in the last three years (We will talk about one child at a time).	

		Last birth	Next-to-last birth
403	Line number from Q.214	Line number ..... ☐☐	Line number ..... ☐☐
404	From Q.218 and Q. 220	Name _____ Alive ☐ Dead ☐	Name _____ Alive ☐ Dead ☐
405	At the time you became pregnant with [Name], did you want to become pregnant then, did you want to wait until later, or did you want no (more) children at all?	Then ..... 1 → 407 Later ..... 2 No more ..... 3 → 407	Then ..... 1 → 407 Later ..... 2 No more ..... 3 → 407
406	How much longer would you like to have waited?	Months ..... 1 ☐☐ Years ..... 2 ☐☐ Don't know 998	Months ..... 1 ☐☐ Years ..... 2 ☐☐ Don't know 998
407	When you were pregnant with [Name], did you see anyone for antenatal care for this pregnancy? If yes: Whom did you see? Anyone else? Probe for the type of person and record all persons seen	Health professional Doctor ..... a Doctor's assistant ..... b Midwife ..... c Nurse ..... d Other person Trad. birth attendant ..... e Other ..... x _____ (Specify) No one ..... y → 410	Health professional Doctor ..... a Doctor's assistant ..... b Midwife ..... c Nurse ..... d Other person Trad. birth attendant ..... e Other ..... x _____ (Specify) No one ..... y → 410
408	How many months pregnant were you when you first received antenatal care?	Months ..... ☐☐ Don't know 98	Months ..... ☐☐ Don't know 98
409	How many times did you receive antenatal care during this pregnancy?	Number of times ..... ☐☐ Don't know 98	Number of times ..... ☐☐ Don't know 98
410	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?	Yes ..... 1 No ..... 2 Don't know ..... 8 → 412	Yes ..... 1 No ..... 2 Don't know ..... 8 → 412
411	During this pregnancy, how many times did you get this injection?	Times ..... ☐ Don't know 8	Times ..... ☐ Don't know 8

No.	Questions	Last Name _____	Next-to-last birth Name _____
412	Where did you give birth to [Name]?	Home Your home ..... 11 Other home ..... 12 Public sector Central hospital ..... 21 Provincial hospital ..... 22 Dist. hosp./health center ..... 23 Comm. Health center ..... 24 Delivery house ..... 25 Other public ..... 26 _____ (Specify) Private medical Pvt. hospital/clinic ..... 31 Other private medical ..... 36 _____ (Specify) Other ..... 96 _____ (Specify)	Home Your home ..... 11 Other home ..... 12 Public sector Central hospital ..... 21 Provincial hospital ..... 22 Dist. hosp./health center ..... 23 Comm. Health center ..... 24 Delivery house ..... 25 Other public ..... 26 _____ (Specify) Private medical Pvt. hospital/clinic ..... 31 Other private medical ..... 36 _____ (Specify) Other ..... 96 _____ (Specify)
413	Who assisted with the delivery of [Name]? Anyone else? Probe for the type of person and record all persons assisting.	Health professional Doctor ..... a Doctor's assistant ..... b Midwife ..... c Nurse ..... d Other person Trad. birth attendant ..... e Relative/friend ..... f Other ..... x _____ (Specify) No one ..... y	Health professional Doctor ..... a Doctor's assistant ..... b Midwife ..... c Nurse ..... d Other person Trad. birth attendant ..... e Relative/friend ..... f Other ..... x _____ (Specify) No one ..... y
414	Around the time of the birth of [Name], did you have any of the following problems: Long labor, that is, did your regular contractions last more than 12 hours? Excessive bleeding that was so much that you feared it was life threatening? A high fever with bad smelling vaginal discharge? Convulsions not caused by a fever?	y n Labor more than 12 hours ..... 1 2 Excessive bleeding ..... 1 2 fever/bad smelling Vag. discharge ..... 1 2 Convulsions 1 2	y n Labor more than 12 hours ..... 1 2 Excessive bleeding ..... 1 2 fever/bad smelling Vag. discharge ..... 1 2 Convulsions 1 2
415	Was [Name] delivered by caesarian section?	Yes ..... 1 No 2	Yes ..... 1 No 2
416	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 Don't know 8	Very large ..... 1 Larger than average ..... 2 Average ..... 3 Smaller than average ..... 4 Very small ..... 5 Don't know 8
417	Was [Name] weighed at birth?	Yes ..... 1 No 2 418	Yes ..... 1 No 2 418

No.	Questions	Last Name _____	Next-to-last birth Name _____
418	How much did [Name] weigh? Record weight from birth notification card, if available.	Grams from card ..... 1 Gf recall ..... 2 ☐☐☐☐ Don't know 99998	Gram from Card..... 1 GF recall ..... 2 ☐☐☐☐ Don't know 99998
419	Has your period returned since the birth of [Name]?	Yes ..... 1 → 421 No ..... 2 → 422	
420	Did your period return between the birth of [Name] and your next pregnancy?		Yes ..... 1 No ..... 2 → 424
421	For how many months after the birth of [Name] did you not have a period?	Months ..... ☐☐ Don't know 98	Months ..... ☐☐ Don't know 98
422	Check 230: Respondent pregnant?	Not preg. ☐ → pregnant or unsure ☐ → 424	
423	Have you resumed sexual relations since the birth of [Name]?	Yes ..... 1 No ..... 2 → 425	
424	For how many months after the birth of [Name] did you not have sexual relations?	Months ..... ☐☐ Don't know 98	Months ..... ☐☐ Don't know 98
425	Did you ever breastfeed [Name]?	Yes ..... 1 No ..... 2 → 431	Yes ..... 1 No ..... 2 → 431
426	How long after birth did you first put [Name] to the breast? IF < 1 hour, record '00' hours If < 24 hours, record hours Otherwise, record days	Immediately ..... 000 Hours ..... 1 ☐☐ Days 2	Immediately ..... 000 Hours ..... 1 ☐☐ Days 2
427	Check 404: Child alive?	Alive ☐ → Dead ☐ → 429	Alive ☐ → Dead ☐ → 429
428	Are you still breastfeeding [Name]?	Yes ..... 1 → 432 No 2	Yes ..... 1 → 432 No 2
429	For how many months did you breastfeed [Name]?	Months ..... ☐☐ Don't know 98	Months ..... ☐☐ Don't know 98
430	Why did you stop breastfeeding [Name]?	Mother ill/weak ..... 01 Child ill/weak ..... 02 Child dead ..... 03 Nipple/breast problem ..... 04 Not enough milk ..... 05 Mother working ..... 06 Child refused ..... 07 Weaning age/age to stop ..... 08 Became pregnant ..... 09 Started using contraception ..... 10 Other ..... 96 _____ (Specify)	Mother ill/weak ..... 01 Child ill/weak ..... 02 Child dead ..... 03 Nipple/breast problem ..... 04 Not enough milk ..... 05 Mother working ..... 06 Child refused ..... 07 Weaning age/age to stop ..... 08 Became pregnant ..... 09 Started using contraception ..... 10 Other ..... 96 _____ (Specify)

No.	Questions	Last Name _____	Next-to-last birth Name _____
431	Check 404: Child alive?	Alive ☐ → 43 Dead ☐ → (Go back to 405 in next column or, if no more births go to 440)	Alive ☐ → 43 Dead ☐ → (Go back to 405 in next column or, if no more births go to 440)
432	How many times did you breastfeed last night between sunset and sunrise? If answer is not numeric probe for approximate number	Number of nighttime feedings ..... ☐☐	Number of nighttime feedings ..... ☐☐
433	How many times did you breastfeed yesterday during the daylight hours? If answer is not numeric probe for approximate number	Number of Daylight feedings ..... ☐☐	Number of Daylight feedings ..... ☐☐
434	Did [Name] drink anything from a bottle with a nipple yesterday or last night?	Yes ..... 1 No ..... 2 Don't know 8	Yes ..... 1 No ..... 2 Don't know 8
435	At any time yesterday or last night, was [Name] given any of the following: Plain water, filtered water or boiled water? Sugar water? Juice? Herbal tea? Baby formula? Tinned or powdered milk? Fresh milk? Any other liquid? Any solid or semi-solid foods?	Y N DK Pain water ..... 1 2 8 Sugar water ..... 1 2 8 Juice ..... 1 2 8 Herbal tea ..... 1 2 8 Baby formula ..... 1 2 8 Tinned/ powdered milk ..... 1 2 8 Fresh milk ..... 1 2 8 Other liquids ..... 1 2 8 Solid/semi-solid foods 1 2 8	Y N DK Pain water ..... 1 2 8 Sugar water ..... 1 2 8 Juice ..... 1 2 8 Herbal tea ..... 1 2 8 Baby formula ..... 1 2 8 Tinned/ powdered milk ..... 1 2 8 Fresh milk ..... 1 2 8 Other liquids ..... 1 2 8 Solid/semi-solid foods 1 2 8
439		Go back to 405 in next column; or, if no more births, go to 440	Go back to 405 in next column; or, if no more births, go to 440

Section 4B. Immunization and health

440	Enter the name, line number, and survival status of each birth since 1/1999 in the table. Ask the questions about all of these births. begin with the last birth. (If there are more than 2 births, use additional questionnaires).		
441	Line number from Q.214	last birth Line number ..... ☐☐	Next-to-last birth line number ..... ☐☐
442	From Q.218 and Q.220	Name _____ alive ☐ dead ☐ (Go to 442 in next column; or, if no more births, go to 465)	Name _____ alive ☐ dead ☐ (Go to 442 in next column; or, if no more births, go to 465)
443	Do you have a card where [Name's] vaccinations are written down? If yes: May I see it please?	Yes, seen ..... 1 → 445 Yes, not seen ..... 2 → 447 No card 3	Yes, seen ..... 1 → 445 Yes, not seen ..... 2 → 447 No card 3
444	Did you ever have a vaccination card for [Name]?	Yes ..... 1 No ..... 2 → 447	Yes ..... 1 No ..... 2 → 447
445	(1) Copy vaccination date for each vaccine from the card (2) Write '44' in 'day' column if card shows that a vaccination was given, but no date is recorded If Vaccine was not given, leave the corresponding line blank BCG Polio 1 (P1) Polio 2 (P2) Polio 3 (P3) DPT 1 (D1) DPT 2 (D2) DPT 3 (D3) Measles	Day month year BCG P1 P2 P3 D1 D2 D3 meas.	Day month year BCG P1 P2 P3 D1 D2 D3 Meas.

No.	Questions	Last birth Name _____	Next-to-last birth Name _____
446	Has [Name] received any vaccinations that are not recorded on this card? Record '1' only if respondent mentions BCG, polio 1-3, DPT 1-3 and/or measles vaccine(s)	Yes ..... 1 (Probe for vaccinations and write '66' in the corresponding day column in 445) No ..... 2 Don't know 8 449	Yes ..... 1 (Probe for vaccinations and write '66' in the corresponding day column in 445) No ..... 2 Don't know 8 449
447	Did [Name] ever receive any vaccinations to prevent him/her from getting diseases?	Yes ..... 1 No ..... 2 Don't know 8 449	Yes ..... 1 No ..... 2 Don't know 8 449
448	Please tell me if [Name] received any of the following vaccinations:		
448A	A BCG vaccination against tuberculosis, that is, an injection in the left arm or shoulder that caused a scar?	Yes ..... 1 No ..... 2 Don't know 8	Yes ..... 1 No ..... 2 Don't know 8
448B	Polio vaccine, that is, drops in the mouth?	Yes ..... 1 No ..... 2 Don't know 8 448d	Yes ..... 1 No ..... 2 Don't know 8 448d
448C	How many times?	Number of times ..... ☐	Number of times ..... ☐
448D	DPT vaccination, that is, an injection usually given at the same time as polio drops?	Yes ..... 1 No ..... 2 Don't know 8 448E	Yes ..... 1 No ..... 2 Don't know 8 448E
448E	How many times?	Number of times ..... ☐	Number of times ..... ☐
448F	An injection to prevent measles?	Yes ..... 1 NO ..... 2 Don't know 8	Yes ..... 1 NO ..... 2 Don't know 8
449	Has [Name] been ill with a fever at any time in the last 2 weeks?	Yes ..... 1 No ..... 2 Don't know 8	Yes ..... 1 No ..... 2 Don't know 8
450	Has [Name] been ill with a cough at any time in the last 2 weeks?	Yes ..... 1 No ..... 2 Don't know 8 454	Yes ..... 1 No ..... 2 Don't know 8 454
451	When [NAME] was ill with a cough, did he/she breathe faster than usual with short, fast breaths ?	Yes ..... 1 No ..... 2 Don't know 8	Yes ..... 1 No ..... 2 Don't know 8
452	Did you seek advice or treatment for the cough?	Yes ..... 1 No 2 454	Yes ..... 1 No 2 454

No.	Questions	Last birth Name _____	Next-to-last birth Name _____
453	Where did you seek advice or treatment? Anywhere else? Record all mentioned	Public sector Government hospital ..... a Comm. health center ..... b MCH/FP mobile team ..... c Village health worker ..... d Other public ..... E _____ (Specify) Private medical sector PVT. hospital/clinic ..... f Private doctor ..... g PVT. doctor's assistant ..... h Pharmacy ..... i Other private medical ..... j _____ (Specify) Other source Shop ..... k Trad. practitioner ..... l Other ..... x _____ (Specify)	Public sector Government hospital ..... a Comm. health center ..... b MCH/FP mobile team ..... c Village health worker ..... d Other public ..... E _____ (Specify) Private medical sector PVT. hospital/clinic ..... f Private doctor ..... g PVT. doctor's assistant ..... h Pharmacy ..... i Other private medical ..... j _____ (Specify) Other source Shop ..... k Trad. practitioner ..... l Other ..... x _____ (Specify)
454	Has [Name] had diarrhea in the last 2 weeks?	Yes ..... 1 NO ..... 2 Don't know 8 464	Yes ..... 1 NO ..... 2 Don't know 8 464
455	Was there any blood in the stools?	Yes ..... 1 No ..... 2 Don't know 8	Yes ..... 1 No ..... 2 Don't know 8
456	On the worst day of the diarrhea, how many bowel movements did [Name] have?	Number of bowel movements ..... ☐☐ Don't know 98	Number of bowel movements ..... ☐☐ Don't know 98
457	Was he/she given the same amount to drink as before the diarrhea, or more, or less?	Same ..... 1 More ..... 2 Less ..... 3 Don't know 8	Same ..... 1 More ..... 2 Less ..... 3 Don't know 8
458	Was he/she given the same amount to food to eat as before the diarrhea, or more, or less?	Same ..... 1 More ..... 2 Less ..... 3 Don't know 8	Same ..... 1 More ..... 2 Less ..... 3 Don't know 8
459	When [Name] had diarrhea, was he/she given any of the following to drink: A fluid, made from a special packet called Oredon? Porridge? Soup? Home-made sugar-salt-water solution? Tannin-rich water? Milk or infant formula? Drinking water? Any other liquid?	Y N DK Fluid from ors pkt ..... 1 2 8 Porridge ..... 1 2 8 Soup ..... 1 2 8 Sugar-salt-water solution ..... 1 2 8 Tannin-rich water ..... 1 2 8 Milk/ infant form. ..... 1 2 8 Water ..... 1 2 8 Other liquid 1 2 8	Y N DK Fluid from ors pkt ..... 1 2 8 Porridge ..... 1 2 8 Soup ..... 1 2 8 Sugar-salt-water solution ..... 1 2 8 Tannin-rich water ..... 1 2 8 Milk/ infant form. ..... 1 2 8 Water ..... 1 2 8 Other liquid 1 2 8

No.	Questions	Last birth Name _____	Next-to-last birth Name _____
460	Was anything (else) given to treat the diarrhea?	Yes ..... 1 No ..... 2 Don't know ..... 8 → 462	Yes ..... 1 No ..... 2 Don't know ..... 8 → 462
461	What was given to treat the diarrhea? Anything else? Record all mentioned	Pill or syrup ..... b Injection ..... c (I.v.) intravenous ..... d Home remedies/ Herbal medicines ..... e Other ..... x _____ (Specify)	Pill or syrup ..... b Injection ..... c (I.v.) intravenous ..... d Home remedies/ Herbal medicines ..... e Other ..... x _____ (Specify)
462	Did you seek advice or treatment for the diarrhea?	Yes ..... 1 No ..... 2 → 464	Yes ..... 1 No ..... 2 → 464
463	Where did you seek advice or treatment? Anywhere else? Record all mentioned	Public sector Government hospital ..... a Comm. health center ..... b MCH/FP mobile team ..... c Village health worker ..... d Other public ..... E _____ (Specify) Private medical sector Pvt. hospital/clinic ..... f Private doctor ..... g PVT. doctor's assistant ..... h Pharmacy ..... i Other private medical ..... j _____ (Specify) Other source Shop ..... k trad. practitioner ..... l Other ..... x _____ (Specify)	Public sector Government hospital ..... a Comm. health center ..... b MCH/FP mobile team ..... c Village health worker ..... d Other public ..... E _____ (Specify) Private medical sector Pvt. hospital/clinic ..... f Private doctor ..... g PVT. doctor's assistant ..... h Pharmacy ..... i Other private medical ..... j _____ (Specify) Other source Shop ..... k trad. practitioner ..... l Other ..... x _____ (Specify)
464		Go back to 442 in next column; or, if no more births, go to 465	Go back to 442 in next column; or, if no more births, go to 465

No.	Questions and filters	Coding categories	Skip
465	When a child has diarrhea, should he/she be given less to drink than usual, about the same amount, or more than usual?	Less to drink ..... 1 About same amount to drink ..... 2 More to drink ..... 3 Don't know 8	
466	When a child has diarrhea, should he/she be given less to eat than usual, about the same amount, or more than usual?	Less to eat ..... 1 About same amount to eat ..... 2 More to eat ..... 3 Don't know 8	
467	When a child is sick with diarrhea, what signs of illness would tell you that he or she should be taken to a health facility or health worker? Record all mentioned	Repeated watery stools ..... a Any watery stools ..... b Repeated vomiting ..... c Any vomiting ..... d Blood in stools ..... e Fever ..... f Marked thirst ..... g Not eating/not drinking well ..... h Getting sicker/very sick ..... i Not getting better ..... j other ..... x _____ (Specify) Don't know ..... z	
468	When a child is sick with a cough, what signs of illness would tell you that he or she should be taken to a health facility or health worker? Record all mentioned	Fast breathing ..... a Difficult breathing ..... b Noisy breathing ..... c Fever ..... d Unable to drink ..... e Not eating/not drinking well ..... f Getting sicker/very sick ..... g Not getting better ..... h Other ..... x _____ (Specify) Don't know ..... z	
469	Check 459, all columns: No child Received ors ☐ Any child Received ors ☐ →		501
470	Have you ever heard of a special product called Oredon you can use for the treatment of diarrhea?	Yes ..... 1 No 2	

Section 5. Marriage

No.	Questions and filters	Coding categories	Skip
501	Presence of others at this point?	Y / n Children under 10 ..... 1 2 Husband ..... 1 2 Other males ..... 1 2 Other females 1 2	
502	Check 106A: Currently married ☐ → 507 Widowed / Divorced / Separated ☐ → 511		511
507	Is your husband living with you now or is he staying elsewhere?	Living with her ..... 1 Staying elsewhere 2	
511	Have you been married only once, or more than once?	Once ..... 1 More than once 2	
512	Check 511: Married Only once ☐ → In what month and year did you start living with your husband? Married more than once ☐ → Now we will talk about your first husband. In what month and year did you start living with him?	Month ..... ☐☐ Don't know month ..... 98 Year ..... ☐☐☐☐ Don't know year 9998	514
513	How old were you when you started living with him?	Age ..... ☐☐	
514	Determine months married since 1/1997. Enter 'X' in column 3 of calendar for each month married, and enter '0' for each month not married, since 1/1997. For women with more than one marriage: probe for date when current married started and, if appropriate, for starting and termination dates of any previous marriages. For women not currently married: probe for date when last marriage started and for termination date and, if appropriate, for the starting and termination dates of any previous marriages.		
516	Check 301 and 302: Knows Condom ☐ → The last time you had sex, was a condom used? Does not Know condom ☐ → Some men use a condom, which means that they put a rubber sheath on their penis during sexual intercourse. The last time you had sex, was a condom used?	Yes ..... 1 No ..... 2 Don't know 8	

No.	Questions and filters	Coding categories	Skip
517	Do you know of a place where you can get condoms?	Yes ..... 1 No ..... 2 →	600
518	Where is that? If source is hospital or clinic, write the name of the place. Probe to identify the type of source and circle the appropriate code. _____ (Name of place)	Public sector Government hospital ..... 10 Delivery house ..... 11 Commune health center ..... 12 Family planning center ..... 13 Mobile clinic ..... 14 Field worker ..... 15 Other public ..... 16 _____ (Specify) Private medical sector Private hospital/clinic ..... 21 Pharmacy ..... 22 Private doctor ..... 23 Other private medical ..... 26 _____ (Specify) Other source Friends/relatives ..... 33 Other ..... 36 _____ (Specify)	

Section 6. fertility preference

No.	Questions and filters	Coding categories	Skip
600	Check 106A: Currently married ☐	Widowed Divorced Separated ☐	→ 612
601	Check 314: Neither Sterilized ☐	He or she Sterilized ☐	→ 612
602	Check 230: Not pregnant or unsure ☐ → Now I have some questions about the future. Would you like to have (a/ another) child, or would you prefer not to have any (more) children? Pregnant ☐ → Now I have some questions about the future. After the child you are expecting now, 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/don't know..... 8	→ 604 → 606 → 604
603	Check 230: Not pregnant Or unsure ☐ → How long would you like to wait from now before the birth of (a/another) child? Pregnant ☐ → After the child you are expecting now, how long would you like to wait before the birth of another child?	Months ..... 1 ☐☐ Years ..... 2 ☐☐ Soon/now..... 993 Says she can't get Pregnant..... 994 Other ..... 996 _____ (Specify) Don't know..... 998	→ 606
604	Check 230: Not pregnant Or unsure ☐	Pregnant ☐	→ 607
605	If you became pregnant in the next few weeks, would you be <u>happy</u>, <u>unhappy</u>, or would it <u>not matter</u> very much?	Happy..... 1 Unhappy..... 2 Would not matter..... 3	
606	Check 313: Not Asked ☐ Not currently Using ☐ Currently Using	☐	→ 612
607	Do you think you will use a method to delay or avoid pregnancy within the next 12 months?	Yes ..... 1 No ..... 2 Don't know..... 8	→ 609
608	Do you think you will use a method to delay or avoid pregnancy at any time in the future?	Yes ..... 1 No ..... 2 Don't know..... 8	→ 610

No.	Questions and filters	Coding categories	Skip
609	Which method would you prefer to use?	Pill ..... 01 IUD ..... 02 Injections ..... 03 Implants ..... 04 Diaphragm/foam/jelly ..... 05 Condom ..... 06 Female sterilization ..... 07 Male sterilization ..... 08 Periodic abstinence ..... 09 Withdrawal ..... 10 Other ..... 96 _____ (Specify) Unsure 98	→ 612
610	What is the main reason that you think you will never use a method?	Fertility-related reasons Infrequent sex ..... 22 Menopausal/hysterectomy ..... 23 Sub-fecund/infecund ..... 24 Wants more children ..... 26 Opposition to use Respondent opposed ..... 31 Husband opposed ..... 32 Others opposed ..... 33 religious prohibition ..... 34 Lack of knowledge Knows no method ..... 41 Knows no source ..... 42 Method-related reasons Health concerns ..... 51 Fear of side effects ..... 52 Lack of access/too far ..... 53 Cost too much ..... 54 Inconvenient to use ..... 55 Interferes with body's normal processes ..... 56 Other ..... 96 _____ (Specify) Don't know 98	
612	Check 220: Has living Children ☐ → If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? No living Children ☐ → If you could choose exactly the number of children to have in your whole life, how many would that be? Probe for a numeric response	Number ..... ☐☐ Other ..... 96 _____ (Specify)	→ 614

No.	Questions and filters	Coding categories	Skip
613	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter?	Boys ..... ☐☐ Girls ..... ☐☐ Either ..... ☐☐ Other ..... 999996 _____ (Specify)	
614	Would you say that you approve or disapprove of couples using a method to avoid getting pregnant?	Approve ..... 1 Disapprove ..... 2 No opinion 3	
615	Is it acceptable or not acceptable to you for information on family planning to be provided: On the radio? On the television?	accept-able / not acceptable / DK Radio 1 2 8 T.V 1 2 8	
616	In the last few months have you heard (read) about family planning: On the radio? On the television? In a newspaper or magazine? From a poster? From leaflets or brochures?	Yes / no Radio ..... 1 2 Television ..... 1 2 Newspaper or magazine ..... 1 2 Poster ..... 1 2 Leaflets or brochures 1 2	
618	In the last few months have you discussed the practice of family planning with your friends, neighbors, or relatives?	Yes ..... 1 No ..... 2 →	620
619	With whom? Anyone else? Record all mentioned	Husband ..... a Mother ..... b Father ..... c Sister(s) ..... d Brother(s) ..... e Daughter ..... f Mother-in-law ..... g Friends/neighbors ..... h Other ..... x _____ (Specify)	
620	Check 106A: Currently married ☐ Widowed divorced Separated ☐ →		701
621	Spouses do not always agree on everything. Now I want to ask you about your husband's views on family planning. Do you think that your husband approves or disapproves of couples using a method to avoid pregnancy?	Approves ..... 1 Disapproves ..... 2 Don't know 8	
622	How often have you talked to your husband about family planning in the past year?	Never ..... 1 Once or twice ..... 2 More often 3	
623	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 Don't know 8	

Section 7. Husband background, woman's work and residence

No.	Questions and filters	Coding categories	Skip
701	Check 106A: Currently married ☐	Widowed Divorced Separated ☐	→ 703
702	How old was your husband on his last birthday?	Age ..... ☐☐	
703	Did your (last) husband ever attend school?	Yes ..... 1 No 2	→ 706
704	What was the highest grade of education he completed? Use equivalency table	Grade ..... ☐☐ College/university ..... 15 Don't know grade 98	
706	What (is/was) your (last) husband's occupation? That is, what kind of work (does/did) he mainly do?	_____ ☐☐ _____ (Specify)	
709	Aside from your own housework, are you currently working?	Yes ..... 1 No 2	→ 712
710	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business? Are you currently doing any of these things or any other work?	Yes ..... 1 No 2	→ 712
711	Have you done any work in the last 12 months?	Yes ..... 1 No 2	→ 726
712	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____ (Specify)	
715	Do you do this work for a family member, a cooperative, the government, someone else, or are you self-employed?	A family member ..... 1 A cooperative ..... 2 The government ..... 3 Someone else ..... 4 Self-employed 5	
717	During the last 12 months, how many months did you work?	Number of months ..... ☐☐	
720	Do you earn cash for your work? Probe: Do you make money for working?	Yes ..... 1 No 2	→ 723

No.	Questions and filters	Coding categories	Skip
722	Check 106a: Currently Married ☐ → Who mainly decides how the money you earn will be used: you, your husband, you and your husband jointly, or someone else? Widowed/ Divorced Separated ☐ → Who mainly decides how the money you earn will be used: you, someone else, or you and someone else jointly?	Respondent decides ..... 1 Husband decides ..... 2 Jointly with husband ..... 3 Someone else decides ..... 4 Jointly with someone else 5	
723	Do you usually work at home or away from home?	Home ..... 1 Away 2	
724	Check 221 and 221A: Is a child living at home who is less than age 6 years? Yes ☐ → No ☐ →		726
725	Who usually takes care of [Name of youngest child at home] while you are working?	Respondent ..... 01 Husband ..... 02 Older female child ..... 03 Older male child ..... 04 Other relative ..... 05 Neighbor ..... 06 Friend ..... 07 Servant/hired help ..... 08 Child is in school ..... 09 Institutional child care ..... 10 Has not worked Since last birth ..... 95 Other ..... 96 _____ (Specify)	
726	Have you lived in only one community or in more than one community since Jan. 1997?	One community ..... 1 More than one community ..... 2 →	728
727	In column 4 of calendar, enter the appropriate code for current community, ('1' city, '2' town, '3' countryside). Begin in the month of interview and continue with all preceding months back to 1/1997. Then skip to		801
728	In what month and year did you move to [name of current community]? In column 4 of calendar, enter 'x' in the month and year of the move. In subsequent months enter the appropriate code for the type of community, ('1' city, '2' town, '3' countryside). Continue probing for previous communities, and record moves and type of communities accordingly. Illustrative questions: • Where did you live before .....? • In what month and year did you arrive there? • Is that place a city, a town, or in the countryside?		

Section 8. AIDS

No.	Questions and filters	Coding categories	Skip
801	Have you ever heard of an illness called AIDS?	Yes ..... 1 No ..... 2 → 811	
802	From which sources of information have you learned most about AIDS? Any other sources? Record all mentioned	Radio ..... a Television ..... b Newspapers/magazines ..... c Pamphlets/posters ..... d Health workers ..... e Churches/temples ..... f Schools/teachers ..... g Community meetings ..... h Friends/relatives ..... i Work place ..... j Other ..... x _____ (Specify)	
803	Is there anything a person can do to avoid getting AIDS or the virus that causes AIDS?	Yes ..... 1 No ..... 2 Don't know ..... 8 → 807	
804	What can a person do? Any other ways? Record all mentioned	Safe sex ..... a Abstain from sex ..... b Use condoms ..... c Have only one sex partner ..... d Avoid sex with prostitutes ..... e Avoid sex with homosexuals ..... f Avoid blood transfusions ..... g Avoid injections ..... h Avoid kissing ..... i Avoid mosquito bites ..... j Seek protection from traditional healer ..... k Other ..... w _____ (Specify) Other ..... x _____ (Specify) Don't know ..... z	
805	Check 804: Mentioned Safe sex ☐ ↓ Did not mention Safe sex ☐ → 807		

No.	Questions and filters	Coding categories	Skip
806	What does "safe sex" mean to you? Record all mentioned	Abstain from sex ..... b Use condoms ..... c Have only one sex partner ..... d Avoid sex with prostitutes ..... e Avoid sex with homosexuals ..... f Other ..... x _____ (Specify) Don't know ..... z	
807	Is it possible for a healthy-looking person to have the AIDS virus?	yes ..... 1 No ..... 2 Don't know 8	
808	Do you think that persons with AIDS almost never die from the disease, sometimes die, or almost always die from the disease?	Almost never ..... 1 Sometimes ..... 2 Almost always ..... 3 Don't know 8	
809	Do you think your chances of getting AIDS are small, moderate, great, or no risk at all?	Small ..... 1 Moderate ..... 2 Great ..... 3 No risk at all ..... 4 Has aids 5	
811	Record the time	Hour .....  minutes	

Calendar

Instructions:

+ Only one code should appear in any box.
+ For column 3 and 4, all months should be filled in.
+ For column 1, all months should be filled in for currently married women.

Information to be codes for each column:

Col. 1: Births, Pregnancies, Contraceptive Use

b = Births
p = Pregnancies
t = Terminations

0 = No method
1 = Pill
2 = IUD
3 = Injections
4 = Implants
5 = Diaphragm/foam/jelly
6 = Condom
7 = Female sterilization
8 = Male sterilization
9 = Periodic abstinence
a = Withdrawal
x = Other _____

_____
(Specify)

Col. 2: Discontinuation of Contraceptive Use

0 = Infrequent sex/husband away
1 = became pregnant while using
2 = Wanted to become pregnant
3 = Husband disapproved
4 = Wanted more effective method
5 = Health concerns
6 = Side effects
7 = Lack of access/too far
8 = Cost too much
9 = Inconvenient to use
f = Fatalistic
a = Difficult to get pregnant/menopause
d = Marital dissolution/separation
x = Other _____

_____
(Specify)
z = Don't know

Col. 3: Marriage

x = married
0 = Single, widowed, divorced, separated

Col. 4: Moves and Types of Communities

x = Change of community
1 = City
2 = Town
3 = Countryside

Year	Month	1	2	Number	3	4	month	year
2002	12			01			12	2002
	11			02			11	
	10			03			10	
	9			04			9	
	8			05			8	
	7			06			7	
	6			07			6	
	5			08			5	
	4			09			4	
	3			10			3	
	2			11			2	
	1			12			1	
2001	12			13			12	2001
	11			14			11	
	10			15			10	
	9			16			9	
	8			17			8	
	7			18			7	
	6			19			6	
	5			20			5	
	4			21			4	
	3			22			3	
	2			23			2	
	1			24			1	
2000	12			25			12	2000
	11			26			11	
	10			27			10	
	9			28			9	
	8			29			8	
	7			30			7	
	6			31			6	
	5			32			5	
	4			33			4	
	3			34			3	
	2			35			2	
	1			36			1	
1999	12			37			12	1999
	11			38			11	
	10			39			10	
	9			40			9	
	8			41			8	
	7			42			7	
	6			43			6	
	5			44			5	
	4			45			4	
	3			46			3	
	2			47			2	
	1			48			1	
1998	12			49			12	1998
	11			50			11	
	10			51			10	
	9			52			9	
	8			53			8	
	7			54			7	
	6			55			6	
	5			56			5	
	4			57			4	
	3			58			3	
	2			59			2	
	1			60			1	
1997	12			61			12	1997
	11			62			11	
	10			63			10	
	9			64			9	
	8			65			8	
	7			66			7	
	6			67			6	
	5			68			5	
	4			69			4	
	3			70			3	
	2			71			2	
	1			72			1	

Interviewer's observations
(To be filled in after completing interview)

Comments about Respondent:

Comment on Specific Questions:

Any other comments:

Supervisor's observations

Name of Supervisor: Date:

Editor's observations

Name of Editor: Date:

General Statistical Office
Vietnam Demographic and Health Survey - III

Community/health facility questionnaire

Identification	
Province/municipality: _____ District: _____ Commune: _____ Cluster name: _____ Cluster number: ..... Urban/rural (Urban = 1, Rural = 2): ..... Large city/ small city/ town/ countryside (Large city = 1, Small city = 2, Town = 3, Countryside = 4):	☐☐☐ ☐☐☐ ☐ ☐
Date of visit: _____ Interviewer name: _____ Result*: _____ Result codes: 1 = Completed 2 = Unable to complete (Specify reason below) _____	Date ☐☐ Month ☐☐ Year ☐☐☐☐ Name ☐☐ result (*) ☐

Supervisor	Field editor	Office editor	Keyed by
Name _____ ☐☐ Date _____	Name _____ ☐☐ Date _____	☐☐	☐☐

Section 1a. Locality characteristics

No.	Questions	Coding categories	Skip
101	Type of locality in which cluster is located	Large city ..... 1 Small city ..... 2 Town ..... 3 Village 4	
102	What are the major economic activities of the people living in this locality? Record up to three activities	Agriculture ..... a Livestock ..... b Fishing ..... c Trading/marketing ..... d Manufacturing ..... e Mining ..... f Government ..... g Other ..... x _____ (Specify)	
103	Is there telephone service in the locality?	Yes ..... 1 No 2	

Section 1B. Community characteristics

The following questions pertain to the immediate community in which the sample cluster is located. This could be a neighborhood in the case of an urban area (city or town) or a village in the case of a rural area.

104	Check 101: Type of locality in which cluster is located	Large city ..... 1 Small city ..... 2 Town ..... 3 Village 4	→ 109
105	What is the name of the nearest urban area (town or city)?	_____ _____	
106	How far is it in kilometers to this place?	KM. To nearest Urban center ..... ☐☐☐	
107	What are the most commonly used types of transportation to go from this place to the nearest urban center? Circle all applicable	Motorized ..... a Bicycle ..... b Animal ..... c Boat ..... d Walking ..... e Other ..... x _____ (Specify)	
108	What is the main access route to this village?	All weather road ..... 1 seasonal road ..... 2 Other (river/railway) ..... 3 Path 4	
109	Sometime children who play normally in the day have difficulty seeing and moving around in the twilight after the sun goes down. In the evening these children may sit alone, hold onto their mother's clothes, be unable to find their toys, or see to eat. Are you familiar with this condition?	Yes ..... 1 No 2	→ 112

No.	Questions	Coding categories	Skip
110	What do you call this condition? Try to get the local name of this condition	_____ ☐☐	
111	Do you know of any children in the community who have had this condition in the past month?	Yes ..... 1 No 2	
112	Haw far from this community are the following things? A primary school? A lower secondary school? A secondary school? A post office? A local market? A cinema? A bank? Public transportation?	Kilometers Primary school ..... ☐☐ Lower secondary school ..... ☐☐ Secondary school ..... ☐☐ Post office ..... ☐☐ Local market ..... ☐☐ Cinema ..... ☐☐ Bank ..... ☐☐ Public transportation ..... ☐☐ If in locality, write '00'. If not, write kilometers. If more than 95 km, write '95'. If do not know, write '98'	

Section 1c. Health and family planning programs in the community

No.	Questions	Coding categories	Skip
113	Does a community-based family planning distribution program cover this community?	Yes ..... 1 No ..... 2 →	115
113A	In what year did the community-based family planning distribution program first cover this community?	Year ..... ☐☐☐☐ Don't know 9998	
114	Are the following methods available from community based distribution program? a) Pill? b) Condom?	Y N Pill ..... 1 2 Condom 1 2	
115	Does a family planning field worker visit this community?	Yes ..... 1 No ..... 2 →	120
116	How often does a family planning field worker visit?	Number of times ☐☐ Per month ..... 1 Year 2	
116A	In what year did family planning field workers first provide services to this community?	Year ..... ☐☐☐☐ Don't know 9998	
117	Does a family planning field worker provide family planning counseling?	Yes ..... 1 No 2	
118	Are the following methods available from the family planning field worker? a) Pill? b) Condom?	Y N Pill ..... 1 2 Condom 1 2	

No.	Questions	Coding categories	Skip
119	How many family planning field workers visit this community?	Total no. of FP workers ..... ☐☐	
120	Is this community visited regularly by a mobile family planning team?	Yes ..... 1 No ..... 2 →	123
121	How often does the mobile family planning team visit?	Number of times ☐☐ Per month ..... 1 Year 2	
121A	In what year did the mobile family planning team first make regular visits to this community?	Year ..... ☐☐☐☐ Don't know 9998	
122	Are the following methods available from the mobile family planning team? a) Pill? b) IUD? c) Female sterilization? d) Male sterilization? e) Injection?	Y N Pill ..... 1 2 IUD ..... 1 2 Female sterilization ..... 1 2 Male sterilization ..... 1 2 Injection 1 2	
123	Have there been any family planning campaigns in this community in the last year ?	Yes ..... 1 No ..... 2 →	125
124	What specifically was this campaign promoting? Circle all applicable	Child spacing ..... a Benefits of birth control ..... b Use of family planning ..... c Breast feeding ..... d Specific method(s) promotion ..... e Where methods available ..... f Other ..... x _____ (Specify)	
125	Where do women who live in this community usually give birth?	At Home ..... 1 At health center/hospital 2	
126	Is there a traditional birth attendant available to women here who regularly assists during delivery?	Yes ..... 1 No ..... 2 →	129
127	Does the traditional birth attendant provide iron supplements?	Yes ..... 1 No 2	
128	Has the traditional birth attendant had any special training from the government or Ministry of Health or other organization?	Yes ..... 1 No ..... 2 Don't know 8	
129	Is the area covered by a trained midwife?	Yes ..... 1 No ..... 2 →	131
130	Does the trained midwife provide iron supplements?	Yes ..... 1 No 2	

No.	Questions	Coding categories	Skip
131	Is there a health worker in this area?	Yes ..... 1 No 2	→ 134
132	Does the health worker provide: a) Basic medications? b) ORT instruction or ORS packets? c) Vitamin A capsules? d) Growth promotion? e) Iron tablets? f) Iodized oil capsules/injections? g) Antenatal care? h) Immunizations? i) Family planning services?	Y N Basic medications ..... 1 2 ORT/ORS ..... 1 2 vitamin a ..... 1 2 Growth promotion ..... 1 2 Iron tablets ..... 1 2 IOdized oil ..... 1 2 Antenatal care ..... 1 2 Immunizations ..... 1 2 Family planning 1 2	
133	How often does the health worker visit?	Number of times ☐☐ Per month ..... 1 Year 2	
134	Have there been any health campaigns in this [locality] in the last year?	Yes ..... 1 No 2	→ Sect. 2
135	What was the health campaign promoting? Circle all applicable	Benefits of breastfeeding ..... a Immunization ..... b Diarrheal disease control ..... c aids ..... d Drug abuse ..... e Growth promotion/nutrition ..... f vitamin a ..... g Iodine deficiency ..... h Sanitation ..... i Other ..... x _____ (Specify)	

Section 2. Facility identification section

What is the name of the nearest doctor with a private practice to this community?

_____

_____

_____

What is the name of the nearest pharmacy to this community?

_____

_____

_____

What is the name of the nearest commune health center?

_____

_____

_____

Aside from the commune health center, what is the name of the nearest health center, inter-commune health center, or hospital to this community?

_____

_____

_____

Section 3. Commune health center visit

Name of facility: _____ Date: _____

If the commune health center is within 30 kilometers, it is to be visited. Complete questions 300, 301 and 302 upon arrival at the facility based on your own observations. Then find a knowledgeable staff person at the facility to answer the remaining questions.

If this facility has already been visited for a different cluster, record DHS cluster number here: ☐☐☐

If the facility has already been visited, a second visit is not needed. End your visit.

300	If this is the first facility visited after the cluster visit, record distance from cluster from the odometer	Distance from cluster ☐☐ Not first facility visited ... 95 Chc in cluster ... 96	
301	Do you think that the estimate of distance to the facility given in the cluster is reasonable?	Reasonable ... 1 Overestimated ... 2 Underestimated ... 3	
302	Do you think that the estimate of the time to the facility given in the cluster is reasonable?	Reasonable ... 1 Overestimated ... 2 Underestimated ... 3	

Questions to be asked of staff person at facility:

No.	Questions	Coding categories	Skip to
303	In what year did this commune health center open?	Year opened ... ☐☐☐☐	
306	How many beds does this commune health center have?	Number of beds ... ☐☐☐	
307	On average, how many outpatients are seen daily at this facility? (Outpatients are people seen for preventive care and sick people who go home the same day)	Number of daily Outpatients ... ☐☐☐☐	
308	How many regular staff of the following types does this commune health center have: Doctors? Doctor's assistants? Nurses? Midwives? MCH/FP workers? Other staff?	Number of: Doctors ... ☐☐ Doctor's assistants ... ☐☐ Nurses ... ☐☐ Midwives ... ☐☐ MCH/FP workers ... ☐☐ Other staff ... ☐☐	
309	Does this facility normally use disposable needles when giving injections for MCH immunizations?	Yes ... 1 No ... 2	→ 312
310	Is this facility out now or has it run out of its supply of disposable needles at any time in the last 6 months?	Yes ... 1 No ... 2	

No.	Questions	Coding categories	Skip to
311	Does this facility ever reuse disposable needles?	Yes ..... 1 No 2	
312	Does this facility normally use disposable gloves?	Yes ..... 1 No ..... 2 →	314
313	Is this facility out now or has it run out of its supply of disposable gloves at any time in the last 6 months?	Yes ..... 1 No 2	
314	What is the method MOST frequently used for the sterilization of medical instruments? Circle one	Electric sterilizer ..... 1 Autoclave ..... 2 Steam pressure sterilizer ..... 3 Boil over kerosene stove ..... 4 Boil over charcoal/wood stove ..... 5 None ..... 6 → Other ..... 7 _____ (Specify)	316
315	Has the facility NOT been able to sterilize medical instruments for any reason (e.g. equipment broken, no electricity, no fuel) at any time in the last six months?	Has not been able ..... 1 Has been able 2	
316	Does the facility have the following items in working order/in stock: Running water? Electricity? Refrigerator? Kerosene? Telephone or radio transmitter? Vehicle? Motorbike? Bicycle? Delivery bed? Delivery kit? Waiting area for women in labor? Blood bank? Examination couch? Light for gynecological examination? IUCD (loop insertion) kit? Vacuum aspiration kit for menstrual regulation? Weighing scales for children? Adult weighing scale? Growth cards? Linens? Gauze? Cotton wool? Antiseptics? Blood pressure machine? Talquist method for diagnosis of anemia? Microscope? AIDS test (Elisa or Serodia test)?	Y N Running water ..... 1 2 Electricity ..... 1 2 Refrigerator ..... 1 2 Kerosene ..... 1 2 Telephone ..... 1 2 Vehicle ..... 1 2 Motorbike ..... 1 2 Bicycle ..... 1 2 Delivery bed ..... 1 2 Delivery kit ..... 1 2 Waiting area ..... 1 2 Blood bank ..... 1 2 Exam couch ..... 1 2 Light-gyn exams ..... 1 2 IUCD kit ..... 1 2 Vacuum aspiration kit ..... 1 2 Weighing scale-child ..... 1 2 Adult scale ..... 1 2 Growth cards ..... 1 2 Linens ..... 1 2 Gauze ..... 1 2 Cotton wool ..... 1 2 Antiseptics ..... 1 2 Blood pressure machine ..... 1 2 Talquist method ..... 1 2 Microscope ..... 1 2 AIDS test 1 2	
317	Do you have an outreach program?	Yes ..... 1 No ..... 2 →	319

318	How many villages/communities do you regularly visit?	Number of sites ..... ☐☐	

Services available at the commune health center:

Now I would like to ask you about maternal and child health services available at this commune health center.

Ask Q.320 for the first service. If the service is available, continue across the table, if not, ask about the next service.

	Service	320. Is [Service] available?	321. How many days per week is [Service] available?	322. In what year was [Service] first offered here?
1	Antenatal care	Yes ..... 1 No 2	☐	☐☐☐☐
2	Delivery care	Yes ..... 1 No 2		☐☐☐☐
3	Postnatal care	Yes ..... 1 No 2	☐	☐☐☐☐
4	Child immunization	Yes ..... 1 No 2	☐	☐☐☐☐
5	Child growth monitoring	Yes ..... 1 No 2 323	☐	☐☐☐☐

Medication available at the facility:

Now I would like to ask you about medications and other supplies available at this facility. When I have finished, I will need to see the medications you have in stock.

Ask Q.323 for each medication. If the medication is available, ask Q.324, if not available, ask Q.325. If the medication has at some time been available, ask Q.326. If Q.323 is yes, record whether you saw the medication.

	Medication	323 [Medication] available now?	324 At any time in the last 6 months did you run out of [Medication]?	325 Have you ever had [Medication]?	326 Why do you not have [Medication] now?	327 Medication seen/not seen
1	Chloroquine	Yes ..... 1 No 2 325	Yes ..... 1 No 2 327	Yes ..... 1 No 2 323	☐ 323	Seen ..... 1 Not seen 2 323
2	Quinine or similar medication	Yes ..... 1 No 2 325	Yes ..... 1 No 2 327	Yes ..... 1 No 2 323	☐ 323	Seen ..... 1 Not seen 2 323
3	Penicillin	Yes ..... 1 No 2 325	Yes ..... 1 No 2 327	Yes ..... 1 No 2 323	☐ 323	Seen ..... 1 Not seen 2 323
4	Iron tablets	Yes ..... 1 No 2 325	Yes ..... 1 No 2 327	Yes ..... 1 No 2 323	☐ 323	Seen ..... 1 Not seen 2 323

5	Folic acid	Yes ..... 1 No ..... 2 → 325	Yes ..... 1 No ..... 2 → 327	Yes ..... 1 No ..... 2 → 323	→ 323	Seen ..... 1 Not seen ..... 2 → 323
6	Oredon	Yes ..... 1 No ..... 2 → 325	Yes ..... 1 No ..... 2 → 327	Yes ..... 1 No ..... 2 → 323	→ 323	Seen ..... 1 Not seen ..... 2 → 323
7	Vitamin A	Yes ..... 1 No ..... 2 → 325	Yes ..... 1 No ..... 2 → 327	Yes ..... 1 No ..... 2 → 323	→ 323	Seen ..... 1 Not seen ..... 2 → 323
8	Condoms	Yes ..... 1 No ..... 2 → 325	Yes ..... 1 No ..... 2 → 327	Yes ..... 1 No ..... 2 → 329	→ 329	Seen ..... 1 Not seen ..... 2 → 329

Codes for q.326: 1 = Insufficient funds 3 = Not designated to carry 5 = Other
2 = Unable to get resupply 4 = Out of current month's supply

No.	Questions	Coding categories	Skip to
329	Are immunizations available for children now?	Yes ..... 1 No 2	→ 332
330	At any time in the last 6 months have you run out of vaccines?	Yes ..... 1 No 2	
331	I need to see your supply of vaccines now.	Vaccines seen in refrigerator ..... 1 Vaccines seen not in Refrigerator ..... 2 vaccines not seen 3	
332	Does this facility perform induced abortions?	Yes ..... 1 No 2	→ 335
332A	In what year were abortion services first offered at this facility?	Year ..... ☐☐☐☐ Don't know 9998	
333	Are the following types of staff, if available, trained in providing abortion services? If yes: Have any of these staff received training in the last three years? Doctors? Doctor's assistants? Nurses? Midwives? Family planning workers?	Y (< 3 Yrs; ≥ 3 yrs) / N / NA Doctors ..... 1 2 3 7 Doc. assts ..... 1 2 3 7 Nurses ..... 1 2 3 7 Midwives ..... 1 2 3 7 FP workers 1 2 3 7	
334	During an average month, how many women come to this facility for an induced abortion?	Patients ..... ☐☐☐	
335	Does this facility provide menstrual regulation services?	Yes ..... 1 No 2	→ 338

335A	In what year were menstrual regulation services first offered at this facility?	Year ..... ☐☐☐☐ Don't know 9998	
336	Are the following types of staff, if available, trained in providing MR services? If yes: Have any of these staff received training in the last three years? Doctors? Doctor's assistants? Nurses? Midwives? Family planning workers?	Y: < 3 Yrs = 1; ≥ 3 yrs = 2; N = 3; NA = 7 Doctors ..... 1 2 3 7 Doc. assts ..... 1 2 3 7 Nurses ..... 1 2 3 7 Midwives ..... 1 2 3 7 FP workers 1 2 3 7	
337	During an average month, how many women come to this facility for menstrual regulation?	Patients ..... ☐☐☐	
338	Does this facility provide family planning services?	Yes ..... 1 No 2	→ 354

No.	Questions	Coding categories	Skip to
340	Are the following types of staff, if available, trained in providing FP services? If yes: Have any of these staff received training in the last three years? Doctors? Doctor's assistants? Nurses? Midwives? Family planning workers?	Y: < 3 Yrs = 1; ≥ 3 yrs = 2; N = 3; NA = 7 Doctors ..... 1 2 3 7 Doc. assts ..... 1 2 3 7 Nurses ..... 1 2 3 7 Midwives ..... 1 2 3 7 FP workers 1 2 3 7	
341	Are the following types of staff, if available, trained in IUCD (loop) insertion? If yes: Have any of these staff received training in the last three years? Doctors? Doctor's assistants? Nurses? Midwives? Family planning workers?	Y: < 3 Yrs = 1; ≥ 3 yrs = 2; N = 3; NA = 7 Doctors ..... 1 2 3 7 Doc. assts ..... 1 2 3 7 Nurses ..... 1 2 3 7 Midwives ..... 1 2 3 7 FP workers 1 2 3 7	
342	During an average month, how many women come to get family planning for the first time?	New patients ..... ☐☐☐	

343	During an average month, how many women come because they need more family planning (resupply)?	Resupply patients ..... ☐☐☐	
343A	Does this facility have educational materials (posters, flip charts), which are used to educate women about family planning?	Yes ..... 1 No 2	
343B	Have any group education meetings been held by staff from this facility in the last 12 months?	Yes ..... 1 No 2	
344	Contraceptive method availability: Now I would like to ask you about which family planning methods are available at this facility. I must also see the methods when we are finished. Ask about the first method. If this method is available at this facility, move across the table. If the method is not available now, ask Q.350.		

No.	Questions	Coding categories	Skip to
352	Do you have your contraceptives delivered or must you go get them?	Delivered ..... 1 Pick them up 2	→ 354
353	How far (in kilometers) must you go to get them?	Kilometers ..... ☐☐	
354	What is your position or title here?	_____ _____	

Questions 355 and 356 to be answered by the interviewer after the facility visit is complete

355	Did the informant seem knowledgeable?	Yes ..... 1 No 2	
356	**Interviewer comments:**		

Method	345 Is [Method] available now?	346 How many days per week is [Method] available?	347 In what year did you first offer [method]?	348 Is your stock of [Method] in date or out of date?	349 Method seen/ not seen status	350 Have you ever stocked [method]?	351 How many weeks ago did you run out of [method]?
01 Pill	Yes ..... 1 No ..... 2 → 350	☐	☐☐☐☐	In date ..... 1 Out of date ..... 2 Both 3	Seen ..... 1 Not seen ..... 2 → 345	Yes ..... 1 No ..... 2 → 345	☐
02 IUD (loop)	Yes ..... 1 No ..... 2 → 350	☐	☐☐☐☐	In date ..... 1 Out of date ..... 2 Both 3	Seen ..... 1 Not seen ..... 2 → 345	Yes ..... 1 No ..... 2 → 345	☐
03 Injection	Yes ..... 1 No ..... 2 → 350	☐	☐☐☐☐	In date ..... 1 Out of date ..... 2 Both 3	Seen ..... 1 Not seen ..... 2 → 345	Yes ..... 1 No ..... 2 → 345	☐
04 Foaming tablets/ foam/ jelly	Yes ..... 1 No ..... 2 → 350	☐	☐☐☐☐	In date ..... 1 Out of date ..... 2 Both 3	Seen ..... 1 not seen ..... 2 → 345	Yes ..... 1 No ..... 2 → 345	☐
06 Other _____ _____ (Specify)	Yes ..... 1 No ..... 2 → 352	☐	☐☐☐☐				

Section 4. Visit to nearest health center

Name of facility: _____ Date: _____

If the nearest health center other than the commune health center is within 30 kilometers, it is to be visited. Complete questions 400, 401 and 402 upon arrival at the facility based on your own observations. Then find a knowledgeable staff person at the facility to answer the remaining questions.

If this facility has already been visited for a different cluster, record DHS cluster number here: ☐☐☐

If the facility has already been visited, a second visit is not needed. End your visit.

400	If this is the first facility visited after the cluster visit, record distance from cluster from the odometer	Distance from cluster ..... ☐☐ Not first facility visited ..... 95 Health center in ea 96	
401	Do you think that the estimate of distance to the facility given in the cluster is reasonable?	Reasonable ..... 1 Overestimated ..... 2 Underestimated 3	
402	Do you think that the estimate of the time to the facility given in the cluster is reasonable?	Reasonable ..... 1 Overestimated ..... 2 Underestimated 3	

Questions to be asked of staff person at facility:

No.	Questions	Coding categories	Skip to
403	In what year did this facility open?	Year opened ..... ☐☐☐☐	
406	How many beds does this facility have?	Number of beds ..... ☐☐☐	
407	On average, how many outpatients are seen daily at this facility? (Outpatients are people seen for preventive care and sick people who go home the same day)	Number of daily Outpatients ..... ☐☐☐☐	
408	How many regular staff of the following types does this commune health center have: Doctors? Doctor's assistants? Nurses? Midwives? MCH/FP workers? Other staff?	Number of: Doctors ..... ☐☐ Doctor's assistants..... ☐☐ Nurses ..... ☐☐ Midwives..... ☐☐ MCH/FP workers ..... ☐☐ Other staff..... ☐☐	
409	Does this facility normally use disposable needles when giving injections for MCH immunizations?	Yes ..... 1 No..... 2	→ 412
410	Is this facility out now or has it run out of its supply of disposable needles at any time in the last 6 months?	Yes ..... 1 No..... 2	

No.	Questions	Coding categories	Skip to
411	Does this facility ever reuse disposable needles?	Yes ..... 1 No 2	
412	Does this facility normally use disposable gloves?	Yes ..... 1 No ..... 2 →	414
413	Is this facility out now or has it run out of its supply of disposable gloves at any time in the last 6 months?	Yes ..... 1 No 2	
414	What is the method MOST frequently used for the sterilization of medical instruments? Circle one	Electric sterilizer ..... 1 Autoclave ..... 2 Steam pressure sterilizer ..... 3 Boil over kerosene stove ..... 4 Boil over charcoal/wood stove ..... 5 None ..... 6 → Other ..... 7 _____ (Specify)	416
415	Has the facility NOT been able to sterilize medical instruments for any reason (e.g. equipment broken, no electricity, no fuel) at any time in the last six months?	Has not been able ..... 1 Has been able 2	
416	Does the facility have the following items in working order/in stock: Running water? Electricity? Refrigerator? Kerosene? Telephone or radio transmitter? Vehicle? Motorbike? Bicycle? Delivery bed? Delivery kit? Waiting area for women in labor? Blood bank? Examination couch? Light for gynecological examination? IUCD (loop insertion) kit? Vacuum aspiration kit for menstrual regulation? Weighing scales for children? Adult weighing scale? Growth cards? Linens? Gauze? Cotton wool? Antiseptics? Blood pressure machine? Talquist method for diagnosis of anemia? Microscope? AIDS test (Elisa or Serodia test)?	Y N Running water ..... 1 2 Electricity ..... 1 2 Refrigerator ..... 1 2 Kerosene ..... 1 2 Telephone ..... 1 2 Vehicle ..... 1 2 Motorbike ..... 1 2 Bicycle ..... 1 2 Delivery bed ..... 1 2 Delivery kit ..... 1 2 Waiting area ..... 1 2 Blood bank ..... 1 2 Exam couch ..... 1 2 Light-gyn exams ..... 1 2 IUCD kit ..... 1 2 Vacuum aspiration kit ..... 1 2 Weighing scale-child ..... 1 2 Adult scale ..... 1 2 Growth cards ..... 1 2 Linens ..... 1 2 Gauze ..... 1 2 Cotton wool ..... 1 2 Antiseptics ..... 1 2 Blood pressure machine ..... 1 2 Talquist method ..... 1 2 Microscope ..... 1 2 AIDS test 1 2	

417	Do you have an outreach program?	Yes ..... 1 No ..... 2 →	419
418	How many villages/communities do you regularly visit?	Number of sites ..... ☐☐	

Services available at the facility:

Now I would like to ask you about maternal and child health services available at this facility.

Ask Q.420 for the first service. If the service is available, continue across the table, if not, ask about the next service.

	Service	420. Is [Service] available?	421. How many days per week is [Service] available?	422. In what year was [Service] first offered here?
1	Antenatal care	Yes ..... 1 No ..... 2 ↓	☐	☐☐☐☐
2	Delivery care	Yes ..... 1 → No ..... 2 ↓		☐☐☐☐
3	Postnatal care	Yes ..... 1 No ..... 2 ↓	☐	☐☐☐☐
4	Child immunization	Yes ..... 1 No ..... 2 ↓	☐	☐☐☐☐
5	Child growth monitoring	Yes ..... 1 No ..... 2 423 ←	☐	☐☐☐☐

Medication available at the facility:

Now I would like to ask you about medications and other supplies available at this facility. When I have finished, I will need to see the medications you have in stock.

Ask Q.423 for each medication. If the medication is available, ask Q.424, if not available, ask Q.425. If the medication has at some time been available, ask Q.426. If Q.423 is yes, record whether you saw the medication.

	Medication	423 [Medication] available now?	424 At any time in the last 6 months did you run out of [Medication]?	425 Have you ever had [Medication]?	426 Why do you not have [Medication] now?	427 Medication seen/not seen
1	Chloroquine	Yes ..... 1 No ..... 2 425 ←	Yes ..... 1 No ..... 2 427 ←	Yes ..... 1 No ..... 2 423 ←	☐ 423 ←	Seen ..... 1 Not seen ..... 2 423 ←
2	Quinine or similar medication	Yes ..... 1 No ..... 2 425 ←	Yes ..... 1 No ..... 2 427 ←	Yes ..... 1 No ..... 2 423 ←	☐ 423 ←	Seen ..... 1 Not seen ..... 2 423 ←
3	Penicillin	Yes ..... 1 No ..... 2 425 ←	Yes ..... 1 No ..... 2 427 ←	Yes ..... 1 No ..... 2 423 ←	☐ 423 ←	Seen ..... 1 Not seen ..... 2 423 ←
4	Iron tablets	Yes ..... 1 No ..... 2 425 ←	Yes ..... 1 No ..... 2 427 ←	Yes ..... 1 No ..... 2 423 ←	☐ 423 ←	Seen ..... 1 Not seen ..... 2 423 ←
5	Folic acid	Yes ..... 1 No ..... 2 425 ←	Yes ..... 1 No ..... 2 427 ←	Yes ..... 1 No ..... 2 423 ←	☐ 423 ←	Seen ..... 1 Not seen ..... 2 423 ←

6	Oredon	Yes ..... 1 No ..... 2 → 425	Yes ..... 1 No ..... 2 → 427	Yes ..... 1 No ..... 2 → 423	423 ☐	Seen ..... 1 Not seen ..... 2 → 423
7	Vitamin A	Yes ..... 1 No ..... 2 → 425	Yes ..... 1 No ..... 2 → 427	Yes ..... 1 No ..... 2 → 423	423 ☐	Seen ..... 1 Not seen ..... 2 → 423
8	Condoms	Yes ..... 1 No ..... 2 → 425	Yes ..... 1 No ..... 2 → 427	Yes ..... 1 No ..... 2 → 429	429 ☐	Seen ..... 1 Not seen ..... 2 → 429

Codes for q.426: 1 = Insufficient funds 3 = Not designated to carry 5 = Other
2 = Unable to get resupply 4 = Out of current month's supply

No.	Questions	Coding categories	Skip to
429	Are immunizations available for children now?	Yes ..... 1 No 2	→ 432
430	At any time in the last 6 months have you run out of vaccines?	Yes ..... 1 No 2	
431	I need to see your supply of vaccines now.	Vaccines seen in refrigerator ..... 1 Vaccines seen not in Refrigerator ..... 2 vaccines not seen 3	
432	Does this facility perform induced abortions?	Yes ..... 1 No 2	→ 435
432A	In what year were abortion services first offered at this facility?	Year ..... ☐☐☐☐ Don't know 9998	
433	Are the following types of staff, if available, trained in providing abortion services? If yes: Have any of these staff received training in the last three years? Doctors? Doctor's assistants? Nurses? Midwives? Family planning workers?	Y (< 3 Yrs / ≥ 3 yrs), N, NA Doctors ..... 1 2 3 7 Doc. assts ..... 1 2 3 7 Nurses ..... 1 2 3 7 Midwives ..... 1 2 3 7 FP workers 1 2 3 7	
434	During an average month, how many women come to this facility for an induced abortion?	Patients ..... ☐☐☐	
435	Does this facility provide menstrual regulation services?	Yes ..... 1 No 2	→ 438

435A	In what year were menstrual regulation services first offered at this facility?	Year ..... ☐☐☐☐ Don't know 9998	
436	Are the following types of staff, if available, trained in providing MR services? If yes: Have any of these staff received training in the last three years? Doctors? Doctor's assistants? Nurses? Midwives? Family planning workers?	Y: < 3 Yrs = 1; ≥ 3 yrs = 2; N = 3; NA = 7 Doctors ..... 1 2 3 7 Doc. assts ..... 1 2 3 7 Nurses ..... 1 2 3 7 Midwives ..... 1 2 3 7 FP workers 1 2 3 7	
437	During an average month, how many women come to this facility for menstrual regulation?	Patients ..... ☐☐☐	
438	Does this facility provide family planning services?	Yes ..... 1 No 2	→ 454

No.	Questions	Coding categories	Skip to
440	Are the following types of staff, if available, trained in providing FP services? If yes: Have any of these staff received training in the last three years? Doctors? Doctor's assistants? Nurses? Midwives? Family planning workers?	Y: < 3 Yrs = 1; ≥ 3 yrs = 2; N = 3; NA = 7 Doctors ..... 1 2 3 7 Doc. assts ..... 1 2 3 7 Nurses ..... 1 2 3 7 Midwives ..... 1 2 3 7 FP workers 1 2 3 7	
441	Are the following types of staff, if available, trained in IUCD (loop) insertion? If yes: Have any of these staff received training in the last three years? Doctors? Doctor's assistants? Nurses? Midwives? Family planning workers?	Y: < 3 Yrs = 1; ≥ 3 yrs = 2; N = 3; NA = 7 Doctors ..... 1 2 3 7 Doc. assts ..... 1 2 3 7 Nurses ..... 1 2 3 7 Midwives ..... 1 2 3 7 FP workers 1 2 3 7	
442	During an average month, how many women come to get family planning for the first time?	New patients ..... ☐☐☐	

443	During an average month, how many women come because they need more family planning (resupply)?	Resupply patients ..... ☐☐☐	
443A	Does this facility have educational materials (posters, flip charts), which are used to educate women about family planning?	Yes ..... 1 No 2	
443B	Have any group education meetings been held by staff from this facility in the last 12 months?	Yes ..... 1 No 2	
444	Contraceptive method availability: Now I would like to ask you about which family planning methods are available at this facility. I must also see the methods when we are finished. Ask about the first method. If this method is available at this facility, move across the table. If the method is not available now, ask Q.450.		

No.	Questions	Coding categories	Skip to
452	Do you have your contraceptives delivered or must you go get them?	Delivered ..... 1 Pick them up 2	→ 454
453	How far (in kilometers) must you go to get them?	Kilometers..... ☐☐	
454	What is your position or title here?	_____ _____	

Questions 455 and 456 to be answered by the interviewer after the facility visit is complete

455	Did the informant seem knowledgeable?	Yes ..... 1 No 2	
456	**Interviewer comments:**		

Method	445 Is [Method] available now?	446 How many days per week is [Method] available?	447 In what year did you first offer [method]?	448 Is your stock of [Method] in date or out of date?	449 Method seen/ not seen status	450 Have you ever stocked [method]?	451 How many weeks ago did you run out of [method]?
01 Pill	Yes ..... 1 No ..... 2 → 450	☐	☐☐☐☐	In date ..... 1 Out of date ..... 2 Both 3	Seen ..... 1 Not seen ..... 2 → 445	Yes ..... 1 No ..... 2 → 445	☐
02 IUD (loop)	Yes ..... 1 No ..... 2 → 450	☐	☐☐☐☐	In date ..... 1 Out of date ..... 2 Both 3	Seen ..... 1 Not seen ..... 2 → 445	Yes ..... 1 No ..... 2 → 445	☐
03 Injection	Yes ..... 1 No ..... 2 → 450	☐	☐☐☐☐	In date ..... 1 Out of date ..... 2 Both 3	Seen ..... 1 Not seen ..... 2 → 445	Yes ..... 1 No ..... 2 → 445	☐
04 Foaming tablets/ foam/ jelly	Yes ..... 1 No ..... 2 → 450	☐	☐☐☐☐	In date ..... 1 Out of date ..... 2 Both 3	Seen ..... 1 not seen ..... 2 → 445	Yes ..... 1 No ..... 2 → 445	☐
06 Other _____ _____ (Specify)	Yes ..... 1 No ..... 2 → 452	☐	☐☐☐☐				