# **CHAPTER 1**

# **INTRODUCTION**

#### **1.1 Background of the Survey**

India's first National Family Health Survey (NFHS-1) was conducted in 1992–93. The Ministry of Health and Family Welfare (MOHFW) subsequently designated the International Institute for Population Sciences (IIPS), Mumbai, as the nodal agency to initiate a second survey (NFHS-2), which was conducted in 1998–99. An important objective of NFHS-2 is to provide state-level and national-level information on fertility, family planning, infant and child mortality, reproductive health, child health, nutrition of women and children, and the quality of health and family welfare services. Another important objective is to examine this information in the context of related socioeconomic and cultural factors. The survey is also intended to provide estimates at the regional level for five states (Bihar, Jammu and Kashmir, Madhya Pradesh, Rajasthan, and Uttar Pradesh) and for three metro cities (Chennai, Kolkata, and Mumbai), as well as slum areas in Mumbai. This information will assist policymakers and programme administrators in planning and implementing strategies for improving population, health, and nutrition programmes. Comparative state results from NFHS-2 have already been published (International Institute for Population Sciences and ORC Macro, 2000). The current report provides a more comprehensive picture of the findings for Haryana.

The NFHS-2 sample covers more than 99 percent of India's population, living in all 26 states. It does not cover the union territories. NFHS-2 is a household survey with an overall sample size of 90,303 ever-married women in the age group 15–49 living in 92,486 households.

NFHS-2 was conducted with financial support from the United States Agency for International Development (USAID), with additional funding from UNICEF. Technical assistance was provided by ORC Macro, Calverton, Maryland, USA, and the East-West Center, Honolulu, Hawaii, USA. Thirteen field organizations were selected to collect the data. Eight of the field organizations are private sector organizations and five are Population Research Centres (PRCs) established by the Government of India in various states. Each field organization had responsibility for collecting data in one or more states. The Centre for Research in Rural and Industrial Development (CRRID), Chandigarh, was selected as the field organization for NFHS-2 in Haryana.

#### 1.2 Basic Socioeconomic and Demographic Features of Haryana

The present state of Haryana was created on 1 November 1966 out of the territories of the postindependence composite state of Punjab under the Punjab Reorganization Act of 1966. Chandigarh is the capital of Haryana. It is also the capital of Punjab and the seat of government of the Union Territory of Chandigarh. Haryana has the 15<sup>th</sup> largest population among the states in India. It has an area of 44,212 km<sup>2</sup>. When NFHS-2 was being planned, Haryana was divided into 16 districts distributed in four administrative divisions: Division I, comprising Ambala, Kurukshetra, and Yamunanagar districts; Division II, comprising Kaithal, Karnal, Panipat, Sonipat, and Rohtak districts; Division III, comprising Sirsa, Hissar, Jind, and Bhiwani districts; and Division IV, comprising Mahendragarh, Rewari, Gurgaon, and Faridabad districts (Centre for Monitoring Indian Economy, 1997). Currently, Haryana is divided into 19 districts. The three new districts are Fatehabad, Jhajjar, and Panchkula, which have been carved out of the same area (Ministry of Information and Broadcasting, 2000).

Haryana is among India's economically more developed states. Although it continues to be predominantly an agricultural state, Haryana's economy has been transforming rapidly into an industrial economy. The contribution of the agricultural sector to the net state domestic product (NSDP) declined from 54 percent in 1980–81 to 42 percent in 1996–97. The manufacturing sector contributed 14 percent in 1980–81 and 20 percent in 1996–97 to the state domestic product, indicating a substantial increase in this sector. The share of other sectors increased from 32 percent in 1980–81 to 38 percent in 1996–97 (EPW Research Foundation, 1998). At the time of the 1991 Census, the agricultural sector provided livelihood to 58 percent of the working population in the state, as cultivators and agricultural labourers (Office of the Registrar General and Census Commissioner, 1992).

Haryana grows both *kharif* and *rabi* crops and its major agricultural produce consists of wheat, rice, millets, potatoes, sugarcane, cotton, rapeseed, and mustard seed. Haryana has a surplus in wheat and rice production and it is a major contributor to the national buffer stock of foodgrains. Along with the state of Punjab, it constitutes the breadbasket of India. Ever since Haryana came into existence, it has progressed rapidly not only in the agricultural but also in the manufacturing sector. Haryana has two locational advantages which have promoted its rapid development. First, it borders Delhi, which provides a vast market for its goods and employment for its people. Second, people and goods to reach Punjab, Himachal Pradesh, Jammu and Kashmir, and the Union Territory of Chandigarh from the rest of the country need to pass through Haryana, which makes Haryana a prime transit state. As per the Relative Infrastructure Development Index, Haryana ranks fourth among the 17 major states of India (Centre for Monitoring Indian Economy, 1997).

Haryana has experienced rapid industrial growth since the early 1970s. This is reflected in the fact that the number of working factories in Haryana has increased from 1,458 in 1971 to 5,355 in 1993. At the two respective time points, they provided employment to 94,000 and 258,000 workers (Central Statistical Organisation, 1997). Haryana accounts for four-fifths of cars, two-thirds of motorcycles and tractors, and one-fourth of cycles produced in the country (Ministry of Information and Broadcasting, 2000). A major petroleum oil refinery is currently coming up in Panipat district. Additionally, there are a large number of small and rural industries.

The average annual per capita net domestic product in the state increased from Rs. 2,370 in 1980–81 to Rs. 3,956 in 1996–97 at constant (1980–81) prices or Rs. 16,199 at current prices (EPW Research Foundation, 1998). As per the estimates provided by the Planning Commission for 1993–94, 28 percent of the rural population and 16 percent of the urban population in Haryana was living below the poverty line (Central Statistical Organisation, 1999).

According to the Provisional Population Tables of the 2001 Census, Haryana had a population of 21.1 million, accounting for 2.1 percent of the total population of India (Office of the Registrar General and Census Commissioner, 2001). The total population of the state was 10.0 million in 1971, 12.9 million in 1981 and 16.5 million in 1991. The population growth rate decreased slightly from 28.7 percent in 1971–81 to 27.4 percent in 1981–91, and increased to 28.1 percent in 1991–2001, which is more than the decadal percentage increase for the country as a whole (21.3 percent in 1991–2001). Population density per km<sup>2</sup> in Haryana increased from 227 in

1971 to 292 in 1981, 372 in 1991, and 477 in 2001. The population density in Haryana (477) is substantially higher than the density for the country as a whole (324), which indicates substantial and growing pressure on land and other resources. Haryana's share in India's land area is just 1.3 percent.

Haryana has been undergoing slow but steady urbanization. The percentage of the population living in urban areas increased from 18 percent in 1971 to 22 percent in 1981 and 25 percent in 1991, which is slightly less than the 1991 level of urbanization for India (26 percent).

According to the 1991 Census, the proportion of the total population designated as scheduled castes<sup>1</sup> is 20 percent, which is slightly higher than that in the country as a whole (17 percent). The scheduled-caste population increased slightly from 19 percent of the total population of Haryana in 1971 to 20 percent in 1991. As per the scheduled list, there are no scheduled tribes in the state.

Haryana is one of the educationally forward states in India. According to the 2001 Census, the literacy rate among the population age seven and above was 69 percent, compared with 65 percent for India as a whole. The literacy rates were 79 percent for males and 56 percent for females in Haryana, compared with 76 and 54 percent for males and females, respectively, for India. The gap in literacy rates between males and females in Haryana is almost the same as the gap in India as a whole. Although female literacy has grown more rapidly than male literacy during 1971–2001, the female literacy level continues to be substantially lower than the male literacy level in the state. In fact, the gap between male and female literacy rates is almost the same in 2001 (23 percentage points) as it was in 1971 (22 percentage points).

For 1997, the Sample Registration System estimated an infant mortality rate of 68 per 1,000 live births in Haryana, compared with 71 in India. The infant mortality rate in Haryana declined only marginally from 72 per 1,000 live births in 1971 to 68 per 1,000 live births in 1997. The crude death rate also declined from 9.9 per 1,000 population in 1971 to 8.0 in 1997. For 1996–2001, life expectancy in Haryana is projected to be 63.9 years for males and 67.4 years for females, a substantial increase from the estimates of 61.4 years for males and 59.6 years for females in 1981–86. The projected increase in life expectancy is considerably more for females than for males.

The couple protection rate (defined as the percentage of eligible couples effectively protected against pregnancy by various methods of contraception) in Haryana was 54 in 1997, compared with 12 percent in 1971. The couple protection rate in Haryana in 1997 (54 percent) was substantially higher than the all-India estimate of 45 percent.

Between 1971 and 1997, fertility declined substantially in the state. The crude birth rate declined from 42.1 per 1,000 population in 1971 to 28.3 in 1997, a decline of 14 percentage points. The total fertility rate also declined substantially, from 6.7 children per woman in 1971 to 3.4 children per woman in 1997—dropping by 3.3 children per woman in 26 years.

<sup>&</sup>lt;sup>1</sup>Scheduled castes and scheduled tribes are castes and tribes which the Government of India officially recognizes as socially and economically backward and in need of special protection from injustice and exploitation.

## 1.3 Questionnaires

NFHS-2 used three types of questionnaires: the Household Questionnaire, the Woman's Questionnaire, and the Village Questionnaire. The overall content and format of the questionnaires were determined through a series of workshops held at IIPS in Mumbai in 1997 and 1998. The workshops were attended by representatives of a wide range of organizations in the population and health fields, as well as experts working on gender issues. The questionnaires canvassed in Haryana were bilingual, with questions in both Hindi and English.

The Household Questionnaire listed all usual residents in each sample household plus any visitors who stayed in the household the night before the interview. For each listed person, the survey collected basic information on age, sex, marital status, relationship to the head of the household, education, and occupation. The Household Questionnaire also collected information on the prevalence of asthma, tuberculosis, malaria, and jaundice, as well as three risk behaviours— chewing *paan masala* or tobacco, drinking alcohol, and smoking. Information was also collected on the usual place where household members go for treatment when they get sick, the main source of drinking water, type of toilet facility, source of lighting, type of cooking fuel, religion of the household head, caste/tribe of the household head, ownership of a house, ownership of agricultural land, ownership of livestock, and ownership of other selected items. In addition, a test was conducted to assess whether the household uses cooking salt that has been fortified with iodine. Finally, the Household Questionnaire asked about deaths occurring to household members in the two years before the survey, with particular attention to maternal mortality. The information on the age, sex, and marital status of household members was used to identify eligible respondents for the Woman's Questionnaire.

The Woman's Questionnaire collected information from all ever-married women age 15–49, who were usual residents of the sample household or visitors who stayed in the sample household the night before the interview. The questionnaire covered the following topics:

<u>Background characteristics</u>: Questions on age, marital status, education, employment status, and place of residence provide information on characteristics likely to influence demographic and health behaviour. Questions are also asked about the woman's husband.

<u>Reproductive behaviour and intentions</u>: Questions cover dates and survival status of all births, current pregnancy status, and future childbearing intentions of each woman.

Quality of care: Questions assess the quality of family planning and health services.

<u>Knowledge and use of contraception</u>: Questions cover knowledge and use of specific family planning methods. For women not using any contraceptive method, questions are included about reasons for not using contraception and intentions for future use.

Sources of family planning: Questions determine where a user obtained her family planning method.

<u>Antenatal, delivery, and postpartum care:</u> The questionnaire collects information on whether women received antenatal and postpartum care, who attended the delivery, and the nature of complications during pregnancy for the last two births since January 1995.

<u>Breastfeeding and health</u>: Questions cover the length of breastfeeding, immunizations, and recent occurrences of diarrhoea, fever, and cough for the last two births since January 1995.

<u>Reproductive health</u>: Questions assess various aspects of women's reproductive health and the type of care sought for health problems.

Status of Women: The questionnaire asks about women's autonomy, gender roles, and violence against women.

<u>Knowledge of AIDS</u>: Questions assess women's knowledge of AIDS and sources of their knowledge, as well as their knowledge about ways to avoid getting AIDS.

In addition, the health investigator on each survey team measured the height and weight of each woman and each of her children born since January 1995. This height and weight information is useful for assessing levels of nutrition prevailing in the population. The health investigators also took blood samples from each woman and each of her children born since January 1995 to assess haemoglobin levels. This information is useful for assessing prevalence rates of anaemia among women and children. Haemoglobin levels were measured in the field at the end of each interview using portable equipment (the HemoCue) that provides test results in less than one minute. Severely anaemic persons were referred to local medical authorities for treatment.

For each village selected in the NFHS-2 sample, a Village Questionnaire collected information on the availability of various facilities in the village (especially health and education facilities) and amenities such as electricity and telephone connections. Respondents to the Village Questionnaire were also asked about development and welfare programmes operating in the village. The village survey included a short, open-ended questionnaire that was administered to the village head, with questions on major problems in the village and actions that could be taken to alleviate these problems.

# 1.4 Survey Design and Sample Implementation

#### Sample Size and Reporting Domains

The overall target sample size for Haryana was 3,000 completed interviews with eligible women. The NFHS-1 nonresponse rates at the household and individual levels were used to estimate the sample size that would be required to achieve the target number of completed interviews in NFHS-2.

The sample was designed to provide estimates for the state as a whole and for its urban and rural areas separately. The sample is not large enough to provide reliable estimates for individual districts. The required sampling rates for urban and rural areas were determined by allocating the sample proportionally to the population of the two areas and taking into account their expected urban and rural nonresponse rates (based on the nonresponse rates in NFHS-1).

#### Sample Design

Within each of the two sampling domains (rural areas and urban areas), a systematic, multi-stage stratified sampling design was used. The rural sample was selected in two stages: the selection of Primary Sampling Units (PSUs), which are villages or groups of villages (in the case of small

Table 1.1 S	ampling stratif	ication			
Sampling st	ratification pro	ocedure in rural area	s, Haryana		
		Stratification variables			
Stratum	Region	Village size (number of residential households)	Percentage of males in nonagricultural sector	Population <sup>1</sup>	
$ \begin{array}{c} 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \\ 7 \\ 8 \\ 9 \\ 10 \\ 11^2 \\ 12^3 \\ 13^4 \\ 14^5 \end{array} $	1 1 2 2 2 2 3 3 3 4 4 4 4 4	$\begin{array}{r} \leq 225 \\ > 225 \text{ and } \leq 475 \\ > 475 \\ \leq 175 \\ > 175 \text{ and } \leq 300 \\ > 300 \\ > 300 \\ \leq 250 \\ > 250 \text{ and } \leq 450 \\ > 450 \\ \leq 350 \\ > 450 \text{ and } \leq 525 \\ > 525 \\ > 525 \end{array}$	NU NU NU NU ≤ 12.0 > 12.0 NU NU NU NU NU NU S 11.0 > 11.0	666,977 770,635 811,847 926,846 761,552 1,007,604 1,005,511 946,027 875,647 958,982 1,140,965 386,340 1,076,724 1,071,679	
Total	NA	NA	NA	12,407,336	
NA: Not app NU: Not use <sup>1</sup> The popula villages with <sup>2</sup> Includes 17 <sup>3</sup> Includes 17 <sup>4</sup> Includes 28	blicable ed for stratifica ation shown is fewer than fiv 13 villages of si 7 villages of si 3 villages of si	literacy is used for ir tion the 1991 Census po ve households. size > 350 and $\leq$ 450 r ze > 350 and $\leq$ 450 r ze > 350 and $\leq$ 450 r ze > 350 and $\leq$ 450 r	pulation, excluding residential househo residential househol residential househol	olds Ids Ids	

linked villages), with probability proportional to size (PPS) in the first stage, followed by selection of households using systematic sampling within each selected PSU in the second stage. In urban areas, a three-stage sampling procedure was followed. In the first stage, wards were selected with PPS. From each selected ward, one census enumeration block (CEB) was selected with PPS in the second stage, followed by selection of households using systematic sampling within each selected CEB in the third stage.

#### Sample Selection in Rural Areas

In rural areas, the 1991 Census list of villages served as the sampling frame. The list was stratified by a number of variables. The first level of stratification was geographic, with villages classified into four contiguous regions. The district composition of the four geographic regions (based on the 16 districts in Haryana at the time of the 1991 Census) is as follows:

Region I:	Faridabad, Gurgaon, Sonipat
Region II:	Ambala, Kaithal, Karnal, Kurukshetra, Panipat, Yamunanagar
Region III:	Bhiwani, Mahendragarh, Rewari, Sirsa
Region IV:	Hissar, Jind, Rohtak

In each region, villages were further stratified by village size and percentage of male population engaged in non-agricultural activities. Table 1.1 provides details of sample stratification in rural areas along with the population of each stratum. The final level of stratification was implicit for all the strata, consisting of an ordering of villages within each stratum by level of female literacy (obtained from the 1991 Census Village Directory). From the list arranged in this way, villages were selected systematically with probability proportional to the 1991 Census population of the village. Small villages with 5–49 households were linked with one or more adjoining villages to form PSUs with a minimum of 50 households. Villages with fewer than five households were excluded from the sampling frame.

The domain sampling fraction, i.e., the probability of selecting a woman in rural Haryana (*f*) was computed as:

$$f = \frac{n}{N}$$

where n = number of rural women to be interviewed (after adjusting upward to account for nonresponse and other loss),

N = projected rural population of eligible women in the state in December 1998.

The probability of selecting a PSU from rural Haryana  $(f_1)$  was computed as:

$$f_l = \frac{a \times s_i}{\sum s_i}$$

where a = number of rural PSUs selected from the state,

 $s_i$  = population size of the  $i^{\text{th}}$  PSU,

 $\Sigma s_i$  = total rural population of the state.

A mapping and household listing operation carried out in each sample area provided the necessary frame for selecting households at the second stage. The household listing operation involved preparing up-to-date notional and layout sketch maps of each selected PSU, assigning numbers to structures, recording addresses of these structures, identifying residential structures, and listing the names of heads of all the households in residential structures in the selected PSUs. Sample villages larger than 750 households were segmented into three or more segments, and two segments were selected randomly using the PPS method. Household listing in these PSUs was carried out only in the selected segments. The work was carried out by four teams, each comprising one lister and one mapper, under the supervision of one field supervisor and one field executive. The teams were trained from 28–30 September 1998 in Chandigarh by an official from CRRID, Chandigarh, who was earlier trained in a workshop conducted by IIPS. The mapping and household listing operation was carried out between 1 October 1998 and 15 January 1999. The households to be interviewed were selected with equal probability from the household list in each selected enumeration area using systematic sampling.

The probability of selecting a household from a selected rural PSU ( $f_2$ ) was computed as:

$$f_2 = \frac{f}{f_1}$$

On average, 30 households were initially targeted for selection in each selected enumeration area. To avoid extreme variations in workload, minimum and maximum limits were put on the number of households that could be selected from any area, at 15 and 60, respectively. All the selected households were visited during the main survey, and no replacement was allowed if a selected household was absent during data collection. However, if a PSU was inaccessible, a replacement PSU with similar characteristics was selected by IIPS and provided to the field organization.

#### Sample Selection in Urban Areas

The 1991 Census list of urban wards was arranged according to districts and within districts by the level of female literacy, and a sample of wards was selected systematically with probability proportional to population size. Next, one census enumeration block (CEB), consisting of approximately 150–200 households, was selected from each selected ward using the PPS method. As in rural areas, a household listing operation was carried out in the selected CEBs and, on average, 30 households per block were targeted for selection.

The domain sampling fraction, i.e., the probability of selecting a woman in urban Haryana (f) was computed as:

$$f = \frac{n}{N}$$

Where n = number of urban women to be interviewed (after adjusting upward to account for nonresponse and other loss),

N = projected urban population of eligible women in the state in December 1998.

The probability of selecting an urban ward  $(f_1)$  was computed as:

$$f_1 = \frac{a \times s_i}{\sum s_i}$$

where a = number of urban wards selected from the state,

 $s_i$  = population size of the  $i^{\text{th}}$  ward,

 $\Sigma s_i$  = total urban population of the state.

The probability of selecting a CEB from a selected ward  $(f_2)$  was computed as:

$$f_2 = \frac{B_i}{\sum B_i}$$

where  $B_i$  = population size of the  $i^{\text{th}}$  block,  $\Sigma B_i$  = total population of the ward. A household listing operation carried out in each selected block provided the necessary frame for selecting households in the third stage of sample selection. The probability of selecting a household from a selected CEB ( $f_3$ ) was computed as:

$$f_3 = \frac{f}{f_1 \times f_2}$$

#### **Sample Weights**

Sample weights for households and women have been calculated to adjust for the effect of differential nonresponse in different geographical areas. The method of calculating the weights is specified below.

Let  $R_{Hi}$  and  $R_{Wi}$  be the households' and eligible women's response rates, respectively. Then the household weight ( $w_{Hi}$ ) is calculated as follows:

$$w_{Hi} = \frac{w_{Di}}{R_{Hi}}$$

where  $w_{Di}$  = the design weight for the *i*<sup>th</sup> domain, calculated as the ratio of the overall sampling fraction (F = n/N) and the sampling fraction for the *i*<sup>th</sup> domain ( $f = n_i/N_i$ ). Note that  $n = \sum n_i$  and  $N = \sum N_i$ .

An eligible woman's weight  $(w_{Wi})$  is calculated as follows:

$$w_{Wi} = \frac{w_{Di}}{R_{Hi} \times R_{Wi}}$$

After adjustment for nonresponse, the weights are normalized so that the total number of weighted cases is equal to the total number of unweighted cases. The final weights for households and eligible women are:

$$W_{Hi} = \frac{\sum n_i}{\sum w_{Hi} \times n_i} \times w_{Hi}$$
$$W_{Wi} = \frac{\sum n_i}{\sum w_{Wi} \times n_i} \times w_{Wi}$$

where  $n_i$  refers to the actual number of cases (households or eligible women) interviewed in the  $i^{\text{th}}$  domain.

For the tabulations on anaemia and height/weight of women and children, two separate sets of weights were calculated using a similar procedure. In this case, however, the response rates for anaemia (for both women and children) are based on the percentage of eligible women whose haemoglobin level was measured, and the response rates for height/weight (for both women and children) are based on the percentage of eligible women whose height or weight was measured.

## **Sample Implementation**

A total of 100 PSUs were selected, of which 33 were urban and 67 were rural. Table 1.2 shows response rates for households and individuals and reasons for nonresponse. Nonresponse can occur at the stage of the household interview or at the stage of the woman's interview. The last row of the table shows the overall effect of nonresponse at the two stages. The survey achieved an overall response rate of 96 percent. As expected, the overall response rate is slightly lower in urban areas (95 percent) than in rural areas (97 percent).

Of the 2,949 households selected in Haryana, interviews were completed in 96 percent of the cases, 1 percent of the selected households were absent for an extended period, 1 percent were found to be vacant, 1 percent refused to be interviewed, and in the remaining households either no member or no competent respondent was at home when the household was visited. The household response rate—the number of households interviewed per 100 occupied households—was 98 percent in urban areas and 99 percent in rural areas.

In the interviewed households, 2,979 women were identified as eligible for the individual interview. Interviews were successfully completed with 98 percent of the eligible women. The response rate for women was slightly lower in urban areas (97 percent) than in rural areas (98 percent). Nonresponse at the individual level was primarily due to eligible women having postponed the interview. Very few eligible women refused to be interviewed.

# **1.5** Recruitment, Training, and Fieldwork

Field staff for the main survey were trained in Chandigarh by officials of CRRID, who were trained earlier in a Training of Trainers Workshop conducted by IIPS. Training in Haryana consisted of classroom training, general lectures, and demonstration and practice interviews, as well as actual field practice and supplementary training for field editors and supervisors. Health investigators attached to interviewing teams were given additional specialized training on measuring height and weight and testing for anaemia in a centralized training programme conducted by IIPS in collaboration with the All India Institute of Medical Sciences (AIIMS), New Delhi. This specialized training took place in New Delhi. It included classroom training and extensive field practice in schools, *anganwadis*, and communities.

Four interviewing teams conducted the main fieldwork, each team consisting of one field supervisor, one female field editor, four female interviewers, and one health investigator. The fieldwork was carried out between 27 November 1998 and 18 May 1999. Coordinators and senior staff of CRRID monitored and supervised the data collection operations. IIPS also deputed one research officer to help with monitoring throughout the training and fieldwork period in order to ensure that correct survey procedures were followed and data quality was maintained. From time to time, project coordinators, senior research officers, and other faculty members from IIPS, as well as staff members from ORC Macro and the East-West Center, visited the field sites to monitor the data collection operation. Medical health coordinators appointed by IIPS monitored the nutritional component of the survey. Field data were quickly entered into microcomputers, and field-check tables were produced to identify certain types of errors that might have occurred in eliciting

#### Table 1.2. Sample results

Sample results for households and ever-married women age 15-49 by residence, Haryana, 1998-99

	Urban		Rural		Total	
Result	Number	Percent	Number	Percent	Number	Percent
Households selected	931	100.0	2,018	100.0	2,949	100.0
Households completed (C) Households with no household member at home or no competent respondent at home at the time	891	95.7	1,950	96.6	2,841	96.3
of interview (HP)	6	0.6	10	0.5	16	0.5
Households absent for extended period (HA)	17	1.8	24	1.2	41	1.4
Households postponed (P)	1	0.1	0	0.0	1	0.0
Households refused (R)	10	1.1	15	0.7	25	0.8
Dwelling vacant/address not a dwelling (DV)	6	0.6	19	0.9	25	0.8
Dwellings not found (DNF)	0	0.0	0	0	0	0.0
Households occupied	908	100.0	1,975	100.0	2,883	100.0
Households interviewed	891	98.1	1,950	98.7	2,841	98.5
Households not interviewed	17	1.9	25	1.3	42	1.5
Household response rate (HRR) <sup>1</sup>	NA	98.1	NA	98.7	NA	98.5
Eligible women	852	100.0	2,127	100.0	2,979	100.0
Women interviewed (EWC)	826	96.9	2,082	97.9	2,908	97.6
Women not at home (EWNH)	18	2.1	36	1.7	54	1.8
Women postponed (EWP)	0	0.0	0	0.0	0	0.0
Women refused (EWR)	5	0.6	6	0.3	11	0.4
Women partly interviewed (EWPC)	1	0.1	0	0.0	1	0.0
Other (EWO)	2	0.2	3	0.1	5	0.2
Eligible women's response rate (EWRR) <sup>2</sup>	NA	96.9	NA	97.9	NA	97.6
Overall response rate (ORR) <sup>3</sup>	NA	95.1	NA	96.6	NA	96.2

Note: Eligible women are defined as ever-married women age 15–49 who stayed in the household the night before the interview (including both usual residents and visitors). This table is based on the unweighted sample; all other tables are based on the weighted sample unless otherwise specified.

NA: Not applicable

<sup>1</sup>Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

 $HRR = \frac{C}{C + HP + P + R + DNF} \times 100$ 

<sup>2</sup>Using the number of eligible women falling into specific response categories, the eligible women's response rate (EWRR) is calculated as:

 $EWRR = \frac{EWC}{EWC + EWNH + EWP + EWR + EWPC + EWO} \times 100$ <sup>3</sup>The overall response rate (ORR) is calculated as:  $ORR = \frac{HRR \times EWRR}{100}$ 

information and filling out questionnaires. Information from the field-check tables was fed back to the interviewing teams and their supervisors so that they could improve their performance.

#### **1.6 Data Processing**

Completed questionnaires were sent to the CRRID office in Chandigarh for data processing, which consisted of office editing, coding, data entry, and machine editing, using the Integrated System for Survey Analysis (ISSA) software. Data entry was done by 10 data entry operators under the supervision of senior staff at CRRID who were trained at a data-processing workshop in Vadodara. Data entry and editing operations were completed by June 1999. Tabulations for the preliminary report as well as for the present final report were carried out at IIPS in Mumbai.