CHAPTER 1
INTRODUCTION

1.1 Background of the Survey

India’s first National Family Health Survey (NFHS-1) was conducted in 1992–93 (International Institute for Population Sciences, 1995). 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 estimates 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 Gujarat.

The NFHS-2 national 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 the data in one or more states. The Population Research Centre, Baroda, was selected as the field organization for NFHS-2 in Gujarat.

1.2 Basic Socioeconomic and Demographic Features of Gujarat

Gujarat has seen the rise and fall of various kingdoms and has experienced a number of changes in administrative and territorial jurisdiction. The state has been ruled by the Muslims, the Marathas, and the British. During the period of British rule, Gujarat remained divided into British-ruled territory and princely states. After independence in 1947, the princely states merged into the Indian union. With the dissolution of the princely states and the reorganization of the Indian union, the entire Gujarati-speaking area was brought under the administrative control of the bilingual Bombay State. A separate state of Gujarat came into existence on 1 May 1960 (Vyas and Raval, 1964).
Gujarat is situated on the west coast of India. It is bounded by Pakistan in the north, Rajasthan in the northeast, Madhya Pradesh in the east, Maharashtra and Dadar and Nagar Haveli in the southeast, and the Arabian sea in the west and southwest (Director of Census Operations, Government of Gujarat, 1988). Gujarat has an area of 196,024 km², representing about 6 percent of the total area of India. The state is divided into 19 districts, which span the following three geographic regions: (1) South Gujarat, comprising Kheda, Panch Mahals, Vadodara, Bharuch, Surat, Valsad, and The Dangs; (2) North Gujarat, comprising Banaskantha, Sabarkantha, Mahesana, Gandhinagar, and Ahmedabad; and (3) Saurashtra and Kachchh, comprising Jamnagar, Rajkot, Surendranagar, Bhavnagar, Amreli, Junagadh, and Kachchh districts. Gujarat is traversed by the rivers Narmada, Tapi, Mahi, Sabarmati, Damanganga, Machchhu, Shetranji, and other smaller rivers. Only 10 percent of the total area of the state is under forest (Bureau of Economics and Statistics, Government of Gujarat, 1982).

Gujarat is one of the leading industrialized states in the country. Rapid industrial growth in the state began in the late 1960s and accelerated during the 1970s and 1980s. The number of registered factories increased from 7,040 in 1970–71 to 11,103 in 1988–89 (Centre for Monitoring Indian Economy, 1993). Principal industries are textiles, machine tools, chemicals and petro-chemicals, pharmaceuticals, dyes, soda ash, cement, dairy, sugar, and fertilizers. In 1988–89, Gujarat ranked second among the states in terms of gross value of output of goods and services produced by the entire factory sector in the country.

In agriculture Gujarat ranks first in the country in the production of tobacco, cotton, and groundnuts, which are the foundation for such industries as textiles, oils, and soap. Gujarat is also fast becoming the leading state in the cooperative sector in the country. The cooperative movement in Gujarat began in the early part of the 20th century, and in recent decades cooperative societies have grown rapidly in many areas of business. They provide farmer and consumer credit, supply agricultural inputs, market agricultural commodities, and have contributed to the development of regulated markets in these areas (Planning Division, Government of Gujarat, 1989).

Gujarat’s annual per capita net domestic product increased from Rs. 1,940 in 1980–81 to Rs. 3,717 in 1996–97 at constant (1980–81) prices, or Rs. 13,932 at current prices. Agriculture, manufacturing, and other sectors contributed 20, 36, and 44 percent, respectively, to total state income in 1996–97 (EPW Research Foundation, 1998). Despite this progress, 22 percent of the rural population and 28 percent of the urban population in Gujarat were living below the poverty line in 1993–94 (Central Statistical Organisation, 1999).

According to the 2001 Census of India provisional estimates, the population of Gujarat is 50.6 million. In 2001 Gujarat ranks 10th in terms of population size among all the states and union territories in India, and its share in the total population of India has increased marginally in 2001 (4.93 percent) from its share in 1991 (4.88 percent). Over the 1961–1991 period there has been a steady decline in the decadal growth rate of population in Gujarat. However, the decadal growth rate has increased somewhat during 1991–2001 (22.5 percent) compared to 1981–91 (21.2 percent). Population density per km² in Gujarat increased from 136 in 1971 to 174 in 1981 to 211 in 1991. The population density of 211 in 1991 is lower than the all-India population density of 273.
Gujarat has been undergoing fairly rapid urbanization. The percentage of the total population living in urban areas increased from 28 percent in 1971 to 31 percent in 1981 to 34 percent in 1991, which is higher than 26 percent for all India in 1991.

Based on the 1991 Census, the proportion of total population designated as scheduled caste\(^1\) is much lower in Gujarat (7 percent) than in all India (17 percent). The proportion of population designated as scheduled tribe, however, is much higher in Gujarat (15 percent) than in all India (8 percent). The proportions of population that are scheduled caste and scheduled tribe remained fairly constant between 1971 and 1991.

According to the 2001 Census of India, the sex ratio in Gujarat, at 921 females per 1,000 males, is lower than it was in 1991 (934) and is more unfavourable to females than the sex ratio for the country as a whole (933). The decline in the sex ratio in the last decade is largely due to a drastic decline in the sex ratio of the population age 0–6 from 928 in 1991 to 878 in 2001. The declining sex ratio of the child population is a serious concern for the state. Gujarat is one of the more advanced states in India. According to the 2001 Census, the literacy rate in Gujarat for the population age seven and above is 70 percent compared with 65 percent for India as a whole. The literacy rate is 81 percent for males and 59 percent for females in Gujarat, compared with 76 and 54 percent for males and females, respectively in all India. The gap in literacy rates between males and females in Gujarat is about the same as in all India.

For 1997, the Sample Registration System estimated an infant mortality rate of 62 per 1,000 live births in Gujarat, compared with 71 in all India. For 1996–2001, life expectancy is projected to be 61.5 years for males and 62.8 years for females, up from 55.3 years for males and 58.3 years for females in 1981–86. The couple protection rate (defined as the percentage of eligible couples effectively protected against pregnancy by various methods of contraception) in Gujarat was 57 percent in 1997, up from 13 percent in 1971. The couple protection rate of 57 percent in 1997 for Gujarat compares with 45 percent for all India.

Between 1971 and 1997, fertility fell substantially in the state. According to the Sample Registration System, the crude birth rate declined from 40.0 per 1,000 population in 1971 to 25.6 in 1997, and the total fertility rate declined from 5.6 children per woman in 1971 to 3.0 children per woman in 1997—a drop of 2.6 children per woman over a period of 26 years. The crude death rate also declined from 16.4 per 1,000 population in 1971 to 7.6 in 1997. The infant mortality rate declined from 144 per 1,000 live births in 1971 to 62 in 1997—a decline of 57 percent (Office of the Registrar General, India, 1999).

### 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 in Gujarat were bilingual, with questions in both Gujarati and English.

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\(^1\)Scheduled castes and scheduled tribes are castes and tribes that the Government of India officially recognizes as socially and economically backward and in need of special protection from injustice and exploitation.
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 preceding the survey, with particular attention to maternal mortality. The information on age, sex, and marital status of household members was used to identify eligible respondents to the Woman’s Questionnaire.

The Woman’s Questionnaire collected information from 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:

**Background characteristics:** 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 background characteristics of a woman’s husband.

**Reproductive behaviour and intentions:** 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.

**Knowledge and use of contraception:** Questions cover knowledge and use of specific family planning methods. For women not using family planning, questions are included on reasons for not using contraception and intentions concerning future use.

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

**Antenatal, delivery, and postpartum care:** 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.

**Breastfeeding and health:** Questions cover feeding practices, the length of breastfeeding, immunization coverage, and recent occurrences of diarrhoea, fever, and cough for young children.

**Reproductive health:** 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 gender roles, women’s autonomy, and violence against women.

Knowledge of AIDS: Questions assess women’s knowledge of AIDS and the 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 women and children were referred to local medical authorities for treatment.

For each village selected in the NFHS-2 sample, the 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 the problems.

1.4 Survey Design and Sample Implementation

Sample Size and Reporting Domains

The overall target sample size for Gujarat was 4,000 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 rural and urban 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 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 linked villages), with probability proportional to population size (PPS) in the first stage, followed by the 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
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 districts grouped into nine contiguous regions. The district composition of these nine regions (based on the 19 districts of Gujarat at the time of the 1991 Census) is as follows:

- Region I: Jamnagar, Rajkot
- Region II: Surendranagar, Bhavnagar, Amreli
- Region III: Junagadh
- Region IV: Kachchh, Banaskantha
- Region V: Sabarkantha, Mahesana
- Region VI: Gandhinagar, Ahmedabad
- Region VII: Kheda
- Region VIII: Panch Mahals, Vadodara (Baroda)
- Region IX: Bharuch, Surat, Valsad, The Dangs

Within each region, villages were further stratified by village size and percentage of population belonging to scheduled castes or scheduled tribes. 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 strata, consisting of an ordering of villages within each stratum by the level of female literacy (obtained from the 1991 Census Village Directory). From the list of villages arranged in this manner, 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 rural-domain sampling fraction, i.e., the probability of selecting a woman in rural Gujarat \( f \), 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 December 1998.

The probability of selecting a PSU \( f_i \) from rural Gujarat was computed as:

\[
f_i = \frac{a \times s_i}{\sum s_i}
\]
where \( a \) = number of PSUs to be selected from rural areas,
\( s_i \) = population size of a specific PSU,
\( \sum s_i \) = 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. The household listing in these PSUs was carried out only in the selected segments. The work was carried out by six teams, each comprising one lister and one mapper, under the supervision of three field supervisors and two field executives. The teams were trained from 28–30 September 1998 in Vadodara by an official from the PRC, Baroda, who was earlier trained in a workshop conducted by IIPS. The mapping and household-listing operation was carried out between October and December 1998. The households to be interviewed were selected with equal probability from the household list in each 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 the 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 made 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 urban domain sampling fraction, i.e., the probability of selecting a woman in urban Gujarat \((f)\) 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 \((f_i)\) was computed as:

\[
f_i = \frac{a \times s_i}{\sum s_i}
\]

where \(a\) = number of wards selected from the domain

\(s_i\) = population size of the \(i\)th selected ward

\(\sum s_i\) = 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 \( i^{th} \) block,
\[ \sum B_i = \text{total population of the ward}. \]

A household listing operation carried out in each selected census enumeration 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 are based on design weights, adjusted 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 response rates for households and eligible women, 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 \( i^{th} \) domain, calculated as the ratio of the overall sampling fraction \((F = n/N)\) and the sampling fraction for the \( i^{th} \) domain \((f = n_i/N_i)\). Note that \( n = \sum n_i \) and \( N = \sum N_i \).

The eligible women’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 the number of cases (households or eligible women) interviewed in the \( i^{th} \) 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 133 PSUs were selected for the sample, of which 46 (35 percent) were urban and 87 (65 percent) 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 succeeded in achieving an overall response rate of 95 percent. The overall response rate is the same in urban areas and rural areas.

Of the 4,153 households selected in Gujarat, interviews were completed in 95 percent of the cases, 2 percent of the selected households were absent, and 2 percent were found to be vacant. The remaining 1 percent of the selected households could not be interviewed due to other reasons such as refusal to be interviewed (Table 1.2). 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, 3,981 women were identified as eligible for the individual interview. Interviews were successfully completed with 97 percent of the eligible women. The response rate for women was slightly higher in urban areas (97 percent) than in rural areas (96 percent). Nonresponse at the individual level was primarily due to eligible women not being at home despite repeated household visits. Very few eligible women refused to be interviewed.

1.5 Recruitment, Training, and Fieldwork

Field staff for the main survey were trained in Vadodara by officials of the PRC, Baroda, who were trained earlier in a Training of Trainers Workshop conducted by IIPS. Training in Gujarat consisted of three weeks of classroom training, general lectures, and demonstration and practice interviews, as well as field practice and additional training for field editors and supervisors. The classroom training included instructions in interviewing techniques and survey field procedures, a detailed review of each item in the questionnaires, instruction and practice in weighing and measuring women and children, and mock interviews between participants. Special guest lectures on family planning and on child health were also arranged. 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.

The main fieldwork for NFHS-2 in Gujarat was carried out by five interviewing teams, each 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 10 March 1999. Coordinators and senior staff of the PRC, Baroda, monitored and supervised the data collection operations. IIPS also appointed 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 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.
Field Problems

Survey research is sometimes affected by unforeseen circumstances that effect the progress of fieldwork. Some problems encountered during the fieldwork in Gujarat are described below, although these problems do not appear to have adversely affected the quality of the survey data.

The household-listing operation, which was initiated during the first week of October 1998, could not be completed before the start of fieldwork for the main survey because of bad weather conditions, the harvest season, inaccessibility of certain PSUs, and other field problems. For example, certain coastal districts of Gujarat were hit by a cyclone during the data-collection period. Many households in some of the PSUs affected by the storm relocated temporarily during that period. This relocation hampered the household listing in the cyclone-affected areas. After the situation returned to normal, additional enumerators were sent to complete the household listing by the third week of December 1998.

The household listing work in one of the selected PSUs in Kachchh district, situated near the India-Pakistan border, was delayed because a part of this PSU formed the cantonment area of the Air Force Station. For security reasons, the authorities of this cantonment area refused to give permission for entry. Necessary permission from the authorities was later obtained, however, as a result of personal contact by senior staff of the PRC, Baroda, to complete the work.

As scheduled, the main fieldwork for NFHS-2 in Gujarat was initiated in the last week of November 1998. The late receipt of lancets and other essential anaemia-testing items meant that measurement of haemoglobin levels in five PSUs of two districts (Baroda and Kheda) could not be conducted during the normal data collection period. Health investigators were able to collect blood samples from respondents in those five PSUs towards the final stages of the survey work, however.

Several women refused anaemia testing for young children who were born after several years of marriage or after the family’s experience of infant or child death. The women believed that these children were the result of vows observed by them and therefore did not want to subject their children to any outside intervention. In keeping with the informed consent, the wishes of women who refused anaemia testing were respected. Also, in certain PSUs, Muslim women who were observing Roza (fast) from sunrise to sundown during the month of Ramzan also refused anaemia testing until the completion of their Roza, i.e., after sundown. Consequently, these women had to be contacted at nightfall by the health investigators in order to be tested for anaemia.

The NFHS-2 fieldwork was carried out during the harvest season in Gujarat. During the harvest season, some households migrate temporarily from their usual place of residence to nearby farms for agricultural work. Many women leave for the fields early in the morning and return late at night. This temporary absenteeism resulted in a significant number of noncontacts with households and/or eligible women during the first three visits. In an attempt to accommodate women’s schedules, the field teams visited some PSUs very early in the morning or late at night. Towards the end of the survey, when many families returned to their original locations after the harvest, field teams revisited PSUs where households had migrated temporarily during the harvest season, in order to conduct interviews.
1.6 Data Processing

Completed questionnaires were sent to the PRC office in Vadodara 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 four data-entry operators under the supervision of two senior staff at the PRC who were trained at a data-processing workshop in Vadodara. Data-entry and editing operations were completed by April 1999. Tabulations for the preliminary report as well as for the present final report were carried out at IIPS in Mumbai.