

Union of Myanmar

Ministry of Immigration and Population

Department of Population and UNFPA

**Myanmar
Fertility and
Reproductive Health Survey
2001**

Preliminary Report



Department of
Population

Yangon, December 2002



United Nations
Population Fund

Myanmar

Fertility and Reproductive Health Survey

2001

Preliminary Report

Preface

The 2001 Fertility and Reproductive Health Survey (FRHS) is the third survey to obtain detailed information on demography and reproductive health in Myanmar. The first survey was 1991 Population Changes and Fertility Survey (PCFS) and the second was the 1997 FRHS.

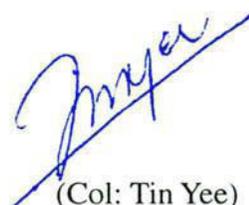
This Preliminary Report is the first report of 2001 FRHS to provide policymakers, programme managers, international organizations, NGOs and scholars timely and reliable detailed but brief information on fertility, contraception, maternal and child health, infant and child mortality, knowledge of STDs and HIV/AIDS and internal migration in Myanmar. Two more detailed reports are planned to supplement this one: comprehensive Country Report (main survey report) and Report on Detailed Analysis of Trends and Patterns on selected topics.

The intensive inputs and efforts provided by many Government agencies, departments and non-governmental organizations contributed to the successful completion of the 2001 FRHS. The heads and selected staff of the State, Division and Township offices of the Department of Immigration and National Registration assisted in the field operation and data collection throughout the country including hard to reach remote sample areas. The Department of Population of the Ministry of Immigration and Population was responsible for conducting the survey, including sample design; planning and organizing field operation and data collection; data processing and tabulation; and report writing.

In addition to funds provided by the Government of Myanmar, the survey received substantial support from United Nations Population Fund (UNFPA). A number of international consultants had provided assistance on technical matters relating to questionnaire and sample design, data processing, analysis, and drafting the Preliminary Report. In particular, I would like to extend my gratitude and appreciation to the invaluable support provided by Dr. Tan Boon Ann, International Consultant in the preparation of this report and to members of UNFPA/CST. I would also like to express my appreciation to the resource persons and staff from the Department of Population for their hard work at all the stages of the survey works.

Last, I would like to convey my special thanks to those who actively contributed to the survey, particularly the respondents and concerned household members without their cooperation and sincere assistance the success of this major undertaking would not have been materialized.

December 2002,
Yangon, Myanmar



(Col: Tin Yee)
Director General
Department of Population

FOREWORD

The 2001 Fertility and Reproductive Health survey (FRHS) is the second nationally represented population reproductive health survey in Myanmar funded by UNFPA. Subsequent to the first FRHS conducted in 1997, UNFPA funded the second survey in 2001, which has a broader scope. The survey covered various population groups, including those with diverse cultural and linguistic backgrounds. It gathered information on fertility and reproductive health, which is considered to be culturally sensitive and personal. Taking this factor into consideration, this exercise required extensive planning and preparations before the survey was fielded. The interviewers had to be extremely careful during data collection and field interviews in order that the data collected is accurate and reliable. These surveys have contributed towards the development of a national population database, including socio-economic indicators, which are vital to national planning. The indicators reflected in the survey can be useful in determining the effectiveness of national development efforts as well as international assistance programmes. It will also help in assessing the impact of the development programmes on the living conditions of the people. As UNFPA, as well as its partner agencies, has an important role to play in assisting countries in developing relevant measurement tools, this survey is considered to be of extreme importance to UNFPA and Myanmar as it serves as a reliable benchmark for measuring progress.

The Fertility and Reproductive Health survey has truly been a collaborative effort among several agencies. While the principal responsibility of carrying out the survey rested with the Department of Population, Ministry of Immigration and Population, all the related Ministries and agencies who are involved in population and reproductive health collaborated at every stage, starting from the design of the questionnaire to the interpretation of the results. UNFPA Country Technical Services Team provided technical assistance, including training in data processing, data tabulation, analysis of data and report writing.

The FRHS report provides the wealth of information on the current demographic and reproductive health situation in Myanmar. It also paves the way for further in-depth analysis of selected topics -such as i) situation analysis of never married women; ii) child mortality and health; iii) unmet need for contraception; iv) migration patterns; and v) labour force and economic activities. The in-depth analysis of the above topic is intended to be carried out in 2003 by the Department of Population with UNFPA support.

May I take this opportunity to congratulate the Department of Population, Ministry of Immigration and Population for this successful undertaking. UNFPA looks forward to further collaboration in the field of developing Population and Reproductive Health indicators. This report could be very useful as a tool to evaluate current population and reproductive health programmes and to help in development of future programme activities.



Najib M. Assifi
UNFPA Representative
Myanmar

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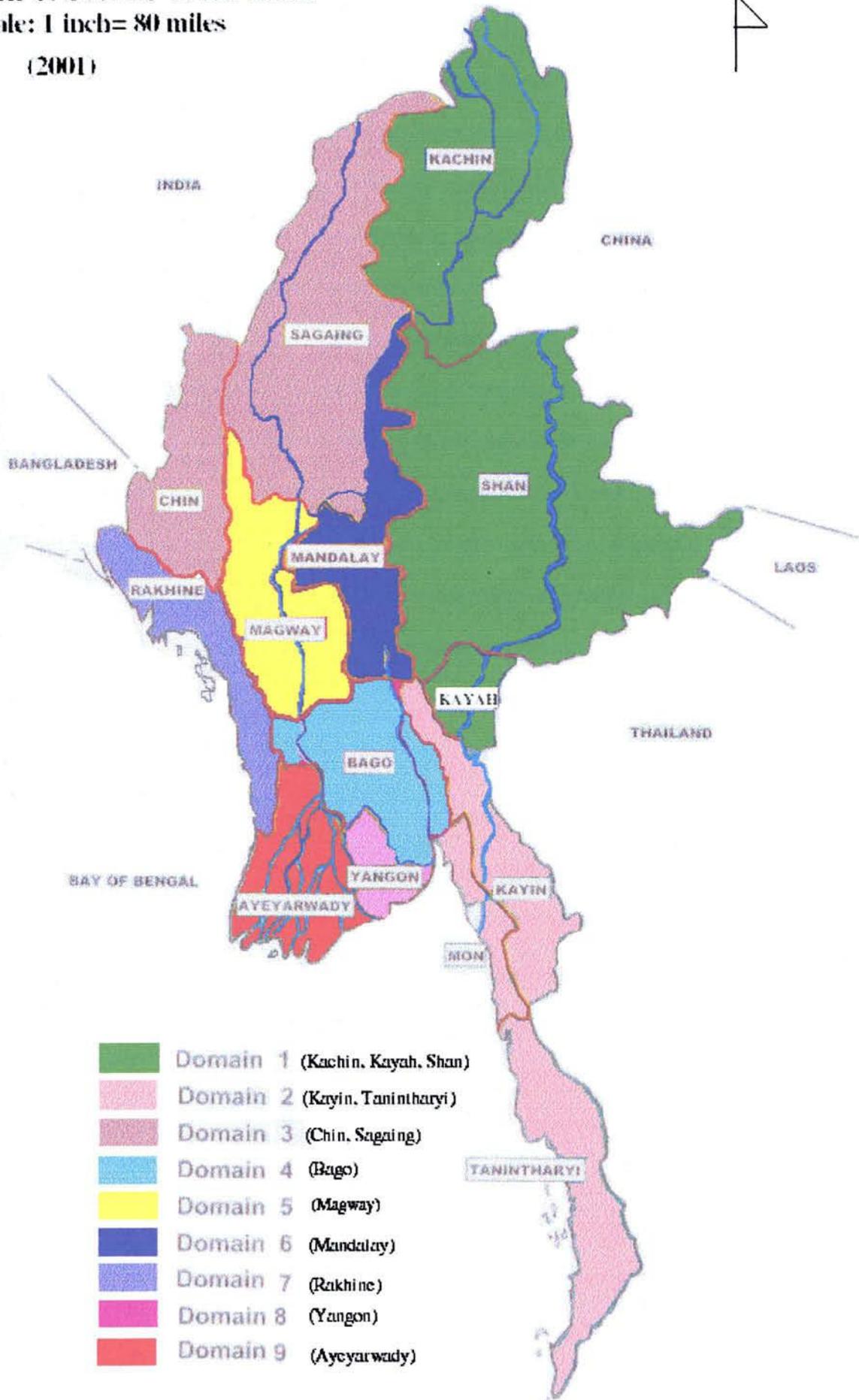
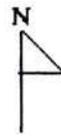
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THE UNION OF MYANMAR

Scale: 1 inch = 80 miles

(2001)



CHAPTER I

INTRODUCTION

1.1 Survey and its Coverage

The 2001 Fertility and Reproductive Health Survey (FRHS) is the third in a series of demographic surveys taken at five-year intervals since 1991. The first demographic survey was Population Changes and Fertility Survey (PCFS) conducted in 1991 and the second survey was Fertility and Reproductive Health Survey (FRHS) conducted in 1997. Both surveys were conducted by the Department of Population.

Administratively, Myanmar is divided into 17 first level units: 9 states and 8 divisions. The states and divisions are again divided into districts under which are townships. There are a total of 55 districts and 324 townships. The current population of the country is about 52 million.

The FRHS is a nationally representative survey designed to collect information on fertility, infant and child mortality, reproductive health, maternal mortality, knowledge of sexually transmitted diseases (STDs) and Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS). It was conducted by the Department of Population with financial and technical assistance from UNFPA. It is planned to have three reports on the 2001 FRHS: preliminary report, country report and detailed trend analysis.

This preliminary report presents findings on some major topics from the FRHS such as survey objectives, questionnaires, sample design, background characteristics of the survey population, fertility, mortality, migration, contraceptive knowledge and use, maternal and child health, and knowledge of STDs and HIV/AIDS. Findings and indicators presented in this preliminary report are subject to revision during the course of detailed analysis for the country report.

1.2 Survey Objectives

The 2001 FRHS was conducted with the following specific objectives:

- (1) To have provided detailed information on changes in fertility, mortality (infant and child mortality), migration and information on the knowledge of the STDs and HIV/AIDS. This information is useful for the formulation of the socio-

economic and health plan, and strategy development and programme implementation; and

- (2) To have studied the changes in fertility and reproductive health related indicators derived from the 2001 FRHS and earlier surveys. The survey findings can be compared with other related surveys and will also provide benchmark or baseline data for monitoring and evaluation of the RH and related programmes.

1.3 Methodology

The survey questionnaires were prepared, based on 1997 FRHS questionnaires and questionnaires from recent demographic and health surveys conducted in other countries in the region. Four types of questionnaires were used in the 2001 FRHS: community schedule, household questionnaire, individual questionnaire for ever-married women aged 15-49, and another individual questionnaire for single (never married) women aged 15-34.

The questionnaires are designed taking into consideration the customs, cultures and traditional norms of Myanmar people. A data user workshop was organized to discuss the contents of the questionnaires and the survey questionnaires were modified based on comments and suggestions given at the workshop by respective representatives from other relevant ministries and organizations. The pre-tests were carried out in three states and three divisions in May and June 2001. The findings of the pre-test results provided information to fine-tune the survey questionnaires as well as the field organization and management for 2001 FRHS. The questionnaires were prepared in both Myanmar and English.

1.4 Sample Design

The 2001 FRHS was designed to produce estimates at the national level as well as the sub-national level. The country was stratified into 9 domains combining some of the states and divisions for contiguity of their areas, homogeneity of their cultures, customs and for administrative and communication convenience. The three domains that are not individual states or divisions are Domains 1, 2 and 3. Domain 1 is formed by combining Kachin State, Shan State and Kayah State whereas Kayin State, Mon State and Tanintharyi Division are combined to form Domain 2 and Chin State and Sagaing Division together form Domain 3.

The 2001 FRHS was conducted in two phases: a large household survey (Phase I survey) designed to provide basic demographic indicators at national and sub-national levels

and a smaller more detailed (individual) fertility and reproductive health survey (Phase II survey) intended to provide selected key fertility and reproductive health indicators. Phase I survey employed a two stage stratified cluster sample design. The segments or clusters to be included in the sample were identified through each of the 9 domains. The sample is selected proportionate to population size and the number of urban and rural segments are also proportionate to the total urban and rural segments. The segments selected for the Phase I survey served as sampling frame for the Phase II survey i.e. the smaller (individual) Phase II survey is a sub-sample of the Phase I survey. Segments for Post Enumeration Survey (PES) were selected from the segments included in the Phase I survey. PES was conducted to evaluate the completeness of the coverage and consistency of selected variables.

A few inaccessible areas in townships in border areas were excluded from the survey and these were taken out of the frame before the sample selection. The excluded areas accounted for about 3 percent of the estimated total population of the country. The sampling frame consisted of households and the population counts for the year 1999, prepared by the local offices of the Department of Immigration and National Registration.

A total of 1339 sample segments or clusters were selected proportionate to the population size of the domains throughout the 267 townships for the Phase I survey. On average, a segment consists of 30 households. All the households in all the selected segments were interviewed using the household questionnaire. Out of 1339 segments selected for the Phase I survey, 400 segments were selected for Phase II survey to interview ever-married women (Table 1.1). All ever-married women between the ages of 15 and 49 in the households in Phase II segments were interviewed using the individual questionnaire for ever-married women.

There is a total of 37,696 households with 190,492 household members or persons distributed in 336 wards and 1001 villages tracts in the Phase I survey. There are 8,288 ever-married women aged 15-49 and 4648 single women aged 15-34 who were interviewed in the Phase II survey (Table 1.2). The Post Enumeration Survey (PES) was conducted in 270 segments to evaluate the completeness of coverage and provide consistency checks for selected variables.

Table 1.1 Distribution of sample segments by Domain

Sr. No	Domain	Total Townships	No. of Townships with selected sample segments	No. of selected segments	Segments selected for Phase I only	Segments selected for Phase II.
1	Domain 1	79	40	153	108	45
2	Domain 2	27	19	122	86	36
3	Domain 3	46	42	163	114	49
4	Domain 4	28	26	149	104	45
5	Domain 5	25	25	133	93	40
6	Domain 6	31	31	175	122	53
7	Domain 7	17	16	85	59	26
8	Domain 8	45	42	154	109	45
9	Domain 9	26	26	205	144	61
Total		324	267	1339	939	400

Note: Domain 1 = Kachin, Kayah, Shan
Domain 2 = Kayin, Mon, Tanintharyi
Domain 3 = Chin, Sagaing
Domain 4 = Bago
Domain 5 = Magway
Domain 6 = Mandalay
Domain 7 = Rakhine
Domain 8 = Yangon
Domain 9 = Ayeyarwady

Table 1.2 Distribution of sample population, number of ever-married women (EMW) and single women interviewed by Domain

Sr. No	Domain	Population in the sample	No. of EMW interviewed	No. of Single Women interviewed
1	Domain 1	23659	951	448
2	Domain 2	18315	700	446
3	Domain 3	23797	961	607
4	Domain 4	20452	975	558
5	Domain 5	18763	780	508
6	Domain 6	24064	1108	672
7	Domain 7	12791	602	271
8	Domain 8	22067	967	512
9	Domain 9	26584	1244	626
Total		190492	8288	4648

Note: Domain 1 = Kachin, Kayah, Shan
Domain 2 = Kayin, Mon, Tanintharyi
Domain 3 = Chin, Sagaing
Domain 4 = Bago
Domain 5 = Magway
Domain 6 = Mandalay
Domain 7 = Rakhine
Domain 8 = Yangon
Domain 9 = Ayeyarwady

1.5 Survey Organization

The staff from the Department of Population were assigned as 2001 FRHS supervisors and editors, and field interviewers were seconded from local staff of the Department of Immigration and National Registration (INRD) under the same ministry. In addition, domain controllers were senior officials from the Department of Population and a total of 12 domain controllers supervised and monitored the field operations and the State/ Divisional heads of the INRD helped in the supervision of the overall field operations. Data were collected by 68 survey teams: each team comprising one supervisor and three interviewers. The survey field work was conducted from the beginning of October to the middle of November 2001. Special efforts were made to ensure that the interviews were completed and data collected from the sample segments including those from the remote and out reach areas.

1.6 Data Processing

The data processing was done by the Department of Population in Yangon. There were two main operations in data processing - manual data processing and machine data processing. The manual data processing included editing of the coverage and contents of the questionnaires completed and coding of selected open-ended questions. The machine data processing consisted of (i) data entry operation, (ii) data validation or cleaning and (iii) tabulation. The department utilized 15 personal computers and about 40 data entry operators for data entry working in two shifts for two months. There were three senior programmers and five programmers for programme development and debugging. Integrated System for Survey Analysis (ISSA) package was used for data entry, data validation and tabulation programmes. Statistical Package for Social Science (SPSS) was also used for creating special tables for analysis while Microsoft Word, Microsoft Excel, and Page Maker were used for preparation of the reports.

1.7 Response Rate

Of the households selected, 36,808 households or 98 per cent were successfully interviewed. In the ever-married women sample, interviews were completed for 8288 ever-married women from 8,973 sampled women: response rate of 92 per cent. The principle reason for non-responses among eligible women was the failure to find them at home in spite

of repeated visits to the concerned households. The non-response rate was very low and refusal rates was negligible in this survey. Thus, the response rates for households and Individual women can be considered very high.

CHAPTER II

BACKGROUND CHARACTERISTICS OF RESPONDENTS AND HOUSEHOLDS

The purpose of this chapter is to provide a descriptive summary of the demographic and socioeconomic characteristics of the respondents and household amenities. These will serve as background information to the chapters on fertility, mortality, contraceptive knowledge and uses, maternal and child health and knowledge of STDs and HIV/ AIDS. The 2001 FRHS data have, in some cases, been compared with data from the 1973 and 1983 Censuses, 1991 PCFS and 1997 FRHS.

2.1 Background characteristics of respondents

Table 2.1 shows the proportion of the population in broad age groups (<15, 15-59, 60+) and the total dependency ratio for the 2001 FRHS, past surveys and censuses. The dependency ratio has fallen from 90 to 63 over the past 28 years. The decline is more evident in urban areas (from 86 to 53) than in rural areas (from 92 to 67). The principal cause of this is most likely due to fertility decline. The falling fertility is also reflected in the decline of percentage of the children below 15 years from 42 percent in 1973 to 30 percent in 2001. Again, the decline is more evident in urban areas (from 41 percent in 1973 to 26 percent in 2001) than in rural areas (from 42 percent in 1983 to 32 percent in 2001).

2.2 Household size and head of household

The distribution of household heads by sex and urban-rural residence is shown in Table 2.2. The percentage of female household heads has increased slightly from 18 percent in 1997 to 19 percent in 2001. It can also be seen from the table that the percentage of female heads of household was greater in urban areas than in rural areas (24 percent vs. 18 percent respectively). The average household size is 5.2 persons. The average household size is a little larger in urban areas (5.3) than in rural areas (5.1).

Table 2.1 Summary demographic measures from Censuses, and Fertility and Reproductive Health Surveys

Censuses/ Surveys	Summary Measures			Total Dependency Ratio *
	Broad Age Groups			
	<15 (%)	15-59 (%)	60+ (%)	
1973 Census				
Union	41.5	52.5	6.0	90.0
Urban	40.8	53.7	5.5	86.0
Rural	41.7	52.7	6.2	92.0
1983 Census				
Union	38.6	55.0	6.4	82.0
Urban	35.7	58.1	6.2	72.0
Rural	39.3	54.1	6.4	85.0
1991 PCFS				
Union	35.0	57.8	7.2	73.0
Urban	30.5	62.1	7.4	61.0
Rural	36.8	56.1	7.1	78.0
1997 FRHS				
Union	31.8	59.6	8.6	68.0
Urban	25.7	65.0	9.3	54.0
Rural	33.9	57.7	8.4	73.0
2001 FRHS				
Union	30.3	61.2	8.4	63.4
Urban	25.8	65.4	8.9	53.0
Rural	31.9	59.8	8.3	67.3

Notes: PCFS = Population Changes and Fertility Survey

FRHS = Fertility and Reproductive Health Survey

* Total Dependency Ratio is the number of persons aged under 15 years and 60 years per 100 persons aged 15 to 59 years.

Table 2.2 Percent distribution of the household heads by Sex and Urban-Rural Residence, 2001 FRHS

Characteristics	Total (%)	Urban (%)	Rural (%)
Heads of household			
Male	80.7	76.2	82.2
Female	19.3	23.8	17.8
Total	100.0	100.0	100.0
Number of households	36,808	9,224	27,584
Mean household size	5.2	5.3	5.1

2.3 Education attainment

Table 2.3 shows the distribution of household population aged five years and over by education attainment according to sex and residence. The percentage of females who have less than standard one education is higher than their male counterparts (24 percent vs. 19 percent). Similarly, among those in the primary education female ranks slightly better than males (45 percent vs. 41 percent). Both have the highest proportion in this educational group when compared with other education groups.

The survey data also indicate that there is a higher education attainment in urban areas than rural areas; in urban areas, 87 percent has primary or higher level of education while it is only 75 percent for this category in rural areas.

The table shows the existence of the gender gap in some levels of education. The percentages of females who have the primary and university education are higher than that of males (45 percent vs. 41 percent for primary education; 5 percent vs. 4 percent for university education). Conversely, the percentages of males who have the middle school and high school education are higher than that of females (21 percent vs. 15 percent for middle school education; 10 percent vs. 8 percent for high school education).

Table 2.3 Percent Distribution of the household population aged 5 years and over according to education attainment by sex and residence, 2001 FRHS

Sex	Less than standard one	Primary	Middle School	High School	University	Others	Total
Total							
Total	21.5	43.1	18.0	9.1	4.1	4.2	100
Male	18.8	40.7	21.2	10.0	3.8	5.5	100
Female	24.0	45.3	15.2	8.2	4.5	3.0	100
Urban							
Total	12.5	29.6	26.1	19.0	11.1	1.7	100
Male	10.4	26.1	30.2	20.8	10.3	2.2	100
Female	14.3	32.8	22.4	17.3	11.9	1.3	100
Rural							
Total	24.7	47.9	15.2	5.5	1.6	5.0	100
Male	21.7	45.8	18.0	6.3	1.5	6.6	100
Female	27.5	49.8	12.6	4.9	1.8	3.6	100

Note: Less than standard one education includes those who have no schooling

2.4 Literacy

In the 2001 FRHS household questionnaire, the question assessing literacy was asked of household members aged 5 years and over whether they are literate or not. It can be seen from Table 2.4 that the overall literacy rate is 71 percent. As expected, the literacy rate is higher in urban areas (83 percent) than in rural areas (67 percent). There are some gender differences in the literacy rate. The male literacy rate is 75 percent while the female literacy rate is considerably lower: 67 percent. The sex differential is more apparent in rural areas than in urban areas.

Table 2.4 Percent distribution of the household population aged 5 years and over according to Literacy Rate, 2001 FRHS

Sex	Total	Literate	Illiterate
Union			
Total	100	70.8	29.2
Male	100	74.8	25.2
Female	100	67.1	32.9
Urban			
Total	100	82.9	17.1
Male	100	85.5	14.5
Female	100	80.5	19.5
Rural			
Total	100	66.5	33.5
Male	100	71.1	28.9
Female	100	62.3	37.7

2.5 Employment

In the 2001 FRHS, respondents were asked a number of questions about employment: whether they had worked during the last 14 days before the survey and the reasons for not working. The employed population consists of all those who had worked during the 14 days preceding the survey while the unemployed population includes those who had not worked during the same period but were seeking jobs.

Table 2.5 shows current employment by sex and residence. About 97 percent of males and about 99 percent of females were employed at the time of the survey. Current employment is higher among rural males than among urban males (99 % and 96 %, respectively). The pattern is also true for rural and urban females (99 % and 98 % respectively).

Table 2.5 Percent distribution of population aged 15 years and over according to employment, sex, and urban-rural residence, 2001 FRHS

	Employed	Unemployed	Total
Total			
Total	98.6	1.4	100
Male	98.3	1.7	100
Female	98.9	1.1	100
Urban			
Total	96.7	3.3	100
Male	96.0	4.0	100
Female	97.7	2.3	100
Rural			
Total	99.1	0.9	100
Male	99.0	1.0	100
Female	99.3	0.7	100

2.6 Occupation

Table 2.6 presents percent distribution of household population aged 15 years and over by current occupation (major groups), sex and urban-rural residence. Slightly over half (52 %) of the household population were engaged in agricultural work (skilled), about 17 percent were working in elementary occupation, about 13 percent were service workers and about 9 percent were employed in craft and related works. There are more male workers than female workers in most of the occupation categories except in professional and services (1 % vs. 3 % for professional and 9 % vs. 19 % for services). The proportion of female workers in service sector is almost two times of males in urban areas (41 % vs. 23 %) while it is about three times in rural areas (12 % vs. 4 %).

In terms of two largest occupational groups, the rural and urban population have different occupational groups. For example, in rural areas, about 65 per cent of household population were agriculture workers and about 18 percent were engaged in elementary occupation. But in urban areas, about 30 per cent were service workers and about 18 percent were craft and related workers.

Table 2.6 Percent distribution of household population 15 years and over by occupation (major groups) by urban/rural residence, 2001 FRHS

Occupation major group	Total			Urban			Rural		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Administrators	0.7	0.4	0.6	2.1	1.3	1.8	0.3	0.2	0.2
Professionals	1.1	3.4	2.0	2.9	8.8	5.2	0.6	1.7	1.1
Technicians	2.4	1.6	2.1	7.3	4.6	6.2	0.9	0.7	0.8
Clerks	1.5	1.9	1.6	4.4	7.1	5.5	0.5	0.4	0.5
Services workers	8.6	18.8	12.8	22.6	41.4	30.3	4.2	12.0	7.4
Agricultural workers (Skilled)	54.6	48.5	52.1	12.4	7.4	10.3	67.6	60.7	64.8
Craft and related workers	8.8	8.4	8.6	20.8	13.1	17.7	5.1	7.0	5.9
Plants machine operators	4.0	1.6	3.0	9.9	4.2	7.6	2.1	0.8	1.6
Elementary occupation *	18.4	15.4	17.2	17.5	12.2	15.4	18.6	16.4	17.7
Total	100.0								

* Note: Elementary occupations consists of simple and routine tasks and often needs some physical efforts

2.7 Marital Status

Table 2.7 shows the marital status of the household population by age. The data indicates that 56 percent of household population aged 15 and over in Myanmar have never married, 38 percent are currently married, one percent are divorced or separated, and 5 percent are widowed. The proportion of never married has increased 23 percent from 43 percent in 1991 to 56 percent in 2001.

Table 2.7 Percentage distribution of household population 15 years and over by age and urban-rural residence, 2001 FRHS

Age Group	Total	Single	Married	Widowed	Divorced	Renounced
Total	100.0	55.7	37.8	5.4	1.1	0.0
15-19	100.0	94.4	5.2	0.1	0.2	0.1
20-24	100.0	70.0	28.5	0.2	1.2	0.0
25-29	100.0	43.4	53.7	0.9	1.9	0.0
30-34	100.0	25.7	70.2	1.6	2.5	0.0
35-39	100.0	17.1	77.7	2.8	2.4	0.0
40-44	100.0	12.1	81.0	4.7	2.2	0.0
45-49	100.0	8.9	81.4	7.4	2.3	0.0
50-54	100.0	7.4	78.5	12.3	1.9	0.0
55-59	100.0	5.7	73.8	18.7	1.7	0.1
60+	100.0	4.4	56.5	38.0	1.0	0.1

The data show that divorce and separation are not common in Myanmar and the proportion of widowhood increase steadily with age, from less than 1 percent among household population under age 30 to 38 percent among household population aged 60 and above.

2.8 Housing conditions and related characteristics

In the household questionnaire, in addition to collecting demographic information on the population, several questions were asked to assess housing conditions and households amenities. Table 2.8 shows that overall, about 28 percent of households had electricity. There is a considerable difference between urban and rural households in the availability of electricity. Nearly 70 percent of urban households had electricity compared with only 15 percent of rural households.

About 26 percent of households owned radios, with a higher proportion in urban areas (43 %) than in rural areas (20 %). Slightly less than half (44 %) of urban households owned televisions, while only about 10 percent of rural households owned televisions. This has important implications for mass media, communication and education in the promotion of awareness on RH related issues and RH programmes.

The table also shows that only small proportion of the households were having piped water particularly in the rural areas: overall 10 percent, urban 23 percent and rural 6 percent. More than half of households (53 percent) obtained their drinking water from protected wells and about 29 percent from other sources such as rain water, river/ stream, dams and lake/pond.

Overall, about half of the households used Leaves, Dhani, Thetke, Earth as the main type of roofing materials. But the proportion of houses having this type of roofing in urban areas was only about 25 percent while it was 59 percent in the rural areas. However, the main type of roofing materials for urban households was corrugated sheets.

Regarding sanitation facilities, about 69 percent of households used water seal toilet, 20 percent used pit/ bucket type, and 10 percent have no sanitation facilities.

Table 2.8 Percent distribution of households by household characteristics according to Urban-Rural Residence, 2001 FRHS

Household Amenities	Total	Urban	Rural
Electricity	27.6	66.5	14.6
Radio	26.1	43.0	20.4
Television	18.9	44.3	10.4
Source of drinkingwater			
Piped water	10.1	22.8	5.8
Well (protected)	52.9	55.1	52.2
Well (unprotected)	7.9	4.0	9.2
Others	29.1	18.1	32.8
Total	100.0	100.0	100.0
Sanitation facilities			
Flush	0.7	2.3	0.1
Water seal	68.7	85.7	63.0
Pit/ Bucket	20.2	9.3	23.8
None	9.8	2.3	12.4
Other	0.6	0.4	0.7
Total	100.0	100.0	100.0
Roof material			
Tile/brick	2.4	6.8	0.9
Corrugated sheet	33.9	58.0	25.8
Wood/ Bamboo	9.6	9.0	9.8
Leaves/ Dhani/ Thetke/ Earth	50.0	24.6	58.5
Other	4.2	1.6	5.1
Total	100.0	100.0	100.0
Total households	36,808	9,224	27,584

CHAPTER III

FERTILITY

Fertility is one of the determining factors of the future population size, composition and structure. The 2001 FRHS provides three sources of data on fertility:

- (1) number of births during 12 months preceding the survey derived from the summary fertility table of the household questionnaire as reported by any household respondent,
- (2) number of births from the retrospective question on date of birth of the last child from household composition table of the household questionnaire, and
- (3) detailed birth history of each live birth from the individual (ever married woman) questionnaire.

Information from sources (1) and (2) were collected from household respondents and source (3) was collected from ever married women aged 15-49. Fertility indicators such as the crude birth rate (CBR)¹, age specific fertility rates (ASFR)², total fertility rate (TFR)³ and mean number of children ever born (CEB) are presented in this chapter.

3.1 Current Fertility

Table 3.1 shows crude birth rate (CBR) by urban and rural residence from 1983 census, 1991 PCFS, 1997 FRHS and 2001 FRHS. CBR has declined rapidly during the period 1983 to 1991 from 34.8 per thousand population in 1983 census to 24.2 per thousand population in 1991 PCFS. The decline is slower during the period 1991 to 2001: from 22.4 per thousand population in 1997 FRHS and 19.8 per thousand population in 2001 FRHS. In other words, the total CBR has declined by about 30 per cent from 1983 to 1991, about 7 per cent from 1991 to 1997 and 12 per cent from 1997 to 2001. The similar trends are observed for both urban and rural areas. However the urban-rural differential in CBR tends to narrow down from a difference of 10 per thousand in 1983 census to 4 per thousand in 2001 FRHS.

¹ CBR: The number of births in a year per 1000 mid-year population.

² ASFR: Number of live births to mothers of a specific age group in a population during a year per mid year female population in a same age group.

³ TFR: The average number of live births a hypothetical woman would have at the end of her reproductive life if she were subject to the currently prevailing age specific fertility rates from aged 15-49.

It must be noted that the decline of CBR is affected strongly by declining number of live births due mainly to increasing proportion of unmarried women (or declining percentage of married women who are able to produce live births) and rising age at marriage of women. Other main determinants of fertility decline include high rate of abortion/foetal wastage, contraception and long duration of breast feeding.

Table 3.1 Crude birth rates by urban-rural residence from 1983 Census, 1991 PCFS, 1997 FRHS and 2001 FRHS, (Household Questionnaire)

	1983 Census	1991 PCFS	1997 FRHS	2001 FRHS
Total	34.8	24.2	22.4	19.8
Urban	27.2	18.5	16.5	16.9
Rural	37.3	26.4	24.5	20.8

Note: The rates refer to April 1982 to March 1983 for 1983 Census, 1990 calendar year for 1991 PCFS and one year preceding the survey for 1997 and 2001 FRHS.

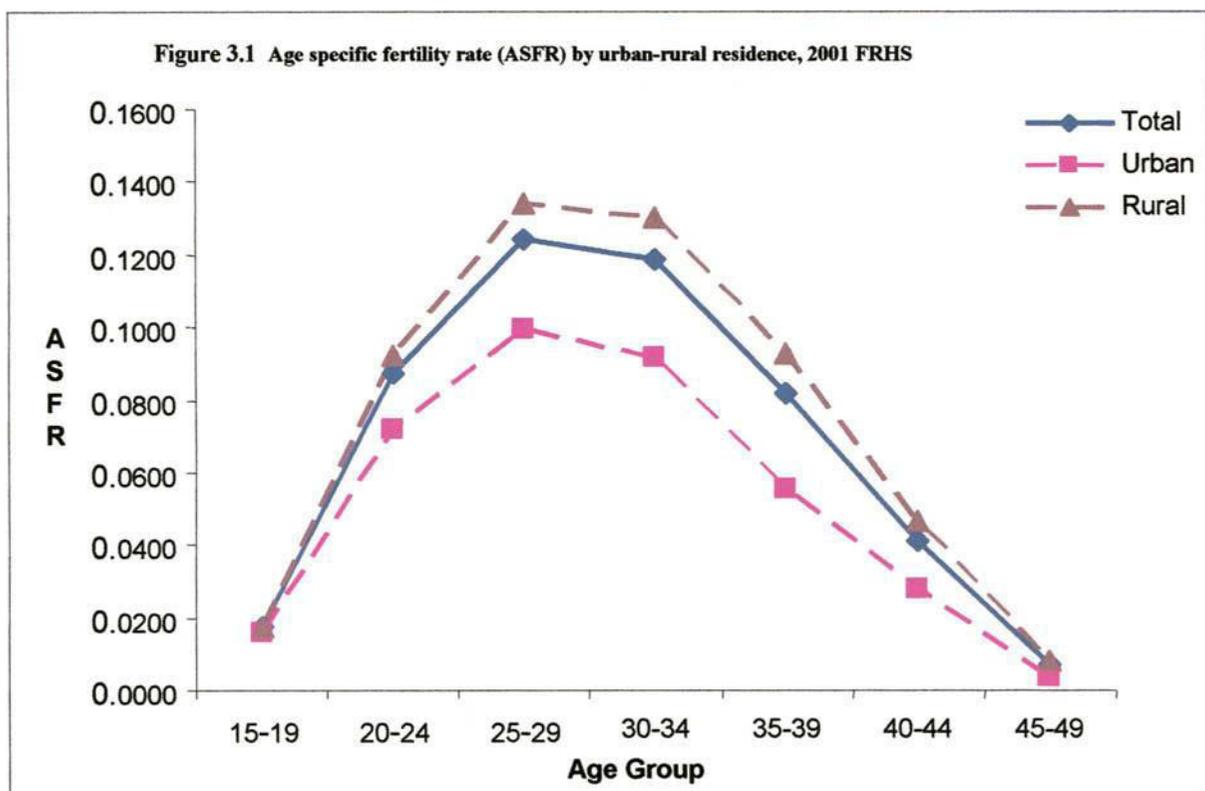
Total fertility rate (TFR) is an important summary demographic measure independent of the age and sex composition of a population and is often used to assess the fertility level of the country. TFR is the sum of the age specific fertility rate (ASFR) of women in each five-year age group from 15 to 49. Table 3.2 presents ASFR and TFR as derived in the 12 months preceding the survey and sex ratio at birth⁴ from household questionnaire. The national TFR reported from the household questionnaire of 2001 FRHS is 2.4. There is a substantial amount of difference of TFR between urban and rural areas: 1.8 for urban vs 2.6 for rural areas. Overall age specific fertility rates follow an inverted U shape with a peak at aged 25-29. The same pattern occurs for both urban and rural areas as shown in figure 3.1.

As for sex ratio at births, the overall rate is 102.2 male births per 100 female births. Urban sex ratio at birth (109.9) is higher than rural sex ratio at birth (100.2).

⁴ Sex Ratio at Birth: Number of male live births per 100 female live births.

Table 3.2 Age specific fertility rate (ASFR), total fertility rate (TFR) and sex ratio at birth by urban-rural residence from births during the 12 months preceding the survey, 2001 FRHS (Household Questionnaire)

Age of Woman	ASFR		
	Total	Urban	Rural
15-19	0.0174	0.0162	0.0178
20-24	0.0872	0.0723	0.0925
25-29	0.1240	0.0993	0.1339
30-34	0.1189	0.0919	0.1301
35-39	0.0818	0.0556	0.0930
40-44	0.0415	0.0282	0.0468
45-49	0.0070	0.0040	0.0082
TFR	2.4	1.8	2.6
Sex Ratio	102.2	109.9	100.2



3.2 Fertility Trend

Table 3.3 presents the TFRs derived from household questionnaire for 1983 census, 1991 PCFS, 1997 FRHS and 2001 FRHS. Overall, total fertility rate has declined rapidly during the period 1983 to 1991 from 4.7 live births per 1000 women in 1983 to 2.9 per 1000 in 1991. However the decline is slower during the period 1991 to 2001: from 2.9 in 1991 to 2.7 in 1997 and 2.4 in 2001. The rural total fertility rate follows a similar pattern but at the higher level. The total fertility rate in urban areas declines rapidly from 1983 to 1991. But the decline is slower between 1991 to 1997 and fertility seems to be constant between 1997 and 2001. From the four census and surveys, TFR for urban areas is substantially lower than the rural areas in each of the observed period (see Table 3.3 and Figure 3.2)

It should be emphasized that the decline in TFR (live births per woman) is influenced strongly by increasing percentage of unmarried women (or declining proportion of married women). For example, the TFR of 2001 FRHS is 2.4 live births per woman (for both married and unmarried woman) while the marital TFR is 5.3 live births (per married woman), which is more than twice that of TFR. This is due more to a high proportion of unmarried women (over 50 per cent) than contraceptive use. Other key determinants of fertility decline include high rate of abortion/foetal wastage and long duration of breast feeding.

Table 3.3 Total fertility rate (TFR) by urban-rural residence from 1983 Census, 1991 PCFS, 1997 FRHS and 2001 FRHS (Household Questionnaire)

Year	Total	Urban	Rural
1983 Census	4.7	3.4	5.2
1991 PCFS	2.9	2.0	3.3
1997 FRHS	2.7	1.8	3.1
2001 FRHS	2.4	1.8	2.6

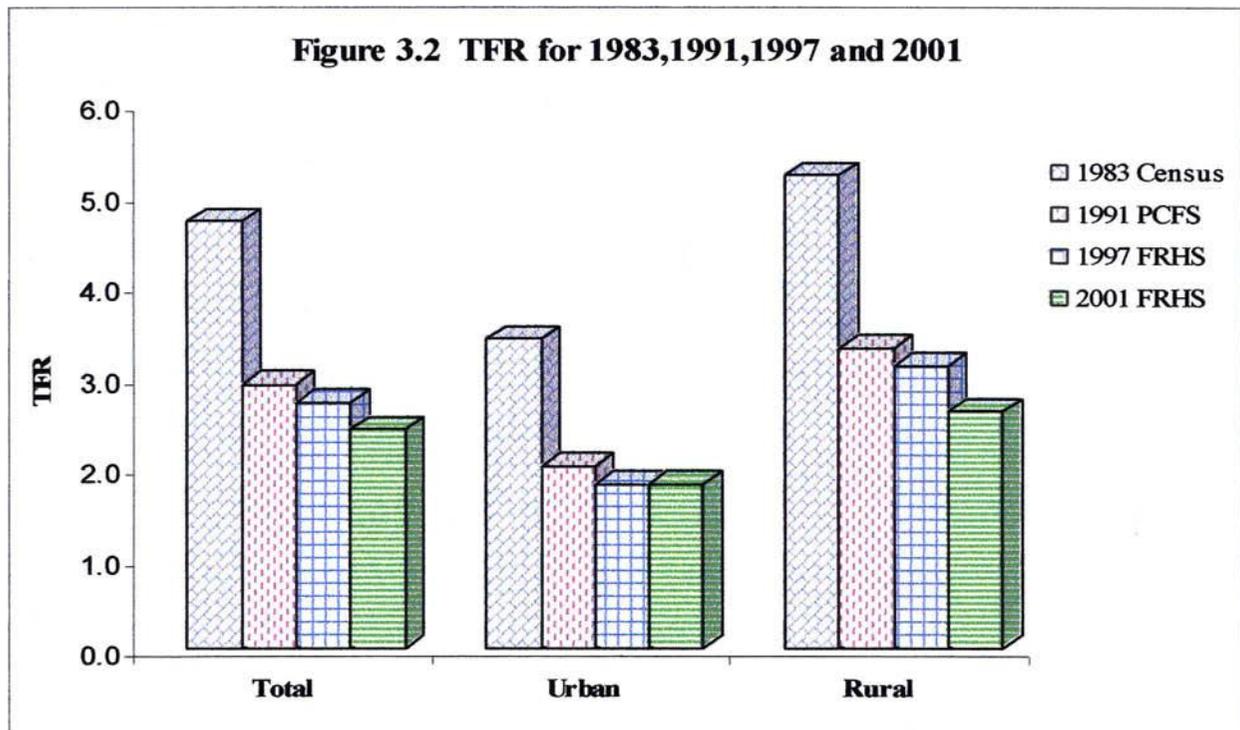


Table 3.4 shows ASFR and TFR for one, three and five years prior to the survey 2001, derived from individual questionnaire. For comparative analysis of the measure of fertility, TFRs are shown in two decimal places in this table. The TFR for one year preceding the 2001 FRHS from individual (ever married woman) sample is almost identical to that of TFR from household sample: 2.4 live births per woman from the household sample vs. 2.39 from the individual sample. The decline of fertility is apparent as it can be seen from Table 3.4. TFR for the 5 years preceding the survey is 2.55 which is higher than the past 12 months TFR of 2.39.

Table 3.4 Age specific fertility rate (ASFR) and total fertility rate (TFR) for one, three and five years before the survey (Individual questionnaire)

Age of Women	A S F R		
	0-1	0-3	0-5
15-19	0.0227	0.0255	0.0287
20-24	0.0944	0.0943	0.1004
25-29	0.1278	0.1272	0.1319
30-34	0.1153	0.1154	0.1156
35-39	0.0786	0.0825	0.0841
40-44	0.0361	0.0364	0.0366
45-49	0.0025	0.0059	0.0119
TFR	2.39	2.40	2.55

3.3 Cumulative Fertility and Fertility differentials

Since TFR is the hypothetical measure of completed family size and is based on the fertility performance of a group of women during one year, TFR is used as an indicator of current fertility level. However, mean number of children ever born (CEB) is a cohort measure of fertility and it reflects the past level of fertility. The mean number of children ever born to women aged 45-49 reflects the fertility performance of women approaching the end of their reproductive period and thus is an indicator of completed fertility or family size.

Table 3.5 shows mean number of CEB to ever married women (EMW) and currently married women (CMW), by age and level of education. From this table, it is observed that mean CEB of EMW and CMW are very close and stand around 3 children per married woman (3.0 for EMW and 3.1 for CMW). Mean CEB is greater in rural areas than urban areas for both EMW and CMW (3.2 vs. 2.6). Mean CEBs of EMW are very close to that of CMW in all age groups for both urban and rural areas. However, completed fertility or family size for EMW and CMW aged 45-49 are 4.6 and 4.7 respectively.

Table 3.5 also indicates that the level of education and fertility are inversely related for both EMW and CMW for both urban rural areas. For example, mean number of CEB among married women (EMW or CMW) with lower level of education is higher than those

with higher levels of education: from 3.9 children ever born among married women with no education to 1.9 children among married women with high school education and to 1.6 children among married women with university education.

Table 3.5 Mean number of children ever born (CEB) to EMW and CMW by age and education attainment of women (Individual questionnaire)

Background Characteristics	Mean CEB for EMW				Mean CEB for CMW			
	Urban	Rural	Total	No..of EMW	Urban	Rural	Total	No.of CMW
Age group								
15-19	0.4	0.5	0.4	194	0.4	0.5	0.4	179
20-24	1.1	1.2	1.2	819	1.1	1.2	1.2	769
25-29	1.6	1.9	1.9	1338	1.6	2.0	1.9	1255
30-34	2.3	2.9	2.7	1666	2.3	2.9	2.8	1535
35-39	2.9	3.7	3.5	1623	3.0	3.8	3.6	1472
40-44	3.4	4.4	4.1	1474	3.5	4.5	4.2	1304
45-49	4.0	4.8	4.6	1174	4.1	4.9	4.7	980
Level of education								
No education	4.0	3.9	3.9	1779	4.0	3.9	3.9	1586
Primary	2.9	3.2	3.1	4319	2.9	3.2	3.1	3900
Middle School	2.4	2.4	2.4	1223	2.5	2.4	2.4	1117
High school	1.9	1.8	1.9	558	1.9	1.8	1.9	512
University	1.5	1.7	1.6	304	1.6	1.7	1.6	286
Others	4.3	3.4	3.5	105	4.0	3.5	3.5	93
Total	2.6	3.2	3.0	8288	2.6	3.2	3.1	7494

CHAPTER IV

CONTRACEPTION

Contraception is an integral part of reproductive health and contraceptive use is an important determinant of the level of fertility. Thus, the past and the present use of contraception influence fertility trends. The increase in contraceptive practice reflects the growing desire of couples to have birth spacing and limit their family size. In this chapter, knowledge of contraceptive methods and their sources, ever use and current use of contraceptive methods are examined. Comparisons are made with findings from previous surveys in order to access the trend of contraceptive knowledge and use in Myanmar.

4.1 Knowledge of Contraception and its sources

The level of knowledge of contraceptive methods and their sources are important determinants of contraceptive use, particularly for birth spacing practice intended to improve the health of mothers and children in Myanmar. In 2001 FRHS, data on knowledge of contraception and their sources were obtained by asking the respondent to name the various methods that a couple can use to delay or avoid pregnancy. If the respondent did not spontaneously answer a particular method, the method was described by the interviewer and the respondent was asked if she recognized the method. In 1997 FRHS, the questionnaire included eleven methods and in 2001 FRHS, three more methods are added in the questionnaire, pill (monthly), pill (emergency) and implant.

Table 4.1 indicates knowledge of contraceptive methods and their sources for currently married women by specific method for 1997 FRHS and 2001 FRHS. Knowledge of at least one method of contraception is almost universal in Myanmar: 93 percent in 1997 FRHS increasing to 97 percent in 2001 FRHS and a similar increase for the knowledge of any modern method with around 92 percent in 1997 as against 96 percent in 2001 (See also Figure 4.1). A greater proportion of currently married women reported knowing a modern method than a traditional method in both surveys. An increase is found in the percent knowing traditional methods with regard to withdrawal and massage but the percent knowing safe period has declined during 1997 and 2001.

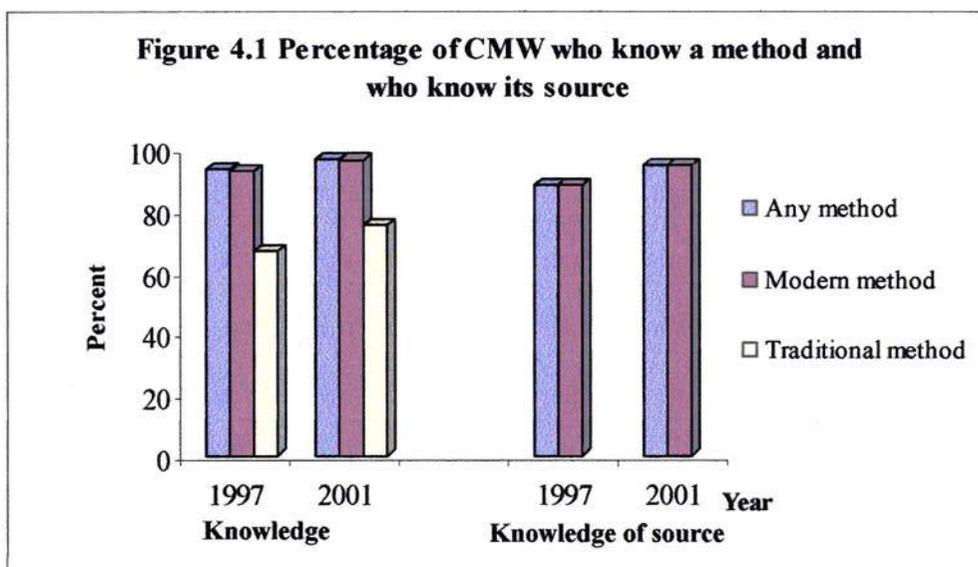
In both 1997 FRHS and 2001 FRHS surveys, the percentage of most widely known modern methods increases over the two survey period; injection (88 % vs. 93 %), daily pill

(89% vs. 91%), female sterilization (79% vs. 85%) and male sterilization (72% vs. 76%). Two in three women know about pill (monthly) and IUD while half of the women have heard of condom. It is also noted that knowledge of condom has increased significantly during the two survey period (from 25% in 1997 to 47% in 2001).

Table 4.1 Percentage of currently married women (CMW) who know a contraceptive method and who know its source by specific method, 1997 FRHS and 2001 FRHS.

Contraceptive Methods	Knowledge of methods		Knowledge of source	
	1997	2001	1997	2001
Any method	92.9	96.5	87.8	94.4
Any Modern method	92.4	96.1	87.8	94.3
Pill (daily)	88.8	90.5	79.6	86.3
Pill (month)	n.a	65.6	n.a	63.4
IUD	56.0	68.7	47.4	62.9
Injection	87.9	92.5	80.0	89.1
Condom	24.5	46.6	18.9	37.1
Female Sterilization	78.8	84.7	74.3	80.8
Male Sterilization	71.9	76.4	64.6	69.2
Implant	2.1	5.9	1.9	3.9
Any Traditional method	66.4	75.2	-	-
Safe period	43.5	37.8	-	-
Withdrawal	23.2	34.0	-	-
Massage	56.5	66.2	-	-
Any Other	4.2	9.2	4.0	8.7
Total	15588	7494	15588	7494

n.a - not available



Studying the past trend, the knowledge of source of contraception has increased from 88 percent in 1997 to 94 percent in 2001. The increasing trend is found for all methods, especially for condom and IUD (from 19% to 37% for condom, and from 47% to 63% for IUD). More than 80 percent of currently married women know sources of injection, daily pill and female sterilization. The gap between knowledge of methods and knowledge of sources is relatively small for almost all methods and it becomes narrower in 2001 FRHS.

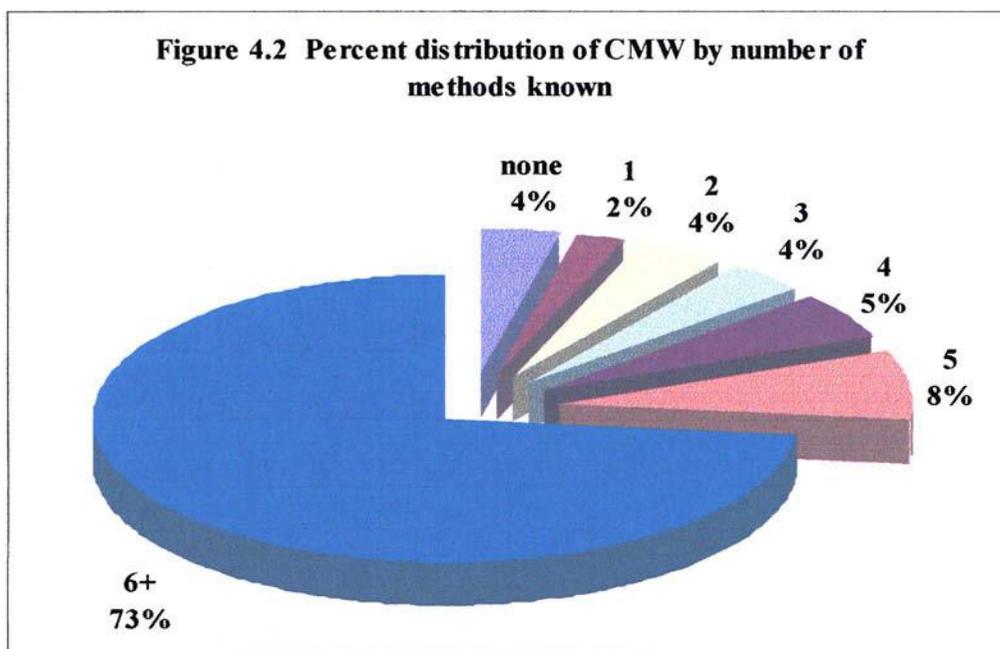
4.2 Differentials in Knowledge

Table 4.2 shows percent distribution of currently married women by number of methods known and background characteristic. Mean number of contraceptive methods known for currently married women is 5.2 and about three quarters of currently married women (73%) know about 6 or more methods (Figure 4.2). Differences in the level of knowledge by background characteristics are also evident. The adolescent women (15-19) and the older women (45-49) have lower knowledge score (4.7 and 4.9 respectively) and higher proportion of them also have no knowledge of contraception (5% vs. 7%). The variation by other age in mean number of methods known is not significant. Urban women have better knowledge of methods than rural women (5.6 methods for urban women and 5.1 for rural women).

Mean number of methods known by currently married women does not vary very much by number of living children. The knowledge level increases substantially with educational attainment rising from 4.4 methods known among women with no education to 5.9 methods among women with university education.

Table 4.2 Percent distribution of currently married women (CMW) by number of methods known and background characteristics

Background Characteristics	Number of methods known							Total	Mean no: of methods	CMW
	none	1	2	3	4	5	6+			
Age group										
15-19	5.0	3.4	5.0	10.6	9.5	11.2	55.3	100.0	4.7	179
20-24	2.6	2.1	4.3	4.3	6.6	8.6	71.5	100.0	5.2	769
25-29	3.3	2.5	3.8	3.7	5.5	7.7	73.5	100.0	5.2	1255
30-34	2.7	1.9	3.9	3.5	4.8	8.0	75.2	100.0	5.3	1535
35-39	2.9	2.0	3.9	2.9	4.4	7.1	76.8	100.0	5.3	1472
40-44	3.4	2.3	3.9	3.8	4.2	7.6	74.8	100.0	5.3	1304
45-49	6.7	3.2	5.4	3.3	5.9	8.6	66.9	100.0	4.9	980
Residence										
Urban	1.0	0.8	2.2	2.1	2.9	6.1	85.1	100.0	5.6	1988
Rural	4.5	2.9	4.9	4.3	6.0	8.6	68.9	100.0	5.1	5506
No: of living children										
0	4.5	2.8	3.8	4.5	7.4	8.2	68.7	100.0	5.1	706
1	2.6	1.6	3.2	3.8	5.8	7.7	75.2	100.0	5.3	1516
2	2.0	1.7	3.0	2.8	4.4	7.2	78.8	100.0	5.4	1664
3	3.7	1.9	4.0	3.6	4.7	8.6	73.5	100.0	5.2	1390
4+	4.8	3.2	5.9	4.0	5.0	8.2	68.9	100.0	5.0	2218
Level of education										
No education	9.8	4.8	8.7	6.0	8.1	8.9	53.7	100.0	4.4	1514
Primary	2.5	2.0	3.8	3.6	5.4	8.7	73.9	100.0	5.3	3972
Middle school	1.3	1.0	1.5	2.2	2.9	7.3	83.7	100.0	5.6	1117
High school		0.4	1.4	2.1	1.8	3.3	91.0	100.0	5.8	512
University	0.3		0.7	0.7	1.0	0.7	96.5	100.0	5.9	286
Others	2.2	5.4	4.3	3.2	7.5	12.9	64.5	100.0	5.1	93
Total	3.5	2.3	4.2	3.7	5.2	7.9	73.2	100.0	5.2	7494



4.3 Ever use of contraception

Besides marriage, use of contraception is a proximate determinant of fertility. For each contraceptive method named spontaneously or recognized after probing, the respondent was asked if she had ever used it or not. Ever use refers to use of any method at any time with no distinction between past and present use. Table 4.3 shows the percentage of ever married women who have ever used a method according to age and residence. More than half of the women (56%) reported that they have used a method of contraception at some time during their reproductive life. The survey data show that women are four times more likely to use modern contraceptive methods (51%) than traditional methods (13%).

Among the ever married women, the most commonly used method is injection (33%) followed by daily pill (22%) and monthly pill (6%). The use of female sterilization and IUD is almost the same: around 4 percent. The percentage of ever use of pill (emergency) and implant is extremely low (not more than 0.1%). Among the traditional methods, safe period is the most popular method (7%) followed by withdrawal (5%).

There is variation in ever use rate with respect to age. For example, ever use of any method increases from 40 percent among adolescent women aged 15-19 to 63 percent among women aged 30-34 and then declines to 54 percent among those aged 40-44 and 33 percent among 45-49 age-group. Similar patterns are found for both modern as well as traditional methods. It is interesting to note that ever use of traditional methods is less for the younger age group (15-19) and older age group (45-49).

Table 4.3 Percentage of ever married women who have ever used specific contraceptive methods according to age and residence, 2001 FRHS

Background characteristics	Any Method	Any Modern	Pill (daily)	Pill (month)	Pill (emergency)	IUD	Injection	Condom	Female Sterilization	Male Sterilization	Implant	Any Traditional	Safe period	Withdrawal	Mass age	Other	EMW
Age group																	
15-19	40.2	38.7	20.6	6.2	-	0.5	21.6	1.0	-	-	-	4.6	2.1	2.6	1.0	-	194
20-24	59.3	55.7	25.9	6.1	-	2.0	38.7	1.6	0.4	0.2	-	12.1	6.2	5.5	1.2	2.2	819
25-29	62.9	58.9	25.3	7.6	0.1	3.1	41.5	1.9	1.5	0.6	-	13.4	6.9	5.4	2.6	2.5	1338
30-34	63.1	59.4	25.4	6.7	0.1	4.0	40.8	2.2	2.7	0.9	0.1	13.3	6.6	5.4	2.4	2.3	1666
35-39	60.9	56.2	24.1	6.3	-	5.9	35.8	1.6	6.2	1.9	0.1	13.9	7.8	5.1	2.2	2.5	1623
40-44	53.8	48.2	19.3	5.5	0.1	5.1	26.8	1.9	8.3	2.8	-	13.0	6.9	5.6	3.1	1.8	1474
45-49	32.6	28.0	11.6	2.4	0.1	4.8	10.6	1.3	6.0	2.6	-	9.6	4.9	2.8	2.3	1.1	1174
Residence																	
Urban	71.4	67.4	31.9	6.4	0.1	5.2	42.7	3.6	8.9	2.8	0.0	16.6	9.5	7.5	2.7	1.4	2238
Rural	50.0	45.5	18.4	5.7	0.1	3.9	28.8	1.1	2.7	1.1	0.0	11.0	5.5	4.0	2.2	2.3	6050
Total	55.7	51.4	22.0	5.9	0.1	4.2	32.5	1.8	4.4	1.6	0.0	12.5	6.6	4.9	2.4	2.0	8288

Most of the younger women (below 35 years) are likely to use reversible methods such as pill, injection while the older women (35-49) tend to use more permanent methods like IUD and sterilization. The highest ever use of injection was reported among women aged 25-29 (42%) while for female sterilization it is among women aged 40-44 (8%). Despite various promotional activities, condom use is still low ranging between 1 percent and 2.2 percent among various age groups, and the level of condom use is the highest among the 30-34 age group women (2.2%).

Ever use of contraception among urban women is higher than their rural counterparts: about 71 percent of urban women are using a method compared with 50 percent of rural women. Ever use of traditional contraception among urban women is higher than their rural counterparts (17% and 11%) due mostly to higher use of safe period and withdrawal methods.

4.4 Current use

Level of current contraceptive use is an obvious and widely accepted measure of achievement of reproductive health and birth spacing programmes. Birth spacing is an important strategy to improve the status of maternal and child health. Table 4.4 displays the current use of contraception among currently married women by background characteristics. The contraceptive prevalence rate (CPR¹) is 37 percent: 33 percent are using modern methods and 4 percent traditional methods. According to the 2001 FRHS data (as shown in Figure 4.3), the injection is the most prevalent method currently used by 15 percent of currently married women, closely followed by daily pill (9%) and female sterilization (5%). The share of IUD and male sterilization are much less, used by 1.8 and 1.3 percent respectively. Condom use is negligible.

The level of current use varies significantly by women's background characteristics. The association between age and current use is curvilinear (inverted U shape). Adolescent women aged (15-19) and older women aged (45-49) are less likely to use contraception than women in the mid childbearing age (20-44). As expected, injection and pill are more common among younger women who need them more for spacing purpose while sterilization are more common among women over 35 who have achieved their desired family size and are more likely to limit or stop child bearing.

¹ percent of currently married women who are currently using any contraceptive method

The number of living children a woman has is also an important factor to determine the level of current use. The pattern of methods used with respect to living children is similar to age differential in method use. There are higher percentages of use of temporary methods among women with less than three living children while women with 3 or more living children are more likely to use semi-permanent or permanent methods such as IUD and sterilization.

There are large differences in the current use by residence. Nearly 51 percent of currently married women are using contraception in urban areas compared with only 32 percent of rural women. The urban-rural difference exists only in the use of modern methods (46% and 28%), the use of traditional methods is almost identical in both urban and rural areas (4-5%).

Contraceptive prevalence shows a consistent increase as level of education increases. Use of any method rises from 21 percent among women with no education to 55 percent among women with university education. In the context of specific methods, the use of pills, condom and safe period increase with the women’s education attainment. However, among the women with university education, use of IUD and sterilization are lower than among women with high school education but higher than among women with other level of education attainment. Based on these findings, it may be noted that increase in education attainment are not only likely to enhance contraceptive prevalence but also tend to favour the method-mix for spacing.

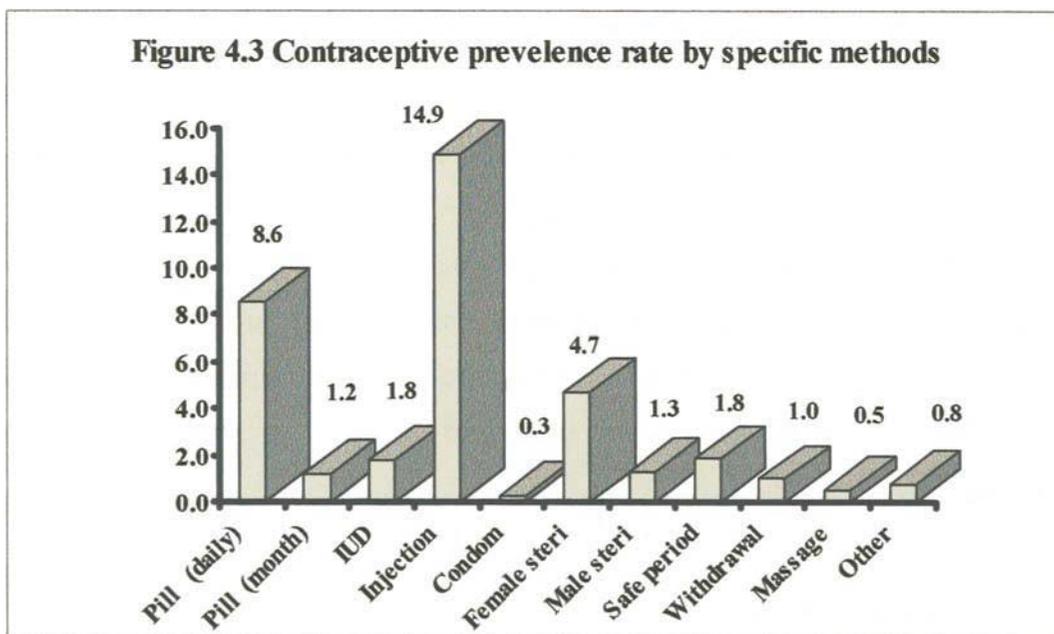


Table 4.4 Percentage of currently married women who are currently using contraceptive method by specific method and background characteristics, 2001 FRHS

Background Characteristics	Any method	Any modern	Pill (daily)	Pill (month)	IUD	Injection	Condom	Female sterili	Male sterili	Any tradi	Safe period	Withd rawal	Massage	Others	CMW
Age group															
15-19	29.6	29.1	11.7	3.4		14.0				0.6		0.6			179
20-24	37.3	34.9	12.6	1.0	1.2	19.4	0.3	0.1	0.3	2.5	1.0	0.5	0.3	0.7	769
25-29	41.7	37.1	11.4	1.7	1.7	19.9	0.4	1.6	0.5	4.5	1.7	1.0	0.9	1.0	1255
30-34	41.4	38.0	10.2	1.2	2.0	20.3	0.4	3.2	0.8	3.3	0.9	1.2	0.4	0.8	1535
35-39	43.0	37.4	9.2	1.2	2.7	15.2	0.3	6.9	1.9	5.6	3.1	1.2	0.5	0.9	1472
40-44	37.1	31.5	5.8	1.2	2.1	10.7	0.4	9.2	2.2	5.6	2.6	1.2	0.8	0.9	1304
45-49	15.8	13.0	1.5	0.2	0.9	1.8		6.2	2.2	2.9	1.5	0.4	0.3	0.6	980
Residence															
Urban	50.6	45.9	12.0	1.6	1.6	18.0	0.4	10.0	2.4	4.7	2.5	1.1	0.4	0.8	1988
Rural	32.1	28.1	7.4	1.0	1.9	13.8	0.3	2.8	0.9	4.0	1.6	1.0	0.6	0.8	5506
No: of living children															
0	24.1	22.5	9.6	0.6	0.3	11.9	0.1			1.6	0.7	0.3	0.1	0.4	706
1	39.4	35.4	11.7	1.0	1.1	19.8	0.5	0.8	0.5	4.1	1.8	1.1	0.4	0.7	1516
2	43.7	38.9	10.3	1.3	2.6	18.3	0.4	4.6	1.5	4.8	2.2	1.0	0.8	0.8	1664
3	43.0	38.8	8.6	1.6	2.8	15.5	0.4	8.2	1.7	4.2	1.7	1.2	0.4	0.9	1390
4+	30.5	26.0	4.7	1.2	1.7	9.6	0.1	6.8	1.9	4.5	2.0	0.9	0.7	0.9	2218
Level of education															
No education	21.0	18.2	5.0	0.9	1.1	7.5	0.1	3.2	0.3	2.8	1.1	0.5	0.6	0.6	1514
Primary	36.3	32.4	9.1	1.2	1.9	15.1	0.1	3.7	1.4	4.0	1.6	1.0	0.5	0.9	3972
Middle	49.9	44.2	9.8	1.3	2.0	21.4	0.5	7.1	2.2	5.6	2.5	1.3	0.7	1.2	1117
High school	54.1	49.0	10.9	2.3	2.9	20.1	0.4	10.2	2.1	5.1	2.9	1.6	0.2	0.4	512
University	55.2	47.6	12.9	1.4	2.4	18.9	2.4	8.7	0.7	7.7	5.2	1.7	0.3	0.3	286
Others	18.3	17.2	4.3		2.2	7.5	1.1	1.1	1.1	1.1	1.1				93
Total	37.0	32.8	8.6	1.2	1.8	14.9	0.3	4.7	1.3	4.2	1.8	1.0	0.5	0.8	7494

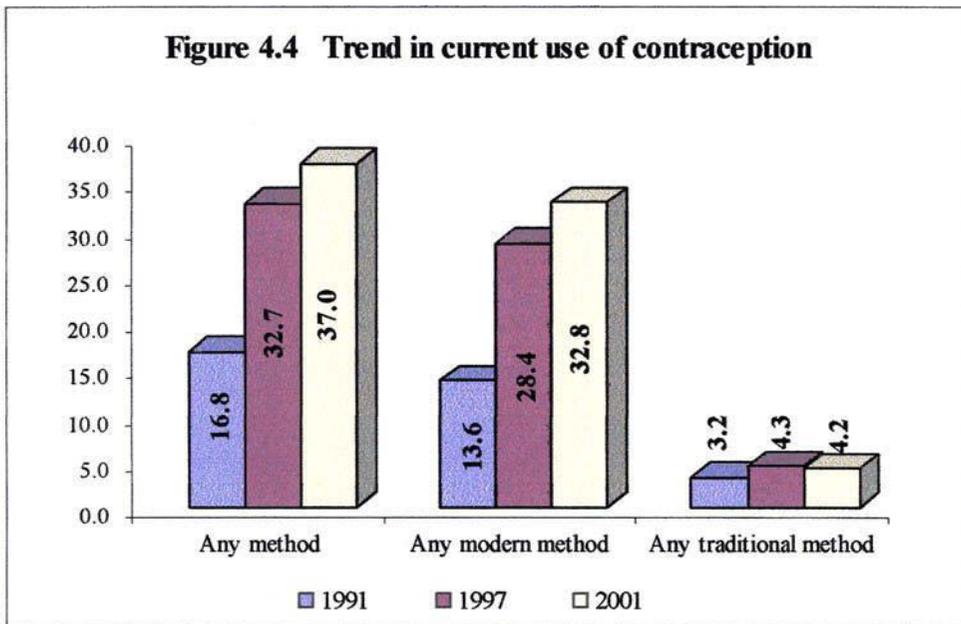
4.5 Trend in current use of specific contraceptive method

Table 4.5 shows trends in the current use of specific contraceptive methods among currently married women. Within a ten-year period, contraceptive prevalence rate has more than doubled, 17 percent in 1991 to 37 percent in 2001 (see also Figure 4.4). The most popular method in 1991 is the pill and it has become the second most popular method in 1997 and 2001. Injection, which was the third most used method in 1991, has become the most used method in both 1997 to 2001 (3%, 12% and 15% respectively). Though at very low level of use, slight increase was found in the use of IUD and condom. It is noted that current use of female sterilization and male sterilization has increased slightly during 1991 and 1997 (3.7% to 5.5% and 1.8% to 2.2% respectively) but has declined to 4.7 percent for female sterilization and 1.3 percent for male sterilization in 2001.

Table 4.5 Percentage of currently married women who are currently using contraceptive methods, by specific method, 1991 PCFS, 1997 FRHS and 2001 FRHS

Methods	Current use of methods		
	1991	1997	2001
Any method	16.8	32.7	37.0
Any modern method	13.6	28.4	32.8
Pill (daily)	4.0	7.4	8.6
Pill (monthly)	n.a	n.a	1.2
IUD	0.9	1.3	1.8
Injection	3.1	11.7	14.9
Condom	0.1	0.1	0.3
Female sterilization	3.7	5.5	4.7
Male sterilization	1.8	2.2	1.3
Any traditional method	3.2	4.3	4.2
Safe period	2.4	2.4	1.8
Withdrawal	0.4	0.8	1.0
Massage	0.3	0.6	0.5
Others	0.2	0.6	0.8
No: of CMW	5944	15588	7494

For traditional methods, the current use of contraception among currently married women has increased from 3 percent in 1991 to 4 percent in 1997 and remained at 4 percent in 2001. There is a very slight increase for use of withdrawal method but use of other traditional methods has decreased during 1997-2001 period.



CHAPTER V

MATERNAL AND CHILD HEALTH

Maternal and child care particularly during pregnancy greatly influence the mother and child morbidity and mortality. In this context, the Ministry of Health is in the process of finalizing the National Reproductive Health Policy with the main objective of improving the health of mothers and children in the country. In this report, information on antenatal care, attendance during delivery and place of delivery are analysed and presented.

5.1 Antenatal care

Antenatal care information is obtained for the last four pregnancies during the five years preceding the survey and the current pregnancy at the time of the survey in 2001 FRHS.

Table 5.1 shows source of antenatal care received by women aged less than 30 and 30 and above, from 1991 PCFS, 1997 FRHS and 2001 FRHS. During the three survey periods, the proportion of pregnancies receiving antenatal care from health professionals (doctors and nurses/ midwives) has increased from 61 percent in 1991 to 73 percent in 2001. From 2001 FRHS, about 63 percent of all pregnancies had reported that they have been to the trained nurses or midwives for antenatal care and around 10 percent of pregnancies reported seeing doctors for antenatal care. However, only seven percent of pregnancies sought antenatal care from traditional birth attendants. A sizeable proportion of pregnancies (19%) has not sought any antenatal care.

For the Union as a whole, the percentage of pregnancies receiving antenatal care from nurses and midwives has increased from 50 percent in 1991 to 63 percent in 2001. Percentage of pregnancies receiving care from traditional birth attendants has also dropped from 14 percent in 1991 to 7 percent in 2001. Percentage of pregnancies seeking no care has decreased from 21 percent in 1991 to 19 percent in 2001. Receiving care from doctors also has remained almost the same level around 10-11 percent.

Table 5.1 Percent distribution of pregnancies in the five years preceding the survey by source of antenatal care and age of women (1991 PCFS, 1997 FRHS, 2001 FRHS)

Source of Antenatal Care	Age of Women								
	1991 PCFS			1997 FRHS			2001 FRHS		
	< 30	30+	All	< 30	30+	All	< 30	30+	All
Doctor	10.9	11.7	11.3	10.7	12.2	11.5	10.5	10.4	10.41
Nurse/Midwife	50.7	49.5	50.1	64.2	64.3	64.3	61.5	63.4	62.58
Traditional Birth Attendant	14.2	14.2	14.2	8.1	6.6	7.3	7.7	6.6	7.1
Others	3.4	4.3	3.9	0.5	0.4	0.4	1.2	1.0	1.1
No one	20.9	20.3	20.6	16.5	16.5	16.5	19.0	18.6	18.81
Total	100.0								

5.2 Antenatal Care by Background Characteristics

Table 5.2 shows the percent distribution of pregnancies by source of antenatal care and background characteristics of the respondents. It is important to note that a sizeable proportion of pregnancies are not seeking any antenatal care: 20 percent from youths (20-24) years and 26 percent from adolescents (15-19) years. This may be due to the lack of awareness and health education in pregnancy related issues and source of services available. Similarly, a significant proportion of pregnancies (17%) from older women (40-49) who are more prone to pregnancy related complications have not sought any antenatal care. Among older women (45-49), a relatively high proportion of pregnancies (13%) seek antenatal care from traditional birth attendants when compared to other age groups.

Among rural women, the proportion of pregnancies seeking no antenatal care seem to be twice as high as that of their urban counterpart: (21% vs. 11 %). About 82 percent of pregnancies from urban women seem to seek antenatal care from doctors (33%) and nurses/midwives (49%) compared with 71 percent of pregnancies from their rural counterpart: doctors (4%) and nurses/ midwives (67%). The percentage of pregnancies seeking antenatal care from the doctor increases with the level of education. It must be noted that a relatively high proportion of pregnancies from women with no or low education level are not seeking

any antenatal care. For example, about one third of the pregnancies from women with no education and about one fifth of pregnancies from women with primary education are not seeking any antenatal care.

**Table 5.2 Percent distribution of pregnancies in the 5 years preceding the survey by source of antenatal care and background characteristics, 2001
FRHS**

Background Characteristics	Doctor	Nurse/ Midwife	Traditional Birth Attendant	Others	No one	Total	Number of Pregnancies
Age							
15-19	9.0	52.5	9.8	2.5	26.2	100.0	122
20-24	10.3	59.2	8.5	1.8	20.3	100.0	958
25-29	10.7	63.6	7.2	0.8	17.7	100.0	1567
30-34	11.4	62.9	5.8	1.1	18.8	100.0	1662
35-39	10.3	62.1	7.3	0.9	19.5	100.0	1141
40-44	8.4	67.4	6.6	0.9	16.7	100.0	574
45-49	5.4	63.4	12.5	1.8	17.0	100.0	112
Residence							
Urban	33.4	48.8	4.5	2.1	11.2	100.0	1402
Rural	3.6	66.7	7.9	0.8	21.1	100.0	4734
Education							
No education	4.4	55.6	9.0	0.6	30.4	100.0	1335
Primary	6.0	66.5	7.9	1.3	18.4	100.0	3352
Middle School	17.9	66.3	4.1	1.0	10.8	100.0	851
High School	33.6	56.3	1.5	1.2	7.4	100.0	336
University	55.2	38.9	1.0	1.0	3.9	100.0	203
Others	3.4	62.7	17.0	5.1	11.9	100.0	59
Total	10.4	62.6	7.1	1.1	18.8	100.0	6136

5.3 Completed Antenatal Visits

Table 5.3 presents the percentage of pregnancies among women in the 5 years preceding the survey having three or more antenatal visits by source of antenatal care and Tetanus Toxoid Injection (TTI) according to background characteristics. Overall, about 60 percent of the pregnancies sought three or more antenatal visits. It can also be observed from the table that among the pregnancies with three or more antenatal visits, almost all pregnancies (92%) received antenatal care from health professionals: doctor (15%) and nurse/midwife (77%). The percentage of pregnancies having three or more antenatal visits increases slightly with age from 47 percent among adolescents (15-19) to 63 percent among older women (45-49). The proportion of pregnancies seeking three or more antenatal visits among urban women is significantly higher than their rural counterparts (76% vs. 56%). Nurse/ midwife as source of antenatal care is somewhat higher in rural than urban (87% vs. 55%). However, the proportion seeking doctors for antenatal care in urban areas is 8 times that for rural areas (41% vs. 5%).

The percentage of pregnancies having three or more antenatal visits increases with the level of educational attainment: rising from 43 percent among women with no education to 93 percent among women with university education.

Proportion of pregnancies having three or more antenatal visits receiving at least one Tetanus Toxoid Injection (TTI) is also shown in Table 5.3. These proportions are very close to the proportions receiving antenatal care from health professionals, namely, doctors and nurses/ midwives. Overall prevalence rate of Tetanus Toxoid Injection is about 94 percent. There is no significant urban and rural differential in the proportion having TTI: both areas having about 94 percent. Variation among different age groups is also not significant except that it is somewhat low for adolescent women aged 15-19. The percent having Tetanus Toxoid Injection increases slightly with the educational attainment.

Table 5.3 Percent distribution of pregnancies in the five years preceding the survey among pregnant women who received 3 or more ANC visits and Tetanus Toxoid Injection (TTI) by background characteristics, 2001 FRHS

Background Characteristics	3 or more ANC visits	Percent of pregnancies having 3 or more ANC visits by Source				TTI	Total no. of women	No. of pregnancies
		Doctor	Nurse/ Midwife	Traditional Birth Attendant	Others			
Age								
15-19	46.7	14.0	71.9	12.3	1.8	91.2	57	122
20-24	55.7	15.2	75.3	7.9	1.6	93.3	534	958
25-29	62.8	15.2	76.8	7.0	0.9	93.6	984	1567
30-34	61.0	17.2	77.3	4.2	1.3	94.1	1013	1662
35-39	59.2	14.6	77.2	7.0	1.2	94.7	676	1141
40-44	63.4	12.4	81.6	4.9	1.0	95.1	364	574
45-49	62.5	8.6	81.4	10.0	0.0	94.3	70	112
Residence								
Urban	76.0	40.5	54.6	3.1	1.9	94.3	1065	1402
Rural	55.6	5.0	86.5	7.6	0.9	93.9	2633	4734
Education								
No education	42.8	9.4	81.8	8.0	0.7	93.0	572	1335
Primary	59.2	7.9	83.4	7.4	1.4	93.7	1985	3352
Middle School	75.4	21.2	73.5	4.4	0.9	95.2	642	851
High School	81.8	38.2	60.4	0.7	0.8	96.7	275	336
University	92.6	59.0	38.8	1.1	1.1	93.6	188	203
Others	61.0	2.8	66.7	22.2	8.3	86.1	36	59
Total	60.3	15.2	77.3	6.3	1.2	94.0	3698	6136

5.4 Assistance during delivery

Type of assistance during delivery is asked for the last two live births in the 5 years preceding the survey. If the assistance during delivery comes from more than one type of health workers, only the most qualified is recorded. For example, if both the doctor and nurse/ midwife attended the delivery, the doctor is recorded. If both traditional birth attendant and relative/ neighbour attended the delivery, traditional birth attendant is recorded.

Table 5.4 presents the percent distribution of the last two births in the 5 years preceding the survey by the type of assistance at delivery. It is interesting to note that while

health professionals (doctor and nurse/ midwife) deliver about 57 percent of the cases, a significant proportion of the cases are delivered by traditional birth attendants (39%). There is a small variation by age regarding each type of assistance at delivery. However there is a sizeable urban-rural differential in type of assistance at delivery; for example 36 percent of births among women in urban areas had been assisted by a doctor during delivery, compared with only 6 percent in rural areas. The proportion receiving assistance from nurses/ midwives is almost the same in both rural and urban areas (44 - 45%). But the percentage of births attended by traditional birth attendants is nearly two and a half times in rural areas than in urban areas, 45 percent in rural areas compared to 18 percent in urban areas.

Table 5.4 Percent distribution of last two births in the five years preceding the survey by type of assistance at delivery and background characteristics, 2001 FRHS

Background Characteristics	Doctor	Nurse/ Midwife	Traditional Birth Attendant	Relative/ Neighbour	Herself	Percent	Number of births
Age							
15-19	11.5	41.4	41.4	2.3	3.5	100.0	87
20-24	12.4	41.9	42.3	2.1	1.2	100.0	806
25-29	13.8	47.0	35.8	2.3	1.1	100.0	1364
30-34	12.7	44.4	38.1	4.0	0.8	100.0	1460
35-39	13.0	42.4	40.7	2.3	1.7	100.0	1015
40-44	12.3	42.3	40.8	3.5	1.1	100.0	537
45-49	17.4	44.0	37.6	0.9	0.0	100.0	109
Residence							
Urban	35.5	44.5	17.5	1.5	1.0	100.0	1226
Rural	6.4	43.9	45.3	3.3	1.2	100.0	4152
Education							
No education	6.0	30.2	57.2	5.1	1.5	100.0	1142
Primary	7.8	47.3	41.3	2.4	1.2	100.0	2962
Middle School	21.7	54.3	20.1	2.8	1.1	100.0	742
High School	40.2	45.6	13.2	1.0	0.0	100.0	296
University	63.9	34.4	1.1	0.6	0.0	100.0	183
Others	7.5	37.7	50.9	0.0	3.8	100.0	53
Sex of child							
Male	13.8	43.7	38.7	2.6	1.2	100.0	2743
Female	12.2	44.4	39.2	3.1	1.1	100.0	2635
Total	13.0	44.0	38.9	2.9	1.2	100.0	5378

The percentage of births receiving assistance at delivery from health professionals increases with educational attainment: rising from 36 percent among women with no

education to 98 percent among women with university education. Conversely, the percentage of births receiving assistance at delivery from traditional birth attendants decreases sharply with education: from 57 percent among women with no education to one percent among women with university education.

There is no significant difference between the assistance at delivery by doctors, nurses/ midwives and traditional birth attendants for both sexes of the child.

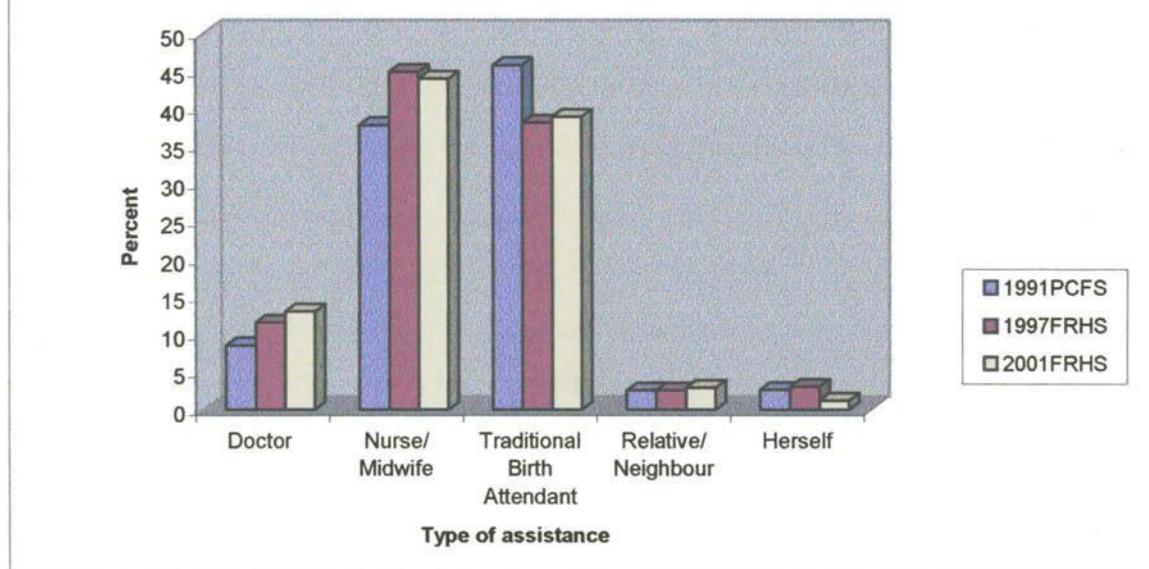
Table 5.5 and Figure 5.1 show the type of assistance received at delivery as observed in three surveys: 1991 PCFS, 1997 FRHS and 2001 FRHS. The percentage of births delivered by doctors and nurses/ midwives increases moderately during the period: 1991- 2001 from 46 percent (1991 PCFS) to 56 percent (1997 FRHS) and 57 percent (2001 FRHS).

However, the percentage of deliveries attended by traditional birth attendants drops from 46 percent in 1991 to 38 percent in 1997, and remains about the same between 1997 and 2001 at 38 - 39 percent.

Table 5.5 Percent distribution of births by type of assistance at delivery, 1991 PCFS, 1997 FRHS, 2001 FRHS

Type of Assistance	1991 PCFS	1997 FRHS	2001 FRHS
Doctor	8.5	11.5	13.0
Nurse/ Midwife	37.8	44.9	44.0
Traditional Birth Attendant	45.8	38.1	38.9
Relative / Neighbour	3.9	3.5	2.9
Herself	1.2	2.3	1.2

Figure 5.1 Type of assistance at delivery, 1991 PCFS, 1997 FRHS and 2001 FRHS



5.5 Place of Delivery

Medical and health attention at birth has a close association with the survival of the newborns. Table 5.6 shows the percent distribution of deliveries by place of delivery: home, government hospitals, private hospitals, government health centres, private clinics, cooperative clinics and others. It is surprising to note that the majority of the deliveries (83 %) occurred at home. Only 14 percent of births are delivered at government facilities: 13 percent in hospitals and one percent in health centres, while only two percent of deliveries are in private hospitals and clinics. There are wide differences in place of delivery between urban and rural areas. For example in urban areas, the percentage of delivery at home is 57 as against 91 in rural areas.

Place of delivery at home is inversely proportionate to the level of education. As educational level of women increases from no education to university, the percentage of births which took place at home falls from 91 percent to 30 percent. It indicates that the majority of the deliveries occurred at home (91 %) were among illiterate mothers. However, deliveries in government hospitals increase with educational attainment of women; rising from 6 percent among women with no education to 54 percent among women with university education.

Table 5.6 Percent distribution of last two births in the five years preceding the survey by place of delivery and background characteristics, FRHS, 2001

Background Characteristics	Home	Govt. Hospital	Private Hospital	Govt. Health Centre	Private clinic	Cooperative clinic	Percent	No. of births
Age								
15-19	85.1	11.5	1.2	1.2	0.0	1.1	100.0	87
20-24	84.2	12.4	0.9	1.9	0.1	0.5	100.0	806
25-29	81.2	13.3	1.6	1.6	1.4	0.7	100.0	1364
30-34	84.0	12.1	0.9	1.2	1.1	0.6	100.0	1460
35-39	83.1	12.8	0.7	1.5	1.2	0.7	100.0	1015
40-44	85.3	12.3	0.6	0.7	0.0	1.1	100.0	537
45-49	84.4	13.8	0.9	0.9	0.0	0.0	100.0	109
Residence								
Urban	56.6	33.6	3.3	2.7	2.6	1.2	100.0	1226
Rural	91.2	6.5	0.3	1.0	0.4	0.5	100.0	4152
Education								
No education	90.9	6.3	0.3	1.3	0.4	0.8	100.0	1142
Primary	89.0	8.0	0.4	1.3	0.5	0.7	100.0	2962
Middle School	73.2	21.0	2.0	1.6	1.2	0.9	100.0	742
High School	52.7	38.5	4.4	2.4	1.4	0.6	100.0	296
University	30.2	53.9	6.0	1.7	8.2	0.0	100.0	182
Others	94.4	3.7	1.9	0.0	0.0	0.0	100.0	54
Total	83.3	12.6	1.0	1.4	0.9	0.1	100.0	5378

CHAPTER VI

MORTALITY

Mortality statistics are not only important for demographic analysis but also are important indicators of the social and health conditions in a population. In this report infant and child mortality are measured using the following rates:

Infant mortality rate (${}_1q_0$): the probability of dying between birth and exact age one year,

Child mortality rate (${}_4q_1$): the probability of dying between exact age one and exact age five;

Under-five mortality rate (${}_5q_0$): the probability of dying between birth and exact age five.

This chapter reports on levels, trends and differentials in crude death rate, infant and child mortality based mainly on 2001 FRHS data. The major measures derived from the household questionnaire for this chapter are the infant mortality rates and crude death rates by urban-rural residence and sex. In addition, infant and child mortality estimates are computed from information collected in the birth history section of the individual woman questionnaire of the 2001 FRHS. To collect this information from the individual woman questionnaire, each woman was asked about the number of sons and daughters living with her in the same household as well as those who are living elsewhere, and the number who had died. Next, the respondent was asked to give information on each of the live births occurred to her. The name, sex, date of birth, whether the birth was an outcome of a single or multiple birth, and survival status were recorded for all live births. If the child had died, the woman was asked the age at death.

6.1 Crude death rates and Infant mortality rates (from Household Questionnaire).

In this section, crude death rates (CDR) and infant mortality rates (IMR) are computed from the household information on mortality measures in 12 months prior to the survey. Table 6.1 shows direct measures of crude death rates and infant mortality rates by residence and sex, derived from the 1991 PCFS and 2001 FRHS. The crude death rate for the Union is 7.7 per thousand population for 2001 FRHS. Overall, the crude death rate has declined 15 percent during the ten year period (1991-2001), from 9.1 per thousand population to 7.7 per thousand population. Similarly, during the same period, the female crude death

rate has declined 24 percent (from 8.0 to 6.1 per thousand population) while the male crude death rate has dropped slightly about 5 percent (from 10.0 to 9.5 per thousand population). Surprisingly, crude death rate for urban areas (8.2 per thousand population) is slightly higher than that of rural areas (7.5 per thousand population). It may be due to occupational diseases and occupational accidents because of rapid urbanization during the last ten years.

The infant mortality rate for Myanmar, based on the household questionnaire is 70.5 per thousand live births for 2001 FRHS. The infant mortality rate in urban areas is lower than those in rural areas (66.2 per thousand live births vs. 71.8 per thousand live births) in 2001 FRHS. The infant mortality rate for males (84.9 per thousand live births) is 34 percent higher than that of the females (55.9 per thousand live births). Over the two survey periods, the infant mortality rate has declined substantially. For example, overall infant mortality rate has fallen from 94.0 to 70.5 per thousand live births (see Table 6.1). Urban and rural infant mortality rates follow the similar patterns of decline. A sizable decline in infant mortality rate is also observed for both male and female infant mortality rates during these two periods.

Table 6.1 Infant mortality rate and crude death rate by residence and sex from household questionnaire, 1991 PCFS and 2001 FRHS.

Background Characteristics	Crude Death Rate		Infant Mortality Rate	
	1991	2001	1991	2001
Union	9.1	7.7	94.0	70.5
Urban	7.9	8.2	80.0	66.2
Rural	9.6	7.5	98.0	71.8
Sex				
Male	10.0	9.5	98.0	84.9
Female	8.0	6.1	89.0	55.9

6.2 Levels and Trends of Infant and Child Mortality (from Individual Questionnaire)

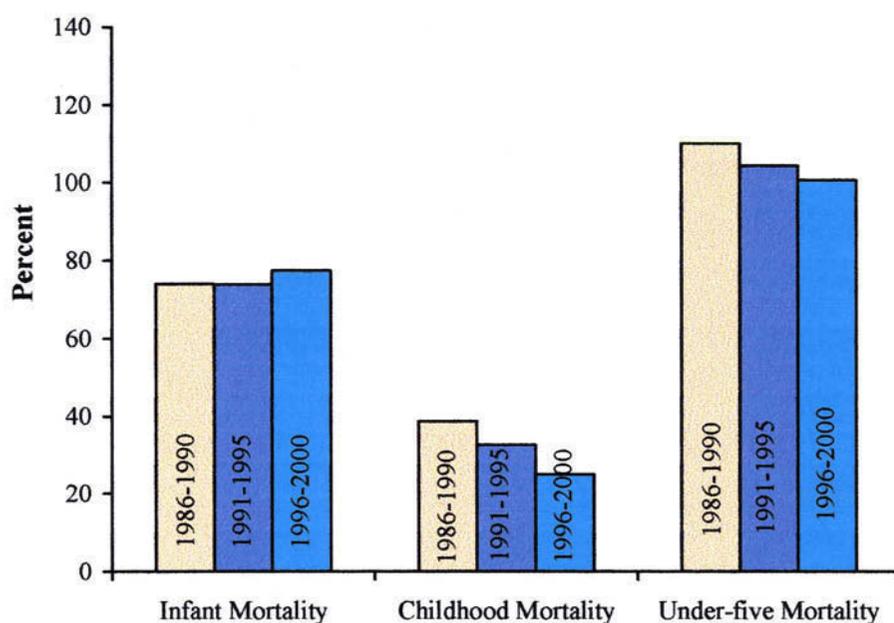
Table 6.2 and Figure 6.1 present various estimates of childhood mortality for three five-year periods preceding the survey, deriving from the birth history section of the individual woman questionnaire of the 2001 FRHS. The infant mortality rate during the five-year period prior to the survey is 77.4 per thousand live births, while the child mortality rate is 25.1 per thousand live births and under-five mortality rate is 100.5 per thousand live births.

For the period 1986-1990 to 1996-2000, the infant mortality rate has increased 4 percent from 74.1 per thousand live births to 77.4 per thousand live births. For the same period, child mortality has dropped 35 percent from 38.8 per thousand live births to 25.0 per thousand live births. The data also indicate that the under-five mortality rate has declined 9 percent from 110.0 per thousand live births to 100.5 per thousand live births.

Table 6.2 Infant, child and under-five mortality rates for three five-year periods preceding the survey, 2001 FRHS.

Years Preceding Survey	Time period	Infant mortality	Child mortality	Under-five mortality
		rate	rate	rate
		190	491	590
10-14	1986-1990	74.1	38.8	110.0
5-9	1991-1995	74.0	32.6	104.2
0-4	1996-2000	77.4	25.0	100.5
0-14	1986-2000	75.3	31.3	104.2

Figure 6.1 Infant, child and under-five mortality rates for three five-year periods preceding the survey



6.3 Mortality Differentials (1991-2001)

Table 6.3, Figure 6.2, Figure 6.3, Figure 6.4 and Figure 6.5 present socioeconomic and demographic differentials in childhood mortality in Myanmar. Some selected characteristics included in the analysis are the sex of the child, urban-rural residence, mother's educational attainment and birth order. To have sufficient number of cases for analysis, mortality rates are calculated for a ten year period.

As expected, mortality rates are lower for females than males. For instance, male infant mortality rate is 30 percent higher than the female infant mortality rate (88.2 per thousand live births vs. 62.5 per thousand live births). The excess mortality of males is not so apparent for child mortality. Under-five mortality rates are significantly higher for males than for females (114.5 per thousand live births vs. 88.5 per thousand live births).

All measures of childhood mortality indicate significant differences in urban-rural residence. For example, infant mortality rate (78.9 per thousand live births), child mortality rate (31.7 per thousand live births) and under-five mortality rate (108.1 per thousand live births) in rural areas are substantially higher than those in urban areas (64.7, 17.1, 80.7 per thousand live births respectively).

Generally, childhood mortality declines with increase in mother's educational attainment. For example, infant mortality declines 3 times: from 81.3 per thousand live births among women with no education to 25.3 per thousand live births among women with university education. Similarly, a sizeable decline is observed for child mortality rate and under-five mortality (CMR from 37.5 to 10.4 per thousand live births and U5MR from 115.7 to 35.4 per thousand live births).

It is important to note that IMR, CMR and U5MR increase significantly with birth order. For example, infant mortality rises 3 times: from 36.4 per thousand live births for women with birth order 1 to 127.1 per thousand live births among women with birth order 7 or more. Similarly, CMR has increased five folds from 12.6 per thousand live births of birth order 1 to 61.8 per thousand live births for birth order 7 or more. For U5MR, it has increased for about four times from 48.5 per thousand live births for birth order 1 to 180.9 per thousand live births for birth order 7 or more.

Table 6.3 Infant and childhood mortality estimates for the ten-year period (1991-2001) by selected background characteristics, 2001 FRHS

Background Characteristics	Infant Mortality Rate	Child Mortality Rate	Under-five Mortality Rate
Sex of Child			
Male	88.2	28.5	114.2
Female	62.5	28.1	88.5
Residence			
Urban	64.7	17.1	80.7
Rural	78.9	31.7	108.1
Mother's Education			
No Education	81.3	37.5	115.7
Primary	83.9	31.4	112.7
Middle School	69.9	23.5	91.8
High School	65.3	26.5	90.1
University	25.3	10.4	35.4
Birth Order			
1	36.4	12.6	48.5
2-3	62.2	15.9	77.1
4-6	82.6	29.9	110.1
7+	127.1	61.8	180.9
Total	75.7	28.4	102.1

**Figure 6.2 Mortality Differentials by Sex (1991-2001), 2001
FRHS**

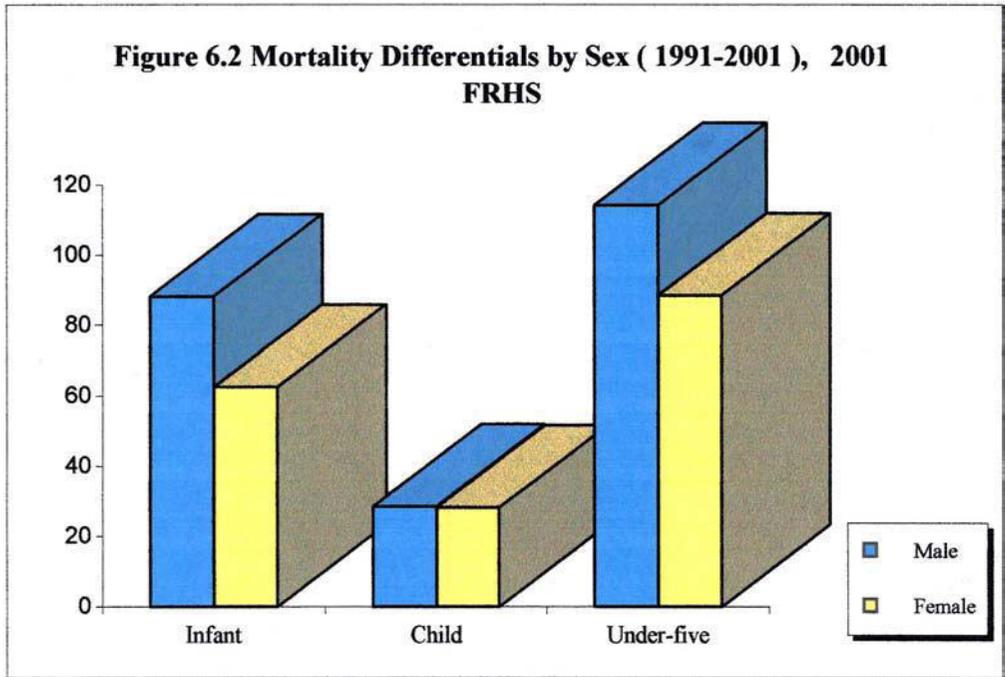
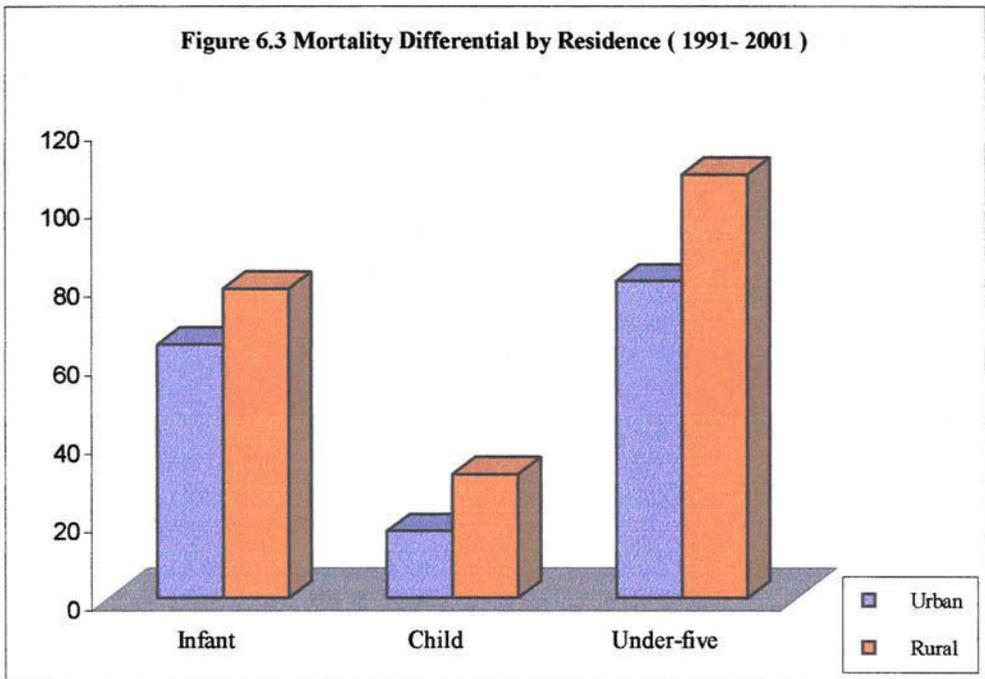
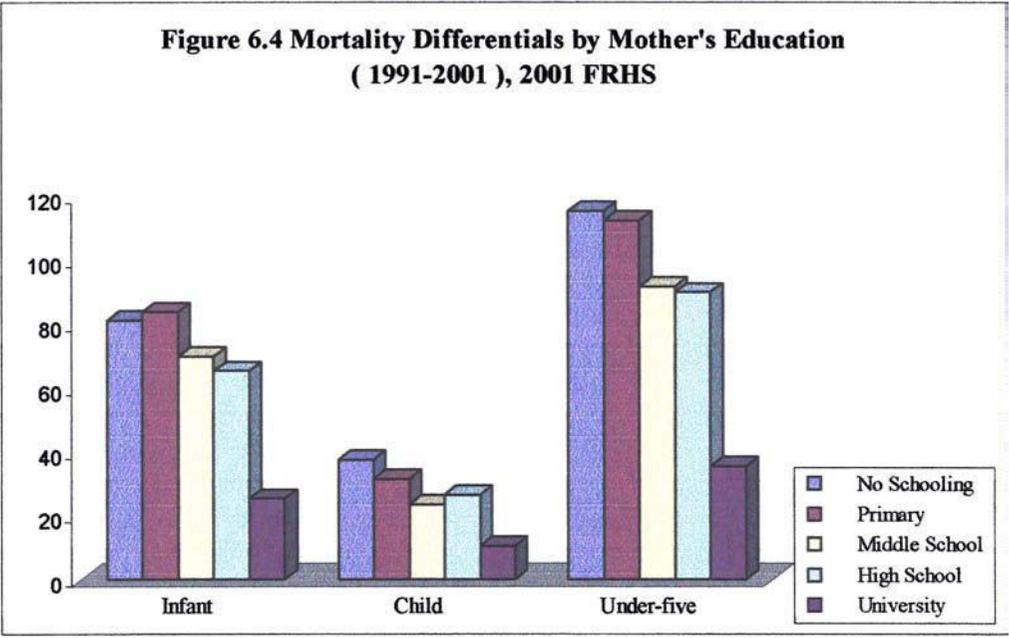
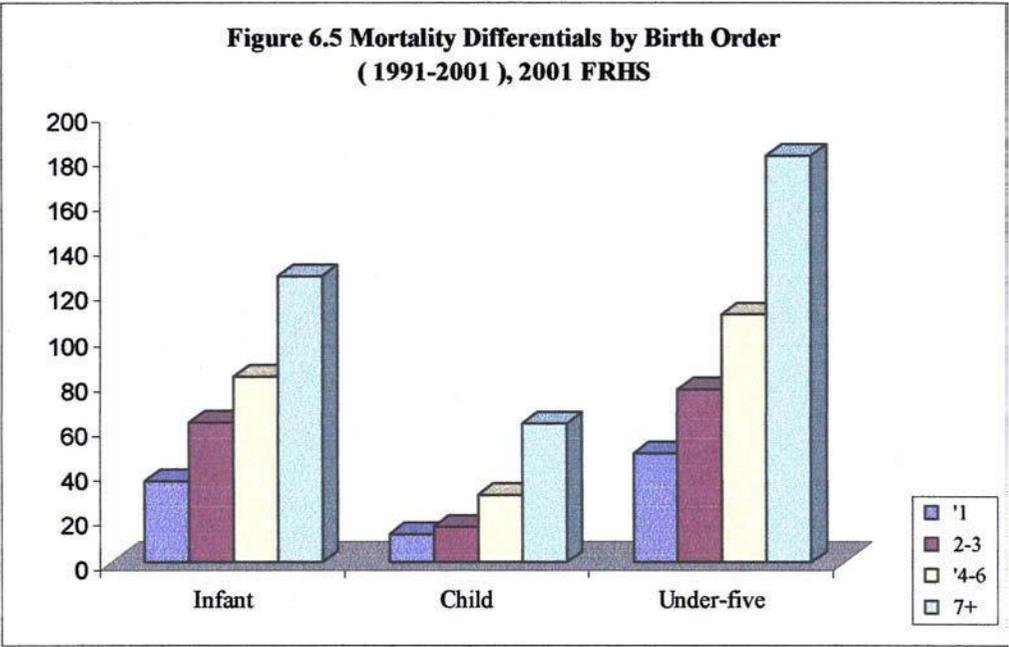


Figure 6.3 Mortality Differential by Residence (1991- 2001)





CHAPTER VII

INTERNAL MIGRATION.

Internal migration is one of the main causes of change in the size and composition of community and regional population. It is a key process in explaining urbanization and other population changes as well as in identifying their consequences.

In Myanmar, like in most countries, the scale of population mobility is not accurately known, much less its composition, causes and implications. To fulfill the requirement, the 2001 FRHS included more detailed information on migration in Myanmar.

Administratively, the entire nation is divided into 9 states and 8 divisions and two special cities that enjoy the same status as states and divisions. Each state/division is subdivided into a number of districts. Each district consists of one or more townships. A township is an area which encompasses towns and village tracts.

The spatial criteria used in the analysis of migration are administrative boundaries. The boundaries for inter-state migration are state/division administration lines. In addition, lifetime migrants are defined as those who have moved at least once from towns, cities and villages. This chapter presents the analysis on (1) net-migration volume and streams by urban and rural areas, (2) inter-state/divisimigrationtion, and (3) age and sex differentials in migration.

7.1 Net-migration volume and streams by urban and rural area.

All migrants who moved across town or village boundaries from their place of birth are grouped into four categories: rural-urban, urban-urban, urban-rural, and rural-rural. Table 7.1 displays the findings based on data collected for the place of birth and current residence in the 2001 FRHS. The table indicates that the percentage of urban-urban migrants (33.5 %) exceeds that of the rural-urban migrants (25.4 %). The former shows a shift of people from small towns/ cities to bigger towns/cities where social and cultural benefits are concentrated and employment opportunities, particularly in the manufacturing sector, are more readily available.

Table 7.1 Percentage of migrants by category of migration, 2001 FRHS

Birth Place	Current residence		Total
	Urban	Rural	
Urban	33.5	9.0	42.6
Rural	25.4	32.0	57.4
Total	59.0	41.0	100.0
Number of cases	18631	12968	31599

The stream of migration that is least significant is the urban-to-rural migration stream. It is only nine percent of all migrants moving from an urban area to a rural area. Another migration stream, which involved a relatively large proportion of migrants, is the movement within the rural sector, which consists of 32 percent of the total migrants. This is due most probably to the increased movement toward more developed rural areas where the government has planned to exploit raw materials for export and to expand domestic manufacturing industries.

7.2 Inter-state/division migration.

In most censuses and surveys, a question is asked of a person's place of birth. On the basis of the information obtained through this question, all enumerated persons can be classified as two groups: (i) migrants defined as persons who are enumerated in a current place which is different from the place where they were born; and (ii) non-migrants defined as persons who are enumerated in the place where they were born. The category of migrants is then further sub-divided into various migration streams on the basis of specific place of birth and place of residence. A person enumerated in one of the states/divisions of Myanmar in 2001, may be cross-classified with the state/division of his/her place of birth. In this way, a table can be constructed for the total population of Myanmar. Table 7.2 shows the percent distribution of total population by state/division of current residence and state/division of place of birth. From this table, it can be seen that 91 percent of the population born in Kachin State were enumerated in Kachin State. Similarly, 97 percent born in Chin State were enumerated in the same state. Each figure in the diagonal cell of the table, bold for easy identification, represents the percentage of persons who were enumerated in the place where they were born. They constitute a category of lifetime non-migrants. The remaining figures of each column represent life-time in-migrants to a particular state/division. For example, the

Table 7.2 Percent distribution of total population by State/division of current residence and State/division of place of birth, Myanmar, 2001 FRHS

State / Division	Current residence																	Total
	Kachin	Kayah	Kayin	Chin	Sagaing	Taninthayi	Bago(west)	Bago(east)	Magwe	Mandalay	Mon	Rakhine	Yangon	Shan(south)	Shan(north)	Shan(east)	Ayeyarwady	
Place of Birth																		
Kachin	90.93	0.18		0.05	0.24	0.02	0.02	0.05		0.20	0.05	0.01	0.34	0.12	0.38	1.78	0.02	2.86
Kayah	0.04	86.71	0.06		0.02	0.02		0.10		0.02	0.03		0.03	0.28		0.12	0.02	0.29
Kayin	0.05	1.97	97.50		0.02	0.19	0.07	0.82	0.01	0.05	1.18	0.01	0.28		0.24	0.23	0.04	1.81
Chin	0.05			97.07	1.17	0.12	0.01	0.03	0.07	0.01		0.09	0.10	0.01	0.29	0.04	0.02	1.28
Sagaing	3.10			0.46	96.67	0.12	0.08	0.19	0.09	1.42	0.02	0.04	0.68	0.11	0.65	0.12	0.08	11.41
Taninthayi			0.03		0.00	95.82	0.09	0.04	0.01	0.02	0.35	0.01	0.74	0.03	0.03	0.12	0.00	2.20
Bago(west)	0.05		0.03		0.05	0.12	96.16	0.23	0.11	0.07	0.10	0.08	1.71	0.08	0.04	0.04	0.20	4.85
Bago(east)	0.37	1.08	0.16	0.09	0.12	0.10	0.22	95.28	0.13	0.20	1.08	0.06	2.13	0.34	0.11	0.15	0.06	6.13
Magwe	0.30	1.62	0.03	1.21	0.41	0.31	1.18	0.18	98.77	0.74	0.20	0.22	1.87	0.88	0.38	0.04	0.16	10.29
Mandalay	1.14	1.26	0.03	0.23	0.73	0.22	0.23	1.31	0.39	95.79	0.25	0.05	2.41	4.22	1.48	0.15	0.09	12.89
Mon	0.09	0.18	1.83	0.14	0.05	1.18	0.12	0.29	0.03	0.05	95.48	0.02	2.67	0.14	0.03	0.04	0.03	5.94
Rakhine	0.04		0.03	0.23	0.05	0.29	0.09	0.04	0.04	0.03	0.02	98.62	1.56	0.10	0.05	0.08	0.26	6.88
Yangon	0.28	1.08	0.13	0.05	0.11	1.06	0.74	0.92	0.19	0.35	0.81	0.38	77.90	0.40	0.22	0.23	0.68	9.42
Shan(south)	0.16	5.03	0.03	0.19	0.07	0.12	0.08	0.05	0.06	0.16	0.05	0.02	0.34	91.69	0.46	0.50	0.02	3.63
Shan(north)	2.66	0.36	0.03	0.19	0.11	0.02	0.04	0.06	0.02	0.66	0.07	0.01	0.30	0.95	95.28	0.62	0.04	4.06
Shan(east)	0.05	0.54		0.05	0.01		0.02		0.01	0.03	0.04	0.01	0.11	0.39	0.17	95.54	0.02	1.35
Ayeyarwady	0.53		0.09	0.05	0.11	0.27	0.84	0.38	0.09	0.16	0.30	0.27	6.74	0.26		0.04	98.25	14.66
Abroad	0.16				0.05			0.03	0.01	0.04		0.10	0.08		0.19	0.15	0.02	0.04
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total no:	5681	557	3163	2153	21642	4139	9032	11411	18762	24061	11010	12791	22061	7258	7559	2581	26572	190433

total persons who were enumerated in Kachin State, 3 percent were born in Sagaing Division, 3 percent in Shan State, and 1 percent in Mandalay Division etc.

The matrix table also indicates that Magwe Division with 98.8 percent of native born, has the least in-migration from other states/divisions; while Yangon Division, which consists of the nation capital city, receives more than 20 percent of its population from other states and divisions.

7.3 Age and sex differentials

One of the universal features of migration is age selectivity. Studies in various countries indicate that the age composition of migrants, which usually differs from that of non-migrants, typically over-represents the young adult age group. Table 7.3 displays the percent distribution of population by age and sex according to migration status and urban-rural residence. It shows that Myanmar also conforms to the pattern of age selectivity of migration. There is a clear over-representation of young adults of both sexes aged 25 to 39 among the migrants, in all urban and rural categories. The age selectivity of migrants can be seen more clearly when measured in terms of the difference between the age group percentage of migrants and non-migrants.

Although the data clearly show that migrants were over-represented in the three adult age groups (25-39), the peak occurs at the age group (30-34) for both males and females and for both urban and rural. The data also suggest that females tended to migrate at the younger ages than males. For example, for age group (15-29) the proportion of female migrants is 27.1 percent for urban areas and 27.7 percent for rural areas, while it is 25.8 percent for urban males and 24.7 percent for rural males. It seems that, as in many other developing countries, women enter the labour force and marry at younger ages than men.

Migration is usually a selective process; as a result, migrants tend to differ in many characteristics from non-migrants. This section attempts to compare some of the characteristics of migrants and native born, including return migrants in the place of destinations, that is current residence.

Table 7.3 Percent distribution of the population by age and sex according to migration status and urban/rural residence.

Age group	Native born						Migrant						Total					
	Urban			Rural			Urban			Rural			Urban			Rural		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	12.06	11.08	11.55	11.12	10.31	10.70	1.58	1.23	1.39	1.69	1.81	1.75	8.13	7.26	7.67	10.24	9.54	9.87
5-9	13.42	11.42	12.38	12.26	11.37	11.80	3.60	2.87	3.21	3.92	3.50	3.70	9.74	8.10	8.88	11.48	10.66	11.06
10-14	12.01	10.94	11.45	12.08	11.09	11.56	6.01	5.26	5.61	5.31	5.67	5.49	9.76	8.73	9.22	11.44	10.60	11.01
15-19	12.08	11.05	11.54	11.59	10.97	11.27	7.85	8.49	8.19	7.08	7.09	7.09	10.49	10.06	10.26	11.17	10.62	10.89
20-24	9.89	9.21	9.53	9.48	9.14	9.31	8.85	9.50	9.20	8.32	9.78	9.06	9.50	9.32	9.41	9.37	9.20	9.28
25-29	8.52	8.80	8.67	7.39	7.55	7.47	9.14	9.13	9.13	9.32	10.82	10.08	8.75	8.93	8.85	7.57	7.84	7.71
30-34	8.16	8.46	8.32	7.00	7.31	7.16	9.66	9.68	9.67	11.37	10.92	11.14	8.72	8.94	8.84	7.41	7.63	7.52
35-39	6.55	7.36	6.97	6.03	6.32	6.18	9.46	9.04	9.24	10.28	9.64	9.95	7.64	8.01	7.84	6.43	6.62	6.53
40-44	5.05	5.89	5.49	5.30	5.74	5.53	8.95	8.41	8.66	9.95	9.44	9.69	6.51	6.87	6.70	5.73	6.08	5.91
45-49	3.84	4.30	4.08	4.63	4.64	4.64	8.22	8.24	8.23	8.71	8.16	8.43	5.48	5.83	5.67	5.01	4.96	4.99
50-54	2.60	3.16	2.89	3.56	4.06	3.82	6.96	7.12	7.04	6.77	6.67	6.72	4.24	4.69	4.48	3.86	4.30	4.09
55-59	1.67	2.11	1.90	2.40	2.90	2.66	5.54	5.68	5.62	4.78	4.66	4.72	3.13	3.49	3.32	2.63	3.05	2.85
60-64	1.58	2.04	1.82	2.38	2.96	2.68	5.51	4.62	5.03	4.31	3.82	4.06	3.06	3.04	3.05	2.56	3.03	2.81
65-69	1.18	1.65	1.43	2.06	2.24	2.15	3.80	4.09	3.96	3.31	3.55	3.43	2.17	2.60	2.39	2.17	2.36	2.27
70-74	0.63	1.27	0.96	1.42	1.71	1.57	2.51	3.33	2.95	2.62	2.32	2.47	1.33	2.07	1.72	1.53	1.77	1.65
75-79	0.45	0.67	0.57	0.75	0.95	0.86	1.34	1.76	1.56	1.58	1.28	1.43	0.79	1.09	0.95	0.83	0.98	0.91
80+	0.30	0.60	0.46	0.54	0.75	0.65	1.00	1.53	1.28	0.70	0.86	0.78	0.56	0.96	0.77	0.56	0.76	0.66
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total	14515	15797	30312	61639	66798	128437	8712	10019	18731	6384	6628	13012	23227	25816	49043	68023	73426	141449

The age distribution of the migrants was distinctly different from that of the non-migrants. Table 7.4 presents the percent distribution of the population by age group and urban-rural residence according to migration status and sex. Among the migrants there was an excess of adult population.

When the migrants, including return migrants, were considered, almost three quarter of the population belongs to the age group 15-59 (working age), the corresponding percentage for the non-migrants being only around 60 percent. Again, almost 36 percent of the non-migrants were below the age of 15, while only about 10 percent of the migrants were below that age. The greatest difference is thus evident in the youngest age groups. The age structure of the return migrants is also found to differ from that of the general population.

Although several studies have indicated that, in most of the developing countries where the process of urbanisation is in its initial stage, males predominate when migration to urban areas is considered. The phenomenon of sex selectivity of migrants is not as clear-cut as that of age selectivity in Myanmar.

Table 7.4 Percent distribution of the population by age group urban-rural and residence according to migration status and sex, 2001 FRHS

Age group	Migration status								
	never moved			returned migrant			migrant		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Urban									
0-14	37.89	33.82	35.77	16.10	15.32	15.67	11.20	9.37	10.22
15-24	21.98	20.27	21.09	21.30	20.12	20.67	16.70	17.99	17.39
25-44	28.17	30.33	29.29	34.46	38.74	36.83	37.21	36.27	36.71
45-59	7.95	9.41	8.71	16.85	17.12	17.00	20.72	21.04	20.89
60-64	1.54	2.02	1.79	4.12	2.70	3.33	5.51	4.62	5.03
65+	2.48	4.15	3.35	7.12	6.01	6.50	8.65	10.71	9.75
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	14248	15463	29711	267	333	600	8712	10020	18732
Rural									
0-14	35.63	32.92	34.22	13.36	11.50	12.41	10.95	11.04	10.99
15-24	21.07	20.09	20.56	22.20	23.00	22.61	15.39	16.86	16.14
25-44	25.63	26.83	26.25	37.07	39.43	38.28	40.90	40.80	40.85
45-59	10.52	11.57	11.07	19.61	16.43	17.98	20.25	19.48	19.86
60-64	2.38	2.95	2.67	2.59	4.52	3.58	4.31	3.81	4.06
65+	4.77	5.65	5.23	5.17	5.13	5.15	8.21	8.01	8.10
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	61173	66307	127480	464	487	951	6386	6632	13018
Total									
0-14	36.06	33.09	34.52	14.36	13.05	13.67	11.09	10.03	10.54
15-24	21.24	20.12	20.66	21.89	21.83	21.86	16.15	17.54	16.88
25-44	26.11	27.49	26.83	36.11	39.15	37.72	38.77	38.07	38.41
45-59	10.04	11.16	10.62	18.60	16.71	17.60	20.52	20.42	20.47
60-64	2.22	2.77	2.51	3.15	3.78	3.48	5.00	4.30	4.63
65+	4.34	5.36	4.87	5.88	5.49	5.67	8.46	9.63	9.08
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	75421	81770	157191	731	820	1551	15098	16652	31750

CHAPTER VIII

KNOWLEDGE OF STDs AND HIV/AIDS

The sexually transmitted diseases (STDs) formerly known as venereal diseases consist of Syphilis, Chancroid, Gonorrhoea, and non-gonococcus Urethritis etc. inclusive of Acquired Immune Deficiency Syndrome (AIDS). As the STDs and Human Immunodeficiency Virus (HIV)/AIDS have become widespread, the STDs and HIV/AIDS teams in the countries of this region are conducting educational and preventive programmes to counter the spread.

Data on knowledge of STDs and HIV/AIDS for ever married women (EMW) aged 15-49 and never married women (NMW) aged 15-34 were collected in the 2001 FRHS for analysis. Since it is the first time to collect information from NMW, it was decided to limit the number of never married women (NMW) aged 15-34 for interview.

8.1 Knowledge of STDs and HIV/AIDS among Ever Married Women

The 2001 Fertility and Reproductive Health Survey includes a series of questions on knowledge of STDs and HIV/AIDS and strategies for their prevention. Ever Married Women (EMW) aged 15-49 were asked whether they had ever heard of STDs and HIV/AIDS and their knowledge concerning prevention of the diseases.

Table 8.1 presents percentage of ever married women who have heard of STDs and among them percentage who know how to prevent STDs. It indicates that 84 percent of EMW have ever heard about STDs and among them 78 percent know how to prevent them.

Adolescents (15-19) and the older women (45-49) have relatively lower scores on knowledge about STDs and their prevention, while knowledge about STDs and their prevention do not seem to vary in any significant manner among other age groups. Knowledge of STDs and their prevention rank substantially higher among urban women (91% and 83% respectively) than their rural counterparts (81% and 76% respectively). Furthermore, scores on knowledge of STDs and their prevention increase with the level of education. For example, the knowledge score of STDs rises sharply from 68 percent among women with no education to 99 percent among women with university education. Similarly among these two education groups, the score on STDs prevention increases substantially from 74 percent to 93 percent.

Table 8.1. Percentage of ever married women (EMW) who have ever heard of STDs and know how to prevent according to background characteristics, 2001 FRHS

Background Characteristics	Ever heard of STDs	Number of EMW	Know how to prevent STDs	Number of EMW who have heard of STDs
Age				
15-19	75.3	194	76.0	146
20-24	82.1	819	78.9	672
25-29	85.3	1338	80.5	1141
30-34	83.7	1666	76.8	1395
35-39	86.0	1623	79.4	1395
40-44	85.9	1474	78.0	1266
45-49	78.9	1174	75.5	926
Residence				
Urban	91.1	2238	83.3	2039
Rural	81.0	6050	76.0	4902
Education				
No education	67.7	1697	73.9	1149
Primary	84.5	4401	76.0	3721
Middle School	93.8	1223	82.4	1147
High School	96.4	558	88.3	538
University	98.7	304	93.0	300
Other	81.9	105	59.3	86
Total	83.7	8288	78.2	6941

Table 8.2 presents percentage of EMW reporting knowledge of HIV/AIDS and its prevention. This table shows that awareness of HIV/AIDS among EMW is rather high 92 percent and among them 86 percent report they know how to prevent it. These rates are higher than those for STDs, probably due to wider publicity and frequent campaigns for HIV/AIDS.

Almost all urban EMW (98 %) know about HIV/AIDS, while 90 percent of rural EMW have ever heard of HIV/AIDS. Concerning prevention of HIV/AIDS transmission, urban EMW again rank higher than rural EMW (90% versus 85%).

Knowledge score on HIV/AIDS and its prevention increase substantially with educational attainment of EMW. For example, knowledge score on HIV/AIDS rises sharply from 77 percent among women with no education to 100 percent among women with university education. Similarly HIV/AIDS prevention score rises from 80 percent to 99 percent for these two educational groups.

Table 8.2. Percentage of ever married women (EMW) who have ever heard of HIV/AIDS and know how to prevent STDs according to background characteristics, 2001 FRHS

Background Characteristics	Ever heard of HIV/AIDS	Number of EMW	Know how to prevent HIV/AIDS	Number of EMW who have heard of HIV/AIDS
Age				
15-19	90.7	194	83.0	176
20-24	93.7	819	86.6	767
25-29	93.3	1338	86.4	1249
30-34	92.0	1666	86.6	1532
35-39	92.7	1623	88.4	1505
40-44	92.7	1474	86.5	1367
45-49	87.8	1174	83.4	1031
Residence				
Urban	98.2	2238	90.4	2198
Rural	89.7	6050	84.8	5429
Education				
No education	77.1	1697	80.0	1309
Primary	94.5	4401	84.7	4157
Middle School	98.6	1223	92.4	1206
High School	99.6	558	95.9	556
University	100.0	304	99.0	304
Other	90.5	105	75.8	95
Total	92.0	8288	86.4	7627

8.2 Knowledge of STDs and HIV/AIDS among Never Married Women

In the previous two surveys, the information on knowledge of STDs and HIV/AIDS were collected only for EMW aged 15-49. In this 2001 FRHS, information on knowledge of STDs and HIV/AIDS for Never Married Women (NMW) aged 15-34 was collected for the first time. In order to obtain the information of knowledge on STDs and HIV/AIDS among never married women (15-34), the new individual questionnaire was prepared using the same questions from STDs and HIV/AIDS section of ever married woman questionnaire.

Knowledge on STDs and their prevention among never married women (NMW) is presented in Table 8.3. It shows that 81 percent of NMW reported that they have heard of STDs and among them 80 percent know their prevention. Knowledge score on STDs increases moderately with age: rising from 77 percent among adolescents (15-19) to 87 percent among older NMW (30-34). However, knowledge on prevention varies very little by other age groups.

As for EMW, urban NMW have higher knowledge in STDs than their rural counterparts with 89 percent against 78 percent. Here again it is found that the knowledge of STDs increases with educational level. The least knowledge is found among women with no education (46%) while women with university education scores highest (97%). Similar patterns of differentials are observed for knowledge score on STD prevention, though at slightly lower level.

Table 8.3. Percentage of never married women (NMW) who have ever heard of STDs and know how to prevent (STDs) according to background characteristics, 2001 FRHS

Background Characteristics	Ever heard of STDs	Number of NMW	Know how to prevent STDs	Number of NMW who have heard of STDs
Age				
15-19	76.8	2255	78.2	1732
20-24	84.4	1263	80.5	1066
25-29	86.9	716	83.9	622
30-34	87.4	414	79.6	362
Residence				
Urban	89	1317	82.5	1172
Rural	78.4	3331	78.8	2610
Education				
No education	45.7	348	73.6	159
Primary	77.6	1880	73.2	1459
Middle School	84.2	1012	81	852
High School	93.3	926	86.8	864
University	97.4	426	90.6	415
Other	58.9	56	66.7	33
Total	81.4	4648	79.9	3782

Knowledge score on HIV/AIDS and its prevention among NMW aged 15-34 by background characteristics is shown in Table 8.4. It is found that awareness of HIV/AIDS is higher than awareness of STDs (93% versus 81%). From Table 8.4, 93 percent of NMW have heard of HIV/AIDS while only 87 percent of them know how to prevent it.

All age groups of NMW have HIV/AIDS knowledge score of over 91 percent and over 85 percent of them know its prevention. As expected, higher knowledge of HIV/AIDS is found among urban NMW than rural NMW (99% vs. 91%). Though the urban knowledge score is higher than the rural, the awareness of HIV/AIDS can be considered rather high in both areas.

Like EMW, the knowledge of HIV/AIDS among NMW also increases sharply with educational level. It rises from 63 percent among women with no education to 99 percent among women with university education. Similar patterns of differentials are found in knowledge of HIV/AIDS prevention.

Table 8.4. Percentage of never married women (NMW) who have ever heard of HIV/AIDS and know how to prevent HIV/AIDS according to background characteristics, 2001 FRHS

Background Characteristics	Ever heard of HIV/AIDS	Number of NMW	Know how to prevent AIDS	Number of NMW who have heard of HIV/AIDS
Age				
15-19	91.4	2255	85.0	2062
20-24	94.5	1263	88.5	1194
25-29	94.7	716	90.7	678
30-34	94.2	414	90.0	390
Residence				
Urban	98.6	1317	92.2	1298
Rural	90.8	3331	85.2	3026
Education				
No education	63.2	348	70.5	220
Primary	92.7	1880	81.5	1743
Middle School	96.9	1012	87.8	981
High School	99.2	926	96.6	919
University	99.1	426	98.8	422
Other	69.6	56	87.2	39
Total	93.0	4648	87.3	4324

