MCH-FP Extension Project (Urban)
Health and Population Extension Division

Urban Panel Survey - Dhaka

Characteristics of Sampled Population, Demographic Events, Fertility Regulation, and Sources of MCH-FP Services 1995

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Acknowledgements

Table of Contents

List of Tables

List of Tables (Cont.)

List of Tables (Cont.)

List of Figures

vi

SUMMARY

The Urban Panel Survey (UPS) is an ongoing programme of the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B). The UPS collects data on demographic events and selected health and family planning indicators from a probability sample of about 33,000 persons drawn from an estimated population of 3,80,000 in Zone 3 of Dhaka city. The study population include separate slum and non-slum samples. The broad purposes of the UPS are: (a) to provide data required for designing urban-specific health and family planning service improvement interventions, and (b) to assist in monitoring and evaluating interventions, including validation of the routine service statistics, e.g. demographic events, contraceptive-use status. Basic socioeconomic and demographic data are collected from each household at the time of registration into the system. Data on vital events, use of family planning methods, and sources of selected health care are collected every three months through home visits.

This report is based on the 1995 UPS data. Separate estimates have been presented for the slum and non-slum populations. The results of the analysis of data showed that the slum population experienced a higher level of mortality and fertility compared to that of the non-slum population. Both the slum and non-slum population were characterized by high mobility. The contraceptive prevalence rate and access to health and family planning services were markedly lower for the slum population compared to the non-slum population. Based on the findings, it is recommended that the health programmes should continue to design and test innovative and cost-effective strategies to improve the access to and effectiveness of health and family planning services, especially for the urban poor.

CHAPTER 1

INTRODUCTION

The MCH-FP Extension Project (Urban), an operations research and technical assistance project of the International Centre For Diarrhoeal Disease Research, Bangladesh (ICDDR,B), aims at developing a coordinated, cost-effective, and sustainable system of delivering integrated health and family planning services for the urban population of Bangladesh. To achieve it, the Project, in partnership with the Government of Bangladesh (GoB) agencies and a non-government organization (NGO), Concerned Women for Family Planning (CWFP), has been developing innovative and cost-effective maternal and child health and family planning (MCH-FP) programmes in parts of Dhaka City Corporation (DCC) through operations research. Most of the Project activities have been implemented in Zone 3 of DCC. It has been disseminating regularly its research findings among GoB and NGO policy-makers, programme managers, and donors. In addition, it has been providing technical assistance to GoB and NGOs in transferring the successful elements of its research findings to other parts of Dhaka and to other urban areas. The Project also assists GoB to develop appropriate urban health and family planning policies and programmes.

Urban Panel Survey

The Urban Panel Survey (UPS), an ongoing programme, collects data on demographic events and selected health and family planning indicators of a probability sample from a population of about 380,000 in Zone 3 of Dhaka City. Some data are longitudinal and others are cross-sectional in nature. The data collection system was established in late 1994 through undertaking sampling and baseline surveys, but the ongoing data collection begun on 01 January 1995. The broad purposes of the UPS are: (a) to provide data required for designing service improvement interventions, and (b) to assist in monitoring and evaluating interventions, including validation of the routine service statistics e.g. demographic events, contraceptive use status.

1

Sampling and Data Collection Methods

Using a multi-stage areal sampling methodology 5,940 households having 30,840 population were sampled for the UPS at the end of 1994. The sampling units are clusters with well-defined boundaries. The average cluster size is about 40 households. The UPS population includes separate slum and non-slum samples.

In the first stage, Zone 3 was divided into four geographic areas (Figure 1). Of the four areas, three are relatively smaller areas (each of them is a supervisory area of the NGO partner, CWFP) and known as 'Intensive Areas.' The rest of zone 3 which is a comparatively larger area formed the 'Non-intensive Area.' The original plan was to test the Project's interventions initially in one or more of the these Intensive Areas and to use the large Non-intensive Area as the comparison.

The four areas were then divided into neighbourhoods of up to 200 households which are called Primary Sampling Units (PSUs). Each PSU was characterized as predominantly slum or non-slum depending on the overall living conditions including housing and water and sanitation conditions of the area. Each PSU was assigned a measure of size depending on the number of households it contained. Then, 15 slum and 25 non-slum PSUs were selected from each of the four areas, using a probability proportionate-to-size (PPS) sampling method. Detailed maps of the selected PSUs were prepared, and larger PSUs were divided into clusters, each cluster having approximately 40-50 households. Then, one cluster was randomly selected from each selected PSU, yielding 160 sampled clusters. Since the selection probabilities varied for different clusters, appropriate weights were used for calculating rates.

The Urban Panel Survey (UPS) System requires two months continuous residency of an individual in one of the UPS clusters to be eligible for registration. An out-migrant is defined as a person who was registered in the UPS system as a resident or who became a resident by birth and subsequently moved out of the surveillance area and did not come back

within two months. In-migrant is an individual who moved into the surveillance area and fulfilled the two months residency requirement.

The baseline survey conducted in late 1994 included registration of eligible households and collection of the following data: (a) basic demographic data from each household member, e.g. date of birth, sex, relation to head of household, religion, marital status, place of birth, number of years lived in Dhaka, education, occupation, and employment; (b) reproductive history of eligible women; (c) contraceptive status of eligible women including the use of MCH-FP services; and (d) data on basic socioeconomic conditions. Data are collected from each sample household every three months by a field interviewer by interviewing an adult member of the household, usually the mother. Data collected during the three monthly household visits include: (a) all vital events (births, deaths, marriages, and migrations) occurring within the household since the previous visit made; (b) use of family planning methods; and (c) selected data on sources of health care. In addition, one or more special modules were added in each three monthly rounds to collect additional data depending on the need of the Project.

Data are collected by 12 interviewers who are supervised by 3 Field Research Officers (FRO). A Field Research Manager supervises all the field staff members.

Round-wise data are captured using a Relational Database Management System developed using FoxPro by 5 Data Management Assistants under the supervision of the Data Management Supervisor. The data-capturing system was developed in-house by the project programmers which functions very well. Clean data files are available for use with 6-8 weeks of data collection.

This report presents the results of the Urban Panel Survey conducted in Dhaka in 1995.

Fig. 1: Map of Dhaka City Corporation (DCC) and Zone 3 of DCC showing sample areas

Dhaka City Corporation and its 10 Zones
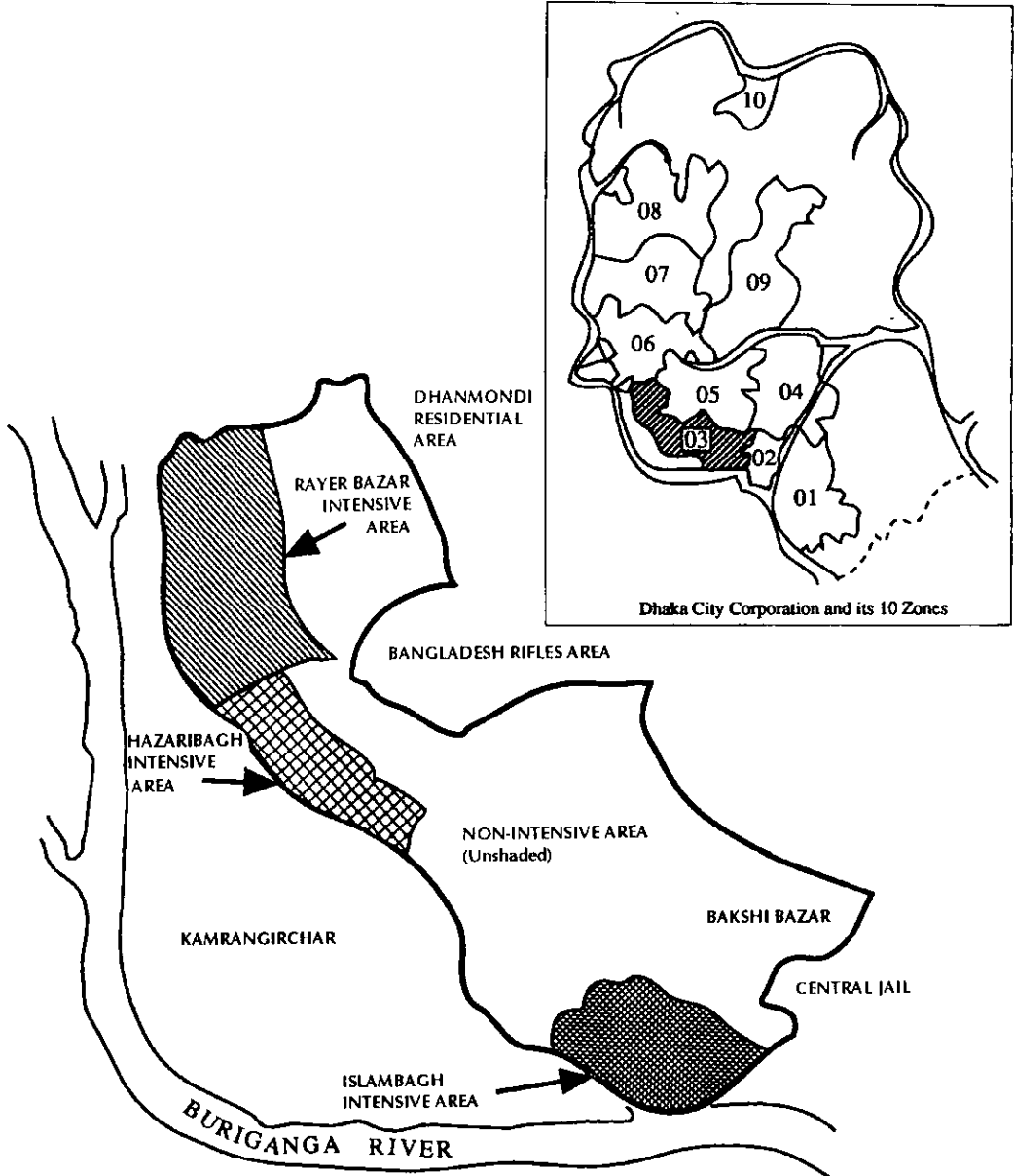
Zone 3 of DCC showing the intensive and non-intensive areas

CHAPTER 2

CHARACTERISTICS OF THE SAMPLE

Although ideally person-years observed should be used as the denominator for calculation of vital statistics of a population, the mid-year population is often used for the sake of simplicity. In a relatively stable population, person-years observed and the mid-year population are likely to be very similar. The urban population is characterized by rapid growth, high mobility and seasonal migrations. Thus, in urban population, there could be a major difference between person-years observed and the mid-year population. However, during 1995, in the UPS sample of the MCH-FP Extension Project (Urban) of ICDDR,B, the total person-years observed and the distribution of person-years by age and sex (Table 2.1) were not very different from the total mid-year population and the distribution of mid-year population by age and sex (Table 2.2). These were also true when the sample was disaggregated into slum and non-slum population. Thus, in all subsequent analysis, the mid-year population was used as the denominator.

Table 2.3 shows the per cent distribution of the sample population by five-year age groups, according to the type of residence (slum and non-slum) and sex. The age and sex distributions of the sample population are illustrated by the population pyramids shown in figure 2.1-2.3. Overall, a larger proportion of the population is in the younger age groups than in the older age groups. About 12 per cent of the population were aged less than 5 years, and about 39 per cent of the population were aged less than 15 years. Compared to the non-slum areas, the slum areas had more people aged less than 5 years (13.8% vs. 10.4%) and less than 15 years (43% vs. 36%). The sex ratio (the number of males per 100 females) in the total population was approximately hundred for children aged less than 15 years. However, there was an excess of females over males at age 15-29 years and an excess of males in the older age groups (Table 2.4). This irregular age-sex structure may be attributable to a number of reasons. Perhaps the most important reason is the differential rates of migration by

age and sex. There are also important differences in sex ratios between the slum and non-slum population. The reason for these differences needs further exploration.

Table 2.5 shows the household composition of the UPS sample population. About 14 per cent of the households were headed by female. The female-headed households were equally common in the slum as well as in the non-slum areas. The average household size was 5.1 persons. The non-slum households were larger than the slum households (Table 2.5). Half of the households had a child aged less than 5 years; about 12 per cent of the households had two or more aged less than 5 years (Table 2.5).

Only about four per cent of the households consisted of only one adult, with or without children. About 47 per cent of the households contain two related adults of opposite sex, and another 47 per cent consisted of three or more related adults . Households with three or more related adults were more common in the non-slum areas than in the slum areas.

Table 2.6 and 2.7 present data on the educational level of the male and female population respectively, by age group and the type of residence. A decreasing percentage of both males and females had never attended school in each successive younger age group. For men, the proportion who have never attended school decreased from about 51 per cent in the oldest age group (65 years or more) to about 26 per cent among those aged 10-14 years. For women, the decline was more marked, from 90 per cent in the age group 65 years or more to about 26 per cent among those aged 10-14 years. A much higher proportion of the slum population, both men and women, had never attended school. The median number of years of schooling for men was 5 for the non-slum sample and 0 for the slum sample. For women, the median number of schooling was 3 for the non-slum sample and 0 for the slum sample.

6

The percentages of males and females aged 8 years or more and working for money by age groups and the type of residence are shown in table 2.8. As expected, men were much more likely to be employed than women regardless of age or residence. Overall, about 59 per cent of the men and only 18 per cent of the women were employed. Paid employment started earlier in the slum population. At age 10-14 years, 34 per cent of the slum boys in contrast to 15 per cent of the non-slum boys were working for money. Similarly at age 15-19 years, compared to about 61 per cent of the slum male population, 36 per cent of the non-slum male population were working for money. The earlier beginning of employment in the slum population though not so marked was also seen in the female population.

Table 2.9 presents data on selected socioeconomic conditions of the sample households by the type of residence. Access to electricity is almost universal to both the non-slum and slum households; only about 4 per cent of the households did not have electricity. Piped water is the most important source of drinking water. Almost all the non-slum households obtain drinking water from taps. However, about 28 per cent of the slum households obtained drinking water from tubewells. Overall, about 67 per cent of the households had access to sanitary latrines. However, as expected, access to sanitary latrines varies greatly between the slum and non-slum population. In contrast to about 93 per cent of the non-slum households, only about 30 per cent of the slum households had access to sanitary latrines. About 70 per cent of the slum households used an open latrine. Overall, tin is the most common roofing material, although more than half of the non-slum households have pucca (concrete/brick) roof. Most non-slum households (86.7%) live in structures with pucca wall. In contrast, the majority of the slum households live in structures with bamboo wall. The number of persons per sleeping room is calculated as an index of crowding. About 70 per cent of the households had three or more persons per sleeping room; about 29 per cent of the households had 5 or more persons per room. As expected, crowding was more common in the slum than in the non-slum households.

Table 2.1: Person-years observed by age, type of residence, and sex, 1995

Age group (years)	Slum			Non-slum			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	870	888	1758	1344	1348	2692	2214	2236	4450
5-9	872	874	1747	1334	1330	2664	2206	2205	4410
10-14	853	725	1578	1351	1500	2851	2204	2225	4429
15-19	562	684	1246	1129	1432	2561	1692	2115	3807
20-24	482	621	1103	1077	1396	2473	1559	2017	3576
25-29	468	518	986	1020	1060	2080	1487	1579	3066
30-34	447	395	842	930	763	1693	1377	1158	2535
35-39	356	369	725	782	625	1407	1138	994	2132
40-44	310	198	508	543	432	975	853	629	1482
45-49	234	152	386	403	354	757	638	506	1143
50-54	159	136	295	323	294	617	482	430	912
55-59	77	72	148	213	170	383	290	242	531
60-64	90	61	151	175	136	311	265	197	462
65-69	34	35	68	99	78	176	133	112	245
70-74	42	28	70	61	74	135	102	103	205
75-79	11	13	24	31	22	52	42	34	76
80-84	7	8	15	16	17	33	24	25	48
85+	8	5	13	10	24	34	17	29	46
Total	5883	5781	11664	10839	11054	21893	16722	16835	33557

Table 2.2: Mid-year population by age, type of residence and sex, 1995

Age group (years)	Slum			Non-slum			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	786	812	1598	1235	1242	2477	2021	2054	4075
5-9	875	866	1741	1328	1377	2705	2203	2243	4446
10-14	853	730	1583	1379	1486	2865	2232	2216	4448
15-19	528	604	1132	1048	1271	2319	1576	1875	3451
20-24	510	686	1196	1174	1537	2711	1684	2223	3907
25-29	471	525	996	1038	1076	2114	1509	1601	3110
30-34	445	388	833	922	754	1676	1367	1142	2509
35-39	308	317	625	677	558	1235	985	875	1860
40-44	348	239	587	643	504	1147	991	743	1734
45-49	228	147	375	407	357	764	635	504	1139
50-54	151	134	285	321	295	616	472	429	901
55-59	63	58	121	191	152	343	254	210	464
60-64	98	68	166	193	151	344	291	219	510
65-69	35	35	70	100	79	179	135	114	249
70-74	42	30	72	63	72	135	105	102	207
75-79	12	10	22	27	19	46	39	29	68
80-84	7	9	16	19	17	36	26	26	52
85+	7	5	12	8	24	32	15	29	44
Total	5767	5663	11430	10773	10971	21744	16540	16634	33174

Table 2.3: Per cent distribution of the mid-year population by age, sex, and type of residence, 1995

Age group (Years)	Slum			Non-slum			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	13.5	14.0	13.8	10.7	10.1	10.4	11.8	11.6	11.7
5-9	15.1	15.2	15.2	12.1	11.8	12.0	13.3	13.2	13.2
10-14	15.1	12.9	14.0	13.0	14.2	13.6	13.8	13.7	13.7
15-19	9.0	10.7	9.8	9.6	12.1	10.9	9.3	11.6	10.5
20-24	9.7	12.3	11.0	11.4	13.7	12.5	10.7	13.1	11.9
25-29	7.8	8.5	8.2	9.3	9.5	9.4	8.7	9.1	8.9
30-34	7.4	6.7	7.0	8.4	7.5	7.9	8.0	7.2	7.6
35-39	5.2	5.8	5.5	6.4	5.6	6.0	5.9	5.6	5.8
40-44	5.6	4.6	5.1	6.3	4.6	5.4	6.0	4.6	5.3
45-49	3.6	2.7	3.2	4.1	3.3	3.7	3.9	3.1	3.5
50-54	3.0	2.8	2.9	3.2	2.7	3.0	3.1	2.8	2.9
55-59	1.1	1.3	1.2	1.7	1.3	1.5	1.4	1.3	1.4
60-64	1.8	1.3	1.5	1.7	1.5	1.6	1.8	1.4	1.6
65-69	0.8	0.4	0.6	1.1	0.8	1.0	1.0	0.7	0.8
70-74	0.8	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7
75-79	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2
80-84	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2
85+	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**49.6**	**50.4**	**100.0**

Note: Data are weighted percentages.

Table 2.4:   Sex ratio of the urban panel survey sample population by age and residence, 1995

Age group (Years)	Slum	Non-slum	Total
0-4	98.3	101.9	100.2
5-9	101.1	98.7	99.8
10-14	119.2	88.0	99.6
15-19	86.0	75.8	79.5
20-24	80.7	79.8	80.1
25-29	94.4	94.4	94.4
30-34	112.4	108.0	109.6
35-39	91.7	110.5	103.0
40-44	125.0	132.3	129.4
45-49	135.9	118.9	124.7
50-54	111.6	112.3	112.0
55-59	88.0	121.7	108.8
60-64	149.7	107.5	122.2
65-69	208.5	125.2	144.5
70-74	149.8	77.4	100.1
75-79	122.8	90.4	99.3
80-84	107.8	94.8	100.5
85+	68.1	72.5	71.7
Total	**102.0**	**96.1**	**98.4**

Table 2.5: Per cent distribution of households by sex of head of household, household size, and kinship structure according to type of residence, 1995

Characteristic	Percentage		
	Slum (n = 2,365)	Non-slum (n = 4,131)	Total (n = 6,496)
Household headship			
Male	86.6	86.2	86.3
Female	13.4	13.8	13.7
Number of usual members			
1	1.2	0.7	0.9
2	8.5	7.1	7.6
3	18.9	15.7	16.9
4	20.1	19.7	19.8
5	18.4	18.9	18.7
6	13.3	13.7	13.5
7	9.8	9.3	9.5
8	5.2	5.9	5.7
9	2.4	3.6	3.2
10+	2.2	5.4	4.3
Mean size	4.8	5.3	5.1
Median size	5.0	5.5	5.0
Under-five children			
Yes	54.5	47.4	50.0
1	42.2	35.9	38.2
2+	12.3	11.5	11.8
Kinship structure			
One adult	4.8	3.9	4.2
Two related adults:			
Of opposite sex	53.7	42.6	46.6
Of same sex	2.2	2.2	2.2
Three or more related adults	39.3	51.4	47.0
Total	**100.0**	**100.0**	**100.0**

Note: Data are weighted percentages

12

Table 2.6: Per cent distribution of male population by age, educational level, and type of residence, 1995

Charac-teristic	No educa-tion	Primary incomplete	Primary complete	Secondary/ Higher	Missing	Total	Number	Median years of schooling	Mean years of schooling
Age (Years)									
6-9	68.7	31.2	0.1	0.0	0.0	100.00	1790	0.0	0.5
10-14	25.9	45.7	28.4	0.0	0.0	100.00	2232	3.0	2.9
15-19	20.9	17.4	47.2	14.6	0.0	100.00	1576	5.0	5.3
20-24	21.2	15.4	38.9	24.7	0.0	100.00	1684	6.0	6.1
25-29	22.8	12.9	37.5	26.8	0.0	100.00	1509	6.0	6.4
30-34	27.7	12.0	34.8	25.4	0.0	100.00	1367	5.0	6.0
35-39	29.1	10.4	31.8	28.6	0.0	100.00	985	6.0	6.2
40-44	31.8	13.8	29.0	25.0	0.1	100.00	991	5.0	5.7
45-49	35.6	13.9	28.5	22.2	0.0	100.00	635	5.0	5.2
50-54	39.8	13.3	27.2	19.5	0.2	100.00	472	4.0	5.0
55-59	36.2	11.0	27.2	25.7	0.0	100.00	254	5.0	5.4
60-64	46.7	10.6	23.3	19.1	0.0	100.00	291	2.0	3.9
65+	51.3	11.0	23.2	14.6	0.0	100.00	320	0.0	3.6
Residence									
Slum	50.1	23.5	22.2	4.0	0.0	100.00	4807	0.0	2.5
Non-slum	23.8	19.6	33.6	22.8	0.0	100.00	9299	5.0	5.7
Total	**32.8**	**20.9**	**29.7**	**16.4**	**0.0**	**100.00**	**14106**	**4.0**	**4.6**

Note: Data are weighted percentages

13

Table 2.7: Per cent distribution of female population by age, educational level, and type of residence, 1995

Charac-teristic	No education	Primary incomplete	Primary complete	Secondary/ Higher	Missing	Total	No.	Median years of schooling	Mean years of schooling
Age (Years)									
6-9	67.7	32.0	0.2	0.0	0.1	100.00	1804	0.0	0.6
10-14	25.9	45.3	28.7	0.0	0.0	100.00	2216	3.0	3.0
15-19	25.2	14.2	47.9	12.6	0.1	100.00	1875	5.0	5.1
20-24	34.1	12.7	35.1	17.9	0.0	100.00	2223	5.0	4.9
25-29	42.5	12.3	29.7	15.3	0.1	100.00	1601	4.0	4.3
30-34	47.3	12.8	28.9	11.0	0.0	100.00	1142	2.0	3.7
35-39	57.7	12.2	21.5	8.6	0.0	100.00	875	0.0	2.8
40-44	62.7	12.5	18.0	6.7	0.0	100.00	743	0.0	2.3
45-49	67.5	11.8	15.7	5.0	0.2	100.00	504	0.0	2.1
50-54	76.9	7.7	13.3	2.1	0.0	100.00	429	0.0	1.3
55-59	79.5	5.8	11.9	2.9	0.0	100.00	210	0.0	1.2
60-64	86.3	6.4	6.0	1.4	0.0	100.00	219	0.0	0.7
65+	90.0	4.3	3.9	1.6	0.0	100.00	300	0.0	0.6
Residence									
Slum	64.6	18.8	15.2	1.1	0.0	100.00	4692	0.0	1.5
Non-slum	36.8	20.3	30.9	11.9	0.0	100.00	9449	3.0	4.0
Total	**46.1**	**19.9**	**25.7**	**8.3**	**0.0**	**100.0**	**14141**	**2.0**	**3.2**

Note: Data are weighted percentages

Table 2.8: Percentage of males and females who are working for money by age group and type of residence, 1995

Age group (Years)	Males			Females		
	Slum (n = 4,487)	Non-slum (n = 8,758)	Total (n = 13,245)	Slum (n = 4,370)	Non-slum (n = 8,956)	Total (n = 13,326)
8-9	9.4	2.7	5.5	2.1	6.8	5.0
10-14	34.1	14.9	22.2	18.2	17.0	17.4
15-19	61.4	36.0	44.5	25.5	15.6	18.8
20-24	82.5	58.3	65.6	23.2	13.2	16.3
25-29	94.1	79.1	83.8	32.6	15.1	20.9
30-34	97.1	93.3	94.5	44.3	23.2	30.4
35-39	97.1	97.2	97.2	41.6	26.9	32.2
40-44	97.4	97.2	97.3	39.7	21.6	27.5
45-49	96.5	94.3	95.1	36.1	20.2	24.8
50-54	95.4	92.5	93.4	34.3	16.9	22.4
55-59	79.4	90.1	87.4	22.4	15.1	17.1
60-64	75.5	74.1	74.6	17.6	12.6	14.2
65+	62.1	52.5	55.6	20.2	5.7	10.0
Total	69.9	61.1	64.1	26.7	16.4	19.8

Note: Data are weighted percentages

Table 2.9: Per cent distribution of households by housing characteristics according to type of residence, Urban Panel Survey, Dhaka, 1995

Characteristic	Residence		
	Slum (n = 2,359)	Non-slum (n = 4,119)	Total (n = 6,478)
Electricity			
No	6.6	1.9	3.9
Yes	93.4	98.1	96.1
Source: drinking water			
Tap/piped	72.2	99.9	88.3
Tube/pump	27.8	0.1	11.7
Sanitation facility			
Septic tank/sewerage	3.5	49.0	29.9
Water seal with pit	0.5	3.0	2.0
Sep/sew/cov. pit open	26.7	41.4	35.2
Hanging/open/dug hole	68.9	6.2	32.5
No fixed site	0.0	0.0	0.0
Other	0.4	0.3	0.3
Roof material			
Jhupri	0.1	0.0	0.0
Bamboo	10.2	2.3	5.6
Wood	0.7	0.1	0.3
Tin	83.1	44.0	60.4
Pucca	5.9	53.6	33.6
Other	0.0	0.0	0.0
Wall material			
Jhupri	0.1	0.0	0.0
Bamboo	56.1	11.5	30.2
Wood	0.4	0.2	0.3
Tin	12.1	1.1	5.7
Pucca	31.2	86.9	63.5
Other	0.1	0.4	0.3
Person/ room			
1-2	15.5	41.0	30.3
3-4	45.5	36.8	40.4
5-6	27.9	17.3	21.8
7+	11.0	4.8	7.4
Total	100.0	100.0	100.0

Note: Data are weighted percentages

16

Fig 2.1: Age pyramid of mid-year population, 1995

Age (years)
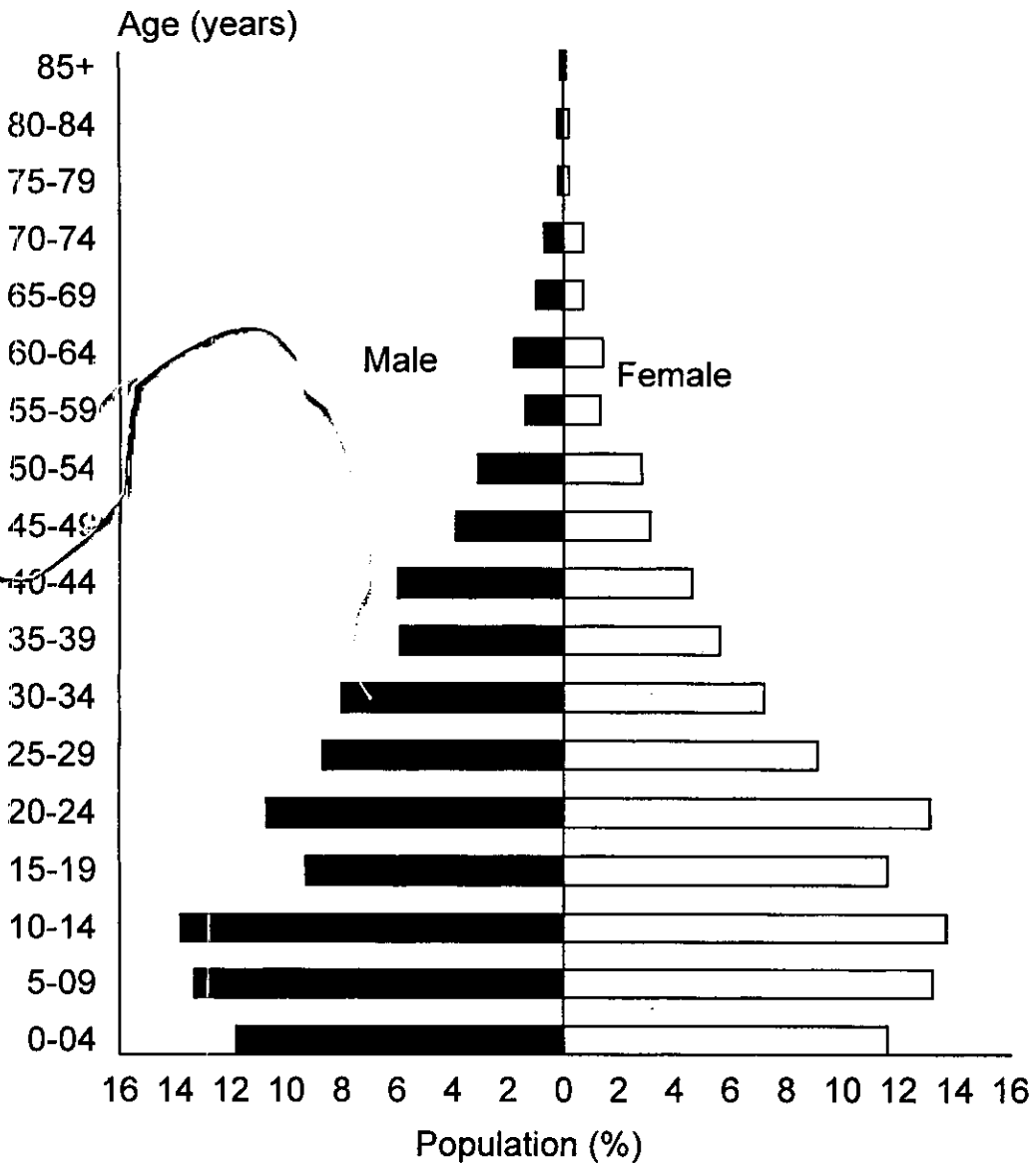
Population (%)

Fig 2.2 Age pyramid of mid-year slum population, 1995

Age (years)

Male   Female
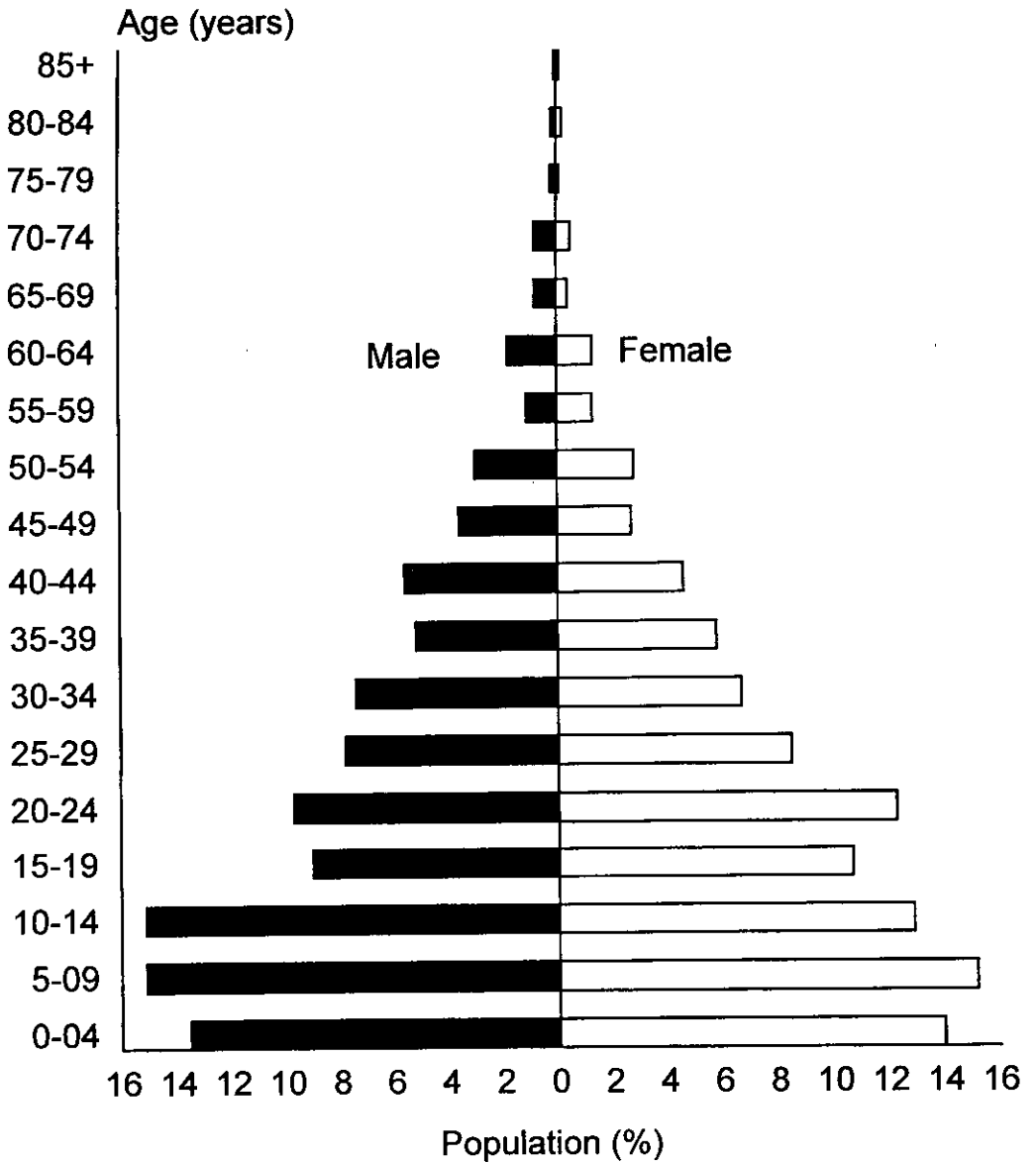
Population (%)

Fig 2.3. Age pyramid of mid-year non-slum population, 1995
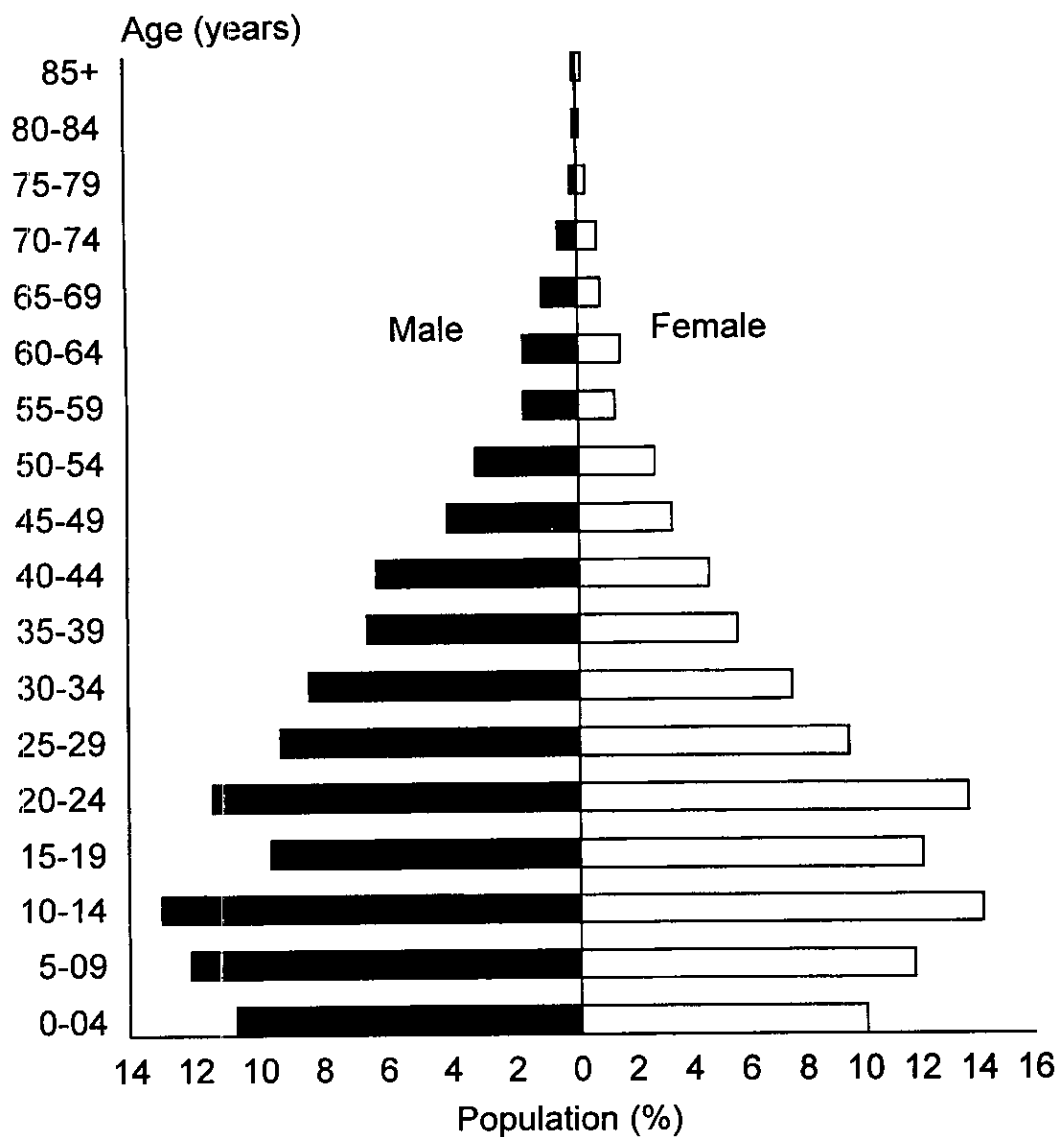
CHAPTER 3

FERTILITY

Table 3.1 shows the per cent of currently married women, who got pregnant, by age groups and type of residence in 1995. Overall, about 16 per cent of the married women got pregnant. As expected, the pregnancy rates were highest in married women aged less than 25 years, and thereafter the rates stedily declined. Not a single woman in the 45-49-year age group got pregnant. The overall pregnancy rate and the age-specific pregnancy rates in most age groups were higher in the slum women than in the non-slum women indicating that the slum women are at a higher risk of pregnancy.

Table 3.2 shows the number of pregnancies and their outcomes in 1995. About 85 per cent of the pregnancies resulted in live-births. The live-birth rate was slightly higher in the slum areas than the non-slum areas (87% vs 84%). The early miscarriage rate was slightly higher in the non-slum population.

Table 4.3 shows the distribution of pregnancies by type of outcome, and live-birth by sex and month of occurrence. There was a seasonal variation in pregnancy outcome, peaking in November-January. The sex ratio of live-births was 88.6 males per 100 females.

Table 3.4 shows the age-specific fertility rates together with the total fertility rate, grneral fertility rate, and gross reproduction rate for the total sample. Table 3.5 shows these rates an indices separately for the slums and non-slum areas. The slum women experienced a much higher fertility regardless of age. The total fertility rates in the total sample, in the slum and in the non-slum smaples were 2.65, 3.50 and 2.14 respectively. It means that, on an average, a slum woman gave birth to about 1.36 more children than a non-slum woman.

20

Table 3.1: Per cent of married women, who were pregnant, by age group and type of residence, 1995

Age group (years)	Slum		Non-Slum		Total	
	No.*	Per cent**	No.*	Per cent**	No.*	Per cent**
10-14	142	49.72	108	54.61	250	51.93
15-19	607	44.62	742	32.12	1349	38.70
20-24	986	23.79	1675	23.15	2661	23.41
25-29	679	17.48	1216	14.63	1895	15.72
30-34	479	8.04	831	9.63	1310	9.05
35-39	354	8.33	554	3.37	908	5.34
40-44	243	0.76	480	1.02	723	0.92
45-49	129	0.00	291	0.00	420	0.00
Total	**3619**	**18.83**	**5899**	**14.22**	**9518**	**16.08**

Note: Data are weighted percentages

*   Number of mid-year marital population.
** Per cent became pregnant during 1995.

Table 3.2: Number and rates of pregnancy outcomes by type of residence, 1995

Type of pregnancy outcome	Both areas		Slum areas		Non-slum areas	
	No.	Rate***	No.	Rate	No.	Rate
Total pregnancies*	1075	115.5	456	150.7	619	94.7
Live-birth pregnancies**	914	852.5	396	868.6	518	837.5
Foetal wastage	161	147.5	60	131.5	101	162.5
Early miscarriage	140	133.4	51	118.4	89	147.5
Late (still-births)	21	14.0	9	13.0	12	15.0
Mult. birth pregnancies		16		4		12
Live-birth pregnancies		16		4		12
Triple live-birth		1		0		1
Two live-birth		12		4		8
One live-birth		3		0		3
Still-birth pregnancies		0		0		0

*   Rates per 1,000 women of age 15-49 years.
**   Ratio per 1,000 total pregnancies
*** These are weighted rates.

Table 3.3: Pregnancy outcomes by month, 1995

Month	All	Miscarriage		Still-birth	Live-*birth	Both sexes	Males	Females	Ratio
		Induced	Spon.						
January	100	4	6	3	87	89	42	47	0.8936
February	79	1	2	1	75	76	37	39	0.9487
March	86	8	3	0	75	76	39	37	1.0541
April	76	5	6	3	62	64	34	30	1.1333
May	94	12	9	1	72	75	30	45	0.6667
June	70	11	4	3	52	53	25	28	0.8929
July	87	10	5	1	71	71	32	39	0.8205
August	85	7	6	0.	72	73	34	39	0.8718
September	90	10	2	2	76	76	41	35	1.1714
October	93	2	3	4	84	86	40	46	0.8696
November	108	6	7	1	94	94	40	54	0.7407
December	107	6	5	2	94	95	42	53	0.7925
All months	**1075**	**82**	**58**	**21**	**914**	**928**	**436**	**492**	**0.8862**

The header spans: "Pregnancy outcome" covers All, Miscarriage (Induced, Spon.), Still-birth, Live-birth. "No. of live born children" covers Both sexes, Males, Females, Ratio.

* For any multiple pregnancy, the outcome is recorded as live-birth if at least one of the issues is live born.

23

Table 3.4: Age-specific fertility rates and indices, 1995

Age group (Years)	No. of live-births	No. of women	ASFR (per 1,000)
15-19*	232	1875	131.0
20-24	327	2223	149.6
25-29	230	1601	134.3
30-34	89	1142	61.7
35-39	43	875	46.0
40-44	6	743	5.9
45-49**	1	504	1.2
All ages	928	8963	100.2

Total fertility rate (TFR)***	=	2649
General fertility rate (GFR)	=	100
Gross reproduction rate (GRR)	=	1427
Net reproduction rate (NRR)	=	1284

* Births of mothers aged less than 15 years were included in this group.

** Births of mothers aged 50 years and above were included in this group.

*** Per 1,000 women

Table 3.5: Age-specific fertility rates and indices by residence, 1995

Age group (Years)	Slum			Non-slum		
	No. of live births	No. of women	ASFR (per 1000)	No. of live births	No. of women	ASFR (per 1000)
Total	400	2906	132.1	528	6057	81.2
15-19	116	604	217.7	116	1271	81.5
20-24	131	686	183.6	196	1537	129.6
25-29	84	525	152.0	146	1076	124.0
30-34	41	388	66.5	48	754	58.8
35-39	26	317	68.9	17	558	30.6
40-44	2	239	11.4	4	504	2.6
45-49	0	147	0.0	1	357	1.8
Total fertility rate (TFR)***			3501			2145
General fertility rate (GFR)			132			81
Gross reproduction rate (GRR)			1921			1181
Net reproduction rate (NRR)			1706			1036

*   Births of mothers aged less than 15 years were included in this group
**   Births of mothers aged 50 years and above were included in this group
*** Per 1,000 women

CHAPTER 4

MORTALITY

Table 4.1 shows the distribution of deaths by age and sex in 1995 in the UPS sample. Table 4.2 shows the distribution of deaths by age, sex, and the type of residence. Table 4.3 shows the age and sex-specific mortality rates for the total sample, and table 4.4 shows the same rates separately for the slum and non-slum samples. The crude death rate (CDR) was 6.1 per 100 population. The infant mortality rate (IMR) was 91.7 per 1,000 live- births which was much higher than the IMR of 65.3 per 1000 live-births observed in the Matlab Demographic Surveillance System (DSS) population in 1995. The higher IMR in the UPS sample was entirely due to a much higher postneonatal mortality rate in urban Dhaka than in Matlab; the neonatal mortality rates were similar. The neonatal mortality rate was higher among females than in males. In contrast, the postneonatal mortality rate was higher among males than females. The CDR and most age-specific mortality rates were higher in the slum sample than in the non-slum sample. However, many of these rates were calculated based on very small numbers and should be treated with caution. The IMR was higher in the slum sample than in the non-slum sample; this was entirely due to a higher postneonatal mortality rate. Mortality of children aged between 1 and 4 years was about 9-fold higher in the slum sample than in the non-slum sample.

The abridged life-tables in table 4.5 to 4.9 show the life expectancy at birth and at various age intervals for the total UPS sample, by sex, by the type of residence, and both sex and the type of residence. The life expectancy at birth was 63 years. There was no marked sex differential in life expectancy in the total sample. The life expectancy at birth was about 4 years more in the non-slum sample than in the slum sample. In the slum sample, life expectancy at birth was about 5 years more for males than for

females. In contrast, in the non-slum sample, life expectancy at birth was 3 years more for females than males. Surprisingly, the slum males had about 2 years higher life expectancy at birth than the non-slum males.

Table 4.10 shows the distribution of deaths by age and month of occurrence. Adult deaths tend to peak in November through January and in May. Neonatal, postneonatal and child mortality also shows some seasonal variation. However, the numbers of deaths by month were small precluding any firm conclusion about the seasonality of deaths.

Table 4.1: Deaths by age and sex, 1995

Age group	Males	Females	Both sexes
Under 1 year	38	39	77
Under 1 month	10	19	29
1-5 months	25	14	39
6-11 months	3	6	9
1-4 years	7	7	14
1	3	5	8
2	2	1	3
3	2	0	2
4	0	1	1
5-9	1	0	1
10-14	1	1	2
15-19	0	2	2
20-24	2	1	3
25-29	0	5	5
30-34	2	1	3
35-39	4	2	6
40-44	3	0	3
45-49	5	1	6
50-54	6	1	7
55-59	8	2	10
60-64	2	5	7
65-69	13	5	18
70-74	6	5	11
75-79	2	4	6
80-84	1	3	4
85+	4	6	10
All ages	105	90	195

Table 4.2: Deaths by age, sex, and type of residence, 1995

Age group	Slum areas			Non-slum areas		
	Males	Females	Both sexes	Males	Females	Both sexes
Under 1 year	20	19	39	18	20	38
Under 1 month	6	8	14	4	11	15
1-5 months	12	7	19	13	7	20
6-11 months	2	4	6	1	2	3
1-4 years	4	6	10	3	1	4
1	3	4	7	0	1	1
2	0	1	1	2	0	2
3	1	0	1	1	0	1
4	0	1	1	0	0	0
5-9	0	0	0	1	0	1
10-14	0	0	0	1	1	2
15-19	0	0	0	0	2	2
20-24	1	0	1	1	1	2
25-29	0	4	4	0	1	1
30-34	1	1	2	1	0	1
35-39	3	1	4	1	1	2
40-44	1	0	1	2	0	2
45-49	2	0	2	3	1	4
50-54	1	.0	1	5	1	6
55-59	2	0	2	6	2	8
60-64	1	4	5	1	1	2
65-69	3	2	5	10	3	13
70-74	1	0	1	5	5	10
75-79	0	2	2	2	2	4
80-84	0	2	2	1	1	2
85+	1	2	3	3	4	7
All ages	41	43	84	64	47	111

Table 4.3: Death rates by age and sex, 1995

Age group	Males	Females	Both sexes
Under 1 year*	104.5	81.1	91.7
Under 1 month*	16.8	44.1	31.9
1-5 months*	85.0	26.7	52.9
6-11 months*	2.4	10.5	6.9
1-4 years	3.3	4.1	3.8
1	11.2	11.3	11.2
2	1.0	1.0	1.0
3	1.5	0.0	0.9
4	0.0	1.9	0.9
5-9	0.1	0.0	0.1
10-14	1.2	0.1	0.6
15-19	0.0	0.4	0.2
20-24	0.6	0.1	0.3
25-29	0.0	1.9	1.0
30-34	0.5	0.6	0.6
35-39	1.8	6.0	3.9
40-44	3.7	0.0	2.1
45-49	10.0	1.2	6.1
50-54	17.8	0.3	9.6
55-59	20.0	12.9	16.6
60-64	10.9	41.5	24.7
65-69	75.1	17.5	51.6
70-74	19.0	53.6	36.3
75-79	94.7	324.0	208.0
80-84	4.5	132.4	68.3
85+	106.1	298.9	215.2
All ages	6.1	6.0	6.1

* Weighted rates per 1,000 live-births.

Table 4.4: Death rates by age, sex, and type of residence, 1995

Age group	Slum areas			Non-slum areas		
	Males	Females	Both sexes	Males	Females	Both sexes
Under 1 year*	123.2	78.4	98.5	86.5	83.9	85.1
Under 1 month*	24.9	35.5	30.8	9.3	52.7	32.9
1-5 months*	94.0	35.0	61.3	76.6	18.0	44.8
6-11 months*	3.7	7.9	6.3	1.2	13.2	7.4
1-4 years	6.2	8.0	7.1	0.7	0.8	0.8
1	23.3	21.2	22.1	0.0	2.6	1.4
2	0.0	2.0	1.0	1.9	0.0	1.0
3	1.9	0.0	1.1	1.2	0.0	0.6
4	0.0	4.1	2.1	0.0	0.0	0.0
5- 9	0.0	0.0	0.0	0.2	0.0	0.1
10-14	0.0	0.0	0.0	2.1	0.2	1.1
15-19	0.0	0.0	0.0	0.0	0.6	0.3
20-24	1.1	0.0	0.5	0.1	0.2	0.1
25-29	0.0	4.4	2.3	0.0	0.6	0.3
30-34	0.7	1.7	1.3	0.3	0.0	0.2
35-39	3.5	7.8	5.7	1.0	4.8	2.8
40-44	1.0	0.0	0.5	5.4	0.0	3.1
45-49	3.5	0.0	2.0	13.9	1.8	8.4
50-54	14.4	0.0	7.6	20.0	0.4	10.8
55-59	10.0	0.0	4.7	23.8	20.8	22.4
60-64	23.8	87.5	49.3	1.5	17.2	9.1
65-69	84.1	61.6	76.9	70.6	5.7	41.8
70-74	7.1	0.0	4.3	29.5	78.2	56.9
75-79	0.0	620.3	278.4	143.6	211.5	179.3
80-84	0.0	271.8	131.5	9.1	8.6	8.8
85+	93.8	595.7	392.4	110.0	195.7	156.1
All ages	6.6	8.0	7.3	5.7	4.7	5.2

*   Weighted rates per 1,000 live-births.

Table 4.5: Abridged life-table, 1995

Age (years)	$_nm_x$	$_nq_x$	l_x	L_x	T_x	$e°$
0	91.7	91.7	100000	93361	6300650	63.0
1	11.2	11.1	90830	90233	6207289	68.3
2	1.0	1.0	89818	89774	6117056	68.1
3	0.9	0.9	89729	89689	6027282	67.2
4	0.9	0.9	89648	89608	5937593	66.2
5	0.1	0.5	89567	447723	5847985	65.3
10	0.6	3.0	89522	446940	5400262	60.3
15	0.2	1.0	89254	446048	4953322	55.5
20	0.3	1.5	89165	445490	4507274	50.5
25	1.0	5.0	89031	444045	4061784	45.6
30	0.6	3.0	88587	442273	3617739	40.8
35	3.9	19.3	88322	437343	3175466	36.0
40	2.1	10.4	86615	430813	2738123	31.6
45	6.1	30.1	85710	422105	2307310	26.9
50	9.6	47.0	83132	405903	1885205	22.7
55	16.6	79.9	79229	380318	1479302	18.7
60	24.7	116.7	72898	343220	1098984	15.1
65	51.6	229.5	64390	285010	755764	11.7
70	36.3	167.1	49614	227348	470754	9.5
75	208.0	662.9	41325	138143	243406	5.9
80	68.3	292.6	13932	59468	105263	7.6
85+	215.2	1000.0	9855	45795	45795	4.6

Table 4.6: Abridged life-table by sex, 1995

Age (years)	Male					Female				
	$_nm_x$	$_nq_x$	l_x	L_x	e^o	$_nm_x$	$_nq_x$	l_x	L_x	e^o
0	104.5	104.5	100000	92434	63.9	81.1	81.1	100000	94128	64.3
1	11.2	11.1	89550	88962	70.4	11.3	11.2	91890	91281	69.0
2	1.0	1.0	88553	88509	70.2	1.0	1.0	90857	90812	68.8
3	1.5	1.5	88464	88398	69.2	0.0	0.0	90767	90767	67.8
4	0.0	0.0	88331	88331	68.3	1.9	1.9	90767	90681	66.8
5	0.1	0.5	88331	441545	67.3	0.0	0.0	90594	452970	66.0
10	1.2	6.0	88287	440115	62.4	0.1	0.5	90594	452858	61.0
15	0.0	0.0	87759	438795	57.7	0.4	2.0	90549	452294	56.0
20	0.6	3.0	87759	438138	52.7	0.1	0.5	90368	51728	51.1
25	0.0	0.0	87496	437480	47.9	1.9	9.5	90323	449480	46.1
30	0.5	2.5	87496	436935	42.9	0.6	3.0	89469	446675	41.5
35	1.8	9.0	87278	434433	38.0	6.0	29.6	89201	439405	36.6
40	3.7	18.3	86495	428510	33.3	0.0	0.0	86561	432805	32.7
45	10.0	48.9	84909	414173	28.9	1.2	6.0	86561	431510	27.7
50	17.8	85.4	80760	386548	25.2	0.3	1.5	86043	429893	22.8
55	20.0	95.5	73859	351658	22.4	12.9	62.6	85914	416120	17.9
60	10.9	53.2	66804	325143	19.5	41.5	188.8	80534	364663	13.9
65	75.1	317.0	63253	266143	15.4	17.5	84.1	65331	312925	11.5
70	19.0	91.0	43204	206195	16.4	53.6	237.3	59839	263695	7.4
75	94.7	382.9	39274	158778	12.8	324.0	824.6	45639	134110	3.9
80	4.5	22.3	24237	119835	14.2	132.4	493.5	8005	30148	5.5
85+	106.1	1000.0	23697	223346	9.4	298.9	1000.0	4054	13563	3.3

Table 4.7: Abridged life-table by type of residence, 1995

Age (years)	Slum					Non-slum				
	$_nm_x$	$_nq_x$	l_x	L_x	$e°$	$_nm_x$	$_nq_x$	l_x	L_x	$e°$
0	98.5	98.5	100000	92869	60.9	85.1	85.1	100000	93839	65.0
1	22.1	21.9	90150	88987	66.6	1.4	1.4	91490	91414	70.1
2	1.0	1.0	88179	88135	67.0	1.0	1.0	91362	91317	69.2
3	1.1	1.1	88091	88043	66.1	0.6	0.6	91271	91244	68.2
4	2.1	2.1	87994	87902	65.2	0.0	0.0	91216	91216	67.3
5	0.0	0.0	87810	439050	64.3	0.1	0.5	91216	455965	66.3
10	0.0	0.0	87810	439050	59.3	1.1	5.5	91170	454600	61.3
15	0.0	0.0	87810	439050	54.3	0.3	1.5	90670	453010	56.6
20	0.5	2.5	87810	438500	49.3	0.1	0.5	90534	452558	51.7
25	2.3	11.4	87590	435445	44.4	0.3	1.5	90489	452105	46.7
30	1.3	6.5	86588	431538	39.9	0.2	1.0	90353	451540	41.8
35	5.7	28.1	86027	424085	35.2	2.8	13.9	90263	448175	36.8
40	0.5	2.5	83607	417515	31.1	3.1	15.4	89007	441613	32.3
45	2.0	10.0	83399	414918	26.2	8.4	41.2	87638	429163	27.8
50	7.6	37.3	82568	405133	21.4	10.8	52.7	84027	409070	23.9
55	4.7	23.2	79485	392805	17.2	22.4	106.4	79601	376830	20.1
60	49.3	220.4	77637	345413	12.5	9.1	44.6	71131	347733	17.1
65	76.9	323.3	60528	253720	10.3	41.8	190.0	67962	307523	12.8
70	4.3	21.3	40960	202620	9.1	56.9	250.1	55047	240823	10.2
75	278.4	772.3	40088	123038	4.2	179.3	605.8	41282	143883	7.8
80	131.5	491.1	9127	34430	5.1	8.8	43.1	16271	79603	11.0
85+	392.4	1000.0	4645	11837	2.5	156.1	1000.0	15570	99744	6.4

Table 4.8: Abridged life-table for slum population by sex, 1995

Age (years)	Male $_nm_x$	Male $_nq_x$	Male l_x	Male L_x	Male $e°$	Female $_nm_x$	Female $_nq_x$	Female l_x	Female L_x	Female $e°$
0	123.2	123.2	100000	91080	66.4	78.4	78.4	100000	94324	61.1
1	23.3	23.0	87680	86488	74.7	21.2	21.0	92160	91019	65.2
2	0.0	0.0	85660	85660	75.4	2.0	2.0	90226	90136	65.6
3	1.9	1.9	85660	85579	74.4	0.0	0.0	90046	90046	64.8
4	0.0	0.0	85498	85498	73.6	4.1	4.1	90046	89862	63.8
5	0.0	0.0	85498	427490	72.6	0.0	0.0	89678	448390	63.0
10	0.0	0.0	85498	427490	67.6	0.0	0.0	89678	448390	58.0
15	0.0	0.0	85498	427490	62.6	0.0	0.0	89678	448390	53.0
20	1.1	5.5	85498	426318	57.6	0.0	0.0	89678	448390	48.0
25	0.0	0.0	85029	425145	52.9	4.4	21.8	89678	443508	43.0
30	0.7	3.5	85029	424403	47.9	1.7	8.5	87725	436768	38.9
35	3.5	17.4	84732	419983	43.1	7.8	38.3	86982	426580	34.2
40	1.0	5.0	83261	415265	38.8	0.0	0.0	83650	418250	30.5
45	3.5	17.4	82845	410630	33.9	0.0	0.0	83650	418250	25.5
50	14.4	69.7	81407	392858	29.5	0.0	0.0	83650	418250	20.5
55	10.0	48.9	75736	369428	26.5	0.0	0.0	83650	418250	15.5
60	23.8	112.7	72035	339883	22.8	87.5	359.4	83650	343095	10.5
65	84.1	348.0	63918	263980	20.3	61.6	267.9	53588	232050	10.0
70	7.1	34.9	41674	204733	24.9	0.0	0.0	39232	196160	7.7
75	0.0	0.0	40219	201095	20.7	620.3	960.3	39232	101970	2.7
80	0.0	0.0	40219	201095	15.7	271.8	763.6	1556	4810	3.5
85+	93.8	1000.0	40219	428774	10.7	595.7	1000.0	368	618	1.7

Table 4.9: Abridged life-table for non-slum population by sex, 1995

Age (years)	Male $_nm_x$	$_nq_x$	l_x	L_x	e^o	Female $_nm_x$	$_nq_x$	l_x	L_x	e^o
0	86.5	86.5	100000	93737	64.1	83.9	83.9	100000	93926	67.1
1	0.0	0.0	91350	91350	69.2	2.6	2.6	91610	91470	72.3
2	1.9	1.9	91350	91264	68.2	0.0	0.0	91372	91372	71.4
3	1.2	1.2	91177	91122	67.3	0.0	0.0	91372	91372	70.4
4	0.0	0.0	91067	91067	66.4	0.0	0.0	91372	91372	69.4
5	0.2	1.0	91067	455108	65.4	0.0	0.0	91372	456860	68.4
10	2.1	10.4	90976	452505	60.5	0.2	1.0	91372	456633	63.4
15	0.0	0.0	90026	450130	56.1	0.6	3.0	91281	455720	58.5
20	0.1	0.5	90026	450018	51.1	0.2	1.0	91007	454808	53.7
25	0.0	0.0	89981	449905	46.1	0.6	3.0	90916	453900	48.7
30	0.3	1.5	89981	449568	41.1	0.0	0.0	90644	453220	43.9
35	1.0	5.0	89846	448110	36.2	4.8	23.7	90644	447840	38.9
40	5.4	26.7	89398	441030	31.3	0.0	0.0	88492	442460	34.8
45	13.9	67.3	87014	420425	27.1	1.8	9.0	88492	440478	29.8
50	20.0	95.5	81156	386400	23.9	0.4	2.0	87699	438058	25.0
55	23.8	112.7	73404	346340	21.1	20.8	99.2	87524	415923	20.0
60	1.5	7.5	65132	324443	18.5	17.2	82.7	78845	377928	17.0
65	70.6	301.0	64645	274585	13.6	5.7	28.1	72326	356545	13.3
70	29.5	137.9	45189	210368	13.4	78.2	327.8	70292	293855	8.6
75	143.6	522.7	38958	143878	10.2	211.5	669.3	47250	157193	6.6
80	9.1	44.6	18593	90895	13.6	8.6	42.2	15627	76488	9.8
85+	110.0	1000.0	17765	161500	9.1	195.7	1000.0	14968	76484	5.1

Table 4.10: Deaths by age and month, 1995

Month	All ages	Under 1 month	1-11 months	1-4 years	5 years and over
January	22	1	7	0	14
February	15	1	2	2	10
March	12	0	3	2	7
April	19	2	9	2	6
May	26	6	5	5	10
June	13	2	2	1	8
July	9	1	4	0	4
August	9	3	0	0	6
September	9	2	1	0	6
October	15	2	1	0	12
November	21	5	3	2	11
December	25	4	11	0	10
Total	**195**	**29**	**48**	**14**	**104**

CHAPTER 5

MARRIAGE AND DIVORCE

Table 5.1 shows the marriage rates by age and sex, irrespective of previous marital status. For men, the marriage rate peaked in the age group 25-29 years; thereafter the rates declined. For women, the marriage rate peaked in the age group 15-19 years. Table 5.2 and 5.3 show the marriage rates by age and sex for the slum and non-slum population respectively. For both men and women, the age-at-marriage seems to lower for the slum population than the non-slum population.

Table 5.4 shows the percentage distribution of the total UPS population by marital status and age. About 90 per cent of the population aged 30 to 44 years were currently married. Twenty-seven per cent of the population aged 45 years or more were widowed.

Table 5.5 and 5.6 show the percentage distribution of the male and female population respectively by marital status and age. Compared to men, many more women were widowed. Overall, 10 per cent of the women were widowed, and another 3 per cent were deserted. About one of the five women aged 40-44 years and more than half the women aged 45 years or more were widowed. The rate of desertion was double among the slum women than among the non-slum women (4% vs. 2%).

Table 5.7 and figure 5.1 show the distribution of marriages and divorces by month. January, March and May appear to be the peak month for marriages. The number of divorces was few precluding study of seasonal pattern of divorces.

Table 5.1   Marriage rates by age and sex, 1995

Age group (years)	Male			Female		
	Marriages	Mid-year population	Rate*	Marriages	Mid-year population	Rate*
10-14	0	2232	0.0	57	2216	23.1
15-19	31	1576	19.5	141	1875	75.3
20-24	68	1684	32.7	78	2223	33.1
25-29	70	1509	46.9	13	1601	13.8
30-34	41	1367	29.4	1	1142	0.6
35-39	7	985	4.9	1	875	0.3
40-44	6	991	7.7	0	743	0.0
45+	6	1347	7.1	0	1149	0.0
Total	**229**	**11691**	**18.5**	**291**	**11824**	**24.3**

*   Weighted rates per 1,000 population irrespective of previous marital status.

Table 5.4: Per cent distribution of marital status by age, 1995

Characteristic	Never married	Currently married	Divorced	Widowed	Seperated	Deserted	Total	Number
Age group (years)								
10-14	96.0	3.0	0.0	0.0	0.0	0.0	100.00	4448
15-19	72.0	27.0	1.0	0.0	0.0	1.0	100.00	3451
20-24	40.0	56.0	1.0	0.0	0.0	2.0	100.00	3907
25-29	19.0	76.0	1.0	1.0	0.0	2.0	100.00	3110
30-34	5.0	89.0	1.0	2.0	0.0	2.0	100.00	2509
35-39	1.0	91.0	1.0	6.0	0.0	3.0	100.00	1860
40-44	1.0	89.0	1.0	9.0	1.0	2.0	100.00	1734
45+	0.0	71.0	0.0	27.0	1.0	1.0	100.00	3634
Residence								
Slum	33.0	60.0	1.0	5.0	0.0	2.0	100.00	8091
Non-slum	39.0	53.0	1.0	6.0	0.0	1.0	100.00	16562
Total	37.0	55.0	1.0	5.0	0.0	1.0	100.00	24653

Note: Data are weighted percentages.

Table 5.5: Per cent distribution of male population by age, marital status, and type of residence, 1995

Charac-teristic	Never married	Currently married	Divorced	Widowed	Sepe-rated	Deser-ted	Total	Number
Age groups (years)								
10-14	100.0	0.0	0.0	0.0	0.0	0.0	100.00	2232
15-19	96.0	4.0	0.0	0.0	0.0	0.0	100.00	1576
20-24	70.0	30.0	0.0	0.0	0.0	0.0	100.00	1684
25-29	33.0	66.0	0.0	0.0	0.0	1.0	100.00	1509
30-34	9.0	90.0	0.0	0.0	0.0	0.0	100.00	1367
35-39	2.0	98.0	0.0	0.0	0.0	0.0	100.00	985
40-44	1.0	99.0	0.0	0.0	0.0	0.0	100.00	991
45+	0.0	96.0	0.0	3.0	0.0	0.0	100.00	1972
Residence								
Slum	42.0	58.0	0.0	1.0	0.0	0.0	100.00	4106
Non-slum	47.0	52.0	0.0	1.0	0.0	0.0	100.00	8210
Total	**45.0**	**54.0**	**0.0**	**1.0**	**0.0**	**0.0**	**100.00**	**12316**

Note: Data are weighted percentages.

Table 5.6: Per cent distribution of female population by age, marital status, and type of residence, 1995

Charac-teristic	Never married	Current married	Divorced	Widowed	Seperated	Deserted	Total	Number
Age groups (years)								
10-14	93.0	7.0	0.0	0.0	0.0	0.0	100.00	2216
15-19	53.0	45.0	1.0	0.0	0.0	2.0	100.00	1875
20-24	17.0	78.0	2.0	1.0	0.0	3.0	100.00	2223
25-29	6.0	87.0	2.0	2.0	0.0	3.0	100.00	1601
30-34	2.0	87.0	2.0	4.0	1.0	4.0	100.00	1142
35-39	1.0	81.0	1.0	11.0	1.0	5.0	100.00	875
40-44	0.0	73.0	1.0	20.0	1.0	5.0	100.00	743
45+	0.0	40.0	1.0	55.0	1.0	2.0	100.00	1662
Residence								
Slum	23.0	62.0	1.0	10.0	0.0	4.0	100.00	3985
Non-slum	32.0	54.0	1.0	10.0	0.0	2.0	100.00	8352
Total	**29.0**	**57.0**	**1.0**	**10.0**	**0.0**	**3.0**	**100.00**	**12337**

Note: Data are weighted percentages.

44

Table 5.7:   Marriages and divorces by month, 1995

Month	Marriage		Divorce	
	No.	Per cent	No.	Per cent
January	58	11.2	1	2.0
February	22	5.5	1	1.2
March	65	13.7	5	23.5
April	38	6.4	4	7.5
May	65	11.5	4	12.2
June	36	7.9	1	9.4
July	41	9.0	1	1.2
August	37	7.2	3	3.5
September	35	5.8	3	20.4
October	47	9.6	3	17.6
November	33	5.1	2	1.6
December	43	7.1	0	0.0
Total	**520**	**100.0**	**28**	**100.0**

Fig. 5.1: Marriages and divorces by month, 1995
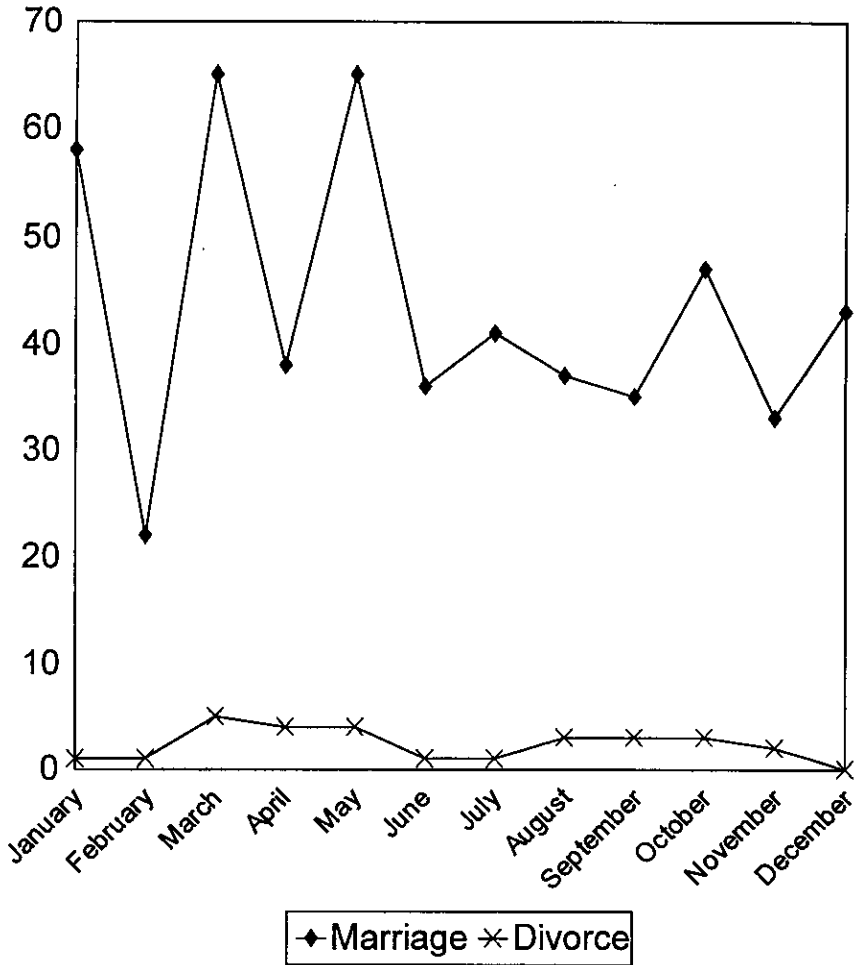
CHAPTER 6

MIGRATIONS

The UPS System requires a two-month continuous residency of an individual in one of its clusters to be eligible for registration. An out-migrant is defined as a person who was registered in the UPS system as a resident or who became a resident by birth and subsequently moved out of the surveillance area and did not come back within two months. An in-migrant is an individual who moved into the surveillance area and fulfilled the two-month residency requirement. These definitions refer to the surveillance clusters which are parts of larger neighbourhoods, and a household or individual may often move out of a surveillance cluster, but may still be living in the same neighbourhood.

Table 6.1 shows the number of in- and out-migrants by age and sex. Table 6.2 and 6.3 show the number of in- and out-migrants for the slum and non-slum population respectively by age and sex. The female in- and out-migrants outnumbered the male in- and out-migrants in both the slum and non-slum population.

Table 6.4 shows the in- and out-migration rates by age and sex. The in-migration rate in the total sample was 346.4 per 1,000 population, and the out-migration rate was 366.7 per 1,000 population. These rates are about 10 times higher than the rates observed at rural Matlab. The net loss of migrants was about 22 per 1,000 population which was entirely due to net loss in the slum population. The in- and out-migration rates in both males and females were higher in the slum population than in the non-slum population.

Table 6.7 shows the number of in- and out-migrations by sex and month. There was no definite seasonal pattern of movements.

47

Table 6.1:   In- and out-migration by age and sex, 1995

Age group	In-migration			Out-migration		
(years)	Both sexes	Males	Females	Both sexes	Males	Females
Under 5	1727	854	873	1827	935	892
0	406	207	199	415	205	210
1	351	169	182	402	204	198
2	344	159	185	354	183	171
3	318	162	156	327	156	171
4	308	157	151	329	187	142
5-9	1506	731	775	1541	746	795
10-14	1404	623	781	1549	712	837
15-19	1449	509	940	1462	490	972
20-24	1446	500	946	1523	601	922
25-29	1219	646	573	1331	706	625
30-34	903	560	343	946	565	381
35-39	699	408	291	755	468	287
40-44	422	254	168	458	265	193
45-49	307	187	120	319	182	137
50-54	212	116	96	259	149	110
55-59	148	78	70	158	84	74
60-64	119	67	52	116	62	54
65+	151	60	91	196	85	111
Total	11712	5593	6119	12440	6050	6390

Table 6.2:   In-migration by age, sex, and type of residence, 1995

Age group	Slum			Non-slum		
(years)	Both sexes	Males	Females	Both sexes	Males	Females
Under 5	769	362	407	958	492	466
0	176	84	92	230	123	107
1	161	68	93	190	101	89
2	151	64	87	193	95	98
3	134	69	65	184	93	91
4	147	77	70	161	80	81
5-9	660	319	341	846	412	434
10-14	543	277	266	861	346	515
15-19	600	208	392	849	301	548
20-24	532	199	333	914	301	613
25-29	484	258	226	735	388	347
30-34	348	205	143	555	355	200
35-39	289	164	125	410	244	166
40-44	180	107	73	242	147	95
45-49	132	91	41	175	96	79
50-54	105	55	50	107	61	46
55-59	62	26	36	86	52	34
60-64	58	35	23	61	32	29
65+	57	24	33	94	36	58
Total	**4819**	**2330**	**2489**	**6893**	**3263**	**3630**

Table 6.3: Out-migration by age, sex, and type of residence, 1995

Age group (years)	Slum			Non-slum		
	Both sexes	Males	Females	Both sexes	Males	Females
Under 5	854	417	437	973	518	455
0	207	99	108	208	106	102
1	176	84	92	226	120	106
2	159	72	87	195	111	84
3	155	72	83	172	84	88
4	157	90	67	172	97	75
5-9	736	351	385	805	395	410
10-14	621	316	305	928	396	532
15-19	643	223	420	819	267	552
20-24	624	266	358	899	335	564
25-29	542	292	250	789	414	375
30-34	399	229	170	547	336	211
35-39	314	196	118	441	272	169
40-44	208	124	84	250	141	109
45-49	127	63	64	192	119	73
50-54	119	70	49	140	79	61
55-59	69	39	30	89	45	44
60-64	54	27	27	62	35	27
65+	69	32	37	127	53	74
Total	**5379**	**2645**	**2734**	**7061**	**3405**	**3656**

Table 6.4: Age and sex-specific in- and out-migration rates, 1995
(Per 1,000 population)

Age group (years)	Both sexes		Males		Females	
	In	Out	In	Out	In	Out
Under 5	428.3	433.0	442.3	437.2	414.3	428.7
0	491.4	458.5	542.0	454.5	444.1	462.3
1	427.5	448.0	437.2	477.2	419.5	424.1
2	431.2	471.9	415.1	451.6	448.6	493.6
3	417.9	386.0	404.7	348.3	434.3	432.8
4	370.5	397.7	411.1	457.4	329.3	336.7
5-9	335.3	329.3	325.5	323.7	344.9	334.8
10-14	308.4	342.1	271.9	312.0	344.8	371.9
15-19	417.2	448.6	311.7	337.8	501.1	536.8
20-24	359.8	382.3	258.6	353.3	441.0	405.6
25-29	392.8	414.5	441.1	438.8	347.2	391.5
30-34	363.3	363.3	430.5	418.4	289.8	302.9
35-39	334.9	370.7	364.0	435.9	304.9	303.4
40-44	239.2	267.8	244.7	254.8	232.3	284.7
45-49	245.1	280.7	252.1	250.7	236.2	318.0
50-54	251.8	263.1	261.1	289.6	241.2	233.5
55-59	303.1	368.6	316.5	360.1	288.6	378.1
60-64	219.5	243.0	236.4	225.9	198.9	264.0
65+	240.0	322.9	182.0	245.8	305.9	410.8
Total	**346.4**	**366.7**	**329.7**	**353.3**	**362.8**	**379.9**

Note: Data are weighted rates.

Table 6.5: Age and sex-specific in- and out-migration rates in slums, 1995 (Per 1,000 population)

Age group (years)	Both sexes		Males		Females	
	In	Out	In	Out	In	Out
Under 5	473.3	512.2	470.2	507.5	476.3	516.7
0	512.5	562.4	592.1	579.7	444.9	547.8
1	501.7	499.5	464.4	526.1	532.8	477.4
2	462.5	531.7	419.2	437.3	506.2	626.8
3	452.1	481.4	399.8	435.1	522.2	544.4
4	430.7	480.8	484.2	568.8	377.7	393.5
5-9	378.2	405.5	365.4	380.5	391.2	430.8
10-14	338.8	402.1	319.2	381.8	362.1	426.3
15-19	534.8	604.9	373.6	458.8	673.4	730.5
20-24	390.3	488.6	303.3	493.1	460.4	485.0
25-29	475.7	522.0	527.9	574.9	426.2	472.1
30-34	409.3	450.3	459.4	489.1	353.4	406.8
35-39	445.9	484.2	476.6	614.1	418.1	365.1
40-44	324.9	375.9	316.3	358.2	335.6	398.1
45-49	340.1	387.4	391.2	298.0	270.6	508.8
50-54	394.1	353.0	403.9	361.9	382.5	343.0
55-59	360.2	547.0	325.5	684.5	392.2	426.0
60-64	328.8	325.8	372.8	262.7	261.3	420.2
65+	285.1	369.6	179.9	278.0	445.8	508.3
Total	**410.3**	**461.6**	**388.0**	**445.5**	**433.1**	**478.1**

Note: Data are weighted rates.

Table 6.6: Age and sex-specific in- and out-migration rates in non-slums, 1995 (Per 1,000 population)

Age group (years)	Both sexes		Males		Females	
	In	**Out**	**In**	**Out**	**In**	**Out**
Under 5	436.0	407.1	478.0	429.8	394.7	384.8
0	536.3	416.2	626.1	441.9	460.2	394.4
1	399.1	444.7	450.0	472.6	356.8	421.4
2	402.8	414.9	440.7	497.2	365.3	332.0
3	437.2	339.3	428.1	277.7	448.7	423.9
4	400.6	411.7	451.6	472.4	350.1	351.5
5-9	352.3	311.9	339.2	320.2	365.6	303.5
10-14	416.2	435.3	291.5	319.2	564.8	573.6
15-19	573.1	586.4	419.1	400.2	705.5	746.5
20-24	580.7	543.1	391.8	456.6	733.3	612.9
25-29	592.4	605.3	671.4	618.8	517.7	592.5
30-34	564.6	523.4	680.7	619.0	433.8	416.0
35-39	436.0	492.3	540.0	603.5	340.5	390.0
40-44	293.1	315.8	325.4	310.1	252.8	323.0
45-49	331.9	382.1	274.7	364.4	409.0	406.2
50-54	242.2	311.8	256.9	370.9	225.8	245.8
55-59	524.3	529.0	704.5	485.8	365.7	567.0
60-64	236.6	300.2	185.4	270.7	313.3	344.5
65+	420.2	579.4	291.7	358.9	616.6	916.5
Total	**453.2**	**452.6**	**419.3**	**419.7**	**487.8**	**486.3**

Note: Data are weighted rates.

Table 6.7:   In- and out-migration by sex and month, 1995

Months	In-migration			Out-migration		
	Both	**Male**	**Female**	**Both**	**Male**	**Females**
January	985	461	524	1049	505	544
February	857	411	446	710	342	368
March	783	370	413	1104	537	567
April	788	381	407	996	485	511
May	975	450	525	1210	563	647
June	805	373	432	1041	498	543
July	1122	552	570	955	483	472
August	1110	540	570	1191	582	609
September	1081	530	551	1218	610	608
October	1189	581	608	1018	488	530
November	924	438	486	997	492	505
December	1093	506	587	951	465	486
All months	**11712**	**5593**	**6119**	**12440**	**6050**	**6390**

CHAPTER 7

CONTRACEPTION

Contraceptive Prevalence Rate (CPR) is defined as the proportion of currently married couples who reported that they were using a family planning method at the time of interview. Table 7.1 presents the contraceptive use status and method-mix in the UPS sample for four quarterly rounds of 1995 by the type of residence. About 52 to 54 per cent of the currently married couples were using a method. The overall CPR rose by about 2 per cent over the year which is consistent with the national trend. The increase was more marked in the slum sample than the non-slum sample. There was a major differential in the CPR between the slum and non-slum population; the CPR was 12 to 16 per cent lower in the slum population than in the non-slum population. Pill was the most popular method among both the slum and non-slum population followed by condom. The condom and IUD use rates were higher among the non-slum population, and the injectable use rate was higher among the slum population. About 5-7 per cent of the couples were using traditional methods.

Table 7.2 shows the percentage distribution of 1995 mid-year married women by contrceptive method currently used, according to age. The pattern of current use shows a peak at age 30-39 years. The lower prevaence among younger women may reflect their desire for a child and in older women may reflect declining fecundity. The methods that women use vary greatly by age. Condom was the most commonly used method among the married girls aged 10-14 years. Pill followed by condom was the most commonly used method among the women aged 15-34 years. The IUD and injectabe use rates were highest among the women aged 25-34 years. The male sterilization rates were negligible. Overall, 7.3 per cent of the women were sterilized; about one of the four women aged 40-44 years and about one of the five women aged 45-49 years were

sterilized. More than 10 per cent of the women aged 35-44 years were using traditional methods.

Table 7.3 shows the current use of family planning by selected background characteristics. Use of any method was 13 per cent higher in the non-slum areas than in the slum areas (58% vs. 45%). The use of modern methods was 14 per cent higher in the non-slum areas than in the slum areas (52% vs. 38%). Pill was the most popular method in both the slum and non-slum areas. The condom use rate was about four times higher in the non-slum areas than in the slum areas. The CPR was similar among women with no formal schooling and among those who did not complete primary school. The CPR was about 6 per cent higher among women who completed primary school and about 20 per cent higher among those with secondary and higher secondary education. Less-educated women were more often sterilized and more educated women more often used condoms and IUDs. About 30 per cent of the women with secondary or higher secondary education were using condoms. More educated women are also more likely to use traditional methods. The CPR was as low as about 12 per cent of currently married women with no children. The current use rate rose steadily with parity and was about 65 percent for those with with three children. After that the CPR declined to 61 percent for women with four or more children. This decline may be partly due to women's actual or perceived infecundity at higher parities.

Table 7.1: Round-wise use of family planning methods by type of residence, 1995

Family planning methods	Round 1			Round 2			Round 3			Round 4		
	Slum	Non-slum	Total	Slum	Non-slum	Total	Slum	Non-slum	Total	Slum	Non-slum	Total
Number of eligible (*) women	1,744	3,104	4,848	1,660	3,228	4,888	1,633	3,312	4,945	1,681	3,268	4,949
Modern methods:												
Female sterilization	6.9	6.8	6.9	7.4	7.2	7.3	6.6	7.6	7.2	7.3	7.6	7.5
Male sterilization	0.7	0.4	0.5	0.5	0.3	0.4	0.7	0.5	0.6	0.5	0.5	0.5
Norplan	0.1	0.3	0.2	0.1	0.2	0.2	0.1	0.3	0.3	0.2	0.1	0.2
IUD	2.8	5.5	4.4	2.5	4.5	3.7	2.4	4.5	3.7	2.4	4.5	3.7
Injection	6.0	4.0	4.8	5.6	3.7	4.4	4.4	2.9	3.5	5.3	3.7	4.3
Pill	18.7	23.3	21.4	18.8	22.1	20.8	20.8	20.8	20.8	21.9	21.7	21.8
Condom	3.0	11.9	8.3	3.6	13.6	9.7	4.2	13.9	10.2	4.4	13.7	10.2
Total (modern methods)	38.4	52.6	46.8	38.7	51.9	46.8	39.5	50.7	46.5	42.3	52.2	48.4
Other methods	4.9	6.6	5.9	6.1	6.0	6.1	4.9	5.8	5.4	4.5	7.1	6.1
Total	**43.3**	**59.2**	**52.7**	**44.9**	**58.0**	**52.9**	**44.5**	**56.5**	**52.0**	**46.9**	**59.3**	**54.6**

(*)   Denominator is currently married women (aged between 10-49 years) including pregnant women.

Table 7.2: Per cent distribution of currently married women by contraceptive method currently used, according to age, 1995*

Age groups (years)	Modern method								Traditional method				Not curre ntly using	No. of women
	Any method	Modern method	Pill	IUD	Injec- tion	Con- dom	Female sterili- zation	Male sterili- zation	Any trad. method	Periodic absti- nence	With- drawal	Other		
10-14	8.3	8.3	1.5	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	91.7	37
15-19	37.7	32.4	21.5	1.8	2.6	6.5	0.0	0.0	5.3	3.6	1.6	0.0	62.3	570
20-24	46.9	42.4	23.5	3.7	4.6	9.4	0.9	0.0	4.5	2.6	1.5	0.4	53.1	1112
25-29	57.5	52.8	24.6	5.0	5.0	13.4	4.6	0.1	4.8	3.3	1.2	0.2	42.5	1093
30-34	61.4	57.0	24.8	6.0	6.5	10.4	8.7	0.2	4.4	2.5	1.2	0.7	38.6	785
35-39	61.9	51.5	17.6	4.1	4.4	9.9	13.9	1.1	10.4	8.1	1.7	0.6	38.1	656
40-44	60.1	48.3	11.6	1.2	4.9	5.5	23.3	1.8	11.8	7.4	3.7	0.6	39.9	364
45-49	42.8	35.5	5.7	0.4	0.7	7.3	19.0	1.3	7.2	4.3	1.4	1.5	57.2	271
Total	52.9	46.8	20.9	3.8	4.5	9.7	7.3	0.4	6.1	4.0	1.6	0.5	47.1	4888

* Currently married mid-year population of 1995 was used as the denominator and the number of women by method during April-June 1995 (UPS 2nd round) was used as the numerator.

58

Table 7.3: Current use of family planning by background characteristics, 1995*

Background characteristic	Modern method								Traditional method					
	Any method	Any modern method	Pill	IUD	Injec- tion	Con- dom	Female sterili- zation	Male sterili- zation	Any trad. method	Periodic absti- nence	With- drawal	Other	Not curre ntly using	No. of women
Residence														
Slum	45.0	38.0	18.8	2.5	5.7	3.6	7.4	0.5	6.2	4.1	1.2	0.8	55.0	1660
Non-slum	58.0	52.0	22.2	4.6	3.7	13.7	7.2	0.3	6.0	4.0	1.8	0.2	42.0	3228
Education														
No education	49.2	43.3	19.9	2.8	6.8	3.4	9.3	0.8	5.9	4.0	1.1	0.8	50.8	2148
Primary incomp.	48.1	44.0	22.8	1.5	4.3	6.1	8.7	0.2	4.1	2.8	0.7	0.7	51.9	728
Primary comp.	54.8	49.0	23.0	4.7	2.7	13.2	5.2	0.0	5.8	3.7	2.1	0.0	45.2	1543
Secondary/Higher	68.4	58.3	16.6	8.1	0.1	30.3	3.3	0.0	10.1	6.9	3.1	0.0	31.6	469
Number of living Children														
0	12.3	11.6	4.0	0.0	0.1	7.2	0.1	0.1	0.8	0.7	0.0	0.1	87.7	526
1	46.7	39.7	24.0	2.7	3.1	9.1	0.4	0.0	7.0	4.5	2.5	0.1	53.3	1058
2	61.2	55.2	26.2	5.7	4.7	13.6	4.1	0.7	6.0	4.8	1.2	0.0	38.8	1104
3	64.9	59.8	24.5	5.3	6.4	13.6	9.6	0.4	5.1	2.1	2.3	0.8	35.1	807
4+	61.0	52.8	18.9	3.7	6.1	5.8	17.0	0.6	8.2	5.7	1.4	1.1	39.0	1393
Total	**52.9**	**46.8**	**20.9**	**3.8**	**4.5**	**9.7**	**7.3**	**0.4**	**6.1**	**4.0**	**1.6**	**0.5**	**47.1**	**4888**

* Currently married mid-year population of 1995 was used as the denominator and the number of women by method during April-June 1995 (UPS 2nd round) was used as the numerator.

CHAPTER 8

SOURCES OF MCH-FP SERVICES

Like the rural family planning programme, the urban programme is also largely dependent on the coverage of the operation of field workers (FW). The program requires the FWs to make two monthly home visits to all households in their assigned areas to provide information on the needs and sources of MCH-FP services, to motivate families to use the services, and to distribute temporary modern family planning methods. However, the FWs often fail to visit all the couples, and the contact rates vary substantially for different types of clients.

Using October-December 1995 (round 4) data, the percentage distribution of currently married women who were visited by a family planning field worker in three months prior to the survey and the services received by selected background characteristics and contraceptive use status are shown in table 8.1. Some women are more likely to have been visited than others by a FW. Younger women are less likely to have been visited presumably, because they are more likely to want to become pregnant. The older women are less likely to be visited presumably, because they are more likely to be infecund or sterilized. The slum and non-slum women are more or less equally likely to be visited by a FW. The contraceptive users were substantially more likely to be visited than the non-users. Among the users, the FW visitation rates were higher for the users of pills, condoms, and injectables. More than half of the pill and condom users received supplies from the FWs.

Table 8.2 shows the distribution of births by the place of delivery and by selected characteristics of the mother. About 68 per cent of the deliveries occurred at home, about 20 per cent in government hospital, 7.4 per cent in a private clinic, and 3.8 per cent in a NGO clinic. Slum women are more likely to deliver at home. In contrast, non-slum women

more often delivered either in a government hospital or in a private clinic. Educated women are much more likely to deliver in a health facility.

Table 8.3 shows the percent distribution of births by the type of assistance received during delivery, according to selected background characteristics of the mother. If a mother was assisted by more than one provider, the most qualified provider was recorded. Surprisingly, 9.3 per cent of the deliveries were not attended by any one. About 47 per cent of the deliveries were attended by an untrained birth attendant, and 10 per cent by a trained birth attendant. About 30 per cent of the deliveries were attended by a health professional, mostly doctors. The slum women were about twice more likely to be assisted by an untrained birth attendant than the non-slum women. As expected, the non-slum women were substantially more likely to be assisted by a doctor than the slum women. Similarly, the uneducated or less-educated women were more often assisted by an untrained birth attendant, and more educated women were more often assisted by a health professional, e.g. doctor or midwife or nurse. To reduce the health risks of mothers and new-born babies, it would be important to increase the proportion of deliveries in health facilities and increase the proportion of deliveries attended by a trained health professional.

Table 8.1 **Percentage of currently married women who were visited by a family planning field worker in three months prior to the survey and the services received by selected background characteristics and contraceptive use status, 1995**

Background characteristic/ Contraceptive use status	Number of eligible women	% visited in last 3 months	Among currently married women visited by a FW in last three months *				
			Discussed FP (%)	Received supplies** (%)	Maternal health (%)	Child health (%)	Mean no. of visit
Age group (years)							
10-14	37	8.8	96.0	0.0	0.0	0.0	1.2
15-19	571	39.8	73.3	16.4	5.2	60.4	1.3
20-24	1110	54.9	69.4	14.6	10.8	64.3	1.3
25-29	1092	55.9	75.1	17.7	5.6	53.8	1.4
30-34	780	50.2	77.4	19.3	4.2	35.3	1.3
35-39	643	48.5	75.8	22.0	9.3	25.9	1.2
40-44	351	33.3	54.0	14.1	2.7	10.0	1.2
45-49	262	25.9	63.4	10.6	8.0	.05	1.1
Residence							
Slum	1646	47.7	72.4	13.7	7.2	55.4	1.4
Non-slum	3200	48.3	72.7	19.5	7.0	40.5	1.3
Education							
No education	2119	46.6	71.6	14.6	6.5	45.8	1.3
Primary incomplete	720	48.0	73.2	13.0	6.7	53.8	1.3
Primary complete	1539	52.0	71.1	19.2	6.4	45.4	1.3
Secondary/higher	468	43.3	80.4	27.8	12.1	41.9	1.2
Number of living children							
0	525	18.3	56.3	3.2	22.6	0.9	1.2
1	1061	52.0	70.0	16.0	7.8	63.1	1.3
2	1098	54.2	74.4	19.9	7.9	52.5	1.3
3	803	57.7	73.6	16.4	5.2	46.1	1.3
4	579	48.3	73.0	18.9	6.9	26.8	1.3
5+	780	45.6	76.9	18.5	2.2	38.3	1.3

62

Table 8.1   Percentage of currently married women who .... (cont. from previous page)

Background characteristic/ Contraceptive use status	Number of eligible women	% visited in last 3 months	Among currently married women visited by a FW in last three months *				
			Discussed FP (%)	Received supplies** (%)	Maternal health (%)	Child health (%)	Mean no. of visit
Contraceptive use status							
User	2577	56.7	79.6	26.8	4.1	44.8	1.3
Female sterilization	329	35.7	37.6	0.0	9.8	25.3	1.3
Male sterilizationn	18	7.4	100.0	0.0	0.0	0.0	1.3
IUD	164	53.3	81.9	0.0	10.3	41.2	1.2
Injection	217	62.3	81.5	2.2	2.9	61.5	1.4
Pill	1066	64.9	86.3	38.3	2.0	46.1	1.3
Condom	462	60.6	84.7	42.0	5.9	47.0	1.3
Periodic abstin.	202	46.6	68.5	10.0	3.7	32.0	1.5
Withdrawal	76	46.0	72.0	1.2	0.4	51.7	1.5
Other	38	51.5	43.9	0.0	1.9	50.1	1.3
Non-user	2265	38.3	61.3	1.7	12.0	48.6	1.3
Total	**4846**	**48.1**	**72.7**	**17.3**	**7.1**	**46.2**	**1.3**

*   Number of women received at least one visit was used as the denominator.
**   Those who received FP supply are included in the category "discussed FP".
***   0.2% of the women received visit by more than one worker.

Table 8.2: Per cent distribution of births by place of delivery, according to selected background characteristics, 1995

Characteristic	Own house	Other house	GoB hospital	NGO clinic	Private clinic	Un-known	Total	Popula-tion
Mother age (years) at birth								
< 20	52.8	19.3	20.7	2.1	5.0	0.0	100.0	259
20-34	56.5	9.7	20.8	4.5	8.3	0.1	100.0	751
35+	69.2	5.5	9.6	3.3	7.6	4.8	100.0	65
Type of residence								
Slum	68.3	11.4	13.4	4.0	2.8	0.1	100.0	456
Non-slum	44.7	12.8	26.6	3.6	11.8	0.5	100.0	619
Mother education								
No education	67.6	13.1	13.8	3.9	0.8	0.8	100.0	455
Primary incomplete	67.4	11.0	18.7	1.2	1.7	0.0	100.0	177
Primary complete	47.7	10.5	24.2	3.8	13.7	0.0	100.0	350
Secondary/higher	13.0	15.0	38.1	7.5	26.3	0.0	100.0	93
Total	**56.1**	**12.1**	**20.2**	**3.8**	**7.4**	**0.4**	**100.0**	**1075**

Note: Data are wieghted percentages.

Table 8.3: Per cent distribution of births by type of assistance received during delivery, according to selected background characteristics, 1995

Characteristic	None attended	Un-trained	Trained	Midwife /nurse	Doctor	Un-known	Total	Popula-tion
Mother age (years) at birth								
< 20	8.4	54.9	7.5	3.2	22.3	3.6	100.0	259
20-34	9.4	44.1	10.7	6.3	28.0	1.5	100.0	751
35+	13.1	49.8	11.8	5.2	15.3	4.8	100.0	65
Type of residence								
Slum	10.4	61.8	7.8	3.6	14.4	1.8	100.0	456
Non-slum	8.3	33.7	11.8	7.1	36.4	2.7	100.0	619
Mother education								
No education	10.1	60.8	8.5	5.2	13.7	1.8	100.0	455
Primary incomplete	15.0	54.4	9.1	3.5	17.6	0.5	100.0	177
Primary complete	5.5	36.0	14.4	5.0	35.6	3.5	100.0	350
Secondary/higher	8.2	12.3	3.3	11.2	61.7	3.2	100.0	93
Total	**9.3**	**47.3**	**9.9**	**5.4**	**25.8**	**2.3**	**100.0**	**1075**

Note: Data are wieghted percentages.

MCH-FP Extension Project (Urban)
List of Publications

a. Journal Papers:

1. Baqui AH, Arifeen SE, Amin S, and Black RE. "Levels and correlates of maternal nutritional status in urban Bangladesh". *European Journal of Clinical Nutrition (1994) 48, 349-357.*

2. Quaiyum MA, Tunon C, Baqui AH, Quayyum Z, Khatun J. "Impact of national immunization days on polio-related knowledge and practice of urban women in Bangladesh". *Health Policy and Planning - a journal on health in development (in press).*

3. Baqui AH, Black RE, El-Arifeen S, Hill K, Mitra SN, Al Sabir A. "Causes of childhood deaths in Bangladesh: Results of a nation-wide verbal autopsy study". *Bulletin of the World Health Organization (in press)*

b. Working Papers:

1. Jamil K, Streatfield K, Salway S. "Modes of Family Planning Service Delivery in the Slums of Dhaka: Effects on Contraceptive Use". May 1996. (ICDDR,B Working Paper No 46), (Urban FP-MCH Working Paper No 16), *ISBN 984-551-032-9*

2. Salway S, Nahar Q, Ishaque Md. "Alternative ways to Feed Infants: Knowledge and Views of Men and Women in the Slums of Dhaka City. May 1996. (ICDDR,B Working Paper No 58), (Urban FP-MCH Working Paper No 17), *ISBN 984-551-056-6*

3. Salway S, Nahar Q, Ishaque Md. "Women, Men and Infant Feeding in the Slums of Dhaka City: Exploring Sources of Information and Influence. May 1996. (ICDDR,B Working Paper No.59), (Urban FP-MCH Working Paper No.18), *ISBN 984-551-057-4*

4. Quaiyum MA, Tunon C, Baqui AH, Quayyum Z, Khatun J, "The Impact of National Immunization Days on Polio Related Knowledge and Practice of Women in Bangladesh". May 1996. (ICDDR,B Working Paper No. 60), (Urban FP-MCH Working Paper No. 19), *ISBN 984-551-058-2*

5. Perry HB, Begum S, Begum A, Kane TT, Quaiyum MA, Baqui AH, "Assessment of Quality of the MCH/FP Services Provided by Field Workers in Zone 3 of Dhaka City and Strategies for Improvement. May 1996. (ICDDR,B Working Paper No. 62), (Urban FP-MCH Working Paper No. 20), *ISBN 984-551-060-4*

6. Mookherji S, Kane TT, Arifeen SE, Baqui AH. "The Role of Pharmacies in Providing Family Planning and Health Services to Residents of Dhaka, Bangladesh". (ICDDR,B Working Paper No. 61), (Urban FP-MCH Working Paper No. 21), *ISBN 984-551-059-11*

7. Thwin AA, Jahan SA. "Rapid Appraisal of Urban Health Needs and Priorities". October 1996 (ICDDR,B Working Paper No. 67), (Urban FP-MCH Working Paper No. 22), *ISBN 984-551-074-4*

8. Jahan SA, Thwin AA, Tunon C, Nasreen S. "Urban Men and their Participation in Modern Contraception: An Exploratory Study". October 1996 (ICDDR,B Working Paper No. 68), (Urban FP-MCH Working Paper No. 23), *ISBA 984-551-075-2*

9. Perry HB, Arifeen SE, Hossain I, Weierbach R. "The Quality of Urban EPI Services in Bangladesh: Findings from the Urban Initiative's; Needs Assessment Study in Zone 3 of Dhaka City". October 1996 (ICDDR,B Working Paper No. 69), (Urban FP-MCH Working Paper No. 24), *ISBN 984-551-076-0*

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5. A brochure on "The Urban MCH-FP Initiative - A Partnership for Urban Health and Family Planning in Bangladesh" was produced in May 1995

6. Revised version of the above brochure entitled "A Partnership to Improve Urban Health and Family Planning in Bangladesh - The Urban MCH-FP Initiative" was produced in July 1996

MCH-FP Extension Work at the Centre

An important lesson learned from the Matlab MCH-FP project is that a high CPR is attainable in a poor socioeconomic setting. The MCH-FP Extension Project (Rural) began in 1982 in two rural areas with funding from USAID to examine how elements of the Matlab programme could be transferred to Bangladesh's national family planning programme. In its first years, the Extension Project set out to replicate workplans, record-keeping and supervision, within the resource constraints of the government programme.

During 1986-89, the Centre helped the national programme to plan and implement recruitment and training, and ensure the integrity of the hiring process for an effective expansion of the work force of governmental Family Welfare Assistants. Other successful programme strategies scaled up or in the process of being scaled up to the national programme include doorstep delivery of injectable contraceptives, management action to improve quality of care, a management information system, and developing strategies to deal with problems encountered in collaborative work with local area family planning officials. In 1994, this project started family planning initiatives in Chittagong, the lowest performing division in the country.

In 1994, the Centre began an MCH-FP Extension Project (Urban) in Dhaka (based on its decade long experience in urban health) to provide a coordinated, cost-effective and replicable system of delivering MCH-FP services for Dhaka urban population. This important event marked an expansion of the Centre's capacity to test interventions in both urban and rural settings. The urban and rural extension projects have both generated a wealth of research data and published papers.

The Centre and USAID, in consultation with the government through the project's National Steering Committees, concluded an agreement for new rural and urban Extension Projects for the period 1993-97. Salient features include:

- To improve management, quality of care and sustainability of the MCH-FP programmes
- Field sites to use as "policy laboratories"
- Close collaboration with central and field level government officers
- Intensive data collection and analysis to assess the impact
- Technical assistance to GoB and NGO partners in the application of research findings to strengthen MCH-FP services.

The Division

The reconstituted Health and Population Extension Division (HPED) has the primary mandate to conduct operations research to scale up the research findings, provide technical assistance to NGOs and GoB to strengthen the national health and family planning programme.

The Division has a long history of accomplishments in applied research which focuses on the application of simple, effective, appropriate and accessible health and family planning technologies to improve the health and well-being of the underserved and population-in-need. There are several projects in the Division which specialize in operations research in health, family planning, environmental health and epidemic control measures which cuts across several Divisions and disciplines in the Centre. The MCH-FP Extension Project (Rural), of course, is the Centre's established operations research project but the recent addition of its urban counterpart - MCH-FP Extension Project (Urban), as well as Environmental Health and Epidemic Control Programmes have enriched the Division with a strong group of diverse expertise and disciplines to enlarge and consolidate its operations research activities. There are several distinctive characteristics of these endeavors in relation to health services and policy research. First, the public health research activities of these Projects focus on improving programme performances which has policy implications at the national level and lessons for international audience. Secondly, these Projects incorporate the full cycle of conducting applied programmatic and policy relevant research in actual GoB and NGO service delivery infrastructures; dissemination of research findings to the highest levels of policy makers as well as recipients of the services at the community level; application of research findings to improve programme performance through systematic provision of technical assistance; and scaling-up of applicable findings from pilot phase to the national programme at Thana, Ward, District and Zonal levels both in the urban and rural settings.

CENTRE
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