

# **DEMOCRAPHIC SURVEILLANCE SYSTEM— MATLAB**

150

VOLUME FOURTEEN

VITAL EVENTS AND  
MIGRATION-TABLES

1983

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**INTERNATIONAL  
CENTRE FOR  
DIARRHOEAL DISEASE  
RESEARCH,  
BANGLADESH**

DEMOGRAPHIC SURVEILLANCE SYSTEM - MATLAB

Volume Fourteen

Vital Events and Migration - Tables

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#### PREFACE

The International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) is an autonomous, international, philanthropic, non-profit centre for research, education, training and clinical service. The Centre is derived from the Cholera Research Laboratory (CRL). Its activities are to undertake and promote study, research and dissemination of knowledge in diarrhoeal diseases and the directly related subjects of nutrition and fertility--with a view to developing improved health care methods and to prevent and control diarrhoeal diseases and improve public health programmes, especially in developing countries. The ICDDR,B issues an annual report, working papers, scientific reports, special publications, monographs, theses, dissertations, and a bi-monthly newsletter, which demonstrates the type of research activities currently in progress. The views expressed in these papers are those of the authors, and do not necessarily represent the views of the ICDDR,B. They should not be quoted without the authors' permission.

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**ABSTRACT**

This is the 14th volume of a series of scientific reports, published by the International Centre for Diarrhoeal Disease Research, Bangladesh. It presents results of vital events and migrations for the year 1983 of the Demographic Surveillance System (DSS), in the Matlab area of Bangladesh.

## INTRODUCTION

Since 1963, the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B), formerly the Cholera Research Laboratory, has been conducting a health-oriented research programme in Matlab Thana (Upazila), Comilla District, a rural area of Bangladesh. Matlab is located about 45 km southeast of the country's capital, Dhaka (Fig. 1). The Demographic Surveillance System (DSS) is one component of this field programme (Fig. 2). Since 1966, it has maintained a continuous registration of births, deaths, marriages and migrations, in addition to occasional censuses. A detailed description of the DSS and its operation appears in CRL Scientific Report No. 9 (May 1978). Since 1978, the study area has been reduced to 149 villages, and field operations modifications have been introduced. Beginning in October 1977, the data collection procedure was modified, in conjunction with the development of a village-based Maternal-Child Health and Family Planning (MCH-FP) Programme, in 70 DSS area villages. The remaining villages were treated as "comparison" villages, and the demographic surveillance was continued, using established field procedures. The changes were described in detail in ICDDR,B Scientific Report No. 47 (May 1981).

This is the 14th volume in a series of scientific reports produced by the ICDDR,B. This volume presents results obtained from the DSS, Matlab in 1983, with brief notes and explanations of the tables.

## RESULTS

Population Change:

The mid-year population of the Maternal Child Health and Family Planning (MCH-FP) and the Comparison areas, as well as the demographic events registered for 1983 are shown in Table I. As of July 1, 1983, the Demographic Surveillance System (DSS) area had 191,006 people, of whom 96,451 and 94,555 lived in the MCH-FP and Comparison areas respectively. In 1982 the crude birth rate was 36.9 and 44.6 for MCH-FP and Comparison area. It declined in 1983 to 34.2 in MCH-FP and 42.6 in Comparison area. The crude death rates in MCH-FP and Comparison area were 11.9 and 16.7 in 1983. In contrast to crude death rates 12.5 and 15.9 were observed in 1982 in MCH-FP and Comparison area respectively. The registered number for in-migrations and out-migrations were, respectively, 4,690 and 6,831 giving rates of 25 and 36 and a net out-migration of 11 per thousand population. The net out-migration in 1983 was substantially higher than 1982. The net population increase was 13 per 1,000. There were 2,691 marriages registered, yielding a marriage frequency of 14 per 1,000 population. There were 411 divorces recorded, for a ratio of 153 divorces per 1,000 marriages. The net increase in the population was 2,455 or 13 per 1,000 population.

Figure 3 presents the birth and death distribution by month. As in previous years, the seasonality of births shows the highest peak in November and trough in May. In the population pyramid the age distribution is almost similar to those of past three years.

FIG. 1: MAP OF BANGLADESH SHOWING THE STUDY AREA.

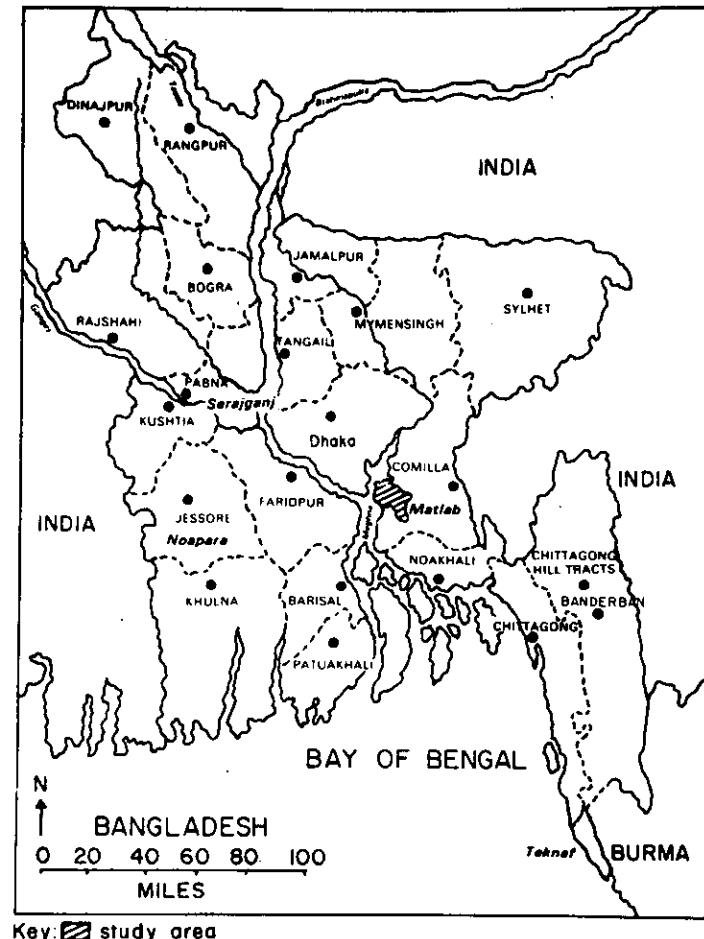


FIG. 2: MATLAB AREA SHOWING VILLAGES OF DEMOGRAPHIC SURVEILLANCE SYSTEM, 1983

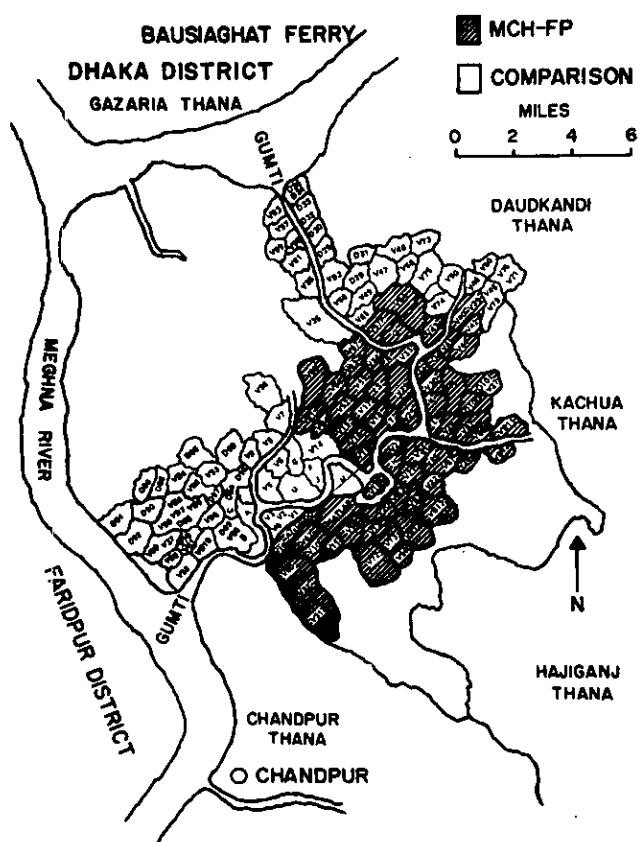


TABLE I--MID-YEAR POPULATION, EVENTS REGISTERED AND POPULATION CHANGE IN 1983

		Number			Rate per 1000 population		
		Total	Males	Females	Total	Males	Females
Total population, 1983 Mid-year		191006	96800	94206	-	-	-
MCH-FP area		96451	48908	47543	-	-	-
Comparison area		94555	47892	46663	-	-	-
<u>Events registered</u>							
(January to December 1983)							
Birth	Whole area	7325	3738	3587	38.3	38.6	38.1
	MCH-FP area	3300	1691	1609	34.2	34.6	33.8
	Comparison area	4025	2047	1978	42.6	42.7	42.4
Death							
Infant*							
	Whole area	777	377	400	106.1	100.9	111.5
	MCH-FP area	324	162	162	98.2	95.8	100.7
	Comparison area	453	215	238	112.5	105.0	120.3
All							
	Whole area	2729	1312	1417	14.3	13.6	15.1
	MCH-FP area	1146	571	575	11.9	11.7	12.1
	Comparison area	1583	741	842	16.7	15.5	18.0
In-migration		4690	1968	2722	24.6	20.3	28.9
Out-migration		6831	3111	3720	35.8	32.1	39.5
Marriage		2691	2691	2691	14.1	27.8	28.6
Divorce**		411	411	411	152.7	152.7	152.7
<u>Population change</u>							
(January to December 1983)							
Net-migration		-2141	-1143	-998	-11.2	-11.8	-10.6
Natural increase		4596	2426	2170	24.1	25.1	23.0
MCH-FP area		2154	1120	1034	22.3	22.9	21.7
Comparison area		2442	1306	1136	25.8	27.3	24.3
Net increase		2455	1283	1172	12.9	13.3	12.4

\* Rate per 1,000 live births

\*\* Ratio per 1,000 marriages

TABLE II--MID-YEAR POPULATION BY AGE AND SEX, 1983

Age (Years)	Number			Percent		
	Both sexes	Males	Females	Both sexes	Males	Females
All ages	191006	96800	94206	100.0	100.0	100.0
0 - 4	30626	16016	14610	16.0	16.5	15.5
0	7103	3676	3427	3.7	3.8	3.6
1	6268	3212	3056	3.3	3.3	3.2
2	6020	3195	2825	3.1	3.3	3.0
3	6043	3229	2814	3.1	3.3	2.9
4	5192	2704	2488	2.7	2.8	2.6
5 - 9	26440	13860	12580	13.8	14.3	13.4
10-14	24564	12778	11786	12.8	13.2	12.5
15-19	20784	10088	10696	10.9	10.4	11.4
20-24	19228	9741	9487	10.1	10.1	10.1
25-29	13114	6595	6519	6.9	6.8	6.9
30-34	8729	4280	4449	4.6	4.4	4.7
35-39	8784	3858	4926	4.6	4.0	5.2
40-44	7977	3562	4415	4.2	3.7	4.7
45-49	8279	4083	4196	4.3	4.2	4.4
50-54	6246	3218	3028	3.3	3.4	3.2
55-59	5354	2796	2558	2.8	2.9	2.7
60-64	3957	2118	1839	2.1	2.2	2.0
65-69	2949	1580	1369	1.5	1.6	1.4
70-74	1868	1003	865	1.0	1.0	0.9
75-79	1232	682	550	0.6	0.7	0.6
80+	875	542	333	0.5	0.6	0.4

TABLE III--MID-YEAR POPULATION FOR MCH-FP AND COMPARISON AREA, 1983

Age (Years)	MCH-FP area			Comparison area		
	Both sexes	Males	Females	Both sexes	Males	Females
All ages	96451	48908	47543	94555	47892	46663
0 - 4	14197	7439	6758	16429	8577	7852
0	3250	1699	1551	3853	1977	1876
1	2885	1478	1407	3383	1734	1649
2	2834	1484	1350	3186	1711	1475
3	2810	1518	1292	3233	1711	1522
4	2418	1260	1158	2774	1444	1330
5 - 9	13568	7122	6446	12872	6738	6134
10-14	12751	6562	6189	11813	6216	5597
15-19	10669	5181	5488	10115	4907	5208
20-24	9773	4914	4859	9455	4827	4628
25-29	6728	3430	3298	6386	3165	3221
30-34	4480	2176	2304	4249	2104	2145
35-39	4564	1991	2573	4220	1867	2353
40-44	4149	1854	2295	3828	1708	2120
45-49	4187	2075	2112	4092	2008	2084
50-54	3135	1647	1488	3111	1571	1540
55-59	2759	1450	1309	2595	1346	1249
60-64	1929	1077	852	2028	1041	987
65-69	1498	821	677	1451	759	692
70-74	936	508	428	932	495	437
75-79	631	357	274	601	325	276
80+	497	304	193	378	238	140

FIG. 3: NUMBER OF LIVE BIRTHS AND TOTAL DEATHS  
BY MONTHS, 1983

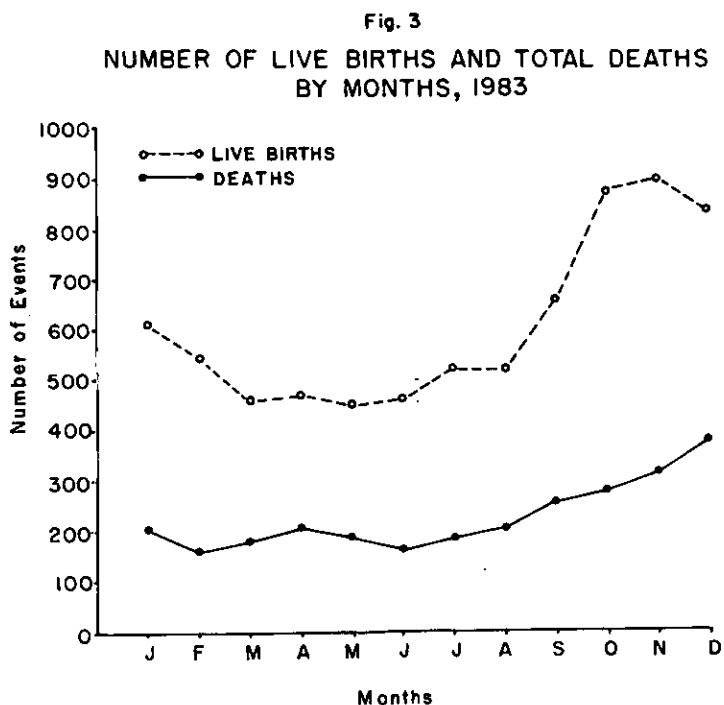
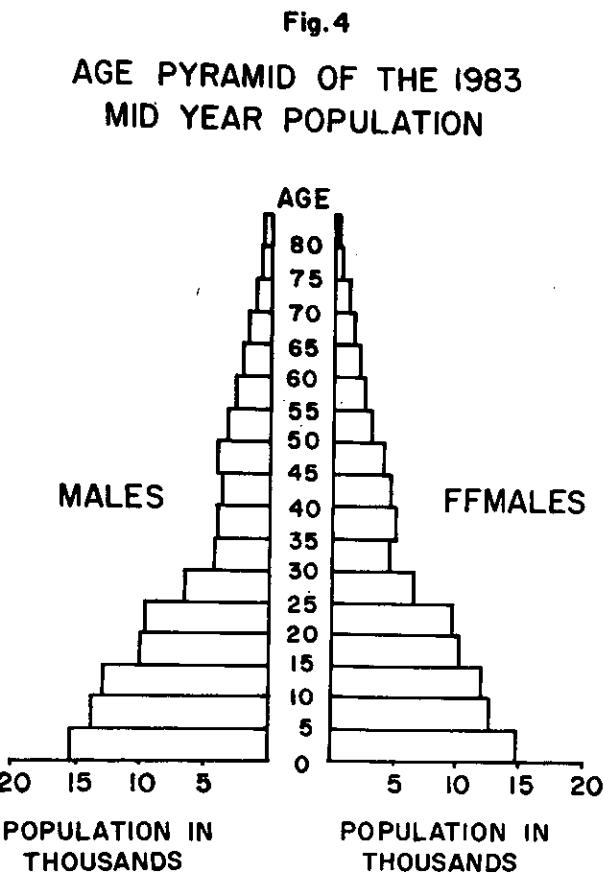


FIG. 4: AGE PYRAMID OF THE 1983  
MID YEAR POPULATION



Age is recorded in total completed years as of the last birthday. For persons born within the DSS area after 1966, age figures are exact. In cases where ages are unknown--which may apply to in-migrants or to persons born before 1966--age ascertainment is made as accurately as possible, by reference to any past event that may be remembered.

#### Deaths and Mortality:

Table IV shows the age and sex-specific deaths for 1983. Of 2,729 registered deaths, 53.5% occurred in under age 5 children. The 1983 infant mortality rate of 106.1 is lower than the 1981 and 1982 rate of 109.1 and 112.5 respectively. It is seen that for infants, male mortality, was 100.9, compared to 111.5 for females (Table VI). In 1982, the respective male and female mortality rates were 115.8 and 108.9. It appears from the result that infant male mortality was substantially lower in 1983 than in 1982. The overall death rate and the death rate for those aged one month to 39 years were higher in females. In all age groups except 40-44 and 45-49, death rates were higher in the comparison than in the MCH-FP area (Table VII).

Table VIII shows the results, and the  $\delta_x$  values are plotted, in Figure 5. It is seen that the expectation of life at birth was 56.4 in MCH-FP area, compared to 50.5 in Comparison area (Table X). It is also to be noted that the expectation of life at birth was 57.7 for males and 55.3 for females in MCH-FP area. In contrast the expectation of life at birth was 52.8 for males and 48.1 for females in Comparison area (Table XI & XII).

Deaths by cause (based on lay reporting) are presented in Table XIVa and XIVb. Of the 377 male and 400 female fatalities under age one, 36% died of tetanus. However, the reliability of causes of death by tetanus is in question, and further investigation is in progress.

#### Births and Fertility:

There were 8,113 pregnancies documented in 1983 in the Matlab DSS area, of which 7,254 resulted in live births and 859 in fetal wastage, yielding a ratio of 118 fetal losses per 1,000 live births (Table XVI). The number of pregnancies in 1983 exceeded those in 1982 by 334 and the fetal losses were lower by 4 per 1,000 live births. Fetal loss is termed a still birth for gestation beyond seven months. If the gestation period is less than seven months, the loss is designated a "miscarriage" either induced or spontaneous. Table XXIV presents the 1983 age-specific fertility rate. Fertility reached its peak at ages 20-24 (26 live births per 1,000). The general fertility rate was 164 per 1,000 women aged 15-49. Further decline in reproduction indices was observed in 1983. However the decrease was more pronounced in the MCH-FP than in the Comparison area, where total fertility rate was slightly higher than in previous year (Table XXV).

TABLE IV--DEATHS BY AGE AND SEX, 1983

Age	Both sexes	Males	Females
All ages	2729	1312	1417
Under 1 year	777	377	400
Under 1 month	469	240	229
1-5 months	202	93	109
6-11 months	106	44	62
1-4 years	684	270	414
1	262	113	149
2	214	85	129
3	138	44	94
4	70	28	42
5-9	105	44	61
10-14	33	16	17
15-19	33	14	19
20-24	44	16	28
25-29	32	13	19
30-34	19	8	11
35-39	23	6	17
40-44	41	20	21
45-49	54	32	22
50-54	71	46	25
55-59	125	69	56
60-64	131	74	57
65-69	143	83	60
70-74	156	76	80
75-79	121	53	68
80+	137	95	42

TABLE V--DEATHS BY AGE AND SEX IN MCH-FP AND COMPARISON AREA, 1983

Age	MCH-FP Area			Comparison Area		
	Both sexes	Males	Females	Both sexes	Males	Females
All ages	1146	571	575	1583	741	842
Under 1 year	324	162	162	453	215	238
Under 1 month	186	100	86	283	140	143
1-5 months	91	45	46	111	48	63
6-11 months	47	17	30	59	27	32
1-4 years	240	105	135	444	165	279
1	100	46	54	162	67	95
2	69	34	35	145	51	94
3	45	13	32	93	31	62
4	25	12	14	44	16	28
5-9	45	15	30	60	29	31
10-14	17	7	10	16	9	7
15-19	10	4	6	23	10	13
20-24	25	10	15	19	6	13
25-29	15	3	12	17	10	7
30-34	9	3	6	10	5	5
35-39	11	3	8	12	3	9
40-44	22	9	13	19	11	8
45-49	29	18	11	25	14	11
50-54	31	19	12	40	27	13
55-59	50	33	17	75	36	39
60-64	58	35	23	73	39	34
65-69	58	34	24	85	49	36
70-74	82	39	43	74	37	37
75-79	52	25	27	69	28	41
80+	68	47	21	69	48	21

TABLE VI--DEATH RATES BY AGE AND SEX, 1983  
(PER 1000 POPULATION)

Age	Both sexes	Males	Females
All ages	14.3	13.6	15.1
Under 1 year*	106.1	100.9	111.5
Under 1 month*	64.0	64.2	63.8
1 - 11 months*	42.0	36.6	47.7
1-4 years	29.1	21.9	37.0
1	41.8	35.2	48.7
2	35.5	26.6	45.7
3	22.8	13.6	33.4
4	13.5	10.4	16.9
5-9	3.9	3.2	4.8
10-14	1.3	1.3	1.4
15-19	1.6	1.4	1.8
20-24	2.9	1.6	2.9
25-29	2.3	2.0	2.9
30-34	2.4	1.9	2.5
35-39	2.2	1.6	3.5
40-44	5.1	5.6	4.8
45-49	6.5	7.8	5.2
50-54	11.4	14.3	8.3
55-59	23.3	24.7	21.9
60-64	33.1	34.9	31.0
65-69	48.5	52.5	43.8
70-74	83.5	75.8	92.5
75-79	98.2	77.7	123.6
80+	156.6	175.3	126.1

\* Rate per 1000 live births.

TABLE VIII--DEATH RATES BY AGE, SEX AND AREA, 1983  
 (PER 1000 POPULATION)

Age	MCH-FP Area			Comparison Area		
	Both sexes	Males	Females	Both sexes	Males	Females
All ages	11.9	11.7	12.1	16.7	15.5	18.0
Under 1 year*	98.2	95.8	100.7	112.5	105.0	120.3
Under 1 month*	56.4	59.1	53.4	70.3	68.4	72.3
1 - 11 months*	41.8	36.7	47.2	42.2	36.6	48.0
1-4 years	21.6	18.3	25.9	35.3	25.0	46.7
5-9	3.3	2.1	4.7	4.7	4.3	5.1
10-14	1.3	1.1	1.6	1.4	1.4	1.3
15-19	0.9	0.8	1.1	2.3	2.0	2.5
20-24	2.6	2.0	3.1	2.0	1.2	2.8
25-29	2.2	0.9	3.6	2.7	3.2	2.2
30-34	2.0	1.4	2.6	2.4	2.4	2.3
35-39	2.4	1.5	3.1	2.8	1.6	3.8
40-44	5.3	4.9	5.7	5.0	6.4	3.8
45-49	6.9	8.7	5.2	6.1	6.9	5.3
50-54	9.8	11.5	8.1	12.9	17.2	8.4
55-59	18.1	22.8	12.9	28.9	26.7	31.2
60-64	30.0	32.5	27.0	35.9	37.5	34.4
65-69	38.7	41.4	35.5	58.6	64.6	52.0
70-74	87.6	76.8	100.5	79.4	74.7	84.7
75-79	82.4	70.0	98.5	114.8	86.2	148.6
80+	136.8	154.6	108.8	182.5	201.7	150.0

\* Rate per 1000 live births.

TABLE VIII--ABRIDGED LIFE TABLES FOR MALES AND FEMALES, 1983<sup>1</sup>

Age (years)	M a l e s				F e m a l e s			
	1000 $n_x$	$\ell_x$	$L_x$	$e_x^o$	1000 $n_x$	$\ell_x$	$L_x$	$e_x^o$
0	100.9	100000	92695	55.1	111.5	100000	91927	51.3
1	34.6	89910	88075	60.2	47.6	88850	86357	56.7
2	26.3	86799	85660	61.4	44.7	84625	82734	58.5
3	13.5	84520	83949	62.0	32.9	80843	79515	60.2
4	10.3	83378	82947	61.9	16.8	78187	77532	61.2
5	15.9	82515	409688	61.5	23.7	76877	380208	61.3
10	6.5	81204	404615	57.5	7.0	75052	374286	57.7
15	7.0	80678	402143	52.8	9.0	74528	371111	53.1
20	8.0	80115	399375	48.2	14.4	73860	366897	48.5
25	10.0	79476	395500	43.5	14.4	72796	361724	44.2
30	9.5	78685	391579	38.9	12.4	71747	356800	39.8
35	8.0	77911	388125	34.3	17.4	70855	351429	35.3
40	27.6	77320	381607	29.6	23.7	69625	344375	30.8
45	38.3	75183	369231	25.3	25.3	67972	335769	26.5
50	69.2	72303	349860	21.2	40.7	66226	324819	22.1
55	116.7	67300	318016	17.6	104.1	63530	302100	18.0
60	161.1	59445	274470	14.6	144.4	56914	265129	14.7
65	233.0	49866	221314	11.9	198.2	48695	220365	11.8
70	319.4	38247	161174	9.7	375.8	39043	158616	9.1
75	326.1	26030	109241	8.0	469.5	24371	92573	8.0
80	1000.0	17542	100068	5.7	1000.0	12929	102530	7.9

<sup>1</sup> see Appendix B for equations used.

TABLE IX--ABRIDGED LIFE TABLE FOR BOTH SEXES, 1983

Age (years)	$1000 \cdot n_q_x$	$\ell_x$	$n^L_x$	$e_x^o$
0	106.1	100000	92318	53.2
1	41.0	98390	87230	58.4
2	34.9	85729	84234	59.9
3	22.5	82738	81806	61.1
4	13.4	80873	80331	61.5
5	19.3	79788	395385	61.3
10	6.5	78246	390000	57.4
15	8.0	77739	387500	52.8
20	14.4	77119	383103	48.2
25	11.4	76008	377826	43.9
30	11.9	75139	373750	39.3
35	10.9	74242	369545	34.8
40	25.2	73429	362941	30.1
45	32.0	71578	352615	25.8
50	55.5	69286	337456	21.6
55	110.5	65439	310215	17.7
60	153.5	58211	269879	14.6
65	217.2	49278	220680	11.8
70	346.0	38575	159832	9.3
75	394.0	25229	101232	7.9
80+	1000.0	15288	97625	6.4

FIG. 5: PROBABILITY OF SURVIVAL FROM BIRTH TO AGE (X) BY SEX  
FROM LIFE TABLES, 1983

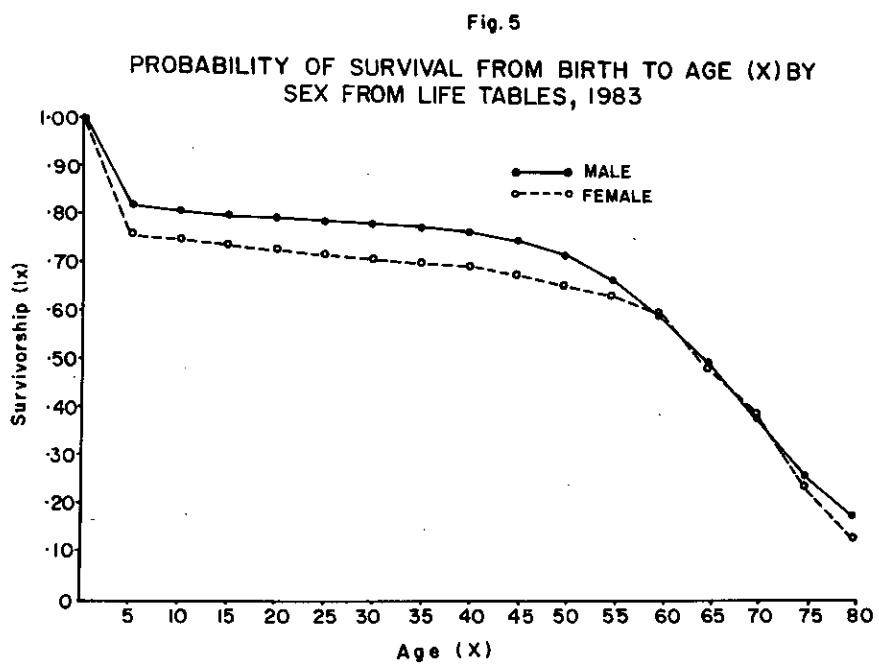


TABLE X--ABRIDGED LIFE TABLES FOR BOTH SEXES, MCH-FP AREA AND COMPARISON AREA, 1983<sup>1</sup>

Age (years)	MCH-FP Area				Comparison Area			
	1000 n <sub>x</sub>	l <sub>x</sub>	n <sup>L</sup> <sub>x</sub>	e <sup>O</sup> <sub>x</sub>	1000 n <sub>x</sub>	l <sub>x</sub>	n <sup>L</sup> <sub>x</sub>	e <sup>O</sup> <sub>x</sub>
0	98.2	100000	92890	56.4	112.5	100000	91855	50.5
1	34.0	90180	88370	61.5	46.8	88750	86300	55.8
2	24.0	87112	86066	62.7	44.5	84598	82716	57.5
3	15.9	85020	84345	63.2	28.4	80834	79687	59.2
4	10.7	83670	83221	63.2	15.8	78539	77920	59.9
5	16.4	82771	410606	62.9	23.2	77300	382340	59.9
10	6.5	81416	406154	58.9	7.0	75503	376429	56.2
15	4.5	80888	403333	54.3	11.4	74976	373043	51.6
20	12.9	80525	400385	49.5	10.0	74118	369000	47.2
25	10.9	79848	395455	45.1	13.4	73380	364444	42.6
30	10.0	78614	391500	40.6	11.9	72396	360000	38.1
35	11.9	77831	387083	36.0	13.9	71532	355357	33.6
40	26.2	76902	379811	31.4	24.7	70537	348600	29.0
45	34.0	74889	368551	27.1	30.1	68794	339180	24.7
50	47.9	72346	353673	23.0	62.6	66725	323876	20.4
55	86.8	68880	330387	19.0	135.3	62547	292734	16.5
60	140.1	62900	293667	15.6	165.4	54087	249164	13.7
65	177.2	54090	247623	12.7	256.6	45142	197628	10.9
70	359.7	44507	182763	9.8	332.0	33561	140315	8.8
75	342.2	28497	118362	9.0	444.4	22420	86786	6.9
80	1000.0	18744	137018	7.3	1000.0	12457	68258	5.5

<sup>1</sup> see Appendix B for equations used.

TABLE XI--ABRIDGED LIFE TABLES FOR MALES AND FEMALES OF  
MCH-FP AREA, 1983<sup>1</sup>

Age (years)	M a l e s				F e m a l e s			
	1000 n q <sub>x</sub>	l <sub>x</sub>	n L <sub>x</sub>	e <sup>o</sup> <sub>x</sub>	1000 n q <sub>x</sub>	l <sub>x</sub>	n L <sub>x</sub>	e <sup>o</sup> <sub>x</sub>
0	95.8	100000	93064	57.7	100.7	100000	92709	55.3
1	30.6	90420	88786	62.8	37.6	89930	87936	60.5
2	22.6	87651	86659	63.7	22.6	86550	85570	61.8
3	8.6	85666	85299	64.2	24.5	84590	83554	62.3
4	9.5	84932	84531	63.7	12.0	82518	82022	62.8
5	10.4	84129	418571	63.3	23.2	81525	403191	62.6
10	5.5	83250	415455	59.0	8.0	79630	396875	59.0
15	4.0	82793	413750	54.3	5.5	78995	393636	54.4
20	10.0	82462	410500	49.5	15.4	78562	390000	49.7
25	4.5	81641	407778	45.0	17.9	77353	383611	45.5
30	7.0	81274	405000	40.1	12.9	75972	377692	41.3
35	7.5	80707	402000	35.4	15.4	74990	372258	36.8
40	24.2	80104	396122	30.7	28.1	73836	364386	32.3
45	42.6	78163	383103	26.4	25.7	71759	354615	28.1
50	56.0	74830	364435	22.4	39.8	69915	343086	23.8
55	108.2	70639	335219	18.6	62.6	67136	325891	19.7
60	150.9	62996	292462	15.5	126.9	62932	295815	15.8
65	188.4	53491	243382	12.8	163.7	54945	253352	12.7
70	322.9	43415	182552	10.2	401.2	45951	183453	9.7
75	298.8	29395	125471	8.8	395.0	27514	110325	9.6
80	1000.0	20612	133325	6.5	1000.0	16647	153006	9.2

<sup>1</sup> see Appendix B for equations used.

TABLE XIII--ABRIDGED LIFE TABLES FOR MALES AND FEMALES OF  
COMPARISON AREA, 1983<sup>1</sup>

Age (years)	Males				Females			
	1000 $n_x$	$\ell_x$	$L_x$	$e_x^o$	1000 $n_x$	$\ell_x$	$L_x$	$e_x^o$
0	105.0	100000	92398	52.8	120.3	100000	91290	48.1
1	37.9	89500	87500	58.0	56.0	87970	85064	53.6
2	29.4	86110	84846	59.3	61.7	83044	80481	55.8
3	17.9	83581	82832	60.1	39.9	77917	76363	58.4
4	11.0	82082	81629	60.1	20.8	74808	74031	59.8
5	21.3	81176	401860	59.8	25.2	73253	361961	60.1
10	7.0	75448	395714	56.0	6.5	71407	356154	56.5
15	10.0	78894	392500	51.4	12.4	70944	352800	51.9
20	6.0	78109	389167	46.9	13.9	70062	348214	47.5
25	15.9	77642	385313	42.2	10.9	69087	343636	43.1
30	11.9	76409	380000	37.8	11.4	68331	340000	38.6
35	8.0	75497	376250	33.2	18.8	67549	334737	34.0
40	31.5	74895	369063	28.5	18.8	66277	328421	29.6
45	34.0	72533	356957	24.3	26.2	65029	321132	25.1
50	82.7	70070	336802	20.1	41.2	63327	310595	20.7
55	125.6	64277	302360	16.7	145.3	60718	282724	16.5
60	172.1	56204	258000	13.7	159.0	51897	239884	13.8
65	279.1	46529	201006	11.0	231.0	43645	193923	11.0
70	315.6	33544	141700	9.2	350.0	33561	138689	8.5
75	355.0	22959	94571	7.3	535.3	21814	78573	6.7
80	1000.0	14807	73411	5.0	1000.0	10138	67587	6.7

<sup>1</sup> see Appendix B for equations used.

TABLE XIII--DEATHS BY AGE AND MONTH, 1983

Months	All ages	Age at death			
		Under 1 month	1-11 months	1 - 4 years	5 years and over
January	207	41	18	28	120
February	163	26	23	35	79
March	179	32	33	26	88
April	204	29	27	51	97
May	186	28	22	39	97
June	162	24	21	44	73
July	188	27	22	55	84
August	206	31	25	55	95
September	258	53	23	93	89
October	282	65	22	81	114
November	314	44	31	93	146
December	380	69	41	84	186
Total	2729	469	308	684	1268

TABLE XIV-a--MALE DEATHS BY CAUSE AND AGE, 1983

Cause	Age at death (years)															
	All ages	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
All causes	1312	377	270	44	16	14	16	13	8	6	20	32	46	69	74	307
Measles	27	4	19	4	-	-	-	-	-	-	-	-	-	-	-	-
Tetanus*	160	144	11	-	1	1	1	-	-	-	-	-	-	-	1	1
Drowning	40	1	26	7	2	-	1	-	-	-	-	-	2	1	-	-
Murder	3	-	1	-	-	-	-	-	-	-	1	-	1	-	-	-
Suicide	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Diarrhoea acute	66	19	17	7	1	1	2	1	-	-	-	2	1	1	2	12
Diarrhoea chronic <sup>x</sup>	17	3	8	-	-	-	-	-	-	-	-	-	-	2	-	4
Dysentery acute	54	4	20	1	1	1	-	-	-	-	1	2	2	1	4	17
Dysentery chronic <sup>x</sup>	135	2	50	2	1	1	-	1	1	-	1	1	2	10	11	52
Childbirth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jaundice	16	-	4	2	1	1	1	-	-	-	-	2	1	1	1	2
Other	250	107	33	7	3	2	3	1	1	2	7	4	12	13	9	46
Disease of G.I. Tract**	39	2	3	-	-	1	-	1	2	-	1	3	6	9	3	8
Respiratory***	172	34	20	2	4	1	4	-	2	2	3	8	7	16	13	56
Heart disease	16	1	-	-	-	-	-	1	-	-	3	-	-	-	2	9
Liver disease	15	2	1	1	-	-	1	3	-	-	-	1	1	2	3	-
Venereal disease	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Skin disease	11	5	4	-	-	-	-	-	-	-	-	-	-	1	-	1
E.N.T. disease	9	2	3	-	-	-	-	-	-	-	-	-	-	-	1	-
Cholera (proven)	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Oedema (Dropsy)	65	3	16	4	-	1	1	1	-	1	-	5	1	3	6	23
Rheumatism	46	3	1	-	-	-	1	1	-	-	2	-	2	4	6	26
Accident	11	-	-	1	1	1	-	1	1	-	-	-	-	2	2	2
Old age	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Fever (all forms)	94	23	29	5	-	3	-	-	1	-	-	1	2	2	5	23
Unknown	31	18	2	1	1	-	1	-	-	-	-	-	1	-	2	5
Diabetes	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Cancer	17	-	1	-	-	-	-	1	-	1	1	2	5	-	2	4

\* Takuria, evil spirit

\*\* Other than cholera

\*\*\* Cold, fever, cough, pulmonary tuberculosis (TB), asthma etc.

x Prolonged or recurrent illness during last two/three months

TABLE XIV-b--FEMALE DEATHS BY CAUSE AND AGE, 1983

Cause	Age at death (years)															
	All ages	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
All causes	1417	400	414	61	17	19	28	19	11	17	21	22	25	56	57	250
Measles	32	5	20	6	1	-	-	-	-	-	-	-	-	-	-	-
Tetanus*	153	137	5	4	-	-	3	1	-	1	1	-	-	-	-	1
Drowning	41	2	35	4	-	-	-	-	-	-	-	-	-	-	-	-
Murder	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Suicide	3	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-
Diarrhoea acute	86	19	31	7	3	2	1	3	1	1	2	1	-	1	3	11
Diarrhoea chronic <sup>x</sup>	48	4	31	4	-	-	1	-	1	-	-	-	-	-	-	7
Dysentery acute	75	3	53	4	-	-	-	1	-	-	-	1	-	2	-	11
Dysentery chronic <sup>x</sup>	141	4	76	5	1	-	1	2	-	-	1	-	2	5	9	35
Childbirth	10	-	-	-	1	1	2	3	3	1	-	-	-	-	-	-
Jaundice	17	1	1	1	3	4	-	2	2	-	-	1	-	2	-	-
Other	283	116	57	11	5	4	6	1	1	6	4	6	4	13	9	40
Disease of G.I. Tract**	32	2	3	-	-	-	1	1	-	3	4	4	1	3	2	8
Respiratory***	102	37	15	-	-	1	3	2	-	1	1	1	4	9	6	22
Heart disease	8	-	2	-	-	-	-	-	-	-	-	-	-	1	2	3
Liver disease	11	-	3	2	3	-	1	-	-	-	-	-	-	1	-	1
Venereal disease	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Skin disease	15	8	4	-	-	-	-	-	-	-	-	-	-	-	-	3
E.N.T. disease	8	3	2	-	-	-	1	-	-	1	-	-	-	1	-	-
Cholera (proven)	3	-	1	-	-	-	-	-	-	-	-	-	2	-	-	-
Oedema (Dropsey)	99	3	28	2	-	-	3	-	1	1	2	1	6	10	10	32
Rheumatism	55	4	3	-	-	-	-	-	-	1	2	2	2	3	3	35
Accident	4	-	1	-	-	1	-	-	-	-	-	-	-	2	-	-
Old age	20	-	-	-	-	-	-	-	-	-	-	-	-	1	2	17
Fever (all forms)	128	35	41	10	1	2	3	2	1	1	3	3	-	2	7	17
Unknown	32	17	2	1	-	1	-	1	-	-	-	-	1	2	2	5
Diabetes	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Cancer	8	-	-	-	-	-	-	1	-	1	-	1	2	1	1	1

\* Takuria, evil spirit

\*\* Other than cholera

\*\*\* Cold, fever, cough, pulmonary tuberculosis (TB), asthma etc.

x Prolonged or recurrent illness during last two/three months

TABLE XV-a--MALE DEATHS BY CAUSE, AGE AND AREA, 1983

Cause	Age at death (years)													
	All ages		Under 1		1-4		5-14		15-44		45-64		65+	
	M	C	M	C	M	C	M	C	M	C	M	C	M	C
All causes	571	741	162	215	105	165	22	38	32	45	105	116	145	162
Measles	5	22	-	4	3	16	2	2	-	-	-	-	-	-
Tetanus*	57	103	53	91	2	9	-	1	1	1	-	1	1	-
Drowning	21	19	-	1	17	9	2	7	-	1	2	1	-	-
Murder	2	1	-	-	-	1	-	-	1	-	1	-	-	-
Suicide	1	-	-	-	-	-	-	-	1	-	-	-	-	-
Diarrhoea acute	33	33	11	8	9	8	4	4	3	1	2	4	4	8
Diarrhoea chronic <sup>x</sup>	10	7	3	-	3	5	-	-	-	2	-	2	-	2
Dysentery acute	24	30	4	-	8	12	-	2	-	2	4	5	8	9
Dysentery chronic <sup>x</sup>	61	74	1	1	19	31	2	1	1	3	13	11	25	27
Child birth	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jaundice	10	6	-	-	2	2	2	1	1	1	3	2	2	-
Other	102	147	43	64	12	21	4	6	8	8	12	26	23	22
Disease of G.I. Tract**	11	28	1	1	-	3	-	-	1	4	6	15	3	5
Respiratory***	89	83	17	17	7	13	3	3	7	5	28	16	27	29
Heart disease	7	9	-	1	-	-	-	-	1	3	1	1	5	4
Liver disease	4	11	-	2	-	1	-	1	1	3	3	4	-	-
Venereal disease	-	1	-	-	-	-	-	-	-	-	-	1	-	-
Skin disease	6	5	4	1	-	4	-	-	-	-	1	-	1	-
E.N.T. disease	6	3	1	1	1	2	-	-	-	-	2	-	2	-
Cholera (proven)	1	-	-	-	1	-	-	-	-	-	-	-	-	-
Oedema (Dropsy)	29	37	2	1	6	10	1	3	2	2	8	7	10	14
Rheumatism	18	28	1	2	1	-	-	-	1	3	4	8	11	15
Accident	3	8	-	-	-	-	1	1	1	2	1	3	-	2
Old age	6	7	-	-	-	-	-	-	-	-	-	6	7	-
Fever (all forms)	41	53	10	13	12	17	1	4	1	3	6	4	11	12
Unknown	16	15	11	7	2	-	-	2	-	1	-	3	3	2
Diabetes	-	2	-	-	-	-	-	-	-	-	-	1	-	1
Cancer	8	9	-	-	-	1	-	-	1	2	6	3	1	3

\* Takuria, evil spirit

\*\* Other than cholera

\*\*\* Cold, fever, cough, pulmonary tuberculosis (TB), asthma etc.

x Prolonged or recurrent illness during last two/three months.

M = MCH-FP area

C = Comparison area

TABLE XV-b--FEMALE DEATHS BY CAUSE, AGE AND AREA, 1983

Cause	Age at death (years)													
	All ages		Under 1		1-4		5-14		15-44		45-64		65+	
	M	C	M	C	M	C	M	C	M	C	M	C	M	C
All causes	575	842	162	238	135	279	40	38	60	55	63	97	115	135
Measles	7	25	-	5	3	17	4	3	-	-	-	-	-	1
Tetanus*	55	96	50	85	1	4	2	2	2	4	-	-	-	-
Drowning	21	20	1	1	17	18	3	1	-	-	-	-	-	-
Murder	-	1	-	-	-	-	-	-	1	-	-	-	-	-
Suicide	1	2	-	-	-	-	-	1	2	-	-	-	-	-
Diarrhoea acute	39	47	8	11	15	16	5	5	5	5	1	4	5	6
Diarrhoea chronic <sup>x</sup>	17	31	3	1	9	22	1	3	1	1	-	-	3	4
Dysentery acute	20	55	1	2	12	41	-	4	-	1	1	2	6	5
Dysentery chronic <sup>x</sup>	48	93	2	2	24	52	2	4	1	3	6	10	13	22
Child birth	8	2	-	-	-	-	-	-	8	2	-	-	-	-
Jaundice	13	4	1	-	-	1	4	-	7	1	1	2	-	-
Other	125	160	47	71	21	36	9	7	13	9	15	17	20	20
Disease of G.I. Tract**	7	25	-	2	1	2	-	-	3	6	2	.8	1	7
Respiratory***	49	53	18	19	9	6	-	-	5	3	7	13	10	12
Heart disease	5	3	-	-	2	-	-	-	-	1	2	2	2	1
Liver disease	5	6	-	-	1	2	3	2	-	1	-	1	1	-
Venereal disease	1	-	-	-	-	-	-	-	-	1	-	-	-	-
Skin disease	9	6	6	2	-	4	-	-	-	-	-	-	3	-
E.N.T. disease	4	4	-	3	1	1	-	-	2	-	1	-	-	-
Cholera (proven)	-	3	-	-	-	1	-	-	-	-	2	-	-	-
Oedema (Dropsy)	41	58	2	1	11	17	2	-	4	3	10	17	12	20
Rheumatism	22	33	-	4	-	3	-	-	1	2	5	5	16	19
Accident	2	2	-	-	1	-	-	-	-	1	1	1	-	-
Old age	16	4	-	-	-	-	-	-	-	3	-	13	4	-
Fever (all forms)	41	87	15	20	7	34	5	6	5	7	4	8	5	12
Unknown	12	20	8	9	-	2	-	1	-	2	1	4	3	2
Diabetes	1	-	-	-	-	-	-	-	-	-	-	1	-	-
Cancer	6	2	-	-	-	-	-	-	2	1	3	1	1	-

\* Takuria, evil spirit

\*\* Other, than cholera

\*\*\* Cold, fever, cough, pulmonary tuberculosis (TB), asthma etc.

x Prolonged or recurrent illness during last two/three months.

M = MCH-FP area

C = Comparison area

TABLE XVI--NUMBER AND RATES OF PREGNANCY OUTCOMES BY  
TYPE AND AREA, 1983

Type of Pregnancy Outcome	All		MCH-FP		Comparison	
	Number	Rate	Number	Rate	Number	Rate
Total pregnancies*	8113	181.5	3617	157.7*	4496	206.6
Live birth pregnancies**	7254	894.1*	3267	903.2	3987	886.8
Fetal wastage pregnancies**	859	105.9	350	96.8	509	113.2
Early (miscarriages)	600	82.7	233	71.3	376	92.1
Late (still-births)	259	36.0	117	36.1	142	35.9
Twin birth pregnancies	78		36		42	
Live birth pregnancies	76		35		41	
Two live births	71		33		38	
One live birth	5		2		3	
Still-birth pregnancies	1		-		1	
Miscarriage pregnancies	1		1		-	

\* Rate per 1,000 women of age 15-49 years

\*\* Ratio per 1,000 total pregnancies

TABLE XVII--PREGNANCY OUTCOME BY MONTHS, 1983

Month	All	Pregnancy Outcome				Number of live born children		
		Miscarriage		Stillbirth	Live births*	Both sexes	Males	Females
		Induced	Spontaneous					
All months	8113	152	448	259	7254	7325	3738	3587
January	664	11	25	24	604	609	316	293
February	590	11	24	14	541	544	271	273
March	525	23	33	12	457	461	235	226
April	552	21	58	10	463	469	256	213
May	514	9	48	13	444	448	229	219
June	542	20	47	18	457	462	233	229
July	590	7	43	19	521	525	265	260
August	596	12	44	25	515	521	252	269
September	722	8	37	26	651	661	322	339
October	954	17	30	30	877	884	461	423
November	979	7	38	40	894	901	449	452
December	885	6	21	28	830	840	449	391

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

TABLE XVIII--MULTIPLE PREGNANCY BY SEX AND RESULT, 1983

Sex sequence	1st child		2nd child	
	Stillbirth	Live birth	Stillbirth	Live birth
MN	1	24	1	24
MF	-	14	-	14
FM	-	13 /	-	13
FF	2	23	3	22
Total	3	74	4 \	73

TABLE XIX--NUMBER OF MOTHERS WHO HAD LIVE BIRTHS IN 1983 BY AGE AND NUMBER OF PREVIOUS PREGNANCIES\*

Age of mother (years)	Total	Number of previous pregnancies										Mean No. of preg- nancies	
		0	1	2	3	4	5	6	7	8	9		
All ages	7254	1441	1365	1032	857	718	588	437	324	207	162	123	2.9
Under 15	25	15	6	1	2	-	-	1	-	-	-	-	.4
15 - 19	1189	853	270	48	10	5	1	1	1	-	-	-	.4
20 - 24	2452	521	905	631	285	84	16	7	3	-	-	-	1.4
25 - 29	1670	44	162	301	463	370	216	78	28	6	2	-	3.2
30 - 34	945	5	18	37	80	205	240	166	115	53	21	5	5.1
35 - 39	698	2	3	11	16	45	93	148	139	106	88	47	6.8
40 - 44	225	1	1	-	1	7	18	30	35	37	42	53	7.9
45 +	50	-	-	3	-	2	4	6	3	5	9	18	8.0

\* Present birth excluded.

FIG. 6: MEAN NUMBER OF PREGNANCIES AND SURVIVING CHILDREN FOR WOMEN WHO DELIVERED LIVE BIRTHS BY AGE, 1983

Fig. 6

MEAN NUMBER OF PREGNANCIES  
AND SURVIVING CHILDREN FOR  
WOMEN WHO DELIVERED LIVE BIRTHS  
BY AGE, 1983

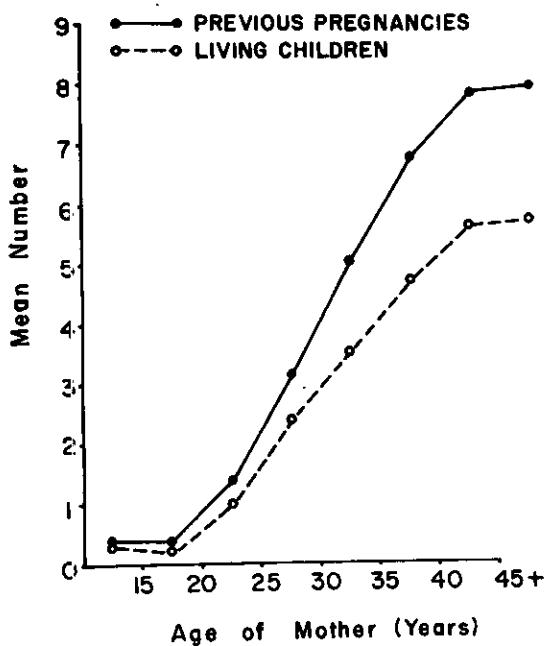


TABLE XX--NUMBER OF WOMEN WHO HAD STILLBIRTH BY AGE AND NUMBER OF PREVIOUS PREGNANCIES\*, 1983

Age (years)	Total	Number of previous pregnancies										
		0	1	2	3	4	5	6	7	8	9	10+
All ages	259	67	33	31	25	22	22	12	12	14	11	10
Under 15	1	-	1	-	-	-	-	-	-	-	-	-
15 - 19	49	40	6	2	1	-	-	-	-	-	-	-
20 - 24	76	25	12	19	11	8	1	-	-	-	-	-
25 - 29	52	1	12	9	12	6	8	3	1	-	-	-
30 - 34	32	-	2	1	1	5	7	6	4	2	3	1
35 - 39	28	-	-	-	-	1	6	3	4	7	3	4
40 - 44	20	1	-	-	-	2	-	-	3	5	4	5
45 +	1	-	-	-	-	-	-	-	-	-	1	-

31

\* Present birth excluded.

TABLE XXI--NUMBER OF WOMEN WHO HAD INDUCED MISCARRIAGE BY AGE AND NUMBER OF PREVIOUS PREGNANCIES\*, 1983

Age (years)	Total	Number of previous pregnancies										
		0	1	2	3	4	5	6	7	8	9	10+
All ages	152	38	14	10	6	12	18	14	13	10	3	14
Under 15	1	1	-	-	-	-	-	-	-	-	-	-
15 - 19	24	19	4	1	-	-	-	-	-	-	-	-
20 - 24	35	17	9	3	2	2	2	-	-	-	-	-
25 - 29	27	1	1	5	3	6	8	2	-	-	-	1
30 - 34	18	-	-	1	-	2	3	6	3	2	1	-
35 - 39	30	-	-	-	1	2	2	4	9	3	2	7
40 - 44	12	-	-	-	-	-	2	2	1	3	-	4
45 +	5	-	-	-	-	-	1	-	-	2	-	2

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\* Present birth excluded.

TABLE XXII--NUMBER OF WOMEN WHO HAD SPONTANEOUS MISCARRIAGE BY AGE AND NUMBER OF PREVIOUS PREGNANCIES\*, 1983

Age (years)	Total	Number of previous pregnancies										
		0	1	2	3	4	5	6	7	8	9	10+
All ages	447	88	90	45	44	48	25	31	20	16	21	19
Under 15	2	1	1	-	-	-	-	-	-	-	-	-
15 - 19	91	56	30	1	4	-	-	-	-	-	-	-
20 - 24	129	26	50	29	13	9	2	-	-	-	-	-
25 - 29	95	3	9	14	21	25	12	9	-	1	-	1
30 - 34	46	-	-	1	5	8	6	10	7	7	2	-
35 - 39	60	2	-	-	-	5	3	10	9	6	14	11
40 - 44	21	-	-	-	1	1	1	2	4	2	5	5
45 +	3	-	-	-	-	-	1	-	-	-	-	2

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\* Present birth excluded.

TABLE XXIII--NUMBER OF MOTHERS WHO HAD LIVE BIRTHS BY AGE AND NUMBER OF SURVIVING CHILDREN\* 1983

Age of mother (years)	Total	Number of surviving children										Mean No. of surviving	
		0	1	2	3	4	5	6	7	8	9		
All ages	7254	1899	1556	1231	944	692	478	259	136	46	8	5	2.1
Under 15	25	17	5	3	-	-	-	-	-	-	-	-	0.4
15 - 19	1189	1005	159	20	4	-	-	1	-	-	-	-	0.2
20 - 24	2452	771	1039	508	120	11	2	1	-	-	-	-	1.0
25 - 29	1670	88	296	535	475	216	49	8	3	-	-	-	2.4
30 - 34	945	14	41	123	243	286	171	54	11	1	1	-	3.6
35 - 39	698	3	14	37	81	145	200	133	64	20	-	1	4.8
40 - 44	225	1	1	3	16	29	46	53	49	22	4	1	5.7
45 +	50	-	1	2	5	5	10	9	9	3	3	3	5.8

34

\* Present birth excluded.

TABLE XXIV--AGE SPECIFIC FERTILITY RATES AND REPRODUCTION INDICES, 1983  
(PER 1000)

Age group (years)	Number of live births	Number of women*	Fertility rate
All ages	7325	44688	163.9
15 - 19**	1221	10696	114.2
20 - 24	2472	9487	260.6
25 - 29	1685	6519	258.5
30 - 34	959	4449	215.6
35 - 39	707	4926	143.5
40 - 44	229	4415	51.9
45 - 49***	52	4196	12.4
Total fertility rate (TFR)			5284
General fertility rate (GFR)			164
Gross reproduction rate (GRR)			2584
Net reproduction rate (NRR)			1949

\* Figures obtained from mid-year population.

\*\* Births which occurred to mothers below age 15 were included in this group.

\*\*\* Births which occurred to mothers of age 50 and above were included in this group.

TABLE XXV--AGE-SPECIFIC FERTILITY RATES AND REPRODUCTION INDICES BY AREA, 1983  
(PER 1000)

Age (years)	MCH-FP Area		Comparison Area	
	Number of live births	Fertility rates	Number of live births	Fertility rates
All ages	3300	152.6	4025	195.5
15 - 19*	583	106.2	638	130.0
20 - 24	1166	240.0	1306	270.6
25 - 29	754	228.6	931	294.2
30 - 34	404	175.3	555	263.8
35 - 39	287	111.5	420	225.0
40 - 44	80	34.9	149	87.2
45 - 49**	26	12.3	26	12.9
	TFR = 4,544		TFR = 6,418	
	GFR = 153		GFR = 196	
	GRF = 2,195		GRR = 2,942	
	NRF = 1,686		NRR = 2,016	

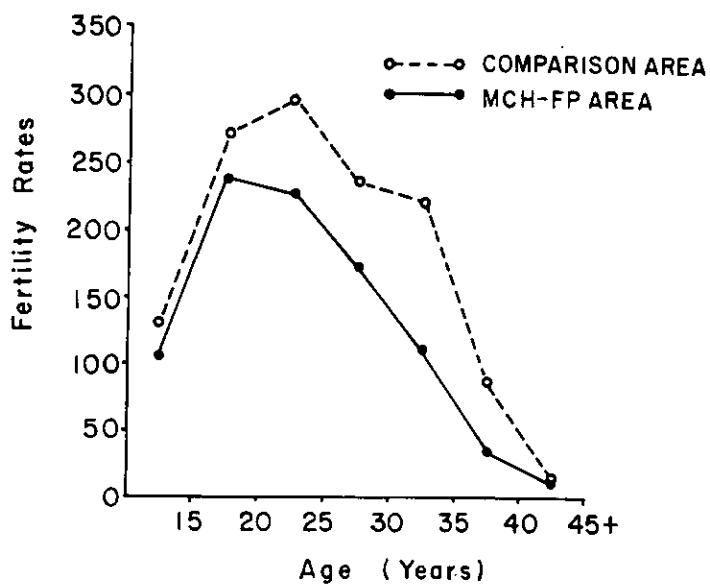
\* Births to mothers under age 15 were included in this group.

\*\* Births to mothers age 50 and over were included in this group.

FIG. 7: AGE SPECIFIC FERTILITY RATES BY AREA, 1983  
(PER 1000)

Fig. 7

AGE SPECIFIC FERTILITY RATES  
BY AREA, 1983 (PER 1000)



Marriage And Divorce:

In 1983, 2,691 marriages were registered, in which 2,002 grooms and 2,263 brides were married for the first time (Table XXVI and XXVII). Of the respective marriages 48.3 percent grooms were married at the age of 25-29 years; 71.6 percent brides were married at the age of 15-19 years. There has been further increase of age at first marriage for both grooms and brides. The median age at first marriage for males and females were 24.0 and 17.0 years in 1982 and 25.0 and 18.0 years in 1983. The age-and sex-specific marriage rates are shown in (Table XXVIII). The highest male rate is 183.9 in the 25-29 age group, while for females the peak is 163.6 in age group 15-19.

The distribution of marriages and divorces by month shows a marked seasonal variation; the variation range for marriage is 135 to 269, and 20 to 41 for divorce (Table XXXII and Figure 8).

Migration:

An "out-migrant" is defined as a person originally listed on the census record as a resident, or a person who became a resident after the census by birth or in-migration, who subsequently permanently moved out of the surveillance (DSS) area. Likewise, an "in-migrant" is an individual not recorded in the census schedule, who has permanently moved into the surveillance area. Those who stay home continuously for at least 6 months in a year or come home at least once a month to stay over night are treated as permanent residents.

There were 4,690 in-migrants and 6,831 out-migrants registered in 1983, yielding a net out-migration rate of 11.2 per 1,000 population. The rate of out-migration in 1983 is higher by 2.0 than the rate in previous year. The age specific in and out-migration rates are presented in Table (XXXV) and Figure 9. The highest male in-and out-migration rates of 43.9 and 56.9 respectively, are found in age group 30-34 and 25-29. For females, the highest in-and out-migration rates are 86.8 and 97.2 respectively in age group 15-19, similar to those of 1982. The distribution of in-and out-migration by month shows a marked seasonal variation (Table XXXVI and Figure 10). The main causes of out-migration for males were associated with better living, while for females there were dependent movements (Tables XXXIVa and XXXIVb). The simialr causes of migration-out for both males and females was found in 1982.

TABLE XXVI--GROOM'S AGE AT MARRIAGE BY PREVIOUS MARITAL STATUS, 1983

Age group	Previous Marital Status									
	All groups		Single		Married		Widowed		Divorced	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All ages	2691	100.0	2002	100.0	131	100.0	134	100.0	424	100.0
10 - 14	7	0.3	6	0.3	-	-	-	-	1	0.2
15 - 19	116	4.3	102	5.1	-	-	-	-	14	3.3
20 - 24	811	30.1	712	35.6	14	10.6	6	4.5	79	18.6
25 - 29	1213	45.1	966	48.3	34	26.5	29	21.6	184	43.4
30 - 34	333	12.4	192	9.6	28	21.2	23	17.2	90	21.2
35 - 39	103	3.8	19	0.9	22	16.7	24	17.9	38	9.0
40 - 44	47	1.7	2	0.1	19	14.4	17	12.7	9	2.1
45 - 49	19	0.7	-	-	6	4.5	11	8.2	2	0.5
50 - 54	19	0.7	-	-	5	3.8	10	7.5	4	0.9
55 - 59	10	0.4	3	0.1	2	1.5	7	5.2	-	-
60 - 64	5	0.2	-	-	-	-	3	2.2	1	0.2
65 +	8	0.3	-	-	1	0.8	4	3.0	2	0.5
Median Age*	26.0		25.0		33.0		36.0		28.0	
Mean Age*	26.8		25.2		34.1		38.5		28.5	
Standard dev.*	6.4		4.1		8.8		11.5		6.6	

\* Mean, median and standard deviation were calculated from ungrouped data.

TABLE XXVII--BRIDE'S AGE AT MARRIAGE BY PREVIOUS MARITAL STATUS, 1983

Age group	Previous Marital Status							
	All brides		Single		Widowed		Divorced	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All ages	2691	100.0	2263	100.0	33	100.0	395	100.0
10 - 14	144	5.4	142	6.3	-	-	2	0.5
15 - 19	1750	65.0	1621	71.6	3	9.1	126	31.9
20 - 24	679	25.2	477	21.1	13	39.4	189	47.8
25 - 29	82	3.1	21	1.0	9	27.3	52	13.2
30 - 34	20	0.7	1	0.0	3	9.1	16	4.1
35 - 39	10	0.4	1	0.0	3	9.1	6	1.5
40 - 44	3	0.1	-	-	1	3.0	2	0.5
45 +	3	0.1	-	-	1	3.0	2	0.5
Median Age*	18.0		18.0		25.0		21	
Mean Age*	18.5		17.8		26.6		21.8	
Standard dev.*	3.5		2.5		7.3		4.7	

\* Mean, median and standard deviation were calculated from ungrouped data.

TABLE XXVIII--MARRIAGE RATES\* BY AGE AND SEX, 1983  
(PER 1000)

Age at marriage	Both sexes	Males	Females
All ages	28.2**	27.8**	28.6**
10 - 14	6.1	0.5	12.2
15 - 19	89.8	11.5	163.6
20 - 24	77.5	83.3	71.6
25 - 29	98.7	183.9	12.6
30 - 34	40.2	77.8	4.5
35 - 39	12.9	26.7	2.0
40 - 44	6.3	13.2	0.9
45 - 49	2.3	4.7	0.2***
50 - 54	3.0	5.9	-
55 - 59	1.9	3.6	-
60 - 64	1.3	2.4	-
65 +	0.9	2.1	-

\* Rates per 1000 population irrespective of previous marital status.

\*\* Mid-year population age 10 years and over was used to compute the rates.

\*\*\* Women age 45 and over were grouped to compute the rate.

TABLE XXIX--NUMBER OF MARRIAGES BY GROOM'S AND BRIDE'S  
AGE AT MARRIAGE, 1983

Groom's age (years)	B r i d e ' s A g e (y e a r s )									
	All	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+
All	2691	144	1750	679	82	20	10	3	2	1
Under 15	7	1	4	1	-	-	1	-	-	-
15 - 19	116	14	86	15	1	-	-	-	-	-
20 - 24	811	73	622	107	7	1	1	-	-	-
25 - 29	1213	45	850	303	12	1	2	-	-	-
30 - 34	333	10	137	159	25	1	1	-	-	-
35 - 39	103	-	37	43	17	6	-	-	-	-
40 - 44	47	-	7	28	7	1	2	2	-	-
45 - 49	19	1	1	8	6	1	1	1	-	-
50 - 54	19	-	2	7	4	4	-	-	2	-
55 - 59	10	-	2	3	2	3	-	-	-	-
60 - 64	5	-	1	1	-	2	1	-	-	-
65 +	8	-	1	4	1	-	1	-	-	1

TABLE XXX--DIVORCES BY AGE AND SEX, 1983

Age	Males	Females
All ages	411	411
Under 15	-	6
15 - 19	13	210
20 - 24	93	142
25 - 29	180	39
30 - 34	73	6
35 - 39	23	3
40 - 44	11	1
45 - 49	4	4
50 - 54	7	-
55 - 59	2	-
60 - 64	2	-
65 +	3	-

TABLE XXXI--NUMBER OF DIVORCES BY MALE PARTNER'S AGE  
AND FEMALE PARTNER'S AGE AT DIVORCE

Male's age (years)	Female's Age (Years)									
	All	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+
All	411	6	211	141	39	6	3	1	2	2
Under 15	-	-	-	-	-	-	-	-	-	-
15 - 19	13	1	10	2	-	-	-	-	-	-
20 - 24	93	3	71	15	3	-	-	-	-	1
25 - 29	180	2	99	70	9	-	-	-	-	-
30 - 34	73	-	24	37	12	-	-	-	-	-
35 - 39	23	-	4	8	8	3	-	-	-	-
40 - 44	11	-	1	4	3	1	1	1	-	-
45 - 49	4	-	-	3	-	-	1	-	-	-
50 - 54	7	-	1	2	2	1	-	-	1	-
55 - 59	2	-	1	-	-	-	1	-	-	-
60 - 64	2	-	-	-	1	1	-	-	-	-
65 +	3	-	-	-	1	-	-	-	1	1

TABLE XXXII--MARRIAGES AND DIVORCES BY MONTH, 1983

Month	Marriages	Percent	Divorces	Percent
All months	2691	100.0	411	100.0
January	263	9.8	37	9.0
February	269	10.0	40	9.7
March	259	9.6	41	10.0
April	160	6.0	30	7.3
May	262	9.7	38	9.3
June	227	8.4	37	9.0
July	256	9.5	40	9.7
August	211	7.9	41	10.0
September	221	8.2	31	7.5
October	202	7.5	31	7.5
November	135	5.0	25	6.1
December	226	8.4	20	4.9

FIG. 8: MARRIAGES AND DIVORCES BY MONTH, 1983

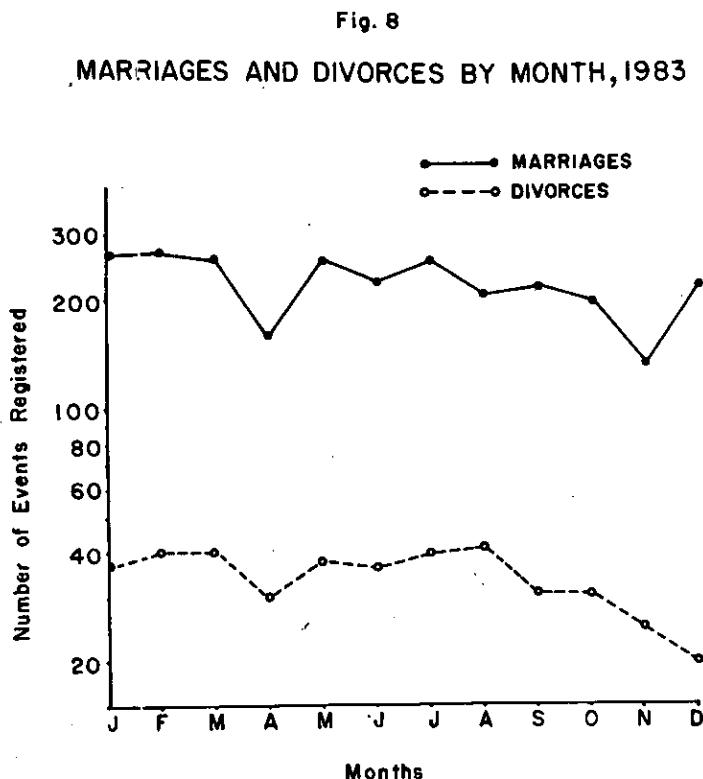


TABLE XXXIII--NUMBER OF DIVORCES BY MALES AND FEMALES AGE AND DURATION OF MARRIAGE, 1983

Age at divorce	Duration of Marriage (Months)																	
	All duration		Less than 6		6 - 11		12 - 23		24 - 35		36 - 47		48 - 59		60 +		Mean*	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All ages	411	411	68	68	71	71	106	106	56	56	33	33	21	21	56	56	25.7	25.7
Under 20	13	216	2	45	6	43	3	71	1	26	-	15	-	9	1	7	14.2	17.2
20 - 29	273	181	41	21	51	26	89	33	37	29	23	17	14	12	18	43	21.1	34.1
30 - 39	96	9	19	2	9	2	11	1	15	1	7	1	6	-	29	2	37.3	42.4
40 - 49	15	3	3	-	2	-	3	-	2	-	3	-	-	-	2	3	29.2	67.7
50 +	14	2	3	-	3	-	-	1	1	-	-	-	1	-	6	1	43.8	55.0
																	24	98

\* Mean and median were calculated from ungrouped data.

TABLE XXXIV--IN AND OUT-MIGRATION BY AGE AND SEX, 1983

Age (Years)	In-migration			Out-migration		
	Both sexes	Males	Females	Both sexes	Males	Females
All ages	4690	1968	2722	6831	3111	3720
Under 5	738	373	365	1064	554	510
0	115	62	53	217	122	155
1	181	94	87	217	113	104
2	163	80	83	219	118	101
3	154	79	75	191	111	80
4	125	58	67	160	90	70
5 - 9	458	245	213	571	298	273
10 - 14	337	167	170	663	310	353
15 - 19	1087	159	928	1424	384	1040
20 - 24	694	171	523	1277	501	776
25 - 29	500	272	228	703	375	328
30 - 34	287	188	99	322	198	124
35 - 39	180	134	46	244	158	86
40 - 44	111	82	29	168	117	51
45 - 49	88	54	34	114	72	42
50 - 54	59	40	19	67	34	33
55 - 59	42	24	18	68	42	26
60 - 64	47	28	19	45	25	20
65 +	162	31	31	101	43	58

TABLE XXXIV-a--OUT-MIGRATION BY CAUSE OF MOVEMENT, SEX AND AGE, 1983

TABLE XXXIV-b--OUT-MIGRATION BY CAUSE OF MOVEMENT, SEX AND AGE, 1983

Cause of movement	Females Age (years)														
	All ages	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
All migrants	3720	509	273	354	1040	776	328	124	86	51	42	33	26	20	58
1. Dependent movement															
- dependent	1304	466	233	97	87	149	110	57	31	22	10	18	2	7	15
- to join with spouse	81	-	-	-	25	36	15	5	3	-	1	-	-	-	-
- to join parents	20	2	4	2	5	3	3	-	1	-	-	-	-	-	-
- to join relatives	2	-	-	-	1	-	-	-	-	-	-	-	1	-	-
- adoption	10	8	2	-	-	-	-	-	-	-	-	-	-	-	-
2. Independent movement															
2.1 Associated with work living condition															
- service	70	-	-	8	19	21	11	4	2	3	-	-	-	1	1
- work	59	-	1	16	18	12	4	4	2	1	-	-	-	1	-
- business	3	-	-	1	-	-	1	-	-	-	1	-	-	-	-
- better living for livelihood	954	26	25	142	189	218	134	46	44	18	25	14	22	10	41
- study	52	2	4	22	13	9	2	-	-	-	-	-	-	-	-
2.2 Associate with marriage															
- marriage	961	-	-	49	587	285	32	3	2	2	-	-	-	-	1
- divorce	56	-	-	1	31	14	7	2	1	-	-	-	-	-	-
- widow	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-
- separation	70	-	-	-	46	17	5	2	-	-	-	-	-	-	-
2.3 Return migration															
- after study	3	-	1	1	1	-	-	-	-	-	-	-	-	-	-
- after service	2	-	-	-	-	-	1	-	-	1	-	-	-	-	-
- after work	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- return home	3	-	-	1	1	1	-	-	-	-	-	-	-	-	-
- regular member of family	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-
2.4 Others	24	2	1	3	6	5	3	1	-	2	-	-	-	1	-
3. Change in residence	26	-	-	7	8	4	-	-	-	1	4	1	1	-	-
4. For treatment	2	-	-	-	-	1	-	1	-	-	-	-	-	-	-
5. Not stated	2	1	-	1	-	-	-	-	-	-	-	-	-	-	-
6. River erosion	14	2	2	2	3	-	2	1	-	1	1	-	-	-	-
7. Family affairs and see the family member	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE XXXV--AGE AND SEX SPECIFIC MIGRATION RATES BY DIRECTION, 1983\*

Age group (years)	Both sexes		Males		Females	
	In	Out	In	Out	In	Out
All ages	24.6	35.8	20.3	32.1	28.9	39.5
Under 5	24.1	34.7	23.3	34.6	24.9	34.9
5 - 9	17.3	21.6	17.7	21.5	16.9	21.7
10 - 14	13.7	27.0	13.1	24.3	14.4	29.9
15 - 19	52.3	68.5	15.8	38.1	86.8	97.2
20 - 24	36.1	66.4	17.6	51.4	55.1	81.8
25 - 29	38.1	53.6	41.2	56.9	34.9	50.3
30 - 34	32.9	36.9	43.9	46.3	22.3	27.9
35 - 39	20.5	27.8	34.7	41.0	9.3	17.5
40 - 44	13.9	21.1	23.0	32.8	6.6	11.6
45 - 49	10.6	13.8	13.2	17.6	8.1	10.0
50 - 54	9.4	10.7	12.4	10.6	6.2	10.9
55 - 59	7.8	12.7	8.6	15.0	7.0	10.2
60 - 64	11.9	11.4	13.2	11.8	10.3	10.9
65 +	9.0	14.6	8.1	11.3	9.9	18.6

\* Rate per 1000 mid-year population.

FIG. 9: MALE AND FEMALE MIGRATION RATES BY AGE AND DIRECTION, 1983

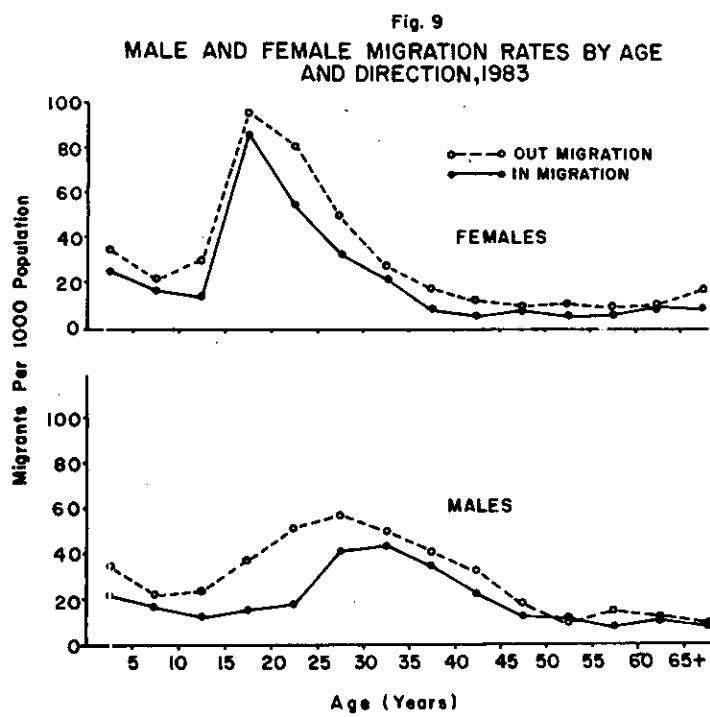


TABLE XXXVI--IN AND OUT-MIGRATION BY SEX AND MONTH, 1983

Month	In-migration			Out-migration		
	Both sexes	Males	Females	Both sexes	Males	Females
January	836	388	448	1011	470	541
February	385	152	233	629	284	345
March	351	146	205	597	268	329
April	393	188	205	580	286	294
May	357	129	228	499	212	287
June	391	154	237	622	274	348
July	428	177	251	635	305	330
August	360	151	209	575	260	315
September	431	180	251	632	306	326
October	325	144	181	433	196	237
November	232	102	130	324	150	174
December	201	57	144	294	100	194
All months	4690	1968	2722	6831	3111	3720

TABLE XXXVII--IN-AND OUT-MIGRATION BY SEX AND MAJOR CATEGORIES OF REASON FOR MIGRATION, 1983

Reason for Migration	In-migration				Out-migration			
	Males		Females		Males		Females	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All reasons	1968	100.0	2722	100.0	3111	100.0	3720	100.0
Dependent movement	643	32.7	909	33.3	917	29.5	1417	38.1
Independent movement	1141	57.5	1742	63.8	2069	66.5	2235	60.1
- due to work and better living	956	48.6	725	26.6	2035	65.4	1138	30.6
- due to marriage and marital disruption	15	0.8	973	35.7	12	0.4	1088	29.2
- return migration	170	8.6	44	1.2	22	0.7	9	0.3
Others*	184	9.3	71	3.0	125	4.0	68	1.8

\* This category includes causes, such as change in residence, treatment for diseases, river erosion family affairs, to see the family and some unstated causes related to independent movements.

FIG. 10: NUMBER OF IN AND OUT MIGRATION OF MALES AND FEMALES BY MONTH, 1983

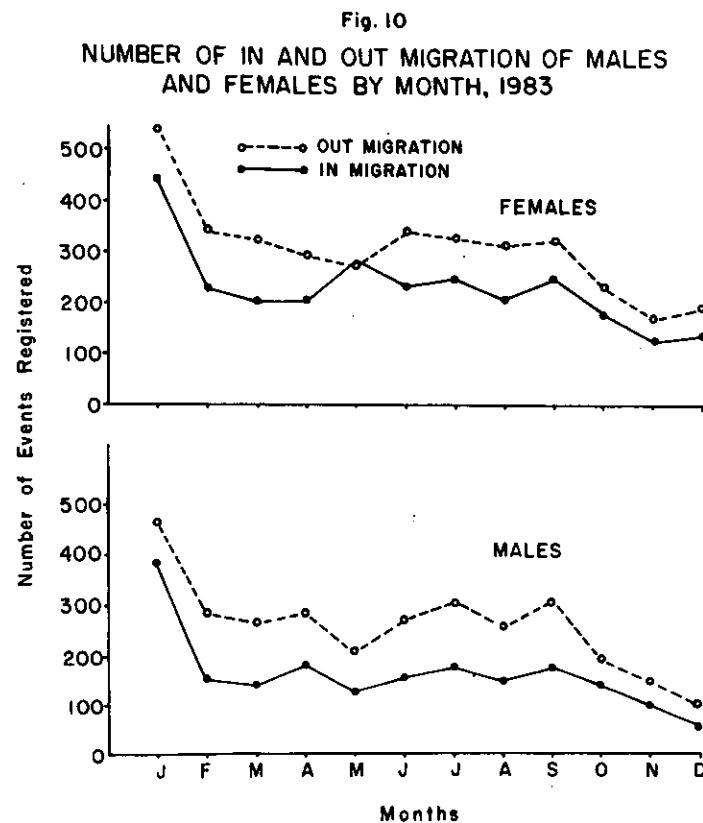


TABLE XXXVIII-a—IN-MIGRATION BY CAUSE OF MOVEMENT, SEX AND AGE, 1983

Cause of movement	Males														
	All ages	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
All migrants	1968	373	245	167	159	171	272	188	134	82	54	40	24	28	31
1. Dependent movement															
- dependent	602	334	204	43	8	4	2	2	1	1	0	0	0	0	3
- to join with spouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- to join parents	27	2	1	4	1	4	6	3	2	2	-	1	-	1	-
- to join relatives	6	-	-	-	-	1	1	3	-	-	1	-	-	-	-
- adoption	8	6	-	1	-	1	-	-	-	-	-	-	-	-	-
2. Independent movement															
2.1 Associated with work living condition															
- service	43	-	-	-	1	4	12	11	6	4	1	1	-	3	-
- work	5	-	-	1	2	-	1	-	-	1	-	-	-	-	-
- business	7	-	-	-	3	2	1	1	-	-	-	-	-	-	-
- better living	831	19	18	84	79	98	171	114	93	53	39	26	8	9	20
- for livelihood	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- study	70	-	11	17	28	9	3	1	1	-	-	-	-	-	-
2.2 Associated with marriage															
- marriage	14	-	-	-	2	3	5	-	1	1	2	-	-	-	-
- divorce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- widow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- separation	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-
2.3 Return migration															
- after study	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-
- after service	84	-	-	1	4	11	21	17	10	3	3	1	8	5	-
- after work	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- return home	41	-	1	2	3	3	9	4	5	7	0	4	2	-	1
- regular member of family	44	2	-	2	4	10	11	7	2	3	1	2	0	-	-
2.4 Others	93	1	1	1	12	9	20	16	9	3	7	2	1	8	3
3. Change in residence	2	-	-	1	-	-	-	-	1	-	-	-	-	-	-
4. For treatment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Not stated	7	1	2	-	1	-	1	0	1	1	-	-	-	-	-
6. River erosion	66	7	6	8	9	11	4	6	0	3	0	2	4	2	4
7. Family affairs and to see the family	16	1	1	2	2	1	3	2	2	-	-	1	1	-	-

TABLE XXXVIII-B--IN-MIGRATION BY CAUSE OF MOVEMENT, SEX AND AGE, 1983

Cause of movement	All ages	Females Age (years)													
		Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
All migrants	2722	365	213	170	927	524	228	99	46	29	34	19	18	19	31
1. Dependent movement															
- dependent	856	337	168	40	43	81	75	37	23	15	11	3	4	9	10
- to join with spouse	23	-	-	-	10	10	2	1	-	-	-	-	-	-	-
- to join parents	22	4	-	-	6	8	3	1	-	-	-	-	-	-	-
- to join relatives	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- adoption	8	5	2	1	-	-	-	-	-	1	-	-	-	-	-
2. Independent movement															
2.1 Associated with work living condition															
- service	4	-	-	-	-	1	1	1	1	-	-	-	-	-	-
- work	14	-	-	3	5	4	2	-	-	-	-	-	-	-	-
- business	2	-	-	-	-	2	-	-	-	-	-	-	-	-	-
- better living	666	13	21	74	141	194	91	43	18	9	14	12	12	6	18
- for livelihood	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- study	39	-	11	16	11	1	-	-	-	-	-	-	-	-	-
2.2 Associated with marriage															
- marriage	790	-	-	15	615	127	21	6	3	1	2	-	-	-	-
- divorce	74	-	-	2	36	27	7	2	-	-	-	-	-	-	-
- widow	4	-	-	-	-	2	2	-	-	-	-	-	-	-	-
- separation	105	-	-	6	42	45	11	1	-	-	-	-	-	-	-
2.3 Return migration															
- after study	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- after service	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-
- after work	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- return home	25	-	1	2	6	7	5	-	-	1	-	1	-	-	2
- regular member of family	7	-	-	2	2	2	-	-	-	-	1	-	-	-	-
2.4 Others	11	-	-	-	2	5	3	1	-	-	-	-	-	-	-
3. Change in residence	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. For treatment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Not stated	6	-	1	1	-	2	1	1	-	-	-	-	-	-	-
6. River erosion	60	6	8	6	8	5	4	4	1	3	6	3	1	4	1
7. Family affairs and to see the family	5	-	1	2	-	1	-	1	-	-	-	-	-	-	-

APPENDIX A

## LIST OF THE VILLAGES UNDER DSS-MATLAB, 1983

Block*	MCH-FP Area				Comparison Area			
	Village Code	Village Name	Village Code	Village Name	Village Code	Village Name	Village Code	Village Name
A	D	Charmukundi	V59	Doshpara	A	Uddamdi	V78	Soladana
	W	Kaladi	V60	Suvankardi	B	Charmsua	V79	Pitambordi
	V10	Dhakirgaon	V61	Munsabdi	C	Sarderkandi	V80	Daribond
	V11	Nabakalash	V62	Shilmondi	F	Sepoykandi	V90	Narinda
	V31	Dighaldi	V72	Upadi	G	Thatalia	V95	Baluchar
	V32	Mobarakdi			J	Char Harigope	V96	Rampur
B	H	Lamchari	V26	Narayapur	U	Baishpur	V97	Dhanagoda
	V12	Bangerpar	V56	Pailpara	VO1	Kadamtali	V98	Santoshpur
	V13	Baleurpara	V82	Dhanarpar	VO2	Nilokhi	V99	Baluakandi
	V19	Lakshmpur	V83	Padmapal	VO3	Char Nilokhi	VB1	Taltoli
	V20	Dagorpur	V85	Bhanurpara	VO4	Char Pathalia	VB2	Sree Rayerchar
	V21	Khadergaon	V87	Hurmaisha	VO5	Gazipur	VB3	Rayerkandi
	V22	Beloti	VB12	Nagda	VO6	Fatepur	VB4	Ramdaspur
	V23	Baluchar	VB13	Naogaon	VO7	Nayakandi	VB5	Thakurpara
	V24	Machuakhal			VO8	Goalbhar	VB6	Sarkerpara
					VO9	Naburkandi	VB7	Mirpur
					VI4	Enayetnagar	VB8	Farazikandi
					V35	Durgapur	VB9	Ramanathgonj
C	K	Shahpur	V40	Masunda	V36	Ludhua	VB10	South Rampur
	L	Tatkhana	V41	Paton	V37	Charputia	D28	Bazarkhola
	M	Char Nayergaon	V42	Adhara (South)	V38	Galimkha	D29	Kirtonkhola
	N	Aswinpur	V43	Kanachak	V45	Bakchar	D30	Banuakandi
	O	Nayergaon	V44	Panchdona	V46	Silinda	D31	Harina Bazar-khola
	P	Titerkandi	V64	Kawadi	V47	Tulatali	D32	Khalisha
	Q	Char Shibpur	V86	Adhara	V48	Gangkandi	D33	Nayanagar
	V27	Panchghoria	V88	Datikara	V49	Harina Bhabanipara	D34	Saidkharkandi
	V28	Khidirpur	VB11	Mehron	V50	Bakharpur	D35	Molla Kandi
	V30	Harion	D100	Barogaon	V51	Induriakandi	D88	Sankibanga
	V39	Gobindapur	D101	Naojan	V53	Chhoto Haldia	D89	Sankibanga Namapara
D	R	Nandalalpur	V34	Satparia	V58	Mohishmari	D90	Zahirabaj
	S	Tatua	V52	Nayakandi	V65	Nayachar	D91	North Joypur
	T	Amuakanda	V54	Balaikandi	V66	Thatalia	D92	West Joypur
	V15	Bhati Rasulpur	V55	Induria	V68	Sobahan	D93	Maizkandi
	V16	Binandapur	V57	Baluchar	V69	Nacobanga	D94	Hazipur
	V17	Hatighata	V63	Islamabad(East)	V70	South Joypur	D95	Tapaderpara
	V18	Torky	V67	Majlishpur	V71	Khamarpura	D96	Rampur
	V25	Char Pathalia	V81	Sonaterkandi	V73	Sadardia	D97	Nayakandi
	V29	Shibpur(South)	V84	Shahbajkandi	V74	Ketundia	D98	Bara Haldia
	V33	Shibpur(North)	V89	Islamabad(Middle)	V75	Mukundia	D99	Mandertoli Chosoi

\* Division by blocks applies only for MCH-FP area.

APPENDIX A.1

## VILLAGE-WISE MID-YEAR POPULATIONS IN DSS, MATLAB, 1983

MCH-FP Area (Population total 96451)				Comparison Area (Population total 94555)				
Block <sup>2</sup>	Village <sup>1</sup> Code	Popula- <sup>3</sup> tion	Village <sup>1</sup> Code	Popula- <sup>3</sup> tion	Village <sup>1</sup> Code	Popula- <sup>3</sup> tion	Village <sup>1</sup> Code	Popula- <sup>3</sup> tion
A	D	1446	V59	814	A	2382	V78	236
	W	2460	V60	872	B	1734	V79	307
	V10	1372	V61	631	C	3151	V80	951
	V11	1299	V62	710	F	1176	V90	1058
	V31	7959	V72	5088	G	2273	V95	943
	V32	2345			J	404	V96	504
	Pop. Total	24996			U	7286	V97	434
B	H	1229	V26	2361	V01	716	V98	200
	V12	445	V56	1297	VO2	455	V99	654
	V13	710	V82	1266	VO3	634	VB1	1060
	V19	3153	V83	461	VO4	234	VB2	882
	V20	956	V85	380	VO5	2978	VB3	2555
	V21	455	V87	536	VO6	2216	VB4	2591
	V22	582	VB12	3609	VO7	383	VB5	724
	V23	583	VB13	4090	VO8	1152	VB6	408
	V24	2403			VO9	1020	VB7	185
	Pop. Total	24516			VI4	912	VB8	965
C	K	883	V40	697	V35	3232	VB9	138
	L	424	V41	1268	V36	4587	VB10	1513
	M	139	V42	651	V37	374	D28	1110
	N	1868	V43	846	V38	1497	D29	170
	O	1195	V44	538	V45	900	D30	682
	P	1810	V64	4330	V46	329	D31	1042
	Q	342	V86	684	V47	1698	D32	560
	V27	829	V88	430	V48	582	D33	943
	V28	1215	VB11	2284	V49	1161	D34	1276
	V30	495	D100	3057	V50	762	D35	681
D	V39	331	D101	1195	V51	1460	D88	1867
	Pop. Total	25511			V53	2950	D89	678
	R	1310	V34	779	V58	1268	D90	2608
	S	1061	V52	234	V65	649	D91	915
	T	1438	V54	552	V66	866	D92	267
D	V15	562	V55	498	V68	763	D93	749
	V16	734	V57	1048	V69	1166	D94	964
	V17	1088	V63	1984	V70	684	D95	336
	V18	3347	V67	550	V71	382	D96	214
	V25	1258	V81	529	V73	714	D97	627
	V29	575	V84	1975	V74	1174	D98	2609
	V33	624	V89	1282	V75	370	D99	1870
	Pop. Total	21428			V76	1405		

<sup>1</sup> See Appendix A for village names.<sup>2</sup> Division by Blocks applies only for MCH-FP area<sup>3</sup> These are the population figures as of July 1, 1983.

APPENDIX B

LIFE TABLE EQUATIONS  
 (with usual symbols)

$$1. \quad n^q_x = \frac{n^m_x}{\frac{1}{n} + n^m_x \left\{ \frac{1}{2} + \frac{n}{12} (n^m_x - \ln C) \right\}}$$

$$2. \quad l_0 = 1.0$$

$$l_x = (1 - n^q_{x-n}) l_{x-n}$$

$$3. \quad L_0 = 0.276l_0 + 0.724l_1$$

$$L_1 = 0.410l_1 + 0.590l_2$$

$$L_i = \frac{1}{2}(l_i + l_{i+1}), \quad i = 2, 3, 4$$

$$n^L_x = \frac{n^d_x}{n^m_x}, \quad \text{for } 5 \leq x \leq 60$$

$$\infty^L_{65} = \frac{l_{65}}{\infty^m_{65}}, \quad \text{for the last age group 65+}$$

$$4. \quad e_x^o = \frac{T_x}{l_x}, \quad \text{where } T_x = \sum_{y=x}^{\infty} L_y$$

Note: As suggested in Shryock et al. (1975):  
The Methods and Materials in Demography, Vol. 2, p. 444,  
 US Dept. of Commerce,  $\ln C$  has been taken (app.)  
 as the value 0.095.

STAFF OF THE DEMOGRAPHIC SURVEILLANCE SYSTEMMatlab Field Station**Field Manager: (S.F.R.O.)**

Mr. A.M. Sarder

**Field Research Officer:**

Mr. A.K.M. Nurul Islam

**Assistant Supervisors:**

Mr. Khalilur Rahman I  
Mr. Liaquat Ali

**Senior Health Assistants:**

Mr. Md. Ismail  
Mr. Md. Serajul Hoque  
Mr. A. Latif Patwary  
Mr. A.F.M. Aminul Islam Khan  
Mr. K.J.M. Mannan Pathan  
Mr. A. Rashid Miah

**Health Assistant:**

Mr. Md. Golam Hossain  
Mr. Aftekharuzzaman  
Mr. Nasir Ahmed  
Mr. Abul Kashem  
Mr. Md. Nurul Hoque  
Mr. Idrish Ali I  
Mr. Shahidur Rahman  
Mr. Abdul Baten  
Mr. Paresh Chandra Chakraborty  
Mr. Idrish Ali Miah II  
Mr. Md. Zahirul Hoque  
Mr. A. Mannan Bakaul

**Recorder:**

Mrs. Monowara Begum, H.A.  
Miss Shahana Ahmed, H.A.

**Clerk:**

Mr. A.K.M. Mozibul Haque

Data Management Branch, Dhaka**Coding/Checking:**

Ms. Rahima Mazher  
Mr. Abdul Hye

**Tabulation and Computation:**

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**N.B.** 110 Community Health Workers contributed in collecting the demographic information.