

DEMOGRAPHIC SURVEILLANCE SYSTEM- MATLAB

VOLUME TWELVE

VITAL EVENTS AND
MIGRATION-TABLES
1982

REPORT PREPARED BY

Kashem Shaikh

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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 12th volume in 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 1982 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, Comilla District, a rural area of Bangladesh. Matlab is located about 45 km south-east of the country's capital, Dhaka (Map 1). The Demographic Surveillance System (DSS) is one component of this field programme (Map 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 some 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 12th volume in a series of scientific reports produced by the ICDDR,B. This volume presents results obtained from the DSS, Matlab in 1982, with brief notes and explanations of the tables.

RESULTS

Population Change:

The mid-year area population of the Maternal Child Health and Family Planning (MCH-FP) and the Comparison areas, as well as the demographic events registered for 1982 are shown in Table I. As of July 1, 1982, the Demographic Surveillance System (DSS) area had of 187,574 people, of whom 94,795 and 92,779, respectively, lived in the MCH-FP and Comparison areas. During the year, 7,638 live births and 2,661 deaths were registered, yielding a crude birth rate of 40.7 and a crude death rate of 14.2. The registered number for in-migrations and out-migrations were, respectively, 4,601 and 4,967 giving rates of 25 and 27 and a net out-migration of 2 per 1,000 population. The net population increase was 25 per 1,000. There were 2,623 marriages registered, yielding a marriage frequency of 18 per 1,000. There were 435 divorces recorded, for a ratio of 166 divorces per 1,000 marriages.

Figure 3 presents the birth and death distribution by month, showing a net population increase. The seasonality of births shows the highest peak in November. In the population pyramid (Figure 4) the age distribution is similar to those of 1980 and 1981.

FIG. 1: MAP OF BANGLADESH SHOWING THE STUDY AREA

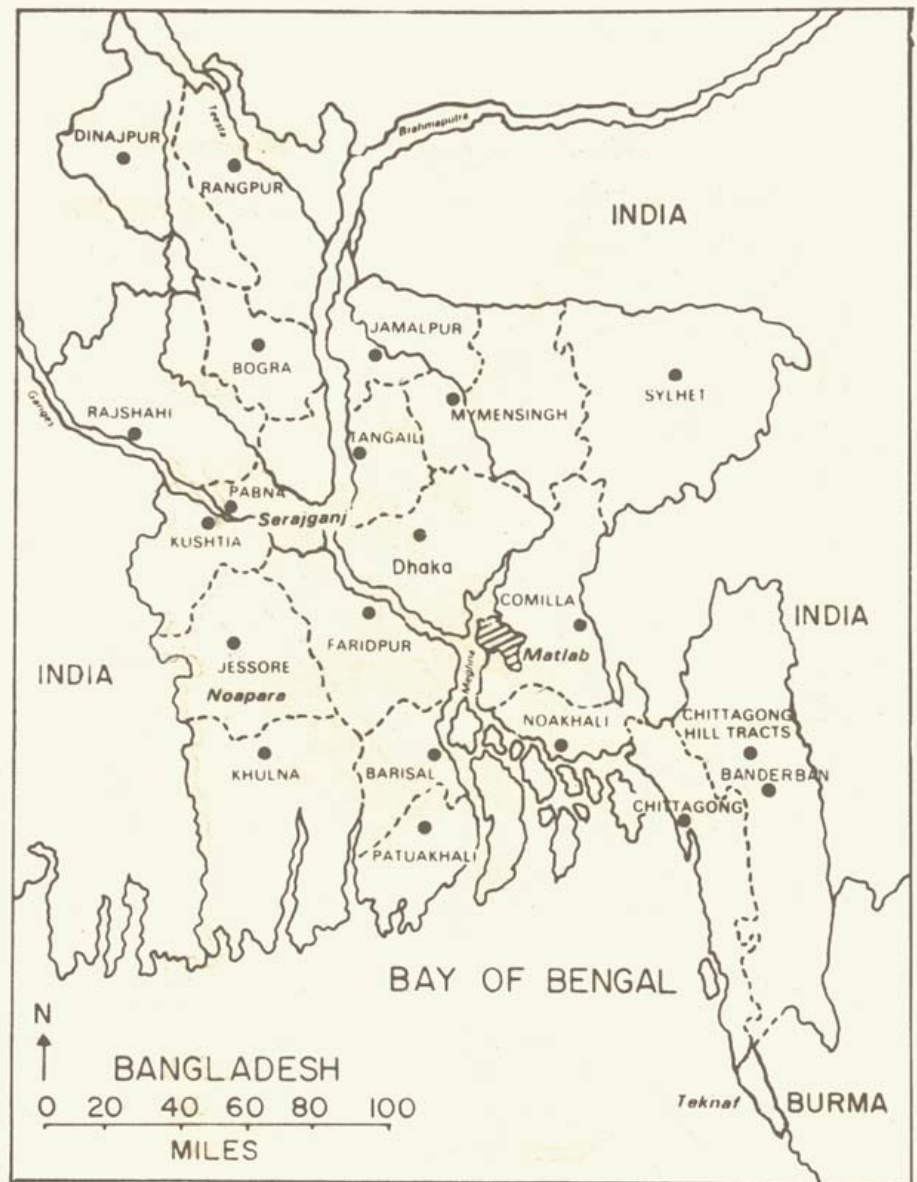


FIG. 2 : MATLAB AREA SHOWING VILLAGES OF
DEMOGRAPHIC SURVEILLANCE SYSTEM, 1982

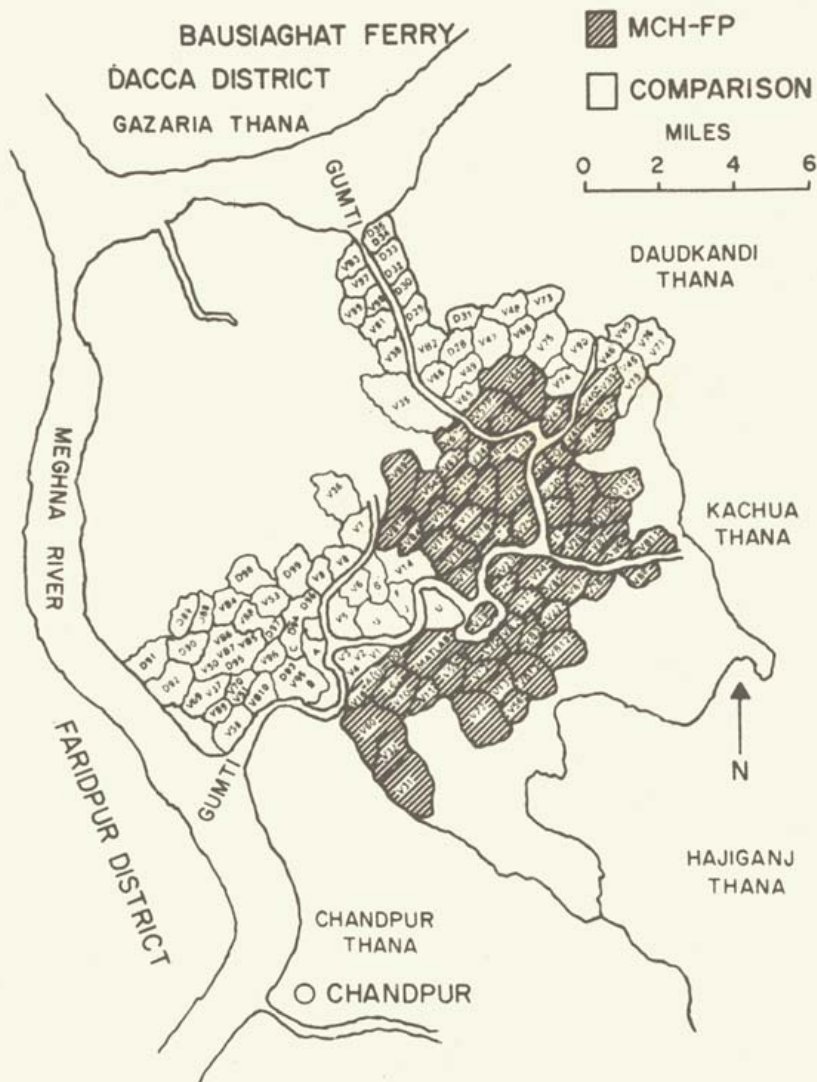


TABLE I--MID-YEAR POPULATION, EVENTS REGISTERED AND POPULATION CHANGE IN 1982

		Number	Rate per 1,000 population
Total population, 1982 mid-year		187574	-
MCH-FP area		94795	-
Comparison area		92779	-
<u>Events registered</u>			
(January to December 1982)			
Births	Whole area	7638	40.7
	MCH-FP area	3495	36.9
	Comparison area	4143	44.6
Infant mortality	Whole area	859	112.5**
	MCH-FP area	369	105.6**
	Comparison area	490	118.3**
Deaths	Whole area	2661	14.2
	MCH-FP area	1188	12.5
	Comparison area	1473	15.9
In-migrations		4601	24.5
Out-migrations		4967	26.5
Marriages		2623	14.0
Divorces		435	165.8*
<u>Population change</u>			
(January to December 1982)			
Net-migration		-366	-1.9
Natural increase		4977	26.5
MCH-FP area		2307	24.3
Comparison area		2670	28.8
Net increase		4611	24.6

* Ratio per 1,000 marriages.

** Rate per 1,000 live births.

TABLE II--MID-YEAR POPULATION BY AGE AND SEX, 1982

Age (Years)	Number			Percent		
	Both sexes	Males	Females	Both sexes	Males	Females
All ages	187574	94956	92618	100.0	100.0	100.0
0-4	29822	15533	14289	15.9	16.4	15.4
0	29411 6542	3338	3204	3.5	3.5	3.5
1	63- 6248	3292	2956	3.3	3.5	3.2
2	63- 6203	3292	2911	3.3	3.5	3.1
3	59- 5267	2734	2533	2.8	2.9	2.7
4	49- 5562	2877	2685	2.9	3.0	2.9
5-9	27 26400	13820	12580	14.1	14.6	13.6
10-14	24 23860	12393	11467	12.7	13.1	12.4
15-19	22 21357	10251	11106	11.4	10.8	12.0
20-24	19 19064	9904	9160	10.2	10.4	9.9
25-29	11206	5499	5707	6.0	5.8	6.2
30-34	9343	4442	4901	5.0	4.7	5.3
35-39	8450	3692	4758	4.5	3.9	5.1
40-44	8653	3975	4678	4.6	4.2	5.0
45-49	7388	3715	3673	3.9	3.9	3.9
50-54	6568	3364	3204	3.5	3.5	3.5
55-59	4735	2510	2225	2.5	2.6	2.4
60-64	4118	2206	1912	2.2	2.3	2.1
65+	6610	3652	2958	3.5	3.8	3.2

TABLE III--MID-YEAR POPULATION FOR MCH-FP AND COMPARISON AREAS, 1982

Age (Years)	MCH-FP Area			Comparison Area		
	Both sexes	Males	Females	Both sexes	Males	Females
All ages	94795	47925	46870	92779	47031	45748
0-4	14018	7278	6740	15804	8255	7549
0	2985	1520	1465	3557	1818	1739
1	2898	1515	1383	3350	1777	1573
2	2878	1537	1341	3325	1755	1570
3	2437	1259	1178	2830	1475	1355
4	2820	1447	1373	2742	1430	1312
5-9	13563	7074	6489	12837	6746	6091
10-14	12406	6374	6032	11454	6019	5435
15-19	10908	5219	5689	10449	5032	5417
20-24	9722	5024	4698	9342	4880	4462
25-29	5650	2799	2851	5556	2700	2856
30-34	4743	2248	2495	4600	2194	2406
35-39	4318	1874	2444	4132	1818	2314
40-44	4503	2045	2458	4150	1930	2220
45-49	3671	1870	1801	3717	1845	1872
50-54	3390	1781	1609	3178	1583	1595
55-59	2419	1284	1135	2316	1226	1090
60-64	2025	1115	910	2093	1091	1002
65+	3459	1940	1519	3151	1712	1439

FIG. 3: NUMBER OF LIVE BIRTHS, TOTAL DEATHS
AND NATURAL INCREASE BY MONTHS
IN 1982

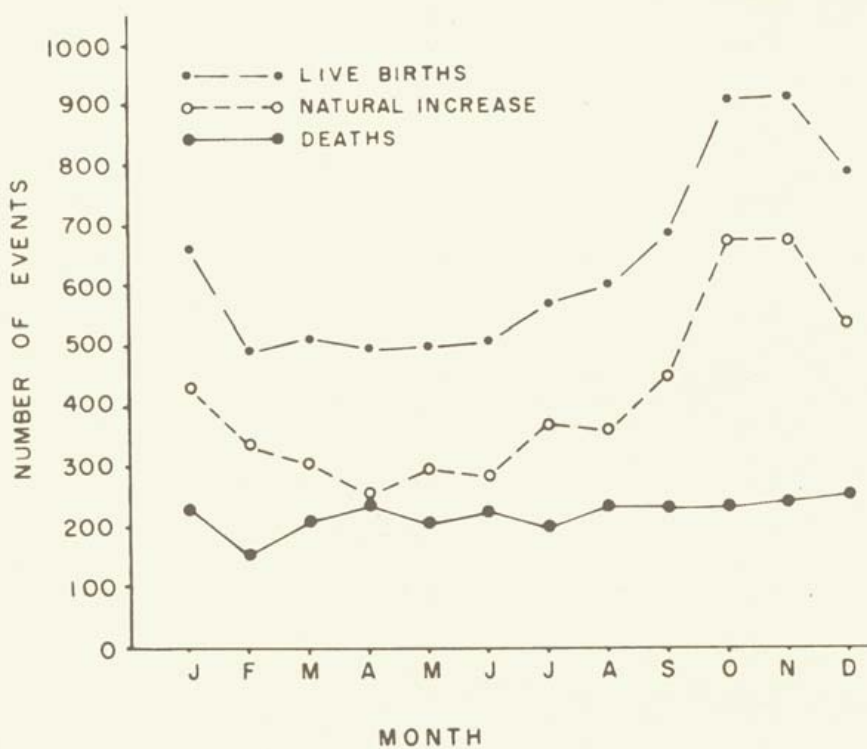
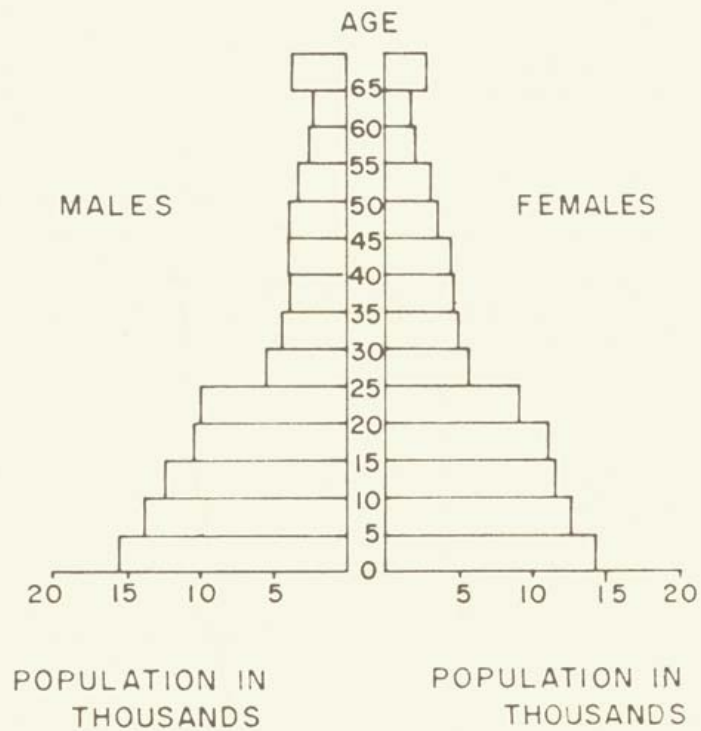


FIG. 4: AGE PYRAMID OF THE 1982 MID YEAR POPULATION



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 1982. Of 2,661 registered deaths, more than half (53%) occurred in under age 5 children. The 1982 infant mortality rate of 112.5 is higher than the 1981 rate of 109.1. It is seen that for infants, male mortality was 115.8, compared to 108.9 for females (Table VI). In 1981, the respective male and female infant mortality rates were 104.8 and 113.7. The overall death rate and the death rate for those aged one month to 30 years were higher in females. In most age groups, death rates were higher in the Comparison than in the MCH-FP area (Table VII).

After converting the 1982 age-specific death rates (n^m_x) into life table death probabilities (n^d_x), abridged life tables were calculated for males, females and both sexes. Tables VIII and IX show the results, and the l_x and e^o_x values are plotted, respectively, in Figures 5 and 6. Life expectancy was lower in 1982 than in 1981 for all age categories. Deaths by cause (based on lay reporting) are presented in Table XI-a and XI-b. Of the 458 male and female under age one fatalities, more than 40% died due to tetanus which may be overreported.

Births and Fertility:

There were 8,447 pregnancy terminations in 1982 in the Matlab DSS area (Table XIII), of which 7,580 pregnancies resulted in live births and 867 in fetal wastage, yielding a ratio of 114 fetal losses per 1,000 live birth pregnancies. Fetal loss is said to be a stillbirth for gestation beyond seven months. If the gestation period is less than seven months, a pregnancy outcome is designated a "miscarriage," either induced or spontaneous. Table yx presents the 1982 age-specific fertility rate. Fertility reached its peak at ages 20-29 (277 live births per 1,000), and thereafter declined rapidly. The general fertility rate was 174 per 1,000 women aged 15-49. The total fertility rate was 5.6 per woman by the end of her reproductive life span. This combined with the male-female sex ratio at birth of 107.4, gives a gross reproduction rate of 2.7 per woman. The data on female mortality yields a net reproduction rate of 2.0 female children per woman. Thus, each woman of this generation would be expected to produce two daughters who would survive to become mothers in the next generation (if the mortality pattern remains unchanged). All reproduction indices were lower in the MCH-FP area than in the Comparison area.

TABLE IV--DEATHS BY AGE AND SEX, 1982

Age	Both sexes	Males	Females
All ages	2661	1319	1342
Under 1 year	859	458	401
Under 1 month	485	269	216
1-5 months	239	132	107
6-11 months	135	57	78
1-4 years	543	192	351
1	205	79	126
2	183	57	126
3	89	25	64
4	66	31	35
5-9	98	41	57
10-14	43	18	25
15-19	43	16	27
20-24	44	17	27
25-29	26	11	15
30-34	19	12	7
35-39	25	12	13
40-44	52	26	26
45-49	48	27	21
50-54	87	46	41
55-59	96	57	39
60-64	128	77	51
65+	550	309	241

TABLE V--DEATHS BY AGE AND SEX IN MCH-FP AND COMPARISON AREA, 1982

Age	MCH-FP Area			Comparison Area		
	Both sexes	Males	Females	Both sexes	Males	Females
All ages	1188	598	590	1473	721	752
Under 1 year	369	191	178	490	267	223
Under 1 month	203	109	94	282	160	122
1-5 months	105	56	49	134	76	58
6-11 months	61	26	35	74	31	43
1-4 years	208	69	139	336	124	212
1	78	25	53	127	54	73
2	71	26	45	112	31	81
3	34	9	25	55	16	39
4	24	8	16	42	23	19
5-9	53	23	30	45	18	27
10-14	19	7	12	24	11	13
15-19	23	8	15	20	8	12
20-24	16	5	11	28	12	16
25-29	11	7	4	15	4	11
30-34	5	3	2	14	9	5
35-39	9	3	6	16	9	7
40-44	29	15	14	23	11	12
45-49	18	12	6	30	15	15
50-54	44	26	18	43	20	23
55-59	48	31	17	48	26	22
60-64	59	35	24	69	42	27
65+	278	164	114	271	145	127

TABLE VI--DEATH RATES IN 1982 BY AGE AND SEX

Age at death	Rate per 1,000 population		
	Both sexes	Males	Females
All ages	14.2	13.9	14.5
Under 1 year*	112.5	115.8	108.9
Under 1 month*	63.5	68.0	58.6
1-11 months*	49.0	47.8	50.2
1-4 years	23.4	15.8	31.7
1	32.8	24.0	42.6
2	29.5	17.3	43.3
3	16.9	9.1	25.3
4	11.9	11.1	13.0
5-9	3.7	3.0	4.5
10-14	1.8	1.4	2.2
15-19	2.0	1.6	2.4
20-24	2.3	1.7	2.9
25-29	2.3	2.0	2.6
30-34	2.0	2.7	1.4
35-39	2.9	3.2	2.7
40-44	6.0	6.5	5.5
45-49	6.5	7.3	5.7
50-54	13.2	13.7	12.8
55-59	20.3	22.7	17.5
60-64	31.1	34.9	26.7
65+	83.2	84.6	81.1

* Rate per 1,000 live births.

TABLE VII--AGE-SPECIFIC DEATH RATES IN THE MCH-FP AND COMPARISON AREAS,
MATLAB, 1982

Age at death	Rate per 1,000 population					
	MCH-FP Area			Comparison Area		
	Both sexes	Males	Females	Both sexes	Males	Females
All ages	12.5	12.5	12.6	15.9	15.3	16.4
Under 1 year*	105.6	105.9	105.3	118.3	124.2	111.9
Under 1 month*	58.1	60.5	55.6	68.1	74.4	61.2
1-11 months*	47.5	45.5	49.6	50.2	49.8	50.7
1 - 4 years	18.8	12.0	26.4	27.4	19.3	36.5
5 - 9	3.9	3.2	4.6	3.5	2.7	4.4
10-14	1.5	1.1	2.0	2.1	1.8	2.4
15-19	2.1	1.5	2.6	2.0	1.6	2.2
20-24	1.6	1.0	2.3	3.0	2.5	3.6
25-29	2.0	2.5	1.4	2.7	1.5	3.9
30-34	1.0	1.3	0.8	3.0	4.1	2.1
35-39	2.0	1.6	2.5	3.9	4.9	3.0
40-44	6.4	7.3	5.7	5.5	5.7	5.4
45-49	4.9	6.4	3.3	8.1	8.1	8.0
50-54	13.0	14.6	11.2	13.5	12.6	14.4
55-59	19.8	24.1	15.0	20.7	21.2	20.2
60-64	29.1	31.4	26.4	33.0	38.4	27.0
65+	80.4	84.5	75.0	86.0	84.7	88.3

* Rate per 1,000 live births.

TABLE VIII--ABRIDGED LIFE TABLES FOR MALES AND FEMALES BASED ON 1982 MORTALITY RATES¹

Age (years)	M a l e s				F e m a l e s			
	$1000 q_x$	l_x	$n L_x$	e_x^o	$1000 q_x$	l_x	$n L_x$	e_x^o
0	115.8	100000	91616	55.2	108.9	100000	92116	52.7
1	23.7	88420	87183	61.4	41.7	89110	86916	58.1
2	17.2	86323	85583	61.9	42.4	85392	83582	59.7
3	9.1	84842	84458	61.9	25.0	81772	80751	61.3
4	11.0	84073	83609	61.5	12.9	79729	79214	61.8
5	14.9	83145	413000	61.2	22.3	78699	389333	61.6
10	7.0	81906	407857	57.1	10.9	76947	382727	58.0
15	8.0	81335	405000	52.4	11.9	76105	378333	53.6
20	8.5	80687	401765	47.8	14.4	75197	373448	49.2
25	10.0	79004	398000	43.2	12.9	74114	368462	44.9
30	13.4	79208	393704	38.6	7.0	73156	364286	40.4
35	15.9	78145	387813	34.1	13.4	72646	361111	35.7
40	32.0	76904	378769	29.6	27.2	71671	353818	31.2
45	35.9	74442	365027	25.5	28.1	69725	344035	27.0
50	66.4	71770	347737	21.4	62.1	67764	328984	22.7
55	107.8	67006	317062	17.7	84.1	63553	305257	19.0
60	161.1	59786	276046	14.5	125.6	58211	273820	15.5
65+	1000.0	50152	592813	11.8	1000.0	50900	627620	12.3

¹ See Appendix B for equations used.

TABLE IX--ABRIDGED LIFE TABLE FOR BOTH SEXES BASED ON 1982 MORTALITY RATES

Age (years)	Both Sexes			
	$1000 q_x$	l_x	L_x	e_x^o
0	112.5	100000	91955	54.0
1	32.3	88750	87060	59.8
2	29.1	85885	84637	60.8
3	16.8	83388	82689	61.6
4	11.9	81990	81505	61.6
5	18.3	81020	401622	61.4
10	9.0	79534	396111	57.5
15	10.0	78821	392500	53.0
20	11.4	78036	388261	48.5
25	11.4	77143	383478	44.0
30	10.0	76261	379500	39.5
35	14.4	75502	374828	34.9
40	29.6	74415	367000	30.3
45	32.0	72213	355692	26.2
50	64.0	69901	339091	21.9
55	96.9	65425	312266	18.3
60	144.8	59086	275177	14.9
65+	1000.0	50528	607308	12.0

FIG 5: PROBABILITY OF SURVIVAL FROM BIRTH TO AGE (X)
BY SEX FROM LIFE TABLES OF 1982

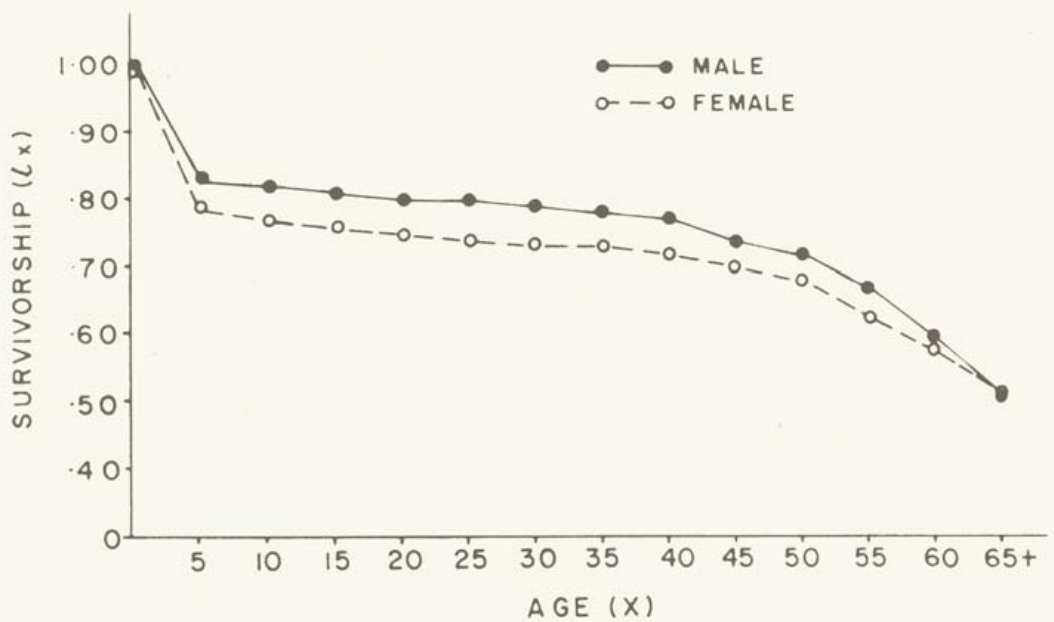


FIG. 6: EXPECTATION OF YEARS OF REMAINING LIFE FROM
LIFE TABLE OF 1982 BY AGE AND SEX

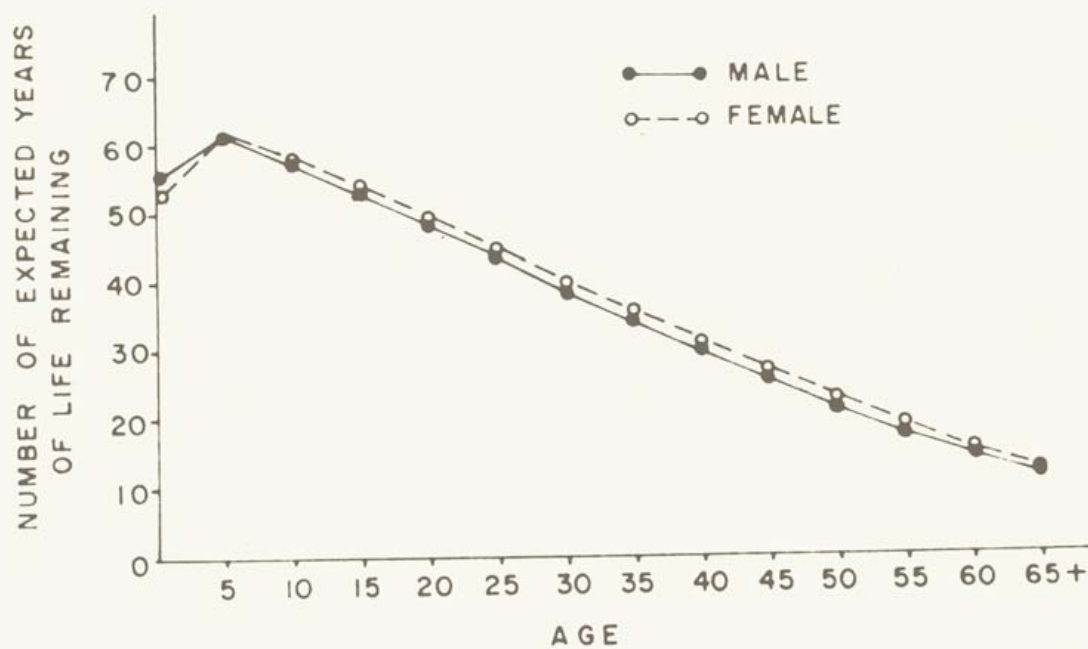


TABLE X--DEATHS BY AGE AND MONTH, 1982

Months	Age at Death				
	All ages	Under 1 month	1-11 months	1-4 years	5 years and over
January	230	49	26	38	117
February	153	25	25	30	73
March	209	35	33	46	95
April	237	25	48	66	99
May	205	32	37	45	91
June	224	32	39	58	95
July	200	26	21	48	105
August	237	43	38	42	114
September	234	46	34	43	111
October	234	58	28	37	111
November	243	44	25	52	122
December	256	70	20	40	126
Total	2661	485	374	543	1259

TABLE XI-a--DEATHS BY CAUSE, AGE AND SEX, 1982

Males																
Cause	All ages	Under 1	Age at Death (years)													
			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	1319	458	192	41	18	16	17	11	12	12	26	27	46	57	77	309
Smallpox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles	18	4	11	3	-	-	-	2	-	-	-	-	-	-	2	2
Tetanus*	215	199	8	2	-	-	-	-	-	-	-	-	-	-	-	-
Drowning	25	2	16	4	1	-	1	-	-	-	-	-	1	-	-	-
Murder	3	-	-	-	-	-	-	1	-	-	1	-	-	-	-	1
Suicide	3	-	-	-	-	-	-	1	-	-	1	1	-	-	-	-
Diarrhoea acute	42	21	8	4	2	-	-	-	-	1	-	-	1	-	1	4
Diarrhoea chronic	26	10	11	-	-	-	-	-	-	1	1	-	-	-	-	3
Dysentery acute	35	3	11	3	-	1	-	-	-	1	-	1	-	4	5	6
Dysentery chronic	82	6	22	5	2	-	-	-	-	-	-	2	3	9	6	27
Childbirth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jaundice	19	3	2	1	1	1	1	2	1	1	-	1	1	1	1	2
Other	224	99	24	4	2	2	6	3	2	2	6	1	6	8	13	46
Disease of G.I.**	55	2	1	-	4	-	1	-	1	2	4	3	5	4	8	20
Respiratory***	230	69	35	4	1	3	4	1	3	1	6	9	14	8	20	52
Heart disease	22	-	-	-	-	-	-	-	1	-	-	-	1	3	3	14
Liver disease	23	2	1	-	-	1	-	-	1	-	1	4	2	2	2	7
Venereal disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Skin disease	10	4	4	-	-	-	-	-	1	-	-	-	-	-	-	1
E.N.T. disease	11	3	4	1	-	-	-	-	-	-	-	-	1	-	-	2
Cholera (proved)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dropsy	74	5	7	2	-	2	-	-	-	-	3	2	7	6	4	36
Rheumatism	60	2	2	1	1	1	1	-	1	-	1	1	2	9	7	33
Accident	20	3	2	1	4	2	2	-	-	2	-	1	-	-	1	2
Old age	26	-	-	-	-	-	-	-	-	-	-	-	-	1	1	24
Fever (all forms)	95	21	23	6	1	3	1	1	1	1	2	2	2	2	2	27
Unknown	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-

* Takuria, evil spirit.

** Other than cholera.

*** Cold, fever, cough, T.B. and asthma, etc.

TABLE XI-b--DEATHS BY CAUSE, AGE AND SEX, 1982

Cause	All ages	Under 1	Age at Death (years)														60-64	65+		
			Females																	
			1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59						
All causes	1342	401	351	57	25	27	27	15	7	13	26	21	41	39	51	241				
Smallpox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Measles	46	7	36	3	-	-	-	-	-	-	-	-	-	-	-	-				
Tetanus*	208	186	13	2	-	1	2	-	1	-	1	-	-	-	-	2				
Drowning	32	2	23	3	2	1	-	-	-	-	-	-	-	-	-	1				
Murder	3	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-				
Suicide	5	-	-	-	1	1	2	1	-	-	-	-	-	-	-	-				
Diarrhoea acute	56	14	20	5	1	1	1	1	1	1	-	-	-	4	-	7				
Diarrhoea chronic	35	5	21	2	-	-	-	-	-	-	-	2	2	1	2	4				
Dysentery acute	65	8	25	8	1	-	-	-	-	-	3	1	4	4	8	14				
Dysentery chronic	141	9	67	8	1	2	1	2	-	2	2	1	4	4	8	31				
Childbirth	15	-	-	-	1	2	5	2	1	2	2	1	-	-	-	-				
Jaundice	18	-	2	1	3	2	5	5	1	1	9	-	-	2	-	1				
Other	211	71	38	5	7	8	3	5	-	1	3	8	5	7	7	37				
Disease of G.I.**	31	1	2	2	1	2	2	-	-	-	3	1	3	3	6	5				
Respiratory***	139	57	33	8	1	-	1	1	1	1	1	1	7	3	5	19				
Heart disease	7	2	-	-	-	-	-	1	-	-	-	-	1	1	2	1				
Liver disease	15	1	4	-	-	-	-	1	-	-	1	-	2	1	2	3				
Veneral disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Skin disease	8	3	4	-	-	-	-	-	-	-	-	-	-	1	-	-				
E.N.T. disease	5	-	2	1	1	-	-	-	-	-	-	-	-	-	-	-				
Cholera (proved)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Dropsy	100	1	23	3	3	1	1	1	1	4	3	1	8	2	5	43				
Rheumatism	56	5	6	-	-	-	-	-	-	-	2	2	4	3	4	29				
Accident	14	2	3	2	2	-	1	1	-	-	-	1	-	-	-	2				
Old age	29	-	-	-	-	-	-	-	-	-	-	-	1	4	2	22				
Fever (all forms)	103	27	29	4	-	3	3	2	1	1	1	3	4	2	4	19				
Unknown	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				

* Takuria, evil spirit.

** Other than cholera.

*** Cold, fever, cough, T.B. and asthma, etc.

TABLE XII-a--DEATHS BY CAUSE, AGE, SEX AND AREA, 1982

22

Males

Cause	Age at Death (years)													
	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	598	721	191	267	68	124	30	29	41	53	104	103	164	145
Smallpox	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles	5	13	1	3	3	8	1	2	-	-	-	-	-	-
Tetanus*	81	134	77	122	1	7	1	1	1	1	-	2	1	1
Drowning	10	15	-	2	8	8	2	3	-	1	-	1	-	-
Murder	3	-	-	-	-	-	-	-	2	-	-	-	1	-
Suicide	-	3	-	-	-	-	-	-	-	2	-	1	-	-
Diarrhoea acute	15	27	11	10	2	6	2	4	-	2	-	2	-	4
Diarrhoea chronic	9	17	4	6	3	8	-	-	-	1	-	-	2	1
Dysentery acute	11	24	1	2	2	9	3	-	-	2	3	7	2	4
Dysentery chronic	37	45	3	3	9	13	4	3	-	-	9	11	12	15
Childbirth	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jaundice	10	9	1	2	2	-	1	1	3	-	2	2	1	1
Other	115	109	43	56	11	13	3	3	12	9	17	11	29	17
Disease of G.I.**	26	29	-	2	-	1	-	4	2	6	11	9	13	7
Respiratory***	113	117	34	35	14	21	4	1	5	13	29	22	27	25
Heart disease	10	12	-	-	-	-	-	-	-	1	2	5	8	6
Liver disease	11	12	1	1	1	-	-	-	2	1	3	7	4	3
Venereal disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Skin disease	3	7	2	2	-	4	-	-	1	-	-	-	-	1
E.N.T. disease	5	6	2	1	2	2	-	1	-	-	1	-	-	2
Cholera (proved)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dropsy	33	41	1	4	3	4	1	1	2	3	9	10	17	19
Rheumatism	38	22	-	2	-	2	1	-	4	-	12	6	21	12
Accident	7	13	2	1	-	2	3	2	2	4	-	2	-	2
Old age	14	12	-	-	-	-	-	-	-	-	1	1	13	11
Fever (all forms)	42	53	8	13	7	16	4	3	5	4	5	3	13	14
Unknown	-	1	-	-	-	-	-	-	-	-	-	1	-	-

* Takuria, evil spirit

** Other than cholera

*** Cold, fever, cough, T.B. and asthma, etc.

M = MCH-FP Area
C = Comparison Area.

TABLE XII-B--DEATHS BY CAUSE, AGE, SEX AND AREA, 1982

Cause	Females															
	Age at Death (years)															
	Under 1				1-4				5-14				15-44			
	M	C	M	C	M	C	M	C	M	C	M	C	M	C	M	C
All ages	752		178		223		139		212		42		52		63	
	M	C	M	C	M	C	M	C	M	C	M	C	M	C	M	C
All causes	590	752	178	223	139	212	42	40	52	63	65	87	114	127	114	127
Smallpox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles	10	36	2	5	8	28	-	3	-	-	-	-	-	-	-	-
Tetanus*	77	131	72	114	2	11	1	1	1	4	-	-	1	1	1	1
Drowning	10	22	-	2	6	17	2	3	1	-	-	-	1	-	1	-
Murder	2	1	-	-	-	-	-	-	2	1	-	-	2	-	-	-
Suicide	3	2	-	-	-	-	-	1	3	1	-	-	3	-	-	-
Diarrhoea acute	25	31	7	7	10	10	2	4	1	4	1	3	4	3	4	3
Diarrhoea chronic	14	21	3	2	3	12	1	1	-	-	-	3	1	3	1	3
Dysentery acute	27	38	5	3	8	17	3	6	-	-	4	5	7	7	7	7
Dysentery chronic	60	81	4	5	30	37	6	3	3	5	4	13	13	18	13	18
Childbirth	6	9	-	-	-	-	1	1	5	8	-	1	-	-	-	-
Jaundice	9	9	-	-	-	2	3	1	4	5	1	1	1	-	1	-
Other	109	102	39	32	17	21	7	5	16	10	11	16	19	18	19	18
Disease of G.I.**	14	17	-	1	-	2	2	1	2	5	5	8	3	-	3	-
Respiratory***	75	64	28	29	18	15	6	3	2	4	10	6	12	7	12	7
Heart disease	2	5	-	2	-	-	-	-	1	-	2	2	-	1	-	-
Liver disease	5	10	-	1	1	3	-	-	1	1	3	2	-	3	-	-
Veneral disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Skin disease	3	5	1	2	2	2	-	-	-	-	-	-	-	-	-	-
E.N.T. disease	1	4	-	-	1	1	-	-	-	-	-	-	-	-	-	-
Cholera (proved)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dropsy	41	59	1	-	11	12	3	3	6	5	5	11	15	28	15	28
Rheumatism	24	32	-	5	3	3	-	-	-	3	9	4	12	17	12	17
Accident	7	7	1	1	2	1	3	1	1	1	-	1	-	2	-	-
Old age	18	11	-	-	-	-	-	-	-	-	-	-	-	8	14	8
Fever (all forms)	48	55	15	12	11	13	2	2	5	6	6	7	9	10	9	10
Unknown	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Takuria, evil spirit.

** Other than cholera.

*** Cold, fever, cough, T.B. and asthma, etc.

M = MCH-EP Area.
C = Comparison Area.

TABLE XIII--NUMBER AND RATES OF PREGNANCY TERMINATIONS BY
TYPE AND AREA, 1982

Type of Pregnancy Termination	All		MCH-FP		Comparison	
	Number	Rate	Number	Rate	Number	Rate
Total Pregnancies	8447					
Live Birth Pregnancies*	7580	40.4**	3468	36.6**	4112	44.3**
Male births	3955		1804		2151	
Female births	3683		1691		1992	
Fetal Wastage Pregnancies	867	114.4***	388	111.9***	479	116.5***
Early (miscarriages)	599	79.0	265	76.4	334	81.2
Late (stillbirths)	268	35.4	123	35.5	145	35.3
Twin Birth Pregnancies	72					
Live birth pregnancies	65	8.6***				
Two live births	58					
One live birth	7					
Stillbirth pregnancies	3	0.4***				
Miscarriage pregnancies	4	0.5***				

* Male and female births do not add up to total live birth pregnancies, due to twins.

** Rate per 1,000 population.

*** Ratio per 1,000 live birth pregnancies.

TABLE XIV--OUTCOME OF PREGNANCIES BY MONTH, 1982

Month	All	Pregnancy terminations			Number of live born children		
		Miscarriages induced	Miscarriages spontaneous	Stillbirths	Live births*	Both sexes	Males Females
All months	8447	199	400	268	7580	7638	3955 3683
January	735	19	29	31	656	662	332 330
February	559	14	45	12	488	490	254 236
March	597	24	41	20	512	514	277 237
April	554	20	36	9	489	492	247 245
May	588	30	41	21	496	501	267 234
June	586	21	42	18	505	509	259 250
July	634	16	37	11	570	571	295 276
August	652	15	26	18	593	598	319 279
September	740	7	31	25	677	686	365 321
October	963	10	26	30	897	909	460 449
November	984	11	24	37	912	916	472 444
December	855	12	22	36	785	790	408 382

* For any multiple confinement, pregnancy termination is recorded as a live birth, if one of the issues is live born.

TABLE XV--MULTIPLE CONFINEMENT BY SEX AND RESULT, 1982

Sex Sequence	1st child		2nd child	
	Stillbirth	Live birth	Stillbirth	Live birth
MM	1	27	3	25
MF	1	14	4	11
FM	2	7	2	7
FF	1	15	1	15
Total	5	63	10	58

TABLE XVI--NUMBER OF MOTHERS WHO HAD LIVE BIRTHS IN 1982, BY AGE AND NUMBER OF PREVIOUS PREGNANCIES*

Age of mothers (years)	Total	Number of previous pregnancies										Mean No. of pregnancies	
		0	1	2	3	4	5	6	7	8	9		10+
All ages	7580	1533	1314	1081	965	769	611	477	319	219	151	141	2.9
Under 15	11	8	3	-	-	-	-	-	-	-	-	-	0.3
15 - 19	1340	962	307	58	10	-	2	1	-	-	-	-	0.4
20 - 24	2520	520	865	675	329	97	23	10	1	-	-	-	1.5
25 - 29	1568	36	111	287	474	387	183	60	22	4	2	2	3.3
30 - 34	1160	6	19	51	129	233	281	239	114	50	33	5	5.1
35 - 39	727	1	4	8	21	45	100	138	141	126	78	65	7.1
40 - 44	214	-	4	1	2	5	20	25	39	33	29	56	7.7
45+	40	-	1	1	-	2	2	4	2	6	9	13	8.0

* Present births excluded.

TABLE XVII--NUMBER OF MOTHERS WHO HAD LIVE BIRTHS IN 1982, BY AGE AND NUMBER OF SURVIVING CHILDREN*

Age of mothers (years)	Total	Number of surviving children										Mean No. of sur- viving children	
		0	1	2	3	4	5	6	7	8	9		10+
All ages	7580	1972	1549	1304	1035	740	476	290	130	57	19	8	2.1
Under 15	11	8	3	-	-	-	-	-	-	-	-	-	0.3
15 - 19	1340	1116	200	19	4	-	1	-	-	-	-	-	0.2
20 - 24	2520	762	1033	579	133	10	3	-	-	-	-	-	1.1
25 - 29	1568	68	244	517	499	197	36	6	-	1	-	-	2.4
30 - 34	1160	14	52	157	306	340	199	77	14	1	-	-	3.6
35 - 39	727	2	12	27	75	158	176	154	83	33	5	2	5.0
40 - 44	214	1	5	4	16	27	55	46	27	18	11	4	5.8
45 +	40	1	-	1	2	8	6	7	6	4	3	2	5.8

* Present births excluded.

FIG. 7: MEAN NUMBER OF PREGNANCIES
AND MEAN NUMBER OF SURVIVING
CHILDREN FOR WOMEN WHO DELIVERED
LIVE BIRTHS IN 1982 BY AGE

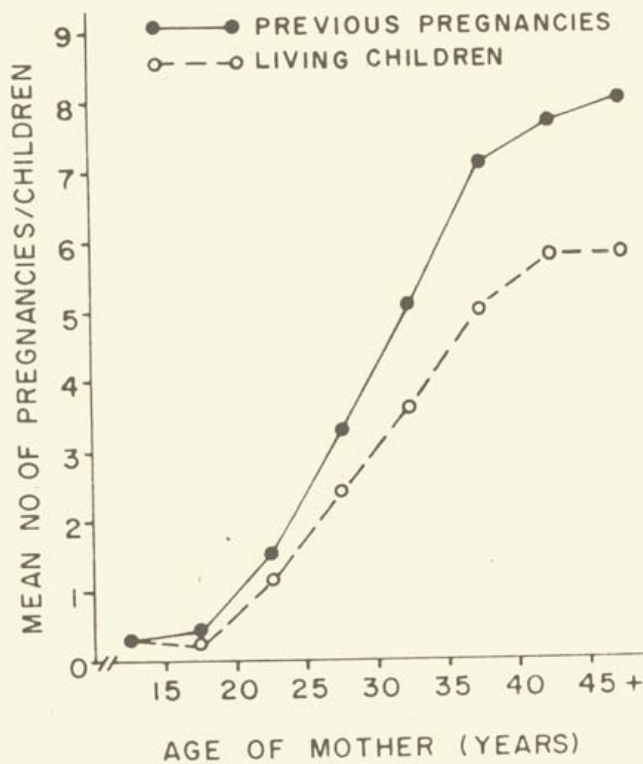


TABLE XVIII--NUMBER OF WOMEN WHO HAD STILLBIRTHS IN 1982, BY AGE AND NUMBER OF PREVIOUS PREGNANCIES*

Age (years)	Total	Number of previous pregnancies										
		0	1	2	3	4	5	6	7	8	9	10+
All ages	268	84	28	29	29	17	22	14	17	9	6	13
Under 15	1	1	-	-	-	-	-	-	-	-	-	-
15 - 19	66	52	9	4	-	1	-	-	-	-	-	-
20 - 24	66	25	15	14	8	2	2	-	-	-	-	-
25 - 29	49	4	3	10	14	8	6	4	-	-	-	-
30 - 34	39	1	1	1	4	4	11	3	7	4	1	2
35 - 39	28	-	-	-	3	2	3	5	8	1	4	2
40 - 44	17	1	-	-	-	-	-	2	2	4	1	7
45 +	2	-	-	-	-	-	-	-	-	-	-	2

* Present births excluded.

TABLE XIX--NUMBER OF WOMEN WHO HAD MISCARRIAGES IN 1982, BY AGE AND NUMBER OF PREVIOUS PREGNANCIES*

Age (years)	Total	Number of previous pregnancies										
		0	1	2	3	4	5	6	7	8	9	10+
All ages	599	114	82	61	53	56	50	53	32	31	29	38
Under 15	5	3	2	-	-	-	-	-	-	-	-	-
15 - 19	106	78	21	6	1	-	-	-	-	-	-	-
20 - 24	130	30	42	33	14	7	1	3	-	-	-	-
25 - 29	119	3	14	20	28	27	18	7	1	1	-	-
30 - 34	98	-	2	1	6	17	24	18	11	8	4	7
35 - 39	88	-	1	1	3	5	5	17	15	10	16	15
40 - 44	46	-	-	-	1	-	2	6	4	10	8	15
45 +	7	-	-	-	-	-	-	2	1	2	1	1

* Present births excluded.

TABLE XX--AGE-SPECIFIC FERTILITY RATES AND GENERAL REPRODUCTION INDICES, 1982

Age group (years)	Number of live births	Fertility rate (per 1,000 women)
All ages	7,638	173.6
15 - 19*	1,357	122.2
20 - 24	2,541	277.4
25 - 29	1,582	277.2
30 - 34	1,166	237.9
35 - 39	734	154.3
40 - 44	216	46.2
45 - 49**	42	11.4

Total fertility rate (TFR)	5,633
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General fertility rate (GFR)	174
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Gross reproduction rate (GRR)	2,707
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Net reproduction rate (NRR) (all rates per 1,000)	1,992
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* 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 XXI--AGE-SPECIFIC FERTILITY RATE AND GENERAL REPRODUCTION
INDICES BY AREA, 1982

Age (years)	MCH-FP Area		Comparison Area	
	Number of live births	ASFR	Number of live births	ASFR
All ages	3,495	155.7	4,143	192.2
15 - 19*	693	121.8	664	122.5
20 - 24	1,176	250.3	1,365	305.9
25 - 29	716	251.1	866	303.2
30 - 34	519	208.0	647	268.9
35 - 39	276	112.9	458	197.9
40 - 44	99	40.2	117	52.7
45 - 49**	16	8.8	26	13.8

TFR = 4,965

TFR = 6,324

GFR = 156

GFR = 192

GRR = 2,402

GRR = 3,041

NRR = 1,823

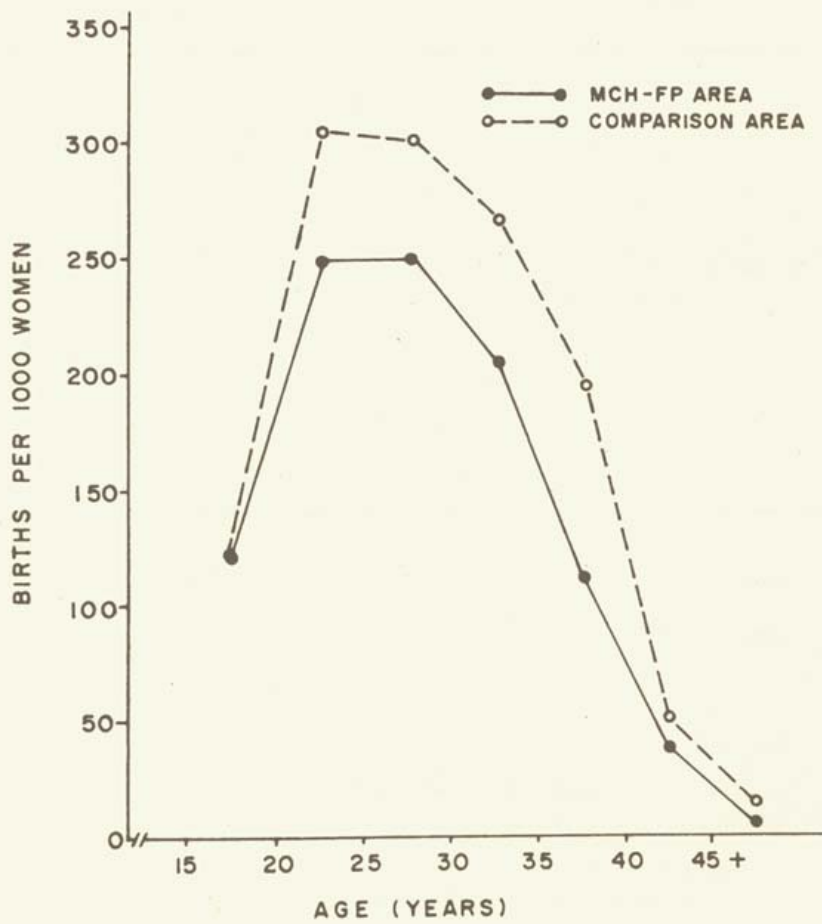
NRR = 2,177

(all rates per 1,000)

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

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

FIG.8: AGE SPECIFIC FERTILITY RATES BY AREA,1982



Marriage and Divorce:

In 1982, 2,623 marriages were registered, in which 1,964 grooms and 2,221 brides were married for the first time (Table XXII). The male marriage rate was 49 per 1,000 aged 15 and above while the female rate was 40 per 1,000 aged 10 and above. The age-and sex-specific marriage rates are shown in Table XXII and Figure 9. The highest male rate is 170.2 in the 25-29 age group, while for females the peak is 159.5 in age group 15-19.

Table XXV shows the mean and median age by grooms' occupations. The highest mean age at first marriage is 26.3 for the service occupation group, and the lowest is 22.7 for farm laborers. Brides' and grooms' mean and median ages at first marriage in different educational categories are presented in Table XXVI. Here it is seen that, as education increases, marriage age increases for males, while for females it increases for those who have had at least a secondary education.

The distribution of marriages and divorces by month shows a marked seasonal variation; and the variation range for marriage is 106 to 293, and 20 to 26 for divorce (Table XXVIII and Figure 10).

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.

There were 4,601 in-migrants and 4,967 out-migrants registered in 1982, yielding a net out-migration rate of 2.0 per 1,000 population. The age-specific in and out migration rates are presented in Table XXXI and Figure 11. The highest in-and out-migration rates of, respectively, 75.9 and 81.4, are found in age group 15-19 for females. For males, the highest in-migration rate is 43.7 in age group 30-34, while peak out-migration occurs in age group 25-29. The main migration causes for males were associated with work and better living conditions, while for females these were dependent movements (Tables XXXIV-XXXV).

TABLE XXII--MARRIAGE RATES BY AGE AND SEX, 1982

Age at marriage (years)	Rate per 1,000 population***		
	Both sexes	Males	Females
All ages	39.9*	40.0*	39.9*
Under 15	6.2	0.2	12.8
15 - 19	91.2	17.2	159.5
20 - 24	83.8	100.9	65.2
25 - 29	90.4	170.2	13.5
30 - 34	33.7	66.2	4.3
35 - 39	11.4	24.1	1.5
40 - 44	7.0	15.1	0.2
45 - 49	4.5	8.3	0.5**
50 - 54	2.7	5.4	-
55 - 59	1.9	3.6	-
60 - 64	1.7	3.2	-
65 +	0.2	0.3	-

* 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.

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

FIG. 9: MARRIAGE RATES IN 1982 BY AGE AND SEX

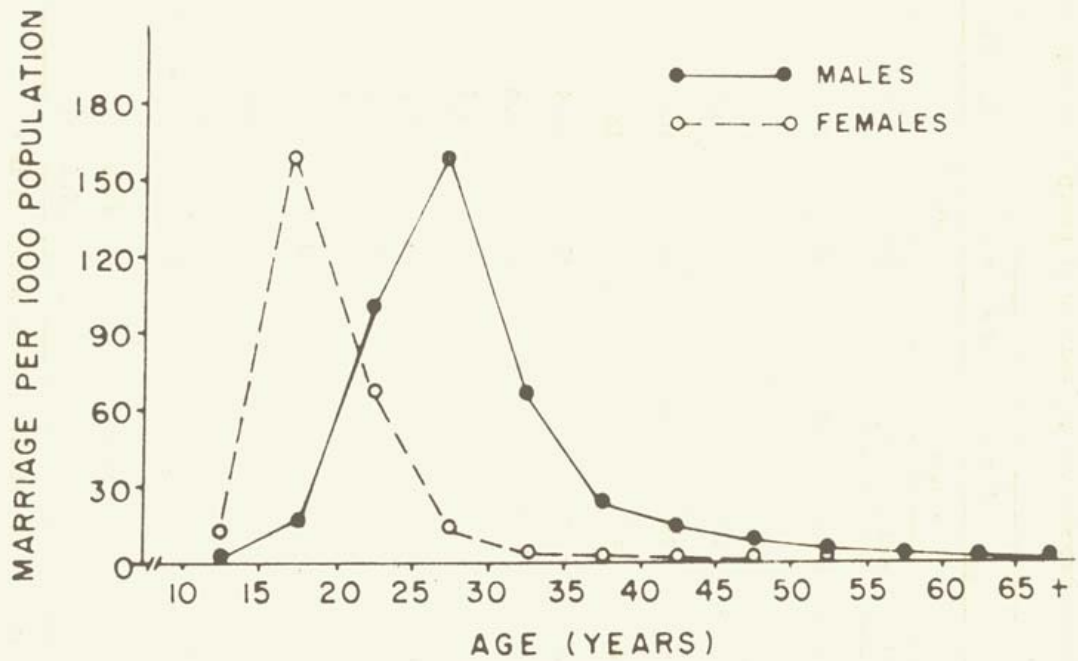


TABLE XXIII--GROOM'S AGE AT MARRIAGE BY PREVIOUS MARITAL STATUS, 1982

Age group (years)	P r e v i o u s m a r i t a l s t a t u s									
	All groom s		Single		Married		Widowed		Divorced	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All ages	2,623	100.0	1,964	100.0	137	100.0	98	100.0	424	100.0
10 - 14	2	0.1	2	0.1	-	-	-	-	-	-
15 - 19	176	6.7	158	8.0	1	0.7	-	-	17	4.1
20 - 24	1,000	38.1	859	43.7	15	10.9	6	6.1	120	28.3
25 - 29	936	35.7	753	38.3	25	18.3	16	16.3	142	33.5
30 - 34	294	11.2	163	8.3	32	23.4	26	26.5	73	17.2
35 - 39	89	3.4	23	1.2	15	10.9	19	19.4	32	7.6
40 - 44	60	2.3	3	0.2	27	19.7	8	8.2	22	5.2
45 - 49	31	1.2	2	0.1	9	6.6	8	8.2	12	2.8
50 - 54	18	0.7	1	0.1	7	5.1	6	6.1	4	0.9
55 - 59	9	0.3	-	-	4	2.9	4	4.1	1	0.2
60 - 64	7	0.3	-	-	2	1.5	5	5.1	-	-
65 +	1	0.0	-	-	-	-	-	-	1	0.2
*Median Age	25.0		24.0		33.0		35.0		27.0	
*Mean Age	26.1		24.4		34.9		36.9		28.2	
*Standard dev.	6.3		3.8		9.5		10.3		7.3	

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

TABLE XXIV--BRIDE'S AGE AT MARRIAGE BY PREVIOUS MARITAL STATUS, 1982

Age group (years)	Previous marital status							
	All brides		Single		Widowed		Divorced	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All ages	2,623	100.0	2,221	100.0	43	100.0	359	100.0
10 - 14	147	5.6	143	6.5	-	-	4	1.1
15 - 19	1,771	67.5	1,625	73.2	7	16.3	139	38.8
20 - 24	597	22.8	424	19.1	23	53.5	150	41.8
25 - 29	77	2.9	23	1.0	9	20.9	45	12.5
30 - 34	21	0.8	3	0.1	1	2.3	17	4.7
35 - 39	7	0.3	2	0.1	2	4.7	3	0.8
40 - 44	1	0.0	-	-	1	2.3	-	-
45 +	2	0.1	1	0.0	-	-	1	0.3
* Median Age	18.0		17.0		22.0		20.0	
* Mean Age	18.3		17.7		23.6		21.3	
* Standard dev.	3.5		2.8		5.2		5.0	

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

TABLE XXV--MEAN AND MEDIAN AGE AT FIRST MARRIAGE OF GROOMS BY OCCUPATION, 1982

Occupation of Grooms	Grooms			
	N	Mean	S.D.	Median
Farming (own land)	(756)	24.2	3.5	24
Farm Laborer	(69)	22.7	3.5	22
Non-agricultural Laborer*	(532)	23.7	3.7	23
Service**	(292)	26.3	3.8	26
Business	(171)	23.1	4.3	22
Others***	(54)	23.4	3.9	23

* Industrial worker, daily laborer, potter, carpenter, barber, washerman, goldsmith, fisherman, boatman.

** Includes service and professional.

*** Not gainfully employed (student), unknown, others not classified among the occupational groups.

TABLE XXVI--MEAN AND MEDIAN AGE AT FIRST MARRIAGE OF GROOMS AND BRIDES BY
EDUCATION, 1982

Education of Grooms and Brides	G r o o m s				B r i d e s			
	N	Mean	S.D.	Median	N	Mean	S.D.	Median
None (No schooling)	(321)	23.4	3.8	23	(355)	17.7	2.5	17
Maktab (Quranic education)	(690)	23.9	3.7	24	(1,172)	17.7	3.0	17
Primary (1-5)	(408)	24.2	3.4	24	(459)	17.4	2.2	17
Secondary and above (6+)	(545)	25.8	3.7	25	(234)	18.3	2.6	18

TABLE XXVII--DIVORCES BY AGE AND SEX, 1982

Age (years)	Males	Females
All ages	435	435
Under 15	-	11
15 - 19	17	213
20 - 24	136	155
25 - 29	138	38
30 - 34	70	12
35 - 39	30	3
40 - 44	17	2
45 - 49	11	1
50 - 54	8	-
55 - 59	4	-
60 - 64	4	-
65 +	-	-

TABLE XXVIII--MARRIAGES AND DIVORCES BY MONTH, 1982

Month	Marriages	Divorces
All months	2,623	435
January	227	62
February	261	40
March	293	43
April	106	26
May	214	33
June	255	31
July	202	31
August	214	27
September	191	31
October	231	44
November	184	35
December	245	32

FIGIO: MARRIAGES AND DIVORCES BY MONTH, 1982

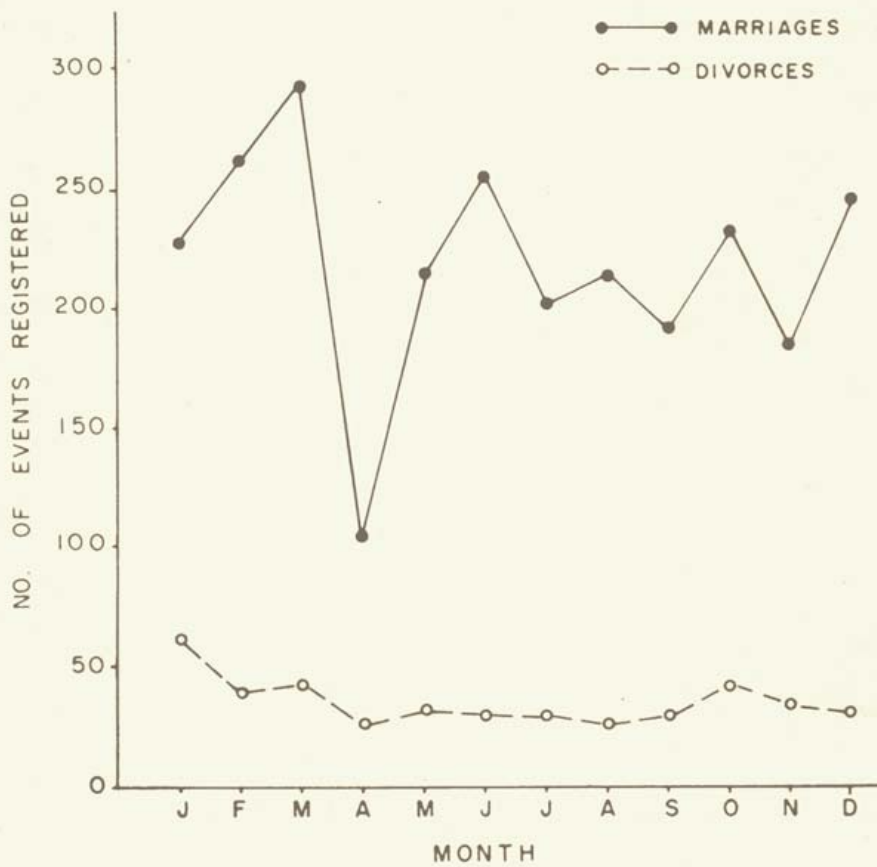


TABLE XXX--IN AND OUT-MIGRATION BY AGE AND SEX, 1982

Age (years)	In-migration			Out-migration		
	Both sexes	Males	Females	Both sexes	Males	Females
All ages	4,601	2,042	2,559	4,967	2,093	2,874
Under 5	708	345	363	736	381	355
0	127	64	63	178	82	96
1	169	83	86	161	82	79
2	155	76	79	155	85	70
3	144	62	82	122	62	60
4	113	60	53	120	70	50
5 - 9	427	228	199	408	232	176
10 - 14	388	179	209	448	206	242
15 - 19	1,023	180	843	1,133	229	904
20 - 24	682	269	413	984	329	655
25 - 29	399	185	214	468	239	229
30 - 34	289	194	95	247	142	105
35 - 39	194	138	56	149	108	41
40 - 44	130	102	28	121	83	38
45 - 49	80	54	26	74	49	25
50 - 54	69	49	20	55	25	30
55 - 59	46	34	12	34	17	17
60 - 64	53	29	24	45	24	21
65 +	113	56	57	65	29	36

TABLE XXXI--AGE AND SEX-SPECIFIC MIGRATION RATES BY DIRECTION, 1982*

Age group (years)	Both sexes		Males		Females	
	In	Out	In	Out	In	Out
All ages	24.5	26.5	21.5	22.0	27.6	31.0
Under 5	23.7	24.7	22.2	24.5	25.4	24.8
5 - 9	16.2	15.5	16.5	16.8	15.8	14.0
10 - 14	16.3	18.8	14.4	16.6	18.2	21.1
15 - 19	47.9	53.1	17.6	22.3	75.9	81.4
20 - 24	35.8	51.6	27.2	33.2	45.1	71.5
25 - 29	35.6	41.8	33.6	43.5	37.5	40.1
30 - 34	30.9	26.4	43.7	31.9	19.4	21.4
35 - 39	22.9	17.6	37.4	29.3	11.8	8.6
40 - 44	15.2	13.9	25.7	20.9	5.9	8.1
45 - 49	10.8	10.0	14.5	13.2	7.1	6.8
50 - 54	10.5	8.4	14.6	7.4	6.2	9.4
55 - 59	9.7	7.2	13.5	6.8	5.4	7.6
60 - 64	12.8	10.9	13.1	10.9	12.5	11.0
65 +	17.1	9.8	15.3	7.9	19.3	12.2

* Rate per 1,000 mid-year population.

FIG. II: MALES AND FEMALES MIGRATION RATES
IN 1982 BY AGE AND DIRECTION

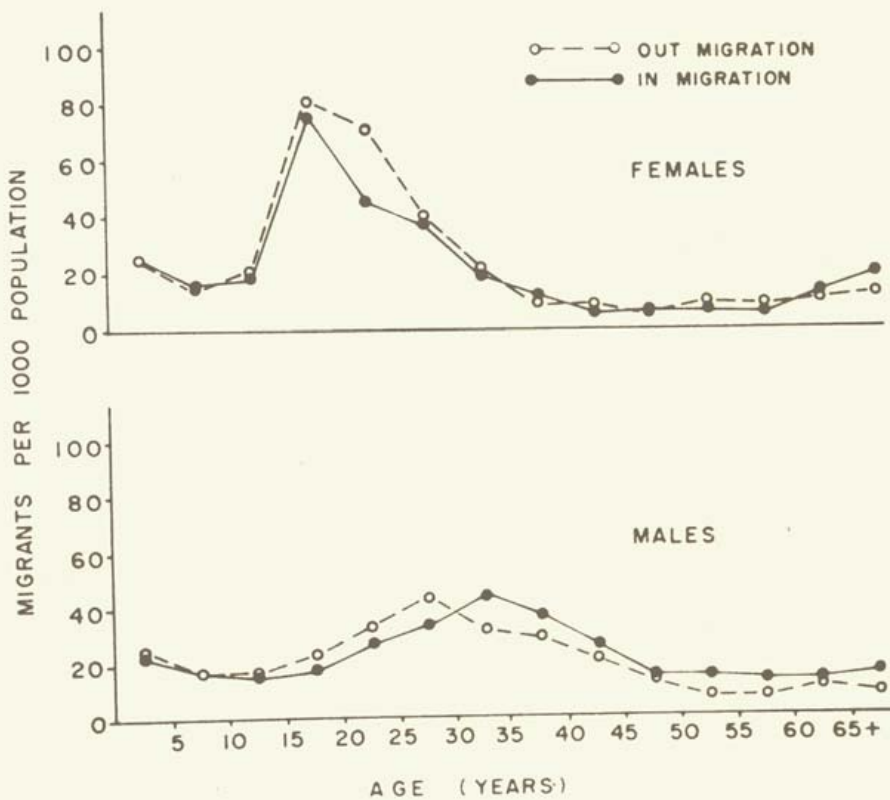


TABLE XXXII--IN AND OUT-MIGRATION BY SEX AND MONTH, 1982

Month	In-migration			Out-migration		
	Both sexes	Males	Females	Both sexes	Males	Females
January	836	437	399	541	254	287
February	419	194	225	413	165	248
March	370	158	212	392	156	236
April	322	159	163	227	107	120
May	268	98	170	297	118	179
June	210	66	144	251	74	177
July	650	296	354	822	362	460
August	300	132	168	467	196	271
September	346	150	196	351	158	193
October	403	172	231	502	217	285
November	258	108	150	336	147	189
December	219	72	147	368	139	229
All months	4,601	2,042	2,559	4,967	2,093	2,874

FIG. 12: NUMBER OF IN AND OUT MIGRATIONS OF
MALES AND FEMALES REGISTERED
IN 1982 BY MONTH

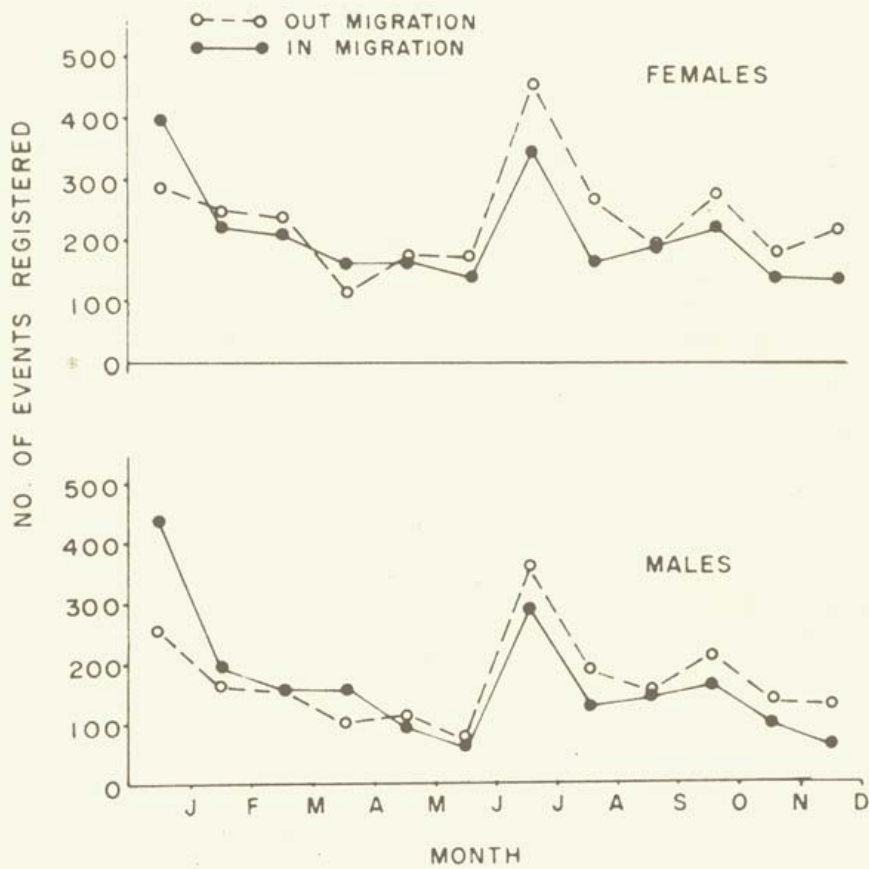


TABLE XXXIII--IN-AND OUT-MIGRATION BY SEX AND MAJOR CATEGORIES OF REASONS FOR MIGRATION, 1982

Reasons	In-migration				Out-migration			
	Males		Females		Males		Females	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All reasons	2,042	100.0	2,559	100.0	2,093	100.0	2,874	100.0
Dependent movement	741	36.3	1,175	45.9	723	34.6	1,206	42.0
Independent movement	1,250	61.2	1,353	52.9	1,344	64.2	1,650	57.4
- due to work and better living	947	46.4	509	19.9	1,276	61.0	634	22.1
- due to marriage and marital disruption	14	0.7	799	31.2	9	0.4	990	34.4
- return migration	289	14.2	45	1.8	59	2.8	26	0.9
Others*	51	2.5	31	1.2	26	1.2	18	0.6

* This category includes causes, such as change in residence, treatment for diseases, and some unstated causes related to independent movements.

TABLE XXXIV-a--IN-MIGRATION BY CAUSE OF MOVEMENT, SEX AND AGE, 1982

Males															
Age (years)															
Cause of movement	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	2,042	345	228	179	180	269	185	194	138	102	54	49	34	29	56
1. Dependent movement	672	340	212	110	-	-	-	-	-	-	-	-	-	-	10
- dependent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- to join with spouse	35	1	1	2	4	15	6	3	-	2	1	-	-	-	-
- to join parents	33	2	2	2	1	4	4	4	2	1	2	5	1	1	2
- to join relatives	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- adoption	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
2. Independent movement															
2.1 Associated with work															
living condition															
- service	65	-	-	-	2	8	7	14	12	8	5	2	3	4	-
- work	7	-	1	3	1	1	-	1	-	-	-	-	-	-	-
- business	6	-	-	-	1	-	1	2	1	1	-	-	-	-	-
- better living	806	-	9	33	123	149	89	130	86	72	33	25	16	12	29
- for livelihood	3	-	-	-	-	1	2	-	-	-	-	-	-	-	-
- study	60	-	1	24	16	17	2	-	-	-	-	-	-	-	-
2.2 Associated with marriage															
- marriage	12	-	-	-	3	1	3	3	-	-	-	-	-	2	-
- divorce	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-
- widow	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-
- separation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.3 Return migration															
- after study	5	-	-	-	-	4	1	-	-	-	-	-	-	-	-
- after service	80	-	-	2	10	16	15	5	7	2	3	6	6	3	5
- after work	23	-	-	4	4	9	2	3	2	1	1	-	1	-	-
- return home	93	-	-	3	3	22	18	14	12	5	6	3	5	1	1
- regular member of family	88	-	-	-	6	15	30	7	8	7	-	5	2	2	4
2.4 Others	20	-	-	-	2	6	2	3	3	1	1	-	-	1	1
3. Change in residence	19	-	1	-	2	-	1	2	1	2	2	2	-	2	4
4. For treatment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Not stated	12	-	-	-	2	1	1	3	3	-	-	1	-	1	-

TABLE XXXIV-b--IN-MIGRATION BY CAUSE OF MOVEMENT, SEX AND AGE, 1982

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	2,559	363	199	209	843	413	214	95	56	28	26	20	12	24	57
1. Dependent movement	1,088	351	183	108	87	101	95	52	32	19	14	10	5	10	21
- dependent	30	-	-	-	23	23	3	2	1	-	-	-	-	-	1
- to join with spouse	39	5	2	6	9	10	3	3	-	-	-	-	-	-	1
- to join parents	12	1	-	-	4	2	-	1	1	-	1	-	-	-	1
- to join relatives	6	4	2	-	-	-	-	-	-	-	-	-	-	-	2
- adoption															-
2. Independent movement															-
2.1 Associated with work living condition															-
- service	8	-	-	-	1	2	2	2	-	1	-	-	-	-	-
- work	12	-	-	9	1	2	-	-	-	-	-	-	-	-	-
- business	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- better living	460	-	7	40	100	132	66	25	17	7	10	10	6	13	27
- for livelihood	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- study	29	-	4	12	10	3	-	-	-	-	-	-	-	-	-
2.2 Associated with marriage															-
- marriage	674	-	1	23	532	86	21	6	-	1	1	-	-	-	3
- divorce	83	-	-	1	23	41	13	3	2	-	-	-	-	-	-
- widow	2	-	-	-	-	2	-	-	-	-	-	-	-	-	-
- separation	40	-	-	1	21	14	4	-	-	-	-	-	-	-	-
2.3 Return migration															-
- after study	2	-	-	-	2	-	-	-	-	-	-	-	-	-	-
- after service	3	-	-	-	1	-	-	1	1	-	-	-	-	-	-
- after work	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-
- return home	14	-	-	5	2	2	3	-	1	-	-	-	-	1	1
- regular member of family	24	-	1	2	10	5	3	-	1	-	-	-	1	-	1
2.4 Others	11	2	-	1	4	3	1	-	-	-	-	-	-	-	-
3. Change in residence	2	-	-	1	-	-	-	-	1	-	-	-	-	-	-
4. For treatment	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Not stated	17	-	1	-	11	4	1	-	-	-	-	-	-	-	-

TABLE XXV-a--OUT-MIGRATION BY CAUSE OF MOVEMENT, SEX AND AGE, 1982

		Males												
		Age (years)												
Cause of movement	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	2,093	381	206	229	329	239	142	108	83	49	25	17	24	29
1. Dependent movement														
- dependent	703	371	210	119	-	-	-	-	-	-	-	-	-	3
- to join with spouse	2	-	-	-	1	-	1	-	-	-	-	-	-	-
- to join parents	6	2	-	1	1	1	1	-	-	-	-	-	-	-
- to join relatives	4	1	1	-	-	-	-	-	-	-	-	-	-	-
- adoption	8	1	1	-	-	-	-	-	-	-	-	-	-	-
2. Independent movement														
2.1 Associated with work living condition														
- service	427	-	16	59	140	110	50	25	19	4	3	1	-	-
- work	23	1	8	8	2	1	1	-	-	-	1	-	-	1
- business	34	-	2	11	8	6	4	-	2	1	-	-	-	-
- better living	677	9	33	96	134	99	75	67	57	39	17	13	20	19
- for livelihood	22	-	1	4	2	7	4	2	-	-	-	-	1	1
- study	93	8	19	34	27	5	-	-	-	-	-	-	-	-
2.2 Associated with marriage														
- marriage	5	-	-	2	1	-	1	1	-	-	-	-	-	-
- divorce	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- widow	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- separation	4	-	-	1	-	1	-	1	1	-	-	-	-	-
2.3 Return migration														
- after study	12	-	1	5	3	1	1	-	-	-	-	-	-	-
- after service	6	-	-	-	-	-	-	3	1	1	-	-	1	-
- after work	9	-	-	3	5	1	1	2	1	1	1	1	-	3
- return home	16	-	-	3	2	2	1	1	-	1	1	-	-	-
- regular member of family	16	1	4	3	2	2	1	1	-	1	1	-	-	-
2.4 Others	11	-	-	1	3	4	1	1	-	-	1	-	-	-
3. Change in residence	11	-	1	1	-	1	1	2	2	2	-	-	1	-
4. For treatment	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Not stated	4	-	-	-	1	-	-	-	-	-	1	1	1	-

TABLE XXXV-b--OUT-MIGRATION BY CAUSE OF MOVEMENT, SEX AND AGE, 1982

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	2,874	355	176	242	904	655	229	105	41	38	25	30	17	21	36	
1. Dependent movement	1,096	346	153	121	108	139	79	53	26	20	12	11	6	9	13	
- dependent	78	-	1	1	24	32	14	3	-	-	1	-	-	1	1	
- to join with spouse	18	3	1	1	7	5	1	-	-	-	-	-	-	-	-	
- to join parents	9	1	-	2	2	-	-	-	-	-	1	1	-	-	2	
- to join relatives	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
- adoption																
2. Independent movement																
2.1 Associated movement																
2.1.1 Associated with work																
living condition																
- service	30	-	-	3	10	8	7	1	-	-	-	1	-	-	-	
- work	40	-	4	14	13	7	2	-	-	-	-	-	-	-	-	
- business	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
- better living	526	-	13	36	124	140	78	40	14	15	10	16	11	10	19	
- for livelihood	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	
- study	37	-	1	7	22	6	-	1	-	-	-	-	-	-	-	
2.2 Associated with marriage																
- marriage	862	-	1	47	510	270	30	3	-	1	-	-	-	-	-	
- divorce	62	-	-	1	35	19	6	1	-	-	-	-	-	-	-	
- widow	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	
- separation	65	-	-	2	38	15	8	-	1	-	1	-	-	-	-	
2.3 Return migration																
- after study	2	-	1	-	-	1	-	-	-	-	-	-	-	-	-	
- after service	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
- after work	4	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
- return home	20	-	-	3	5	9	1	-	-	1	-	1	-	-	-	
- regular member of family	10	-	-	4	4	-	1	1	-	-	-	-	-	-	-	
2.4 Others																
3. Change in residence	5	-	-	-	-	-	-	2	-	1	-	-	-	1	1	
4. For treatment	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	
5. Not stated	2	-	-	-	-	2	-	-	-	-	-	-	-	-	-	

List of the villages under DSS, Matlab, 1982

Village Code	Village name	Village Code	Village name
A	Uddamdi	V 01	Kadamtali
B	Charmasua	V 02	Nilokhi
C	Sarderkandi	V 03	Char Nilokhi
F	Sepoykandi	V 04	Char Pathalia
G	Thatalia	V 05	Gazipur
H	Lamchari	V 06	Fatepur
J	Char Harigope	V 07	Nayakandi
K	Shahpur	V 08	Goalbhar
L	Tatkhana	V 09	Naburkandi
M	Char Nayergaon	V 10	Dhakirgaon
N	Aswinpur	V 11	Nabakalash
O	Nayergaon	V 12	Bhangerpar
P	Titerkandi	V 13	Baburpara
Q	Char Shibpur	V 14	Enayet Nagar
R	Nandalalpur	V 15	Bhati Rasulpur
S	Tatua	V 16	Binandapur
T	Amuakanda	V 17	Hatighata
U	Baishpur	V 18	Torkey
W	Kaladi	V 19	Lakshmipur
D	Charmukundi	V 20	Dagorpur
D 28	Bazarkhola	V 21	Khadergaon
D 29	Kirtonkhola	V 22	Beloti
D 30	Banuakandi	V 23	Baluchar
D 31	Harina Bazarkhola	V 24	Machuakhal
D 32	Khalisha	V 25	Char Pathalia
D 33	Nayanagar	V 26	Narayanpur
D 34	Saidkharkandi	V 27	Panchghoria
D 35	Mollakandi	V 28	Khidirpur
D 88	Sankibanga	V 29	Shibpur (South)
D 89	Sankibanga Namapara	V 30	Harion
D 90	Zahirabaj	V 31	Dighaldi
D 91	North Joypur	V 32	Mobarakdi
D 92	West Joypur	V 33	Shibpur (North)
D 93	Maizkandi	V 34	Satparia
D 94	Hazipur	V 35	Durgapur
D 95	Tapaderpara	V 36	Ludhua
D 96	Rampur	V 37	Charputia
D 97	Nayakandi	V 38	Galimkha
D 98	Bara Haldia	V 39	Gobindapur
D 99	Mandertoli	V 40	Masunda
D 100	Barogaon	V 41	Paton
D 101	Naojan	V 42	Adhara (South)

Appendix A (Contd.)

Village Code	Village name	Village Code	Village name
V 43	Kanachak	V 88	Datikara
V 44	Panchdona	V 89	Islamabad (Middle)
V 45	Bakchar	V 90	Narinda
V 46	Silinda	V 95	Baluchar
V 47	Tulatali	V 96	Rampur
V 48	Gangkanda	V 97	Dhonagoda
V 49	Harina Bhabanipur	V 98	Santoshpur
V 50	Bakharpur	V 99	Baluakandi
V 51	Induriakandi		
V 52	Nayakandi		
V 53	Chhoto Haldia	VB 1	Taltoli
V 54	Balairkandi	VB 2	Sree Rayerchar
V 55	Induria	VB 3	Rayerkandi
V 56	Pailpara	VB 4	Ramdaspur
V 57	Baluchar	VB 5	Thakurpara
V 58	Mohishmari	VB 6	Sarkerpara
V 59	Doshpara	VB 7	Mirpur
V 60	Suvankardi	VB 8	Farazikandi
V 61	Munsabdi	VB 9	Ramanathganj
V 62	Shilmondi	VB 10	South Rampur
V 63	Islamabad (East)	VB 11	Mehron
V 64	Kawadi	VB 12	Nagda
V 65	Nayachar	VB 13	Naogaon
V 66	Thatalia		
V 67	Majlishpur		
V 68	Sobahan		
V 69	Naobanga		
V 70	South Joypur		
V 71	Khamarpara		
V 72	Upadi		
V 73	Sadardia		
V 74	Ketundi		
V 75	Mukundi		
V 76	Chosoi		
V 78	Soladana		
V 79	Pitambordi		
V 80	Daribond		
V 81	Sonaterkandi		
V 82	Dhanarpar		
V 83	Padmapal		
V 84	Shahabajkandi		
V 85	Bhanurpara		
V 86	Adhara		
V 87	Hurmaisha		

Appendix A.1

Village-wise Mid-year Populations in DSS, Matlab, 1982

Block ²	MCH-FP Area (Pop. Total 94795)				Comparison Area (Pop. Total 92779)			
	Village ¹ Code	Popula- ³ tion	Village ¹ Code	Popula- ³ tion	Village ¹ Code	Popula- ³ tion	Village ¹ Code	Popula- ³ tion
A	D	1436	V59	795	A	2316	V78	231
	W	2445	V60	862	B	1683	V79	305
	V10	1361	V61	634	C	3116	V80	942
	V11	1248	V62	708	F	1163	V90	1032
	V31	7882	V72	4947	G	2239	V95	916
	V32	2244			J	409	V96	469
	Pop. Total	24562			U	6980	V97	407
B	H	1197	V26	2299	VO1	687	V98	203
	V12	441	V56	1293	VO2	437	V99	654
	V13	704	V82	1214	VO3	631	VB1	1109
	V19	3117	V83	429	VO4	223	VB2	835
	V20	927	V85	374	VO5	2940	VB3	2496
	V21	446	V87	513	VO6	2173	VB4	2559
	V22	598	VB12	3555	VO7	369	VB5	782
	V23	573	VB13	4021	VO8	1148	VB6	381
	V24	2338			VO9	1023	VB7	184
	Pop. Total	24039			V14	926	VB8	945
C	K	850	V40	680	V35	3184	VB9	144
	L	410	V41	1246	V36	4537	VB10	1491
	M	137	V42	643	V37	367	D28	1112
	N	1858	V43	833	V38	1463	D29	168
	O	1180	V44	535	V45	853	D30	700
	P	1767	V64	4308	V46	313	D31	1031
	Q	336	V86	667	V47	1655	D32	543
	V27	818	V88	429	V48	603	D33	933
	V28	1179	VB11	2229	V49	1126	D34	1262
	V30	493	D100	2993	V50	733	D35	648
	V39	322	D101	1177	V51	1380	D88	1797
D	Pop. Total	25090			V53	2906	D89	579
	R	1292	V34	778	V58	1216	D90	2513
	S	1071	V52	237	V65	614	D91	953
	T	1397	V54	540	V66	852	D92	527
	V15	540	V55	510	V68	763	D93	725
	V16	715	V57	1030	V69	1126	D94	912
	V17	1045	V63	1948	V70	660	D95	334
	V18	3322	V67	542	V71	358	D96	208
	V25	1228	V81	508	V73	699	D97	598
	V29	580	V84	1938	V74	1130	D98	2605
	V33	628	V89	1255	V75	336	D99	1835
	Pop. Total	21104			V76	1374		

1 See Appendix A for village names.

2 Division by Blocks applies only for MCH-FP area.

3 These are the population figures as of July 1, 1982.

APPENDIX BLIFE TABLE EQUATIONS
(With usual symbols)

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

$$2. \quad \begin{aligned} \ell_0 &= 1.0 \\ \ell_x &= (1 - n^q_{x-n}) \ell_{x-n} \end{aligned}$$

$$3. \quad L_0 = 0.276\ell_0 + 0.724\ell_1$$

$$L_1 = 0.410\ell_1 + 0.590\ell_2$$

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

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

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

$$4. \quad e^o_x = \frac{T_x}{\ell_x}, \quad \text{where } T_x = \sum_{y=x} L_y$$

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.

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