

# DEMOGRAPHIC SURVEILLANCE SYSTEM- MATLAB

106

VOLUME TEN

VITAL EVENTS AND  
MIGRATION TABLES  
1980

REPORT PREPARED BY

Mridul K. Chowdhury  
Abdur Razzaque  
G. Mostafa  
A.M. Sarder  
Stan D'Souza

ICDDR,B

SCIENTIFIC REPORT NO. 58

November 1982



INTERNATIONAL  
CENTRE FOR  
DIARRHOEAL DISEASE  
RESEARCH,  
BANGLADESH

DHAKA, BANGLADESH

DEMOGRAPHIC SURVEILLANCE SYSTEM - MATLAB

Volume Ten

Vital Events and Migration - Tables

1980

Report prepared by:

Mridul K. Chowdhury<sup>1</sup>

Abdur Razzaque<sup>2</sup>

G. Mostafa<sup>3</sup>

A.M. Sarder<sup>4</sup>

Stan D'Souza<sup>5</sup>

INTERNATIONAL CENTRE FOR  
DIARRHOEAL DISEASE RESEARCH, BANGLADESH  
G.P.O. Box 128, Dhaka 2  
Bangladesh

- 
- 1 Assistant Scientist and Head, Data Management Branch
  - 2 Senior Statistical Officer
  - 3 Data Processing Assistant
  - 4 Senior Field Research Officer
  - 5 Scientific Programme Head

## PREFACE

The International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) is an autonomous, international, philanthropic and non-profit centre for research, education and training as well as clinical service. The Centre is derived from the Cholera Research Laboratory (CRL). The activities of the institution are to undertake and promote study, research and dissemination of knowledge in diarrhoeal diseases and directly related subjects of nutrition and fertility with a view to develop improved methods of health care and for the prevention and control of diarrhoeal diseases and improvement of public health programmes with special relevance to developing countries. ICDDR,B issues annual report, working paper, scientific report, special publication, monograph, thesis and dissertation, and newsletter which demonstrate the type of research activity currently in progress at ICDDR,B. The views expressed in these papers are those of authors and do not necessarily represent views of International Centre for Diarrhoeal Disease Research, Bangladesh. They should not be quoted without the permission of the authors.

## CONTENTS

	<u>Pages</u>
ABSTRACT ... ..	1
INTRODUCTION ... ..	2
NOTES FOR TABLES ... ..	2
 LIST OF TABLES:	
Table I : Mid-Year Population by Age and Sex, 1980 ...	7
Table II : Mid-Year Population, Events Registered and Population Change in 1980 ... ..	9
Table III : Deaths by Age Group, 1980 ... ..	11
Table IV : Death Rates in 1980 ... ..	12
Table V : Abridged Life Tables for Males and Females Based on 1980 Mortality Rates ... ..	13
Table VI : Abridged Life Table for Both Sexes Based on 1980 Mortality Rates... ..	14
Table VII : Number and Rates of Outcome of Pregnancies by Type, 1980 ... ..	17
Table VIII : Age Specific Fertility Rates (Per Thousand), 1980	18
Table IX : Mean Number of Previous Pregnancies and Surviving Children for Mothers of Different Ages Who Had Live Births in 1980 ... ..	19
Table X : Age-sex Specific Marriage Rates, 1980... ..	20
Table XI : Grooms' Age at Marriage by Previous Marital Status, 1980 ... ..	24
Table XII : Brides' Age at Marriage by Previous Marital Status, 1980 ... ..	25
Table XIII : Percent Divorces in 1980 by Duration of Marriage at Divorce and Husband's Age ... ..	26
Table XIV : In and Out Migrants by Sex and Major Categories of Reasons for Migration, 1980.. ... ..	27
Table XV : Age and Sex Specific Migration Rates by Direction, 1980... ..	29
Table XVI : Age Specific Death Rates in MCH-FP Comparison Area, Matlab, 1980 ... ..	31
Table XVII : Fertility Rates by Age and Area in Matlab, 1980 ...	32
 LIST OF FIGURES:	
Figure 1 : Map of Bangladesh Showing the Study Area ...	3
Figure 2 : Matlab Area Showing Villages of Demographic Surveillance System, 1980 ... ..	4
Figure 3 : Age Pyramid of the 1980 Estimated Mid-Year Population	8
Figure 4 : Number of Live Births, Total Deaths and Natural Increase by Month in 1980 ... ..	10
Figure 5 : Probability of Survival from Birth to Age x by Sex from Life Table of 1980 ... ..	15
Figure 6 : Expectation of Years of Remaining Life from Life Table of 1980 by Age and Sex ... ..	16

CONTENTS (contd.)

	<u>Pages</u>
Figure 7 : Age Specific Fertility Rates, Matlab, 1980 ...	33
Figure 8 : Mean Number of Pregnancies and Mean Number of Surviving Children for Women Who Delivered Live Birth in 1980 by Age ... ..	21
Figure 9 : Marriage Rates in 1980 by Age and Sex...	22
Figure 10 : Number of Marriages and Divorces Registered in 1980 by Month ... ..	23
Figure 11 : Number of In and Out Migrations of Males and Females Registered in 1980 by Month.. ... ..	28
Figure 12 : Male and Female Migration Rates in 1980 by Age, Sex and Direction ... ..	30
APPENDIX Aa : Village-wise Mid-Year Populations in DSS, Matlab, 1980 ... ..	34
APPENDIX Ab : List of the Villages under DSS, Matlab, 1980 ...	35
APPENDIX B : Life Table Equations ... ..	37
APPENDIX C : The Basic Tabulations (Table C1 - C18).. ...	38
ACKNOWLEDGEMENT ... ..	60

## ABSTRACT

This is the tenth volume in a series of scientific reports produced by the International Centre for Diarrhoeal Disease Research, Bangladesh (former Cholera Research Laboratory) presenting basic tabulations from the registration of births, deaths, marriages, divorces and migrations in the Demographic Surveillance System of the Matlab Field Station. The present volume presents results for the calendar year 1980 for the reduced surveillance area.

## INTRODUCTION

The present volume reports the results obtained from Demographic Surveillance System (DSS), Matlab in the calendar year 1980 (Figures 1 and 2 for location of Matlab and DSS area). In volume one of this series, a detailed description of the DSS, its operation and description are given. From 1978, however, some modifications in the DSS have been introduced in terms of area-coverage and field operation. These changes were described in detail in volume seven of this series. The reporting format in terms of tabulation pattern and presentation in this volume is essentially the same as that followed in the preceding volume 9 (for the year 1979) of this series. To make the tables self-explanatory, a few explanations and notes are provided below:

## NOTES FOR TABLES

Table I

The Demographic Surveillance System (DSS) area of Matlab consists of 149 villages (see Figure 2, and Appendix A for village location and names). The mid-year population of this area refers to the date July 1, 1980 and has been obtained through computer updating of the census population (as of December 31, 1978) for all registered births, deaths and migrations (in/out) which occurred from January 1, 1979 to June 30, 1980 in the area.

Age is recorded in total completed years as of last birthday. For persons, who were born within DSS area after 1966, age figures are exact. In cases where age is not known-which may apply to immigrants or to persons born before 1966-ascertainment of age is made as accurately as possible by reference to any past event that may be remembered.

Table II

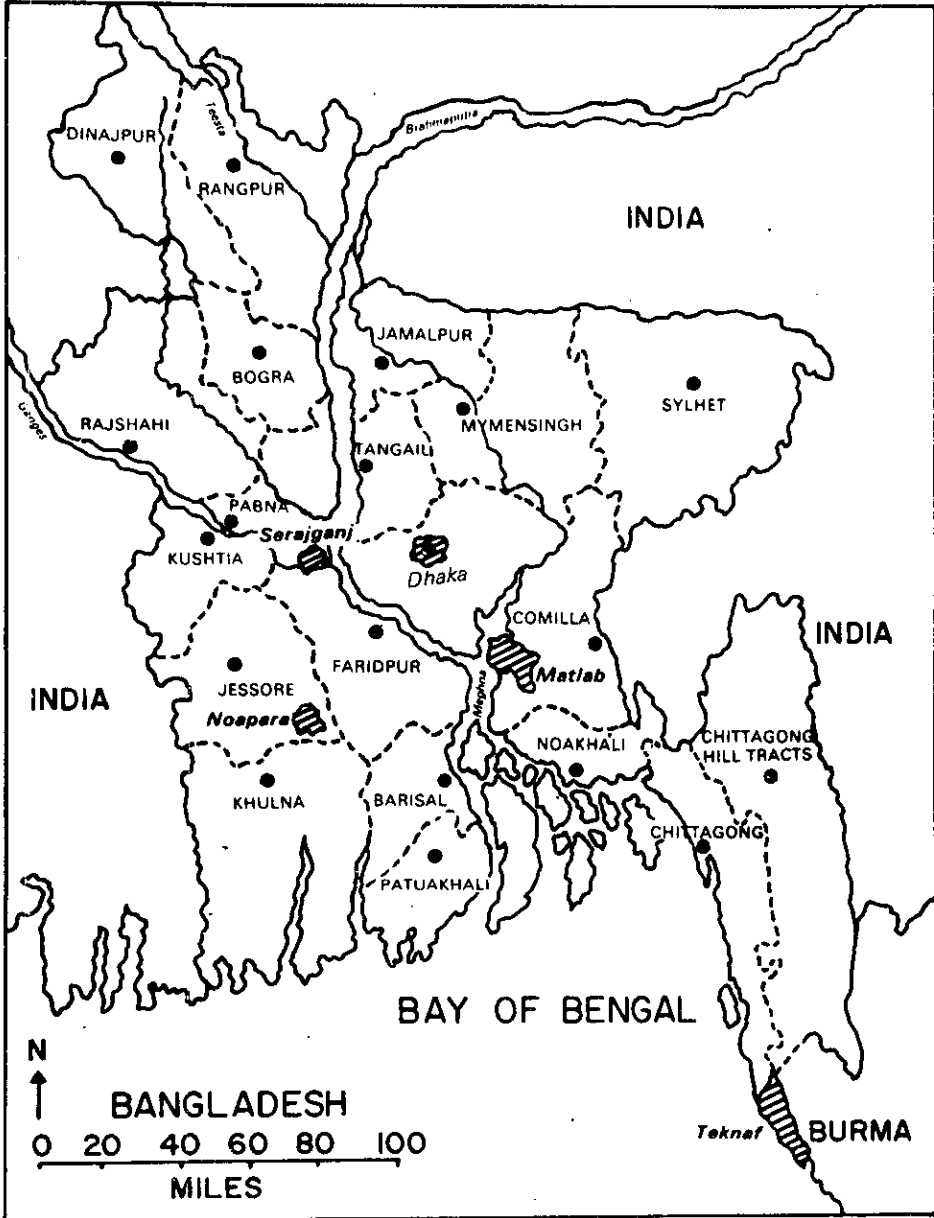
The MCH-FP area, which comprises of 70 villages within DSS, constitutes the intervention area for Maternal Child Health and Family Planning Project, Matlab; while the remaining 79 villages serve as comparison area (see Figure 2 and Appendix A).

Table IV

As compared with the year 1979 infant mortality rates during 1980 show some different patterns both for males and females. For example, one observes that the infant mortality rate (per 1000 live births) for males is 90.2 in 1980 as compared with 118.7 in 1979; whereas for females the rate is 118.5 in 1980

Figure 1

Map of Bangladesh showing the study area




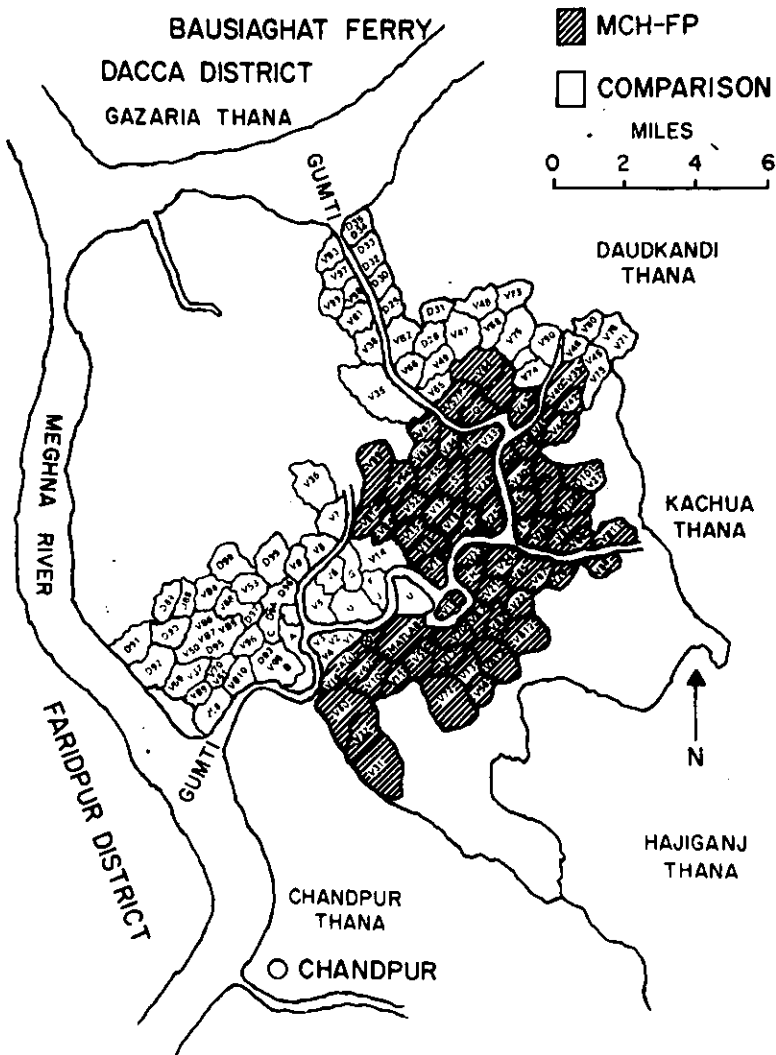
Key:  study area



FIGURE:2 MATLAB AREA SHOWING VILLAGES OF DEMOGRAPHIC SURVEILLANCE SYSTEM, 1980



as against 114.0 in 1979. In particular, the female mortality rate for the first month of life is higher than the corresponding male rate. This observation applies for the two areas of MCH-FP and comparison villages considered separately (cf. Table XVI). A special verification of these results has been undertaken but at this stage no immediate explanation has been found.

#### Table V and VI

The equations and formulas that are used while performing the computations are provided in Appendix B.

#### Table VII

A pregnancy outcome is designated as "early miscarriage" if the gestation period is less than seven months; for gestation beyond seven months foetal loss is said to be a "stillbirth".

In the case of twin birth pregnancies, a live birth pregnancy may have one or two live births.

#### Table IX

While computing the mean number of previous pregnancies and mean number of surviving children the present birth is always excluded.

#### Table X

Marriage rates for 1980 show the usual patterns reaching a peak at ages 15-19 years for females and at ages 25-29 years for males. As compared with the year 1979, these peak rates in 1980 are reported to be 18% and 20% lower for males and females respectively.

#### Table XIV

This table is constructed from two tables C14 and C15 given in Appendix C. For a detailed description of the major categories of "reasons for migration" these appendix tables may be consulted.

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. An "in-migrant" is, likewise, an individual not recorded in the census schedule who has permanently moved into the surveillance

area. A permanent change of residence is determined by the duration of stay; residence of at least six months of duration is required for "permanent" status.

Table XVI

See note for Table IV above.

Footnote: Data for these tables were entered directly on the IBM System 34. 100% verification procedures were not utilised at the time of entry due to heavy pressure in the computer.

TABLE I--MID-YEAR POPULATION BY AGE AND SEX , 1980

Age (Years)	Number			Percent		
	Both sexes	Males	Females	Both sexes	Males	Females
All ages	179290	90546	88744	100.0	100.0	100.0
0-4	28660	14861	13799	16.0	16.4	15.5
0	6576	3428	3148	3.6	3.8	3.5
1	5573	2833	2740	3.1	3.1	3.1
2	5672	2920	2752	3.2	3.2	3.1
3	6731	3484	3247	3.8	3.8	3.6
4	4108	2196	1912	2.3	2.5	2.2
5-9	25734	13428	12306	14.4	14.9	13.9
10-14	21529	11050	10479	12.0	12.2	11.8
15-19	23263	11316	11947	13.0	12.5	13.4
20-24	16333	8449	7884	9.1	9.4	8.8
25-29	9971	4938	5033	5.6	5.5	5.7
30-34	8395	3801	4594	4.7	4.2	5.2
35-39	8652	3756	4896	4.8	4.1	5.5
40-44	7951	3814	4137	4.4	4.2	4.7
45-49	7532	3813	3719	4.2	4.2	4.2
50-54	5821	3013	2808	3.2	3.3	3.2
55-59	4978	2621	2357	2.8	2.9	2.7
60-64	3607	1930	1677	2.0	2.1	1.9
65+	6864	3756	3108	3.8	4.1	3.5

Fig.3. AGE PYRAMID OF THE 1980 MID-YEAR POPULATION

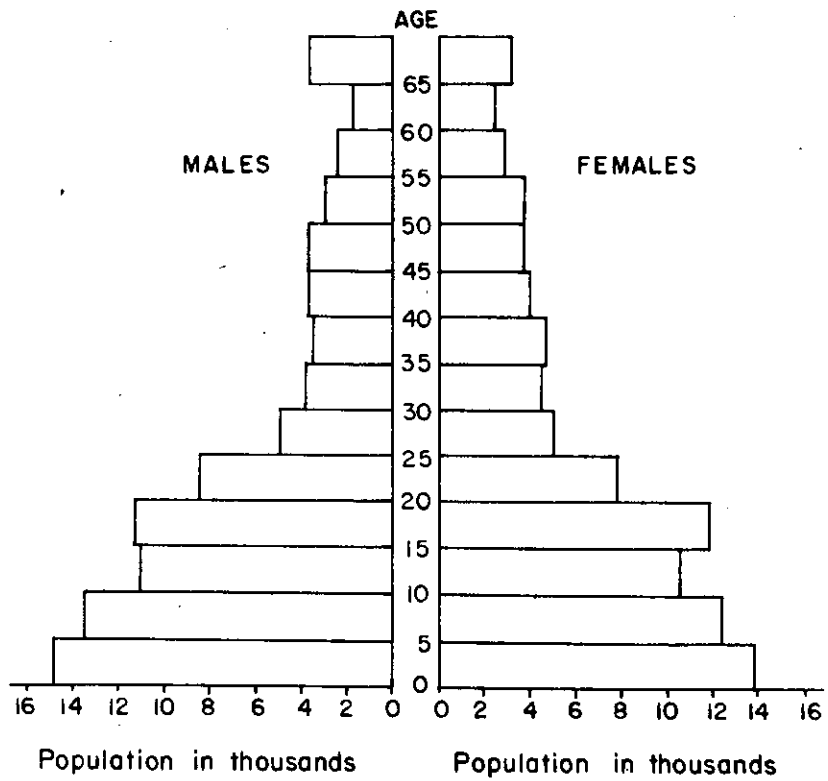


TABLE II--MID-YEAR POPULATION, EVENTS REGISTERED AND  
POPULATION CHANGE IN 1980

	Number	Rate per 1,000 population
Total population, 1980 Mid-Year	1,79,290	- .
MCH-FP area	91,010	-
Comparison area	88,280	-
<u>Events registered</u>		
(January to December 1980)		
Births	7,391	41.2
MCH-FP area	3,375	37.1
Comparison area	4,016	45.5
Deaths	2,342	13.1
MCH-FP area	1,031	11.3
Comparison area	1,311	14.8
In-migration	5,329	29.7
Out-migration	6,566	36.6
Marriages	2,871	16.0
Divorces	536	186.7*
<u>Population change</u>		
(January to December, 1980)		
Net-migration	- 1,237	- 6.9
Natural increase	5,049	28.2
MCH-FP area	2,344	25.8
Comparison area	2,705	30.6
Net increase	3,812	21.3

\* Ratio per 1,000 marriages.

Fig.4. NUMBER OF LIVE BIRTHS, TOTAL DEATHS AND NATURAL INCREASE BY MONTH IN 1980

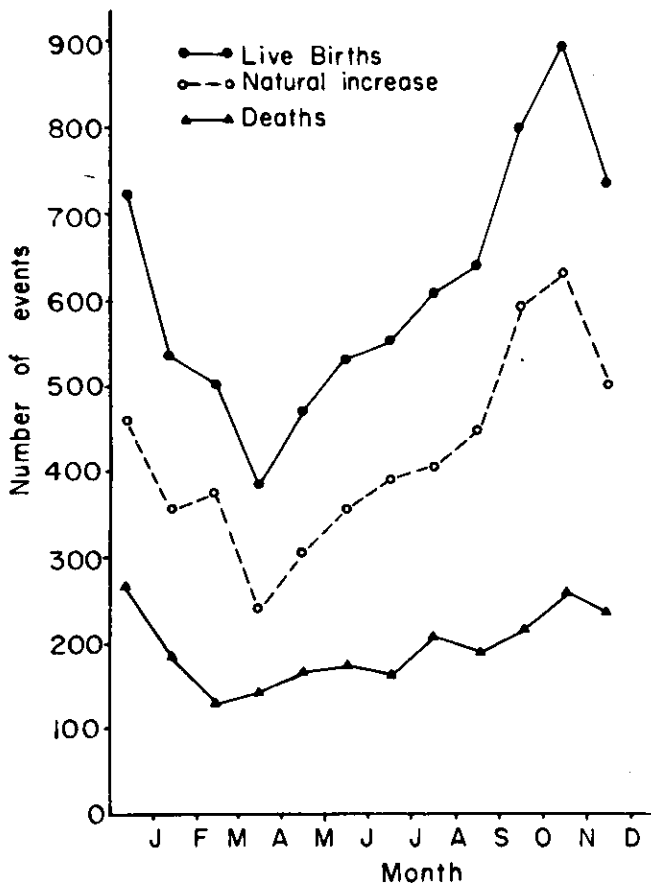


TABLE III--DEATHS BY AGE GROUP, 1980

Age group (years)	Number	Percentage*
All ages	2,342	100
< 1	768	33
1 - 4	487	21
5 - 9	81	3
10 - 19	54	2
20 - 39	112	5
40 - 59	250	11
60 +	590	25

\* Rounded off to the nearest integer.



TABLE IV--DEATH RATES IN 1980 BY AGE AND SEX

Age at death	Rate per 1000 population		
	Both sexes	Males	Females
All ages	13.1	12.0	14.1
Under 1 year*	103.9	90.2	118.5
Under 1 month	66.6	61.8	71.6
1 - 11 months	37.3	28.4	46.8
1 - 4 years	22.1	16.5	28.0
1	28.9	24.4	33.6
2	28.6	19.2	38.5
3	18.0	14.1	22.2
4	10.5	6.8	14.6
5 - 9	3.1	2.9	3.4
10-14	1.0	.7	1.3
15-19	1.4	1.0	1.8
20-24	1.5	1.2	1.9
25-29	3.0	2.4	3.6
30-34	2.3	1.3	3.0
35-39	4.4	4.5	4.3
40-44	4.7	7.1	2.4
45-49	8.0	8.9	7.0
50-54	12.7	14.9	10.3
55-59	15.9	14.8	17.0
60-64	26.3	26.4	26.2
65+	72.1	69.8	75.0

\* Rate per 1000 live births.

TABLE V--ABRIDGED LIFE TABLES FOR MALES AND FEMALES BASED ON 1980  
MORTALITY RATES<sup>1</sup>

Age (years)	Males				Females			
	$1000 q_n^x$	$l_x$	$n L_x$	$e_x^o$	$1000 q_n^x$	$l_x$	$n L_x$	$e_x^o$
0	90.2	1,00,000	93,470	58.9	118.5	1,00,000	91,421	54.1
1	24.1	90,980	89,686	63.7	33.1	88,150	86,431	60.3
2	19.0	88,787	87,943	64.2	37.8	85,237	83,627	61.4
3	14.0	87,098	86,488	64.5	22.0	82,017	81,117	62.8
4	6.8	85,878	85,587	64.4	14.5	80,216	79,635	63.2
5	14.4	85,296	4,23,793	63.8	16.9	79,053	3,92,059	63.1
10	3.5	84,067	4,20,000	59.7	6.5	77,720	3,87,692	59.1
15	5.0	83,773	4,18,000	54.9	9.0	77,216	3,84,444	54.5
20	6.0	83,355	4,15,833	50.2	9.5	76,524	3,81,053	49.9
25	11.9	82,856	4,12,083	45.4	17.9	75,800	3,75,833	45.4
30	6.5	81,867	4,08,462	41.0	14.9	74,447	3,69,667	41.2
35	22.3	81,336	4,02,444	36.2	21.3	73,338	3,63,023	36.8
40	34.9	79,525	3,91,127	32.0	11.9	71,777	3,57,083	32.5
45	43.6	76,748	3,75,955	28.0	34.4	70,920	3,49,000	27.9
50	72.0	73,402	3,54,698	24.2	50.3	68,477	3,34,369	23.7
55	71.5	68,117	3,29,189	20.9	81.8	65,033	3,12,765	19.9
60	124.3	63,245	2,97,689	17.3	123.4	59,716	2,81,221	16.4
65+	1000.0	55,386	7,93,496	14.3	1000.0	52,348	6,97,973	13.3

1 See Appendix B for equations used.

TABLE VI--ABRIDGED LIFE TABLE FOR BOTH SEXES BASED ON 1980 MORTALITY RATES

Age (years)	B o t h   S e x e s			
	$1000 \frac{q}{n} x$	$l_x$	$L_x$	$e_x^0$
0	103.9	1,00,000	92,478	56.5
1	28.5	89,610	88,104	62.0
2	28.2	87,057	85,830	62.8
3	17.8	84,602	83,848	63.6
4	10.4	83,093	82,659	63.8
5	15.4	82,225	4,08,065	63.5
10	5.0	80,960	4,04,000	59.4
15	7.0	80,556	4,01,429	54.7
20	7.5	79,994	3,98,667	50.1
25	14.9	79,396	3,94,333	45.4
30	11.4	78,213	3,89,130	41.1
35	21.8	77,318	3,82,727	36.5
40	23.2	75,634	3,74,043	32.2
45	39.3	73,876	3,62,625	28.0
50	61.7	70,975	3,44,646	24.0
55	76.7	66,598	3,21,069	20.4
60	123.8	61,493	2,89,506	16.9
65+	1000.0	53,879	7,47,282	13.9

Fig. 5. PROBABILITY OF SURVIVAL FROM BIRTH TO AGE (x) BY SEX FROM LIFE TABLES OF 1980

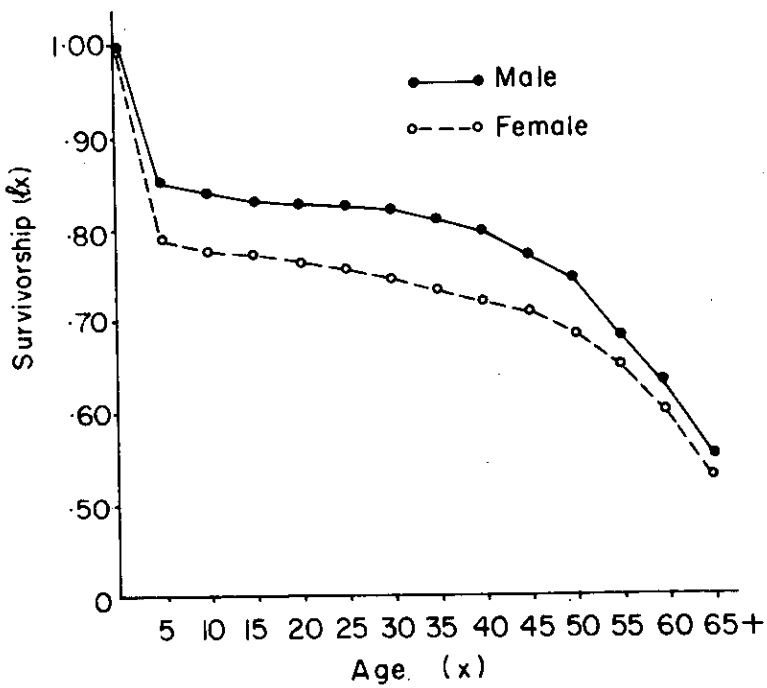


Fig. 6. EXPECTATION OF YEARS OF REMAINING LIFE  
FROM LIFE TABLE OF 1980 BY AGE & SEX

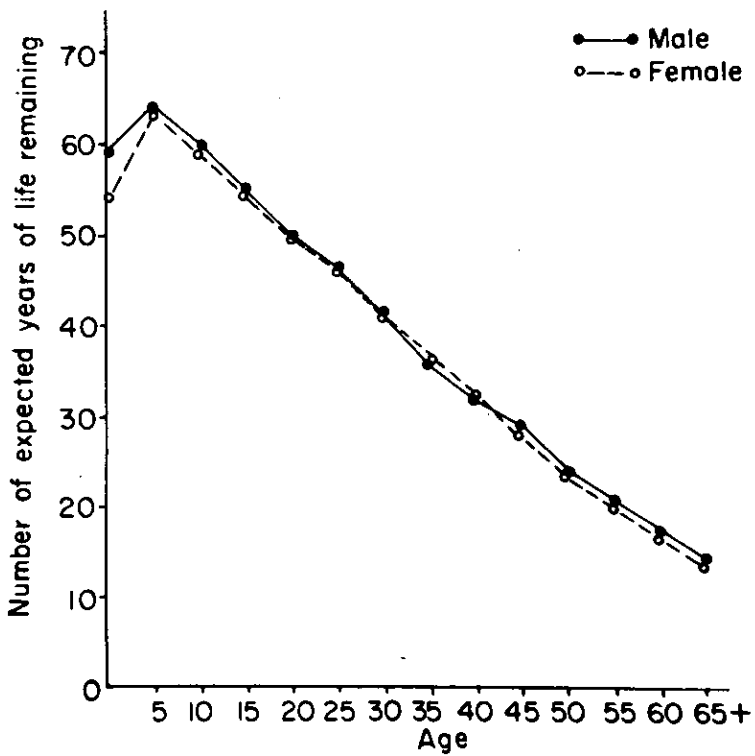


TABLE VII--NUMBER AND RATES OF OUTCOME OF PREGNANCIES BY TYPE, 1980

Type of pregnancy outcome	Number	Rate
Total pregnancies	8,371	-
Live birth pregnancies*	7,324	40.8**
Male births	3,803	-
Female births	3,588	-
Foetal wastage pregnancies***	1,047	143.0
Early (miscarriages)	746	102.0
Late (stillbirths)	301	41.1
Twin birth pregnancies	84	-
Live birth pregnancies***	73	10.0
Two live births	67	-
One live birth	6	-
Stillbirth pregnancies***	2	.3
Miscarriage pregnancies***	9	1.2

\* Male and female births do not add to total live birth pregnancies because of twins.

\*\* Rate per 1,000 population.

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

TABLE VIII--AGE SPECIFIC FERTILITY RATES (PER THOUSAND), 1980

Age group (years)	Number of live births	Number of women*	Fertility rate (per 1,000 women)
All ages	7,391	42,210	175.1
15 - 19**	1,506	11,947	126.1
20 - 24	2,238	7,884	283.9
25 - 29	1,474	5,033	292.9
30 - 34	1,133	4,594	246.6
35 - 39	755	4,896	154.2
40 - 44	239	4,137	57.8
45 - 49***	46	3,719	12.4
Total fertility rate		5,869	
General fertility rate		175	
Gross reproduction rate		2,835	
Net reproduction rate		2,165	

\* Figures obtained from mid-year population distribution.

\*\* 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 IX--MEAN NUMBER OF PREVIOUS PREGNANCIES AND SURVIVING CHILDREN  
FOR MOTHERS OF DIFFERENT AGES WHO HAD LIVE BIRTHS IN 1980

Age of mother (years)	Number of mothers	Mean number of previous pregnancies	Mean number of surviving children
All ages	7,324	3.0	2.1
<15	14	.1	.0
15-19	1,485	.4	.2
20-24	2,221	1.5	1.1
25-29	1,453	3.4	2.5
30-34	1,122	5.2	3.7
35-39	748	6.8	4.9
40-44	235	7.9	5.7
45+	46	8.5	5.8



TABLE X--AGE-SEX SPECIFIC MARRIAGE RATES, 1980

Ate at marriage (years)	Rate per 1,000 population***		
	Both sexes	Males	Females
All ages	46.0*	46.1	45.8
<15	10.1	.6	20.0
15-19	96.2	17.1	171.1
20-24	93.4	120.3	64.6
25-29	115.3	218.1	14.5
30-34	38.0	76.8	5.9
35-39	16.0	35.4	1.0
40-44	7.0	14.2	.5
45-49	6.5	12.6	.1**
50-54	3.6	7.0	-
55-59	3.0	5.7	-
60-64	1.9	3.6	-
65+	1.0	1.9	-

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

\*\* Mid-year population age 45 and over was used to compute the rate.

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

Fig. 8. MEAN NUMBER OF PREGNANCIES AND MEAN NUMBER OF SURVIVING CHILDREN FOR WOMEN WHO DELIVERED LIVE BIRTHS IN 1980 BY AGE

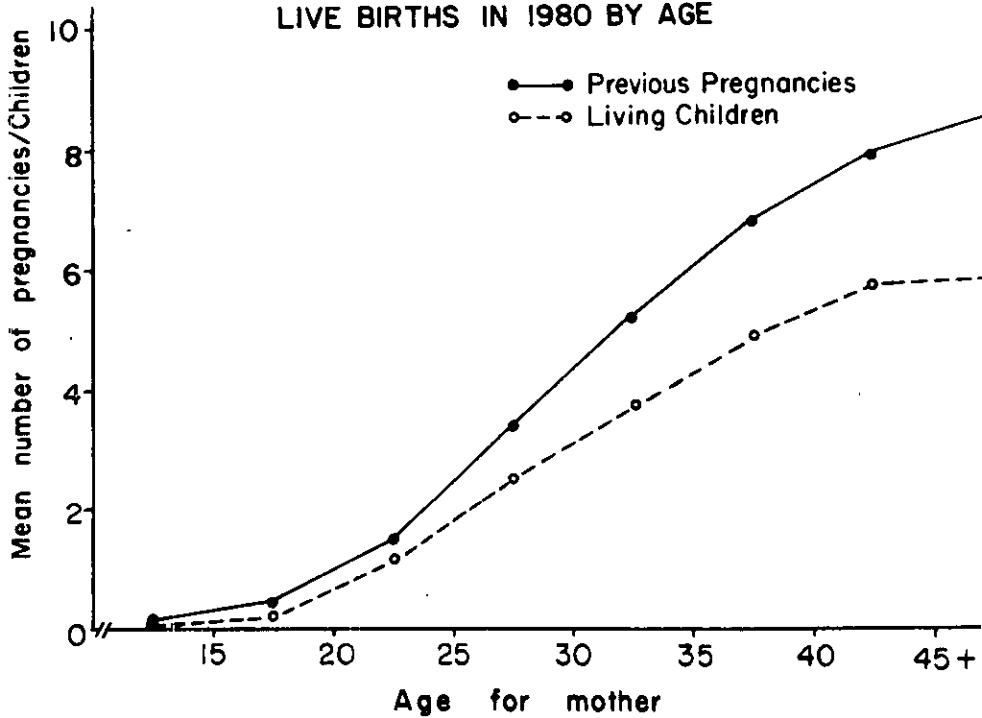


Fig. 9. MARRIAGE RATES IN 1980 BY AGE AND SEX

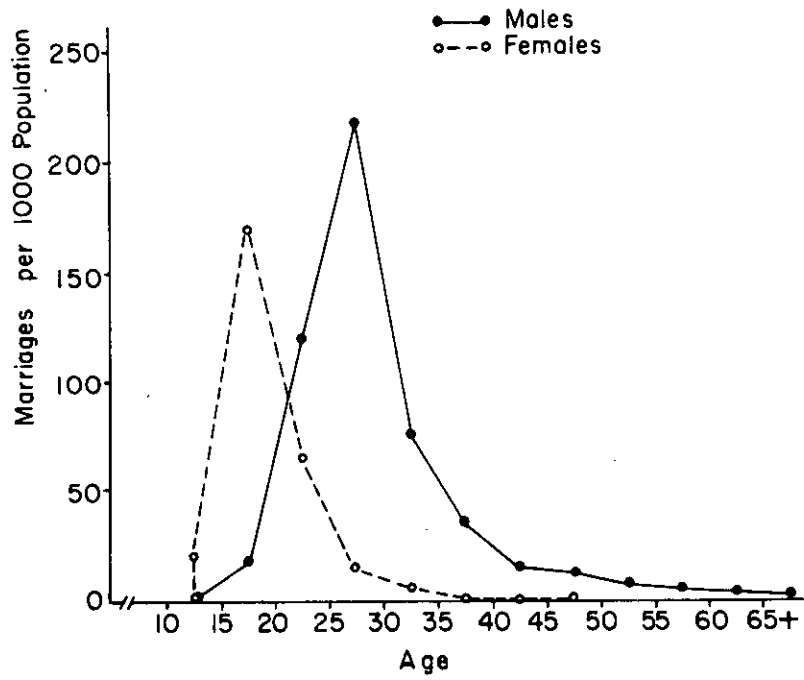


Fig.10. NUMBER OF MARRIAGES AND DIVORCES REGISTERED IN 1980 BY MONTH



TABLE XI--GROOM'S AGE AT MARRIAGE BY PREVIOUS MARITAL STATUS, 1980

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 Grooms		Single		Married		Widowed		Divorced	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All ages	2871	100.0	2109	100.0	161	100.0	133	100.0	468	100.0
10 - 14	7	0.2	7	0.3	-	-	-	-	-	-
15 - 19	194	6.8	176	8.3	1	0.6	-	-	17	3.6
20 - 24	1016	35.4	873	41.4	21	13.1	7	5.3	115	24.6
25 - 29	1077	37.5	889	42.2	21	13.1	21	15.8	146	31.2
30 - 34	292	10.2	141	6.7	24	14.9	25	18.8	102	21.8
35 - 39	133	4.6	21	1.0	40	24.8	26	19.5	46	9.8
40 - 44	54	1.9	2	0.1	19	11.8	13	9.8	20	4.3
45 - 49	48	1.7	-	-	17	10.6	18	13.5	13	2.8
50 - 54	21	0.8	-	-	10	6.2	6	4.5	5	1.1
55 - 59	15	0.5	-	-	6	3.7	6	4.5	3	0.6
60 - 64	7	0.2	-	-	2	1.2	5	3.8	-	-
65 +	7	0.2	-	-	-	-	6	4.5	1	0.2
Median age	26.0		25.0		36.7		37.6		28.5	
Mean age	27.1		25.0		37.0		39.9		29.7	
Standard deviation	7.1		4.0		9.9		11.6		7.5	

TABLE XII--BRIDES' AGE AT MARRIAGE BY PREVIOUS MARITAL STATUS, 1980

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 brides		Single		Widowed		Divorced	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
All ages	2871	100.0	2361	100.0	45	100.0	465	100.0
< 15	210	7.3	205	8.7	1	2.2	4	.8
15 - 19	2044	71.2	1841	78.0	5	11.1	198	42.6
20 - 24	509	17.8	303	12.8	22	48.9	184	39.6
25 - 29	73	2.5	11	.5	6	13.3	56	12.0
30 - 34	27	.9	1	0.0	9	20.1	17	3.7
35 - 39	5	.2	-	-	-	-	5	1.1
40 +	3	.1	-	-	2	4.4	1	.2
Median age	18.0		17.6		23.7		20.8	
Mean age	18.5		17.8		25.3		21.5	
Standard deviation	3.4		2.4		6.3		4.5	

TABLE XIII--PERCENT DIVORCES IN 1980 BY DURATION OF MARRIAGE AT DIVORCE AND HUSBAND'S AGE

Husband's age at time of divorce (years)	Number of divorces of all duration	Percent divorces by duration (months) of marriages						
		Less than 6	6-11	12-23	24-35	36-47	48-59	60+
All ages	536	16	19	33	12	6	4	10
15 - 24	178	18	23	35	15	4	2	3
25 - 29	182	15	19	33	15	7	3	8
30 - 34	79	9	16	36	10	8	10	11
35 - 39	44	20	9	34	5	7	2	23
40 - 44	19	21	21	21	16	5	5	11
45 +	34	26	15	21	-	3	-	35

TABLE XIV--IN AND OUT MIGRANTS BY SEX AND MAJOR CATEGORIES OF REASONS FOR MIGRATION, 1980

Reasons	In-migration				Out-migration			
	Males		Females		Males		Females	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All reasons	2387	100.0	2942	100.0	3037	100.0	3529	100.0
Dependent movement	889	37.2	1228	41.7	1006	33.1	1579	44.7
Independent movement	1419	59.5	1647	56.0	1954	64.3	1902	53.9
- due to work & better living	972	40.8	589	20.0	1915	63.0	769	21.8
- due to marriage and marital disruption	19	.8	1007	34.3	11	.4	1121	31.8
- return migration	428	17.9	51	1.7	28	.9	12	.3
Others*	79	3.3	67	2.3	77	2.6	48	1.4

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



Fig. II. NUMBER OF IN AND OUT MIGRATIONS OF MALES AND FEMALES REGISTERED IN 1980 BY MONTH

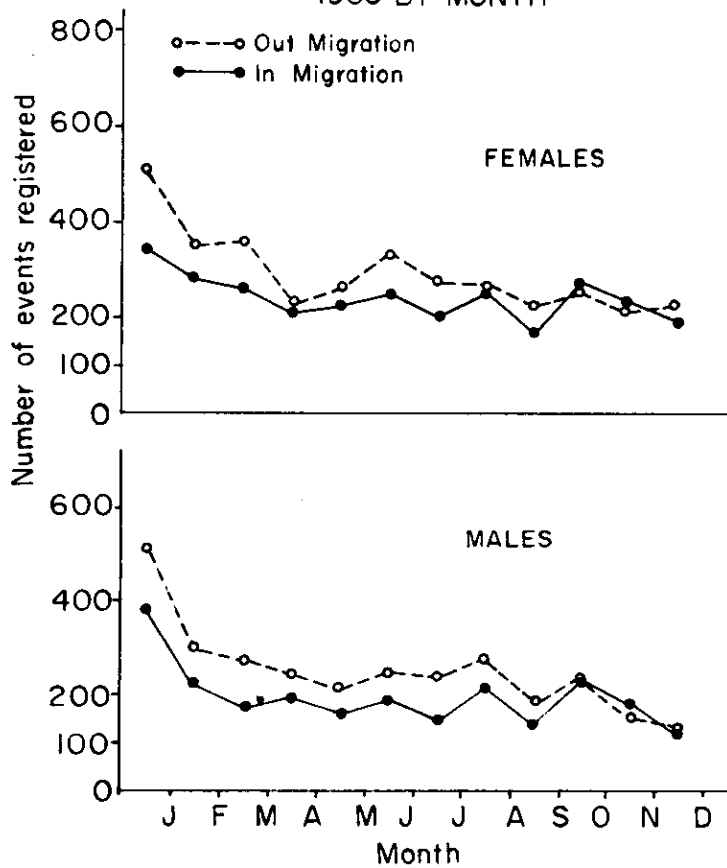


TABLE XV--AGE AND SEX SPECIFIC MIGRATION RATES BY DIRECTION, 1980\*

Age group (years)	Both sexes		Males		Females	
	In	Out	In	Out	In	Out
All ages	29.7	36.6	26.4	33.5	33.2	39.8
Under 5	28.1	31.1	28.6	29.1	27.5	33.3
5-9	20.3	22.6	22.1	24.0	18.4	21.0
10-14	21.1	31.0	19.3	31.0	23.0	31.1
15-19	58.0	74.7	21.8	47.7	93.1	100.3
20-24	45.0	71.5	32.4	58.4	58.5	85.5
25-29	49.9	50.9	57.3	58.5	42.7	43.5
30-34	32.3	37.0	46.0	50.5	20.9	25.9
35-39	23.8	25.9	41.0	34.9	10.6	19.0
40-44	13.7	14.7	19.4	19.7	8.5	10.2
45-49	13.1	14.7	19.1	21.5	7.0	7.8
50-54	15.1	10.8	21.2	14.9	8.5	6.4
55-59	10.8	11.0	12.6	11.4	8.9	10.6
60-64	13.0	11.7	13.0	13.5	13.1	9.5
65+	13.1	13.0	13.3	9.9	12.9	16.7

\* Rate per 1,000 mid-year population.

Fig.12. MALE AND FEMALE MIGRATION RATES IN 1980 BY AGE SEX AND DIRECTION

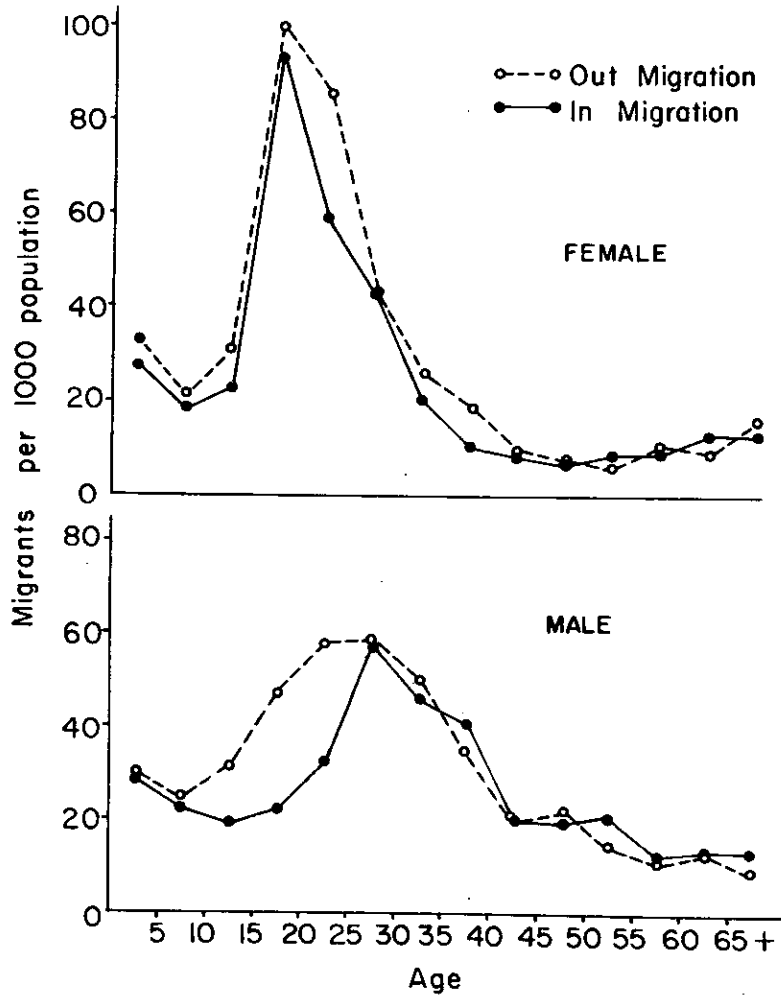


TABLE XVI--AGE SPECIFIC DEATH RATES IN MCH-FP COMPARISON AREA, MATLAB, 1980

Age at death	Rate per 1,000 population					
	MCH-FP Area			Comparison Area		
	Both Sexes	Male	Female	Both sexes	Male	Female
All ages	11.3	10.7	12.0	14.9	13.5	16.2
Under 1 year*	91.9	74.8	109.6	114.0	102.6	126.4
Under 1 month*	59.3	51.0	67.2	72.7	70.0	75.6
1-11 months*	32.6	23.2	42.4	41.3	32.6	50.8
1 - 4 years	18.6	14.5	22.9	25.4	18.5	32.9
5 - 9	3.4	2.9	3.9	2.7	2.8	2.7
10-14	.8	.7	.9	1.2	.7	1.7
15-19	.9	.9	1.0	1.8	1.0	2.4
20-24	1.4	1.4	1.5	1.6	.9	2.2
25-29	2.9	2.3	3.5	2.9	2.3	3.5
30-34	2.1	2.1	2.1	2.3	.5	3.8
35-39	4.0	4.1	3.9	4.5	4.6	4.3
40-44	4.2	6.2	2.4	4.9	7.8	2.4
45-49	7.2	8.2	6.0	8.8	9.3	8.2
50-54	13.0	17.1	8.5	11.7	11.4	12.0
55-59	12.8	10.5	15.5	18.8	18.8	18.9
60-64	24.1	24.8	23.2	29.1	28.0	30.5
65+	67.0	65.9	68.3	70.0	63.9	77.7

\* Rate per 1,000 live births.

TABLE XVII--FERTILITY RATES BY AGE AND AREA IN MATLAB, 1980

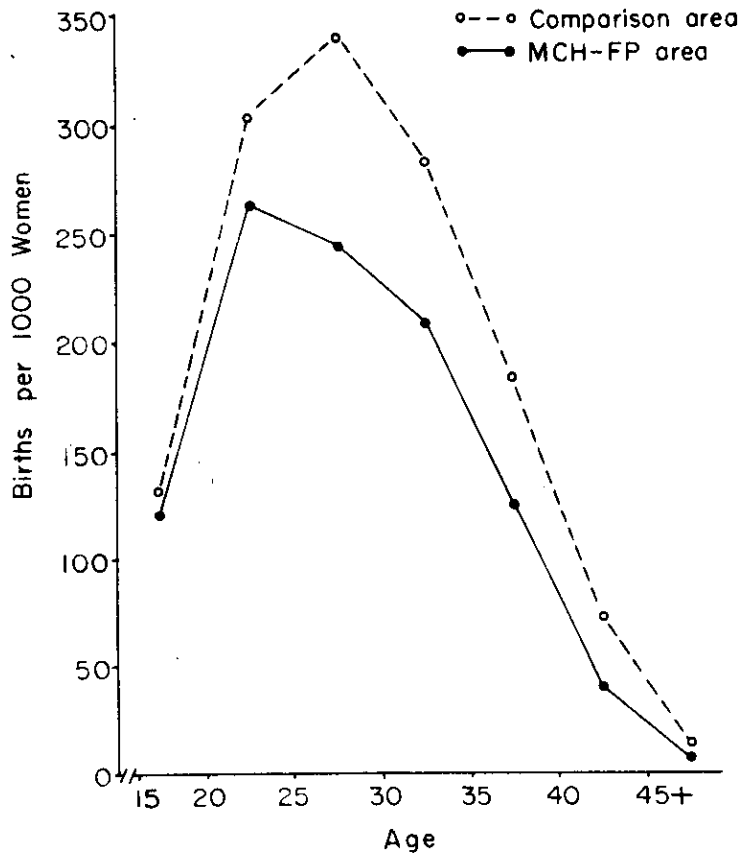
Age (years)	MCH-FP Area			Comparison Area		
	Number of live births	Number* of women	ASFR	Number of live births	Number* of women	ASFR
All ages	3,375	21,667	155.8	4,016	20,543	195.5
15-19**	757	6,251	121.1	749	5,696	131.5
20-24	1,065	4,026	264.5	1,173	3,858	304.0
25-29	631	2,565	246.0	843	2,468	341.6
30-34	491	2,340	209.8	642	2,254	284.8
35-39	324	2,554	126.9	431	2,342	184.0
40-44	90	2,108	42.7	149	2,029	73.4
45-49***	17	1,823	9.3	29	1,896	15.3
	GFR = 156			GFR = 195		
	TFR = 5101			TFR = 6673		
	CBR = 37.1			CBR = 45.5		

\* Mid-year population.

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

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

Fig. 7. AGE SPECIFIC FERTILITY RATES,  
MATLAB, 1980



## Village-wise Mid Year Populations in DSS, Matlab, 1980

Block <sup>2</sup>	MCH-FP Area (Pop.Total 90999)				Comparison Area (Pop.Total 88264)			
	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	1334	V59	787	A	2269	V78	207
	W	2143	V60	816	B	1610	V79	294
	V10	1268	V61	592	C	2953	V80	875
	V11	1178	V62	700	F	1164	V90	967
	V31	7497	V72	4742	G	2067	V95	851
	V32	2091			J	358	V96	451
	Pop. Total <sup>1</sup>	23148			U	6552	V97	368
B	H	1199	V26	2176	V01	666	V98	180
	V12	406	V56	1245	V02	428	V99	636
	V13	687	V82	1174	V03	611	VB1	1067
	V19	3023	V83	419	V04	207	VB2	805
	V20	937	V85	379	V05	2844	VB3	2402
	V21	431	V87	502	V06	2098	VB4	2482
	V22	579	VB12	3339	V07	362	VB5	671
	V23	536	VB13	3874	V08	1026	VB6	295
	V24	2233			V09	921	VB7	173
	Pop. Total	23139			V14	926	VB8	896
	C	K	781	V40	646	V35	3108	VB9
L		360	V41	1180	V36	4262	VB10	1440
M		125	V42	614	V37	334	D28	1036
N		1805	V43	846	V38	1374	D29	154
O		1100	V44	490	V45	787	D30	655
P		1692	V64	4167	V46	297	D31	979
Q		327	V86	663	V47	1566	D32	512
V27		791	V88	391	V48	581	D33	873
V28		1151	VB11	2170	V49	1040	D34	1205
V30		491	D100	2863	V50	730	D35	604
V39		328	D101	1115	V51	1418	D88	1769
Pop. Total	24096			V53	2704	D89	524	
D	R	1228	V34	739	V58	1177	D90	2379
	S	1051	V52	227	V65	569	D91	896
	T	1357	V54	504	V66	782	D92	629
	V15	529	V55	487	V68	722	D93	701
	V16	708	V57	951	V69	1097	D94	869
	V17	1016	V63	1903	V70	642	D95	319
	V18	3236	V67	526	V71	322	D96	191
	V25	1223	V81	519	V73	702	D97	550
	V29	621	V84	1878	V74	1077	D98	2470
	V33	694	V89	1219	V75	339	D99	1702
	Pop. Total	20616			V76	1331		

1. See Appendix Ab for village names.

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

3. These are the population figures as of July 1, 1980. While giving village-wise populations, 27 individuals were found unmatched for villages, although the true total population in the area is 179290.

## List of the Villages under DSS, Matlab, 1980

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	Madertoli	V 40	Masunda
D 100	Barogaon	V 41	Paton
D 101	Naojan	V 42	Adhara (South)



V 43	Kanachak	VB 1	Taltoli
V 44	Panchdona	VB 2	Sree Rayerchar
V 45	Bakchar	VB 3	Rayerkandi
V 46	Silinda	VB 4	Ramdaspur
V 47	Tulatali	VB 5	Thakurpara
V 48	Gangkanda	VB 6	Sarkerpara
V 49	Harina Bhabanipur	VB 7	Mirpur
V 50	Bakharpur	VB 8	Farazikandi
V 51	Induriakandi	VB 9	Ramanathganj
V 52	Nayakandi	VB 10	South Rampur
V 53	Chhoto Haldia	VB 11	Mehron
V 54	Balairkandi	VB 12	Nagda
V 55	Induria	VB 13	Naogaon
V 56	Pailpara		
V 57	Baluchar		
V 58	Mohishmari		
V 59	Doshpara		
V 60	Suvankardi		
V 61	Munsabdi		
V 62	Shilmondi		
V 63	Islamabad (East)		
V 64	Kawadi		
V 65	Nayachar		
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		
V 88	Datikara		
V 89	Islamabad (Middle)		
V 90	Narinda		
V 95	Baluchar		
V 96	Rampur		
V 97	Dhonagoda		
V 98	Santoshpur		
V 99	Baluakandi		

APPENDIX BLIFE TABLE EQUATIONS  
(With usual symbols)

1.  $n^q_x = \frac{n^m_x}{\frac{1}{n} + n^m_x \left\{ \frac{1}{2} + \frac{n}{12} (n^m_x - \ln C) \right\}}$
2.  $l_0 = 1.0$   
 $l_x = (1 - n^q_{x-n}) l_{x-n}$
3.  $L_0 = 0.276l_0 + 0.724l_1$   
 $L_1 = 0.410l_1 + 0.590l_2$   
 $L_i = \frac{1}{2}(l_i + l_{i+1}), i = 2, 3, 4$   
 $\frac{L}{n^L_x} = \frac{n^d_x}{n^m_x}, \text{ for } 5 \leq x \leq 60$   
 ${}^\infty L_{65} = \frac{l_{65}}{n^m_{65}}, \text{ for the last age group } 65+$
4.  $e^o_x = \frac{T_x}{l_x}, \text{ where } T_x = \sum_{y=x}^{\infty} L_y$

---

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.

Table C1	Mid-year population for MCH-FP and comparison area, 1980
Table C2-a	Deaths by age and sex, 1980
Table C2-b	Deaths by age and sex in MCH-FP and comparison area, Matlab, 1980
Table C3	Deaths by age and month, 1980
Table C4	Deaths by cause, age and sex, 1980
Table C5	Outcome of pregnancies by month, 1980
Table C6	Multiple confinements, 1980
Table C7	Pregnancies by litter size and outcome, 1980
Table C8	Number of mothers who had live births in 1980 by age and number of surviving children
Table C9	Number of mothers who had live births in 1980 by age and number of previous pregnancies
Table C10	Number of women who had stillbirth by age and number of previous pregnancies, 1980
Table C11	Number of women who had miscarriages by age and number of previous pregnancies, 1980
Table C12	In and out-migration by age and sex, 1980
Table C13	In and out-migration by sex and month, 1980
Table C14	In-migration by cause of movement, age and sex, 1980
Table C15	Out-migration by cause of movement, sex and age, 1980
Table C16	Number of divorces in 1980 by duration of marriage at divorce and husbands age
Table C17	Marriages and divorces by month, 1980
Table C18	Divorces by age and sex, 1980

## APPENDIX C

Table C1: Mid-year population for MCH-FP and comparison area, 1980

Age (years)	MCH-FP Area			Comparison Area		
	Both sexes	Males	Females	Both sexes	Males	Females
All ages	91010	45936	45074	88280	44610	43670
0-4	13879	7216	6663	14781	7645	7136
0	2994	1565	1429	3582	1863	1719
1	2540	1309	1231	3033	1524	1509
2	2845	1465	1380	2827	1455	1372
3	3359	1742	1617	3372	1742	1630
4	2141	1135	1006	1967	1061	906
5-9	13250	6850	6400	12484	6578	5906
10-14	11037	5682	5355	10492	5368	5124
15-19	11985	5734	6251	11278	5582	5696
20-24	8279	4253	4026	8054	4196	3858
25-29	5130	2565	2565	4841	2373	2468
30-34	4262	1922	2340	4133	1879	2254
35-39	4494	1940	2554	4158	1816	2342
40-44	4043	1935	2108	3908	1879	2029
45-49	3766	1943	1823	3766	1870	1896
50-54	2992	1579	1413	2829	1434	1395
55-59	2494	1333	1161	2484	1288	1196
60-64	1786	966	820	1821	964	857
65+	3613	2018	1595	3251	1738	1513

APPENDIX C

Table C2-a: Deaths by age and sex, 1980

Age	Both sexes	Male	Female
All ages	2342	1092	1250
Under 1 year	768	343	425
Under 1 month	492	235	257
1-5 months	188	78	110
6-11 months	88	30	58
1-4 year	487	189	298
1	161	69	92
2	162	56	106
3	121	49	72
4	43	15	28
5-9	81	39	42
10-14	22	8	14
15-19	32	11	21
20-24	25	10	15
25-29	30	12	18
30-34	19	5	14
35-39	38	17	21
40-44	37	27	10
45-49	60	34	26
50-54	74	45	29
55-59	79	39	40
60-64	95	51	44
65+	495	262	233

APPENDIX C

Table C2-b: Deaths by age and sex in MCH-FP and comparison area, Matlab, 1980

Age	MCH-FP Area			Comparison Area		
	Both sexes	Male	Female	Both sexes	Male	Female
All ages	1031	490	541	1311	602	709
Under 1 year	310	129	181	458	214	244
Under 1 month	200	89	111	292	146	146
1-5 months	71	27	44	117	51	66
6-11 months	39	13	26	49	17	32
1-4 years	202	82	120	285	107	178
1	64	33	31	97	36	61
2	71	19	52	91	37	54
3	53	24	29	68	25	43
4	14	6	8	29	9	20
5-9	45	20	25	36	19	17
10-14	9	4	5	13	4	9
15-19	11	5	6	21	6	15
20-24	12	6	6	13	4	9
25-29	15	6	9	15	6	9
30-34	9	4	5	10	1	9
35-39	18	8	10	20	9	11
40-44	17	12	5	20	15	5
45-49	27	16	11	33	18	15
50-54	39	27	12	35	18	17
55-59	32	14	18	47	25	22
60-64	43	24	19	52	27	25
65+	242	133	109	253	129	124

APPENDIX C

Table C3: Deaths by age and month, 1980

Months	A g e a t d e a t h				
	All ages	Under 1 month	1-11 months	1-4 years	5 years and over
January	264	45	39	52	128
February	184	29	21	30	104
March	132	26	16	30	60
April	142	19	20	29	74
May	165	21	30	32	82
June	175	35	28	35	77
July	162	25	17	40	80
August	211	49	20	43	99
September	191	59	11	38	83
October	216	46	24	63	83
November	263	73	25	55	110
December	237	65	25	40	107
Total	2342	492	276	487	1087

Table C4: Deaths by cause, age and sex, 1980

Cause	Male															
	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	1092	343	189	39	8	11	10	12	5	17	27	34	45	39	51	262
Small pox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles	26	4	19	3	-	-	-	-	-	-	-	-	-	-	-	-
Tetanus*	219	205	11	-	-	-	-	1	1	1	-	-	-	-	-	
Drowning	36	-	27	5	-	-	1	-	-	1	-	-	2	-	-	
Murder	4	-	-	-	-	1	-	1	-	-	-	-	-	-	1	
Suicide	4	-	-	-	-	2	1	-	-	-	-	-	-	-	-	
Diarrhoea acute	27	6	9	5	-	1	-	2	-	-	-	-	-	2	1	
Diarrhoea chronic	10	-	3	-	1	-	-	-	-	-	-	-	1	-	1	
Dysentery acute	41	6	9	5	2	-	-	-	-	-	1	-	1	2	2	
Dysentery chronic	52	1	20	2	-	-	-	-	-	1	-	-	4	2	2	
Child birth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Jaundice	9	-	-	2	1	1	1	1	-	1	-	1	-	1	1	
Other	151	55	20	4	3	1	1	3	-	6	6	9	9	3	4	
Disease of G.I.**	55	1	2	1	-	1	-	2	1	1	5	4	7	6	6	
Respiratory***	112	22	13	-	-	-	-	1	2	2	4	5	7	5	13	
Heart disease	26	3	-	-	-	-	2	-	1	2	-	2	2	3	2	
Liver disease	8	-	1	-	-	-	-	1	-	-	-	-	1	-	1	
Veneral disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Skin disease	8	2	3	-	-	1	-	-	-	-	-	-	-	-	1	
E.N.T. disease	8	1	2	-	-	-	-	-	-	-	-	1	2	-	-	
Cholera (proved)	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dropsy	74	4	12	2	-	1	-	1	-	3	3	1	2	3	5	
Rheumatism	51	2	-	1	-	-	1	-	-	-	3	3	1	5	3	
Accident	7	-	1	1	-	-	-	-	-	-	-	1	-	-	1	
Old age	34	-	-	-	-	-	-	-	-	-	-	1	-	-	1	
Fever (all forms)	98	19	31	5	1	1	2	-	-	1	3	4	5	5	4	
Unknown	31	12	6	3	-	1	1	-	-	-	-	2	-	-	2	

43

\* Takuria, evil spirit

\*\* Other than cholera

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



Table C4 (contd.): Deaths by cause, age and sex, 1980

Female																
Age at death (years)																
Cause	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	1250	425	298	42	14	21	15	18	14	21	10	26	29	40	44	233
Small pox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles	50	11	34	3	-	-	-	-	-	-	-	-	-	-	-	2
Tetanus*	244	214	13	4	1	3	-	1	3	2	-	1	-	-	-	2
Drowning	29	5	21	2	-	-	1	-	-	-	-	-	-	-	-	-
Murder	3	1	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Suicide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diarrhoea acute	40	14	12	3	1	-	-	3	-	1	-	-	-	-	1	5
Diarrhoea chronic	15	-	7	2	-	-	-	-	-	-	-	-	-	1	1	4
Dysentery acute	56	4	36	2	1	-	-	-	-	-	-	-	2	4	1	6
Dysentery chronic	71	-	46	4	-	1	-	-	-	-	1	2	1	3	3	10
Child birth	14	-	-	-	-	6	4	1	2	1	-	-	-	-	-	-
Jaundice	12	2	1	1	-	1	-	1	1	-	-	2	1	2	-	-
Other	172	90	28	5	2	2	1	5	2	6	2	8	4	2	3	12
Disease of G.I.**	21	1	-	1	1	-	-	-	2	2	1	1	1	2	5	4
Respiratory***	95	30	17	1	1	2	3	-	-	2	2	-	4	6	5	22
Heart disease	11	2	-	1	-	-	-	1	-	-	-	1	1	-	2	3
Liver disease	2	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-
Veneral disease	3	-	-	-	-	-	1	-	-	1	-	-	-	-	-	1
Skin disease	12	5	2	1	-	-	1	-	-	-	-	-	1	-	-	2
E.N.T. disease	6	-	2	3	-	-	-	-	-	-	-	1	-	-	-	-
Cholera (proved)	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Dropsy	127	2	39	4	2	2	-	2	2	2	2	6	6	3	9	46
Rheumatism	46	4	1	-	-	-	-	-	-	1	2	2	3	5	4	24
Accident	5	-	1	-	-	-	-	-	-	1	-	-	-	-	-	3
Old age	60	-	-	-	-	-	-	-	-	-	-	-	-	1	3	56
Fever (all forms)	119	30	30	3	3	3	3	3	2	2	-	1	4	7	7	21
Unknown	36	10	6	2	2	-	1	1	-	-	-	1	1	3	-	9

44

\* Takuria, evil spirit

\*\* Other than cholera

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

Table C5: Outcome of pregnancies by month, 1980

Month	Pregnancy terminations			Number of live born children			
	All	Miscarriage	Stillbirth	Live birth*	Both sexes	Males	Females
All months	8371	746	301	7324	7391	3803	3588
January	797	47	34	716	721	352	369
February	602	42	25	535	538	294	244
March	577	60	19	498	504	265	239
April	486	81	23	382	384	178	206
May	564	74	25	465	471	264	207
June	640	98	15	527	533	262	271
July	637	70	18	549	553	306	247
August	711	72	30	609	618	311	307
September	706	51	23	632	641	321	320
October	872	52	27	793	797	385	412
November	965	54	26	885	894	467	427
December	814	45	36	733	737	398	339

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

Table C6: Multiple confinements by sex and results, 1980

Sequence of sexes	R e s u l t s			
	1st Child		2nd Child	
	Stillbirth	Live birth	Stillbirth	Live birth
MM	-	17	2	15
MF	1	16	2	15
FM	1	12	1	12
FF	1	28	3	26
Total	3	73	8	68

Table C7: Pregnancies by litter size and outcome, 1980

Outcome	Litter size 1 (single birth)	Litter size 2 (twin birth)			Total
		Both birth alive	one birth alive	Both birth death	
Live birth	7250	67	7	-	7324
Stillbirth	299	-	-	2	301
Miscarriage	737	-	-	9	746
Total	8286	67	7	11	8371

Table C8: Numbers of mothers who had live births in 1980 by age and number of surviving children\*

Age of mother (years)	Total	Number of surviving children											Mean No. of surviving children
		0	1	2	3	4	5	6	7	8	9	10+	
All ages	7324	1906	1462	1195	1003	749	483	293	163	45	15	10	2.1
Under 15	14	14	-	-	-	-	-	-	-	-	-	-	.0
15 - 19	1485	1197	264	22	1	-	1	-	-	-	-	-	.2
20 - 24	2221	631	951	508	123	5	2	1	-	-	-	-	1.1
25 - 29	1453	51	199	494	478	180	46	5	-	-	-	-	2.5
30 - 34	1122	10	41	136	277	373	189	83	12	1	-	-	3.7
35 - 39	748	3	5	29	105	152	192	136	98	19	6	3	4.9
40 - 44	235	-	1	5	13	36	44	60	42	23	7	4	5.7
45 +	46	-	1	1	6	3	9	8	11	2	2	3	5.8

\* Present birth excluded.

APPENDIX C

Table C9: Number of mothers who had live births in 1980 by age and number of previous pregnancies\*

Age of mother (years)	Total	Number of previous pregnancies											Mean No. of pregnancies
		0	1	2	3	4	5	6	7	8	9	10+	
All ages	7324	1481	1215	1031	859	754	605	473	347	241	158	160	3.0
< 15	14	13	1	-	-	-	-	-	-	-	-	-	.1
15 - 19	1485	1017	385	75	6	-	1	-	1	-	-	-	.4
20 - 24	2221	430	741	645	295	80	23	4	3	-	-	-	1.5
25 - 29	1453	16	78	275	431	368	195	58	25	4	1	2	3.4
30 - 34	1122	4	9	31	103	244	269	231	125	64	34	8	5.2
35 - 39	748	1	1	4	21	51	103	148	138	131	75	75	6.8
40 - 44	235	-	-	1	3	9	12	31	49	33	42	55	7.9
45 +	46	-	-	-	-	2	2	1	6	9	6	20	8.5

\* Present birth excluded.

Table C10: Number of women who had stillbirth by age and number of previous pregnancies\*, 1980

Age (years)	Number of previous pregnancies											
	Total	0	1	2	3	4	5	6	7	8	9	10+
All ages	301	82	36	28	27	28	26	22	15	12	11	14
< 15	1	1	-	-	-	-	-	-	-	-	-	-
15 - 19	70	56	10	4	-	-	-	-	-	-	-	-
20 - 24	67	20	23	9	10	4	1	-	-	-	-	-
25 - 29	64	5	1	12	13	16	13	1	3	-	-	-
30 - 34	48	-	2	2	4	5	9	10	7	4	4	-
35 - 39	38	-	-	-	-	2	3	9	3	6	6	9
40 - 44	9	-	-	-	-	1	-	1	1	1	1	4
45 +	4	-	-	1	-	-	-	1	1	1	-	-

\* Present birth excluded.

APPENDIX C

Table C11: Number of women who had miscarriages by age and number of previous pregnancies\*, 1980

Age (years)	Total	Number of previous pregnancies										
		0	1	2	3	4	5	6	7	8	9	10+
All ages	746	164	104	85	65	67	49	46	67	35	24	40
< 15	7	6	1	-	-	-	-	-	-	-	-	-
15 - 19	155	110	28	14	-	2	-	1	-	-	-	-
20 - 24	205	48	65	50	25	12	2	3	-	-	-	-
25 - 29	103	-	9	17	27	27	16	4	2	1	-	-
30 - 34	103	-	1	3	9	19	18	16	25	7	3	4
35 - 39	116	-	-	-	4	7	10	16	30	16	16	17
40 - 44	46	-	-	1	-	-	2	5	9	10	3	16
45 +	11	-	-	-	-	-	1	1	1	1	2	5

\* Present birth excluded.

Table C12: In and out migration by age and sex, 1980

Age (years)	In-migration			Out-migration		
	Both sexes	Male	Female	Both sexes	Male	Female
All ages	5329	2387	2942	6566	3037	3529
Under 5	805	425	380	892	433	459
0	138	71	67	262	120	142
1	196	104	92	185	104	81
2	163	92	71	188	91	97
3	182	90	92	142	56	86
4	126	68	58	115	62	53
5 - 9	523	297	226	581	322	259
10 - 14	454	213	241	668	342	326
15 - 19	1350	247	1103	1738	540	1198
20 - 24	735	274	461	1167	493	674
25 - 29	498	283	215	508	289	219
30 - 34	271	175	96	311	192	119
35 - 39	206	154	52	224	131	93
40 - 44	109	74	35	117	75	42
45 - 49	99	73	26	111	82	29
50 - 54	88	64	24	63	45	18
55 - 59	54	33	21	55	30	25
60 - 64	47	25	22	42	26	16
65 +	90	50	40	89	37	52



APPENDIX C

Table C13: In and out migration by sex and month, 1980

Month	In-migration			Out-migration		
	Both sexes	Male	Female	Both sexes	Male	Female
January	731	384	347	1020	513	507
February	509	225	284	655	299	356
March	437	175	262	638	278	360
April	413	197	216	484	247	237
May	390	162	228	481	216	265
June	445	194	251	585	250	335
July	357	150	207	528	246	282
August	476	214	262	547	276	271
September	310	139	171	419	188	231
October	516	237	279	485	231	254
November	426	186	240	366	159	207
December	319	124	195	358	134	224
All months	5329	2387	2942	6566	3037	3529

Table C14 : In-migration by cause of movement, sex and age, 1980

Cause of movement	M A L E														
	A g e ( y e a r s )														
	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	2387	425	297	213	247	274	283	175	154	74	73	64	33	25	50
1. Dependent movement															
- dependent	874	417	286	108	21	14	9	12	1	-	-	1	1	-	4
- to join with spouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- to join parents	7	2	3	2	-	-	-	-	-	-	-	-	-	-	-
- to join relatives	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
- adoption	7	6	1	-	-	-	-	-	-	-	-	-	-	-	-
2. Independent movement															
2.1 Associated with work living condition															
- service	67	-	-	2	1	5	11	7	16	8	3	6	-	4	4
- work	25	-	-	5	10	2	3	3	-	-	2	-	-	-	-
- business	13	-	-	1	5	3	3	-	-	-	1	-	-	-	-
- better living	529	-	-	33	60	71	103	59	71	35	32	19	11	11	24
- for livelihood	208	-	-	11	43	42	39	25	12	6	3	13	7	2	5
- study	130	-	6	29	53	26	8	-	1	1	-	-	1	2	3
2.2 Associated with marriage															
- marriage	17	-	-	-	-	6	7	3	-	-	1	-	-	-	-
- divorce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- widow	2	-	-	-	1	1	-	-	-	-	-	-	-	-	-
- separation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.3 Return migration															
- after study	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- after service	120	-	-	2	18	32	16	14	12	3	3	10	5	2	3
- after work	4	-	-	1	2	-	1	-	-	-	-	-	-	-	-
- return home	117	-	-	9	15	29	21	13	8	5	4	4	2	2	5
- regular member of family	187	-	-	3	9	30	50	27	23	10	21	9	3	1	1
2.4 Others	46	-	-	4	4	10	9	3	6	4	2	1	2	-	1
3. Change in residence	26	-	-	3	3	3	3	8	3	2	-	-	-	1	-
4. For treatment	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-
5. Not stated	6	-	-	-	2	-	-	1	1	-	-	1	1	-	-

Table C14 (contd.) In-migration by cause of movement, sex and age, 1980

Cause of movement	F E M A L E														
	A g e ( y e a r s )														
	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	2942	380	226	241	1103	461	215	96	52	35	26	24	21	22	40
1. Dependent movement															
- dependent	1175	369	225	129	102	130	82	45	25	17	13	7	7	11	13
- to join with spouse	28	-	-	-	21	5	2	-	-	-	-	-	-	-	-
- to join parents	10	2	1	1	3	3	-	-	-	-	-	-	-	-	-
- to join relatives	8	2	-	1	1	1	1	-	-	-	-	1	-	-	1
- adoption	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Independent movement															
2.1 Associated with work living condition															
- service	4	-	-	-	1	2	1	-	-	-	-	-	-	-	-
- work	19	-	-	8	7	1	3	-	-	-	-	-	-	-	-
- business	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- better living	369	-	-	24	76	114	69	27	17	10	7	10	5	1	9
- for livelihood	175	-	-	22	64	32	10	4	2	6	2	2	8	10	13
- study	22	-	-	12	9	1	-	-	-	-	-	-	-	-	-
2.2 Associated with marriage															
- marriage	758	-	-	29	649	57	15	5	3	-	-	-	-	-	-
- divorce	104	-	-	4	54	38	6	2	-	-	-	-	-	-	-
- widow	10	-	-	-	3	1	2	2	1	-	-	1	-	-	-
- separate	135	-	-	3	71	44	11	4	1	-	-	-	-	-	1
2.3 Return migration															
- after study	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- after service	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-
- after work	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- return home	47	-	-	2	14	14	6	4	1	2	2	-	-	-	2
- regular member of family	3	-	-	-	1	-	1	-	-	-	-	1	-	-	-
2.4 Others	18	-	-	1	8	6	-	1	-	-	1	1	-	-	-
3. Change in residence	47	-	-	5	19	11	5	2	2	-	-	1	1	-	1
4. For treatment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Not stated	2	-	-	-	-	1	-	-	-	-	1	-	-	-	-

Table C15 : Out-migration by cause of movement, sex and age, 1980

Cause of movement	M A L E														
	A g e ( y e a r s )														
	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	3037	433	322	342	540	493	289	192	131	75	82	45	30	26	37
1. Dependent movement															
- dependent	975	422	301	158	49	23	9	4	4	3	1	1	-	-	-
- to join with spouse	3	-	-	-	-	-	1	2	-	-	-	-	-	-	-
- to join parents	13	4	3	4	-	1	-	-	-	-	1	-	-	-	-
- to join relatives	9	1	-	1	1	1	1	2	1	-	-	-	-	1	-
- adoption	6	5	-	1	-	-	-	-	-	-	-	-	-	-	-
2. Independent movement															
2.1 Associated with work living condition															
- service	634	-	-	24	167	213	93	64	27	14	15	6	8	2	1
- work	174	-	-	30	79	41	8	8	2	1	3	1	-	-	1
- business	69	-	-	4	22	17	15	6	2	-	-	1	1	1	-
- better living	307	-	-	17	40	31	41	41	32	27	30	13	10	13	12
- for livelihood	502	-	-	55	69	77	94	52	51	22	30	18	6	8	20
- study	229	-	18	44	84	60	18	3	2	-	-	-	-	-	-
2.2 Associated with marriage															
- marriage	5	-	-	1	2	1	-	-	-	1	-	-	-	-	-
- divorce	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-
- separate	5	-	-	-	-	1	1	1	1	1	-	-	-	-	-
- widow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.3 Return migration															
- after study	7	-	-	-	3	1	1	-	-	1	-	1	-	-	-
- after service	5	-	-	-	1	1	-	-	1	-	1	-	1	-	-
- after work	4	-	-	-	2	-	1	-	1	-	-	-	-	-	-
- return home	12	-	-	1	3	1	1	1	2	-	-	-	2	1	-
- regular member of family	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4 Other	44	-	-	-	11	14	3	7	4	3	1	-	1	-	-
3. Change in residence	17	1	-	1	2	6	2	-	-	1	1	1	-	-	2
4. For treatment	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
5. Not stated	15	-	-	1	5	3	-	1	1	1	-	2	1	-	-

Table C15 (contd.) Out-migration by cause of movement, sex and age, 1980

Cause of movement	FEMALE														
	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	3529	459	259	326	1198	674	219	119	93	42	29	18	25	16	52
1. Dependent movement															
- dependent	1406	434	254	150	143	148	97	62	54	19	11	8	9	6	11
- to join with spouse	118	-	-	2	52	43	16	2	3	-	-	-	-	-	-
- to join parents	24	7	3	4	4	2	1	-	-	-	-	-	1	1	1
- to join relatives	10	-	2	-	1	1	1	-	-	-	-	-	2	-	3
- adoption	21	18	-	2	1	-	-	-	-	-	-	-	-	-	-
2. Independent movement															
2.1 Associated with work living condition															
- service	8	-	-	1	2	4	-	1	-	-	-	-	-	-	-
- work	57	-	-	20	22	7	3	1	1	2	-	-	-	-	1
- business	2	-	-	-	1	1	-	-	-	-	-	-	-	-	-
- better living	199	-	-	15	49	57	24	16	13	6	5	1	1	1	11
- for livelihood	457	-	-	43	130	126	40	24	16	15	11	9	12	7	24
- study	46	-	-	19	21	5	1	-	-	-	-	-	-	-	-
2.2 Associated with marriage															
- marriage	946	-	-	58	635	223	22	7	-	-	1	-	-	-	-
- divorce	78	-	-	2	50	17	4	1	4	-	-	-	-	-	-
- widow	4	-	-	-	3	-	1	-	-	-	-	-	-	-	-
- separation	93	-	-	3	59	21	7	2	-	-	1	-	-	-	-
2.3 Return migration															
- after study	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- after service	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-
- after work	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-
- return home	9	-	-	4	4	-	1	-	-	-	-	-	-	-	-
- regular member of family	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-
2.4 Others	20	-	-	-	11	8	-	-	1	-	-	-	-	-	-
3. Change in residence	18	-	-	2	7	5	1	2	1	-	-	-	-	-	-
4. For treatment	2	-	-	-	-	1	-	-	-	-	-	-	-	-	1
5. Not stated	8	-	-	1	2	4	-	-	-	-	-	-	-	1	-

Table C16: Number of divorces in 1980 by duration of marriage  
at divorce and husband's age

Husband's age at time of divorce (years)	Duration of marriages (months)								Mean	Median
	All duration	Less than 6	6-11	12-23	24-35	36-47	48-59	60+		
All ages	536	87	101	177	66	31	20	54	24.2	17.4
15 - 24	178	31	41	63	26	7	4	6	18.6	15.2
25 - 29	182	27	34	60	27	13	6	15	23.2	18.0
30 - 34	79	7	13	28	8	6	8	9	28.0	20.4
35 - 39	44	9	4	15	2	3	1	10	29.3	19.2
40 - 44	19	4	4	4	3	1	1	2	23.6	17.4
45 +	34	9	5	7	-	1	-	12	32.3	17.1

APPENDIX C

Table C17: Marriages and divorces by months, 1980

Months	Marriage	Divorce
All	2871	536
January	244	67
February	347	58
March	373	56
April	112	47
May	272	36
June	261	46
July	226	30
August	208	37
September	188	28
October	203	42
November	184	45
December	253	44

APPENDIX C

Table C18: Divorces by age and sex, 1980

Age (years)	Male	Female
All	536	536
< 15	1	25
15 - 19	25	290
20 - 24	152	162
25 - 29	182	29
30 - 34	79	13
35 - 39	44	12
40 - 44	19	3
45 - 49	20	-
50 - 54	7	-
55 - 59	3	1
60 - 64	-	-
65 +	4	1



**ACKNOWLEDGEMENT**

Financial support received from the UNFPA is gratefully acknowledged.

1980

STAFF OF THE DEMOGRAPHIC SURVEILLANCE SYSTEMMatlab Field Station

## Supervisor:

A.M. Sarder

## Assistant Supervisors:

Abdul Gaffur Sarker  
A.K.M. Nurul Islam  
Md. Khalilur Rahman I

## Senior Field Assistants:

Md. Liaquat Ali  
Md. Ismail  
Kazi Matiur Rahman  
Abdul Momen  
Md. Rajab Ali  
Md. Kashem Ali

## Field Assistants:

Md. Zahirul Hoque  
Abdur Rashid Mia  
Abdul Latif Patwary  
Md. Abul Kashem  
Idrish Ali Mia II  
Md. Nurul Hoque  
M.A. Latif  
Paresh Ch. Chakraborty  
Abdul Baten  
K.M. Mokbul Hossain  
Md. Serajul Hoque  
K.J.M. Mannan Pathan

## Recorder:

Monowara Begum

## Clerk:

A.K.M. Mozibul Hoque

Data Management Branch, Dacca

## Coding/Checking:

Anjumand Sultana  
Hosne Ara Begum  
Lutfun Nahar

## Research Associate:

Md. Rezaul Karim

Computer Information Services

## Programming:

Md. Ibrahim Mollah

## Data entry:

Rafiq-ud-dawla  
Rahima Akhtar  
S.M. Yead Ali

Publication Unit:

Secretarial: Cyril Gomes

N.B. Besides these 110 Female Workers contributed in collecting the Demographic information.

ICDDR,B PUBLICATIONS\*

A. Annual Report:

6. ICDDR,B Annual Report 1981. 63 p.

B. Working Paper:

27. Chowdhury AMR, D'Souza S. A design and field methods for monitoring impact on mortality of an oral therapy programme. Jul 1982. 23 p.

C. Scientific Report:

57. Sarker SA, Molla AM, Karim AKMM. Calorie intake in childhood diarrhoea. Jul 1982. 12 p.

D. Special Publication:

19. Samadi AR, Islam MR, Aziz KMS. ICDDR,B model for treatment of diarrhoeal diseases. Jul 1982. 12 p.

E. Monograph:

2. Maloney C, Aziz KMA, Sarker PC. Beliefs and fertility in Bangladesh. Dec 1981. 385 p. (Price: US\$ 30.00/£ 15.00).

F. Thesis and Dissertation:

3. Shahid NS. Complications of measles in rural Bangladesh (Long-term complications in the under-two). June 1981. 38 p.

G. Newsletter:

- Glimpse: ICDDR,B Newsletter. Vol 1, Jan 1979-

---

\* List of previous publications, such as, annual reports, working papers, scientific reports, special publications and thesis and dissertations, can be obtained on request. For further information, write to Head, Library and Publication Branch, International Centre for Diarrhoeal Disease Research, Bangladesh, G.P.O. Box 128, Dhaka 2, Bangladesh.