

# DEMOGRAPHIC SURVEILLANCE SYSTEM- TEKNAF

VITAL EVENTS AND  
MIGRATION, 1982

REPORT PREPARED BY:

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SCIENTIFIC REPORT NO. 65



INTERNATIONAL  
CENTRE FOR  
DIARRHOEAL DISEASE  
RESEARCH,  
BANGLADESH

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August 1986

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## ACKNOWLEDGEMENTS

The field operation of Teknaf DSS was supported by the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) and the data processing and tabulation of the results were supported by the Canadian International Development Agency. ICDDR,B is supported by countries and agencies which share its concern about the impact of diarrhoeal diseases on the developing world. Current major donors giving assistance to ICDDR,B are: Aga Khan Foundation, Arab Gulf Programme, Australia, Bangladesh, Belgium, Canada (Canadian International Development Agency and the International Development Research Centre), The Ford Foundation, Japan, Norwegian Agency for International Development, Saudi Arabia, Swedish Agency for Research Cooperation with Developing Countries, Switzerland, United Kingdom, United Nations Children's Fund, United Nations Development Programme, United States Agency for International Development, World Bank, and World Health Organization.

The authors wish to gratefully acknowledge the secretarial assistance of Mr. Sentu B. Gomes.

## 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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## Summary

Births, deaths, marriages, divorces and migration have been registered in Teknaf, a rural area of Bangladesh by the Demographic Surveillance System (DSS) of the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) through monthly house-to-house visits of the field workers since 1976. This report presents selected tabulations of numbers and rates of the above mentioned events registered in 1982. This is the third volume of a series of scientific reports on Teknaf DSS.

In the middle of 1982 there were 48552 persons living in the DSS area of whom 24328 were males yielding a sex ratio of 100.4 males to 100 females. Although the sex ratio at birth in Teknaf is around 106.0 and female mortality is higher than that of males, the lower number of males in the overall population derives from the substantially higher positive balance of female migration than males. Crude birth and death rates were 53.2 and 13.3 per 1000 yielding a very high growth rate of 4.0%; if this rate of growth prevails, the population will double every 18 years.

The overall mortality level was moderate with high infant mortality (119 per 1000 live births). Life expectancy at birth was 53.6 years for males compared with 54.8 for females. Life expectancy at age 5 years was 60.8 and 60.7 years for males and females respectively. Causes of deaths diagnosed by physicians on the basis of reported signs and symptoms preceding death showed that infants died mainly from congenital malformations, birth-related problems, respiratory diseases and tetanus. For children between age 1 and 4 years, respiratory diseases, malnutrition and diarrhoea were identified as the major causes of deaths.

The level of fertility in Teknaf was remarkably high. The age schedule of fertility indicates that a woman bears on average about 8 children during her reproductive life. Net reproduction rate was 2.9, meaning that every woman would be replaced by about 3 daughters who would be expected to survive for reproduction in the next generation.

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The people of Teknaf begin their marital life early; mean age at first marriage was 15.8 and 21.9 years for females and males respectively. About one out of every four females and one out of every three males was married before 15 and 20 years respectively. More than 95% of female and male marriages took place before the age of 20 and 30 years respectively. There were about 29 divorces registered per 100 marriages in 1982. About half the divorces took place within the first year of married life.

Total in- and out-migration rates were 22.9 and 23.6 per 1000 population respectively and they were higher for males than for females. Males aged 20 to 39 years and females 10 to 29 years were the most mobile groups. The majority of male out-migrants left to work abroad, often accompanied by their families. Marriage and marital disruption were important causes of movement for females. There was substantial movement of people across the Burmese border and in the DSS area. There were more than twice as many immigrants as emigrants in the Teknaf DSS area.

Looking at the demographic trends in Teknaf, it was observed that the overall fertility and mortality levels and thus the growth rate in 1982 were similar to those in previous years. Infant mortality rates fluctuated over the past 7 year period, reaching the lowest level in 1982. The level of migration was slightly lower in 1982 than in previous years.

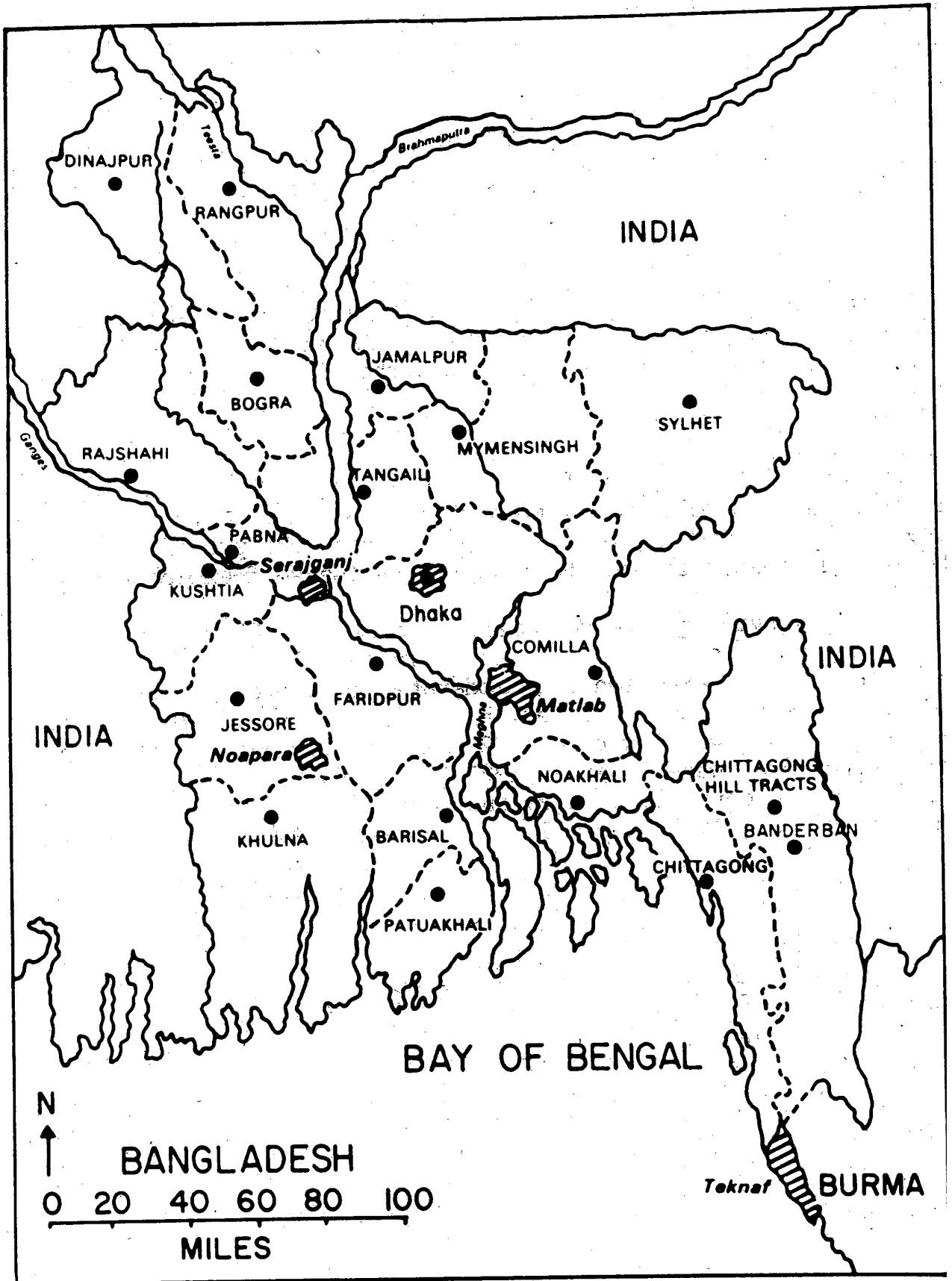
There were a number of differences between the demographic characteristics of the Teknaf DSS population and those of Matlab DSS (a rural area in central-south Bangladesh). In Teknaf, fertility and infant mortality were higher and mortality after first year of life was lower than that in Matlab. Females experienced higher mortality than males in both areas but the difference was much more substantial in Matlab than in Teknaf. The brides and grooms in Teknaf were found to marry at younger ages than their Matlab counterparts. The incidence of divorce was twice as high in Teknaf as in Matlab. Matlab migrants most often went to other areas within the country whereas the majority of out-migrants leaving Teknaf went abroad. Major correlates of the demographic processes in Teknaf and reasons for the differences between Matlab and Teknaf are currently being explored.

## CHAPTER 1

### INTRODUCTION

The Demographic Surveillance System (DSS) in Teknaf (Fig.1.1 and 1.2 show the locations of Teknaf and surveillance area) of the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) routinely collects information on vital events (births, deaths and marriages) and migration in 5 villages of this rural part of Bangladesh. This volume presents basic tabulation of the events of the calendar year 1982. The volume is organised as follows: Introduction, Births, Deaths, Marriage and Divorce, and Migration. Brief notes are provided at the beginning of each chapter to make the tables self-explanatory.

An overview of the demographic rates in 1982 compared with those of previous years is given in Table 1.1. The DSS population has been experiencing moderate mortality, quite high fertility resulting in a very high growth rate. The infant mortality rate was lower in 1982 than in previous years. Out-migration rates were lower in 1982 than before. A summary of the registered events (Table 1.2) and age structure of the mid-year population of 1982 (Table 1.3) are presented in this chapter.



Key:  study areas

Fig. 1.1: Bangladesh Map Showing the Location of Teknaf and Other Study Areas of ICDDR,B

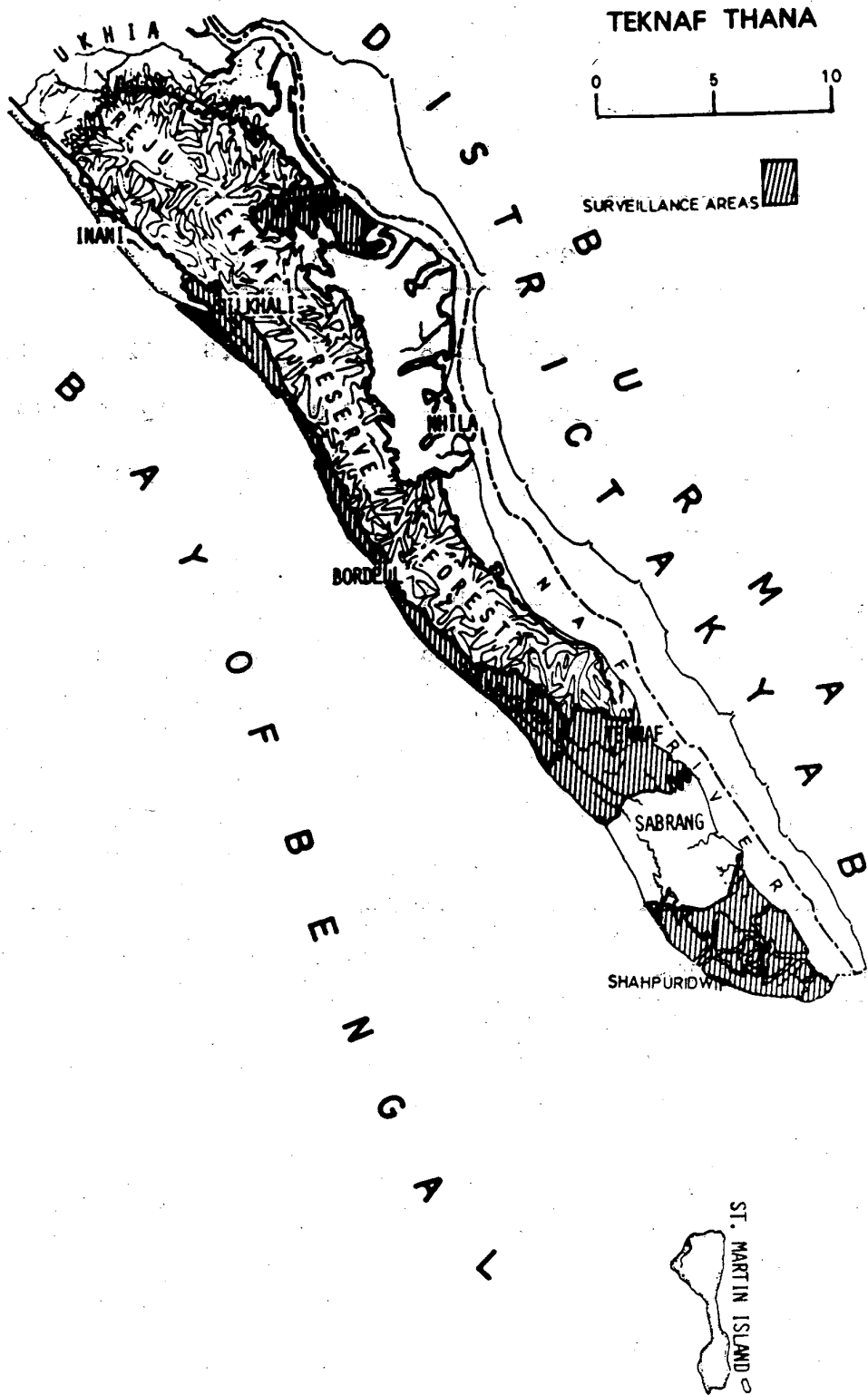


Fig. 1.2: Teknaf Map Showing the Location of the Surveillance Villages

Table 1.1: Demographic Characteristics of Teknaf Population,  
1976-1982

Rates (per 1000 population)	1976	1977	1978	1979	1980	1981	1982
Death	14.9	15.8	14.7	15.9	12.8	14.2	13.3
Infant mortality*	128.6	147.3	133.0	142.7	121.8	139.5	118.9
Child mortality (1-4)	23.4	12.2	16.8	16.9	13.7	14.9	10.4
Birth	47.1	52.1	45.1	55.6	52.4	51.5	53.2
Total fertility**	7.3	8.1	6.7	8.1	8.1	7.7	7.9
In-migration	17.6	28.9	37.4	28.9	30.9	26.3	22.9
Out-migration	17.1	29.5	29.9	30.0	31.4	33.3	23.6
Natural increase (%)	3.2	3.6	3.0	4.0	4.0	3.7	4.1
Growth (%)	3.3	3.6	3.8	3.9	3.9	3.0	4.0

\*Per 1000 live births.

\*\*Per woman.

Table 1.2: Mid-year Population, Events Registered and  
Population Change in 1982

	Number	Rate per 1000 population
Total population mid-year 1982	48552	-
<u>Events registered:</u>		
Births	2581	53.2
Deaths (all ages)	646	13.3
Infant deaths	307	118.9*
In-migration	1111	22.9
Out-migration	1144	23.6
Marriages	796	16.4
Divorces	231	290.2**
<u>Population change:</u>		
Net migration	-33	-0.7
Natural increase	1935	39.9
Net increase	1902	39.2

\*Per 1000 live births

\*\*Per 1000 marriages



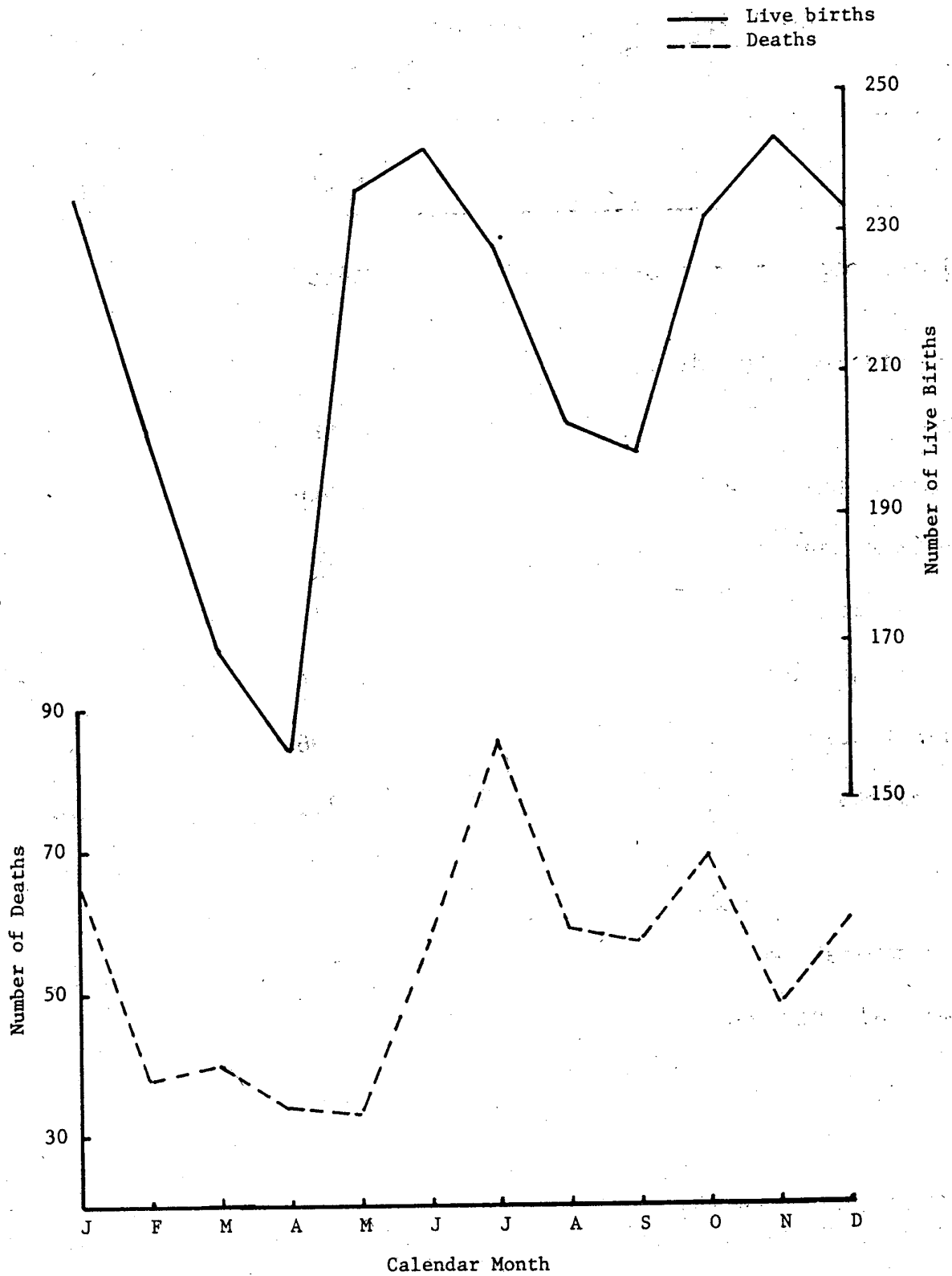
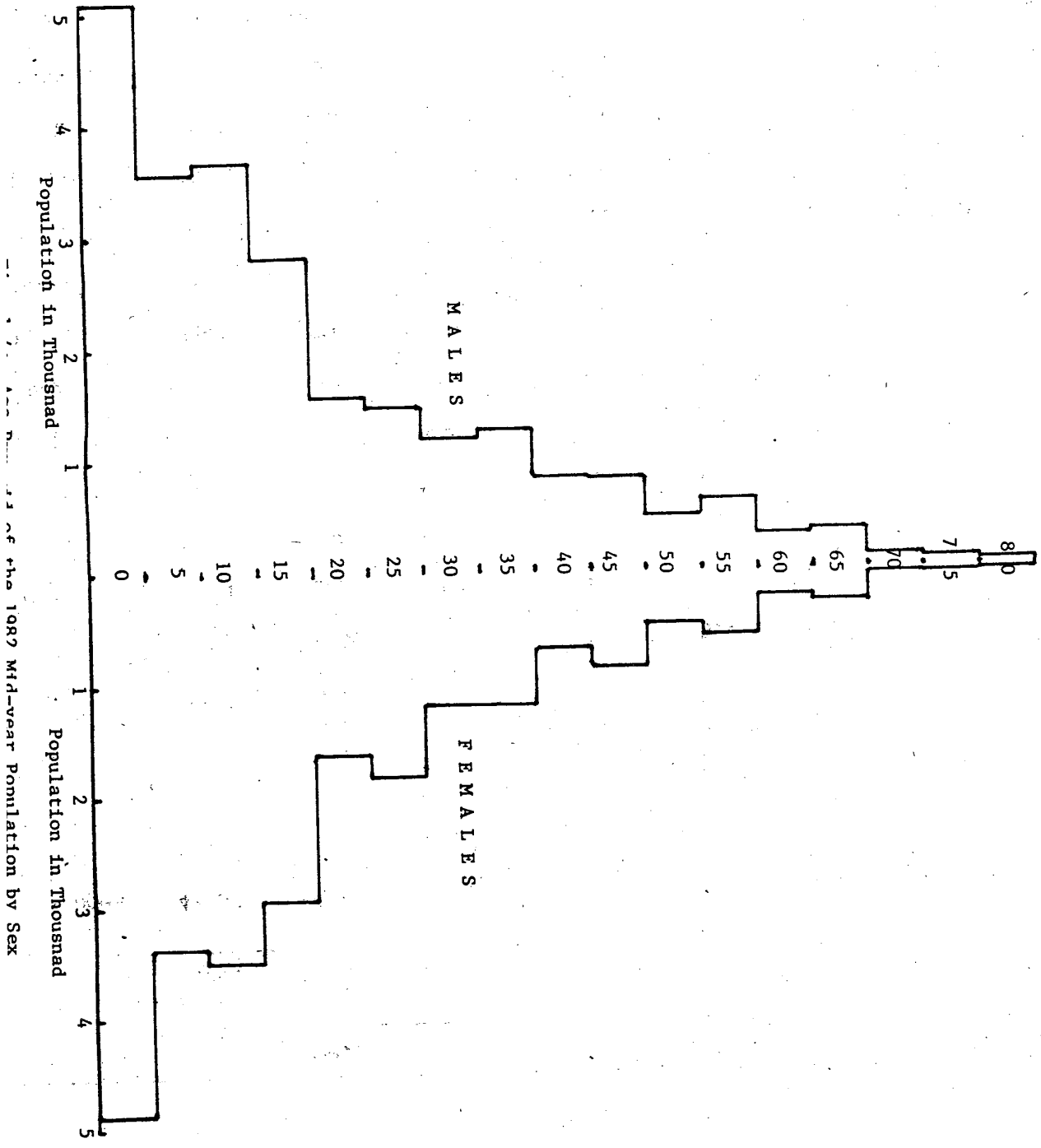


Fig. 1.3: Live Births and Deaths by Calendar Month, 1982

Table 1.3: Mid-year Population by Age and Sex, 1982

Age (year)	Number			Percent			M/F x 100
	Both sexes	Males	Females	Both sexes	Males	Females	
All ages	48552	24328	24224	100.0	100.0	100.0	100.4
0	2456	1261	1195	5.1	5.2	4.9	105.5
1	2125	1074	1051	4.4	4.4	4.3	102.2
2	2092	1070	1022	4.3	4.4	4.2	104.7
3	1786	904	882	3.7	3.7	3.6	102.5
4	1556	818	738	3.2	3.4	3.1	110.8
5-9	6959	3560	3399	14.3	14.6	14.0	104.7
10-14	7192	3667	3525	14.8	15.1	14.6	104.0
15-19	5808	2821	2987	12.0	11.6	12.3	94.4
20-24	3208	1553	1655	6.6	6.4	6.8	93.8
25-29	3334	1484	1850	6.9	6.1	7.6	80.2
30-34	2384	1176	1208	4.9	4.8	5.0	97.4
35-39	2483	1267	1216	5.1	5.2	5.0	104.2
40-44	1556	827	729	3.2	3.4	3.0	113.4
45-49	1705	829	876	3.5	3.4	3.6	94.6
50-54	1001	496	505	2.1	2.0	2.1	98.2
55-59	1246	621	625	2.6	2.6	2.6	99.4
60-64	571	308	263	1.2	1.3	1.1	117.1
65-69	640	336	304	1.3	1.4	1.3	110.5
70-74	183	104	79	0.3	0.4	0.3	131.6
75-79	163	87	76	0.3	0.4	0.3	114.5
80 & above	104	65	39	0.2	0.3	0.2	166.7



## CHAPTER 2

## DEATHS

Number of deaths (Table 2.1), rates (Table 2.2), causes of death (Table 2.4 and 2.5) and life tables (Table 2.3 and Fig. 2.1 and 2.2) are presented in this chapter. The appendix (p. 48) shows the formulae used in constructing the life tables. The Health Assistants (HA) record signs and symptoms leading to death reported by the relatives of the deceased. A physician makes a diagnosis of cause of death on the basis of the description given by HA and by further interviewing the relatives of the deceased when necessary.

Table 2.1: Deaths by Age and Sex, 1982

Age at death (year)	Both sexes	Males	Females
All ages	646	335	311
Under 1	307	169	138
Under 1 mo	191	110	81
1-11 mo	116	59	57
1-4	79	39	40
5-9	25	10	15
10-14	15	11	4
15-19	13	4	9
20-24	13	4	9
25-29	10	2	8
30-34	9	3	6
35-39	15	8	7
40-44	12	5	7
45-49	16	7	9
50-54	17	9	8
55-59	23	13	10
60-64	15	7	8
65-69	37	17	20
70-74	10	8	2
75-79	17	12	5
80 & above	13	7	6

Table 2.2: Death Rates (per 1000 population) by Age and Sex, 1982

Age (year)	Both sexes	Males	Females
All ages	13.3	13.8	12.8
Under 1	118.9	124.6	112.6
Under 7 days	41.4	49.6	32.6
7-28 days	31.4	29.5	33.5
29 days - 11 mo	46.1	45.7	46.5
1-4	10.4	10.1	10.8
5-14	2.8	2.9	2.7
15-24	2.9	1.8	3.9
25-34	3.3	1.9	4.6
35-44	6.7	6.2	7.2
45-54	12.2	12.1	12.3
55-64	20.9	21.5	20.3
65-74	57.1	56.8	57.4
75 & above	112.4	125.0	95.7

Note: Numbers of live births in 1982 were taken in the denominators in calculating all the infant mortality rates (<1 yr, <7 days, 7-28 days & 29 days-11 mo).

Table 2.3: Abridged Life Tables by Sex Based on Mortality Rates of 1982

Age (year)	Both sexes			Males			Females		
	$1000q_{n/x}$	$l_x$	$e_x^o$	$1000q_{n/x}$	$l_x$	$e_x^o$	$1000q_{n/x}$	$l_x$	$e_x^o$
0	118.9	100000	55.0	124.6	100000	53.6	112.6	100000	54.8
1	17.6	88110	61.4	16.7	87540	60.8	18.8	88740	60.7
2	7.6	86555	61.3	7.5	86081	60.3	7.8	87070	60.9
3	9.5	85900	61.0	10.0	85438	59.7	9.0	86393	60.4
4	5.1	85088	60.3	4.9	84588	59.3	5.4	85619	59.9
5	17.9	84655	69.8	13.9	84175	58.6	21.8	85158	59.2
10	10.4	83144	55.9	14.9	83004	54.4	5.5	83303	55.5
15	10.9	82275	51.4	7.0	81768	50.2	14.9	82846	50.8
20	20.3	81375	47.0	12.9	81197	45.3	26.7	81612	46.5
25	14.9	79722	42.9	6.5	80148	41.1	20.3	79436	42.7
30	18.8	78534	38.5	12.9	79629	36.3	24.7	77823	38.5
35	29.6	77055	34.2	31.0	78600	31.8	28.6	75900	34.5
40	37.8	74779	30.2	29.6	76160	27.7	47.0	73728	30.4
45	46.0	71947	26.2	41.2	73906	23.5	49.8	70266	26.8
50	81.8	68638	22.4	206.7	70861	19.3	76.2	66765	23.0
55	88.7	63027	19.1	99.6	56211	18.7	77.1	61678	19.7
60	123.8	57439	15.7	107.8	50611	15.5	141.8	56921	16.1
65	253.5	50327	12.6	225.5	45157	12.0	283.5	48849	13.3
70	241.2	37569	11.0	323.3	34973	9.8	119.4	35000	12.6
75	413.0	28508	8.7	508.1	23667	8.3	282.5	30821	9.0
80	1000.0	16735	8.0	1000.0	11642	9.3	1000.0	22083	6.5

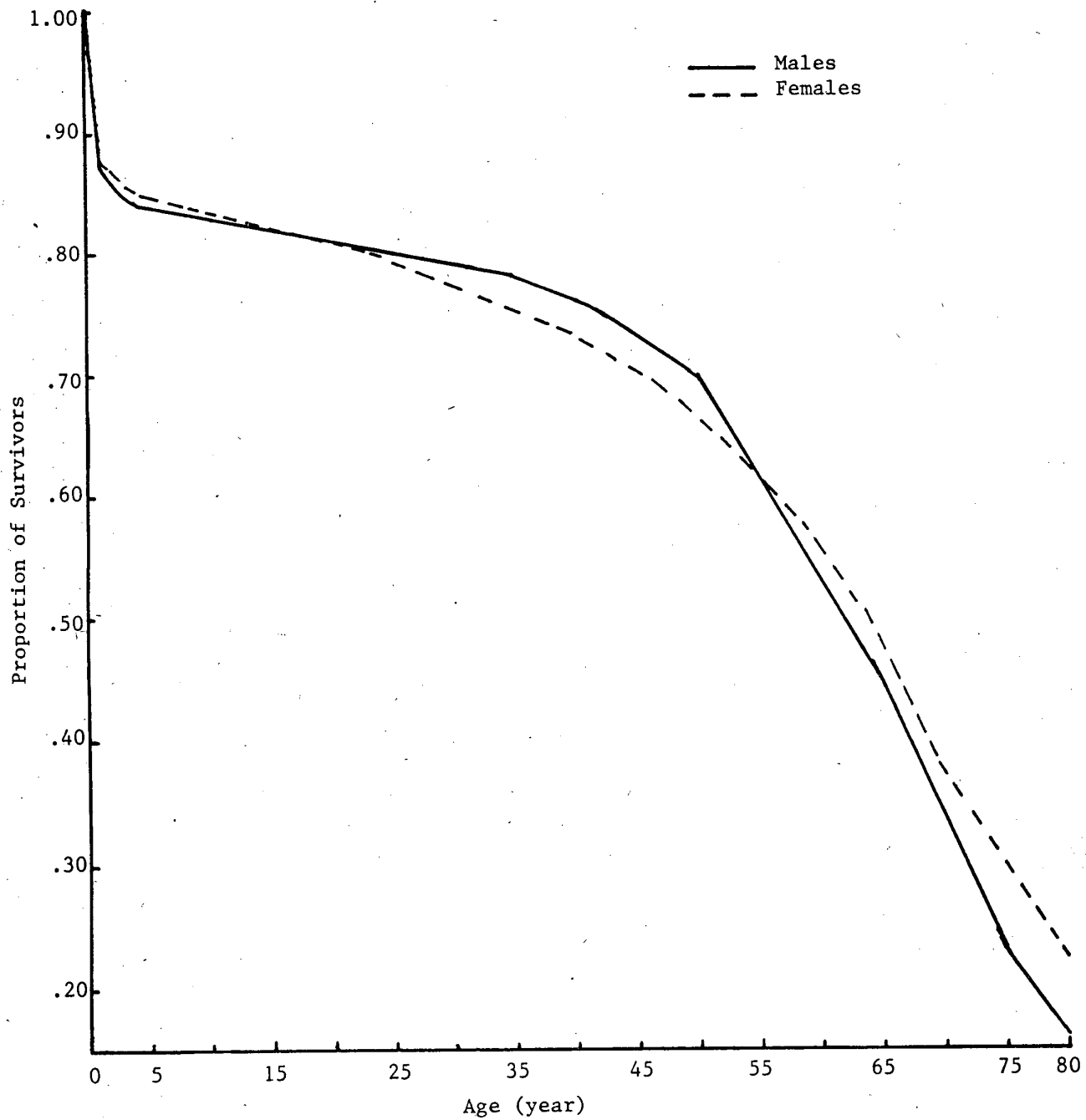


Fig. 2.1: Proportion of Survivors from Birth to a given Age by Sex based on Mortality Rates of 1982



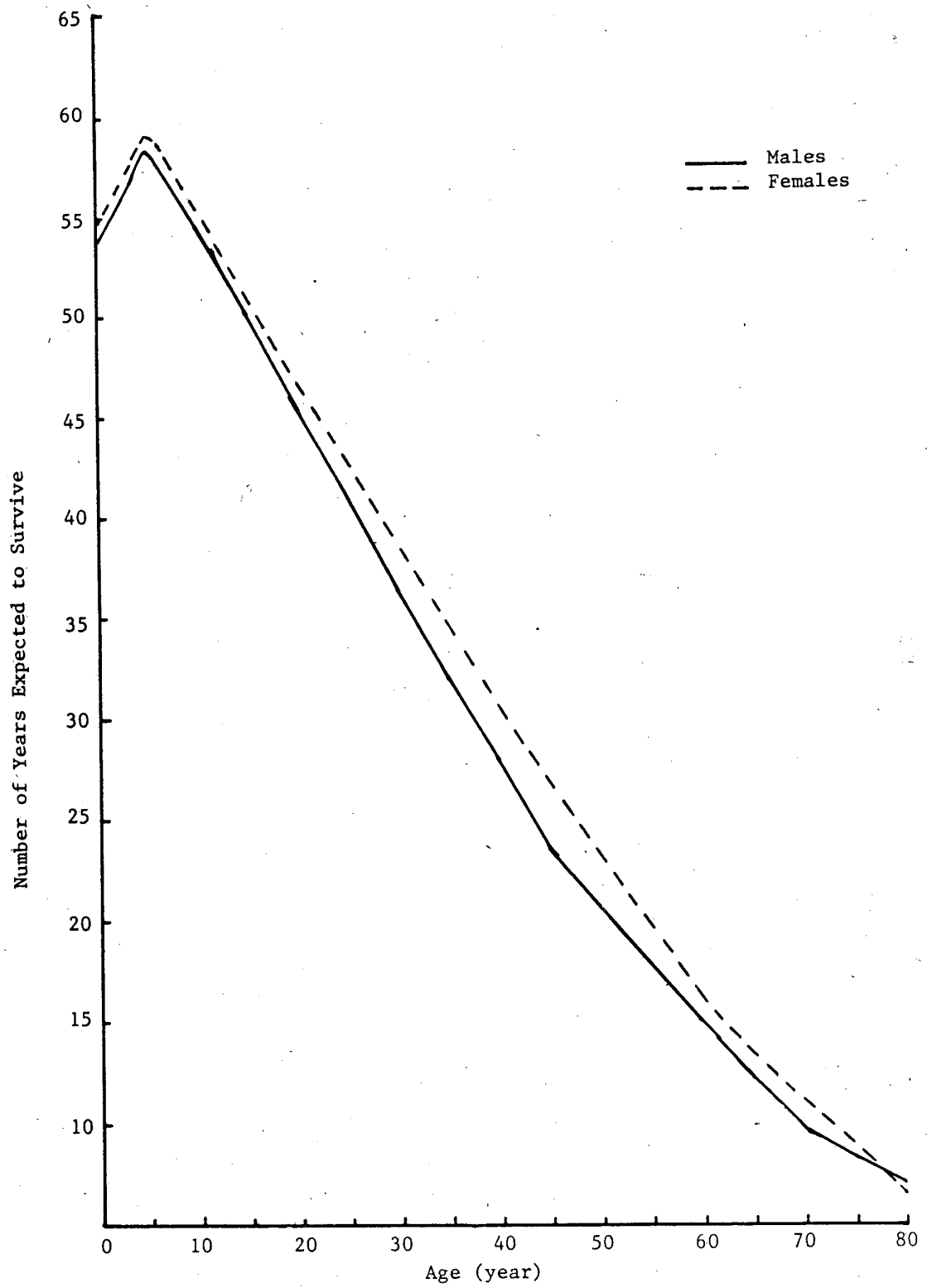


Fig. 2.2: Expectation of Life by Age and Sex based on Mortality Rates of 1982

Table 2.4: Deaths by Cause and Age, 1982

Cause*	All ages	Age (year)				
		Under 1	1-4	5-14	15-44	45 & above
All causes	646	307	79	40	72	148
Pneumonia	9	4	2	-	-	3
Measles	5	3	2	-	-	-
Tetanus	51	49	2	-	-	-
Fever	40	8	7	6	11	8
Murder	2	-	-	-	2	-
Suicide	1	-	-	-	-	1
Diarrhoea, Acute	50	19	11	7	2	11
Diarrhoea, Chronic	2	1	-	-	-	1
Dysentery, Acute	9	1	3	1	1	3
Delivery complications	31	28	-	-	3	-
Whooping cough	6	3	2	1	-	-
Malnutrition	60	35	17	5	2	1
Drowning	10	-	7	2	1	-
Tuberculosis	11	-	1	-	5	5
Rabies	3	-	-	3	-	-
Other	54	9	5	5	11	24
Prematurity/congenital abnormality	63	61	1	-	-	1
Old age	6	-	-	-	-	6
Poisoning	2	1	-	-	-	1
Ulcer	2	-	-	-	-	2
Streptococcal infection	1	-	-	-	-	1

Table 2.4 cont'd.../2

Cause*	All ages	Age (year)				
		Under 1	1-4	5-14	15-44	45 & above
Anaemia	4	-	-	1	1	2
Nephrities	1	-	-	-	1	-
Asthma	10	-	1	-	2	7
Cardio Vascular Attack	9	-	-	-	-	9
Accidental death	4	3	1	-	-	-
Paralysis	1	-	-	-	-	1
Cancer	8	-	-	-	2	6
Bronchities, Chronic	2	-	-	-	1	1
Abdomen pain, Acute	10	-	3	3	-	4
Epilepsy	2	-	-	1	1	-
Leprosy	1	-	-	-	1	-
Hemiplegia	4	-	-	1	1	2
Congestive Cardiac Failure	9	-	-	-	-	9
Oral infection through ulcer, etc.	1	-	-	-	-	1
Septicemia	4	1	-	-	2	1
Pemphigus neonatorum	1	1	-	-	-	-
Hypovolaemic shock	3	1	-	-	2	-
Rheumatoid orthritis	3	-	-	-	1	2
Cirrhosis of liver	4	-	-	-	1	3
Oral thrush	1	-	-	-	-	1
Vasovagal shock	1	-	-	-	-	-
Worm infection	1	-	-	-	-	1

Table 2.4 cont'd.../3

Cause*	Age (year)					
	All ages	Under 1	1-4	5-14	15-44	45 & above
Pre-eclampsia	5	-	-	-	-	5
Heart disease	15	-	-	-	4	11
Bronchopneumonia	68	53	10	-	-	5
Nephrotic syndrome	2	-	-	-	-	2
Malnutrition with measles	1	-	-	-	-	1
Not known	53	25	3	4	9	12

\*The causes are listed in ascending order of the code numbers.

Table 2.5: Distribution of the Causes of Infant Deaths  
by Age, 1982

Cause	Under 1 year	Under 7 days	7-28 days	29 days - 11 months
All causes (number of deaths)	100.0 (307)	100.0 (107)	100.0 (81)	100.0 (119)
Birth associated*	20.2	44.8	13.6	2.5
Tetanus	16.0	13.1	40.7	1.7
Nutritional deficiency**	11.4	-	6.2	25.2
Diarrhoeal diseases+	6.8	-	1.2	16.8
Respiratory diseases++	19.5	7.5	19.7	30.2
Measles	1.0	0.9	1.2	0.8
Fever (all types)	2.6	-	4.9	3.4
Accidental deaths	1.0	0.9	-	1.7
Others	21.5	32.7	12.3	17.6

\*Prematurity/congenital deformity, birth injury, inability to suck, etc.

\*\*Malnutrition/anaemia/sore mouth.

+Diarrhoea/dysentery/acute gastroenteritis.

++Pneumonia/asthma/whooping cough.

Table 2.6: Deaths by Sex and Calendar Month, 1982

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Month	Both sexes	Males	Females
All months	646	335	311
January	66	33	33
February	38	18	20
March	40	18	22
April	34	14	20
May	33	17	16
June	57	36	21
July	85	52	33
August	59	28	31
September	57	32	25
October	69	34	35
November	48	23	25
December	60	30	30

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## CHAPTER 3

## BIRTHS

Number of births, still births and miscarriages and fertility rates are presented in this chapter. A live birth is an outcome of pregnancy irrespective of duration of gestation which shows any evidence of life. An outcome (Table 3.1) is said to be still birth if the gestation period is more than 28 months or a miscarriage if the pregnancy is terminated within 28 months of gestation but without any evidence of life. The number of (a) surviving children, (b) children ever born, and (c) total pregnancies was based on the numbers reported by the mothers. The present birth is included in the number of children or pregnancies.

Table 3.1: Numbers and Rates of Pregnancy Outcomes  
by Type, 1982

Type of pregnancy outcome	Number	Rate*	Rate**
Total pregnancies	2784		-
Live birth pregnancies***	2568	-	922.4
Male births	1356		-
Female births	1225		-
Foetal wastage pregnancies	219	85.3	78.7
Early (miscarriages)	98	38.2	35.2
Late (still births)	121	47.1	43.5
Twin birth pregnancies	16		-
Live birth pregnancies	15	5.8	5.4
Two live births	13		-
One live births	2		-
Still birth pregnancies	1	0.4	0.4

\*Per 1000 live birth pregnancies.

\*\*Per 1000 pregnancies.

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



Table 3.2: Age Specific Fertility Rates and Reproduction Indices, 1982

Age group (year)	Number of live-births	Fertility rate (per 1000 women)
All (15-49)	2581	245.3
15-19*	660	220.9
20-24	540	326.3
25-29	587	317.3
30-34	336	278.1
35-39	298	245.1
40-44	93	127.6
45-49**	67	76.5
Total Fertility Rate		7.9
Gross Reproduction Rate		3.8
Net Reproduction Rate		2.9

\*Twenty six births which occurred to mothers below age 15 were included in this group.

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

Table 3.3: Distribution of Mothers Who Had Live Births in 1982 by Age and Number of Children Ever Born Alive

Age (year)	All	Number of children ever born alive										Mean
		1	2	3	4	5	6	7	8	9	10+	
All ages	2568	443	456	337	312	264	213	174	128	104	137	4.2
Under 15	26	24	2	-	-	-	-	-	-	-	-	1.1
15-19	629	338	225	53	10	3	-	-	-	-	-	1.6
20-24	540	67	164	174	92	26	13	3	-	-	1	2.8
25-29	583	11	52	87	158	138	77	36	12	8	4	4.5
30-34	336	-	9	18	34	58	79	71	31	19	17	6.1
35-39	294	1	3	3	11	30	32	42	61	54	57	7.8
40-44	93	-	-	-	2	4	9	14	15	16	33	8.7
45 & above	67	2	1	2	5	5	3	8	9	7	25	8.0

Table 3.4: Distribution of Mothers Who Had Live Births in 1982 by Age and Number of Pregnancies

Age (year)	Number of pregnancies											Mean	
	All	1	2	3	4	5	6	7	8	9	10		11+
All ages	2568	412	436	343	305	264	231	178	135	107	60	97	4.4
Under 15	26	24	2	-	-	-	-	-	-	-	-	-	1.1
15-19	629	320	223	68	15	3	-	-	-	-	-	-	1.7
20-24	540	55	152	173	96	40	19	4	-	-	1	-	3.0
25-29	583	10	47	80	148	142	83	46	14	7	4	2	4.5
30-34	336	-	8	17	29	51	84	66	36	24	15	6	6.3
35-39	294	1	3	3	11	20	35	40	58	58	23	42	7.9
40-44	93	-	-	-	1	4	7	14	17	14	8	28	8.7
45 & above	67	2	1	2	5	4	3	8	10	4	9	19	8.3

Table 3.5: Distribution of Mothers Who Had Live Births in 1982 by Age and Number of Surviving Children

Age (year)	Number of surviving children											Mean	
	All	1	2	3	4	5	6	7	8	9	10		11+
All ages	2568	538	531	388	354	248	191	146	86	47	24	15	3.5
Under 15	26	25	1	-	-	-	-	-	-	-	-	-	1.0
15-19	629	383	215	27	2	2	-	-	-	-	-	-	1.4
20-24	540	95	209	159	68	9	-	-	-	-	-	-	2.4
25-29	583	29	78	146	166	111	39	9	5	-	-	-	3.7
30-34	336	2	20	37	67	84	65	36	16	6	3	-	5.0
35-39	294	2	4	15	32	29	63	72	43	21	6	7	6.4
40-44	93	-	1	-	10	8	18	19	15	8	9	5	7.1
45 & above	67	2	3	4	9	5	6	10	7	12	6	3	6.6

Table 3.6: Distribution of Mothers Who Had Still Births and Miscarriages in 1982 by Age and Number of Pregnancies

Age (year)	Number of pregnancies											
	1	2	3	4	5	6	7	8	9	10	11+	
All ages	219	49	38	21	20	18	19	19	14	8	4	9
Under 15	4	4	-	-	-	-	-	-	-	-	-	-
15-19	68	39	23	3	2	1	-	-	-	-	-	-
20-24	40	3	10	12	8	2	3	-	-	-	-	-
25-29	45	2	4	4	8	8	7	5	5	2	-	-
30-34	26	1	1	1	-	6	4	6	2	3	1	1
35-39	23	-	-	1	1	-	3	5	4	2	3	4
40-44	11	-	-	-	1	-	2	2	1	1	-	4
45 & above	2	-	-	-	-	1	-	-	1	-	-	-

Table 3.7: Outcome of Pregnancies by Month, 1982

Month	Pregnancy outcomes			No. of live births		
	Miscar- riages	Still births	Live births*	Both sexes	Males	Females
All months	98	121	2568	2581	1356	1225
January	14	14	233	235	128	107
February	5	10	201	202	105	97
March	4	5	170	171	77	94
April	14	7	157	157	90	67
May	18	14	236	236	112	124
June	12	12	242	242	123	119
July	5	9	226	228	144	84
August	3	14	201	203	107	96
September	6	10	198	199	106	93
October	1	9	229	232	128	104
November	11	7	243	243	118	125
December	5	10	232	233	118	115

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

## CHAPTER 4

## MARRIAGE AND DIVORCE

Marriage refers to union of a male and a female which established by civil or religious procedures. Divorce dissolution of marital union through civil, religious or social procedures. Marriage rates (Table 4.1 and Fig. 4.1), age distribution of brides and grooms (Tables 4.3 and 4.4) and distribution of divorces by calendar month (Table 4.5 and Fig. 4.2), age and duration of marital union (Tables 4.6 and 4.7) are presented in this chapter.

Table 4.1: Marriage Rates (per 1000 population) by Age and Sex, 1982

Age (year)	Males	Females
10-14	0.3	36.6
15-19	59.2	163.3
20-24	153.9	48.9
25-29	122.0	22.7
30-34	63.8	19.9
35-39	30.0	7.8
40-44	24.2	5.5
45-49	8.9	4.4
50-54	5.6	-
55-59	5.7	-
60-64	1.8	-
65 & above	4.9	-



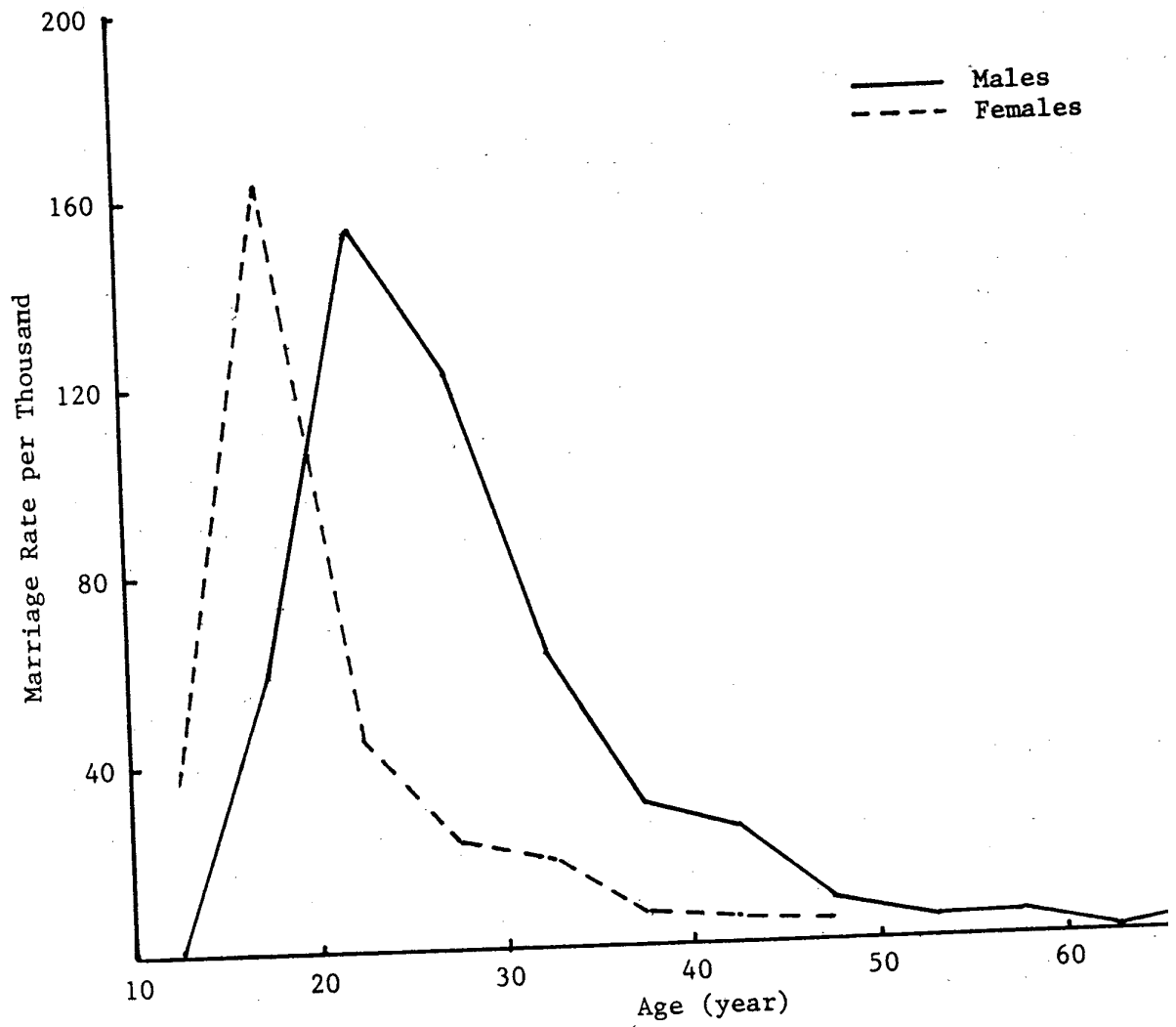


Fig. 4.1: Marriage Rates by Age and Sex, 1982

Table 4.2: Distribution of Marriages by Age of Partners, 1982

Age of wife (year)	Age of husband (year)							
	All	15-19	20-24	25-29	30-34	35-39	40-44	45 & above
All	796	168	239	181	75	38	20	75
10-14	129	43	47	26	10	2	-	1
15-19	488	116	176	127	41	14	9	5
20-24	81	5	11	23	15	11	3	13
25-29	42	1	3	3	8	4	6	17
30-34	24	1	1	-	-	6	1	15
35 & above	32	2	1	2	1	1	1	24

Table 4.3: Brides' Age Distribution by Previous Marital Status, 1982

Age (year)	Previous marital status			
	All brides No. %	Single No. %	Widow No. %	Divorced No. %
All ages	796 100.0	522 100.0	41 100.0	233 100.0
10-14	129 16.2	124 23.7	1 2.4	4 1.7
15-19	488 61.3	376 72.0	5 12.2	107 45.9
20-24	81 10.2	21 4.1	3 7.3	57 24.5
25-29	42 5.3	1 0.2	7 17.1	34 14.6
30-34	24 3.0	- -	6 14.6	18 7.7
35-39	9 1.1	- -	7 17.1	2 0.8
40-44	4 0.5	- -	2 4.9	2 0.8
45 & above	19 2.4	- -	10 24.4	9 3.9
Median age*	16	15	30	20
Mean age*	18.6	15.8	31.9	22.4
Standard	7.1	2.1	11.3	8.5

Table 4.4: Grooms' Age Distribution by Previous Marital Status, 1982

Age (year)	Previous marital status									
	All grooms		Single		Married		Widower		Divorced	
	No.	%	No.	%	No.	%	No.	%	No.	%
All ages	796	100.0	437	100.0	125	100.0	39	100.0	195	100.0
10-14	1	0.1	1	0.2	-	-	-	-	-	-
15-19	167	21.0	144	32.9	-	-	-	-	23	11.8
20-24	239	30.0	176	40.3	17	13.6	1	2.6	45	23.1
25-29	181	22.7	96	22.0	22	17.6	2	5.1	61	31.2
30-34	75	9.4	16	3.7	24	19.2	10	25.6	25	12.8
35-39	38	4.8	-	-	17	13.6	3	7.7	18	9.2
40-44	20	2.5	-	-	11	8.8	3	7.7	6	3.1
45-49	24	3.0	2	0.4	13	10.4	5	12.8	4	2.1
50-54	16	2.0	-	-	6	4.8	6	15.3	4	2.1
55-59	16	2.0	-	-	5	4.0	8	20.5	3	1.5
60-64	5	0.6	-	-	2	1.6	-	-	3	1.5
65 & above	14	1.8	2	0.4	8	6.4	1	2.6	3	1.5
Median age*	24		21		33		45		27	
Mean age*	27.0		21.9		37.1		43.2		28.9	
Standard deviation*	10.6		4.1		13.1		11.2		10.2	

\*These indices were calculated from ungrouped data.

Table 4.5: Marriages and Divorces by Calendar Month, 1982

Month	Number of marriages	Number of divorces
All months	796	231
January	62	36
February	63	25
March	63	16
April	109	14
May	157	16
June	119	19
July	30	21
August	44	20
September	38	12
October	28	18
November	35	16
December	48	18



Fig. 4.2: Marriages and Divorces by Calendar Month, 1982

Table 4.6: Percentage Distribution of Divorces by Age of Wife and Duration of Marriage, 1982

Age (year)	All duration	Percentage	Duration of marriage (month)							
			Under 6	6-11	12-23	24-35	36-47	48-59	60 & above	
All ages	231	100	26	19	20	10	6	5	14	
10-14	13	100	46	46	8	-	-	-	4	
15-19	126	100	34	21	25	9	5	2	25	
20-24	33	100	21	12	12	12	6	6	26	
25-29	31	100	-	16	22	20	6	10	26	
30-34	16	100	19	6	12	6	13	13	31	
35 & above	12	100	17	17	-	17	-	-	50	

Table 4.7: Percentage Distribution of Divorces by Age of Husband and Duration of Marriage, 1982

Age (year)	All duration	Duration of marriage (month)									
		Under 6	6-11	12-23	24-35	36-47	48-59	60 & above			
12-14	150	50	43	34	19	20	10	6	5	3	14
15-24	82	100	35	27	20	10	2	2	2	4	
25-29	54	100	24	15	26	11	11	4	4	9	
30-34	27	100	22	11	15	11	7	4	4	30	
35-39	27	100	26	11	19	7	7	-	-	30	
40-44	12	100	8	18	33	-	8	8	8	25	
45 & above	29	100	17	21	10	17	3	14	14	17	



Table 4.8: Distribution of Divorces by Age of Partners, 1982

Age of female partner	All ages	Age of male partner						
		15-19	20-24	25-29	30-34	35-39	40-44	45 & above
All age	231	26	56	54	27	27	12	29
10-14	13	4	5	4	-	-	-	-
15-19	126	20	43	34	13	8	5	3
20-24	33	-	6	11	6	4	-	6
25-29	31	1	1	3	7	7	2	10
30-34	16	1	1	1	1	6	2	4
35-39	12	-	-	1	-	2	3	6

## CHAPTER 5

## MIGRATION

Migration is defined as individual or household movement into or out of the Teknaf DSS area for a period of at least six months. Migration within DSS area but between households is classified as internal movement. Information on internal movement is also collected on a separate form but has not been presented in the report. This chapter contains the tabulations of migration by age, sex, calendar month, cause of movement and places of origin and of destination. Migration rates by age, sex and direction of movement are also calculated.

Table 5.1: Migration by Age, Sex and Direction, 1982

Age (year)	In-migration			Out-migration		
	Both sexes	Males	Females	Both sexes	Males	Females
All ages	1111	569	542	1144	635	509
Under 10	235	103	132	267	130	137
10-19	285	94	191	313	129	184
20-29	259	144	115	271	165	106
30-39	189	137	52	165	131	34
40-49	74	49	25	70	46	24
50-59	35	23	12	31	21	10
60 & above	34	19	15	27	13	14

Table 5.2: Migration Rates (per 1000 population) by Age, Sex and Direction, 1982

Age (year)	In-migration				Out-migration			
	Both sexes	Males	Females	Both sexes	Males	Females		
All ages	22.9	23.4	22.4	23.6	26.1	21.0		
Under 10	13.8	11.0	15.9	15.7	15.9	14.7		
10-19	21.9	14.5	29.3	24.1	19.9	28.3		
20-29	39.6	47.4	32.8	41.4	54.3	30.2		
30-39	38.8	56.1	21.4	33.9	53.6	14.0		
40-49	22.7	29.6	15.6	21.5	27.8	14.9		
50-59	15.6	20.6	10.6	13.8	18.8	8.8		
60 & above	20.5	21.1	19.7	16.3	14.4	18.4		

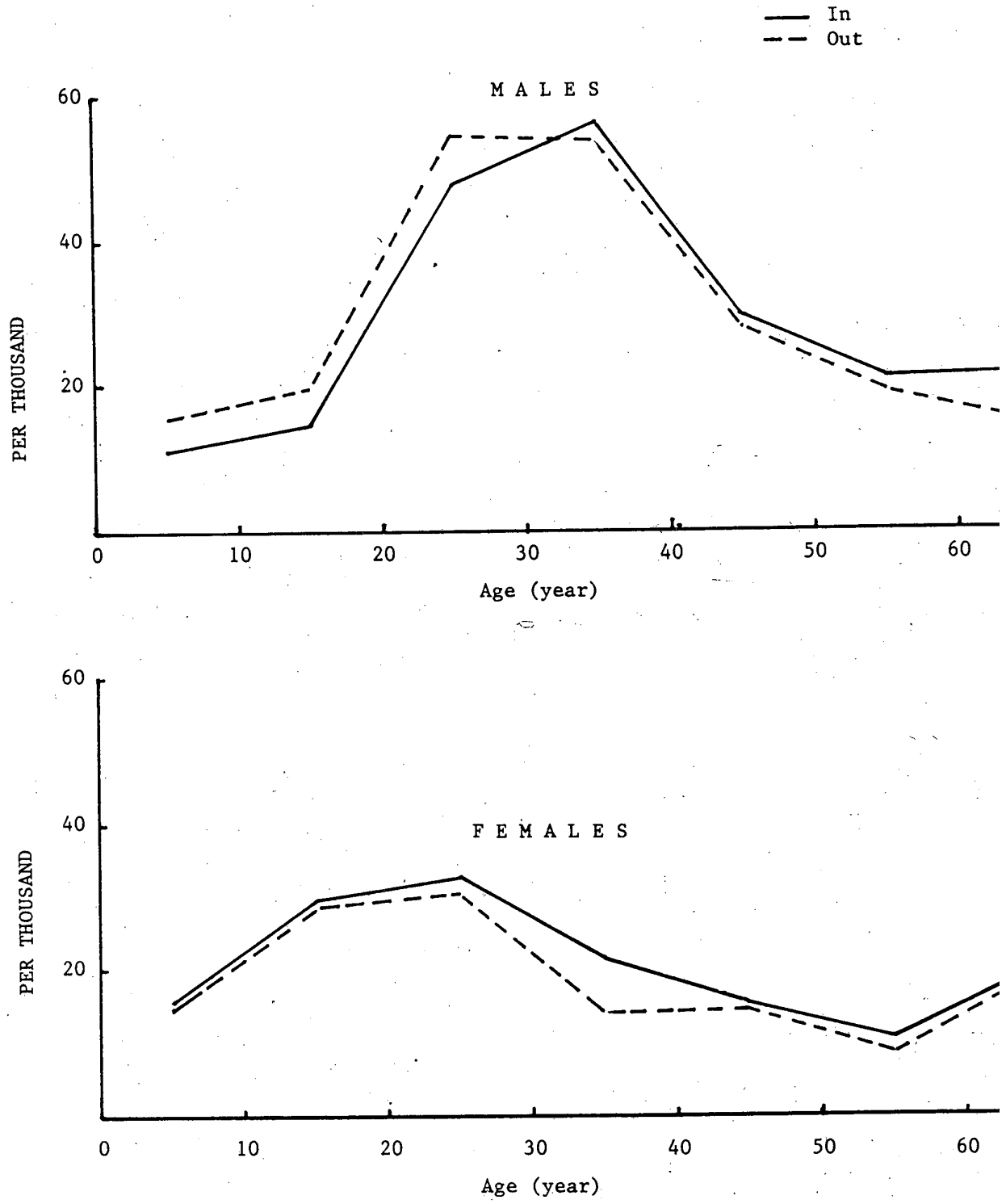


Fig. 5.1: Migration Rates by Age, Sex and Direction, 1982

Table 5.3: Migration by Sex, Calendar Month and Direction, 1982

Month	In-migration			Out-migration		
	Both sexes	Males	Females	Both sexes	Males	Females
All months	1111	569	542	1144	635	509
January	115	69	46	188	115	73
February	92	44	48	175	97	78
March	86	41	45	106	52	54
April	104	47	57	91	50	41
May	147	74	73	116	55	61
June	128	68	60	141	81	60
July	84	42	42	100	63	37
August	100	53	47	36	16	20
September	55	24	31	68	48	20
October	65	33	32	49	20	29
November	82	46	36	29	18	11
December	53	28	25	45	20	25

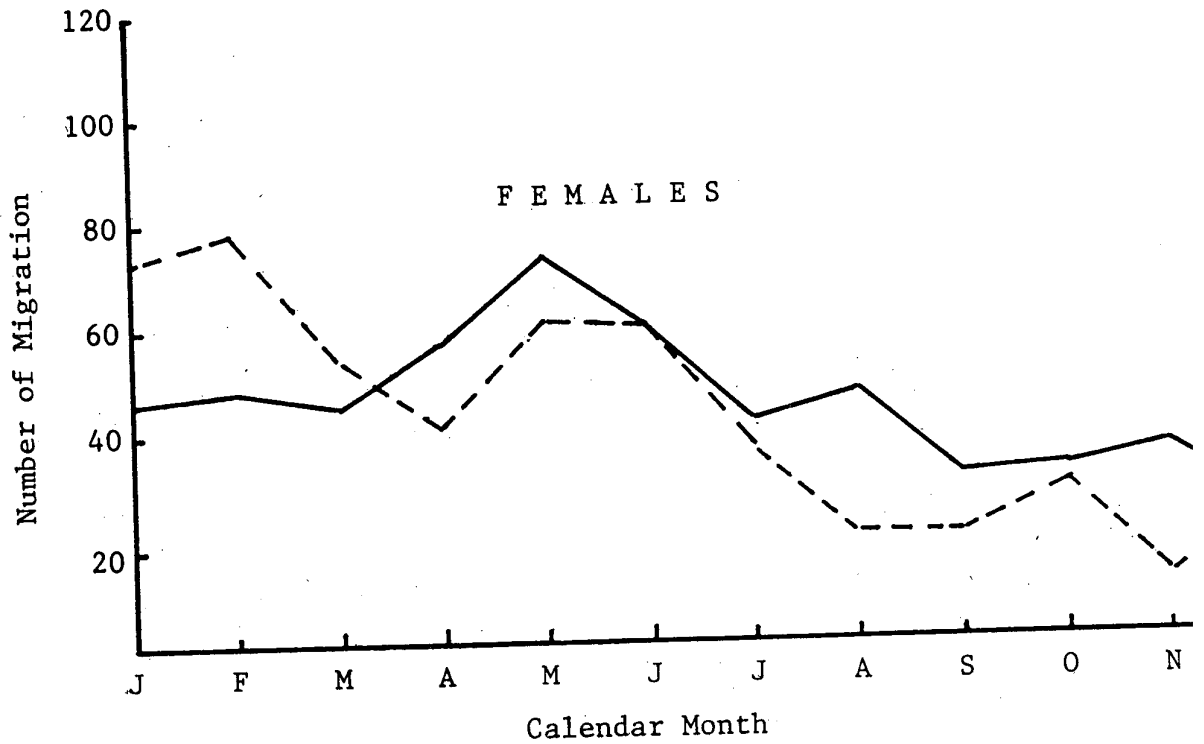
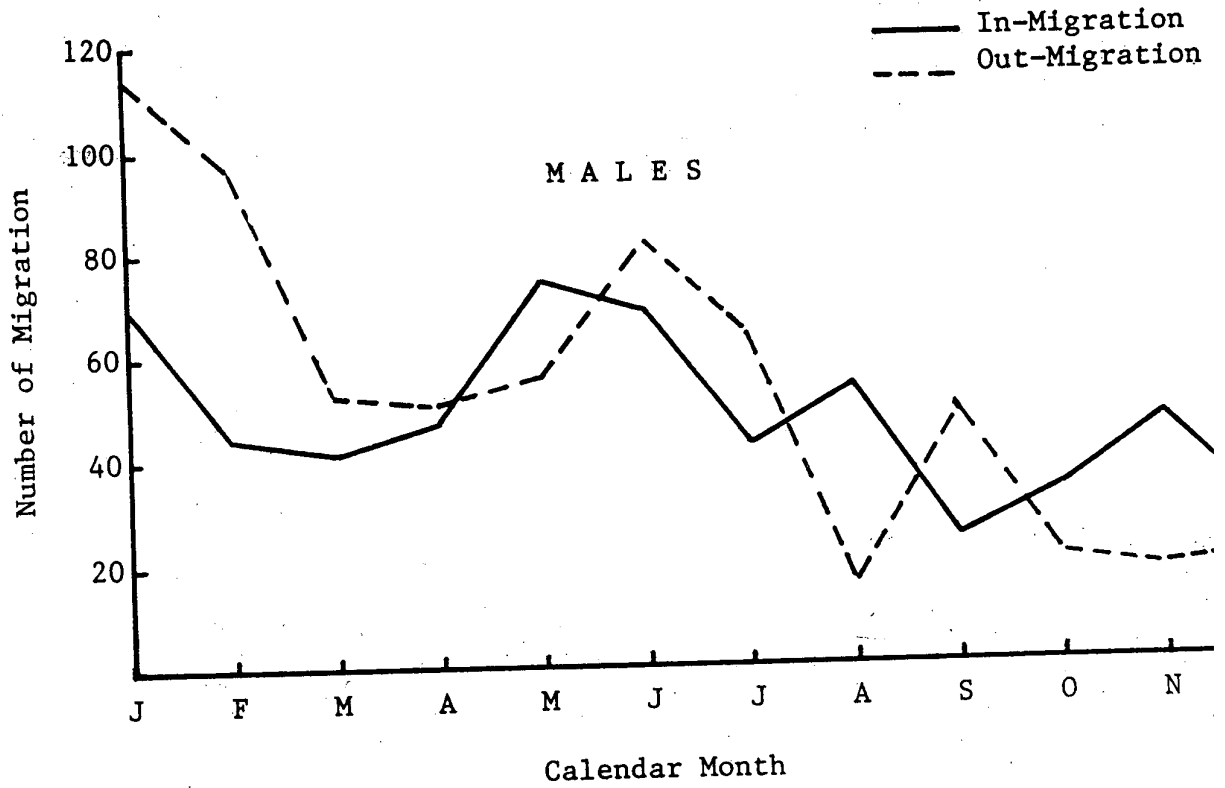


FIG. 5.2: Migration by Calendar Month, Sex and Direction,

Table 5.4: Distribution of Migration by Sex, Cause and Direction, 1982

Cause of movement	In-migration				Out-migration			
	Males		Females		Males		Females	
	No.	%	No.	%	No.	%	No.	%
All causes	569	100.0	542	100.0	635	100.0	509	100.0
Marriage	60	10.5	132	24.4	10	1.6	55	10.8
Marital disruption	-	-	30	5.5	9	1.4	43	8.5
Service & business	10	1.8	11	2.0	287	45.2	24	4.7
Better living	174	30.6	139	25.6	147	23.1	171	33.6
Returning home	169	29.7	32	5.9	16	2.5	17	3.3
Joining relatives	30	5.3	29	5.4	10	1.6	27	5.3
Dependant	107	18.8	143	26.4	144	22.7	142	27.9
Joining spouse	19	3.3	26	4.8	12	1.9	30	5.9



Table 5.5: Distribution of Migration by Sex and Places of Origin and of Destination, 1982

Location	To Teknaf from the places of origin		From Teknaf to the places of destination	
	Males No. %	Females No. %	Males No. %	Females No. %
All areas	569 100.0	542 100.0	635 100.0	509 100.0
Rural area	159 27.9	227 41.9	80 12.6	145 28.5
Urban area	124 21.8	136 25.1	70 11.0	91 17.9
Across the border*	107 18.8	149 27.5	66 10.4	73 14.3
Abroad**	179 31.5	30 5.5	417 65.7	200 39.3
Unknown	- -	- -	2 0.3	- -

\*The bordering country is Burma.

\*\*Abroad refers mainly to the oil-producing countries of the Middle-East.

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- Rahman M, Rahaman MM, Aziz KMS, Patwari Y, Munshi MH, Islam MS. The people of Teknaf: births, deaths and migration (1976-1977). Dhaka: International Centre for Diarrhoeal Disease Research, Bangladesh, 1979. 40 p. (Working paper no. 13).

Appendix: Life Table Equations  
(with usual symbols)

$$\begin{aligned}
 1. \quad n^q_x &= \frac{n^m_x}{\frac{1}{n} + n^m_x \left\{ \frac{1}{2} + \frac{n}{12} (n^m_x - \ln C) \right\}} \\
 2. \quad l_0 &= 1.0 \\
 l_x &= (1 - n^q_{x-n}) l_{x-n} \\
 3. \quad L_0 &= 0.128 l_0 + 0.872 l_1 \\
 L_1 &= 0.410 l_1 + 0.590 l_2 \\
 L_i &= 0.5 (l_i + l_{i+1}), \quad i = 2, 3, 4 \\
 n^L_x &= \frac{n^d_x}{n^m_x} \quad \text{for } 5 \leq x \leq 75 \quad \text{and } n=5 \\
 \infty^L_{80} &= \frac{l_{80}}{\infty^m_{80}} \quad \text{for the last age group 80 and above} \\
 4. \quad e^o_x &= \frac{T_x}{l_x} \quad \text{where } T_x = \sum_{y=x}^{\infty} L_y
 \end{aligned}$$

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.