

**SERIES-3
NO. 31**



SURVEY OF CAUSES OF DEATH (RURAL)

INDIA

1998

[BASED ON THE INTERNATIONAL CLASSIFICATION OF DISEASES (ICD) 10th REVISION]

ANNUAL REPORT

**OFFICE OF THE REGISTRAR GENERAL, INDIA
NEW DELHI**

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CONTENTS

	Page No.
Forword	
Chapter I INTRODUCTION	1-6
Background	
History	
Objective	
Coverage	
Receipt of monthly returns	
Implementing agencies	
Methodology	
Limitations of the survey	
List of major cause groups with ICD Codes –10 th revision	
Chapter II ANALYSIS OF DATA	7-15
Major cause – groups (as per International Classification of Diseases (ICD- 10 th Revision)	
Age & sex distribution	
Chapter III TEN TOP KILLER DISEASES IN RURAL INDIA	16-23
Chapter IV ANALYSIS OF CAUSES OF DEATH BY AGE & SEX	24-37
Infant deaths	
Child deaths (1 - 4 years)	
Child deaths (5 - 14 years)	
Maternal mortality & female deaths (15 - 44 years)	
Old age deaths (60 years & above)	
Tables – 1 to 3	38-49
Annexures	
Annexure I Implementing agencies	50
Annexure II Forms used in the survey	51-63
Annexure III List of causes of death as per International Classification of Diseases (ICD- 10 th revision)	64-72

FOREWORD

This report is the thirty first annual report on the results of the 'Survey of Causes of Death' in rural areas and relates to the year 1998. The survey was being conducted continuously in sample villages of selected Primary Health Centres (PHCs). Data collection is done using the Technique of 'lay diagnosis reporting (Post Death Verbal Autopsy)' employing paramedical personnel of primary health centres' for the fieldwork. It bridges an important gap in statistics on causes of death for rural areas. During 1998, 2,059 PHC villages were covered under the survey where 40,351 deaths were reported for which causes of death were identified.

This is the fourth report in the series starting from 1995 where the presentation and analysis of major causes of death have been attempted according to the **International Classification of Diseases (ICD 10th Revision)**. The presentation of causes of death has been done by age and sex of the deceased. The specific causes of death have been analysed on the earlier pattern and corresponding ICD codes have been provided wherever possible. Attempt has also been made to identify diseases of the old age. Besides this, as in previous years, top ten killer diseases among all deaths excluding senility have been analysed.

The responsibility of field implementation of the scheme was shouldered by the Health and Statistics Directorates of the State Governments and the success or failure of the scheme and quality of the data reflects the efforts put in by them. The Survey of Causes of Death (Rural) has been merged with Sample Registration System from 1 January 1999 to give more impetus covering both rural and urban areas and larger number of sample villages and urban blocks. The technique of cause of death reported will remain the same as 'Post Death Verbal Autopsy'. The present report has been prepared by Shri R.C. Garg, Senior Research Officer and Shri Lokeswar Das, Investigator with the assistance of the staff of the Survey of Causes of Death Unit under overall guidance of Shri R.C. Sethi, Deputy Registrar General (SRS).

February 2002
New Delhi

J.K.BANTHIA
Registrar General, India

CHAPTER - I

INTRODUCTION

1.1 Background

Mortality influences the rate of growth of the population and provides a dimension of demographic perspective, which is vital for socio-economic planning. The pattern of deaths by causes reflects the health status of the community and in turn provides a rational basis for health planning. It is not feasible to build up statistics of mortality by causes based on "Medical Certification of Causes of Death (MCCD)" due to paucity of medical institutions and physicians in rural India, where three-fourth of the country's population live. This important statistical gap has been bridged, to some extent, by 'the Survey of Causes of Death' in sample villages of selected Primary Health Centres (PHC) in rural areas.

1.2 History

1.2.1 The Office of the Registrar General, India initiated in the 1960s a scheme called "**Model Registration Scheme**" (MRS) pursuant to the recommendations made in the '**Conference on improvement of Vital Statistics**' held in 1961. The Model Registration Scheme was renamed in 1982 as "*Survey of Causes of Death (Rural) (SCD)*".

1.2.2 The Third Conference of Chief Registrars of Births and Deaths in the year 1980, considered the matter of expansion of the scheme and recommended that attempts should be made to cover two Primary Health Centres per million rural population under this survey, as per 1981 Census. During 1992, on the basis of recommendations of Technical Advisory Committee on Vital Statistics and Survey (1990-91), Survey of Causes of Death (Rural) was planned to be extended to 2,500 selected PHCs at the rate of 4 PHCs per one million rural population based on 1991 census. Following changes in basic concept and coverage were enforced with effect from 1995:

- i) A complete sub-centre 3-6 Kms away from the Head quarter of the Primary Health Centre having 5,000 population to be selected for the survey.
- ii) All the events of deaths and births relating to the "Usual residents" of the villages under the sub-centre irrespective of place of occurrence should be covered under survey.

1.3 Objective

The primary objective of the survey is to build up statistics on "Most Probable Cause of Death" for rural India, States and union territories, using "Lay diagnosis reporting (Post Death Verbal Autopsy)" method through post death enquiry based on symptoms, conditions, duration and anatomical site of the disease as reported by family members of the deceased.

1.4 Coverage

1.4.1 During 1998 the survey was conducted in 2,059 selected PHCs spread over 23 States and 3 Union territories. However, from the State of Jammu & Kashmir, no returns of causes of death were received during the year. In respect of Andhra Pradesh, Bihar and West Bengal, the returns were received only for 135, 69 and 16 units out of 200, 130 and 100 respectively. The details of 1602 responding PHCs during 1998, out of 2059 selected are given in Statement 1. The survey was not implemented in Andaman & Nicobar Islands, Chandigarh, Daman & Diu, Lakshadweep, Mizoram and Sikkim.

1.5 Receipt of monthly returns

1.5.1 State-wise details of coverage of selected PHCs, monthly returns received from the field and total number of deaths reported from the survey centres for the year 1998 with a comparison to 1997 have been presented in Statement 1. More than 95 per cent returns were sent in the States of Goa, Karnataka, Kerala, Maharashtra, Orissa, Rajasthan, Tamil Nadu, Dadra & Nagar Haveli and Pondicherry while less than 50 per cent returns were received from Meghalaya, Punjab and West Bengal. Analysis of the survey data for the year 1998 at the national level is based on the returns from 1,602 out of 2059 PHCs, which constitute 74.4 per cent of returns.

1.5.2 During 1998, a total of 40,351 deaths were reported from the survey units, as against 44,409 deaths in 1997. The number of deaths reported during 1998 were less than those in 1997 except from the States of Assam, Goa, Karnataka, Maharashtra, Manipur, Meghalaya, Nagaland, Tamil Nadu, West Bengal and Union territory of Dadra & Nagar Haveli and Pondicherry. The number of deaths reported in 1998 in other States are lower than those in 1997 mainly due to non-response from the selected PHCs in most of the States. In the State of Punjab and West Bengal the response rate in monthly returns was only around 21 and 10 per cent respectively clearly demonstrating the poor monitoring by the Director of Health Services in these two States.

Statement 1
Number of selected and responded PHCs, receipt of monthly returns,
total number of reported deaths, States/All India, 1998

Sl. No	State/UTs	No. of PHCs		Monthly returns received			Number of deaths reported	
		Selected	Responded	Number		Percentage	1997	1998
				1998	1997			
1	Andhra Pradesh	200	135	1,618	83.3	67.4	4,785	4,174
2	Arunachal Pradesh	12	12	87	97.2	60.4	81	19
3	Assam	59	49	361	98.3	51.0	507	591
4	Bihar	130	69	821	100.0	52.6	1,763	976
5	Goa	10	10	120	83.3	100.0	217	259
6	Gujarat	100	100	985	100.0	82.1	1,299	1,290
7	Haryana	50	49	500	100.0	83.3	1,162	1,028
8	Himachal Pradesh	35	34	392	100.0	93.3	729	331
9	Jammu & Kashmir	-	-	NA	NA	NA	NA	NA
10	Karnataka	100	100	1,183	100.0	98.6	1,780	1,914
11	Kerala	74	74	847	100.0	95.4	954	658
12	Madhya Pradesh	200	147	1,764	97.0	73.5	6,035	4,866
13	Maharashtra	250	250	3,000	100.0	100.0	7,616	9,568
14	Manipur	10	10	112	98.3	93.3	104	311
15	Meghalaya	10	6	50	97.6	41.7	187	305
16	Nagaland	10	8	78	92.9	65.0	118	266
17	Orissa	46	44	527	99.6	95.5	1,413	666
18	Punjab	70	15	173	98.8	20.6	1,372	365
19	Rajasthan	60	60	720	100.0	100.0	2,137	1,610
20	Tamil Nadu	150	150	1,778	100.0	98.8	5,738	3,986
21	Tripura	10	10	107	98.3	89.2	177	66
22	Uttar Pradesh	350	232	2,773	89.5	66.0	5,220	3,848
23	West Bengal	100	16	125	78.1	10.4	104	137
24	O & N Haveli	6	6	70	100.0	97.2	543	770
25	Delhi	5	4	43	100.0	71.7	118	66
26	Pondicherry	12	12	144	100.0	100.0	250	281
	INDIA	2,059	1,602	18,378	95.8	74.4	44,409	40,351

1.5.3 To highlight the progress and coverage at the national level, information for the last 10 years i.e. for the period 1989 to 1998 has been compiled and presented in Statement 2. This Statement gives a comparative picture at all India level showing the number of selected survey units, receipt of monthly returns and total number of reported deaths for the years 1989 to 1998. The fall in the average number of deaths per PHC is on account of poor receipt of monthly returns in 1998 as compared to 1997.

Statement 2
**Number of selected survey units (PHCs), receipt of monthly returns,
total reported deaths, India, 1989-1998**

Year	Selected no. of sample units	Monthly returns			Reported deaths			Average No. of deaths per PHC
		Expected	Received	Percentage	Persons	Male	Female	
1989	1,305	15,660	13,875	88.6	21,409	11,915	9,494	16
1990	1,305	15,660	13,465	86.0	21,028	11,848	9,180	16
1991	1,303	15,636	13,070	83.6	22,629	12,604	10,025	17
1992	1,305	15,660	13,668	87.3	26,118	14,745	11,373	20
1993	1,407	16,884	14,991	88.8	29,597	16,306	13,291	21
1994	1,731	20,772	20,120	96.9	36,799	20,084	16,715	21
1995	1,731	20,772	19,945	96.0	37,831	20,819	17,012	22
1996	1,883	22,596	21,110	93.4	43,168	23,903	19,265	23
1997	1,909	22,908	21,939	95.8	44,409	25,081	19,328	23
1998	2,059	24,708	18,378	74.4	40,351	22,328	18,023	20

1.6 Implementing Agencies

1.6.1 The implementing agencies for the survey at the State level are the Directorates of Health & Family Welfare and the State Bureau of Economics & Statistics. In most cases, the implementing agencies for the Survey of Causes of Deaths are the Chief Registrars of Births and Deaths under the Registration of Births and Deaths Act, 1969. The details of these are presented in Annexure I.

1.7 Methodology

1.7.1 Officials engaged in the survey and their duties

The survey is confined to the sample village of population 2000-5000 of the selected PHCs. The Medical Officer, Incharge of the PHC, Recorder (Statistical Computer), Field agent (para-medical staff - Lady Health Visitor, ANM, Sanitary Inspector, etc.) and Statistical Officer are main functionaries of the survey. The Forms used in collection and consolidation of data are presented in Annexure II. The details of work assigned to each official is given in the following paragraphs.

1.7.2 Recorder

The Recorder collects the basic information of the survey and prepares two copies of notional map of the complete sub-centre, lists the residential/non-residential houses in House listing Schedule (**Form 1**) and details of family members of the residential houses in Household Register (**Form 1A**) as part of base line survey. After six months (July/January) he updates the household register by visiting each residential house and prepares the list of deaths (**Form 2A**) and births (**Form 2B**) and updates the population of survey unit by age

and sex. After listing of all deaths and births he matches the events listed in Death Register (**Form 3**) and Birth Register (**Form 3A**). Unmatched left out events of deaths and births are to be recorded in registers. He has to prepare the half yearly check reports in **Form 5** and send them to State Headquarters within two months of the close of the half yearly survey.

1.7.3 Field agent

Field agent is the most important worker under the survey. Normally the field agent is appointed from the beat area of the selected sub-centre and he/she does the survey work during his/her normal duty/work. Field agent has to establish information system by selecting the informants (Dai, Nai, Chowkidar, Social Worker, Village Head etc.) from localities on the basis of notional map and their names are to be written on Death Register (**Form 3**) and Birth Register (**Form 3A**). During his/her normal visit to the area of sub-centre he/she collects information about deaths/births from the informants and visits the concerned households. For every death event, a combined **Form 6A+7** i.e. Symptom Record Form and Medical Officer's Check Report has to be filled and enclosed with monthly returns. Field agent prepares copies of Form 3 and 3A along with Form 6A+7 duly signed by the Medical Officer In-charge and sends them to State Headquarters within 15 days of the next month.

1.7.4 Medical Officer In-charge

Medical Officer In-charge is the technical advisor for the survey work at PHC level. He guides the field agent regarding probable cause of death, as per the manual of Non-Medical List II. He certifies the probable cause of death in the prescribed combined Form 6A+7. He appoints the field agents for the survey and ensures the smooth transfer of records in the event of change of field agents.

1.7.5 Statistical Officer

The Investigator of the Census Directorates deputed for SCD is designated as "Statistical Officer" and posted to the State implementing agency in major States to co-ordinate and assist the implementing agency for conduct of the survey effectively and ensures into the completeness of coverage of events with special reference to infant deaths and maternal deaths. Guidance and corrective instructions have to be given by him to the field staff. He is supposed to visit at least 4 PHCs in a month and submit the report in **Form 8**.

1.7.6 Monthly Statements prepared by State Headquarter in **Form 4** are to be sent to RGI within two months of the close of the reference month. The inspecting Office has to submit the field inspection report in **Form 6** to State Headquarters immediately after the inspection. The population of the selected

villages/sub-centres of the PHCs compiled by age and sex in **Form 9** are to be sent to RGI after the completion of the half yearly survey.

1.8 Limitations of the Survey

1.8.1 The probable causes of death as revealed by this survey on the basis of the post-death investigation adopting the 'Lay diagnosis Technique (Post death Verbal Autopsy)' by the para-medical staff of the primary health centre with reference to the prescribed non-medical list are just proxies for exact causes. These could have been known firmly through medical certification procedure, had the medical attention been availed of during the last illness of deceased.

1.8.2 The reliability of information on symptoms at the time of death given by the family members is based on the cooperation and coherent description on the part of respondents.

1.8.3 Recording of symptoms is undertaken by the field agent having working knowledge of symptoms of specific causes of death. The cause of death statistics given by this survey is reliable, depending upon the respondent's efficiency in describing the symptoms and conditions.

1.8.4 Number of maternal deaths netted in the survey are extremely small and as such proportion, so worked out are subject to large yearly fluctuations. Hence, reliability of the estimates cannot be established.

1.8.5 Coverage of the survey is limited only to **RURAL** areas. The urban areas being completely left out. No valid estimates can be built up from the survey either at the State or National level.

1.9 List of Major Cause Groups with ICD Codes – 10th revision

Though the analysis of the data in this report has been done according to ten major cause-groups, an attempt has been made to present the survey data on the basis of ICD Codes - 10th revision by giving corresponding old SCD Codes for better comparative study and analysis of data. List of major cause-groups with corresponding ICD Codes-10th revision are furnished in Annexure III.

CHAPTER II

ANALYSIS OF DATA

2.1 In this chapter, the data collected through the Survey of Causes of Death (Rural) according to major cause-groups has been presented as per International classification of Diseases-10th Revision. This is for the fourth year in succession that the data has been classified according to International Classification of Diseases.

2.1.1 The most useful information provided by the survey relates to the distribution of deaths according to ten **major cause-groups**. These ten major cause-groups comprise of number of specific diseases, which have associated symptoms usually observed during the advanced stage of the diseases. There are **56 specific causes grouped into the 10 major cause-groups** as per non-medical list used in the survey. The 56 specific causes have also been classified and presented according to **International Classification of Diseases structured in 19 major cause-groups**.

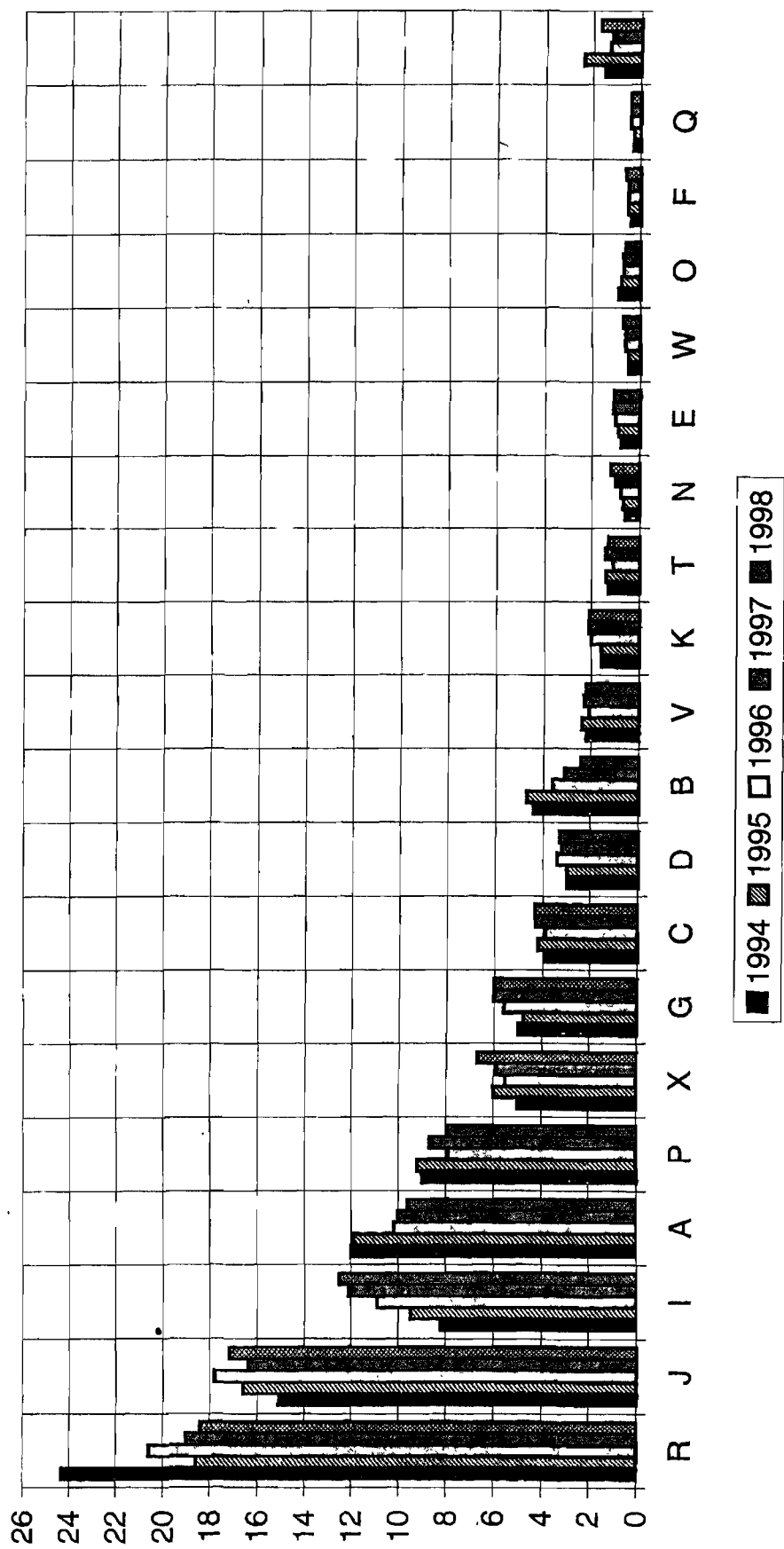
2.1.2 The percentage distribution of deaths by major cause-groups according to **International Classification of Diseases (ICD)** for the last five years has been presented in Statement 3. Graphical representation according to ICD classification is presented in Figure 1.

Statement 3

**Percentage distribution of deaths by major cause-groups, India (Rural), 1994-1998
as per International Classification of Diseases – 10th Revision)**

Sl. No.	ICD Code	Major cause of death	Per cent				
			1994	1995	1996	1997	1998
1	R	Symptoms, signs and abnormal clinical findings not else where mentioned	24.3	18.6	20.6	19.0	18.4
2	J	Diseases of the respiratory system	15.1	16.6	17.8	16.4	17.2
3	I	Diseases of circulatory system	8.2	9.5	10.9	12.1	12.5
4	A	Infectious and parasitic diseases	12.0	11.9	10.2	10.0	9.6
5	P	Conditions originating in the perinatal period	9.0	9.2	7.9	8.7	7.9
6	X	With venomous animal contact	5.0	6.0	5.5	5.9	6.7
7	G	Inflamatory diseases of central nervous system	5.0	4.8	5.6	6.0	6.0
8	C	Neoplasm	3.9	4.2	3.9	4.3	4.3
9	D	Diseases of the blood and blood forming organs	3.0	3.0	3.4	3.2	3.3
10	B	Viral infection	4.4	4.7	3.6	3.1	2.4
11	V	External causes of mortality	2.2	2.4	2.1	2.3	2.2
12	K	Diseases of the digestive system	1.6	1.6	2.0	2.1	2.1
13	T	Injuries poisoning & other consequences of external causes	1.3	1.4	1.1	1.4	1.3
14	N	Diseases of genitourinary system	0.6	0.7	0.8	1.0	1.2
15	E	Metabolic diseases	0.8	0.9	1.0	1.1	1.1
16	W	Other external causes of accidental injuries	0.5	0.5	0.6	0.6	0.7
17	O	Pregnancy, childbirth and puerperium	0.9	0.8	0.7	0.7	0.6
18	F	Mental and behavioural disorders	0.4	0.5	0.5	0.5	0.6
19	Q	Congenital malformations, deformations and abnormalities	0.3	0.3	0.4	0.4	0.4
20		Other medically certified deaths	1.5	2.4	1.3	1.2	1.7
		GRAND TOTAL	100.0	100.0	100.0	100.0	100.0

Figure - 1 : Percentage distribution of deaths by ICD major causes, 1994-98



2.1.3 To highlight their relative importance, the major cause-groups have been arranged in descending order of percentage of deaths, accounted for each of them during 1998. The major killer according to ICD classification is the cause-group **"Symptoms, signs and abnormal clinical findings not elsewhere mentioned"** which is the top killer over the years. This major cause-group is comprised of **"Acute abdomen, Jaundice, Senility & Toxaemia"**. It has shown the declining trend over the years, except during 1996 and 1997. The percentage of reported deaths during 1994 under this category is 24.3, which has come down to 18.4 during 1998 except during 1996.

2.1.4 The **"Diseases of respiratory system"** has been reported as 2nd major killer according to ICD Classification under the survey. It includes specific causes like **Influenza, Pneumonia, Bronchitis and Asthma**. These causes have shown an increasing trend from 1994 to 1996, then slight decrease in 1997 and again increased in 1998 by 0.8 point in comparison to 1997.

2.1.5 The major cause-group **"Diseases of Circulatory System"** which comprises of **Heart attack and Congestive and Other Heart Diseases** ranks as 3rd major killer and shows all along an increasing trend over the years in rural areas of India. The percentage of deaths reported during 1998 was 12.5 as against 8.2 in 1994.

2.1.6 **"Infectious & Parasitic diseases"** has been reported as the next major killer. This major cause-group comprises of **Cholera, Typhoid & Para Typhoid, Dysentery, Diarrhoea and Gastro-enteritis, T.B. of lungs, Leprosy, Tetanus, Neo-natrum and Other Tetanus, Whooping Cough, Poliomyelitis and Rabies**. This major cause-group of diseases, which accounted for over 12.0 per cent of deaths to total reported deaths in 1994 has shown a declining trend over the years.

2.1.7 The major cause-group **"Conditions Originating in the Perinatal Period"** is comprised of infant deaths due to **Prematurity, Birth Injury, Respiratory infection of new born, Diarrhoea of new born and Congenital Malformation**. This major cause-group has reported the fluctuating percentage of deaths as it varies between 7.9 to 9.2 per cent over the last five years.

2.1.8 The major cause-group **"With venomous animal contact"** which is one of the important cause-groups for the rural areas. This group consists of **Snake-bite, Scorpion bite, Exposure to excessive Heat & Cold, Victims of Natural Calamity, Intentional Self Harm (Suicide), Drowning, Assault by (Homicide)**. During 1998 such deaths were 6.7 per cent of the total reported deaths, which is the highest, compared to the percentages during the last four years.

2.1.9 The above cause group is closely followed by "**Inflammatory diseases of Central Nervous System**" consists of **Meningitis, Convulsions and Paralysis of Cerebral Apoplexy**. The percentage of reported deaths to total deaths in this category ranges between 4.8 to 5.6 per cent during 1994-96, which has marginally increased to 6.0 per cent during 1997 and 1998. Deaths due to **Paralysis** is an important cause in this major cause-group.

2.1.10 Deaths due to "**Neoplasm**", is another major cause-group showing an increasing trend over the years. The percentage in this category increased from 3.9 to 4.2 in the year 1995. This percentage declined to 3.9 during 1996 but again has shown an increase to 4.3 per cent during 1997 and 1998. This major cause-group comprises of '**Cancer**'.

2.1.11 Deaths due to major cause-group "**Diseases of the Blood and Blood forming Organs**" comprises mainly of **Anaemia** (other than pregnancy). The percentage of deaths due to this cause group has fluctuated in between 3.0 and 3.4 over the years 1994 -1998.

2.1.12 Deaths due to major cause-group "**Viral infection**" has shown a decreasing trend from 4.4 to 2.4 per cent over the years 1994-98 except a marginal increase in the year 1995.

2.1.13 Major cause-group "**External Causes of Mortality**" consists of **Vehicular Accidents** and such deaths has been reported to be slightly over 2 per cent during the period 1994-98. This major cause comprises of all Vehicular accidents according to kind and type of vehicles like Car, Truck, Cycle, etc.

2.1.14 The major cause-group "**Diseases of the digestive system**" is comprised of **Peptic or Gastric Ulcer, Obstructed Hernia and Cirrhosis & Chronic liver diseases**. The percentage of deaths due to this cause group has slightly gone up to 2.1 per cent in 1997 and 1998 as against 1.6 per cent in 1994.

2.1.15 The major cause-group "**Injuries, poisoning and other consequences of external causes**" includes deaths due to **Burns and Food poisoning** etc. Deaths due to **Burns** is one of the important specific causes in this group. The percentage of deaths due to this cause-group ranges from 1.1 per cent to 1.4 per cent over the years.

2.1.16 Deaths due to the major causes of "**Diseases of genitourinary system**" had shown a rising trend from 1994 to 1998. The percentage of deaths has increased linearly from 0.6 in 1994 to 1.2 in the year 1998.

2.1.17 The major cause group "**Metabolic diseases**" had shown a similar rising trend contributing 0.8 per cent in 1994 to 1.1 per cent deaths in the year 1998.

2.1.18 Other major cause groups "Other external causes of accidental injuries", "Pregnancy, childbirth and puerperium", "Mental and behavioural disorders" and "Congenital malformations, deformations and abnormalities" each accounted for less than 1 per cent of deaths and have shown an increasing trend from 1994 to 1998 except in the cause group "Pregnancy, childbirth and puerperium".

2.2 Age and Sex Distribution

2.2.1 Age and sex are the two important demographic variables for the study of mortality differentials. Statement 4 shows a comparative study of percentage distribution of deaths by sex and age groups for the year 1997 and 1998. Diagrammatic representation in Figure 2 elaborates such distribution of deaths by age and sex.

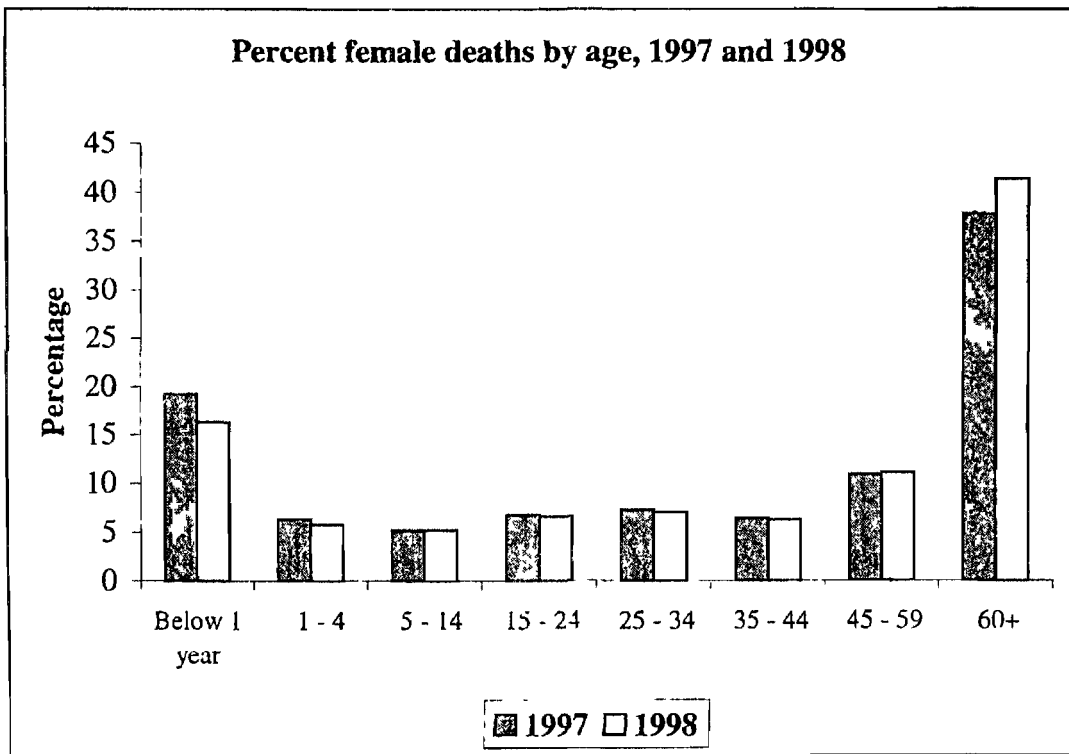
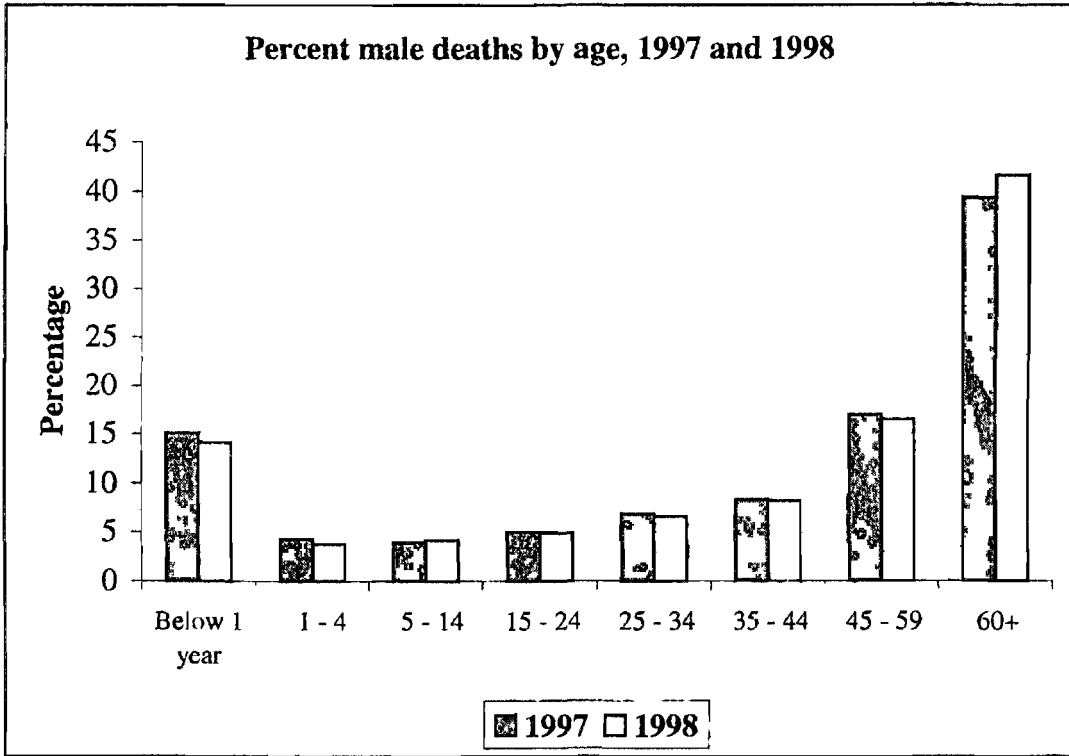
Statement 4
Distribution of reported deaths (excluding senility) with their percentages by age and sex, 1997 and 1998

Age-group in years	1997			1998		
	Male	Female	Persons	Male	Female	Persons
Below 1 year	3,231 (15.1)	3,031 (19.2)	6,262 (16.8)	2,716 (14.1)	2,409 (16.3)	5,125 (15.0)
1 - 4	915 (4.3)	1,005 (6.4)	1,920 (5.2)	741 (3.8)	856 (5.8)	1,597 (4.7)
5 - 14	867 (4.0)	822 (5.2)	1,689 (4.5)	809 (4.2)	775 (5.2)	1,584 (4.6)
15 - 24	1,080 (5.0)	1,071 (6.8)	2,151 (5.8)	951 (4.9)	980 (6.6)	1,931 (5.7)
25 - 34	1,474 (6.9)	1,155 (7.3)	2,629 (7.1)	1,279 (6.6)	1,055 (7.1)	2,334 (6.8)
35 - 44	1,777 (8.3)	1,008 (6.4)	2,785 (7.5)	1,584 (8.2)	937 (6.3)	2,521 (7.4)
45 - 59	3,641 (17.0)	1,718 (10.9)	5,359 (14.4)	3,193 (16.5)	1,641 (11.1)	4,834 (14.2)
60+	8,449 (39.4)	5,957 (37.8)	14,406 (38.7)	8,034 (41.6)	6,118 (41.4)	14,152 (41.5)
Total	21,434 (100.0)	15,767 (100.0)	37,201 (100.0)	19,307 (100.0)	14,771 (100.0)	34,078 (100.0)

Note : Figures in bracket indicate the percentages.

2.2.2 Total number of deaths excluding senility in 1998 was 34,078. It was lower by less than 1 per cent than the reported number of deaths in 1997 (37,201). This decrease in percentage of reported deaths at all India level in 1998 might be due to non-receipt of total data from the States like Meghalaya, Punjab and West Bengal. However, the total percentage of male and female deaths are almost same as were in 1997. Out of the 41.5 per cent reported deaths in the age group 60 & over during 1998, 23.6 per cent were accounted for male deaths and 18.0 per cent were that of females with an increasing trend to the corresponding percentages for male and female deaths in 1997. The percentage of reported deaths for infants (below 1 year) and child deaths (1-4 years) during 1998 was 15.0 and 4.7 per cent while in 1997, these percentages were 16.8 and 5.2 respectively, which shows the decrease in percentages in the year 1998. Sex differentials in the percentage of reported deaths in the age groups 5-14, 15-24 and 25-34, 35-44 and 45-59 both during 1997 & 1998 are not significant.

Figure 2



2.2.3 The analysis of distribution of deaths by age and sex is presented in Statement 5 for major cause-groups for the year 1998. As per **International Classification of Diseases (ICD)** it is seen that the percentage of deaths due to **Infectious and parasitic diseases (A)** in the age-groups 45-59 and 60 & over are significantly higher than other age-groups for both sexes. Deaths due to **Viral infection (B)** have mostly affected both the sexes in the children of all ages, age group 45-59 and older age groups of 60 & over while deaths due to **Neoplasm (C)** have affected both males and females in the age group of 35-44 to 60 & over.

2.2.4 **Diseases of Blood and Blood forming organs (D)** have affected lower age-groups i.e. below one year, 1-4 years, and also above the age-groups of 45-49 for both the sexes. **The Metabolic diseases (E)** have affected both male and female in the older age groups of 45-59 and above. Both in the case of male & female deaths, over three-fifth of deaths have occurred in the age group 35 years & above due to the cause-group **Mental and Behavioral disorders (F)**.

2.2.5 Inflammatory diseases of **Central Nervous System (G)** has mostly affected both the sexes in the age group of 60 & over. Similar trend has been observed in the deaths due to **Diseases of Circulatory System (I)**. Over three-fourth of total reported deaths in the category of **Diseases of Respiratory system (J)** have affected infants and old age persons of both sexes.

2.2.6 Deaths due to **Diseases of Digestive System (K)** have been reported in higher age groups of 25 years and over for both the sexes. **Diseases of Genitourinary System (N)** have affected the age groups 45-59 and above for both males and females.

2.2.7 Deaths due to "**Pregnancy, childbirth and puerperium**" relate to the females in the reproductive age group 15-49. 80.0 per cent of deaths have been reported in the age group 15-34. The deaths due to "**Conditions originating in the perinatal period**" and "**Congenital malformations deformations and abnormalities**" are related to infants of ages below one year.

2.2.8 Maximum deaths in the age group of 60 & over for both male and female are reported under the category of **symptoms, signs and abnormal clinical findings not elsewhere mentioned. Injuries, Poisoning and Other Consequences of External Causes (T)** have affected both for males and females, mostly the age groups of 15-24 and above.

2.2.9 Over three-fifth of total deaths due to **External causes of Mortality (V)** have affected both males and females in the age-groups of 15-60 and over 60 years. Deaths due to **Other External Causes of Accidental Injuries (W)** have affected the age group 45-59 and over 60 to a great extent.

2.2.10 More than three-fourth of the deaths due to **Venomous Animal Contact (X)** have occurred between the age-groups of 15-59 years and above for both males and females.

Statement 5
Percentage distribution of deaths for selected major cause-groups
by age and sex 1998

Sl. No	ICD Code	Major cause groups	Age-group (in years)									Total
			Sex	Below 1 Year	1-4	5-14	15-24	25-34	35-44	45-59	60& over	
1	A	Infectious and parasitic diseases	M	5.6	6.0	5.0	4.7	9.1	13.5	22.2	34.0	100.0
			F	7.3	11.3	9.2	6.3	9.5	11.1	13.7	31.6	100.0
2	B	Viral infection	M	13.4	14.7	12.7	6.4	7.5	7.5	11.2	26.8	100.0
			F	13.1	20.6	13.5	6.9	8.1	4.6	8.9	24.4	100.0
3	C	Neoplasm	M	0.7	1.1	2.9	3.1	6.0	10.6	29.7	46.1	100.0
			F	0.7	0.5	2.1	3.6	6.7	14.2	27.7	44.5	100.0
4	D	Diseases of blood and blood forming organs	M	12.8	10.3	4.5	1.7	3.5	4.5	13.1	49.6	100.0
			F	12.8	11.3	5.0	5.0	4.4	5.5	9.4	46.7	100.0
5	E	Metabolic diseases	M	1.2	0.8	0.4	0.8	3.3	4.9	24.4	64.2	100.0
			F	0.5	0.5	0.5	0.5	2.7	7.4	19.7	68.1	100.0
6	F	Mental and behavioral disorders	M	2.4	5.7	9.8	6.5	9.8	8.9	21.1	35.8	100.0
			F	0.0	9.5	9.5	13.3	6.7	12.4	17.1	31.4	100.0
7	G	Inflammatory disease of central nervous system	M	3.7	3.0	6.1	3.7	3.3	4.7	13.4	62.2	100.0
			F	3.4	5.0	6.1	3.0	3.7	3.0	11.2	64.5	100.0
8	I	Diseases of circulatory system	M	1.4	0.8	1.5	2.5	4.2	9.3	25.3	55.1	100.0
			F	1.8	1.9	2.1	4.7	5.3	6.1	16.2	61.9	100.0
9	J	Diseases of respiratory system	M	11.3	5.3	2.3	1.3	1.5	2.2	10.2	65.8	100.0
			F	11.7	7.4	3.2	1.2	2.1	2.1	8.0	64.2	100.0
10	K	Diseases of digestive system	M	1.4	1.8	1.8	2.5	7.6	17.0	30.5	37.4	100.0
			F	2.9	3.9	6.5	5.9	8.5	11.7	16.9	43.6	100.0
11	N	Diseases of genitourinary system	M	1.9	1.3	3.2	3.2	6.1	7.4	20.1	56.6	100.0
			F	0.0	2.5	3.8	5.7	5.1	7.6	16.6	58.6	100.0
12	O	Pregnancy child birth & puerperium	F	0.0	0.0	0.0	40.4	40.0	16.1	3.5	0.0	100.0
13	P	Conditions originating in the perinatal period	M	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
			F	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
14	Q	Congenital malformations, deformations and abnormalities	M	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
			F	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
15	R	Symptoms, signs and abnormal clinical finding not else where mentioned	M	1.0	0.8	1.6	1.1	1.6	2.3	3.6	88.1	100.0
			F	1.0	0.9	1.5	1.7	1.7	1.3	1.5	90.3	100.0
16	T	Injuries poisoning & other consequences of external causes	M	2.2	9.2	7.6	21.1	18.4	18.4	11.9	11.4	100.0
			F	1.5	3.6	7.4	27.0	31.5	10.4	8.0	10.7	100.0
17	V	External causes of mortality	M	0.6	1.7	9.0	19.7	23.7	17.0	15.5	12.8	100.0
			F	3.8	5.4	19.6	15.8	11.4	11.4	14.7	17.9	100.0
18	W	Other external causes of accidental injuries	M	1.8	5.4	10.8	7.2	13.2	10.2	19.2	32.3	100.0
			F	4.1	7.2	14.4	11.3	7.2	7.2	10.3	38.1	100.0
19	X	With venomous animal contact	M	1.4	4.5	9.0	18.3	20.3	15.2	16.1	15.2	100.0
			F	3.0	4.2	11.0	24.1	19.9	10.5	9.9	17.4	100.0
		Other medically certified deaths	M	6.0	7.6	8.1	9.4	9.6	10.7	14.3	34.4	100.0
			F	8.4	12.1	7.4	8.8	6.1	9.8	11.1	36.4	100.0

CHAPTER III

TOP TEN KILLER DISEASES IN RURAL INDIA

3.1.1 The primary aim of the survey is to highlight the **over all cause profile of deaths** prevailing in rural India. In this section, identification of top ten killer diseases resulting in death has been attempted on the basis of percentage share of deaths pertaining to the specific diseases among the reported deaths for all major causes excluding **Senility** based on ICD classification enumerated in the survey during 1998. The top ten killers accounted for 60.2 per cent of all deaths during 1998 excluding **senility** as against 60.1 per cent in 1997. The details are presented in the Statement 6.

3.1.2 The ten top killer diseases by specific cause-groups have indicated that '**Bronchitis & Asthma**' is the top killer in rural India, which accounted for 14.8 per cent of the reported deaths during 1998 as against 13.7 per cent during 1997. It is interesting to note that top ten causes of deaths have remained the same over the years 1995-98 while ranks have changed at some places due to slight increase/decrease of per cent deaths over the years. It is alarming that in rural areas '**Suicide**' is among the top ten killers during 1997 and 1998 occupying IX position. Among these top ten killers, '**Bronchitis & Asthma**' 14.8 per cent, '**Heart attack**' 10.5 per cent, '**T.B. of lungs**' 5.8 per cent, '**Paralysis of cerebral apoplexy**' 5.4 per cent and '**Prematurity**' 5.2 per cent are the top 5 killers during 1998 followed by '**Cancer**' 5.0 per cent, '**Anaemia**' 3.9 per cent, '**Pneumonia**' 3.8 per cent, '**Suicide**' 3.2 per cent and '**Vehicular accidents**' 2.6 per cent.

Statement 6
Ten Top Killer Diseases in rural India (Excluding Senility) 1997 - 1998
(Percentage distribution of specific causes to the total deaths)

Rank of ten top killers	1997			1998		
	ICD Code	Specific causes of death	Percentage	ICD Code	Specific causes of death	Percentage
I	J20 & J45	Bronch. & asthma	13.7	J20 & J45	Bronch. & asthma	14.8
II	I 21-25	Heart attack	10.6	I 21-25	Heart attack	10.5
III	A 15	T.B. of lungs	6.2	A 15	T.B. of lungs	5.8
IV	G 80-83	Paralysis of cerebral apoplexy	5.4	G 80-83	Paralysis of cerebral apoplexy	5.4
V	P 07	Prematurity	5.0	P 07	Prematurity	5.2
VI	C 00-97	Cancer	5.2	C 00-97	Cancer	5.0
VII	D 50-64	Anaemia	3.8	D 50-64	Anaemia	3.9
VIII	J 18	Pneumonia	4.4	J 18	Pneumonia	3.8
IX	X 60-84	Intentional self harm (Suicide)	3.1	X 60-84	Intentional self harm (Suicide)	3.2
X	V 01-99	Vehicular accidents	2.7	V 01-99	Vehicular accidents	2.6

3.1.3 The analysis of top ten killer diseases by age groups is one of the important aspects of the cause-profile. Age-wise per cent deaths to total deaths by top ten killers is presented in Statement 7. It may be observed from the Statement that **Bronchitis & Asthma, Heart Attack, Paralysis** have affected the higher age group i.e. over 45 years. **T.B. of lungs** have affected the age groups 25-34 and above and **Cancer** has affected the age group 35-44 and over. **Pneumonia** has affected mostly in lower age groups i.e. below 5 years and **Anaemia** has affected in lower as well as higher age groups i.e. below 5 years and above 45 years. The spatial distribution of top ten killer diseases in the States is another concern of the survey. These are not having same phenomenon in all the States or at national level, which is analysed in the following paragraphs.

Statement 7
Age-wise per cent deaths to total deaths of top ten killers
in rural India - 1998

ICD Code	Ten top killers	Age-groups								Total reported deaths
		0-1	1-4	5-14	15-24	25-34	35-44	45-59	60& over	
J 20&45	Bronchitis & asthma	0.8	0.8	0.7	0.8	1.2	2.1	10.7	82.9	5,055
I 21-25	Heart attack	0.1	0.2	0.8	1.9	3.4	7.9	25.1	60.7	3,577
A 15	Tuberculosis of lungs	0.6	1.2	1.8	6.2	13.1	18.5	26.2	32.4	1,987
G 41	Paralysis of cerebral apoplexy	0.1	0.4	1.4	1.1	1.9	3.6	13.5	77.9	1,828
P 07	Prematurity	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,762
C 00-97	Cancer	0.7	0.8	2.5	3.3	6.3	12.3	28.8	45.3	1,718
D 50-64	Anaemia	12.8	10.8	4.8	3.5	4.0	5.1	11.1	48.0	1,321
J 18	Pneumonia	54.0	23.7	7.6	2.0	1.2	1.4	2.5	7.6	1,282
X 60-84	Intentional self harm (Suicide)	0.0	0.0	2.5	28.8	26.8	16.3	14.2	11.4	1,107
V 1-99	Vehicular accidents	1.3	2.5	11.2	18.9	21.1	15.8	15.3	13.9	873

3.1.4 Statement 8 reveals that **Bronchitis & Asthma** which has been reported at 1st rank among the top ten killers of the rural population of India accounts for 5055 deaths in 1998 as against 5094 deaths during 1997. Such deaths have occurred mostly after 45 years of age, which constitutes about 94.0 per cent of total deaths. Deaths due to Bronchitis & Asthma had been reported from all the States & UTs. The percentage of deaths in the States of Gujarat, Haryana, Karnataka, and Maharashtra, is higher than the national level of 14.8 per cent while Tamil Nadu has contributed the lowest at 1.1 per cent deaths under this category.

Statement 8
Age-wise per cent deaths to the total reported deaths
(excluding senility) under "Bronchitis & Asthma" States/All India – 1998

India/States	Reported deaths	Percentage of total deaths	Age - groups							
			0-1	1-4	5-14	15-24	25-34	35-44	45-59	60& over
INDIA	5,055	14.8	0.8	0.8	0.7	0.8	1.2	2.1	10.7	82.9
Andhra pradesh	348	10.5	2.0	0.0	0.3	2.0	2.3	4.3	12.6	76.4
Bihar	38	6.6	0.0	2.6	2.6	5.3	0.0	10.5	26.3	52.6
Gujarat	168	15.7	1.2	0.6	1.8	3.0	0.6	0.6	15.5	76.8
Haryana	172	22.6	1.2	0.0	0.0	0.0	1.7	1.7	12.2	83.1
Karnataka	301	20.4	0.0	0.3	0.3	2.0	0.7	2.3	20.9	73.4
Kerala	84	14.3	0.0	0.0	0.0	1.2	2.4	0.0	9.5	86.9
Madhya pradesh	477	11.7	0.2	0.4	0.8	0.4	1.3	2.3	17.2	77.4
Maharashtra	2,633	27.7	0.4	0.5	0.2	0.2	0.9	1.3	6.2	90.4
Orissa	56	9.0	1.8	5.4	8.9	0.0	1.8	1.8	16.1	64.3
Punjab	16	5.8	0.0	6.3	0.0	6.3	0.0	0.0	0.0	87.5
Rajasthan	169	14.3	0.6	2.4	0.0	0.6	2.4	3.0	19.5	71.6
Tamil Nadu	54	1.1	3.7	9.3	1.9	0.0	0.0	1.9	14.8	68.5
Uttar Pradesh	301	10.7	1.7	0.3	1.7	1.3	0.7	5.3	15.0	74.1

3.1.5 **Heart attack** ranks 2nd among the top ten killers of rural India and the data is presented in Statement 9. During 1998, 3,577 deaths have been reported as against 3,930 in 1997. The percentage of deaths due to "Heart Attack" are considerably higher than national level in the States of Andhra Pradesh (13.4) Kerala (21.6), Punjab (31.7) and Tamil Nadu (16.7). These are the lowest in Uttar pradesh (3.4) followed by Madhya pradesh (5.8) and Haryana (6.0) and Rajasthan (6.7). All such deaths are concentrated mostly in the age group of 35 years and above as revealed through the age-wise analysis.

Statement 9
Age-wise per cent deaths to the total reported deaths
(Excluding senility) under "Heart attack" States/All India – 1998

India/States	Reported deaths	Percentage of total deaths	Age - groups							
			0-1	1-4	5-14	15-24	25-34	35-44	45-59	60& over
INDIA	3,577	10.5	0.1	0.2	0.8	1.9	3.4	7.9	25.1	60.7
Andhra pradesh	443	13.4	0.2	0.0	0.5	3.8	4.3	10.2	29.6	51.5
Bihar	47	8.1	0.0	0.0	2.1	6.4	0.0	10.6	12.8	68.1
Gujarat	127	11.8	0.0	0.0	0.8	3.1	4.7	7.9	26.0	57.5
Haryana	46	6.0	0.0	2.2	0.0	17.4	10.9	10.9	19.6	39.1
Karnataka	138	9.3	0.0	0.0	0.0	5.8	3.6	13.8	34.1	42.8
Kerala	127	21.6	0.0	0.0	0.0	0.8	2.4	7.9	15.7	73.2
Madhya pradesh	238	5.8	0.0	1.3	3.4	4.6	8.0	10.9	26.1	45.8
Maharashtra	1,041	10.9	0.0	0.0	0.0	0.0	0.7	3.6	21.3	74.4
Orissa	65	10.5	0.0	0.0	3.1	0.0	3.1	12.3	23.1	58.5
Punjab	88	31.7	0.0	0.0	0.0	9.1	8.0	13.6	21.6	47.7
Rajasthan	79	6.7	1.3	1.3	2.5	0.0	2.5	11.4	25.3	55.7
Tamil Nadu	839	16.7	0.0	0.0	0.7	0.1	2.6	8.2	27.9	60.4
Uttar Pradesh	94	3.4	2.1	0.0	3.2	5.3	8.5	13.8	24.5	42.6

3.1.6 **T.B. of lungs** is reported at the **3rd rank** under the survey. As represented in Statement - 10, 1987 deaths have been reported during 1998 as against 2317 deaths in 1997. Higher percentages than the national level have been reported from Bihar, Gujarat, Karnataka, Madhya Pradesh, Rajasthan and Uttar Pradesh. Such deaths are mainly concentrated in the age group of 25 years and above. In Kerala the percentage of deaths (1.7) in this category is the lowest and these are in the age group 35 years and above.

Statement 10
Age-wise percent deaths to the total reported deaths(excluding senility)
under "T.B. of lungs" States/All India – 1998

India/States	Reported deaths	Percentage of total deaths	Age - groups							
			0-1	1-4	5-14	15-24	25-34	35-44	45-59	60& over
INDIA	1,987	5.8	0.6	1.2	1.8	6.2	13.1	18.5	26.2	32.4
Andhra pradesh	183	5.5	0.0	0.0	1.6	4.4	13.1	16.9	24.0	39.9
Bihar	45	7.8	0.0	2.2	2.2	8.9	8.9	26.7	33.3	17.8
Gujarat	119	11.1	0.8	0.0	1.7	9.2	11.8	15.1	33.6	27.7
Haryana	42	5.5	0.0	0.0	0.0	4.8	14.3	16.7	33.3	31.0
Karnataka	96	6.5	0.0	2.1	4.2	7.3	19.8	17.7	24.0	25.0
Kerala	10	1.7	0.0	0.0	0.0	0.0	0.0	10.0	40.0	50.0
Madhya pradesh	339	8.3	0.6	2.1	2.9	6.5	12.7	20.6	24.2	30.4
Maharashtra	415	4.4	0.0	1.2	1.2	7.2	14.2	18.3	26.7	31.1
Orissa	30	4.8	0.0	0.0	0.0	3.3	23.3	26.7	23.3	23.3
Punjab	7	2.5	0.0	0.0	14.3	0.0	14.3	42.9	28.6	0.0
Rajasthan	130	11.0	1.5	1.5	1.5	7.7	19.2	16.2	20.8	31.5
Tamil Nadu	203	4.0	1.0	0.5	0.5	4.9	5.9	20.2	30.0	36.9
Uttar Pradesh	233	8.3	0.9	2.6	1.3	5.6	15.5	18.0	19.7	36.5

3.1.7 Deaths due to **Paralysis of Cerebral apoplexy** have **4th rank** under the survey and 1828 deaths have been reported during 1998 as against 2014 in 1997. The per cent deaths to total deaths in the States of Andhra Pradesh, Karnataka, Kerala, Orissa and Tamil Nadu are higher than all India. Such deaths are mainly concentrated in the age group of 45-59 and over. Uttar Pradesh has resulted at the lowest (1.7 per cent) under this cause.

Statement 11
Age-wise per cent deaths to the total reported deaths(Excluding senility)
under "Paralysis of Cerebral apoplexy " States/All India - 1998

India/States	Reported deaths	Percentage of total deaths	Age - groups							
			0-1	1-4	5-14	15-24	25-34	35-44	45-59	60& over
INDIA	1,628	5.4	0.1	0.4	1.4	1.1	1.9	3.6	13.5	77.9
Andhra Pradesh	293	8.8	0.3	0.3	0.7	1.4	0.7	3.4	15.4	77.8
Bihar	16	2.8	0.0	6.3	0.0	0.0	6.3	0.0	18.8	68.8
Gujarat	34	3.2	0.0	0.0	2.9	0.0	2.9	0.0	5.9	88.2
Haryana	23	3.0	0.0	0.0	8.7	0.0	4.3	4.3	4.3	78.3
Karnataka	108	7.3	0.0	0.0	0.0	0.0	2.8	5.6	15.7	75.9
Kerala	72	12.3	0.0	0.0	0.0	0.0	0.0	0.0	4.2	95.8
Madhya Pradesh	200	4.9	0.0	1.5	1.0	1.0	5.0	6.5	17.0	68.0
Maharashtra	476	5.0	0.2	0.2	1.5	1.3	0.8	3.8	12.0	80.3
Orissa	52	8.4	0.0	0.0	0.0	1.9	1.9	5.8	34.6	55.8
Punjab	13	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Rajasthan	40	3.4	0.0	2.5	2.5	0.0	2.5	7.5	12.5	72.5
Tamil Nadu	373	7.4	0.0	0.0	1.3	1.1	1.9	2.7	12.1	81.0
Uttar Pradesh	49	1.7	0.0	0.0	8.2	4.1	4.1	0.0	12.2	71.4

3.1.8 During 1998, 1718 deaths have been reported due to Cancer which occupies the 6th rank among top ten killer diseases. Deaths due to cancer are more predominant in the States of Andhra Pradesh, Gujarat, Haryana, Karnataka, Kerala and Punjab while Orissa is at the lowest being 1.8 per cent. Such deaths are mainly concentrated in the age group of 35-44 years and above.

Statement 12
Age-wise percent deaths to the total reported deaths(excluding senility)
under "Cancer"States/All India - 1998

India/States	Reported deaths	Percentage of total deaths	Age - groups							
			0-1	1-4	5-14	15-24	25-34	35-44	45-59	60& over
INDIA	1,718	5.0	0.7	0.8	2.5	3.3	6.3	12.3	28.8	45.3
Andhra Pradesh	199	6.0	0.0	0.0	1.5	2.5	7.5	14.1	23.6	50.8
Bihar	14	2.4	0.0	0.0	0.0	28.6	7.1	14.3	28.6	21.4
Gujarat	77	7.2	0.0	2.6	2.6	1.3	7.8	13.0	29.9	42.9
Haryana	50	6.6	4.0	0.0	0.0	2.0	8.0	20.0	34.0	32.0
Karnataka	129	8.7	0.0	0.8	2.3	1.6	2.3	14.7	32.6	45.7
Kerala	88	15.0	1.1	0.0	1.1	4.5	1.1	3.4	20.5	68.2
Madhya Pradesh	132	3.2	0.8	2.3	3.0	5.3	8.3	12.9	25.0	42.4
Maharashtra	437	4.6	0.0	0.7	3.4	2.1	6.2	10.8	26.8	50.1
Orissa	11	1.8	0.0	0.0	9.1	0.0	9.1	9.1	45.5	27.3
Punjab	15	5.4	6.7	0.0	6.7	0.0	6.7	13.3	6.7	60.0
Rajasthan	53	4.5	3.8	1.9	5.7	5.7	7.5	9.4	24.5	41.5
Tamil Nadu	216	4.3	0.5	0.5	2.3	2.8	5.1	14.8	35.6	38.4
Uttar Pradesh	98	3.5	4.1	2.0	5.1	5.1	9.2	7.1	30.6	36.7

3.1.9 **Anaemia** has ranked at 7th position among the top ten killer diseases netted through the survey. During 1998, 1321 deaths were reported as against 1419 in 1997. Such deaths have been reported comparatively in higher percentages in Bihar (17.3), Orissa (6.6), Madhya Pradesh (5.7), Rajasthan (5.0), Uttar Pradesh (4.3), and Karnataka (4.2), than the national level. The percentage of deaths due to Cancer is lowest in Kerala (0.3) followed by Punjab (0.7).

Statement 13
Age-wise percent deaths to the total reported deaths(excluding senility)
under "Anaemia" States/All India – 1998

India/States	Reported deaths	Percentage of total deaths	Age - groups							
			0-1	1-4	5-14	15-24	25-34	35-44	45-59	60& over
INDIA	1,321	3.9	12.8	10.8	4.8	3.5	4.0	5.1	11.1	48.0
Andhra pradesh	88	2.7	6.8	5.7	3.4	3.4	6.8	6.8	17.0	50.0
Bihar	100	17.3	12.0	9.0	6.0	5.0	7.0	10.0	27.0	24.0
Gujarat	28	2.6	14.3	25.0	10.7	3.6	0.0	3.6	14.3	28.6
Haryana	14	1.8	64.3	14.3	0.0	7.1	0.0	0.0	0.0	14.3
Karnataka	62	4.2	0.0	16.1	3.2	3.2	3.2	3.2	16.1	54.8
Kerala	2	0.3	0.0	0.0	0.0	50.0	0.0	0.0	0.0	50.0
Madhya pradesh	232	5.7	22.0	17.7	6.9	3.4	3.9	4.7	6.9	34.5
Maharashtra	313	3.3	1.3	6.1	4.2	2.9	3.5	2.9	5.4	73.8
Orissa	41	6.6	9.8	14.6	7.3	7.3	2.4	4.9	19.5	34.1
Punjab	2	0.7	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rajasthan	59	5.0	54.2	23.7	3.4	3.4	0.0	0.0	0.0	15.3
Tamil Nadu	178	3.5	1.7	2.2	0.6	2.8	2.2	4.5	18.0	68.0
Uttar Pradesh	121	4.3	30.6	13.2	5.0	5.0	6.6	9.1	7.4	23.1

3.1.10 **Pneumonia** occupies the 8th rank among the top ten killer diseases under survey. During 1998, 1282 deaths have been reported as against 1642 deaths in 1997. Higher percentages of such deaths than the all India level have been reported from Bihar Haryana, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh while lowest percentage of deaths have been reported in Tamil Nadu. Deaths due to Pneumonia are mostly concentrated in the lower age groups i.e. below 14 years and over 60 in most of the States.

Statement 14
Age-wise percent deaths to the total reported deaths(excluding senility)
under "Pneumonia" States/All India – 1998

India/States	Reported deaths	Percentage of total deaths	Age - groups							
			0-1	1-4	5-14	15-24	25-34	35-44	45-59	60& over
INDIA	1,282	3.8	54.0	23.7	7.6	2.0	1.2	1.4	2.5	7.6
Andhra pradesh	48	1.4	22.9	8.3	10.4	8.3	2.1	2.1	6.3	39.6
Bihar	41	7.1	58.5	22.0	12.2	0.0	0.0	4.9	2.4	0.0
Gujarat	27	2.5	25.9	3.7	7.4	3.7	0.0	0.0	14.8	44.4
Haryana	56	7.4	67.9	23.2	0.0	5.4	0.0	0.0	1.8	1.8
Karnataka	21	1.4	0.0	52.4	23.8	9.5	0.0	0.0	9.5	4.8
Kerala	9	1.5	22.2	0.0	11.1	11.1	0.0	0.0	33.3	22.2
Madhya pradesh	290	7.1	64.5	26.6	5.9	1.0	0.0	1.0	0.0	1.0
Maharashtra	267	2.8	49.1	25.5	8.6	1.1	1.1	1.9	2.6	10.1
Orissa	27	4.3	29.6	25.9	7.4	0.0	11.1	3.7	3.7	18.5
Punjab	6	2.2	0.0	16.7	0.0	0.0	0.0	0.0	0.0	83.3
Rajasthan	126	10.7	61.9	28.6	4.0	1.6	0.8	1.6	0.8	0.8
Tamil Nadu	24	0.5	50.0	12.5	4.2	0.0	8.3	0.0	4.2	20.8
Uttar Pradesh	268	9.6	60.4	23.9	7.1	1.1	1.5	0.4	1.5	4.1

3.1.11 'Intentional self harm' (Suicide) deaths were first reported among the top ten killers of rural population in 1995. During 1998 also, 1107 intentional self-harm deaths have been reported under the survey, which occupy 9th position among the top ten killers. Among the States, Tamil Nadu (8.4) has reported the highest percentage of suicidal deaths followed by Kerala (7.7) while no deaths have been reported due to suicide in Bihar. Age-wise percentages vary from State to State, however, over half of the suicidal death are concentrated in the age groups 15-34.

Statement 15
Age-wise percent deaths to the total reported deaths(excluding senility)
under "Intentional self harm" (Suicide) States/All India – 1998

India/States	Reported deaths	Percentage of total deaths	Age - groups							
			0-1	1-4	5-14	15-24	25-34	35-44	45-59	60& over
INDIA	1,107	3.2	0.0	0.0	2.5	28.8	26.8	16.3	14.2	11.4
Andhra pradesh	150	4.5	0.0	0.0	4.0	27.3	28.7	17.3	11.3	11.3
Bihar	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gujarat	23	2.1	0.0	0.0	4.3	39.1	30.4	13.0	13.0	0.0
Haryana	36	4.7	0.0	0.0	5.6	30.6	27.8	16.7	11.1	8.3
Karnataka	52	3.5	0.0	0.0	3.8	34.6	26.9	19.2	9.6	5.8
Kerala	45	7.7	0.0	0.0	0.0	17.8	24.4	20.0	15.6	22.2
Madhya pradesh	81	2.0	0.0	0.0	6.2	30.9	23.5	16.0	14.8	8.6
Maharashtra	112	1.2	0.0	0.0	1.8	31.3	25.0	17.9	17.0	7.1
Orissa	25	4.0	0.0	0.0	0.0	36.0	36.0	16.0	4.0	8.0
Punjab	11	4.0	0.0	0.0	0.0	45.5	18.2	18.2	9.1	9.1
Rajasthan	26	2.2	0.0	0.0	3.8	38.5	23.1	19.2	11.5	3.8
Tamil Nadu	423	8.4	0.0	0.0	1.2	25.8	27.7	16.1	15.6	13.7
Uttar Pradesh	51	1.8	0.0	0.0	5.9	31.4	33.3	11.8	11.8	5.9

3.1.12 **Vehicular Accidents** is ranked 10th and has accounted for 2.6 per cent of total deaths at all India level during 1998. The percentages of such deaths in the States of Bihar, Haryana, Madhya Pradesh, Punjab, Rajasthan, Tamil Nadu and Uttar Pradesh are higher than the all India level (2.6 per cent) while Orissa (1.0 per cent) has reported the lowest. Deaths due to Vehicular accidents are more or less evenly distributed in the age groups of 5-14 to 60 & over.

Statement 16
Percentage of deaths to the reported total deaths (excluding senility)
under "Vehicular accidents" States/All India - 1998

India /States	Reported deaths	Percentage of total deaths	Age - groups							
			0-1	1-4	5-14	15-24	25-34	35-44	45-59	60& over
INDIA	873	2.6	1.3	2.5	11.2	18.9	21.1	15.8	15.3	13.9
Andhra pradesh	56	1.7	0.0	5.4	7.1	10.7	23.2	7.1	25.0	21.4
Bihar	16	2.8	0.0	0.0	6.3	18.8	31.3	25.0	12.5	6.3
Gujarat	27	2.5	0.0	3.7	11.1	25.9	33.3	7.4	3.7	14.8
Haryana	33	4.3	0.0	3.0	12.1	15.2	30.3	15.2	18.2	6.1
Karnataka	33	2.2	0.0	3.0	18.2	18.2	30.3	18.2	9.1	3.0
Kerala	14	2.4	0.0	0.0	0.0	14.3	14.3	21.4	21.4	28.6
Madhya pradesh	64	1.6	1.6	0.0	12.5	18.8	21.9	20.3	9.4	15.6
Maharashtra	261	2.7	1.1	3.1	9.6	19.5	21.5	17.2	13.8	14.2
Orissa	6	1.0	0.0	0.0	0.0	16.7	16.7	16.7	16.7	33.3
Punjab	17	6.1	0.0	0.0	11.8	23.5	11.8	11.8	29.4	11.8
Rajasthan	56	4.7	0.0	1.8	17.9	33.9	14.3	16.1	10.7	5.4
Tamil Nadu	144	2.9	4.2	2.1	9.7	18.1	16.0	13.9	18.8	17.4
Uttar Pradesh	78	2.8	0.0	3.8	17.9	11.5	20.5	12.8	21.8	11.5

CHAPTER IV

ANALYSIS OF CAUSES OF DEATH BY AGE & SEX

In this chapter, an attempt has been made to analyse the causes of death of infants and child deaths in the age-group (1-4) and (5-14) years, maternal mortality and female deaths in the reproductive age-group (15-44) years and old age deaths of persons aged 60 & over according to International classification of diseases, 10th revision.

4.1 INFANT DEATHS (BELOW ONE YEAR)

4.1.1 **Infant mortality** is often considered as an index of the State of public health and hygiene, environmental sanitation, cultural and socio-economic development. Important gains have been made in reducing mortality in infancy and early childhood, but even in most advanced countries, the risk of death immediately after birth and in subsequent months remains higher than in all-later years before the onset of young age. **Infancy** is subject to great risks from infectious and respiratory diseases especially in rural environment without adequate medical care.

4.1.2 All infant deaths by major cause-groups reported under the survey for the year 1998 have been compiled along with corresponding data for 1997 and presented in Statement 17. It may be seen from the Statement that 62.5 per cent of infant deaths in 1998 occurred due to major cause group "**Conditions originating in the perinatal period**" followed by "**Diseases of the respiratory system**" which accounted 15.5 per cent. Deaths due to "**Infectious and parasitic diseases**" accounted 4.8 per cent of total infant deaths. The major cause-groups like "**Congenital malformations, deformation & abnormalities**", "**Diseases of the blood and blood forming organs**" and "**Viral infection**" accounted for around 2.5 to 3.5 per cent of total infant deaths while the deaths due to other cause groups like "**Inflammatory diseases of central nervous systems**", "**Diseases of circulatory system**", "**Symptoms, signs and abnormal clinical findings not elsewhere mentioned**" and "**With venomous animal contact**" contributed around 1 to 2 per cent. Infant deaths due to each of the remaining major causes contributed below 1 per cent. †

Statement 17
Percentage distribution of infant deaths by major cause-groups 1997-1998

ICD Code	Major cause of death	Year	Number			Percentages		
			M	F	P	M	F	P
P	Conditions originating in the perinatal period	1998	1,688	1,516	3,204	62.2	62.9	62.5
		1997	1,985	1,876	3,861	61.4	61.9	61.7
J	Diseases of the respiratory system	1998	438	357	795	16.1	14.8	15.5
		1997	534	513	1,047	16.5	16.9	16.7
A	Infectious and parasitic diseases	1998	130	114	244	4.8	4.7	4.8
		1997	180	159	339	5.6	5.2	5.4
Q	Congenital malformations, deformations & abnormalities	1998	112	66	178	4.1	2.7	3.5
		1997	98	96	194	3.0	3.2	3.1
D	Diseases of the blood and blood forming organs	1998	76	93	169	2.8	3.9	3.3
		1997	91	90	181	2.8	3.0	2.9
B	Viral infection	1998	61	66	127	2.2	2.7	2.5
		1997	78	83	161	2.4	2.7	2.6
G	Inflammatory diseases of central nervous systems	1998	50	36	86	1.8	1.5	1.7
		1997	63	42	105	1.9	1.4	1.7
I	Diseases of circulatory system	1998	42	35	77	1.5	1.5	1.5
		1997	41	44	85	1.3	1.5	1.4
R	Symptoms, signs and abnormal clinical findings not elsewhere mentioned	1998	35	39	74	1.3	1.6	1.4
		1997	79	54	133	2.4	1.8	2.1
X	With venomous animal contact	1998	24	30	54	0.9	1.2	1.1
		1997	27	18	45	0.8	0.6	0.7
K	Diseases of the digestive system	1998	8	9	17	0.3	0.4	0.3
		1997	13	11	24	0.4	0.4	0.4
C	Neoplasm	1998	6	6	12	0.2	0.2	0.2
		1997	3	4	7	0.1	0.1	0.1
V	External causes of mortality	1998	4	7	11	0.1	0.3	0.2
		1997	2	3	5	0.1	0.1	0.1
T	Injuries poisoning & other consequences of external causes	1998	4	5	9	0.1	0.2	0.2
		1997	10	7	17	0.3	0.2	0.3
W	Other external causes of accidental injuries	1998	3	4	7	0.1	0.2	0.1
		1997	8	4	12	0.2	0.1	0.2
N	Diseases of genitourinary system	1998	6	0	6	0.2	0.0	0.1
		1997	6	1	7	0.2	0.0	0.1
E	Metabolic diseases	1998	3	1	4	0.1	0.0	0.1
		1997	1	6	7	0.0	0.2	0.1
F	Mental and behavioural disorders	1998	3	0	3	0.1	0.0	0.1
		1997	0	1	1	0.0	0.0	0.0
	Other medically certified deaths	1998	23	25	48	0.8	1.0	0.9
		1997	12	19	31	0.4	0.6	0.5
TOTAL INFANT DEATHS		1998	2,716	2,409	5,125	100.0	100.0	100.0
		1997	3,231	3,031	6,262	100.0	100.0	100.0

Top ten killer diseases of infant deaths

4.1.3 Like 1997, "**Prematurity**" dominated in the year 1998 among the top ten killer diseases of infants accounting 34.4 per cent deaths of the total reported 73.7 per cent deaths due to ten specific cause-groups as shown in Statement 18. Among the 13 selected States, "**Prematurity**" remained the top killer except in the States of Bihar and Haryana where "**Pneumonia**" was the top killer disease while in Tamil Nadu, "**Respiratory infection of new born**" emerged as the top

killer among infants. In respect of "**congenital malformation**" which ranked fourth at national level, Kerala has shown the highest rank. "**Anaemia**" which ranked as fifth at national level Bihar and Punjab followed by Rajasthan has shown higher ranks. Andhra Pradesh, Bihar, Haryana, Punjab, Madhya Pradesh, Tamil Nadu and Uttar Pradesh showed higher percentage of deaths than national level of 2.4 per cent in respect of disease "**Diarrhoea of new born**" which ranked as sixth major killer at national level. Other top killers of infants at the national level are "**Birth injury**", "**Tetanus new-natorum**", "**Diarrhoea & Gastroenteritis**" and "**Convulsions**" which accounted for 2.0, 1.3, 1.1 and 0.9 per cent deaths respectively.

Statement 18
Percentage distribution of ten top killer diseases of infants (Below one year)
in rural India, 1997-1998.

Sl. No.	India /States	Year	Prematurity	Pneumonia	Respiratory infection of new born	Congenital malformaion	Anaemia	Diarrhoea of new born	Birth injury	Tetanus neonatorum	Diarrhoea & gastroenteritis	Convulsions	Total	
			Rank	I	II	III	IV	V	VI	VII	VIII	IX		X
			ICD Codes	P 07	J 18	P 22	Q 00- 99	D 50- 64	P 75-78	P 10- 15	A 33	A 09		G 40
1	INDIA	1998	34.4	13.5	11.5	3.5	3.3	2.4	2.0	1.3	1.1	0.9	73.7	
		1997	29.9	14.5	11.0	3.1	2.9	2.9	1.9	1.6	0.8	0.9	69.6	
1	Andhra Pradesh	1998	21.0	3.2	14.9	2.3	1.7	4.4	2.6	2.9	0.6	2.0	55.7	
		1997	21.7	1.7	26.4	3.2	0.0	4.7	1.2	1.0	0.2	1.7	61.9	
2	Bihar	1998	23.2	29.3	9.8	3.7	14.6	3.7	2.4	0.0	0.0	0.0	86.6	
		1997	16.2	30.2	2.8	2.8	6.7	7.8	1.7	1.7	1.1	0.0	71.0	
3	Gujarat	1998	29.2	4.5	5.8	10.4	2.6	0.6	0.0	0.0	0.6	1.9	55.8	
		1997	36.7	6.5	5.9	7.1	1.2	1.2	1.8	0.0	1.8	0.6	62.8	
4	Haryana	1998	13.7	24.8	2.0	2.6	5.9	3.3	0.7	5.2	0.7	0.0	58.8	
		1997	27.5	22.2	4.8	5.8	4.8	1.0	0.0	1.4	1.0	0.0	68.5	
5	Karnataka	1998	39.5	0.0	15.6	4.2	0.0	1.8	1.2	1.8	0.0	0.0	64.1	
		1997	42.4	0.0	18.7	4.0	0.0	4.0	3.0	2.5	0.0	0.0	74.6	
6	Kerala	1998	16.7	16.7	16.7	16.7	0.0	0.0	0.0	0.0	0.0	0.0	66.7	
		1997	18.9	8.1	21.6	27.0	0.0	0.0	0.0	0.0	0.0	2.7	78.3	
7	Mahara-shtra	1998	54.8	12.8	4.1	2.8	0.4	0.4	0.7	0.0	0.2	1.8	78.1	
		1997	55.1	13.1	6.9	3.1	0.8	0.7	0.7	0.1	0.1	1.2	81.8	
8	Madhya Pradesh	1998	37.7	20.5	14.8	3.4	5.6	2.5	2.8	2.0	0.7	0.1	90.0	
		1997	27.6	21.7	7.1	2.4	5.4	2.1	1.9	0.8	0.5	0.4	69.9	
9	Orissa	1998	41.8	8.8	22.0	4.4	4.4	1.1	1.1	2.2	1.1	0.0	86.8	
		1997	38.5	15.4	8.7	0.0	4.8	0.5	1.0	2.9	0.5	2.9	75.2	
10	Punjab	1998	14.3	0.0	7.1	0.0	14.3	7.1	0.0	0.0	14.3	0.0	57.1	
		1997	19.0	15.9	11.1	3.2	3.2	6.3	0.0	4.8	0.0	1.6	65.1	
11	Rajasthan	1998	25.3	25.0	6.4	4.2	10.3	0.6	1.0	0.0	0.3	0.0	73.1	
		1997	23.2	22.7	7.5	3.2	5.7	4.5	1.2	0.7	0.0	1.0	69.7	
12	Tamil Nadu	1998	23.9	1.7	25.5	4.8	0.4	2.5	2.6	0.6	0.6	0.7	63.3	
		1997	20.6	2.4	24.1	4.6	0.8	2.8	2.9	0.1	0.9	0.7	59.9	
13	Uttar Pradesh	1998	28.1	21.4	7.4	2.2	4.9	3.6	1.7	1.2	1.2	1.3	73.0	
		1997	17.5	20.2	9.0	1.4	3.2	5.3	2.4	5.4	2.6	1.4	68.4	

2 CHILD DEATHS (1-4 YEARS)

4.2.1 Child deaths in the age-group (1-4) years, reported under survey are presented in Statement 19. Both during 1997 & 1998 the major cause-group "Diseases of Respiratory System" was responsible for over one-fourth of child deaths in the age-group (1-4) years. "Infectious and Parasitic diseases" and "Viral infection" accounted for 20.6 and 11.2 per cent respectively in 1998.

Statement-19
Child deaths (1-4) years reported by major cause-groups
All India 1997 & 1998

ICD Code	Major cause-groups	Year	Number			Percentage		
			M	F	P	M	F	P
J	Diseases of the respiratory system	1998	206	227	433	28.9	27.7	28.3
		1997	251	296	547	28.5	30.3	29.4
A	Infectious and parasitic diseases	1998	138	178	316	19.4	21.7	20.6
		1997	172	243	415	19.5	24.9	22.3
B	Viral infection	1998	67	104	171	9.4	12.7	11.2
		1997	98	115	213	11.1	11.8	11.5
D	Diseases of the blood and blood forming organs	1998	61	82	143	8.6	10.0	9.3
		1997	85	87	172	9.6	9.0	9.3
K	With venomous animal contact	1998	73	43	106	10.3	5.2	7.6
		1997	62	38	100	6.8	3.1	5.4
G	Inflammatory diseases of central nervous systems	1998	41	53	94	5.8	6.5	6.1
		1997	62	60	122	7.0	6.1	6.6
R	Symptoms, signs and abnormal clinical findings not elsewhere mentioned	1998	31	35	66	4.4	4.3	4.3
		1997	53	51	104	6.0	5.2	5.6
I	Diseases of circulatory system	1998	24	38	62	3.4	4.6	4.0
		1997	22	19	41	2.5	2.0	2.2
T	Injuries poisoning & other consequences of external causes	1998	17	12	29	2.4	1.5	1.9
		1997	10	17	27	1.1	1.7	1.5
K	Diseases of the digestive system	1998	10	12	22	1.4	1.5	1.4
		1997	14	12	26	1.6	1.2	1.4
V	External causes of mortality	1998	12	10	22	1.7	1.2	1.4
		1997	27	15	37	2.5	1.5	1.9
F	Mental and behavioral disorders	1998	7	10	17	1.0	1.2	1.1
		1997	9	2	11	1.0	0.2	0.6
W	Other external causes of accidental injuries	1998	9	7	16	1.3	0.9	1.0
		1997	12	7	19	1.4	0.7	1.0
C	Neoplasm	1998	10	4	14	1.4	0.5	0.9
		1997	8	8	16	1.0	0.8	0.9
N	Diseases of genitourinary system	1998	4	4	8	0.6	0.5	0.5
		1997	2	6	8	0.2	0.6	0.4
E	Metabolic diseases	1998	2	1	3	0.3	0.1	0.2
		1997	0	1	1	0.0	0.1	0.1
	TOTAL CHILD DEATHS	1998	712	820	1,532	100.0	100.0	100.0
		1997	882	977	1,859	100.0	100.0	100.0

4.2.2 The specific causes responsible under major cause-group "Diseases of the blood and blood forming organs" includes "Anaemia", while the cause snakebite, natural calamity, poisoning, suicide, drowning etc. are mainly contributed "With venomous animal contact". Similarly, in the major cause-group "Inflammatory diseases of central nervous systems" the specific causes of deaths mainly are "Convulsions" and "Meningitis".

Statement 20
Ten top killer diseases of children (1-4) years by specific causes-1997-1998

Sl. No.	India/ States	Year	Pneumonia	Anaemia	Diarrhoea & gastroenteritis	Typhoid & paratyphoid	Influenza	Congestive & other heart diseases	Drowning	Convulsions	Dysentery	Malaria	Total
			ICD Code	J 18	D 50-64	A 09	A 01	J 10-11	I 51	X 71	G 40	A 06	
	INDIA	1998	19.0	9.0	6.3	5.1	3.8	3.5	3.4	3.3	3.1	2.6	59.2
		1997	22.7	9.0	5.8	6.3	2.3	1.7	2.7	2.4	4.0	2.8	59.8
1	Andhra Pradesh	1998	6.3	7.9	3.2	3.2	0.0	7.9	7.9	6.3	1.6	0.0	44.4
		1997	4.9	0.0	9.8	0.0	1.6	0.0	8.2	6.6	9.8	1.6	42.5
2	Bihar	1998	22.0	22.0	2.4	7.3	2.4	0.0	2.4	2.4	7.3	0.0	68.3
		1997	39.7	12.1	4.7	3.7	6.5	0.0	0.9	0.9	1.9	4.7	75.2
3	Gujarat	1998	1.7	11.9	1.7	5.1	0.0	1.7	3.4	5.1	0.0	1.7	32.2
		1997	2.0	20.0	2.0	0.0	0.0	8.0	4.0	4.0	0.0	4.0	44.0
4	Haryana	1998	26.0	4.0	6.0	6.0	4.0	0.0	6.0	2.0	2.0	2.0	58.0
		1997	27.0	4.1	4.1	6.8	4.1	0.0	1.4	0.0	0.0	4.1	51.6
5	Karnataka	1998	14.7	13.3	8.0	1.3	6.7	2.7	2.7	0.0	5.3	0.0	54.7
		1997	15.5	12.7	4.2	4.2	1.4	2.8	2.8	2.8	2.8	0.0	49.2
6	Kerala	1998	0.0	0.0	0.0	0.0	0.0	60.0	20.0	20.0	0.0	0.0	100.0
		1997	62.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.5
7	Madhya Pradesh	1998	22.1	6.2	1.6	2.3	0.0	8.1	3.3	7.5	0.3	0.0	51.5
		1997	23.9	15.2	9.0	10.4	0.0	6.0	2.0	5.1	2.7	7.2	81.6
8	Mahara-Shtra	1998	26.2	13.9	7.5	6.5	7.8	0.0	1.0	1.4	2.4	10.2	76.9
		1997	19.5	4.2	0.5	0.9	3.0	0.2	7.0	2.5	0.5	0.0	38.3
9	Orissa	1998	25.0	21.4	7.1	0.0	0.0	3.6	3.6	3.6	3.6	7.1	75.0
		1997	22.5	11.3	7.0	1.4	0.0	4.2	2.8	0.0	0.0	1.4	50.6
10	Punjab	1998	20.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	60.0
		1997	11.5	7.7	3.8	0.0	0.0	0.0	0.0	0.0	7.7	3.8	34.5
11	Rajasthan	1998	39.1	15.2	0.0	3.3	3.3	0.0	4.3	1.1	3.3	0.0	69.6
		1997	25.4	13.6	3.0	7.7	2.4	1.2	1.8	1.8	1.8	2.4	61.0
12	Tamil Nadu	1998	2.4	3.2	7.1	0.0	4.8	8.7	8.7	2.4	4.0	0.0	41.3
		1997	6.3	2.1	2.1	1.1	0.0	4.2	9.5	6.3	9.5	0.0	41.1
13	Uttar Pradesh	1998	25.9	6.5	7.3	14.6	2.8	1.2	2.0	3.2	5.7	2.0	71.3
		1997	27.2	5.7	8.0	10.5	2.7	0.5	0.7	1.6	7.3	0.7	64.9

4.2.3 The information in respect of 13 selected States for top ten killer diseases of children by specific causes in the age-group (1-4) years is presented in Statement 20. At national level "Pneumonia" is the major killer of children (19.0 per cent) followed by "Anaemia" and "Diarrhoea & Gastroenteritis". These ten top killers account for 59.2 per cent of the total 1597 child deaths in the year 1998. Among the 13 selected States, Pneumonia remained the top killer in Bihar, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan and Uttar Pradesh while Anaemia emerged the top killer in Gujarat.

Statement 21
Child deaths (5-14 years) by major cause-groups
rural India 1997 and 1998

ICD Code	Major cause-groups	Year	Number			Percentages		
			M	F	P	M	F	P
X	With venomous animal contact	1998	150	116	266	19.3	15.4	17.4
		1997	154	109	263	17.8	13.3	15.6
A	Infectious and parasitic diseases	1998	116	145	261	14.9	19.3	17.0
		1997	160	153	313	18.5	18.6	18.5
J	Diseases of the respiratory system	1998	89	97	186	11.4	12.9	12.1
		1997	112	98	210	12.9	11.9	12.4
G	Inflammatory diseases of central nervous systems	1998	82	64	146	10.5	8.5	9.5
		1997	56	68	124	6.5	8.3	7.3
B	Viral infection	1998	58	68	126	7.5	9.0	8.2
		1997	81	97	178	9.3	11.8	10.5
R	Symptoms, signs and abnormal clinical findings not elsewhere mentioned	1998	58	56	114	7.5	7.4	7.4
		1997	67	63	130	7.7	7.7	7.7
V	External causes of mortality	1998	62	36	98	8.0	4.8	6.4
		1997	63	33	96	7.3	4.0	5.7
I	Diseases of circulatory system	1998	45	42	87	5.8	5.6	5.7
		1997	28	46	74	3.2	5.6	4.4
D	Diseases of the blood and blood forming organs	1998	27	36	63	3.5	4.8	4.1
		1997	28	34	62	3.2	4.1	3.7
C	Neoplasm	1998	26	17	43	3.3	2.3	2.8
		1997	18	16	34	2.1	1.9	2.0
T	Injuries poisoning & other consequences of external causes	1998	14	25	39	1.8	3.3	2.5
		1997	19	40	59	2.2	4.9	3.5
W	Other external causes of accidental injuries	1998	18	14	32	2.3	1.9	2.1
		1997	24	15	39	2.8	1.8	2.3
K	Diseases of the digestive system	1998	10	20	30	1.3	2.7	2.0
		1997	17	19	36	2.0	2.3	2.1
F	Mental and behavioral disorders	1998	12	10	22	1.5	1.3	1.4
		1997	10	6	16	1.2	0.7	0.9
N	Diseases of genitourinary system	1998	10	6	16	1.3	0.8	1.0
		1997	11	2	13	1.3	0.2	0.8
E	Metabolic diseases	1998	1	1	2	0.1	0.1	0.1
		1997	1	3	4	0.1	0.4	0.2
	TOTAL	1998	778	753	1,531	100.0	100.0	100.0
		1997	849	802	1,651	100.0	100.0	100.0

4.3 CHILD DEATHS (5-14 YEARS)

4.3.1 Per cent distribution of child deaths in the age-group (5-14) years by major cause-groups for the years 1997 & 1998 according to ICD codes is given in Statement 21.

4.3.2 Child deaths in 1998 have been reported mainly due to **“With venomous animal contact”** accounting 17.4 per cent followed by major cause group **“Infectious & Parasitic diseases”** which accounted 17.0 per cent deaths in rural areas, **“Diseases of the respiratory system”** emerged next with 12.1 per cent of total child deaths while deaths due to **“Inflammatory Diseases of Central Nervous Systems”** accounted 9.5 per cent deaths. Sex-wise differential is not significant in the case of child deaths due to **“Symptom, signs and abnormal clinical findings not elsewhere mentioned”** and **“Diseases of Circulatory system”**. The figures for 1997 are also given for comparison.

4.3.3 Top ten killer diseases of children (5-14 years) by specific causes has been compiled and presented in Statement 22. These top ten killer diseases accounted 46.8 per cent of total deaths at all India level.

Statement 22
Percentage of Ten top killer diseases of child deaths (5-14 years)
India, 1997-1998

Sl. No.	India/ State	Year	Drowning	Pneumonia	Vehicular accidents	Typhoid & paratyphoid	Acute abdomen	Anaemia	Diarrhoea & gastroenteritis	Convulsion	Snake bite	Jaundice	Total
			ICD Code	X 71	J 18	V 01-99	A 01	R 10	D50-64	A 09	G 40	X 20	
	INDIA	1998	7.2	6.2	6.2	4.7	4.2	4.0	3.8	3.8	3.7	3.0	46.8
		1997	6.0	7.1	5.7	5.2	5.3	3.7	3.3	3.0	3.4	1.1	43.8
1	Andhra Pradesh	1998	9.7	4.9	3.9	1.0	1.0	2.9	2.9	7.8	4.9	3.9	42.7
		1997	8.7	2.6	6.1	3.5	4.3	1.7	0.0	8.7	4.3	3.5	43.4
2	Bihar	1998	4.4	11.1	2.2	4.4	2.2	13.3	2.2	2.2	2.2	2.2	46.7
		1997	4.1	17.3	1.0	4.1	5.1	2.0	8.2	2.0	1.0	3.1	47.9
3	Gujarat	1998	12.2	4.1	6.1	0.0	0.0	6.1	2.0	0.0	6.1	4.1	40.8
		1997	0.0	7.7	0.0	2.6	2.6	5.1	0.0	0.0	10.3	0.0	28.3
4	Haryana	1998	5.9	0.0	11.8	8.8	2.9	0.0	0.0	5.9	2.9	0.0	38.2
		1997	2.9	5.7	17.1	11.4	5.7	2.9	2.9	2.9	2.9	0.0	54.4
5	Karnataka	1998	11.1	6.9	8.3	5.6	2.8	2.8	5.6	11.1	0.0	11.1	65.3
		1997	10.8	4.6	7.7	1.5	3.1	4.6	1.5	9.2	4.6	9.2	56.8
6	Kerala	1998	28.6	14.3	0.0	0.0	0.0	0.0	0.0	28.6	0.0	0.0	71.4
		1997	8.3	0.0	8.3	0.0	0.0	0.0	0.0	8.3	0.0	0.0	24.9
7	Maharashtra	1998	9.3	6.9	7.5	0.9	3.0	3.9	0.3	4.8	3.3	2.7	42.6
		1997	8.6	5.6	8.2	1.7	4.3	2.6	0.0	4.7	5.6	0.0	41.3
8	Madhya Pradesh	1998	5.3	6.5	3.0	7.6	6.8	6.1	5.3	2.7	3.8	2.7	49.8
		1997	6.1	6.8	2.7	11.3	6.1	4.1	4.4	0.3	4.1	2.4	48.3
9	Orissa	1998	3.4	6.9	0.0	3.4	3.4	10.3	3.4	0.0	0.0	3.4	34.5
		1997	1.6	9.8	1.6	0.0	4.9	6.6	14.8	3.3	3.3	3.3	49.2
10	Punjab	1998	6.7	0.0	13.3	0.0	0.0	0.0	6.7	0.0	0.0	0.0	26.7
		1997	0.0	4.2	12.5	0.0	4.2	0.0	0.0	0.0	0.0	4.2	25.1
11	Rajasthan	1998	3.0	7.6	15.2	12.1	4.5	3.0	0.0	0.0	6.1	1.5	53.0
		1997	6.3	12.5	5.2	1.0	0.0	4.2	1.0	0.0	2.1	2.1	34.4
12	Tamil Nadu	1998	14.3	0.6	8.0	0.0	3.4	0.6	1.1	5.7	5.7	2.3	41.7
		1997	12.2	0.7	12.2	0.7	2.7	2.7	0.0	3.4	3.4	4.1	42.1
13	Uttar Pradesh	1998	2.3	8.8	6.5	13.0	6.0	2.8	5.1	1.4	1.9	2.8	50.7
		1997	2.5	9.3	5.9	9.6	8.4	4.0	4.6	3.1	0.3	1.5	49.2

4.3.4 The specific cause of drowning with 7.2 per cent deaths is the top killer of children at all India level, while its intensity varies in various States. In the States of Andhra Pradesh, Gujarat, Karnataka, Kerala, Maharashtra and Tamil Nadu the per cent deaths due to this cause is higher than the national average while Uttar Pradesh is at the lowest.

4.3.5 **Pneumonia** is ranked second with 6.2 per cent of the child deaths at national level. Per cent deaths due to Pneumonia are higher than the national average in the States of Bihar, Karnataka, Kerala, Maharashtra, Madhya

Pradesh, Orissa, Rajasthan and Uttar Pradesh. There are no child deaths reported in Haryana and Punjab under this disease.

4.3.6 Deaths due to **Vehicular accidents** with 6.2 per cent of total reported child deaths are third among top ten killers in this age group. Among the States, significant percentage of deaths has been reported from Haryana (11.8), Karnataka (8.3), Maharashtra (7.5), Punjab (13.3), Rajasthan (15.2), Tamil Nadu (8.0) and Uttar Pradesh (6.5). Kerala and Orissa have not reported any child death in this category.

4.3.7 Deaths due to **Typhoid and Paratyphoid** with 4.7 per cent occupy fourth position. Among the States, Uttar Pradesh accounts for highest percentage (13.0) followed by Rajasthan (12.1) of deaths in this category, which is higher than national average. Gujarat, Kerala, Punjab and Tamil Nadu have not reported any child death due to typhoid and paratyphoid.

4.3.8 The fifth top killer diseases is **Acute Abdomen** with 4.2 per cent reported deaths at national level. The States of Madhya Pradesh (6.8 per cent), Rajasthan (4.5 per cent) and Uttar Pradesh (6.0 per cent) have reported deaths higher than the national average while in Gujarat, Kerala and Punjab there is no child death under this disease.

4.3.9 **Anaemia** with 4.0 per cent deaths at national level holds the sixth rank among top ten killer diseases. Among the States, Bihar has reported highest percentage of deaths (13.3 per cent) in this cause group, which is more than three times the national average. It is followed by Orissa resulting 10.3 per cent deaths in this cause group. No child death has been reported in Haryana, Kerala and Punjab due to anaemia during 1998.

4.3.10 The next top killer disease is **Diarrhoea & Gastro Enteritis**, which accounts for 3.8 per cent deaths at national level. Karnataka, Madhya Pradesh, Punjab and Uttar Pradesh have reported higher per centage of deaths than the national average while there is no child death reported in Haryana, Kerala and Rajasthan.

4.3.11 Deaths due to **Convulsion** with 3.8 per cent deaths is eighth among the top ten killer diseases. The percentage of such deaths is higher than national average in Andhra Pradesh (7.8), Haryana (5.9), Karnataka (11.1), Kerala(28.6), Maharashtra (4.8) and Tamil Nadu (5.7). Child death due to Convulsion is not reported in Gujarat, Orissa, Punjab and Rajasthan.

4.3.12 Child deaths due to **Snakebite** have been reported, as 3.7 per cent at the national level, which is the ninth among top ten killer diseases of children and such deaths, are highest in Gujarat and Rajasthan while in Karnataka, Kerala, Orissa and Punjab there are no Child death due to Snake bite.

4.3.13 Jaundice is the tenth top killer accounting for 3.0 per cent deaths at national level. States of Andhra Pradesh (3.9), Gujarat (4.1) Karnataka (11.1), and Orissa (3.4) have reported higher percentages than the national average. Haryana, Kerala and Punjab have not shown any Child death due to Jaundice.

4.4 Maternal Mortality & Female deaths

4.4.1 There has been persistent demand from data users and from departments such as Department of Women & Child development and Ministry of Health & Family Welfare to compile and analyse data on female deaths collected through 'Survey of Causes of Death (Rural)'. An attempt has been made to present data on female deaths, specifically restricted to the reproductive age group (15-44) in the following paragraphs.

4.4.2 The percentage of female deaths in the reproductive age group according to major cause-groups as per International Classification of Diseases for the year 1998 along with the corresponding percentages for 1997 are presented in the Statement 23.

Statement - 23
Percentage of Maternal Mortality and Female deaths (15-44 years)
by Major Cause Groups, India, 1997 and 1998

ICD Code	Major cause of Death	Number		Percentage	
		1997	1998	1997	1998
X	With venomous animal contact	572	567	18.0	19.6
A	Infectious and parasitic diseases	480	423	15.1	14.6
I	Diseases of circulatory system	349	321	11.0	11.1
O	Pregnancy childbirth and puerperium	294	246	9.3	8.5
T	Injuries poisoning & other consequences of external causes	235	232	7.4	8.0
C	Neoplasm	216	198	6.8	6.8
R	Symptoms, signs and abnormal clinical finding not elsewhere mentioned	213	176	6.7	6.1
J	Diseases of the respiratory system	161	167	5.0	5.8
D	Diseases of the blood and blood forming organs	136	108	4.3	3.7
G	Inflammatory diseases of central nervous system	117	103	3.7	3.6
B	Viral infection	114	99	3.6	3.4
K	Diseases of the digestive system	72	80	2.3	2.8
V	External causes of mortality	106	71	3.3	2.4
F	Mental and behavioural disorders	40	34	1.3	1.2
N	Diseases of genitourinary system	24	29	0.8	1.0
W	Other external causes of accidental injuries	24	25	0.8	0.9
E	Metabolic diseases	19	20	0.6	0.7
	GRAND TOTAL	3,172	2,899	100.0	100.0

4.4.3 It is interesting to note from the above Statement that major cause of female deaths in the reproductive age-groups in rural areas is due to major

cause group 'With venomous animal contact' which accounts for 19.6 per cent of total female deaths during 1998 as compared to 18.0 per cent during 1997. This is followed by 14.6 per cent of deaths due to 'Infectious and parasitic diseases' and 11.1 per cent of deaths accounted for 'Diseases of circulatory system'. Deaths due to 'pregnancy, child birth and puerperium' accounted for 8.5 per cent of total female deaths. Deaths due to other major cause-groups like 'Injuries', 'Poisoning' & other consequences of external causes', 'Neoplasm', 'Symptoms, signs and abnormal clinical findings not elsewhere mentioned', and 'Diseases of the respiratory system' account between 5 to 8 per cent of total female deaths.

4.4.4 Top ten killer diseases of females in the reproductive age groups by specific causes of death at national level and in respect of major States for the years 1997 & 1998 has been compiled and presented in Statement 24. Top ten specific causes of female deaths account for 54.4 per cent deaths at all India level during 1998.

Statement 24
Percentage of ten top killer diseases of females
in reproductive age-group (15-44) years major States/India, 1998

Sl. No.	India/ State	Year	Suicide	T.B. of lungs	Burns	Cancer	Heart Attack	Anaemia	Bronchitis & Asthma	Acute Abdomen	Drowning	Vehicular Accident	Total
			ICD Code	X60-84	A 15	T20-32	C00-97	I 21-25	D50-64	J20&45	R 10	X 71	
	INDIA	1998	11.3	9.2	7.1	6.7	5.3	3.6	3.5	2.8	2.6	2.4	54.4
		1997	11.1	9.4	6.5	6.7	6.6	4.2	3.1	3.1	1.8	3.3	55.8
1	Andhra Pradesh	1998	12.8	7.3	6.1	6.4	9.5	4.3	3.4	1.5	2.4	1.5	55.2
		1997	14.8	7.1	7.9	7.9	9.3	0.8	2.9	3.7	4.2	2.9	61.5
2	Bihar	1998	0.0	9.6	1.1	2.1	3.2	17.0	4.3	8.5	3.2	2.1	51.1
		1997	1.6	11.4	3.3	1.6	6.5	8.9	6.5	8.9	0.0	0.0	48.7
3	Gujarat	1998	13.1	10.7	10.7	8.3	10.7	1.2	1.2	2.4	0.0	7.1	65.5
		1997	14.6	10.4	8.3	6.3	7.3	1.0	1.0	2.1	0.0	4.2	55.2
4	Haryana	1998	10.8	10.8	9.2	13.8	10.8	1.5	0.0	4.6	0.0	1.5	63.1
		1997	11.5	6.4	7.7	20.5	12.8	0.0	2.6	1.3	0.0	6.4	69.2
5	Karnataka	1998	15.5	9.5	2.6	13.8	8.6	0.9	5.2	0.9	2.6	0.9	60.3
		1997	18.6	2.3	2.3	14.0	14.0	2.3	0.0	0.0	1.7	4.7	59.9
6	Kerala	1998	26.5	0.0	0.0	14.7	11.8	2.9	8.8	0.0	2.9	0.0	67.6
		1997	12.4	12.4	4.1	13.2	7.4	2.5	2.5	0.8	2.3	3.3	60.9
7	Maharashtra	1998	3.9	8.6	15.2	7.4	2.0	2.0	6.4	1.6	4.7	3.1	55.1
		1997	3.8	14.0	3.1	3.8	4.4	7.4	4.2	3.2	2.3	1.3	47.5
8	Madhya Pradesh	1998	6.9	13.2	7.2	4.1	5.5	4.4	2.5	5.5	2.5	0.8	52.6
		1997	5.7	9.0	15.2	7.0	2.0	3.5	4.5	2.5	1.6	2.7	53.7
9	Orissa	1998	14.5	5.8	0.0	1.4	8.7	8.7	2.9	2.9	1.4	0.0	46.4
		1997	8.4	7.6	3.4	3.4	1.7	5.0	5.0	5.0	0.0	0.0	39.5
10	Punjab	1998	12.9	6.5	0.0	6.5	32.3	0.0	3.2	0.0	3.2	9.7	74.2
		1997	5.6	1.1	4.4	4.4	26.7	2.2	3.3	2.2	1.1	0.0	51.0
11	Rajasthan	1998	7.9	19.7	3.9	5.5	2.4	1.6	3.9	6.3	0.8	7.1	59.1
		1997	1.4	12.8	9.9	6.4	0.0	3.5	2.8	1.4	3.5	7.2	48.9
12	Tamil Nadu	1998	33.0	4.3	3.4	6.5	4.7	2.7	0.2	2.0	4.3	2.5	63.7
		1997	29.7	6.4	2.5	8.1	7.6	2.7	2.7	0.7	2.0	2.2	64.6
13	Uttar Pradesh	1998	5.2	14.9	5.9	2.8	3.5	4.9	2.1	2.4	0.3	1.4	43.4
		1997	6.5	5.7	3.9	3.9	9.8	5.7	1.5	5.1	0.0	0.9	43.0

4.4.5 Top ten killer diseases of females in reproductive age-groups (15-44) has highlighted very useful and vital information of female deaths. During 1998, deaths due to **Suicide** in females under reproductive age group has been reported as top killer in India. Among the selected States, **Suicide** is the top killer disease of females in Andhra Pradesh, Gujarat, Karnataka, Kerala, Orissa, Punjab and Tamil Nadu while in Madhya Pradesh, Rajasthan and Uttar Pradesh **T.B. of lungs** is the top killer. In Maharashtra, **Burns** is the top killer while **Cancer** in Haryana, **Heart Attack** in Punjab, and **Anaemia** in Bihar are the top killer diseases. **T.B. of lungs** is the 2nd major killer disease at the national level and accounts for 9.2 per cent deaths followed by **Burns** (7.1 per cent) **Cancer** (6.7 per cent), **Heart Attack** (5.3 per cent). Deaths due to **Anaemia, Bronchitis & Asthama, Acute abdomen, Drowning and Vehicular accident** have affected less than 4 per cent of female deaths at all India level.

4.4.6 It may be seen in Statement-25 that **Suicide**, which is the top killer of females in the reproductive age-groups has accounted for 86 per cent of deaths in age-group of 15 to 34 years while **T.B. of lungs** has accounted for over 93 per cent of deaths in the age-group of 20 to 44 years. **Burns** followed the pattern of suicide while **Cancer and Heart attack** follows the same pattern as that of **T.B. of lungs**. In case of **Anaemia, Bronchitis & Asthama** and **Acute abdomen** which rank 6th, 7th and 8th respectively have affected more or less all ages while **Drowning** and **Vehicular accident** with ranks 9th and 10th respectively among the top ten killer diseases have affected comparatively younger age-groups in the reproductive age-groups.

Statement 25
Percentage distribution of ten top killer diseases of females in the reproductive age-group (15-44 years), India, 1998

Rank	Specific causes (Top killer diseases)	ICD Code	Year	No. of deaths	Reproductive age-groups					
					15-19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44
I	Intentional self harm (suicide)	X	98	336	23.5	27.7	22.9	11.9	11.6	2.4
		60-84	97	359	22.3	26.5	18.7	14.5	10.6	7.5
II	T.B of lungs	A	98	273	7.0	12.1	19.8	17.6	22.3	21.2
		15	97	304	4.9	9.5	22.4	15.8	28.0	19.4
III	Burns	T	98	212	13.2	27.8	26.4	18.4	10.8	3.3
		20-32	97	210	12.4	27.1	28.1	15.2	13.3	3.8
IV	Cancer	C	98	198	6.1	8.6	11.6	15.7	28.3	29.8
		00-97	97	216	6.0	6.9	15.3	14.8	26.4	30.6
V	Heart attack	I	98	157	3.8	17.8	13.4	15.9	21.7	27.4
		21-25	97	212	5.2	8.5	20.3	13.2	26.9	25.9
VI	Anaemia	D	98	108	13.9	19.4	18.5	11.1	22.2	14.8
		50-64	97	136	10.3	16.2	22.8	18.4	18.4	14.0
VII	Bronchitis & asthma	J	98	104	4.8	13.5	15.4	21.2	14.4	30.8
		20&45	97	99	8.1	6.1	16.2	11.1	25.3	33.3
VIII	Acute Abdomen	R	98	82	14.6	17.1	12.2	19.5	18.3	18.3
		10	97	100	21.0	31.0	13.0	17.0	9.0	9.0
IX	Drowning	X	98	77	28.6	19.5	18.2	10.4	14.3	9.1
		71	97	57	50.1	34.2	31.9	18.2	25.1	15.9
X	Vehicular accidents	V	98	71	22.5	18.3	12.7	16.9	18.3	11.3
		1-99	97	106	14.2	17.9	23.6	13.2	17.0	14.2

4.5 OLD AGE DEATHS (60 Years & over)

4.5.1 Data on deaths for the age group 60 years & over has been compiled according to major-cause groups as per ICD classification and the percentage of deaths with respect to the total number of reported deaths by the major cause groups in this age-group is presented in the Statement 26.

Statement -26

Percentage distribution of deaths to persons aged 60 years & above by sex and major cause for India, 1997 and 1998

ICD Code	Major cause of death	Year	Number			Percentage		
			M	F	P	M	F	P
R	Symptoms, signs and abnormal clinical findings not elsewhere mentioned	1998	3,237	3,388	6,625	29.6	36.6	32.8
		1997	3,809	3,671	7,480	31.8	38.9	34.9
J	Diseases of the respiratory system	1998	2,547	1,966	4,513	23.3	21.2	22.4
		1997	2,514	1,832	4,346	21.0	19.4	20.3
I	Diseases of circulatory system	1998	1,676	1,234	2,910	15.3	13.3	14.4
		1997	1,831	1,180	3,011	15.3	12.5	14.1
G	Inflammatory diseases of central nervous system	1998	841	681	1,522	7.7	7.4	7.5
		1997	944	711	1,655	7.9	7.5	7.7
A	Infectious and parasitic diseases	1998	788	496	1,284	7.2	5.4	6.4
		1997	815	476	1,291	6.8	5.0	6.0
C	Neoplasm	1998	418	361	779	3.8	3.9	3.9
		1997	519	363	882	4.3	3.8	4.1
D	Diseases of the blood and blood forming organs	1998	295	339	634	2.7	3.7	3.1
		1997	289	332	621	2.4	3.5	2.9
X	With venomous animal contact	1998	252	181	433	2.3	2.0	2.1
		1997	247	133	380	2.1	1.4	1.8
K	Diseases of the digestive system	1998	207	134	341	1.9	1.4	1.7
		1997	224	124	348	1.9	1.3	1.6
E	Metabolic diseases	1998	158	128	286	1.4	1.4	1.4
		1997	170	133	303	1.4	1.4	1.4
N	Diseases of genitourinary system	1998	175	92	267	1.6	1.0	1.3
		1997	172	80	252	1.4	0.8	1.2
B	Viral infection	1998	122	123	245	1.1	1.3	1.2
		1997	231	231	462	1.9	2.4	2.2
V	External causes of mortality	1998	88	33	121	0.8	0.4	0.6
		1997	122	53	175	1.0	0.6	0.8
W	Other external causes of accidental	1998	54	37	91	0.5	0.4	0.5
		1997	43	42	85	0.4	0.4	0.4
F	Mental and behavioural disorders	1998	44	33	77	0.4	0.4	0.4
		1997	19	31	50	0.2	0.3	0.2
T	Injuries poisoning & other consequences	1998	21	36	57	0.2	0.4	0.3
		1997	36	40	76	0.3	0.4	0.4
	Grand total	1998	10,923	9,262	20,185	100.0	100.0	100.0
		1997	11,985	9,432	21,417	100.0	100.0	100.0

4.5.2 The cause-group '**Symptoms, signs and abnormal clinical findings not elsewhere mentioned**' which includes deaths due to senility is the major killer for the age-group 60 years & over in 1998 and the per cent deaths due to this cause-group is 32.8 per cent. This is followed by the major cause-group '**Diseases of the respiratory system**' which accounted 22.4 per cent of the total old age deaths. '**Diseases of the circulatory system**' accounted 14.4 per cent deaths while '**Inflammatory diseases of central nervous systems**' are responsible for 7.5 per cent deaths. The deaths due to '**Infectious and parasitic diseases**', '**Neoplasm**', '**Diseases of the blood and blood forming organs**' and '**With venomous animal contact**' are in the range of 2 to 7 per cent. Other major cause-groups accounted less than 2 per cent of total old age deaths. More or less a similar trend is observed for the year 1997.

4.5.3 The percentage of female deaths in the case of major cause-group '**Symptoms, signs and abnormal clinical findings not elsewhere mentioned**' are higher than male deaths in this age-group while a reverse trend is seen in the case of major cause group '**Diseases of the respiratory system**', '**Diseases of circulatory system**' and '**Infectious and Parasitic diseases**'. As regards other major cause-groups, sex-wise differential is not very much significant.

Top ten killer diseases of old age (excluding senility)

4.5.4 The analysis of top ten killer diseases of old age by specific cause for the last two years presented in Statement 27 has indicated the trend among top ten killers in this age-group. **Bronchitis & Asthma** is the major killer occupied 1st position, which accounted 29.6 per cent deaths in 1998 as against 28.0 per cent in 1997. It is evident from the Statement that **Bronchitis & Asthma, Anaemia, Acute abdomen, Uremia** and **whooping cough** with ranks 1st, 6th, 8th, 9th and 10th respectively showing an increasing trend i.e. 29.6, 4.5, 1.9, 1.6 and 1.4 in the year 1998 respectively. The position occupied in ranks 2nd, 3rd 4th, 5th and 7th are in decreasing trend in the year 1998 in comparison to the year 1997.

Statement 27
Per cent distribution of Top Ten Killer diseases of old age
(60 years & over) India, 1997-1998

ICD Code	Causes	Per cent deaths	
		1997	1998
J 20 & 45	Bronchitis & asthma	28.0	29.6
I 21-25	Heart attack	15.8	15.3
G 41	Paralysis of cerebral apoplexy	10.7	10.1
C 00-97	Cancer	6.1	5.5
A 15	T.B. of lungs	5.2	4.6
D 50-64	Anaemia	4.3	4.5
E 10-14	Diabetes	2.1	2.0
R 10	Acute abdomen	1.5	1.9
N 17-19	Uraemia	1.4	1.6
A 37	Whooping cough	0.1	1.4

TABLE - 1

SURVEY OF CAUSES OF DEATH (RURAL) - INDIA 1998
[AS PER INTERNATIONAL CLASSIFICATION OF DISEASES - 10TH REVISION]

ICD CODE	PROBABLE CAUSE OF DEATH	NUMBER			PERCENTAGE		
		M	F	P	M	F	P
1	2	3	4	5	6	7	8
A	INFECTIOUS AND PARASITIC DISEASES	2317	1572	3889	10.4	8.7	9.6
B	VIRAL INFECTION	456	505	961	2.0	2.8	2.4
C	NEOPLASM	907	811	1718	4.1	4.5	4.3
D	DISEASES OF THE BLOOD AND BLOOD FORMING ORGANS	595	726	1321	2.7	4.0	3.3
E	METABOLIC DISEASES	246	188	434	1.1	1.0	1.1
F	MENTAL AND BEHAVIOURAL DISORDERS	123	105	228	0.6	0.6	0.6
G	INFLAMMATORY DISEASES OF CENTRAL NERVOUS SYSTEM	1353	1055	2408	6.1	5.9	6.0
I	DISEASES OF CIRCULATORY SYSTEM	3042	1994	5036	13.6	11.1	12.5
J	DISEASES OF THE RESPIRATORY SYSTEM	3868	3060	6928	17.3	17.0	17.2
K	DISEASES OF THE DIGESTIVE SYSTEM	554	307	861	2.5	1.7	2.1
N	DISEASES OF GENITOURINARY SYSTEM	309	157	466	1.4	0.9	1.2
O	PREGNANCY CHILD BIRTH AND PUERPERIUM	0	255	255	0.0	1.4	0.6
P	CONDITIONS ORIGINATING IN THE PERINATAL PERIOD	1688	1516	3204	7.6	8.4	7.9
Q	CONGENITAL MALFORMATIONS, DEFORMATIONS AND ABNORMALITIES	112	66	178	0.5	0.4	0.4
R	SYMPTOMS, SIGNS AND ABNORMAL CLINICAL FINDING NOT ELSEWHERE MENTIONED	3676	3751	7427	16.5	20.8	18.4
T	INJURIES POISONING & OTHER CONSEQUENCES OF EXTERNAL CAUSES	185	337	522	0.8	1.9	1.3
V	EXTERNAL CAUSES OF MORTALITY	689	184	873	3.1	1.0	2.2
W	OTHER EXTERNAL CAUSES OF ACCIDENTAL INJURIES	167	97	264	0.7	0.5	0.7
X	WITH VENOMOUS ANIMAL CONTACT OTHER MEDICALLY CERTIFIED DEATHS	1657	1040	2697	7.4	5.8	6.7
		384	297	681	1.7	1.6	1.7
	GRAND TOTAL	22328	18023	40351	100.0	100.0	100.0

TABLE -2

DISTRIBUTION OF DEATHS BY MAJOR CAUSE-GROUPS INDIA (RURAL), 1994-1998
(AS PER INTERNATIONAL CLASSIFICATION OF DISEASES - 10TH REVISION)

ICD CODE	MAJOR CAUSES OF DEATH	NUMBER					PERCENTAGE				
		1994	1995	1996	1997	1998	1994	1995	1996	1997	1998
1	2	3	4	5	6	7	8	9	10	11	12
R	SYMPTOMS, SIGNS AND ABNORMAL CLINICAL FINDINGS NOT ELSEWHERE MENTIONED	8951	7028	8905	8444	7427	24.3	18.6	20.6	19.0	18.4
J	DISEASES OF THE RESPIRATORY SYSTEM	5569	6292	7677	7278	6928	15.1	16.6	17.8	16.4	17.2
I	DISEASES OF CIRCULATORY SYSTEM	3025	3595	4410	5369	5036	8.2	9.5	10.2	12.1	12.5
A	INFECTIOUS AND PARASITIC DISEASES	4400	4505	4719	4454	3889	12.0	11.9	10.9	10.0	9.6
P	CONDITIONS ORIGINATING IN THE PERINATAL PERIOD	3309	3471	3405	3861	3204	9.0	9.2	7.9	8.7	7.9
X	WITH VENOMOUS ANIMAL CONTACT	1850	2270	2426	2609	2697	5.0	6.0	5.6	5.9	6.7
G	INFLAMMATORY DISEASES OF CENTRAL NERVOUS SYSTEM	1856	1797	2375	2674	2408	5.0	4.8	5.5	6.0	6.0
C	NEOPLASM	1432	1577	1533	1927	1718	3.9	4.2	3.6	4.3	4.3
D	DISEASES OF THE BLOOD AND BLOOD FORMING ORGANS	1091	1130	1485	1419	1321	3.0	3.0	3.4	3.2	3.3
B	VIRAL INFECTION	1612	1792	1679	1392	961	4.4	4.7	3.9	3.1	2.4
V	EXTERNAL CAUSES OF MORTALITY	792	910	909	1016	873	2.2	2.4	2.1	2.3	2.2
K	DISEASES OF THE DIGESTIVE SYSTEM	577	592	854	937	861	1.6	1.6	2.0	2.1	2.1
T	INJURIES POISONING & OTHER CONSEQUENCES OF EXTERNAL CAUSES	493	533	566	604	522	1.3	1.4	1.3	1.4	1.3
N	DISEASES OF GENITOURINARY SYSTEM	219	274	354	455	466	0.6	0.7	0.8	1.0	1.2
E	METABOLIC DISEASES	284	357	495	468	434	0.8	0.9	1.1	1.1	1.1
W	OTHER EXTERNAL CAUSES OF ACCIDENTAL INJURIES	173	199	265	264	264	0.5	0.5	0.6	0.6	0.7
O	PREGNANCY CHILDBIRTH AND PUERPERIUM	337	318	415	297	255	0.9	0.8	1.0	0.7	0.6
F	MENTAL AND BEHAVIOURAL DISORDERS	162	172	285	200	228	0.4	0.5	0.7	0.5	0.6
Q	CONGENITAL MALFORMATIONS, DEFORMATIONS AND ABNORMALITIES	118	110	221	194	178	0.3	0.3	0.5	0.4	0.4
	OTHER MEDICALLY CERTIFIED DEATHS	550	909	190	547	681	1.5	2.4	0.4	1.2	1.7
	GRAND TOTAL	36799	37831	43168	44409	40351	100.0	100.0	100.0	100.0	100.0

TABLE - 3

SURVEY OF CAUSE OF DEATH (RURAL)
 DISTRIBUTION OF DEATHS BY AGE AND SEX ACCORDING TO MAJOR CAUSE GROUPS
 INTERNATIONAL CLASSIFICATION OF DISEASES 10th REVISION INDIA 1998

ICD CODE	PROBABLE CAUSE OF DEATH	(MAJOR CAUSE GROUPS)																																											
		TOTAL		0-1						1-4						5-9						10-14						15-19						20-24						25-29					
		M	F	M	F	P	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19																											
A	INFECTIOUS AND PARASITIC DISEASES	2317	1572	3889	130	114	138	178	62	78	54	67	49	39	59	60	95	83																											
B	VIRAL INFECTION	456	505	961	61	66	67	104	38	36	20	32	9	17	20	18	23	24																											
C	NEOPLASM	907	811	1718	6	6	10	4	7	9	19	8	15	12	13	17	18	23																											
D	DISEASES OF THE BLOOD AND BLOOD FORMING ORGANS	595	726	1321	76	93	61	82	12	25	15	11	5	15	5	21	16	20																											
E	METABOLIC DISEASES	246	188	434	3	1	2	1	0	0	1	1	0	1	2	0	2	2																											
F	MENTAL AND BEHAVIOURAL DISORDERS	123	105	228	3	0	7	10	3	3	9	7	6	7	2	7	6	1																											
G	INFLAMMATORY DISEASES OF CENTRAL NERVOUS SYSTEM	1353	1055	2408	50	36	41	53	43	39	39	25	21	19	29	13	22	26																											
I	DISEASES OF CIRCULATORY SYSTEM	3042	1994	5036	42	35	24	38	26	16	19	26	34	31	41	63	55	60																											
J	DISEASES OF THE RESPIRATORY SYSTEM	3868	3060	6928	438	357	206	227	63	64	26	33	23	15	26	23	28	33																											
K	DISEASES OF THE DIGESTIVE SYSTEM	554	307	861	8	9	10	12	6	16	4	4	4	7	10	11	19	13																											
N	DISEASES OF GENITOURINARY SYSTEM	309	157	466	6	0	4	4	6	2	4	4	4	2	6	7	11	6																											
O	PREGNANCY CHILDBIRTH AND PUERPERIUM	0	255	255	0	0	0	0	0	0	0	0	0	0	0	0	0	0																											
P	CONDITIONS ORIGINATING IN THE PERINATAL PERIOD	1688	1516	3204	1688	1516	0	0	0	0	0	0	0	0	0	0	0	0																											
Q	CONGENITAL MALFORMATIONS, DEFORMATIONS AND ABNORMALITIES	112	66	178	112	66	0	0	0	0	0	0	0	0	0	0	0	0																											
R	SYMPTOMS, SIGNS AND ABNORMAL CLINICAL FINDING NOT ELSEWHERE MENTIONED	3676	3751	7427	35	39	31	35	35	32	23	24	29	23	12	41	31	31																											
T	INJURIES POISONING & OTHER CONSEQUENCES OF EXTERNAL CAUSES	185	337	522	4	5	17	12	8	13	6	12	14	30	25	61	20	64																											
V	EXTERNAL CAUSES OF MORTALITY	689	184	873	4	7	12	10	27	18	35	18	53	16	83	13	103	9																											
W	OTHER EXTERNAL CAUSES OF ACCIDENTAL INJURIES	167	97	264	3	4	9	7	8	9	10	5	7	4	5	7	13	4																											
X	WITH VENOMOUS ANIMAL CONTACT OTHER MEDICALLY CERTIFIED DEATHS	1657	1040	2697	24	30	73	43	62	55	88	61	130	121	174	130	176	126																											
	GRAND TOTAL	22328	18023	40351	2716	2409	741	856	429	426	380	349	415	421	536	559	652	603																											

TABLE - 3

SURVEY OF CAUSE OF DEATH (RURAL)
DISTRIBUTION OF DEATHS BY AGE AND SEX ACCORDING TO MAJOR CAUSE GROUPS
INTERNATIONAL CLASSIFICATION OF DISEASES 10th REVISION INDIA 1998

ICD CODE	PROBABLE CAUSE OF DEATH	AGE GROUP IN YEARS												(MAJOR CAUSE GROUPS)					
		30-34		35-39		40-44		45-49		50-54		55-59		60+					
		M	F	M	F	M	F	M	F	M	F	M	F	M	F				
1	2	20	21	22	23	24	25	26	27	28	29	30	31	32	33				
A	INFECTIOUS AND PARASITIC DISEASES	115	67	154	100	158	74	165	77	179	68	171	71	788	496				
B	VIRAL INFECTION	11	17	20	12	14	11	16	17	13	15	22	13	122	123				
C	NEOPLASM	36	31	38	56	58	59	78	86	97	63	94	76	418	361				
D	DISEASES OF THE BLOOD AND BLOOD FORMING ORGANS	5	12	13	24	14	16	32	16	24	27	22	25	295	339				
E	METABOLIC DISEASES	6	3	7	7	5	7	18	5	15	9	27	23	158	128				
F	MENTAL AND BEHAVIOURAL DISORDERS	6	6	9	6	2	7	9	7	10	6	7	5	44	33				
G	INFLAMMATORY DISEASES OF CENTRAL NERVOUS SYSTEM	23	13	29	16	34	16	48	28	65	32	68	58	841	681				
I	DISEASES OF CIRCULATORY SYSTEM	72	46	130	59	152	62	214	88	221	103	336	133	1676	1234				
J	DISEASES OF THE RESPIRATORY SYSTEM	30	31	34	22	51	43	83	56	144	89	169	101	2547	1966				
K	DISEASES OF THE DIGESTIVE SYSTEM	23	13	48	20	46	16	76	16	50	22	43	14	207	134				
N	DISEASES OF GENITOURINARY SYSTEM	8	2	13	8	10	4	15	8	18	7	29	11	175	92				
O	PREGNANCY CHILD BIRTH AND PUERPERIUM	0	35	0	26	0	15	0	9	0	0	0	0	0	0				
P	CONDITIONS ORIGINATING IN THE PERINATAL PERIOD	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Q	CONGENITAL MALFORMATIONS, DEFORMATIONS AND ABNORMALITIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
R	SYMPTOMS, SIGNS AND ABNORMAL CLINICAL FINDING NOT ELSEWHERE MENTIONED	26	31	42	27	42	23	34	30	46	14	53	13	3237	3388				
T	INJURIES POISONING & OTHER CONSEQUENCES OF EXTERNAL CAUSES	14	42	22	27	12	8	9	9	6	13	7	5	21	36				
V	EXTERNAL CAUSES OF MORTALITY	60	12	72	13	45	8	47	15	32	6	28	6	88	33				
W	OTHER EXTERNAL CAUSES OF ACCIDENTAL INJURIES	9	3	5	4	12	3	13	4	7	4	12	2	54	37				
X	WITH VENOMOUS ANIMAL CONTACT OTHER MEDICALLY CERTIFIED DEATHS	160	81	157	76	95	33	112	35	84	34	70	34	252	181				
		23	7	17	16	24	13	13	7	20	16	22	10	132	108				
	GRAND TOTAL	627	452	810	519	774	418	982	513	1031	528	1180	600	11055	9370				

TABLE -3
SURVEY OF CAUSE OF DEATH (RURAL)
DISTRIBUTION OF DEATHS BY AGE AND SEX ACCORDING TO MAJOR CAUSE GROUPS
INTERNATIONAL CLASSIFICATION OF DISEASES 10th REVISION INDIA 1998
(SPECIFIC CAUSES)

ICD CODE	OLD SCD CODE	PROBABLE CAUSE OF DEATH	AGE GROUP IN YEARS																			
			TOTAL		0-1		1-4		5-9		10-14		15-19		20-24		25-29					
			M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
A INFECTIOUS AND PARASITIC DISEASES																						
A 00	4.12	CHOLERA	24	28	52	0	0	4	8	1	6	4	1	1	0	0	4	1	1			
A 01	3.31	TYPHOID & PARATYPHOID	200	223	423	22	8	26	56	17	30	8	20	10	5	1	11	10	6			
A 06	4.14	DYSENTERY	95	123	218	14	23	19	30	4	7	4	9	2	1	1	1	1	4			
A 09	4.11	DIARRHOEA & GASTROENTERITIS	215	238	453	27	27	52	48	15	16	12	17	3	5	2	5	2	10			
A 15	5.11	T B OF LUNGS	1357	630	1987	4	7	15	9	9	7	12	7	25	19	47	33	73	54			
A 30	8.23	LEPROSY	30	17	47	0	1	1	1	0	0	0	1	0	1	0	1	0	0			
A 33	9.32	TETANUS NEONATORUM	37	30	67	37	29	0	0	0	1	0	0	0	0	0	0	0	0			
A 35	8.31	OTHER TETANUS	32	19	51	11	6	1	2	0	1	2	2	3	0	1	0	1	2			
A 37	5.30	WHOOPING COUGH	170	118	288	7	5	6	4	1	1	2	0	1	2	0	1	2	1			
A 80	8.41	POLIOMYELITIS	16	7	23	0	1	0	1	1	1	1	1	0	0	2	0	0	0			
A 82	1.13	RABIES	32	15	47	0	0	1	2	8	4	6	4	3	1	1	0	2	1			
[4.00]		DEATHS DUE TO OTHER DIGESTIVE DISORDERS	109	124	233	8	7	13	17	6	4	3	6	1	5	4	4	3	4			
		TOTAL	2317	1572	3889	130	114	138	178	62	78	54	67	49	39	59	60	95	83			
B VIRAL INFECTIONS																						
B 01	8.21	CHIKENPOX	7	0	7	3	0	1	0	0	0	1	0	1	0	0	0	0	0			
B 05	8.22	MEASLES	29	22	51	5	0	16	11	2	5	1	0	0	1	0	2	1	0			
B 50-54	3.11	MALARIA	137	125	262	13	16	19	23	10	5	8	10	2	5	4	4	9	11			
[3.00]		OTHER DEATHS DUE TO VIRAL FEVERS	283	358	641	40	50	31	70	26	26	10	22	6	11	16	12	13	13			
		TOTAL	456	505	961	61	66	67	104	38	36	20	32	9	17	20	18	23	24			
C NEOPLASM																						
C 00-97	8.61	CANCER	907	811	1718	6	6	10	4	7	9	19	8	15	12	13	17	18	23			
		TOTAL	907	811	1718	6	6	10	4	7	9	19	8	15	12	13	17	18	23			
D DISEASES OF THE BLOOD AND BLOOD FORMING ORGANS																						
D 50-64	7.10	ANAEMIA	595	726	1321	76	93	61	82	12	25	15	11	5	15	5	21	16	20			
		TOTAL	595	726	1321	76	93	61	82	12	25	15	11	5	15	5	21	16	20			
E METABOLIC DISEASES																						
E 10-14	8.71	DEABETES	246	188	434	3	1	2	1	0	0	1	1	0	1	2	0	2	2			
		TOTAL	246	188	434	3	1	2	1	0	0	1	1	0	1	2	0	2	2			

TABLE-3

**SURVEY OF CAUSE OF DEATH (RURAL)
DISTRIBUTION OF DEATHS BY AGE AND SEX ACCORDING TO MAJOR CAUSE GROUPS
INTERNATIONAL CLASSIFICATION OF DISEASES 10th REVISION INDIA 1998**

(SPECIFIC CAUSES)

ICD CODE	OLD SCD CODE	PROBABLE CAUSE OF DEATH	AGE GROUP IN YEARS														
			30-34		35-39		40-44		45-49		50-54		55-59		60+		
			M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1	2	3	21	22	23	24	25	26	27	28	29	30	31	32	33	34	
A INFECTIOUS AND PARASITIC DISEASES																	
A 00	4.12	CHOLERA	1	0	2	1	1	0	1	2	2	1	0	2	1	5	3
A 01	3.31	TYPHOID & PARATYPHOID	7	2	14	6	5	3	6	4	8	9	9	8	6	58	57
A 06	4.14	DYSENTERY	2	4	2	2	3	3	1	1	3	2	2	2	3	37	33
A 09	4.11	DIARRHOEA & GASTROENTERITIS	8	9	10	16	7	5	3	6	11	5	6	6	6	57	63
A 15	5.11	T B OF LUNGS	85	48	116	61	133	58	135	54	133	42	122	35	448	196	
A 30	8.23	LEPROSY	2	0	0	1	2	0	2	0	4	1	3	0	16	10	
A 33	9.32	TETANUS NEONATORUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
A 35	8.31	OTHER TETANUS	0	0	0	1	0	0	1	1	1	0	4	0	7	4	
A 37	5.30	WHOOPING COUGH	3	3	2	3	3	1	8	6	8	3	15	6	112	82	
A 80	8.41	POLIOMYELITIS	0	0	0	1	0	0	0	0	2	0	0	1	10	2	
A 82	1.13	RABIES	0	0	3	2	0	0	3	0	2	0	0	1	0	2	1
[4.00]		DEATHS DUE TO OTHER DIGESTIVE DISORDERS	7	1	5	6	5	3	4	3	6	6	6	8	13	36	45
		TOTAL	115	67	154	100	158	74	165	77	179	68	171	71	788	496	
B VIRAL INFECTIONS																	
B 01	8.21	CHIKENPOX	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
B 05	8.22	MEASLES	0	0	0	0	0	0	1	0	0	0	0	0	0	3	3
B 50-54	3.11	MALARIA	4	7	6	7	7	0	7	4	5	5	7	1	36	27	
[3.00]		OTHER DEATHS DUE TO VIRAL FEVERS	7	10	14	5	7	11	8	13	8	10	15	12	82	93	
		TOTAL	11	17	20	12	14	11	16	17	13	15	22	13	122	123	
C NEOPLASM																	
C 00-97	8.61	CANCER	36	31	38	56	58	59	78	86	97	63	94	76	418	361	
		TOTAL	36	31	38	56	58	59	78	86	97	63	94	76	418	361	
D DISEASES OF THE BLOOD AND BLOOD FORMING ORGANS																	
D 50-64	7.10	ANAEMIA	5	12	13	24	14	16	32	16	24	27	22	25	295	339	
		TOTAL	5	12	13	24	14	16	32	16	24	27	22	25	295	339	
E METABOLIC DISEASES																	
E 10-14	8.71	DEABETES	6	3	7	7	5	7	18	5	15	9	27	23	158	128	
		TOTAL	6	3	7	7	5	7	18	5	15	9	27	23	158	128	

TABLE - 3

SURVEY OF CAUSE OF DEATH (RURAL)
DISTRIBUTION OF DEATHS BY AGE AND SEX ACCORDING TO MAJOR CAUSE GROUPS
INTERNATIONAL CLASSIFICATION OF DISEASES 10th REVISION INDIA 1998

(SPECIFIC CAUSES)

ICD CODE	OLD SCD CODE	PROBABLE CAUSE OF DEATH	AGE GROUP IN YEARS																			
			TOTAL		0-1		1-4		5-9		10-14		15-19		20-24		25-29					
			M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F				
1	2	3	4	5	6	7	8	9	10	10	11	12	13	14	15	16	17	18	19	20		
F		MENTAL AND BEHAVIOURAL DISORDERS																				
F 01-99	8.51	MENTAL DISEASES	123	105	228	3	0	7	10	3	3	3	9	7	6	7	2	7	6	1		
		TOTAL	123	105	228	3	0	7	10	3	3	9	7	6	7	2	7	6	1			
G		INFLAMMATORY DISEASE OF CENTRAL NERVOUS SYSTEM																				
G 00-02	6.20	MENINGITIS	95	62	157	14	10	8	10	13	9	9	7	3	3	3	9	3	8	6		
G 40	6.30	CONVULSIONS	121	106	227	26	22	20	33	16	16	19	9	4	6	8	5	5	5	4		
G 41	6.10	PARALYSIS OF CEREBRAL APOPLEXY	1024	804	1828	0	2	3	4	5	10	6	5	6	8	5	2	7	10			
	[6.00]	DEATHS DUE TO OTHER INFLAMMATORY DISEASES	113	83	196	10	2	10	6	9	4	5	4	8	2	7	3	2	6			
		TOTAL	1353	1055	2408	50	36	41	53	43	39	39	25	21	19	29	13	22	26			
I		DISEASES OF CIRCULATORY SYSTEM																				
I 21-25	7.30	HEART ATTACK	2289	1288	3577	1	3	3	3	11	1	8	8	20	6	15	28	31	21			
		(ISCHAEMIC HEART DISEASE)																				
I 51	7.00	CONGESTIVE AND OTHER HEART DISEASES	753	706	1459	41	32	21	35	15	15	11	18	14	25	26	35	24	39			
		TOTAL	3042	1994	5036	42	35	24	38	26	16	19	26	34	31	41	63	55	60			
J		DISEASES OF THE RESPIRATORY SYSTEM																				
J 10&J 11	3.21	INFLUENZA	186	150	336	25	22	32	29	16	11	8	6	5	4	2	2	6	6			
J 18	5.21	PNEUMONIA	661	621	1282	383	309	142	162	35	39	7	17	6	4	8	7	3	7			
J 20&J 45	5.12	BRONCHITIS & ASTHMA	2870	2185	5055	21	17	18	24	11	7	9	7	8	5	12	14	9	16			
	[5.00]	OTHER DEATHS DUE TO RESPIRATORY SYSTEM	151	104	255	9	9	14	12	1	7	2	3	4	2	4	0	10	4			
		TOTAL	3868	3060	6928	438	357	206	227	63	64	26	33	23	15	26	23	28	33			
K		DISEASES OF THE DIGESTIVE SYSTEM																				
K 27-28	4.21	PEPTIC OR GASTRIC ULCER	213	143	356	2	2	3	1	1	3	3	0	2	3	5	2	6	3			
K 40-46	8.90	OBSTRUCTED HARNIA	29	5	34	0	0	1	0	0	1	0	0	0	0	1	0	0	0			
K 74	8.11	CIRRHOSIS & CHRONIC LIVER DISEASES	312	159	471	6	7	6	11	5	12	1	4	2	4	4	9	13	10			
		TOTAL	554	307	861	8	9	10	12	6	16	4	4	4	7	10	11	19	13			
N		DISEASES OF GENITOURINARY SYSTEM																				
N 17-19	8.82	URAEEMIA	247	157	404	6	0	4	4	6	2	4	4	4	4	2	6	7	10			
N 40	8.81	HYPERPLASIA OF PROSTATE	62	0	62	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
		TOTAL	309	157	466	6	0	4	4	6	2	4	4	4	4	2	6	7	11			

TABLE - 3
SURVEY OF CAUSE OF DEATH (RURAL)
DISTRIBUTION OF DEATHS BY AGE AND SEX ACCORDING TO MAJOR CAUSE GROUPS
INTERNATIONAL CLASSIFICATION OF DISEASES 10th REVISION INDIA 1998

ICD CODE	OLD SCD CODE	PROBABLE CAUSE OF DEATH	AGE GROUP IN YEARS												(SPECIFIC CAUSES)			
			30-34		35-39		40-44		45-49		50-54		55-59		60+			
			M	F	M	F	M	F	M	F	M	F	M	F	M	F		
1	2	3	21	22	23	24	25	26	27	28	29	30	31	32	33	34		
F	8.51	MENTAL AND BEHAVIOURAL DISORDERS	6	6	9	6	2	7	9	7	10	6	7	5	44	33		
F 01-99		MENTAL DISEASES	6	6	9	6	2	7	9	7	10	6	7	5	44	33		
G		TOTAL																
G 00-02	6.20	INFLAMMATORY DISEASE OF CENTRAL NERVOUS SYSTEM	4	2	2	1	5	0	3	1	4	4	2	2	11	4		
G 40	6.30	MENINGITIS	3	4	3	1	4	0	1	1	3	1	0	2	9	2		
G 41	6.10	CONVULSIONS	11	7	19	11	21	15	41	24	48	21	64	49	788	636		
[6.00]		PARALYSIS OF CEREBRAL APOPLEXY	5	0	5	3	4	1	3	2	10	6	2	5	33	39		
I		DEATHS DUE TO OTHER INFLAMMATORY DISEASES	23	13	29	16	34	16	48	28	65	32	68	58	841	681		
I 21-25	7.30	TOTAL																
I 21-25	7.30	DISEASES OF CIRCULATORY SYSTEM	43	25	82	34	123	43	174	66	180	86	285	106	1313	858		
I 51	7.00	HEART ATTACK	29	21	48	25	29	19	40	22	41	17	51	27	363	376		
		(ISCHAEMIC HEART DISEASE)	72	46	130	59	152	62	214	88	221	103	336	133	1676	1234		
J		CONGESTIVE AND OTHER HEART DISEASES																
J 10&J11	3.21	TOTAL	7	5	4	1	7	2	5	3	10	12	8	3	51	44		
J 18	5.21	DISEASES OF THE RESPIRATORY SYSTEM	4	1	4	6	2	6	3	3	8	4	10	4	46	52		
J 20&J45	5.12	INFLUENZA	16	22	22	15	38	32	71	48	119	69	146	90	2370	1819		
[5.00]		PNEUMONIA	3	3	4	0	4	3	4	2	7	4	5	4	80	51		
		BRONCHITIS & ASTHMA	30	31	34	22	51	43	83	56	144	89	169	101	2547	1966		
K		OTHER DEATHS DUE TO RESPIRATORY SYSTEM																
K 27-28	4.21	TOTAL	9	3	14	14	9	5	30	10	22	10	17	8	90	79		
K 40-46	8.90	DISEASES OF THE DIGESTIVE SYSTEM	0	0	1	1	0	0	0	0	1	0	3	0	22	3		
K 74	8.11	PEPTIC OR GASTRIC ULCER	14	10	33	5	37	11	46	6	27	12	23	6	95	52		
		OBSTRUCTED HARNIA	23	13	48	20	46	16	76	16	50	22	43	14	207	134		
N		CIRRHOSIS & CHRONIC LIVER DISEASES																
N 17-19	8.82	TOTAL	7	2	13	8	10	4	12	8	15	7	16	11	134	92		
N 40	8.81	DISEASES OF GENITOURINARY SYSTEM	1	0	0	0	0	0	3	0	3	0	13	0	41	0		
		URAEMLIA	8	2	13	8	10	4	15	8	18	7	29	11	175	92		
		HYPERPLASIA OF PROSTATE																
		TOTAL																

TABLE - 3
SURVEY OF CAUSE OF DEATH (RURAL)
DISTRIBUTION OF DEATHS BY AGE AND SEX ACCORDING TO MAJOR CAUSE GROUPS
INTERNATIONAL CLASSIFICATION OF DISEASES 10th REVISION INDIA 1998
(SPECIFIC CAUSES)

ICD CODE	OLD SCD CODE	PROBABLE CAUSE OF DEATH	AGE GROUP IN YEARS																							
			TOTAL		0-1		1-4		5-9		10-14		15-19		20-24		25-29									
			M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20							
O		PREGNANCY CHILD BIRTH AND PUERPERIUM																								
O 03-06	2.1	ABORTION	0	35	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
O 10	2.31	PUERPERIUM	0	66	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	
O 25	2.22	ANAEMIA OF PREGNANCY	0	67	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	
O 64	2.32	MALPOSITION OF CHILD (LEADING TO DEATH OF MOTHER)	0	21	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
O 85	2.33	PUERPERAL SEPSIS	0	27	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
O 90	[2.00]	UNCLASSIFIED	0	39	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
		TOTAL	0	255	255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	
P		CONDITIONS ORIGINATING IN THE PERINATAL PERIOD																								
P 07	9.1	PREMATURITY	967	795	1762	967	795	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
P 10-15	9.23	BIRTH INJURY	50	51	101	50	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
P 22	9.31	RESPIRATORY INFECTION OF NEW BORN	314	273	587	314	273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
P 75-78	9.33	DIARRHOEA OF NEW BORN	57	64	121	57	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	[9.00]	DEATHS OF INFANTS UNCLASSIFIED	300	333	633	300	333	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		TOTAL	1688	1516	3204	1688	1516	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Q		CONGENITAL MALFORMATION DEFORMATIONS AND ABNORMALITIES																								
Q 00-99	9.22	CONGENITAL MALFORMATION	112	66	178	112	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		TOTAL	112	66	178	112	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
R		SYMPTOMS, SIGNS AND ABNORMAL CLINICAL FINDINGS NOT ELSEWHERE MENTIONED																								
R 10	4.31	ACUTE ABDOMEN	407	296	703	14	18	16	19	19	15	17	15	15	12	4	14	18	10							
R 17	8.12	JAUNDICE	248	175	423	21	21	15	15	16	17	6	9	14	7	8	19	13	15							
R 54	10	SENILITY	3021	3252	6273	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
R 68.8	2.21	TOXEMIA	0	28	28	0	0	0	1	0	0	0	0	0	0	4	0	8	0							
		TOTAL	3676	3751	7427	35	39	31	35	35	32	23	24	29	23	12	41	31	6							

TABLE-3
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(SPECIFIC CAUSES)

ICD CODE	OLD SCD CODE	PROBABLE CAUSE OF DEATH	AGE GROUP IN YEARS																	
			30-34		35-39		40-44		45-49		50-54		55-59		60+					
			M	F	M	F	M	F	M	F	M	F	M	F	M	F				
1	2	3	21	22	23	24	25	26	27	28	29	30	31	32	33	34				
O		PREGNANCY CHILD BIRTH AND PUERPERIUM																		
O 03-06	2.1	ABORTION	0	6	0	0	4	0	1	0	0	0	0	0	0	0	0	0		
O 10	2.31	PUERPERIUM	0	9	0	7	0	4	0	0	1	0	0	0	0	0	0	0		
O 25	2.22	ANAEMIA OF PREGNANCY	0	6	0	8	0	5	0	7	0	0	0	0	0	0	0	0		
O 64	2.32	MALPOSITION OF CHILD (LEADING TO DEATH OF MOTHER)	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0		
O 85	2.33	PUERPERAL SEPSIS	0	4	0	2	0	1	0	1	0	0	0	0	0	0	0	0		
O 90	[2.00]	UNCLASSIFIED	0	9	0	4	0	3	0	0	0	0	0	0	0	0	0	0		
		TOTAL	0	35	0	26	0	15	0	9	0	0	0	0	0	0	0	0		
P		CONDITIONS ORIGINATING IN THE PERINATAL PERIOD																		
P 07	9.1	PREMATURITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
P 10-15	9.23	BIRTH INJURY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
P 22	9.31	RESPIRATORY INFECTION OF NEW BORN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
P 75-78	9.33	DIARRHOEA OF NEW BORN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	[9.00]	DEATHS OF INFANTS UNCLASSIFIED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Q		CONGENITAL MALFORMATION																		
Q 00-99	9.22	DEFORMATIONS AND ABNORMALITIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		CONGENITAL MALFORMATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
R		SYMPTOMS, SIGNS AND ABNORMAL CLINICAL FINDINGS NOT ELSEWHERE MENTIONED																		
R 10	4.31	ACUTE ABDOMEN	16	16	28	15	23	15	16	18	26	11	38	8	157	110				
R 17	8.12	JAUNDICE	10	13	14	7	19	6	18	12	20	3	15	5	59	26				
R 54	10	SENILITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3021	3252		
R 68.8	2.21	TOXEMIA	0	2	0	5	0	2	0	0	0	0	0	0	0	0	0	0		
		TOTAL	26	31	42	27	42	23	34	30	46	14	53	13	3237	3388				

TABLE - 3
SURVEY OF CAUSE OF DEATH (RURAL)
DISTRIBUTION OF DEATHS BY AGE AND SEX ACCORDING TO MAJOR CAUSE GROUPS
INTERNATIONAL CLASSIFICATION OF DISEASES 10th REVISION INDIA 1988

ICD CODE	OLD SCD CODE	PROBABLE CAUSE OF DEATH	(SPECIFIC CAUSES)																			
			AGE GROUP IN YEARS																			
			0-1		1-4		5-9		10-14		15-19		20-24		25-29							
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
T			TOTAL																			
T20-32	1.24	INJURIES POISONING AND OTHER CONSEQUENCES OF EXTERNAL CAUSES	112	286	398	2	2	10	7	2	9	5	9	8	28	17	59	14	56			
T 62	4.13	BURNS	73	51	124	2	3	7	5	6	4	1	3	6	2	8	2	6	8			
		FOOD POISONING	185	337	522	4	5	17	12	8	13	6	12	14	30	25	61	20	64			
		TOTAL																				
V		EXTERNAL CAUSE OF MORTALITY	689	184	873	4	7	12	10	27	18	35	18	53	16	83	13	103	9			
V 1-99	1.23	VEHICULAR ACCIDENTS	689	184	873	4	7	12	10	27	18	35	18	53	16	83	13	103	9			
		TOTAL																				
W		OTHER EXTERNAL CAUSES OF ACCIDENTAL INJURIES	167	97	264	3	4	9	7	8	9	10	5	7	4	5	7	13	4			
W00-19	1.22	DEATH DUE TO FALL	167	97	264	3	4	9	7	8	9	10	5	7	4	5	7	13	4			
		TOTAL																				
X		WITH VENOMOUS ANIMAL CONTACT	172	112	284	2	2	5	6	10	10	24	14	17	7	16	5	22	10			
X 20	1.11	SNAKEBITE	25	15	40	0	0	4	4	2	1	1	2	3	2	1	1	0	0			
X 22	1.12	SCORPIAN BITE	73	77	150	1	3	4	6	3	5	1	1	1	1	2	2	2	1			
X 30	1.51	EXPOSURE TO EXCESSIVE HEAT	8	15	23	3	2	0	0	0	1	0	0	0	1	0	0	0	0			
X 31	1.52	EXPOSURE TO EXCESSIVE COLD	51	37	88	8	2	1	2	1	2	1	3	4	1	3	0	4	4			
X30-39	1.53	VICTIM OF OTHER NATURAL CALAMITY	669	498	1107	0	0	0	0	0	0	12	16	51	79	96	93	99	77			
X60-84	1.3	INTENTIONAL SELF HARM (SUICIDE)	300	176	476	3	7	38	17	37	23	35	19	28	22	24	15	17	14			
X 71	1.21	DROWNING	118	57	175	0	3	6	1	3	2	4	2	9	2	10	5	10	10			
X85-Y09	1.4	ASSAULT BY (HOMICIDE)	241	113	354	7	11	15	7	6	11	10	4	17	6	22	9	22	10			
	[1.00]	OTHER ACCIDENTAL DEATHS	1657	1040	2697	24	30	73	43	62	55	88	61	130	121	174	130	176	126			
		TOTAL	384	297	681	23	25	29	36	23	11	8	11	12	15	24	11	14	11			
	[8.00]	OTHER MEDICALLY CERTIFIED DEATHS																				
		GRAND TOTAL	22328	18023	40351	2716	2409	741	856	429	426	380	349	415	421	536	559	652	603			

TABLE - 3
SURVEY OF CAUSE OF DEATH (RURAL)
DISTRIBUTION OF DEATHS BY AGE AND SEX ACCORDING TO MAJOR CAUSE GROUPS
INTERNATIONAL CLASSIFICATION OF DISEASES 10th REVISION INDIA 1998
(SPECIFIC CAUSES)

ICD CODE	OLD SCD CODE	PROBABLE CAUSE OF DEATH	AGE GROUP IN YEARS												60+		
			30-34		35-39		40-44		45-49		50-54		55-59				
			M	F	M	F	M	F	M	F	M	F	M	F			
1	2	3	21	22	23	24	25	26	27	28	29	30	31	32	33	34	
T		INJURIES POISONING AND OTHER CONSEQUENCES OF EXTERNAL CAUSES															
T20-32	1.24	BURNS	12	39	17	23	3	7	6	4	4	11	4	4	3	8	29
T 62	4.13	FOOD POISONING	2	3	5	4	9	1	3	5	2	2	3	2	2	13	7
		TOTAL	14	42	22	27	12	8	9	9	6	13	7	5	21	36	
V		EXTERNAL CAUSE OF MORTALITY															
V 1-99	1.23	VEHICULAR ACCIDENTS	60	12	72	13	45	8	47	15	32	6	28	6	88	33	
		TOTAL	60	12	72	13	45	8	47	15	32	6	28	6	88	33	
W		OTHER EXTERNAL CAUSES OF ACCIDENTAL INJURIES															
W00-19	1.22	DEATH DUE TO FALL	9	3	5	4	12	3	13	4	7	4	12	2	54	37	
		TOTAL	9	3	5	4	12	3	13	4	7	4	12	2	54	37	
X		WITH VENOMOUS ANIMAL CONTACT															
X 20	1.11	SNAKEBITE	15	7	11	11	12	6	4	3	5	8	8	7	21	16	
X 22	1.12	SCORPIAN BITE	0	0	3	1	1	0	2	1	0	0	4	1	4	2	
X 30	1.51	EXPOSURE TO EXCESSIVE HEAT	2	0	3	1	4	4	7	3	9	5	2	1	32	44	
X 31	1.52	EXPOSURE TO EXCESSIVE COLD	0	0	1	0	0	0	0	1	0	0	0	0	3	4	
X30-39	1.53	VICTIM OF OTHER NATURAL CALAMITY	0	1	1	1	1	2	3	1	8	2	1	1	15	15	
X60-84	1.3	INTENTIONAL SELF HARM (SUICIDE)	81	40	89	39	44	8	55	18	29	10	30	15	83	43	
X 71	1.21	DROWNING	18	8	17	11	9	7	14	3	9	5	11	3	40	22	
X85-Y09	1.4	ASSAULT BY (HOMICIDE)	12	10	15	6	10	6	13	3	5	2	4	0	17	5	
	[1.00]	OTHER ACCIDENTAL DEATHS	32	15	17	6	14	0	14	2	19	2	10	3	36	27	
		TOTAL	160	81	157	76	95	33	112	35	84	34	70	34	252	181	
	[8.00]	OTHER MEDICALLY CERTIFIED DEATHS	23	7	17	16	24	13	13	7	20	16	22	10	132	108	
		GRAND TOTAL	627	452	810	519	774	418	982	513	1031	528	1180	600	11055	9370	

SURVEY OF CAUSES OF DEATH (RURAL)**Implementing Agencies**

1.	Andhra Pradesh	Directorate of Medical & Health Services
2.	Arunachal Pradesh	Directorate of Economics & Statistics
3.	Assam	Directorate of Health Services
4.	Bihar	Directorate of Statistics and Evaluation
5.	Goa	Directorate of Health Services (Bureau of Health Intelligence)
6.	Gujarat	Commissioner of Health and Medical Education (Health Services)
7.	Haryana	Directorate of Health Services
8.	Himachal Pradesh	Directorate of Health and Family Welfare
9.	Karnataka	Bureau of Economics & Statistics
10.	Kerala	Directorate of Economics & Statistics
11.	Madhya Pradesh	Directorate of Economics & Statistics
12.	Maharashtra	Directorate of Health Services
13.	Manipur	Medical Directorate
14.	Meghalaya	Directorate of Health Services
15.	Nagaland	Directorate of Economics & Statistics
16.	Orissa	Directorate of Health Services
17.	Punjab	Directorate of Health & Family Welfare
18.	Rajasthan	Directorate of Medical Health and Family Welfare Services
19.	Tamil Nadu	Department of Public Health and Preventive Medicines
20.	Tripura	Directorate of Health Services
21.	Uttar Pradesh	Directorate of Medical and Health Services
22.	West Bengal	Director, State Bureau of Health Intelligence
23.	Dadra & Nagar Haveli	Medical and Public Health Department
24.	Delhi	Bureau of Health Intelligence, Municipal Corporation of Delhi
25.	Pondicherry	Directorate of Health and Family Welfare Services

SURVEY OF CAUSES OF DEATH (RURAL)

FORM 1 - HOUSELISTING SCHEDULE

PHC..... Village..... District..... State.....

Sl. No.	Building No.	Census House No.	Purpose for which house is used/Residential (R), Non-residential (NR) during						
			Base Line Survey	Half-yearly Survey					
				June.....	Dec.....	June.....	Dec.....	June.....	Dec.....
1	2	3	4	5	6	7	8	9	10

SURVEY OF CAUSES OF DEATH (RURAL)

FORM 1A - HOUSEHOLD REGISTER

Village..... PHC..... Household No. Name of Head of Household.....

Sl. No.	Name	Relationship of Head	Male/ Female	Base Line Survey.....			Half-yearly Survey June.....			Half-yearly Survey December.....		
				Age	Marital Status	Residential Status	Age	Marital Status	Residential Status	Age	Marital Status	Residential Status
1	2	3	4	5	6	7	8	9	10	11	12	13

SURVEY OF CAUSES OF DEATH (RURAL)

FORM 2A – HALF-YEARLY LISTING OF DEATHS

State..... District..... Village
 PHC..... Reference period..... Survey Period.....

House No./ Household No.	Name of Head of Household	Name of deceased	Name of father/ husband of deceased	Sex of deceased	Age at death	Whether UR/V	Remarks	Signature of Recorder
1	2	3	4	5	6	7	8	9

Note : To be filled-in by Recorder and to be sent to the Medical Officer In charge within 15 days of completion of Half Yearly Survey

SURVEY OF CAUSES OF DEATH (RURAL)

FORM 2B – HALF-YEARLY LISTING OF BIRTHS

State.....

District.....

Village

PHC.....

Reference period.....

Survey period.....

House No./ Household No.	Name of Head of Household	Name of mother of the child	Sex of child	Date of Birth	Whether Born to UR/V	Age of mother at the time of delivery	Remarks	Signature of Recorder
1	2	3	4	5	6	7	8	9

Note : To be filled-in by Recorder and to be sent to the Medical Officer In charge within 15 days of completion of Half Yearly Survey

SURVEY OF CAUSES OF DEATH (RURAL)

FORM 3 – DEATH REGISTER

State..... District..... Village PHC..... Year.....

Sl. No.	Date of recording	House/House hold No.	Name of the deceased	Name of father/ husband of the deceased	Sex M/ F	Age at death	Medical attention at death	Date of death	Probable cause of death	No.	If the deceased was a married woman		Signature of the field agent	Remarks
											X	Y		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

'X' - Whether death took place during pregnancy or within one month after termination of pregnancy.
 'Y' - If the answer in col. 12 is yes, whether death was due to any cause associated with pregnancy.

SURVEY OF CAUSES OF DEATH (RURAL)

FORM 3A – BIRTH REGISTER

State.....
PHC.....

District.....
Year.....

Village.....
Month.....

Sl. No.	Date of Recording	House and Household No.	Name of Father/Mother of child	Sex	Date of Birth	Age of mother at delivery	Signature of Field Agent
1	2	3	4	5	6	7	8

SURVEY OF CAUSES OF DEATH (RURAL)

FORM NO. 4 : MONTHLY STATEMENT BY THE STATE HEAD QUARTERS ON BIRTHS & DEATHS AND CAUSE OF DEATH FOR THE MONTH YEAR.....

- (a) Total No. of PHCs under the scheme.....
- (b) No. of PHCs villages on which the report is based.....
- (c) Population of these villages according to last H/Y survey M.....F.....Total.....
- (d) No. of live births registered during the month M.....F.....Total.....
- (e) Total No. of females dying during the pregnancy or with in a month after termination of pregnancy.....
- (f) Total No. of females dying during pregnancy or with in one month after termination of pregnancy due to any cause associated with pregnancy.....
- (g) No. of deaths attended by Registered Medical Practitioners in PHC for which cause was given by them
 (i) in PHC..... (ii) in Household.....

Probable Cause of Death	Code No.	AGE GROUPS IN YEARS														TOTAL																						
		0-1		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		65-69		70+						
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37		

Note : To be prepared at the State Headquarter and a copy to be sent to the Registrar General. India within two months of the close of the month.

Date.....200

Signature of the Officer Incharge

SURVEY OF CAUSES OF DEATH (RURAL)

FORM 5 – HALF-YEARLY CHECK REPORTS

State..... Reference period..... Survey Period.....

District	Primary Health Centre	Survey Population		No. of events enumerated during the survey			No. of events recorded by the Field Agent			Omissions detected		
		Male	Female	Births	Deaths	Infant deaths	Births	Deaths	Infant deaths	Births	Deaths	Infant deaths
1	2	3	4	5	6	7	8	9	10	11	12	13

Signature of Medical Officer
Primary Health Centre.....

Note : To be filled in by the Recorder and to be sent to the State Headquarters within 15 days of the completion of the half yearly survey.
This form will be also used by the State Headquarters for sending the half yearly results which will be sent within 6 weeks of the completion of Survey.

SURVEY OF CAUSES OF DEATH (RURAL)

FORM 6 – FIELD INSPECTION REPORT

State..... District..... Primary Health Centre.....

Village..... Date of Inspection.....

Sl. No.	No. of house/ household visited	Deaths Recorded		Deaths Detected (unrecorded)			Remarks
		Correct events Sl.No. in Death Register (Form 3)	Incorrect events Sl.No.	Name of the deceased	Age	Date of death	
1	2	3	4	5	6	7	8

General assessment about the work of the field agent.

Note : To be prepared by the Officer conducting the Inspection and sent to the State Headquarters immediately after the completion of visit to the Unit with a copy to Medical Officer of Primary Health Centre.

Signature and designation of the
Inspecting Officer.....

SURVEY OF CAUSES OF DEATH (RURAL)

FORM 7+6A SYMPTOM RECORD FORM & M.O. CHECK REPORT

(Form 7 & 6A should be filled for each reported death under survey including Half-Yearly)

State..... Name of PHC..... Name of Village.....
Month & Year.....

Part I

1. House/Household Number
2. Name of head of Household
3. Name of deceased..... 4.Sex..... 5.Age.....
6. Date of death.....
7. Whether URP/URA/Visitor.....
8. Doctor attended at the time of death Yes/No
9. Sl. No. in death register.....
10. Death occurred at PHC/Hospital/Household.....

Part II

Symptoms of disease as stated by the respondent	Probable Cause as per Manual II Non-Medical list	Code No.
1	2	3

.....
Signature of Field Agent with date

Doctors opinion regarding cause of death on the basis of symptoms recorded by field agent

Agreed/Not agreed
(Doctor's opinion)

Cause of death.....
Code No.....

.....
Signature of Medical Officer with date

SURVEY OF CAUSES OF DEATH (RURAL)

STATISTICAL OFFICER'S INSPECTION REPORT

FORM 8 : FIELD VISIT REPORT OF STATISTICAL SUPERVISOR

State _____

Name of the Statistical Supervisor _____

Field visits during the month _____ 200

No. of PHC's visited _____

BRIEF POINTS ON PROGRESS OF WORK, PHC-WISE

(All columns should be filled with specific answers, clear and brief/may be avoided)

(a) Name of PHC village	(a)	
(b) District	(b)	
(c) Date of visit	(c)	
1	2	3

I. Date of last inspection

II. Whether field agent/recorder,
in position ?

III. Is informant system effectively
maintained ?

IV. Whether Notional Map of
survey area kept properly ?

V. Maintenance of Registers
(i) Household register
(ii) Death register
(iii) Birth register

VI. Is the Form No. 7 Symptom
Record Form being filled for
each death and available for
scrutiny ?

VII. Regularity in despatch of monthly
returns (Regular/Fairly regular/
irrigular)

Details of guidance/training given
(specify)

Contd.....

SURVEY OF CAUSES OF DEATH (RURAL)

STATISTICAL OFFICER'S INSPECTION REPORT

(All columns may be filled from the field data carefully. If not available reason may be given)

Date of visit _____

Name of PHC _____ Name of the village _____

Tehsil/Taluk _____ District _____ State _____

M.O. In charge _____ Recorder _____ Field Agent _____

No. of Houses :	Total :	Residential :	N.R.
Population :	Previous	Total :	Male : Female :
	Latest	Total :	Male : Female :

Recorded data: Jan: Feb: Mar: Apr: May: June: July: Aug: Sep: Oct: Nov: Dec: Total.

Previous year :
 Death :
 Birth :

Current year :
 : Death :
 : Birth :

Analysis of death previous year ()

Age	No. of deaths	Sex	Cause/Code No.
60 +			
55-59			
50-54			
45-49			
40-44			
35-39			
30-34			
25-29			
20-24			
15-19			
10-14			
5-9			
1-4			
Below 1 year			

SURVEY OF CAUSES OF DEATH (RURAL)

FORM 9 : STATEMENT SHOWING THE POPULATION OF SELECTED VILLAGES/SUB-CENTRES OF THE PHCS ACCORDING TO AGE AND SEX

State..... District..... Primary Health Centre.....

Name of the village..... Population as on

Age-group in years	Male	Female	Persons
1	2	3	4
Below 1 year			
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			
65-69			
70 +			
Total			

Signature of the Recorder.....

Signature of the Field Agent.....

Annexure III

**LIST OF CAUSES OF DEATH
AS PER INTERNATIONAL CLASSIFICATION OF
DISEASES (ICD)- 10TH REVISION
(SURVEY OF CAUSES OF DEATH (RURAL))**

ICD CODE 10 th REV.	CODES USED IN SCD(R)	CAUSES OF DEATH AS PER Xth REVISION	SYMPTOMS OF CAUSES OF DEATH AS PER NON-MEDICAL LIST [SCD (R)]
1	2	3	4
A			
INFECTIOUS AND PARASITIC DISEASES			
A 00	4.12	CHOLERA	PROFUSE WATERY MOTIONS RESEMBLING RICE WATER FOLLOWED BY VOMITTING STOPPAGE OF URINE EXCESSIVE THIRST COLLAPSE--DEATH DUE TO DEHYDRATION
A 01	3.31	TYPHYOID & PARATYPHOID	FEVER LONG DURATION PROGRESSIVELY INCREASING DURING DAY SEVERE HEADACHE ,TONGUE HIGHLY COATED,ABDOMINAL PAIN,CONSTIPATION,TOXIC,DEATH OCURED IN 2nd OR 3rd WEEK DUE TO DELIRIUM,SEVERE ABDOMINAL PAIN,OR PASSING BLOOD IN STOOLS
A 06	4.14	DYSENTERY (IRRITABLE BOWEL SYNDROME)	FREQUENT MOTIONS WITH LOWER BELLY-ACHE CONTAINING MUCUS OR BLOOD CONSTANT DESIRE TO DEFECATE WITHOUT ACTUAL DEFECATING
A 09	4.11	DIARRHOEA AND GASTROENTERITIS OF PRESUMED INFECTIOUS ORIGIN	VOMITTING & DIARRHOEA OF SUDDEN ON SET DEHYDRATION WITH SHALLOW EYES VOMITING & DIARRHOEA NUMEROUS IN NUMBER DIARRHOEA MEANS ABNORMAL FREQUENT DISCHARGE OF FLUID FAECES FROM BOWL
A 15	5.11	T B OF LUNGS (RESPIRATORY TUBERCULCULOSIS HISTOLOGICALLY CONFIRMED)	HISTORY OF CRONIC COUGH LOSS OF WEIGHT RAPIDLY BLOOD IN COUGHED MATERIAL PURE BLOOD MIGHT HAVE COUGHED OUT CONTINUED EMACIATION WITH LOSS OF WEIGHT, FEVER &SWEATS
A30	8.23	LEPROSY	IT IS A CHRONIC DISEASE IN THE FORM OF PATCHES ON THE SKIN WITH BLEBS TO START WITH AND ENDS ATROPHY OF THE SKIN ANDLOSS OF HAIR ON THE SKIN GIVING IT A PECULIAR APPEARANCE. THERE MAY BE NODULES ON THE BODY DISFIGURING THE PERSON WITH SWOLLEN EARS ,DEFORMED PALMS AND AMPUTATED FINGERS
A 33	9.32	TETANUS NEONATORUM	CORD INFECTION-CHILD MAY HAVE AN ABSCESS OF UMBILICAL CORD,OR SEPSIS OF THE CORD,EVEN OF THEUMBILICUS ITSELF AT A LATER STAGE DEATH DUE TOTETANIC CONVULSIONS OF NEW BORN TO BE INCLUDED HERE
A 35	8.31	OTHER TETANUS	HISTORY OF INJURY OR ULCER THERE IS A LOCK JAW WHOLE BODY BECOMES RIGID AND ADOPTS PARTICULAR POSTURE LIKE RAINBOW PERSON IS NOT ABLE TO OPEN HIS MOUTH EXTREME EXHAUSTION, BUT MIND IS HOWEVER CLEAR.

A 37	5.30	WHOOPING COUGH	COUGH WITH WHOOP AT THE END OF SEVERE BOUT OF COUGH VOMITING OF FOOD LEADING TO EMACIATION DURING SHORT ILLNESS FEVER IS NOT ESSENTIAL GENERALLY IN THE CASE OF CHILDREN
A 80	8.41	POLIOMYELITIS	IT IS A SUDDEN IN ONSET THERE IS A SUDDEN FEVER AND PARALYSIS OF ANY PART OF THE BODY. USUALLY ONE OF THE LOWER LIMB MAY OCCUR CHILD MAY ESCAPE DEATH WITH RESIDUAL PARALYSIS OR THE PARALYSIS MAY INVOLVE MORE AND MORE OF OTHER PARTS IN ASCENDING TYPE AND FINALLY DEATH APPROACHES RAPIDLY DUE TO BREATHLESSNESS
A 82	1.13	RABIES	SLEEPLESSNESS AND FEAR FROM WATER EYES ARE BULGING OUT, PERSON IS IN TENSION AND ANXIETY PAINFUL SPASM OF THE THROAT ON ATTEMPTING TO DRINK LIQUIDS THERE ARE CONVULSIONS THICK TENACIOUS, MUCOUS FLOWS OUT OF THE MOUTH PARALYSIS OCCUR AND PATIENT DIES IN A FEW DAYS

B VIRAL INFECTIONS

B 01	8.21	CHICKENPOX	HIGH FEVER FOLLOWED BY SKIN ERUPTION ON THE NEXT DAY THESE ERUPTION APPEARS FIRST ON THE TRUNK AND SOON SPREAD TO FACE, SCALP AND PROXIMAL PARTS OF LIMBS DEATH OCCURS DUE TO HAEMORRHAGIC VARIETY WHERE THERE IS BLEEDING INTO SKIN RASH AND SURROUNDING AREAS
B 05	8.22	MEASLES	WATERY EYES, ERUPTION OCCURS AFTER AN ATTACK OF FEVER FOR FOUR DAYS, ERUPTION RED IN COLOUR AND UNIFORM ALL OVER THE BODY COLD COUGH AND RAPID BREATHING AND DIARRHOEA
B 50 54	3 11	MALARIA	THERE IS A FEVER DAILY, ON ALTERNATE DAYS OR EVERY FOURTH DAY FEVER RISE HIGH WITH CHILLS AND HEADACHE RETURNS NORMAL WITH SWEATING HIGH FEVER MAY BE ACCOMPANIED BY DELIRIUM LOSS OF APPETITE, VOMITTING AND PAIN IN LIMBS IN CHRONIC CASES, IT IS ASSOCIATED WITH ANAEMIA AND DEBILITY

C NEOPLASM

C (n) 97	8 61	CANCER	SWELLING OF SMALL SIZE IN BREAST TONGUE, MOUTH, FACE, PENIS, SKIN IT TAKES A RAPID GROWTH
C 21		CANCER OF ANUS OR RECTUM	IN CASE ANUS OR RECTUM THE MOTION IS NOT BEING PASSED DUE TO PAIN, THERE IS BLEEDING AT THE PASSING OF MOTION ETC.
C 32		CANCER OF THROAT	IN CASE OF THROAT, THERE IS CHANGE OR LOSS OF VOICE AND DIFFICULTY IN SWALLOWING
C 34		CANCER OF LUNG	IN CASE OF LUNG CANCER THERE IS UNEXPLAINABLE COUGH
C 50, 60		CANCER OF BREAST AND PENIS	IN CASE OF BREAST AND PENIS THE GROWTH GOES ON LIKE MUSHROOM

C52-55	CANCER OF CERVIX OR UTERUS	IN CASE OF MALIGNANCY OF THE CERVIX OR UTERUS, THERE WILL BE LITTLE BLEEDING NOT RELATED TO THE MENSES OR IN A WOMEN WHO IS IN MENOPAUSE THERE IS EXTREME EMACIATION AND LOSS OF WEIGHT
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D DISEASES OF THE BLOOD AND BLOOD FORMING ORGANS

D 50-64	7.10	ANAEMIA (OTHER THAN PREGNANT WOMEN)	COMPLAINED OF WEAKNESS, MARKED PALENESS OF SKIN, EYES AND TONGUE LETHARGY AND LOSS OF WEIGHT PRESENCE OF BREATHLESSNESS AT REST, AGGRAVATED ON WALKING DEATH IS USUALLY DUE TO INFECTIONS, SWELLING OF FEET OR BREATHLESSNESS
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E METABOLIC DISEASES

E 10-14	8.71	DIABETES	OCCURS TO MIDDLE AGED OR ELDERLY PERSONS WITH FATTY, INDISPOSITION, COMPLAINTS OF WEAKNESS AND DEBILITY, FREQUENT URINATION, THIRST, BAD EYE SIGHT, ITCHING OF THE SKIN, BOILS, ULCERS NOT HEALING PROPERLY SUSCEPTIBLE TO REPEATED RESPIRATORY INFECTIONS LIKE COUGH, BURNING AT URINATION THE PERSON DIES OF DIABETIC COMA, THE DOCTOR MIGHT HAVE TOLD HIM THAT HE HAD SUGGER IN THE URINE.
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F MENTAL AND BEHAVIOURAL DISORDERS

F 01-99	8.51	MENTAL DISEASES	CHRONIC IN NATURE PERSON GOING ABOUT IS MENTALLY ILL AND DOES NOT CARE FOR FOOD OR CLOTHES
F 06			MENTAL DISORDERS DUE TO BRAIN DAMAGE AND DYSFUNCTION AND TO PHYSICAL DISEASE
F 07			PERSONALITY AND BEHAVIOURAL DISORDERS DUE TO BRAIN DISEASE, DAMAGE AND DYSFUNCTION

G INFLAMMATORY DISEASE OF CENTRAL NERVOUS SYSTEM

G 00-01-02-03	6.20	MENINGITIS	FEVER OF SHORT DURATION RIGIDITY OF NECK, CONVULSIONS AND HEADACHE PATIENT IS IRRITATED AND DOES NOT LIKE LIGHT, SOUND ETC PATIENT BECOMES UNCONSCIOUS AND DIES
G 40		CONVULSIONS	CHILD HAD CONVULSIONS OVER AND OVER DUE TO SEVERAL UNDERLYING CAUSES MAY HAVE CONVULSIONS WITH HIGH FEVER, DIARRHOE AND INFECTION OF BRAIN ETC. CONVULSIONS MEAN VIOLENT INVOLUNTARY MUSCULAR CONTRACTION, FOLLOWED BY UNCONSCIOUSNESS LEADING TO DEATH

G 80-83 6.10

**PARALYSIS OF
CEREBRAL
APOPLEXY**

AN ELDERLY PERSON MOVING ABOUT FREELY SUDDENLY GETS SICK AND LOSS CONSCIOUSNESS AND BECOMES COMATOSE
PARALYSIS OF THE HALF OF THE BODY, OR OF ALL LIMBS, OR FACE IS NOTICED LATER
PERSON MAY REGAIN SENSE AND REMAIN PARALYTIC, OR MAY DIE WITHOUT COMING TO CONSCIOUS LEVEL DUE TO CEREBRAL APOPLEXY

I

DISEASES OF CIRCULATORY SYSTEM

I 21-25 7.30 **HEART ATTACK** (ISCHAEMIC HEART DISEASE) PATIENT MIGHT HAVE COMPLAINED OF SEVERE AND ACUTE PAIN IN CHEST OR ARM

I 51 7.00 CONGESTIVE AND OTHER HEART DISEASES CHRONIC BREATHLESSNESS AND COUGH WITH SWELLING OF FEET AND ABDOMEN AND PALPITATION OF HEART
BREATHLESSNESS INCREASES IN WALKING AND RELIEF BY SITTING
DEATH IS DUE TO ACUTE AND SEVERE BREATHLESSNESS IN CASE OF CONGESTIVE HEART DISEASE
OTHER HEART DISORDERS (NOT DUE TO HEART ATTACK) IF DIAGNOSED DURING LAST ILLNESS MAY ALSO BE INCLUDED

J

DISEASES OF THE RESPIRATORY SYSTEM

J 10 & J11 3.21 **INFLUENZA** HIGH FEVER OF SHORT DURATION
SEVERE PAIN IN BODY AND BACK
COLD AND RUNNING OF NOSE WITH SEVERE COUGH
TEMPERATURE MAY RISE VERY HIGH RESULTING IN DEATH
MUSCULAR PAIN ALL OVER THE BODY
SEVERE HEADACHE INSOMNIA, CONVULSIONS, DELIRIUM
IT IS USUALLY IN EPIDEMIC FORM

J 18 5.21 **PNEUMONIA** COUGH OF SHORT DURATION WITH HIGH FEVER OF SUDDEN ONSET
PAIN IN CHEST, MAY BE RAPID BREATHING
IF CHILD- THERE MAY BE CONVULSIONS AND VOMITING
RESPIRATORY FAILURE CAUSING DEATH

J 20 5.12 **BRONCHITIS** COUGH OF LONG DURATION
ELDERLY PERSON
SHORTNESS OF BREATH
BOUNTS OF COUGH RESULTING IN FROTHY MUCOUS EXPECTORATION
SOMETIMES WITH FEVER
PATIENT USUALLY HAS NO SLEEP AND SLOW DETERIORATION OF HIS CONDITION

J 45 5.13 **ASTHMA** COUGH OF LONG DURATION - ELDERLY PERSONS
SHORTNESS OF BREATH
BOUNTS OF COUGH RESULTING IN FROTHY MUCUS EXPECTORATION
PATIENT HAS NO SLEEP AND SLOW DETERIORATION OF PATIENT'S CONDITION
SUFFERING IS USUALLY SEASONAL
DIFFICULTY IN BREATHING WITH "CATCALL" (WHEEZING) LIKE SOUND. COUGH IS OF PAROXYMAL IN NATURE WITH BREATHLESSNESS. HOUSEHOLD GIVES A HISTORY OF SEVERAL YEARS

K		DISEASES OF THE DIGESTIVE SYSTEM	
K 27-28	4.21	PEPTIC OR GASTRIC ULCER	HISTORY OF CHRONIC PAIN IN UPPER ABDOMEN, PERIODIC IN NATURE ON EMPTY STOMACH OR AFTER TAKING FOOD, RELIEVED BY ALKALIES, AND MILK, FOOD OR MEDICINES VOMITING OF DARK BLOOD OR PASSING OF BLOOD IN MOTIONS OR SEVERE ACUTE PAIN IN STOMACH MIGHT HAVE LEAD TO DEATH.
K 40-41-42-43-44-45-46-	8.90	OBSTRUCTED HERNIA	HISTORY OF REDUCIBLE SWELLING IN SCROTUM WHICH USED TO COME ON COUGHING OR STRAINING . OBSTRUCTION OF SWELLING FORM GOING BACK INTO ABDOMEN IS CALLED OBSTRUCTED HERNIA. PAINFUL TENDER AND BRING HIGH FEVER DEATH OCCURS DUE TO DEHYDRATION OR SEPSIS .
K 74	8.11	CIRRHOSIS & CHRONIC LIVER DISEASES	MIGHT HAVE FELT MARKED WEAKNESS, UNEASINESS AND FULLNESS OF ABDOMEN MARKED SWOLLEN, BLOATED ABDOMEN WITH SWELLING OF FEET AND THEN FACE AND HANDS HISTORY OF JAUNDICE OR PROLONGED ALCOHOLIC ADDICTION IS KNOWN AT THE TIME OF DEATH, THERE MIGHT BE JAUNDICE, UNCONSCIOUSNESS OR BLEEDING FROM ANY SOURCE SPECIALLY VOMITTING OF BLOOD

N		DISEASES OF GENITOURINARY SYSTEM	
N 17-19	8.82	URAEMIA	THERE IS PROGRESSIVE RENAL IMPAIRMENT FOLLOWED BY RENAL FAILURE, IN CASE OF CHRONIC URAEMIA INITIALLY HE PASSES LARGE QUANTITY OF URINE AND LATER THERE IS RAISE OF BLOOD PRESSURE TERMINALLY THERE IS MARKED DIMINUTION IN AMOUNT OF URINE PRODUCED BEFORE COMPLETE RENAL FAILURE
N 40	8.81	HYPERPLASIA OF PROSTATE	ELDERLY MAN OF ABOVE 40 YEARS DIFFICULT IN PASSING URINE WITH FREQUENT URGING THERE IS NO PASSAGE OF URINE LOWER ABDOMEN ACTS PAINFULLY TENSE PATIENT BECOMES DULL AND DROWSY WITH HICUPS AND VOMITINGS AND FACE IS SWOLLEN. THERE IS DELIRIUM OR COMA AND PATIENT DIES WITH OUT RECOVERING CONSCIOUSNESS .

O		PREGNANCY CHILD BIRTH AND PUERPERIUM	
O 03-04-05-06	2.10	ABORTION	SEVERE PAIN IN LOWER ABDOMEN FOLLOWED BY BLEEDING PER VAGINA . EXPULSION OF THE PRODUCTS OF CONCEPTION . SOME TIMES VERY PROFUSE BLEEDING , CONTINUOUS AND FOUL SMELLING , PATIENT DIES DUE TO BLEEDING AND SHOCK .
O 10	2.31	PUERPERIUM	BLEEDING BEFORE THE ONSET OF DELIVERY BLEEDING IS RECURRENT, PAINLESS AND SUDDEN IN ONSET EXCESSIVE BLEEDING AT THE TIME OF DELIVERY THERE MAY BE EXCESSIVE BLEEDING AT THE TIME OF DELIVERY IT IS IMPORTANT TO NOTE THAT BLEEDING OCCURRED AFTER 7 MONTHS OF PREGNANCY OR DURING DELIVERY OR JUST AFTER DELIVERY BLEEDING IN SUDDEN, VERY PROFUSE, LEADING TO COLLAPSE, SHOCK AND DEATH

O 25	2.22	ANAEMIA OF PREGNANCY	PREGNANT WOMEN WAS EXTREMELY PALE BLOODLESS BREATHLESSNESS & SWELLING IN FEET ASSOCIATED WITH MALNUTRITION, REPEATED .FEVERS .CHRONIC DIARRHOEA OR DYSENTRY
O 64	2.32	MALPOSITION OF CHILD (LEADING TO DEATH OF MOTHER)	CONDITION FOETUS INSIDE THE WOMB THAT MAY RESULT IN INJURY TO THE BABY OR THE MOTHER PROLONGED AND DIFFICULT LABOUR WHICH LEADS TO EXHAUSTION AND DEATH NON-AVAILABILITY OF OPERATIONAL FACILITIES AT HOME THE DELIVERY IN NATURAL METHODS MOTHER GETS EXHAUSTED DUE TO REPEATED INEFFECTIVE PAINS PULSE OF THE MOTHER RAPIDLY FALLS DUE TO HEAVY BLEEDING AND MOTHER DIES BEFORE THE EXPULSIONS
O 85	2.33	PUERPERAL SEPSIS	WITH IN TEN DAYS OF DELIVERY, HIGH FEVER, WITH FOUL SMELLING OF VAGINAL DISCHARGE MOTHER HAD SEVERE HEADACHE, SHIVERING ,AND SWEATING LOWER ABDOMEN WAS TENSE AND VERY PAINFUL THERE MAY BE TRAUMA TO THE PRIVATE PARTS, EITHER EXTERNAL OR INTERNAL
O 90	2.00	UNCLASSIFIED	MATERNAL DEATHS WITH SPECIFIC SYMPTOMS

P **CONDITIONS ORIGINATING IN THE PERINATAL PERIOD**

P 07	9.10	PREMATURITY	ALWAYS REFER TO THE NEW BORN BABY BABY IS VERY SMALL IN SIZE AND MARKEBLY UNDER WEIGHT EITHER IT S1 BORN EARLY, OR ONE OF THE PLURAL BIRTHS CHILD HAS FEEDING AND SUCKING DIFFICULTY SKIN IS VERY SOFT, AND NAILS ARE NOT FULLY DEVELOPPED HAIR ON HEAD ARE ALSO NOT DEVELOPED CRY OF THE BABY IS VERY FEEBLE AND WEEK
P 10-11-12-13-14-15	9.23	BIRTH INJURY	THERE IS A HISTORY OF PROLONGED LABOUR , WITH OR WITHOUT USE OF INSTRUMENTS . CHILD AFTER BIRTH IS USUALLY BLUE IN COLOUR . CRIES INA LOW VOICE HAD CONVULSIONS OR FACIAL PARALYSIS INJURIES ON THE FACE , UPPER EXTREMITIES , COLLAR BONE , ETC.
P 22	9.31	RESPIRATORY INFECTION OF NEW BORN	INFECTION OF THE RESPIRATORY TRACT ARE MOST COMMON
P 75-78	9.33	DIARRHOEA OF NEW BORN (DIGESTIVE SYSTEM DISORDERS OF NEW BORN)	INFANT SUDENTLY PASSES COUNTLESS NUMBER OF MOTIONS AND VOMITTINGS THE SKIN BECOMES DRY, THE TONGUE IS DRY AND PARCHED FONTANELLE ARE DEPRESSED THE EYES ARE SUNKEN URINE IS YELLOW AND SCANTY HIGH TEMPERATURE, AND THE CHILD SOON GOES INTO COMA AND PASSED MOTION IN THE UNCONSCIOUS STATE AND DIES

Q CONGENITAL MALFORMATION, DEFORMATIONS AND ABNORMALITIES

Q 00-99 9.22 **CONGENITAL MALFORMATION** CHILD HAS AN ABNORMAL HEAD , TOO BIG OR TOO SMALL
 SOME TIMES THE URINARY SYSTEM HAS SOME MALFORMATION
 SOME TIMES THE ANUS IS NOT PERFORATED TO PASS MOTION
 IN MAJOR ABNORMALITIES LIFE IS NOT COMPATIBLE

R SYMPTOMS, SIGNS AND ABNORMAL CLINICAL FINDINGS NOT ELSEWHERE MENTION

R 10 4.31 **ACUTE ABDOMEN** ASSOCIATED WITH HIGH TEMPERATURE AND VOMITING BUT NO MOTION
 DUE TO INFLAMATION OF INTESTINES, OR APPENDIX IN CHILDREN DUE TO VOLVULOUS (i.e TWISTING OF THE BOWL) OR MULTIPLE ROUND WORMS etc.
 THE PATIENT IS SEEN ACTUALLY RINGLING IN BED AFTER SEVERE PAIN ,THERE IS SUDDEN CALMNESS,PATIENT GOES INTO COMA AND DIES.

R 17 8.12 **JAUNDICE** EYES ARE YELLOW IN COLOUR ,AND THE SKIN IS YELLOW
 FEVER, HEADACHE, NAUSEA, VOMITING,AND LOSS OF APPETITE
 URINE IS OF YELLOW IN COLOUR.

R 54 10.00 **SENILITY** DECEASED PERSON SHOULD BE ABOVE 60 YEARS
 AND NONE OF THE SPECIFIC CAUSES NOTED ABOVE CAN TRACED

R 68.8 2.21 **TOXEMIA** SWELLING OF THE FEET
 BREATHLESSNESS AND FINALLY CONVULSIONS
 THERE MAY BE VOMITTING
 DEATH OCCURS DUE TO SEVRE CONVULSIONS OR BREATHLESSNESS

T INJURIES POISONING, AND OTHER CONSEQUENCES OF EXTERNAL CAUSES

T 20-32 1.24 **BURNS**

T 36-50 **POISONING BY DRUGS MEDICAL SUBSTANCES & BIOLOGICAL SUBSTANCES**

T 51-65 **TOXIC EFFECT OF ALCOHOL**

T 62 4.13 **FOOD POISONING** GROUP OF PERSONS HAVING SIMILAR ATTACK OF VOMITTING AND DIARRHOEA
 ONSET IS SUDDEN IN NATURE
 VOMIT MAY CONTAIN BLOOD OR FOUL SMELLING MATTER
 ACUTE PAIN IN THE STOMACH
 HIGH TEMPERATURE AND UNCONSCIOUSNESS

F 80-88
**COMPLICATIONS
 OF SURGICAL &
 MEDICAL CARE
 NOT ELSEWHERE
 CLASSIFIED**

V **EXTERNAL CAUSES OF MORTALITY**

V 01-99 1.23 **VEHICULAR
 ACCIDENTS**

V 01-09 PEDESTRIAN INJURED IN
 TRANSPORT ACCIDENT

V 10-19 CYCLIST INJURED IN
 TRANSPORT ACCIDENT

V 20-29 MOTORCYCLE RIDER
 INJURED IN TRANSPORT
 ACCIDENT

V 30-39 OCCUPANT OF THREE-
 WHEELED MOTOR
 VEHICLE INJURED IN
 TRANSPORT ACCIDENT

V 40-49 CAR OCCUPANT INJURED
 IN TRANSPORT
 ACCIDENT

V 50-79 OCCUPANT OF HEAVY
 TRANSPORT VEHICLE
 INJURED IN TRANSPORT
 ACCIDENT

V 80-89 OTHER LAND
 TRANSPORT ACCIDENT

W **OTHER EXTERNAL CAUSES OF ACCIDENTAL INJURIES**

W 00-19 1.22 **DEATH DUE TO
 FALL**

W 65-74 1.21 **DROWNING**

W 85-87 **DEATH DUE TO
 ELECTRIC
 CUURENT**

X **WITH VENOMOUS ANIMAL CONTACT**

X 20 1.11 **SNAKEBITE** EVIDENCE OF PUNCTURED WOUNDS USUALLY TWO IN
 NUMBERS SET ONE INCH APART
 BITTEN PART IS SWOLLEN AND PAINFULL
 PATIENT IS DULL AND UNABLE TO STAND UP
 SALIVA FLOWING OUT OF MOUTH
 VOICE IS LOST ,DIFFICULTY IN BREATHING AND FINALLY
 THE RESPIRATION STOPS

X 22	1.12	SCORPIAN BITE	SWELLING OF LOCAL AREA VERY SEVERE PAIN PATIENT BECOMES COLD ,GETS EXHAUSTED AND DIES
X 30	1.51	EXPOSURE TO EXCESSIVE HEAT	
X31	1.52	EXPOSURE TO EXCESSIVE COLD	
X30-39	1.53	VICTIM OF OTHER NATURAL CALAMITY	SUCH AS LIGHTNING,EARTHQUAKE,FLOOD,LANDSLIDE, STORM OR UNSPECIFIED FORCES OF NATURE
X 40-49		ACCIDENTAL POISONING BY AND EXPOSURE TO NOXIOUS SUBSTANCE	
X 60-84	1.30	INTENTIONAL SELF HARM	SUICIDE
X60-64 X 65-69		SELF POISONING - DO -	ANALGESIC,SEDATIVES,NARCOTICS,DRUGS ALCOHOL ,ORGANIC SOLVENTS,PESTICIDES
X70		HANGING , STRANGULATION	
X 71		DROWNING	
X72-74		FIRE ARMS	HANDGUN ,RIFLE,OTHER FIRE ARMS
X85-Y09	1.40	ASSAULT	HOMICIDE

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