

# 1

## BACKGROUND

Estimation of disease burden in a population provides a basis for setting up priorities in health programmes. Causes of death statistics is therefore essential for a meaningful planning of health care and allocation of resources. In developed countries, data on disease-specific mortality by age is readily available from national vital registration. In developing countries, where four-fifth of world's deaths occurs, estimation of causes of death is difficult due to insufficient coverage of vital registration and low reliability of the cause of death in the death certificate. The reason for such low reliability is primarily due to the non-attendance of majority of deaths by qualified medical practitioners and also tendency to assign deaths to unclassifiable categories<sup>1,2</sup>. In India, in the absence of reliable vital statistics from Civil Registration System, Office of the Registrar General, India, adopts an alternative approach to have reporting of causes of death from lay reporters in rural areas and medical attendants in urban areas on sample basis. Such reports reach State Vital Statistics Office through the primary health centres (PHCs) in rural areas and the Municipal Health Office in urban areas.

In rural areas, until December 1998, data on cause of death were collected through the survey of cause of death – rural scheme (SCD-Rural scheme) from a sample of villages (random or non random) using Verbal Autopsy (a lay diagnosis and reporting system). Despite a few limitations like improper medical certification, high proportion of recorded cause of death as senility and reclassification of disease group, SCD has been considered the most reliable source of mortality data in India for rural area and international comparison<sup>3</sup>. Keeping in view the needs of users, the survey of causes of deaths (rural) has been merged with the Sample Registration System (SRS) from January 1999 to give more impetus covering both rural and urban areas<sup>4</sup>.

In urban areas, a medical certification of cause of death (MCCD) scheme has been operational. It was implemented in most of the States and Union Territories in a phased manner to provide reliable data on cause of death. This system covers mostly those deaths which occurred in medical institutions, generally in urban areas. The coverage of MCCD is not uniform in all states - some states have notified only teaching and specialised hospitals whereas in some other states, only district hospitals and Primary Health Centres have been notified. In some states, MCCD is implemented in a few private hospitals also. There are some states which have not yet implemented it at all. The Registrar General, India, has issued instructions in April 1999 to bring all hospitals whether public or private including

nursing homes and maternity homes and private medical practitioners in urban and rural areas under the MCCD<sup>4</sup>. The medical causes of death could be determined only by post mortem autopsy. Hence, even in hospital deaths in India post-mortem autopsy is not conducted in all the cases. Thus, the accuracy of information on causes of death obtained even from the hospital statistics is far less than 100%. Available reports based on hospital data thereby do not truly reflect the pattern of mortality causes occurring in the general population.

A meaningful estimation of the burden of mortality is possible only if there is a systematic and periodic collection of mortality data, which is simple, rapid, accurate and reliable. Lack of adequate medical and paramedical manpower uniformly across the country delimits collection of periodic data on causes of deaths. In addition, three-quarter of India's population lives in rural areas and it is not feasible to build up statistics of mortality causes based only on MCCD. Under these prevailing circumstances, collection of information on causes of death becomes a challenging task both for the policy makers and researchers alike.

A task force was constituted at Indian Council of Medical Research (ICMR) to deliberate on the issue. The expert group under the task force discussed possible ways to collect information on causes of deaths and opined to adopt verbal autopsy method for this purpose. It was suggested that for verbal autopsies, to be comparable, they need to be based on similar interviews and the cause of death needs to be arrived at in the same way in all cases. A study was then planned with the objectives to assess probable causes of deaths in male and female population in selected States of India and study socio-economic profile of the households with deaths in the study population. It was decided to carry out study on causes of deaths in five selected States, namely, Assam, Bihar, Maharashtra, Rajasthan, and Tamil Nadu representing different regions of India. The process including methodology, collection of data and major findings of the study are presented in the present report.

# 2

## METHODOLOGY

### 2.1 The Verbal Autopsy

The verbal autopsy method is a systematic retrospective inquiry from the caregiver close to the deceased person about the signs and symptoms of illness prior to death of the deceased and is used to help in determining the underlying medical cause of death. Usually such a caregiver is close relative or an attendant who is knowledgeable about the events or circumstances leading to death of the deceased. The method has been widely used to ascertain causes of death both in children and adults to have an effective mortality statistics, properly designed instrument to suit local conditions, trained interviewer and physicians to interpret questionnaire is required. Some of the studies focused on validation of verbal autopsy deaths<sup>5,6,7,8</sup>. Traditionally, physicians analyze the information obtained from caretakers of the deceased and a cause of death is arrived if majority of the physicians on a panel agreed on a common cause. The accuracy of the physician reviews has been tested in several settings using cause of death assigned from hospital records as the “gold standard”. Physician reviews of verbal autopsy gave robust estimates of cause-specific mortality fractions of several causes of death, the sensitivity, specificity and predictive values varied between causes of death and between populations.<sup>9,10,11,12</sup> Chandramohan et al<sup>13</sup>, analyzed the validity of verbal autopsy deaths against hospital diagnoses/death certificates and found variations in the sensitivity and specificity of various causes of death. There still exist some methodological differences in the estimation of causes of death by verbal autopsy. Though the verbal autopsy method for ascertaining causes of deaths is of established value, more research needs to be conducted so as to standardize the method and find a solution for getting an acceptable level of uniformity in data collection using rapid survey method.

#### 2.1.1 Study Instruments

An attempt was made to ascertain cause of death by verbal autopsy in childhood, adult age including maternal deaths through the following five instruments:

Questionnaire	Module	Type of Information to be collected
Common in all questionnaire	01-04	Identification, Socio-economic data and cause of death
1	01	Still births
2	01	Neonatal deaths (0-28 days)
3	01-13	Child deaths (29 days – 5 years)
4	01-32	Death above 5 years
	01-27	Causes for adult deaths excluding maternal deaths
5	28-32	Maternal deaths

**Each questionnaire consisted of four sections:**

(i) *Identification characteristics of deceased:* The investigators collected information on type of death, locality (rural/urban), name of the head of household, detail address of the deceased household, name of the deceased, nearest Primary Health Centre, sub-centre, date of the interview and signature of the investigator, etc. At the end of interview, investigator was required to fill up result of the interview, supervisor's signature after ticking in field, cause of death assigned by medical officer and his/her signature.

(ii) *History of illness prior to death in a narrative format:* The investigators asked the respondent (someone close relative of the deceased who was with the deceased during the terminal phase of the illness and had knowledge about the illness or events preceding death) about history of illness or events leading to death of the deceased. Enquiry was also done on the treatment history along with the treatment records. If the death certificate was available with the informant it was also scrutinized. The events of symptoms/signs were noted in chronological order. It was emphasized to write the narrative history in the local language to get maximum information in terms of the respondent's own words.

(iii) *Questions on symptoms and signs of illness preceding death:* A set of questions on symptoms and signs of illness preceding death – which is called module were developed separately for still birth (1 module), neo-natal death (1 module), under-five mortality (13 modules), adult mortality (27 modules) and maternal death (5 modules).

(iv) *Socio-environmental variables:* Information on household size, type of house, availability of separate room as kitchen, source of drinking water, electricity, toilet facility, type of drainage facility, religion, education and occupation of the deceased which are likely to influence health and treatment seeking behaviour of the individuals were collected.

The questionnaires were prepared by a panel of experts at Indian Council of Medical Research using standardized tools used in various studies conducted earlier in India<sup>14</sup> and abroad<sup>15</sup>. All these questionnaires (see Appendix C) for each state were bilingual, with questions in both English and state language for uniformity in asking the questions. An instruction manual (field protocol) was prepared consisting of detailed explanatory notes on each question under various sections of verbal autopsy instruments. Some terms used in the study along with explanation are given below:

*Still Birth:* According to WHO, a fetus born dead and weight over 500 grams is taken as still birth. Death of the fetus is indicated by the fact that after separation of the fetus from



mother, it does not breathe or show any other evidence of life, such as beating of heart, pulsation of umbilical cord or definite movement of voluntary muscles. In the present study, still birth has been defined as “no cry at the time of birth or having no signs/symptoms of life at birth i.e., absence of chest expansion, heart beat, movements etc.”

*Neonatal death:* Deaths that have occurred during neonatal period/post-neonatal, commencing at birth and ending at 28 days after birth.

*Infant death:* Deaths that have occurred during neonatal period, commencing at birth and ending at 364 completed days after birth.

*Child death-* Deaths that have occurred between 1-4 years of age.

*Death in the age more than five years-*Deaths occurred after five or more years of age.

*Maternal death:* Death of a woman, while pregnant or within 42 days of termination of pregnancy, irrespective of duration and site of pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.

#### *Classification of Causes of Death*

The verbal autopsy used for the data collection in the present survey was exhaustive. It contained verbatim questions on symptoms, signs and modules. Based on the responses about the signs and symptoms preceding death, the causes of death were determined using the diagnostic criteria in the guidelines developed<sup>16</sup>.

The WHO brought out tenth revision of International Classification of diseases (ICD-10) in 1993. The MCCD prepared a national list of tabulation of morbidity and mortality data based on ICD-10 in consultation with the states to meet their requirements and adopted in 1999. The list based on ICD-10 comprised of 20 major groups, 69 categories and 193 sub-categories of causes<sup>14</sup>. As adopted in MCCD and recommended in ICD-10, data on causes of death of the present survey have been tabulated in 69 categories of causes under major cause-groups I to XX of the National list including external causes of morbidity and mortality.

In the present survey, the ICD-10 book for writing codes of diagnoses up to three digits (one alpha and two numeric), as recommended by WHO, was used for arriving at the probable cause of death. For certain broad-specific groups of public health importance, details of sub-categories of causes of death are highlighted. Medical personnel re-checked the filled questionnaires and probable diagnosis was made as per the guidelines. In all cases, opinion of second medical personnel (scientist) was also taken and the agreed diagnosis was considered.

### **2.1.2 Validation of Study Instruments**

*Pre-testing:* The above instruments were pre-tested in the field condition in both rural and urban areas of Delhi. A team of investigators from the Department of Community Medicine, Maulana Azad Medical College (MAMC), and the National Institute of Medical Statistics (NIMS), carried out the exercise under the supervision of a Medical Scientist and

Statisticians of these Institutions. After pre-testing and detailed discussion among experts at ICMR instruments were finalized.

*Pilot Study:* A pilot study on causes of death by verbal autopsy was conducted by the National Institute of Medical Statistics (NIMS), New Delhi and National Institute of Epidemiology (NIE), Chennai in Rajasthan and Tamil Nadu respectively. The two States were considered to represent northern and southern region of India. In Rajasthan, all deaths occurred in last one year (January–December 1999) in SRS sampling units of Bharatpur district were taken for the survey. In case of Tamil Nadu, however, all deaths occurred in two Primary Health Centres namely Sriperumbudur and Kancheepuram of Chingleput district (Leprosy Vaccine Trial Area of NIE) were considered for the survey. The field team consisting of one medical scientist, two social scientists and one key informant contacted the households where a death had occurred in the last one year and carried out verbal autopsy for cause measurement. The key informant assisted in tracing the households while social scientists conducted the survey and medical scientist assigned the cause of death based on the guidelines developed for the survey. The study demonstrated that there was a high level of concordance (sensitivity and specificity) between the causes ascertained by verbal autopsy and the medical certification.

## 2.2 Survey Design and Implementation of the Main Survey

Following a pre-testing and pilot study, the survey on causes of death by verbal autopsy was carried out in five selected states of India namely, Assam, Bihar, Maharashtra, Rajasthan and Tamil Nadu. The survey was designed to provide estimates of the causes of death for these States.

A stratified multi-stage sampling design was adopted. The stratification was geographic with group of districts being classified into contiguous regions. As in the Sample Registration System, Assam state was divided into five geographic regions; Bihar, Rajasthan and Maharashtra each into six geographical regions and Tamil Nadu into four zones. One district each from every region in the State was selected by probability proportional to population size (PPS). In Assam, however, fifth region comprising of Karbi Anglong and Cachar was excluded due to the political unrest prevailing in the district at that time. State-wise details of the geographical regions, selected district from each geographic region, number of sample units (village in rural area and wards in urban area) are given Table.

In each district, a target of 30 primary sampling units which were villages in case of rural area and Census Enumeration Blocks (CEBs) in case of urban area were selected independently by distributing these into the ratio of the size of urban and rural area. The 1991 Primary Census Abstract was used as a sampling frame<sup>17</sup>. In the selected districts, all villages in the rural area were arranged according to the level of female literacy in ascending or descending order as a part of implicit stratification by the said variable. From the list of villages so arranged, villages were selected systematically with probability proportional to population size (PPS) of the village. The villages with population more than 1000 were divided into 2-3 segments of approximately same size and one segment was selected randomly for the survey.

Similarly, in case of urban area, all the urban wards were arranged by the level of female literacy, and a sample of wards was selected systematically with probability proportional to population size. Next, one Census Enumeration Block (CEB) consisting of approximately 150–200 households was selected randomly from each selected ward.

Distribution of number of selected PSUs by State			
Region/zone	District Selected	Rural	Urban
<b>Assam</b>			
I	Kamrup	20	10
II	Sonitpur	28	2
III	Dibrugarh	25	5
IV	Lakhimpur	28	2
<b>Bihar</b>			
I	Paschim Champaran	27	03
II	Darbhanga	27	03
III	Purnea	27	03
IV	Patna	19	11
V	Munger	25	05
VI	Nalanda	26	04
<b>Rajasthan</b>			
I	Jodhpur	19	11
	Sirohi	24	6
II	Jaipur	18	12
	Alwar	26	4
III	Udaipur	25	5
IV	Kota	19	11
<b>Maharashtra</b>			
I	Akola	21	9
II	Bhandara	26	4
III	Jalgaon	22	8
IV	Pune	15	15
V	Thane	11	19
VI	Ycetmal	24	5
<b>Tamil Nadu</b>			
I	Kancheepuram & Thiruvaller	21	9
II	Tiruchiraplli	18	12
III	Salem	20	10
IV	Virudhunagar	18	12

## 2.3 Data Collection

### *Reference Period and Launch of the Survey*

The events (deaths) which occurred in every household in the selected village in rural area and CEB in urban area during 1 January to 31 December 2003 were enumerated in the survey. Six-monthly survey was conducted in each State to collect information during the first and the second half of the year 2003. In first round of survey, all those

deaths which occurred in January-June 2003 and in the second round all those deaths which occurred in July-December, 2003 were identified by house-to-house survey for the verbal autopsy. The reporting of deaths was supplemented by death reports from key informants, viz., the health workers or private practitioners or prominent persons in the locality and list of deaths from the Municipal Corporation in urban area/Gram Panchayat during fixed reference period. After identifying the households, a close relative or caretaker or neighbour who attended the deceased person during the terminal phase preceding death was contacted for details information of the illness or events leading to death. The verbal autopsy questionnaires were filled in after taking respondent's consent.

### *Training*

Investigators were chosen at the local level in all the selected states. Investigators included both non-medical and medical personnel. The non-medical persons were graduates or above in science or social sciences and having at least one year of field experience. Medical persons were either graduate with field experience or post graduates.

A two-day training workshop was conducted on the questions/items in the questionnaires; mock interviews and real interviews in the field focusing on the difficulties, problem in the use of questionnaires, diagnosis and operational issues. The medical personnel were also trained separately for supervision of the field investigators in recording proper narrative history from the informants and their diagnosis.

### **2.3.1 Sample Weight and Standardization**

Appropriate sample weights were developed to provide estimated number of deaths in a state according to different characteristics. Further, sample registration system (SRS) data on distribution of deaths by age, sex and place of residence have been used. It is as follows:

Define,

$P_j$  = Total population in the  $j^{\text{th}}$  region of the state;

$P_{jk}$  = Total population of the  $k^{\text{th}}$  selected district of the  $j^{\text{th}}$  region;

$P_{jk}^R$  = Total rural population of the  $k^{\text{th}}$  selected district of the  $j^{\text{th}}$  region;

$P_{jk}^U$  = Total urban population of the  $k^{\text{th}}$  selected district of the  $j^{\text{th}}$  region;

$P_{jki}^R$  = Total population of the  $i^{\text{th}}$  selected village of the  $k^{\text{th}}$  selected district from the  $j^{\text{th}}$  region;

$P_{jki}^U$  = Total population of the  $i^{\text{th}}$  selected ward of the  $k^{\text{th}}$  selected district from the  $j^{\text{th}}$  region;

$n_{jk}^R$  = Total number of villages selected from the  $k^{\text{th}}$  selected district of the  $j^{\text{th}}$  region;

$n_{jk}^U$  = Total number of wards selected from the  $k^{\text{th}}$  selected district of the  $j^{\text{th}}$  region;

$n_{jki}^U$  = Total number of blocks in the  $i^{\text{th}}$  selected ward of  $k^{\text{th}}$  district in the  $j^{\text{th}}$  region;

$n_{jki}^R$  = Total number of segments in the  $i^{\text{th}}$  selected village of  $k^{\text{th}}$  district in the  $j^{\text{th}}$  region;

$D_{jki}^R$  = Enumerated number of deaths during January 1 – December 31, 2003 in the  $i^{\text{th}}$  selected village from the  $k^{\text{th}}$  selected district of the  $j^{\text{th}}$  region;

$D_{jki}^U$  = Enumerated number of deaths during January 1 – December 31, 2003 in the selected block from the  $i^{\text{th}}$  selected ward of the  $k^{\text{th}}$  selected district of the  $j^{\text{th}}$  region;

$Y_{jkliu}$  = The value of the study variable for the  $u^{\text{th}}$  deceased in the  $i^{\text{th}}$  unit of  $l^{\text{th}}$  domain ( $l=1$ , for rural domain and the unit is village &  $l=2$  for urban domain and the unit is CEB in the selected ward) of the  $k^{\text{th}}$  selected district of  $j^{\text{th}}$  region;

$$I_{mnc}^{jkl i u} = \begin{cases} 1, & \text{if age of the deceased at death } \mathbf{m} \text{ (m=1 through 16 stands for the age groups 0-1, 1-4, 5-9, 10-14, \dots, 65-69, 70+ years respectively), sex } \mathbf{n} \text{ (n=1 for males \& n=2 for females) and cause of death was } \mathbf{c} \\ 0, & \text{otherwise} \end{cases}$$

and

$$I_{mn}^{jkl i u} = \begin{cases} 1, & \text{if age of the deceased at death was } \mathbf{m} \text{ and sex } \mathbf{n} \\ 0, & \text{otherwise} \end{cases}$$

Sample weight for the  $i^{\text{th}}$  village of  $k^{\text{th}}$  district of  $j^{\text{th}}$  region

$$W_{jkli} = \frac{P_j}{P_{jk}} \cdot \frac{I}{n_{jk}^R} \cdot \frac{P_{jk}^R}{P_{jki}^R} \cdot n_{jki}^R$$

Sample weight for the CEB of ward  $i$  selected from district  $k$  of  $j$  region

$$W_{jk2i} = \frac{P_j}{P_{jk}} \cdot \frac{I}{n_{jk}^U} \cdot \frac{P_{jk}^U}{P_{jki}^U} \cdot n_{jki}^U$$

Taking  $Y_{jkliu} = 1$  for all possible values of  $j, k, l, i, u$  the estimated number of deaths in a state is:

$$D_{State} = \sum_{\substack{\text{over} \\ \text{possible} \\ \text{value of} \\ j, k, l, i, u}} Y_{jkliu} * W_{jkli}$$

The estimated numbers of deaths at age  $m$ , sex  $n$  in place of residence  $l$ :  
due to any cause  $c$  is

$$D_{lmnc} = \sum_{\substack{\text{over} \\ \text{possible} \\ \text{value of} \\ j, k, l, i, u}} Y_{jkliu} * W_{jkli} I_{mnc}^{jkl i u}$$

and due to any cause is

$$D_{lmn} = \sum_{\substack{\text{over} \\ \text{possible} \\ \text{value of} \\ j,k,l,i,u}} Y_{jkliu} * W_{jkli} I_{lmn}^{jkliu}$$

## 2.4 Data Quality Assessment and Adjustment

Uniform data entry layout, data entry software and tabulation plan were developed and used for all the States. Supervision was done for checking the work of survey staff reinforcing the standards and protocol of the study. In addition, 10% of the questionnaires were checked for completeness and accuracy by the staff of the collaborating Institutions and the consultant. The questionnaires with uncertain diagnosis or unspecified categories were also rechecked and errors were rectified in the field itself. Although supervisor and medical officer examined completed questionnaire in the field, all the questionnaires were re-edited at the office of the concerned state. Appropriate ICD-10 codes were also assigned for cause of death and validated by medical consultant. Finally, computer-based checks were carried out to clean the data and remove inconsistencies, if any.

### *Data processing*

For checking the completeness of deaths reported in the survey, estimated deaths based on sampling design by age, sex and place of residence were compared with those estimated in Sample Registration System for the corresponding year, i.e., 2003 for each of the five selected states.

The present survey enumerated 1881 deaths in Assam, 3314 deaths in Bihar, 1525 deaths in Maharashtra, 3140 deaths in Rajasthan, and 3735 deaths in Tamil Nadu. The number of sample deaths in five states by age at death, sex and place of residence are given in Appendix (Table 1). The distribution of deaths by age at death for male, female and total as revealed in the present survey and that in SRS for the corresponding year in five selected states are presented in Table 2.

A comparison of the ratio of male deaths to female deaths in the present survey and that in the SRS (taken as gold standard) indicates an under enumeration of female deaths in the survey in all the States. However, the extent of under-enumeration is small in Bihar. Further, the comparison of the percentage of deaths in different age segments to total deaths in the present survey and the SRS, suggests under-enumeration of deaths in age groups <1, 1-4 and 15-59 and over reporting in the age groups 5-14 and 60+. The scenario is more pronounced in case of female deaths. There is under-enumeration of male as well as female infant deaths in all the five States but the magnitude is least in Tamil Nadu.

The distribution of enumerated infant deaths further by age death: 0-7 days (early neonatal), 7-30 days (late neonatal) and 1-11 months (post-neonatal) by the place of residence is shown in Table 3. When compared this distribution with that of SRS, it was found that post-neonatal deaths in all the states and also early neonatal deaths in Rajasthan are under-reported in the survey.

Number of still births and early neonatal deaths by sex according to place of residence and ratio of still births to early neonatal deaths—in the present survey and that in SRS in five selected States are displayed in Table 4. The comparison shows that the still births in this survey were reported to be higher in Assam, Bihar, Maharashtra and Rajasthan, and lower in Tamil Nadu.

In view of the above consideration,  $D_{lmn}^s$ , the average of the estimated number of deaths as reported in SRS of persons at age  $m$ , sex  $n$  in place of residence 1 in a state  $s$  during, 2002, 2003 and 2004 as the expected estimated deaths in a state in 2003 and using the cause specific deaths ratios at age  $m$ , sex  $n$  in place of residence 1 ( $m=0-1, 1-4, 5-9, 10-14, \dots, 65-69, 70+$ ,  $n=1$  Male,  $n=2$  female and  $l=1$  Rural,  $l=2$  Urban) as obtained in the present survey, improved estimates of distribution of deaths due to cause by age, sex and place of residence are obtained and are used in analysis compute various indices, For this, let us define,

$$I_{mnc}^{*jkl iu} = \frac{D_{lmn}^s}{D_{lmn}} \cdot I_{mnc}^{j,k,l,i,u}$$

$$I_{mn}^{*jkl iu} = \frac{D_{lmn}^s}{D_{lmn}} \cdot I_{mnc}^{j,k,l,i,u}$$

The improved estimate of the deaths at age (say) '15-49' and sex 'n' in place of residence  $l$  is:

due to cause  $c$

$$D_{l'15-49'nc}^* = \sum_{m=5}^{m=11} \sum_{\substack{\text{over} \\ \text{possible} \\ \text{values of} \\ j,k,l,i,u}} Y_{jkliu} * W_{jkli} I_{mnc}^{*jkl iu}$$

and due to any cause

$$D_{l'15-49'n}^* = \sum_{m=5}^{m=11} \sum_{\substack{\text{over} \\ \text{possible} \\ \text{values of} \\ j,k,l,i,u}} Y_{jkliu} * W_{jkli} I_{mn}^{*jkl iu}$$

The estimates  $D_{lmn}^*$  and  $D_{lmnc}^*$  are hereafter used in the sections that follow to analyse the data.



# 3

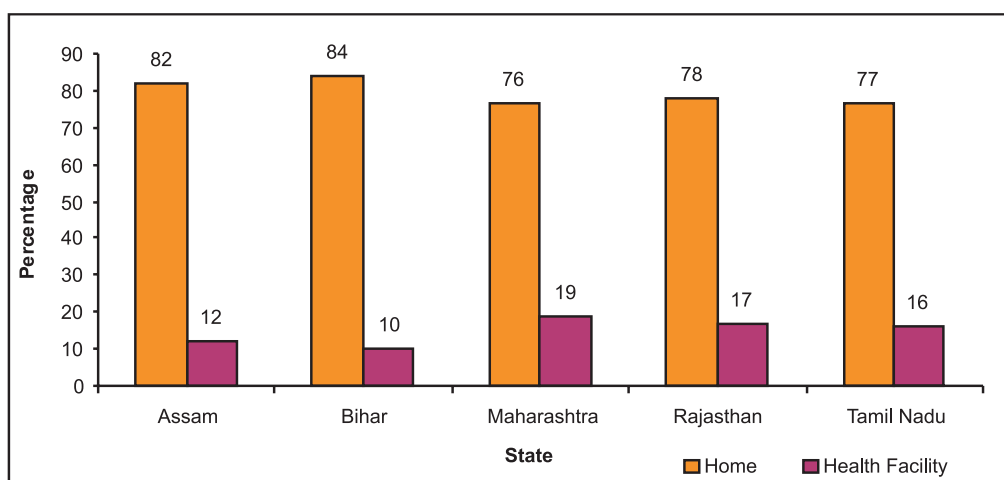
## DEMOGRAPHIC AND SOCIO-ECONOMIC PROFILES OF DEATH

Health of a population is mostly influenced by demographic and socio-economic factors. Mortality shows significant variation in relation to certain characteristics of the decedent and the event. It also varies with characteristics of the community and the physical environment. The survey on cause of death collected information on characteristics of the decedent (e.g. age, sex, marital status, socio-economic status, occupation, urban-rural residence etc.), characteristics of event (cause, place, and date of death) and caste and religion of the decedent. It allows for the detailed analysis of population subgroups by socio-demographic characteristics and geographical area.

The objective of the present section is to compare incidence of mortality and place of occurrence of death by sex, place of residence, socio-economic status, educational level etc. according to age.

The percentage of estimated deaths by facility according to selected background characteristics are presented in Tables 5a-5f. Tables 6a– 6f display the percentage of deaths by place of residence according to the background characteristics. Following figure shows the percentage of deaths according to the place of death for five selected states.

From the above figure it is evident that deaths in health facilities are about one-fourth in Maharashtra (19%) and much lower in Assam (12%) and Bihar (10%). Of the



**Figure 1: Percentage distribution of estimated deaths by place of death in five states, 2003**

total infant deaths, percentage of deaths in health facilities is about 48% in Maharashtra; 46% in Tamil Nadu; 22% in Rajasthan and little above 12% in Assam and Bihar. In Rajasthan, about 12-13% of child deaths in age groups between 1-4 and 5-14 occurred in health facilities. About 22% of deaths among children aged 1-4 years in Maharashtra occurred in the health facility whereas this figure was around 8-12% in Assam, Bihar and Tamil Nadu. Percentage of deaths among children aged 5-14 years in health facilities was found to be much higher in Tamil Nadu (37%) compared to remaining states where it ranged between 10 and 20%.

Percentage of deaths among adult persons in health facilities was little higher in Rajasthan and Maharashtra than in other states. However, variations in percentage of deaths in health facilities in states in persons age 15-59 and 60+ as compared to younger age groups, were found to be much less. About one in five deaths in the age group 15-59 in Rajasthan, Tamil Nadu and Maharashtra and around one in seven in Assam and Bihar occurred in health facilities.

Percentage of deaths in health facility among different age groups of persons in Assam and Bihar was higher for males than for females. Similarly, this percentage among infants was higher for males than for females in all states except for Maharashtra and Rajasthan. However, the percentage was higher for females compared to males for all other age groups in Maharashtra and for age groups 5-14, 15-59 and 60+ in Rajasthan and Tamil Nadu. Deaths in health facility were higher in urban areas compared to rural areas among adults and elderly population.

As expected, deaths in all states and at different age groups, health facility is positively associated with facility index (see Tables 6a-6f) and level of education. Lower level of social status and economic situation does not provide access to affordable medical care.

Table 7 gives percent distribution of still births by selected socio-economic characteristics in five states. The Table shows that most of the still births occurred at home in Bihar and Assam (67% and 65%) except for Maharashtra. In Maharashtra, a majority of the still births have occurred in health facility (53%). However, in Tamil Nadu an almost equal proportion of still births occurred at home as well as in health facility (45%). In all five states still births were reported mostly among Hindus (69-97%). Among Muslims, only 2-8% still births were reported in Tamil Nadu, Maharashtra and Rajasthan and almost a quarter were reported in Assam and Bihar. At the time of still births a majority of the mothers were either housewives or engaged in household works in Assam, Bihar and Rajasthan (84-90%). Only in Tamil Nadu, a substantial proportion (42%) of the mothers was engaged in other works. Also, fathers were mostly unskilled labourer or cultivators in Assam, Bihar and Rajasthan except Tamil Nadu, where they were mostly engaged in other works. Looking at the educational characteristic of parents, it is apparent that they were either illiterate or primary educated in Bihar, Rajasthan and Assam. However, in Tamil Nadu educational status of parents were slightly better off than in other states. A significant variation in still births was seen according to household facilities in states. A majority of still births were reported among household having low facilities in Bihar and Assam (76% and 64% respectively). However, majority of still births were reported among household having medium or high facilities in Tamil Nadu, Maharashtra and Rajasthan (87%, 76% and 69% respectively).

# 4

## CAUSES OF DEATH

The survey finds that (Figures 1a-1c and Tables 8a-8c), infectious and parasitic diseases were the most common causes of death in Assam, Bihar, and Rajasthan. However, diseases of the circulatory system were most common causes of death in Maharashtra and Tamil Nadu.

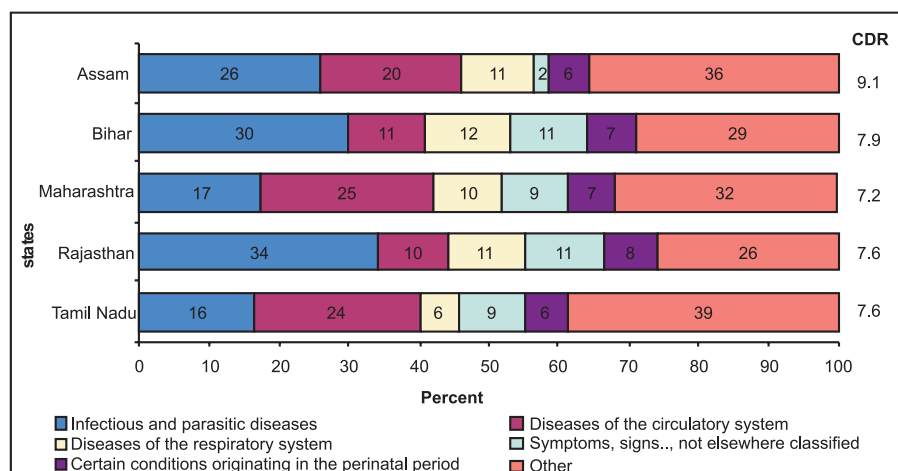
One-quarter deaths occurred due to infectious and parasitic diseases in Assam. The next important causes of deaths in the state were diseases of circulatory system (20%), diseases of respiratory system (11%), and certain conditions originating in the peri-natal period (6%). The symptoms, signs and abdominal clinical and laboratory findings not elsewhere classified were the causes of 2% of deaths in the State.

In Bihar where 30% of deaths occurred due to infectious and parasitic diseases, over one-third deaths were due to either diseases of respiratory system, or diseases of circulatory system or symptoms, signs and abdominal clinical and laboratory findings, not elsewhere classified. Certain conditions originating in the peri-natal period and injury, poisoning and certain other consequences of external causes were other important causes of death in the State.

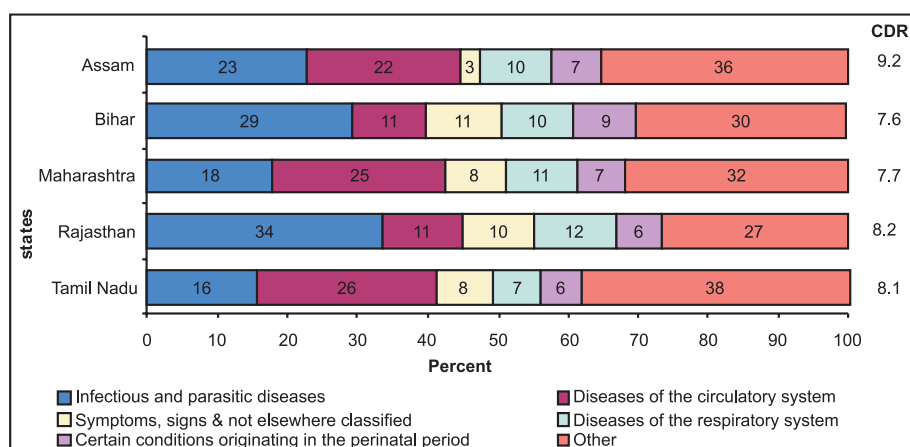
In Rajasthan, over one-third deaths were due to certain infectious and parasitic diseases. Another one-third deaths were either due to symptoms, signs and abdominal clinical and laboratory findings, not elsewhere classified (11%) or due to diseases of respiratory system (11%) or diseases of circulatory system (10%).

In Maharashtra, one-quarter of deaths are due to diseases of the circulatory system followed by certain infectious and parasitic diseases (17%), diseases of respiratory system (10%), symptoms, signs and abnormal clinical and laboratory findings not classified elsewhere (9%), external causes of morbidity and mortality (6%), and diseases of the digestive system (5%).

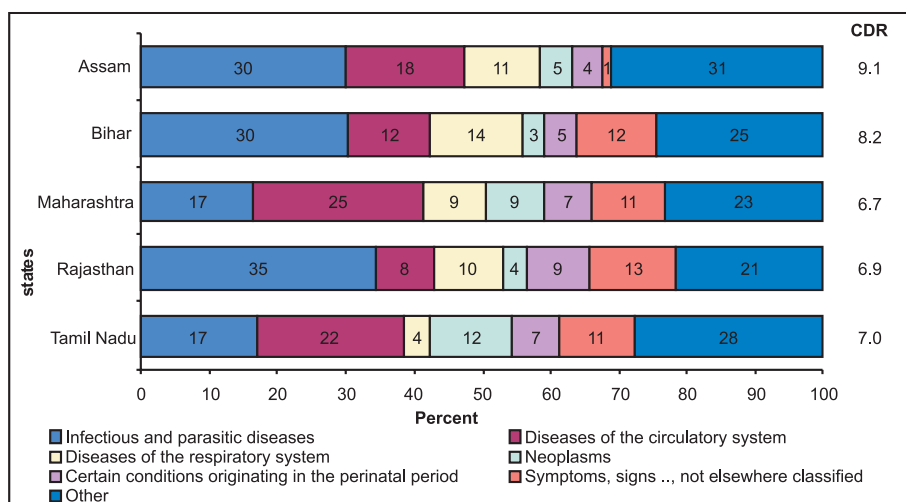
In Tamil Nadu, diseases of circulatory system, the most common cause of death in the State, accounted for 24% of deaths followed by certain infectious and parasitic diseases (16%), injury, poisoning and certain other consequences of external causes (14%). The other important causes of death in the State were symptoms, signs and abnormal clinical and laboratory findings not classified elsewhere, and neoplasm (9% each).



**Figure 2a: Estimated percent distribution of persons death by causes of death (ICD10 classification) in five selected states, 2003**



**Figure 2b: Estimated percent distribution of male deaths by causes of death (ICD10 classification) in five selected states, 2003**



**Figure 2c: Estimated percent distribution of female deaths by causes of death (ICD10 classification) in five selected states, 2003**

#### 4.1 Causes of Infant Deaths

Certain conditions originating in the peri-natal period were the most common cause of infant deaths in Assam (31%), Bihar (30%), Maharashtra (50%) and Tamil Nadu (60%) whereas certain infectious and parasitic diseases were the most common cause of infant death in Rajasthan.

In Assam, next important cause of infant death was diseases of respiratory system (24%) and certain infectious and parasitic diseases (22%). Over one-tenth of infant deaths in Assam occurred due to congenital malformations, deformations and chromosomal abnormalities.

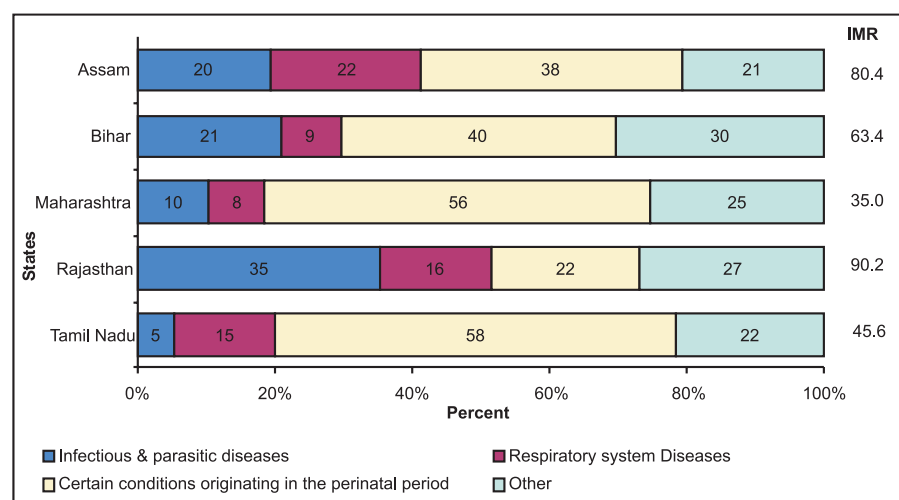
In Bihar, certain infectious and parasitic diseases with 22% of infant deaths were second most common cause of infant death. One-tenth of infant deaths occurred due to diseases of respiratory system and 13% infant deaths occurred due to symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified.

In Maharashtra, the second leading cause of death was diseases of the respiratory system followed by symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified and congenital malformations, deformations and chromosomal abnormalities.

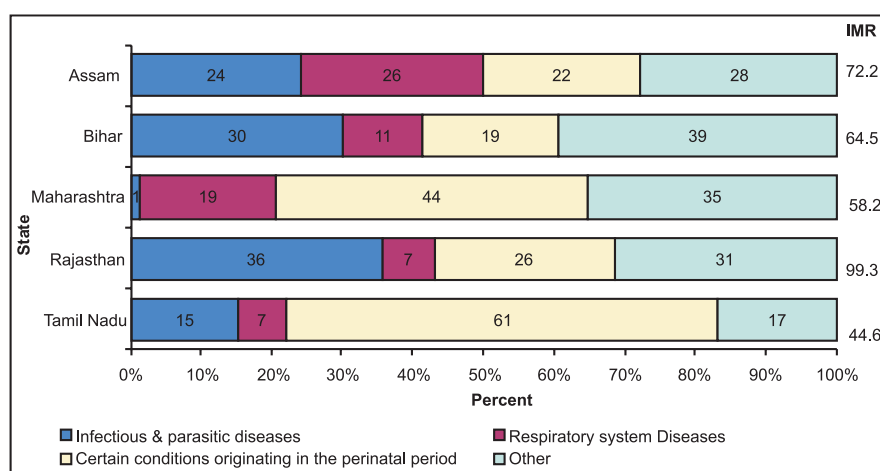
Certain conditions originating in the peri-natal period (24%) was the second most common cause of infant deaths in Rajasthan. It was followed by the symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (14%) and diseases of respiratory system (12%).

In Tamil Nadu, the second leading cause of infant death was congenital malformations, deformations and chromosomal abnormalities (12%) and it was closely followed by diseases of respiratory system (11%) and certain infectious and parasitic diseases (10%).

The peri-natal conditions originating in the time period just after child birth, occasionally, shortly before birth and sometimes up to the whole of neonatal period, were responsible for



**Figure 3a: Percent distribution of estimated male infant deaths by causes of death (ICD10 classification) in five selected states, 2003**



**Figure 3b: Percent distribution of estimated female infant deaths by causes of death (ICD10 classification) in five selected states, 2003**

many infant deaths. This may be due to birth asphyxia, low birth weight and hypothermia of new born in the population. The cause remains most common for both male and females in Maharashtra, for males in Assam and Bihar. Infectious and parasitic diseases remain the most common cause of infant deaths both for male and female [Figures 3(a)-3(b) and Table 9a].

## 4.2 Causes of Child Deaths

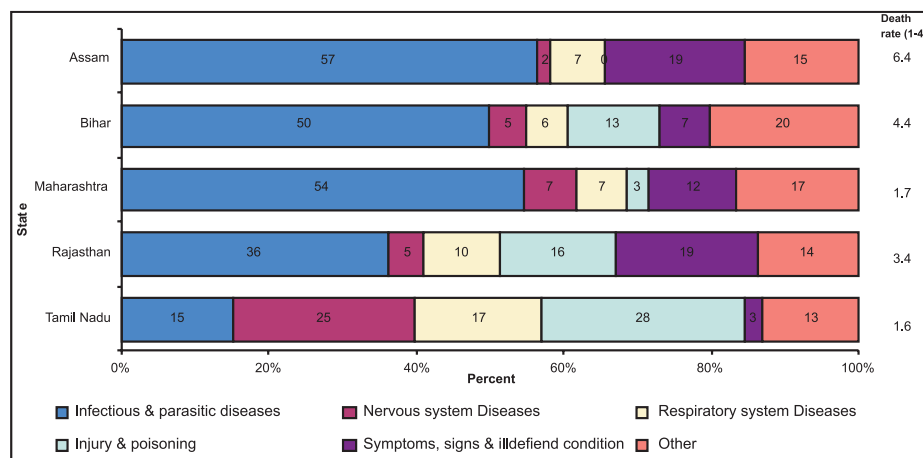
### 4.2.1 Child deaths 1-4 years

In the survey, the major causes of death among children 1-4 years were infectious and parasitic diseases; symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified; and injury, poisoning and certain other consequences of external causes. Certain infectious and parasitic diseases were found to be the most common cause of child death in all the five states (Assam: 57%, Bihar: 53%, Maharashtra: 43%, Rajasthan: 44% and Tamil Nadu 39% given in Table 9b).

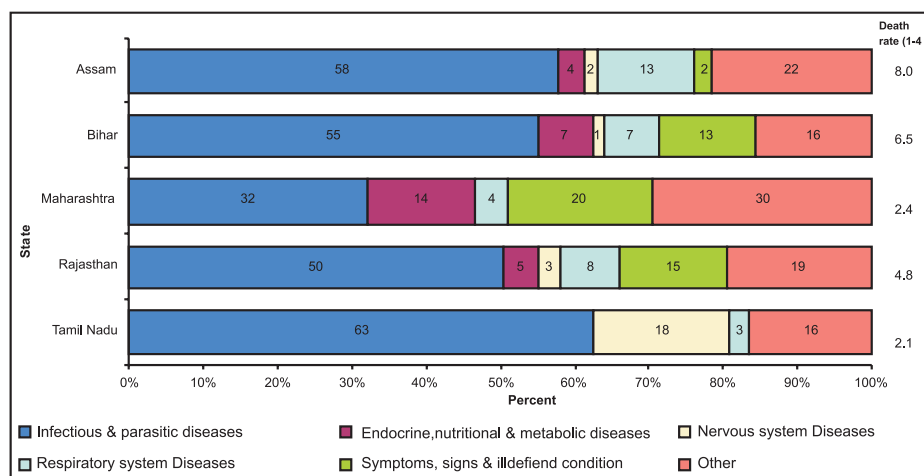
In Assam, one-tenth child deaths each were due to diseases of the respiratory system; and symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified. Over 7% child deaths in Assam were also due to external causes of morbidity and mortality.

In Bihar, with one-tenth of all child deaths, signs and abnormal clinical and laboratory findings not elsewhere classified were the second most common cause of child deaths. About 8% child deaths in Bihar were due to injury, poisoning and certain other consequences of external causes followed by diseases of respiratory system (7%).

In Maharashtra and Rajasthan, with 16-17% child deaths, signs and abnormal clinical and laboratory findings not elsewhere classified were the second most common cause of child deaths. The third most common cause of child death in Maharashtra was due to external causes of morbidity and mortality (12%), while it was injury, poisoning and certain other consequences of external causes (14%) in Rajasthan.



**Figure 4a: Percent distribution of estimated deaths of male children age 1-4 years by causes of death (ICD10 classification) in five selected states, 2003**



**Figure 4b: Percent distribution of estimated deaths of female children age 1-4 years by causes of death (ICD10 classification) in five selected states, 2003**

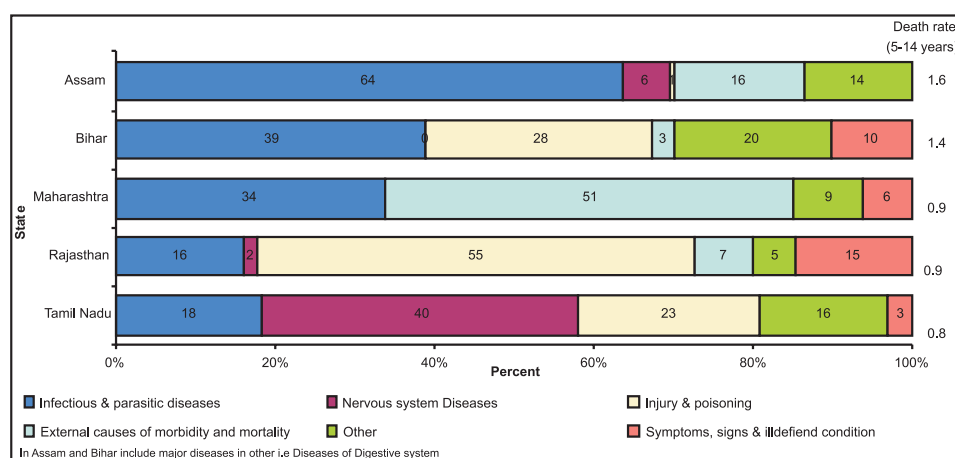
In Tamil Nadu, however, the nervous system diseases with 22% child deaths were the second most common cause of child death which was followed by injury, poisoning and certain other consequences of external causes (17%) and diseases of respiratory system (10%).

By sex of children, age 1-4 years, certain infectious and parasitic diseases were most common cause of child death for females in almost all the five states. It was most common cause of death even in case of male children in four of five States. In Tamil Nadu, injury and poisoning were most common cause of death among male children age 1-4 years. The next most common cause of death among children was nervous system diseases and respiratory system diseases [Figures 4(a)-4(b)].

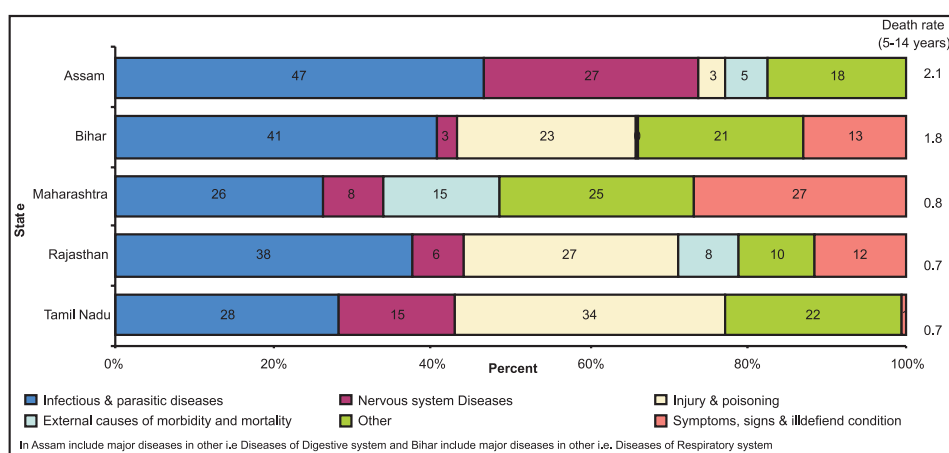
#### 4.2.2 Child deaths in 5-14 years

For children age 5-14 years, infectious and parasitic diseases were the most common cause of death in Assam (55%) and Bihar (40%). The symptoms, signs and abnormal clinical





**Figure 5a: Percent distribution of estimated deaths of male children age 5-14 years by causes of death (ICD10 classification) in five selected states, 2003**



**Figure 5b: Percent distribution of estimated deaths of female children age 5-14 years by causes of death (ICD10 classification) in five selected states, 2003**

and laboratory findings not elsewhere classified were the most common cause of death for children age 5-14 years in Rajasthan (41%) and Tamil Nadu (28%) The external causes of morbidity and mortality was the most common cause of death in Maharashtra (Table 9c).

By sex, infectious and parasitic diseases remained the most common cause of death among children age 5-14 years in Assam and Bihar for both males and females. It is most common in females in Rajasthan where the most common cause of death for males was injury and poisoning. In Maharashtra, the most common cause of death for male children age 5-14 years was external causes of morbidity and mortality and for female children were symptoms, sign and ill defined condition. In Tamil Nadu, nervous system diseases were most common in case of male children, and injury and poisoning in case of female children.

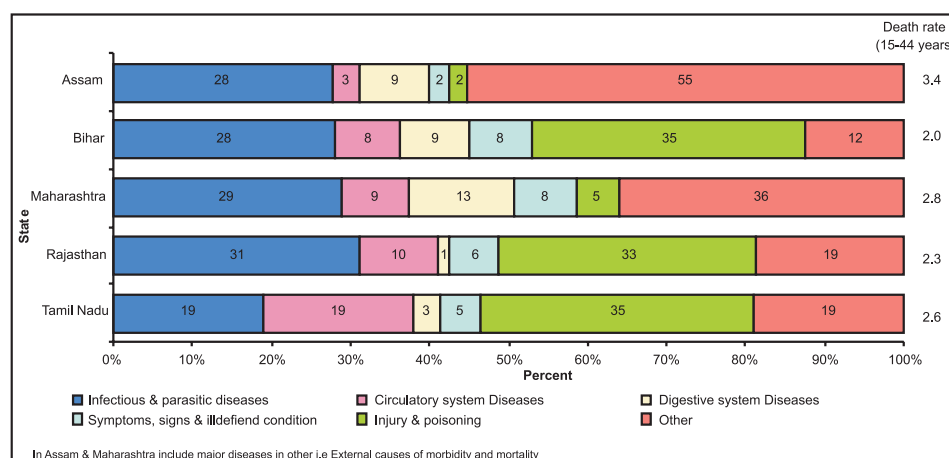
Injury, poisoning and certain other consequences of external causes was the next major cause of deaths in children age 5-14 years in Bihar, Rajasthan and Tamil Nadu where it caused 25% of deaths in Bihar and Tamil Nadu each and 34% deaths in Rajasthan. It

was the most common cause of death among male children when compared to female in the states of Rajasthan and Bihar. External causes of morbidity and mortality were responsible for about 35% of the total child deaths in Maharashtra followed by 11% in Assam.

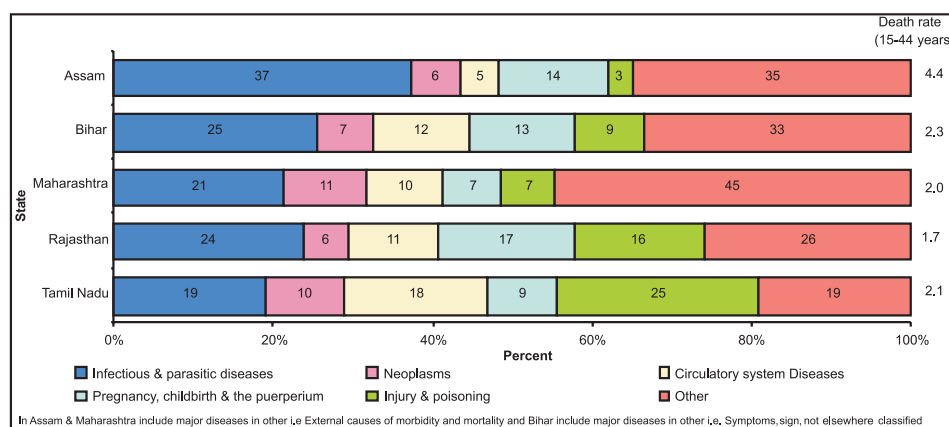
### 4.3 Causes of Adult Deaths

The survey found that certain infectious and parasitic diseases were the most common cause of deaths in the age group 15-44 years in Assam (33%), Rajasthan (28%), Bihar (27%) and Maharashtra (26%). In Tamil Nadu, however, injury, poisoning and certain other consequences of external causes with 31% of deaths was the most common cause of deaths among adults (Table 9d).

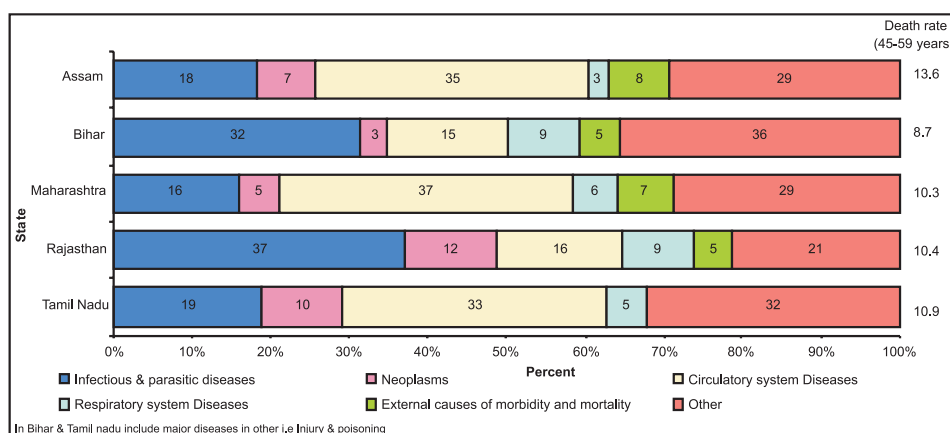
In Assam (25% adult deaths) and Maharashtra (18% adult deaths), external causes of morbidity and mortality was the next most common cause of adult death. Poisoning and certain other consequences of external causes was the second most common cause of



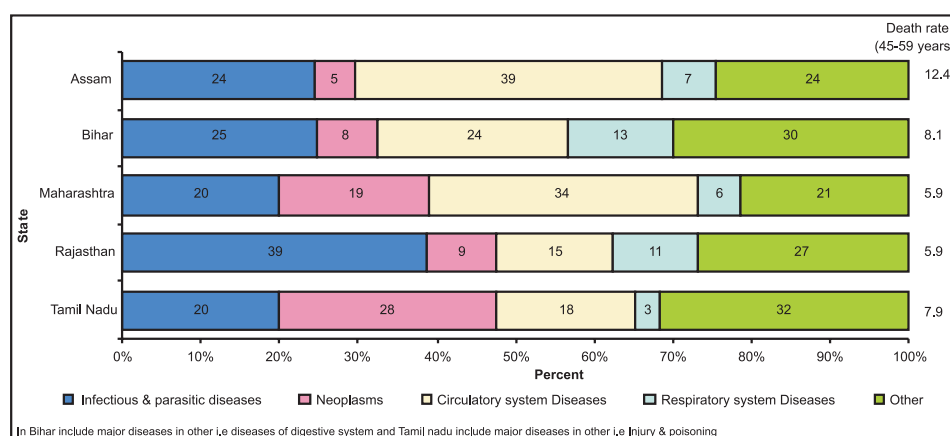
**Figure 6a: Percent distribution of estimated male deaths age 15-44 years by causes of death (ICD10 classification) in five selected states, 2003**



**Figure 6b: Percent distribution of estimated female deaths age 15-44 years by causes of death (ICD10 classification) in five selected states, 2003**



**Figure 7a: Percent distribution of estimated male deaths age 45-59 years by causes of death (ICD10 classification) in five selected states, 2003**



**Figure 7b: Percent distribution of estimated female deaths age 45-59 years by causes of death (ICD10 classification) in five selected states, 2003**

death in Bihar (22% adult deaths) and Rajasthan (26%) followed by diseases of circulatory system which accounted for 10% of adult deaths.

The most common causes of death among adults in the age group (45-59) were circulatory system diseases in Assam (36%), Maharashtra (36%) and Tamil Nadu (27%) (see Table 9e). However, in Rajasthan (38% adult deaths) and Bihar (29% adult deaths), certain infectious and parasitic diseases were the most common causes of death.

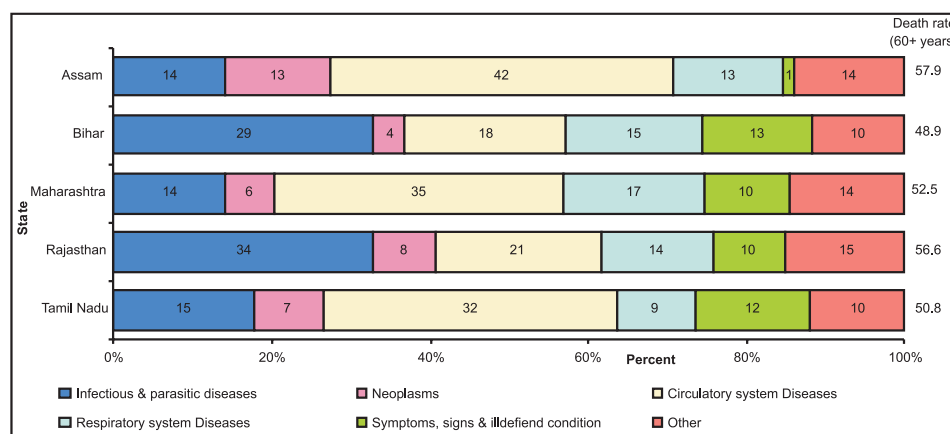
Infectious and parasitic diseases were the next most common causes of death in Assam (21%), Maharashtra (18%), and Tamil Nadu (19%). Diseases of circulatory system were the next most common causes of death among adults in Bihar (19%) and Rajasthan (16%). Neoplasm caused 18%, 11%, and 10% of adult deaths in Tamil Nadu, Rajasthan and Maharashtra respectively.

#### 4.4 Causes of Elderly (Age 60+) Deaths

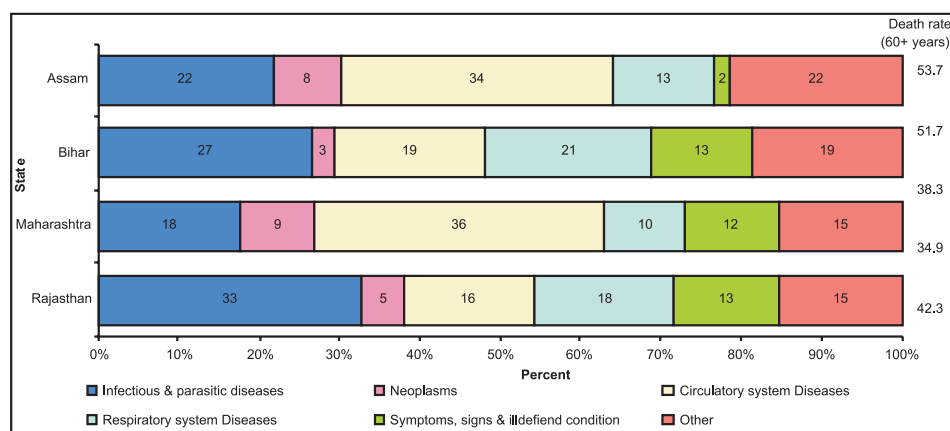
Aging of population is a major aspect of process of demographic transition. A significant aspect of this demographic change in India is increase in the number of

elderly persons. It is important to know the reasons for the survival of old-age people. Indian society is experiencing ideational changes of family formation, family relationship, kinship structure, and many others. Old people depend on their adult children, particularly sons for old-age support and security, as there is no public system of social security. Increased migration of work force, changes in family structure, increased small family-size, and other socio-economic changes may adversely affect the old age support system in rural areas.

Cause of death study has also tried to find out the causes of death among elderly population in India through verbal autopsy method. The percent distribution of cause of death among elderly aged 60 years and above by sex in five states is shown in Table 9f. Diseases of circulatory system was the commonest cause of elderly deaths in Assam (38%), Maharashtra (36%) and Tamil Nadu (31%). However, as in the case of other age groups in Bihar and Rajasthan, infectious and parasitic diseases continue to be the most common cause of death with a share of 28% and 33% of elderly deaths in these states respectively.



**Figure 8a: Percent distribution of estimated male deaths age 60 years and above by causes of death (ICD10 classification) in five selected states, 2003**



**Figure 8b: Percent distribution of estimated female deaths age 60 years and above by causes of death (ICD10 classification) in five selected states, 2003**

Diseases of respiratory system was another common cause of death among elderly age more than 60 years which accounted for 6-18% deaths in all selected five states. Deaths due to neoplasm disorders was responsible for less than 11% deaths in all five states (varies between 3-10%).

Other common cause of elderly deaths in all five states was injury, poisoning and certain other consequences of external cause (10% in Tamil Nadu and 1-3% in other states), diseases of genitourinary system (caused 4-6% deaths), and diseases of digestive system (3-9% in Assam, Bihar and Maharashtra). The percentage distribution of deaths by sex, age group (infant, children 1-4 and 5-14, adults 15-44 and 45-59 and old age 60+) and cause of death in the five States under study are provided in Tables 10a-10f.

## 4.5 Stillbirths and Maternal Deaths

Maternal mortality and stillbirths are the most important adverse outcomes of pregnancy. Stillbirth refers to the loss of a pregnancy after the 20<sup>th</sup> week of gestation due to natural causes. It can also occur before delivery or as a result of complications during labour and delivery. Stillbirth can also be described as intrauterine fetal death (IUFD). There are no known causes of stillbirth, but there are several conditions which may lead to it.

### 4.5.1 Causes of Still Births

The percent distributions of stillbirths by causes of deaths (ICD-10) for the five selected states are shown in Table 11. The most common reasons of stillbirth were causes related to pregnancy, childbirth and puerperium conditions in Assam (64%), Bihar (65%), Rajasthan (42%) and Tamil Nadu (36%). However, in Maharashtra the main causes were conditions originating in the peri-natal period (51%) which were also the second most common causes of stillbirth in the above four states accounted for 16%-58% of still births. More than two-fifth (47.6%) of stillbirths in Maharashtra were also accounted for disease of blood and blood forming organs, which was third major cause group of deaths in other four states accounted for 4-12% of stillbirths.

### 4.5.2 Causes of Maternal Deaths

Despite 20 years of global campaigning of WHO to reduce maternal mortality, pregnancy remains the leading killer of women in their reproductive years in developing countries (Campbell and Graham, 2006). The burden of maternal mortality is greatest in Sub-Saharan Africa and South Asia (WHO, 2004). According to ICD-10, maternal deaths should be divided into two groups: Direct obstetric deaths are those resulting from obstetric complications of the pregnant state (pregnancy, labour and puerperium), from interventions, omissions, incorrect treatment, or from a chain of events resulting from any of the above. Indirect obstetric deaths are those resulting from previous existing disease or disease that developed during pregnancy and which was not due to direct obstetric causes, but was aggravated by physiologic effects of pregnancy. Other fatalities during but unrelated to a pregnancy are termed as *accidental*,

*incidental*, or non-obstetrical maternal deaths. Since most of the maternal deaths have been medically preventable for decades and treatments to avoid such deaths have been well known since 1950s, occurrence of maternal deaths is an indicator of the quality of health care system.

Deaths from “accidental or incidental” causes are excluded from maternal mortality statistics. However, in practice, the distinction between incidental and indirect causes of death is difficult to make. To facilitate the identification of maternal deaths in circumstances where cause of death attribution is inadequate, ICD-10 introduced a new category, that of pregnancy-related death, which is defined as: the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death<sup>18</sup>.

India accounts for more than 20% of the global maternal and child deaths. One of the major goals of Government of India’s Department of Health and Family Welfare is to reduce maternal mortality and morbidity. The focus has shifted from individualized interventions to attention to reproductive health care, which include skilled attendance at birth, operationalising Referral Units and 24 hours delivery services at Primary Health Centres and initiation of Janani Suraksha Yojna (National Maternity Benefit Scheme). To ensure that safe motherhood agenda does not get neglected it is important to have high priority, clear objectives and effective long-term strategy in RCH-II programme which plans to cover wider spectrum of services.

The percent distribution of maternal deaths by causes of death in five states has been displayed in Table 12. The causes of maternal deaths have been classified according to major groups in ICD10 classification of diseases. The specific causes of death have been arrived at in most of the cases studied by translating subgroups of ICD code. A total of 26 maternal deaths were reported from Assam, 73 from Bihar, 7 from Maharashtra, 36 from Rajasthan, and 29 from Tamil Nadu during the year 2003. Quantitative estimates of causes were made from the translated sub categories of ICD code.

Distribution of causes of maternal deaths shows that, conditions pertaining to pregnancy, childbirth and puerperium were the leading causes of maternal mortality in Bihar (40%), Maharashtra (100%) and Rajasthan (79%). In Assam, diseases of circulatory system and diseases of digestive system were the most common causes of maternal mortality accounting for about half of the total maternal deaths followed by external causes of morbidity and mortality (21%) and certain infectious and parasitic diseases (18%). Diseases of circulatory system were the most common causes of deaths in Tamil Nadu leading to 27% of maternal deaths followed by infectious and parasitic diseases (17%), injury, poisoning and certain other consequences of other causes (15%) and neoplasms (11%). In Bihar, the other important causes of maternal deaths were deaths due to diseases of blood and blood forming organs (14%), certain infectious and parasitic diseases (15%), deaths due to symptoms, signs and abnormal clinical and laboratory findings, not classified elsewhere (11%), deaths by injury, poisoning and external causes of morbidity and mortality (8% together), and disease of genitourinary system (4%). In Rajasthan, the second most important cause of maternal death after cause related to pregnancy, childbirths and puerperium were disease of blood and blood forming organs (8%), deaths due to certain infectious and parasitic diseases

(5%), deaths due to symptoms, signs and abnormal clinical and laboratory findings, not classified elsewhere (3%), external causes of morbidity and mortality (3%), and disease of circulatory system (2%). In Tamil Nadu, other less important causes of maternal deaths in Tamil Nadu were deaths due to injury, poisoning etc. (15%), deaths due to symptoms, signs and abnormal clinical and laboratory findings, not classified elsewhere and disease of blood and blood forming organs (13% together). Conditions during pregnancy, childbirth and puerperium were the single cause of maternal death in Maharashtra.



# 5

## LEADING CAUSES OF DEATH

As mentioned in section 2.1.1 (under sub-heading of *Classification of Causes of Death*), the classification provided by the National list for tabulation of mortality and morbidity is based on the ICD-10 and comprised of 20 major groups, 69 categories and 193 sub-categories of causes (RGI, 2001). The earlier section detailed 20 major cause-groups of death in selected five states. However, it is desirable to describe the important categories within these broader cause-groups. As a category represents smaller set of causes of death than a major cause-group, such description provides better insight of leading causes which are accountable for most of the death in the surveyed area. This section describes top ten of 69 categories of causes of deaths for different age bands.

### 5.1 Leading Causes of Infant Deaths

The distribution of ten leading killer cause-groups of infant deaths by sex in five selected states has been represented in Table 13a. It is evident from the table that across all five states both male and female infant deaths occurred mainly due to cause-groups like certain conditions originating in peri-natal period, lower respiratory tract, congenital malformations, deformations and chromosomal abnormalities, other bacterial diseases and intestinal infectious diseases. These causes predominantly grounded more than two-third (65-90%) of infant deaths in five states. Certain conditions originating in the peri-natal period was one of the leading causes responsible for more than half of deaths among infant in Tamil Nadu (60%) and Maharashtra (50%) while it caused around one-fourth of the infant deaths in Bihar (30%), Rajasthan (24%) and Assam (23%). Other respiratory was another common cause in all five selected states which accounted for 23% infant deaths in Assam, 12% in Maharashtra, 10% in Tamil Nadu and 7% in Bihar and Rajasthan.

Cause-groups-other certain infectious and parasitic diseases, Pregnancy, childbirth and the puerperium, Other bacterial diseases, Malnutrition, other external causes of accidental injury, disease of other parts of digestive system, other direct obstetric deaths, Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified and congenital malformations, deformations and chromosomal abnormalities-accounted for less than 10% of infant deaths in all five selected states.

## 5.2 Leading Causes of Child Deaths

### *Among Children age 1-4 years*

The distribution of ten leading killer cause-groups among children age 1-4 years by sex in five selected states reveals that across five states more than two-third (64-77%) of child deaths occurred due to leading cause groups like intestinal infectious diseases, symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified, lower respiratory tract and viral diseases (Table 13b). This Table also shows that around 16-27% of children deaths occurred due to leading cause group intestinal infectious diseases in all selected states except Assam (44%). Viral disease was also leading cause of death among children age 1-4 years in Maharashtra (24%), Tamil Nadu (20%) and Bihar (12%). Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified caused around 11-17% of child deaths in all states except for Tamil Nadu where it rooted 2% of the child.

Other causes which accounted for less than 7% of child deaths in all five selected states include -other certain infectious and parasitic diseases, protozoal diseases, malnutrition, other external causes of accidental injury, disease of other parts of digestive system, diseases of the other parts of digestive system, disease respiratory tract, other bacterial diseases and congenital malformations, deformations and chromosomal abnormalities.

### *Among Children age 5-14 years*

The distribution of ten leading cause-groups of deaths among children age 5-14 years by sex in five selected states is displayed in Table 13c. It was found that around three-fourth (72-82%) of child deaths occurred due to leading cause-groups-intestinal infectious diseases, viral diseases, protozoal diseases, tuberculosis, other diseases of respiratory tract congenital malformations, deformations and abnormalities and other injury-in all selected five states. Other injury was one of the leading cause-group which was responsible for one-fourth (20-34%) of deaths among children age 5-14 years in all selected states except Assam (2%). Intestinal infectious diseases were next most common cause of death in all selected states (14-26%). Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified accounted for 16% of the child deaths in Maharashtra, 13% in Rajasthan and 12% in Bihar

Some other causes of death like-tuberculosis, diseases of the other parts of digestive system, protozoal diseases and viral diseases were responsible for 8-10% deaths among children age 5-14 years in Assam. Protozoal diseases and diseases of respiratory tract caused 6-7% of child deaths in Bihar; Viral diseases and congenital malformations, deformations and chromosomal abnormalities caused 9-12% deaths in Maharashtra; poisoning of drugs accounted 6% of the deaths in Rajasthan; malignant neoplasm of lymphoid, haematopoie, and diseases of urinary system caused 5-6% of deaths in Tamil Nadu. Some causes of death e.g. other diseases of nervous system, urinary system, circulatory system, digestive system were accountable for less than 4% of children deaths in all selected states.

### 5.3 Leading Causes of Adult Deaths

#### *Among Adults age 15-44 years*

Distribution of ten leading cause-groups of deaths among adults in the age group 15-44 years by sex in five selected states reveals that tuberculosis was the main cause of deaths among adults age 15-44 years in all selected five states accounting for 10-18% of adult deaths (Table 13d). Intestinal infectious disease was accountable for 6-11% of adult deaths in Assam, Bihar, Maharashtra and Rajasthan. About one-fourth of deaths occurred due to other injury among adults age 15-44 years in Bihar (21%), Rajasthan (26%) and Tamil Nadu (30%). Diseases of other parts of digestive system were responsible for deaths among adults in the age group 15-44 years in Assam (11%) and Maharashtra (10%). Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified were accountable for 4 to 9% of deaths among adults in all selected five states.

Cause-groups-Cerebrovascular diseases, protozoal diseases, malignant neoplasms of digestive organs, diseases of blood and blood-forming organs and certain disorders involving immune mechanism, mental and behavioural disorders, malignant neoplasms, diseases of pulmonary circulation and other heart diseases, viral diseases, diseases of urinary system accounted for less than 5% of adults deaths in all five selected states.

#### *Among Adults age 45-59 years*

The distribution of ten leading cause-groups of deaths among person in age span of 45-59 years by sex in five selected states has been shown in Table 13e. It was seen that 26% of deaths occurred due to leading cause-group cerebrovascular diseases followed by diseases of other parts of digestive system (13%). Deaths due to Intestinal infectious diseases accounted for 9% of total person deaths.

In Assam, the major cause-groups like tuberculosis, diseases of urinary system and ischemic heart diseases accounted for 7, 6 and 5% respectively of total person deaths while deaths due to other cause-groups like diseases of pulmonary circulation and other heart diseases, lower respiratory tract, protozoal diseases, malignant neoplasms of digestive organs and other neoplasms contributed less than 5% deaths among person aged 45-59 years. In case of Bihar, 11% of person deaths occurred due to leading cause-group intestinal infectious diseases or lower respiratory tract. Each cause of death. Tuberculosis, other injuries, ischemic heart diseases, symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified, cerebrovascular diseases, diseases of other parts of digestive system, diseases of urinary system, protozoal diseases and other diseases of circulatory system accounted for 4 -10% of total person deaths. In Maharashtra, one-fourth (26%) of persons death occurred due to leading cause-group ischemic heart diseases. Diseases of other parts of digestive system accounted for 13%, whereas deaths due to cerebrovascular diseases, lower respiratory, symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified, malignant neoplasms of genitourinary, diseases of urinary system, intestinal infectious diseases, intentional self-harm were accountable for 3-8% of total persons death in Maharashtra. In Rajasthan all ten leading causes of

death were responsible between 8-10% deaths among person age 45-59 years except tuberculosis (30%). In Assam, 18% of persons death occurred due to leading cause-group ischemic heart diseases followed by tuberculosis which accounted for 12%. Deaths due to other injuries accounted for 11% of total persons death. Cause-group- malignant neoplasms of digestive organs, cerebrovascular diseases, diseases of urinary system accounted for between 4 -9% of total deaths in Tamil Nadu.

### ***Leading Causes of Elderly (Aged 60+ years) Deaths***

Distribution of ten leading cause-groups of death among persons age 60+ years by sex in five selected states revealed that about two-third (61-68%) of deaths in this age group occurred due to cause groups- cerebrovascular diseases, intestinal infectious diseases, symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified, lower respiratory tract, malignant neoplasms of digestive organs, tuberculosis and intestinal infectious diseases in all five selected states (Table 13f).

Cause-groups- malignant neoplasms, diseases of urinary system injury, disease of other parts of digestive system, ischemic heart diseases, disease of respiratory tract, other bacterial diseases, protozoal diseases and congenital malformations, deformations and chromosomal abnormalities- accounted for less than 7% of deaths among persons in age group 60+ years in all five selected states.

# 6

## CLASSIFICATION OF DEATHS DUE TO COMMUNICABLE AND NON-COMMUNICABLE DISEASES

Over 90% of world's disease burden occurs in developing countries and is mostly due to communicable diseases. This phenomenal change is due to rapid changing life style. Like other developing countries, India also reported a paradigm shift in health problems from communicable disease to non-communicable diseases which are a major public health challenge of growing magnitude with one billion plus population in the 21<sup>st</sup> century. The major non-communicable disease prevalent in India includes diabetes, hypertension, cardiovascular disease, mental illness, chronic obstructive pulmonary disease and cancer. Cardiovascular disease, cancer and type 2 diabetes mellitus were accounted for 53 and 44% of all deaths and disability adjusted life years (DALYs) respectively in India (WHO, 2005).

Health priorities, particularly for public sector, in middle to low income countries, such as India, have traditionally been assumed to follow those of a “typical” developing country, with focus on young and non-communicable diseases. It is desirable to examine the mortality pattern by communicable and non-communicable causes of deaths across different demographic and socio-economic strata of the surveyed population.

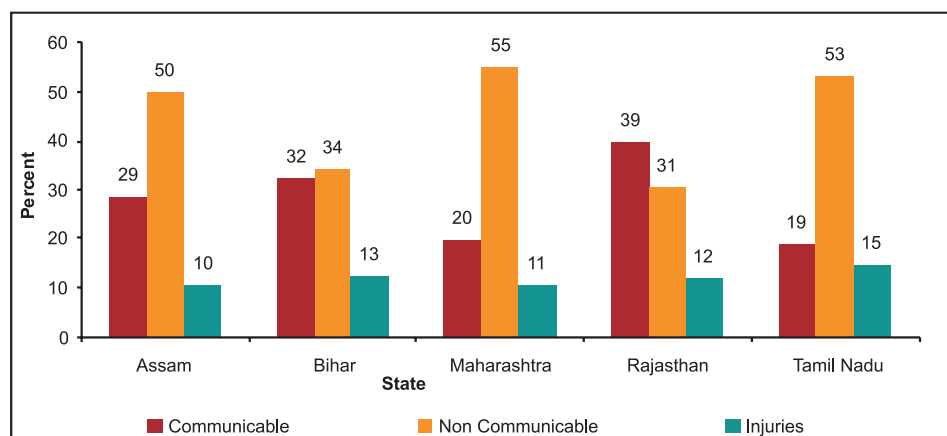
The causes of deaths classified according to ICD-10 are grouped into three groups, namely, communicable, non-communicable, injuries and others (symptoms, signs and abnormalities not elsewhere classified) using WHO list of leading causes of global burden of diseases<sup>14</sup>. This section quantifies the magnitude of deaths due to communicable and non-communicable causes and injuries and their association with demographic and socio-economic characteristics in the surveyed areas.

### 6.1 Cause Groups by Sex and Place of Residence

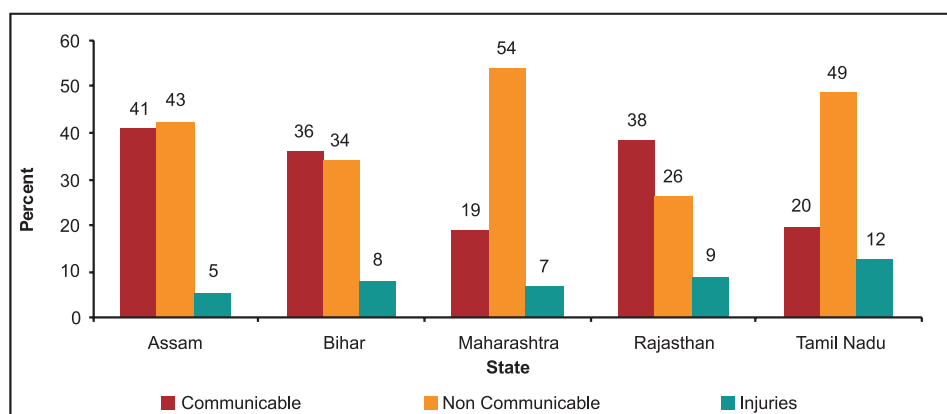
The societies experiencing higher proportion of deaths due to communicable diseases including maternal, peri-natal conditions and nutritional deficiencies are characterized as not gone through transition, whereas societies experiencing high death due to non-communicable diseases have gone through it. The transition refers to the shift in the pattern of diseases from communicable to non-communicable as a result of social and economic changes in the society. The distribution of deaths due to communicable and non-communicable causes by sex in five selected states is shown in Figures 9a-9b (Table 14). According to state level data, a predominance of non-communicable cause of deaths (more than 50% among males and 43-54% among females) is observed in Assam,

Maharashtra, and Tamil Nadu and predominance of communicable disease as cause of death (around 34-39% among males and 36-38% among females) in Bihar and Rajasthan. Gap between deaths due to communicable and non-communicable is high in Maharashtra and Tamil Nadu which objects that these two states have advanced in epidemiologic transition compared to other states.

However, in urban areas of Assam and Rajasthan, percentage of deaths due to non-communicable diseases is more than that of communicable diseases (Table 14). Overall pattern of deaths due to communicable and non-communicable diseases according to sex and place of residence are similar to that of state. Deaths due to communicable diseases compared to non-communicable diseases are higher among females than males. Deaths due to injuries are 14% in Tamil Nadu and around 8-11% in other states. The percent of deaths due to injuries is slightly higher in urban areas than in rural areas and, among males than females in both urban and rural areas. Deaths due to maternal conditions among adult females age 15-49 are around 2-4%, with its maximum in Assam (4%) and minimum in Maharashtra (2%). Perinatal conditions accounted for 6-7% of deaths, more in rural area and among males than in urban area and among female children and less than 0-1% due to nutritional deficiencies.



**Figure 9a: Percentage distribution of deaths by group of cause for Male in five selected states, 2003**



**Figure 9b: Percentage distribution of deaths by group of cause for Female in five selected states, 2003**

## 6.2 Age-Sex Distribution of Deaths by Cause Group

The percent distribution of deaths by age groups and sex according to major cause group for five selected states is shown in Table 15 (Figures 10a-10b). The common communicable diseases including peri-natal conditions were found to be the major causes of death among infants and children age 1-4 years in all five states. They accounted for 60-80% of deaths. The prei-natal conditions were more critical for male infants than their female counterparts. In Maharashtra, more male infant deaths occurred due to communicable diseases than female infants, while in other states this was found in reverse direction. It was seen that infant deaths were more because of peri-natal conditions and nutritional deficiencies originating during pregnancy and puerperium period and less due to non-communicable diseases. The most common communicable diseases that were found to be major causes of death among children age 1-4 years in all five states were diarrhea and gastroenteritis, unspecified acute lower respiratory infection, unspecified mycosis, other tetanus, pneumonia, organism unspecified sites, varicella (chickenpox), malaria, measles, acute poliomyelitis, rabies, dengue fever, typhus fever, and respiratory tuberculosis. The major non-communicable diseases that were found to be major causes

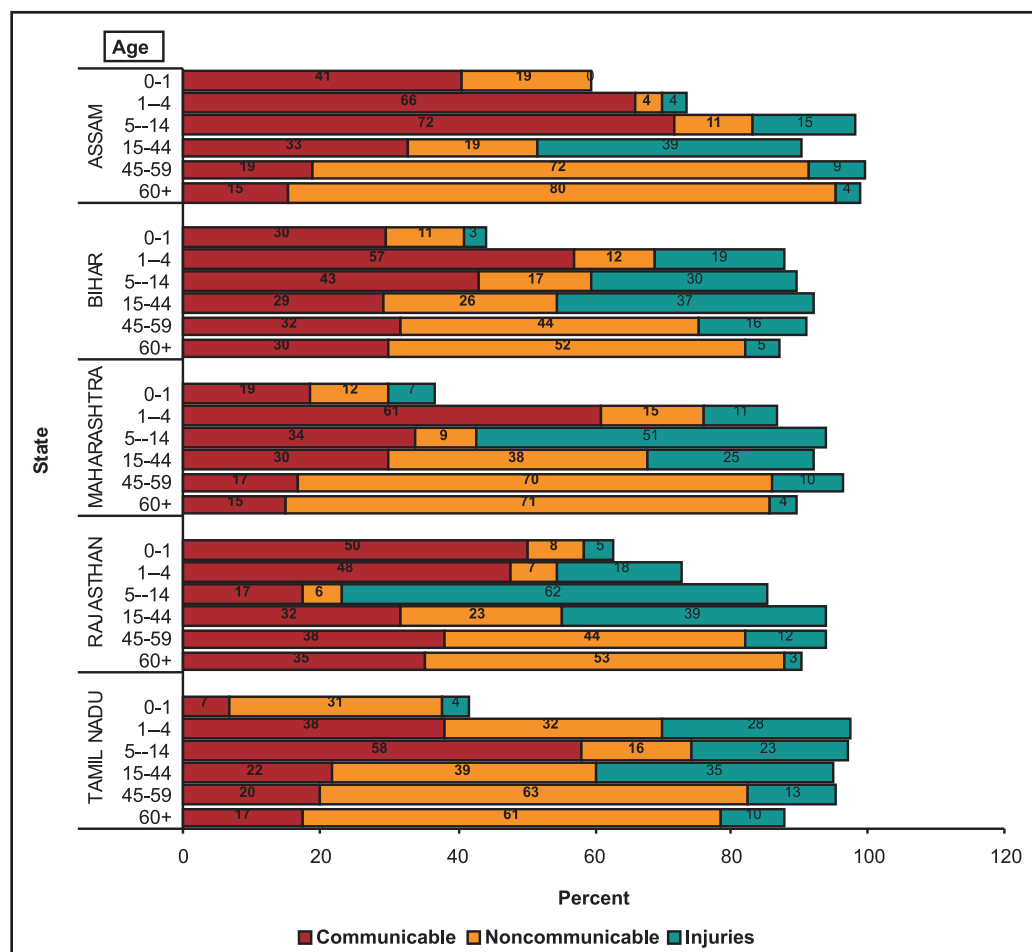
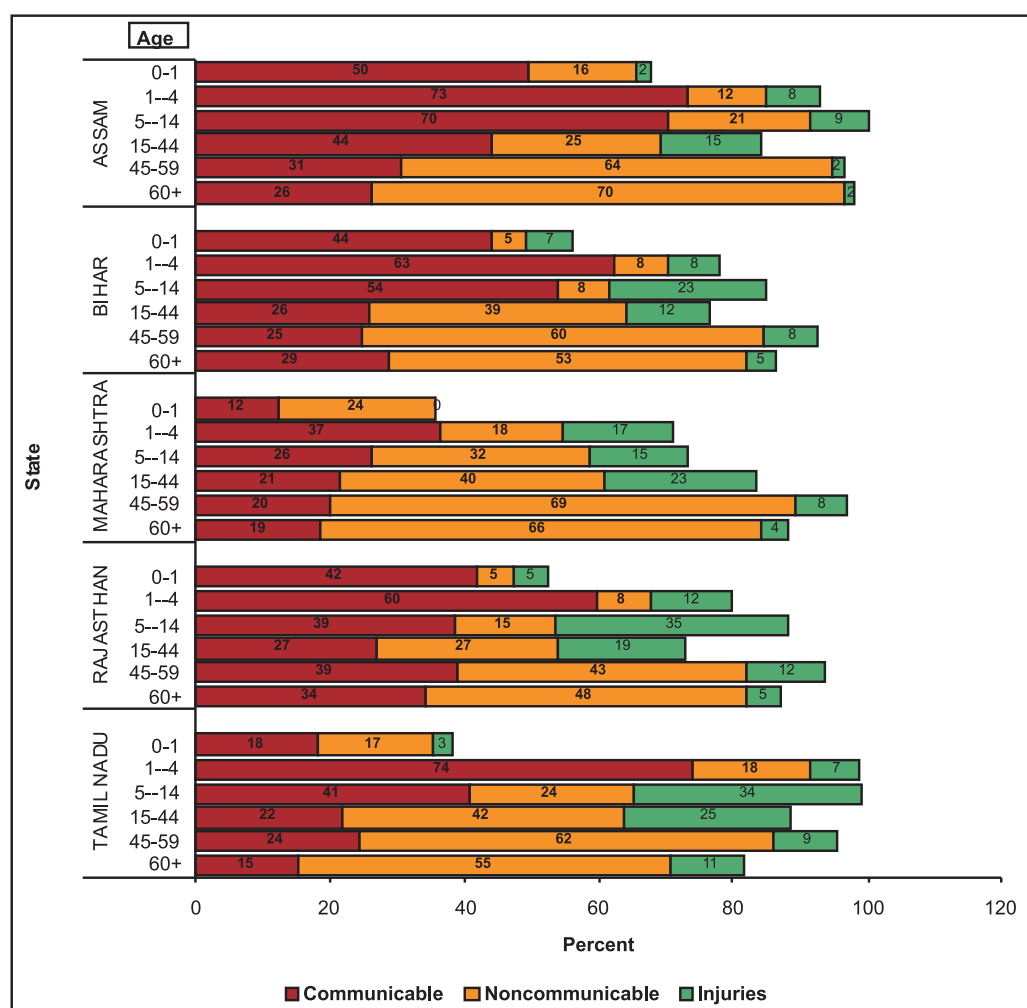


Figure 10a: Estimated percent of male death due to communicable, noncommunicable & injuries according to age group in five selected states, 2003





**Figure 10b: Estimated percent of female death due to communicable, noncommunicable & injuries according to age group in five selected states, 2003**

of death in all five states were acute bronchitis, epilepsy, other inflammatory liver disease, hydrocephalus, cellulites, malignant neoplasm of brain, and sickle cell disorder.

The most common communicable diseases that were found to be major cause of death in children age 5-14 years in all five states were again diarrhoea and gastroenteritis, unspecified acute lower respiratory infection, unspecified mycosis, pneumonia, varicella (chickenpox), unspecified malaria, measles, acute poliomyelitis, rabies, dengue fever, typhoid and paratyphoid fever, respiratory tuberculosis, encephalitis, Leishmaniasis etc. The major non-communicable diseases that were found to be major causes of death in children age 5-14 years in all five states were other inflammatory liver disease, other heart disorders, fibrosis and cirrhosis of liver, malignant neoplasm of brain, insulin dependent diabetes, chronic nephritic syndrome, epilepsy.

The common communicable diseases responsible for death in young adults in all five states were diarrhoea and gastroenteritis, unspecified acute lower respiratory infection, unspecified mycosis, pneumonia, varicella (chickenpox), unspecified malaria, measles, acute

poliomyelitis, rabies, dengue fever, typhoid and paratyphoid fever, respiratory tuberculosis, encephalitis, Leishmaniasis etc. The major non-communicable diseases in the same age group were other inflammatory liver disease, other heart disorders, fibrosis and cirrhosis of liver, malignant neoplasm of brain, insulin dependent diabetes, chronic nephritic syndrome, epilepsy etc.

The most common communicable diseases causing death among adults in all five states were respiratory tuberculosis, diarrhoea and gastroenteritis, unspecified acute lower respiratory infection, puerperal sepsis, other septicemia, unspecified mycosis, pneumonia, varicella (chickenpox), unspecified malaria, encephalitis, Leishmaniasis etc. In Maharashtra, Tamil Nadu and Rajasthan were Unspecified HIV disease, and HIV disease resulting in infectious and parasitic diseases. The major non-communicable diseases for the same population were other inflammatory liver disease, heart failure, asthma, secondary hypertension, other heart disorders, fibrosis and cirrhosis of liver, malignant neoplasm of brain, insulin dependent diabetes, chronic nephritic syndrome, epilepsy, acute myocardial infarction, inter-cerebral haemorrhage, chronic, acute and unspecified renal failure.

The most common communicable diseases that were found to be the major causes of death in adults were respiratory tuberculosis, diarrhoea and gastroenteritis of presumed infectious origin, bacterial meningitis, acute bronchitis, unspecified viral hepatitis, puerperal sepsis, other septicemia, unspecified mycosis, pneumonia, unspecified malaria, encephalitis, Leishmaniasis etc. In Maharashtra and Tamil Nadu important communicable disease which caused death in 45-59 years age group were Unspecified HIV diseases. The major non-communicable diseases that were found to be the major causes of death in adults were other inflammatory liver disease, heart failure, asthma, secondary hypertension, other heart disorders, fibrosis and cirrhosis of liver, malignant neoplasm of brain, insulin dependent diabetes, chronic nephritic syndrome, epilepsy, acute myocardial infarction, inter-cerebral haemorrhage, chronic, acute and unspecified renal failure, etc.

The most common communicable diseases that were found to be the major causes of death among elderly in all five states were respiratory tuberculosis, diarrhoea and gastroenteritis of presumed infectious origin, bacterial meningitis, acute bronchitis, unspecified viral hepatitis, puerperal sepsis, other septicemia, unspecified mycosis, pneumonia, unspecified malaria, encephalitis, Leishmaniasis etc. In Tamil Nadu, only important communicable disease which caused elderly death were unspecified HIV diseases. The major non-communicable diseases leading to death among elderly were other inflammatory liver disease, heart failure, asthma, secondary hypertension, other heart disorders, fibrosis and cirrhosis of liver, malignant neoplasm of brain, insulin dependent diabetes, chronic nephritic syndrome, epilepsy, acute myocardial infarction, inter-cerebral haemorrhage, chronic, acute and unspecified renal failure, etc.

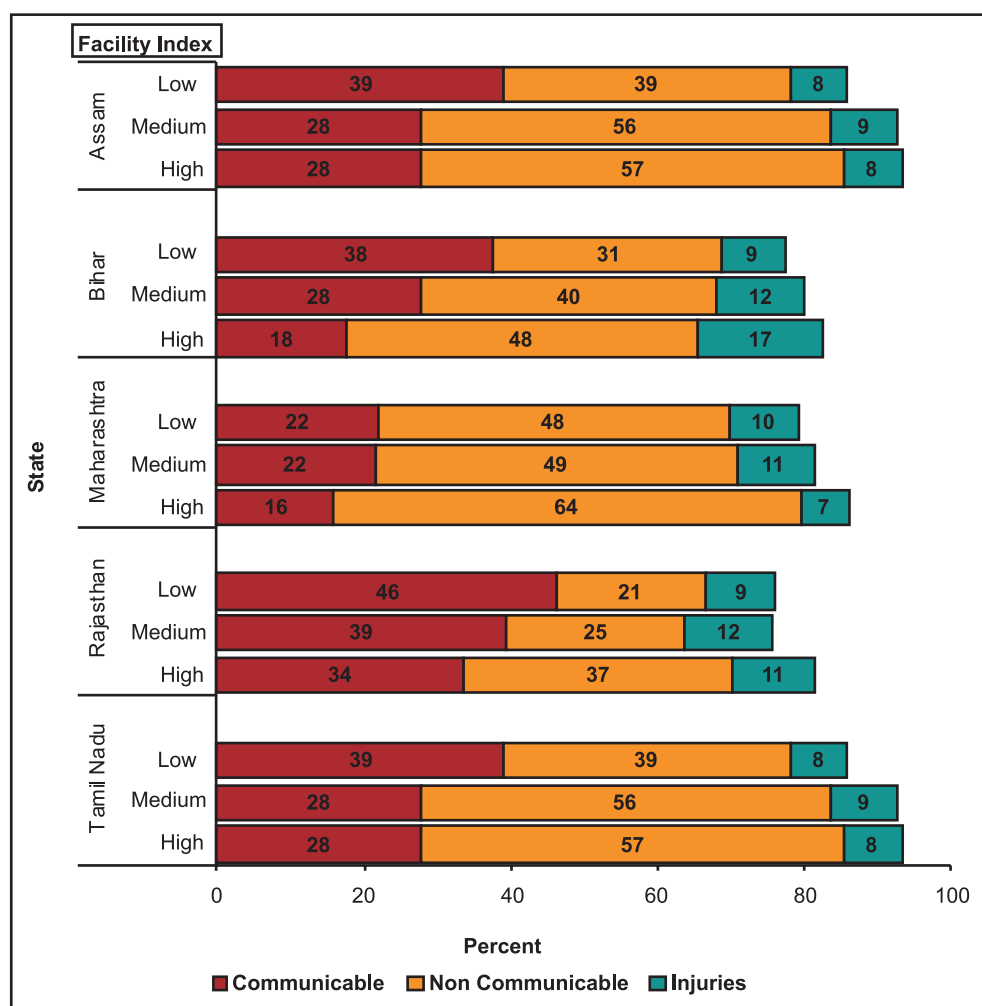
### 6.3 Cause Group by Socio-economic Indicators

This section explores the association between availability of amenities in the deceased household and educational status of deceased with deaths due to communicable, non-communicable and injuries.

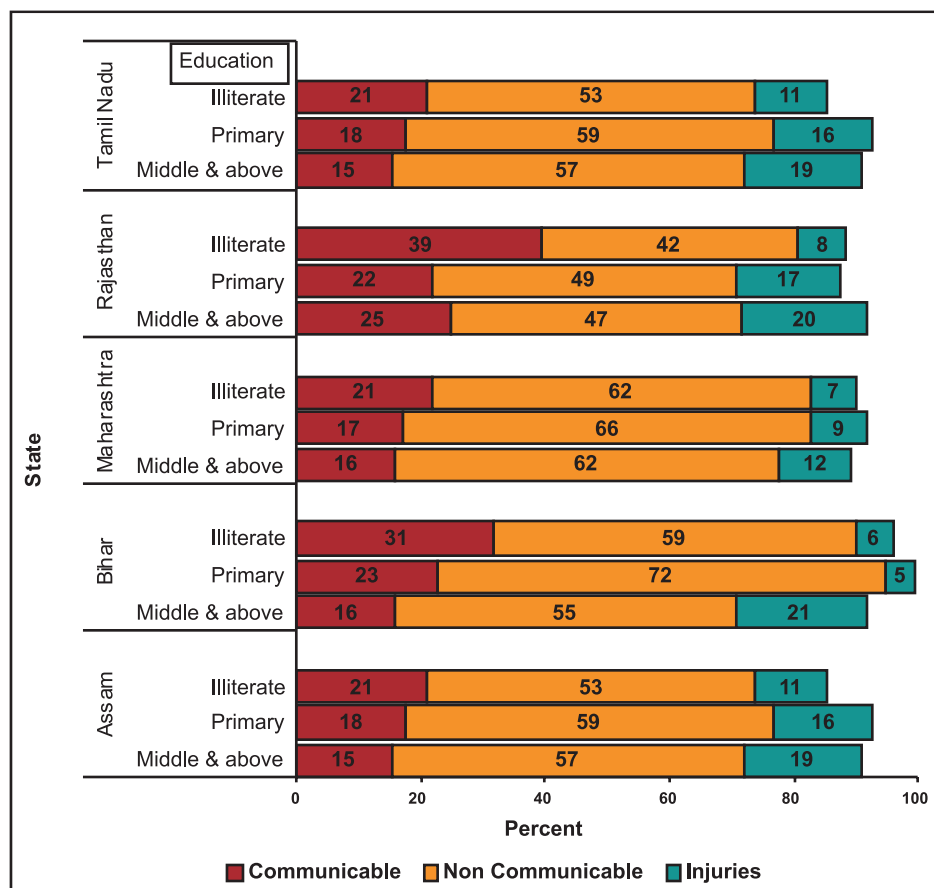
*Amenities Index:* Considering assets in the household such as type of house, source of lighting, toilet facility, separate room for cooking, source of drinking water, drainage in front of the house a composite measure ‘amenities index (AI)’ has been computed for classification of households. The AI is calculated by adding the following scores: *House type:* Kuchcha-0, Pucca-4, Semi Pucca-2; *Electricity:* Yes-2, No-0; *Toilet facility:* Own flush toilet-4, Public or shared flush toilet or own pit toilet-2, Shared or public pit toilet -1, No facility-0; *Separate room for cooking:* Yes-1, No-0; *Source of drinking water:* Hand Pump-2, Well-1, Other-0; *Drainage in front of the house:* No/Open-0, Closed-2. Index scores range from 0–14 for a low AI to 15–24 for a medium AI and 25–67 for a high AI.

*By amenities index*

Figure 11 presents the distribution of deaths by facility index according to major-cause group (Table 16). As expected, proportion of deaths due to communicable causes was more among low facility households (highest 46% in Rajasthan and lowest 22% in Maharashtra) than medium or high facility households in all five states. Proportion of deaths due to non-communicable cause is positively associated with facility index, higher



**Figure 11: Estimated percent of death of persons due to communicable, noncommunicable & injuries according to facility index in five selected states, 2003**



**Figure 12: Estimated percent of death of persons age 15+ due to communicable, noncommunicable & injuries according to education level in five selected states, 2003**

the facility-higher the proportion of deaths due to non-communicable cause of deaths (highest 64% in Maharashtra and lowest 37% in Rajasthan and Tamil Nadu in high facility households) which indicates that these two states have advanced in epidemiologic transition compared to other states.

#### *By education*

Figure 12 presents estimated percent distribution deaths of persons age 15 years or above due to communicable, non-communicable & injuries according to education level of deceased (Table 17). The percentage of deaths due to communicable diseases is inversely related to level of education in all states whereas injuries directly proportion to level of education and much higher among middle and above compared to illiterate or primary complete in all the states.

# 7

## CONCLUSION

Our study suggests that VA could ascertain the leading causes of death at large, reduce the misclassification of causes, and derive the most probable causes of death when it has not been reported. VA yields broad classification of the underlying causes. This study has documented the underlying cause of child, adult and elderly deaths. VA method can be an alternative method for estimating cause-specific deaths in India specifically in rural areas where medical certification of death is inadequate. Hence, VA method can strengthen India's mortality system.

The reporting study however has a number of limitations. The probable causes of death revealed by this survey, on the basis of investigation adopting post death verbal autopsy by research investigators, are just proxies for exact causes that could have been known firmly through medical certification procedure had the medical attendance been availed during the last illness of the deceased. The reliability of information on symptoms at the time of death given by the family members of the deceased is based on co-operation and reliable description on the part of respondents. Sample survey has serious limitations in providing data on death and mortality levels. These depend upon whether there were survivors of the deceased in the household, whether these survivors reported the event and if they reported it, whether they reported it in the proper period. The cause of death statistics given by this survey is reliable depending upon the respondent's efficiency in describing the symptoms and conditions. Number of maternal deaths obtained from this survey is extremely small therefore no valid conclusions can be drawn. 'Senility' is reported as the cause of death of a person describing certain conditions for the deceased over 60 years old who had otherwise no apparent sickness as per non-medical list. There could be a tendency on the part of the field investigator to report 'senility' as a matter of routine whenever Medical Officer's supervision is slack.

# 8

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# **APPENDICES**





## APPENDIX A

### TABLES (1-17)

Table 1: Number of deaths by age at death, sex and place of residence in five selected states, 2003																
Age at death	Sex	Assam			Bihar			Maharashtra			Rajasthan			Tamil Nadu		
		Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Age 0-1 yrs	Male	92	13	105	230	13	243	52	9	61	197	19	216	111	25	136
	Female	74	7	81	186	12	198	32	10	42	169	19	188	98	15	113
	Persons	166	20	186	416	25	441	84	19	103	366	38	404	209	40	249
Age 1-4 yrs	Male	85	9	94	112	2	114	12	7	19	73	3	76	27	6	33
	Female	63	9	72	175	6	181	14	5	19	73	8	81	27	4	31
	Persons	148	18	166	287	8	295	26	12	38	146	11	157	54	10	64
Age 5-14 yrs	Male	51	10	61	103	4	107	4	6	10	70	7	77	27	8	35
	Female	44	8	52	93	3	96	10	4	14	62	6	68	26	4	30
	Persons	95	18	113	196	7	203	14	10	24	132	13	145	53	12	65
Age 15-44 yrs	Male	145	77	222	258	27	285	115	95	210	301	100	401	299	95	394
	Female	136	34	170	304	35	339	59	44	103	187	44	231	203	64	267
	Persons	281	111	392	562	62	624	174	139	313	488	144	632	502	159	661
Age 45-59 yrs	Male	169	75	244	233	18	251	126	105	231	229	93	322	303	118	421
	Female	108	32	140	152	6	158	45	36	81	85	27	112	163	63	226
	Persons	277	107	384	385	24	409	171	141	312	314	120	434	466	181	647
Age 60+ yrs	Male	244	140	384	691	53	744	98	63	161	621	200	821	798	299	1097
	Female	171	85	256	553	45	598	57	39	96	413	134	547	692	260	952
	Persons	415	225	640	1244	98	1342	155	102	257	1034	334	1368	1490	559	2049
All deaths	Male	786	324	1110	1627	117	1744	557	386	943	1491	422	1913	1565	551	2116
	Female	596	175	771	1463	107	1570	342	240	582	989	238	1227	1209	410	1619
	Persons	1382	499	1881	3090	224	3314	899	626	1525	2480	660	3140	2774	961	3735

Table 2: Percent distribution of estimated deaths by age at death according to sex , and ratio of male to female deaths from COD and SRS in five selected states, 2003																		
Age at death	Assam						Bihar						Maharashtra					
	COD Survey			SRS, 2003			COD Survey			SRS 2003			COD Survey			SRS 2003		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
< 1 yrs	12.6	9.8	11.4	20.3	18.3	19.3	13.9	13.3	13.6	25.3	21.7	23.5	8.4	8.8	8.6	8.5	15.3	11.5
1-4 yrs	7.1	8.7	7.8	5.8	7.2	6.4	7.9	11.1	9.4	6.5	8.7	7.6	1.6	3.0	2.2	1.9	2.9	2.3
5-14 yrs	6.8	6.4	6.6	3.8	5	4.5	6.9	7.5	7.2	4.6	5	4.9	1.0	2.5	1.6	2.3	2.4	2.3
15-44 yrs	18.5	22.2	20.1	18.6	25.2	21.7	16.3	22.3	19.2	11.9	12.8	12.3	20.9	13.3	17.9	17.4	14.4	15.9
45-59 yrs	21.4	19.0	20.3	17.1	13.5	15.3	16.0	10.0	13.2	12.1	10.7	11.3	20.8	10.9	16.9	16.8	11.3	14.3
60+ yrs	33.6	34.0	33.8	34.5	30.7	32.8	38.9	35.8	37.4	39.6	41.1	40.3	47.2	61.6	52.8	53.2	53.8	53.4
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Ratio of male deaths to female deaths	1.30			1.08			1.09			1.01			1.53			1.25		

Table 3: Number of infant deaths by age and place of residence; estimated percent of infant deaths by age, and percent of infant deaths to total deaths from COD and SRS 2003 in five selected states, 2003

Age	Assam				Bihar				Maharashtra			
	Rural	Urban	Total	Percentage of Infant deaths	Rural	Urban	Total	Percentage of Infant deaths	Rural	Urban	Total	Percentage of Infant deaths
	Number of Deaths (Unweighted)			Survey* SRS+	Number of Deaths (Unweighted)			Survey* SRS+	Number of Deaths (Unweighted)			Survey* SRS+
Early neonatal (<7 days)	66	10	76	44.8	34.8	162	15	39.6	46	6	52	47.8
Late neonatal (7-27 days)	46	2	48	23.4	21.2	66	4	18.4	9	2	11	18.9
Post neonatal □ (28-364 days)	54	8	62	31.8	47.0	188	6	42.0	29	11	40	33.3
Age 0-1 yrs	166	20	186	100.0	100.0	416	25	100.0	84	19	103	100.0
Percentage of Infant deaths to total deaths	-	-	-	11.2	19.3	-	-	17.7	-	-	-	8.6

\*Based on weighted figure for the state

+Figures in the column are obtained by dividing each of Early neonatal mortality rate, late neonatal mortality and post neonatal mortality rate by Infant mortality rate

Table 3: Number of infant deaths by age and place of residence; estimated percent of infant deaths by age, and % of infant deaths to total deaths from COD and SRS 2003 in five selected states, 2003 (Contd..)

Age	Rajasthan				Tamil Nadu			
	Rural	Urban	Total	Percentage of Infant deaths	Rural	Urban	Total	Percentage of Infant deaths
	Number of Deaths (Unweighted)			Survey* SRS+	Number of Deaths (Unweighted)			Survey* SRS+
Early neonatal (<7 days)	145	8	153	34.4	44.0	121	24	66.4
Late neonatal (7-27 days)	57	6	63	19.3	14.7	32	3	15.7
Post neonatal □ (28-364 days)	163	25	188	46.3	41.3	56	13	18.0
Age 0-1 yrs	365	39	404	100.0	100.0	209	40	100.0
Percentage of Infant deaths to total deaths	-	-	-	13.4	29.7	-	-	8.3

\*Based on weighted figure for the state

+Figures in the column are obtained by dividing each of Early neonatal mortality rate, late neonatal mortality and post neonatal mortality rate by Infant mortality rate

**Table 4: Number of still births and early neonatal deaths by sex according to place of residence in five selected states, 2003**

	Assam			Bihar			Maharashtra			Rajasthan			Tamil Nadu		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
<b>Still Births</b>															
Male	34	12	46	83	6	89	13	6	12	44	15	59	46	13	59
Female	30	6	36	71	5	76	10	2	19	30	5	35	25	14	39
Persons	64	18	82	154	11	165	23	8	31	74	20	94	71	27	98
<b>Early Neonatal Deaths</b>															
Male	42	8	50	109	9	118	28	3	31	84	5	89	62	15	77
Female	24	2	26	53	6	59	18	3	21	61	3	64	59	9	68
Persons	66	10	76	162	15	177	46	6	52	145	8	153	121	24	145
<b>Ratio of Still birth to Early neonatal deaths from COD and SRS</b>															
COD Survey *	0.42	-	0.41	0.47	-	0.47	0.42	-	0.43	0.36	-	0.40	0.24	-	0.28
SRS 2003	0.31	-	0.32	0.13	-	0.10	0.29	-	0.34	0.13	-	0.15	0.33	-	0.34

\*Based on weighted figures

**Table 5a: Percent distribution of infant estimated deaths by sex, according to selected socio-economic characteristics in five selected states, 2003<sup>1</sup>**

Socio-economic characteristic	Assam			Bihar			Maharashtra			Rajasthan			Tamil Nadu		
	Male	Female	Sample <sup>2</sup>	Male	Female	Sample <sup>2</sup>	Male	Female	Sample <sup>2</sup>	Male	Female	Sample <sup>2</sup>	Male	Female	Sample <sup>2</sup>
<b>Religion</b>															
Hindu	52.7	47.3	116	49.2	50.8	343	49.9	50.1	95	51.0	49.0	374	51.2	48.8	238
Muslim	56.8	43.2	68	51.2	48.8	97	24.7	75.3	8	38.7	61.3	26	40.8	59.2	5
<b>Residence</b>															
Rural	53.9	46.1	166	48.9	51.1	416	43.3	56.7	84	49.9	50.1	366	50.4	49.6	209
Urban	49.2	50.8	20	57.1	42.9	25	54.5	45.5	19	54.3	45.7	38	52.1	47.9	40
<b>Facility index</b>															
Low	57.0	43.0	121	47.3	52.7	320	44.0	56.0	29	51.2	48.8	143	29.6	70.4	33
Medium	48.3	51.7	37	60.3	39.7	100	54.0	46.0	53	42.9	57.1	120	58.1	41.9	116
High	41.7	58.3	28	36.2	63.8	21	41.2	58.8	21	55.9	44.1	141	48.4	51.6	100
Total	53.7	46.3	186	49.4	50.6	441	46.8	53.2	103	50.5	49.5	404	51.0	49.0	249

<sup>1</sup>Percentages based on weighted cases; <sup>2</sup> Unweighted numbers

Table 5b: Percent distribution of estimated child deaths age 1- 4 years by sex according to selected socio-economic characteristics in five selected states, 2003 <sup>1</sup>															
Socio-economic characteristic	Assam		Bihar		Maharashtra		Rajasthan		Tamil Nadu						
	Male	Female	Sample <sup>2</sup>	Male	Female	Sample <sup>2</sup>	Male	Female	Sample <sup>2</sup>	Male	Female	Sample <sup>2</sup>			
<b>Religion</b>															
Hindu	53.1	46.9	121	38.5	61.5	233	45.1	54.9	35	45.9	54.1	147	47.1	52.9	62
Muslim	38.7	61.3	42	50.5	49.5	62	100.0	0.0	3	26.6	73.4	10	100.0	0.0	2
<b>Residence</b>															
Rural	47.3	52.7	148	40.6	59.4	287	46.7	53.3	26	44.7	55.3	146	48.2	51.8	54
Urban	43.4	56.6	18	46.9	53.1	8	54.6	45.4	12	49.1	50.9	11	49.8	50.2	10
<b>Facility index</b>															
Low	49.9	50.1	105	42.1	57.9	230	54.3	45.7	16	51.2	48.8	69	46.4	53.6	8
Medium	40.7	59.3	39	38.5	61.5	52	43.9	56.1	14	33.8	66.2	46	44.5	55.5	26
High	40.4	59.6	22	26.8	73.2	13	44.8	55.2	8	47.5	52.5	42	52.0	48.0	30
Total	47.1	52.9	166	41.0	59.0	295	48.8	51.2	38	45.3	54.7	157	48.7	51.3	64

<sup>1</sup>Percentages based on weighted cases; <sup>2</sup> Unweighted numbers

Table 5c: Percent distribution of estimated child deaths age 5-14 years by sex according to selected socio-economic characteristics in five selected states, 2003 <sup>1</sup>										
Socio-economic characteristic	Assam		Bihar		Maharashtra		Rajasthan		Tamil Nadu	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<b>Religion</b>										
Hindu	53.6	46.4	51.5	48.5	56.9	43.1	48.9	51.1	53.1	46.9
Muslim	35.5	64.5	18.8	81.2	16.3	83.7	83.8	16.2	-	-
<b>Residence</b>										
Rural	51.5	48.5	48.8	51.2	54.5	45.5	50.6	49.4	54.9	45.1
Urban	42.3	57.7	29.2	70.8	53.3	46.7	47.0	53.0	45.9	54.1
<b>Facility index</b>										
Low	51.3	48.7	45.0	55.0	37.0	63.0	36.1	63.9	55.0	45.0
Medium	52.3	47.7	51.9	48.1	65.9	34.1	59.0	41.0	69.7	30.3
High	49.2	50.8	60.8	39.2	48.7	51.3	53.1	46.9	32.4	67.6
Total	51.2	48.8	47.3	52.7	54.1	45.9	50.0	50.0	52.0	48.0

<sup>1</sup>Percentages based on weighted cases; <sup>2</sup> Unweighted numbers;

Table 5d: Percent distribution of estimated deaths of persons age 15-59 years by sex according to selected socio-economic characteristics in five selected states, 2003 <sup>1</sup>															
Socio-economic characteristic	Assam			Bihar			Maharashtra			Rajasthan			Tamil Nadu		
	Male	Female	Sample <sup>2</sup>	Male	Female	Sample <sup>2</sup>	Male	Female	Sample <sup>2</sup>	Male	Female	Sample <sup>2</sup>	Male	Female	Sample <sup>2</sup>
<b>Religion</b>															
Hindu	53.2	46.8	652	53.3	46.7	900	63.0	37.0	550	62.7	37.3	985	57.6	42.4	1229
Muslim	63.0	37.0	95	54.1	45.9	131	59.2	40.8	66	55.9	44.1	64	71.0	29.0	38
<b>Residence</b>															
Rural	53.0	47.0	558	52.7	47.3	947	60.6	39.4	345	61.8	38.2	802	56.6	43.4	968
Urban	65.1	34.9	218	67.1	32.9	86	66.2	33.8	280	63.4	36.6	264	59.4	40.6	340
<b>Education</b>															
Illiterate	42.1	57.9	373	41.4	58.6	680	43.5	56.5	180	46.7	53.3	579	41.9	58.1	451
Primary	66.6	33.4	99	77.3	22.7	120	73.7	26.3	130	78.6	21.4	186	62.5	37.5	373
Middle and above	69.0	31.0	300	77.8	22.2	233	71.0	29.0	315	85.9	14.1	282	70.1	29.9	481
<b>Occupation</b>															
Housewife/ Household work	3.6	96.4	240	9.9	90.1	484	8.7	91.3	136	13.8	86.2	319	9.6	90.4	190
Cultivator	-	-	-	85.2	14.8	156	73.8	26.2	125	90.0	10.0	190	49.2	50.8	77
Unskilled worker	79.7	20.3	165	88.5	11.5	214	80.7	19.3	118	80.2	19.8	146	58.1	41.9	634
Skilled worker	82.8	17.2	171	96.1	3.9	142	90.2	9.8	189	91.7	8.3	263	76.9	23.1	294
Others	-	-	-	84.9	15.1	37	-	-	-	78.7	21.3	116	92.3	7.7	79
<b>Facility index</b>															
Low	53.4	46.6	346	51.7	48.3	680	59.7	40.3	132	62.8	37.2	349	53.9	46.1	143
Medium	54.0	46.0	194	62.0	38.0	251	63.0	37.0	249	59.0	41.0	293	59.1	40.9	482
High	56.6	43.4	236	51.1	48.9	102	64.4	35.6	244	64.1	35.9	424	57.6	42.4	683
Total	54.2	45.8	776	53.9	46.1	1033	62.8	37.2	625	62.2	37.8	1066	57.7	42.3	1308

<sup>1</sup>Percentages based on weighted cases; <sup>2</sup> Unweighted numbers



Table 5e: Percent distribution of estimated deaths of persons age 60 years and above by sex according to selected socio-economic characteristics in five selected states, 2003 <sup>1</sup>															
Socio-economic characteristic	Assam			Bihar			Maharashtra			Rajasthan			Tamil Nadu		
	Male	Female	Sample <sup>2</sup>	Male	Female	Sample <sup>2</sup>	Male	Female	Sample <sup>2</sup>	Male	Female	Sample <sup>2</sup>	Male	Female	Sample <sup>2</sup>
<b>Religion</b>															
Hindu	57.6	42.4	549	51.8	48.2	1198	51.5	48.5	655	55.3	44.7	1294	52.5	47.5	1907
Muslim	45.1	54.9	76	57.7	42.3	140	63.1	36.9	71	67.6	32.4	58	60.1	39.9	83
<b>Residence</b>															
Rural	56.1	43.9	415	52.5	47.5	1244	52.0	48.0	430	56.2	43.8	1034	52.3	47.7	1490
Urban	59.2	40.8	225	51.1	48.9	98	52.8	47.2	305	53.9	46.1	334	52.6	47.4	559
<b>Education</b>															
Illiterate	43.8	56.2	357	44.2	55.8	1025	38.2	61.8	416	48.0	52.0	1020	36.8	63.2	1210
Primary	68.2	31.8	123	73.7	26.3	146	66.5	33.5	157	76.5	23.5	150	71.2	28.8	498
Middle and above	87.7	12.3	160	87.7	12.3	171	80.0	20.0	162	87.6	12.4	180	80.9	19.1	211
<b>Occupation</b>															
Housewife/ Household work	12.1	87.9	228	11.8	88.2	588	5.8	94.2	258	19.3	80.7	541	7.1	92.9	396
Cultivator	-	-	-	86.2	13.8	344	68.8	31.2	205	80.7	19.3	314	49.0	51.0	374
Unskilled worker	84.7	15.3	76	84.6	15.4	227	76.3	23.7	65	79.4	20.6	115	55.2	44.8	834
Skilled worker	93.7	6.3	50	95.4	4.6	160	92.0	8.0	158	89.5	10.5	279	84.8	15.2	325
Others	-	-	-	100.0	0.0	23	-	-	-	83.6	16.4	93	84.5	15.5	118
<b>Facility index</b>															
Low	59.0	41.0	230	55.5	44.5	817	54.6	45.4	170	59.0	41.0	309	62.9	37.1	195
Medium	57.2	42.8	178	46.2	53.8	357	52.1	47.9	240	56.3	43.7	340	52.6	47.4	590
High	51.1	48.9	232	48.7	51.3	168	50.9	49.1	325	53.9	46.1	719	50.4	49.6	1264
Total	56.5	43.5	640	52.4	47.6	1342	52.3	47.7	735	55.6	44.4	1368	52.4	47.6	2049

<sup>1</sup>Percentages based on weighted cases; <sup>2</sup> Unweighted numbers

Table 6a: Percentage distribution of estimated Infant deaths by place of death according to selected background characteristics in five selected states, 2003 <sup>1</sup>										
Background characteristic	Assam		Bihar		Maharashtra		Rajasthan		Tamil Nadu	
	Home	Health facility	Home	Health Facility	Home	Health Facility	Home	Health Facility	Home	Health Facility
<b>Sex</b>										
Male	83.0	13.7	103	13.1	243	46.0	61	21.9	216	47.0
Female	90.6	7.6	81	8.4	198	67.6	42	29.8	188	18.3
<b>Residence</b>										
Rural	85.0	12.3	166	12.0	416	40.9	84	19.3	366	43.1
Urban	89.0	3.1	18	18.4	25	65.4	19	41.3	38	52.8
<b>Facility index</b>										
Low	90.6	8.8	121	10.8	320	36.7	29	23.1	143	32.3
Medium	73.1	15.7	37	15.3	100	41.2	53	14.6	120	45.2
High	71.5	25.9	26	27.0	21	68.9	21	27.8	141	51.6
Total	85.2	11.9	184	12.4	441	48.6	103	22.3	404	46.4

<sup>1</sup>Percentages based on weighted cases; <sup>2</sup> Unweighted numbers

Table 6b: Percentage distribution of estimated child deaths age 1-4 years by place of death according to selected background characteristics in five selected states, 2003 <sup>1</sup>															
Background characteristic	Assam			Bihar			Maharashtra			Rajasthan			Tamil Nadu		
	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>
<b>Sex</b>															
Male	79.7	13.9	94	81.8	10.4	114	66.9	22.1	19	78.2	13.3	76	68.2	12.2	33
Female	89.2		72	89.7	2.1	181	74.0	26.0	19	86.4	5.2	81	100.0	0.0	31
<b>Residence</b>															
Rural	81.6	10.7	148	85.9	8.4	287	70.0	20.4	26	84.5	9.8	146	66.9	9.7	54
Urban	92.6	4.9	18	46.9	12.9	8	60.1	27.7	12	40.5	33.3	11	73.7	15.9	10
<b>Facility index</b>															
Low	86.0	5.7	105	86.1	5.1	230	69.9	19.6	16	91.4	5.7	69	88.6	0.0	8
Medium	75.2	17.7	39	77.8	17.5	52	78.3	10.6	14	82.1	4.7	46	66.2	1.1	26
High	68.8	27.6	22	45.9	48.3	13	45.4	46.1	8	62.1	26.9	42	70.0	20.7	30
Total	82.0	10.5	166	83.4	8.7	295	67.4	22.4	38	78.4	13.1	157	69.2	11.8	64

<sup>1</sup>Percentages based on weighted cases; <sup>2</sup> Unweighted numbers

Table 6c: Percentage distribution of estimated child deaths in 5-14 years by place of death according to selected background characteristics in five selected states, 2003 <sup>1</sup>															
Background characteristic	Assam			Bihar			Maharashtra			Rajasthan			Tamil Nadu		
	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>
Sex															
Male	66.0	23.7	61	60.3	23.1	107	66.9	13.1	10	63.2	10.7	77	39.1	34.4	35
Female	79.2	2.4	52	89.3	0.9	96	83.7		14	59.1	40.9	68	0.0	0.0	30
Residence															
Rural	68.6	20.4	95	68.2	18.1	196	74.7	0.0	14	64.5	9.1	132	47.0	25.1	53
Urban	62.5	14.2	18	17.2	43.5	7	55.3	35.7	10	55.5	25.1	13	18.9	61.1	12
Facility index															
Low	78.0	9.0	69	66.0	18.4	148	43.0	0.0	7	85.2	6.4	64	42.9	45.0	9
Medium	46.5	46.3	22	57.5	28.2	43	87.5	0.0	10	64.0	6.5	48	36.3	21.9	29
High	58.6	30.4	22	63.3	15.5	12	56.5	43.5	7	33.8	26.6	33	37.9	50.7	27
Total	68.4	20.1	113	64.3	20.0	203	68.1	12.2	24	63.1	11.7	145	37.8	37.0	65

<sup>1</sup>Percentages based on weighted cases; <sup>2</sup> Unweighted numbers

Table 6d: Percentage distribution of estimated deaths of persons in 15-59 years by place of death according to selected background characteristics in five selected states, 2003 <sup>1</sup>															
Background characteristic	Assam			Bihar			Maharashtra			Rajasthan			Tamil Nadu		
	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>
<b>Sex</b>															
Male	72.5	16.5	462	69.8	16.7	536	71.2	20.0	412	70.4	20.1	723	68.8	19.1	815
Female	76.9	14.2	305	81.9	10.2	497	65.4	29.5	323	67.3	25.8	343	58.4	29.5	493
<b>Residence</b>															
Rural	73.7	15.8	555	72.3	15.9	947	74.5	16.3	430	74.8	15.7	802	71.8	14.6	968
Urban	68.8	17.1	212	63.9	13.4	86	65.5	27.6	305	51.8	39.6	264	62.6	27.5	340
<b>Education</b>															
illiterate	79.3	13.3	373	77.8	12.8	680	78.9	14.0	416	77.3	17.4	579	79.5	10.1	451
Primary	72.5	18.0	99	64.7	21.4	120	73.3	17.8	157	61.7	26.7	186	73.1	18.2	373
Middle & above	64.3	19.0	291	57.4	21.1	233	64.8	26.3	162	56.8	25.7	282	52.8	30.5	481
<b>Occupation</b>															
Housewife/Household work	78.9	17.2	238	76.4	17.0	484	76.7	20.4	258	72.3	21.4	319	57.3	31.1	190
Cultivator	-	-	-	60.3	17.7	156	79.5	12.8	205	73.2	17.4	190	75.6	15.2	77
Unskilled worker	81.7	7.1	165	76.0	12.5	214	70.1	17.1	65	79.9	13.6	146	74.0	14.3	634
Skilled worker	54.6	26.4	167	65.5	13.8	142	60.1	30.6	158	60.0	25.9	263	59.6	27.4	294
Other	-	-	-	61.2	17.6	37	-	-	-	62.7	23.9	116	74.4	11.1	79
<b>Facility index</b>															
Low	78.3	13.9	346	74.8	15.6	680	77.8	11.5	170	77.7	15.6	349	78.1	9.5	143
Medium	62.4	21.7	193	63.9	16.1	251	73.4	17.2	240	75.1	15.8	293	77.4	12.8	482
High	68.7	16.6	228	67.0	15.7	102	64.9	29.2	325	59.6	28.7	424	60.6	25.8	683
Total	73.2	16.0	767	71.6	15.7	1033	70.9	20.8	735	69.9	20.8	1066	68.2	19.6	1308

<sup>1</sup>Percentages based on weighted cases; <sup>2</sup>Unweighted numbers

Table 6c: Percentage distribution of estimated deaths of persons in 60 years and above by place of death according to selected background characteristics in five selected states, 2003 <sup>1</sup>															
Background characteristic	Assam			Bihar			Maharashtra			Rajasthan			Tamil Nadu		
	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>
<b>Sex</b>															
Male	90.1	7.4	373	93.9	4.6	744	89.3	7.7	412	88.8	10.2	821	91.2	6.4	1097
Female	95.8	4.2	253	92.6	0.0	598	87.3	8.9	323	82.7	17.3	547	80.0	13.9	952
<b>Residence</b>															
Rural	91.7	6.8	415	93.3	4.5	1244	93.2	4.5	430	91.4	7.7	1034	94.0	3.8	1490
Urban	84.9	8.3	211	96.9	1.0	98	81.3	14.5	305	78.9	20.1	334	84.6	12.3	559
<b>Education</b>															
illiterate	93.6	4.6	357	94.9	2.7	1025	92.5	5.1	416	90.8	8.2	1020	94.0	4.0	1210
Primary	91.1	7.8	120	89.6	8.6	146	89.6	8.2	157	83.4	15.9	150	85.8	11.0	498
Middle & above	81.5	14.1	149	89.1	10.0	171	79.0	15.5	162	75.1	24.1	180	83.6	12.6	340
<b>Occupation</b>															
Housewife/Household work	90.4	9.0	225	95.8	2.6	588	92.0	6.9	258	88.2	10.5	541	88.2	8.3	396
Cultivator	-	-	-	93.5	6.3	344	92.1	4.3	205	91.0	8.9	314	92.7	5.5	374
Unskilled worker	91.0	1.9	76	93.9	0.3	227	84.4	10.8	65	88.6	10.3	115	94.3	3.4	834
Skilled worker	76.2	22.2	45	86.9	10.9	160	82.4	12.8	158	83.6	15.8	279	83.9	13.1	325
Other	-	-	-	74.7	4.9	23	-	-	-	91.1	7.2	93	81.8	15.2	118
<b>Facility index</b>															
Low	95.6	1.7	230	95.3	2.6	817	91.9	3.8	170	93.3	5.4	309	96.3	2.3	195
Medium	92.5	6.8	174	91.0	7.5	357	88.9	9.3	240	92.4	6.9	340	93.0	4.0	590
High	81.0	16.8	222	90.2	5.0	168	87.5	9.4	325	84.2	15.0	719	87.9	9.5	1264
Total	91.0	6.9	626	93.6	4.2	1342	89.1	7.9	735	88.3	10.8	1368	90.3	7.1	2049

<sup>1</sup>Percentages based on weighted cases; <sup>2</sup>Unweighted numbers

Table 6f: Percentage distribution of estimated deaths by place of death according to selected background characteristics in five selected states, 2003 <sup>1</sup>															
Background characteristic	Assam			Bihar			Maharashtra			Rajasthan			Tamil Nadu		
	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>	Home	Health Facility	Sample <sup>2</sup>
Sex															
Male	80.8	12.9	1093	83.4	10.7	1744	76.7	17.0	943	78.6	16.4	1913	77.3	15.7	2116
Female	88.2	6.8	763	88.9	5.4	1570	70.4	26.0	582	73.0	24.7	1227	74.1	18.0	1619
Residence															
Rural	82.4	11.9	1379	84.6	10.0	3090	80.2	13.3	899	81.2	13.7	2480	79.8	12.3	2774
Urban	78.4	11.5	477	78.7	10.2	224	69.0	25.9	626	65.5	30.4	660	72.0	22.2	961
Facility index															
Low	86.6	8.3	871	85.8	8.9	2195	80.3	11.5	354	81.0	14.8	934	84.3	8.8	388
Medium	76.9	15.2	465	81.2	12.4	803	77.2	16.3	566	82.9	11.5	847	78.6	13.6	1243
High	74.3	18.5	520	77.9	13.0	316	72.6	23.3	605	72.9	22.2	1359	74.4	19.0	2104
Total	82.1	11.9	1856	84.1	10.0	3314	76.3	17.8	1525	78.1	17.0	3140	76.9	16.1	3735

**Table 7: Distribution of still births by selected socio-economic characteristics, 2003\***

Socio-economic characteristics	Assam	Bihar	Maharashtra	Rajasthan	Tamil Nadu
<b>Place of delivery</b>					
Home	65.1	67.0	36.2	51.1	17.5
Heath facility	32.3	30.4	43.8	48.9	79.8
Others	2.7	2.5	20.0	0.0	2.8
<b>Religion</b>					
Hindu	62.9	73.9	86.3	98.2	85.0
Muslim	36.3	26.1	13.7	1.3	7.7
Other	0.8	0.0	0.0	0.5	7.3
<b>Occupation of mother</b>					
Housewife/Household work	91.2	92.1	NC	67.0	55.4
Others	8.8	7.9		33.0	44.5
<b>Occupation of father</b>					
Cultivator	25.5	37.6	NC	18.3	9.4
Unskilled worker	32.9	37.2		23.6	43.0
Skilled worker	5.7	11.4		17.7	17.6
Others	35.9	13.8		40.4	29.9
<b>Education of mother</b>					
Illiterate	59.6	80.5	NC	62.7	26.9
Primary	8.2	11.8		7.3	24.1
Middle	7.5	6.1		12.3	24.6
Secondary and above	24.7	1.7		17.7	24.5
<b>Education of father</b>					
Illiterate	34.9	55.2	NC	35.7	20.2
Primary	25.3	15.4		10.6	21.7
Middle	5.1	13.5		15.3	29.6
Secondary and above	34.7	16.0		38.4	28.6
<b>Facility Index</b>					
Low	59.2	76.0	48.2	37.9	4.4
Medium	28.1	18.3	40.7	20.7	30.7
High	12.8	5.7	11.1	41	64.9
Percent	100.0	100.0	100.0	100.0	100.0
Number (unweighted)	82	165	31	94	98

Note: \*All percentages shown are weighted



**Table 8a: Estimated percent distribution of male deaths by major groups of causes of death (ICD10 classification) in five selected states, 2003\***

Cause of death (ICD10 classification)		Assam	Bihar	Maharashtra	Rajasthan	Tamil Nadu
I	Certain infectious and parasitic diseases	22.6	29.2	17.8	33.6	15.6
II	Neoplasms	6.7	2.7	4.7	5.2	7.0
III	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	0.1	2.7	0.8	0.5	1.3
IV	Endocrine, nutritional and metabolic diseases	1.1	1.8	0.9	1.9	1.3
V	Mental and behavioural disorders	0.1	0.3	1.3	0.4	0.9
VI	Diseases of the nervous system	1.2	1.4	1.9	1.2	2.0
VIII	Diseases of the ear and mastoid process	0.0	0.0	0.0	0.0	0.2
IX	Diseases of the circulatory system	22.1	10.5	24.9	11.2	25.6
X	Diseases of the respiratory system	10.2	10.2	10.5	11.9	7.0
XI	Diseases of the digestive system	9.2	3.6	7.6	1.1	2.1
XII	Diseases of the skin and subcutaneous tissue	0.0	0.1	0.0	0.1	0.0
XIII	Diseases of the musculoskeletal system and connective tissue	0.5	0.6	0.3	0.2	0.6
XIV	Diseases of the genitourinary system	3.0	3.6	3.0	3.3	5.5
XV	Pregnancy, childbirth and the puerperium	0.0	0.0	0.0	0.0	0.0
XVI	Certain conditions originating in the perinatal period	6.9	9.1	6.5	6.4	5.6
XVII	Congenital malformations, deformations and chromosomal abnormalities	2.4	0.7	1.1	0.5	2.8
XVIII	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	2.8	10.9	8.3	10.3	8.0
XIX	Injury, poisoning and certain other consequences of external causes	0.8	9.6	3.3	9.2	14.7
XX	External causes of morbidity and mortality	10.4	2.8	7.2	3.0	0.0
Percent		100.0	100.0	100.0	100.0	100.0
Number (unweighted)		1110	1744	943	1913	2116

Note: \*All percentages shown are weighted

**Table 8b: Estimated percent distribution of female deaths by major groups of causes of death (ICD10 classification) in five selected states, 2003\***

Cause of death (ICD10 classification)	Assam	Bihar	Maharashtra	Rajasthan	Tamil Nadu
I Certain infectious and parasitic diseases	29.9	30.4	16.5	34.6	16.9
II Neoplasms	5.0	3.2	8.7	3.7	12.2
III Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	2.3	1.9	0.7	0.8	1.4
IV Endocrine, nutritional and metabolic diseases	2.8	2.2	2.0	2.9	1.7
V Mental and behavioural disorders	0.1	0.2	1.4	0.7	1.5
VI Diseases of the nervous system	3.5	2.1	2.2	1.1	1.5
VIII Diseases of the ear and mastoid process	0.3	0.3	0.0	0.0	0.0
IX Diseases of the circulatory system	17.5	11.8	24.8	8.2	21.8
X Diseases of the respiratory system	11.0	13.8	9.2	10.2	3.7
XI Diseases of the digestive system	6.4	3.6	2.4	1.8	1.4
XII Diseases of the skin and subcutaneous tissue	0.0	0.1	0.0	0.0	0.0
XIII: Diseases of the musculoskeletal system and connective tissue	0.6	1.1	0.3	0.2	0.9
XIV: Diseases of the genitourinary system	3.0	0.9	3.1	1.8	4.0
XV: Pregnancy, childbirth and the puerperium	4.3	3.9	2.1	2.5	1.4
XVI: Certain conditions originating in the perinatal period	4.2	4.8	7.0	9.1	6.7
XVII: Congenital malformations, deformations and chromosomal abnormalities	2.0	0.4	1.9	0.6	1.3
XVIII: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	1.4	11.6	10.8	12.7	11.0
XIX: Injury, poisoning and certain other consequences of external causes	1.5	4.7	2.5	7.7	12.4
XX: External causes of morbidity and mortality	4.2	3.1	4.4	1.1	0.0
Percent	100.0	100.0	100.0	100.0	100.0
Number (unweighted)	771	1570	582	1227	1619

Note: \*All percentages shown are weighted

**Table 8c: Estimated percent distribution of persons deaths by major groups of causes of death (ICD10 classification) in five selected states, 2003\***

Cause of death (ICD10 classification)	Assam	Bihar	Maharashtra	Rajasthan	Tamil Nadu
I Certain infectious and parasitic diseases	25.9	29.8	17.2	34.1	16.2
II Neoplasms	5.9	2.9	6.5	4.5	9.4
III Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	1.1	2.3	0.8	0.6	1.4
IV Endocrine, nutritional and metabolic diseases	1.9	2.0	1.4	2.4	1.5
V Mental and behavioural disorders	0.1	0.3	1.3	0.6	1.2
VI Diseases of the nervous system	2.2	1.7	2.0	1.1	1.8
VIII Diseases of the ear and mastoid process	0.2	0.1	0.0	0.0	0.1
IX Diseases of the circulatory system	20.0	11.1	24.8	9.9	23.9
X Diseases of the respiratory system	10.6	12.0	9.9	11.1	5.5
XI Diseases of the digestive system	7.9	3.6	5.3	1.5	1.8
XII Diseases of the skin and subcutaneous tissue	0.0	0.1	0.0	0.1	0.0
XIII: Diseases of the musculoskeletal system and connective tissue	0.6	0.9	0.3	0.2	0.7
XIV: Diseases of the genitourinary system	3.0	2.3	3.0	2.6	4.8
XV: Pregnancy, childbirth and the puerperium	2.0	1.9	0.9	1.2	0.7
XVI: Certain conditions originating in the perinatal period	5.7	7.0	6.7	7.6	6.1
XVII: Congenital malformations, deformations and chromosomal abnormalities	2.2	0.6	1.5	0.6	2.1
XVIII: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	2.2	11.3	9.4	11.4	9.4
XIX: Injury, poisoning and certain other consequences of external causes	1.1	7.2	2.9	8.5	13.6
XX: External causes of morbidity and mortality	7.5	3.0	5.9	2.1	0.0
Percent	100.0	100.0	100.0	100.0	100.0
Number (unweighted)	1881	3314	1525	3140	3735

Note: \*All percentages shown are weighted

Table 9a: Percent distribution estimated male and female infant deaths by causes of death (ICD10 classification) in five selected states, 2003															
Cause of death (ICD10 classification)	Assam			Bihar			Maharashtra			Rajasthan			Tamil Nadu		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
I: Certain infectious and parasitic diseases	19.6	24.2	21.7	20.8	30.2	25.6	10.4	1.2	5.5	35.2	35.9	35.5	5.4	15.1	10.1
II: Neoplasms	0.0	0.0	0.0	1.0	0.9	0.9	0.0	0.0	0.0	0.6	1.1	0.8	0.0	0.2	0.1
III: Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	0.0	0.0	0.0	4.9	0.0	2.4	0.0	0.0	0.0	0.8	0.6	0.7	0.0	0.0	0.0
IV: Endocrine, nutritional and metabolic diseases	2.2	8.8	5.3	3.5	4.6	4.1	0.0	2.5	1.3	2.6	6.0	4.3	1.0	1.7	1.4
V: Mental and behavioural disorders	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VI: Diseases of the nervous system	0.0	0.5	0.3	0.2	3.9	2.1	0.0	2.7	1.4	1.8	0.7	1.2	0.6	1.2	0.9
VIII: Diseases of the ear and mastoid process	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IX: Diseases of the circulatory system	0.0	0.0	0.0	0.1	1.1	0.6	0.0	0.0	0.0	0.4	0.0	0.2	0.0	0.0	0.0
X: Diseases of the respiratory system	21.7	25.9	23.7	8.7	11.2	9.9	8.1	19.4	14.1	16.3	7.1	11.8	14.5	7.0	10.8
XI: Diseases of the digestive system	3.5	0.3	2.0	2.0	0.0	1.0	5.3	3.8	4.5	1.6	0.1	0.9	0.0	3.0	1.5
XII: Diseases of the skin and subcutaneous tissue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XIII: Diseases of the musculoskeletal system and connective tissue	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XIV: Diseases of the genitourinary system	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XV: Pregnancy, childbirth and the puerperium	0.0	7.2	3.3	0.0	7.2	3.7	0.0	7.1	3.8	0.0	1.7	0.8	0.0	0.3	0.2
XVI: Certain conditions originating in the perinatal period	37.9	22.3	30.6	40.1	19.2	29.6	56.1	44.1	49.7	21.5	25.6	23.5	58.3	60.9	59.6
XVII: Congenital malformations, deformations and chromosomal abnormalities	13.2	8.7	11.1	3.0	1.7	2.3	6.3	8.6	7.5	1.7	1.7	1.7	16.4	6.9	11.7
XVIII: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	1.1	0.4	0.8	12.4	12.8	12.6	7.0	10.5	8.9	12.9	14.3	13.6	0.0	0.5	0.2
XIX: Injury, poisoning and certain other consequences of external causes	0.0	1.7	0.8	2.4	1.4	1.9	4.4	0.0	2.0	2.0	5.3	3.6	3.9	3.1	3.5
XX: External causes of morbidity and mortality	0.8	0.0	0.4	0.9	5.6	3.3	2.5	0.0	1.2	2.7	0.0	1.3	0.0	0.0	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number (unweighted)	107	82	189	243	198	441	61	42	103	191	159	350	136	113	249

**Table 9b: Percent distribution of estimated deaths of male and female children in 1-4 years by causes of death (ICD10 classification) in five selected states, 2003**

Cause of death (ICD10 classification)		Assam		Bihar		Maharashtra		Rajasthan		Tamil Nadu						
		Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons			
I: Certain infectious and parasitic diseases		56.5	57.5	57.0	50.0	55.1	53.0	54.4	32.2	43.1	36.3	50.3	44.0	15.1	62.6	39.4
II: Neoplasms		0.0	0.0	0.0	1.7	1.7	1.7	0.0	0.0	0.0	0.0	0.3	0.2	3.5	0.0	1.7
III: Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism		0.6	0.6	0.6	1.6	0.0	0.7	0.0	0.0	0.0	2.2	0.0	1.0	0.9	0.0	0.4
IV: Endocrine, nutritional and metabolic diseases		5.9	3.5	4.6	5.2	7.4	6.5	1.3	14.4	8.0	8.0	4.7	6.2	1.2	0.0	0.6
V: Mental and behavioural disorders		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VI: Diseases of the nervous system		1.8	1.9	1.9	4.8	1.4	2.8	7.4	0.0	3.6	4.7	3.2	3.9	24.8	18.2	21.5
VIII: Diseases of the ear and mastoid process		0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IX: Diseases of the circulatory system		0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	3.7	1.2	0.0	0.6	0.0	0.0	0.0
X: Diseases of the respiratory system		7.1	13.0	10.2	5.7	7.4	6.7	6.7	4.4	5.5	10.2	7.8	8.9	17.1	2.8	9.8
XI: Diseases of the digestive system		3.1	10.8	7.2	3.4	2.6	2.9	0.0	0.0	0.0	0.0	5.2	2.9	5.7	0.0	2.8
XII: Diseases of the skin and subcutaneous tissue		0.0	0.0	0.0	1.6	1.5	1.5	0.0	0.0	0.0	0.0	0.7	0.4	0.0	0.0	0.0
XIII: Diseases of the musculoskeletal system and connective tissue		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XIV: Diseases of the genitourinary system		0.6	0.5	0.5	0.0	0.1	0.1	0.0	5.8	2.9	0.0	0.0	0.0	0.0	0.0	0.0
XV: Pregnancy, childbirth and the puerperium		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XVI: Certain conditions originating in the perinatal period		0.0	0.0	0.0	0.4	1.8	1.2	0.0	0.0	0.0	0.0	1.1	0.6	0.0	1.4	0.7
XVII: Congenital malformations, deformations and chromosomal abnormalities		0.0	0.9	0.5	0.0	0.2	0.2	7.4	0.0	3.6	0.0	0.0	0.0	1.7	8.0	4.9
XVIII: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified		19.3	2.4	10.4	6.8	12.9	10.4	12.1	19.5	15.9	19.0	14.6	16.6	2.5	0.0	1.2
XIX: Injury, poisoning and certain other consequences of external causes		0.0	0.0	0.0	12.6	4.6	7.9	2.9	0.0	1.4	16.0	12.0	13.8	27.5	7.0	17.0
XX: External causes of morbidity and mortality		5.0	8.9	7.1	6.3	3.0	4.3	7.9	16.5	12.3	2.4	0.0	1.1	0.0	0.0	0.0
Total percent		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number (unweighted)		94	72	166	114	181	295	19	19	38	79	91	170	33	31	64

**Table 9c: Percent distribution of estimated deaths of male and female children age 5-14 years by causes of death (ICD10 classification) in five selected states, 2003**

Cause of death (ICD10 classification)	Assam		Bihar		Maharashtra		Rajasthan		Tamil Nadu						
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female					
I: Certain infectious and parasitic diseases	63.6	46.7	55.3	38.9	40.6	39.8	33.8	26.3	30.4	16.2	37.6	26.9	18.4	28.3	23.2
II: Neoplasms	1.1	1.9	1.5	1.5	2.2	1.9	0.0	0.0	0.0	1.8	2.4	2.1	9.1	13.2	11.1
III: Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	0.0	2.9	1.4	2.1	0.0	1.0	0.0	0.0	0.0	0.0	0.7	0.3	0.0	0.0	0.0
IV: Endocrine, nutritional and metabolic diseases	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	1.3	0.2	0.0	0.1	0.3	0.0	0.2
V: Mental and behavioural disorders	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	2.2	0.0	0.0	0.0	0.0	0.0	0.0
VI: Diseases of the nervous system	5.9	27.0	16.2	0.2	2.6	1.5	0.0	7.6	3.5	1.6	6.4	4.0	39.8	14.5	27.6
VIII: Diseases of the ear and mastoid process	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IX: Diseases of the circulatory system	0.0	0.4	0.2	1.8	2.7	2.3	0.0	0.0	0.0	0.0	1.4	0.7	0.0	0.3	0.2
X: Diseases of the respiratory system	2.2	0.0	1.1	5.3	12.5	9.1	0.0	0.0	0.0	1.0	0.9	1.0	0.0	0.0	0.0
XI: Diseases of the digestive system	9.8	7.5	8.6	5.0	0.9	2.8	0.0	0.0	0.0	1.1	4.0	2.6	2.8	1.1	2.0
XII: Diseases of the skin and subcutaneous tissue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XIII: Diseases of the musculoskeletal system and connective tissue	0.0	0.0	0.0	2.6	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XIV: Diseases of the genitourinary system	0.1	5.1	2.5	1.5	0.2	0.8	0.0	8.5	3.9	1.3	0.0	0.7	2.7	7.7	5.1
XV: Pregnancy, childbirth and the puerperium	0.0	0.0	0.0	0.0	2.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XVI: Certain conditions originating in the perinatal period	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XVII: Congenital malformations, deformations and chromosomal abnormalities	0.5	0.0	0.2	0.7	0.0	0.3	8.7	8.5	8.6	0.0	0.0	0.0	1.1	0.0	0.6
XVIII: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	0.0	0.0	0.0	10.1	13.0	11.6	6.1	26.8	15.6	14.6	11.6	13.1	3.0	0.6	1.9
XIX: Injury, poisoning and certain other consequences of external causes	0.6	3.3	1.9	28.3	22.5	25.3	0.0	0.0	0.0	55.1	27.1	41.1	22.7	34.3	28.2
XX: External causes of morbidity and mortality	16.3	5.3	10.9	2.0	0.4	1.2	51.3	14.6	34.5	7.1	7.8	7.5	0.0	0.0	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number (unweighted)	60	52	112	107	96	203	10	14	24	80	65	145	35	30	65

Table 9d: Percent distribution of estimated male and female deaths age 15- 44 years by causes of death (ICD10 classification) in five selected states, 2003

Cause of death (ICD10 classification)	Assam		Bihar		Maharashtra		Rajasthan		Tamil Nadu						
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons			
I: Certain infectious and parasitic diseases	27.8	37.2	32.7	28.2	25.4	26.9	28.8	21.3	26.0	31.3	23.8	28.3	19.0	18.9	18.9
II: Neoplasms	3.8	6.4	5.2	2.8	7.0	4.8	4.9	10.5	7.0	4.6	5.8	5.1	5.9	10.0	7.6
III: Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	0.0	4.8	2.5	0.4	7.3	3.7	1.4	2.1	1.7	0.1	3.1	1.3	0.7	1.5	1.0
IV: Endocrine, nutritional and metabolic diseases	0.0	0.2	0.1	1.1	0.7	0.9	0.5	0.6	0.5	0.3	0.5	0.4	0.5	0.4	0.5
V: Mental and behavioural disorders	0.0	0.0	0.0	0.0	0.6	0.3	4.3	2.4	3.6	1.4	0.6	1.1	2.2	2.3	2.3
VI: Diseases of the nervous system	3.1	5.7	4.4	1.2	0.3	0.8	1.2	3.6	2.1	1.0	1.0	1.0	2.6	2.1	2.4
VIII: Diseases of the ear and mastoid process	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
IX: Diseases of the circulatory system	3.4	4.8	4.1	8.0	12.3	10.1	8.7	9.6	9.0	9.8	11.2	10.3	19.0	17.9	18.6
X: Diseases of the respiratory system	2.3	0.1	1.2	1.7	3.2	2.4	0.9	0.0	0.6	1.7	1.8	1.7	0.9	2.5	1.6
XI: Diseases of the digestive system	8.9	7.6	8.2	8.9	5.2	7.1	13.3	5.6	10.4	1.4	2.7	1.9	3.4	2.4	3.0
XII: Diseases of the skin and subcutaneous tissue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XIII: Diseases of the musculoskeletal system and connective tissue	0.0	0.1	0.0	0.3	0.9	0.6	0.0	0.0	0.0	0.3	0.0	0.2	0.2	1.9	0.9
XIV: Diseases of the genitourinary system	2.5	2.9	2.7	2.1	1.9	2.0	3.8	2.8	3.4	3.1	3.7	3.3	3.3	3.4	3.3
XV: Pregnancy, childbirth and the puerperium	0.0	13.5	7.1	0.0	13.0	6.2	0.0	7.1	2.6	0.0	16.9	6.7	0.0	8.9	3.8
XVI: Certain conditions originating in the perinatal period	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XVII: Congenital malformations, deformations and chromosomal abnormalities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.9	0.0	0.0	0.0	2.5	0.5	1.7
XVIII: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	6.4	1.4	3.8	8.0	9.8	8.9	7.7	9.3	8.3	6.3	10.4	7.9	5.1	2.4	4.0
XIX: Injury, poisoning and certain other consequences of external causes	2.4	3.2	2.8	34.5	8.9	22.3	5.4	6.8	5.9	32.5	16.3	26.1	34.5	25.0	30.5
XX: External causes of morbidity and mortality	39.3	12.3	25.1	2.8	3.3	3.0	19.1	15.8	17.9	6.1	2.4	4.6	0.0	0.0	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number (unweighted)	223	168	391	285	339	624	210	103	313	401	195	596	394	267	661



Table 9e: Percent distribution of estimated male and female deaths age 45-59 years by causes of death (ICD10 classification) in five selected states, 2003

Table 9e: Percent distribution of estimated male and female deaths age 45-59 years by causes of death (ICD10 classification) in five selected states, 2003															
Cause of death (ICD10 classification)	Assam			Bihar			Maharashtra			Rajasthan			Tamil Nadu		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
I: Certain infectious and parasitic diseases	18.3	24.4	20.6	31.5	24.6	28.5	15.9	20.0	17.5	37.0	38.8	37.6	18.8	20.0	19.3
II: Neoplasms	7.4	5.2	6.6	3.3	7.8	5.3	5.3	19.0	10.4	11.8	8.7	10.7	10.4	27.5	17.7
III: Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	0.0	1.9	0.7	1.2	2.2	1.6	0.2	0.0	0.1	0.0	0.0	0.0	1.3	2.2	1.7
IV: Endocrine, nutritional and metabolic diseases	0.7	2.9	1.5	0.6	0.1	0.4	0.4	0.6	0.5	2.7	0.0	1.7	2.2	1.9	2.0
V: Mental and behavioural disorders	0.3	0.0	0.2	2.2	0.0	1.2	0.2	2.4	1.0	0.8	0.0	0.5	0.4	4.3	2.0
VI: Diseases of the nervous system	0.9	1.7	1.2	0.0	0.6	0.3	1.4	0.6	1.1	0.0	1.5	0.5	0.7	1.8	1.1
VIII: Diseases of the ear and mastoid process	0.0	2.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.2
IX: Diseases of the circulatory system	34.6	39.0	36.3	15.4	24.3	19.4	37.1	34.1	36.0	16.0	15.0	15.7	33.4	17.6	26.7
X: Diseases of the respiratory system	2.6	7.0	4.3	9.1	13.3	11.0	5.9	5.5	5.7	9.0	10.6	9.6	5.1	3.3	4.3
XI: Diseases of the digestive system	17.3	4.6	12.5	3.4	9.4	6.1	16.4	4.4	11.9	1.3	1.3	1.3	3.1	2.2	2.7
XII: Diseases of the skin and subcutaneous tissue	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.5	0.0	0.3	0.0	0.0	0.0
XIII: Diseases of the musculoskeletal system and connective tissue	2.1	0.2	1.4	0.0	1.4	0.6	0.4	0.0	0.2	0.0	0.0	0.0	0.9	0.0	0.5
XIV: Diseases of the genitourinary system	7.1	4.7	6.2	8.1	1.0	5.0	2.8	2.4	2.7	2.9	6.0	4.0	4.8	5.1	4.9
XV: Pregnancy, childbirth and the puerperium	0.0	0.0	0.0	0.0	1.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XVI: Certain conditions originating in the perinatal period	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XVII: Congenital malformations, deformations and chromosomal abnormalities	0.0	2.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.4	0.8
XVIII: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	0.0	1.5	0.6	8.9	5.9	7.6	3.6	3.1	3.4	6.3	6.2	6.3	4.8	4.5	4.6
XIX: Injury, poisoning and certain other consequences of external causes	1.0	0.7	0.9	10.9	6.0	8.7	3.3	3.2	3.2	6.7	10.5	8.1	12.9	9.3	11.4
XX: External causes of morbidity and mortality	7.8	1.2	5.3	5.0	2.0	3.7	7.0	4.5	6.1	4.9	1.5	3.7	0.0	0.0	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number (unweighted)	243	140	383	251	158	409	231	81	312	322	112	434	421	226	647



Table 10a: Percent distribution of estimated male and female infant deaths by causes of death (ICD10 classification) in rural areas of five selected states, 2003															
Cause of death (ICD10 classification)	Assam-Rural		Bihar-Rural		Maharashtra-Rural		Rajasthan-Rural		Tamil Nadu-Rural						
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female					
I: Certain infectious and parasitic diseases	17.5	22.6	19.9	21.2	31.2	26.3	12.3	0.0	5.3	33.2	35.5	34.3	4.5	21.6	12.9
II: Neoplasms	0.0	0.0	0.0	1.0	0.9	1.0	0.0	0.0	0.0	0.7	1.3	1.0	0.0	0.4	0.2
III: Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	0.0	0.0	0.0	3.0	0.0	1.5	0.0	0.0	0.0	0.9	0.7	0.8	0.0	0.0	0.0
IV: Endocrine, nutritional and metabolic diseases	2.3	9.2	5.5	3.8	4.9	4.3	0.0	3.5	2.0	3.1	5.6	4.4	0.3	0.3	0.3
V: Mental and behavioural disorders	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VI: Diseases of the nervous system	0.0	0.6	0.3	0.3	3.7	2.0	0.0	3.7	2.1	2.1	0.8	1.4	0.9	1.8	1.3
VIII: Diseases of the ear and mastoid process	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IX: Diseases of the circulatory system	0.0	0.0	0.0	0.1	1.2	0.7	0.0	0.0	0.0	0.4	0.0	0.2	0.0	0.0	0.0
X: Diseases of the respiratory system	22.3	27.1	24.5	9.4	11.4	10.4	4.2	7.1	5.9	18.6	7.6	13.1	19.5	8.0	13.8
XI: Diseases of the digestive system	3.7	0.0	2.0	1.2	0.0	0.6	2.7	5.2	4.2	1.0	0.1	0.6	0.0	0.5	0.2
XII: Diseases of the skin and subcutaneous tissue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XIII: Diseases of the musculoskeletal system and connective tissue	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XIV: Diseases of the genitourinary system	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XV: Pregnancy, childbirth and the puerperium	0.0	7.3	3.4	0.0	7.6	3.9	0.0	9.7	5.5	0.0	2.0	1.0	0.0	0.5	0.2
XVI: Certain conditions originating in the perinatal period	39.0	23.0	31.6	41.1	16.2	28.4	50.0	50.5	50.3	21.1	27.6	24.4	59.4	59.6	59.5
XVII: Congenital malformations, deformations and chromosomal abnormalities	13.6	8.4	11.2	3.2	1.8	2.5	9.9	8.2	9.0	0.6	1.3	0.9	9.6	6.2	7.9
XVIII: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	1.1	0.0	0.6	12.2	13.5	12.9	11.1	12.1	11.7	12.8	11.6	12.2	0.0	0.7	0.4
XIX: Injury, poisoning and certain other consequences of external causes	0.0	1.8	0.8	2.6	1.5	2.0	5.6	0.0	2.4	2.4	6.0	4.2	6.0	0.5	3.3
XX: External causes of morbidity and mortality	0.5	0.0	0.3	1.0	6.0	3.6	4.0	0.0	1.7	3.1	0.0	1.6	0.0	0.0	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number (unweighted)	92	74	166	230	186	416	52	32	84	197	169	366	111	98	209

Cause of death (ICD10 classification)	Assam-Rural			Bihar-Rural			Maharashtra-Rural			Rajasthan-Rural			Tamil Nadu-Rural		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
I: Certain infectious and parasitic diseases	56.5	58.2	57.4	46.0	56.0	52.0	66.8	42.1	53.7	41.9	54.4	48.8	14.9	59.7	38.1
II: Neoplasms	0.0	0.0	0.0	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.4	0.2	5.3	0.0	2.6
III: Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	0.6	0.7	0.7	1.8	0.0	0.7	0.0	0.0	0.0	2.6	0.0	1.2	1.4	0.0	0.7
IV: Endocrine, nutritional and metabolic diseases	5.3	2.7	3.9	5.6	5.4	5.5	0.0	12.4	6.6	9.4	3.4	6.1	1.9	0.0	0.9
V: Mental and behavioural disorders	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VI: Diseases of the nervous system	1.9	2.0	1.9	5.2	1.5	3.0	0.0	0.0	0.0	5.5	3.7	4.5	19.3	20.8	20.1
VIII: Diseases of the ear and mastoid process	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IX: Diseases of the circulatory system	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5	5.1	1.4	0.0	0.6	0.0	0.0	0.0
X: Diseases of the respiratory system	6.7	13.6	10.3	6.1	7.9	7.2	0.0	5.7	3.0	12.0	7.3	9.4	7.5	4.2	5.8
XI: Diseases of the digestive system	3.2	10.1	6.9	3.7	2.8	3.1	0.0	0.0	0.0	0.0	6.0	3.3	1.3	0.0	0.6
XII: Diseases of the skin and subcutaneous tissue				1.7	1.6	1.6	0.0	0.0	0.0	0.0	0.8	0.5	0.0	0.0	0.0
XIII: Diseases of the musculoskeletal system and connective tissue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XIV: Diseases of the genitourinary system	0.6	0.0	0.3	0.0	0.1	0.1	0.0	7.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0
XV: Pregnancy, childbirth and the puerperium	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XVI: Certain conditions originating in the perinatal period	0.0	0.0	0.0	0.4	1.9	1.3	0.0	0.0	0.0	0.0	1.3	0.7	0.0	2.1	1.1
XVII: Congenital malformations, deformations and chromosomal abnormalities	0.0	0.9	0.5	0.0	0.3	0.2	10.5	0.0	4.9	0.0	0.0	0.0	2.6	2.7	2.7
XVIII: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	20.1	2.6	10.8	7.3	13.2	10.8	11.5	5.9	8.5	14.9	15.6	15.3	3.8	0.0	1.8
XIX: Injury, poisoning and certain other consequences of external causes	0.0	0.0	0.0	13.6	4.2	8.0	0.0	0.0	0.0	9.4	7.1	8.1	42.0	10.4	25.7
XX: External causes of morbidity and mortality	5.0	9.3	7.3	6.8	3.1	4.6	11.3	16.9	14.3	2.9	0.0	1.3	0.0	0.0	0.0
<b>Total percent</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Number (unweighted)</b>	85	63	148	112	175	287	12	14	26	73	73	146	27	27	54

Table 10c: Percent distribution of estimated male and female deaths age 5-14 years by causes of death (ICD10 classification) in rural areas of five selected states, 2003

Cause of death (ICD10 classification)	Assam-Rural		Bihar-Rural		Maharashtra-Rural		Rajasthan-Rural		Tamil Nadu-Rural	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
I: Certain infectious and parasitic diseases	64.1	48.2	37.7	37.9	40.9	40.4	17.3	35.6	17.7	5.7
II: Neoplasms	0.2	2.0	1.5	2.4	0.0	0.0	1.1	2.9	12.9	6.8
III: Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	0.0	3.1	2.2	0.0	0.0	0.0	0.0	0.8	0.0	0.0
IV: Endocrine, nutritional and metabolic diseases	0.0	0.0	0.0	0.0	0.0	4.4	0.2	0.0	0.5	0.0
V: Mental and behavioural disorders	0.0	0.0	0.0	0.0	0.0	7.3	0.0	0.0	0.0	0.0
VI: Diseases of the nervous system	6.2	28.3	0.2	2.9	0.0	0.0	1.9	2.6	42.3	23.1
VIII: Diseases of the ear and mastoid process	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IX: Diseases of the circulatory system	0.0	0.0	1.8	3.0	0.0	0.0	0.0	1.7	0.0	0.5
X: Diseases of the respiratory system	2.2	0.0	5.5	13.9	0.0	0.0	1.2	1.1	0.0	0.0
XI: Diseases of the digestive system	10.1	7.4	5.2	1.0	0.0	0.0	1.3	1.4	4.0	0.0
XII: Diseases of the skin and subcutaneous tissue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XIII: Diseases of the musculoskeletal system and connective tissue	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XIV: Diseases of the genitourinary system	0.0	5.2	0.0	0.2	0.0	13.0	1.6	0.0	3.8	12.2
XV: Pregnancy, childbirth and the puerperium	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0
XVI: Certain conditions originating in the perinatal period	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XVII: Congenital malformations, deformations and chromosomal abnormalities	0.5	0.0	0.8	0.0	0.0	0.0	0.0	0.0	1.6	0.0
XVIII: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	0.0	0.0	10.6	14.5	5.0	12.5	13.6	13.6	4.3	1.0
XIX: Injury, poisoning and certain other consequences of external causes	0.6	0.7	29.7	21.1	0.0	0.0	53.5	30.7	13.0	50.6
XX: External causes of morbidity and mortality	16.1	5.1	2.1	0.5	54.2	22.4	8.4	9.4	0.0	0.0
<b>Total percent</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Number (unweighted)</b>	51	44	103	93	4	10	70	62	27	26
		95		196		14		132		53

Table 10d: Percent distribution of estimated male and female deaths age 15-44 years by causes of death (ICD10 classification) in rural areas of five selected states, 2003											
Cause of death (ICD10 classification)	Assam-Rural		Bihar-Rural		Maharashtra-Rural		Rajasthan-Rural		Tamil Nadu-Rural		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Persons
I: Certain infectious and parasitic diseases	31.0	36.9	28.4	26.4	27.4	27.1	32.2	21.7	19.2	17.8	18.6
II: Neoplasms	2.4	6.4	3.1	6.7	4.9	4.2	4.6	5.4	6.0	10.7	8.1
III: Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	0.0	5.1	0.4	7.6	3.9	2.5	0.1	2.5	1.2	1.6	1.3
IV: Endocrine, nutritional and metabolic diseases	0.0	0.0	1.2	0.7	0.9	0.8	0.3	0.6	0.2	0.7	0.4
V: Mental and behavioural disorders	0.0	0.0	0.0	0.7	0.3	5.7	1.8	0.0	2.9	1.7	2.3
VI: Diseases of the nervous system	3.1	6.1	1.4	0.3	0.8	1.2	1.2	1.3	1.6	3.4	2.4
VIII: Diseases of the ear and mastoid process	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
IX: Diseases of the circulatory system	2.9	4.1	8.9	11.7	10.3	6.5	10.9	11.4	21.8	13.3	18.1
X: Diseases of the respiratory system	1.7	0.0	1.9	3.0	2.4	1.6	2.0	2.3	0.0	1.9	0.8
XI: Diseases of the digestive system	7.8	8.0	9.8	5.4	7.7	13.1	1.4	3.3	2.2	2.5	2.3
XII: Diseases of the skin and subcutaneous tissue	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XIII: Diseases of the musculoskeletal system and connective tissue	0.0	0.0	0.3	0.9	0.6	0.0	0.4	0.0	0.3	0.2	0.3
XIV: Diseases of the genitourinary system	2.2	3.0	2.4	2.0	2.2	4.7	1.8	3.7	3.2	5.1	4.1
XV: Pregnancy, childbirth and the puerperium	0.0	13.7	0.0	11.9	5.8	0.0	0.0	18.0	0.0	7.4	3.2
XVI: Certain conditions originating in the perinatal period	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0
XVII: Congenital malformations, deformations and chromosomal abnormalities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.4
XVIII: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	7.3	1.4	8.3	10.2	9.2	5.4	6.2	12.6	3.4	3.8	3.6
XIX: Injury, poisoning and certain other consequences of external causes	2.6	3.4	30.9	9.2	20.2	4.0	32.8	15.6	37.5	29.5	34.0
XX: External causes of morbidity and mortality	38.9	11.9	3.1	3.0	3.1	23.4	4.3	1.6	0.0	0.0	0.0
<b>Total percent</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Number (unweighted)</b>	145	136	258	304	562	115	301	187	299	203	502

Table 10e: Percent distribution of estimated male and female deaths age 45 -59 years by causes of death (ICD10 classification) in rural areas of five selected states, 2003															
Cause of death (ICD10 classification)	Assam-Rural			Bihar-Rural			Maharashtra-Rural			Rajasthan-Rural			Tamil Nadu-Rural		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
I: Certain infectious and parasitic diseases	19.4	26.4	22.1	34.1	25.2	30.1	15.6	21.8	18.0	42.5	37.5	40.6	21.0	18.6	19.9
II: Neoplasms	7.4	5.2	6.6	2.8	7.3	4.9	3.2	19.4	9.5	10.9	8.8	10.1	10.6	28.4	18.2
III: Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	0.0	2.1	0.8	1.3	2.4	1.8	0.4	0.0	0.2	0.0	0.0	0.0	1.1	0.9	1.0
IV: Endocrine, nutritional and metabolic diseases	0.7	3.2	1.7	0.7	0.1	0.4	0.7	0.0	0.4	2.3	0.0	1.4	1.3	2.2	1.7
V: Mental and behavioural disorders	0.3	0.0	0.2	0.9	0.0	0.5	0.3	1.0	0.6	1.0	0.0	0.6	0.6	5.8	2.8
VI: Diseases of the nervous system	1.0	0.0	0.6	0.0	0.6	0.3	1.6	1.0	1.4	0.0	0.0	0.0	0.8	0.0	0.5
VIII: Diseases of the ear and mastoid process	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.3
IX: Diseases of the circulatory system	32.7	40.2	35.6	16.5	25.6	20.6	39.0	29.4	35.3	12.8	16.5	14.2	27.9	19.8	24.4
X: Diseases of the respiratory system	2.7	7.4	4.5	9.9	14.2	11.8	4.4	7.0	5.4	9.8	9.5	9.7	7.6	3.9	6.0
XI: Diseases of the digestive system	16.1	4.7	11.7	3.4	6.2	4.7	18.3	2.9	12.3	1.6	1.6	1.6	1.9	1.9	1.9
XII: Diseases of the skin and subcutaneous tissue	2.4	0.0	1.4	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XIII: Diseases of the musculoskeletal system and connective tissue	0.0	0.0	0.0	0.0	1.5	0.7	0.6	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
XIV: Diseases of the genitourinary system	7.6	4.7	6.5	8.7	1.0	5.2	2.2	2.6	2.3	2.9	7.2	4.5	5.8	6.1	5.9
XV: Pregnancy, childbirth and the puerperium	0.0	0.0	0.0	0.0	1.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XVI: Certain conditions originating in the perinatal period	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XVII: Congenital malformations, deformations and chromosomal abnormalities	0.0	2.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.2	1.0
XVIII: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	0.0	1.7	0.6	9.8	5.8	8.0	5.2	5.0	5.1	6.7	7.5	7.0	6.8	3.9	5.6
XIX: Injury, poisoning and certain other consequences of external causes	1.1	0.8	1.0	9.9	6.4	8.3	3.1	2.6	2.9	6.5	11.2	8.3	12.8	8.1	10.7
XX: External causes of morbidity and mortality	8.5	1.2	5.7	1.8	2.1	1.9	5.4	7.2	6.1	3.1	0.2	2.0	0.1	0.0	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number (unweighted)	169	108	277	233	152	385	126	45	171	229	85	314	303	163	466



Table 10f: Percent distribution of estimated male and female deaths age 60 years and above by causes of death (ICD10 classification) in rural areas of five selected states, 2003															
Cause of death (ICD10 classification)	Assam-Rural			Bihar-Rural			Maharashtra-Rural			Rajasthan-Rural			Tamil Nadu-Rural		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
I: Certain infectious and parasitic diseases	15.0	22.5	18.3	30.5	26.8	28.7	14.6	18.6	16.5	35.5	33.2	34.5	17.8	17.2	17.5
II: Neoplasms	13.7	6.7	10.6	3.7	2.4	3.1	6.0	10.2	8.0	7.8	4.4	6.3	7.0	8.3	7.6
III: Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	0.0	2.7	1.2	2.4	2.0	2.2	0.8	0.0	0.4	0.5	0.7	0.6	1.1	2.0	1.5
IV: Endocrine, nutritional and metabolic diseases	0.6	1.0	0.8	0.9	0.8	0.9	1.2	1.3	1.2	0.7	0.3	0.5	1.3	1.4	1.3
V: Mental and behavioural disorders	0.0	0.3	0.1	0.2	0.1	0.1	1.2	1.5	1.3	0.2	1.4	0.7	1.1	1.0	1.0
VI: Diseases of the nervous system	0.4	1.3	0.8	2.2	1.6	1.9	2.7	2.3	2.5	0.8	0.8	0.8	0.3	0.5	0.4
VIII: Diseases of the ear and mastoid process	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.2
IX: Diseases of the circulatory system	39.4	35.3	37.6	18.3	20.1	19.2	32.4	31.0	31.7	20.0	15.6	18.1	27.9	29.8	28.8
X: Diseases of the respiratory system	12.4	12.0	12.2	16.2	20.3	18.1	19.1	11.8	15.6	15.6	19.8	17.4	9.6	4.0	7.0
XI: Diseases of the digestive system	9.6	9.2	9.4	2.7	4.5	3.5	3.2	1.1	2.2	0.6	2.2	1.3	1.1	0.7	0.9
XII: Diseases of the skin and subcutaneous tissue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XIII: Diseases of the musculoskeletal system and connective tissue	0.5	1.8	1.1	0.8	2.3	1.5	0.8	0.7	0.8	0.4	0.6	0.5	1.0	1.0	1.0
XIV: Diseases of the genitourinary system	3.2	3.7	3.4	4.3	1.4	2.9	3.4	3.2	3.4	6.1	1.5	4.1	8.6	5.4	7.1
XV: Pregnancy, childbirth and the puerperium	0.0	0.0	0.0	0.0	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XVI: Certain conditions originating in the perinatal period	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XVII: Congenital malformations, deformations and chromosomal abnormalities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.1	0.8
XVIII: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	1.4	1.7	1.5	12.0	12.5	12.2	11.8	13.5	12.6	9.4	13.8	11.3	12.6	17.9	15.2
XIX: Injury, poisoning and certain other consequences of external causes	0.4	0.6	0.5	2.5	2.8	2.7	1.2	2.2	1.7	1.2	4.6	2.7	8.7	10.6	9.6
XX: External causes of morbidity and mortality	3.5	1.1	2.4	3.1	1.7	2.4	1.4	2.6	2.0	1.1	1.2	1.1	0.0	0.1	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number (unweighted)	244	171	415	691	553	1244	98	57	155	621	413	1034	798	692	1490



**Table 11: Percent distribution of still births by causes of death (ICD10 classification) in five selected states, 2003\***

ICD 10 CLASSIFICATION	Assam	Bihar	Maharashtra	Rajasthan	Tamil Nadu
I: Certain infectious and parasitic diseases	0.0	1.1	0.0	0.8	0.0
III: Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	11.5	12.4	47.6	6.1	4.2
IV: Endocrine, nutritional and metabolic diseases	0.0	0.0	0.0	0.5	0.0
IX: Diseases of the circulatory system	0.0	0.0	0.0	2.1	0.0
XI: Diseases of the digestive system	0.0	0.4	0.0	0.0	0.0
XIV: Diseases of the genitourinary system	3.5	0.0	0.0	0.0	0.0
XV: Pregnancy, childbirth and the puerperium	64.4	65.2	1.7	41.6	36.0
XVI: Certain conditions originating in the perinatal period	15.5	17.6	50.6	41.9	58.1
XVII: Congenital malformations, deformations and chromosomal abnormalities	0.0	1.6	0.0	0.7	1.4
XVIII: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	0.0	0.1	0.0	5.1	0.0
XIX: Injury, poisoning and certain other consequences of external causes	5.2	1.1	0.1	0.9	0.2
XX: External causes of morbidity and mortality	0.0	0.6	0.0	0.2	0.0
Total percent	100.0	100.0	100.0	100.0	100.0
Number of still births Unweighted	82	165	31	94	98

Note: \*All percentages shown are weighted

**Table 12: Percent distribution of maternal deaths by causes of death (ICD10 classification) in five selected states, 2003\***

ICD 10 CLASSIFICATION	Assam	Bihar	Maharashtra	Rajasthan	Tamil Nadu
I: Certain infectious and parasitic diseases	18.2	14.8	0.0	4.6	16.5
II: Neoplasms	1.2	1.6	0.0	0.0	10.7
III: Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	0.0	13.6	0.0	8.2	1.5
IV: Endocrine, nutritional and metabolic diseases	0.0	1.4	0.0	0.0	1.5
V: Mental and behavioural disorders	0.0		0.0	0.0	1.3
VI: Diseases of the nervous system	0.0	0.6	0.0	0.0	1.5
VIII: Diseases of the ear and mastoid process	0.0	0.0	0.0	0.0	0.1
IX: Diseases of the circulatory system	25.2	2.4	0.0	2.8	27.3
X: Diseases of the respiratory system	3.0	0.7	0.0	0.0	4.9
XI: Diseases of the digestive system	25.5	0.6	0.0	0.0	1.8
XIII: Diseases of the musculoskeletal system and connective tissue	0.0	0.0	0.0	0.0	0.8
XIV: Diseases of the genitourinary system	6.1	4.4	0.0	0.0	0.0
XV: Pregnancy, childbirth and the puerperium	0.0	39.6	100.0	79.2	5.5
XVI: Certain conditions originating in the perinatal period	0.0	0.8	0.0	0.0	0.0
XVII: Congenital malformations, deformations and chromosomal abnormalities	0.0	0.0	0.0	0.0	1.0
XVIII: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	0.0	11.1	0.0	2.6	10.7
XIX: Injury, poisoning and certain other consequences of external causes	0.0	4.2	0.0	0.0	14.8
XX: External causes of morbidity and mortality	20.9	4.1	0.0	2.7	0.0
Total percent	100.0	100.0	100.0	100.0	100.0
Number of maternal deaths (Unweighted)	26	73	7	36	29

Note: \*All percentages shown are weighted

**Table 13a: Leading causes of Infant deaths according to sex in five selected states , 2003**

ASSAM					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Certain conditions originating in the perinatal period (P00-P96)	37.9	Lower respiratory tract (J20-J22,J40-J47)	25.2	Certain conditions originating in the perinatal period (P00-P96)	30.6
Lower respiratory tract (J20-J22,J40-J47)	21.7	Certain conditions originating in the perinatal period (P00-P96)	22.3	Lower respiratory tract (J20-J22,J40-J47)	23.3
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) (Q00-Q99)	13.2	Intestinal infectious diseases (A00-A09)	9.9	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	11.1
Other bacterial diseases (A20-A64)	12.1	Other certain infectious and parasitic diseases(A65-A69)	9.4	Other bacterial diseases (A20-A64)	8.7
Intestinal infectious diseases (A00-A09)	4.5	Malnutrition (E40-E46)	8.8	Intestinal infectious diseases (A00-A09)	7.0
Diseases of the other parts of digestive system (K90-K93)	3.5	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	8.7	Other certain infectious and parasitic diseases(A65-A69)	6.0
Other certain infectious and parasitic diseases(A65-A69)	3.0	Pregnancy, childbirth and the puerperium (O00-O99)	7.2	Malnutrition (E40-E46)	5.3
Malnutrition (E40-E46)	2.2	Other bacterial diseases (A20-A64)	4.8	Pregnancy, childbirth and the puerperium (O00-O99)	3.3
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) (R00-R99)	1.1	other injuries (S00-S01,T00-T01)	1.7	Diseases of the other parts of digestive system (K90-K93)	2.0
		Other diseases of respiratory tract	0.8	Other injuries	0.8
BIHAR					
Certain conditions originating in the perinatal period (P00-P96)	40.1	Certain conditions originating in the perinatal period (P00-P96)	19.2	Certain conditions originating in the perinatal period (P00-P96)	29.6
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	12.4	Intestinal infectious diseases (A00-A09)	13.8	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	12.6
Other certain infectious and parasitic diseases(A65-A69,	7.7	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	12.8	Intestinal infectious diseases (A00-A09)	10.4
Intestinal infectious diseases (A00-A09)	6.9	Other bacterial diseases (A20-A64)	8.1	Lower respiratory tract (J20-J22,J40-J47)	6.6
Lower respiratory tract (J20-J22,J40-J47)	5.3	Lower respiratory tract (J20-J22,J40-J47)	7.9	Other certain infectious and parasitic diseases(A65-A69,	6.2
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)	4.9	Other direct obstetric deaths (O10-O92)	7.2	Other bacterial diseases (A20-A64)	6.1
Other bacterial diseases (A20-A64)	4.0	Other external causes of accidental injury (W20-W60,W75-W99, X10-X39)	5.0	Malnutrition (E40-E46)	4.0
Other diseases of respiratory tract (J10-J18, J60-J98)	3.3	Other certain infectious and parasitic diseases(A65-A69,	4.7	Other direct obstetric deaths (O10-O92)	3.7
Malnutrition (E40-E46)	3.3	Malnutrition (E40-E46)	4.6	Other diseases of respiratory tract (J10-J18, J60-J98)	3.3
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	3.0	Other diseases of respiratory tract (J10-J18, J60-J98)	3.3	Other external causes of accidental injury (W20-W60,W75-W99, X10-X39)	2.7
		Other certain Infectious and parasitic diseases	3.6	Other certain Infectious and parasitic diseases	2.9

**Table 13a: Leading causes of Infant deaths according to sex in five selected states, 2003 (Contd..)**

<b>MAHARASHTRA</b>					
<b>Male</b>		<b>Female</b>		<b>Person</b>	
<b>Cause</b>	<b>Percent</b>	<b>Cause</b>	<b>Percent</b>	<b>Cause</b>	<b>Percent</b>
Certain conditions originating in the perinatal period (P00-P96)	56.1	Certain conditions originating in the perinatal period (P00-P96)	44.1	Certain conditions originating in the perinatal period (P00-P96)	49.7
other respiratory	7.4	other respiratory	16.7	other respiratory	12.4
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	7.0	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	10.5	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	8.9
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	6.3	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	8.6	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	7.5
Diseases of the other parts of digestive system (K90-K93)	5.3	Other direct obstetric deaths (O10-O92)	7.1	Diseases of the other parts of digestive system (K90-K93)	4.5
Intestinal infectious diseases (A00-A09)	4.8	Diseases of the other parts of digestive system (K90-K93)	3.8	Other direct obstetric deaths (O10-O92)	3.8
Viral diseases (A70-A74, A80-B34)	4.2	lower resp	2.7	Intestinal infectious diseases (A00-A09)	2.9
other and unspecified effects of external cause	3.2	Other diseases of the nervous system (G10-G98)	2.7	Viral diseases (A70-A74, A80-B34)	2.0
Accidental Falls	1.5	Malnutrition (E40-E46)	2.5	lower resp	1.8
Protozoal diseases (B50-B64)	1.3	Intestinal infectious diseases (A00-A09)	1.2	other and unspecified effects of external cause	1.5
<b>RAJASTHAN</b>					
Certain conditions originating in the perinatal period (P00-P96)	21.5	Certain conditions originating in the perinatal period (P00-P96)	25.6	Certain conditions originating in the perinatal period (P00-P96)	23.5
Other certain infectious and parasitic diseases (A65-A69)	17.7	Intestinal infectious diseases (A00-A09)	14.7	Other certain infectious and parasitic diseases (A65-A69)	16.2
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	12.9	Other certain infectious and parasitic diseases (A65-A69)	14.7	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	13.6
Intestinal infectious diseases (A00-A09)	9.8	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	14.3	Intestinal infectious diseases (A00-A09)	12.2
Other diseases of respiratory tract (J10-J18, J60-J98)	9.4	Malnutrition (E40-E46)	6.0	Other diseases of respiratory tract (J10-J18, J60-J98)	7.1
Lower respiratory tract (J20-J22, J40-J47)	7.0	other injuries (S00-S01, S05, S09-S11, S15-S16, S95-S96, S99, T00-T01)	5.3	Other bacterial diseases (A20-A64)	5.0
Other bacterial diseases (A20-A64)	5.8	Other diseases of respiratory tract (J10-J18, J60-J98)	4.7	Lower respiratory tract (J20-J22, J40-J47)	4.7
Malnutrition (E40-E46)	2.6	Other bacterial diseases (A20-A64)	4.3	Malnutrition (E40-E46)	4.3
Accidental Falls	2.1	Lower respiratory tract (J20-J22, J40-J47)	2.4	other injuries (S00-S01, S05, S09-S11, S15-S16, S95-S96, S99, T00-T01)	3.5
Viral diseases (A70-A74, A80-B34)	1.9	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	1.7	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	1.7
		<b>Other certain infectious and Parasitic diseases</b>	2.2	<b>Other certain infectious and Parasitic diseases</b>	2.1

**Table 13a: Leading causes of Infant deaths according to sex in five selected states, 2003 (Contd..)**

TAMIL NADU					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Certain conditions originating in the perinatal period (P00-P96)	58.3	Certain conditions originating in the perinatal period (P00-P96)	60.9	Certain conditions originating in the perinatal period (P00-P96)	59.6
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	16.4	Other bacterial diseases (A20-A64)	8.9	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	11.7
Lower respiratory tract (J20-J22,J40-J47)	12.6	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	6.9	Lower respiratory tract (J20-J22,J40-J47)	9.6
other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	3.8	Lower respiratory tract (J20-J22,J40-J47)	6.5	Other bacterial diseases (A20-A64)	5.2
Intestinal infectious diseases (A00-A09)	3.3	Intestinal infectious diseases (A00-A09)	5.4	Intestinal infectious diseases (A00-A09)	4.3
Other diseases of respiratory tract (J10-J18, J60-J98)	1.9	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	3.1	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	3.5
Other bacterial diseases (A20-A64)	1.6	Diseases of the other parts of digestive system (K90-K93)	3.0	Diseases of the other parts of digestive system (K90-K93)	1.5
Malnutrition (E40-E46)	1.0	Malnutrition (E40-E46)	1.7	Malnutrition (E40-E46)	1.4
Tuberculosis (A15-A19)	0.5	Inflammatory diseases of the central nervous(G00-G09)	1.2	Other diseases of respiratory tract (J10-J18, J60-J98)	1.2
Other diseases of the nervous system (G10-G98)	0.3	Viral diseases (A70-A74, A80-B34)	0.8	Inflammatory diseases of the central nervous(G00-G09)	0.7

**Table 13b: Leading causes of child death age 1-4 years according to sex in five selected states, 2003**

ASSAM					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Intestinal infectious diseases (A00-A09)	41.8	Intestinal infectious diseases (A00-A09)	46.4	Intestinal infectious diseases (A00-A09)	44.2
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	19.3	Diseases of the other parts of digestive system (K90-K93)	10.8	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	10.4
Malnutrition (E40-E46)	5.9	Lower respiratory tract (J20-J22,J40-J47)	10.6	Lower respiratory tract (J20-J22,J40-J47)	7.5
Lower respiratory tract (J20-J22,J40-J47)	4.1	Other certain infectious and parasitic diseases(A65-A69,	7.5	Diseases of the other parts of digestive system (K90-K93)	7.2
Viral diseases (A70-A74, A80-B34)	3.7	Accidental drowning and submersion (W65-W74)	5.5	Other certain infectious and parasitic diseases(A65-A69,	5.6
Accidental drowning and submersion (W65-W74)	3.6	Malnutrition (E40-E46)	3.5	Malnutrition (E40-E46)	4.6
Protozoal diseases (B50-B64)	3.6	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	2.4	Accidental drowning and submersion (W65-W74)	4.6
Other certain infectious and parasitic diseases(A65-A69,	3.5	Other diseases of respiratory tract (J10-J18, J60-J98)	2.4	Protozoal diseases (B50-B64)	2.8
Tuberculosis (A15-A19)	3.2	Other external causes of accidental injury (W20-W60,W75-W99, X10-X39)	2.4	Other diseases of respiratory tract (J10-J18, J60-J98)	2.7
Diseases of the other parts of digestive system (K90-K93)	3.1	Protozoal diseases (B50-B64)	2.1	Tuberculosis (A15-A19)	2.0
				<b>Other external causes of morbidity and mortality</b>	4.3
BIHAR					
Intestinal infectious diseases (A00-A09)	22.4	Intestinal infectious diseases (A00-A09)	29.7	Intestinal infectious diseases (A00-A09)	26.7
Viral diseases (A70-A74, A80-B34)	14.8	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	12.9	Viral diseases (A70-A74, A80-B34)	11.7
other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	12.6	Viral diseases (A70-A74, A80-B34)	9.5	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	10.4
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	6.8	Other certain infectious and parasitic diseases(A65-A69,	8.6	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	7.6
Other external causes of accidental injury (W20-W60,W75-W99, X10-X39)	6.3	Malnutrition (E40-E46)	7.4	Other certain infectious and parasitic diseases(A65-A69)	7.3
Other certain infectious and parasitic diseases(A65-A69)	5.4	Other diseases of respiratory tract (J10-J18, J60-J98)	6.3	Malnutrition (E40-E46)	6.4
Malnutrition (E40-E46)	5.0	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	4.1	Other diseases of respiratory tract (J10-J18, J60-J98)	5.1
Protozoal diseases (B50-B64)	3.9	Protozoal diseases (B50-B64)	3.1	Other external causes of accidental injury (W20-W60,W75-W99, X10-X39)	4.1
Other diseases of the nervous system (G10-G98)	3.4	Diseases of the other parts of digestive system (K90-K93)	2.6	Protozoal diseases (B50-B64)	3.4
Diseases of the other parts of digestive system (K90-K93)	3.4	Other bacterial diseases (A20-A64)	2.6	Diseases of the other parts of digestive system (K90-K93)	2.9
<b>Other Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified</b>	3.3	<b>Other Endocrine, nutritional and metabolic diseases</b>	7.4	<b>Other Endocrine, nutritional and metabolic diseases</b>	6.4
				<b>Other certain Infectious and parasitic diseases</b>	3.9

**Table 13b: Leading causes of child death age 1- 4 years according to sex in five selected states, 2003**

MAHARASHTRA					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Viral diseases (A70-A74, A80-B34)	44.3	Intestinal infectious diseases (A00-A09)	28.5	Viral diseases (A70-A74, A80-B34)	23.5
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	12.1	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	19.5	Intestinal infectious diseases (A00-A09)	15.9
Protozoal diseases (B50-B64)	7.4	Malnutrition (E40-E46)	9.5	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	15.9
Other diseases of the nervous system (G10-G98)	7.4	Complication of surgical and medical care	8.9	Complication of surgical and medical care	6.2
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	7.4	Other external causes of accidental injury (W20-W60, W75-W99, X10-X39)	7.6	Malnutrition (E40-E46)	5.5
Other Respi	6.7	Hypertensive diseases (I10-I15)	7.3	Other Respi	5.5
Accidental poisoning	4.6	Diseases of urinary system (N00-N39)	5.8	Other external causes of accidental injury (W20-W60, W75-W99, X10-X39)	3.9
Complication of surgical and medical care	3.3	Endocrine. Other nutritional (E00-E34, E50-89)	5.0	Hypertensive diseases (I10-I15)	3.7
Crushing injuries	2.9	Other Respi	4.4	Protozoal diseases (B50-B64)	3.6
Intestinal infectious diseases (A00-A09)	2.8	Viral diseases (A70-A74, A80-B34)	3.7	Other diseases of the nervous system (G10-G98)	3.6
				<b>Other Injury, poisoning and certain other consequences of external causes</b>	<b>9.7</b>
RAJASTHAN					
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	19.0	Intestinal infectious diseases (A00-A09)	17.1	Intestinal infectious diseases (A00-A09)	16.9
Intestinal infectious diseases (A00-A09)	16.7	Other certain infectious and parasitic diseases (A65-A69)	16.2	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	16.6
other injuries (S00-S01, S05, S09-S11, S15-S16, S95-S96, S99, T00-T01)	15.6	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	14.6	Other certain infectious and parasitic diseases (A65-A69)	15.4
Other certain infectious and parasitic diseases (A65-A69)	14.4	other injuries (S00-S01, S05, S09-S11, S15-S16, S95-S96, S99, T00-T01)	12	other injuries (S00-S01, S05, S09-S11, S15-S16, S95-S96, S99, T00-T01)	13.6
Other diseases of respiratory tract (J10-J18, J60-J98)	8.6	Protozoal diseases (B50-B64)	7.6	Malnutrition (E40-E46)	6.2
Malnutrition (E40-E46)	8.0	Viral diseases (A70-A74, A80-B34)	6.0	Other diseases of respiratory tract (J10-J18, J60-J98)	5.2
Other diseases of the nervous system (G10-G98)	3.8	Lower respiratory tract (J20-J22, J40-J47)	5.5	Protozoal diseases (B50-B64)	4.7
Viral diseases (A70-A74, A80-B34)	2.8	Diseases of the other parts of digestive system (K90-K93)	5.2	Viral diseases (A70-A74, A80-B34)	4.6
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)	2.2	Malnutrition (E40-E46)	4.7	Lower respiratory tract (J20-J22, J40-J47)	3.7
Lower respiratory tract (J20-J22, J40-J47)	1.6	Tuberculosis (A15-A19)	3.3	Diseases of the other parts of digestive system (K90-K93)	2.9
<b>Other certain infectious and Parasitic diseases</b>	<b>2.4</b>				



**Table 13b: Leading causes of child death age 1-4 years according to sex in five selected states, 2003**

TAMIL NADU					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	27.5	Viral diseases (A70-A74, A80-B34)	39.3	Viral diseases (A70-A74, A80-B34)	20.2
Inflammatory diseases of the central nervous(G00-G09)	21.9	Intestinal infectious diseases (A00-A09)	23.2	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	17.0
Lower respiratory tract (J20-J22,J40-J47)	12.1	Inflammatory diseases of the central nervous(G00-G09)	11.5	Inflammatory diseases of the central nervous(G00-G09)	16.6
Intestinal infectious diseases (A00-A09)	8.9	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	8.0	Intestinal infectious diseases (A00-A09)	16.2
Other bacterial diseases (A20-A64)	6.2	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	7.0	Lower respiratory tract (J20-J22,J40-J47)	7.3
Diseases of the other parts of digestive system (K90-K93)	5.7	Other diseases of the nervous system (G10-G98)	6.8	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	4.9
Other diseases of respiratory tract (J10-J18, J60-J98)	5.0	Lower respiratory tract (J20-J22,J40-J47)	2.8	Other diseases of the nervous system (G10-G98)	4.9
Malignant neoplasms of genitalourinary organs (C51-C68)	3.5	Certain conditions originating in the perinatal period (P00-P96)	1.4	Other bacterial diseases (A20-A64)	3.0
Other diseases of the nervous system (G10-G98)	2.9			Diseases of the other parts of digestive system (K90-K93)	2.8
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	2.5			Other diseases of respiratory tract (J10-J18, J60-J98)	2.4



**Table 13c: Leading causes of death of children age 5-14 years according to sex in five selected states, 2003**

ASSAM					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Intestinal infectious diseases (A00-A09)	29.5	Intestinal infectious diseases (A00-A09)	22.7	Intestinal infectious diseases (A00-A09)	26.1
Viral diseases (A70-A74, A80-B34)	18.7	Inflammatory diseases of the central nervous(G00-G09)	20.8	Inflammatory diseases of the central nervous(G00-G09)	13.2
Diseases of the other parts of digestive system (K90-K93)	9.8	Protozoal diseases (B50-B64)	10.9	Viral diseases (A70-A74, A80-B34)	11.0
Protozoal diseases (B50-B64)	8.1	Tuberculosis (A15-A19)	10.3	Protozoal diseases (B50-B64)	9.5
Inflammatory diseases of the central nervous(G00-G09)	5.9	Diseases of the other parts of digestive system (K90-K93)	7.5	Diseases of the other parts of digestive system (K90-K93)	8.6
Accidental drowning and submersion (W65-W74)	5.6	Other diseases of the nervous system (G10-G98)	6.1	Tuberculosis (A15-A19)	7.6
Tuberculosis (A15-A19)	5.1	Diseases of urinary system (N00-N39)	5.1	Accidental drowning and submersion (W65-W74)	4.0
Other external causes of accidental injury (W20-W60,W75-W99, X10-X39)	4.8	Intentional self-harm (suicide) (X60-X84)	3.1	Other diseases of the nervous system (G10-G98)	3.0
Transport Accidents (V01-V99)	4.0	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)	2.9	Diseases of urinary system (N00-N39)	2.5
Other diseases of respiratory tract (J10-J18, J60-J98)	2.2	Viral diseases (A70-A74, A80-B34)	2.9	Other external causes of accidental injury (W20-W60,W75-W99, X10-X39)	2.4
				<b>Other external causes of morbidity and mortality</b>	4.5
BIHAR					
other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	28.2	Intestinal infectious diseases (A00-A09)	25.7	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	25.2
Intestinal infectious diseases (A00-A09)	19.1	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	22.5	Intestinal infectious diseases (A00-A09)	22.5
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	10.1	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	13.0	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	11.6
Protozoal diseases (B50-B64)	6.9	Other diseases of respiratory tract (J10-J18, J60-J98)	8.1	Protozoal diseases (B50-B64)	6.7
Tuberculosis (A15-A19)	6.1	Protozoal diseases (B50-B64)	6.6	Other diseases of respiratory tract (J10-J18, J60-J98)	6.1
Diseases of the other parts of digestive system (K90-K93)	5.0	Lower respiratory tract (J20-J22,J40-J47)	4.3	Tuberculosis (A15-A19)	4.5
Other diseases of respiratory tract (J10-J18, J60-J98)	3.9	Tuberculosis (A15-A19)	3.0	Viral diseases (A70-A74, A80-B34)	3.1
Viral diseases (A70-A74, A80-B34)	3.5	Viral diseases (A70-A74, A80-B34)	2.7	Lower respiratory tract (J20-J22,J40-J47)	2.9
Other certain infectious and parasitic diseases(A65-A69,	3.0	Other bacterial diseases (A20-A64)	2.7	Diseases of the other parts of digestive system (K90-K93)	2.8
Diseases of the musculoskeletal system and connective tissue	2.6	Inflammatory diseases of the central nervous(G00-G09)	2.5	Diseases of pulmonary circulation and other heart diseases (I26-I51)	1.7
other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	28.2	Intestinal infectious diseases (A00-A09)	25.7	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	25.2
Intestinal infectious diseases (A00-A09)	19.1	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	22.5	Intestinal infectious diseases (A00-A09)	22.5

**Table 13c: Leading causes of death of children age 5-14 years according to sex in five selected states, 2003**

MAHARASHTRA					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Accidental Falls	35.9	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	26.8	Accidental Falls	19.4
Viral diseases (A70-A74, A80-B34)	23.2	Intestinal infectious diseases (A00-A09)	26.3	Intestinal infectious diseases (A00-A09)	17.8
Intestinal infectious diseases (A00-A09)	10.6	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	8.5	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	15.6
Other external causes of accidental injury (W20-W60, W75-W99, X10-X39)	9.7	Diseases of urinary system (N00-N39)	8.5	Viral diseases (A70-A74, A80-B34)	12.6
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	8.7	Inflammatory diseases of the central nervous (G00-G09)	7.6	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	8.6
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	6.1	Complication of surgical and medical care	5.3	Other external causes of accidental injury (W20-W60, W75-W99, X10-X39)	7.6
Complication of surgical and medical care	3.6	Other external causes of accidental injury (W20-W60, W75-W99, X10-X39)	5.2	Complication of surgical and medical care	4.4
Transport Accidents (V01-V99)	2.1	Mental and behavioural disorders (F01-F99)	4.8	Diseases of urinary system (N00-N39)	3.9
		Transport Accidents (V01-V99)	4.1	Inflammatory diseases of the central nervous (G00-G09)	3.5
		Endocrine, Other nutritional (E00-E34, E50-89)	2.9	Transport Accidents (V01-V99)	3.0
RAJASTHAN					
other injuries (S00-S01, S05, S09-S11, S15-S16, S95-S96, S99, T00-T01)	50.4	other injuries (S00-S01, S05, S09-S11, S15-S16, S95-S96, S99, T00-T01)	17.4	other injuries (S00-S01, S05, S09-S11, S15-S16, S95-S96, S99, T00-T01)	33.9
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	14.6	Intestinal infectious diseases (A00-A09)	16.9	Intestinal infectious diseases (A00-A09)	14.2
Intestinal infectious diseases (A00-A09)	11.5	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	11.6	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	13.1
Poisoning by drug	3.8	Poisoning by drug	7.7	Poisoning by drug	5.7
Accidental drowning and submersion (W65-W74)	2.2	Other external causes of accidental injury (W20-W60, W75-W99, X10-X39)	6.3	Other external causes of accidental injury (W20-W60, W75-W99, X10-X39)	4.2
Other external causes of accidental injury (W20-W60, W75-W99, X10-X39)	2.0	Protozoal diseases (B50-B64)	6.3	Protozoal diseases (B50-B64)	3.6
Tuberculosis (A15-A19)	1.8	Tuberculosis (A15-A19)	4.3	Tuberculosis (A15-A19)	3.0
Other diseases of the nervous system (G10-G98)	1.6	Other bacterial diseases (A20-A64)	4.3	Other diseases of the nervous system (G10-G98)	2.9
Other certain infectious and parasitic diseases (A65-A69, V01-V99)	1.5	Other diseases of the nervous system (G10-G98)	4.2	Other certain infectious and parasitic diseases (A65-A69, V01-V99)	2.8
Transport Accidents (V01-V99)	1.4	Other certain infectious and parasitic diseases (A65-A69, V01-V99)	4.1	Diseases of the other parts of digestive system (K90-K93)	2.6
				Other certain infectious and Parasitic diseases	3.3

**Table 13c: Leading causes of death of children age 5-14 years according to sex in five selected states, 2003**

TAMIL NADU					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Inflammatory diseases of the central nervous(G00-G09)	39.8	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	33.7	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	28.0
other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	22.7	Intestinal infectious diseases (A00-A09)	24.7	Inflammatory diseases of the central nervous(G00-G09)	26.6
Malignant neoplasms of lymphoid, haematopoie(C81-C96)	9.1	Inflammatory diseases of the central nervous(G00-G09)	12.3	Intestinal infectious diseases (A00-A09)	16.5
Intestinal infectious diseases (A00-A09)	9.0	Malignant neoplasms of eye, brain and other parts (C69-C72)	8.9	Malignant neoplasms of lym-phoid, haematopoie(C81-C96)	5.8
Viral diseases (A70-A74, A80-B34)	6.8	Diseases of urinary system (N00-N39)	7.7	Diseases of urinary system (N00-N39)	5.1
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	3.0	Malignant neoplasms of lymphoid, haematopoie(C81-C96)	2.2	Malignant neoplasms of eye, brain and other parts (C69-C72)	4.3
Diseases of the other parts of digestive system (K90-K93)	2.8	Other diseases of the nervous system (G10-G98)	2.2	Viral diseases (A70-A74, A80-B34)	3.9
Diseases of urinary system (N00-N39)	2.7	Other bacterial diseases (A20-A64)	1.8	Other bacterial diseases (A20-A64)	2.2
Other bacterial diseases (A20-A64)	2.6	Malignant neoplasms of bone (c40-C50)	1.6	Diseases of the other parts of digestive system (K90-K93)	2.0
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	1.1	Diseases of the other parts of digestive system (K90-K93)	1.1	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	1.9
		Other certain infectious and Parasitic diseases	1.8		
		Other Neoplasms	1.6		

**Table 13d: Leading causes of adult death age 15-44 years according to sex in five selected states, 2003**

ASSAM					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Transport Accidents (V01-V99)	14.9	Tuberculosis (A15-A19)	12.9	Tuberculosis (A15-A19)	13.5
Tuberculosis (A15-A19)	14.2	Intestinal infectious diseases (A00-A09)	12.4	Intestinal infectious diseases (A00-A09)	11.4
Intestinal infectious diseases (A00-A09)	10.3	Other direct obstetric deaths (O10-O92)	12.2	Diseases of the other parts of digestive system (K90-K93)	8.2
Diseases of the other parts of digestive system (K90-K93)	8.9	Diseases of the other parts of digestive system (K90-K93)	7.6	Transport Accidents (V01-V99)	7.2
Intentional self-harm (suicide) (X60-X84)	8.3	Accidental drowning and submersion (W65-W74)	5.3	Other direct obstetric deaths (O10-O92)	6.4
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	6.4	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)	4.8	Intentional self-harm (suicide) (X60-X84)	5.2
Accidental drowning and submersion (W65-W74)	4.3	Protozoal diseases (B50-B64)	4.3	Accidental drowning and submersion (W65-W74)	4.8
Assault (homicide) (X85-Y09)	4.0	Other bacterial diseases (A20-A64)	4.0	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	3.8
Other external causes of accidental injury (W20-W60, W75-W99, X10-X39)	3.6	Malignant neoplasms of digestive organs (C15-C39)	3.7	Protozoal diseases (B50-B64)	3.6
		Other diseases of the nervous system (G10-G98)	3.7	Malignant neoplasms of digestive organs (C15-C39)	2.8
		<b>Other external causes of morbidity and mortality</b>	<b>7.0</b>	<b>Other certain Infectious and parasitic diseases</b>	<b>4.2</b>
BIHAR					
Other injuries (S00-S01, S05, S09-S11, S15-S16, S95-S96, S99, T00-T01)	32.4	Other direct obstetric deaths (O10-O92)	13.0	Other injuries (S00-S01, S05, S09-S11, S15-S16, S95-S96, S99, T00-T01)	20.5
Tuberculosis (A15-A19)	13.5	Intestinal infectious diseases (A00-A09)	12.2	Tuberculosis (A15-A19)	10.7
Diseases of the other parts of digestive system (K90-K93)	8.9	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	9.8	Intestinal infectious diseases (A00-A09)	9.2
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	8.0	Tuberculosis (A15-A19)	7.6	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	8.9
Intestinal infectious diseases (A00-A09)	6.4	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)	7.3	Diseases of the other parts of digestive system (K90-K93)	7.1
Cerebrovascular diseases (I60-I69)	5.0	Other injuries (S00-S01, S05, S09-S11, S15-S16, S95-S96, S99, T00-T01)	7.3	Other direct obstetric deaths (O10-O92)	6.2
Protozoal diseases (B50-B64)	4.4	Ischemic heart diseases (I20-I25)	6.6	Cerebrovascular diseases (I60-I69)	5.3
Poisoning by drug	2.1	Cerebrovascular diseases (I60-I69)	5.6	Ischemic heart diseases (I20-I25)	4.2
Diseases of urinary system (N00-N39)	2.1	Diseases of the other parts of digestive system (K90-K93)	5.2	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)	3.7
Ischemic heart diseases (I20-I25)	2.0	Lower respiratory tract (J20-J22, J40-J47)	3.2	Protozoal diseases (B50-B64)	3.4
		<b>Other certain Infectious and parasitic diseases</b>	<b>5.6</b>	<b>Other certain Infectious and parasitic diseases</b>	<b>3.6</b>

**Table 13d: Leading causes of adult death age 15-44 years according to sex in five selected states, 2003**

MAHARASHTRA					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Tuberculosis (A15-A19)	13.4	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	9.3	Tuberculosis (A15-A19)	11.7
Diseases of the other parts of digestive system (K90-K93)	13.3	Tuberculosis (A15-A19)	8.8	Diseases of the other parts of digestive system (K90-K93)	10.4
Viral diseases (A70-A74, A80-B34)	10.2	Intentional self-harm (suicide) (X60-X84)	8.3	Viral diseases (A70-A74, A80-B34)	8.5
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	7.7	Other direct obstetric deaths (O10-O92)	6.2	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	8.3
Transport Accidents (V01-V99)	7.3	Viral diseases (A70-A74, A80-B34)	5.6	Intentional self-harm (suicide) (X60-X84)	6.9
Ischemic heart diseases (I20-I25)	7.0	Diseases of the other parts of digestive system (K90-K93)	5.6	Ischemic heart diseases (I20-I25)	6.4
Intentional self-harm (suicide) (X60-X84)	6.1	Ischemic heart diseases (I20-I25)	5.3	Transport Accidents (V01-V99)	4.9
Mental and behavioural disorders (F01-F99)	4.3	Malignant neoplasms of digestive organs (C15-C39)	3.6	Intestinal infectious diseases (A00-A09)	3.8
Intestinal infectious diseases (A00-A09)	4.0	Other diseases of the nervous system (G10-G98)	3.6	Mental and behavioural disorders (F01-F99)	3.6
Diseases of urinary system (N00-N39)	3.8	Protozoal diseases (B50-B64)	3.5	Diseases of urinary system (N00-N39)	3.4
RAJASTHAN					
Other injuries (S00-S01, S05, S09-S11, S15-S16, S95-S96, S99, T00-T01)	32.0	Other direct obstetric deaths (O10-O92)	16.2	Other injuries (S00-S01, S05, S09-S11, S15-S16, S95-S96, S99, T00-T01)	25.8
Tuberculosis (A15-A19)	21.7	Other injuries (S00-S01, S05, S09-S11, S15-S16, S95-S96, S99, T00-T01)	16.2	Tuberculosis (A15-A19)	17.5
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	6.3	Tuberculosis (A15-A19)	11.1	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	7.9
Intestinal infectious diseases (A00-A09)	5.9	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	10.4	Other direct obstetric deaths (O10-O92)	6.4
Ischemic heart diseases (I20-I25)	5.5	Intestinal infectious diseases (A00-A09)	6.9	Intestinal infectious diseases (A00-A09)	6.3
Viral diseases (A70-A74, A80-B34)	3.0	Diseases of pulmonary circulation and other heart diseases (I26-I51)	5.9	Ischemic heart diseases (I20-I25)	4.7
Cerebrovascular diseases (I60-I69)	2.7	Diseases of urinary system (N00-N39)	3.7	Diseases of pulmonary circulation and other heart diseases (I26-I51)	3.1
Transport Accidents (V01-V99)	2.1	Ischemic heart diseases (I20-I25)	3.4	Viral diseases (A70-A74, A80-B34)	2.5
Diseases of urinary system (N00-N39)	1.7	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)	3.1	Diseases of urinary system (N00-N39)	2.5
Intentional self-harm (suicide) (X60-X84)	1.7	Diseases of the other parts of digestive system (K90-K93)	2.7	Cerebrovascular diseases (I60-I69)	2.1
<b>Other external causes of morbidity and mortality</b>	<b>2.3</b>	<b>Other certain infectious and Parasitic diseases</b>	<b>5.8</b>		

**Table 13d: Leading causes of adult death age 15-44 years according to sex in five selected states, 2003**

TAMIL NADU					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	33.2	Other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	25.0	Other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	29.7
Ischemic heart diseases (I20-I25)	16.3	Tuberculosis (A15-A19)	10.0	Ischemic heart diseases (I20-I25)	13.0
Tuberculosis (A15-A19)	10.0	Ischemic heart diseases (I20-I25)	8.5	Tuberculosis (A15-A19)	10.0
Viral diseases (A70-A74, A80-B34)	7.1	Other direct obstetric deaths (O10-O92)	8.4	Viral diseases (A70-A74, A80-B34)	6.9
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	5.1	Viral diseases (A70-A74, A80-B34)	6.7	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	4.0
Diseases of the other parts of digestive system (K90-K93)	3.4	Cerebrovascular diseases (I60-I69)	4.6	Other direct obstetric deaths (O10-O92)	3.6
Diseases of urinary system (N00-N39)	3.3	Diseases of pulmonary circulation and other heart diseases (I26-I51)	4.5	Diseases of urinary system (N00-N39)	3.3
Malignant neoplasms of digestive organs (C15-C39)	2.9	Diseases of urinary system (N00-N39)	3.4	Cerebrovascular diseases (I60-I69)	3.1
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	2.5	Malignant neoplasms of bone (C40-C50)	2.7	Diseases of the other parts of digestive system (K90-K93)	3.0
Inflammatory diseases of the central nervous (G00-G09)	2.4	Malignant neoplasms of genitalourinary organs (C51-C68)	2.4	Malignant neoplasms of digestive organs (C15-C39)	2.6
<b>Other Neoplasms</b>	<b>3.0</b>	<b>Other Neoplasms</b>	<b>4.9</b>	<b>Other Neoplasms</b>	<b>5.0</b>

**Table 13e: Leading causes of adult death age 45-59 years according to sex in five selected states, 2003**

ASSAM					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Cerebrovascular diseases (I60-I69)	24.4	Cerebrovascular diseases (I60-I69)	29.2	Cerebrovascular diseases (I60-I69)	26.2
Diseases of the other parts of digestive system (K90-K93)	17.3	Intestinal infectious diseases (A00-A09)	12.4	Diseases of the other parts of digestive system (K90-K93)	12.5
Diseases of urinary system (N00-N39)	7.1	Tuberculosis (A15-A19)	11.0	Intestinal infectious diseases (A00-A09)	8.6
Intestinal infectious diseases (A00-A09)	6.3	Lower respiratory tract (J20-J22,J40-J47)	7.0	Tuberculosis (A15-A19)	7.1
Ischemic heart diseases (I20-I25)	6.0	Diseases of pulmonary circulation and other heart diseases (I26-I51)	6.2	Diseases of urinary system (N00-N39)	6.2
Tuberculosis (A15-A19)	4.8	Diseases of urinary system (N00-N39)	4.7	Ischemic heart diseases (I20-I25)	4.5
Protozoal diseases (B50-B64)	3.9	Diseases of the other parts of digestive system (K90-K93)	4.6	Diseases of pulmonary circulation and other heart diseases (I26-I51)	4.4
Malignant neoplasms of lip, oral cavity & pharynx (C00-C14)	3.6	Malnutrition (E40-E46)	2.9	Lower respiratory tract (J20-J22,J40-J47)	3.9
Diseases of pulmonary circulation and other heart diseases (I26-I51)	3.3	Diseases of the ear and mastoid process (H60-H95)	2.6	Protozoal diseases (B50-B64)	2.8
Malignant neoplasms of digestive organs (C15-C39)	3.0	Malignant neoplasms of digestive organs (C15-C39)	2.4	Malignant neoplasms of digestive organs (C15-C39)	2.8
<b>Other certain Infectious and parasitic diseases</b>	3.3	<b>Other Diseases of the circulatory system</b>	3.6	<b>Other Neoplasms</b>	3.8
BIHAR					
Intestinal infectious diseases (A00-A09)	14.2	Lower respiratory tract (J20-J22,J40-J47)	13.3	Intestinal infectious diseases (A00-A09)	11.4
Tuberculosis (A15-A19)	12.3	Ischemic heart diseases (I20-I25)	13.2	Lower respiratory tract (J20-J22,J40-J47)	10.9
other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	10.7	Diseases of the other parts of digestive system (K90-K93)	9.4	Tuberculosis (A15-A19)	9.9
Lower respiratory tract (J20-J22,J40-J47)	9.0	Intestinal infectious diseases (A00-A09)	8.0	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	8.6
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	8.9	Tuberculosis (A15-A19)	6.9	Ischemic heart diseases (I20-I25)	7.8
Cerebrovascular diseases (I60-I69)	8.8	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	6.0	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	7.6
Diseases of urinary system (N00-N39)	8.1	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	5.9	Cerebrovascular diseases (I60-I69)	7.4
Other external causes of accidental injury (W20-W60,W75-W99, X10-X39)	3.7	Protozoal diseases (B50-B64)	5.6	Diseases of the other parts of digestive system (K90-K93)	6.1
Ischemic heart diseases (I20-I25)	3.4	Cerebrovascular diseases (I60-I69)	5.5	Diseases of urinary system (N00-N39)	5
Diseases of the other parts of digestive system (K90-K93)	3.4	Diseases of pulmonary circulation and other heart diseases (I26-I51)	4.7	Protozoal diseases (B50-B64)	3.6
<b>Other certain Infectious and parasitic diseases</b>	5.0			<b>Other Diseases of the circulatory system</b>	4.2



**Table 13e: Leading causes of adult death age 45-59 years according to sex in five selected states, 2003**

MAHARASHTRA					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Ischemic heart diseases (I20-I25)	29.1	Ischemic heart diseases (I20-I25)	21.6	Ischemic heart diseases (I20-I25)	26.3
Diseases of the other parts of digestive system (K90-K93)	16.4	Tuberculosis (A15-A19)	15.2	Tuberculosis (A15-A19)	12.5
Tuberculosis (A15-A19)	10.9	Cerebrovascular diseases (I60-I69)	10.9	Diseases of the other parts of digestive system (K90-K93)	11.9
Lower respiratory	5.9	Malignant neoplasms of genitalourinary organs (C51-C68)	8.6	Cerebrovascular diseases (I60-I69)	7.7
Cerebrovascular diseases (I60-I69)	5.8	Malignant neoplasms of bone (c40-C50)	5.7	Lower respiratory	5.7
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	3.6	Lower respiratory	5.5	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	3.4
Diseases of urinary system (N00-N39)	2.8	Diseases of the other parts of digestive system (K90-K93)	4.4	Malignant neoplasms of genitalourinary organs (C51-C68)	3.2
Intentional self-harm (suicide) (X60-X84)	2.4	Intestinal infectious diseases (A00-A09)	4.3	Diseases of urinary system (N00-N39)	2.7
Malignant neoplasms of digestive organs (C15-C39)	2.4	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	3.1	Intestinal infectious diseases (A00-A09)	2.6
Diseases of pulmonary circulation and other heart diseases (I26-I51)	2.2	Intentional self-harm (suicide) (X60-X84)	2.5	Intentional self-harm (suicide) (X60-X84)	2.5
RAJASTHAN					
Tuberculosis (A15-A19)	29.9	Tuberculosis (A15-A19)	29.0	Tuberculosis (A15-A19)	29.6
Ischemic heart diseases (I20-I25)	11.2	Lower respiratory tract (J20-J22,J40-J47)	10.6	Lower respiratory tract (J20-J22,J40-J47)	9.3
Lower respiratory tract (J20-J22,J40-J47)	8.6	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	10.5	Ischemic heart diseases (I20-I25)	8.4
other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	6.4	Cerebrovascular diseases (I60-I69)	10.3	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	7.9
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	6.3	Intestinal infectious diseases (A00-A09)	9.0	Cerebrovascular diseases (I60-I69)	6.6
Malignant neoplasms of respi and intra organs (C15-C39)	5.0	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	6.2	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	6.3
Cerebrovascular diseases (I60-I69)	4.6	Diseases of urinary system (N00-N39)	5.1	Intestinal infectious diseases (A00-A09)	5.8
Intestinal infectious diseases (A00-A09)	4.0	Malignant neoplasms of genitalourinary organs (C51-C68)	3.5	Diseases of urinary system (N00-N39)	3.7
Malignant neoplasms of digestive organs (C15-C39)	3.7	Ischemic heart diseases (I20-I25)	3.3	Malignant neoplasms of respi and intra organs (C15-C39)	3.2
Diseases of urinary system (N00-N39)	2.9	Malignant neoplasms of bone (c40-C50)	2.6	Malignant neoplasms of digestive organs (C15-C39)	2.9
Other Neoplasms	3.1			Other Neoplasms	4.6



**Table 13e: Leading causes of adult death age 45-59 years according to sex in five selected states, 2003**

TAMIL NADU					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Ischemic heart diseases (I20-I25)	23.2	Ischemic heart diseases (I20-I25)	10.4	Ischemic heart diseases (I20-I25)	17.8
Tuberculosis (A15-A19)	15.3	Malignant neoplasms of genitalourinary organs (C51-C68)	10.2	Tuberculosis (A15-A19)	12.4
Other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	11.6	Malignant neoplasms of digestive organs (C15-C39)	9.7	Other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	10.5
Malignant neoplasms of digestive organs (C15-C39)	8.1	Other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	9.2	Malignant neoplasms of digestive organs (C15-C39)	8.8
Cerebrovascular diseases (I60-I69)	7.9	Tuberculosis (A15-A19)	8.5	Cerebrovascular diseases (I60-I69)	7.3
Lower respiratory tract (J20-J22,J40-J47)	5.1	Intestinal infectious diseases (A00-A09)	6.9	Diseases of urinary system (N00-N39)	4.9
Diseases of urinary system (N00-N39)	4.8	Cerebrovascular diseases (I60-I69)	6.5	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	4.6
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	4.8	Diseases of urinary system (N00-N39)	5.1	Malignant neoplasms of genitalourinary organs (C51-C68)	4.6
Diseases of the other parts of digestive system (K90-K93)	3.1	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	4.5	Lower respiratory tract (J20-J22,J40-J47)	4.3
Diseases of pulmonary circulation and other heart diseases (I26-I51)	2.2	Mental and behavioural disorders(F01-F99)	4.3	Intestinal infectious diseases (A00-A09)	4.2
<b>Other certain infectious and Parasitic diseases</b>	3.3	<b>Other Neoplasms</b>	7.6		
		<b>Other certain infectious and Parasitic diseases</b>	4.6		

**Table 13f: Leading causes of old age death age 60 years and above according to sex in five selected states, 2003**

ASSAM					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Cerebrovascular diseases (I60-I69)	27.6	Cerebrovascular diseases (I60-I69)	23.2	Cerebrovascular diseases (I60-I69)	25.7
Lower respiratory tract (J20-J22,J40-J47)	12.0	Intestinal infectious diseases (A00-A09)	16.0	Lower respiratory tract (J20-J22,J40-J47)	12.3
Malignant neoplasms of digestive organs (C15-C39)	9.6	Lower respiratory tract (J20-J22,J40-J47)	12.6	Intestinal infectious diseases (A00-A09)	9.8
Diseases of the other parts of digestive system (K90-K93)	9.1	Diseases of the other parts of digestive system (K90-K93)	8.7	Diseases of the other parts of digestive system (K90-K93)	8.9
Tuberculosis (A15-A19)	6.8	Malignant neoplasms of digestive organs (C15-C39)	5.7	Malignant neoplasms of digestive organs (C15-C39)	7.9
Ischemic heart diseases (I20-I25)	5.7	Diseases of pulmonary circulation and other heart diseases (I26-I51)	5.0	Tuberculosis (A15-A19)	5.1
Hypertensive diseases (I10-I15)	5.7	Diseases of urinary system (N00-N39)	4.3	Hypertensive diseases (I10-I15)	5.0
Intestinal infectious diseases (A00-A09)	4.9	Hypertensive diseases (I10-I15)	4.1	Ischemic heart diseases (I20-I25)	3.9
Diseases of urinary system (N00-N39)	3.4	Tuberculosis (A15-A19)	2.9	Diseases of urinary system (N00-N39)	3.8
Diseases of pulmonary circulation and other heart diseases (I26-I51)	2.6	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)	2.5	Diseases of pulmonary circulation and other heart diseases (I26-I51)	3.6
<b>Other Neoplasms</b>	3.2	<b>Other Neoplasms</b>	2.9		
BIHAR					
Lower respiratory tract (J20-J22,J40-J47)	14.9	Lower respiratory tract (J20-J22,J40-J47)	19.3	Lower respiratory tract (J20-J22,J40-J47)	17.0
Intestinal infectious diseases (A00-A09)	14.0	Intestinal infectious diseases (A00-A09)	16.9	Intestinal infectious diseases (A00-A09)	15.4
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	12.5	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	12.5	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	12.5
Tuberculosis (A15-A19)	12.4	Cerebrovascular diseases (I60-I69)	9.8	Cerebrovascular diseases (I60-I69)	9.6
Cerebrovascular diseases (I60-I69)	9.4	Tuberculosis (A15-A19)	6.5	Tuberculosis (A15-A19)	9.6
Diseases of urinary system (N00-N39)	4.0	Ischemic heart diseases (I20-I25)	5.2	Ischemic heart diseases (I20-I25)	4.5
Ischemic heart diseases (I20-I25)	3.9	Diseases of the other parts of digestive system (K90-K93)	4.3	Diseases of the other parts of digestive system (K90-K93)	3.5
Diseases of pulmonary circulation and other heart diseases (I26-I51)	3.3	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	2.5	Diseases of pulmonary circulation and other heart diseases (I26-I51)	2.9
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)	3.1	Diseases of pulmonary circulation and other heart diseases (I26-I51)	2.4	Diseases of urinary system (N00-N39)	2.7
Diseases of the other parts of digestive system (K90-K93)	2.7	Diseases of the musculoskeletal system and connective tissue	2.2	other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	2.5
		<b>Other certain infectious and Parasitic diseases</b>	3.3	<b>Other certain infectious and Parasitic diseases</b>	3.0

**Table 13f: Leading causes of old age death age 60 years and above according to sex in five selected states, 2003**

MAHARASHTRA					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Ischemic heart diseases (I20-I25)	21.9	Ischemic heart diseases (I20-I25)	15.3	Ischemic heart diseases (I20-I25)	18.7
Lower repertory (J20-J22,J40-J47)	15.6	Cerebrovascular diseases (I60-I69)	12.9	Lower repertory (J20-J22,J40-J47)	12.4
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	10.4	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	11.7	Cerebrovascular diseases (I60-I69)	11.1
Cerebrovascular diseases (I60-I69)	9.4	Intestinal infectious diseases (A00-A09)	9.8	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	11.0
Intestinal infectious diseases (A00-A09)	5.6	Lower respi	8.9	Intestinal infectious diseases (A00-A09)	7.6
Tuberculosis (A15-A19)	4.8	Diseases of pulmonary circulation and other heart diseases (I26-I51)	4.9	Protozoal diseases (B50-B64)	3.9
Diseases of the other parts of digestive system (K90-K93)	3.7	Protozoal diseases (B50-B64)	4.7	Diseases of pulmonary circulation and other heart diseases (I26-I51)	3.8
Malignant neoplasms of digestive organs (C15-C39)	3.4	Diseases of urinary system (N00-N39)	3.9	Tuberculosis (A15-A19)	3.8
Diseases of urinary system (N00-N39)	3.3	Malignant neoplasms of digestive organs (C15-C39)	3.4	Diseases of urinary system (N00-N39)	3.6
Protozoal diseases (B50-B64)	3.2	Malignant neoplasms of genitalourinary organs (C51-C68)	2.8	Malignant neoplasms of digestive organs (C15-C39)	3.4
<b>Other diseases of circulatory system</b>	<b>4.0</b>	<b>Other Neoplasms</b>	<b>3.1</b>	<b>Other Neoplasms</b>	<b>4.2</b>
RAJASTHAN					
Tuberculosis (A15-A19)	25.2	Tuberculosis (A15-A19)	18.2	Tuberculosis (A15-A19)	22.1
Lower respiratory tract (J20-J22,J40-J47)	13.9	Lower respiratory tract (J20-J22,J40-J47)	16.9	Lower respiratory tract (J20-J22,J40-J47)	15.2
Ischemic heart diseases (I20-I25)	12.1	Intestinal infectious diseases (A00-A09)	14.0	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	11.1
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	9.6	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	13.1	Intestinal infectious diseases (A00-A09)	10.2
Cerebrovascular diseases (I60-I69)	7.4	Ischemic heart diseases (I20-I25)	7.4	Ischemic heart diseases (I20-I25)	10.0
Intestinal infectious diseases (A00-A09)	7.1	Cerebrovascular diseases (I60-I69)	6.7	Cerebrovascular diseases (I60-I69)	7.1
Diseases of urinary system (N00-N39)	6.8	Other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	3.8	Diseases of urinary system (N00-N39)	4.9
Malignant neoplasms of digestive organs (C15-C39)	3.7	Diseases of the other parts of digestive system (K90-K93)	2.6	Malignant neoplasms of digestive organs (C15-C39)	3.0
Malignant neoplasms of respi and intra organs (C15-C39)	2.1	Diseases of urinary system (N00-N39)	2.5	Other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	2.6
Other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	1.5	Malignant neoplasms of digestive organs (C15-C39)	2.0	Malignant neoplasms of respi and intra organs (C15-C39)	1.7
<b>Other Neoplasms</b>	<b>2.1</b>	<b>Other Neoplasms</b>	<b>3.2</b>	<b>Other Neoplasms</b>	<b>3.0</b>

**Table 13f: Leading causes of old age death age 60 years and above according to sex in five selected states, 2003**

TAMIL NADU					
Male		Female		Person	
Cause	Percent	Cause	Percent	Cause	Percent
Ischemic heart diseases (I20-I25)	16.4	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	18.5	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	15.2
Cerebrovascular diseases (I60-I69)	13.3	Cerebrovascular diseases (I60-I69)	17.1	Cerebrovascular diseases (I60-I69)	15.1
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	12.1	Ischemic heart diseases (I20-I25)	11.4	Ischemic heart diseases (I20-I25)	14.0
Tuberculosis (A15-A19)	10.8	Other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	10.2	Other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	9.7
Other injuries (S00-S01,S05,S09-S11,S15-S16,S95-S96,S99,T00-T01)	9.2	Intestinal infectious diseases (A00-A09)	8.7	Tuberculosis (A15-A19)	7.5
Diseases of urinary system (N00-N39)	7.8	Malignant neoplasms of digestive organs (C15-C39)	4.7	Diseases of urinary system (N00-N39)	6.3
Lower respiratory tract (J20-J22,J40-J47)	7.3	Diseases of urinary system (N00-N39)	4.7	Intestinal infectious diseases (A00-A09)	6.2
Malignant neoplasms of digestive organs (C15-C39)	5.4	Tuberculosis (A15-A19)	3.9	Lower respiratory tract (J20-J22,J40-J47)	5.5
Intestinal infectious diseases (A00-A09)	3.9	Lower respiratory tract (J20-J22,J40-J47)	3.5	Malignant neoplasms of digestive organs (C15-C39)	5.1
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)	1.8	Malignant neoplasms of genitalourinary organs (C51-C68)	3.4	Malignant neoplasms of genitalourinary organs (C51-C68)	1.9
<b>Other Neoplasms</b>	2.0				

**Table 14: Distribution of deaths by group of cause (Communicable, non-communicable, injury and other) according to residence and sex in five selected states, 2003**

Cause group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
<b>ASSAM</b>									
Communicable	30.1	41.5	35.4	16.8	32.0	22.9	28.8	40.8	34.3
Non Communicable	47.5	41.6	44.8	70.9	55.1	64.6	49.8	42.6	46.5
Injuries	10.3	5.3	8.0	10.5	5.9	8.6	10.3	5.4	8.0
Maternal conditions	0.0	4.5	2.1	0.0	2.7	1.1	0.0	4.3	2.0
Perinatal condition	7.6	4.4	6.2	0.5	0.7	0.6	7.0	4.2	5.7
Nutritional	0.5	1.1	0.8	0.5	1.3	0.8	0.5	1.1	0.8
Symptoms, signs and abnormalities not elsewhere classified	3.9	1.6	2.9	0.8	2.2	1.4	3.6	1.6	2.7
Total Percent	100	100	100	100	100	100	100	100	100
Number of deaths (un-weighted)	781	601	1382	322	177	499	1103	778	1881
<b>BIHAR</b>									
Communicable	33.1	36.0	34.5	21.9	33.7	27.2	32.1	35.8	33.9
Non Communicable	33.6	34.4	34.0	41.1	31.3	36.7	34.3	34.1	34.2
Injuries	11.8	7.8	9.8	20.1	7.8	14.6	12.5	7.8	10.2
Maternal conditions	0.0	3.9	1.9	0.0	3.4	1.5	0.0	3.9	1.9
Perinatal condition	9.4	4.2	6.8	5.7	13.0	9.0	9.1	4.8	7.0
Nutritional	1.1	1.9	1.5	0.0	3.0	1.3	1.0	2.0	1.5
Symptoms, signs and abnormalities not elsewhere classified	10.9	11.9	11.4	11.2	7.8	9.6	10.9	11.6	11.3
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of deaths (Un-weighted)	1627	1463	3090	117	107	224	1744	1570	3314
<b>MAHARASHTRA</b>									
Communicable	19.9	18.5	19.3	19.7	19.3	19.5	19.8	18.8	19.4
Non Communicable	54.7	49.4	52.2	55.1	62.9	58.4	54.9	53.8	54.4
Injuries	10.2	8.1	9.2	11.0	4.5	8.3	10.5	6.9	8.9
Maternal conditions	0.0	3.0	1.4	0.0	0.1	0.1	0.0	2.1	0.9
Perinatal condition	5.8	8.7	7.2	7.6	3.5	5.9	6.5	7.0	6.7
Nutritional	0.0	1.0	0.4	0.1	0.0	0.0	0.0	0.6	0.3
Symptoms, signs and abnormalities not elsewhere classified	9.4	11.3	10.3	6.4	9.7	7.8	8.3	10.8	9.4
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of deaths (un-weighted)	557	342	899	386	240	626	943	582	1525

**Table 14: Distribution of deaths by group of cause (Communicable, non-communicable, injury and other) according to residence and sex in five selected states, 2003 (contd..)**

<b>Rajasthan</b>									
Cause group	Rural			Urban			Combined		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
Communicable	41.7	38.6	40.3	30.5	36.7	33.2	39.4	38.2	38.9
Non Communicable	28.3	24.1	26.4	39.3	34.7	37.3	30.6	26.2	28.6
Injuries	11.7	9.1	10.5	14.0	7.7	11.2	12.2	8.8	10.7
Maternal conditions	0.0	2.7	1.2	0.0	1.8	0.8	0.0	2.5	1.2
Perinatal condition	6.7	10.7	8.5	5.2	2.7	4.1	6.4	9.1	7.6
Nutritional	1.4	2.4	1.9	0.0	2.5	1.1	1.1	2.4	1.7
Symptoms, signs and abnormalities not elsewhere classified	10.1	12.4	11.2	11.0	13.9	12.3	10.3	12.7	11.4
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of deaths (unweighted)	1491	989	2480	422	238	660	1913	1227	3140
<b>Tamil Nadu</b>									
Communicable	19.8	21.4	20.5	16.7	16.9	16.8	18.6	19.7	19.1
Non Communicable	50.9	46.9	49.1	56.6	51.8	54.4	53.1	48.8	51.1
Injuries	14.9	12.7	13.9	14.4	11.8	13.3	14.7	12.4	13.6
Maternal conditions	0.0	1.2	0.6	0.0	1.8	0.8	0.0	1.4	0.7
Perinatal condition	6.1	7.0	6.5	4.9	6.1	5.4	5.6	6.7	6.1
Nutritional									
Symptoms, signs and abnormalities not elsewhere classified	8.3	10.7	9.4	7.4	11.6	9.3	8.0	11.0	9.4
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of deaths (unweighted)	1565	1209	2774	551	410	961	2116	1619	3735

**Table 15: Percent distribution of deaths for cause group (Communicable, non-communicable, injury and other) by age group in five selected states, 2003**

Cause group	ASSAM													
	Male							Female						
	0-1	1-4	5-14	15-44	45-59	60+	ALL	0-1	1-4	5-14	15-44	45-59	60+	ALL
Communicable	40.6	66.9	71.7	32.8	18.8	15.2	28.8	49.5	73.0	70.4	44.0	30.6	26.2	40.8
Non Communicable	18.7	3.7	11.4	19.1	72.3	80.1	49.8	16.3	12.2	21.0	25.4	64.0	70.3	42.6
Injuries	0.1	3.6	15.0	38.6	8.7	3.6	10.3	1.7	7.9	8.6	14.5	1.9	1.6	5.4
Maternal conditions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	13.5	0.0	0.0	4.3
Perinatal condition	37.9	0.0	0.0	0.0	0.0	0.0	7.0	22.3	0.0	0.0	0.0	0.0	0.0	4.2
Nutritional	0.9	5.9	0.0	0.0	0.0	0.0	0.5	2.5	3.5	0.0	0.2	2.0	0.1	1.1
Symptoms, signs and abnormalities not elsewhere classified	1.9	19.9	1.9	9.5	0.1	1.2	3.6	0.4	3.5	0.0	2.3	1.5	1.8	1.6
Total Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Number of deaths (unweighted)	105	94	61	222	244	384	1110	81	72	52	170	140	256	771
BIHAR														
Cause group	Male							Female						
	0-1	1-4	5-14	15-44	45-59	60+	ALL	0-1	1-4	5-14	15-44	45-59	60+	ALL
Communicable	29.5	57.4	43.0	29.1	31.5	29.9	32.1	44.1	64.3	53.9	25.6	24.6	28.5	35.8
Non Communicable	11.3	12.0	16.5	25.6	43.6	52.1	34.3	5.1	7.8	7.8	38.6	60.0	53.2	34.1
Injuries	3.4	18.8	30.3	37.3	15.9	5.3	12.5	7.0	7.6	23.0	12.2	8.0	4.8	7.8
Maternal conditions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	2.3	13.0	1.4	0.6	3.9
Perinatal condition	40.1	0.0	0.0	0.0	0.0	0.0	9.1	19.2	0.0	0.0	0.0	0.0	0.0	4.8
Nutritional	3.3	5.0	0.0	0.0	0.0	0.0	1.0	4.6	7.4	0.0	0.5	0.0	0.4	2.0
Symptoms, signs and abnormalities not elsewhere classified	12.4	6.8	10.1	8.0	8.9	12.5	10.9	12.8	12.9	13.0	9.8	5.9	12.5	11.6
Total Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Number of deaths (unweighted)	243	114	107	285	251	744	1744	198	181	96	339	158	598	1570
MAHARASHTRA														
Cause group	Male							Female						
	0-1	1-4	5-14	15-44	45-59	60+	Total	0-1	1-4	5-14	15-44	45-59	60+	Total
Communicable	18.5	61.1	33.8	29.7	16.5	15.0	19.8	12.3	36.6	26.3	21.3	20.0	18.5	18.8
Non Communicable	11.5	14.7	8.7	38.1	69.5	70.8	54.9	23.5	18.0	32.3	39.6	69.1	65.7	53.8
Injuries	6.9	10.8	51.3	24.5	10.3	3.9	10.5	0.0	16.5	14.6	22.6	7.7	4.0	6.9
Maternal conditions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0	7.1	0.0	0.0	2.1
Perinatal condition	56.1	0.0	0.0	0.0	0.0	0.0	6.5	44.1	0.0	0.0	0.0	0.0	0.0	7.0
Nutritional	0.0	1.3	0.0	0.0	0.0	0.0	0.0	2.5	9.5	0.0	0.0	0.0	0.0	0.6
Symptoms, signs and abnormalities not elsewhere classified	7.0	12.1	6.1	7.7	3.6	10.4	8.3	10.5	19.5	26.8	9.3	3.1	11.7	10.8
Total Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Number of deaths (unweighted)	61	19	10	210	231	161	943	42	19	14	103	81	96	582

**Table 15: Percent distribution of deaths for cause group (Communicable, non-communicable, injury and other) by age group in five selected states, 2003 (contd..)**

RAJASTHAN														
Cause group	Male							Female						
	0-1	1-4	5-14	15-44	45-59	60+	All	0-1	1-4	5-14	15-44	45-59	60+	All
Communicable	50.2	47.7	17.2	31.9	38.1	35.1	39.4	41.7	59.6	38.5	27.0	39.0	34.4	38.2
Non Communicable	8.1	6.9	5.8	23.1	43.9	52.6	30.6	5.4	8.1	15.0	27.0	42.7	47.5	26.2
Injuries	4.7	18.4	62.2	38.7	11.6	2.7	12.2	5.3	12.0	34.9	18.7	12.0	5.0	8.8
Maternal conditions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	16.9	0.0	0.0	2.5
Perinatal condition	21.5	0.0	0.0	0.0	0.0	0.0	6.4	25.6	1.1	0.0	0.0	0.0	0.0	9.1
Nutritional	2.6	8.0	0.2	0.0	0.0	0.0	1.1	6.0	4.7	0.0	0.0	0.0	0.0	2.4
Symptoms, signs and abnormalities not elsewhere classified	12.9	19.0	14.6	6.3	6.3	9.6	10.3	14.3	14.6	11.6	10.4	6.2	13.1	12.7
Total Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Number of deaths (unweighted)	216	76	77	401	322	821	1913	188	81	68	231	112	547	1227
TAMIL NADU														
Cause group	Male							Female						
	0-1	1-4	5-14	15-44	45-59	60+	All	0-1	1-4	5-14	15-44	45-59	60+	All
Communicable	6.6	38.2	58.1	21.8	19.8	17.4	18.6	18.0	75.4	40.7	21.8	24.4	15.4	19.7
Non Communicable	31.2	31.8	16.1	38.6	62.5	60.9	53.1	17.1	17.6	24.4	41.9	61.8	55.1	48.8
Injuries	3.9	27.5	22.7	34.5	13.0	9.6	14.7	3.1	7.0	34.3	25.0	9.3	11.0	12.4
Maternal conditions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	8.9	0.0	0.0	1.4
Perinatal condition	58.3	0.0	0.0	0.0	0.0	0.0	5.6	60.9	0.0	0.0	0.0	0.0	0.0	6.7
Nutritional														
Symptoms, signs and abnormalities not elsewhere classified	0.0	2.5	3.0	5.1	4.8	12.1	8.0	0.5	0.0	0.6	2.4	4.5	18.5	11.0
Total Percent	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Number of deaths (unweighted)	136	33	35	394	421	1097	2116	113	31	30	267	226	952	1619



**Table 16: Percent distribution of deaths for cause group (Communicable, non-communicable, injury and other) by facility index in five selected states, 2003**

Cause group	Facility index				Facility index			
	low	Medium	high	Total	low	Medium	high	Total
	ASSAM				BIHAR			
Communicable	39.0	27.7	28.0	34.3	37.8	27.9	17.7	33.9
Non Communicable	39.1	56.1	57.4	46.5	30.7	40.1	47.9	34.2
Injuries	7.8	8.8	7.7	8.0	8.8	12.0	16.7	10.2
Maternal conditions	2.2	1.9	1.6	2.0	2.0	1.4	2.5	1.9
Perinatal condition	6.9	3.7	4.3	5.7	7.4	6.7	4.3	7.0
Nutritional	0.8	1.1	0.3	0.8	1.3	2.6	0.5	1.5
Symptoms, signs and abnormalities not elsewhere classified	4.2	0.6	0.8	2.7	12.1	9.2	10.2	11.3
Total Percent	100	100	100	100	100	100	100	100
Number of deaths (unweighted)	871	470	540	1881	2195	803	316	3314
	MAHARASHTRA				RAJASTHAN			
Communicable	22.0	21.5	15.7	19.4	46.0	39.3	33.7	38.9
Non Communicable	47.6	49.1	63.7	54.4	20.8	24.5	36.6	28.6
Injuries	9.6	10.7	6.8	8.9	9.2	11.7	11.0	10.7
Maternal conditions	0.8	0.6	1.4	0.9	0.9	1.3	1.2	1.2
Perinatal condition	10.1	7.9	3.3	6.7	9.9	8.4	5.6	7.6
Nutritional	0.5	0.5	0.0	0.3	1.7	2.3	1.3	1.7
Symptoms, signs and abnormalities not elsewhere classified	9.4	9.9	9.0	9.4	11.5	12.5	10.6	11.4
Total Percent	100	100	100	100	100	100	100	100
Number of deaths (unweighted)	354	566	605	1525	934	847	1359	3140
	TAMIL NADU							
Communicable	39.0	27.7	28.0	34.3				
Non Communicable	39.1	56.1	57.4	46.5				
Injuries	7.8	8.8	7.7	8.0				
Maternal conditions	2.2	1.9	1.6	2.0				
Perinatal condition	6.9	3.7	4.3	5.7				
Nutritional	0.8	1.1	0.3	0.8				
Symptoms, signs and abnormalities not elsewhere classified	4.2	0.6	0.8	2.7				
Total Percent	100	100	100	100				
Number of deaths (unweighted)	388	1243	2104	3735				

**Table 17: Percent distribution of deaths for cause group (Communicable, non-communicable, injury and other) by education in five selected states, 2003**

Cause group	Education				Education			
	Illiterate	Primary	Middle and above	Total	Illiterate	Primary	Middle and above	Total
ASSAM					BIHAR			
Communicable	31.4	22.5	15.9	25.9	31.3	23.0	20.9	28.7
Non Communicable	58.7	72.4	54.7	59.7	46.4	58.6	47.5	48.1
Injuries	6.1	4.7	21.1	9.9	8.5	8.0	22.2	10.5
Maternal conditions	2.4	0.1	1.4	1.8	1.9	0.5	0.5	1.5
Perinatal condition					0.1	0.0	0.0	0.1
Nutritional	0.3	0.1	0.1	0.2	0.2	0.0	0.0	0.2
Symptoms, signs and abnormalities not elsewhere classified	1.0	0.2	6.9	2.5	11.5	9.9	8.8	10.9
Total Percent	100	100	100	100	100	100	100	100
Number of deaths (unweighted)	768	274	481	1523	1850	316	412	2578
MAHARASHTRA					RAJASTHAN			
Cause group	Illiterate	Primary	Middle and above	Total	Illiterate	Primary	Middle and above	Total
Communicable	21.4	17.2	15.9	18.9	39.2	21.6	24.9	34.5
Non Communicable	61.7	65.7	61.7	62.5	41.5	49.0	46.8	43.3
Injuries	7.0	8.9	11.9	8.9	7.8	16.9	20.3	11.0
Maternal conditions	0.3	0.0	1.1	0.5	1.7	2.2	0.3	1.5
Perinatal condition								
Nutritional								
Symptoms, signs and abnormalities not elsewhere classified	9.4	8.1	9.3	9.1	9.9	10.3	7.6	9.6
Total Percent	100	100	100	100	100	100	100	100
Number of deaths (unweighted)	607	296	481	1384	1768	405	472	2645
TAMIL NADU								
Cause group	Illiterate	Primary	Middle and above	Total				
Communicable	21.0	17.5	15.0	18.6				
Non Communicable	52.7	59.3	57.0	55.5				
Injuries	11.4	15.7	19.1	14.3				
Maternal conditions	0.5	0.4	1.6	0.7				
Perinatal condition								
Nutritional								
Symptoms, signs and abnormalities not elsewhere classified	14.4	7.1	7.3	10.8				
Total Percent	100	100	100	100				
Number of deaths (unweighted)	1661	871	821	3353				

## APPENDIX B

### GUIDELINES FOR DETERMINING CAUSE OF DEATH

#### A: STILL BIRTH

1. ABNORMAL PRESENTATION (064.9)  
Breech, hand, shoulder, feet and cord prolapse
2. ACCIDENT/ TRAUMA/INJURY (T14.9)
3. ANTE-PARTUM HAEMORRHAGE (O46.9)  
Any bleeding in pregnancy after 28 weeks of gestation and before birth of baby
4. ECLAMPSIA (O15.9)  
History of convulsions in pregnancy AND  
No convulsions before pregnancy OR  
Doctors report of high blood pressure
5. LOW-BIRTH WEIGHT (P07.1)  
Respondents opinion of very small size baby
6. MACERATED STILLBIRTH NEC (P95.9)  
Stillbirth AND  
Skin blackish OR  
Skin peels easily OR  
Rotten appearance OR  
Skin wrinkled
7. MULTIPLE PREGNANCY (P01.5)  
Delivery of more than one baby
8. OBSTRUCTED LABOUR (O66.9)  
Baby delivered with manipulation or operation
9. POST MATURITY (O48.9)  
Born after completion of 42 weeks of gestation
10. PREMATURE RUPTURE OF MEMBRANES (O42.9)  
Sudden gush of liquid before onset of labour pains without desire to pass urine.

11.     PREMATURITY NEC (P07.3)  
Born between 28 and 37 weeks of pregnancy
12.     PROLONGED LABOUR (O63.9)  
Delivery of baby after more than 24 hours in primi-gravida or more than 12 hours in multi-gravida after start of labour pains
13.     SEVERE ANAEMIA (D64.9)  
Pale or white colour reported and breathlessness     OR  
Doctors' / Health workers' report of very less blood/need for blood transfusion
14.     UNDETERMINED

**B: NEONATAL DEATH**

1. ACUTE LOWER RESPIRATORY TRACT INFECTION (J22.9)  
Cough AND  
Rapid breathing OR  
Difficult breathing with in-drawing of chest
2. ASPHYXIA AT BIRTH (P21.9)  
Delayed or no cry AND  
Delayed or poor breathing or no breathing AND  
Any sign of life present
3. BIRTH TRAUMA (P15.9)  
Convulsions in first 72 hours of birth OR  
Bruises at birth, or elongation/swelling over skull OR  
Any limb broken at birth
4. CONGENITAL DEFECT (Q89.9)  
Abnormality of head (small, flat, swelling), spine, body, arms or legs reported at birth.
5. DIARRHOEA (A09.9)  
Six or more loose motion on worse diarrhoea day AND  
Fontanelle depressed or eyes sunken or urine volume low
6. HYPOTHERMIA (P80.9)  
Trunk cold AND  
Lethargic AND  
Stopped feeding
7. LOW-BIRTH-WEIGHT (P07.1)  
Respondent's opinion of very low birth weight
8. PREMATURITY NEC (P07.3)  
Born after 27 weeks but before 37 weeks of gestation
9. TETANUS, NEONATAL (A33.9)  
Baby able to suck after birth AND  
Stopped sucking after 3 days AND  
Baby's body became rigid with or without convulsions

**C: CHILDREN AGED 29 DAYS - 5 YEARS**

1. BONE TUMOUR (OSTEOSARCOMA) (C41.9)  
Painful and progressively increasing swelling on bone near knee joint OR  
Diagnosed as osteo-sarcoma
2. BRAIN TUMOUR (C71.9)  
Vomiting in the morning AND  
Any two of the symptoms:  
Headache  
Convulsions  
Unilateral protruding eyes  
Involuntary eye movements (side to side or up and down) OR  
Diagnosis as brain cancer
3. BRONCHIOLITIS (J21.9)  
Cough < 15 days AND  
Any one of the following signs and symptoms  
Noisy breathing  
Difficulty in breathing with or without fever  
Body /lips turning blue before death
4. CHICKEN POX (B01.9)  
Fever AND  
Rash filled with water in different sizes, no cough or red eyes
5. CIRRHOSIS OF LIVER (ICC) (K74.6)  
Progressive abdominal distension AND  
Enlarged liver and spleen /mass in upper abdomen AND  
Fluid in abdomen or yellow discoloration of eyes
6. GASTROENTERITIS (A09.9)  
Loose motions (>3 in number/day) AND  
Watery /liquid consistency of stools AND  
Eyes sunken or depressed fontanelle OR  
Any one of the following:  
Low/nil urine content  
Deep dark yellow urine  
Restricted fluid intake

Vomiting

Blood or mucus in stool

7. EPILEPSY/SEIZURES (G40.9)  
 Convulsion of body or parts of body AND  
 Urine incontinence or unconsciousness with recovery AND  
 No H/o injury to head or fever or paraplegia or neck stiffness
8. FEBRILE SEIZURES (R53.0)  
 Convulsion of body or body parts AND  
 High fever AND  
 No H/o paralysis or injury to head or neck stiffness
9. GULLAIN -BARRE SYNDROME (G61.0)  
 Progressive paralysis of legs or arms or both AND  
 Fever with respiratory distress AND  
 No poliomyelitis OR  
 No H/o trauma
10. HEPATITIS (K75.9)  
 Yellow discoloration of eyes AND  
 Fever AND  
 White chalky stools or enlarged liver or epidemic of jaundice or yellow urine
11. HYDROCEPHALUS (G91.9)  
 Progressively enlarging head AND  
 Irritable or vomiting or history of removal of fluid from spine frequently
12. LEUKEMIA (C95.9)  
 White discoloration of body or paleness AND  
 Any two of the following signs and symptoms:  
 Fever  
 Bleeding from natural orifices (nose, mouth etc)  
 Joint pain  
 Enlarged liver  
 Enlarged lymph glands  
 Red spots on the skin
13. LOW BIRTH WEIGHT (P07.1)  
 Baby size small as reported by parents /respondents

14. LYMPHOMA (Hodgkins C85.9) (Non Hodgkins C81.9) (Not specified 8519)  
Painless enlargement of cervical (neck) glands (lymph nodes) AND  
Any two of the symptoms or signs:  
    Hoarse cough  
    Night sweats  
    Abdominal distension  
    Weight loss  
    Abdominal pain           OR  
    Diagnosed as lymphoma
  
15. MALNUTRITION (E46.9)  
NOT growing properly or losing weight and becoming thin AND  
Any one of the following signs or symptoms:  
    Breastfeed lasting less than 6 months, top milk introduced in first three months,  
    food/semi solid introduced after 9 months,  
    Less food intake, repeated diarrhoea episodes,  
    Falling sick frequently, history of measles/ whooping cough/Night-blindness/  
    corneal opacity,  
    Repeated cough  
    Swelling feet  
    SATAVI/KUPOSHAN
  
16. MEASLES (B05.9)  
Rash following fever AND  
Red eyes or cough and child above 4 months
  
17. MENINGO ENCEPHALITIS (G04.9)  
Convulsion of body /body parts AND  
Fever AND  
Vomiting or unconsciousness or stiff neck
  
18. OTITIS MEDIA (H66.9)  
Ear discharge AND  
Fever or cough
  
19. PNEUMONIA (B49.9)  
Cough up to 15 days AND  
Fever AND  
Fast breathing or chest in-drawing



20. POLIOMYELITIS (A80.9)  
 Paralysis of legs or arms or both AND  
 Onset accompanied by fever or just after injection or persisting paralysis AND  
 Non progressive paralysis OR  
 H/o poliomyelitis
21. PREMATURITY NEC (P07.3)  
 Gestational age of the child between 28-36 weeks
22. RABIES (A82.9)  
 History of dog bite AND  
 Fear to drink water AND  
 Convulsions OR  
 Unconsciousness OR  
 No history of injection for dog bite
23. SICKLE CELL DISEASE (D57.1)  
 Looking pale or white AND  
 Pain in joints or abdomen or with/ without yellow discoloration of eyes or enlarged liver/ spleen OR  
 Diagnosed sickle cell disease
24. SARCOMA (RHABDO-MYOSARCOMA) (C49.9)  
 Swelling in neck or cheek or non painful scrotal swelling or mass protruding from vagina AND  
 Unilateral protruding eye or difficulty in feeding OR  
 Diagnosed as soft tissue sarcoma (Rhabdomyosarcoma)
25. TETANUS (A35.9)  
 Neck stiffness or stretching of neck behind AND  
 Convulsions AND  
 Inability to open mouth or refused to feed or history of ear discharge AND  
 No H/o tuberculosis in family or self
26. THALASSEMIA (D56.9)  
 Looking pale or white discoloration of body AND  
 Frequent blood transfusion AND  
 Enlarged mass in right upper abdomen or growth retardation or bossing head with puffy eyes OR  
 Diagnosed as thalassemia

27. TUBERCULAR MENINGITIS (A17.0)
- Convulsion of body/body parts AND
  - History of tuberculosis in the family or tuberculosis in the child AND
  - Neck stiffness or vomiting or unconsciousness AND
  - No H/o injury to head or locked jaw
28. WILM'S TUMOUR (C64.9)
- Passing of blood in urine AND
  - Abdominal pain AND
  - Mass/ lump in abdomen with or without fever OR
  - Diagnosed as Wilm's tumour
29. WHOOPING COUGH (A37.9)
- Long bouts of cough < 15 days AND
  - Characteristic "hoo" sound during breathing AND
  - Locally termed as whooping cough OR
  - Any one of the following signs and symptoms
  - Epidemic of whooping cough in the area
  - Inability to take food
  - Triple vaccine not given

**D: MATERNAL DEATH****DIRECT OBSTETRICAL**

1.     **ABORTION**     (O06.9)  
Termination before 28 weeks of pregnancy
2.     **ANTE-PARTUM HAEMORRHAGE**     (O46.9)  
Excessive bleeding in pregnancy after 28 weeks of gestation but before birth of baby
3.     **ECLAMPSIA**     (O15.9)  
History of convulsions for first time in pregnancy     OR  
Doctors report of very high blood pressure with convulsions
4.     **OBSTRUCTED LABOUR**     (O66.9)  
Malpresentation     AND  
Baby not delivered     OR  
Baby was delivered by manipulation or destructive operations.
5.     **POST-PARTUM HAEMORRHAGE**     (O72.1)  
Excessive (>500 ml) bleeding after delivery of baby
6.     **PROLONGED LABOUR**     (O63.9)  
Labour more than 24 hours in primigravida or more than 12 hours in multigravida
7.     **PUERPERAL SEPSIS**     (O85.9)  
Fever     AND  
Foul smelling vaginal discharge  
No cough  
No burning micturition  
No yellowness of eyes
8.     **INDIRECT OBSTETRICAL**  
Any pre-existing disease made worse by pregnancy (Anaemia, Heart disease, Diabetes, Tuberculosis, Hepatitis, Stroke etc.)
9.     **NON-OBSTETRICAL**  
Accident, Suicide, Homicide etc.
10.    **SUDDEN DEATH**  
Died all of a sudden without any symptoms
11.    **UNDETERMINED**  
No Specific cause

**E: ADULT DEATH**

1. ACUTE ABDOMEN (NEC R10.0)  
Severe acute abdominal pain AND  
Any two of the following:  
Fever  
Vomiting  
Constipation  
Abdominal distension  
Collapse/ Unconsciousness  
Chronic alcoholic, smoker
  
2. AIDS (B24.9)  
Unexplained fever, Weight loss, Diarrhoea, Enlarged lymph glands  
Swelling in neck, cough AND  
History of substance abuse by injection OR  
Multiple sex partners
  
3. ANAEMIA (D64.9)  
Marked paleness of body AND  
Weight loss OR  
Fatigue or weakness or breathlessness on exertion OR  
At rest giddiness OR  
History of bleeding anywhere AND  
No jaundice or enlarged lymph glands OR  
Diagnosed as Anaemia
  
4. ANKYLOSING SPONDYLITIS (M45.9)  
Low backache AND  
Progressive limitation of motion in back OR  
Difficulty in chest expansion OR  
Breathlessness OR  
Restricted movements of hip & knee joints
  
5. ASTHMA (J45.9)  
Cough off and on for long period (> 6 months duration) AND  
Shortness of breath, especially at night or during  
Change of season OR

- |                                   |     |
|-----------------------------------|-----|
| Wheezing sound during breathing   | OR  |
| Family history of similar illness | AND |
| No weight loss                    | OR  |
| No mild fever with evening rise   |     |
6. BREAST CANCER (C50.9)
- |  |     |
|--|-----|
| Painless lump in the breast                                      | AND |
| Discharge from nipple  | OR  |
| Skin ulceration over breast                                      | OR  |
| Enlarged glands in the neck/maxilla                              | OR  |
| Unmarried or married with first child born after 30 years of age | AND |
| No history of trauma   | OR  |
| Diagnosed as breast cancer                                       |     |
7. BRONCHITIS/COPD (J40.9)
- |   |     |
|---|-----|
| Cough of prolonged duration, more than 3 months in a year and at least for 2 consecutive years with expectoration | AND |
| Shortness of breath more in winter  | OR  |
| Chronic smoker  |     |
8. CARCINOMA CERVIX (C53.9)
- |   |     |
|---|-----|
| Post-menopausal or inter-menstrual bleeding | OR  |
| Post coital bleeding                        | OR  |
| Foul smelling vaginal discharge with blood  | AND |
| Weight loss                                 | OR  |
| Lump in lower abdomen                       | OR  |
| Paleness of body                            | OR  |
| Fatigue on slight exertion                  | OR  |
| Diagnosed as Carcinoma cervix               |     |
9. CIRRHOSIS OF LIVER (K74.6)
- |   |     |
|---|-----|
| Jaundice (yellow discoloration of eyes) | AND |
| Swelling of lower limbs                 | AND |
| Abdominal distension (fluid in abdomen) | AND |
| Enlarged painless liver                 | OR  |
| Vomiting of blood                       | OR  |
| Passing of blood in stool               | OR  |
| drowsiness or coma                      | OR  |
| H/o chronic alcoholism                  |     |



- Passing of less urine  
With or without blood or mucus
16. GULLAIN BARRE SYNDROME (G61.0)  
Progressive paralysis of legs to arms AND  
Respiratory distress with fever AND  
No poliomyelitis  
No history of trauma
17. HEPATITIS (K75.9)  
Yellowness of eyes OR  
Yellow skin AND  
Pain in right upper abdomen OR  
Enlarged tender liver AND  
Deep yellow urine, chalky white stools  
Fever
18. LEUKAEMIA (C95.9)  
Whitish body or pale body AND  
Any 2 signs or symptoms of the following:  
Fever  
Bleeding from natural orifices (nose, mouth etc.)  
Joint pains  
Enlarged liver  
Enlarged lymph glands  
Red spots over skin
19. LIVER CANCER (C22.9)  
Tender enlargement of liver  
Sudden onset of abdominal distension (due to fluid)  
Weight loss  
Fatigue AND  
H/o Hepatitis (B) or Jaundice in past OR  
IV drug user OR  
Diagnosed as liver cancer
20. LUNG CANCER (C34.9)  
Chronic cough and blood streaked sputum AND

Any two of the symptoms:

Breathlessness  
 Chest pain  
 Hoarseness of voice  
 Recurrent history of Pneumonia  
 Chronic smoker                      AND  
 No Tuberculosis                      OR  
 Diagnosed as lung cancer

21. LYMPHOMA (NHL: C85.9, HL: C81.9, Type NK=8519)

Painless enlargement of cervical (neck) glands (lymph nodes) AND

Any 2 of the following symptoms & conditions

Hoarse cough  
 Night sweats  
 Abdominal distension  
 Weight loss  
 Abdominal pain  
 Fatigue  
 Itching                      OR  
 Diagnosed as Lymphoma (NHL/HL)

22. MYOCARDIAL INFARCTION (I21.9)

Severe chest pain lasting for more than 1/2 an hour AND

Any two of the following:

Shortness of breath  
 Vomiting  
 Anxiousness  
 Pain radiating to left arm  
 Sweating  
 Sudden death                                      OR  
 Diagnosed heart attack/ Myocardial infarction

23. MALARIA (B54.9)

Acute onset of high grade, intermittent fever AND

Chills with rigor                                      OR  
 Blood test positive for malaria                      AND  
 No burning during micturition                      OR



- No cough OR  
 No rashes on the body OR  
 No exposure to extreme heat
24. MALIGNANT MELANOMA (C43.9)  
 Brownish or reddish patches over skin AND  
 Any 2 of the following signs or symptoms  
 Patch/lesion with irregular margins  
 Varied discoloration of the lesion  
 Progressively expanding lesion  
 Exposure to X-ray
25. MANIAC DEPRESSIVE PSYCHOSIS (F31.9)  
 Talking to oneself excessively, alternating with bouts of nervous breakdown AND  
 Episodes of violence OR  
 Excitement OR  
 Attempted suicide OR  
 Keeping aloof from others OR  
 Depression
26. MASTOIDITIS (H70.9)  
 Ear discharge AND  
 Hearing loss AND  
 Pain behind ears
27. MENINGO-ENCEPHALITIS (G04.9)  
 Acute onset of fever AND  
 Any two of the following:  
 Convulsions  
 Unconsciousness  
 Altered behaviour  
 Neck rigidity  
 Skin rashes  
 Headache with vomiting AND  
 No history of lock jaw
28. MULTIPLE SCLEROSIS (G35.9)  
 Relapsing type of illness with any 2 of the following symptoms or signs:  
 Visual loss (uni /bilateral)  
 Urgency in passing urine

Inability to maintain balance on standing  
 Paralysis of limbs (paraplegia)  
 Tingling & numbness of limbs

29. NASOPHARYNGEAL CANCER (C11.9)

Frequent nasal stuffiness AND

At least 2 symptoms of the following:

Frequent bleeding episodes from nose  
 Earache not relieved by routine medicines  
 Unilateral hearing loss OR  
 Diagnosed as nasopharyngeal cancer

30. OESOPHAGEAL CANCER (C15.9)

Progressive difficulty in taking foods AND

Chronic alcoholic OR

Smoker AND

Weight loss OR

Diagnosed as oesophageal cancer

31. ORAL CANCER (C06.9)

Lump or mass or swelling on tongue/cheek/mouth cavity AND

Any 2 of the signs or symptoms:

Non healing sore or ulcer over the lump or mass

Bleeding on touch the lump

Restriction/difficulty in opening mouth

Weight loss

White or red patch in oral mucosa OR

Diagnosed as oral cancer

32. OSTEOARTHRITIS (M19.9)

Joint pains worsened by prolonged activity AND

Restriction of movement of affected joints AND

Minimal or absence of joint deformity

33. OTITIS MEDIA (H66.9)

Ear discharge AND

Hearing loss OR

Fever

34. PARKINSONISM (G20.9)  
 Tremors or shaking of hands/ body parts AND  
 Difficulty in starting & stopping walk OR  
 Small steps during walk OR  
 Expression less face
35. PNEUMONIA (J18.9)  
 Acute cough less than 7 days duration AND  
 High fever AND  
 Shortness of breath OR  
 Chest pain OR  
 Blood in sputum AND  
 No wheezing OR  
 No swelling of legs OR  
 No Distension of abdomen
36. POLIOMYELITIS (A80.9)  
 Non-progressive paralysis of arm or legs or both AND  
 Onset accompanied by fever or cough OR  
 Reported Poliomyelitis
37. PULMONARY TUBERCULOSIS (A16.2)  
 Chronic cough for more than 21 days duration AND  
 Mild continuous fever with evening rise OR  
 Blood in sputum OR  
 Chest pain OR  
 Breathlessness AND  
 No episodes of wheezing AND  
 No cough of prolonged duration for more than 3 months in a year and at least for 2 consecutive years with expectoration
38. RABIES (A82.9)  
 History of dog bite AND  
 Fear to drink water AND  
 Convulsions or unconsciousness OR  
 Not immunised for dog bite
39. RENAL FAILURE (N19.9)  
 Progressive or acute onset of decreasing urinary output for more than 1 day AND  
 Progressive loss of appetite OR

- |  |    |
|--|----|
| Hiccups                                    | OR |
| Drowsiness                                 | OR |
| Confusion                                  | OR |
| Unconsciousness                            | OR |
| Swelling of eyelids or face in the morning | OR |
| High blood pressure                        |    |
40. RHEUMATIC FEVER (I00.9)
- Joint pains, fleeting in nature AND
- Any 2 symptoms or signs of the following:
- Involuntary dancing movements of hands & fingers
  - Fever
  - Cough
  - Breathlessness
  - Liver enlargement
  - Chest pain AND
  - No residual damage to joints
41. RHEUMATOID ARTHRITIS (M06.9)
- Morning stiffness of joints AND
- Deformities of fingers OR
- Involvement of hip, knee, ankle
42. SCHIZOPHRENIA (F20.9)
- Suspicion of others harming OR
- Planning to kill him/her AND
- Any 2 of the following symptoms:
- Stop taking interest in his/her dress or appearance
  - Talking of taking other's life
  - Sleep disturbance
  - Talking to himself/herself
43. SICKLE CELL DISEASE (D57.1)
- Whitish or pale body AND
- Pain in joints or abdomen OR
- Jaundice OR
- Enlarged liver & spleen OR
- Diagnosed as sickle cell disease

44. STOMACH CANCER (C16.9)
- |  |     |
|--|-----|
| Mass in upper abdomen                          | AND |
| Difficulty in swallowing                       |     |
| Vomiting                                       | AND |
| Pain in abdomen                                | OR  |
| Weight loss                                    | OR  |
| Enlarged liver                                 | OR  |
| History of repeated course of anti-ulcer drugs | OR  |
| Diagnosed as stomach cancer                    |     |
45. STROKE (I64.9)
- |  |     |
|--|-----|
| Sudden onset of paralysis of one or more limbs | AND |
| Unconsciousness                                | OR  |
| Loss of vision                                 | OR  |
| Urinary incontinence                           | OR  |
| Loss of sensations on any part of body         | OR  |
| Altered speech                                 | OR  |
| Sudden onset of headache with                  |     |
| Altered sensorium                              | OR  |
| Late onset of convulsions                      | OR  |
| Previous history of high blood pressure        | OR  |
| Previous history of diabetes                   | AND |
| No previous episodes of convulsions            |     |
46. SYPHILIS (A53.9)
- |                       |     |
|-----------------------|-----|
| Painless genital sore | OR  |
| Rash over body        | AND |
| Multiple sex partners | OR  |
| Diagnosed as syphilis |     |
47. SYSTEMIC LUPUS ERYTHEMATOSIS (M32.9)
- |                               |     |
|-------------------------------|-----|
| Joint pains                   | AND |
| Any three of the following:   |     |
| Butterfly like rash over face |     |
| Chest pain                    |     |
| Abdominal pain                |     |
| Enlarged glands in neck       |     |

- Splenomegaly  
 Fatigue  
 Fever  
 Pale body  
 Seizures AND  
 No joint deformity
48. TETANUS (A35.9)  
 Locked jaw AND  
 History of open wound OR  
 Stiffness of neck OR  
 Stiffness of back of the body AND  
 No previous episodes of muscle spasms or convulsions OR  
 Un-immunized against tetanus
49. THALASSEMIA (D56.9)  
 Whitish or pale body AND  
 Frequent blood transfusions AND  
 Enlarged mass in upper abdomen OR  
 Jaundice OR  
 Growth retardation OR  
 Diagnosed as Thalassemia
50. THYROID CANCER (C73.9)  
 Painless nodular swelling in front of neck AND  
 Change in voice OR  
 Difficulty in swallowing food
51. THYROTOXICOSIS/ THYROTOXIC CRISIS (E05.5)  
 Enlarged gland in front of neck AND  
 Anxiousness  
 weight loss AND  
 Loose motions OR  
 Heat intolerance in summer OR  
 Protruding eyeballs OR  
 Fever OR  
 Delirium OR  
 History of thyroid surgery

## APPENDIX C QUESTIONNAIRES

### INSTITUTE FOR RESEARCH IN MEDICAL STATISTICS, ICMR NEW DELHI CAUSES OF DEATH BY VERBAL AUTOPSY

#### Questionnaire for STILL BIRTH

ID NO.

--	--	--	--

State -----

--	--

District -----

--	--

Taluka/ Mandal/ Block -----

--	--	--	--

Village/Town -----

--	--	--	--	--	--

Rural (1) / Urban (2)

Cluster No. -----

--

Name of the nearest PHC -----

--	--	--

Name of the sub-centre -----

Locality/Address of the HH -----

--	--	--	--

House holds No. -----

Name of the head of the household -----

Name of the Mother and Father of the deceased -----

Name of the Respondent -----

Date of Interview

--	--	--	--	--	--

Result

--

RESULT CODES: 1. COMPLETED; 2. RESPONDENT NOT AVAILABLE; 3. REFUSED; 4. PARTIALLY COMPLETED

Name of the Investigator -----

Cause of death assigned (ICD-10) -----

--	--	--	--

Signature of the M.O -----

Date

--	--	--	--	--	--

### Background characteristics of child

Q. No.	Questions and filters	Coding categories	Skip to
Q101	Age of mother (completed years)	<div style="border: 1px solid black; width: 100px; height: 30px; display: flex; align-items: center; justify-content: center;"> <div style="border-right: 1px solid black; width: 50px; height: 20px;"></div> <div style="width: 50px; height: 20px;"></div> </div>	
Q 102	Sex of the baby	MALE.....1 FEMALE.....2	
Q 103	Date of birth/delivery	<div style="border: 1px solid black; width: 200px; height: 30px; display: flex; align-items: center; justify-content: center;"> <div style="border-right: 1px solid black; width: 33px; height: 20px;"></div> <div style="border-right: 1px solid black; width: 33px; height: 20px;"></div> <div style="border-right: 1px solid black; width: 33px; height: 20px;"></div> <div style="border-right: 1px solid black; width: 33px; height: 20px;"></div> <div style="border-right: 1px solid black; width: 33px; height: 20px;"></div> <div style="width: 33px; height: 20px;"></div> </div>	
Q 104	Time of birth/ delivery	<div style="border: 1px solid black; width: 100px; height: 30px; display: flex; align-items: center; justify-content: center;"> <div style="border-right: 1px solid black; width: 50px; height: 20px;"></div> <div style="width: 50px; height: 20px;"></div> </div>	
Q 105	Place of birth/ delivery  IF OTHER THAN HOME, SPECIFY _____	HOME ..... 1 NURSING HOME/MATERNITY - HOME/PVT .HOSPITAL/ NGO/Trust.....2 GOVT. (CHC, PHC,Hospital) ..... 3 Other .....4	
Q 106	Who conducted the delivery?	TRAINED DAI..... A UNTRAINED DAI .....B FHW / FHS/ ANM /LHV ..... C NURSE..... D DOCTOR.....E OTHER _____ F SPECIFY _____	

### UNPROMPTED HISTORY OF FINAL ILLNESS

The circumstances or causes leading to death of the baby?

[illegible]



## 2. Characteristic of the baby

Q. No.	Questions and filters	Coding categories	Skip to
Q 201	How many babies were born? (related with current birth)	SINGLE.....1 TWINS.....2 MORE THAN TWO.....3 SPECIFY	
Q 202	How many <u>weeks</u> of pregnancy were completed at the time of delivery? WITH LMP AS 'ZERO'	<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> RECORD 88 IF DK	
Q 203	In your opinion how much was the weight of the baby?	NORMAL..... 1 LOW..... 2 VERY LOW ..... 3 DK..... 8	
Q 204	In your opinion what was the size of the baby?	NORMAL..... 1 SMALL.....2 LARGE.....3 DK.....8	
Q 205	Any abnormality noticed in the baby?	YES.....1 NO..... 2 DK..... 8	→ Q 301 → Q 301
Q 206	What abnormalities were noticed in the baby?	<div style="display: flex; justify-content: space-between;"> <span>YES</span> <span>NO</span> </div> SMALL HEAD.....1 2 CLEFT LIP/OR PALATE.....1 2 LIMB DEFECT..... 1 2 EYE DEFECT.....1 2 SPINE DEFECT.....1 2 ABNORMAL GENITALIA.... 1 2 OTHER.....1 2 SPECIFY	

## 3. Problems during PREGNANCY and DELIVERY

(Now few questions I have to ask you regarding problems during pregnancy)

Q. No.	Questions and filters	Coding categories	Skip to
Q 301	Did mother of the baby look pale or white?	YES.....1 NO..... 2 DK..... 8	
Q 302	Did mother of the baby have swelling of feet or face or both?	FEET..... 1 FACE.....2 BOTH.....3 NONE..... 4	

Q 303	Did the mother feel breathless while doing household chores?	YES.....1 NO..... 2 DK..... 8			
Q 304	Was blood of mother tested any time?	YES.....1 NO..... 2 DK..... 8	→Q 306 →Q 306		
Q 305	What was told?	ANAEMIA..... 1 LESS BLOOD..... 2 BLOOD TRANSFUSION NEEDED... 3 NORMAL..... 4 DK..... 8			
Q 306	Did the mother have persistent headache frequently?	YES.....1 NO..... 2 DK..... 8			
Q 307	Did the mother have blurring of vision?	YES.....1 NO..... 2 DK..... 8			
Q 308	Was blood pressure of the mother recorded?	YES .....1 NO ..... 2 DK ..... 8	→Q 310 →Q 310		
Q 309	How much was the blood pressure?	NORMAL ..... 1 HIGH ..... 2 LOW ..... 3 DK ..... 8			
Q 310	Did the mother have fits? (Without Fever)	YES .....1 NO ..... 2 DK ..... 8	→Q312 →Q312		
Q 311	Did the mother ever have fits prior to pregnancy?	YES .....1 NO ..... 2 DK ..... 8			
Q 312	Did mother have fever during pregnancy?	YES.....1 NO..... 2 DK..... 8	→Q 315 →Q 315		
Q 313	In which month of pregnancy she had fever?	RECORD 88 IF DK <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>			

Q 314	What was the severity of fever?	MILD..... 1 MODERATE..... 2 HIGH..... 3 DK..... 4	
Q 315	Was there bleeding from vagina during pregnancy?	YES.....1 NO..... 2 DK..... 8	→Q 317 →Q 317
Q 316	How long in hours did bleeding persist?	<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> RECORD 88 IF DK	
Q 317	Did bag of water rupture before onset of labor pains?	YES.....1 NO..... 2 DK..... 8	
Q 318	What was the period in <u>hours</u> between onset of labor & delivery?	<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> RECORD 88 IF DK	
Q 319	Did foetal movements stop before onset of labour pain?	YES.....1 NO..... 2 DK..... 8	
Q 320	Did baby get stuck during delivery?	YES.....1 NO..... 2 DK..... 8	
Q 321	Whether any delivery manipulation was done?	YES.....1 NO..... 2 DK..... 8	→Q 323 →Q 323
Q 322	What manipulation was done?	MANUAL MANIPULATION..... 1 INSTRUMENTATION..... 2 OPERATION..... 3	
Q 323	Whether there was malpresentation?	YES.....1 NO..... 2 DK..... 8	→Q 325 →Q 325
Q 324	What was the malpresentation?	BREECH.....1 CORD..... 2 SHOULDER..... 3 HAND/FOOT..... 4	
Q 325	Did she have an accident/injury?	YES.....1 NO..... 2 DK..... 8	→Q 327 →Q 327

Q 326	What type of accident/injury did she have?	BURNS..... 1 TRAFFIC ACCIDENT..... 2 FALL FROM HEIGHT..... 3 OTHER ..... 4 (SPECIFY)	
Q 327	Any other trouble or problem?	YES..... 1 (SPECIFY) NO.....2 DK.....8	
Q 328	Did the mother have any significant problem before pregnancy?	YES..... 1 (SPECIFY) NO.....2 DK.....8	

Q. No.	Questions and filters	Coding categories
Q 401	Person interviewed	MOTHER.....1 FATHER ..... 2 OTHER ..... 3 Specify
Q 402	Were the main respondents with the mother during the delivery?	YES..... 1 NO..... 2
Q 403	Was the mother taken to any hospital/ clinic just before the delivery? IF YES DETAIL OF HOSPITAL _____	YES.....1 NO..... 2 DK..... 8

### Socio-economic details of the households

Q. No.	Questions and filters	Coding categories
Q H1	House hold size	Total no. of persons in household <input type="text"/> <input type="text"/>  Male no. <input type="text"/> <input type="text"/> Female no. <input type="text"/> <input type="text"/>  No. of Adults ( { EMBED Equation.3 } 5 years ) Male no. <input type="text"/> <input type="text"/> Female no. <input type="text"/> <input type="text"/>  No. of children ( <5 years ) Male no. <input type="text"/> <input type="text"/> Female no. <input type="text"/> <input type="text"/>

Q H2	Type of house (the one staying in)	KUTCHA..... 1 PUCCA..... 2 SEMI PUCCA..... 3																		
Q H3	Separate room as kitchen	YES..... 1 NO..... 2																		
Q H4	Source of drinking water	WELL..... 1 POND..... 2 HANDPUMP..... 3 TAPWATER..... 4																		
	Inside House	YES..... 1 NO..... 2																		
Q H5	Electricity connection	YES..... 1 NO..... 2																		
Q H6	Toilet facility available	OPEN FIELD..... 1 OWN FLUSH TOILET..... 2 PUBLIC FLUSH TOILET..... 3 OWN PIT TOILET..... 4 PUBLIC PIT TOILET..... 5 OTHER..... 6 (SPECIFY)																		
	Inside House	YES..... 1 NO..... 2																		
Q H7	Drainage in front of the house	OPEN AND STAGNANT..... 1 OPEN AND RUNNING..... 2 CLOSED..... 3 NO DRAINAGE SYSTEM..... 4																		
Q H8	Type of fuel mainly used for cooking	WOOD..... 1 CROP RESSIDUES..... 2 DUNG CAKES..... 3 COAL/COKE/LIGNITE..... 4 CHAR COAL..... 5 KEROSENE..... 6 ELECTRICITY..... 7 LPG .....8 BIO GAS .....9 OTHERS .....10																		
Q H9	Education	<table border="0"> <tr> <td></td><td>Mother</td><td>Father</td></tr> <tr> <td>ILLITERATE.....</td><td>1</td><td>1</td></tr> <tr> <td>PRIMARY.....</td><td>2</td><td>2</td></tr> <tr> <td>MIDDLE.....</td><td>3</td><td>3</td></tr> <tr> <td>SECONDARY/HIGHER SEC ...</td><td>4</td><td>4</td></tr> <tr> <td>COLLEGE.....</td><td>5</td><td>5</td></tr> </table>		Mother	Father	ILLITERATE.....	1	1	PRIMARY.....	2	2	MIDDLE.....	3	3	SECONDARY/HIGHER SEC ...	4	4	COLLEGE.....	5	5
	Mother	Father																		
ILLITERATE.....	1	1																		
PRIMARY.....	2	2																		
MIDDLE.....	3	3																		
SECONDARY/HIGHER SEC ...	4	4																		
COLLEGE.....	5	5																		

Q H10	Occupation (specify) ..... ..... .....	<table border="0"> <thead> <tr> <th></th><th>Mother</th><th>Father</th></tr> </thead> <tbody> <tr> <td>HOUSEWIFE/HOUSEHOLD WORK ..</td><td>1</td><td>1</td></tr> <tr> <td>UNSKILLED WORKER.....</td><td>2</td><td>2</td></tr> <tr> <td>SKILLED WORKER.....</td><td>3</td><td>3</td></tr> <tr> <td>CULTIVATOR.....</td><td>4</td><td>4</td></tr> <tr> <td>OWN BUSINESS.....</td><td>5</td><td>5</td></tr> <tr> <td>SERVICE.....</td><td>6</td><td>6</td></tr> <tr> <td>OTHER.....</td><td>7</td><td>7</td></tr> </tbody> </table>		Mother	Father	HOUSEWIFE/HOUSEHOLD WORK ..	1	1	UNSKILLED WORKER.....	2	2	SKILLED WORKER.....	3	3	CULTIVATOR.....	4	4	OWN BUSINESS.....	5	5	SERVICE.....	6	6	OTHER.....	7	7
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Q H11	Religion	<table border="0"> <tbody> <tr> <td>HINDU.....</td><td>1</td></tr> <tr> <td>MUSLIM.....</td><td>2</td></tr> <tr> <td>CHRISTIAN.....</td><td>3</td></tr> <tr> <td>SIKH.....</td><td>4</td></tr> <tr> <td>JAIN.....</td><td>5</td></tr> <tr> <td>BUDDHIST.....</td><td>6</td></tr> <tr> <td>OTHER.....</td><td>7</td></tr> </tbody> </table> <p style="text-align: right;">specify</p>	HINDU.....	1	MUSLIM.....	2	CHRISTIAN.....	3	SIKH.....	4	JAIN.....	5	BUDDHIST.....	6	OTHER.....	7										
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Q H11	Caste	<table border="0"> <tbody> <tr> <td>SCHEDULED CASTE.....</td><td>1</td></tr> <tr> <td>SCHEDULED TRIBE.....</td><td>2</td></tr> <tr> <td>BACKWARD CLASS.....</td><td>3</td></tr> <tr> <td>OTHER.....</td><td>4</td></tr> </tbody> </table>	SCHEDULED CASTE.....	1	SCHEDULED TRIBE.....	2	BACKWARD CLASS.....	3	OTHER.....	4																
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**INSTITUTE FOR RESEARCH IN MEDICAL STATISTICS, ICMR  
NEW DELHI  
CAUSES OF DEATH BY VERBAL AUTOPSY**

ID NO.

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**Questionnaire for NEONATAL Death age 0-28 days**

State -----	<table border="1" style="display: inline-table;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>						
District -----	<table border="1" style="display: inline-table;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>						
Taluka/ Mandal/ Block -----	<table border="1" style="display: inline-table;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>						
Village/Town-----	<table border="1" style="display: inline-table;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>						
Rural (1) / Urban (2)							
Cluster No. -----	<table border="1" style="display: inline-table;"> <tr> <td style="width: 20px; height: 20px;"></td> </tr> </table>						
Name of the nearest PHC-----	<table border="1" style="display: inline-table;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>						
Name of the sub-centre -----							
Locality/Address of the HH -----							
House holds No. -----	<table border="1" style="display: inline-table;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>						
Name of the head of the household -----							
Name of the Mother and Father of the deceased -----							
Name of the Respondent -----							

Date of Interview	<table border="1" style="display: inline-table;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>						
Result	<table border="1" style="display: inline-table;"> <tr> <td style="width: 20px; height: 20px;"></td> </tr> </table>						
RESULT CODES: 1. COMPLETED; 2. RESPONDENT NOT AVAILABLE; 3. REFUSED; 4. PARTIALLY COMPLETED							
Name of the Investigator -----							

Cause of death assigned (ICD-10) -----	<table border="1" style="display: inline-table;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>						
Signature of the M.O -----							
Date	<table border="1" style="display: inline-table;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>						

**1. Background characteristic of the child**

Q. No.	Questions and filters	Coding categories	Skip to
Q 101	Age of mother (completed years)	<div style="text-align: right;"> <input type="text"/> <input type="text"/> </div> REORD 88 IF DK	
Q 102	Sex of the baby	MALE.....1 FEMALE.....2	
Q 103	Date of birth/delivery	<div style="text-align: right;"> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> </div> IF NOT AVAILA BLE RECORD 88888	
Q 104	Time of birth/ delivery	<div style="text-align: right;"> <input type="text"/> <input type="text"/> </div>	
Q 105	Place of birth/ delivery IF OTHER THAN HOME, SPECIFY _____	HOME..... 1 NURSING/MATERNITY HOME/ PVT.HOSPITAL.....2 GOVT.HOSPITAL (CHC, CHC)..... 3 Other .....4	
Q 106	Date of death	<div style="text-align: right;"> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> </div> IF NOT AVAILA BLE RECORD 88888	
Q 107	Place of death IF OTHER THAN HOME, SPECIFY _____	HOME ..... 1 NURSING HOME/MATERNITY -HOME/PVT .HOSPITAL/ NGO/Trust.....2 GOVT. (CHC, PHC,Hospital) ..... 3	
Q 108	Age at death in (completed) days	<div style="text-align: right;"> <input type="text"/> <input type="text"/> </div> (THE DAY OF BIRTH SHOULD BE CONSIDERED AS ZERO)	
Q 109	Who conducted the delivery?	TRAINED DAI..... A UNTRAINED DAI .....B FHW / FHS/ ANM /LHV..... C NURSE..... D DOCTOR.....E OTHER _____ F <div style="text-align: center;">SPECIFY</div>	



## UNPROMPTED HISTORY OF FINAL ILLNESS

How did the newborn die?

(WRITE AN ACCOUNT OF FINAL ILLNESS IN RESPONDENT'S OWN WORDS)

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There is a vertical margin line on the left side, creating a narrow left margin. The paper appears to be from a notebook or a standard ruled document.

## Symptom/Condition (In chronological order)

S. No.	Symptom /condition	Total duration
1		
2		
3		
4		
5		

**2. PROBING QUESTIONS OF SIGNS & SYMPTOMS PRECEDING DEATH**

<b>Q. No.</b>	<b>Questions and filters</b>	<b>Coding categories</b>	<b>Skip to</b>
Q 201	How many babies were born?	SINGLE ..... 1 TWIN..... 2 >2..... 3 SPECIFY	
Q 202	How many <u>weeks</u> of pregnancy were completed at the time of birth?  (LMP IS CONSIDERED AS ZERO)	RECORD 88 IF DK <input type="text"/> <input type="text"/>	
Q 203	Did the child cry immediately after birth? (within 3 min.)	YES..... 1 NO..... 2 DK.....8	→ Q 205 → Q 205
Q 204	Was the cry feeble?	YES..... 1 NO..... 2 DK.....8	
Q 205	Was the child breathing properly at 5 minutes after birth? (VERY SLOW/GASPING =NO i.e. CODE 2)	YES..... 1 NO..... 2 DK.....8	
Q 206	Was the child moving limbs at birth?	YES..... 1 NO..... 2 DK.....8	
Q 207	What was the color of the baby at birth?	PINK..... 1 BLUE..... 2 PALE..... 3 DK..... 8	
Q 208	Did the child have bruises during birth?	YES..... 1 NO..... 2 DK.....8	
Q 209	Was the baby limp/flaccid after birth?	YES..... 1 NO..... 2 DK.....8	→ Q 211 → Q 211
Q 210	How many days after birth baby became limp/flaccid?	RECORD 88 IF DK <input type="text"/> <input type="text"/>	
Q 211	In your opinion how much was the weight of the baby?	NORMAL..... 1 LOW..... 2 VERY LOW..... 3 DK..... 8	
Q 212	Any physical abnormality seen in the baby?	YES..... 1 NO..... 2 DK.....8	→ Q214 → Q214

Q 213	What abnormality was seen in the baby?	SMALL HEAD..... A CLEFT LIP/OR PALATE..... B LIMB DEFECT..... C EYE DEFECT..... D SPINE DEFECT..... E ABNORMAL GENITALIA..... F OTHER..... G SPECIFY	
Q 214	Did child die due to some accident?	YES..... 1 NO..... 2 DK..... 8	→ Q216 → Q216
Q 215	Baby died of which accident?	BURNS..... 1 POISONING..... 2 MOTOR ACCIDENT..... 3 FALL FROM HEIGHT..... 4 FOREIGN BODY INHALATION..... 5 OTHER..... 6 SPECIFY	<b>STOP INTERVIEWING</b>
Q 216	Did the child have fits?	YES..... 1 NO..... 2 DK..... 8	→ Q218 → Q218
Q 217	How many days after birth did child have convulsion?	> ONE DAY '00' <input type="text"/> <input type="text"/> RECORD 88 IF DK	
Q 218	Was the child very drowsy/ unconscious prior to death?	YES..... 1 NO..... 2 DK..... 8	→ Q 220 → Q 220
Q 219	How many days after birth baby became unconscious/drowsy?	> ONE DAY '00' <input type="text"/> <input type="text"/> RECORD 88 IF DK	
Q 220	Did the child have elongation of or swelling over the skull at birth?	YES..... 1 NO..... 2 DK..... 8	
Q 221	Were any of the limbs not moving/broken at birth?	YES..... 1 NO..... 2 DK..... 8	
Q 222	Was the baby able to take feed after birth?	YES..... 1 NO..... 2 DK..... 8	
Q 223	Did body of the child become stiff and arched backward?	YES..... 1 NO..... 2 DK..... 8	
Q 224	Did the child have lock jaw?	YES..... 1 NO..... 2 DK..... 8	

Q 225	Did the child stop sucking prior to death?	YES..... 1 NO..... 2 NOT APPLICABLE..... 3 DK.....8	→ Q 227 → Q 227 → Q 227												
Q 226	On which day after birth child stopped sucking?	> ONE DAY '00' <input type="text"/> <input type="text"/> RECORD 88 IF DK													
Q 227	Did the child have cough/respiratory problems?	YES..... 1 NO..... 2 DK.....8	→ Q 230 → Q 230												
Q 228	Did the child have  1. Rapid breathing 2. Severe chest in drawing 3. Noisy breathing	<table border="0"> <tr> <td>Y</td><td>N</td><td>DK</td></tr> <tr> <td>1</td><td>2</td><td>8</td></tr> <tr> <td>1</td><td>2</td><td>8</td></tr> <tr> <td>1</td><td>2</td><td>8</td></tr> </table>	Y	N	DK	1	2	8	1	2	8	1	2	8	
Y	N	DK													
1	2	8													
1	2	8													
1	2	8													
Q 229	Did the child have long bouts of cough?	YES..... 1 NO..... 2 DK.....8													
Q 230	Did his/her face turn red or blue at the time of bout of cough?	YES..... 1 NO..... 2 DK.....8													
Q 231	Have vomiting?	YES..... 1 NO..... 2 DK.....8	→ Q 233 → Q 233												
Q 232	Have any difficulty in taking feeds/milk due to repeated cough or vomiting?	YES..... 1 NO..... 2 DK.....8													
Q 233	Did the child have loose motions?	YES..... 1 NO..... 2 DK.....8	→ Q 238 → Q 238												
Q 234	Were the stools loose or watery?	YES..... 1 NO..... 2 DK.....8													
Q 235	Was there blood or mucus in the loose stools?	YES..... 1 NO..... 2 DK.....8													
Q 236	What was the maximum number of stools(24 hours) on worse diarrhoea day?	RECORD 88 IF DK <input type="text"/> <input type="text"/>													
Q 237	For how many days the child had loose motions?	RECORD 88 IF DK <input type="text"/> <input type="text"/>													

Q 238	Was fontanelle depressed?	YES..... 1 NO..... 2 DK.....8			
Q 239	Was the fontanelle of the child bulging?	YES..... 1 NO..... 2 DK.....8			
Q 240	Were eyes sunken?	YES..... 1 NO..... 2 DK.....8			
Q 241	Did the child pass urine normally 24 hours before death?	NORMAL..... 1 LESS.....2 NO URINE.....3 DK..... 8			
Q 242	Was the child cold before death?	YES..... 1 NO..... 2 DK.....8	→ Q 245 → Q 245		
Q 243	How many hours before death the child became cold?	RECORD 88 IF DK <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>			
Q 244	Which part of body was cold?	HEAD..... 1 CHEST AND ABDOMEN.....2 LIMBS..... 3			
Q 245	Did the child have fever?	YES..... 1 NO..... 2 DK.....8			
Q 246	Was the child very drowsy or unconscious?	YES..... 1 NO..... 2 DK.....8			
Q 247	Did the child have pustules/ear discharge?	YES..... 1 NO..... 2 DK.....8			
Q 248	Did anybody in the family have tuberculosis of chest?	YES..... 1 NO..... 2 DK.....8			
Q 249	Were there rashes on the body of the child?	YES..... 1 NO..... 2 DK.....8			
Q 250	Did the child have swelling or pus discharge from umbilicus?	YES..... 1 NO..... 2 DK.....8			

Q 251	Did the child have distention of abdomen?	YES..... 1 NO..... 2 DK.....8	
Q 252	Did the child's skin turn yellow in first 24 hours after birth?	YES..... 1 NO..... 2 DK.....8	
Q 253	Were the sole of feet yellow at any time during the illness?	YES..... 1 NO..... 2 DK.....8	
Q 254	Was the baby able to take feed after birth?	YES..... 1 NO..... 2 DK.....8	
Q 255	Any other trouble or problem before death?	YES.....1 SPECIFY NO.....2 DK.....8	
Q 256	Did the baby die suddenly without obvious reasons?	YES..... 1 NO..... 2 DK.....8	

### 3. Problems in pregnancy and delivery

Q. No.	Questions and filters	Coding categories	Skip to
Q 301	Did mother of the baby look pale or white during pregnancy?	YES..... 1 NO..... 2 DK.....8	
Q 302	Was she having breathlessness while doing household chores?	YES..... 1 NO..... 2 DK.....8	
Q 303	Did she have swelling of feet or face or both?	FEET..... 1 FACE..... 2 BOTH..... 3 NEITHER..... 4 DK..... 8	
Q 304	Was blood tested any time?	YES..... 1 NO..... 2 DK.....8	-Q 306 -Q 306
Q 305	What was told?	ANAEMIA..... 1 LESS BLOOD..... 2 BLOOD TRANSFUSION NEEDED... 3 NORMAL..... 4 DK..... 8	

Q 306	Did she complain of persistent headache frequently?	YES..... 1 NO..... 2 DK.....8	
Q 307	Did she have blurring of vision?	YES..... 1 NO..... 2 DK.....8	
Q 308	Was blood pressure recorded?	YES..... 1 NO..... 2 DK.....8	→ Q 310 → Q 310
Q 309	How much was the blood pressure?	NORMAL..... 1 LOW..... 2 HIGH..... 3 VERY HIGH..... 4 DK..... 8	
Q 310	Did the mother have fits?	YES..... 1 NO..... 2 DK.....8	→ Q 312 → Q 312
Q 311	Did the mother ever have fits prior to pregnancy?	YES..... 1 NO..... 2 DK.....8	
Q 312	Was there vaginal bleeding during pregnancy?	YES..... 1 NO..... 2 DK.....8	→ Q 315 → Q 315
Q 313	In which month of pregnancy there was vaginal bleeding?	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 30px; height: 20px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 30px; height: 20px; margin-right: 5px;"></div> </div> RECORD 88 IF DK	
Q 314	How much was the bleeding?	SPOTTING ONLY .....1 EXCESS..... 2 DK.....8	
Q 315	Did bag of water rupture before onset of labor pains?	YES..... 1 NO..... 2 DK.....8	
Q 316	What was the period in <u>hours</u> between onset of labor & delivery?	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 30px; height: 20px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 30px; height: 20px; margin-right: 5px;"></div> </div> RECORD 88 IF DK	
Q 317	Did baby get stuck during delivery?	YES..... 1 NO..... 2 DK.....8	
Q 318	Whether any delivery manipulation was done?	YES..... 1 NO..... 2 DK.....8	→ Q 320 → Q 320

Q 319	What manipulation was done?	MANUAL MANIPULATION..... 1 INSTRUMENTATION..... 2 OPERATION..... 3	
Q 320	Whether there was head presentation?	YES..... 1 NO..... 2 DK..... 8	→ Q 322 → Q 322
Q 321	What was the presentation?	BREECH..... 1 CORD..... 2 SHOULDER..... 3 HAND/FOOT..... 4	
Q 322	Did the mother get TT immunization during pregnancy?	YES..... 1 NO..... 2 DK..... 8	→ Q 326 → Q 326
Q 323	How many doses of TT were given during pregnancy?	<input type="text"/>	If 1, Q324 If 2, Q325
Q 324	In which month of pregnancy previous dose was given?	<input type="text"/>	
Q 325	What was the interval between the doses?	<input type="text"/>	
Q 326	Did she receive IFA tablets	YES..... 1 NO..... 2 DK..... 8	→ Q 401 → Q 401
Q 327	How many tablets were received?	RECORD 888 IF DK <input type="text"/> <input type="text"/> <input type="text"/>	

#### 4. Post-delivery care of new born

Q. No.	Questions and filters	Coding categories	Skip to
Q 401	Was delivery room warmed?	YES..... 1 NO..... 2 DK..... 8	
Q 402	Which instrument was used for cord cutting?	BLADE-NEW..... 1 BLADE-OLD..... 2 KNIFE..... 3 SCISSORS..... 4 CORD CARE KIT BLADE..... 5 OTHER..... 6 SPECIFY DK..... 8	



Q 403	Was cord-cutting instrument boiled?	YES..... 1 NO..... 2 DK.....8	
Q 404	What was applied on cord on the day of delivery?	OIL.....1 TURMERIC..... 2 NONE..... 3 OTHER.....4 DK.....8	
Q 405	Was baby wiped dry soon after birth?	YES..... 1 NO..... 2 DK.....8	
Q 406	Was baby wrapped in clothes?	YES..... 1 NO..... 2 DK.....8	
Q 407	Was the baby given bath after delivery?	YES..... 1 NO..... 2 DK.....8	
Q 408	How many hours after birth baby was bathed?	> ONE HOUR 'OO' <input type="text"/> <input type="text"/> RECORD 88 IF DK	
Q 409	Was baby breast-fed?	YES..... 1 NO..... 2 DK.....8	→ Q 412 → Q 412
Q 410	How many hours after birth first breast-feed was given?	> ONE HOUR 'OO' <input type="text"/> <input type="text"/> RECORD 88 IF DK	
Q 411	Was colostrum given?	YES..... 1 NO..... 2 DK.....8	
Q 412	Was any milk other than breast milk given?	YES..... 1 NO..... 2 DK.....8	→ Q 414 → Q 414
Q 413	How the milk other than breast milk was given?	BOTTLE ..... 1 SPOON..... 2 OTHER..... 3 (SPECIFY)	
Q 414	Was water given to the baby?	YES..... 1 NO..... 2 DK.....8	

Q 415	Was pre-lacteal feed such as ghutti given to the baby?	YES..... 1 NO..... 2 DK.....8	
Q 416	Person interviewed	MOTHER..... 1 FATHER..... 2 GUARDIAN..... 3 OTHER..... 4 SPECIFY	
Q 417	Was the main respondent with the deceased (dead baby)?	YES..... 1 NO..... 2 DK.....8	
Q 418	Respondents' view of the cause of death		
Q 419	Was the deceased shown in any hospital/clinic immediately before death? NAME OF THE HOSPITAL/CLINIC	YES..... 1 NO..... 2 DK.....8	
Q 420	Cause of death based on any hospital/physician records, if available		
Q 421	Is the death registered?	YES..... 1 NO..... 2 DK.....8	
Q 422	Is the Death Certificate available?	YES..... 1 NO..... 2 DK.....8	
Q 423	What was the cause of death on the death certificate?		

### Socio-economic details of the households

Q. No.	Questions and filters	Coding categories
Q H1	House hold size	Total no. of persons in household <span style="float: right;">[ ][ ]</span> Male no. [ ][ ] Female no. [ ][ ] No. of Adults ( { EMBED Equation.3 } 5 years ) Male no. [ ][ ] Female no. [ ][ ] No. of children ( <5 years ) Male no. [ ][ ] Female no. [ ][ ]

Q H2	Type of house (the one staying in)	KUTCHA..... 1 PUCCA..... 2 SEMI PUCCA..... 3																		
Q H3	Separate room as kitchen	YES..... 1 NO..... 2																		
Q H4	Source of drinking water	WELL..... 1 POND..... 2 HANDPUMP..... 3 TAPWATER..... 4																		
	Inside House	YES..... 1 NO..... 2																		
Q H5	Electricity connection	YES..... 1 NO..... 2																		
Q H6	Toilet facility available	OPEN FIELD..... 1 OWN FLUSH TOILET..... 2 PUBLIC FLUSH TOILET..... 3 OWN PIT TOILET..... 4 PUBLIC PIT TOILET..... 5 OTHER ..... 6 (SPECIFY)																		
	Inside House	YES..... 1 NO..... 2																		
Q H7	Drainage in front of the house	OPEN AND STAGNANT..... 1 OPEN AND RUNNING..... 2 CLOSED..... 3 NO DRAINAGE SYSTEM..... 4																		
Q H8	Type of fuel mainly used for cooking	WOOD..... 1 CROP RESSIDUES..... 2 DUNG CAKES..... 3 COAL/COKE/LIGNITE..... 4 CHAR COAL..... 5 KEROSENE..... 6 ELECTRICITY..... 7 LPG .....8 BIO GAS .....9 OTHERS .....10																		
Q H9	Education	<table> <tr> <td></td><td>Mother</td><td>Father</td></tr> <tr> <td>ILLITERATE.....</td><td>1</td><td>1</td></tr> <tr> <td>PRIMARY.....</td><td>2</td><td>2</td></tr> <tr> <td>MIDDLE.....</td><td>3</td><td>3</td></tr> <tr> <td>SECONDARY/HIGHER SEC ...</td><td>4</td><td>4</td></tr> <tr> <td>COLLEGE.....</td><td>5</td><td>5</td></tr> </table>		Mother	Father	ILLITERATE.....	1	1	PRIMARY.....	2	2	MIDDLE.....	3	3	SECONDARY/HIGHER SEC ...	4	4	COLLEGE.....	5	5
	Mother	Father																		
ILLITERATE.....	1	1																		
PRIMARY.....	2	2																		
MIDDLE.....	3	3																		
SECONDARY/HIGHER SEC ...	4	4																		
COLLEGE.....	5	5																		

Q H10	Occupation (specify) ..... ..... .....	<table border="0"> <thead> <tr> <th></th><th>Mother</th><th>Father</th></tr> </thead> <tbody> <tr> <td>HOUSEWIFE/HOUSEHOLD WORK ..</td><td>1</td><td>1</td></tr> <tr> <td>UNSKILLED WORKER.....</td><td>2</td><td>2</td></tr> <tr> <td>SKILLED WORKER.....</td><td>3</td><td>3</td></tr> <tr> <td>CULTIVATOR.....</td><td>4</td><td>4</td></tr> <tr> <td>OWN BUSINESS.....</td><td>5</td><td>5</td></tr> <tr> <td>SERVICE.....</td><td>6</td><td>6</td></tr> <tr> <td>OTHER.....</td><td>7</td><td>7</td></tr> </tbody> </table>		Mother	Father	HOUSEWIFE/HOUSEHOLD WORK ..	1	1	UNSKILLED WORKER.....	2	2	SKILLED WORKER.....	3	3	CULTIVATOR.....	4	4	OWN BUSINESS.....	5	5	SERVICE.....	6	6	OTHER.....	7	7
	Mother	Father																								
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CULTIVATOR.....	4	4																								
OWN BUSINESS.....	5	5																								
SERVICE.....	6	6																								
OTHER.....	7	7																								
Q H11	Religion	<table border="0"> <tbody> <tr> <td>HINDU.....</td><td>1</td></tr> <tr> <td>MUSLIM.....</td><td>2</td></tr> <tr> <td>CHRISTIAN.....</td><td>3</td></tr> <tr> <td>SIKH.....</td><td>4</td></tr> <tr> <td>JAIN.....</td><td>5</td></tr> <tr> <td>BUDDHIST.....</td><td>6</td></tr> <tr> <td>OTHER.....</td><td>7</td></tr> </tbody> </table> <p style="text-align: center;">(SPECIFY)</p>	HINDU.....	1	MUSLIM.....	2	CHRISTIAN.....	3	SIKH.....	4	JAIN.....	5	BUDDHIST.....	6	OTHER.....	7										
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CHRISTIAN.....	3																									
SIKH.....	4																									
JAIN.....	5																									
BUDDHIST.....	6																									
OTHER.....	7																									
Q H12	Caste	<table border="0"> <tbody> <tr> <td>SCHEDULED CASTE.....</td><td>1</td></tr> <tr> <td>SCHEDULED TRIBE.....</td><td>2</td></tr> <tr> <td>BACKWARD CLASS.....</td><td>3</td></tr> <tr> <td>OTHER.....</td><td>4</td></tr> </tbody> </table> <p style="text-align: center;">specify</p>	SCHEDULED CASTE.....	1	SCHEDULED TRIBE.....	2	BACKWARD CLASS.....	3	OTHER.....	4																
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# INDIAN COUNCIL OF MEDICAL RESEARCH, NEW DELHI

## CAUSES OF DEATH BY VERBAL AUTOPSY

ID NO.

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### Questionnaire for CHILD Death age 29 days to 5 years

State -----	<table border="1"><tr><td></td><td></td></tr></table>						
District -----	<table border="1"><tr><td></td><td></td></tr></table>						
Taluka/ Mandal/ Block -----	<table border="1"><tr><td></td><td></td><td></td><td></td></tr></table>						
Village/Town -----	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>						
Rural (1) / Urban (2)	<table border="1"><tr><td></td></tr></table>						
Cluster No. -----	<table border="1"><tr><td></td><td></td><td></td></tr></table>						
Name of the nearest PHC-----	<table border="1"><tr><td></td><td></td><td></td></tr></table>						
Name of the sub-centre-----							
Locality/Address of the HH -----							
House holds No. -----	<table border="1"><tr><td></td><td></td><td></td><td></td></tr></table>						
Name of the head of the household -----							
Name of the Mother and Father of the deceased -----							
Name of the Respondent -----							

Date of Interview	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>						
Result	<table border="1"><tr><td></td></tr></table>						
RESULT CODES: 1. COMPLETED; 2. RESPONDENT NOT AVAILABLE; 3. REFUSED; 4. PARTIALLY COMPLETED							
Name of the Investigator-----							

Cause of death assigned (ICD-10) -----	<table border="1"><tr><td></td><td></td><td></td><td></td></tr></table>						
Signature of the M.O -----							
Date	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>						

## 1. Background characteristics of child

Q. No.	Questions and filters	Coding categories	Skip to
Q 101	Age of mother in completed years	<div style="text-align: right;"> <input type="text"/> <input type="text"/> </div> REORD 88 IF DK	
Q 102	Sex of the child	MALE.....1 FEMALE.....2	
Q 103	Date of birth	<div style="text-align: center;"> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> </div> IF NOT AVAILABLE RECORD 88888	
Q 104	Date of death	<div style="text-align: center;"> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> </div> IF NOT AVAILABLE RECORD 88888	
Q 105	Place of death IF OTHER THAN HOME, SPECIFY _____	HOME ..... 1 NURSING HOME/MATERNITY -HOME/PVT .HOSPITAL/ NGO/Trust.....2 GOVT. (CHC, PHC,Hospital) ..... 3	
Q 106	Age at death in months	<div style="text-align: right;"> <input type="text"/> <input type="text"/> </div>	
Q 107	How many weeks of pregnancy were completed at the time of birth?	< 28 WEEKS..... 1 28-36 WEEKS..... 2 >=37 WEEKS..... 3 DK..... 8	• INTE RVIEW COM- PLETED
Q 108	At birth, what was the size of the child?	NORMAL..... 1 SMALL..... 2 LARGE..... 3 DK..... 8	

### UNPROMPTED HISTORY OF FINAL ILLNESS

How did the child die?

(WRITE AN ACCOUNT OF FINAL ILLNESS IN RESPONDENT'S OWN WORDS)

This image shows a blank sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

Symptom/Condition (In chronological order)

S. No.	Symptom /condition	Total duration
1		
2		
3		
4		
5		

## 2. Probing questions of signs & symptoms preceding death

Q. No.	Questions and filters	Coding categories	Skip to
Q 201	Accidents or injury	YES..... 1 NO.....2	• Module ‘A’, Q 301
Q 202	Fever	YES..... 1 NO.....2	• Module ‘B’, Q 401
Q 203	Rash over body	YES..... 1 NO.....2	• Module ‘C’, Q 501
Q 204	Not gaining weight/loss of weight/lean and thin	YES..... 1 NO.....2	• Module ‘D’, Q 601
Q 205	Respiratory problems	YES..... 1 NO.....2	• Module ‘E’, Q 701

Q 206	Loose motions	YES..... 1 NO.....2	• Module 'F', Q 801
Q 207	Convulsions/ drowsiness/ Unconsciousness	YES..... 1 NO.....2	• Module 'G', Q 901
Q 208	Yellow coloration of eyes/jaundice	YES..... 1 NO.....2	• Module 'H', Q 1001
Q 209	Paleness or white coloration of body	YES..... 1 NO.....2	• Module 'I', Q 1101
Q 210	Progressively enlarging head	YES..... 1 NO.....2	• Module 'J', Q 1201
Q 211	Swelling or mass in any part of the body	YES..... 1 NO.....2	• Module 'K', Q 1301

### 3. Module - 'A' (Accidents and injuries)

Q. No.	Questions and filters	Coding categories	Skip to
Q 301	What was the type of accident/injury?	VEHICULAR ACCIDENT..... 1 DROWNING..... 2 BURNS..... 3 FALL..... 4 WOUNDS..... 5 SNAKE BITE..... 6 POISONING..... 7 FOREIGN BODY INHALATION..... 9 OTHER..... 10 SPECIFY	<b>STOP HERE YOU HAVE FINISHED THE SCHEDULE</b>

**GO TO SECTION 2 AND PROCEED TO NEXT MODULE (IF ANY)**

### 4. Module - 'B' (Fever)

Q. No.	Questions and filters	Coding categories	Skip to
Q 401	What was the grade of fever?	LOW..... 1 MODERATE..... 2 HIGH..... 3 DK..... 8	
Q 402	What was the nature of fever?	CONTINUOUS..... 1 INTERMITTENT..... 2 IRREGULAR..... 3 RISES IN THE EVENING..... 4	
Q 403	Was the fever more in the evening?	YES..... 1 NO..... 2 DK..... 8	
Q 404	Was fever associated with chills and shivers?	YES..... 1 NO..... 2 DK..... 8	



Q 405	Was there reduced feeding due to refusal by the child?	YES..... 1 NO..... 2 DK..... 8	
Q 406	Was there bleeding from body openings like nose, mouth (including gums) etc. accompanied by fever?	YES..... 1 NO..... 2 DK..... 8	
Q 407	Was fever accompanied by any rash over the skin?	YES..... 1 NO..... 2 DK..... 8	
Q 408	Did the child have white/grey coating of the tongue?	YES..... 1 NO..... 2 DK..... 8	

**GO TO SECTION 2 AND PROCEED TO NEXT MODULE (IF ANY)**

**5. Module - 'C' (Rashes over body)**

Q. No.	Questions and filters	Coding categories	Skip to
Q 501	Did the child complete 6 or more months of age at the time of appearance of the rashes?	YES..... 1 NO..... 2 DK..... 8	
Q 502	Where did the rash appear first?	FACE..... 1 NECK..... 2 ABDOMEN/BELLY..... 3 OTHER..... 4 SPECIFY	
Q 503	How did the rash look like?	LAL DANA..... 1 VARYING SIZE BLEBS..... 2 OTHER..... 3 SPECIFY	
Q 504	How long did the rash last?	UP TO 3 DAYS..... 1 >3 DAYS..... 2 DK..... 8	
Q 505	Did the rash appear after onset of fever?	YES..... 1 NO..... 2 DK..... 8	
Q 506	Was rash accompanied by red eyes?	YES..... 1 NO..... 2 DK..... 8	
Q 507	Was rashes filled with water (like pox)?	YES..... 1 NO..... 2 DK..... 8	
Q 508	Were the rashes in different shapes and sizes present all over the body?	YES..... 1 NO..... 2 DK..... 8	

**GO TO SECTION 2 AND PROCEED TO NEXT MODULE (IF ANY)****6. Module - 'D' (Weight loss)**

<b>Q. No.</b>	<b>Questions and filters</b>	<b>Coding categories</b>	<b>Skip to</b>
Q 601	Was the child growing properly, especially in the last 4 months?	YES..... 1 NO..... 2 DK..... 8	
Q 602	Did the child develop swelling over both feet?	YES..... 1 NO..... 2 DK..... 8	
Q 603	For how long was the child breastfed?	< 6 MONTHS..... 1 ≥ 6 MONTHS..... 2 DK..... 8	
Q 604	When was the top milk introduced?	FIRST 3 MONTHS..... 1 3-6 MONTHS..... 2 DK..... 8	
Q 605	At what age was food or semi solids introduced? .	< 9 MONTHS..... 1 ≥ 9 MONTHS..... 2 DK..... 8	
Q 606	How was the child's food intake throughout the last one month before death?	NORMAL..... 1 POOR/LESS..... 2 DK..... 8	
Q 607	Did the child suffer from measles or whooping cough in 3 months before death?	YES..... 1 NO..... 2 DK..... 8	
Q 608	Was the child healthy or falling sick repeatedly during last 3 months?	HEALTHY..... 1 SICK..... 2 DK..... 8	
Q 609	Did the child have repeated episodes of diarrhoea?	YES..... 1 NO..... 2 DK..... 8	
Q 610	In the last 3 months, did any episode of diarrhoea last more than 2 weeks?	YES..... 1 NO..... 2 DK..... 8	
Q 611	Did the child show interest in playing?	YES..... 1 NO..... 2 DK..... 8	
Q 612	Was the child night-blind?	YES..... 1 NO..... 2 DK..... 8	

Q 613	Did the child rapidly lose vision due to corneal opacity in both eyes?	YES..... 1 NO..... 2 DK..... 8	
Q 614	Was the illness “Satavi/ Sukha Kuposhan” (local term for malnutrition)?	YES..... 1 NO..... 2 DK..... 8	

## GO TO SECTION 2 AND PROCEED TO NEXT MODULE (IF ANY)

### 7. Module - ‘E’ (Respiratory problem)

Q. No.	Questions and filters	Coding categories	Skip to
Q 701	Did the child have cough or breathlessness?	YES..... 1 NO..... 2 DK..... 8	• Q 703 • Q 703
Q 702	How long did the child have cough or breathlessness?	< 24 HOURS..... 1 24 HOURS -15 DAYS..... 2 >15 DAYS..... 3 DK..... 8	
Q 703	Did the child have fast breathing?	YES..... 1 NO..... 2 DK..... 8	• Q 705 • Q 705
Q 704	How long did the child have fast breathing?	-----	
Q 705	Was there chest in-drawing?	YES..... 1 NO..... 2 DK..... 8	
Q 706	Did the child have noisy breathing (grunt)?	YES..... 1 NO..... 2 DK..... 8	
Q 707	Did the child have long bouts of cough?	YES..... 1 NO..... 2 DK..... 8	• Q 709 • Q 709
Q 708	Did the child’s face turn red or blue at the time of bout of cough?	YES..... 1 NO..... 2 DK..... 8	
Q 709	Was there “Hoo” sound while breathing in at the end of bout of cough?	YES..... 1 NO..... 2 DK..... 8	
Q 710	Was the child unable to take food/milk due to repeated cough or vomiting?	YES..... 1 NO..... 2 DK..... 8	

Q 711	Did the child have “whooping cough”(kali khasi)?	YES..... 1 NO..... 2 DK..... 8	
Q 712	Did the child come in contact with some other child with whooping cough or was there an epidemic of whooping cough in the village?	YES..... 1 NO..... 2 DK..... 8	
Q 713	Were all three doses of DPT vaccine given?	YES..... 1 NO..... 2 DK..... 8	
Q 714	Did the child’s lips and body turn blue before death?	YES..... 1 NO..... 2 DK..... 8	<ul style="list-style-type: none"> <li>• go to sec.2</li> <li>• go to sec.2</li> </ul>
Q 715	How long before death? (Hours)	RECORD 88 IF DK <input type="text"/> <input type="text"/>	

**GO TO SECTION 2 AND PROCEED TO NEXT MODULE (IF ANY)****8. Module - ‘F’ (Loose motions)**

Q. No.	Questions and filters	Coding categories	Skip to
Q 801	How many times (maximum number in a day and night) did the child pass loose motions?	RECORD 88 IF DK <input type="text"/> <input type="text"/>	IF <3 GO TO SEC.2
Q 802	Was there blood or mucous in stools?	YES..... 1 NO..... 2 DK..... 8	
Q 803	For how many days the child had loose motions?	<15 DAYS..... 1 • 15 DAYS..... 2 DK..... 8	
Q 804	Were stools watery/liquid in consistency?	YES..... 1 NO..... 2 DK..... 8	
Q 805	Was the child vomiting?	YES..... 1 NO..... 2 DK..... 8	
Q 806	How was the child’s thirst?	THIRSTY..... 1 NOT THIRSTY..... 2 DK..... 8	
Q 807	Were the eyes sunken?	YES..... 1 NO..... 2 DK..... 8	

Q 808	How was the fontanelle?	DEPRESSED..... 1 NOT DEPRESSED..... 2 DK..... 8	
Q 809	How was urine volume?	NORMAL..... 1 LESS OR NIL..... 2 DK..... 8	
Q 810	What was the urine colour?	DEEP YELLOW/DARK..... 1 NORMAL..... 2 DK..... 8	
Q 811	Was the child given fluids /milk during diarrhoea?	YES..... 1 NO..... 2 DK..... 8	<ul style="list-style-type: none"> <li>• go to sec. 2</li> <li>• go to sec. 2</li> </ul>
Q 812	Was fluid given in plenty or restricted?	PLENTY..... 1 RESTRICTED OR NIL..... 2 DK..... 8	

**GO TO SECTION 2 AND PROCEED TO NEXT MODULE (IF ANY)**

### 9. Module - 'G' (Convulsions)

Q. No.	Questions and filters	Coding categories	Skip to
Q 901	Did the child pass urine at the time of convulsions?	YES..... 1 NO..... 2 DK..... 8	
Q 902	Did the convulsions involve whole body or only parts of the body?	WHOLE BODY..... 1 FEW PARTS OF THE BODY..... 2 DK..... 8	
Q 903	Did the child have loss of consciousness at the time of convulsions?	YES..... 1 NO..... 2 DK..... 8	<ul style="list-style-type: none"> <li>• Q 905</li> <li>• Q 905</li> </ul>
Q 904	Did the child regain consciousness within ½ an hour?	YES..... 1 NO..... 2 DK..... 8	
Q 905	Did the child have discharge from ear?	YES..... 1 NO..... 2 DK..... 8	
Q 906	Was child's neck stretched behind and stiff?	YES..... 1 NO..... 2 DK..... 8	
Q 907	Did the child have bouts of vomiting?	YES..... 1 NO..... 2 DK..... 8	

Q 908	Was the fontanel of the child bulging?	YES..... 1 NO..... 2 DK..... 8	
Q 909	Was the child able to open the mouth for feed?	YES..... 1 NO..... 2 DK..... 8	
Q 910	Did the child refuse feed?	YES..... 1 NO..... 2 DK..... 8	
Q 911	Did anybody in the family have tuberculosis of the chest?	YES..... 1 NO..... 2 DK..... 8	
Q 912	Did the child suffer from paralysis of any body parts?	YES..... 1 NO..... 2 DK..... 8	• Q 915 • Q 915
Q 913	Which part of the body was affected?	WHOLE BODY..... 1 FEW PARTS OF THE BODY..... 2 DK..... 8	
Q 914	Was the paralysis progressive in nature to involve major parts of the body?	YES..... 1 NO..... 2 DK..... 8	
Q 915	Did the child suffer from respiratory distress?	YES..... 1 NO..... 2 DK..... 8	
Q 916	Did the child receive injection at the time of fever?	YES..... 1 NO..... 2 DK..... 8	
Q 917	Did paralysis occur after injection?	YES..... 1 NO..... 2 DK..... 8	• Q 919 • Q 919
Q 918	Did the child recover from paralysis?	YES..... 1 NO..... 2 DK..... 8	
Q 919	Was the child suffering from “poliomyelitis”?	YES..... 1 NO..... 2 DK..... 8	
Q 920	Was there any history of dog bite?	YES..... 1 NO..... 2 DK..... 8	• Q NS • Q NS
Q 921	Did the child refuse to take water due to fear?	YES..... 1 NO..... 2 DK..... 8	

Q 922	Did the child receive injections for the dog bite?	YES..... 1 NO..... 2 DK..... 8	
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**GO TO SECTION 2 AND PROCEED TO NEXT MODULE (IF ANY)**

#### 10. Module - 'H' (Yellowness of eyes)

Q. No.	Questions and filters	Coding categories	Skip to
Q 1001	Did the child pass chalky white stools?	YES..... 1 NO..... 2 DK..... 8	
Q 1002	What was the colour of urine?	NORMAL..... 1 YELLOW..... 2 DARK YELLOW..... 3 DK..... 8	
Q 1003	Was there enlargement of liver?	YES..... 1 NO..... 2 DK..... 8	
Q 1004	Was it accompanied by distension of abdomen?	YES..... 1 NO..... 2 DK..... 8	
Q 1005	Was there an epidemic of "jaundice" at the time of illness?	YES..... 1 NO..... 2 DK..... 8	

**GO TO SECTION 2 AND PROCEED TO NEXT MODULE (IF ANY)**

#### 11. Module - 'I' (Paleness of body)

Q. No.	Questions and filters	Coding categories	Skip to
Q 1101	Was the child lethargic?	YES..... 1 NO..... 2 DK..... 8	
Q 1102	Was there enlargement of liver or swelling in upper right abdomen?	YES..... 1 NO..... 2 DK..... 8	
Q 1103	Was growth of the child retarded?	YES..... 1 NO..... 2 DK..... 8	
Q 1104	Did the child have bossing of head, prominent cheeks & puffy eyes?	YES..... 1 NO..... 2 DK..... 8	
Q 1105	Did the child receive frequent blood transfusion?	YES..... 1 NO..... 2 DK..... 8	

Q 1106	Did the child suffer from episodic pains all over the body especially in abdomen?	YES..... 1 NO..... 2 DK..... 8	
Q 1107	Was the child diagnosed to have thalassemia?	YES..... 1 NO..... 2 DK..... 8	
Q 1108	Was the diagnosis sickle cell disease?	YES..... 1 NO..... 2 DK..... 8	

**GO TO SECTION 2 AND PROCEED TO NEXT MODULE (IF ANY)**

**12. Module - 'J' (Enlarged head)**

Q. No.	Questions and filters	Coding categories	Skip to
Q 1201	Did the child have vomiting in mornings?	YES..... 1 NO..... 2 DK..... 8	
Q 1202	Did the child have involuntary regular eyeball movement from side to side or up and down?	YES..... 1 NO..... 2 DK..... 8	
Q 1203	Was the child irritable?	YES..... 1 NO..... 2 DK..... 8	
Q 1204	Was fluid removed from the spine?	YES..... 1 NO..... 2 DK..... 8	

**GO TO SECTION 2 AND PROCEED TO NEXT MODULE (IF ANY)**

**13. Module - 'K' (Swelling)**

Q. No.	Questions and filters	Coding categories	Skip to
Q 1301	Was the swelling noticed in the neck?	YES..... 1 NO..... 2 DK..... 8	<ul style="list-style-type: none"> <li>• Q 1305</li> <li>• Q 1305</li> </ul>
Q 1302	Was the swelling painful?	YES..... 1 NO..... 2 DK..... 8	
Q 1303	Was it accompanied by abdominal distension?	YES..... 1 NO..... 2 DK..... 8	
Q 1304	Was it accompanied by difficulty in breathing?	YES..... 1 NO..... 2 DK..... 8	
Q 1305	Did the child have mass or lump in the abdomen?	YES..... 1 NO..... 2 DK..... 8	



Q 1306	Did the child have night sweating?	YES..... 1 NO..... 2 DK..... 8	
Q 1307	Was swelling present on leg near knee joint?	YES..... 1 NO..... 2 DK..... 8	• Q 1310 • Q 1310
Q 1308	Was it painful?	YES..... 1 NO..... 2 DK..... 8	
Q 1309	Was it progressively increasing in size?	YES..... 1 NO..... 2 DK..... 8	
Q 1310	Was swelling present on one side of the face or on head?	YES..... 1 NO..... 2 DK..... 8	
Q 1311	Could the child take feeds?	YES..... 1 NO..... 2 DK..... 8	
Q 1312	Was progressive scrotal swelling present?	YES..... 1 NO..... 2 DK..... 8	
Q 1313	Was there protruding rounded mass from the vagina?	YES..... 1 NO..... 2 DK..... 8	
Q 1314	Did the child's urine contain blood?	YES..... 1 NO..... 2 DK..... 8	
Q 1315	Did the child have unilateral protruding eye?	YES..... 1 NO..... 2 DK..... 8	
Q 1316	Was the child suffering from cancer?	YES..... 1 NO..... 2 DK..... 8	• go to sec. 2 • go to sec. 2
Q 1317	What was the diagnosis?		

Q. No.	Questions and filters	Coding categories	Skip to
Q 1401	Person interviewed	MOTHER..... 1 FATHER..... 2 GUARDIAN..... 3 OTHER..... 4 SPECIFY	

Q 1402	Was the main respondent with the deceased (dead baby)?	YES..... 1 NO..... 2 DK..... 8	
Q 1403	Respondents' view of the cause of death		
Q 1404	Was the deceased shown in any hospital/clinic immediately before death?	YES..... 1 SPECIFY NO..... 2 DK..... 8	
Q 1405	Cause of death based on any hospital/physician records, if available		
Q 1406	Is the death registered?	YES..... 1 NO..... 2 DK..... 8	• End • End
Q 1407	Is the Death Certificate available?	YES..... 1 NO..... 2 DK..... 8	
Q 1408	What was the cause of death on the death certificate?		

### Socio-economic details of the households

Q. No.	Questions and filters	Coding categories
Q H1	House hold size	Total no. of persons in household <input type="text"/> <input type="text"/> Male no. <input type="text"/> <input type="text"/> Female no. <input type="text"/> <input type="text"/> No. of Adults ( { EMBED Equation.3 } 5 years ) Male no. <input type="text"/> <input type="text"/> Female no. <input type="text"/> <input type="text"/> No. of children ( <5 years ) Male no. <input type="text"/> <input type="text"/> Female no. <input type="text"/> <input type="text"/>
Q H2	Type of house (the one staying in)	KUTCHA..... 1 PUCCA..... 2 SEMI PUCCA..... 3
Q H3	Separate room as kitchen	YES..... 1 NO..... 2

Q H4	Source of drinking water	WELL..... 1 POND..... 2 HANDPUMP..... 3 TAPWATER..... 4  YES..... 1 NO..... 2																								
Q H5	Electricity connection	YES..... 1 NO..... 2																								
Q H6	Toilet facility available	OPEN FIELD..... 1 OWN FLUSH TOILET..... 2 PUBLIC FLUSH TOILET..... 3 OWN PIT TOILET..... 4 PUBLIC PIT TOILET..... 5 OTHER..... 6 (SPECIFY) YES..... 1 NO..... 2																								
Q H7	Drainage in front of the house	OPEN AND STAGNANT..... 1 OPEN AND RUNNING..... 2 CLOSED..... 3 NO DRAINAGE SYSTEM..... 4																								
Q H8	Type of fuel mainly used for cooking	WOOD..... 1 CROP RESSIDUES..... 2 DUNG CAKES..... 3 COAL/COKE/LIGNITE..... 4 CHAR COAL..... 5 KEROSENE..... 6 ELECTRICITY..... 7 LPG .....8 BIO GAS .....9 OTHERS .....10																								
Q H9	Education	<table border="0"> <thead> <tr> <th></th><th>Mother</th><th>Father</th></tr> </thead> <tbody> <tr> <td>ILLITERATE.....</td><td>1</td><td>1</td></tr> <tr> <td>PRIMARY.....</td><td>2</td><td>2</td></tr> <tr> <td>MIDDLE.....</td><td>3</td><td>3</td></tr> <tr> <td>SECONDARY/HIGHER SEC ...</td><td>4</td><td>4</td></tr> <tr> <td>COLLEGE.....</td><td>5</td><td>5</td></tr> </tbody> </table>		Mother	Father	ILLITERATE.....	1	1	PRIMARY.....	2	2	MIDDLE.....	3	3	SECONDARY/HIGHER SEC ...	4	4	COLLEGE.....	5	5						
	Mother	Father																								
ILLITERATE.....	1	1																								
PRIMARY.....	2	2																								
MIDDLE.....	3	3																								
SECONDARY/HIGHER SEC ...	4	4																								
COLLEGE.....	5	5																								
Q H10	Occupation (specify)	<table border="0"> <thead> <tr> <th></th><th>Mother</th><th>Father</th></tr> </thead> <tbody> <tr> <td>HOUSEWIFE/HOUSEHOLD WORK ..</td><td>1</td><td>1</td></tr> <tr> <td>UNSKILLED WORKER.....</td><td>2</td><td>2</td></tr> <tr> <td>SKILLED WORKER.....</td><td>3</td><td>3</td></tr> <tr> <td>CULTIVATOR.....</td><td>4</td><td>4</td></tr> <tr> <td>OWN BUSINESS.....</td><td>5</td><td>5</td></tr> <tr> <td>SERVICE.....</td><td>6</td><td>6</td></tr> <tr> <td>OTHER.....</td><td>7</td><td>7</td></tr> </tbody> </table> (SPECIFY)		Mother	Father	HOUSEWIFE/HOUSEHOLD WORK ..	1	1	UNSKILLED WORKER.....	2	2	SKILLED WORKER.....	3	3	CULTIVATOR.....	4	4	OWN BUSINESS.....	5	5	SERVICE.....	6	6	OTHER.....	7	7
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CULTIVATOR.....	4	4																								
OWN BUSINESS.....	5	5																								
SERVICE.....	6	6																								
OTHER.....	7	7																								
Q H11	Religion	HINDU..... 1 MUSLIM..... 2 CHRISTIAN..... 3 SIKH..... 4 JAIN..... 5 BUDDHIST..... 6 OTHER..... 7 specify																								

Q H12	Caste	SCHEDULED CASTE..... 1 SCHEDULED TRIBE..... 2 BACKWARD CLASS..... 3 OTHER..... 4
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**INSTITUTE FOR RESEARCH IN MEDICAL STATISTICS, ICMR  
NEW DELHI  
CAUSES OF DEATH BY VERBAL AUTOPSY**

ID NO. 

**Questionnaire for Death age >5 years**

State -----	<input type="text"/> <input type="text"/>
District -----	<input type="text"/> <input type="text"/>
Taluka/ Mandal/ Block-----	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Village/Town -----	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Rural (1) / Urban (2)	<input type="text"/>
Cluster No. -----	<input type="text"/> <input type="text"/> <input type="text"/>
Name of the nearest PHC -----	<input type="text"/> <input type="text"/> <input type="text"/>
Name of the sub-centre -----	
Locality/Address of the HH -----	
House holds No. -----	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Name of the head of the household -----	
Name of the Mother and Father of the deceased -----	
Name of the Respondent -----	

Date of Interview	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Result	<input type="text"/>
RESULT CODES: 1. COMPLETED; 2. RESPONDENT NOT AVAILABLE; 3. REFUSED; 4. PARTIALLY COMPLETED	
Name of the Investigator -----	

Cause of death assigned (ICD-10) -----	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Signature of the M.O -----	
Date	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

## 1. Background Characteristic of the deceased

Q. No.	Questions and filters	Coding categories
Q 101	Age of deceased in completed years	<div style="text-align: right;"> <input type="text"/> <input type="text"/> </div>
Q 102	Sex of the deceased	MALE..... 1 FEMALE..... 2
Q 103	Date of death	<div style="text-align: right;"> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> </div>
Q 104	Place of death	HOME..... 1 NURSING/MATERNITY HOME/ PVT.HOSPITAL..... 2 GOVT.HOSPITAL (CHC, CHC)..... 3 Other .....4

## UNPROMPTED HISTORY OF FINAL ILLNESS

How did the person die?

(WRITE AN ACCOUNT OF FINAL ILLNESS IN RESPONDENT'S OWN WORDS)

This image shows a blank sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

**Symptom/Condition (In chronological order)**

S. No.	Symptom /condition	Total duration
1		
2		
3		
4		
5		

**2. PROBING QUESTIONS OF SIGNS & SYMPTOMS PRECEDING DEATH**

Q. No.	Questions and filters	Coding categories	Skip to
Q 201	Accidents or injury	YES..... 1 NO..... 2	• Module 'A', Q 301
Q 202	Fever	YES..... 1 NO..... 2	• Module 'B', Q 401
Q 203	Loose motions (diarrhoea)	YES..... 1 NO..... 2	• Module 'C', Q 501
Q 204	Pain in the abdomen	YES..... 1 NO..... 2	• Module 'D', Q 601
Q 205	Cough	YES..... 1 NO..... 2	• Module 'E', Q 701
Q 206	Breathlessness	YES..... 1 NO..... 2	• Module 'F', Q 801
Q 207	Pain in the chest	YES..... 1 NO..... 2	• Module 'G', Q 901
Q 208	Fits	YES..... 1 NO..... 2	• Module 'H', Q 1001
Q 209	Loss of consciousness	YES..... 1 NO..... 2	• Module 'I', Q 1101
Q. No.	Questions and filters	Coding categories	Skip to
Q 210	Paralysis of any part of the body	YES..... 1 NO..... 2	• Module 'J', Q 1201
Q 211	Yellowness of eyes	YES..... 1 NO..... 2	• Module 'K', Q 1301

Q 212	Any urinary problem	YES..... 1 NO..... 2	• Module 'L', Q 1401
Q 213	Any difficulty in swallowing or opening the mouth	YES..... 1 NO..... 2	• Module 'M', Q 1501
Q 214	Swelling on the body	YES..... 1 NO..... 2	• Module 'N', Q 1601
Q 215	Fatigue	YES..... 1 NO..... 2	• Module 'O' Q 1701
Q 216	Look pale or white	YES..... 1 NO..... 2	• Module 'O', Q 1701
Q 217	Low backache	YES..... 1 NO..... 2	• Module 'P', Q 1801
Q 218	Joint pains	YES..... 1 NO..... 2	• Module 'Q', Q 1901
Q 219	Shaking limbs	YES..... 1 NO..... 2	• Module 'R', Q 2001
Q 220	Behavioral problems, anxiety, phobia or irritability/delirium	YES..... 1 NO..... 2	• Module 'S', Q 2101
Q 221	Ulcer (soreness) over genitals	YES..... 1 NO..... 2	• Module 'T', Q 2201
Q 222	Lump or mass in the mouth or on tongue or cheek	YES..... 1 NO..... 2	• Module 'U', Q 2301
Q 223	Frequent nasal stuffiness/ blockage	YES..... 1 NO..... 2	• Module 'V', Q 2401
Q 224	Ear discharge	YES..... 1 NO..... 2	• Module 'W', Q 2501
Q 225	Brown or red patches over skin	YES..... 1 NO..... 2	• Module 'X', Q 2601



Q 226	Did the person suffer from	YES	NO	DK	
	1. Vomiting	1	2	8	
	2. Vomiting with bloods	1	2	8	
	3. Headache or bodyache	1	2	8	
	4. High blood pressure	1	2	8	
	5. Alcohol Intake	1	2	8	
	6. Chain smoking	1	2	8	
	7. Get addicted to drugs/ substance	1	2	8	
	8. Exposure to heat/hot weather	1	2	8	
	9. Malena (passing of black, tarry stool)	1	2	8	
Q 227	Reaction to drugs (medicine)	YES..... 1 NO..... 2			
	IF YES				
	SPECIFY _____				
Q 228	Any operation	YES..... 1 NO..... 2			
	IF YES				
	SPECIFY _____				
Q 229	Blood test positive for	YES	NO	DK	
	1. Malaria	1	2	8	
	2. HIV	1	2	8	
	3. Hepatitis	1	2	8	
Q 230	Did the person have multiple sexual partners (IF AGE > 15)	YES..... 1 NO..... 2			
Q 231	Bleeding from body orifices/parts	YES	NO	DK	IF YES
	1. Anal opening	1	2	8	• Module 'Y', Q 2701
	2. Gums	1	2	8	
	3. Nose	1	2	8	
	4. Genital track (for female)	1	2	8	• Module 'AA', Q 2801
Q 232	Swelling/lump in the breast?	YES..... 1 NO..... 2			• Module 'BB', Q 2901
Q 233	Woman die during pregnancy/ labour or within 42 days after delivery or abortion	YES..... 1 NO..... 2			• SCHEDULE IV SECTION C Q1 ONWARDS SHOULD ALSO BE FILLED FOR ANY MATERNAL CAUSE IN ADDITION TO SCHEDULE V AND BUNDLE SCHEDULE IV AND SCHEDULE V TOGETHER

### 3. Module - 'A' (Accidents, injuries and Poisoning )

Q. No.	Questions and filters	Coding categories	Skip to
Q 301	What type of accident/ injury the person had?	<p>SCORPION/SNAKE BITE..... 1</p> <p>DOG/WILD ANIMAL BITE..... 2</p> <p>DROWNING..... 3</p> <p>FALL FROM A HEIGHT..... 4</p> <p>BURNS..... 5</p> <p>SUICIDE_____ 6</p> <p style="text-align: center;">SPECIFY</p> <p>HOMICIDE..... 7</p> <p>NATURAL CALAMITY_____ 9</p> <p style="text-align: center;">SPECIFY</p> <p>VEHICULAR ACCIDENTS _____ 10</p> <p style="text-align: center;">SPECIFY</p> <p>POISONING _____ 10</p> <p style="text-align: center;">SPECIFY</p> <p>OTHER_____ 11</p> <p style="text-align: center;">SPECIFY</p>	
Q 302	What was the interval (days) between the accident and death?	<div style="text-align: right;"> <div style="border: 1px solid black; display: inline-block; width: 40px; height: 30px; margin-right: 5px;"></div> <div style="border: 1px solid black; display: inline-block; width: 40px; height: 30px;"></div> </div> <p>RECORD 88 IF DK</p>	

**Go to section 2 and proceed to next module (if any)**

#### 4. Module - 'B' (Fever)

Q. No.	Questions and filters	Coding categories	Skip to
Q 401	What was the grade of fever?	LOW..... 1 HIGH..... 2 DK..... 8	
Q 402	What was the nature of fever?	CONTINUOUS..... 1 REMITTENT..... 2 INTERMITTENT..... 3 DK..... 4	
Q 403	Onset of the fever	ABRUPT..... 1 GRADUAL (INSIDIOUS)..... 2	
Q 404	Was the fever associated with chills & Shivers or Rigour?	YES..... 1 NO..... 2 DK..... 8	
Q 405	Was the fever more in the evening?	YES..... 1 NO..... 2 DK..... 8	

Q 406	Was the fever associated with <b>MOVING</b> (fleeting) joint pain and swelling followed by <b>progressive</b> breathlessness later on?	YES..... 1 NO..... 2 DK..... 8	
Q 407	Were there any eruptions on the skin?	YES..... 1 NO..... 2 DK..... 8	• Q 411 • Q 411
Q 408	On which day	SAME DAY..... 1 >4 DAYS..... 2 DK..... 8	• Q 409 • Q 410
Q 409	Did the eruptions progress from redness to vesicles and pustules on the same day with different stages/ forms seen more on the face, scalp and trunk?	YES..... 1 SPECIFY NO..... 2 DK..... 8	• Q 410 • Q 410
Q 410	Were they reddish in nature appearing on the body, a few days (4 days) after fever?	YES..... 1 NO..... 2 DK..... 8	
Q 411	Was there any reddish rash over the body?	YES..... 1 NO..... 2 DK..... 8	
Q 412	What was the duration of fever <u>before</u> death?	MONTHS.....1 DAYS.....2 HOURS.....3 RECORD 88 IF DK	
Q 413	Did the person have grey/white coating of the tongue?	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

### 5. Module – ‘C’ (Loose motion/Diarrhoea)

Q. No.	Questions and filters	Coding categories	Skip to
Q 501	How long did the person suffer from loose motions	MONTHS.....1 DAYS.....2 HOURS.....3	

Q 502	How many times on an <u>average</u> did the patient have loose motions in a day?	Skip to sec-2 stop <input type="text"/>	
Q 503	What was the consistency of stool?	WATERY..... 1 SEMI SOLID..... 2 DK..... 8	
Q 504	Did the stool contain	MUCUS..... 1 BLOOD..... 2 BOTH..... 3 DK..... 8	
Q 505	What was the color of stool?	YELLOW..... 1 GREEN..... 2 BLACK..... 3 WHITE..... 4 OTHER..... 5 SPECIFY	
Q 506	Did the person have any of the following features  1. Sunken eyes? 2. Diminished urine output? 3. Dried tongue?	YES NO DK  1 2 8 1 2 8 1 2 8	

**Go to section 2 and proceed to next module (if any)**

## 6. Module – ‘D’ (Abdominal pain)

Q. No.	Questions and filters	Coding categories	Skip to
Q 601	Was pain in the abdomen sudden or gradual in onset?	SUDDEN..... 1 GRADUAL..... 2 DK..... 8	
Q 602	Was pain localized or generalized?	LOCALIZED..... 1 GENERALIZED..... 2 DK..... 8	• Q 604 • Q 604
Q 603	What was the site of pain?	RIGHT UPPER QUADRANT..... 1 LEFT UPPER QUADRANT..... 2 RIGHT LOWER QUADRANT..... 3 LEFT LOWER QUADRANT..... 4	
Q 604	How was the pain related to food intake?	PAIN USUALLY STARTED AT NIGHT..... 1 PAIN WAS MORE ON EMPTY STOMACH AND RELIEVED AFTER FOOD INTAKE..... 2 NOT RELATED TO FOOD INTAKE..... 3 OTHERS..... 4 SPECIFY DK..... 8	

Q 605	Was there any muscle rigidity of the abdomen/ belly?	YES..... 1 NO..... 2 DK..... 8	
Q 606	Was there any distension of the abdomen /belly?	YES..... 1 NO..... 2 DK..... 8	
Q 607	Was the person taking any medication to relieve abdominal pain	YES..... 1 NO..... 2 DK..... 8	• Q 609 • Q 609
Q 608	Mention the medications taken		
Q 609	Was there any swelling in the lower parts of abdomen, which had become tense and painful?	YES..... 1 NO..... 2 DK..... 8	
Q 610	Did the person have food in any fair/marriage party or any gathering few days prior to the onset of pain in abdomen?	YES..... 1 NO..... 2 DK..... 8	• Go To Section 2 • Go To Section 2
Q 611	Specify the duration in <u>days</u>	<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div>	
Q 612	Did any other person who had food from the party also suffer from abdomen pain/loose motions?	YES..... 1 NO..... 2 DK..... 8	
Q 613	Did the person consumed mushroom shortly before the onset of the abdomen pain	YES..... 1 NO..... 2 DK..... 8	
Q 614	If Yes was the mushroom grown wildly	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

## 7. Module – ‘E’ (Cough)

Q. No.	Questions and filters	Coding categories	Skip to
Q 701	Since how long the person suffered from cough?	< 3 MONTHS..... 1 3-6 MONTHS..... 2 > 6 MONTHS..... 3 DK..... 8	
Q 702	Was it productive in nature?	YES..... 1 NO..... 2 DK..... 8	• Q 704 • Q 704

Q 703	What was the type of sputum/phlegm?	MUCOID..... 1 PURULENT..... 2 BLOOD STAINED..... 3 RUSTY..... 4 DK..... 8	
Q 704	Did the cough remain for at least 3 months in a year for 2 consecutive years?	YES..... 1 NO..... 2 DK..... 8	
Q 705	Was there any associated wheezing?	YES..... 1 NO..... 2 DK..... 8	• Q 708 • Q 708
Q 706	Was it seasonal?	YES..... 1 NO..... 2 DK..... 8	
Q 707	Was it associated with blue coloration of lips or tongue?	YES..... 1 NO..... 2 DK..... 8	
Q 708	Did it occur in bouts with inspiratory whoop?	YES..... 1 NO..... 2 DK..... 8	
Q 709	Did any of the family members suffer from cough with breathlessness or asthma?	YES..... 1 NO..... 2 DK..... 8	
Q 710	Was the cough associated with hoarseness of voice?	YES..... 1 NO..... 2 DK..... 8	
Q 711	Did the person bring up blood during coughing?	YES..... 1 NO..... 2 DK..... 8	
Q 712	Was he/she diagnosed as lung cancer?	YES..... 1 NO..... 2 DK..... 8	
Q 713	Was he/she diagnosed as T.B.(Tuberculosis)?	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

**8. Module – ‘F’ (Breathlessness)**

Q. No.	Questions and filters	Coding categories	Skip to
Q 801	How was breathlessness started?	SUDDEN..... 1 GRADUAL..... 2 DK..... 8	
Q 802	Was it more during winters?	YES..... 1 NO..... 2 DK..... 8	
Q 803	Was it more on exertion?	YES..... 1 NO..... 2 DK..... 8	
Q 804	Was it more during night?	YES..... 1 NO..... 2 DK..... 8	
Q 805	Was it more during change of seasons?	YES..... 1 NO..... 2 DK..... 8	
Q 806	Was it more on lying down on bed & relieved on sitting position?	YES..... 1 NO..... 2 DK..... 8	
Q 807	Did he/she adopt a sitting-squatting position to relieve breathlessness?	YES..... 1 NO..... 2 DK..... 8	
Q 808	Did the person complain of throbbing heartbeats before death?	YES..... 1 NO..... 2 DK..... 8	
Q 809	Did the deceased have bluish discoloration of lips or tongue during exertion or crying (if child 5-14 years)?	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

**9. Module – ‘G’ (Chest pain)**

Q. No.	Questions and filters	Coding categories	Skip to
Q 901	What was the nature of chest pain?	MILD..... 1 MODERATE..... 2 SEVERE..... 3 DK..... 8	

Q 902	When did the chest pain occur? 1. At rest 2. On walking 3. On climbing 4. After a meal 5. During/after physical exertion 6. During/after emotional stress/excitement 7. On smoking	Y  1 1 1 1 1 1 1	N  2 2 2 2 2 2 2	DK  8 8 8 8 8 8 8	
Q 903	Where was the pain felt by the deceased?	STERNUM (UPPER OR MIDDLE).... 1 LOWER STERNUM..... 2 LEFT ANTERIOR CHEST (Front).....3 LEFT ARM.....4 DK..... 8			
Q 904	Did the deceased feel it anywhere else?	YES .....1  NO.....2 DK..... 8			
Q 905	How was the pain described?	HEAVY FEELING..... 1 CRUSHING NATURE..... 2 GRIPPING NATURE.....3 OTHER_____4 SPECIFY DK..... 8			
Q 906	What was the duration of the pain?	< 10 MINUTES..... 1 10 – 30 MINUTES.....2 >30 MINUTES.....3 DK..... 8			
Q 907	Was the pain associated with sweating?	YES..... 1 NO..... 2 DK..... 8			
Q 908	Did the person look anxious or have anxiety during attack of chest pain?	YES..... 1 NO..... 2 DK..... 8			
Q 909	Was the person diagnosed to have heart attack or myocardial infarction?	YES..... 1 NO..... 2 DK..... 8			

**Go to section 2 and proceed to next module (if any)**

## 10. Module – ‘H’ (Fits)

Q. No.	Questions and filters	Coding categories	Skip to
Q 1001	Were fits sudden or gradual?	SUDDEN..... 1 GRADUAL..... 2 DK..... 8	<ul style="list-style-type: none"> <li>• Q 1103</li> <li>• Q 1103</li> </ul>



Q 1002	How long did it last?	< 24 HOURS..... 1 > 24 HOURS.....2 DK..... 8	
Q 1003	Was there any neck stiffness?	YES..... 1 NO..... 2 DK..... 8	
Q 1004	Did it start by getting into spasms of the whole body followed by fits?	YES..... 1 NO..... 2 DK..... 8	
Q 1005	Was there any lockjaw?	YES..... 1 NO..... 2 DK..... 8	
Q 1006	Were any of the following symptoms present?  1. Loss of sensations 2. Stupor (Unable to recognize/confused/drowsy) 3. Loss of memory 4. Tongue bite 5. Bed wetting	Y                      N                      DK  1                      2                      8 1                      2                      8 1                      2                      8 1                      2                      8 1                      2                      8	
Q 1007	Was there any history of dog bite or injury?	YES..... 1 NO..... 2 DK..... 8	→go to sec 2 →go to sec 2
Q 1008	Did the child/person refuse to take water due to fear?	YES..... 1 NO..... 2 DK..... 8	
Q 1009	Did the child/person receive injections for the dog bite?	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

### 11. Module – ‘I’ (Unconsciousness)

Q. No.	Questions and filters	Coding categories	Skip to
Q 1101	Did the person recover from unconsciousness?	YES..... 1 NO..... 2 DK..... 8	

Q 1102	Was it associated with any of the following symptoms?	Y	N	DK	
	1. Headache	1	2	8	
	2. Fever	1	2	8	
	3. Confusion	1	2	8	
	4. Dullness	1	2	8	
	5. Weakness	1	2	8	
Q 1103	Did the person suffer from heavy blood loss?	YES..... 1 NO..... 2 DK..... 8			
Q 1104	Was the person suffering from diabetes?	YES..... 1 NO..... 2 DK..... 8			

**Go to section 2 and proceed to next module (if any)**

## 12. Module – ‘J’ (Paralysis)

Q. No.	Questions and filters	Coding categories			Skip to
Q 1201	What was the nature of the onset of paralysis?	SUDDEN..... 1 GRADUAL..... 2 FLUCTUATING..... 3 DK..... 8			
Q 1202	Was it progressive?	YES..... 1 NO..... 2 DK..... 8			
Q 1203	Which body parts did it involve?	Y	N	DK	
	1. One side of face	1	2	8	
	2. One side of arms or hands	1	2	8	
	3. One side hand, arm and leg	1	2	8	
	4. Both side upper limbs (arms)	1	2	8	
	5. Both legs	1	2	8	
	6. Both upper and lower limbs (hands and legs)	1	2	8	
	7. One side face and other side of half body	1	2	8	
Q 1204	Did the person recover from paralysis & again suffer from it periodically (more than 2)?	YES..... 1 NO..... 2 DK..... 8			

Q 1205	Was it associated with any of the following symptoms?	Y	N	DK	
	1. Loss of memory	1	2	8	
	2. Loss of vision/ defective field of vision	1	2	8	
	3. Loss of urinary control	1	2	8	
	4. Altered sensorium	1	2	8	
	5. Altered speech	1	2	8	
	6. Loss of sensation of any part of the body	1	2	8	
	7. Sudden onset of headache	1	2	8	
Q 1206	Did the person suffer from one or more of the following symptoms off and on (periodically) with a gap of at least few days (usually one month)?	Y	N	DK	
	1. Tingling, numbness of limbs	1	2	8	
	2. Inability to maintain balance while standing?	1	2	8	
	3. Unilateral/bilateral vision loss?	1	2	8	

**Go to section 2 and proceed to next module (if any)**

### 13. Module – ‘K’ (Yellowness of eyes)

Q. No.	Questions and filters	Coding categories	Skip to
Q 1301	What was the nature of the onset of yellowness of eyes?	SUDDEN..... 1 GRADUAL..... 2 DK..... 8	
Q 1302	Was there any passage of pale /whitish clay coloured stools?	YES..... 1 NO..... 2 DK..... 8	
Q 1303	Was the colour of urine dark yellow?	YES..... 1 NO..... 2 DK..... 8	
Q 1304	Was there history of passing of tar or black colored stool?	YES..... 1 NO..... 2 DK..... 8	
Q 1305	Was there any mass or lump visible in the upper part of the belly?	YES..... 1 NO..... 2 DK..... 8	
Q 1306	Did the person complain of mass or lump in the upper part of the belly, below the region of ribs?	YES..... 1 NO..... 2 DK..... 8	• Q 1308 • Q 1308

Q 1307	Was it painful?	YES..... 1 NO..... 2 DK..... 8	
Q 1308	Did he/she inject habit-forming drugs intravenously?	YES..... 1 NO..... 2 DK..... 8	
Q 1309	Was he/she diagnosed as liver cancer?	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

#### 14. Module –‘L’ (Urinary problem)

Q. No.	Questions and filters	Coding categories	Skip to
Q 1401	Did the person pass blood in urine?	YES..... 1 NO..... 2 DK..... 8	
Q 1402	Was there any complaint of urinary retention?	YES..... 1 NO..... 2 DK..... 8	
Q 1403	Was there any increase in frequency of urination?	YES..... 1 NO..... 2 DK..... 8	
Q 1404	Did he/she feel urgency in passing urine?	YES..... 1 NO..... 2 DK..... 8	
Q 1405	Was there any decrease in the volume of urine?	YES..... 1 NO..... 2 DK..... 8	
Q 1406	Did the person have hiccups?	YES..... 1 NO..... 2 DK..... 8	
Q 1407	Did the person fail to pass urine at all for 24 hours before death?	YES..... 1 NO..... 2 DK..... 8	
Q 1408	Did the person have increased appetite?	YES..... 1 NO..... 2 DK..... 8	

Q 1409	Did person have weight loss, despite proper diet?	YES..... 1 NO..... 2 DK..... 8	
Q 1410	Did the person have giddiness quiet often or easy fatigability?	YES..... 1 NO..... 2 DK..... 8	
Q 1411	Did the person have excessive thirst?	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

### 15. Module –‘M’ (Difficulty in opening mouth/ swallowing)

Q. No.	Questions and filters	Coding categories	Skip to
Q 1501	Did the person suffer from injury or wound, a few days before having difficulty in opening the mouth?	YES..... 1 NO..... 2 DK..... 8	
Q 1502	Was he/she immunized against tetanus in last 10 years?	YES..... 1 NO..... 2 DK..... 8	
Q 1503	Did he/she have stiffness in the neck?	YES..... 1 NO..... 2 DK..... 8	
Q 1504	Did he/she suffer from stiffness of the back of the body?	YES..... 1 NO..... 2 DK..... 8	
IF THE DECEASED HAD DIFFCULTY IN SWALLLOWING PROCEED ELSE GOTO NEXT SECTION			
Q 1505	Was difficulty in swallowing initially for solids and later on for liquids?	YES..... 1 NO..... 2 DK..... 8	
Q 1506	Was it progressive in nature?	YES..... 1 NO..... 2 DK..... 8	
Q 1507	Was he/she diagnosed as oesophageal cancer?	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

**16. Module – ‘N’ (Swelling on the body)**

<b>Q. No.</b>	<b>Questions and filters</b>	<b>Coding categories</b>	<b>Skip to</b>
Q 1601	Was it localized or generalized?	LOCALIZED..... 1 GENERALIZED..... 2 DK..... 8	• Q 1610 • Q 1610
Q 1602	Did the person have ankle swelling?	YES..... 1 NO..... 2 DK..... 8	
Q 1603	Did the person have swelling of feet?	YES..... 1 NO..... 2 DK..... 8	
Q 1604	Did he/she have mass/lump in upper abdomen?	YES..... 1 NO..... 2 DK..... 8	
Q 1605	Did the person have puffiness of the face?	YES..... 1 NO..... 2 DK..... 8	• Q 1607 • Q 1607
Q 1606	Was the puffiness/swelling more in the morning?	YES..... 1 NO..... 2 DK..... 8	
Q 1607	Did the person have swelling on the side of neck?	YES..... 1 NO..... 2 DK..... 8	
Q 1618	Did the person have nodular swelling or enlarged gland in front of neck?	YES..... 1 NO..... 2 DK..... 8	• Q 1612 • Q 1612
Q 1609	Was it painful?	YES..... 1 NO..... 2 DK..... 8	• Q 1612 • Q 1612 • Q 1612
Q 1610	Did the swelling start progressing from feet to other parts of the body?	YES..... 1 NO..... 2 DK..... 8	
Q 1611	Did the swelling start with abdominal distension?	YES..... 1 NO..... 2 DK..... 8	
Q 1612	Was there a change in the voice of the deceased?	YES..... 1 NO..... 2 DK..... 8	

Q 1613	Did he/she have protruding eyeballs?	YES..... 1 NO..... 2 DK..... 8	
Q 1614	Was the person suffering from anxiousness or nervousness?	YES..... 1 NO..... 2 DK..... 8	
Q 1615	Was the person able to tolerate summer heat?	YES..... 1 NO..... 2 DK..... 8	
Q 1616	Was the person operated for removing the lump in front of neck?	YES..... 1 NO..... 2 DK..... 8	
Q 1617	Was the person diagnosed as having thyroid cancer?	YES..... 1 NO..... 2 DK..... 8	
Q 1618	If the deceased is female, did she have menstrual irregularities?	YES..... 1 NO..... 2 DK..... 8	
Q 1619	Was he/she taking repeated course of anti-ulcer drugs?	YES..... 1 NO..... 2 DK..... 8	
Q 1620	Was he/she diagnosed as stomach cancer?	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

#### **17. Module – ‘O’ (Fatigue/look pale or white)**

<b>Q. No.</b>	<b>Questions and filters</b>	<b>Coding categories</b>	<b>Skip to</b>
Q 1701	Was he/she having weight loss?	YES..... 1 NO..... 2 DK..... 8	
Q 1702	Did he/she have enlarged masses in the upper abdomen?	YES..... 1 NO..... 2 DK..... 8	
Q 1703	Was the deceased receiving frequent blood transfusions?	YES..... 1 NO..... 2 DK..... 8	

Q 1704	Did he/she suffer from episodic pain in abdomen/ chest or joints?	YES..... 1 NO..... 2 DK..... 8	
Q 1705	Was he/she diagnosed to have Thalassemia?	YES..... 1 NO..... 2 DK..... 8	
Q 1706	Was he/she diagnosed to have sickle cell disease?	YES..... 1 NO..... 2 DK..... 8	
Q 1707	Did the deceased have enlarged glands on the sides of neck or axilla or groins?	YES..... 1 NO..... 2 DK..... 8	
Q 1708	Was there any gum swelling?	YES..... 1 NO..... 2 DK..... 8	
Q 1709	Did he/she complain of drenching night sweats?	YES..... 1 NO..... 2 DK..... 8	
Q 1710	Did he/she suffer from itching all over the body?	YES..... 1 NO..... 2 DK..... 8	
Q 1711	Was he/she suffering from cancer?	YES..... 1 NO..... 2 DK..... 8	<ul style="list-style-type: none"> <li>• Go To Section 2</li> <li>• Go To Section 2</li> </ul>
Q 1712	What was the diagnosis?	.....	

**Go to section 2 and proceed to next module (if any)**

### **18. Module – ‘P’ (Low backache)**

<b>Q. No.</b>	<b>Questions and filters</b>	<b>Coding categories</b>	<b>Skip to</b>
Q 1801	Was it progressive in nature?	YES..... 1 NO..... 2 DK..... 8	
Q 1802	Was there limitation of movements in any direction of the back?	YES..... 1 NO..... 2 DK..... 8	



Q 1803	Did he/she complain of difficulty in expanding the chest?	YES..... 1 NO..... 2 DK..... 8	
Q 1804	Did the person have morning stiffness of the backbone?	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

**19. Module – ‘Q’ (Joint pain)**

Q. No.	Questions and filters	Coding categories	Skip to
Q 1901	Did he/she suffer from stiffness of the joints in the morning?	YES..... 1 NO..... 2 DK..... 8	
Q 1902	Did deformities in the form of swelling or bending present at the finger joints?	YES..... 1 NO..... 2 DK..... 8	
Q 1903	Was there limitation of movements in the affected joints?	YES..... 1 NO..... 2 DK..... 8	
Q 1904	Which joints were affected most?	ANKLE JOINT..... 1 KNEE JOINT..... 2 HIP JOINT..... 3 SHOULDER JOINT..... 4 ELBOW JOINT..... 5 WRIST..... 6 FINGER JOINT/TOE JOINT ..... 7	
Q 1905	Was joint pain fleeting in nature affecting one joint after another?	YES..... 1 NO..... 2 DK..... 8	
Q 1906	Did he/she have involuntary dancing movements of hands & fingers?	YES..... 1 NO..... 2 DK..... 8	
Q 1907	Did he/she have butterfly like reddish rash over the face?	YES..... 1 NO..... 2 DK..... 8	
Q 1908	Did he/she have loss of hair?	YES..... 1 NO..... 2 DK..... 8	

Q 1909	Did he/she complain of blurring of vision or temporary blindness?	YES..... 1 NO..... 2 DK..... 8	
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**Go to section 2 and proceed to next module (if any)**

## 20. Module – ‘R’ (Shaking of limbs)

Q. No.	Questions and filters	Coding categories	Skip to
Q 2001	Did the person have difficulty in initiating walk or stopping walk?	YES..... 1 NO..... 2 DK..... 8	
Q 2002	Did she/he walk in small shuffling steps?	YES..... 1 NO..... 2 DK..... 8	
Q 2003	Did the person have an expressionless/blank look on the face?	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

## 21. Module – ‘S’ (Behavioral problems)

Q. No.	Questions and filters	Coding categories	Skip to
Q 2101	Did the person keep himself/herself aloof from others?	YES..... 1 NO..... 2 DK..... 8	
Q 2102	Was he/she suffering from emotional breakdown for few days?	YES..... 1 NO..... 2 DK..... 8	
Q 2103	Did he/she stop working without any reason?	YES..... 1 NO..... 2 DK..... 8	
Q 2104	Did the deceased ever try to commit suicide?	YES..... 1 NO..... 2 DK..... 8	
Q 2105	Did he/she ever talk of taking other's life?	YES..... 1 NO..... 2 DK..... 8	
Q 2106	Did he/she stop talking to any other person?	YES..... 1 NO..... 2 DK..... 8	

Q 2107	Did he/she talk to himself/herself irrelevantly or excessively?	YES..... 1 NO..... 2 DK..... 8	
Q 2108	Did the person have sleep disturbances for a few weeks?	YES..... 1 NO..... 2 DK..... 8	
Q 2109	Did he/she have alternating episodes of severe depression and excitement or violent phases?	YES..... 1 NO..... 2 DK..... 8	
Q 2110	Did he/she stop taking interest in his/her dress and personal appearance?	YES..... 1 NO..... 2 DK..... 8	
Q 2111	Did the person suspect others of harming or planning to kill him or her?	YES..... 1 NO..... 2 DK..... 8	
Q 2112	Did he/she become violent or excited and attack others without any reason?	YES..... 1 NO..... 2 DK..... 8	
Q 2113	Did the person complain of seeing someone or hearing voices which other persons could not see or hear at the same time?	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

## **22. Module –‘T’ (Ulcer (soreness) over genitalia)**

<b>Q. No.</b>	<b>Questions and filters</b>	<b>Coding categories</b>	<b>Skip to</b>
Q 2201	Was the sore (ulcer) painful?	YES..... 1 NO..... 2 DK..... 8	
Q 2202	Was he/she diagnosed to have syphilis?	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

## **23. Module – ‘U’ (Mass/Lump in the mouth or cheek)**

<b>Q. No.</b>	<b>Questions and filters</b>	<b>Coding categories</b>	<b>Skip to</b>
Q 2301	Was non-healing sore (ulcer) present over the lump or swelling or mass?	YES..... 1 NO..... 2 DK..... 8	

Q 2302	Was there any bleeding on touching the lump or swelling or mass?	YES..... 1 NO..... 2 DK..... 8	
Q 2303	Did the person have restriction in opening the mouth?	YES..... 1 NO..... 2 DK..... 8	
Q 2304	Did he/she have white or red patches in the mouth before appearance of the lump or swelling?	YES..... 1 NO..... 2 DK..... 8	
Q 2305	Did he/she have any treatment?	YES..... 1 NO..... 2 DK..... 8	<ul style="list-style-type: none"> <li>• Go To Section 2</li> <li>• Go To Section 2</li> </ul>
Q 2306	What was the diagnosis?	_____	

**Go to section 2 and proceed to next module (if any)**

#### 24. Module – ‘V’ (Nasal stuffiness/blockage)

Q. No.	Questions and filters	Coding categories	Skip to
Q 2401	Did the person complain of earache, which could not be relieved by routine medications?	YES..... 1 NO..... 2 DK..... 8	
Q 2402	Was he/she having unilateral (one-sided) hearing impairment without any apparent reason?	YES..... 1 NO..... 2 DK..... 8	
Q 2403	Was he/she shown to a doctor?	YES..... 1 NO..... 2 DK..... 8	<ul style="list-style-type: none"> <li>• Go To Section 2</li> <li>• Go To Section 2</li> </ul>
Q 2404	What was the diagnosis?	_____	

**Go to section 2 and proceed to next module (if any)**

#### 25. Module – ‘W’ (Ear discharge)

Q. No.	Questions and filters	Coding categories	Skip to
Q 2501	Was ear discharge persisting for a few weeks?	YES..... 1 NO..... 2 DK..... 8	
Q 2502	Was ear discharge accompanied by hearing loss?	YES..... 1 NO..... 2 DK..... 8	

Q 2503	Did the person have pain behind ears?	YES..... 1 NO..... 2 DK..... 8	
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**Go to section 2 and proceed to next module (if any)**

**26. Module – ‘X’ (Brown/red patch over skin)**

Q. No.	Questions and filters	Coding categories	Skip to
Q 2601	Was the patch or spot having irregular margins with dark coloration?	YES..... 1 NO..... 2 DK..... 8	
Q 2602	Was persistent sore (ulcer) present over the lesion, which healed up intermittently?	YES..... 1 NO..... 2 DK..... 8	
Q 2603	Was varied discoloration present over the skin lesion or patch?	YES..... 1 NO..... 2 DK..... 8	
Q 2604	Was the affected area expanding over a period of time?	YES..... 1 NO..... 2 DK..... 8	
Q 2605	Was the skin area ever exposed to x-ray before development of the lesion?	YES..... 1 NO..... 2 DK..... 8	
Q 2606	Was it diagnosed as skin cancer?	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

**27. Module – ‘Y’ (Bleeding from anal opening)**

Q. No.	Questions and filters	Coding categories	Skip to
Q 2701	Did the person complain of mass or something coming out of anal orifice during defecation?	YES..... 1 NO..... 2 DK..... 8	
Q 2702	Did he/she have pain during defecation?	YES..... 1 NO..... 2 DK..... 8	
Q 2703	Did the person suffer from constipation?	YES..... 1 NO..... 2 DK..... 8	

Q 2704	Did he/she pass loose stools alternating with constipation?	YES..... 1 NO..... 2 DK..... 8	
Q 2705	Did he/she feel or have lump or mass in the lower part of abdomen?	YES..... 1 NO..... 2 DK..... 8	
Q 2706	Was he/she taken for treatment to any hospital or health centre?	YES..... 1 NO..... 2 DK..... 8	<ul style="list-style-type: none"> <li>• Go To Section 2</li> <li>• Go To Section 2</li> </ul>
Q 2707	What was the diagnosis?	_____	

**Go to section 2 and proceed to next module (if any)**

### FOR FEMALES ONLY

#### 28. Module –‘ AA’ (Bleeding from genital tract)

Q. No.	Questions and filters	Coding categories	Skip to
Q 2801	How much was bleeding from genital tract?	LESS..... 1 FRANK (MORE IN AMOUNT)..... 2 DK..... 8	
Q 2802	Was the bleeding postmenopausal?	YES..... 1 NO..... 2 DK..... 8	<ul style="list-style-type: none"> <li>• Go To Module BB</li> </ul>
Q 2803	Did the bleeding occur in between menstrual periods?	YES..... 1 NO..... 2 DK..... 8 NOT APPLICABLE..... 9	
Q 2804	Was there heavy loss of blood during menses?	YES..... 1 NO..... 2 DK..... 8 NOT APPLICABLE..... 9	
Q 2805	Was there any blood stained or purulent vaginal discharge?	YES..... 1 NO..... 2 DK..... 8	
Q 2806	Was there any post coital vaginal bleeding?	YES..... 1 NO..... 2 DK..... 8	
Q 2807	Was she suffering from or diagnosed as cancer of uterine cervix?	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

**29. Module – ‘BB’ (Lump in the breast)**

<b>Q. No.</b>	<b>Questions and filters</b>	<b>Coding categories</b>	<b>Skip to</b>
Q 2901	Was there progressive increase in size of swelling or lump in the breast?	YES..... 1 NO..... 2 DK..... 8	
Q 2902	Was there ulceration (breakage or ulcer) in skin over breast?	YES..... 1 NO..... 2 DK..... 8	
Q 2903	Was there foul smelling discharge from skin over breast?	YES..... 1 NO..... 2 DK..... 8	
Q 2904	Was it painful?	YES..... 1 NO..... 2 DK..... 8	
Q 2905	Was she married?	YES..... 1 NO..... 2 DK..... 8	→Q 2908 →Q 2908
Q 2906	Did she have children?	YES..... 1 NO..... 2 DK..... 8	→Q 2908 →Q 2908
Q 2907	Was the first child born after 30 years of her age?	YES..... 1 NO..... 2 DK..... 8	
Q 2908	Did the lesion appear after an injury?	YES..... 1 NO..... 2 DK..... 8	
Q 2909	Was she diagnosed to have breast cancer?	YES..... 1 NO..... 2 DK..... 8	

**Go to section 2 and proceed to next module (if any)**

<b>Q. No.</b>	<b>Questions and filters</b>	<b>Coding categories</b>	<b>Skip to</b>
Q 3001	Person interviewed	MOTHER..... 1 FATHER..... 2 HUSBAND..... 3 WIFE..... 4 SON..... 5 DAUGHTER..... 6 BROTHER..... 7 SISTER..... 8 OTHER..... 9 (SPECIFY)	

Q 3002	Was the main respondent with the deceased ?	YES..... 1 NO..... 2 DK..... 8	
Q 3003	Respondents' view of the cause of death		
Q 3004	Was the deceased shown in any hospital/clinic immediately before death?	YES..... 1 NO..... 2 DK..... 8	
Q 3005	Cause of death based on any hospital/physician records, if available		
Q 3006	Is the death registered?	YES..... 1 NO..... 2 DK..... 8	• End • End
Q 3007	Is the Death Certificate available?	YES..... 1 NO..... 2 DK..... 8	
Q 3008	What was the cause of death on the death certificate?		

### Socio-economic details of the households

Q. No.	Questions and filters	Coding categories
Q H1	House hold size	Total no. of persons in household <input type="text"/> <input type="text"/> Male no. <input type="text"/> <input type="text"/> Female no. <input type="text"/> <input type="text"/> No. of Adults ( { EMBED Equation.3 } 5 years ) Male no. <input type="text"/> <input type="text"/> Female no. <input type="text"/> <input type="text"/> No. of children ( <5 years ) Male no. <input type="text"/> <input type="text"/> Female no. <input type="text"/> <input type="text"/>
Q H2	Type of house (the one staying in)	KUTCHA..... 1 PUCCA..... 2 SEMI PUCCA..... 3
Q H3	Separate room as kitchen	YES..... 1 NO..... 2



Q H4	Source of drinking water	WELL..... 1 POND..... 2 HANDPUMP..... 3 TAPWATER..... 4  Inside House YES..... 1 NO..... 2
Q H5	Electricity connection	YES..... 1 NO..... 2
Q H6	Toilet facility available	OPEN FIELD..... 1 OWN FLUSH TOILET..... 2 PUBLIC FLUSH TOILET..... 3 OWN PIT TOILET ..... 4 PUBLIC PIT TOILET..... 5 OTHER ..... 6 (SPECIFY) YES..... 1 NO..... 2
Q H7	Drainage in front of the house	OPEN AND STAGNANT..... 1 OPEN AND RUNNING..... 2 CLOSED..... 3 NO DRAINAGE SYSTEM..... 4
Q H8	Type of fuel mainly used for cooking	WOOD..... 1 CROP RESSIDUES..... 2 DUNG CAKES..... 3 COAL/COKE/LIGNITE..... 4 CHAR COAL..... 5 KEROSENE..... 6 ELECTRICITY..... 7 LPG .....8 BIO GAS .....9 OTHERS .....10
Q H9	Education	Deceased ILLITERATE.....1 PRIMARY.....2 MIDDLE.....3 SECONDARY/HIGHER SEC ... 4 COLLEGE.....5
Q H10	Occupation (specify)	Deceased HOUSEWIFE/HOUSEHOLD WORK . . 1 UNSKILLED WORKER..... 2 SKILLED WORKER..... 3 CULTIVATOR..... 4 OWN BUSINESS..... 5 SERVICE..... 6 OTHER..... 7 (SPECIFY)

Q H11	Religion	HINDU..... 1 MUSLIM..... 2 CHRISTIAN..... 3 SIKH..... 4 JAIN..... 5 BUDDHIST..... 6 OTHER..... 7 specify
Q H12	Caste	SCHEDULED CASTE..... 1 SCHEDULED TRIBE..... 2 BACKWARD CLASS..... 3 OTHER..... 4

**INSTITUTE FOR RESEARCH IN MEDICAL STATISTICS, ICM R  
NEW DELHI**

**CAUSES OF DEATH BY VERBAL AUTOPSY**

ID NO.

**Questionnaire for MATERNAL DEATH**

State -----	<input type="text"/> <input type="text"/>
District-----	<input type="text"/> <input type="text"/>
Taluka/ Mandal/ Block -----	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Village/Town -----	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Rural (1) / Urban (2)	
Cluster No. -----	<input type="text"/>
Name of the nearest PHC-----	<input type="text"/> <input type="text"/> <input type="text"/>
Name of the sub-centre-----	
Locality/Address of the HH -----	
House holds No. -----	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Name of the head of the household -----	
Name of the Mother and Father of the deceased -----	
Name of the Respondent -----	

Date of Interview	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Result	<input type="text"/>
RESULT CODES: 1. COMPLETED; 2. RESPONDENT NOT AVAILABLE; 3. REFUSED; 4. PARTIALLY COMPLETED	
Name of the Investigator -----	

Cause of death assigned (ICD-10) -----	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Signature of the M.O -----	
Date	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

## 1. Background characteristic of woman

Q. No.	Questions and filters	Coding categories	Skip to
Q 101	Age (in completed years) of the woman at death)	<div style="border: 1px solid black; width: 100px; height: 30px; margin: 0 auto;"></div>	
Q 102	Antenatal Registration number	<div style="border: 1px solid black; width: 200px; height: 40px; margin: 0 auto;"></div> IF NOT AVAILA BLE RECORD 888888	
Q 103	Date of delivery/ abortion	<div style="border: 1px solid black; width: 200px; height: 40px; margin: 0 auto;"></div> IF NOT AVAILA BLE RECORD 888888	
Q 104	Who attended the delivery /abortion?	TRAINED DAI..... A UNTRAINED DAI .....B FHW / FHS/ ANM /LHV..... C NURSE..... D DOCTOR.....E OTHER _____ F <div style="text-align: center;">SPECIFY</div>	
Q 105	Date of death	<div style="border: 1px solid black; width: 200px; height: 40px; margin: 0 auto;"></div>	
Q 106	Place of death  IF OTHER THAN HOME, SPECIFY _____	HOME ..... 1 NURSING HOME/MATERNITY -HOME/PVT .HOSPITAL/ NGO/Trust.....2 GOVT. (CHC, PHC,Hospital) ..... 3	→ Q 115
Q 107	If death occurred at hospital then who accompanied the women to the hospital	Husband .....1 Husband & mother in law .....2 Others .....3	
Q 108	Did she face any problem at the time of admission in hospital?	YES..... 1 NO..... 2	
Q 109	If yes, then mention the reason?	Medical personnel not available .....1 No bed available .....2 Refused to gave Admission for high-risk of patient .....3.	
Q 110	Whether there was any delay to take to the hospital?	YES..... 1 NO..... 2	
Q 111	If yes, reason for delay?	Due to inadequate facility of transport .....1 Could not judge condition of the patient .....2 No responsible person present at home .....3 Any other reason .....4	

Q 112	Did she face any medical facilities failure at the time of delivery?	YES..... 1 NO..... 2	
Q 113	If yes, then mention ?	Blood transfusion .....1 Ultra sound Machine .....2 Non availability of Oxygen .....3 Non availability of specialist .....4	
Q 114	How many days the women stayed in the hospital before her death?	<div style="border: 1px solid black; width: 100px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 50px; height: 30px; display: inline-block;"></div>	
Q 115	Did any body advise that the women be taken to the hospital?	YES..... 1 NO..... 2 Don't know .....3	
Q 116	If yes,who?	Husband .....1 Mother in law .....2 Other .....3	
Q 117	If death occurred at home who attended at the delivery?	Untrained Dai .....1 Trained .....2 Relative .....3 Neighbor .....4 ANM .....5 LHV .....6 Pvt. Doctor .....7 Govt. Doctor .....8 Any other(Specify) .....9	

### UNPROMPTED HISTORY OF FINAL ILLNESS

How did the woman die?

(WRITE AN ACCOUNT OF FINAL ILLNESS IN RESPONDENT'S OWN WORDS)

[illegible]**Symptom/Condition (In chronological order)**

S. No.	Symptom /condition	Total duration
1		
2		
3		
4		
5		

## 2. Probing questions of signs & symptoms preceding death

Q. No.	Questions and filters	Coding categories	Skip to
Q 201	Stage of maternity when death occurred?	FIRST TRIMESTER..... 1 SECOND TRIMESTER..... 2 THIRD TRIMESTER..... 3	
Q 202	During pregnancy of less than 28 weeks?	YES..... 1 NO.....2	→ Q 301
Q 203	During pregnancy of 28 weeks or more and before labour	YES..... 1 NO.....2	→ Q 401
Q 204	During labour/child birth	YES..... 1 NO.....2	→ Q 501
Q 205	Within 42 days after the child birth or abortion	YES..... 1 NO.....2	→ Q 601

## 3. Pregnancy of less than 28 weeks

Q. No.	Questions and filters	Coding categories	Skip to
Q 301	Was any attempt made to terminate the pregnancy?	YES..... 1 NO.....2 DK..... 8	
Q 302	Did she have pain in abdomen?	YES..... 1 NO.....2 DK..... 8	
Q 303	Was there bleeding from vagina?	YES..... 1 NO.....2 DK..... 8	→ Q 308 → Q 308
Q 304	Were foetal parts passed with bleeding?	YES..... 1 NO.....2 DK..... 8	

Q 305	Was bleeding from vagina normal or excessive?	EXCESSIVE..... 1 NORMAL..... 2 DK..... 8	→ Q 308 → Q 308
Q 306	On which day after abortion bleeding became excessive?	<div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> RECORD 88 IF DK	
Q 307	For how long in hours did she bleed?	<div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> RECORD 88 IF DK	
Q 308	Did she have fever after abortion?	YES..... 1 NO..... 2 DK..... 8	→ Q 311 → Q 311
Q 309	How many days after abortion did she have fever?	<div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> RECORD 88 IF DK	
Q 310	What was the severity of fever?	MILD..... 1 MODERATE..... 2 HIGH..... 3	
Q 311	Did she have foul smelling discharge from vagina?	YES..... 1 NO..... 2 DK..... 8	→ Q 313 → Q 313
Q 312	How many days after abortion did she have foul smelling discharge from vagina?	<div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> RECORD 88 IF DK	
Q 313	Did she complain of persistent headache frequently?	YES..... 1 NO..... 2 DK..... 8	
Q 314	Did she have blurring of vision?	YES..... 1 NO..... 2 DK..... 8	
Q 315	Was blood pressure recorded?	YES..... 1 NO..... 2 DK..... 8	→ Q 317 → Q 317
Q 316	How much was the blood pressure?	NORMAL..... 1 LOW..... 2 HIGH..... 3 VERY HIGH..... 4 DK..... 8	
Q 317	Did she have fits?	YES..... 1 NO..... 2 DK..... 8	→ Q 401 → Q 401
Q 318	Did she ever have fits prior to this pregnancy?	YES..... 1 NO..... 2 DK..... 8	

**4. Pregnancy of 28 weeks or more & before labour**

Q. No.	Questions and filters	Coding categories	Skip to
Q 401	Did she complain of persistent headache frequently?	YES..... 1 NO..... 2 DK..... 8	
Q 402	Did she have blurring of vision?	YES..... 1 NO..... 2 DK..... 8	
Q 403	Was blood pressure recorded?	YES..... 1 NO..... 2 DK..... 8	→ Q 405 → Q 405
Q 404	How much was the blood pressure?	NORMAL..... 1 LOW..... 2 HIGH..... 3 VERYHIGH..... 4 DK..... 8	
Q 405	Did she have fits during pregnancy?	YES..... 1 NO..... 2 DK..... 8	
Q 406	Did she ever have fits prior to this pregnancy?	YES..... 1 NO..... 2 DK..... 8	
Q 407	Was there vaginal bleeding preceding death?	YES..... 1 NO..... 2 DK..... 8	→ Q 501 → Q 501
Q 408	In which month of pregnancy there was vaginal bleeding?	> ONE MONTH '00' <input type="text"/> <input type="text"/> RECORD 88 IF DK	
Q 409	How much was the bleeding?	SPOTTING ..... 1 EXCESSIVE..... 2 DK..... 8	



Q 410	Did she have abdominal pain with bleeding?	YES..... 1 NO..... 2 DK..... 8	
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### 5. During labour / childbirth

Q. No.	Questions and filters	Coding categories	Skip to
Q 501	Did she complain of persistent headache frequently?	YES..... 1 NO..... 2 DK..... 8	
Q 502	Did she have blurring of vision?	YES..... 1 NO..... 2 DK..... 8	
Q 503	Was blood pressure recorded?	YES..... 1 NO..... 2 DK..... 8	→ Q 505 → Q 505
Q 504	How much was the blood pressure?	NORMAL..... 1 LOW..... 2 HIGH..... 3 VERY HIGH..... 4 DK..... 8	
Q 505	Did she have fits?	YES..... 1 NO..... 2 DK..... 8	→ Q 507 → Q 507
Q 506	Did she ever have fits prior to this pregnancy?	YES..... 1 NO..... 2 DK..... 8	
Q 507	Did the woman have presentation other than head?	YES..... 1 NO..... 2 DK..... 8	→ Q 509 → Q 509
Q 508	What was the presentation?	CORD..... 1 SHOULDER..... 2 HAND/FOOT..... 3 OTHER..... 4 SPECIFY	

Q 509	Did the bag of water rupture before onset of labour pains?	YES..... 1 NO..... 2 DK..... 8	
Q 510	What was the period between onset of labour & delivery?	<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block; margin-right: 5px;"></div> RECORD IN HOURS	
Q 511	Did the baby get stuck during delivery?	YES..... 1 NO..... 2 DK..... 8	
Q 512	Was any manipulation done?	YES..... 1 NO..... 2 DK..... 8	→ Q 514 → Q 514
Q 513	What manipulation was done?	MANUAL..... 1 INSTRUMENTAL..... 2 OPERATION..... 3	
Q 514	Was bleeding from vagina normal or excessive during labour?	EXCESSIVE..... 1 NORMAL..... 2 DK..... 8	
Q 515	When did bleeding from vagina become excessive?	AFTER LABOUR PAIN HAD STARTED BUT BEFORE DELIVERY OF THE BABY..... 1 AFTER THE BABY WAS DELIVERED BUT BEFORE DELIVERY OF THE PLACENTA..... 2 AFTER DELIVERY OF PLACENTA..... 3 DK..... 8	
Q 516	Was placenta delivered within half an hour after childbirth?	YES..... 1 NO..... 2 DK..... 8	GO TO THE NEXT SECTION

## 6. Death within 42 days of childbirth or abortion

Q. No.	Questions and filters	Coding categories	Skip to
Q 601	Did she complain of persistent headache frequently?	YES..... 1 NO..... 2 DK..... 8	
Q 602	Did she have blurring of vision?	YES..... 1 NO..... 2 DK..... 8	

Q 603	Was blood pressure recorded?	YES..... 1 NO..... 2 DK..... 8	→ Q 605 → Q 605
Q 604	How much was the blood pressure?	NORMAL..... 1 LOW..... 2 HIGH..... 3 VERY HIGH..... 4 DK..... 8	
Q 605	Did she have fits?	YES..... 1 NO..... 2 DK..... 8	→ Q 607 → Q 607
Q 606	Did she ever have fits prior to this pregnancy?	YES..... 1 NO..... 2 DK..... 8	
Q 607	Was bleeding from womb normal or excessive after childbirth?	EXCESSIVE ..... 1 NORMAL..... 2 DK..... 8	→ Q 609 → Q 610
Q 608	On which <u>day</u> after delivery there was excessive bleeding?	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 30px; height: 20px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 30px; height: 20px; margin-right: 5px;"></div> </div> RECORD 88 IF DK	
Q 609	For how long in <u>hours</u> bleeding continued?	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 30px; height: 20px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 30px; height: 20px; margin-right: 5px;"></div> </div> RECORD 88 IF DK	
Q 610	Did she have fever?	YES..... 1 NO..... 2 DK..... 8	→ Q 612 → Q 612
Q 611	What was the severity of fever?	MILD..... 1 MODERATE..... 2 HIGH..... 3	
Q 612	Did she have foul smelling discharge from vagina?	YES..... 1 NO..... 2 DK..... 8	→ Q 614 → Q 614
Q 613	How many days after delivery had she foul smelling discharge?	YES..... 1 NO..... 2 DK..... 8	
Q 614	Did she have pain in legs (calves)?	YES..... 1 NO..... 2 DK..... 8	

Q 615	Did she have swelling in legs?	YES..... 1 NO.....2 DK..... 8	
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Q. No.	Questions and filters	Coding categories	Skip to
Q 701	Person interviewed	MOTHER..... 1 FATHER ..... 2 HUSBAND.....3 DAUGHTER.....4 SISTER.....5 BROTHER..... 6 OTHER ..... 7  SPECIFY	
Q 702	Was the main respondent with the deceased (dead baby)?	YES..... 1 NO.....2 DK..... 8	
Q 703	Respondents' view of the cause of death		
Q 704	Was the deceased shown in any hospital/clinic immediately before death?	YES.....1 SPECIFY NO.....2 DK.....8	
Q 705	Cause of death based on any hospital/physician records, if available.		
Q 706	Is the death registered?	YES..... 1 NO.....2 DK..... 8	
Q 707	Is the Death Certificate available?	YES..... 1 NO.....2 DK..... 8	
Q 708	What was the cause of death on the death certificate?		

**Socio-economic details of the households**

Q. No.	Questions and filters	Coding categories
Q H1	House hold size	Total no. of persons in household <input type="text"/> <input type="text"/> Male no. <input type="text"/> <input type="text"/> Female no. <input type="text"/> <input type="text"/> No. of Adults ( { EMBED Equation.3 } 5 years ) Male no. <input type="text"/> <input type="text"/> Female no. <input type="text"/> <input type="text"/> No. of children ( <5 years ) Male no. <input type="text"/> <input type="text"/> Female no. <input type="text"/> <input type="text"/>
Q H2	Type of house (the one staying in)	KUTCHA..... 1 PUCCA..... 2 SEMI PUCCA..... 3
Q H3	Separate room as kitchen	YES..... 1 NO..... 2
Q H4	Source of drinking water	WELL..... 1 POND..... 2 HANDPUMP..... 3 TAPWATER... .. 4
	Inside House	YES..... 1 NO..... 2
Q H5	Electricity connection	YES..... 1 NO..... 2
Q H6	Toilet facility available	OPEN FIELD..... 1 OWN FLUSH TOILET..... 2 PUBLIC FLUSH TOILET..... 3 OWN PIT TOILET ..... 4 PUBLIC PIT TOILET..... 5 OTHER ..... 6 (SPECIFY)
	Inside House	YES..... 1 NO..... 2
Q H7	Drainage in front of the house	OPEN AND STAGNANT..... 1 OPEN AND RUNNING..... 2 CLOSED..... 3 NO DRAINAGE SYSTEM..... 4

Q H8	Type of fuel mainly used for cooking	WOOD..... 1 CROP RESSIDUES..... 2 DUNG CAKES..... 3 COAL/COKE/LIGNITE.....4 CHAR COAL..... 5 KEROSENE..... 6 ELECTRICITY..... 7 LPG .....8 BIO GAS .....9 OTHERS .....10
Q H9	Education	Deceased ILLITERATE.....1 PRIMARY.....2 MIDDLE.....3 SECONDARY/HIGHER SEC ... 4 COLLEGE.....5
Q H10	Occupation (specify) ..... ..... .....	Deceased HOUSEWIFE/HOUSEHOLD WORK . . 1 UNSKILLED WORKER..... 2 SKILLED WORKER..... 3 CULTIVATOR..... 4 OWN BUSINESS..... 5 SERVICE..... 6 OTHER..... 7 (SPECIFY)
Q H11	Religion	HINDU..... 1 MUSLIM..... 2 CHRISTIAN..... 3 SIKH..... 4 JAIN..... 5 BUDDHIST..... 6 OTHER..... 7 specify
Q H12	Caste	SCHEDULED CASTE..... 1 SCHEDULED TRIBE..... 2 BACKWARD CLASS..... 3 OTHER..... 4



