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GOVERNMENT OF KERALA

**MEDICAL CERTIFICATION  
OF CAUSE OF DEATH  
1983**

DEPARTMENT OF ECONOMICS AND STATISTICS

FEBRUARY 1986





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MEDICAL CERTIFICATION OF CAUSE OF DEATH

1983

VITAL STATISTICS UNIT

DEPARTMENT OF ECONOMICS AND STATISTICS

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P R E F A C E

The scheme 'Medical Certification of Cause of Death' is in operation in the city corporations of Cochin and Calicut and in two major municipalities Quilon and Alleppey. The scheme envisages the collection of data relating to causes of death certified by the attending physician in the hospitals.

This report dealing with mortality by causes occurred in the state during the year 1983 was prepared by the Vital Statistics Unit of this Department.

Trivandrum,  
15-2-1986.

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## 1. Introduction

1.1. Mortality statistics form an integral part of the vital statistics system. They are one of the basic components used for the measurement of population growth. The data on cause of death serve many purposes and are indispensable for developing and maintaining a health security system.

The scheme 'Medical certification of cause of death' has been introduced in the state in 1969 at the instance of the Government of India, as part of the programmes for improvement of Vital Statistics. The data on causes of death medically certified in hospitals, though suffer from a number of deficiencies give an overall picture of mortality prevalent in the state.

This report deals with the statistical analysis of medically certified causes of deaths in Cochin Corporation, Calicut Corporation, Quilon Municipality and Alleppey Municipality during the year 1983.

### 1.2. Objectives:-

The broad objectives of the scheme are to -

- (i) obtain reliable information on the underlying causes of death.
- (ii) pin-point the leading causes of death for males and females.
- (iii) identify individual causes of death in certain special groups like infants, mothers and aged persons.
- (iv) study the mortality pattern of certain important diseases like tuberculosis, cancer etc.
- (v) enable public health and medical authorities to undertake specific investigation's and studies into the mortality pattern of diseases for the evaluation and planning of health activities.

### 1.3. Methodology:-

The scheme envisages the collection of relevant data relating to all deaths in the medical institutions within the concerned municipal/corporation area having facilities for inpatient treatment. The attending physician is required to furnish the data on cause of death in the prescribed form. The cause of death certificates received from the medical institution's are

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scrutinised and the cause of death are identified and coded by the deputy health officer appointed for the purpose. For the purpose of coding the cause of death, the list 'A' of the International classification of diseases (1975 Revision Vol. I) is followed.

1.4. Causes of death:

Cause of death is defined as the morbed condition or disease process abnormality, injury or poisoning leading directly or indirectly to death. Every death has multiple causes and death occurs only as a result of a chain of causes.

In this report only the causes of death which account for atleast 3 percent of deaths in any one or more of the four centres mentioned earlier are analysed in detail. The causes of death which are insignificant are grouped under 'others'. The following are considered as the prominent causes of death.

- (i) Intestinal infectious disease - Code I (001-009)
- (ii) Tuberculosis - I (010-018)
- (iii) Other bacterial diseases - I (020-041)
- (iv) viral diseases - I (045-079)
- (v) Neoplasms - II (140-239)
- (vi) Diseases of the nervous system and sense organs - VI (320-389)
- (vii) Heart diseases - VII (390-429)
- (viii) Cerebrovascular disease - VII (430-438)
- (ix) Diseases of the respiratory system - VIII (460-519)
- (x) Diseases of the digestive system - IX (520-579)
- (xi) Certain conditions originating in the perinatal period - XV (760-779)
- (xii) Signs, symptoms and ill defined conditions - XVI (780-799)
- (xiii) Accidents, injuries & poisoning - XVII (800-999)

1.5. Limitations:

The data covers only institutional deaths which constitute only a portion of the total deaths in the cities. So the indications on cause of death given in the report cannot be taken as exhaustive evidence.



- 1.6. In totality of the four centres under study, the most dreadful cause of death during the year was heart diseases. For the age group 15-44 and 45 and above, heart diseases predominated. The incidence of neoplasm was very high in the middle age groups. The victims of cerebrovascular disease were seen mostly in the age group above 45. The position in respect of the different corporations and municipalities are discussed hereunder.

## 2. Cochin Corporation

- 2.1. The Cochin Corporation was formed in 1967. According to 1981 Census, the population of Cochin Corporation was 5.13 lakhs with an area of 95 Sq.km, the density being 5409 per sq.km. In the year 1983, a total of 2431 medical notification forms regarding deaths were received for analysis from the Corporation.

### 2.2. Sex-wise distribution of the leading causes of death

The percentage of male and female mortality cases reported during the year are 64.21 (1561) and 35.79 (870) respectively.

### 2.3. Causes of death

The distribution of deaths due to leading causes are given below:

#### (i) Intestinal infectious disease

Deaths due to intestinal infectious disease was 2.88 percent. Male and female deaths come to 2.75 percent and 3.10 percent respectively.

#### (ii) Tuberculosis

Tuberculosis accounts for 4.81 percent of deaths. Male deaths outnumber female, the percentages of death being 5.64 and 3.33 respectively.

#### (iii) Other bacterial diseases:

3.33 percent of deaths reported are due to this set of diseases. The percentage of female deaths (4.71) is higher than that of males (2.56)

#### (iv) Neoplasm

Deaths due to neoplasm form 8.10 percent of deaths reported during the year. 8.84 percent of male deaths and 6.78 percent of female deaths are due to the disease.

#### (v) Heart disease

29.95 percent of the total deaths are due to this disease. This is the major cause of death reported during the year. Male victims (33.12 percent) are found to be much more than females (24.25 percent)



(vi) Cerebrovascular disease:

12.75 percent of the total deaths are due to cerebrovascular disease. 12.36 percent of male deaths and 13.45 percent of female deaths are due to this disease.

(vii) Diseases of the respiratory system

This disease accounts for 7.49 percent of the total deaths. Percentage of female death is higher than that of male deaths (8.51 percent and 6.92 percent respectively)

(viii) Conditions originating in the perinatal period:

Perinatal mortality includes still births and first week deaths. 5.97 percent of deaths are due to perinatal causes alone. Female deaths (9.08 percent) are more than male deaths (4.23 percent)

(ix) Accidents, injuries & poisoning

6.29 percent of deaths have occurred due to accidents, injuries & poisoning during the year under report. Male deaths outnumber female deaths, the percentage of deaths being 6.66 and 5.63 respectively.

2.4. Deaths according to age:

The leading causes of death which take their toll from the different segments of the age scale vary considerably. Age-wise analysis of mortality will help the identification of age affinity of diseases. The analysis is attempted in four age groups namely - infants (below 1 year), 1-14 years, 15-44 years and 45 years and above.

(i) Infant deaths

Infant deaths accounted for 13.49 percent of total deaths reported during the year 1983. The first major cause of infant death is perinatal causes. 44.21 percent of deaths are due to it. Next to this stands diseases of the respiratory system with 19.21 percent deaths to its credit. Heart diseases and other bacterial diseases are also notable.

(ii) 1-14 years

8.76 percent of deaths come under this age group. Heart diseases (14.08 percent), diseases of the respiratory system (12.68 percent), intestinal infectious disease (11.74 percent) and diseases of the nervous system and sense organs are the important causes of death under this age group.

(iii) 15-44 years

This age group accounts for 20.12 percent of total deaths reported during the year. Heart disease is the most significant cause of death in this age group. The percentage of death due to heart diseases comes to 23.31 percent. Accidents, injuries and poisoning and cerebrovascular diseases are other major causes of death in this age group.



(iv) 45 years and above

Deaths in this age group constitute 57.63 percent of total deaths. Heart diseases alone are responsible for 39.83 percent of deaths in this age group. Other significant causes of death in this age group are cerebrovascular disease and neoplasm.

2.5. Details on sex-wise and age-wise deaths are given in table 1.1 and 1.2 of the appendix.

2.6. Summary:

- (i) Heart disease is the major cause of death both among males and females during the year 1983.
- (ii) Cerebrovascular disease stand second among the leading causes of death of men and women.
- (iii) Diseases of the respiratory system, cerebrovascular disease, perinatal causes, other bacterial diseases, intestinal infectious disease and diseases of the nervous system and sense organs affected females more than males.
- (iv) Infants accounted for 13.49 percent of total deaths. Out of this, 44.21 percent are due to perinatal causes alone. Morbid horror from these diseases are comparatively higher among female infants.
- (v) In the age group 15-44 & upwards heart disease predominates.

3. Calicut Corporation

As per 1981 Census, the area of the Corporation is 83 Sq.km with a population of 3.94 lakhs. Density of population is 4771 persons per Sq.km. during 1981. Causes of death pertaining to 4945 deaths received from the medical institutions in the city are analysed in this report.

3.2. Sex-wise distribution of leading causes of death:

Out of the 4945 deaths reported from the hospitals 3179 (64.29 percent) are to males and 1766 (35.71 percent) to female.

3.3. The distribution of deaths due to leading causes are given below

(i) Intestinal infectious disease

This disease accounts for 7.60 percent of deaths reported during the year. Percentage of death due to this disease is higher among, females than males. They are 9.23 percent and 6.70 percent respectively.

(ii) Tuberculosis

Deaths due to tuberculosis constituted 5.32 percent of the total deaths. Male deaths are higher than female deaths. The percentage being 5.98 and 4.14 respectively.



(iii) Other bacterial diseases

This disease is responsible for 6.09 percent of total deaths. Female deaths due to the disease are found to be more than male deaths (7.42 percent and 6.29 percent respectively).

(iv) Neoplasm

Deaths due to neoplasm accounted for 9.73 percent of the total deaths. Male and female deaths come to 10.63 percent and 8.27 percent respectively.

(v) Heart disease

This is the most outstanding cause of death reported from the hospitals. It claims 14.53 percent of total deaths. Male victims of heart disease outnumber female victims. The percentage of male death is 16.67. The corresponding figure for females is 10.81.

(vi) Cerebrovascular disease

This is responsible for 7.14 percent of the total deaths. 6.76 percent of male deaths and 7.81 percent female deaths are due to this disease.

(vii) Diseases of the respiratory system

6.96 percent of deaths are reported to have occurred due to diseases of the respiratory system. Female deaths due to this disease outnumber male deaths (8.21 percent to 6.26 percent respectively)

(viii) Conditions originating in the perinatal period

10.29 percent of deaths are due to perinatal causes. Female deaths are more than male deaths (12.63 percent and 9.00 percent respectively)

(ix) Accidents, Injuries & Poisoning

8.19 percent of deaths reported during the year are due to accidents, injuries & poisoning. The incidence of accidents heavy on males.

3.4. Deaths according to age:(i) Infant death

Infant deaths constitute 20.48% of reported deaths. Perinatal cause tops the list of leading causes of death of infants (47.93 percent). This is followed by other bacterial disease (14.81 percent) and diseases of the respiratory system claiming 10.76 percent of deaths.

(ii) 1-14 years

This age group claims 16.54 percent of deaths. The main cause of death reported is intestinal infections disease (23.84 percent) followed by viral diseases claiming 18.21 percent of deaths. Other bacterial diseases, accidents and injuries and diseases of the respiratory system are also noted as significant causes of death in this age group.



(iii) 15-44 years

Death under this age-group forms 22.33 percent of reported deaths. The main cause of death reported is accidents followed by heart diseases claiming 18.21 percent of deaths. Neoplasms, Tuberculosis and diseases of the digestive system are also outstanding causes of death in this age group.

(iv) 45 years and above

This age group takes 40.65 percent of deaths as its share. Heart diseases alone claims 24.16 percent of deaths. Neoplasms and cerebrovascular disease causing 14.82 percent and 14.83 percent of deaths respectively are other prominent causes of death in this age group.

3.5. The details of sex-wise and age-wise deaths are given in Table 2.1 and 2.2 of the appendix.

3.6. Summary

- (i) Heart diseases group is the most outstanding cause of death reported from Calicut Corporation 14.58 percent of the reported deaths in the area is found to be due to this disease. Male victims of this disease are more than females.
- (ii) Mortality due to intestinal infectious disease, other bacterial diseases, cerebrovascular disease perinatal causes etc. can be seen more among females.
- (iii) More than 45 percent of the infant deaths are due to perinatal cause.
- (iv) Intestinal infections disease occupied the number one position in the age group 1-14.
- (v) In the age group 15-44 and 45 and above, heart disease predominate as the number one disease.

4. Quilon Municipality

As per 1981 Census, population of Quilon Municipality is 1.38 lakhs with an area of 18 sq.km. The density of population of the town is 7464 per Sq.Km. The literacy rate is 76.03 percent. Causes of death regarding 1611 deaths are analysed in this report.

4.2. Sex-wise distribution of the leading causes of death

Of the 1611 cases reported 990 (61.45 percent) are to males and 621 (38.55 percent) to females.



given below:

(i) Intestinal infectious disease

This group of diseases accounts for 4.59 percent of deaths during the year. It is seen that 4.75 percent of male deaths and 4.35 percent female deaths were due to this disease.

(ii) Tuberculosis

Tuberculosis claims 3.72 percent of the total deaths. The percentage of male deaths due to this disease is higher than that of females (4.24 percent and 2.90 percent respectively).

(iii) Neoplasms

Deaths due to neoplasm form 2.54 percent of deaths. Percentage of male and female deaths due to the cause come to 3.13 and 1.61 respectively.

(iv) Heart diseases

As in the case of other cities, this is the important cause of death in Quilon too. 18.62 percent of deaths are due to heart diseases. Male deaths outnumber female deaths; the percentages being 21.01 and 14.82 respectively.

(v) Cerebrovascular disease

9.00 percent of total deaths are found to be due to cerebrovascular disease. 9.66 percent of female deaths are due to this disease, where as the corresponding figure for males comes to 8.59 percent.

(vi) Diseases of the respiratory system

This set of diseases accounts for 8.32 percent of total deaths reported during the year. 8.18 percent male deaths and 8.54 percent female deaths are seen to have occurred due to this disease.

(vii) Perinatal causes

The percentage of death due to this group of diseases comes to 4.47 percent during the year. Percentage of female deaths (6.28) is higher than that of male deaths (3.33).

Accidents, injuries and poisoning

Deaths due to this cause form 4.72 percent of the total reported deaths. Female victims are found to be more than male victims during the year (5.15 percent and 4.44 percent respectively).

4.4. Deaths according to age groups:

(i) Infant death

Infant death accounted for 15.89 percent of the total deaths. The main cause of infant mortality is

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perinatal causes. 28.13 percent of deaths were due to this cause. The second major cause of death in this age group is diseases of the respiratory system which claim 19.53 percent of deaths.

(ii) 1-14 years

14.15 percent of deaths reported from the medical institutions in the town are in this age group. Intestinal infectious diseases claiming 16.23 percent of deaths stands as the major cause of death in this age group followed by diseases of the respiratory system accounting for 13.16 percent of deaths.

(iii) 15-44 years

Deaths in this age group constitute 17.20 percent of total deaths during the year. The major cause of death is heart disease which claims 15.88 percent of deaths in this age group. Next comes accidents and injuries accounting for 13.36 percent of deaths. Deaths due to cerebrovascular disease and diseases of the respiratory system are also to be noted.

(iv) 45 years and above

More than 50 percent of the total deaths reported were under this age group. In Quilon Municipality also heart disease was the major cause of death. This disease group alone is responsible for 26.82 percent of deaths in this age group. Other significant cause of death in this age group is cerebrovascular disease.

4.5. The age-wise and sex-wise distribution of deaths are given in tables 3.1 and 3.2 of the appendix.

4.6. Summary

- (i) The first major cause of death reported from the city hospitals is heart disease. This is so among both the sexes.
- (ii) Mortality due to cerebrovascular disease and diseases of the respiratory system is found to be more among females.
- (iii) Infant deaths constitute 15.89 percent of total deaths. Out of this 28.13 percent are due to perinatal causes.
- (iv) The percentage of death due to intestinal infectious disease is the highest in the age group 1-14.
- (v) In the age group 15-44 and 45 years and above heart disease predominate as the important disease.



## 5. Alleppey Municipality

As per 1981 Census, population of Alleppey Municipality is 1.70 lakhs with an area of 47 Sq.km. The density of population of the city is 3634 persons per Sq.km. In the year 1983 a total of 1356 forms were received from Alleppey Municipality.

### 5.2. Sex-wise distribution of the leading causes of death

Out of the 1356 cases reported 878 (64.75 percent) are male cases and the remaining 478 (35.25 percent) are female cases.

Distribution of deaths due to leading causes is discussed hereunder:

#### (i) Intestinal infectious disease

This disease claims 4.42 percent of total deaths during the year. Percentage of female deaths is slightly higher than that of male deaths, (5.86 percent and 3.64 percent respectively)

#### (ii) Tuberculosis

Deaths due to tuberculosis form 6.42 percent of deaths. Male deaths outnumber female deaths; the percentages being 7.52 and 4.39 respectively.

#### (iii) Neoplasms

Neoplasm constituted 8.04 percent of the deaths reported from the hospitals in the town. Male and female deaths occurred due to this set of diseases are 7.52 percent and 9.00 percent respectively.

#### (iv) Heart diseases

This is the main cause of death reported during the year. Heart diseases alone claims 32.82 percent of total deaths. Percentage of male deaths due to this disease is higher than that of the females. (36.56 percent against 25.94 percent)

#### (v) Diseases of the respiratory system

7.30 percent of deaths are due to diseases of the respiratory system during the year 1983. About 5.92 percent of male deaths and 9.83 percent of female deaths are found to be due to the disease.

#### (vi) Perinatal causes

The percentage of death due to this set of diseases comes to 7.08. Female victims are found to be more than male victims during the year (9.00 percent against 6.04 percent)

#### (vii) Accidents, injuries and poisoning

Accidents and injuries were responsible for 7.97 percent of deaths during the year. The percentage of male deaths (9.23) is higher than that of female deaths (5.65)



5.4. Deaths according to age distribution

(i) Infant deaths

This age group encounters 15.19 percent of total deaths. The first major cause of death is perinatal causes. 44.66 percent of deaths are due to this disease. Deaths due to diseases of the respiratory system and heart diseases are also notable.

(ii) 1-14 years

This age group claims 12.54 percent of the total deaths. Diseases of the respiratory system and intestinal infectious disease are the major causes of death under this age group. Viral diseases and heart diseases are other notable causes of death under this age group.

(iii) 15-44 years

Deaths in this age group constitute 19.76 percent of the total deaths. Heart disease was the major cause of death in this age group in Alleppey Municipality also (29.85 percent). Neoplasm and tuberculosis also require to be noted as leading causes of death.

(iv) 45 years and above

This age group accounts for 52.51 percent of deaths reported during the year. As in the case of the previous age group, heart diseases is the major cause of death. About 46.49 percent of deaths in the age group go to the credit of this group of diseases alone. Neoplasm and tuberculosis are other leading causes of death in the age group.

5.5. The age-wise and sex-wise distribution of deaths are given in tables 4.1 and 4.2 of the appendix.

5.6. Summary

- (i) The major cause of death reported from the city hospitals is heart disease.
- (ii) Heart diseases, tuberculosis and accidents and injuries are higher among males, while neoplasm disease of the respiratory system and perinatal causes are higher among females.
- (iii) Infant deaths constitute 15.19 percent of total deaths. Out of this 44.66 percent deaths are due to perinatal causes.
- (iv) Diseases of the respiratory system and intestinal infectious disease are the major causes of death in the age group 1-14.
- (v) In the age group 15-44 and 45 & above heart disease predominates



6. A Comparative study of the leading causes of death in Cochin, Calicut, Quilon and Alleppey

- (1) The details of comparison among the four centres are given in table 5.1 appended.
- (2) It is seen from the table that heart disease was the major cause of death in all the four centres under report. However the percentage of death due to the diseases varies from city to city; the highest percentage of death is in Alleppey and the lowest in Calicut.
- (3) The percentage of death reported due to neoplasms is comparatively higher in Calicut Corporation and lower in Quilon Municipality.
- (4) Deaths due to cerebrovascular disease is relatively lower in Alleppey.
- (5) The highest percentage of death due to diseases of the respiratory system is in Quilon and the lowest in Calicut.
- (6) Perinatal causes can be noted as the major cause of infant mortality. More than 40 percent of infant deaths occurs due to this cause except in Quilon Municipality.

6.2. Sex-wise Comparison of deaths due to leading causes in Cochin, Calicut, Quilon and Alleppey

- (1) The incidence of heart diseases in males is higher in all the centres. In Alleppey 36.56 percent of male deaths were due to this disease alone. The corresponding figure for females was only 25.94 percent. There is a marked difference in the percentage of deaths among males and females due to this disease in all the four places.
- (2) Deaths due to neoplasm are comparatively more among males in all the centres except in Alleppey where a slightly higher percentage is recorded among females.
- (3) Cerebrovascular diseases is seen more common among females in all the centres.
- (4) The percentage of death among females due to diseases of the respiratory system is seen higher in all the centres.
- (5) No generalisation can be made with regard to the sex affinity of perinatal causes. However it can be said that during the year under report in all the centres female infants were more exposed to the risk of death due to this cause.



Table: 1:1

Sex-wise details of medically certified deaths in Cochin Corporation

No. Code	Cause of death	Male	Female	Total
1. I (001-003)	Intestinal infectious disease	43 (2.75)	27 (3.10)	70 (2.88)
2. I(010-018)	Tuberculosis	88 (5.64)	29 (3.33)	117 (4.81)
3. I (020-041)	Other bacterial diseases	40 (2.56)	41 (4.71)	81 (3.33)
4. I (045-079)	Tifoid diseases	63 (4.04)	23 (2.64)	86 (3.54)
5. II(140-239)	Foodpoisons	138 (8.84)	59 (6.78)	197 (8.10)
6. VI (320-359)	Diseases of the nervous system and sense organs	30 (1.92)	40 (4.60)	70 (2.88)
7. VII(360-429)	Heart diseases	517 (33.12)	211 (24.25)	728 (29.95)
8. VII (430-438)	Cerebrovascular disease	193 (12.36)	117 (13.45)	310 (12.75)
9. VIII (460-519)	Diseases of the respiratory system	108 (6.92)	74 (8.51)	182 (7.49)
10. IX (520-579)	Diseases of the digestive system	63 (4.04)	15 (1.73)	78 (3.21)
11. XV (750-779)	Conditions occurring in the perinatal period	66 (4.23)	79 (9.08)	145 (5.97)
12. XVI (780-799)	Pregn's, Symptoms and ill defined conditions	35 (2.24)	19 (2.19)	54 (2.22)
13. XVII (800-999)	Accident, Injuries & poisoning	104 (6.66)	49 (5.63)	153 (6.29)
14. Others		73 (4.68)	87 (10.00)	160 (6.58)
	Total	1561 (100.00)	870 (100.00)	2431 (100.00)

Note: figures in brackets are percentages







Table: 1.2

Statement showing the leading causes of death in Cochin Corporation according to age groups

Sl. No.	Code No.	Cause of death	1 Year	1-14	15-44	45 +	Total
1.	I (001-009)	Intestinal infectious disease	9 (2.74)	25 (11.74)	16 (3.27)	20 (1.43)	70 (2.88)
2.	I (010-018)	Tuberculosis	-	7 (3.29)	34 (6.95)	76 (5.43)	117 (4.81)
3.	I (020-041)	Other bacterial diseases	23 (7.01)	14 (6.57)	14 (2.86)	30 (2.14)	81 (3.33)
4.	I (045 - 079)	Viral diseases	2 (0.61)	20 (9.39)	26 (5.32)	38 (2.71)	86 (3.54)
5.	II (140-239)	Neoplasms	1 (0.31)	14 (6.57)	43 (8.79)	139 (9.92)	197 (8.10)
6.	VI (320-359)	Diseases of the nervous system and sense organs	15 (4.57)	25 (11.74)	17 (3.48)	13 (0.93)	70 (2.88)
7.	VII (390-429)	Heart diseases	26 (7.93)	30 (14.08)	114 (23.31)	558 (39.83)	728 (29.95)
8.	VII (430-438)	Cerebrovascular disease	3 (0.91)	12 (5.63)	57 (11.66)	238 (16.99)	310 (12.75)
9.	VIII (460-519)	Diseases of the respiratory system	63 (19.21)	27 (12.68)	14 (2.86)	78 (5.57)	182 (7.49)
10.	IX (520-579)	Diseases of the digestive system	4 (1.22)	5 (2.35)	15 (3.07)	54 (3.85)	78 (3.21)
11.	X (580-779)	Conditions originating in the perinatal period	145 (44.21)	-	-	-	145 (5.97)
12.	XI (780-799)	Signs, symptoms, and ill defined conditions	7 (2.13)	12 (5.63)	11 (2.25)	21 (1.71)	54 (2.22)
13.	XII (800-999)	Accidents, injuries & poisoning	2 (0.61)	12 (5.63)	93 (19.02)	46 (3.28)	153 (6.29)
14.		Others	28 (8.54)	10 (4.70)	35 (7.16)	87 (6.21)	160 (6.58)
		Total	328 (100.00) (13.45)	213 (100.00) (8.76)	489 (100.00) (20.12)	1401 (100.00) (77.63)	2431 (100.00) (100.00)

(Figures in brackets indicate percentages)







Sex-wise details of medically certified deaths in Cellicut Corporation

Table - 2.1

Sl. No.	Code No.	Use of death	Male	Female	Total
1.	I (001-009)	Intestinal infectious disease	213 (6.70)	163 (9.23)	376 (7.60)
2.	I (010-018)	Tuberculosis	190 (5.98)	73 (4.14)	263 (5.32)
3.	I (020-041)	Other bacterial diseases	200 (6.29)	131 (7.42)	331 (6.69)
4.	I (045-079)	Virai diseases	136 (4.28)	126 (7.13)	262 (5.30)
5.	II (140-239)	Neoplasms	338 (10.63)	146 (8.27)	484 (9.79)
6.	VI (320-389)	Diseases of the nervous system and sense organs	94 (2.96)	63 (3.57)	157 (3.17)
7.	VII (390-429)	Heart diseases	530 (16.67)	191 (10.81)	721 (14.58)
8.	VII (430-438)	Cerebrovascular disease	215 (6.76)	138 (7.81)	353 (7.14)
9.	VIII (460-519)	Diseases of the respiratory system	199 (6.26)	145 (8.21)	344 (6.96)
10.	IX (520-579)	Diseases of the digestive system	148 (4.65)	72 (4.08)	220 (4.45)
11.	XV (760-779)	Conditions originating in the perinatal period	286 (9.00)	223 (12.63)	509 (10.29)
12.	XVI (780-799)	Signs symptoms and ill defined conditions	120 (3.78)	56 (3.17)	176 (3.56)
13.	XVII (800-999)	Accidents, injuries and poisoning	288 (9.06)	117 (6.69)	405 (8.19)
14.		Others	222 (6.98)	122 (6.91)	344 (6.96)
		Total	3179 (100.00)	1766 (100.00)	4945 (100.00)

(Figures in brackets indicate percentages)







Table 2.2

Statement showing the leading causes of death in adult emigration according to age groups ....

No. Code No.	Case of death	1 year	1-14	15-44	45+	Total
1	2	4	5	6	7	8
1. I (001-009)	Intestinal infectious disease	85 (8.39)	195 (23.84)	42 (3.80)	54 (2.69)	376 (7.60)
2. I (010-013)	Tuberculosis	7 (0.69)	30 (3.67)	73 (6.61)	153 (7.61)	263 (5.32)
3. I (020-041)	Other bacterial diseases	150 (14.81)	71 (8.68)	51 (4.62)	59 (2.94)	331 (5.69)
4. I (045-079)	Viral diseases	28 (2.76)	149 (18.21)	54 (4.89)	31 (1.54)	262 (5.30)
5. II (100-239)	Neoplasms	5 (0.49)	29 (3.55)	132 (11.96)	318 (15.82)	484 (9.79)
6. VI (320-389)	Diseases of the nervous system and sense organs	42 (4.15)	42 (5.13)	40 (3.62)	33 (1.64)	157 (3.17)
7. VII (390-429)	Heart diseases	9 (0.89)	25 (3.06)	201 (18.21)	486 (24.18)	721 (14.58)
8. VII (430-478)	Cardiovascular disease	2 (0.20)	2 (0.24)	51 (4.62)	298 (14.83)	353 (7.14)
9. VIII (460-519)	Diseases of the respiratory system	109 (10.76)	65 (7.95)	65 (5.89)	105 (5.22)	344 (6.96)
10. IX (520-579)	Diseases of the digestive system	17 (1.68)	28 (3.42)	66 (5.98)	109 (5.42)	220 (4.45)
11. X (580-639)	Conditions originating in the perinatal period	486 (47.98)	20 (2.44)	3 (0.27)	-	509 (10.29)
12. XVI (780-799)	Signs, Symptoms and ill defined conditions	8 (0.79)	11 (1.35)	49 (4.41)	108 (5.37)	176 (3.56)
13. XVII (800-999)	Accidents, injuries and poisoning	5 (0.49)	70 (8.56)	211 (19.11)	119 (5.92)	405 (8.19)
14.	Others	60 (5.92)	81 (9.90)	66 (5.98)	137 (6.82)	344 (6.96)
	Total	1013 (100.00) (20.48)	818 (100.00) (16.54)	1104 (100.00) (22.83)	2010 (100.00) (40.65)	4945 (100.00) (100.00)

(Figures in brackets indicate percentages)







Sex-wise details of medically certified deaths in guljon Municipality

TABLE: 3.1

Sl. No.	Code No.	Cause of death	Male	Female	Total
1.	I (001-009)	Intestinal infections diseases	47 (4.75)	27 (4.35)	74 (4.59)
2.	I (010-018)	Tuberculosis	42 (4.24)	18 (2.90)	60 (3.72)
3.	I (020-041)	Other bacterial diseases	6 (0.61)	11 (1.77)	17 (1.06)
4.	I (045-079)	Viral diseases	24 (2.42)	10 (1.61)	34 (2.11)
5.	II (140-239)	Neoplasms	31 (3.13)	10 (1.61)	41 (2.54)
6.	VI (320-359)	Diseases on the nervous system and sense organs	15 (1.52)	13 (2.09)	28 (1.74)
7.	VII (390-429)	Heart diseases	208 (21.01)	92 (14.82)	300 (18.62)
8.	VII (430-438)	Cerebrovascular disease	85 (8.59)	60 (9.66)	145 (9.00)
9.	VIII (460-519)	Diseases of the respiratory system	81 (8.18)	53 (8.54)	134 (8.32)
10.	IX (520-579)	Diseases of the digestive system	21 (2.12)	3 (0.48)	24 (1.49)
11.	XV (760-779)	Conditions originating in the perinatal period	33 (3.33)	39 (6.28)	72 (4.47)
12.	XVII (800-999)	Accidents, injuries and poisoning	44 (4.44)	32 (5.15)	76 (4.72)
		Others	353 (35.66)	253 (40.74)	606 (37.62)
		Total	990 (100.00)	621 (100.00)	1611 (100.00)

(Figures in brackets indicate percentages)







Statement showing the leading causes of death in Quilon Municipality according to age groups.

Table: 3.2

Sl. No.	Code No.	Cause of death	Below					Total
			1 year	1-14 year	15-44 years	45 + years		
1.	I (001-009)	Intestinal infectious disease	16 (6.25)	37 (16.23)	7 (2.53)	14 (1.65)	74 (4.59)	
2.	I (010-018)	Tuberculosis	..	2 (0.88)	9 (3.25)	49 (5.76)	60 (2.72)	
3.	I (020-041)	Other bacterial diseases	4 (1.56)	5 (2.19)	4 (1.44)	4 (0.47)	17 (1.06)	
4.	I (045-079)	Viral diseases	7 (2.73)	8 (3.51)	7 (2.53)	12 (1.41)	34 (3.11)	
5.	II (140-239)	Neoplasms	..	..	9 (3.25)	32 (3.77)	41 (2.54)	
6.	VI (320-359)	Diseases of the nervous system and sense organs	10 (3.91)	10 (4.39)	7 (2.53)	1 (0.22)	28 (1.74)	
7.	VII (390-429)	Heart disease	8 (3.13)	20 (8.77)	44 (15.88)	228 (26.82)	300 (18.62)	
8.	VII (430-438)	Cerebrovascular disease	1 (0.39)	3 (1.31)	17 (6.14)	124 (14.59)	145 (9.00)	
9.	VIII (460-519)	Diseases of the respiratory system	50 (19.53)	30 (13.16)	12 (4.33)	42 (4.94)	134 (8.92)	

Contd.....







	2	3	4	5	6	7	8
IX (520-579)			..	1 (0.44)	5 (1.80)	18 (2.12)	24 (1.49)
Diseases of the digestive system							
XV (760-77)			72 (28.13)	..	..	..	72 (4.47)
Conditions originating in the perinatal period							
XVIII (800-999)			3 (1.17)	12 (5.26)	37 (13.36)	24 (2.82)	76 (4.72)
Accidents, injuries and poisonings							
Others			85 (33.20)	100 (43.86)	119 (42.26)	302 (35.53)	606 (37.62)
Total:			256 (100.00)	228 (100.00)	277 (100.00)	850 (100.00)	1611 (100.00)
			(15.89)	(14.15)	(17.20)	(52.76)	(100.00)

(Figures in brackets indicate percentages)







Table: 4.1

Sex-wise details of medically certified deaths in Alleppey Municipality

Sl. No.	Code No.	Cause of death	Male		Female		Total
			4	5	5	6	
1.	I (001-009)	Intestinal infectious disease	32 (3.64)	28 (5.86)	60 (4.42)		
2.	I (010-018)	Tuberculosis	66 (7.52)	21 (4.39)	87 (6.42)		
3.	I (020-041)	Other bacterial diseases	5 (0.57)	8 (1.67)	13 (0.96)		
4.	I (045-079)	Viral diseases	16 (1.82)	9 (1.88)	25 (1.84)		
5.	II (140-239)	Mycoplasmas	66 (7.52)	43 (9.00)	109 (8.04)		
6.	VI (320-359)	Diseases of the nervous system and sense organs.	11 (1.25)	8 (1.67)	19 (1.40)		
7.	VII (330-429)	Heart diseases	321 (36.56)	124 (25.94)	445 (32.82)		
8.	VII (430-438)	Thrombovascular disease	1 (0.11)	2 (0.42)	3 (0.22)		
9.	VIII (460-519)	Diseases of the respiratory system	52 (5.92)	47 (9.83)	99 (7.29)		
10.	IX (520-579)	Diseases of the digestive system	41 (4.67)	31 (6.49)	72 (5.31)		
11.	XV (760-779)	Conditions originating in the perinatal period	53 (6.04)	43 (9.00)	96 (7.08)		
12.	XVII (800-999)	Accidents, injuries & poisoning	81 (9.23)	27 (5.65)	108 (7.97)		
		Others	133 (15.15)	87 (18.20)	220 (16.32)		
		Total:	878 (100.00)	478 (100.00)	1356 (100.00)		

(Figures in brackets indicate percentages)







Statement showing the leading causes of death in Allempoy Municipality according to age group  
.....

Table: 4.2

Sl. No.	Code No.	Cause of death	Below 1 year	1-14	15-44	45 + above	Total
1.	I (301-009)	Intestinal infectious disease	14 (6.80)	26 (15.29)	5 (1.87)	15 (2.11)	60 (4.42)
2.	1 (010-018)	Tuberculosis	2 (0.97)	6 (3.53)	22 (8.21)	57 (8.01)	87 (6.42)
3.	I (020-041)	Other bacterial diseases	3 (1.46)	3 (1.76)	1 (0.37)	6 (0.84)	13 (0.96)
4.	I (045-079)	Viral diseases	2 (0.97)	16 (9.41)	4 (1.49)	3 (0.42)	25 (1.84)
5.	II (14C-239)	Neoplasm	..	8 (4.71)	23 (8.58)	78 (10.95)	109 (8.04)
6.	VI (320-359)	Diseases of the nervous system and sense organs	6 (2.91)	5 (2.94)	3 (1.12)	5 (0.70)	19 (1.40)
7.	VII (390-429)	Heart disease	22 (10.68)	12 (7.06)	80 (29.85)	331 (46.49)	445 (32.82)
8.	VIII (430-438)	Cerebrovascular disease	..	1 (0.59)	1 (0.37)	1 (0.14)	3 (0.22)
9.	VIII (460-519)	Diseases of the respiratory system.	27 (13.11)	26 (15.30)	11 (4.11)	35 (4.92)	99 (7.20)

Contd.....







Table: 4.2 (Contd.....)

1	2	3	4	5	6	7	8				
IX (530-579)	Diseases of the digestive system	2	(0.97)	7	(4.12)	16	(5.97)	47	(6.60)	72	(5.91)
XV (760-779)	Conditions originating in the perinatal period	92	(44.66)	3	(1.76)	..	..	1	(0.14)	96	(7.08)
XIII (800-999)	Accidents, injuries and poisoning	..	..	8	(4.71)	69	(25.75)	31	(4.35)	108	(7.97)
	Others	36	(17.47)	49	(28.82)	33	(12.31)	102	(14.32)	220	(16.32)
	Total:	206	(100.00)	170	(100.00)	268	(100.00)	712	(100.00)	1356	(100.00)
		(15.19)	(12.54)	(19.76)	(52.51)	(100.00)					

(Figures in brackets indicate percentages)







Comparative statement showing percentage of deaths due to major causes during 1983 in Cochin, Calicut, Quilon & Alleppey.  
.....

Table: 5.1

Sl. No.	Diseases	3	4	5	6
		Cochin	Calicut	Quilon	Alleppey
1.	Heart disease	29.95	14.58	18.62	22.82
2.	Neoplasm	8.10	9.79	2.54	8.04
3.	Cerebrovascular disease	12.75	7.14	9.00	0.22
4.	Diseases of the respiratory system	7.49	6.96	8.32	7.30
5.	Perinatal causes	5.97	10.29	4.47	7.08







Sex-wise comparison of deaths due to leading causes in Cochin, Calicut, Quilon & Alleppey

Table: 5.2

Sl. No.	Diseases	Cochin		Calicut		Quilon		Alleppey	
		Male	Female	Male	Female	Male	Female	Male	Female
1.	Heart disease	33.12	24.25	16.67	10.81	21.01	14.32	36.56	25.94
2.	Neoplasm	8.84	6.78	10.63	8.27	3.13	1.61	7.52	9.00
3.	Cerebrovascular disease	12.36	13.45	6.76	7.81	8.59	9.55	0.11	0.42
4.	Diseases of the respiratory system	6.92	8.51	6.26	8.21	8.18	8.54	5.92	7.83
5.	Perinatal causes	4.23	9.08	9.00	12.63	3.33	5.28	6.04	9.00

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MEMORANDUM

TO : SAC, [illegible]

FROM : [illegible]

DATE: [illegible]

SUBJECT: [illegible]

1. [illegible]

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