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**MEDICAL CERTIFICATION OF
CAUSE OF DEATH
1985**

**DEPARTMENT OF ECONOMICS & STATISTICS
TRIVANDRUM - 1987**

C O N T E N T S

1. Introduction
2. Cochin Corporation
3. Calicut Corporation
4. Quilon Municipality
5. Comparitive study of the leading causes of death in the 3 centres
6. Sex-wise comparative study of leading causes in the 3 centres
7. Conclusion
8. Tables

...

ERRATA

<u>Sl. No.</u>	<u>Page</u>	<u>Col. No.</u>	<u>Item/Line No.</u>	<u>Read</u>	<u>Instead of</u>
1	2	--	1.4 - xiii	Injury	Injuty
2	3	--	2.3 - iv	Viral	Vital
3	4	--	2.4 - (0-1) year (line 2)	Certain	Centain
4	4	--	2.4 - (0-1) year (line 9)	infections	infactions
5	4	--	2.4 - (1-14) years (line 1)	lives	lieves
6	4	--	2.4 - (1-14) years (line 7)	infections	infeacions
7	4	--	2.4 - (15-44) years (line 2)	Next	net
8	5	--	3.3- (iii) (line 1)	bacterial	bactetial
9	6	--	3.4 - (15-44) years (line 5)	Vascular diseases(7.09%) tuberculosis (5.85%), other bacterial dis- eases (4.61)	omi- ssion
10	10	--	5 - (8) line (1)	effect	affect
11	12	8th	Table(1.2) Line (2)	106	706 s
12	14	--	Table(2.3)(Sl.No.5)	Anacemias- 3-2-5	Omission

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P R E F A C E

The scheme '**Medical Certification of causes of death**' is in operation in the city corporations of Cochin and Calicut and in the Quilon Municipality.

This report dealing with mortality by causes occurred in the State during the year 1985 was prepared by the Vital Statistics Unit of this department.

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Director of Economics & Statistics

Trivandrum,

15--7--1987.

ANNUAL REPORT ON MEDICAL CERTIFICATION OF CAUSE OF DEATH - 1985

Introduction

Data on morbidity and mortality clearly reflect the health status of a population. Health administrators and policy formulators rely heavily on statistics of causes of deaths. The collection, compilation and analysis of the details of prevalent causes of deaths and their incidence are highly essential for any country, especially developing one.

The inception of the scheme on **Medical certification of cause of death** in Kerala was in 1969. Despite the various lacunae in its implementation, the scheme provides leading guidelines to medical practitioners, social workers, policy formulators, administrators, researchers and others interested in the field.

This report deals with the cause of death analysis in the corporations of Cochin and Calicut and in Quilon municipality for the year 1985.

1.2 Objectives

The main objectives of the scheme are the following:-

- i. to obtain reliable information on the underlying causes of death.
- ii. to pinpoint the leading causes of death for males and females.
- iii. to identify individual causes of death in certain special groups such as infants, mothers and aged persons.
- iv. to study the mortality pattern of certain important diseases like cancer, tuberculosis, heart diseases etc.
- v. to enable public health and medical authorities to undertake specific investigations 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 municipality/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 are scrutinised and the causes of death are identified and coded by the deputy health officer appointed for the purpose. For coding the cause of deaths, the list 'A' of the International Classification of Diseases IX Revision is adopted.

1.4 Cause of death

We may define cause of death as the morbid condition or disease process abnormality, injury or poisoning leading directly or indirectly to death. Every death is likely to have multiple causes and death occurs as a result of a chain of causes.

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

- i. Intestinal infectious diseases 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 (320-329)
- vii. Heart diseases VII (390-429)
- viii. Cerebrovascular diseases 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. Injury and poisoning.

1.5 Limitations:

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

1.6. In all the three centres, the outstanding cause of death, during the year was heart diseases. Again, the incidence of heart diseases in the three centres likewise was greater in the 45 + age group and that too for the males. Cerebrovascular diseases also caused much distress in the three centres. The maximum number of deaths due to all causes occurred in the age group 45+. The death toll of males was higher in all the three centres. The position in respect of the two corporations and Quilon municipality is discussed below.

2. Cochin Corporation

The Cochin corporation was formed in 1967. According to the 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. During the year 1985 a total of 2708 medical notification forms regarding deaths were received for analysis in this corporation.

2.2 Sex-wise distribution of the leading causes of death

Of the 2708 deaths in Cochin, 1778 (65.66 per cent) occurred to males and 930 (34.34 per cent) to females.

2.3 Causes of death

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

i. Intestinal infectious diseases:- Deaths due to this cause, in Cochin corporation for the year 1985 was not very alarming (males 1.24 per cent and female 1.40 per cent)

ii. Tuberculosis:- Tuberculosis, during the period under report, claimed 4.56 per cent male lives and 2.69 per cent female lives.

iii. Other bacterial diseases:- 2.76 per cent of male deaths and 3.98 per cent among females was due to other bacterial diseases.

iv. Viral diseases:- The incidence of vital diseases on males (4.72 per cent) and females (4.73 per cent) was almost identical.

v. Neoplasms:- Neoplasms accounted for 8.38 per cent to total deaths. Among males the percentage was 8.49 per cent and among females it was 8.17 per cent.

vi. Diseases of the nervous system:- The effect of this cause was superficial in this year compared to other causes.

vii. Heart diseases:- This cause, as in previous years, accounted for the maximum number of deaths (32.75 per cent). About 33.86 per cent males succumbed to it and 30.64 per cent females.

viii. Cerebrovascular diseases:- This disease was also a cause for great concern to Cochin. Ranking as the second dominant cause of death, it was more fatal to females (14.51 per cent) than males (11.30 per cent).

ix. Diseases of the respiratory system:- Nearly 7.09 per cent of deaths was due to this cause. Among males the percentage of deaths was 6.86 and among females it was 7.53 per cent.

x. Disease of the digestive system:- 3.43 percent males died due to diseases of the digestive system and 1.83 per cent females.

xi. Conditions originating in the perinatal period:- The total percentage of infant lives claimed by perinatal causes was 6.31. During the previous year also, this percentage was more or less the same (ie. 6.27 percent).

xii. Signs, symptoms and ill-defined conditions:- 3.43 per cent and 2.58 per cent of male and female deaths respectively was due to the above cause.

xiii. Injury and poisoning:- More females (3.66 per cent) than males (2.65 per cent) died due to injury and poisoning during the period under report. During 1984 this cause proved more lethal claiming 5.64 per cent male lives and 4.85 per cent female lives.

xiv. Miscellaneous causes, not included in the above, claimed about 9.34 per cent of total deaths.

2.4 Deaths according to age

The age group 45+ suffered most due to the incidence of various causes. The analysis of each age group is given below.

0-1 year (infant deaths): For infants, as in previous years, the most lamentable cause was certain conditions originating in the perinatal period, 46.85 per cent deaths were due to this cause. The second notable cause for infant deaths was diseases of the respiratory system claiming 11.78 per cent of lives below one year. Other bacterial diseases and heart disease struck likewise (other bacterial diseases 8.77 per cent and heart diseases 8.22 per cent). Signs, symptoms and ill-defined conditions claimed 6.58 per cent of infant lives and the miscellaneous group claimed 5.76 per cent. 3.56 per cent of deaths in this age group was caused by intestinal infectious diseases and 3.29 per cent by cerebrovascular disease. The effect of the other causes was minimal.

1-14 years: Viral diseases claimed the maximum number of lives in this age group (20.14 percent). Diseases of the respiratory system ranked second claiming 15.83 per cent lives in this age group 12.23 per cent of lives was claimed by other bacterial diseases. Heart diseases (10.79 per cent) also cannot be ignored. Other major causes of death for this age group are Neoplasm (6.48 per cent), diseases of the nervous system and other sense organs (6.47 percent), intestinal infectious diseases (5.76 per cent), cerebrovascular diseases (4.32 per cent) and injury and poisoning (3.59 per cent).

15-44 years: Heart diseases (23.99 per cent) ravaged this age group the maximum net important cause of death in this age group was injury and poisoning (10.89 per cent). This was followed by cerebrovascular diseases contributing 9.78 per cent and neoplasms 9.59 per cent. Viral diseases (7.38 per cent) also affected this age group damagingly. The highest number of deaths due to tuberculosis (5.90 per cent) was also in this age group.

45+ : Heart diseases reigned supreme (42.84 per cent) in this age group, cerebrovascular diseases claimed 15.95 per cent lives. 9.93 per cent of deaths was caused by neoplasms, 6.20 per cent by diseases of the respiratory system and 4.45 per cent by tuberculosis.

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

Table 1.3 of the appendix presents the details of domiciliary deaths in Cochin corporation. The Deputy Health Officer verified about 103 household deaths. The ruling cause of death in this instance was diseases of the circulatory system (about 36) asthma and tuberculosis claimed 15 and 11 deaths respectively. Neoplasms like tuberculosis claimed 11 lives. Five deaths were due to ulcer of stomach and duodenum and 25 to miscellaneous causes which included multiple sclerosis (2) diabetes mellitus (2) amoebiasis, viral diseases, anaemias schizophrenic, epilepsy, pneumonia, chronic liver and cirrhosis poisoning and toxic effects (one each) infections of kidney (3) and accidents, injuries, suicide and homicide (10).

2.7 Summary

1. Heart disease proved the most fatal cause to males and females.
2. The second major cause turned out to be cerebrovascular diseases.

3. Infant deaths came up to 13.11 per cent.
4. The 45 age group suffered most due to all causes particularly heart diseases.

3. Calicut Corporation

As per the 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 2642 deaths received from the medical institutions were taken up for analysis in this report.

3.2 Sex-wise distribution of leading causes of death

Of the 2624 deaths reported from the hospitals 1687 (64.29 per cent) are to males and 937 (35.71 per cent) to females.

3.3 Distribution of deaths due to leading causes are examined below.

- i. Intestinal infectious diseases:- About 6.67 per cent of the deaths was due to intestinal infectious diseases. The percentage of female deaths (7.36 per cent) was higher than males (6.28 per cent).
- ii. Tuberculosis:- This cause accounted for 3.20 per cent deaths. The incidence on males was 3.02 per cent and on females 3.53 per cent.
- iii. Other bacterial diseases:- Other bacterial disease claimed 7.69 per cent females lives and 6.05 per cent male lives.
- iv. Viral diseases:- Deaths due to viral diseases was 4.23 per cent as against 3.71 per cent during the previous year.
- v. Neoplasms:- This proved one of the important causes contributing 9.98 percent deaths. The percentage of male deaths (10.55 per cent) was higher than that of female deaths (8.96 per cent).
- vi. Diseases of the nervous system and sense organs:- About 4.23 per cent of total deaths was due to this cause. It affected males (4.33 per cent) and females (4.06) almost alike.
- vii. Heart diseases:- This proved to be the major cause of death in Calicut corporation also 11.17 per cent of deaths can be attributed to this cause (12.51 per cent males and 8.75 per cent females).
- viii. Cerebrovascular disease:- Cerebrovascular diseases proved equally significant as heart diseases. It took a toll of 11.05 per cent, (men 11.50 per cent and women 10.25 per cent).
- ix. Diseases of the respiratory system:- This cause also proved fatal, accounting for 7.74 per cent deaths. The female population suffered more (8.86 per cent) than the males (7.12 per cent).

x. Diseases of the digestive system:- 6.21 per cent deaths was due to diseases of the digestive system. Of the three centres, it is in Calicut corporation that this cause was most severe. (Cochin 2.88 per cent, Quilon 4.42 per cent).

xi. Certain conditions originating in the perinatal period:- This cause accounted for 9.68 per cent of deaths with 8.12 per cent among males and 12.49 per cent among females.

xii. Signs, symptoms and ill-define conditions:- This category accounted for the death of 4.92 per cent males and 4.91 per cent females.

xiii. Injuries and poisoning:- 4.23 per cent of deaths was accounted for by injury and poisoning. All other miscellaneous causes not mentioned earlier claimed 10.06 per cent of lives.

3.4 Deaths according to age

As in the case of Cochin corporation, in Calicut also the 45+ age group was affected most by all the causes together. Each age group is examined in detail.

0-1 years (Infant deaths): Infants, were subject mostly to certain conditions originating in the perinatal period (42.98 per cent). The second major cause of fatality among infants was diseases of the respiratory system (16.58 per cent). This was followed by other bacterial diseases (14.55 per cent). Intestinal infectious diseases (6.94 per cent), diseases of the nervous system and sense organs (5.41 per cent), viral diseases (3.72 per cent) and diseases of the digestive system (3.05 per cent) too had their impact.

1-14 years: The major cause for concern for this age group was intestinal infectious diseases (23.23 per cent). About 14.48 per cent of deaths in this age group was due to viral diseases. Other contributory causes were other bacterial disease (10.66 per cent) diseases of the nervous system and sense organs, diseases of the respiratory system (10.11 per cent each), diseases of the digestive system (5.46 per cent) tuberculosis (4.64 per cent) injury and poisoning (4.10 per cent), neoplasms and signs, symptoms and ill defined condition.

(3.55 per cent each).

15-44 years: Neoplasms (12.59%) dominated the diseases afflicting this age group. This was closely followed by injury and poisoning (11.17 per cent), heart diseases (9.75 per cent), signs, symptoms and ill defined conditions (8.69 per cent) diseases of the digestive system (7.45%) cerebrovascular diseases (4.61 per cent) diseases of the respiratory system (3.90 per cent) and viral diseases (3.72 percent).

45+: Most of the victims in this age group succumbed to cerebrovascular diseases (22.49 per cent). The second major cause of death turned out to be heart diseases (20.85 per cent). Neoplasms (16.05 per cent) also was dominant. A few of the other significant causes were diseases of the

digestive system (7.52 per cent) signs, symptoms and ill defined conditions (5.80 per cent), diseases of the respiratory system (4.17 per cent) and intestinal infectious diseases (3.17 per cent).

3.5 - Details of sex-wise and age-wise deaths are presented in tables 2.1 and 2.2 of the appendix.

3.6 - Table 2.3 of the appendix presents the details of domiciliary deaths in Calicut corporation. The number of domiciliary deaths verified by the Deputy Health Officer were 163. Of these 104 were males and 59 females. All the causes affected males more severely. Other than senility and ill-defined condition (49) the major cause of death was heart diseases (31). The second important cause turned out to be pneumonia - bronchitis (30). The lowest number of deaths was due to viral hepatitis which claimed one each of male lives and female lives.

3.7 Summary

1. The principal cause turned out to be heart diseases. This pattern was also maintained among domiciliary deaths.
2. The second major cause was cerebrovascular diseases (11.05%)
3. Perinatal causes among infants reached a high of 42.98 per cent.
4. For the 45+ age group, cerebrovascular disease (22.49%) had the maximum impact.
5. The percentage of deaths in the 45+ age group turned out to be the highest.

4. Quilon Municipality

As per the 1981 census, population of Quilon municipality is 1.38 lakh 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 per cent. Causes of 1561 deaths in the municipality during 1985 are examined below:-

4.2 Sex-wise distribution of the leading causes of death

Table 3.1

The percentage share of male deaths in the 1561 deaths was 60.75 (948) and of female deaths was 39.27 (613). The male population was found to be more susceptible to the various diseases than the female population.

4.3 Each major cause is dealt with separately

i. Intestinal infectious diseases:- About 2.75 per cent of death can be attributed to this cause.

ii. Tuberculosis:- This cause claimed 3.33% of deaths with 4.43 per cent male deaths and 1.63 per cent female deaths.

iii. Other bacterial diseases:- The incidence of this cause was greater among females (7.02 per cent). The percentage of male deaths was 5.07.

iv. Viral diseases:- Of all causes the impact of viral disease (1.28%) was minimal.

v. Neoplasms:- About 3.97 per cent of deaths were due to neoplasms.

vi. Diseases of the nervous system and sense organs: This cause as in Calicut and Cochin did not create much alarm. The total percentage of deaths due to this disease was 3.21.

vii. Heart diseases:- Heart diseases raged as the most rampant cause. About 23.83 per cent deaths were due to this disease (26.16 per cent males and 20.23 per cent females)

viii. Cerebrovascular diseases:- Much distress was also created by this disease (12.62%) Females (15.01 per cent) were subjected more severely than males (11.08%)

ix. Diseases of the respiratory system:- Following cerebrovascular disease cause diseases of the respiratory system (10.96 per cent). Due to this cause 12.89 per cent of females and 9.71 per cent of males died.

x. Diseases of the digestive system:- 4.42 per cent deaths was due to this cause.

xi. Conditions originating in the perinatal period:- The deaths due to this cause was to the extent of 6.79 per cent. Males and females suffered equally due to this cause.

xii. Signs, symptoms and ill-defined conditions:- 6.02 per cent deaths were caused by signs, symptoms and ill-defined conditions.

4.4 Deaths according to age

The age-wise details of the deaths are discussed below:-

0-1 year (infants): Infants deaths rose to 244 compared to the previous years 211 deaths. The outstanding cause turned out to be conditions originating in the perinatal period (43.03%). Other bacterial disease (16.39 per cent) also proved significant. The third major cause of death among infants was diseases of the respiratory system (13.11 per cent). Heart diseases (6.56 per cent) also contributed a sizeable share. About 3.69 per cent death each were due to intestinal infectious diseases, diseases of the nervous system and sense organs, and signs, symptoms and ill-defined conditions.

1-14 years: The tragic cause of disease in this age group was diseases of the respiratory system (23.95 per cent). Other major causes were other bacterial diseases (13.38 per cent) diseases of the nervous system and sense organs (11.27 per cent) intestinal infectious diseases, signs, symptoms and ill defined conditions (8.45 per cent each) diseases of the digestive system (7.75 per cent) heart diseases (5.64 per cent) and viral diseases (5.63 per cent etc.)

15-44 years: The major cause of death in this age group was heart diseases (18.11 per cent) 9.88 per cent of deaths was due to injury and poisoning, signs, symptoms and ill defined conditions contributed 7.41 per cent of death, 6.58 per cent each was claimed by other bacterial diseases and diseases of the nervous system and sense organs. Neoplasms caused 5.35 per cent of deaths. Other relevant causes of death for this age group were diseases of the digestive system (4.94 per cent), cerebrovascular diseases and diseases of the respiratory system (4.53 percent each).

45+ years: As for the 15-44 age group, this group also succumbed severely to heart diseases (32.62 per cent) cerebrovascular diseases (19.53%). About 10.08 per cent deaths was due to diseases of the respiratory system. Other relevant causes proved to be signs, symptoms and ill-defined conditions (5.90 per cent) neoplams (5.04 per cent), diseases of the digestive system (4.94 per cent) and tuberculosis (4.40 per cent).

4.5 Domiciliary deaths in Quilon municipality

Domiciliary deaths in Quilon municipal area verified by the Deputy Health Officer totalled 26. Of these 7 were due to heart diseases. Old age deaths cause to 5. There occurred 3 deaths due to cerebral apoplexy. Bronchitis and paralysis claimed 2 lives each. The other causes leading to 7 deaths were due to malnutrition (1), suicide (2), Pnuemonia (2), arthritis (1) and fall (1).

4.6 Summary

1. Heart disease affected the 15-44 and 45+ age group noticeably.
2. Males were more prone to all diseases.
3. Certain conditions originating in the perinatal period was the major cause of infant deaths.
4. Diseases of the respiratory system proved fatal to the 1-14 age group.
5. Diseases of the digestive system was more prevalent in the 1-14 age group.

5. Comparative study of the leading causes of death in the 3 centres

1. Calicut corporation evidenced more deaths (6.67 per cent) due to intestinal infectious diseases. In the two other centres its impact was marginal.

2. Tuberculosis affected the three centres in a like manner contributing to a little over 3 per cent of deaths.

3. Calicut ranked first in death cases due to other bacterial diseases (6.63 per cent) Quilon ranked second (5.83 per cent)

4. Neoplasms dealt a severe blow in Calicut corporation (9.98 per cent). In Cochin also its impact was obvious (8.38 per cent)

5. Cochin suffered most from heart disease cases (32.75%). In Quilon the percentage was 23.83 and in Calicut 11.17 per cent.

6. All the 3 centres suffered equally due to cerebrovascular diseases.
7. Diseases of the respiratory system was more predominant in Quilon.
8. The damaging affect of perinatal causes was felt in all the 3 centres notably (Calicut 9.68 per cent, Quilon 6.79 per cent and Cochin 6.31 per cent).

6. Sex-wise comparative study of leading causes in the three centres

1. Intestinal infectious diseases affected females more severely than males in all the three centres.
2. Tuberculosis did not prove as serious as in the previous year.
3. Other bacterial diseases claimed more victims from among females than males in Cochin, Calicut and Quilon.
4. Males suffered more repressively from neoplasms in the 3 centres.
5. Heart diseases also felled more males than females in the 3 centres.
6. In Cochin and Quilon females were more susceptible to cerebrovascular diseases.
7. The highest percentage of females affected by diseases of the respiratory system was in Quilon.
8. Perinatal causes contributed over 5% of deaths among males and females in all the 3 centres.

7. Conclusion

In all the three centres the most dreaded cause was heart diseases. This has been the trend in past years too. Calicut which was hit hardest by most of the other causes, was comparatively spared in this cause. Cerebrovascular diseases in all the three centres was a threatening cause. Diseases of the respiratory system and perinatal cause contributed over 6 percent of deaths in the three centres.

Table 1.1 - Sex-wise details of medically certified deaths in
Cochin Corporation

Sl.No.	Code No.	Cause of death	Male	Female	Total
1	2	3	4	5	6
1.	I (001-009)	Intestinal infectious diseases	22 (1.24)	13 (1.40)	35(1.29)
2.	I (010-018)	Tuberculosis	81(4.56)	25(2.69)	106(3.92)
3.	I (020-041)	Other bacterial diseases	49(2.76)	37(3.98)	86(3.18)
4.	I (045-079)	Viral diseases	84(4.72)	44(4.73)	128(4.73)
5.	II (140-239)	Neoplasms	151(8.49)	76(8.17)	227(8.38)
6.	VI (320-380)	Diseases of the nervous system & sense organs	26(1.46)	17(1.83)	43(1.59)
7.	VII (390-429)	Heart diseases	602(33.86)	285(30.64)	887(32.75)
8.	VII (430-438)	Cerebrovascular diseases	201(11.30)	135(14.51)	336(12.41)
9.	VIII (460-519)	Diseases of the respiratory system	122(6.86)	70(7.53)	192(7.09)
10.	IX (520-579)	Disease of the digestic system	61(3.43)	17(1.83)	78(2.88)
11.	XV (760-779)	Conditions originating in the prenatal period	96(5.40)	75(8.06)	171(6.31)
12.	XVI (780-799)	Signs, symptoms & ill defined conditions	61(3.43)	24(2.58)	85(3.14)
13.	XVII (800-999)	Injury and poisoning	47(2.65)	34(3.66)	81(2.99)
14.	Others	Others, (not included in the above)	175(9.84)	78(8.39)	253(9.34)
Total			1778(100.00)	930(100.00)	2708(100.00)

Table 1.2 - Statement showing the leading causes of death in Cochin Corporation according to age groups

Sl. No.	Code No.	Cause of death	Upto 1 year	1-14 years	15-44 years	45 & years	Total
1	2	3	4	5	6	7	8
1.	I (001-009)	Intestinal infectious diseases	13(3.56)	8(5.76)	2(0.37)	12(0.72)	35(1.29)
2.	I (010-018)	Tuberculosis	--	--	32(5.90)	74(4.45)	706(3.91)
3.	I (020-041)	Other bacterial diseases	32(8.77)	17(12.23)	19(3.50)	18(1.08)	86(3.17)
4.	I (045-079)	Viral diseases	6(1.64)	28(20.14)	40(7.38)	54(3.25)	128(4.73)
5.	II (140-239)	Neoplasms	1(0.27)	9(6.48)	52(9.59)	165(9.93)	227(8.38)
6.	VI (320-389)	Diseases of the nervous system & other organs	8(2.19)	9(6.47)	11(2.03)	15(0.90)	43(1.59)
7.	VII (390-429)	Heart diseases	30(8.22)	15(10.79)	130(23.99)	712(42.84)	887(32.76)
8.	VII (430-438)	Cerebrovascular diseases	12(3.29)	6(4.32)	53(9.78)	265(15.95)	336(12.41)
9.	VIII (460-519)	Diseases of the respiratory system	43(11.78)	22(15.83)	24(4.43)	103(6.20)	192(7.09)
10.	IX (520-579)	Disease of the digestive system	3(0.82)	2(1.44)	13(2.40)	60(3.61)	78(2.88)
11.	XV (760-779)	Conditions originating in the prenatal period	171(46.85)	--	--	--	171(6.32)
12.	XVI (780-799)	Signs, symptoms & ill defined conditions	24(6.58)	3(2.16)	27(4.98)	31(1.87)	85(3.14)
13.	XVII (800-999)	Injury and poisoning	1(0.27)	5(3.59)	59(10.89)	16(0.96)	81(2.99)
14.	Others	Others, (not included in the above)	21(5.76)	15(10.79)	80(14.76)	137(8.24)	253(9.34)
Total			365(100.00)	139(100.00)	542(100.00)	1662(100.00)	2708(100.00)

Table 1.3 - Cochin - Domiciliary Deaths

Sl.No.	Cause of death	Male	Female	Total
1	2	3	4	5
1.	Tuberculosis	10	1	11
2.	Neoplasms	8	3	11
3.	Diseases of the circulatory system	28	8	36
4.	Asthma	10	5	15
5.	Ulcer of stomach & duodenum	4	1	5
6.	Others	18	7	25
Total		78	25	103

Table 2.1 - Sex-wise details of medically certified deaths in
Calicut Corporation

Sl.No.	Code No.	Cause of death	Male	Female	Total
1	2	3	4	5	6
1.	I (001-009)	Intestinal infectious diseases	106(6.28)	69(7.36)	175(6.67)
2.	I (010-018)	Tuberculosis	51(3.02)	33(3.53)	84(3.20)
3.	I (020-041)	Other bacterial diseases	102(6.05)	72(7.69)	174(6.63)
4.	I (045-079)	Viral diseases	68(4.03)	43(4.58)	111(4.23)
5.	II (140-239)	Neoplasms	178(10.55)	84(8.96)	262(9.98)
6.	VI (320-389)	Diseases of the nervous system & sense organs	73(4.33)	38(4.06)	111(4.23)
7.	VII (390-429)	Heart diseases	211(12.51)	82(8.75)	293(11.17)
8.	VII (430-438)	Cerebrovascular diseases	194(11.50)	96(10.25)	290(11.05)
9.	VIII (460-519)	Diseases of the respiratory system	120(7.12)	83(8.86)	203(7.74)
10.	IX (520-579)	Disease of the digestive system	121(7.17)	42(4.48)	163(6.21)
11.	XV (760-779)	Certain conditions originating in the perinatal period	137(8.12)	117(12.49)	254(9.68)
12.	XVI (780-799)	Signs, symptoms & ill defined conditions	83(4.92)	46(4.91)	129(4.92)
13.	XVII (800-999)	Injury and poisoning	66(3.91)	45(4.80)	111(4.23)
14.	Others	Others, (not included in the above)	177(10.49)	87(9.28)	264(10.06)
Total			1687(100.00)	937(100.00)	2624(100.00)

Table 2.2 - Age-wise details of medically certified deaths in Calicut Corporation

Sl. No.	Code No.	Cause of death	Upto 1 year	1-14 years	15-44 years	45 + years	Total
1	2	3	4	5	6	7	8
1.	I (001-009)	Intestinal infectious diseases	41(6.94)	85(23.23)	14(2.48)	35(3.17)	175(6.67)
2.	I (010-018)	Tuberculosis	7(1.18)	17(4.64)	33(5.85)	27(2.45)	84(3.20)
3.	I (020-041)	Other bacterial diseases	86(14.55)	39(10.66)	26(4.61)	23(2.09)	174(6.63)
4.	I (045-079)	Viral diseases	22(3.72)	53(14.48)	21(3.72)	15(1.36)	111(4.23)
5.	II (140-239)	Neoplasms	1(0.17)	13(3.55)	71(12.59)	177(16.05)	262(9.98)
6.	VI (320-389)	Diseases of the nervous system & sense organs	32(5.41)	37(10.11)	25(4.43)	17(1.54)	111(4.23)
7.	VII (390-429)	Heart diseases	1(0.17)	7(1.91)	55(9.75)	230(20.85)	293(11.17)
8.	VII (430-438)	Cerebrovascular diseases	--	2(0.55)	40(7.09)	248(22.49)	290(11.05)
9.	VIII (460-519)	Diseases of the respiratory system	98(16.58)	37(10.11)	22(3.90)	46(4.17)	203(7.74)
10.	IX (520-579)	Diseases of the digestive system	18(3.05)	20(5.46)	42(7.45)	83(7.52)	163(6.21)
11.	XV (760-779)	Conditions originating in the perinatal period	254(42.98)	--	--	--	254(9.68)
12.	XVI (780-799)	Signs, symptoms & ill defined conditions	3(0.51)	13(3.55)	49(8.69)	64(5.80)	129(4.92)
13.	XVII (800-999)	Injury and poisoning	2(0.34)	15(4.10)	63(11.17)	31(2.81)	111(4.23)
14.	Others	Others, (not include in the above)	26(4.40)	28(7.65)	103(18.27)	107(9.70)	264(10.06)
Total			591(100.00)	366(100.00)	564(100.00)	1103(100.00)	2624(100.00)

Table 2.3 - Calicut Domiciliary deaths

Sl.No.	Name of disease	Male	Female	Total
1	2	3	4	5
1.	Enteritis & Gastro enteritis	9	6	15
2.	Tuberculosis (Pulmonary)	2	1	3
3.	Septicaemia	6	3	9
4.	Viral hepatitis	1	1	2
6.	Neoplasm	4	3	7
7.	Heart diseases	20	11	31
8.	Pnuemonia - bronchitis	17	13	30
9.	Chronic liver diseases & cirrhosis	9	3	12
10.	Senility & ill defined condition	33	16	49
Total		104	59	163

**Table 3.1 - Sex-wise details of medically certified deaths in
Quilon Municipality**

Sl.No.	Code No.	Cause of death	Male	Female	Total
1	2	3	4	5	6
1.	I (001-009)	Intestinal infectious diseases	25(2.63)	18(2.94)	43(2.75)
2.	I (010-018)	Tuberculosis	42(4.43)	10(1.63)	52(3.33)
3.	I (020-041)	Other bacterial diseases	48(5.07)	43(7.02)	91(5.83)
4.	I (045-079)	Viral diseases	13(1.37)	7(1.14)	20(1.28)
5.	II (140-239)	Neoplasms	39(4.12)	23(3.75)	62(3.97)
6.	VI (320-389)	Diseases of the nervous system & sense organs	28(2.95)	22(3.59)	50(3.21)
7.	VII (390-429)	Heart diseases	248(26.16)	124(20.23)	372(23.83)
8.	VII (430-438)	Cerebrovascular diseases	105(11.08)	92(15.01)	197(12.62)
9.	VIII (460-519)	Diseases of the respiratory system	92(9.71)	79(12.89)	171(10.96)
10.	IX (520-579)	Disease of the digestive system	53(5.59)	16(2.61)	69(4.42)
11.	XV (760-779)	Certain conditions originating in the perinatal period	66(6.96)	40(6.53)	106(6.79)
12.	XVI (780-799)	Signs, symptoms & ill defined conditions	57(6.01)	37(6.03)	94(6.02)
13.	XVII (800-999)	Injury and poisoning	17(1.79)	17(2.77)	34(2.18)
14.	Others	Others, (not included in the above)	115(12.13)	85(13.86)	200(12.81)
Total			948(100.00)	613(100.00)	1561(100.00)

Table 3.2 - Statement showing the leading causes of death in Quilon municipality according to age group

Sl. No.	Code No.	Cause of death	Upto 1 year	1-14 years	15-44 years	45 + years	Total
1	2	3	4	5	6	7	8
1.	I (001-009)	Intestinal infectious diseases	9(3.69)	12(8.45)	4(1.64)	18(1.93)	43(2.75)
2.	I (010-018)	Tuberculosis	--	1(0.70)	10(4.12)	41(4.40)	52(3.33)
3.	I (020-041)	Other bacterial diseases	40(16.39)	19(13.38)	16(6.58)	16(1.72)	91(5.83)
4.	I (045-079)	Viral diseases	1(0.41)	8(5.63)	7(2.88)	4(0.43)	20(1.28)
5.	II (140-239)	Neoplasms	2(0.82)	--	13(5.35)	47(5.04)	62(3.97)
6.	VI (320-389)	Diseases of the nervous system & sense organs	9(3.69)	16(11.27)	16(6.58)	9(0.96)	50(3.21)
7.	VII (390-429)	Heart diseases	16(6.56)	8(5.64)	44(18.11)	304(32.62)	372(23.83)
8.	VII (430-438)	Cerebrovascular diseases	4(1.64)	--	11(4.53)	182(19.53)	197(12.62)
9.	VIII (460-519)	Diseases of the respiratory system	32(13.11)	34(23.95)	11(4.53)	94(10.08)	171(10.96)
10.	IX (520-579)	Diseases of the digestive system	--	11(7.75)	12(4.94)	46(4.94)	69(4.42)
11.	XV (760-779)	Conditions originating in the perinatal period	105(43.03)	1(0.70)	--	--	106(6.79)
12.	XVI (780-799)	Signs, symptoms & ill defined conditions	9(3.69)	12(8.45)	18(7.41)	55(5.90)	94(6.02)
13.	XVII (800-999)	Injury and poisoning	1(0.41)	3(2.11)	24(9.88)	6(0.65)	34(2.18)
14.	Others	Others, (not included in the above)	16(6.56)	17(11.97)	57(23.45)	110(11.80)	200(12.81)
Total			244(100.0)	142(100.0)	243(100.0)	932(100.0)	1561(100.00)

Table 3.3 - Domiciliary deaths in Quilon Municipality

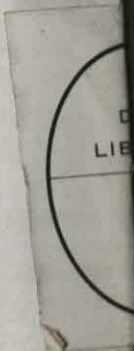
Sl.No.	Cause of death	Male	Female	Total
1	2	3	4	5
1	Heart diseases	4	3	7
2	Senility	3	2	5
3	Cerebral apoplexy	2	1	3
4	Bronchitis	2	0	2
5	Paralysis	2	-	2
6	Others	5	2	7
Total		18	8	26

Table 4 - Comparative study of leading causes of death in
Cochin, Calicut and Quilon

Sl.No.	Diseases	Cochin	Calicut	Quilon
1	2	3	4	5
1	Intestinal infectious diseases	1.29	6.67	2.75
2	Tuberculosis	3.92	3.20	3.33
3	Other bacterial diseases	3.18	6.63	5.83
4	Neoplasms	8.38	9.98	3.97
5	Heart diseases	32.75	11.17	23.83
6	Cerebrovascular diseases	12.41	11.05	12.62
7	Diseases of the respiratory system	7.09	7.74	10.96
8	Perinatal causes	6.31	9.68	6.79

Table 5 - Comparison of leading cause of death in
Cochin Calicut and Quilon

Sl. No.	Cause of death	Cochin		Calicut		Quilon	
		Male	Female	Male	Female	Male	Female
1	2	3	4	5	6	7	8
1	Intestinal infectious diseases	1.24	1.40	6.28	7.36	2.63	2.94
2	Tuberculosis	4.56	2.69	3.02	3.53	4.43	1.63
3	Other bacterial diseases	2.76	3.98	6.05	7.69	5.07	7.02
4	Neoplasms	8.49	8.17	10.55	8.96	4.12	3.75
5	Heart diseases	33.86	30.64	12.51	8.75	26.16	20.23
6	Cerebrovascular diseases	11.30	14.51	11.50	10.25	11.08	15.01
7	Diseases of the respiratory system	6.86	7.53	7.12	8.86	9.71	12.89
8	Perinatal causes	5.40	8.06	8.12	12.49	6.96	6.53



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