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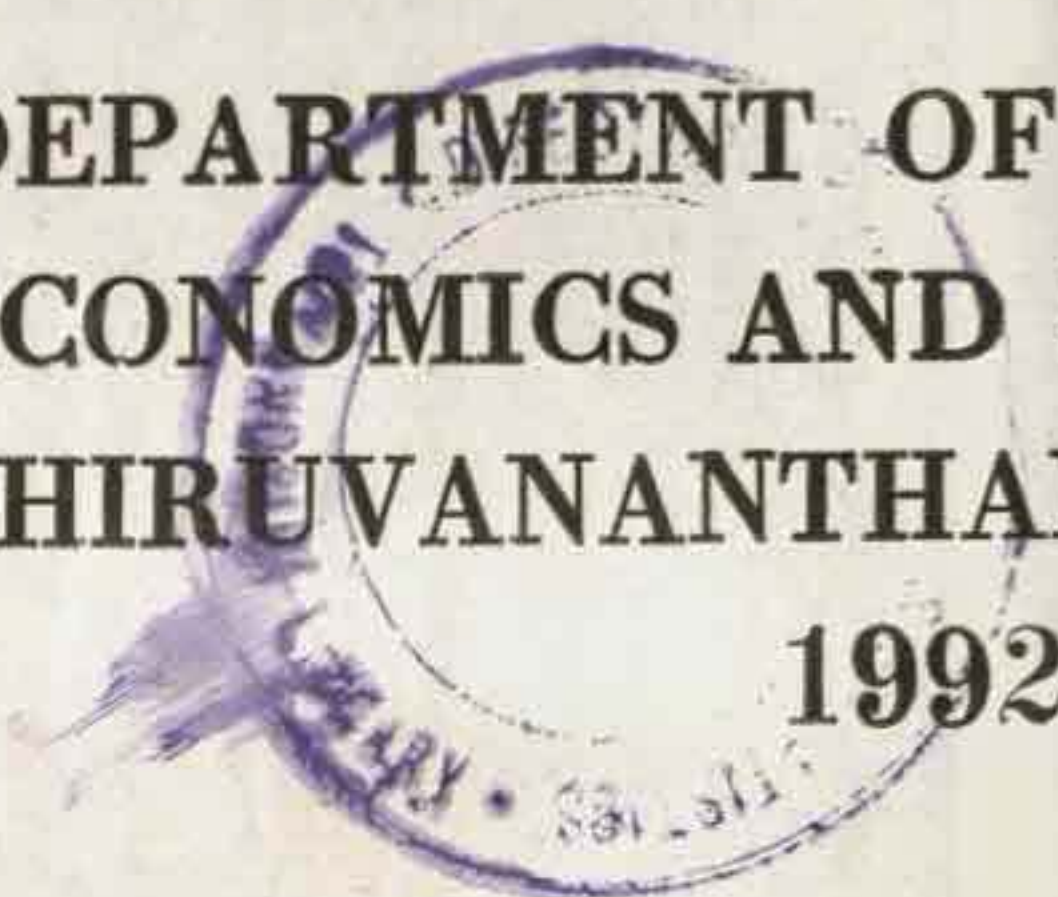


GOVERNMENT OF KERALA

**MEDICAL CERTIFICATION OF
CAUSE OF DEATH
1989**

**DEPARTMENT OF
ECONOMICS AND STATISTICS
THIRUVANANTHAPURAM**

1992





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P R E F A C E

The Scheme '*Medical Certification of Cause of Death*' is now in operation in the City Corporation of Kochi and Kozhikode.

The report dealing with mortality by causes occurred in the State during the year 1989 was prepared by the Vital Statistics Unit of this Department.

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15.5.1991.



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Introduction

Morbidity and mortality statistics, in terms of magnitude, pattern and trend occupy a pride of place in the planning and implementation of various health improvement schemes. The importance of statistics of mortality by causes in understanding disease problems and determining the steps to be taken for the promotion of health care need no emphasis. The health administrators made use of cause of death statistics for measuring the effectiveness of various health services schemes as well.

At the instance of Government of India the scheme on 'Medical Certification of Cause of Death' was introduced in the State in 1969. The Scheme, though with its inherent drawbacks, provides leading guidelines to medical practitioners, social workers, policy formulators and others interested in the field.

This report deals with the analysis of cause of death in the Corporations of Kochi and Kozhikode for the year 1989.

1.2 Objectives:

The main objectives of the scheme are the following:-

- i. to obtain reliable information underlying causes of death
- ii. to pin point 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
- vi. 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 investigation 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 Corporation area having facilities for inpatient treatment. The attending physicians is required to furnish the data on causes of death in the prescribed form. The causes of death certificates received from the institutions are scrutinised and causes of death identified and coded by the Deputy Health Officer appointed for the purpose. For coding the causes of deaths, the list 'A' of the International Classification of Diseases (IX Revision) is adopted.

1.4 Cause of death

Cause of death is defined 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 only as a result of a chain of causes.

In this report only the causes of death which account for at least 3 percent of the deaths in any one or other of the two 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 diseases	- Code I (001 - 009)
ii. Tuberculosis	- Code I (010 - 018)
iii. Other bacterial diseases	- Code I (020 - 041)
iv. Viral diseases	- Code I (045 - 079)
v. Neoplasms	- Code II (140 - 239)
vi. Diseases of the nervous system and sense organs	- Code VI (320 - 389)
vii. Heart diseases	- Code VII (390 - 429)
viii. Cerebrovascular diseases	- Code VII (430 - 438)
ix. Diseases of the respiratory system	- Code VIII (460 - 519)
x. Diseases of the digestive system	- Code IX (520 - 579)
xi. Conditions originating in the perinatal period	- Code XV (760 - 779)
xii. Signs, symptoms and ill-defined conditions.	- Code XVI (750 - 799)
xiii. Injury and poisoning.	- XVII (800 - 999)

1.5 Limitations

Since the data covers only the institutional deaths which constitute only a portion of the total deaths in the cities the indications on causes of death given in this report cannot be taken as a common evidence.

1.6 As in the previous year (1988) it is noted that Heart disease was the most predominant cause of death in the two centres with a slight increase in percentage. It is also significant to note that the people most affected by Heart diseases were in the age group of '45 and above.

The causes of deaths medically certified reported from Kochi and Kozhikode Corporation are dealt with in detail in the following paragraphs.

2. KOCHI CORPORATION

The Kochi Corporation was formed in 1967. Its population was 5.13 lakhs as per 1981 census. Having an area of 95 Sq.Kms. the density of population in the Corporation area was 5409 per Sq.km. The estimated mid year population of the Corporation for the year 1989 is 5.81 lakhs. During the year under report 3233 medical certification forms of death relating to this Corporation were verified for analysis as against 3030 during the previous year.

2.2 Sex-wise distribution of the leading causes of death Appendix - I.

Out of the 3233 deaths reported during the year 2238 (69.22%) were of males and 995 (30.78%) females. While it was 2026 and 1004, respectively during the last year (1988).

2.3 Causes of death

The following is the distribution of the above deaths due to different leading causes.

i. Intestinal infectious diseases - Code I (001.-009)

Out of the total deaths, deaths due to Intestinal infectious diseases constitute 0.68% during the year under report as against 1.25% during 1988. 0.53% of the male deaths and 1% of the female deaths were due to this disease.

ii. Tuberculosis Code I (010 - 018)

The percentage share of deaths due to Tuberculosis was 3.74, while it was 4.42 during 1988, 4.74% of the male deaths and 1.51% of the female deaths were due to this disease during the year under report.

iii. Other bacterial diseases Code I (020 - 041)

The share of death due to other bacterial diseases works out to 3.22%. The male and female death in this group were 3.13% and 3.42% respectively. It was less in the year under report as compared to the previous year.

iv. Viral diseases - Code I (045 - 079)

Deaths due to viral diseases constituted 2.44% of the total deaths. During the previous year (1988) it was 2.21%. The male and female breakup were 2.14% and 3.12% respectively during the year under report.

v. Neoplasms - Code II (140 - 239)

Deaths due to Neoplasms was much higher as compared to the items

already mentioned. Percentage of deaths due to this cause was 9.16%, while it was 9.54% during the previous year (1988). This is the third major cause of deaths reported from this Corporation. In this item, the male death was 9.21% and female death 9.04%.

vi. Diseases of the nervous system and sense organs - Code VI(320-389)

Deaths due to disease of the nervous system and sense organs were a few as compared to other causes. Its share was only 1.24% of the total deaths, while it was 1.15% during the previous year. Under this item, the male and female deaths were 1.03% and 1.71% respectively.

vii. Heart diseases - Code VII (390 - 429)

Heart diseases was the major cause of death in the Corporation area as is revealed from the study of the reported deaths; 35.57% of the total deaths was due to heart diseases which is the highest percentage among the category of causes of death. During the year under report this percentage increased slightly as compared to the previous year (33.96%). The male deaths due to this cause was 36.79% and the female deaths was 32.86% which shows that males were more affected by this disease than females.

viii. Cerebro vascular diseases - Code VII (430-438)

Deaths due to cerebro vascular diseases occupied the second position among the causes of deaths. 10.89% of the total deaths reported were due to this cause; while it was 12.05% during the previous year (1988). Percentage of male deaths and female deaths due to this cause was 10.05% and 12.76% respectively.

ix. Diseases of respiratory system - Code VIII (460 - 519)

5.88% of the total deaths reported were due to diseases of respiratory system during the year under report, while it was 5.81% during the previous year (1988). Among males it was 5.85% and among females it was 5.93%.

x. Diseases of the digestive system - Code IX (520 - 579)

Only 2.72% of the total deaths reported was due to this cause which was 3.46% during the previous year (1988). The percentage male victims in this item was 3.30% while in the case of the females it was 1.41%.

xi. Conditions originating in the perinatal period - Code XV (760-779)

Out of the total deaths reported, 6.06% of the deaths was due to this cause. In the previous year (1988) it was 6.14%. Here the male and female share due to this cause was 5.18% and 8.04% respectively.

xii. Signs, symptoms and ill defined conditions - Code XVI (780 - 799)

3.96% of the total deaths reported was due to this cause, while it was 3.5% in the previous year (1988). The percentage of death among males and females was 4.24 and 3.32 respectively.

xiii. Accidents, injuries and poisoning - Code XVII (800 - 999)

Deaths due to this cause stood in the 4th position (8.35%). While it was 7.46% in the previous year (1988). The male deaths were 8.45% and females 8.14%.

xiv. Other causes

6.09% of the total deaths was due to other causes which have not been mentioned earlier. The male and female victims were 5.36% and 7.74% respectively.

2.4 Death according to age - Annexure II

Age-wise analysis of cause of death in four age groups (viz. below one year, 1-14, 15-44 and 45 and above) is attempted below.

i. Below one year (Infants)

8.04% of the total deaths reported was under the age group of below one year (Infants). During the previous year (1988) this percentage was 10.33. As in the previous year conditions originating in the perinatal period ranked first by claiming 48.85%. It was followed by deaths due to other bacterial diseases (13.46%), deaths due to diseases of the respiratory system (11.54%) and deaths due to Heart diseases (10%).

ii. 1-14 years

5.97% of total deaths was under this age group. Deaths in this age group increased slightly as compared to the year 1988, when it was 3.04%. Conditions originating in the perinatal period ranked first by claiming 35.75% of deaths in this age group. The other important causes of death in this age group were deaths due to viral diseases (9.84%), deaths due to diseases of the respiratory system (8.81%) deaths due to heart diseases (8.29%) and deaths due to accidents, injuries and poisoning (7.25%). Other significant causes in this age group were deaths due to other bacterial diseases (5.70%) followed by diseases of nervous system and sense organs (4.15%).

iii. 15-44 years

19.02% of the total deaths was occurred in this age group of 15-44. The two most important causes of death in this age group were accidents injuries and poisoning (26.18%) followed by heart diseases (20.00%).

The Third place was occupied by neoplasms (12.03%). The other important causes in this age group were deaths due to cerebro vascular diseases (7.32%) and signs, symptoms and ill defined conditions (6.99%).

iv. 45 and above

A major portion of the deaths occurred in this age group of 45 and above were due to various types of heart diseases. 66.97% of the total deaths reported during the year under report were in this age group of 45 and above, while it was 69.01% during the previous year (1988). Among them heart diseases accounted for 45.50% followed by cerebro vascular diseases with 13.95%.

The other causes in their order of merit were neoplasms (9.93%) diseases of the respiratory system (5.31%) and accidents, injuries and poisoning (4.30%).

2.5 The details of sex-wise and age-wise deaths are given in Appendix - I and II.

2.6 Domiciliary deaths in Kochi Corporation. - Appendix III

Domiciliary deaths in the Corporation area verified by the Deputy Health Officer were 216, of which 134 were males and 82 females. Among the domiciliary deaths also the most important cause of death was heart diseases, by which 73 males and 38 females were dead. The other significant causes of domiciliary deaths were neoplasms (20), Diabetes mellitus (20), pulmonery tuberculosis (12), cerebrovascular disease (12) and viral hepatitis (9).

2.7 Summary

During the year 1989 also heart disease continued to haunt the lives of both males and females and to be major causes of death.

2. Cerebro vascular diseases stood second among the leading causes of death of men and women.

3. The third major cause of death among the males and females was neoplasms.

4. As compared to the last year, infant deaths had reduced from 10.33% to 8.04% during the year under report. This was the trend shown during the last 3 years. The most important cause for infant deaths was the conditons originating in the perinatal period (48.85%).

5. Accidents injuries and poisoning was another major causes of death among the people of age group of 15-44. Heart disease was also found to be another major causes of death in this age group.

6. Death due to heart disease was highest in the age group of 45 and above.

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KOZHIKODE CORPORATION

Kozhikode Corporation has an area of 83 sq.km. with a population 3.94 lakhs and having a density of 4771 persons per sq.km. as per 1981 Census. The mid-year population of the city for the year 1989 is estimated at 4.53 lakhs.

During the year under report 4798 instances of death have been considered for analysis as against 5985 during the previous year (1988).

3.2 Among the 4798 medically certified deaths, 3066 (69.9%) were of males and 1732 (36.1%) were of females.

3.3 Cause of death - Appendix - iv

The deaths due to different causes are analysed below.

i. Intestinal infectious disease:- Code I (001 - 009)

3.77% of the total medically certified deaths was due to this cause during the year under report in this Corporation area. During the year 1988, the corresponding percentage was 2.64%. The male victims were 3.52% and female victims 4.22%.

ii. Tuberculosis:- Code I (010 - 018)

Out of the total reported deaths, deaths due to tuberculosis were 3.94% with a male & female percentage of 4.60 and 2.77 respectively.

iii. Other bacterial diseases:- Code I (020 - 041)

Out of the total deaths, deaths due to other bacterial diseases constituted 8.07%, which was comparatively high. 7.14% of the victims was males and 9.70% females.

iv. Viral diseases:- Code I (045 - 079)

Deaths due to viral diseases accounted for 3.02% of the total medically certified deaths during the year under report in this Municipal Corporation. In this case the male and female deaths were 2.68%, 3.64% respectively.

v. Neoplasms:- Code II (140 - 239)

8.44% of the total deaths reported was due to this cause. The male and female shares were 9.04% and 7.39% respectively.

vi. Diseases of nervous system and sense organs - Code VI (320 -

389)

4.02% of the total deaths reported was due to this cause with males 3.33% and females 5.25%.

vii. Heart-diseases:- Code VII (390 - 429)

Like Kochi Corporation, heart diseases proved to be the major cause of death in Kozhikode Corporation also. The percentage of death due to this cause was 18.22. As compared to Kochi Corporation (35.57%) the percentage was less in Kozhikode Corporation. 19.80% of the affected victims was males and 15.42 females during the year under report in Kozhikode Corporation.

viii. Cerebro Vascular-disease:- Code VII (430 - 438)

Deaths due to this disease was 9.23% with males 8.90% and females 9.81%.

ix. Disease of the respiratory system:- Code VIII (460 - 519)

8.59% of the total deaths reported was due to this cause. The male and female representation in this item were 8.31% and 9.06% respectively.

x. Disease of the digestive system:- Code IX (520 - 579)

Deaths under this category accounted for 8.59% of the total deaths reported, with male share of 6.43% and female share of 3.00%.

xi. Conditions originating in the perinatal period:- Code XV (760 - 779)

As in the previous year this cause ranked as the 2nd major causes of death during the year under report also. The male and female breakup were 11.45% and 14.15% respectively.

xii. signs, symptoms and ill defined conditions - Code XVI (780-799)

Not even a single death was seen among the medically certified cases reported from Kozhikode Corporation area.

xiii. Accidents, injuries and poisoning:- Code XVII (800 - 999)

The percentage of deaths due to this cause was 7.53 with 8.25% among males and 6.24% among females.

xiv. Other causes

Causes other than those mentioned above attributed to 7.56% of the total deaths with 6.55% among males and 9.35% among females.

3.4 Deaths according to age - Appendix - V

Age-wise analysis of deaths is detailed below.

i. Below one year (infants)

Of the 4798 deaths reported during the year under report 1159

deaths. (24.16%) was among infants due to different causes. The most predominant cause of death in this age-group was conditions originating in the perinatal period (51.43%) followed by other bacterial diseases (21.75%). The other major cause of deaths of infants were diseases of the respiratory system (10.79%), diseases of the nervous system and sense organs (5.18%), intestinal infectious diseases (4.31%) and causes other than those mentioned above (2.93%).

ii. 1-14 years

9.8% of the total deaths were under this age-group 1-14. The three important causes of deaths in this age group were intestinal infectious diseases (16.81%), viral diseases (15.53%) and diseases of the respiratory system (14.68%). The other major causes of deaths in this age-group were accidents, injuries and poisoning (11.28%). Other bacterial diseases (10.21%), diseases of the nervous system and sense organs (8.72%) and neoplasms (6.17%) 4.89% of the deaths were occurred due to tuberculosis in this age-group during the year under report.

iii. 15-44 years

This age-group accounted for 18.77% of the total deaths reported during the year under report. Accidents, injuries and poisoning shared 21.53% of the total deaths in this age-group, followed by heart diseases (14.43%). The other important causes of deaths in this age-group were neoplasms (11.21%), diseases of the digestive system (8.77%) diseases of the respiratory system (16.44%) and tuberculosis (6.21%) 5.88% of the total deaths in this age group were due to diseases of the nervous system and sense organs. Deaths due to causes other than those mentioned above were 14.32%.

iv. 45 year and above

Deaths in this age-group constituted 47.27% of the total deaths reported. Among the cause of deaths, heart diseases scored the highest rank in this age-group with 32.19% of the total deaths. The second place, was occupied by Cerebro Vascular diseases which constituted 18.17% of the total deaths in this age-group. The other important causes of deaths in this age group were neoplasms (11.99%) diseases of the respiratory system (7.05%) and diseases of the digestive system (6.48%). 4.72% of the total deaths were due to tuberculosis.

3.5 Domiciliary death - Appendix - VI

Out of the total 191 domiciliary deaths verified by the Deputy Health Officer in this Corporation. 35 were due to pulmonary tuberculosis and 34 due to senility and ill defined conditions. The other major important causes of deaths were septicaemia (27), heart

disease (25), and neoplasms (21), Enteritis and Gastroenteritis (17), Pneumonia of Bronchitis (14), Cirrhosis of liver (11) and anaemia (5).

3.6 Summary

- i. Even though the number of deaths due to heart disease was less compared to Kochi Corporation, it was the major cause of death among males and females, especially in the age group of 45 and above, in this Corporation also.
- ii. Cerebro Vascular diseases stood third among the leading cause of death, especially for women of age group 45 and above.
- iii. More than 50% of the deaths among infants was happened due to conditions originating in the perinatal period.
- iv. It is significant to note that deaths due to accidents, injuries and poisoning were greater in number in the age group of 15 - 44 (21.53%).
- v. Intestinal infectious disease was the first among the diseases in the age group of 1 - 14 years.

4. A comparative study of the leading causes of death in Kochi and Kozhikode Corporation - Appendix - VII

- i. The leading cause of death in both the Corporations was heart diseases as in the previous year. More over the percentage of death due to this disease in Kochi was about double that of Kozhikode Corporation during the year 1988 and 1989.
- ii. Deaths due to Cerebro Vascular diseases stood second to heart disease in Kochi while perinatal causes in Kozhikode during the year under report had the second rank.
- iii. The major cause of infant deaths was the same (condition originating in the perinatal period) in both the Corporations during the year under report as in the previous year.
- iv. Deaths due to neoplasms were more or less the same in both the Corporations during the year 1988 and 1989.
- v. Deaths due to accidents, injuries and poisoning were high in number in Kochi Corporation as compared to Kozhikode Corporation, especially in the age group of 14 - 44 years, during 1988 and 1989.
- vi. Deaths, due to tuberculosis were more or less in the same level in both the Corporation during the year 1988 and 1989.

- vii. Deaths due to other bacterial diseases were found more in Kozhikode during the year under report and in the previous year.
- viii. Deaths due to intestinal infectious diseases were least in Kochi Corporation which compared to Kozhikode Corporation during the year 1988 and 1989.

5. Sex-wise comparative studies of leading causes in the two corporations of Kochi & Kozhikode during 1988 and '89 Appendix VIII.

1. In the two Corporations the major cause of deaths was heart disease which affected males more than females. During the year under report, a slight increase can also be seen in deaths due to heart disease in both the sex when compared to the year 1988.
2. One of the major cause of death, cerebrovascular diseases affected more females than males in both the corporations during 1988 and 1989.
3. The share of deaths due to neoplasms was more or less same in both the sex during 1988 and 1989 in the Corporation of Kochi and Kozhikode and neoplasms claimed more male lives than female lives.
4. Female infants were more affected by the risk of death due to perinatal causes during 1988 and 1989 in both the Corporations.
5. The highest percentage of males and females affected by diseases of the respiratory system was in Kozhikode Corporation during 1988 and 1989.
6. Deaths due to tuberculosis were seen more in Kochi Corporation than in Kozhikode Corporation, particularly among males.
7. The ratio of death due to other bacterial diseases was higher in Kozhikode Corporation during 1988 and 1989.
8. The percentage of males and females affected by intestinal infectious diseases was also comparatively high in Kozhikode Corporation during 1988 and 1989.
9. Accidents, injuries and poisoning were also considerable among the cause of deaths in both the Corporations during the year 1988 and 1989.

6. Conclusion

Heart disease was found to be the major killer disease in both the centres as in the previous year. The number of deaths due to this cause was comparatively less in Kozhikode Corporation. The other important major causes of deaths in these two Corporations were Cerebrovascular diseases, Neoplasms and disease of the respiratory system. The infants were more affected by the conditions originating in the perinatal period in both the centres.

Appendix - I

SEX-WISE DETAILS OF MEDICALLY CERTIFIED DEATHS IN KOCHI CORPORATION

Sl. No.	Code No.	Cause of death	Male		Female		Total	
			4	5	6	7	8	9
1	2	3						
1.	I (001 - 009)	Intestinal infectious diseases	12	0.53	10	1.00	22	0.68
2.	I (010 - 018)	Tuberculosis	106	4.74	15	1.51	121	3.74
3.	I (020 - 041)	Other bacterial diseases	70	3.13	34	3.42	104	3.22
4.	I (045 - 079)	Viral diseases	48	2.14	31	3.12	79	2.44
5.	II (140 - 239)	Neoplasms	206	9.21	90	9.04	296	9.16
6.	VI (320 - 359)	Diseases of the nervous system and sense organs	23	1.03	17	1.71	40	1.24
7.	VII (390 - 429)	Heart diseases	823	36.79	327	32.86	1150	35.57
8.	VII (430-438)	Cerebrovascular diseases	225	10.05	127	12.76	352	10.89
9.	VIII (460-519)	Diseases of the respiratory system	131	5.85	59	5.93	190	5.88
10.	IX (520-579)	Diseases of the digestive system	74	3.30	14	1.41	88	2.72
11.	XV (760-779)	Conditions originating in the perinatal period	116	5.18	80	8.04	196	6.06
12.	XVI (780-799)	Signs, symptoms of ill defined conditions	95	4.24	33	3.32	128	3.96
13.	XVII (800-999)	Accidents, injuries and poisoning	189	8.45	81	8.14	270	8.35
14.		Others	120	5.36	77	7.74	197	6.09
Total			2238	100.00	995	100.00	3233	100.00

DOMICILIARY DEATH IN KOCHI CORPORATION

Category Sl.No.	Category and Name of diseases	Male	Female	Total
1	2	3	4	5
I.	Infective and Parasitic diseases			
	1. Enteritis and Gastro enteritis	1	1	2
	2. Pulmonary Tuberculosis	9	3	12
	3. Viral hepatitis	7	2	9
II.	Neoplasms	12	8	20
III.	Nutritional & metabolic diseases and immunity disorders			
	1. Diabetes mellitus	10	10	20
IV.	Diseases of blood and blood forming organs			
	1. Anaemia	4	1	5
VI.	Diseases of the nervous system and sense organs			
	1. Meningitis	3	2	5
VII.	Diseases of the circulatory system			
	1. Heart diseases	73	38	111
	2. Cerebro Vascular disease	7	5	12
VIII.	Diseases of the respiratory system			
	1. Bronchitis and Asthma	1	3	4
IX.	Diseases of the digestive system			
	1. Cirrhosis of liver	3	2	5
XVI.	Signs & Symptoms of ill defined conditions	4	4	8
XVII.	Injury and poisoning			
	1. Poisoning	-	3	3
	Total	134	82	216

APPENDIX IV
Sex-wise details of medically certified deaths in Kozhikode Corporation

Sl. No.	Code No.	Cause of death	Male		Female		Total	
			No.	%	No.	%	No.	%
1.	I (001-009)	Intestinal infectious disease	108	3.52	73	4.22	181	3.77
2.	I (010-018)	Tuberculosis	141	4.60	48	2.77	189	3.94
3.	I (020-041)	Other bacterial diseases	219	7.14	168	9.70	387	8.07
4.	I (045-079)	Viral diseases	82	2.68	63	3.64	145	3.02
5.	II (140-239)	Neoplasms	277	9.04	128	7.39	405	8.44
6.	VI (320-389)	Diseases of the nervous system and sense organs.	102	3.33	91	5.25	193	4.02
7.	VII (390-429)	Heart diseases	607	19.80	267	15.42	874	18.22
8.	VII (430-438)	Cerebrovascular diseases	273	8.90	170	9.81	443	9.23
9.	VIII (460-519)	Diseases of the respiratory system.	255	8.31	157	9.06	412	8.59
10.	IX (520-579)	Diseases of the digestive system	197	6.43	52	3.00	249	5.19
11.	XV (760-779)	Conditions originating in the perinatal period.	351	11.45	245	14.15	596	12.42
12.	XVI (780-799)	Signs, symptoms and ill defined conditions.	-	-	-	-	-	-
13.	XVII (800-999)	Accidents, injuries & poisoning	253	8.25	108	6.24	361	7.53
14.		Others	201	6.55	162	9.35	363	7.56
		Total	3066	100	1732	100	4798	100

APPENDIX V
Statement showing the leading causes of death in Kozhikode Corporation
in 1989 according to age groups

Sl. No.	Code No.	Causes of death	Below 1-year						Total	% Total		
			1-4	5-6	7	8	9	10-12				
1.	I (001-009)	Intestinal infectious diseases	50	4.31	79	16.81	20	2.22	32	1.41	181	3.77
2.	I (010-018)	Tuberculosis	3	0.26	23	4.89	56	6.21	107	4.72	189	3.94
3.	I (020-041)	Other bacterial diseases	252	21.75	48	10.21	28	3.11	59	2.60	387	8.07
4.	I (045-079)	Viral diseases	13	1.12	73	15.53	27	3.00	32	1.41	145	3.02
5.	II (140-239)	Neoplasms	3	0.26	29	6.17	101	11.21	272	11.99	405	8.44
6.	VI (320-389)	Diseases of the nervous system & sense organs	60	5.18	41	8.72	53	5.88	39	1.72	193	4.02
7.	VII (390-429)	Heart diseases	8	0.69	6	1.28	130	14.43	730	32.19	874	18.22
8.	VII (430-438)	Cerebrovascular diseases	4	0.34	1	0.21	26	2.88	412	18.17	443	9.23
9.	VIII(460-519)	Diseases of the respiratory system	125	10.79	69	14.68	58	6.44	160	7.05	412	8.59
10.	IX(520-579)	Diseases of the digestive system.	7	0.60	16	3.41	79	8.77	147	6.48	249	5.19
11.	XV(760-779)	Conditions originating in the perinatal period.	596	51.43	-	-	-	-	-	-	596	12.42
12.	XVI(780-799)	Signs, symptoms & ill defined conditions.	-	-	-	-	-	-	-	-	-	-
13.	XVII(800-999)	Accidents, injuries and poisoning.	4	0.34	53	11.28	194	21.53	110	4.85	361	7.53
		Others	34	2.93	32	6.81	129	14.32	168	7.41	363	7.56
			1159	100.00	470	100.00	901	100.00	2268	100.00	4798	100.00

Appendix VI
Domiciliary death in Kozhikode Corporation

Category Sl.No.	Category and name of diseases	Male	Female	Total
1	2	3	4	5
I	Infection and parasitic diseases			
1.	Enteritis and Gastroenteritis	7	10	17
2.	Pulmonary Tuberculosis	19	16	35
3.	Septicaemia	13	14	27
4.	Viral hepatitis	1	1	2
II	Neoplasms	13	8	21
IV.	Diseases of blood and blood forming organs			
i.	Anaemia	4	1	5
VII	Diseases of the circulatory system			
1.	Heart diseases	18	7	25
VIII	Diseases of the respiratory system			
1.	Pneumonia of Bronchitis	9	5	14
IX	Diseases of the digestive system			
1.	Cirrhosis of liver	8	3	11
XVI	Signs & ill-defined conditions			
1.	Senility & ill-defined conditions	21	13	34
	Total	113	78	191

Appendix VII
A comparative study of leading causes of deaths in
Corporations of Kochi & Kozhikode

Sl. No.	Cause of death	Kochi		Kozhikode	
		1988 %	1989 %	1988 %	1989 %
1	2	3	4	5	6
1.	Heart diseases	33.96	35.57	18.13	18.22
2.	Cerebrovascular diseases	12.05	10.89	11.29	9.23
3.	Neoplasms	9.54	9.16	8.52	8.44
4.	Perinatal causes	6.14	6.06	12.82	12.42
5.	Diseases of the respiratory system.	5.81	5.88	8.25	8.59
6.	Tuberculosis	4.42	3.74	4.34	3.94
7.	Other bacterial diseases	3.66	3.22	5.85	8.07
8.	Intestinal infectious diseases	1.25	0.68	2.64	3.77

Appendix VIII
Sex-wise comparative study of leading causes of deaths in the two Corporations of Kochi and Kozhikode during 1988 and 1989

Sl.	Cause of death	K o c h i						Kozhikode			
		1988		1989		1988		1989			
		Male %	Female %	Male %	Female %	Male %	Female %	Male %	Female %		
1	2	3	4	5	6	7	8	9	10		
1.	Heart diseases	33.98	29.88	36.79	32.86	19.51	15.59	19.80	15.42		
2.	Cerebrovascular diseases	9.92	16.34	10.05	12.76	11.25	11.37	8.90	9.81		
3.	Neoplasms	9.67	9.26	9.21	9.04	9.09	7.49	9.04	7.39		
4.	Perinatal causes	4.84	8.77	5.18	8.04	11.75	14.78	11.45	14.15		
5.	Diseases of the respiratory system	5.82	5.78	5.85	5.93	8.34	8.10	8.31	9.06		
6.	Tuberculosis	5.43	2.39	4.74	1.51	4.91	3.31	4.60	2.77		
7.	Other bacterial diseases	3.70	3.58	3.13	3.42	5.16	7.11	7.14	9.70		
8.	Intestinal infectious diseases	1.19	1.39	0.53	1.00	2.14	3.55	3.52	4.22		
9.	Accidents, injuries and poisoning	7.01	8.37	8.45	8.14	7.36	7.01	8.25	6.24		

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