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GOVERNMENT OF KERALA

**MEDICAL CERTIFICATION OF
CAUSES OF DEATH
1992**

DEPARTMENT OF ECONOMICS & STATISTICS
THIRUVANANTHAPURAM

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THE STATE OF TEXAS

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OF DEATH
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DEPARTMENT OF ECONOMICS & STATISTICS
THIRUVANANTHAPURAM
1995

PREFACE

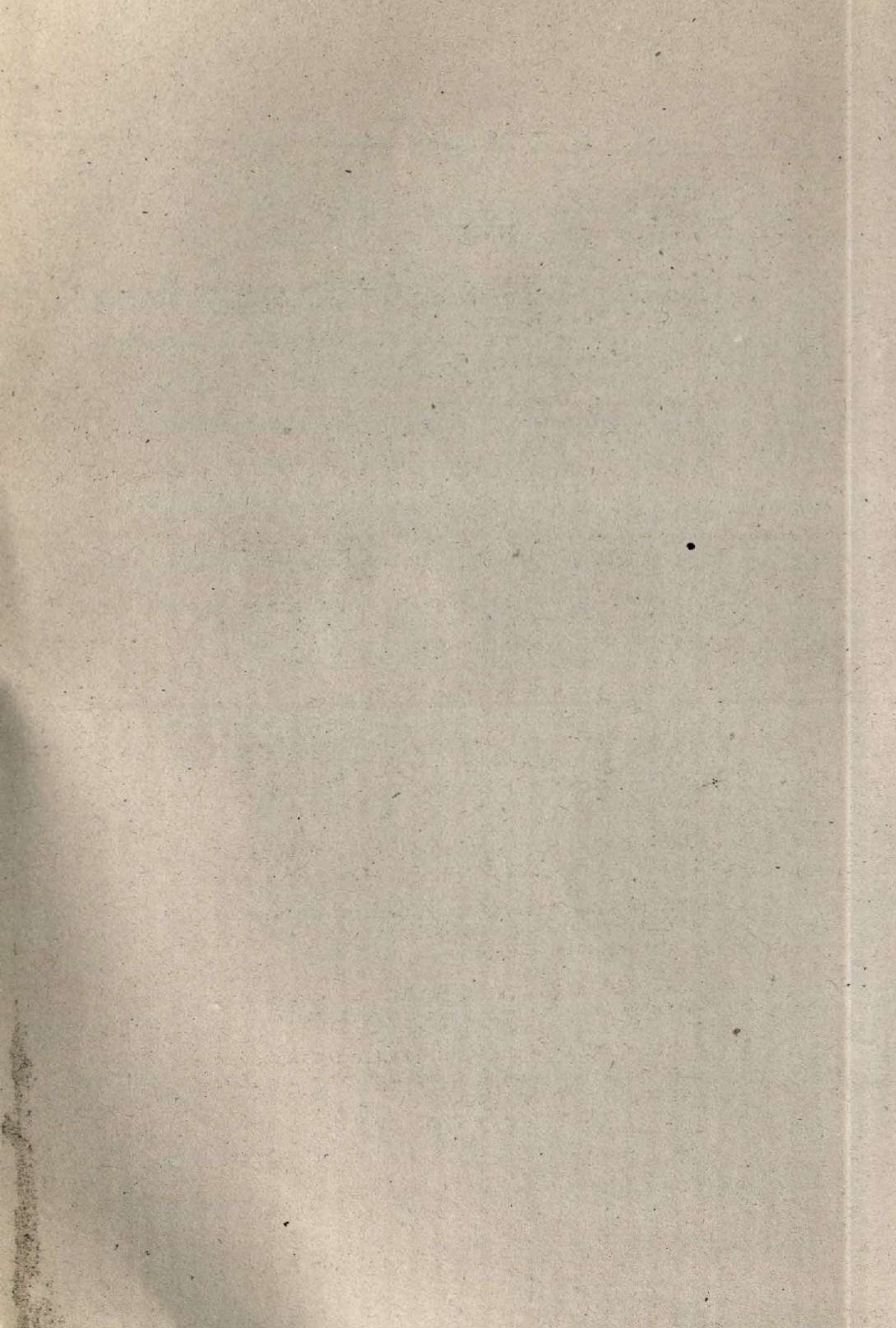
The Scheme "Medical Certification of Cause of Death" was introduced in the State in the three City Corporations of Thiruvananthapuram, Kochi and Kozhikode and two Municipalities of Kollam and Alappuzha with a view to obtain reliable data in the underlying causes of death.

The report dealing with mortality by causes occurred in the City Corporation of Kozhikode and Municipalities of Kollam and Alappuzha during the year 1992 was prepared by the Vital Statistics Unit of this Department.

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Thiruvananthapuram,

31--5--1995.

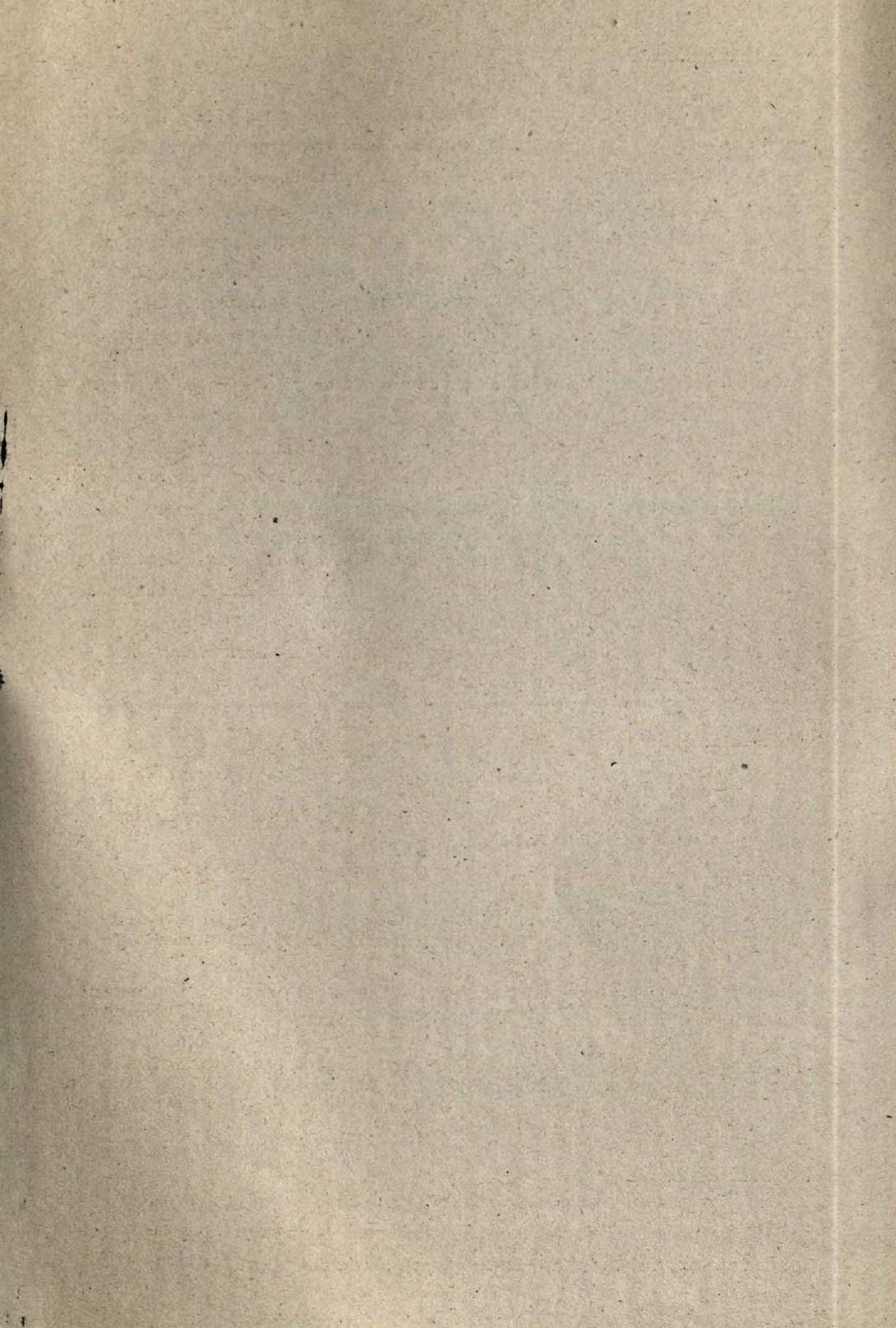


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1. Introduction

The reliable data on morbidity and mortality have an important role in 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.

The Scheme "Medical Certification of Cause of Death" was introduced in the State in 1969. The scheme though with its inherent draw backs, provides leading guidelines to medical practitioners, Social workers, Policy formulators and other interested in the field.

This report deals with the analysis of cause of death in the Corporation of Kozhikode and in the Municipalities of Kollam and Alappuzha. The post of Deputy Health Officer in charge of the scheme was vacant in Thiruvananthapuram and Kochi Corporations during 1992.

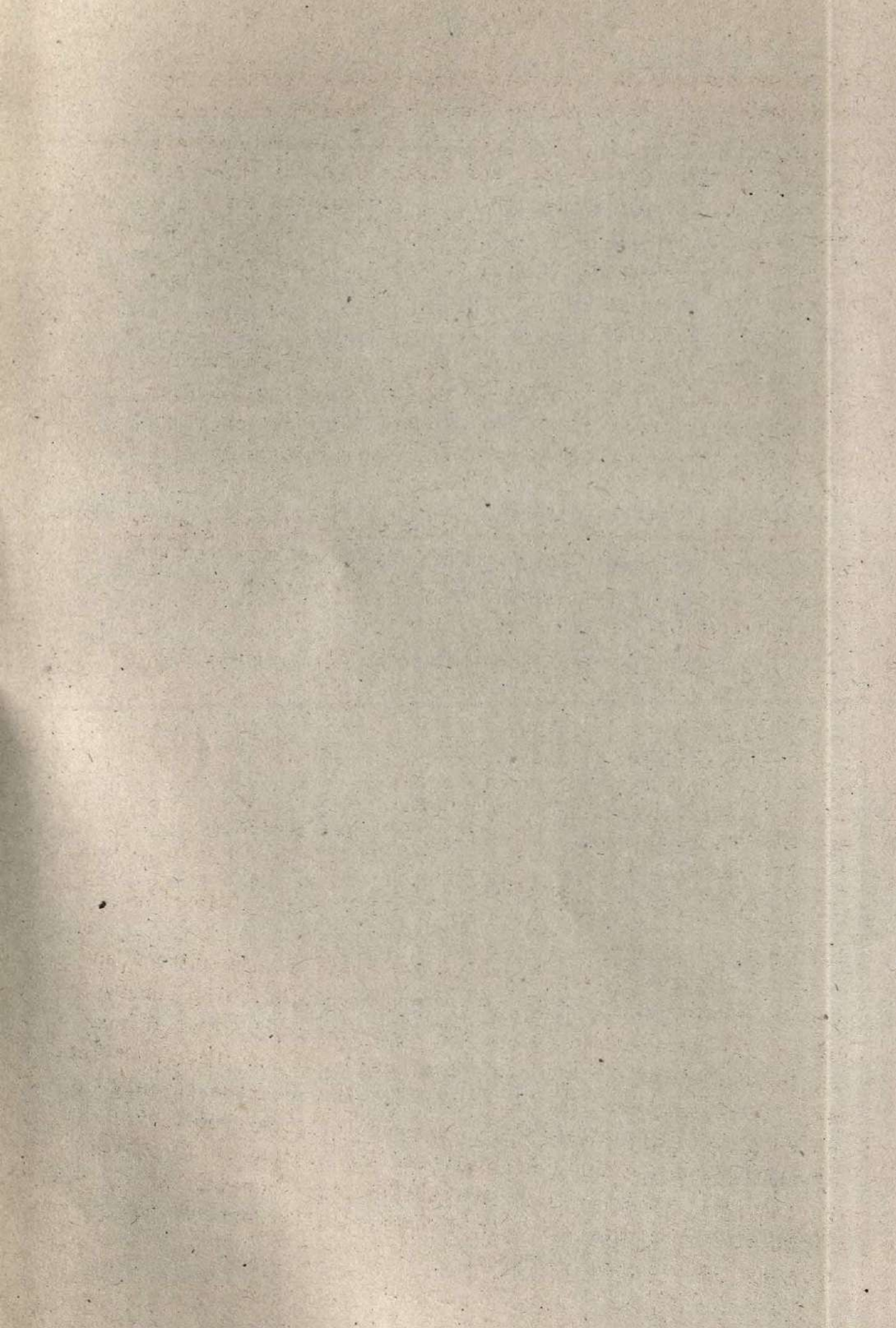
1.1 Objectives

The main objectives of the Scheme are the following:

- (i) To obtain reliable information on the underlying cause 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.
- (iv) To study the mortality pattern of certain important diseases like heart diseases, tuberculosis, Cancer, 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.

1.2 Methodology

The scheme envisages the collection of relevant data relating to all deaths in the medical institutions within the Corporation/Municipal area, having facilities for inpatient treatment.



It is the duty of the attending physicians to furnish the required details on causes of death in the form prescribed for it. The cause of death certificate collected from all the institutions are scrutinised and causes of death identified and coded by the Deputy Health Officer appointed for the purpose. For coding the cause of death, the list A of the international classification of diseases (IX Revisions) is adopted.

1.3. 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 major causes of death which account for at least 3% of death in any one or more centres are analysed in detail. The causes of death which are insignificant are grouped under "others".

The following are found to be the major causes of death.

1. Heart diseases.
2. Cerebrovascular diseases.
3. Diseases of the Respiratory system.
4. Accidents, injuries and poisoning.
5. Conditions originating in the perinatal period.
6. Neoplasam.
7. Diseases of the digestive system.
8. Nutritional & Metabolic diseases and immunity disorders.

1.4 Limitations.

The survey covers the city corporation of Kozhikode and the two municipalities viz. Kollam and Alappuzha. The survey has not been conducted in the two city corporations of Thiruvananthapuram and Kochi; since the post of Deputy Health Officer was vacant in these two Corporations. The coverage is only a portion of total deaths, when compared to large number of deaths occurred in the municipalities and cities in the State, having facilities for impatient treatment. Therefore the indication on causes of death given in this report can not be taken as a common evidence.

1.5 Heart disease was the most predominant cause of death in all the three centres and the percentage is higher among males than females. It is also significant to note that the people most affected by heart disease were in the age group of 45 and above.

The cause of death medically certified reported from Kozhikode Corporation and in the two municipalities of Kollam and Alappuzha are dealt with in detail in the following paragraphs.

2. Kozhikode Corporation

Kozhikode Corporation has an area of 82.7 sq.kms. with a population of 4.2 lakhs having a density of population 5079 per sq.km. as per 1991 census.

During the year under report 4981 instance of medically certified deaths have been considered for analysis as against 4999 cases during the previous year (1991)

2.2 Sex wise distribution of the leading causes of death

Appendix - I

Among the 4981 medically certified deaths 3244 (65.13%) were of males and 1737 (34.87%) were of females.

2.3 Causes of Death

The deaths due to different causes are analysed below.

1. Intestinal Infectious diseases- Code I (001-009)

2.67% of the total medically certified deaths was due to this cause during the year under report in this corporation area, with male and female break up of 2.31% and 3.34% respectively. The corresponding percentage during the previous year (1991) was 3.78 with male and female break up of 3.08 and 5.10 respectively.

contd....4.

2. Tuberculosis - Code I (010-018)

Out of the total medically certified deaths reported deaths due to tuberculosis were 3.11% with male and female break up of 3.76% and 1.90% respectively.

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

about 3.73% of the total deaths was due to this cause 3.48% of the victims were males and 4.20% were females.

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

Deaths due to viral diseases accounted for 3.03% of the total medically certified deaths during the year under report with male and female break up of 2.28% and 4.43% respectively in this corporation as against 2.92% in the previous year (1991)

5. Neoplasms - Code II (140-239)

9.76% of the total deaths reported was of this cause with a male and female breakup of 10.54% and 8.29% respectively.

6. Nutritional and Metabolic diseases and immunity disorders
Code III (240-279)

Deaths due to this disease constituted 3.35% of the total medically certified deaths with a male and female break up of 3.55% and 2.99% respectively.

7. Disease of the ^{nervous} previous system and sense organs
(Code VI -(320-389))

2.91% of the deaths reported was of this cause, the male and female breakup being 2.59% and 3.51% respectively.

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8. Heart Diseases Code VII (390-429)

Heart disease proved to be the major cause of death in Kozhikode corporation as in previous years, but showed a slight decrease when compared to that in the previous year. The percentage of death due to this cause was 21.12% with male and female break up of 23.49% & 16.70% respectively.

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

Death due to this disease was 9.26% with male and female break up of 8.26% and 11.11% respectively.

10. Disease of the Respiratory System (Code VIII (460-519)

8.15% of the total death reported was of this cause with male and female breakup of 7.96% and 8.52% respectively.

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

Death due to this cause accounted for 6.42% of the total deaths with male and female share of 7.4% and 4.61% respectively.

12. Conditions originating in the Perinatal period
Code XV (760-779)

This cause ranked as the 2nd major cause of death during the year under report with 9.8% with a male share of 8.94% and a female share of 11.52%.

13. Signs, Symptoms & all defined conditions
(Code XVI (780-799)

Only 5 cases of deaths were reported from Kozhikode corporation due to this cause, the percentage being 0.10%.

14. Accidents, Injuries & Poisoning Code XVII (800-999)

The percentage of deaths due to this cause was 9.64% with 10.33% among males & 8.35% among females.

15. Other Causes

Causes other than those mentioned above attributed to 6.91% of the total death with male share of 5.02% & female share of 10.42%.

2.4 Death according to age Appendix II

Age wise analysis of deaths is detailed below.

1. Below 1 year (Infant deaths)

Out of the 4981 deaths reported during the year in the corporation, 804 (16.14%) deaths were among infants due to different causes. The most predominant cause of death in this age group was conditions originating in the perinatal period (60.45%) followed by diseases of the respiratory system (10.20%). Other major causes of deaths among the infants were other bacterial diseases (9.45%), diseases of the nervous system and sense organs (5.60%) and causes other than those mentioned above (5.72%).

2. 1--14 years:

7.67% the total deaths were under this age group. 1--14 years the three important causes of death in this age group were viral diseases (16.75%) accidents injuries and poisoning (15.71%) and diseases of the respiratory system (12.04%). The major causes of deaths in the age group were intestinal infections diseases (10.21%) diseases of the nervous system (8.12%). The deaths due to causes other than those mentioned above constituted 9.68%.

3. 15-44 years

Out of the total 4981 deaths 1065 (21.38%) deaths were among this age group. Accidents, injuries and poisoning claimed 21.5% of the total deaths in this age group, followed by heart diseases (14.46%). The other important causes of deaths in this age group were neoplasms (9.95%) diseases of the respiratory system (8.92%) and diseases of the digestive system (7.70%). 3.29% of the deaths in this age group were of tuberculosis, 3.85% were of other bacterial diseases. 4.23% were of viral diseases. 14.36% of deaths in this age group were due to causes other than those mentioned above.

4. 45 years and above.

Deaths in this age group constituted 54.81% of the total deaths reported. Heart diseases stood first among the causes of deaths in this age group with 32.34% of the total deaths. Cerebro vascular diseases occupied the 2nd place (15.71%). The other important causes were neoplasms (12.53%), diseases of the digestive system (7.33%) diseases of the respiratory system (6.70%). Accidents, injuries and poisoning caused 6.78% of the total deaths in this age group. 5.06% of the deaths were due to Nutritional & Metabolic diseases and Immunity disorders and 3.77% were of tuberculosis.

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2.5 Domiciliary Deaths

Appendix III

Out of the total 238 domiciliary deaths verified by the Deputy Health Officer 36 were of senility and illdefined condition 33 were of pneumonia and Bronchitis 31 were of anaemia 28 were of Pulmonary tuberculosis and 27 were of heart diseases. 25 deaths were due to enteritis and gastro enteritis. 23 were of diabetes mellitus.

2.6 Summary

(i) Heart diseases was the major cause of death in this corporation. Deaths due to this cause ^{were} comparatively high in males than in females. The percentage of deaths due to this cause was highest in the age group 45 and above.

(ii) Conditions originating in the perinatal period stood 2nd among the leading causes of deaths, followed by accidents, injuries and poisoning.

(iii) 60.45% of the total deaths among infants were of causes originating in the perinatal period.

(iv) It is significant to note that deaths due to accidents, injuries and poisoning were greater in the age group 15-44 (21.50%)

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(v) Viral disease was the first among the diseases in the age group 1-14 years (16.75%)

3. A comparative study of the leading causes of death in Kozhikode Corporation during the past five years

APPENDIX-IV

- 1) Heart disease was the leading cause of death during the years 1988 to 1992.
- (ii) Deaths due to perinatal causes stood second, followed by cerebrovascular diseases.
- (iii) Deaths due to diseases of the respiratory system, neoplasms, accidents injuries and poisoning were among the major causes of diseases during these 30 years.
- (iv) Deaths due to tuberculosis showed a ^{declining} ~~declining~~ trend.
- (v) Deaths due to accidents, injuries and poisoning showed an increasing trend.

Conclusion

Heart disease was found to be the major killer disease as in the previous years. Other important major causes of death were conditions originating in the perinatal period, accidents injuries and poisoning, and cerebrovascular diseases.

4. Kollam Municipality:

The population of Kollam Municipality was 1.40 lakhs as per 1991 census having an area of 18.48 kms. The density of population per sq. km. was 7568. The number of medically certified cases of deaths received from this Municipality was 1635. The male and female break up being 1035 and 600 respectively.

3.1. causes of death Sexwise distribution of leading

Causes of death
appendix V

Out of the 1635 cases of deaths reported during the year, 1035 (63.30%) were of males and 600 (36.70%) were of females.

Causes of Death

Distribution of deaths due to different leading causes is given below.

(1) Intestinal Infections diseases

Code-I (001-009)

Out of the total deaths, deaths due to intestinal infections diseases constituted 2.02% during the year under report.

The male & female break up of 2.03% and 1.83%, respectively.

The corresponding percentage during 1991 was 3.23%

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(ii) Tuberculosis:- Code I (010-018) out of the total reported deaths, deaths due to tuberculosis was 3.79% with a male and female percentage of 4.35 and 2.67 respectively. The corresponding percentage during 1991 was 3.18.

(iii) Other Bacterial diseases:- Code-I (020-041)

Out of the total deaths, deaths due to this cause were 2.88% with a male and female share of 3.09% and 2.50% respectively.

(iv) Viral diseases: Code I (040- 079)

1.04% of the total deaths reported from this municipality was of this cause with a male and female share of 0.46% and 2.00% respectively.

(v) Neoplasms Code II (140-239)

4.89% of the total deaths were due to this cause, with a male and female share of 5.22% and 4.33% respectively.

(vi) Nutritional and metabolic diseases and immunity Disorders Code II (240-279)

Out of the total deaths, reported from this centre deaths due to this case was 7.77% with a male and female share of 6.96% and 9.16% respectively.

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

4.46% of the total deaths reported was due to this cause with a male and female share of 4.96% & 5.17% respectively.

(viii) Heart diseases: Code (vii) (390-429)

Heart disease proved to be the major causes of deaths in this municipality also. Its share was 26.54% of the total deaths. Deaths due to this cause was comparatively higher in males than ^m females, the male and female share being 28.41% and 23.33% respectively.

IX Cerebro Vascular Diseases Code VIII, 430-438)

3.81% of the total deaths in this centre were of this cause, the male & female share being 7.83% and 10.50% respectively.

X. Diseases of the Respirating System Code VIII(460-519)

Out of the total deaths 11.99% were of this cause. The male & female percentage were 12.46 & 11.17 respectively.

XI. Diseases of the Digestive System Code IX(520-579)

5.08% of the total deaths were due to this cause, the male & female share being 6.47 and 2.67 respectively.

XII Conditions originating in the Perinatal period Code XV(760-779)

6.97% of the total deaths were due to this cause the male and female break up being 6.86% and 7.17% respectively.

XIII Signs, Symptoms & Illdefined Conditions Code XVI

780-799)

2.94% of the total deaths were due to this cause, with a male and female break up of 2.90% and 3% respectively.

XIV Accidents, Injuries and poisoning Code XVI

780-799

Out of the total deaths 5.93% were due to this cause, the male and female share being 6.18% and 5.5% respectively.

XV. Others Causes

Causes other than those mentioned above attributed to 4.89% of the total deaths with 2.70% among male and 9% among females.

3.2 Death according to age

Appendix VI

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

(i) Below 1 year 10.83% of the total deaths reported were under this age group of below one year (infants). During the previous year (1991) this was 13.05% conditions originating in the perinatal period ranked first claiming 64.41% of the total deaths in this age group.

(ii) 1-14 years 2.69% of the total deaths reported were under this age group of 1-14 years. Deaths in this age group has decreased considerably when compared to that of the previous year (1991) when it was 4.03%. Diseases of the respiratory system ranked first among the causes of deaths in this age group i.e. 25%. Intestinal infectious disease was also one of the major causes of death in this age group (15.90%). Other significant causes in this age group were diseases of the nervous system and sense organs (11.36%) heart diseases (9.09%) other bacterial diseases (9.09%) and viral diseases (6.82%). Accidents, injuries and poisoning accounted 4.55% of the total deaths in this age group.

iii) 15-44 years 12.91% of the total deaths were occurred in this age group of 15-44 years while it ~~was~~ ^{was} 12.03% during the previous year (1991). The two major killer diseases in this age group were accidents, injuries and poisoning (24.17%) followed by heart diseases (18.48%).

iv) 45 and above Out of the total deaths, 73.58% of deaths were under this age group of 45 and above. Heart disease was the major killer disease in this age group with 32.25% of the total deaths. The 2nd place was occupied by diseases of the respiratory system with 12.97% followed by Cerebrovascular diseases (11.31%). The other important causes of deaths were neoplasms (5.57%) diseases of the digestive system (5.15) tuberculosis (4.41%) diseases of

the nervous system and some organs (4.24%) Accidents injuries and poisoning claimed 3.57% of total deaths. 5.15% of the deaths were due to causes other than those mentioned above.

3.3 Conclusion (1) As in previous years, heart disease *Continued* contained to be the major killer disease in this municipality also claiming 26.54% of the total deaths. This was most dominant in the age group 45 and above. The other major diseases were diseases of the respiring system. (11.99%). Cerebro vascular diseases (8.81%) Nutritional and metabolic diseases and immunity disorders (7.77%).

(2) 64.41% of deaths among infants were due to conditions originating in the perinatal period.

3) It is significant to note that deaths due to accidents injuries and poisoning were the greatest in the age group of 15-44 years (24.17%).

4) Diseases of the respiratory system was the first among the diseases in the age group of 1-14 years (25%).

4. Alappuzha Municipality

According to 1991 census the population of Alappuzha Municipality was 1.75 lakhs with an area of 47 sq.kms. The density of population per sq.km was 3723.

The number of Medically Certified cases of deaths received in this municipality were 1185, with a male and female break up of 699 (58.99) 486 (41.01%) respectively.

4.2 Causes of Death

Appendix VII

The deaths due to different causes are analysed below.

(1) Intestinal infectious diseases (001-009) Code I

2.62% of total deaths in this municipality were due to this cause during the year under report with a male and female share of 1.43% and 4.32% respectively. During the year 1991, the corresponding percentage was 4.49%.

(2) Tuberculosis Code I (010-018)

Out of the total deaths, deaths due to this cause were 2.62% with a male and female percentage of 3 and 2.06 respectively. The deaths due to this cause during 1991 was 4.20%.

(3) Other Bacterial diseases Code I (020-041)

4.51% of the total deaths were due to this cause with a male and female share of 4.58% and 5.14% respectively.

4) Viral diseases Code I (045-079)

Deaths due to Viral diseases accounted for 1.01% of the total deaths the male and female share being 1 % and 1.03% respectively.

5. Neoplasms Code II (140-239)

4.73% of the total deaths were due to neoplasms, the male and female share being 4.44% and 5.14% respectively.

6. Nutritional and metabolic diseases and immunity disorders. Code III (240-279)

The deaths due to this cause were 2.7% of the total deaths, the male and female break up being 2.58% and 2.88% respectively.

7. Diseases of the nervous systems and sense organs. Code VI (320-389)

5.91% of the total deaths were due to this cause with a male share of 4.86% and a female share of 7.41%.

8. Heart diseases - Heart diseases proved to be the major cause of death as in previous years also. (27.93%) 30.76% of the affected victims were male and 23.87% were female victims.

9. Cerebro Vascular diseases - Code VII (430-438)

This disease caused 10.38% of the total deaths in this Municipality the male and female share being 9.87% and 11.11% respectively.

10. Diseases of the Resperating System - Code VIII (460-519)

8.44% of the total deaths were due to this cause, with a male and female share of 8.15% and 8.85% respectively.

11. Diseases of the Digestive Systems

7.17% of the total deaths were due to this causes the male and female share being 8.30% and 5.56% respectively.

12. Conditions Originating in the Perinatal period
Code XV (760-779)

5.23% of the total deaths were due to this cause, the male and female percentage being 4.58 and 6.17 respectively.

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

1.94% of the total deaths were due to this cause the male and female share being 2% and 1.85% respectively.

14. Accidents, Injuries and Poisoning - Code XVII (800-999)

8.52% of the total deaths were due to this causes, the male and female share being 8.73% and 8.23% respectively.

15. Other causes

5.99% of the total deaths were due to causes other than those mentioned above with 5.72% among males and 6.38% among females.

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4.3 Deaths according to age Appendix VIII

Age-wise analysis of death is detailed below.

1. Below 1 year (Infants) Of the 1185 deaths reported during the year under report, 147 deaths (12.41%) were among infants due to different causes. The most predominant cause of death in this age group was conditions originating in the perinatal period. (40.82%), followed by diseases of the respiratory system (12.25%). Other bacterial diseases (10.20%) diseases of the nervous system (6.12%) heart diseases (4.08%) and diseases of the digestive system (3.40%) causes other than those mentioned above constituted 19.05% of total deaths among infants.

2. 1 - 14 years

4.22% of the total deaths were under this age group of 1 - 14 years. The important causes of death in this age group were heart diseases (18%) accidents, injuries and poisoning (16%) diseases of the respiratory system (12%) diseases of the nervous system (12%). The other major causes of death in this age group were - Other bacterial diseases (6%) neoplasms (6%) viral diseases (4%) Cerebrovascular diseases (4%) and diseases of the digestive system (4%). 12% of the total deaths under this age group were due to causes other than those mentioned above.

3. 15-44 years - 17.38% of the total deaths were under this age group. Accidents, injuries and poisoning constituted 32.03% of the total deaths under this age group, followed by heart diseases (18.93%). The other important causes of deaths in this age group were diseases of the digestive system (8.74%) diseases of the respiratory system (6.80%) Cerebrovascular diseases (6.31%) diseases of the nervous system (6.31%) Tuberculosis (3.88%) neoplasm (3.4%) and intestinal infectious diseases (2.91%). The causes other than those mentioned above constituted 4.37% of the total deaths under this age group.

4. 45 years and above

Deaths in this age group constituted 65.99% of the total deaths reported in this municipality. Heart disease was the major killer disease under this age group (35.42%). Cerebrovascular diseases occupied the 2nd place with 13.68% of the deaths in this age group, followed by diseases of the

~~diseases of the~~ respiratory system (7.93%) and diseases of the digestive system (7.67%). Neoplasms caused 5.75% diseases of the nervous system and sense organs 5.37% and other bacterial diseases 4.35%. 3.33% of death in this age, group were due to accidents, Injuries and poisoning. Intestinal infectious disease and tuberculosis caused 2.94% each of total deaths under this age group. 3.53% of deaths under these age group were due to causes other than those mentioned above.

4.4 Conclusion

(1) Heart disease continued to be the major killer disease in this municipality also claiming 27.93% of the total deaths 35.42% of the total deaths under the age group of 45 & above was due to this cause. The other major diseases were cerebro vascular diseases (10.38%) accidents, injuries and poisoning (8.52%) diseases of the respiratory system (8.44%) diseases of the digestive system (7.17%).

(ii) 40.82% of deaths among infants were due to conditions originating in the perinatal period.

(iii) 32.03% of the total deaths in the age group 15.44 years were due to accidents injuries and poisoning.

DIRECTOR

Appendix - I

Sex-wise details of medically certified deaths in Kozhikode Corporation

Sl. No.	Code No.	Cause of death	Male	%	Female	%	Total	%
1	I(001-009)	Intestinal Infectious Diseases	75	2.31	58	3.34	133	2.67
2	I(010-018)	Tuberculosis	122	3.76	33	1.90	155	3.11
3	I(020-041)	Other Bacterial diseases	113	3.48	73	4.20	186	3.73
4	I(045-079)	Verial diseases	74	2.28	77	4.43	151	3.03
5	II(140.239)	Neoplasms	342	10.54	144	8.29	486	9.76
6	III(240-279)	Nutritional & Metabolic diseases Immunity disorders	115	3.55	52	2.99	167	3.35
7	VI(320-389)	Diseases of the Nervous system & sense organs	84	2.59	61	3.51	145	2.91
8	VII(390-429)	Heart diseases	752	23.49	290	16.70	1052	21.12
9	VII(430-438)	Cerebro vascular diseases	268	8.26	193	11.11	461	9.26
10	VIII(450-519)	Diseases of the respiratory system	258	7.96	148	8.52	406	8.15
11	IX(520-579)	Diseases of the digestive system	240	7.40	80	4.51	320	6.42
12	XV(750-799)	Conditions originating in the perinatal period	290	8.94	200	11.52	490	9.84
13	XVI(790-799)	Signs, Symptoms X All defined conditions	3	0.09	2	0.11	5	0.10
14	XVII(800-999)	Accidents, injuries & poisoning	335	10.33	145	8.35	480	9.64
	Others		168	5.02	181	10.42	344	6.91
	Total		3244	100.00	1737	100.00	4981	100.00

APPENDIX II

Statement showing the leading causes of death in Kozhikode Corporation in 1992 according to age group

Sl. No.	Code No.	Cause of Death	to age group					Total	%			
			Below 1 year	%	1-14	%	15-44			%	45 & above	
1	I (001-009)	Intentional Infections diseases	25	3.11	39	10.21	28	2.63	41	1.50	133	2.67
2	I (010-018)	Tuberculosis	2	0.25	15	3.93	35	3.29	103	3.77	155	3.11
3	I (020-041)	Other Bacterial diseases	76	9.45	18	4.71	41	3.85	51	1.87	186	3.73
4	I (045-079)	Viral diseases	9	1.12	64	16.75	45	4.23	33	1.21	151	3.03
5	II (140-239)	Neoplasms	10	1.24	28	7.33	106	9.95	342	12.53	486	9.76
6	III (240-279)	Nutritional Metabolic diseases & Immunity disorders	1	0.12	3	0.79	25	2.35	138	5.06	167	3.35
7	VI (320-389)	Diseases of the nervous system and sense organs	45	5.60	31	8.12	40	3.76	29	1.06	145	2.91
8	VII (390-429)	Heart diseases	3	0.38	12	3.14	154	14.46	883	32.34	1052	21.12
9	VII (430-438)	Cerebro vascular diseases	1	0.12	2	0.52	29	2.72	429	15.71	461	9.26
10	VII (460-519)	Diseases of the respiratory system	82	10.20	46	12.04	95	8.92	183	6.70	406	8.15
11	IX (520-579)	Diseases of the Digestive system	12	1.49	26	6.81	82	7.70	200	7.33	320	6.42
12	XV (760-779)	Conditions originating in the perinatal period	486	60.45	1	0.26	1	0.09	2	0.07	490	9.84
13	XVI (780-799)	Signs, symptoms, ill defined condition	-	-	-	-	2	0.19	3	0.11	5	0.10
14	XVII (800-999)	Accidents, Injuries and others	6	0.75	60	15.71	229	21.50	185	6.78	480	9.64
		<i>Persons</i>	46	5.72	37	9.68	153	14.36	108	3.96	344	6.91
		Total	804	100	382	100	1065	100.00	2730	100	4981	100

APPENDIX III

Domiciliary deaths in Kozhikode Corporation:-

Sl. No.	Name of the disease	Male	Female	Total
1.	Enterites and Gastro Enterites.	16	9	25
2.	Pulmonary Tuberculosis	15	13	28
3.	Septicemia	5	8	13
4.	Diabetic Mellitus	14	9	23
5.	Neoplasms	1	2	3
6.	Anemia	19	12	31
7.	Heart disease	18	9	27
8.	Pneumonia & Bronchitis	19	14	33
9.	Cirrhoses of Liver <i>ill defined</i>	15	4	19
10.	Serility and un <i>ill defined</i> conditions	25	11	36
Total		147	91	238

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APPENDIX IV

Sex wise comparative study of leading causes of Death in Kozhikode Corporation during
1988, 89, 90, 91 & 92.

Sl. No.	Cause of death	1988		1989		1990		1991		1992
		Male %	Female %	Male %	Female %	Male %	Female %	Male %	Female %	Female %
1.	Heart diseases	19.51	15.59	19.80	15.42	17.52	11.16	23.52	18.49	16.70
2.	Cerebrovascular diseases	11.25	11.37	8.90	9.81	9.21	9.85	8.49	7.42	11.11
3.	Neoplasms	9.09	7.49	9.04	7.39	10.09	8.78	10.32	9.51	8.29
4.	Conditions originating in the perinatal period.	11.75	14.78	11.45	14.15	11.66	16.78	8.83	11.88	11.52
5.	Diseases of the Respiratory system.	8.34	8.10	8.81	9.06	7.53	6.86	8.68	9.22	8.52
6.	Tuberculosis	4.91	3.31	4.60	2.77	2.90	2.69	3.94	2.72	1.90
7.	Other Bacterial diseases	5.16	7.11	7.14	9.70	5.30	5.79	3.79	4.81	4.20
8.	Intestinal infections diseases.	2.14	3.55	3.52	4.22	2.90	3.70	3.08	5.10	3.84
9.	Accidents, Injuries & poisoning	7.36	7.01	8.25	6.24	11.92	9.79	8.28	7.30	8.35

APPENDIX-V

Sex-wise details of medically certified deaths in Kollam Municipality

Sl. No.	Code No.	Cause of death	Male	Female	Percentage	Percentage	Total	Percentage
1	I(001-009)	Intestinal infections diseases	21	12	2.03	1.83	33	2.02
2	I(010-018)	Tuberculosis	45	17	4.35	2.67	62	3.79
3	I(020-041)	Other Bacterial Diseases	32	15	3.09	2.50	47	2.88
4	I(045-079)	Viral diseases	5	12	0.48	2.00	17	1.04
5	II(140-239)	Neoplasm	54	26	5.22	4.33	80	4.89
6	III(240-279)	Nutritional & Metabolic diseases and immunity disorders	72	55	6.96	9.16	127	7.77
7	VI(320-389)	Diseases of the Nervous System and sense organs	42	31	4.06	5.17	73	4.46
8	VII(390-429)	Heart disease	294	140	28.41	23.33	434	25.54
9	VIII(430-438)	Cerebro vasuolar diseases	81	63	7.83	10.50	144	8.81
10	VIII(460-519)	Diseases of the respiratory system	129	67	12.46	11.17	196	11.99
11	IX(520-579)	Diseases of the Digestive system	67	16	6.47	2.67	83	5.08
12	XV(750-779)	Conditions originating in the perinatal period	71	43	6.86	7.17	114	6.97
18	XVI(780-799)	Signs, Symptoms & ill defined conditions	30	18	2.90	3.00	48	2.94
14	XVII(800-999)	Accidents, Injuries and poisoning	64	33	6.18	5.50	97	5.93
15		Others	28	52	2.70	9.00	80	4.89
		Total	1035	600	100.00	100.00	1635	100.00

APPENDIX - VI
Sexwise details of medically certified deaths in Mysore State

Sl. Code No.	Cause of Death	Male	Percentage	Female	Percentage	Total	Percentage
No.			tags		tags		tags
1	2	3	4	5	6	7	8
1. I(001-009)	Intestinal Infectious diseases	10	1.43	21	4.32	31	2.62
2. I(010-018)	Tuberculosis	21	3.00	10	2.06	31	4.62
3. I(020-041)	Other Bacterial Diseases	32	4.58	25	5.14	57	4.81
4. I(045-079)	Viral Diseases	7	1.00	5	1.03	12	1.01
5. II(140-239)	Mycoplasma	31	4.44	25	5.14	56	4.73
6. III(240-279)	Nutritional & Metabolic diseases & Immunity disorders	18	2.58	14	2.88	32	2.70
7. VII(320-389)	Diseases of the nervous system & sense organs	34	4.86	36	7.41	70	5.91
8. VII(390-429)	Heart diseases	215	30.76	116	23.87	331	27.92
9. VII(430-438)	Cerebro vascular Diseases	69	9.87	54	11.11	123	10.28
10. VIII(460-519)	Diseases of the Respiratory system	57	8.15	43	8.85	100	8.44
11. IX(520-579)	Diseases of the Digestive system	58	8.30	27	5.56	85	7.17
12. XV(760-779)	Conditions originating in the perinatal period	32	4.58	30	6.17	62	5.23
13. XVI(780-799)	Signs symptoms & ill defined conditions	14	2.00	9	1.85	23	1.94
14. XVII(800-999)	Accidents Injuries & Poisonary others	61	8.73	40	8.23	101	8.52
	others	40	5.72	31	6.38	71	5.88
	Total	699	100.00	486	100.00	1185	100.00

APPENDIX - VI

Statement showing the leading causes of death in Kollam Municipality in 1992 according to age group

Sl. Code No.	Cause of death	Below 1 Year	4	5	6	7	8	9	10	11	12	13
1. I(001-009)	Intestinal infectious diseases	7	3.95	7	15.90	6	2.84	13	1.08	33	2.08	
2. I(010-018)	Tuberculosis	-	-	2	4.55	7	3.32	53	4.41	52	2.79	
3. I(020-041)	Other bacterial diseases	20	11.30	4	9.09	7	3.32	16	1.33	47	2.83	
4. I(045-079)	Viral diseases	-	-	3	6.82	2	0.95	12	1.00	17	1.04	
5. II(140-239)	Mycoplasmas	-	-	-	-	13	6.16	67	5.57	80	4.80	
6. III(240-279)	Nutritional & Metabolic diseases & immunity disorders	1	0.57	2	4.55	9	4.27	115	9.56	127	7.77	
7. VI(320-389)	Diseases of the nervous system	3	1.69	5	11.36	14	6.63	51	4.24	73	4.46	
8. VII(390-429)	Heart diseases	3	1.69	4	9.09	39	18.48	388	32.25	434	26.54	
9. VII(430-438)	Cerebrovascular diseases	-	-	-	-	8	3.79	136	11.31	144	8.81	
10. VIII(460-519)	Diseases of the Respiratory system	15	8.47	11	25.00	14	6.64	156	12.37	196	11.99	
11. IX(520-579)	Diseases of the digestive system	1	0.57	2	4.55	18	8.53	62	5.15	83	5.08	
12. X(760-779)	Conditions originating in the perinatal period	114	64.41	-	-	-	-	-	-	114	6.97	
13. XVI(160-799)	Signs Symptoms & III defined condition	8	4.52	1	2.27	10	4.74	29	2.41	48	2.94	
14. XVII(800-999)	Accidents, Injuries & Poisoning	1	0.57	2	4.55	51	24.17	43	3.57	97	5.93	
	Others	4	2.26	1	2.27	13	6.16	62	5.15	80	4.89	
	Total	177	100	44	100	211	100	12.03	100	1625	100	

APPENDIX VIII

Statement showing the leading causes of death in Alappuzha Municipality in 1992 according to age group

Sl. Code No.	Cause of Death	Below 1 year		1-14 year		15-44 year		45 & above		Total	Total %
		No.	%	No.	%	No.	%	No.	%		
1. I (001-009)	Intestinal Infectious diseases.	1	0.68	1	2.00	6	2.91	23	2.94	31	2.62
2. I (010-018)	Tuberculosis	-	-	-	-	8	3.88	23	2.94	31	2.62
3. I (020-041)	Other bacterial diseases.	15	10.20	3	6.00	5	2.43	34	4.35	57	4.81
4. I (045-079)	Viral diseases.	-	-	2	4.00	2	0.97	8	1.02	12	1.01
5. II (140-239)	Neoplasm	1	0.68	3	6.00	7	3.40	45	5.76	56	4.73
6. III (240-279)	Nutritional & Metabolic Diseases & Immunity disorders.	1	0.68	1	2.00	3	1.46	27	3.45	32	2.70
7. VI (320-389)	Diseases of the nervous system & sense organs.	9	6.12	6	12.00	13	6.31	42	5.37	70	5.91
8. VII (390-429)	Heart diseases	6	4.08	9	18.00	39	18.93	277	35.42	331	27.93
9. VIII (430-438)	Cerebro Vascular diseases.	1	0.68	2	4.00	13	6.31	107	13.68	123	10.38
10. VIII (460-519)	Diseases of the respiratory system.	18	12.25	6	12.00	14	6.80	62	7.93	100	8.44
11. IX (520-579)	Diseases of the Digestive system.	5	3.40	2	4.00	18	8.74	60	7.67	85	7.17
12. XVI (780-799)	Conditions originating in the perinatal period.	60	40.82	-	-	-	-	2	0.26	62	6.23
13. XVI (780-799)	Signs, symptoms ill defined condition.	1	0.68	1	2.00	3	1.46	18	2.30	23	1.94
14. XVII (800-999)	Accidents, Injuries and poisoning	1	0.68	8	16.00	66	32.03	26	3.33	101	8.52
	Others	28	19.05	6	12.00	9	4.37	28	3.58	71	5.99
	Total	147	100.00	50	100.00	206	100.00	782	100.00	1185	100.00

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