



Government of Kerala

Report on

**MEDICAL CERTIFICATION OF
CAUSE OF DEATH
1996**

**Department of Economics and Statistics
Thiruvananthapuram**



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PREFACE

The scheme "Medical Certification of Cause of Death" was introduced in the state in the three city Corporations of Thiruvananthapuram, Kochi, Kozhikode and two Municipalities of Kollam and Alappuzha with a view to obtain valuable data regarding the causes of death. However due to paucity of Technical staff in Municipalities/ Corporations data pertaining to Thiruvananthapuram Corporations alone has been compiled in this report.

The report pertaining to Thiruvananthapuram Corporation for the year 1996 was prepared by the Vital Statistics unit of this Directorate.

A. Meera Sahib
Director

Thiruvananthapuram

26/03/2002

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REPORT ON
MEDICAL CERTIFICATION OF CAUSES OF DEATH 1996
FOR CORPORATION OF THIRUVANANTHAPURAM

Mortality deals with the effect of death on population. The data on mortality is indispensable for demographic studies, formulating public health programmes, policy framing for insurance companies, etc. Cause of death is one of the most important aspects of mortality. Therefore scientific data on cause of death is highly warranted aspect of population.

Death of a person happens due to either immediate cause or antecedent causes. Identification of the exact cause of death is very arduous. Similarly death may be due to diseases, suicide, accident or homicide. Pooling the data on cause of death has been done as the part of the national level scheme of Medical Certification of cause of Death under Vital Statistics data collection.

The Scheme of Medical Certification of Cause of Death

The scheme of Medical Certification of Cause of Death was introduced in the state as part of All India programme for improvement of Vital Statistics. The scheme in this state was introduced in the three Corporations of Thiruvananthapuram, Kochi and Kozhikode and in the Municipalities of Kollam and Alappuzha. The scheme envisages collection of relevant data relating to all deaths for institutional death. The main objective of the scheme are:-

1. To obtain reliable data on cause of death.
2. To pinpoint the leading cause of death for male and female.
3. To identify the individual cause of death in certain specified groups like infants, mothers and aged persons.

The death certificates issued by the medical institutions are scrutinised and coded by competent officers according to the international standard classification of diseases.

The present study pertains to the Thiruvananthapuram Corporation, for the year 1996.

Limitations

Scientific data is not fully obtained due to reasons such as under reporting of vital event inadequacy of medically certified deaths larger portion of the death attributed to senility ill-defined and unknown causes of death etc. Since this scheme covers only institutional death which constitute only a portion of the total deaths the indication on causes of death from this system is not comprehensive.

Cause of death

Cause of death is defined as the morbid condition or disease process or abnormality, injury or poisoning leading directly or indirectly to death.

Thiruvananthapuram Corporation 1996

As per 1991 census, population of Thiruvananthapuram Corporation was 524006 with an area of 73.93 Sq.Km also having a density of population of 6993. During the year under report, the number of medically certified deaths verified and analysed were 6604 with a break up of male and female, 4100 and 2504 respectively.

Sex-wise distribution of leading cause of deaths

Out of the 6604 deaths verified during the year, 4100 (62.08%) were of male and 2504 (37.92%) of females.

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Sex-wise distribution of leading cause of deaths

Out of the 6604 deaths verified during the year, 4100 (62.08%) were of male and 2504 (37.92%) of females.

Cause of death

The main cause of death occurred in the year 1996 are given below:

1. Intestinal infection diseases - Code I (001 – 009):-

0.50% of the total medically certified deaths were due to this cause during the year, with male and female break up of 0.46%, 0.56% respectively.

II. Tuberculosis - Code I (010 – 018)

Death due to Tuberculosis constituted 4.45% of the total with 5.71% among male and 2.40% among females during the year under report.

III. Other Bacterial diseases - Code I (020 – 041)

The percentage of deaths occurred due to Bacterial disease came to 2.11% with a share of male and female 2.05% and 2.20% respectively.

IV. Viral diseases – Code I (045 – 079)

Total deaths due to this cause were about 0.92% of total medically certified deaths during the year under report with male and female break-up of 0.93% and 0.92% respectively.

V. Neoplasm - Code II (140 – 239)

Death due to Neoplasm was 8.44% during the year 1996. This rates 5th place among the major causes of deaths.

VI. Nutritional and metabolic diseases and immunity disorders – Code III (240 – 279)

About 3.54% of the total deaths were due to this cause, of which 3.49% was males and 3.63% was females.

VII. Diseases of the nervous system and sense organs

3.39% of the total deaths occurred due to this cause the male – female break-up being 3.22% and 3.67% respectively.

VIII. Heart diseases – Code VII (390 – 429)

Heart diseases occupy the first place among the causes of death. The percentage of death due to this cause was 24.56% with male and female break-up of 25.63% and 22.80% respectively. Male death is prominent due to this cause.

IX. Cerebro Vascular diseases - Code VII (430 – 438)

Cerebro Vascular diseases forms 3rd place among the cause of death. 10.30% of the deaths occurred due to this cause. In this 9.61% forms male death and 11.42% female death. Here also female death is greater than male death due to this cause.

X. Diseases of the respiratory system – Code VIII (460 – 519)

Percentage share of death due to this cause occupies 5.72, in which the male and female deaths were 6.03% and 5.23% respectively.

XI. Diseases of the digestive system – Code IX (520 – 579)

Deaths due to this cause claimed 6.53% of the total deaths with male and female share of 8.12% and 3.91% respectively.

XII. Conditions originating in the perinatal period – Code XV (760 – 779)

Among the causes of death this cause occupy 5.51% during the year, with 3.46% of males and 8.87% of female.

XIII. Signs, symptoms of ill defined conditions – Code XVI (780-799)

Deaths occurred due to ill-defined condition forms 2.01% of the total, out of which 2.02% was male deaths and 2.00% female death.

XIV. Accidents, injuries and poisoning – Code XVII (800 – 999)

The total percentage of deaths due to this cause was 12.31% in which 12.10% among males and 12.66% among female. This forms the 2nd major cause of death in the Thiruvananthapuram Corporation.

XV. Other causes

Causes other than those mentioned above accounted to 9.71% out of which male and female share was 9.00% and 10.86% respectively

Death according to age group

The percentage of death for the age group below 1-year (infants) was 9.33 followed by 4.65% for the age group 1-14. The percentage of death among the age group 15-44 is 21.4% and that 64.56% of death occurred in the age group of 45 and above.

The major killer disease in the age group of below 1 year (infants) was conditions originating in the perinatal period (59.09) and the major cause of death of the age group 1-14 was Neoplasm (17.26%). Accidents, injuries and poisoning act as major killer items (30.42%) among the age group 15-44. For the age group of 45 and above, heart diseases indicated the major killer disease (32.97%).

Conclusion

Heart diseases emerged as the major cause of death (24.56), especially in the age group of 45 and above. Followed by accidents, injuries and poisoning (12.31) and cerebro vascular diseases caused 10.30% of the deaths during the year 1996.

DEATH ACCORDING TO AGE GROUP THIRUVANANTHAPURAM CORPORATION YEAR 1996

Sl No	Age Group	No	Percentage
1	Below 1 year	616	9.33
2	1-14	307	4.65
3	15-44	1417	21.46
4	45 and above	4264	64.56
	Total	6604	100.00

**PERCENTAGE OF DEATH DUE TO MAJOR DISEASES WITH MALE AND FEMALE
BREAK-UP**

YEAR 1996

CENTRE: THIRUVANANTHAPURAM CORPORATION

Sl. No	Code No	Major Diseases	Males %	Female %	Total %
1	VII 390-429	Heart Diseases	25.63	22.80	24.56
2	XVII 800-999	Accidents, Injuries & Poisoning	12.10	12.66	12.31
3	XVIII 430-438	Cerebro vascular diseases	9.61	11.42	10.30
4	II 140-239	Neoplasm	8.17	8.87	8.44
5	IX 520-579	Diseases of the Digestive System	8.12	3.91	6.53
6	VIII 460-519	Diseases of the Respiratory system	6.03	5.23	5.72
7	XV 760-779	Conditions originating in the parental period	3.46	8.87	5.51
8	I 010-018	Tuberculosis	5.71	2.40	4.45
Percentage Total			78.83	76.16	77.82

APPENDIX - IA

Sex wise details of medically certified deaths in Thiruvananthapuram Corporation 1996

Sl No	Code No	Cause of death	Male	%	Female	%	Total	%
1	I (001-009)	Intestinal infections diseases	19	0.46	14	0.56	33	0.50
2	I (010-018)	Tuberculosis	234	5.71	60	2.40	294	4.45
3	I (020-041)	Other Bacterial diseases	84	2.05	55	2.20	139	2.11
4	I (045-079)	Viral diseases	38	0.93	23	0.92	61	0.92
5	II (140-239)	Neoplasm	335	8.17	222	8.87	557	8.44
6	III (240-279)	Nutritional & metabolic disease	143	3.49	91	3.63	234	3.54
7	VI (320-389)	Diseases of nervous system and sense organs.	132	3.22	92	3.67	224	3.39
8	VII (390-429)	Heart diseases	1051	25.63	571	22.80	1622	24.56
9	VII (430-438)	Cerebro vascular diseases	394	9.61	286	11.42	680	10.30
10	VIII (460-519)	Diseases of the respiratory system	247	6.03	131	5.23	378	5.72
11	IX (520-579)	Diseases of the digestive system	333	8.12	98	3.91	431	6.53
12	XV (760-779)	Conditions originating in the perinatal period	142	3.46	222	8.87	364	5.51
13	XVI (780-799)	Signs, symptoms, ill defined condition	83	2.02	50	2.00	133	2.01
14	XVII (800-999)	Accidents, injuries & poisoning	496	12.10	317	12.66	813	12.31
15	Others	All other diseases	369	9.00	272	10.86	641	9.71
			4100	100.00	2504	100.00	6604	100.00

APPENDIX - IIA

**Statement showing the leading causes of death in Thiruvananthapuram Corporation in 1996 -
According to age group**

Below 1 year

Sl No	Code No	Cause of death	Male	%	Female	%	Total	%
1	I(001-009)	Intestinal infections diseases	2	0.77	5	1.41	7	1.14
2	I(010-018)	Tuberculosis						
3	I(020-041)	Other Bacterial diseases	10	3.83	12	3.38	22	3.57
4	I(045-079)	Viral diseases	3	1.15			3	0.49
5	II(140-239)	Neoplasm			5	1.41	5	0.81
6	III(240-279)	Nutritional & metabolic disease	2	0.77	3	0.85	5	0.81
7	VI(320-389)	Diseases of nervous system and sense organs.	9	3.44	13	3.66	22	3.57
8	VII(390-429)	Heart diseases	3	1.15	3	0.85	6	0.97
9	VII(430-438)	Cerebro vascular diseases						
10	VIII(460-519)	Diseases of the respiratory system	14	5.36	17	4.79	31	5.03
11	IX(520-579)	Diseases of the digestive system	3	1.15	1	0.28	4	0.65
12	XV(760-779)	Conditions originating in the perinatal period	142	54.41	222	62.53	364	59.09
13	XVI(780-799)	Signs, symptoms, ill defined condition	3	1.15	4	1.13	7	1.14
14	XVII(800-999)	Accidents, injuries & poisoning	2	0.77			2	0.33
15	Others	All other diseases	68	26.05	70	19.71	138	22.4
			261	100.00	355	100.00	616	100.00

APPENDIX – IIA

**Statement showing the leading causes of death in Thiruvananthapuram Corporation in 1996 –
According to age group**

1-14 years

Sl No	Code No	Cause of death	Male	%	Female	%	Total	%
1	I(001-009)	Intestinal infections diseases	3	1.67			3	0.98
2	I(010-018)	Tuberculosis	1	0.56	3	2.36	4	1.30
3	I(020-041)	Other Bacterial diseases	13	7.22	12	9.45	25	8.14
4	I(045-079)	Viral diseases	8	4.44	3	2.36	11	3.58
5	II(140-239)	Neoplasm	34	18.89	19	14.96	53	17.26
6	III(240-279)	Nutritional & metabolic disease	4	2.22	2	1.58	6	1.95
7	VI(320-389)	Diseases of nervous system and sense organs.	27	15.00	16	12.60	43	14.01
8	VII(390-429)	Heart diseases	2	1.11	1	0.79	3	0.98
9	VII(430-438)	Cerebro vascular diseases	3	1.67	2	1.57	5	1.63
10	VIII(460-519)	Diseases of the respiratory system	9	5.00	8	6.30	17	5.54
11	IX(520-579)	Diseases of the digestive system	13	7.22	3	2.36	16	5.21
12	XV(760-779)	Conditions originating in the parental period						
13	XVI(780-799)	Signs, symptoms, ill defined condition	6	3.33	7	5.51	13	4.24
14	XVII(800-999)	Accidents, injuries & poisoning	21	11.67	15	11.81	36	11.73
15	Others	All other diseases	36	20.00	36	28.35	72	23.45
			180	100.00	127	100.00	307	100.00

APPENDIX - IIA

**Statement showing the leading causes of death in Thiruvananthapuram Corporation in 1996 -
According to age group**

15-44years

Sl No	Code No	Cause of death	Male	%	Female	%	Total	%
1	I(001-009)	Intestinal infections diseases	5	0.60	5	0.85	10	0.71
2	I(010-018)	Tuberculosis	58	7.00	25	4.25	83	5.86
3	I(020-041)	Other Bacterial diseases	19	2.29	13	2.21	32	2.26
4	I(045-079)	Viral diseases	11	1.33	8	1.36	19	1.34
5	II(140-239)	Neoplasm	85	10.25	55	9.36	140	9.88
6	III(240-279)	Nutritional & metabolic disease	16	1.93	18	3.06	34	2.40
7	VI(320-389)	Diseases of nervous system and sense organs.	30	3.62	25	4.25	55	3.88
8	VII(390-429)	Heart diseases						
9	VII(430-438)	Cerebro vascular diseases	40	4.83	33	5.61	73	5.15
10	VIII(460-519)	Diseases of the respiratory system	34	4.10	18	3.06	52	3.67
11	IX(520-579)	Diseases of the digestive system	84	10.13	29	4.93	113	7.97
12	XV(760-779)	Conditions originating in the perinatal period						
13	XVI(780-799)	Signs, symptoms, ill defined condition	14	1.69	8	1.36	22	1.55
14	XVII(800-999)	Accidents, injuries & poisoning	242	29.19	189	32.15	431	30.42
15	Others	All other diseases	191	23.04	162	27.55	353	24.91
			829	100.00	588	100.00	1417	100.00

APPENDIX – IIA

**Statement showing the leading causes of death in Thiruvananthapuram Corporation in 1996 –
According to age group**

Above 45 years

Sl No	Code No	Cause of death	Male	%	Female	%	Total	%
1	I(001-009)	Intestinal infections diseases	9	0.32	4	0.28	13	0.30
2	I(010-018)	Tuberculosis	175	6.18	32	2.23	207	4.85
3	I(020-041)	Other Bacterial diseases	42	1.49	18	1.26	60	1.41
4	I(045-079)	Viral diseases	16	0.57	12	0.84	28	0.66
5	II(140-239)	Neoplasm	216	7.63	143	9.97	359	8.42
6	III(240-279)	Nutritional & metabolic disease	123	4.35	74	5.16	197	4.62
7	VI(320-389)	Diseases of nervous system and sense organs.	66	2.33	38	2.65	104	2.44
8	VII(390-429)	Heart diseases	929	32.83	477	33.26	1406	32.97
9	VII(430-438)	Cerebro vascular diseases	351	12.40	251	17.50	602	14.12
10	VIII(460-519)	Diseases of the respiratory system	190	6.71	88	6.14	278	6.52
11	IX(520-579)	Diseases of the digestive system	233	8.23	65	4.53	298	6.99
12	XV(760-779)	Conditions originating in the perinatal period						
13	XVI(780-799)	Signs, symptoms, ill defined condition	60	2.12	31	2.16	91	2.13
14	XVII(800-999)	Accidents, injuries & poisoning	231	8.16	113	7.88	344	8.07
15	Others	All other diseases	189	6.68	88	6.14	277	6.5
			2830	100.00	1434	100.00	4264	100.00

1201