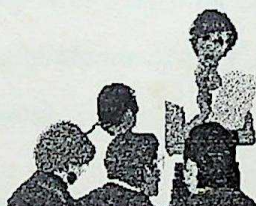


Vital Statistics

Residential Vital Events in Municipalities and Corporations 1994



Department of Economics & Statistics

Preface



This report presents the adjusted residential rates of birth and death in 31 Municipalities and 3 Corporations of Kerala during the year 1994. These rates have been estimated from the registered rates of births and deaths to normal residents after making adjustments for under registration and for the events occurred outside the Municipal/Corporation areas. The results of the spot check survey have been utilised for the calculation of adjusted residential rates of births and deaths.

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Any suggestions for improvement/Changes are heartily welcomed.

Thiruvananthapuram
08 - 01-1997

U.Thomas Sleeba
Director

DEC
1941

Proposed

The following is a list of the proposed
changes to the constitution of the
organization. It is suggested that
these changes be adopted at the
annual meeting of the organization
to be held on the 15th day of
December, 1941.

1. To amend Article I, Section 1,
to read: "The purpose of this
organization shall be to promote
the interests of the members
and to conduct such other
business as may come before
the organization."

Respectfully,
Secretary

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Chapter 25	360
Chapter 26	375
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Chapter 28	405
Chapter 29	420
Chapter 30	435
Chapter 31	450
Chapter 32	465
Chapter 33	480
Chapter 34	495
Chapter 35	510
Chapter 36	525
Chapter 37	540
Chapter 38	555
Chapter 39	570
Chapter 40	585
Chapter 41	600
Chapter 42	615
Chapter 43	630
Chapter 44	645
Chapter 45	660
Chapter 46	675
Chapter 47	690
Chapter 48	705
Chapter 49	720
Chapter 50	735
Chapter 51	750
Chapter 52	765
Chapter 53	780
Chapter 54	795
Chapter 55	810
Chapter 56	825
Chapter 57	840
Chapter 58	855
Chapter 59	870
Chapter 60	885
Chapter 61	900
Chapter 62	915
Chapter 63	930
Chapter 64	945
Chapter 65	960
Chapter 66	975
Chapter 67	990
Chapter 68	1005
Chapter 69	1020
Chapter 70	1035
Chapter 71	1050
Chapter 72	1065
Chapter 73	1080
Chapter 74	1095
Chapter 75	1110
Chapter 76	1125
Chapter 77	1140
Chapter 78	1155
Chapter 79	1170
Chapter 80	1185
Chapter 81	1200
Chapter 82	1215
Chapter 83	1230
Chapter 84	1245
Chapter 85	1260
Chapter 86	1275
Chapter 87	1290
Chapter 88	1305
Chapter 89	1320
Chapter 90	1335
Chapter 91	1350
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Residential Vital Rates in Corporations & Municipalities 1994

1. Introduction

An important feature of population Census is the classification between urban and rural. As per 1991 Census the population which is classified as urban should satisfy the following criteria.

- ◆ The place should be a municipality, corporation, and contonment board or notified town area committee.
- ◆ The places have a minimum population of 5000.
- ◆ At least 75% of male working population engaged in non-agricultural pursuits.
- ◆ The density of population of at least 400 persons per square kilometre.

Generally the rate of change of population is always higher in urban area (cities, towns and municipalities) than the rural area. Similarly, the functioning of Civil Registration system is working very effectively in urban area. This is because

- i. Availability of modern medical facilities in urban areas.
- ii. Most of the events of the rural people are occurred in urban area.
- iii. Ignorance of the rural people about the working of the Civil Registration System and their unawareness about the importance of the Registration of their events.

As per the birth and death Registration Act of 1969, all births and deaths should be registered where it occurred. It is punishable and penalty can be imposed for the delay in the registration of events. Even though population data can be collected in three sources viz. (i). Census Method (ii). Civil Registration System (iii). Sample Survey method, Civil Registration system suffer from one of its important draw back namely under registration of vital events.

Under registration means the events not registered in registration unit. The data in respect of under registration is essential for estimating the change of population occurred during a particular period. The factors affecting the change of population are fertility, mortality and migration. The data is vital for demographic analysis, social and economic, public health programme, Family Welfare programme, administrative purpose etc.

The spot check survey was introduced by the department since 1961. The objects of the survey are

- i. The extend of under registration in municipalities and corporations.
- ii. Estimation of residential vital rates in municipalities and corporations.
- iii. To study the various caused of death in urban area.

The field survey is conducted annually by the statistical staff posted in corporations and municipalities. Coverage of spot check survey include 31 municipalities and 3 corporations of the state for conducting field survey, 15 wards are randomly selected by using simple random method in each municipality except in Kollam, Alappuzha and Guruvayoor municipalities. In Kollam and Alappuzha municipalities, 18 wards are selected for field survey. In the case of Guruvayoor municipality only 10 wards are selected for the survey.

From each selected wards the field staff visit all households and collect required data on vital events. After this matching is made between the data on vital events collected from field and the data available in the registers kept in the registration unit and detect the events which are not registered for estimating under registration. As such the field staff found out the following events of the normal residents of the selected wards for estimating the residential rate.

- i. Events occurring inside the town and registered.
- ii. Events occurring inside the town but not registered.
- iii. Events occurring outside the town registered and unregistered.

During 1994 the survey was successfully conducted in all centres except Cherthala municipality due to vacant post.

2. General findings of the survey

Table 1 - This table represents the projected mid-year population of Corporations and Municipalities during the period from 1994 to 2000 AD. A few municipalities (Kottayam, Aluva, Thrissur) showed a decreasing trend.

Table 2 - This table shows the number of medical institutions and the number of bed strength separately for public and private sector. The highest number of public hospital (25) with bed strength (6738) and public maternity and child health centres (34) were available in Thiruvananthapuram Corporation. But the highest number of private hospital (63) with bed strength (3844) was in Kochi Corporation. It is seen that private medical institutions have an important role in the field of health and medical care. The available data on private medical institutions reveal that a large number of people are still not depending on free medical facilities provided by the Government. The availability of bed strength in the private hospitals is given in table 2.

Table 3 - This table represents the total number of Burial Grounds and Cremation grounds in public and private sectors within the Municipal/Corporations and the number of registration units.

Table 4 - This table shows the number and area of registration units with density per square kilometre. The highest density of population/Sq.Km. (16568) was recorded in Kollam municipality and that of least (1370) in Punalur municipality.

Table 5 - This table represents the total number of registered vital events in the Municipalities/Corporations. The events occurred to the normal residents of the town/city are sorted out from the total events registered in the centres. The details pertaining to Live Births, Still Births, Infant Death, Maternal Death and other deaths are also displayed in the table.

Generally most of the rural people depend to the well equipped hospitals of the towns and cities for obtaining modern medical facilities. The highest number of live birth (17352) for normal residents was registered in Thiruvananthapuram Corporation, but only (7231) live birth were registered in Kochi Corporation. In the case of municipalities, Thalassery comes first with

(4100) live birth for normal residents while that of the Guruvayur was only (61). Among Corporations the highest number of death (3932) were registered in Kozhikode corporation and that of least (2588) was in Thiruvananthapuram corporation. Highest infant death were registered in Kozhikode corporation (909). Among municipalities Alappuzha stood first with 73 registered events of infant mortality to normal residents. The number of still births of normal residents reported from Kozhikode and Kochi corporations were 109 and 54 respectively. There is no report of maternal mortality from any of the centres.

Table 6 - This table gives a brief picture of different diseases reported from town and cities. 8454 mortality cases were reported from Thiruvananthapuram corporation, 8134 and 5229 cases were reported at Kozhikode and Kochi corporations respectively. Among municipalities Thrissur comes first with 2532 events followed by Alappuzha with 2211 mortality cases. In most of the municipalities and corporations the major case of deaths reported were Heart attack, Pulmonary diseases, Cancer and others.

Table 7 -This table shows the events of normal residents of Municipalities and Corporations selected for the survey. Major portions of the events were registered in all registration units.

Table 8 - The occurrence of outside events during the year showed a decreasing trend and under registration was same as that with the previous year. Under registration of births was reported from very few in municipalities. It indicates that the functioning of registration system is very efficient in urban areas. Almost all events occurred in urban areas were registered as per the existing registration Act. The highest rate of under registration was reported from Thrissur municipality and Kochi corporation, 10.44 and 4.17 respectively. The highest rate of under registration of death was reported from Chalakkudy (22.86) followed by Kochi, Guruvayur, Kozhikode (18.44,14.93,13.82) respectively. The authorities of the municipalities to achieve cent percent registration of vital events implemented several programmers for public awareness.

Outside registration of birth and deaths, still exist in 32 municipalities. It may be due to the flow of people for employment and for obtaining better

medical facilities available in modern well equipped hospitals in urban area. The highest birth rate of outside registration was reported from Irinjalakkuda (78.95) followed by Kunnankulam (70.41). Highest death rate of outside registration was reported from Vadakara municipality (38.61) followed by Perumbavoor and Kannur (36.17,35.48) respectively.

Table 9 - This table gives a clear picture of the registered vital rates and adjusted residential vital rates of the municipalities under this survey. The highest registered birth rate was reported from Thalassery (52.03) followed by Thiruvananthapuram, Kozhikode (32.23,29.75) respectively.

Adjusted residential birth rate was highest in Thalassery followed by Kozhikode corporation. In the case of adjusted residential rate of death, Kozhikode corporation posses the first place and Thalassery possess the first place in municipalities. Adjusted residential birth rate is lowest in Guruvayur municipality.

Table 10 - This table shows the birth and death rate from 1988 onwards.

3. Conclusion

This scheme is now being implemented only in 3 corporations and 31 municipalities. The results obtained from the survey are satisfactory and encouraging. Even though under registration exists in the case of death to some extend, it is not so conspicuous in the case of birth. In order to reduce under registration, unregistered events are brought to the notice of the registering authorities who take necessary steps to register the events and also able to take necessary steps to make the public aware of the need of registration of vital events.

APPENDIX

5. Method of calculation of Adjusted Residential Vital Rates

Residential vital rates can broadly be defined as the rate of occurrence of vital events to the normal residents of an area in an year. In order to calculate the percentage of under registration the events occurring to persons coming to the town/city to avail themselves of better medical facilities are excluded and those of normal residents who are going outside the town are to be included.

1. Percentage of under registration	-	$\frac{\text{No. of events occurred to normal residents inside the town but not registered} \times 100}{\text{No. of events occurred to normal residents inside the town registered and not registered.}}$
2. Percentage of events occurred outside the town to normal residents	-	$\frac{\text{No. of events occurred to normal residents outside the town registered and unregistered} \times 100}{\text{Total no. of events enumerated and occurred to normal residents inside and outside and outside the town.}}$
3. Registered birth/death rate to normal residents	-	$\frac{\text{Total no. of birth/death occurred to normal residents and registered in the town} \times 1000}{\text{Mid year population of the town.}}$
4. Residential birth/death rate to normal residents occurred inside the town (weighted for under registration)	-	$\frac{\text{Registered birth/death rate} \times 100}{(100 - \text{percentage of under registration})}$
5. Final Residential birth/death rate (weighted for outside events)	-	$\frac{\text{Residential birth/death rate to normal residents occurred inside the town (weighted for under registration)} \times 100}{(100 - \text{percentage of events occurred outside the town to normal residents})}$

Table I

Estimated Mid-year Population of Municipalities and Corporations 1994 to 2000 A.D (As on 1 July)

Sl.No.	Municipality/ Corporation	1991 Census Population	1994	1995	1996	1997	1998	1999	2000
1	2	3	4	5	6	7	8	9	10
1.	Neyyattinkara	30419	31296	31564	31834	32107	32282	32659	32939
2.	Thiruvananthapuram	524006	538407	542803	547234	551702	556206	560747	565325
3.	Attingal	32634	33696	34021	34349	34681	35016	35354	35695
4.	Kollam	139852	140494	140687	140881	141075	141269	141463	141658
5.	Punalur	46279	47412	47757	48105	48455	48808	49164	49522
6.	Kayamkulam	67151	69213	69844	70481	71123	71771	72425	73085
7.	Mavelikara	28299	28890	29070	29251	29433	29616	29800	29985
8.	Alappuzha	174666	176271	176755	177241	177728	178216	178706	179197
9.	Cherthala	43326	44315	44616	44919	45224	45531	45840	46151
10.	Thiruvalla	54780	55820	56136	56454	56773	57094	57417	57742
11.	Changanacherry	52445	52608	52657	52706	52755	52805	52855	52905
12.	Kottayam	63155	62735	62610	62485	62360	62235	62111	61987
13.	Palai	21890	21979	22006	22033	22060	22087	22114	22141
14.	Vaikom	21788	22002	22073	22144	22215	22287	22359	22431
15.	Muvattupuzha	27595	28401	28647	28895	29145	29398	29653	29910
16.	Kochi Corporation	564589	582825	588408	594045	599736	605481	611281	617137
17.	Aluva	24744	24607	24557	24508	24459	24410	24361	24312

Table 1 - Estimated Mid-year Population of Municipalities and Corporations 1994 to 2000 A.D (Contd.....)

Sl.No.	Municipality/ Corporation	1991 Census Population	1994	1995	1996	1997	1998	1999	2000
1	2	3	4	5	6	7	8	9	10
18.	N.Paravur	27906	28468	28639	28811	28984	29158	29333	29509
19.	Perumbavoor	24667	25226	25396	25567	25739	25913	26088	26264
20.	Irrinjalakuda	27491	27973	28119	28266	28414	28562	28711	28861
21.	Kodungallur	31249	32287	32605	32926	33250	33577	33907	34241
22.	Chalakudy	45069	46180	46519	46860	47204	47550	47899	48250
23.	Thrissur	74604	73529	73210	72892	72575	72260	71946	71634
24.	Guruvayoor	20216	21069	21332	21598	21868	22141	22417	22697
25.	Kunnamkulam	19657	19730	19752	19774	19796	19818	19840	19862
26.	Palakkad	123289	127588	128906	130238	131584	132944	134318	135706
27.	Chittoor- Thathamangalam	32048	32619	32791	32964	33138	33313	33489	33665
28.	Thirur	49453	52728	53752	54795	55859	56943	58048	59175
29.	Malappuram	49692	53518	54721	55951	57209	58495	59810	61155
30.	Kozhikode Corpo.	419831	428652	431334	434033	436748	439480	442229	444996
31.	Vadakara	72434	75418	76337	77267	78208	79161	80125	81101
32.	Thalassery	103579	78807	79056	79356	79556	79808	80060	80313
33.	Kannur	65238	66750	67210	67674	68141	68611	69084	69561
34.	Kasaragod	50126	52700	53497	54306	55128	55962	56809	57688

Table 2
Number of Hospitals and other Institutions 1994

Sl. No.	Municipality/ Corporation	Hospitals						Dispensaries & other Institutions						Maternity & Child Health Centre					
		Public			Private			Public			Private			Public			Private		
		No.	Beds	Total	No.	Beds	Total	No.	Beds	Total	No.	Beds	Total	No.	Beds	Total	No.	Beds	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.	Neyyattinkara	3	320	2	35	5	355	1		11		12		2					
2.	Thiruvananthapuram	25	6738	37	1352	62	8090	6		32		38		34					
3.	Attingal	1	60	8	340	9	400	4		16		20		3					
4.	Kollam	6	950	21	1249	27	2199	7		70		77		12					
5.	Punalur	1	144	11	225	12	369	2		22		24		4					
6.	Kayamkulam	3	170	12	262	15	432			8		8		2					
7.	Mavelikara	2	267	7	315	9	582			10		10		6					
8.	Alappuzha	8	1548	5	120	13	1668	2		127		129							
9.	Cherthala																		
10.	Thiruvalla	3	350	7	760	10	1110			16		11							
11.	Changanacherry	2	214	5	243	7	457			28		28		5					
12.	Kottayam	4	415	15	200	19	615	1		54		55		3					
13.	Palai	3	200	9	576	12	776			22		22		1					
14.	Vaikom	2	266	2	25	4	291			40		40		1					
15.	Muvattupuzha	3	186	12	430	15	616	1		33		34		2					
16.	Kochi Corporation	15	1973	63	3844	78	5817	6		78		84		12					
17.	Aluva	2	237	12	577	14	814			28		28							

Table 2 - Number of Hospitals and other Institutions 1994 (Contd...)

Sl. No.	Municipality/ Corporation	Hospitals						Dispensaries & other Institutions						Maternity & Child Health Centre							
		Public		Private		Total		Public		Private		Total		Public		Private		Total			
		No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
18.	N.Paravur	2	175	8	300	10	475	1		29		30		2							
19.	Perumbavoor	2	246	9	495	11	741	1		13		14		6							
20.	Irinjalakuda	3	248	4	59	7	307	1		2		3		2							
21.	Kodungallur	2	234	5	307	7	541			25		25									
22.	Chalakudy	1	144	9	360	10	504	2		25		27		3							
23.	Thrissur	5	1398	14	893	19	2291	1		13		14		4							
24.	Guruvayur	1	30	7	201	8	231							1							
25.	Kunnamkulam	1	124	3	220	4	344	2				2		1							
26.	Palakkad	4	739	17	491	21	1230	2		11		13		3							
27.	Chittoor- Thathamangalam	2	118	2	28	4	146			6		6		1							
28.	Thirur	6	164	9	225	15	389	6				6		3							
29.	Malappuram	4	172	5	286	9	458	1		27		28		2							
30.	Kozhikode Corpor.	9	3805	33	1218	42	5023	12		88		100		5							
31.	Vadakara	2	240	12	410	14	650	1		97		98		1							
32.	Thalassery	2	555	17	477	19	1032	2		14		16									
33.	Kannur	2	55	24	479	26	552	2		20		22		1	9						
34.	Kasaragod	2	218	9	475	11	693	1		21		22									

Table 3

Number of Burial Grounds, Cremation Grounds and Civil Registration Units

Sl. No.	Municipality/ Corporation	Burial Grounds			Cremation Grounds			V.S Registration units	
		Mun/ Corp.	Private	Total	Mun/ Corp.	Private	Total	No. of wards	No. of units
1	2	3	4	5	6	7	8	9	10
1.	Neyyattinkara	1	4	5		3	3	24	1
2.	Thiruvananthapuram	4	27	31	1		1	50	15
3.	Attingal	1	1	2		5	5	20	1
4.	Kollam	2	20	22				36	1
5.	Punalur	1	16	17				28	1
6.	Kayamkulam	1	14	15	1	3	4	32	1
7.	Mavelikara	1	9	10		1	1	20	1
8.	Alappuzha	3	2	5		19	19	32	2
9.	Cherthala								
10.	Thiruvalla	2		2				32	1
11.	Changanacherry	1	12	13		1	1	32	1
12.	Kottayam	1	15	16	1	1	2	32	2
13.	Palai	1	5	6				20	1
14.	Vaikom	1	2	3	1	2	3	20	1
15.	Muvattupuzha	1	8	9				20	1
16.	Kochi Corporation	8	40	48	5	11	16	50	2
17.	Aluva		7	7		3	3	20	1
18.	N.Paravur	1	7	8	1	7	8	20	1
19.	Perumbavoor	1	8	9		1	1	20	1
20.	Irinjalakuda	1	5	6		1	1	20	1
21.	Kodungallur		2	2				20	1
22.	Chalakydy	2	8	10		1	1	28	1
23.	Thrissur	3	11	14	2	1	3	32	6
24.	Guruvayoor	1	4	5		1	1	15	1
25.	Kunnamkulam	1	1	2				16	1
26.	Palakkad	4	7	11	3	1	4	36	1
27.	Chittoor- Thathamangalam		1	1	3		3	24	1
28.	Thirur	2		2				28	1
29.	Malappuram	1	10	11		1	1	24	1
30.	Kozhikode Corporation	2	9	11	4	2	6	39	14
31.	Vadakara	1	8	9				32	1
32.	Thalasserry	1	15	16	1	11	12	32	2
33.	Kannur	1	12	13	1		1	32	4
34.	Kasaragod		9	9	2	1	3	28	2

Table 4
Registration units with Area and Population 1994

Sl.No	Municipality/ Corporation	S.C *	S.T *	No.of Reg. units	Area in Sq.km	Area per Reg. units	Mid year popula- tion	Populatio n per Reg. units	Density per Sq.Km.
1	2	3	4	5	6	7	8	9	10
1.	Neyyattinkara	2514	8	1	9.99	9.99	31296	31296	3133
2.	Thiruvananthapuram	43297	550	15	75.11	5.00	538407	35894	7179
3.	Attingal	3560	9	1	14.78	14.78	33696	33696	2280
4.	Kollam	10112	84	1	18.48	18.48	140494	140494	7602
5.	Punalur	4150	318	1	34.60	34.60	47412	47412	1370
6.	Kayamkulam	4491	75	1	21.78	21.78	69213	69213	3178
7.	Mavelikara	3851	14	1	12.65	12.65	28890	28890	2284
8.	Alappuzha	3978	281	2	46.77	23.39	176271	88136	3768
9.	Cherthala	1526	54	1	16.18	16.18	44315	44315	2739
10.	Thiruvalla	4892	285	1	27.94	27.94	55820	55820	1998
11.	Changanacherry	4063	15	1	13.50	13.50	52608	52608	3897
12.	Kottayam	4710	176	2	16.45	8.23	62735	31368	3814
13.	Palai	558	33	1	15.93	15.93	21979	21979	1380
14.	Vaikom	1732	25	1	8.73	8.73	22002	22002	2520
15.	Muvattupuzha	1541	37	1	13.18	13.18	28401	28401	2155
16.	Kochi Corporation	19621	943	2	94.88	47.44	582825	291413	6143
17.	Aluva	1013	5	1	7.18	7.18	24607	24607	3427

* S.C/S.T Population as per 1991 Census

Table 4 - Registration units with Area and Population 1994 (Contd...)

Sl.No	Municipality/ Corporation	S.C *	S.T *	No.of Reg. units	Area in Sq.km	Area per Reg. units	Mid year popula- tion	Populatio n per Reg. units	Density per Sq.Km.
1	2	3	4	5	6	7	8	9	10
18.	N.Paravur	1328	118	1	9.02	9.02	28468	28468	3156
19.	Perumbavoor	2295	34	1	13.605	13.605	25226	25226	1854
20.	Irinjalakuda	2757	2	1	11.24	11.24	27973	27973	2489
21.	Kodungallur	2729		1	17.40	17.40	32287	32287	1856
22.	Chalakudy	3371	15	1	25.23	25.23	46180	46180	1830
23.	Thrissur	3635	27	6	12.89	2.15	73529	12255	5704
24.	Guruvayoor	2254	3	1	7.48	7.48	21069	21069	2818
25.	Kunnamkulam	2338	5	1	6.89	6.89	19730	19730	2864
26.	Palakkad	9757	97	1	26.60	26.60	127588	127588	4797
27.	Chittoor- Thathamangalam	3785	38	1	14.71	14.71	32619	32619	2217
28.	Thirur	2686	12	1	16.55	16.55	52728	52728	3186
29.	Malappuram	2626	9	1	33.69	33.69	53518	53518	1588
30.	Kozhikode Corporation	18014	301	14	84.20	6.01	425987	30428	5059
31.	Vadakara	1539	48	1	21.34	21.34	75418	75418	3534
32.	Thalasserry	1996	62	2	15.35	7.68	78807	39404	5134
33.	Kannur	4415	23	4	11.03	2.76	66750	16688	6052
34.	Kasaragod	1817	131	2	16.69	8.35	52700	26350	3158

* S.C/S.T Population as per 1991 Census

Table 5
Vital events registered during the year 1994

Sl.No	Municipality/ Corporation	Live Births						Still Births					
		Total Events			Events to normal residents			Total Events			Events to normal residents		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Neyyattinkara	2084	1909	3993	220	234	454						
2.	Thiruvananthapuram	16620	14741	31361	9040	8312	17352	64	57	121			
3.	Attingal	784	694	1478	89	82	171	6	7	13	1		1
4.	Kollam	6633	6367	13000	1204	1072	2276	32	37	69	7	6	13
5.	Punalur	1596	1524	3120	344	328	672	6	5	11	2	1	3
6.	Kayamkulam	1621	1555	3176	397	382	779	6	6	12	1	2	3
7.	Mavelikara	1743	1723	3466	127	151	278	13	11	24	1	1	2
8.	Alappuzha	4061	3988	8049	1136	1111	2247						
9.	Cherthala												
10.	Thiruvalla	2713	2493	5206	196	177	373	8	10	18	1	2	3
11.	Changanacherry	1222	1158	2380	314	367	681	2	1	3			
12.	Kottayam	1756	1569	3325	188	175	363						
13.	Palai	1430	1262	2692	82	58	140	18	13	31	1	1	2
14.	Vaikom	601	573	1174	53	54	107	2	6	8		1	1
15.	Muvattupuzha	1560	1504	3064	137	149	286	4	3	7			
16.	Kochi Corporation	9236	8798	18034	3691	3540	7231	62	53	115	28	26	54
17.	Aluva	2366	2454	4820	74	66	140	6	5	11			

Table 5 - Vital events registered during the year 1994 (Contd.....)

Sl.No	Municipality/ Corporation	Live Births						Still Births					
		Total Events			Events to normal residents			Total Events			Events to normal residents		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
18.	N.Paravur	1619	1523	3142	104	110	214	7	17	24			
19.	Perumbavoor	1217	1167	2384	114	105	219	8	11	19			
20.	Irrinjalakuda	819	724	1543	58	51	109	3	4	7			
21.	Kodungallur	2315	2088	4403	174	152	326						
22.	Chalakudy	1994	1932	3926	217	224	441	4	7	11		1	1
23.	Thrissur	6783	7021	13804	480	515	995	126	159	285	6	5	11
24.	Guruvayoor	524	459	983	27	34	61	6	4	10			
25.	Kunnankulam	1225	1199	2424	34	29	63	5	3	8			
26.	Palakkad	4937	5471	10408	941	889	1830	56	32	88	5	2	7
27.	Chittoor- Thathamangalam	912	806	1718	174	152	326	1	1	2	1	1	2
28.	Thirur	3770	3547	7317	403	384	787	9	10	19	1		1
29.	Malappuram	2281	2181	4462	352	323	675						
30.	Kozhikode Corporation	14619	14987	29606	6241	6431	12672	323	278	601	56	53	109
31.	Vadakara	3004	2851	5855	350	362	712	14	8	22	1	2	3
32.	Thalasserry	5622	5052	10674	2316	1784	4100	25	16	41	3	4	7
33.	Kannur	2462	2296	4758	459	453	912	4	10	14	1		1
34.	Kasaragod	3522	3118	6640	396	374	770	48	50	98			

Table 5 - Vital events registered during the year 1994 (Contd....)

Sl.No	Municipality/ Corporation	Infant Death						Other Deaths						Maternal Deaths	
		Total Events			Events to normal residents			Total Events			Events to normal residents			Total	Events to normal residents
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total		
1	2	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1.	Neyyattinkara	11	5	16	2		2	183	113	296	75	51	126		
2.	Thiruvananthapuram	275	262	537	131	98	229	3962	3955	7917	1315	1273	2588		
3.	Attingal	3		3				87	51	138	62	39	101		
4.	Kollam	107	78	185	16	9	25	1039	634	1673	294	214	508		
5.	Punalur	22	8	30	1		1	204	174	378	78	60	138		
6.	Kayamkulam	4	6	10	1	2	3	224	138	362	156	110	266		
7.	Mavelikara	21	12	33	3	3	6	298	159	457	105	76	181		
8.	Alappuzha	94	85	179	39	34	73	1288	744	2032	528	349	877		
9.	Cherthala														
10.	Thiruvalla	36	20	56	3	4	7	577	328	905	166	104	270		
11.	Changanacherry	4	2	6	2		2	164	123	287	110	79	189		
12.	Kottayam	4		4				382	212	594	150	87	237		
13.	Palai	10	5	15		1	1	124	249	373	58	43	101		
14.	Vaikom	7	1	8				142	64	206	75	33	108		
15.	Muvattupuzha	9	9	18		2	2	183	78	261	53	26	79		
16.	Kochi Corporation	184	124	308	72	46	118	3363	1866	5229	1826	1145	2971		
17.	Aluva	12	11	23	3	1	4	259	130	389	51	47	98		

Table 5 - Vital events registered during the year 1994 (Contd....)

Sl.No	Municipality/ Corporation	Infant Death			Events to normal residents			Total Events			Other Deaths			Maternal Deaths		
		Total Events		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Events to normal residents
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
18.	N.Paravur	4	4	8		1	1	216	132	348	62	46	108			
19.	Perumbavoor	11	7	18	1		1	200	100	300	36	22	58			
20.	Irinjalakuda	6	5	11				146	101	247	67	79	146			
21.	Kodungallur	14	12	26	3	1	4	267	155	422	111	71	182			
22.	Chalakudy	20	9	29	1	1	2	245	151	396	91	80	171			
23.	Thrissur	191	162	353	4	3	7	1189	990	2179	212	113	325			
24.	Guruvayoor	5	3	8				99	82	181	33	24	57			
25.	Kunnamkulam	12	12	24	2		2	131	99	230	45	47	92			
26.	Palakkad	104	50	154	15	12	27	950	544	1494	302	249	551			
27.	Chittoor- Thathamangalam	10	1	11	1		1	154	119	273	119	92	211			
28.	Thirur	27	23	50	3	5	8	247	155	402	91	74	165			
29.	Malappuram	5	3	8	2	1	3	250	152	402	89	76	165			
30.	Kozhikode Corporation	495	414	909	231	201	432	4426	2799	7225	2297	1635	3932			
31.	Vadakara	22	9	31	4	3	7	295	219	514	128	118	246			
32.	Thalassery	48	35	83	8	11	19	817	456	1273	317	210	527			
33.	Kannur	30	26	56	3	6	9	302	189	491	146	111	257			
34.	Kasaragod	32	28	60	2	4	6	242	139	381	88	73	161			

Table 6
Deaths according to causes 1994

Sl. No.	Municipality/ Corporation	T.B	Plague	Cholera	Small Pox	Dysentery & Diarrhoea	Respiratory Diseases	Enteric fever	Rabies	Diphtheria	Cancer	Gastro Enteritics	Heart Failure	Pulmonary Diseases	Others	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.	Neyyattinkara					1	48				6				257	312
2.	Thiruvananthapuram	45				375					570		3853		3611	8454
3.	Attingal					1	12	1			6		51		70	141
4.	Kollam								1		19		565	130	1143	1858
5.	Punalur					1		1				1		68	337	408
6.	Kayamkulam	6				1	65				24		108	7	161	372
7.	Mavelikara					3	50	8			15	1	233	19	161	490
8.	Alappuzha		1					22	1		56			70	2061	2211
9.	Cherthala															
10.	Thiruvalla					1		3								
11.	Changanacherry	1					14	5			12			55	890	961
12.	Kottayam					3					16			6	251	293
13.	Palai						42				9			22	564	598
14.	Vaikom							2			7		32	17	290	388
15.	Muvattupuzha					1		2					85		127	214
16.	Kochi Corpora.	97		1		2	385		1		89	4	1511	24	3115	5229
17.	Aluva										15		20	6	371	412

Table 6 - Deaths according to cause 1994 (Contd...)

Sl. No.	Municipality/ Corporation	T.B	Plague	Cholera	Small Pox	Dysentery & Diarrhoea	Respiratory Diseases	Enteric fever	Rabies	Diphtheria	Cancer	Gastro Enteritics	Heart Failure	Pulmonary Diseases	Others	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
18.	N.Paravur										9				347	356
19.	Perumbavoor										10			16	292	318
20.	Irinjalakuda							2			8				28	258
21.	Kodungallur							8			11			74	355	448
22.	Chalakudy	4					121				17		26	13	244	425
23.	Thrissur					7					140		357		2028	2582
24.	Guruvayoor							2			5		130		44	189
25.	Kunnankulam						8	5			4		20	12	213	254
26.	Palakkad			9		17			1		46		330		1245	1648
27.	Chittoor-Thathamangalam					1					9		7	1	273	284
28.	Thirur	12				1					19		57	6	352	452
29.	Malappuram					4		4			13			20	369	410
30.	Kozhikode Corpo.	300				12		8	7		435	13		340	6939	8134
31.	Vadakara										17				528	5115
32.	Thalassery					20		25			288			132	891	1356
33.	Kannur					1					22		35		489	547
34.	Kasaragod								1		11			30	399	441

Table 7
Results of Spot Check 1994

Sl. No.	Municipality/ Corporation	No. of wards selected	Total no. of House holds	No. of House holds visited	No. of events detected to normal residents											
					Live Births			Infant Deaths			Other deaths					
					Enumerated	Registered	occurred outside	Enumerated	Registered	occurred outside	Enumerated	Registered	occurred outside			
1	2	3	4	5	6	7	8	9	10	11	12	13	14			
1.	Neyyattinkara	15	5916	5916	264	133	131	2	2		80	59	21			
2.	Thiruvananthapuram	15	33875	33875	380	380		131	98		139	138	1			
3.	Attingal	15	5856	5856	281	120	161	1		1	84	77	7			
4.	Kollam	18	12712	12712	743	622	121	2	2		204	171	33			
5.	Punalur	15	6248	6252	259	189	69				70	58	12			
6.	Kayamkulam	15	5296	5296	283	202	81				90	89	1			
7.	Mavelikara	15	4561	4561	245	157	88	2	1	1	149	120	18			
8.	Alappuzha	18	21754	21754	866	865	169	6	6		401	387	16			
9.	Cherthala	15														
10.	Thiruvalla	15	5781	5781	247	155	91	2	2		47	45	1			
11.	Changanacherry	15	6530	6530	178	88	90				77	54	23			
12.	Kottayam	15	5637	5637	317	122	195				121	90	23			
13.	Palai	15	4673	2736	81	81	89				94	91	21			
14.	Vaikom	15	4128	3413	44	44	124			1	64	60	16			
15.	Muvattupuzha	15	4040	4040	286	151	135	2		1	79	55	20			
16.	Kochi Corporation	15	24014	24014	1472	1056	370	4	2	1	482	367	32			
17.	Aluva	15	3948	3948	166	74	92				78	50	24			

Table 7 - Results of Spot Check 1994 (Contd....)

Sl. No.	Municipality/ Corporation	No. of wards selected	Total no. of House holds	No. of House holds visited	No. of events detected to normal residents											
					Live Births			Infant Deaths			Other deaths					
					Enumerated	Registered	occurred outside	Enumerated	Registered	occurred outside	Enumerated	Registered	occurred outside			
1	2	3	4	5	6	7	8	9	10	11	12	13	14			
18.	N.Paravur	15	4296	4296	214	88	126	1		1	108	70	27			
19.	Perumbavoor	15	3722	3722	203	113	90				47	30	17			
20.	Irinjalakuda	15	5976	3901	209	44	165				105	71	27			
21.	Kodungallur	15	4861	4861	220	145	75	1	1		111	92	9			
22.	Chalakudy	15	5086	5086	325	213	112				122	41	17			
23.	Thrissur	15	6479	6479	324	163	142				220	164	34			
24.	Guruvayoor	10	2824	2824	172	61	111				82	57	15			
25.	Kunnamkulam	15	3795	3795	196	58	138	2	2		113	81	27			
26.	Palakkad	15	9777	9777	830	704	124	7	7		213	175	28			
27.	Chittoor- Thathamangalam	15	4241	4241	185	95	90				105	96	9			
28.	Thirur	15	4200	4200	252	215	37				68	66	2			
29.	Malappuram	15	4931	4931	548	373	174				114	99	15			
30.	Kozhikode Corpo.	15	31563	31563	1350	1169	179	5	5		450	374	16			
31.	Vadakara	15	4830	4830	261	153	105				158	91	61			
32.	Thalassery	15	6310	6310	470	437	33				110	100	10			
33.	Kannur	15	5167	4485	398	253	142	3	1	2	152	84	53			
34.	Kasaragod	15	7193	4663	368	368	29				50	49	5			

Table 8
Under Registration and Occurance of Outside events

Sl. No.	Municipality/ Corporation	% of under registration		% of outside registration	
		Births	Deaths	Births	Deaths
1	2	3	4	5	6
1.	Neyyattinkara			49.62	25.61
2.	Thiruvananthapuram		0.63		
3.	Attingal			57.30	9.41
4.	Kollam			16.29	15.05
5.	Punalur	0.53	1.64	26.64	16.44
6.	Kayamkulam			28.62	1.11
7.	Mavelikara		8.33	35.92	12.58
8.	Alappuzha	0.12	3.48	16.33	3.83
9.	Cherthala				
10.	Thiruvalla	0.64	2.08	36.84	2.04
11.	Changanacherry			50.56	29.87
12.	Kottayam		8.16	61.51	19.01
13.	Palai		3.19	52.35	22.34
14.	Vaikom		6.25	73.81	20.99
15.	Muvattupuzha		8.33	47.20	25.93
16.	Kochi Corporation	4.17	18.44	25.14	6.64
17.	Aluva		7.41	55.42	30.77
18.	N.Paravur		11.22	58.88	25.93
19.	Perumbavoor			44.33	36.17
20.	Irrinjalakuda		8.97	78.95	25.71
21.	Kodungallur		9.80	34.90	8.11
22.	Chalakydy		22.86	34.46	13.93
23.	Thrissur	10.44	11.83	43.82	15.45
24.	Guruvayoor		14.93	64.50	18.29
25.	Kunnamkulam		5.68	70.41	23.89
26.	Palakkad	0.28	5.21	14.94	12.73
27.	Chittoor- Thathamangalam			48.65	8.57
28.	Thirur			14.68	2.94
29.	Malappuram	0.267		31.75	13.15
30.	Kozhikode Corpo.	0.17	13.82	13.26	3.56
31.	Vadakara	1.90	5.21	40.22	38.61
32.	Thalasserry			7.02	15.25
33.	Kannur	1.17	15	35.68	35.48
34.	Kasaragod		2	7.88	10.00

Table 9
Registered Vital Rates and Adjusted Residential Vital rates 1994

Sl. No.	Municipality/ Corporation	Registered vital rates		Adjusted residential vital rates	
		Births	Deaths	Births	Deaths
1	2	3	4	5	6
1.	Neyyattinkara	14.51	4.09	28.80	5.50
2.	Thiruvananthapuram	32.23	5.23	32.23	5.26
3.	Attingal	5.07	3.00	11.87	3.31
4.	Kollam	16.20	3.79	19.35	4.46
5.	Punalur	14.17	2.91	19.42	3.54
6.	Kayamkulam	11.26	3.84	15.77	3.88
7.	Mavelikara	9.62	6.47	15.02	8.08
8.	Alappuzha	12.53	5.30	15.00	5.71
9.	Cherthala				
10.	Thiruvalla	6.68	4.96	10.64	5.18
11.	Changanacherry	12.94	3.63	26.17	5.18
12.	Kottayam	5.79	3.78	15.04	5.09
13.	Palai	6.37	4.60	13.37	6.12
14.	Vaikom	4.86	4.91	18.56	6.62
15.	Muvattupuzha	10.07	2.85	19.07	4.16
16.	Kochi Corporation	12.39	5.29	17.27	6.95
17.	Aluva	5.69	4.15	12.76	6.47
18.	N.Paravur	7.52	3.83	18.29	5.82
19.	Perumbavoor	8.68	2.34	15.59	3.67
20.	Irrinjalakuda	3.90	5.22	18.53	7.71
21.	Kodungallur	10.09	5.76	15.49	6.94
22.	Chalakydy	9.55	3.75	14.57	4.36
23.	Thrissur	13.53	4.51	26.90	6.06
24.	Guruvayoor	2.89	2.70	8.14	3.88
25.	Kunnamkulam	3.19	4.76	10.78	6.63
26.	Palakkad	14.34	4.59	16.91	5.52
27.	Chittoor- Thathamangalam	9.99	6.49	19.45	7.10
28.	Thirur	14.93	3.28	17.50	3.38
29.	Malappuram	12.61	3.14	18.48	3.62
30.	Kozhikode Corpo.	29.75	10.24	34.36	12.32
31.	Vadakara	9.40	3.35	16.00	5.75
32.	Thalasserry	52.03	6.93	55.96	8.16
33.	Kannur	13.66	3.99	21.49	7.27
34.	Kasaragod	14.61	3.17	15.86	3.59

Table 10

Adjusted Residential Vital Rates from 1988 to 1994

Sl. No.	Municipality/ Corporation	Birth rate							Death Rate						
		1988	1989	1990	1991	1992	1993	1994	1988	1989	1990	1991	1992	1993	1994
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.	Neyyattinkara	40.85	39.49	31.48	21.74	17.83	16.13	28.80	6.15	4.73	5.05	4.03	2.51	1.71	5.50
2.	Thiruvananthapuram	27.49	28.73	30.98	27.74	27.32	30.00	32.23	3.59	3.80	4.02	3.88	3.62	4.94	5.26
3.	Attingal	24.21	24.40	35.11	21.26	14.88	11.31	11.87	4.63	4.45	4.28	4.37	3.80	3.19	3.31
4.	Kollam	21.65	22.71	21.42	20.74	18.97	18.62	19.35	4.05	5.19	6.05	8.18	4.79	4.55	4.46
5.	Punalur	21.15	22.48	14.57	20.53	20.77	22.66	19.42	4.51	4.32	4.22	5.91	5.47	3.99	3.54
6.	Kayamkulam	19.66	18.63	11.78	18.36	17.16	17.57	15.77	6.12	5.12	4.10	4.35	3.82	4.34	3.88
7.	Mavelikara	22.54	21.87	11.85	17.37	16.03	18.02	15.02	7.59	7.42	5.64	6.04	7.80	8.01	8.08
8.	Alappuzha	17.58	17.36	17.84	13.78	14.07	13.78	15.00	8.88	5.27	5.06	2.23	4.67	5.61	5.71
9.	Cherthala	19.81	18.97	10.02	17.61	10.62	15.09	-	7.95	8.12	5.73	6.63	5.92	11.04	-
10.	Thiruvalla	25.38	22.28	13.07	16.12	14.76	10.02	10.64	5.12	5.49	4.89	5.86	5.05	5.47	5.18
11.	Changanacherry	17.50	17.93	21.05	15.93	21.67	23.12	26.17	5.22	4.98	4.51	4.95	5.51	5.68	5.18
12.	Kottayam	19.26	20.19	18.86	13.57	10.98	9.88	15.04	5.25	5.57	5.16	6.16	6.16	6.35	5.09
13.	Palai	11.39	13.04	11.84	10.53	17.61	13.25	13.37	3.20	4.49	3.50	6.32	5.72	7.43	6.12
14.	Vaikom	13.94	15.31	27.36	18.86	15.44	21.84	18.56	4.90	4.68	5.34	7.20	5.52	6.57	6.62
15.	Muvattupuzha	20.09	20.78	15.32	14.47	14.69	12.40	19.07	3.28	3.57	4.32	4.27	4.58	4.81	4.16
16.	Kochi Corporation	18.79	17.60	16.96	16.99	17.38	16.27	17.27	6.01	6.15	5.69	6.98	5.97	6.81	6.95
17.	Aluva	18.41	18.36	17.16	13.75	14.51	13.20	12.76	3.32	5.47	6.16	3.66	4.38	5.32	6.47

Table 10 - Adjusted Residential Vital Rates from 1988 to 1994 (Contd....)

Sl. No.	Municipality/ Corporation	Birth rate											Death Rate										
		1988	1989	1990	1991	1992	1993	1994	1988	1989	1990	1991	1992	1993	1994								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16								
18.	N.Paravur	16.89	14.92	16.65	16.77	24.66	20.32	18.29	7.36	8.05	7.66	8.95	6.69	5.56	5.82								
19.	Perumbavoor	21.66	20.63	12.55	11.08	10.54	10.42	15.59	5.09	4.60	3.40	3.60	3.60	3.14	3.67								
20.	Irinjalakuda	17.94	17.91	17.22	20.61	16.44	21.45	18.53	8.50	6.56	5.49	6.78	7.64	7.06	7.71								
21.	Kodungallur	21.52	21.39	15.82	17.43	16.41	17.51	15.49	6.62	6.70	7.13	7.68	7.25	7.00	6.94								
22.	Chalakudy	18.49	19.75	15.01	14.01	15.48	15.43	14.57	4.60	5.75	6.90	6.35	6.63	7.87	4.36								
23.	Thrissur	26.00	26.74	16.55	16.11	18.00	18.58	26.90	5.43	4.75	5.22	5.56	5.78	6.04	6.06								
24.	Guruvayoor	11.64	13.44	11.96	11.61	12.90	8.56	8.14	7.04	6.21	7.31	6.45	8.76	6.21	3.88								
25.	Kunnankulam	13.75	13.88	14.56	16.78	12.03	12.92	10.78	6.54	6.57	7.13	6.37	6.39	6.89	6.63								
26.	Palakkad	25.76	25.57	20.25	19.08	20.01	19.04	16.91	5.94	5.94	5.52	5.90	6.37	5.73	5.52								
27.	Chittoor- Thathamangalam	30.09	30.23	37.38	28.65	28.85	20.17	19.45	7.97	5.77	9.52	9.02	6.76	6.40	7.10								
28.	Thirur	11.06	12.40	8.16	9.04	8.73	6.30	17.50	3.43	3.44	2.95	2.69	3.19	2.40	3.38								
29.	Malappuram	18.40	16.69	20.40	20.37	22.50	20.92	18.48	3.05	2.57	3.13	3.60	3.80	3.50	3.62								
30.	Kozhikode Corpo.	29.37	29.25	29.74	21.70	23.24	37.23	34.36	8.57	8.43	11.30	7.54	8.63	11.64	12.32								
31.	Vadakara	22.95	21.07	20.89	21.31	23.34	17.01	16.00	6.38	6.79	6.19	5.44	6.19	6.64	5.75								
32.	Thalassery	49.40	49.06	42.13	35.43	33.20	45.69	55.96	3.99	4.05	9.73	9.89	10.18	8.78	8.16								
33.	Kannur	28.25	28.23	18.81	14.80	14.44	20.20	21.49	9.47	5.51	4.20	4.47	6.11	6.50	7.27								
34.	Kasaragod	25.11	24.07	26.22	26.56	22.16	20.13	15.86	3.79	3.74	3.89	3.10	3.93	3.95	3.59								

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