



GOVERNMENT OF KERALA

RESIDENTIAL VITAL RATES

2010

Directorate of Economics & Statistics
Thiruvananthapuram
August, 2012

PREFACE

The objective of the Spot Check Survey is to estimate the extent of under registration of vital events in the selected municipalities and corporations and to work out the residential vital rates in these areas. The report titled “Residential Vital Rates 2010” is an attempt to analyse the data on vital events happened during the year 2010 in the selected 29 municipalities and 5 corporations of the State and enumerated during the year 2011, by selecting the wards in each Urban Local Body (ULB) at random and enumerating each and every household in the selected ward.

The Vital Statistics Division of the Department has prepared the report under the supervision and control of Smt. E. Baby, Additional Director (General) and Additional Chief Registrar of Births & Deaths. I acknowledge the sincere efforts put in by the team of officers in the Vital Statistics Unit, viz., Shri. Suresh. U., Research Assistant, Shri. Bipin.V., Statistical Assistant Gr.I and Smt. Jijy. P. K., Statistical Assistant Gr.I., under the guidance of Shri. Sreekumar. B., Deputy Director(VS) & Deputy Chief Registrar of Births & Deaths.

Thiruvananthapuram,

Date: 03 -08 - 2012.

Sd/-

V.RAMACHANDRAN

DIRECTOR

CONTENTS

Sl.No	Title	Page
I	Introduction	1
II	Objectives of the Survey	2
III	Coverage of the Survey	2
IV	Limitation of the Survey	3
V	Analysis and Findings of the Survey	4
<u>Tables</u>		
1	Estimated Mid-year population of municipalities/Corporations-2010 (as on 1 st July)	8
2	Number of Educational Institutions - 2010	10
3	Number of Hospitals and other Institutions - 2010	12
4	Registration units with Area and Population - 2010	14
5	Number of Burial grounds, cremation grounds and Number of Registrations	15
6	Vital Events registered during the year - 2010	16
7	Deaths according to causes - 2010	22
8	Results of Spot-check Survey - 2010	26
9	Under Registration and Occurrence of outside events - 2010	28
10	Registered Vital rates, Residential Vital rates and Adjusted Residential Vital rates - 2010	29
<u>Appendix</u>		
1	Method of calculation of Adjusted Residential Vital rates	30

ANNUAL RESIDENTIAL VITAL RATES 2010

1. Introduction

The Civil Registration System was introduced in India under “The Registration of Births and Deaths Act, 1969” enacted by the Parliament. The Act provides compulsory registration of every vital event in the respective registration units (Local Self Government Institutions) at the place of occurrence. As per the Act, every event should be registered within 21 days from the date of its occurrence. Even though the Act stipulates both fine and punishment, non-registration of events exists to a certain extent. . Moreover, the Act insists on that registration is to be done at the place of occurrence of the event. This may not be possible in all cases and as such we may not be able to capture the true picture of registration. In order to overcome such eventualities in urban areas, where more people from rural areas came to urban for availing the modern health facilities there, the spot-check surveys being conducted in the selected Municipalities and Corporations.

One of the important classifications in population data is the rural-urban breakup. In Kerala, the number of vital events happening in urban areas is always higher than that in the rural areas. It shows that the rate of registration of vital events in urban areas is always higher than that in the rural areas. Modern health facilities are generally available in the urban areas. Rural people, because of their knowledge on health activities and access to Modern health facilities usually resort to urban areas to avail such facilities. Usually the under registration in rural areas is higher than that in urban areas especially in the case of deaths. This is because, most of the deaths in rural areas happened in the house and the people are not interested to register deaths due to the ignorance of the importance of registration. Another important fact is that both rural and urban population tends to hide incidence of suicide and illegal termination of pregnancy. Similarly, there exists gross under registration of vital events such as Infant deaths and Still births in the State.

2. Objectives of the survey

The main objectives of the survey are furnished below:

1. To estimate the extent of under registration of vital events in the selected Municipalities/Corporations and to work out the actual vital rates in these areas.
2. To estimate the residential vital rates of these Municipalities/Corporations
- 3 To find out the major diseases that lead to deaths in the selected urban areas of the state

3. Coverage of the survey

The survey is being implemented in five Corporations and twenty-nine Municipalities in the State. The list of Municipalities / Corporations and the statistical staff working in these centres are given below:

Sl.No.	Name of Municipalities / Corporation	Statistical Staff		
		Statistical Assistant Gr.I	Research Assistant	Total
1	Neyyattinkara (M)	1	0	1
2	Thiruvananthapuram (C)	2	1	3
3	Attingal (M)	1	0	1
4	Kollam (C)	2	1	3
5	Punalur (M)	1	0	1
6	Kayamkulam (M)	1	0	1
7	Mavelikara (M)	1	0	1
8	Alappuzha (M)	2	1	3
9	Cherthala (M)	1	0	1
10	Thiruvalla (M)	1	0	1
11	Changanassery (M)	1	0	1
12	Kottayam (M)	1	0	1
13	Pala (M)	1	0	1
14	Vaikom (M)	1	0	1
15	Muvattupuzha (M)	1	0	1

16	Kochi (C)	2	1	3
17	Aluva (M)	1	0	1
18	North Paravur (M)	1	0	1
19	Perumbavur (M)	1	0	1
20	Irinjalakuda (M)	1	0	1
21	Kodungallur (M)	1	0	1
22	Chalaky (M)	1	0	1
23	Thrissur (C)	1	0	1
24	Guruvayur (M)	1	0	1
25	Kunnamkulam (M)	1	0	1
26	Palakkad (M)	1	0	1
27	Chittoor –Thathamangalam (M)	1	0	1
28	Thirur (M)	1	0	1
29	Malappuram (M)	1	0	1
30	Kozhikode (C)	2	1	3
31	Vadakara (M)	1	0	1
32	Thalassery (M)	1	0	1
33	Kannur (M)	1	0	1
34	Kasaragod (M)	1	0	1
Total		39	5	44

The fieldwork pertaining to the survey was carried out in all centres. For conducting fieldwork of the survey fifteen wards have been randomly selected from each unit except Alappuzha Municipality, where 25 wards have been selected. The statistical staff posted in the Municipalities/Corporations visited all houses of the selected wards and collected the required data.

4. Limitations of the survey

One of the main objectives of the survey is to find out the under registration of vital events. Since the survey is being implemented only in the urban areas, the extent of under registration in the rural areas cannot be estimated. The extent of under registration can only be estimated in the selected urban areas. In order to obtain a correct and complete picture of the rate of under registration in urban areas, the remaining urban areas of the State should also be brought under the purview of

the survey. If this survey is extended to rural areas, a comparative study between urban and rural level of under registration could also be made possible. Similarly the State level under registration can be estimated only if this survey is further extended to rural areas and the remaining Municipalities of the State.

Analysis of the Survey data

Table1 provides the estimated midyear population of the selected municipalities and corporations. It is obvious from the table that the population of all municipalities/corporations shows an increasing trend. Out of the 34 selected centres, the highest midyear population is recorded in Thiruvananthapuram Corporation and the lowest in Guruvayur Municipality. Among the municipalities, the highest is at Alappuzha.

The number of Educational Institutions under government and private sectors in the selected municipalities/corporations are presented in table 2. Among all the centres, Kochi Corporation has the maximum number of institutions. The total number of institutions in Kochi Corporation is 246. It is followed by Thiruvananthapuram Corporation with 226 institutions. In the case of municipalities, the highest number of institutions, 79 is recorded at Thalassery municipality and the lowest is at Cherthala Municipality where only 15 Educational Institutions exist.

Table -3 depicts the data pertaining to Medical Institutions both in the public and private sector existing in the selected municipalities/corporations. Number of hospitals in the private sector is higher than that in the Government sector. Among all centres, Thiruvananthapuram Corporation has the highest number of government hospitals 19, followed by Kochi Corporation with 18. In the case of municipalities Alappuzha has the highest number of government hospitals. Considering the bed strength in government hospitals Thiruvananthapuram Corporation stood first with 7213 numbers followed by Kozhikkode Corporation with 4131. In the case of municipalities, the highest bed strength is at Palakkad. In the case of private hospitals the maximum number of hospitals is recorded in Kochi Corporation with 70 followed by Thiruvananthapuram with 56.

In the case of government dispensaries and other institutions, the highest number is at Kozhikkode Corporation with 25 followed by Thiruvananthapuram Corporation with 21. Considering the strength of private dispensaries and other

institutions, Alappuzha municipality stood first with 127 followed by Kozhikkode Corporation and Kottayam municipality with 121 and 103 respectively.

The number of maternity and child health centres in public sector was highest in Kozhikode Corporation and Kollam Corporations. In the private sector such facilities do not exist anywhere else in the entire State except in Thiruvananthapuram, Kollam, Kochi and Kozhikode Corporations and Attingal Municipality.

In table 4, the details regarding the number of registration units, area and population of the selected centres are furnished. Thiruvananthapuram Corporation has the largest area 141.74 sq. km. When municipalities are taken into consideration, Alappuzha covers the largest area 46.77 sq. km followed by Punalur municipality with 34.60 sq. km. Considering the density of population the highest is recorded in Kollam Corporation, i.e. 6751 per sq. km. followed by Kochi Corporation with 6598 per sq.km. In the case of Municipality, it is highest in Kannur with 6186 per sq. km. and lowest is in Punalur Municipality with 1391 per sq.km.

The details regarding number of Burial Grounds and Cremation Grounds are presented in table 5. This table reveals Kochi Corporation stood first with 8 public burial grounds. Kochi Corporation has the highest number of private burial grounds with 40 followed by Kollam Corporation with 37. Kayamkulam Municipality have no burial and cremation grounds and Vaikom Municipality have no burial grounds, but do have cremation grounds.

Table 6 gives total number of vital events and the number of vital events of the usual residents registered in their respective centres. Kozhikode Corporation stood first with 37445 live births. In the case of municipalities, the highest number 15489 was recorded in Palakkad municipality and the lowest 83 in Chittoor-Thathamangalam Municipality.

The maximum number of stillbirths 453 was registered in Kozhikode Corporation. Thiruvananthapuram Corporation stood in the second place with 412. No still births were reported in Neyyattinkara, Mavelikara, Vaikom, and Guruvayur municipalities.

In the case of infant deaths, the highest number 980 was recorded in Kozhikkode Corporation out of which 598 are male and 382 are female and infant

death corresponds to normal residents were 86. Thiruvananthapuram Corporation stood at the second place with 748 numbers. In the case of municipalities, the highest number of infant deaths 69 was registered in Kannur municipality. The table reveals that no infant death was registered in Neyyattinkara, Attingal, Pala, Vaikom, North Paravur, Irinjalakuda, Guruvayur and Chittoor-Thattamangalam municipalities during the year under report.

The number of deaths registered in Thiruvananthapuram Corporation was 13234 which is the highest in the State followed by Kozhikkode Corporation with 11053. In the case of municipalities, the highest is in Palakkad municipality with 2220 numbers and the lowest in Guruvayoor municipality with 164 deaths.

Death according to major causes are furnished in table 7. The highest number of deaths is due to heart failure. During the year under report 13 AIDS cases were reported of which 1 case from Thiruvananthapuram Corporation and the rest from Kozhikkode Corporation.

The results of Spot Check Survey of the selected registration units are presented in table 8. Out of 8 infant deaths enumerated, 7 deaths were registered in the respective units.

In the case of deaths, about 81% of enumerated deaths were registered in the respective registration units. Only 19% of deaths were occurred outside the units, i.e., most of the cases were occurred within the respective registration units. Non registration of deaths happened in Kochi and Kozhikkode corporations, Punalur, Kayamkulam, Mavelikkara, Changanassery, Kottayam, Vaikom, Moovattupuzha, Chittoor-Thattamangalam and Kannur municipalities.

Table 9 gives the percentage of under registration and the percentage of outside registration of events in the selected units. With regard to the registration of births, cent percent registration was recorded in all centres. In the case of deaths, cent percent registration was reported from 23 centres and under registration in the remaining centres. The highest percentage of under registration of death 5.30% was reported from Kottayam Municipality and the lowest 0.56% in Kozhikkode Corporation.

The table reveals that percentage of outside registration of births was highest in Guruvayoor Municipality with 98.23% and lowest in Thiruvananthapuram

Corporation with 4.84%. In the case of deaths, the highest percentage 58.26% was recorded in Guruvayoor Municipality followed by Changanassery Municipality with 44.87% and lowest 1.28% in Thiruvananthapuram Corporation.

The Registered Vital Rates, Residential Vital Rates and Adjusted Residential Vital Rates in the selected Municipalities and Corporations are presented in table 10. From the table, it can be seen that highest birth rate 45.13 is recorded in Palakkad Municipality followed by Changanassery Municipality with 18.96 and the lowest in Chittur-Thathamangalam with 0.46. In the case of registered death rates, the highest is at Palakkad Municipality (7.34) followed by Kochi Corporation (6.96) and the lowest in Thalassery Municipality (0.85).

The table reveals that, in the case of the Residential and Adjusted residential vital rates of Births, the highest rates of 45.13 & 53.67 were reported from Palakkad Municipality and Guruvayoor Municipality respectively.. The corresponding lowest rates of 0.46 & 1.91 were reported from Chittoor – Thathamangalam and Thalassery Municipalities. As regards death rates, the Residential and Adjusted residential vital rates were highest in Palakkad Municipality (7.34) and Guruvayoor Municipality (14.93) and the lowest were in Thalassery Municipality (0.85 & 0.90).

Executive Summary

The survey results reveal that under registration of death events still exists in the urban areas of the State. Hence cent percentage registration could not be achieved during the year under report also. Lack of awareness about the need and importance of registration of events may be the reasons for the same. Spot Check Survey helps us to find out the unregistered events and thereby the concerned authorities can take necessary steps to minimize the extent of under registration.

Table 1 - Estimated Mid-year Population of Municipalities and Corporations from 2001 to 2010 (as on 1st July)

Sl. No.	Municipality/ Corporation	2001 Census Population	2002	2003	2004	2005	2006	2007	2008	2009	2010
1	Neyyattinkara	69467	70362	71041	71726	72418	73117	73822	74534	75253	75979
2	Thiruvananthapuram Corporation	744983	754576	761852	769198	776615	784103	791663	799296	807003	814784
3	Attingal	35693	36122	36447	36775	37106	37440	37777	38117	38460	38806
4	Kollam Corporation	361560	365047	367684	370340	373016	375711	378425	381159	383913	386687
5	Punalur	47235	47364	47461	47558	47655	47753	47851	47949	48047	48145
6	Kayamkulam	68585	68778	68923	69068	69214	69360	69506	69653	69800	69947
7	Mavelikkara	28439	28458	28472	28486	28500	28514	28528	28542	28556	28570
8	Alappuzha	177029	177346	177584	177822	178061	178300	178539	178779	179019	179259
9	Cherthala	45105	45348	45531	45715	45900	46085	46271	46458	46646	46834
10	Thiruvalla	56837	57117	57328	57540	57752	57965	58179	58394	58610	58826
11	Changanacherry	51967	52468	52847	53229	53613	54000	54390	54783	55179	55577
12	Kottayam	60728	61311	61752	62196	62643	63093	63547	64004	64464	64928
13	Palai	22640	22858	23023	23189	23356	23524	23694	23865	24037	24210
14	Vaikom	22641	22859	23024	2319	23357	23525	23695	23866	24038	24211
15	Muvattupuzha	29246	29473	29644	29816	29989	30163	30338	30514	30691	30869
16	Kochi Corporation	595575	599835	603050	606282	609532	612733	616083	619385	622705	626043
17	Aluva	24110	24420	24655	24892	25132	25374	25618	25865	26114	26365

Table 1 Contd.

Sl. No.	Municipality/ Corporation	2001 Census Population	2002	2003	2004	2005	2006	2007	2008	2009	2010
1	North Paravur	30059	30358	30584	30812	31042	31273	31506	31741	31978	32216
2	Perumbavoor	26547	26808	27005	27204	27404	27606	27809	28014	28220	28428
3	Irinjalakkuda	28873	29063	29206	29350	29495	29640	29786	29933	30081	30229
4	Kodungallur	33539	33857	34097	34339	34583	34829	35076	35325	35576	35829
5	Chalakkudy	48380	48840	49188	49538	49891	50246	50604	50964	51327	51693
6	Thrissur corpn.	317526	321101	323809	326539	329292	332069	334869	337693	340541	315596
7	Guruvayoor	21186	21319	21419	21520	21621	21723	21825	21928	22031	22135
8	Kunnamkulam	51592	52173	52613	53057	53504	53955	54410	54869	55332	55799
9	Palakkad	130767	131798	132577	133360	134148	134940	135737	136539	137346	138157
10	Chittoor-Thathamangalam	31886	32296	32607	32921	33238	33558	33881	34207	34536	34869
11	Tirur	53654	54241	54685	55133	55585	56040	56499	56962	57429	57900
12	Malappuram	58491	59777	60760	61759	62775	63807	64856	65923	67007	68109
30	Kozhikkode Corpn.	436556	438838	440557	442283	444016	445756	447502	449255	451015	452782
31	Vadakara	75847	76314	76666	77020	77375	77732	78091	78451	78813	79177
32	Thalasserry	99387	100989	102207	103440	104688	105951	107229	108523	109832	111157
33	Kannur	63797	64412	64877	65345	65817	66292	66771	67253	67739	68228
34	Kasaragod	52634	52978	53237	53498	53760	54023	54288	54554	54821	55090
TOTAL		4002561	4038904	4066412	4073269	4122093	4150200	4178665	4207297	4236159	4237434

Table 2 - Number of Educational Institutions 2010

Sl. No	Municipality/ Corporation	Lower Primary School			Upper Primary Schools			High School			HSS/VHSC			Colleges			Technical Institutions			Grand Total
		Govt	Pvt	Total	Govt	Pvt	Total	Govt	Pvt	Total	Govt	Pvt	Total	Govt	Pvt	Total	Govt	Pvt	Total	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	Neyyattinkara	5	9	14	4	3	7	4	10	14	2	7	9	1	1	2	1	2	3	49
2	Thiruvanthapuram	54	18	72	29	9	38	14	4	18	31	17	48	12	7	19	4	27	31	226
3	Attingal	4	16	20	2	9	11	3	3	6	3	3	6	2	0	2	2	2	4	49
4	Kollam Corpn.	7	34	41	4	12	16	10	13	23	11	15	26	1	9	10	8	43	51	167
5	Punalur	7	6	13	2	1	3	0	2	2	1	6	7	0	1	1	1	2	3	29
6	Kayamkulam	6	10	16	3	5	8	2	6	8	3	6	9	1	3	4	1	4	5	50
7	Mavelikkara	2	11	13	2	4	6	2	6	8	3	6	9	2	1	3	1	3	4	43
8	Alappuzha	8	14	22	3	3	6	4	11	15	5	6	11	0	2	2	0	3	3	59
9	Cherthala	3	1	4	1	1	2	0	1	1	2	1	3	1	3	4	1	0	1	15
10	Thiruvalla	4	15	19	4	4	8	2	9	11	0	6	6	0	2	2	0	0	0	46
11	Changanassery	7	12	19	3	7	10	2	7	9	2	6	8	0	3	3	1	1	2	51
12	Kottayam	2	14	16	3	2	5	2	11	13	2	9	11	0	4	4	0	0	0	49
13	Palai	2	3	5	0	3	3	0	0	0	1	4	5	0	2	2	1	2	3	18
14	Vaikom	4	7	11	4	8	12	3	6	9	0	0	0	1	0	1	0	0	0	33
15	Muvattupuzha	1	4	5	2	3	5	3	7	10	3	5	8	1	1	2	0	0	0	30
16	Kochi Corppn	15	57	72	6	24	30	0	0	0	16	34	50	2	8	10	1	83	84	246
17	Aluva	1	8	9	0	7	7	1	7	8	2	6	8	0	2	2	0	0	0	34

Table 2 Contd.

Sl. No	Municipality/ Corporation	Primary School			Upper Primary Schools			High School			HSS/VHSC			Colleges			Technical Institutions			Grand Total
		Govt	Pvt	Total	Govt	Pvt	Total	Govt	Pvt	Total	Govt	Pvt	Total	Govt	Pvt.	Total	Govt.	Pvt.	Total	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
18	North Paravur	5	6	11	1	1	2	2	9	11	2	6	8	1	0	1	2	10	12	45
19	Perumbavur	4	7	11	0	1	1	3	3	6	3	3	6	0	1	1	0	0	0	25
20	Irinjalakuda	2	14	16	0	7	7	2	8	10	4	7	11	0	10	10	1	3	4	58
21	Kodugallur	3	4	7	0	1	1	2	0	2	2	2	4	1	0	1	1	0	1	16
22	Chalakkudy	2	3	5	0	1	1	3	3	6	1	1	2	1	1	2	3	2	5	21
23	Thrissur Corpn.	4	40	44	4	8	12	0	13	13	8	19	27	1	5	6	4	9	13	115
24	Guruvayoor	2	11	13	1	6	7	1	8	9	1	2	3	0	2	2	0	0	0	34
25	Kunnamkulam	1	13	14	1	3	4	2	6	8	3	2	5	0	1	1	1	2	3	35
26	Palakkad	12	9	21	6	7	13	4	9	13	4	5	9	1	2	3	2	3	5	64
27	Chittur-Thathamangalam	3	2	5	3	2	5	3	2	5	5	1	6	1	0	1	0	0	0	22
28	Tirur	3	17	20	1	8	9	0	1	1	2	4	6	1	0	1	0	4	4	41
29	Malappuram	5	9	14	1	3	4	2	7	9	2	4	6	1	1	2	2	9	11	46
30	Kozhikode-Corpn.	23	33	56	15	23	38	1	4	5	21	24	45	7	14	21	3	5	8	173
31	Vadakara	0	26	26	0	11	11	1	1	2	3	3	6	3	2	5	3	0	3	53
32	Thalassery	4	31	35	3	12	15	0	3	3	6	2	8	1	13	14	0	4	4	79
33	Kannur	4	6	10	6	5	11	0	0	0	4	6	10	0	6	6	2	13	15	52
34	Kasaragod	8	2	10	4	4	8	3	1	4	0	0	0	1	0	1	3	1	4	27
TOTAL		217	472	689	118	208	326	81	181	262	158	228	386	44	107	151	49	237	286	2100

Table 3 - Number of Hospitals and other Institutions 2010

Sl. No	Municipality/ Corporation	Hospitals						Dispensaries & other Institutions						Maternity & Child Health Center					
		Govt		Private		Total		Govt		Private		Total		Govt		Private		Total	
		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
1	Neyyattinkara	3	436	10	622	13	1058	4	0	12	0	16	0	2	0	0	0	2	0
2	Thiruvananthapuram Corpn.	19	7213	56	3262	75	10475	21	0	61	0	82	0	3	0	4	0	7	0
3	Attingal	2	100	9	375	11	475	3	0	25	0	28	0	1	10	3	140	4	150
4	Kollam Corpn.	9	1665	31	2928	40	4593	11	0	90	0	101	0	12	0	5	27	17	27
5	Punalur	2	169	12	441	14	610	2	0	20	0	22	0	6	0	0	0	6	0
6	Kayamkulam	4	280	18	625	22	905	0	0	37	0	37	0	0	0	0	0	0	0
7	Mavelikkara	2	367	7	540	9	907	2	0	10	0	12	0	0	0	0	0	0	0
8	Alappuzha	8	400	8	140	16	540	3	0	127	0	130	0	6	0	0	0	6	0
9	Cherthala	3	363	3	512	6	875	0	0	39	12	39	12	5	0	0	0	5	0
10	Thiruvalla	3	200	6	1500	9	1700	1	0	22	0	23	0	0	0	0	0	0	0
11	Changanacherry	2	293	11	358	13	651	0	0	39	0	39	0	4	0	0	0	4	0
12	Kottayam	4	455	11	750	5	1205	0	0	103	0	103	0	1	0	0	0	1	0
13	Palai	3	354	5	581	8	935	0	0	36	0	36	0	1	0	0	0	1	0
14	Vaikom	1	275	1	52	2	327	2	24	25	15	27	39	1	0	0	0	1	0
15	Muvattupuzha	3	310	11	535	14	845	1	0	38	0	39	0	2	0	0	0	2	0
16	Kochi Corpn.	18	2042	70	6710	88	8752	6	0	98	0	104	0	8	0	5	0	13	0
17	Aluva	2	247	11	638	13	885	0	0	6	0	6	0	0	0	0	0	0	0

Table 3 Contd.

Sl. No.	Municipality/ Corporation	Hospitals						Dispensaries & other Institutions						Maternity & Child Health Centre					
		Govt		Private		Total		Govt		Private		Total		Govt		Private		Total	
		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	North Paravur	3	255	9	627	12	882	5	0	26	0	31	0	2	0	0	0	2	0
19	Perumbavoor	2	246	7	602	9	848	1	0	46	0	47	0	6	0	0	0	6	0
20	Irrinjalakuda	2	246	7	111	9	357	2	0	18	0	20	0	1	0	0	0	1	0
21	Kodungallur	2	176	6	450	8	626	0	0	32	0	32	0	0	0	0	0	0	0
22	Chalakydy	1	144	6	510	7	654	2	0	27	0	29	0	2	0	0	0	2	0
23	Thrissur corpn.	6	692	21	3210	27	3902	12	18	22	0	34	18	4	0	0	0	4	0
24	Guruvayur	2	39	7	155	9	194	2	0	2	0	4	0	3	0	0	0	3	0
25	Kunnamkulam	1	124	4	539	5	663	7	0	0	0	7	0	1	0	0	0	1	0
26	Palakkad	4	850	25	1200	29	2050	4	0	21	0	25	0	4	0	0	0	4	0
27	Chittoor-Thathamangalam	2	134	1	18	3	152	1	0	1	0	2	0	0	0	0	0	0	0
28	Tirur	2	164	8	438	10	602	1	0	1	0	2	0	0	0	0	0	0	0
29	Malappuram	4	187	5	515	9	702	1	0	27	0	28	0	0	0	0	0	0	0
30	Kozhikode Corpn.	9	4131	44	2547	53	6678	25	0	121	0	146	0	12	0	8	0	20	0
31	Vadakara	2	240	14	520	16	760	1	0	97	0	98	0	1	0	0	0	1	0
32	Thalasserry	1	541	16	1018	17	1559	3	0	20	0	23	0	0	0	0	0	0	0
33	Kannur	2	129	29	773	31	902	1	0	1	0	2	0	0	0	0	0	0	0
34	Kasaragod	2	227	11	906	13	1133	1	0	22	0	23	0	0	0	0	0	0	0
TOTAL		135	23694	500	34708	625	58402	125	42	1272	27	1397	69	88	10	25	167	113	177

Table 4- Registration units with Area and Population 2010

SL no	Municipality \ Corporation	No of Reg units	Area in sq\km	Area Per Reg units	Midyear population	Population per Registration units	Density per Sq km
1	2	5	6	7	8	9	10
1	Neyyattinkara	1	28.78	28.78	75979	75979	2640
2	Thiruvananthapuram	1	141.74	141.74	814784	814784	5748
3	Attingal	1	16.87	16.87	38806	38806	2300
4	Kollam Corporation	1	57.28	57.28	386687	386687	6751
5	Punalur	1	34.60	34.60	48145	48145	1391
6	Kayamkulam	1	21.79	21.79	69947	69947	3210
7	Mavelikara	1	12.65	12.65	28570	28570	2258
8	Alappuzha	1	46.77	46.77	179259	179259	3833
9	Cherthala	1	16.18	16.18	46834	46834	2895
10	Thiruvalla	1	27.52	27.52	58826	58826	2138
11	Changanacherry	1	14.50	14.50	55577	55577	3833
12	Kottayam	1	16.45	16.45	64928	64928	3948
13	Palai	1	16.06	16.06	24210	24210	1507
14	Vaikom	1	8.73	8.73	24211	24211	2773
15	Muvattupuzha	1	13.18	13.18	30869	30869	2342
16	Kochi Corporation	1	94.88	94.88	626043	626043	6598
17	Aluva	1	7.18	7.18	26365	26365	3672
18	North Paravur	1	9.02	9.02	32216	32216	3572
19	Perumbavoor	1	13.61	13.61	28428	28428	2090
20	Irinjalakuda	1	11.24	11.24	30229	30229	2689
21	Kodungallur	1	17.40	17.40	35829	35829	2059
22	Chalakydy	1	25.23	25.23	51693	51693	2049
23	Thrissur Corpn	1	101.42	101.42	315596	315596	3112
24	Guruvayoor	1	7.48	7.48	22135	22135	2961
25	Kunnamkulam	1	34.18	34.18	55799	55799	1633
26	Palakkad	1	26.60	26.60	138157	138157	5194
27	Chittoor- Thathamangalam	1	14.71	14.71	34869	34869	2370
28	Tirur	1	16.55	16.55	57900	57900	3498
29	Malappuram	1	33.69	33.69	68109	68109	2022
30	Kozhikode Corpn.	1	84.20	84.20	452782	452782	5377
31	Vadakara	1	21.34	21.34	79177	79177	3710
32	Thalasserry	1	23.98	23.98	111157	111157	4635
33	Kannur	1	11.03	11.03	68228	68228	6186
34	Kasaragod	1	16.69	16.69	55090	55090	3301
TOTAL		34	1043.52	30.69	4237434	124630	4061

Table 5 - Number of Burial Grounds, Cremation Grounds and Civil Registration Units

Sl. No	Municipality/ Corporation	Burial Grounds			Cremation Grounds			Birth-Death Registration	
		Mun/ Corp	Private	Total	Mun/ Corp.	Private	Total	No. of wards	No. of registrations
1	2	3	4	5	6	7	8	9	10
1	Neyyattinkara	1	4	5	0	3	3	44	158
2	Thiruvananthapuram Corpn	4	30	34	1	3	4	100	1252
3	Attingal	0	5	5	1	0	1	24	196
4	Kollam Corpn	2	37	39	2	0	2	55	921
5	Punalur	1	20	21	1	0	1	35	230
6	Kayamkulam	0	0	0	0	0	0	41	241
7	Mavelikara	1	9	10	1	0	1	28	128
8	Alappuzha	3	2	5	0	19	19	50	808
9	Cherthala	0	6	6	1	4	5	28	188
10	Thiruvalla	1	0	1	1	0	1	32	109
11	Changanacherry	1	12	13	0	1	1	37	111
12	Kottayam	1	15	16	1	2	3	38	190
13	Palai	1	7	8	1	1	2	23	118
14	Vaikom	0	0	0	1	0	1	23	117
15	Muvattupuzha	0	8	8	1	0	1	28	193
16	Kochi Corporation	8	40	48	5	11	16	71	1321
17	Aluva	1	7	8	0	3	3	21	305
18	North Paravur	1	5	6	1	1	2	26	189
19	Perumbavoor	1	8	9	0	1	1	27	208
20	Irrinjalakuda	1	5	6	0	0	0	25	85
21	Kodungallur	0	2	2	1	0	1	24	194
22	Chalakydy	1	13	14	1	0	1	33	271
23	Thrissur Corpn	5	2	7	1	1	2	52	366
24	Guruvayoor	3	8	11	2	1	3	15	52
25	Kunnamkulam	2	11	13	1	0	1	31	256
26	Palakkad	4	7	11	3	1	4	52	113
27	Chittoor-Thathamangalam	0	2	2	3	0	3	26	81
28	Tirur	2	0	2	0	0	0	28	307
29	Malappuram	1	10	11	1	1	2	37	713
30	Kozhikode Corpn.	2	9	11	5	1	6	39	1254
31	Vadakara	1	8	9	1	0	1	44	204
32	Thalasserry	1	15	16	1	11	12	52	280
33	Kannur	1	13	14	2	0	2	39	334
34	Kasaragod	0	12	12	2	1	3	32	255
TOTAL		51	332	383	42	66	108	1260	11748

Table 6 - Vital events registered during the year 2010

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	15	16	17
1	Neyyattinkara	501	486	987	107	21.36	103	21.19	210	21.28	0	0	0	0	0	0
2	Thiruvananthapuram	16780	15880	32660	3612	21.53	3436	21.64	7048	21.58	223	189	412	39	33	72
3	Attingal	1059	1059	2118	132	12.46	121	11.43	253	11.95	1	3	4	0	0	0
4	Kollam Corpn	6309	6099	12408	2034	32.24	2043	33.5	4077	32.86	15	18	33	4	5	9
5	Punalur	1331	1318	2649	239	17.96	240	18.21	479	18.08	2	4	6	1	2	3
6	Kayamkulam	2330	2270	4600	385	16.52	371	16.34	756	16.43	7	5	12	3	2	5
7	Mavelikara	1145	1191	2336	121	10.57	145	12.17	266	11.39	0	0	0	0	0	0
8	Alappuzha*	1992	1886	3878	616	30.92	600	31.81	1216	31.36	4	1	5	1	0	1
9	Cherthala	1475	1439	2914	268	18.17	277	19.25	545	18.7	6	5	11	3	1	4
10	Thiruvalla	2003	2010	4013	105	5.24	114	5.67	219	5.46	11	15	26	1	1	2
11	Changanacherry	1273	1273	2546	561	44.07	493	38.73	1054	41.4	2	1	3	0	0	0
12	Kottayam	2014	1925	3939	140	6.95	147	7.64	287	7.29	8	3	11	1	2	3
13	Palai	1054	1225	2279	102	9.68	81	6.61	183	8.03	2	5	7	1	2	3
14	Vaikom	354	334	688	36	10.17	25	7.49	61	8.87	0	0	0	0	0	0
15	Muvattupuzha	1241	1274	2515	61	4.92	73	5.73	134	5.33	2	0	2	0	0	0
16	Kochi Corporation	8891	8326	17217	3983	44.8	3780	45.4	7763	45.09	45	43	88	9	15	24
17	Aluva	2215	2026	4241	111	96	207	10.22	318	7.5	7	7	14	0	0	0

*Fall in vital events during 2010 compared to the previous year is due to the shifting of Medical College Hospital from the jurisdiction of Alappuzha Municipality on 27th December 2009.

Table 6 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	15	16	17
18	North Paravur	1560	1489	3049	81	5.19	95	6.38	176	5.77	1	2	3	0	0	0
19	Perumbavoor	1056	990	2046	61	5.78	56	5.66	117	5.72	1	9	10	0	1	1
20	Irrinjalakuda	482	432	914	39	8.09	43	9.95	82	8.97	1	1	2	0	0	0
21	Kodungallur	3573	3435	7008	94	2.63	87	2.53	181	2.58	4	10	14	0	0	0
22	Chalakkudy	2044	1976	4020	256	12.52	245	12.4	501	12.46	4	2	6	2	1	3
23	Thrissur Corpn	10639	9822	20461	1103	10.37	1060	10.79	2163	10.57	-	-	127	0	0	0
24	Guruvayoor	100	90	190	12	12.00	9	10.00	21	11.05	0	0	0	0	0	0
25	Kunnamkulam	2160	1952	4112	181	8.38	194	9.94	375	9.12	8	10	18	0	1	1
26	Palakkad	7916	7573	15489	3256	41.13	2979	39.34	6235	40.25	31	14	45	24	9	33
27	Chittoor-Thathamangalam	46	37	83	10	21.74	6	16.22	16	19.28	0	1	1	0	0	0
28	Tirur	4645	4738	9383	210	4.52	182	3.84	392	4.18	10	15	25	0	0	0
29	Malappuram	3989	3809	7798	341	8.55	327	8.58	668	8.57	15	11	26	0	0	0
30	Kozhikode Corporation	19123	18322	37445	2463	12.88	2169	11.84	4632	12.37	247	206	453	21	18	39
31	Vadakara	1244	1393	2637	234	18.81	221	15.87	455	17.25	1	1	2	0	0	0
32	Thalasserry	7098	6668	13766	95	1.34	106	1.59	201	1.46	43	29	72	0	0	0
33	Kannur	3405	3273	6678	371	10.9	330	10.08	701	10.5	26	13	39	3	2	5
34	Kasaragod	5374	5039	10413	100	1.86	91	1.81	191	1.83	39	37	76	0	0	0
TOTAL		126421	121059	247480	21520	17.02	20456	16.90	41976	16.96	766	660	1553	113	95	208

Table 6 - Contd.

Sl. No	Municipality/ Corporation	Infant Death						Other Deaths					
		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	0	0	0	0	0	0	380	305	685	220	176	396
2	Thiruvanantha-Puram	478	270	748	47	38	85	7660	4826	12486	1366	911	2277
3	Attingal	0	0	0	0	0	0	173	118	291	85	60	145
4	Kollam Corpn	23	37	60	7	14	21	2001	1243	3244	768	530	1298
5	Punalur	0	1	1	0	0	0	352	215	567	141	87	228
6	Kayamkulam	1	1	2	0	0	0	249	184	433	155	141	296
7	Mavelikara	2	4	6	0	1	1	421	272	693	61	46	107
8	Alappuzha	2	1	3	1	0	1	661	478	1139	523	411	934
9	Cherthala	3	3	6	0	0	0	342	369	711	120	104	224
10	Thiruvalla	8	24	32	1	5	6	1002	570	1572	168	122	290
11	Changana-cherry	0	1	1	0	0	0	235	153	388	202	141	343
12	Kottayam	15	12	27	0	0	0	458	300	758	188	127	315
13	Palai	0	0	0	0	0	0	242	179	421	49	38	87
14	Vaikom	0	0	0	0	0	0	167	97	264	69	56	125
15	Muvattupuzha	1	2	3	0	0	0	255	248	503	75	81	156
16	Kochi Corporation	181	128	309	31	22	53	5370	3176	8546	2538	1769	4307
17	Aluva	5	2	7	0	0	0	327	217	544	62	36	98

Table 6 - Contd.

Sl. No	Municipality/ Corporation	Infant Death						Other Deaths					
		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	North Paravur	0	0	0	0	0	0	247	218	465	77	88	165
19	Perumbavoor	3	1	4	0	0	0	282	155	437	74	61	135
20	Irinjalakuda	0	0	0	0	0	0	245	201	446	86	80	166
21	Kodungallur	13	11	24	0	0	0	485	422	907	51	48	99
22	Chalakydy	8	5	13	1	1	2	411	263	674	161	122	283
23	Thrissur Corpn	90	86	176	0	0	0	3768	2214	5982	613	409	1022
24	Guruvayoor	0	0	0	0	0	0	99	65	164	79	59	138
25	Kunnamkulam	5	12	17	1	0	1	353	254	607	167	147	314
26	Palakkad	36	32	68	17	25	42	1248	904	2152	642	330	972
27	Chittoor- Thathamangalam	0	0	0	0	0	0	145	100	245	105	70	175
28	Tirur	2	2	4	0	0	0	324	170	494	89	73	162
29	Malappuram	8	8	16	2	2	4	265	188	453	85	72	157
30	Kozhikode Corporation.	598	382	980	38	48	86	6122	3951	10073	864	730	1594
31	Vadakara	5	3	8	1	1	2	358	473	831	187	196	383
32	Thalasserry	24	19	43	0	0	0	1263	879	2142	63	32	95
33	Kannur	39	30	69	2	0	2	404	322	726	153	143	296
34	Kasaragod	29	23	52	0	0	0	538	349	887	58	31	89
TOTAL		1579	1100	2679	149	157	306	36852	24078	60930	10344	7527	17871

Table 6 – Contd.

Sl.No.	Municipality/Corporation	Total Death								
		Total Events			Events to normal residents					
		Male	Female	Total	Male	%	Female	%	Total	%
1	2	3	4	5	6	7	8	9	10	11
1	Neyyattinkara	380	305	685	220	57.89	176	57.7	396	57.81
2	Thiruvananthapuram	8138	5096	13234	1413	17.36	949	18.62	2362	17.85
3	Attingal	173	118	291	85	49.13	60	50.85	145	49.83
4	Kollam Corpn	2024	1280	3304	775	38.29	544	42.5	1319	39.92
5	Punalur	352	216	568	141	40.06	87	40.28	228	40.14
6	Kayamkulam	250	185	435	155	62	141	76.22	296	68.05
7	Mavelikara	423	276	699	61	14.42	47	17.03	108	15.45
8	Alappuzha	663	479	1142	524	79.03	411	85.8	935	81.87
9	Cherthala	345	372	717	120	34.78	104	27.96	224	31.24
10	Thiruvalla	1010	594	1604	169	16.73	127	21.38	296	18.45
11	Changanacherry	235	154	389	202	85.96	141	91.56	343	88.17
12	Kottayam	473	312	785	188	39.75	127	40.71	315	40.13
13	Palai	242	179	421	49	20.25	38	21.23	87	20.67
14	Vaikom	167	97	264	69	41.32	56	57.73	125	47.35
15	Muvattupuzha	256	250	506	75	29.3	81	32.4	156	30.83
16	Kochi Corporation	5551	3304	8855	2569	46.28	1791	54.21	4360	49.24
17	Aluva	332	219	551	62	18.67	36	16.44	98	17.79

Table 6 – Contd.

Sl.No.	Municipality/Corporation	Total Death								
		Total Events			Events to normal residents					
		Male	Female	Total	Male	%	Female	%	Total	%
1	2	3	4	5	6	7	8	9	10	11
18	North Paravur	247	218	465	77	31.17	88	40.37	165	35.48
19	Perumbavoor	285	156	441	74	25.96	61	39.1	135	30.61
20	Irrinjalakuda	245	201	446	86	35.1	80	39.8	166	37.22
21	Kodungallur	498	433	931	51	10.24	48	11.09	99	10.63
22	Chalakydy	419	268	687	162	38.66	123	45.9	285	41.48
23	Thrissur Corpn	3858	2300	6158	613	15.89	409	17.78	1022	16.6
24	Guruvayoor	99	65	164	79	79.8	59	90.77	138	84.15
25	Kunnamkulam	358	266	624	168	46.93	147	55.26	315	50.48
26	Palakkad	1284	936	2220	659	51.32	355	37.93	1014	45.68
27	Chittoor-thathamangalam	145	100	245	105	72.41	70	70	175	71.43
28	Thirur	326	172	498	89	27.3	73	42.44	162	32.53
29	Malappuram	273	196	469	87	31.87	74	37.76	161	34.33
30	Kozhikode Corporation.	6720	4333	11053	902	13.42	778	17.96	1680	15.20
31	Vadakara	363	476	839	188	51.79	197	41.39	385	45.89
32	Thalasserry	1287	898	2185	63	4.90	32	3.56	95	4.35
33	Kannur	443	352	795	155	34.99	143	40.63	298	37.48
34	Kasaragod	567	372	939	58	10.23	31	8.33	89	9.48
TOTAL		38431	25178	63609	10493	27.30	7684	30.52	18177	28.58

Table 7 - Deaths according to causes 2010

Sl.No	Municipality/ Corporation	Suicide	Accident	Pneumonia	B.P	T.B	Aids	Diabetes	Hydrophobi a / Rabies	Pulmonary Disease	Other Internal cause	Dysentery & Diarrhea	Respiratory Diseases
1	Neyyattinkkara	5	4	0	6	3	0	14	0	0	0	0	0
2	Thiruvananthapuram	8	117	254	170	81	1	402	11	0	3035	1	756
3	Attingal	15	4	1	0	0	0	3	0	0	0	0	1
4	Kollam Corpn	91	105	19	42	5	0	35	0	0	493	3	179
5	Punalur	20	18	1	1	1	0	7	0	0	9	1	95
6	Kayamkulam	8	23	1	3	1	0	9	0	0	0	0	18
7	Mavelikara	17	11	6	1	4	0	3	0	0	2	1	13
8	Alappuzha	0	0	0	0	0	0	0	0	205	0	0	0
9	Cherthala	7	5	4	3	0	0	4	0	3	0	4	0
10	Thiruvalla	11	44	7	123	0	0	68	0	0	0	7	106
11	Changanacherry	8	16	0	0	0	0	0	0	16	0	8	17
12	Kottayam	0	0	0	0	2	0	30	0	0	0	0	0
13	Palai	0	11	0	0	0	0	16	0	0	0	0	2
14	Vaikom	15	5	1	4	22	0	8	0	0	0	0	0
15	Muvattupuzha	0	0	0	0	0	0	0	0	0	0	0	0
16	Kochi Corpora.	0	351	0	49	0	0	1099	0	0	2342	0	715
17	Aluva	0	0	6	11	1	0	48	0	0	10	0	9

Table 7 Continued.....

Sl.No	Municipality/ Corporation	Suicide	Accident	Pneumonia	B.P	T.B	Aids	Diabetics	Hydrophobia / Rabies	Pulmonary Disease	Other Internal cause	Dysentery & Diarrhea	Respiratory Diseases
18	North Paravur	8	11	42	0	0	0	0	0	0	0	0	0
19	Perumbavoor	0	0	0	0	0	0	0	0	46	0	0	0
20	Irrinjalakuda	0	0	0	0	0	0	0	0	0	22	0	0
21	Kodungallur	0	0	0	0	0	0	0	0	0	72	0	0
22	Chalakydy	13	24	3	0	0	0	0	0	21	0	9	35
23	Thrissur Corpn	0	0	0	0	0	0	0	0	0	0	0	0
24	Guruvayoor	3	2	0	8	1	0	10	0	0	0	0	38
25	Kunnamkulam	0	0	3	1	4	0	10	0	0	4	0	52
26	Palakkad	0	0	0	0	0	0	0	0	0	8	0	0
27	Chittoor- Thathamangalam	5	8	5	3	0	0	0	0	9	0	0	0
28	Tirur	2	12	0	7	0	0	15	0	0	0	0	44
29	Malappuram	0	0	0	0	0	0	14	0	20	0	12	0
30	Kozhikode Corpn	119	417	98	75	8	12	179	0	0	0	3	631
31	Vadakara	0	0	0	0	0	0	0	0	0	0	0	0
32	Thalasserry	0	0	0	0	0	0	0	0	0	0	1	0
33	Kannur	0	0	0	0	1	0	0	0	0	0	0	0
34	Kasaragod	0	0	10	9	5	0	5	0	0	141	0	26
TOTAL		355	1188	461	516	139	13	1979	11	320	6138	50	2737

Table 7 Continued.....

Sl.No	Municipality/ Corporation	Liver Disease	Kidney Diseases	Cancer	Malaria	Heart Failure	Senility	Fever	Jaundice	Others	Total
1	Neyyattinkkara	1	7	13	0	32	0	10	1	589	685
2	Thiruvananthapuram	482	523	1108	0	2499	766	2	11	3007	13234
3	Attingal	0	0	12	0	159	0	0	1	95	291
4	Kollam Corpn	198	57	173	0	1404	351	0	15	134	3304
5	Punalur	9	3	16	0	179	189	0	2	17	568
6	Kayamkulam	6	1	12	0	224	73	0	2	54	435
7	Mavelikara	22	1	28	0	417	93	0	1	79	699
8	Alappuzha	0	0	95	0	0	0	0	0	842	1142
9	Cherthala	0	0	12	0	51	0	6	0	618	717
10	Thiruvalla	34	79	176	0	453	79	0	4	413	1604
11	Changanacherry	0	0	32	0	155	101	0	0	36	389
12	Kottayam	0	0	36	0	0	0	0	1	716	785
13	Palai	5	2	9	0	85	0	0	0	291	421
14	Vaikom	2	1	7	0	104	66	0	0	29	264
15	Muvattupuzha	0	0	0	0	74	0	0	0	432	506
16	Kochi Corpora.	0	0	0	0	0	0	0	0	4299	8855
17	Aluva	0	0	249	0	133	45	0	5	34	551

Table 7 Continued.....

Sl.No	Municipality/ Corporation	Liver Disease	Kidney Diseases	Cancer	Malaria	Heart Failure	Senility	Fever	Jaundice	others	Total
18	North Paravur	6	18	26	0	221	0	0	0	133	465
19	Perumbavoor	0	0	13	0	118	0	0	0	264	441
20	Irrinjalakuda	0	0	24	0	163	0	0	0	237	446
21	Kodungallur	0	0	36	0	240	0	0	0	583	931
22	Chalakydy	0	0	29	0	340	0	0	0	213	687
23	Thrissur Corpn	0	0	0	0	1185	0	0	0	4973	6158
24	Guruvayoor	1	4	10	0	13	0	3	1	70	164
25	Kunnamkulam	16	18	47	0	193	24	0	2	250	624
26	Palakkad	0	0	124	0	62	0	0	0	2026	2220
27	Chittoor- Thathamangalam	6	4	6	0	77	0	1	0	121	245
28	Tirur	0	18	66	0	165	17	0	0	152	498
29	Malappuram	0	0	31	0	0	0	0	0	392	469
30	Kozhikode Corpn.	97	93	539	0	734	421	0	7	7620	11053
31	Vadakara	0	0	58	0	355	0	0	0	426	839
32	Thalasserry	0	0	208	0	1149	0	0	0	827	2185
33	Kannur	0	0	46	0	348	0	0	0	400	795
34	Kasaragod	38	8	53	0	288	35	0	2	319	939
TOTAL		923	837	3294	0	11620	2260	22	55	30691	63609

Table 8 - Results of Spot Check Survey - 2010

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	N.R	occurred outside	Enumerated	Registered	N.R	occurred outside	Enumerated	Registered	N.R	occurred outside
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.	Neyyattinkara	15	8612	6802	210	51	0	159	0	0	0	0	143	107	0	36
2.	Thiruvanantha- puram	15	44151	21534	992	944	0	48	0	0	0	0	312	308	0	4
3.	Attingal	15	7368	7368	232	112	0	120	0	0	0	0	151	84	0	67
4.	Kollam Corpn	15	25720	24792	725	619	0	106	0	0	0	0	352	302	0	50
5.	Punalur	15	5760	5760	213	150	0	63	0	0	0	0	106	80	2	24
6.	Kayamkulam	15	5559	5559	243	163	0	80	0	0	0	0	114	78	3	33
7.	Mavelikkara	15	4200	4200	109	63	0	46	0	0	0	0	88	65	2	21
8.	Alappuzha	25	28457	21587	644	516	0	128	0	0	0	0	357	292	0	65
9.	Cherthala	15	11985	11985	140	78	0	62	0	0	0	0	121	110	0	11
10.	Thiruvalla	15	8492	8492	83	61	0	22	0	0	0	0	65	48	0	17
11.	Changanassery	15	6058	5904	121	69	0	52	0	0	0	0	78	42	1	35
12.	Kottayam	15	5072	5072	166	65	0	101	0	0	0	0	166	125	7	34
13.	Palai	15	5363	3372	87	43	0	44	0	0	0	0	82	75	0	7
14.	Vaikom	15	6101	4115	145	35	0	110	0	0	0	0	125	82	3	40
15.	Muvattupuzha	15	5735	5735	216	128	0	88	0	0	0	0	91	65	3	23
16.	Kochi Corporation	15	28382	28382	1128	902	0	226	0	0	0	0	444	419	5	20
17.	Aluva	15	5499	5499	234	207	0	27	0	0	0	0	100	98	0	2

Table 8 (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			
					Enume rated	Register ed	N.R	Occurred outside	Enume rated	Register ed	N.R	occurred outside	Enume rated	Register ed	N.R	occurred outside
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.	North Paravur	15	4723	4723	185	113	0	72	0	0	0	0	109	76	0	33
2.	Perumbavoor	15	3922	3922	201	132	0	69	0	0	0	0	117	76	0	41
3.	Irrinjalakuda	15	7318	4445	165	27	0	138	0	0	0	0	94	58	0	36
4.	Kodungallur	15	4669	4669	181	110	0	71					99	84	0	15
5.	Chalakydy	15	5937	5649	244	155	0	89	0	0	0	0	138	116	0	22
6.	Thrissur Corpn*	15	9617	8629	295	248	0	47	0	0	0	0	129	118	0	11
7.	Guruvayoor	15	5195	5195	226	4	0	222	0	0	0	0	115	48	0	67
8.	Kunnamkulam	15	9145	6251	243	139	0	104	0	0	0	0	159	117	0	42
9.	Palakkad	15	9722	9722	90	84	0	6	0	0	0	0	32	29	0	3
10.	Chittoor- Thathamangalam	15	4442	4442	125	3	0	122	0	0	0	0	95	78	1	16
11.	Tirur	15	11403	5472	392	255	0	137	0	0	0	0	87	52	0	35
12.	Malappuram	15	6861	6813	668	572	0	96	4	4	0	0	161	137	0	24
13.	Kozhikode Corpn.	15	36016	21648	969	898	0	71	3	3	0	0	369	353	2	14
14.	Vadakara	15	5201	5201	291	106	0	185	0	0	0	0	125	98	0	27
15.	Thalasserry	15	6199	5246	201	190	0	11	0	0	0	0	95	90	0	5
16.	Kannur	15	4551	4551	386	244	0	142	1	0	0	1	152	90	5	57
17.	Kasaragod	15	5006	4920	191	178	0	13	0	0	0	0	89	77	0	12
TOTAL		520	352441	287656	10741	7664	0	3077	8	7	0	1	5060	4077	34	949

* Include results of six wards only

Table 9 - Under Registration and Occurrence 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	0.00	0.00	75.71	25.17
2	Thiruvananthapuram	0.00	0.00	4.84	1.28
3	Attingal	0.00	0.00	51.72	44.37
4	Kollam Corpn	0.00	0.00	14.62	14.20
5	Punalur	0.00	2.44	29.58	22.64
6	Kayamkulam	0.00	3.70	32.92	28.95
7	Mavelikara	0.00	2.99	42.20	23.86
8	Alappuzha	0.00	0.00	19.88	18.21
9	Cherthala	0.00	0.00	44.29	9.09
10	Thiruvalla	0.00	0.00	26.51	26.15
11	Changanacherry	0.00	2.33	42.98	44.87
12	Kottayam	0.00	5.30	60.84	20.48
13	Palai	0.00	0.00	50.57	8.54
14	Vaikom	0.00	3.53	75.86	32.00
15	Muvattupuzha	0.00	4.41	40.74	25.27
16	Kochi Corporation	0.00	1.18	20.04	4.50
17	Aluva	0.00	0.00	11.54	2.00
18	North Paravur	0.00	0.00	38.92	30.28
19	Perumbavoor	0.00	0.00	34.33	35.04
20	Irinjalakuda	0.00	0.00	83.64	38.30
21	Kodungallur	0.00	0.00	39.23	15.15
22	Chalakydy	0.00	0.00	36.48	15.94
23	Thrissur Corpn	0.00	0.00	15.93	8.53
24	Guruvayoor	0.00	0.00	98.23	58.26
25	Kunnamkulam	0.00	0.00	42.80	26.42
26	Palakkad	0.00	0.00	6.67	9.38
27	Chittoor- Thathamangalam	0.00	1.27	97.60	16.84
28	Tirur	0.00	0.00	34.95	40.23
29	Malappuram	0.00	0.00	14.37	14.55
30	Kozhikode Corpn.	0.00	0.56	7.33	3.76
31	Vadakara	0.00	0.00	63.57	21.60
32	Thalasserry	0.00	0.00	5.47	5.26
33	Kannur	0.00	5.26	36.79	37.91
34	Kasaragod	0.00	0.00	6.81	13.48

Table 10 - Registered Vital Rates and Adjusted Residential Vital rates 2010

Sl. No.	Municipality/ Corporation	Registered vital rates		Residential vital rates		Adjusted residential vital rates	
		Births	Deaths	Births	Deaths	Births	Deaths
1	2	3	4	5	6	7	8
1	Neyyattinkara	2.76	5.21	2.76	5.21	11.36	6.96
2	Thiruvananthapuram	8.65	2.90	8.65	2.90	9.09	2.94
3	Attingal	6.52	3.74	6.52	3.74	13.50	6.72
4	Kollam Corpn.	10.54	3.41	10.54	3.41	12.34	3.97
5	Punalur	9.95	4.74	9.95	4.86	14.13	6.28
6	Kayamkulam	10.81	4.23	10.81	4.39	16.12	6.18
7	Mavelikara	9.31	3.78	9.31	3.90	16.11	5.12
8	Alappuzha	6.78	5.22	6.78	5.22	8.46	6.38
9	Cherthala	11.64	4.78	11.64	4.78	20.89	5.26
10	Thiruvalla	3.72	5.03	3.72	5.03	5.06	6.81
11	Changanacherry	18.96	6.17	18.96	6.32	33.25	11.46
12	Kottayam	4.42	4.85	4.42	5.12	11.29	6.44
13	Palai	7.56	3.59	7.56	3.59	15.29	3.93
14	Vaikom	2.52	5.16	2.52	5.35	10.44	7.87
15	Muvattupuzha	4.34	5.05	4.34	5.28	7.32	7.07
16	Kochi Corporation	12.40	6.96	12.40	7.04	15.51	7.37
17	Aluva	12.06	3.72	12.06	3.72	13.63	3.80
18	North Paravur	5.46	5.12	5.46	5.12	8.94	7.34
19	Perumbavoor	4.12	4.75	4.12	4.75	6.27	7.31
20	Irinjalakuda	2.71	5.49	2.71	5.49	16.56	8.90
21	Kodungallur	5.05	2.76	5.05	2.76	8.31	3.25
22	Chalakkudy	9.69	5.51	9.69	5.51	15.26	6.55
23	Thrissur Corpn	6.85	3.24	6.85	3.24	8.15	3.54
24	Guruvayoor	0.95	6.23	0.95	6.23	53.67	14.93
25	Kunnamkulam	6.72	5.65	6.72	5.65	11.75	7.68
26	Palakkad	45.13	7.34	45.13	7.34	48.36	8.10
27	Chittoor- Thathamangalam	0.46	5.02	0.46	5.08	19.17	6.11
28	Tirur	6.77	2.80	6.77	2.80	10.41	4.68
29	Malappuram	9.81	2.36	9.81	2.36	11.46	2.76
30	Kozhikkode Corpn.	10.23	3.71	10.23	3.73	11.04	3.88
31	Vadakara	5.75	4.86	5.75	4.86	15.78	6.20
32	Thalasserry	1.81	0.85	1.81	0.85	1.91	0.90
33	Kannur	10.27	4.37	10.27	4.61	16.25	7.42
34	Kasaragod	3.47	1.62	3.47	1.62	3.72	1.87

APPENDIX

Method of calculation of adjusted residential vital rates

Residential vital rates can broadly be defined as the rate of occurrence of vital events among the normal residents of an area in a year. In order to calculate the percentage of under registration, the events occurring among 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 included.

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