

Sl no.  
2673

A00002



Government of Kerala

# Sample Registration of Births & Deaths Kerala 1999

Department of Economics & Statistics  
Thiruvananthapuram  
2002

1999  
Deaths & Deaths Kerala

**Government of Kerala**

**PREFACE**

**Sample Registration of  
Births & Deaths  
Kerala 1999**

**Department of Economics & Statistics  
Thiruvananthapuram**

1911

## **PREFACE**

The Sample Registration System was introduced in all the States of India under the direction of the Registrar General of India in 1964 ~~under the directions of the Registrar General of India.~~ The object of the System is to avoid the problems involved in the functioning of Civil Registration System. Sample Registration System had been introduced with 20 selected samples and at present the survey is being conducted in 150 rural samples of the state by this department.

The report presents the results of the study in rural areas of Kerala State for the year 1999. It includes the details of population marriages, sex ratio, birth rate, death rate, Infant mortality rate, etc.

This report is prepared by the Sample Registration unit of this Directorate.

**A.MEERA SAHIB**  
**DIRECTOR**

## CONTENTS

Chapter – 1	Introduction
Chapter – 2	Estimated Population in Rural Area of Kerala
Chapter – 3	Measures of Fertility
Chapter – 4	Mortality Measures
Chapter – 5	Table 1 to 33

**APPENDIX**  
**LIST OF TABLES**

Table No	Title	Page No
1	2	3
1	Mid year estimated population Births, Deaths and Vital rates 1999	15
2	District wise Sample Population and Estimated population.	15
3	Population according to sex	16
4	Mid year sample population according to age and sex .	16
4A	Estimated population by age group and sex	16
5	Sex Ratio and percentage distribution of population by age group	17
6	District wise – Religion wise population – samples and estimated	17
7	District wise Live births observed in samples and estimated according to sex	18
8	Observed number of Total women in different age group	18
8A	women in different age group estimated	19
8B	Observed number of married women in different age group	19
8C	Observed number of Live births in different age group	20
8D	Estimated number of Live births in different age group	20
8E	Estimated No.of married women in different age group	21
9	Age specific Fertility Rate	21
9A	Age, Specific Marital Fertility Rate	22
10	Distribution of live births observed in samples according to age of currently married women and number of surviving children.	22
11	Distribution of live birth observed in samples according to age of currently married women and number of everborn children.	22
12	Distribution of currently married women observed in samples according to age of mother and age of last child	23
13	Live births observed in samples classified by monthwise occurrence.	23
14	Live births observed in samples by type of medical attention.	14
15	Percentage distribution of birth by age of mother and order of birth of child.	15

Table No	Title	Page No
1	2	3
16	Percentage distribution of samples according to birth rate	25
17	Distribution of still births observed in samples and estimated according to sex	26
18 A	Distribution of death estimated in samples and according to age and sex.	27
18B	District wise death observed and estimated	29
19	Age specific Death rates of State	29
20	Distribution of Death observed in samples classified by month of occurrences	30
21	Distribution of Death observed in samples classified by Type of Medical Attention.	30
22	Distribution of samples according to Death rate in samples	31
23	District wise Infant death observed in samples, estimated according to sex and Infant Mortality Rate.	32
24	Number of Infant Death observed in samples born in pervious year and current year.	33
25	Number of Infant death estimated in samples born in previous year and current year.	33
26	Distribution of prenatal, neonatal and Infant death according to sex	34
27	Distribution of Births recorded by Enumerator and Supervisor	34
28	Distribution of Deaths recorded by Enumerator and Supervisor	35
29	Distribution of rate of marriage per thousand population and percentage distribution of marriage according to age and sex	35
30	Life table of Males based on Age specific Death rates for the year 1999.	36
31	Life table of Females based on Age specific Death rates for the year 1999.	37
32	Life Tables of persons based on Age specific Death rates for the year 1999.	38
33	Number of units and population in the universe and the samples.	38



# Sample Registration of Births and Deaths in Kerala Rural – 1999

## CHAPTER – I

### Introduction

The Sample Registration System is a dual recording system and it provides reliable vital rates at the National and State level separately for urban and rural areas. The insufficiencies in Civil Registration System have made the Sample Registration System as a unique technique for obtaining reliable vital rates. The department of Economics and Statistics is the implementing agency of the study in rural and urban areas as per directions from the Registrar General of India. This report presents the findings of the operation of the Sample Registration System in the 150 samples selected in the rural sector for the year 1999.

The Sample Registration System was introduced in the State during the year 1964 as a pilot project in 20 rural and 5 urban sample units. The full-fledged scheme was introduced on a regular basis by extending the survey in 150 rural samples in the state on 1<sup>st</sup> July 1965. The Director of Census Operations was in charge of the work in the urban areas since 1970. The fieldwork of the survey was conducted in the selected 150 rural samples units in the State. Instead of the stratum wise tables, district level tables have been incorporated in the survey report since 1995.

### 1.2 Staff engaged in the Survey

150 part-time enumerators were posted for the conduct of continuous enumeration survey in the respective samples units allotted to them. The half yearly surveys in these 150 units were conducted by 17 computer supervisors deputed from the Census Department. The Additional District Officers (SR) working in the district offices have conducted re-verification of both unmatched and partially matched events. One RSO, One RA, two Compilers and one Senior Compiler from Census Department were attending the survey work in the Head Office.

### Field Work

As per the instruction of the survey, a base line survey was conducted in all the selected sample units. During the base line survey the house list, house hold list, list of pregnant women, and notional map of the sample area were prepared by the supervisor with the help of part time enumerator of the respective sample units. The part time enumerator of each sample units is responsible for the continuous enumeration survey and to report the births and deaths occurred in the sample units. The supervisors have to conduct the half-yearly survey and furnish the final results of each sample to district office soon after the completion of the Field work of the survey. After the matching process the partially matched and unmatched events should be re-verified by the Additional District Officer (SR) of the District Office.

### Overlapping Survey

While conducting the half-yearly survey by supervisor, he should also collect the details of birth and death of the last half year in order to find out the missing netted in the overlapping survey.

## **CHAPTER – II**

### **Estimated population in rural areas of Kerala**

#### **2.1 Population and its growth**

The rural population of Kerala was estimated as 23892124 on 1.7.1999 and 24078609 on 1.1.2000. District wise analysis shows that population in Malappuram is 3196341 in which Male and Female populations are 1527373 and 1668968 respectively. Thiruvananthapuram District comes next with 2183559 numbers. The lowest estimated population is in Wayanad with 793451 number.

#### **2.2 Sex ratio and percentage distribution of population by age group**

Sex ratio based on age group was highest in the age of 25-29, being 1230 and the corresponding figure against the age group 70 and above is 1220. It is the lowest in the age group 5-9. Considering the classification of population in terms of age group, the highest percentage population is 10.53 for the age group 15-19 and it is the lowest for the age group 65-69, being 2.40%.

#### **2.3 Religion wise Population**

Classification of estimated population based on religion wise viz. Hindu, Muslim and Christian in the State was 13376726, 6259348 and 4256050 respectively. Out of the total population 55.99% were Hindus, 26.2% Muslims and 17.81% Christians. District wise figures shows that Hindu were maximum in Kollam followed by Thrissur. In the case of Muslim it was maximum in Malappuram followed by Palakkad. As regards to Christian population it was maximum in Kottayam followed by Ernakulam.

## CHAPTER - III

### Measures of Fertility

#### 3.1 Fertility Indicators

The most common measures of fertility are the birth rate, Age specific fertility rate, general fertility rate, total fertility rate and net reproduction rate. Estimates of these rates are presented in this Chapter.

Birth rate is defined as the number of live births per 1000 population (mid year). The births to the usual residents were only taken into account for the calculation of vital rates. The birth rate in Kerala estimated during the year under report was 17.72.

District wise birth rate displayed that Malappuram was the highest among the districts with 22.23 followed by Wayanad with 20.29. However the lowest crude birth rate was in Pathanamthitta district with only 8.40.

Table - A

Birth rate of Kerala and India (Rural) for the year 1990 to 1999.

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
BR	19.6	18.4	17.6	17.5	17.2	18.1	18.1	17.9	18.3	18.1
BR(I)	31.7	30.9	30.9	30.4	30.5	30.0	27.5	27.2	28.0	27.6

(Source - SRS bulletin)

#### 3.2 Births rate of neighbouring States 1998

The table shows that birth rate of Kerala is the lowest among the states with 18.1.

The Birth rate of Kerala (Rural) and neighbouring States are presented below

State	Rural	Rural and Urban combined
Andhra Pradesh	22.0	21.7
Karnataka	23.7	22.3
Tamil Nadu	19.8	19.3
Kerala	18.1	18.0
All India	27.6	26.1

(Source - SRS bulletin)

#### 3.3 Distribution of Sample units under different rates

Table 16 represents the birth rate existing in the samples. Out of 150 samples 43 numbers have the birth rate between 16 and 20, and 36 numbers have the birth rate between 12 and less than 16.

#### 3.4 Age Specific Fertility rate

Age specific fertility rate can be defined as the number of live birth in a year to 1000 women of a specific age group. Table No.9 represents the Age specific fertility rate. It was highest in the age

group of 20-24 with 141.85. District wise figure shows Age Specific Fertility Rate was highest in Kozhikode with 178.25 at the age group of 20-24.

### 3.5 Age Specific Marital Fertility Rate

Age Specific Marital Fertility Rate is defined as the number of live births in an year to 1000 married women of specific age group. Table 9A shows the district level and state level marital fertility rate during the year under report. Age specific fertility rate was highest in the age group of 20-24 with 251.74 followed by 217.69 the age group 15-19 Age Specific Marital Fertility Rate highest in Thiruvananthapuram District with 800 and lowest in Kollam District with 95.

### 3.6 Number of Surviving Children and Children ever born in different age group

The number of ever born and surviving children of currently married women in different age group from 15-19 to 45 and above is given in table 10 & 11 which is appended. It is observed that out of 4358 birth events 2078 were initial birth and 1507 numbers were second birth.

### 3.7 General Fertility Rate (GFR)

The number of live births in an year to 1000 women in the reproductive age group 15-49 is defined as General Fertility Rate. General Fertility Rate of the State was 60.50 during the year under report. District wise figures shows that it was highest in Malappuram and lowest in Pathanamthitta District. General Fertility rate from 1990 to 1999 in the State is as follows :-

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
GFR	69.8	64.8	61.6	61.2	60.0	62.87	62.6	64.1	59.4	60.50

### 3.8 Total Fertility Rate

Total fertility rate represents the average number of children that would be born to a woman during her life time, if she passes through the child bearing years conforming the age specific fertility rate of the year. The state level total fertility rate was 1.79 during the year under report. The total fertility rate from 1990 to 1999 is stated below:

Tear	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
TFR	1.9	1.8	1.7	1.7	1.7	1.9	1.8	1.9	1.8	1.8

### 3.9 Gross Reproduction Rate

Gross Reproduction Rate is defined as the average number of female children that would be born to a woman during her life time, if she passes through her child bearing years conforming to the age specific fertility rate of the year. The gross reproduction rate of the State from 1990 to 1999 is stated below:

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
GRR	0.92	0.92	0.82	0.83	0.80	0.90	0.89	0.88	0.87	0.86

### 3.10 Net Reproduction Rate (NRR)

Net Reproduction rate is the average number of Female Children that would be born to a woman during her lifetime. Conforming to the age group by corresponding proportion of survivors as per life table for female ( $L_x/l_x$ ) and then repeating the process in the gross reproduction rate. Net reproduction at the state from 1990 to 1999 is presented below: -

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
NRR	0.91	0.91	0.81	0.83	0.79	0.90	0.89	0.87	0.87	0.86

### 3.11 Still Birth Rate (SBR)

Still Birth Rate is defined as the number of still births to 1000 Births (Both still birth and live birth) Total number of still birth estimated during the year was 948 in which the male and female classification were and 507 and 441 respectively. District wise still birth shows that it was maximum in Malappuram with 345 followed by Idukki and Thiruvananthapuram with 104.

Still birth rate in the State during the year was 2.23.

### 3.12 Order of Birth by age of mother

The percentage of distribution of births according to the age of mother and order of birth of child is given in Table 15 appended. Out of total 4358 birth 47.73% of birth comes under the first and 34.53% of birth comes under II<sup>nd</sup> order of birth. The birth under seventh order above during the year under report is less. It is clear that most of women in Kerala delivered only one or two children.

### 3.13 Birth by type of Medical Attendance received

Table 14 represents the details of medical attention received by the women during the delivery period. Out of the 4358 events, 4346 numbers had received institutional medical attention i.e. 97.7% of delivery was happened in the medical institutions. All the births in most of the districts were happened in the medical institutions. It was observed that the number of people utilising the institutional facilities provided for maternal and child health increased year by year. The percentage distribution of births by type of medical attention received for the period from 1990 to 1999 are furnished below: -

Year	Institutions	Trained Professional	Untrained professional	Non Professional	Not stated
1990	89.1	3.6	5.6	1.4	0.3
1991	91.1	2.7	4.9	1.2	0.1
1992	94.5	1.8	3.2	0.4	0.1
1993	96.9	1.6	0.9	0.5	0.1
1994	91.9	5.4	2.2	0.2	0.3
1995	96.28	2.6	1.1	0.02	nd
1996	96.95	1.6	1.1	0.02	nd
1997	97.8	1.0	0.9	0.3	nd
1998	98.8	0.6	0.2	0.4	nd
1999	99.7	0.1	0.1	0.1	nd

### 3.14 Sex ratio at birth

The number of male children born to 1000 female children is defined as the sex ratio at birth. Sex ratio at birth of the state from 1990 to 1999 is sated below: -

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Sex ratio at birth	109.3	96.5	108.2	106.2	112.3	105.4	107.2	108.26	105.09	108.12

District wise figures shows that the same was highest in Kottayam and lowest in Ernakulam

### 3.15 Child women Ratio (CWR)

Child women Ratio is defined as the estimated number of children in the age group (0-4) year per 1000 women in the reproductive age group (15-49). According to the survey results the child women ratio during the period was 321.

### 3.16 Comparison of Vital rates under SRS and CRS

The Civil Registration System is a statutory system of recording the details of vital events in the state and national level. The functions of CRS are not in a full-fledged level due to the existence of under Registration. Sample Registration provide cent percent reliability in data. So that the vital rates estimated under SRS has more importance than CRS. The vital rates estimated through CRS and SRS from 1990 to 1999 are given below:

Year	Birth Rate		Still Birth Rate	
	CRS	SRS	CRS	SRS
1990	11.6	19.6	4.5	8.6
1991	10.8	18.4	3.7	6.2
1992	9.6	17.6	3.0	10.3
1993	9.4	17.5	3.0	7.6
1994	9.1	17.2	2.1	8.3
1995	9.4	18.4	3.9	6.2
1996	9.4	18.0	3.1	10.5
1997	9.8	18.6	2.7	6.9
1998	9.4	18.3	2.6	6.58
1999	9.0	18.1	2.8	2.23

### 3.17 Rate of marriage per 1000 population and percentage distribution according to age and sex.

Table no. 29 represent the rate of marriage per 1000 population and percentage distribution of marriage according to age and sex. During the year under report the rate of marriage at state level with male and female division was 20.86 and 29.32 respectively. Most of the marriage was occurred at the age of 25-29 to males and 20-24 females.

## CHAPTER – IV Mortality Measures

### 4.1 Death Rate

Death Rate is defined as the number of deaths occurred per 1000 mid year population. The death rate is decreasing invariably in the State during the last few years due to the existence of good health system and high literacy rate. District wise figures shows that death rate was maximum in Alappuzha district with 7.78 followed by Pathanamthitta with 7.55 while the same was maximum in Kannur district with 4.3.

Table – 1 represent the district wise and state wise death rate.

### 4.2 Death rate of neighbouring State

The death rates in rural area and rural and urban combined provisionally for the year 1999 by the Registrar General of India in respect of the neighbouring States and All India are given below

State	Rural	Rural – Urban combined
Andhra Pradesh	9.0	8.2
Karnataka	8.7	7.7
Tamil Nadu	8.7	8.0
Kerala	6.5	6.4
All India	9.4	8.7

Source : SRS Bulletin

### 4.3 Age specific death rate

Age specific death rate is defined as the number of deaths in a specific age group among 1000 persons of that age group in an year. Table 19 appended to this report gives the age specific death rates for different age group. For Age groups from 5 to 9 and above, the number of deaths was increasing continuously. District wise analysis present that maximum number of death estimated was in Malappuram district with 15740 followed by Thrissur District with 14922. The minimum number of death estimated was in Wayanad district with 3798.

### 4.4 Infant Mortality Rate

The infant mortality rate is defined as the estimated number of children below one year of age out of 1000 live birth in an year. Infant Mortality Rate in the State during 199 was 14.48. Number of infant deaths estimated during the year under report was 6133 in which the males and females were 3654 and 2479 respectively.

District wise figure shows that infant deaths were estimated maximum in Malappuram with 897 numbers of which the males and females were 345 and 552 respectively.

### 4.5 Neo Natal Mortality Rate

Neo natal mortality rate is defined as the estimated number of deaths of infants below 28 days of age per 1000 live births in an year. Neo natal mortality rate estimated during the year under report was 10.9 in the State.

#### 4.6 Perinatal mortality rate

Perinatal mortality rate defines as the estimated number of deaths of infants below 7 days of age per 1000 live births in an year. Estimated Perinatal mortality rate during the year was 8.9. The classification of infant mortality rate was perinatal, neo natal and post natal is given in Table No. 26

#### 4.7 Distribution of Samples according to death rate of each sample

Table 22 furnish the details regarding the extend of Sample wise death rate. In 42 samples, death rate was in between 5 and 7 and 41 samples, it was in the range of 3 to 5 and in 40 the range between 7 & 9.

#### Medical <sup>attention</sup> ~~attendance~~ received before death

The percentage distribution of deaths according to type of medical attention received for the year 1990 to 1999 are stated below:

Year	Institutional	Qualified medical practitioner	Unqualified medical practitioner	None
1990	47	36	7	10
1991	45	35	5	15
1992	54	29	4	13
1993	58	21	4	17
1994	57	20	4	19
1995	51	32	6	11
1996	51	36	4	9
1997	60	27	4	9
1998	55	30	6	9
1999	58	27	5	10

Table No.21 denotes the deaths classified by type of medical attention. Out of 1487 death events 867 numbers were occurred in institutions and 74 numbers by unqualified medical practitioners & 399 by qualified medical practitioner.

#### 4.9 Comparison of rural mortality rate under Civil Registration System and SRS for the year from 1990 to 1999

Following table represents the death rate and Infant Mortality rate noted in the Civil Registration System and Sample Registration System in the State. The major reason for the decrease of death rate in CRS than SRS may be because most of the events of the people were occurred in the urban area for obtaining modern medical facilities.



## MORTALITY RATE UNDER CRS AND SRS

Year	Death Rate		Infant Mortality Rate	
	CRS	SRS	CRS	SRS
1990	4.1	6.0	8.1	17.1
1991	4.3	6.2	7.5	16.6
1992	4.5	6.3	5.2	17.0
1993	4.3	6.1	5.8	14.8
1994	4.3	5.9	7.1	16.0
1995	4.2	5.4	6.5	14.4
1996	4.3	6.2	5.8	13.0
1997	4.2	6.0	5.0	18.8
1998	4.7	6.5	4.9	11.5
1999	4.5	6.3	4.4	14.5

The death rate and infant mortality rate estimated under Civil Registration System are less than that of the rates arrived through Sample Registration System. The low mortality rate under Civil Registration System may be due to the fact that a considerable number of births and deaths of the resident population in rural areas are registered in urban areas where they seek better medical attention.

### 4.10 Expectation of life based on age specific death rates for the last three years.

Generally the life expectancy of the people is very high in Kerala among the states in India. Expectation of life in different age group is calculated in the life table – Table No. 30, 31, 32 appended to this Report. The life table prepared sex wise and population wise separately based on Age specific death rate 1997, 1998, 1999. The expectation of life at birth for males, females and for both sex together were calculated separately. Expectation of life calculated for the last 10 years are given below:

### Expectation of life based on age specific death rates

Age specific death rates for the year			Male	Female	Both Sex
1990	1991	1992	67.9	74.8	71.2
1991	1992	1993	68.3	75.2	71.6
1992	1993	1994	64.3	65.2	67.5
1993	1994	1995	70.2	76.6	73.6
1994	1995	1996	70.4	76.8	73.5
1995	1996	1997	70.2	77.5	73.6
1996	1997	1998	69.1	76.7	72.7
1997	1998	1999	69.0	76.4	72.5

## Method adopted for calculation of Life Table

$$m_x = \frac{\text{Total age specific death rates for the last three years}}{3 \times 1000}$$

$$q_0 = \frac{D_1}{B_1} + \frac{D_2}{B_2}$$

Where  $D_1$  is the number of deaths of children born during 1995 and died in 1996.  $D_2$  is that of the children born and died in 1996.  $B_1$  and  $B_2$  denote the total number of births occurred during 1995 and 1996 respectively.

$$Q_x = \frac{2 \times (c \times nm_x)}{2 + (c \times nm_x)} \quad \text{Where } c \text{ is the class interval}$$

Let  $l_0$  be 1,00,000

$$l_x = l_0 - d_0$$

$$d_x = l_x \times q_x$$

Let  $d_{>0} = l_{>0}$

$$L_0 = f \times l_0 + (1 - f) l_1$$

where  $f =$

$$\frac{D_1}{D_1 + D_2}$$

$$L_x = \frac{(l_x + l_{x+1}) \times c}{2}$$

$$L_{70} = \frac{D_{70}}{nm_{70}}$$

Let  $L_{70}$  be  $T_{70}$

$$T_{(70-1)} = T_{70} + L_{(70-1)}$$

$$\text{Expectation of Life} = E_x = \frac{T_x}{l_x}$$

**Table -1 Midyear estimated population, Births, Deaths and Vital rates 1999**

**Estimated figures**

District	Population	Vital Rates							
		Births	Deaths	Still Birth	Infant death	Birth	Death	StillBirth	Infant Death
Kasargod	1086462	21776	7012	0	462	20.04	6.45	0.00	21.22
Kannur	1253208	24444	5398	98	196	19.51	4.31	3.99	8.02
Wayanad	793451	16100	3798	90	452	20.29	4.79	5.56	28.07
Kozhikode	1842251	32693	11442	0	306	17.75	6.21	0.00	9.36
Malappura	3196341	71039	15740	345	897	22.23	4.92	4.83	12.63
Palakkad	2158740	41682	14210	95	668	19.31	6.58	2.27	16.03
Thrissur	2103125	35663	14922	0	548	16.96	7.10	0.00	15.37
Ernakulam	1622897	28906	11433	0	642	17.81	7.04	0.00	22.21
Idukki	1126898	22804	7151	104	622	20.24	6.35	4.54	27.28
Kottayam	1662877	27199	11158	0	465	16.36	6.71	0.00	17.10
Alappuzha	1608655	26129	12516	0	243	16.24	7.78	0.00	9.30
Pathanamthitta	1110359	9322	8378	0	0	8.40	7.55	0.00	0.00
Kollam	2143301	29079	14594	112	112	13.57	6.81	3.84	3.85
Thiruvananthapuram	2183559	36610	13624	104	520	16.77	6.24	2.83	14.20
<b>State</b>	<b>23892124</b>	<b>423446</b>	<b>151376</b>	<b>948</b>	<b>6133</b>	<b>17.72</b>	<b>6.34</b>	<b>2.23</b>	<b>14.48</b>

**Table 2 - Sample Population and Estimated Population - Districtwise**

	Districts	Observed Population		Estimated Population	
		As on July 1999	As on January 2000	As on July 1999	As on January 2000
101	Kasargod	11775	11828	1086462	1091353
102	Kannur	12766	12849	1253208	1261356
103	Wayanad	8772	8826	793451	798335
104	Kozhikode	18032	18197	1842251	1859109
105	Malappuram	46299	46773	3196341	3229064
106	Palakkad	22633	22676	2158740	2162841
107	Thrissur	19166	19505	2103125	2140324
108	Ernakulam	12632	12727	1622897	1635101
109	Idukki	10872	10994	1126898	1139543
110	Kottayam	14306	14391	1662877	1672757
111	Alappuzha	13237	13399	1608655	1628342
112	Pathanamthitta	9409	9464	1110359	1116849
113	Kollam	19090	19144	2143301	2149364
114	Thiruvananthapuram	20995	21098	2183559	2194271
	<b>Grand Total State</b>	<b>239984</b>	<b>241871</b>	<b>23892124</b>	<b>24078609</b>

**Table 3 Population according to Sex 1999**

	Districts	Sample			Estimated		
		Male	Female	Total	Male	Female	Total
101	Kasargod	5795	5980	11775	534696	551766	1086462
102	Kannur	6071	6695	12766	595976	657232	1253208
103	Wayanad	4336	4436	8772	392203	401248	793451
104	Kozhikode	8645	9387	18032	883222	959029	1842251
105	Malappuram	22124	24175	46299	1527373	1668969	3196341
106	Palakkad	10753	11880	22633	1025623	1133111	2158740
107	Thrissur	9010	10156	19166	988686	1114437	2103125
108	Ernakulam	6292	6340	12632	808365	814532	1622897
109	Idukki	5418	5454	10872	561583	565315	1126898
110	Kottayam	7139	7167	14306	829811	833066	1662877
111	Alappuzha	6311	6926	13237	766958	841697	1608655
112	Pathanamthitta	4481	4928	9409	528804	581555	1110359
113	Kollam	9251	9839	19090	1038642	110465	2143301
114	Thiruvananthapuram	10077	10918	20995	1048046	113551	2183559
	<b>Grand Total</b>	<b>115703</b>	<b>124281</b>	<b>239984</b>	<b>11529988</b>	<b>12362136</b>	<b>23892124</b>

**Table 4 Midyear Sample Population according to Age and Sex**

Age group	Observed		
	Male	Female	Total
Below 1	2281	2139	4420
1-4	9558	9083	18641
5-9	10956	10329	21285
10-14	11855	11562	23417
15-19	12399	12866	25265
20-24	11031	12767	23798
25-29	9522	11715	21237
30-34	8735	10132	18867
35-39	7826	9039	16865
40-44	7118	7842	14960
45-49	6172	5957	12129
50-54	4699	5205	9904
55-59	3843	4115	7958
60-64	3422	3910	7332
65-69	2615	3141	5756
70-74	1703	2103	3806
75-79	1005	1228	2233
80-84	590	701	1291
85+	373	447	820
All Ages	115703	124281	239984

**T4A Estimation by agegroup and sex**

Age Group	Estimated		
	Male	Female	Total
Below 1	223221	209135	432356
1-4	930591	885058	1815649
5-9	1066373	1000698	2067071
10-14	1151229	1126122	2277351
15-19	1210266	1245772	2456038
20-24	1090808	1260271	2351079
25-29	954557	1174267	2128824
30-34	883397	1014837	1898234
35-39	793245	908997	1702242
40-44	721486	789463	1510949
45-49	626940	605075	1232015
50-54	477398	530758	1008156
55-59	395205	419328	814533
60-64	349506	398827	748333
65-69	269907	324581	594488
70-74	177251	219134	396385
75-79	105661	127686	233347
80-84	62574	73918	136492
Above 85	40373	48209	88582
All Ages	11529988	12362136	23892124

**Table - 5 Sex Ratio**

FI	Age group	SexRatio98	%Population
1	0 to 4	948	9.61
3	5 - 9	943	8.87
4	10 - 14	975	9.76
5	15 - 19	1038	10.53
6	20 - 24	1157	9.92
7	25 - 29	1230	8.85
8	30 - 34	1160	7.86
9	35 - 39	1155	7.703
10	40 - 44	1102	6.23
11	45 - 49	965	5.05
13	50 - 54	1108	4.13
14	55 - 59	1071	3.32
15	60 - 64	1143	3.06
16	65 - 69	1201	2.40
18	70 and Above	1220	3.40
21	All Ages	1074	100.

**Table 6 Religion wise Population -Sample and Estimated**

District	Sample				Estimated			
	Hindu	Muslim	Christian	Total	Hindu	Muslim	Christian	Total
Kasargod	6984	4329	462	11775	644403	399431	42628	1086462
Kannur	5132	4871	2763	12766	503796	478175	271237	1253208
Wayanad	5046	2189	1537	8772	456424	198001	139026	793451
Kozhikode	11663	5539	830	18032	1191557	565896	84798	1842251
Malappuram	14746	30951	602	46299	1018018	2136763	41560	3196341
Palakkad	15656	6620	357	22633	1493273	631416	34051	2158740
Thrissur	13662	2933	2571	19166	1499160	321844	282121	2103125
Ernakulam	4710	3272	4650	12632	605117	420370	597410	1622897
Idukki	5312	1152	4408	10872	550596	119407	456895	1126898
Kottayam	7348	900	6058	14306	854105	104612	704160	1662877
Alappuzha	8537	989	3711	13237	1037478	120190	450987	1608655
Pathanamthitta	4873	198	4338	9409	575064	23366	511929	1110359
Kollam	14206	3068	1816	19090	1594957	344455	203889	2143301
Thiruvananthapuram	13007	3802	4186	20995	1352777	395422	435360	2183559
<b>State</b>	<b>130882</b>	<b>70813</b>	<b>38289</b>	<b>239984</b>	<b>13376725</b>	<b>6259348</b>	<b>4256051</b>	<b>23892124</b>

**Table 7 District wise live Births Observed in Samples**

Dist	Male	Femal	Total	SexRatio	EM	EF	E
101 Kasargod	126	110	236	114.55	11626	10149	217
102 Kannur	132	117	249	112.82	12958	11486	244
104 Kozhikode	161	159	320	101.26	16449	16244	326
103 Wayanad	96	82	178	117.07	8683	7418	161
105 Malappuram	524	505	1029	103.76	36175	34864	710
106 Palakkad	233	204	437	114.22	22224	19457	416
107 Thrissur	169	156	325	108.33	18545	17118	356
108 Ernakulam	102	123	225	82.93	13104	15803	289
109 Idukki	113	107	220	105.61	11713	11090	228
110 Kottayam	131	103	234	127.18	15227	11972	271
111 Alappuzha	119	96	215	123.96	14462	11666	261
112 Pathanamthitta	37	42	79	88.10	4366	4957	9323
113 Kollam	140	119	259	117.65	15718	13361	290
114 Thiruvananthapuram	181	171	352	105.85	18825	17784	366
	2264	2094	4358	108.12	220075	203369	4234

**Table 8 Observed number of Total Women in diffrent age Group**

Dist	Age Group of Women							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
101	654	701	556	481	408	354	257	3411
102	783	711	604	497	469	413	298	3775
103	527	510	429	414	309	284	186	2659
104	978	892	976	638	769	476	519	5248
105	3097	2657	2037	1891	1577	1411	909	13579
106	1389	1226	1125	888	747	625	535	6535
107	913	883	1006	891	784	715	499	5691
108	554	661	631	597	500	477	302	3722
109	492	563	595	496	437	426	296	3305
110	536	694	715	562	554	442	390	3893
111	576	695	633	637	503	523	361	3928
112	445	487	426	421	405	330	308	2822
113	921	1008	925	811	699	613	556	5533
114	1001	1079	1057	908	878	753	541	6217
	12866	12767	11715	10132	9039	7842	5957	70318

**Table 8A Estimated number of Total Women in different age Group**

	District	Age Group of Women							Total
		15-19	20-24	25-29	30-34	35-39	40-44	45-49	
101	Kasargod	60344	64680	51301	44381	37646	32663	23713	314728
102	Kannur	76865	69797	59293	48789	46041	40543	29254	370582
104	Wayanad	99918	91132	99714	65182	78565	48631	53024	536166
103	Kozhikode	47669	46131	38804	37447	27950	25689	16824	240514
105	Malappuram	213807	183431	140628	130549	108871	97411	62755	937452
106	Palakkad	132483	116936	107303	84698	71249	59613	51028	623310
107	Thrissur	100185	96893	110390	97771	86030	78458	54756	624483
108	Ernakulam	71175	84922	81068	76700	64238	61283	38799	478185
109	Idukki	50996	58356	61673	51411	45296	44155	30681	342568
110	Kottayam	62303	80668	83109	65325	64395	51376	45332	452508
111	Alappuzha	70000	84461	76927	77413	61128	63559	43871	477359
112	Pathanamthitta	52515	57471	50272	49682	47794	38943	36347	333024
113	Kollam	103404	113172	103853	91054	78479	68824	62424	621210
114	Thiruvananthapuram	104108	112220	109932	94435	91315	78315	56266	646591
	State	1245772	1260270	1174267	1014837	908997	789463	605074	6998680

**Table 8B Observed number of Married Women in different age Group**

	District	Age Group of Women							Total
		15-19	20-24	25-29	30-34	35-39	40-44	45-49	
101	Kasargod	82	409	461	423	340	276	198	2189
102	Kannur	92	440	525	449	421	343	223	2493
103	Wayanad	85	339	367	366	279	246	141	1823
104	Kozhikode	171	645	899	573	697	384	417	3786
105	Malappuram	801	1835	1687	1659	1369	1183	708	9242
106	Palakkad	283	748	926	760	648	528	435	4328
107	Thrissur	30	530	860	804	706	614	397	3941
108	Ernakulam	6	235	486	545	465	433	262	2432
109	Idukki	32	311	501	456	387	383	248	2318
110	Kottayam	18	410	629	521	509	393	335	2815
111	Alappuzha	12	208	508	593	454	468	311	2554
112	Pathanamthitta	5	279	372	400	390	320	297	2063
113	Kollam	21	505	794	729	638	548	480	3715
114	Thiruvananthapuram	20	495	857	824	804	669	439	4108
	State	1658	7389	9872	9102	8107	6788	4891	47807

**Table 8C Observed number of LiveBirths in different age Group**

*Age Group of Women*

	Districts	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
101	Kasargod	18	105	76	28	7	2		236
102	Kannur	23	111	85	23	6	1		249
103	Wayanad	41	82	39	11	4	1		178
104	Kozhikode	17	159	101	35	7	1		320
105	Malappuram	144	455	263	125	34	8		1029
106	Palakkad	62	210	121	34	9	1		437
107	Thrissur	12	124	143	37	8		1	325
108	Ernakulam	1	87	101	29	6	1		225
109	Idukki	7	85	80	42	3	3		220
110	Kottayam	2	65	116	45	6			234
111	Alappuzha	6	71	98	30	9	1		215
112	Pathanamthitta	2	27	44	5	1			79
113	Kollam	2	121	107	24	4	1		259
114	Thiruvananthapuram	16	159	128	44	5			352
	<b>State</b>	<b>353</b>	<b>1861</b>	<b>1502</b>	<b>512</b>	<b>109</b>	<b>20</b>	<b>1</b>	<b>4358</b>

**Table 8D Estimated No. of LiveBirths in different age Group (Decimal adjustment)**

Dist	<i>Age Group of Women</i>							
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Kasargod	1661	9688	7012	2584	646	185	0	21775
Kannur	2258	10897	8344	2258	589	98	0	24444
Kozhikode	1737	16244	10319	3576	715	102	0	32693
Wayanad	3709	7417	3528	995	362	90	0	16101
Malappuram	9941	31412	18157	8630	2347	552	0	71039
Palakkad	5914	20030	11541	3243	858	95	0	41681
Thrissur	1317	13607	15692	4060	878	0	110	35663
Ernakulam	128	11177	12976	3726	771	128	0	28907
Idukki	726	8810	8292	4353	311	311	0	22803
Kottayam	232	7555	13483	5231	697	0	0	27199
Alappuzha	729	8628	11910	3646	1094	122	0	26128
Pathanamthit	236	3186	5192	590	118	0	0	9323
Kollam	225	13585	12013	2695	449	112	0	29079
Thiruvananthapuram	1664	16537	13312	4576	520	0	0	36609
	<b>30477</b>	<b>178773</b>	<b>151771</b>	<b>50163</b>	<b>10355</b>	<b>1795</b>	<b>110</b>	<b>423444</b>



**Table 8E Estimated number of Married Women in different age Group**

**Age Group of Women**

	Districts	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
101	Kasargod	7566	37738	42536	39030	31371	25466	18269	201976
102	Kannur	9031	43194	51538	44077	41329	33671	21891	244731
104	Wayanad	17470	65897	91847	58541	71209	39232	42603	386799
103	Kozhikode	7688	30663	33196	33106	25236	22251	12754	164894
105	Malappuram	55299	126683	116465	114532	94512	81671	48878	638040
106	Palakkad	26993	71344	88322	72489	61806	50361	41490	412805
107	Thrissur	3292	58158	94370	88225	77471	67375	43564	432455
108	Ernakulam	771	30192	62439	70019	59741	55630	33660	312452
109	Idukki	3317	32236	51929	47265	40113	39698	25706	240264
110	Kottayam	2092	47657	73113	60559	59164	45681	38939	327205
111	Alappuzha	1458	25278	61736	72066	55173	56875	37795	310381
112	Pathanamthitta	590	32925	43900	47204	46024	37763	35049	243455
113	Kollam	2358	56698	89145	81847	71630	61526	53891	417095
114	Thiruvananthapuram	2080	51482	89131	85699	83619	69579	45658	427248
	State	140005	710145	989667	914659	818398	686779	500147	4759800

**Table 9 - Age Specific Fertility Rate =  $\frac{\text{No of Live Births in particular Age Group}}{\text{No of Mid Year Female Population}}$**

District	15-19	20-24	25-29	30-34	35-39	40-44	45-49	GFR	TFR
Kasargod	27.53	149.78	136.68	58.22	17.16	5.66	0.00	69.19	1.98
Kannur	29.38	156.12	140.72	46.28	12.79	2.42	0.00	65.96	1.94
Kozhikode	17.38	178.25	103.49	54.86	9.10	2.10	0.00	60.98	1.83
Wayanad	77.81	160.78	90.92	26.57	12.95	3.50	0.00	66.94	1.86
Malappuram	46.50	171.25	129.11	66.11	21.56	5.67	0.00	75.78	2.20
Palakkad	44.64	171.29	107.56	38.29	12.04	1.59	0.00	66.87	1.88
Thrissur	13.15	140.43	142.15	41.53	10.21	0.00	2.01	57.11	1.75
Ernakulam	1.80	131.61	160.06	48.58	12.00	2.09	0.00	60.45	1.78
Idukki	14.24	150.97	134.45	84.67	6.87	7.04	0.00	66.56	1.99
Kottayam	3.72	93.66	162.23	80.08	10.82	0.00	0.00	60.11	1.75
Alappuzha	10.41	102.15	154.82	47.10	17.90	1.92	0.00	54.73	1.67
Pathanamthitta	4.49	55.44	103.28	11.88	2.47	0.00	0.00	27.99	0.89
Kollam	2.18	120.04	115.67	29.60	5.72	1.63	0.00	46.81	1.37
Thiruvananthap	15.98	147.36	121.09	48.46	5.69	0.00	0.00	56.62	1.69
State (avg)	24.46	141.85	129.25	49.43	11.39	2.27	0.18	60.50	1.79
Female	13.46	70.84	59.51	21.14	6.13	0.94	0.27	29.13	0.86

**Table 9A Marital Fertility Rate (8c\*1000/8b)**

	District	15-19	20-24	25-29	30-34	35-39	40-44	45-49
101	Kasargod	220	257	165	66	21	7	0
102	Kannur	250	252	162	51	14	3	0
104	Kozhikode	99	247	112	61	10	3	0
103	Wayanad	482	242	106	30	14	4	0
105	Malappuram	180	248	156	75	25	7	0
106	Palakkad	219	281	131	45	14	2	0
107	Thrissur	400	234	166	46	11	0	3
108	Ernakulam	166	370	208	53	13	2	0
109	Idukki	219	273	160	92	8	8	0
110	Kottayam	111	159	184	86	12	0	0
111	Alappuzha	500	341	193	51	20	2	0
112	Pathanamthitta	400	97	118	12	3	0	0
113	Kollam	95	240	135	33	6	2	0
114	Thiruvananthap	800	321	149	53	6	0	0
	Average	217.69	251.74	153.4	54.1	13	3	0

**Table 10 - Distribution of live births observed in samples according to age of currently married women and no of surviving children**

Age Group	No. of Children Surviving							Total
	1	2	3	4	5	6	7	
15 to 19	319	30	4					353
20 to 24	1137	576	137	11				1861
25 to 29	530	645	249	61	13	2	2	1502
30 to 34	85	221	123	53	17	8	5	512
35 to 39	21	28	23	14	8	8	7	109
40 to 44		4	2	3	4	3	4	20
45 and above	1							1
Total	2093	1504	538	142	42	21	18	4358

**Table 11 Distribution of LiveBirths observed in samples according to age of currently married women and no of ever born children**

Age Group	No. of Children everborn							Total
	1	2	3	4	5	6	7	
15 to 19	317	32	4					353
20 to 24	1130	578	139	14				1861
25 to 29	526	644	253	62	13	2	2	1502
30 to 34	84	220	124	54	17	8	5	512
35 to 39	20	29	23	14	8	8	7	109
40 to 44		4	2	3	4	3	4	20
45 and above	1							1
Total	2078	1507	545	147	42	21	18	4358

**Table 12 Distribution of currently married women observed in samples according to age of mother and age of last child Age of last child in months**

Age Group	0-14	15-19	30-44	45-59	60-74	75-89	90-104	105-119	120-134	>134	Total
15 to 19	327	21	5								353
20 to 24	1190	330	225	73	35	4	3	1			1861
25 to 29	570	263	280	160	130	54	27	8	7	3	1502
30 to 34	95	72	90	82	74	34	32	11	16	6	512
35 to 39	22	13	19	15	16	12	2	1	4	5	109
40 to 44		3	2	1	7	1	2	1		3	20
45 and above	1										1
<b>Total</b>	<b>2205</b>	<b>702</b>	<b>621</b>	<b>331</b>	<b>262</b>	<b>105</b>	<b>66</b>	<b>22</b>	<b>27</b>	<b>17</b>	<b>4358</b>

**Table 13 Live Birth Observed in Samples Monthwise Occurance**

	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
101	Kasargod	18	11	13	27	20	19	10	33	20	17	23	25	236
102	Kannur	15	18	13	28	26	33	21	17	16	21	24	17	249
103	Wayanad	13	21	21	16	10	12	13	15	8	25	12	12	178
104	Kozhikode	31	12	23	27	26	26	22	25	38	29	23	38	320
105	Malappuram	63	55	93	113	135	106	89	81	61	84	78	71	1029
106	Palakkad	35	21	41	41	45	42	33	31	34	37	37	40	437
107	Thrissur	19	15	32	24	37	27	26	31	27	29	34	24	325
108	Ernakulam	16	17	23	25	15	19	18	12	24	20	21	15	225
109	Idukki	14	19	23	17	26	15	17	17	18	21	17	16	220
110	Kottayam	25	10	26	20	20	30	10	14	11	24	19	25	234
111	Alappuzha	14	16	28	16	21	18	17	16	11	19	19	20	215
112	Pathanamthitta	9	11	8	4	8	3	4	6	4	7	12	3	79
113	Kollam	15	18	29	23	22	22	23	19	24	26	19	19	259
114	Thiruvananthapuram	31	27	28	29	27	36	31	35	28	26	23	31	352
	<b>Total</b>	<b>318</b>	<b>271</b>	<b>401</b>	<b>410</b>	<b>438</b>	<b>408</b>	<b>334</b>	<b>352</b>	<b>324</b>	<b>385</b>	<b>361</b>	<b>356</b>	<b>4358</b>

**Table 14 Live Birth Observed in samples by type of Medical Attention**

	District	Institutional Professional	Trained Professional	Un-Trained Professional	Non Professional	Not Stated	Total
101	Kasargod	235		1			236
102	Kannur	249					249
103	Wayanad	175			3		178
104	Kozhikode	319	1				320
105	Malappuram	1025	4				1029
106	Palakkad	434		3			437
107	Thrissur	325					325
108	Ernakulam	225					225
109	Idukki	220					220
110	Kottayam	234					234
111	Alappuzha	215					215
112	Pathanamthitta	79					79
113	Kollam	259					259
114	Thiruvananthapuram	352					352
	Total	4346	5	4	3		4358

**Table 15 - Percengage Distribution of Birth by age of mother and order of birth of child**

Dist		1		2		3		4		5		6		7 and above	Total
15 To 19	317	89.80	32	9.07	4	1.13									353
20 To 24	1131	60.77	577	31.00	139	7.47	14	0.75							1861
25 To 29	527	35.09	643	42.81	253	16.84	62	4.13	13	0.87	2	0.13	2	0.13	1502
30 To 34	84	16.41	220	42.97	125	24.41	53	10.35	17	3.32	8	1.56	5	0.98	512
35 To 39	20	18.35	29	26.61	23	21.10	14	12.84	8	7.34	8	7.34	7	6.42	109
40 To 44			4	20.00	2	10.00	3	15.00	4	20.00	3	15.00	4	20.00	20
45 & above	1	100.00													1
	2080	47.73	1505	34.53	546	12.53	146	3.35	42	0.96	21	0.48	18	0.41	4358

**Table 16 Percentage Distribution of Samples according to birthrate**

AgeGroup/District	101	102	103	104	105	106	107
Less than 12	1	1				1	2
%	12.50	20.00				6.67	15.38
12 & Less than 16	2			3	1	3	3
%	25.00			27.27	3.57	20.00	23.08
16 & Less than 20	4	1	1	6	7	4	6
%	57.14	12.50	20.00	54.55	25.00	26.67	46.15
20 & Less than 24	2	2	1	1	12	6	
%	28.57	25.00	20.00	9.09	42.88	40.00	
24 & Less than 28	1	1	2	1	6		2
%	14.29	12.50	40.00	9.09	21.43		15.38
28 & Less than 32	1				1	1	
%	12.50				3.57	6.67	
32 & Less than 36					1		
%					3.57		
Total	7	8	5	11	28	15	13

AgeGroup	108	109	110	111	112	113	114	Total
Less than 12	2				5	4	2	
%	25.00				83.33	33.33	15.38	18
12 & Less than 16	2	2	5	5	1	5	4	
%	25.00	28.57	55.56	62.05	16.67	41.67	30.77	36
16 & Less than 20	1	1	3	2		3	4	
%	12.50	14.29	33.33	25.00		25.00	30.77	43
20 & Less than 24	1	3	1				2	
%	12.50	42.86	11.11				15.38	31
24 & Less than 28	1	1		1			1	
%	12.50	14.29		12.50			7.69	17
28 & Less than 32	1							
%	12.50							4
32 & Less than 36								
%								1
Total	8	7	9	8	6	12	13	150

**Table 17**      *Distribution of Still birth observed in samples and estimated according to sex*

	District	Male	Female	Total	Male	Female	Total	El.B+ESB	SB Rate
101	Kasargod						0	21776	0.00
102	Kannur	1		1	98		98	24542	3.99
103	Wayanad	1		1	90		90	16190	5.56
104	Kozhikode						0	32693	0.00
105	Malappuram	3	2	5	207	138	345	71384	4.83
106	Palakkad		1	1		95	95	41777	2.27
107	Thrissur						0	35663	0.00
108	Ernakulam						0	28906	0.00
109	Idukki		1	1		104	104	22908	4.54
110	Kottayam						0	27199	0.00
111	Alappuzha						0	26129	0.00
112	Pathanamthitta						0	9322	0.00
113	Kollam	1		1	112		112	29191	3.84
114	Thiruvananthapuram		1	1		104	104	36714	2.83
	Total	6	5	11	507	441	948	424395	2.23

**Table 18A Distribution of Death Estimated in Samples according to Age and Sex**

District	Sex	Total	Below 1	1 to 4	5 to 8	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70
Kasaragod	Male	4244	277	0	0	92	92	0	0	277	185	277	369	277	185	461	461	1384
	Female	2782	185	92	0	0	92	185	185	185	0	185	0	0	277	92	369	921
	Total	7012	462	92	0	92	184	185	185	462	92	462	369	277	462	553	830	2306
Kannur	Male	3141	196	0	0	0	0	0	0	98	0	0	0	491	295	295	393	1373
	Female	2257	0	0	0	98	0	98	0	0	0	0	0	98	196	196	196	1473
	Total	5398	196	0	0	98	0	98	0	98	0	0	0	589	491	491	589	2846
Wayanad	Male	2281	362	0	0	0	0	271	271	90	181	90	0	0	181	543	90	182
	Female	1537	90	0	0	90	0	90	90	0	0	0	0	0	271	90	181	635
	Total	3793	452	0	0	361	0	361	361	90	271	90	0	0	452	633	271	817
Kozhikode	Male	5436	204	102	0	0	0	0	0	102	102	306	204	817	102	817	817	2965
	Female	5985	102	102	0	0	0	0	0	102	102	0	102	552	204	204	613	3475
	Total	11422	306	102	0	0	0	0	0	204	204	306	306	1369	408	1021	1430	6440
Malappuram	Male	8093	345	0	0	0	69	69	0	207	276	276	414	621	1105	1105	828	2693
	Female	1722	552	69	69	138	138	69	69	207	138	138	207	552	483	897	1105	2901
	Total	16740	897	69	69	207	207	69	69	414	414	414	621	1173	1588	2002	1933	5594
Palakkad	Male	8202	668	0	95	95	286	191	286	191	286	477	572	191	668	1526	954	2098
	Female	3208	0	191	0	95	286	0	0	0	191	95	0	0	0	572	572	4006
	Total	14210	668	191	95	381	286	191	286	191	477	572	572	191	668	2098	1526	6104
Thrissur	Male	6338	329	0	0	110	110	0	0	110	110	329	549	549	878	1097	988	3180
	Female	6833	219	0	110	110	0	0	0	219	219	0	110	329	219	110	878	4060
	Total	14922	548	0	110	220	110	0	0	329	329	329	659	878	1097	1207	1866	7240
Ernakulam	Male	6423	257	0	0	0	257	0	257	128	385	128	385	385	642	771	771	2057
	Female	5910	385	0	0	0	128	0	128	0	0	0	128	128	128	257	771	3085
	Total	11433	642	0	0	0	385	0	385	128	385	128	513	513	770	1028	1542	5142

27

Table 18A (cont)

District	SEX	Total	Female	Male	16-1	16-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100
Idukki	Male	4540	104	104	0	0	207	0	311	104	104	104	311	104	104	207	0	415	207	104	104	207	415	622	1552
	Female	2402	518	0	0	207	0	0	0	207	0	0	207	0	207	0	0	311	0	311	0	207	0	622	726
Kottayam	Male	7551	622	104	0	207	0	311	104	104	311	104	311	104	104	207	0	726	207	311	311	207	415	622	1552
	Female	5330	349	0	0	116	0	116	116	116	116	116	232	232	232	465	697	465	465	697	465	697	465	697	1722
Alappuzha	Male	7551	243	122	0	122	243	0	122	0	243	243	243	243	243	486	608	972	1215	1215	608	608	972	1215	2915
	Female	5882	0	0	0	122	122	122	122	122	0	0	0	0	0	243	243	486	608	972	1215	1215	608	608	2915
Pathanamthitta	Male	13610	433	122	0	118	118	118	118	118	118	118	118	118	236	236	472	708	1062	1062	472	472	708	1062	2242
	Female	5902	0	0	0	118	118	118	118	118	118	118	118	118	236	236	472	708	1062	1062	472	472	708	1062	2242
Kollam	Male	14884	112	0	0	112	112	112	112	112	112	112	112	112	224	224	448	674	1012	1012	448	448	674	1012	2242
	Female	3802	0	0	0	112	112	112	112	112	112	112	112	112	224	224	448	674	1012	1012	448	448	674	1012	2242
Thiruvananthapuram	Male	6550	208	0	0	0	0	208	208	208	208	208	208	208	416	416	832	1248	1680	1680	832	832	1248	1680	2704
	Female	3567	312	0	0	104	104	104	104	104	104	104	104	104	208	208	416	624	932	932	416	416	624	932	2808
State	Male	76021	3024	104	0	440	440	440	440	440	440	440	440	440	880	880	1760	2640	3960	3960	1760	1760	2640	3960	8224
	Female	59445	3116	0	0	116	116	116	116	116	116	116	116	116	232	232	464	696	1044	1044	464	464	696	1044	2152
Total		135466	6140	104	0	556	556	556	556	556	556	556	556	556	1112	1112	2224	3336	5004	5004	2224	2224	3336	5004	10376



Table 18b District wise Death Observed and Estimated

	District	Observed			Estimated		
		Male	Female	Total	Male	Female	Total
101	Kasargod	46	30	76	4244	2768	7012
102	Kannur	32	23	55	3141	2257	5398
104	Kozhikode	63	49	112	6436	5006	11442
103	Wayanad	25	17	42	2261	1537	3798
105	Malappuram	116	112	228	8008	7732	15740
106	Palakkad	86	63	149	8202	6008	14210
107	Thrissur	76	60	136	8339	6583	14922
108	Ernakulam	50	39	89	6423	5010	11433
109	Idukki	41	28	69	4249	2902	7151
110	Kottayam	56	40	96	6509	4649	11158
111	Alappuzha	62	41	103	7534	4982	12516
112	Pathanamthitta	48	23	71	5664	2714	8378
113	Kollam	95	35	130	10665	3929	14594
114	Thiruvananthapuram	64	67	131	6656	6968	13624
	<b>Total</b>	<b>860</b>	<b>627</b>	<b>1487</b>	<b>88331</b>	<b>63045</b>	<b>151376</b>

Table 19 Age Specific Death Rate of State -1999

AgeGroup	Deaths			Population			Age Specific DeathRate		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Below1	3654	2479	6133	223221	209135	432356	16.37	11.85	14.19
1-4	226	454	680	930591	885058	1815649	0.24	0.51	0.37
5-9	207	413	620	1066373	1000698	2067071	0.19	0.41	0.30
10-14	440	386	826	1151229	1126122	2277351	0.38	0.34	0.36
15-19	1303	551	1854	1210266	1245772	2456037	1.08	0.44	0.75
20-24	769	1453	2222	1090808	1260271	2351079	0.70	1.15	0.95
25-29	1683	706	2389	954557	1174267	2128824	1.76	0.60	1.12
30-34	1864	1055	2919	883397	1014837	1898235	2.11	1.04	1.54
35-39	2082	1064	3146	793245	908997	1702241	2.62	1.17	1.85
40-44	3444	1390	4834	721486	789463	1510949	4.77	1.76	3.20
45-49	4710	1616	6326	626940	605075	1232016	7.51	2.67	5.13
50-54	5843	2233	8076	477398	530758	1008156	12.24	4.21	8.01
55-59	7574	2544	10118	395205	419328	814534	19.16	6.07	12.42
60-64	11396	3961	15357	349506	398827	748333	32.61	9.93	20.52
65-69	10385	7989	18374	269907	324581	594488	38.48	24.61	30.91
Above70	32751	34751	67502	385859	468946	854805	84.88	74.10	78.97

**Table 20 - Distribution of Death observed in Samples classified by month of Occurrence**

	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
101	Kasargod	10	7	5	5	4	11	4	6	10	5	6	3	76
102	Kannur	4	6	5	4	7	6	2	5	9	7	55		
103	Wayanad	1	2	7	6	7	1	4	5	2	2	3	2	42
104	Kozhikode	10	9	7	10	11	13	12	8	4	9	12	7	112
105	Malappuram	25	17	15	21	22	22	16	22	11	17	18	22	228
106	Palakkad	13	10	18	11	15	14	10	13	10	10	12	13	149
107	Thrissur	13	5	10	12	23	16	8	8	8	10	11	12	136
108	Ernakulam	6	8	11	7	10	7	12	4	11	8	5	89	
109	Idukki	6	4	11	5	9	4	4	1	6	7	5	7	69
110	Kottayam	10	5	9	2	10	10	10	9	5	6	9	11	96
111	Alappuzha	12	8	5	12	16	9	7	10	6	5	8	5	103
112	Pathanamthitta	10	5	2	9	11	4	3	8	4	4	6	5	71
113	Kollam	9	10	10	15	14	9	10	14	8	10	9	12	130
114	Thiruvananthapuram	10	7	7	13	7	12	19	7	12	12	9	16	131
	<b>Total</b>	<b>135</b>	<b>89</b>	<b>118</b>	<b>138</b>	<b>161</b>	<b>139</b>	<b>121</b>	<b>129</b>	<b>92</b>	<b>113</b>	<b>125</b>	<b>127</b>	<b>1487</b>

**Table 21 - Distribution of Death observed in Samples classified by Type of Medical Attention**

	District	Institutional	Qualified Medical Practitioner	Un-Qualified Medical Practitioner	No. of Treatment	Total
101	Kasargod	50	22		4	76
102	Kannur	18	8		29	55
103	Wayanad	29	1		12	42
104	Kozhikode	108	2		2	112
105	Malappuram	109	83	32	4	228
106	Palakkad	50	23	39	37	149
107	Thrissur	61	66		9	136
108	Ernakulam	47	41		1	89
109	Idukki	26	10		33	69
110	Kottayam	39	53		4	96
111	Alappuzha	35	64		4	103
112	Pathanamthitta	58	11		2	71
113	Kollam	125	5			130
114	Thiruvananthapuram	112	10	3	6	131
	<b>State</b>	<b>867</b>	<b>399</b>	<b>74</b>	<b>147</b>	<b>1487</b>

Table 22 Distribution of Samples according to Death Rate in Samples

AgeGroup	Total	101	102	103	104	105	106	107	108	109	110	111	112	113	114
1 & 1.73	19	1	1	1											
%	6.67	14.29	12.50	20.00		17.86				28.57					
3 & 1.73	41		5	2	2	13	5	1	1		1	1	1	4	
%	24.33		62.50	40.00	18.18	46.43	33.33	7.69	12.50		11.11	12.50	16.67	33.33	38.46
5 & 1.73	42	2	1	2	5	6	4	4	3	1	5	1	2	3	3
%	28.00	28.57	12.50	40.00	45.45	21.43	26.67	30.77	37.50	14.29	55.56	12.50	33.33	25.00	23.08
7 & 1.73	40	4	1		3	1	5	7	3	3	2	5	1	2	3
%	26.67	57.14	12.50		27.27	3.57	33.33	53.85	37.5	42.86	22.22	62.50	16.67	16.67	23.08
9 & 1.73	15				1	3	1	1	1	1		1	2	2	2
%	10.00				9.09	10.71	6.67	7.69	12.50	14.29		12.50	33.33	16.67	15.38
11 & 1.73	2										1			1	
%	1.33										11.11			8.33	
Total	150	7	8	5	11	28	15	13	8	7	9	8	6	12	13

Note :Percentage to Total in each column

**Table 23 District wise Infant Death Observed in Samples Estimated according to Sex and Infant Mortality Rate**

	Dist	Infant Deaths			Estimated Infant Death			Estimated Live Births			Infant Mortality Rate		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
101	Kasaragod	3	2	5	277	185	462	11626	10150	21776	23.83	18.23	21.22
102	Kannur	2		2	196	0	196	12958	11486	24444	15.13	0.00	8.02
104	Kozhikode	2	1	3	204	102	306	16449	16244	32693	12.40	6.28	9.36
103	Wayanad	4	1	5	362	90	452	8683	7417	16100	41.69	12.13	28.07
105	Malappuram	5	8	13	345	552	897	36175	34864	71039	9.54	15.83	12.63
106	Palakkad	7		7	668	0	668	22224	19458	41682	30.06	0.00	16.03
107	Thrissur	3	2	5	329	219	548	18545	17118	35663	17.74	12.79	15.37
108	Ernakulam	2	3	5	257	385	642	13104	15802	28906	19.61	24.36	22.21
109	Idukki	1	5	6	104	518	622	11713	11091	22804	8.88	46.70	27.28
110	Kottayam	3	1	4	349	116	465	15227	11972	27199	22.92	9.69	17.10
111	Alappuzha	2		2	243	0	243	14462	11667	26129	16.80	0.00	9.30
112	Pathanamthitta				0	0	0	4366	4956	9322	0.00	0.00	0.00
113	Kollam	1	1		112	0	112	15718	13361	29079	7.13	0.00	3.85
114	Thiruvananth	2	3	5	208	312	520	18825	17785	36610	11.05	17.54	14.20
	<b>State</b>	<b>37</b>	<b>26</b>	<b>63</b>	<b>3654</b>	<b>2479</b>	<b>6133</b>	<b>220075</b>	<b>203371</b>	<b>423446</b>	<b>16.60</b>	<b>12.19</b>	<b>14.48</b>

**Table 24 No of InfantDeath Observed in Samples Born in Previous Year and Current Year**

	District	1998			1999						TotL
		<1Year			<7days		<28days		<1Year		
		Male	Fe- male	Total	Male	Fe- male	Male	Female	Male	Fe- male	
101	Kasargod				1		3	0	3	2	5
102	Kannur	1		1	1		1	0	1	0	1
104	Kozhikode	1		1	2		3	1	3	1	4
103	Wayanad				2		2	0	2	1	3
105	Malappuram		1	1	3	5	5	5	5	7	12
106	Palakkad				4		4	0	7	0	7
107	Thrissur				3	1	3	1	3	2	5
108	Ernakulam	1		1	1	2	1	3	1	3	4
109	Idukki				1	4	1	5	1	5	6
110	Kottayam				3	1	3	1	3	1	4
111	Alappuzha				1		1	0	2	0	2
112	Pathanam- thitta						0	0	0	0	
113	Kollam				1		1	0	1	0	1
114	Thiruvanan- thapuram		1	1	2		2	1	2	2	4
	<b>State</b>	<b>3</b>	<b>2</b>	<b>5</b>	<b>25</b>	<b>13</b>	<b>30</b>	<b>17</b>	<b>34</b>	<b>24</b>	<b>58</b>

**Table 25 No of InfantDeath Estimated in Samples Born in Previous Year and Current Year**

District	1998			1999						Total
	<1Year			<7days		<28days		<1Year		
	Male	Female	Total	Male	Female	Male	Female	Male	Female	
Kasargod	0	0	0	92	0	277	0	277	185	462
Kannur	98	0	98	98	0	98	0	98	0	98
Kozhikode	90	0	90	181	0	271	90	271	90	362
Wayanad	0	0	0	204	0	204	0	204	102	306
Malappuram	0	69	69	207	345	345	345	345	483	828
Palakkad	0	0	0	382	0	382	0	668	0	668
Thrissur	0	0	0	329	110	329	110	329	219	548
Ernakulam	128	0	128	128	257	128	385	128	385	513
Idukki	0	0	0	104	415	104	518	104	518	622
Kottayam	0	0	0	349	116	349	116	349	116	465
Alappuzha	0	0	0	122	0	122	0	243	0	243
Pathanamthitta	0	0	0	0	0	0	0	0	0	0
Kollam	0	0	0	112	0	112	0	112	0	112
Thiruvananthapuram	0	104	104	208	0	208	104	208	208	416
<b>State</b>	<b>317</b>	<b>173</b>	<b>490</b>	<b>2516</b>	<b>1243</b>	<b>2929</b>	<b>1669</b>	<b>3336</b>	<b>2306</b>	<b>5643</b>

**Table 26 Distribution of Perinatal neonatal and infant death according to sex**

	District	Less than 7 days			Less than 28 days			Less than 1 Year			
		Male	Female	Total	Male	Female	Total	Male	Female	Total	
101	Kasargod	92	0	92	277	0	277	277	184	461	461
102	Kannur	98	0	98	98	0	98	196	0	196	196
104	Kozhikode	204	0	204	204	0	204	204	102	306	306
103	Wayanad	181	0	181	271	90	361	361	90	451	452
105	Malappuram	207	345	552	345	345	690	345	552	897	897
106	Palakkad	382	0	382	382	0	382	668	0	668	668
107	Thrissur	329	110	439	329	110	439	329	220	549	549
108	Ernakulam	128	257	385	128	385	513	256	385	641	642
109	Idukki	104	415	519	104	519	623	104	519	623	622
110	Kottayam	349	116	465	349	116	465	349	116	465	465
111	Alappuzha	122	0	122	122	0	122	244	0	244	243
113	Kollam	112	0	112	112	0	112	112	0	112	112
114	Thiruvananthapuram	208	0	208	208	104	312	208	312	520	520
	State	2516	1243	3759	2929	1669	4598	3653	2481	6133	6133

**Table 27 - Distribution of births recorded by Enumerator and Supervisor - 1999**

Name of District	Common to Enumerator and Supervisor	Recorded by Enumerator	Recorded by Supervisor	Missed by both Enumerator and Supervisor	Total
Kasaragod	119	16	100	1	236
Kannur	145		104		249
Wayanad	115	11	49	3	178
Kozhikkode	268	10	42		320
Malappuram	723	50	254	2	1029
Palakkad	331	14	91	1	437
Thrissur	239	10	73	3	325
Ernakulam	132	7	85	1	225
Idukki	157	6	57		220
Kottayam	178	5	51		234
Alappuzha	164	1	50		215
Pathanamthitta	72		7		79
Kollam	154		105		259
Thiruvananthapuram	239	2	11		352
Total	3036	132	1179	11	4358

**Table 28 Distribution of deaths recorded by Enumerator and Supervisor**

Name of District	Common to Enumerator and Supervisor	Recorded by Enumerator	Recorded by Supervisor	Missed by both Enumerator and Supervisor	Total
Kasaragod	43	7	26		76
Kannur	34		21		55
Wayanad	30	5	7		42
Kozhikkode	92	9	11		112
Malappuram	176	9	43		228
Palakkad	126	15	8		149
Thrissur	110	2	23	1	136
Ernakulam	66	1	22		89
Idukki	58	1	10		69
Kottayam	82	1	13		96
Alappuzha	93		10		103
Pathanamthitta	70		1		71
Kollam	109		21		130
Thiruvananthapuram	95	4	32		131
Total	1184	54	248	1	1487

**Table-29 Distribution of Rate of marriage per thousand population and percentage distribution of marriage according to age and sex**

Group	First Marriage		Second Marriage		All Marriage	
	Male	Female	Male	Female	Male	Female
15to19	0.48	45.86		0.16	0.48	46.01
20to24	23.03	82.16	0.09	0.08	23.12	82.24
25to29	70.15	30.13	0.53	0.17	70.68	30.30
30to34	35.49	4.93	0.69	0.30	36.18	5.23
35to39	5.62	1.00	0.77	0.22	6.39	1.22
40to44	0.70		0.70	0.26	1.40	0.00
45to49		0.17	0.65		0.00	0.17
	20.49		0.429.183	0.17	20.86	29.32

**Table-30-Life Tables of Males based on Age specific Death rates for the year 1999**

Age Group X to X+n	Age specific Death rate			Mean age specific Death rate( $n m_x$ )	Probability of person aged X Dying before age $x+1$ ( $q_x$ )	No of death ( $d_x$ )	No. Surviving to age $x$ out of 100000 born alive ( $l_x$ )	Year of life lived between $x$ & $x+n$ ( $L_x$ )	Year of life between $x$ and above $x$ ( $T_x$ )	Expectation of life in year ( $E_x$ )	Beginning Age $x$
	1997	1998	1999								
1	2	3	4	5	6	7	8	9	10	11	12
below1	18.47	13.81	16.37	0.01622	0.01665	1665	100000	98479	6896225	68.96	0
1 to 4	0.69	0.45	0.24	0.00046	0.00184	181	98335	392978	6797746	69.13	1
5 to 9	0.56	0.47	0.19	0.00041	0.00205	201	98154	490268	6404768	65.25	5
10 to 14	0.35	0.45	0.38	0.00039	0.00195	191	97953	489288	5914500	60.38	10
15 to 19	0.59	0.64	1.08	0.00077	0.00384	375	97762	487873	5425212	55.49	15
20 to 24	1.22	0.94	0.7	0.00095	0.00474	462	97387	485780	4937339	50.70	20
25 to 29	2.46	1.75	1.76	0.00199	0.00990	960	96925	482225	4451559	45.93	25
30 to 34	1.76	1.85	2.11	0.00191	0.00950	912	95965	477545	3969334	41.36	30
35 to 39	2.09	3.18	2.62	0.00263	0.01306	1241	95053	472163	3491789	36.74	35
40 to 44	4.7	4.16	4.77	0.00454	0.02245	2106	93812	463795	3019626	32.19	40
45 to 49	6.47	5.77	7.51	0.00658	0.03237	2969	91706	451108	2555831	27.87	45
50 to 54	10.16	10.09	12.24	0.01083	0.05272	4678	88737	431990	2104723	23.72	50
55 to 59	10.44	12.99	19.16	0.01420	0.06857	5764	84059	405885	1672733	19.90	55
60 to 64	24.87	30.22	32.61	0.02923	0.13620	10664	78295	364815	1266848	16.18	60
65 to 69	37.76	36.92	38.48	0.03772	0.17235	11656	67631	309015	902033	13.34	65
70 & above	94.95	103.35	84.88	0.09439	1.00000	55975	55975	593018	593018	10.59	70



**Table-31-Life Tables of Females based on Age specific Death rates for the year 1999**

Age Group X to X+n	Age specific Death rate			Mean age specific Death rate (m <sub>nx</sub> )	Probabi-lit of person aged X Dying before age x+1 (q <sub>x</sub> )	No of death (d <sub>x</sub> )	No. Surviv- ing to ages out of 100000 born alive (l <sub>x</sub> )	Year of life lived between x&x+n (L <sub>x</sub> )	Year of life between ix and above x (T <sub>x</sub> )	Expect- ation of life in year (E <sub>x</sub> )	Begin- ning Age x
	1997	1998	1999								
1	2	3	4	5	6	7	8	9	10	11	12
below1	18.52	6.64	11.85	0.01234	0.01221	1221	100000	98864	7635385	76.35	0
1to4	0.54	0.79	0.51	0.00061	0.00244	241	98779	394634	7536521	76.30	1
5to9	0.42	0.11	0.41	0.00031	0.00155	153	98538	492308	7141887	72.48	5
10to14	0.27	0.6	0.34	0.00040	0.00200	197	98385	491433	6649579	67.59	10
15to19	1.05	0.37	0.44	0.00062	0.00310	304	98188	490180	6158146	62.72	15
20to24	1.35	0.85	1.15	0.00112	0.00558	546	97884	488055	5667966	57.90	20
25to29	1.06	1.25	0.6	0.00097	0.00484	471	97338	485513	5179911	53.22	25
30to34	0.95	1.16	1.04	0.00105	0.00524	508	96867	483065	4694398	48.46	30
35to39	1.44	0.64	1.17	0.00108	0.00539	519	96359	480498	4211333	43.70	35
40to44	1.56	1.17	1.76	0.00150	0.00747	716	95840	477410	3730835	38.93	40
45to49	2.91	2.14	2.67	0.00257	0.01277	1215	95124	472583	3253425	34.20	45
50to54	3.2	5.41	4.21	0.00427	0.02112	1983	93909	464588	2780842	29.61	50
55to59	4.84	5.29	6.07	0.00540	0.02664	2449	91926	453508	2316254	25.20	55
60to64	9.58	15.5	9.93	0.01167	0.05670	5073	89477	434703	1862746	20.82	60
65to69	18.74	20.07	24.61	0.02114	0.10039	8473	84404	400838	1428043	16.92	65
70& above	66.35	81.3	74.1	0.07392	1.00000	75931	75931	1027205	1027205	13.53	70

**Table-32-Life Tables of Persons based on Age specific Death rates for the year 1999**

Age Group X to X+n	Age specific Death rate			Mean age specific Death rate (nm <sub>x</sub> )	Proba-bility of person aged X Dying before age x+1 (q <sub>x</sub> )	No of death (dx)	No.Sur-ving to age x out of 100000 born alive (l <sub>x</sub> )	Year of life lived between x&x+n (L <sub>x</sub> )	Year of life between x and above x (T <sub>x</sub> )	Expecta-tion of life in year (E <sub>x</sub> )	Begin-ning Age x
	1996	1997	1998								
	2	3	4	5	6	7	8	9	10	11	12
below1	18.49	10.31	14.19	0.01433	0.01452	1452	100000	98664	7247282	72.47	0
1to4	0.62	0.62	0.37	0.00054	0.00216	213	98548	393766	7148618	72.54	1
5to9	0.49	0.29	0.3	0.00036	0.00180	177	98335	491233	6754852	68.69	5
10to14	0.31	0.52	0.36	0.00040	0.00200	196	98158	490300	6263619	63.81	10
15to19	0.82	0.5	0.75	0.00069	0.00344	337	97962	488968	5773319	58.93	15
20to24	1.29	0.89	0.95	0.00104	0.00519	507	97625	486858	5284351	54.13	20
25to29	1.69	1.48	1.12	0.00143	0.00712	691	97118	483863	4797493	49.40	25
30to34	1.33	1.48	1.54	0.00145	0.00722	696	96427	480395	4313630	44.73	30
35to39	1.74	1.8	1.85	0.00180	0.00896	858	95731	476510	3833235	40.04	35
40to44	3.12	2.64	3.2	0.00299	0.01484	1408	94873	470845	3356725	35.38	40
45to49	4.69	3.95	5.13	0.00459	0.02269	2121	93465	462023	2885880	30.88	45
50to54	6.56	7.63	8.01	0.00740	0.03633	3319	91344	448423	2423857	26.54	50
55to59	7.51	9	12.42	0.00964	0.04707	4143	88025	429768	1975434	22.44	55
60to64	16.88	22.49	20.52	0.01996	0.09506	7974	83882	399475	1545666	18.43	60
65to69	27.49	27.79	30.91	0.02873	0.13402	10173	75908	354108	1146191	15.10	65
70& above	78.99	91	78.97	0.08299	1.00000	65735	65735	792083	792083	12.05	70

**Table 33 No. of units and population in the universe and the samples**

District	Universe		Samples		% of smaple population	Raising factor for stratum estimated
	No. of census villages	Population (1991)	No.of cents selected	Population (1991)		
Kasaragod	116	895282	7	9703	1.08	92.26858
Kannur	78	1106251	8	11269	1.02	98.16763
Wayanad	48	1615444	11	15812	0.98	102.16569
Kozhikkode	87	649179	5	7177	1.11	90.45270
Malappuram	123	2813876	28	40759	1.45	69.03692
Palakkad	155	2007658	15	21049	1.05	95.38021
Thrissur	209	2017095	13	18382	0.91	109.73207
Ernakulam	89	1444059	8	11240	0.78	128.47500
Idukki	65	1027185	7	9910	0.96	103.65136
Kottayam	90	1507353	9	12968	0.86	116.23635
Alappuzha	75	1391607	8	11451	0.82	121.52711
Pathanam-thitta	64	1033298	6	8756	0.85	118.01027
Kollam	92	1961530	12	17471	0.89	112.27348
Thiruvanan-thapuram	93	1948407	13	18734	0.96	104.00378
Total	1384	21418224	150	214681	1.00	99.76767

2

