

DLHS-4



सत्यमेव जयते

Government of India

Ministry of Health and Family Welfare
Government of India

KERALA

DISTRICT LEVEL HOUSEHOLD AND FACILITY SURVEY (2012-13)



International Institute for Population Sciences
मेहनत-सहयोग-के-सिरे-संगठन-विश्वीय
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International Institute for Population Sciences
(Deemed University)
Mumbai

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सत्यमेव जयते

Government of India

**Ministry of Health and Family Welfare,
New Delhi-110 011**

District Level Household and Facility Survey 2012-13

Kerala



(स्थापना / Established in 1956)

बेहतर भविष्य के लिए क्षमता निर्माण
Capacity Building for a Better Future

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ACRONYMS

AFMC	Administrative and Financial Management Committee
AHS	Annual Health Survey
AIDS	Acquired Immuno Deficiency Syndrome
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
ARI	Acute Respiratory Infection
ASHA	Accredited Social Health Activist
AWW	Anganwadi Worker
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy
BCG	Bacillus Calmette Guerin
BP	Blood Pressure
BPL	Below Poverty Line
CAB	Clinical Anthropometric Biochemical (Test)
CAPI	Computer Assisted Personnel Interviewing
CHC	Community Health Centre
CPR	Contraceptive Prevalence Rate
DBS	Dried Blood Spot
DH	District Hospital
DLHS	District Level Household and Facility Survey
DPT	Diphtheria, Pertussis and Tetanus
EAG	Empowered Action Group
ECG	Electrocardiogram
ECP	Emergency Contraceptive Pill
ELISA	Enzyme-linked Immunosorbent Assay
EPI	Expanded Programme on Immunization
FA	Field Agency
FBS	Fasting Blood Sugar
FHW	Female Health Worker
FRU	First Referral Unit
FOD	Field Operation Division
FP	Family Planning
FS	Female Sterilization
FSU	First Stage Unit
GPS	Global Positioning System
GoI	Government of India
HH	Household
HIV	Human Immuno Deficiency Virus
ICDS	Integrated Child Development Scheme
ICTC	Integrated Counseling and Testing Centre
IEC	Information, Education and Communication
IFA	Iron and Folic Acid
IIPS	International Institute for Population Sciences
IMNCI	Integrated Management of Neonatal and Childhood Illnesses
IMR	Infant Mortality Rate
IPHS	Indian Public Health Standards
IUD	Intra-uterine Device
JSY	Janani Suraksha Yojana
LMO	Lady Medical Officer
LPG	Liquefied Petroleum Gas
MCEB	Mean Children Ever Born
MDG	Millennium Development Goal
MMR	Maternal Mortality Ratio
MO	Medical Officer
MoHFW	Ministry of Health and Family Welfare
MoU	Memorandum of Understanding

ACRONYMS

MoA	Memorandum of Agreement
MTP	Medical Termination of Pregnancy
NC	Natal Care
NIC	National Informatics Centre
NIHFW	National Institute of Health and Family Welfare
NGO	Non-Governmental Organisation
NPP	National Population Policy
NRHM	National Rural Health Mission
NSSO	National Sample Survey Organization
NSV	Non-scalpel Vasectomy
OBC	Other Backward Class
OPD	Out-Patient Department
ORS	Oral Re-hydration Salt
ORT	Oral Re-hydration Therapy
OT	Operation Theatre
PHC	Primary Health Centre
PI	Partner Institute
PNC	Post Natal Care
PRC	Population Research Centre
PPS	Probability Proportional to Size
PSU	Primary Sampling Unit
RCH	Reproductive and Child Health
RKS	Rogi Kalyan Samiti
RTI	Reproductive Tract Infection
SDH	Sub-Divisional Hospital
SDRD	Survey Design and Research Division
SC	Scheduled Caste
SHC	Sub-Health Centre
ST	Scheduled Tribe
STI	Sexually Transmitted Infection
TBA	Trained Birth Attendant
TAC	Technical Advisory Committee
TOT	Training of Trainers
TT	Tetanus Toxoid
TV	Television
UFS	Urban Frame Survey
UFWC	Urban Family Welfare Centre
UHP	Urban Health Post
UIP	Universal Immunization Programme
UNFPA	United Nations Population Fund
UNICEF	United Nation Children's Fund
USU	Ultimate Stage Sampling Unit
UT	Union Territory
VCTC	Voluntary Counseling and Testing Centre
VHSNC	Village Health Sanitation and Nutrition Committee
WHO	World Health Organisation

Preface and Acknowledgements

The District Level Household and Facility Survey-4 (DLHS-4) is a nationwide survey covering 640 districts from 36 States and Union Territories of India. This is the fourth round of the district level household survey which was conducted during 2012-13. The Survey was funded by the Ministry of Health and Family Welfare, Government of India.

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DLHS-4 Coordinators
International Institute for Population Sciences

1. INTRODUCTION AND HOUSEHOLD CHARACTERISTICS

This state report of Kerala pertains to the fourth round of District Level Household and Facility Survey (DLHS-4) 2012-13 following the preceding three rounds undertaken by the Ministry of Health and Family Welfare (MoHFW), Government of India (GoI) in the past (Round-I in 1998-99, Round-II in 2002-04, and Round-III in 2007-08) with the main objective to provide reproductive and child health related database at district level in India. The data from these surveys have been useful in setting the benchmarks and examining the progress the country has made after the implementation of RCH programme. In addition, the evidences generated by these surveys have been useful for the purpose of monitoring and evaluation of the ongoing programmes and the aspect of planning of suitable strategies by the central and state governments. In view of the completion of eight years of National Rural Health Mission (2005-12), that it was felt there was a need to focus on the achievements and improvements. The Ministry of Health and Family Welfare, Government of India, therefore initiated the process of conducting DLHS-4 and designated the International Institute for Population Sciences (IIPS) as the nodal agency to carry out the survey. MoHFW, provided funds for implementation of DLHS-4, guided by a duly constituted Technical Advisory Committee (TAC).

The main objective of District Level Household and Facility Survey-4 (DLHS-4) is to provide maternal and child health care (MCH) indicators and prevalence of morbidity for a wide range of common, communicable, non-communicable and lifestyle diseases for the year 2012-13 covering the following aspects:

- Household basic amenities
- Prevalence of morbidity
- Coverage of ante-natal services and immunization services.
- Proportion of institutional/safe deliveries
- JSY Beneficiaries
- Economic burden of delivery
- Contraceptive prevalence rate
- ASHA's involvement
- Unmet need for family planning
- Awareness about RTI / STI and HIV / AIDS
- Infrastructure, manpower, equipments, drugs, services of public health facilities
- Linkage between health facility and MCH indicators

Bilingual questionnaires prepared in Malayalam and English language pertaining to Household, Clinical, Anthropometric and Bio-Chemical tests (CAB) and Ever Married Women (age 15-49) were used and canvassed using Computer Assisted Personal Interviewing (CAPI). It was for the first time in the country that large scale demographic and health survey at the district level was successfully carried out by using Computer Assisted Personal Interviewing (CAPI) in DLHS-4. The CAPI software was developed by using MMIC (Multi-Mode Interviewing Capability) tool. Mini laptops were also loaded with CAPI software and bilingual questionnaires and provided to the Field Agencies authorized to carry

out the survey with the designated states. Each team was provided four CAPIs/Mini laptops, one for each investigator. Supervisors were responsible for directly uploading the completed PSU's data to the IIPS, FTP server located in Mumbai on day-to-day basis. The use of CAPI optimized resources were required for transferring the filled questionnaires from field to the state office, data entries and received at IIPS. For the first time biomarkers were also used in DLHS-4. The village and health facility questionnaires were canvassed by using paper & pen method in DLHS-4. In the household questionnaire, information of all the members of the household and socio-economic characteristics of the household, possessed assets, number of marriages, morbidities and deaths in the household since January 2008, and also drinking water, toilet, drainage and kitchen facilities data were collected. The ever-married women questionnaire contained information on women's characteristics, maternal care, immunization and childcare, contraception and fertility preferences, reproductive health including knowledge about HIV/AIDS. The village questionnaire contained information on the availability of health, education and other facilities in the village, and whether the facilities are accessible throughout the year. The health facility questionnaire contained information on human resources, infrastructure, equipments, drugs and services. For the first time, a population-linked facility survey has been conducted in DLHS-4. At the district level, all Community Health Centres, Sub-Divisional Hospitals and District Hospitals were covered. Further, all Sub-Health Centres and Primary Health Centres which cater to the needs of the population of the selected PSUs were also covered. Fieldwork in Kerala for all the 14 districts was conducted during April 2013 to February 2014, gathering information from 20,098 households and 13,780 ever married women (15 to 49 years). Table 1.2 provides breakup of PSUs and households by district and rural urban residence.

2. SURVEY DESIGN

DLHS-4 is a district level survey and a multi-stage stratified designed adopted for selection of representative sample of each district in Kerala. Rural and urban areas of a district are considered as natural strata. Wherever applicable, urban population in a district was further stratified into million class cities and non-million class cities. For the purpose of sampling of the urban samples, two-stage sampling was used where the primary sampling unit (PSU) is the NSSO urban frame survey (UFS) blocks and second stage sampling unit (SSU) is the household. The urban PSUs are selected by equal probability without replacement and USU selected by process of circular systematic sampling. The allocation of PSUs to million and non-million class cities was proportional to relative sizes. Distribution of PSUs of a district is proportional to projected urban population of the district. For districts with less than projected 30 percent urban population, urban PSUs are oversampled. The sampling frame used for urban sampling is the town and city wise list of NSSO UFS blocks for 2007-08 provided by the SRD Unit of National Sample Survey Organisation (NSSO), Kolkata.

In rural areas of each district, sampling design is two-stage sampling with census villages as PSU and household as the second stage sampling unit (SSU). The PSUs are selected by PPS with replacement and SSU are selected by circular systematic sampling. Large selected PSU with more than 300 households are divided into at least three segments in such a way that each segment has by and large the same number of households and two segments are then

selected by SRS. List of villages in a district in Census 2001 are updated by removing villages of 2001 which have been designated as urban in 2007-08 NSSO UFS block list and this serves as the sampling frame for sampling of rural PSUs from a district.

Selection of rural health facilities in DLHS-4 is linked with the sampled rural PSUs. Primary Health Centres (PHC) and Sub-Health Centres (SHC) catered to the health care needs of the sampled rural PSUs were included in the Facility Survey (FS) of DLHS-4. All Community Health Centres (CHC), Sub-Divisional Hospitals and District Hospitals are covered under the Facility Survey of DLHS-4.

2.1. Sampling Weight

In generating district level demographic indicators, sample weight for household, women and children will be used. The weights for a particular district are based on three selection probabilities

f_1^i, f_2^i and f_3^i pertaining to i^{th} PSU of the district. These probabilities are defined as

$$f_1^i = \text{Probability of selection of } i^{\text{th}} \text{ PSU in a district} \\ = (n_r * H_i) / H,$$

Where n_r is the number of rural PSU to be selected in a district, H_i refers to the number of household in the i^{th} PSU and $H = \sum H_i$, total number of household in a district.

$$f_2^i = \text{Probability of selecting segment (s) from segmented PSU (in case the } i^{\text{th}} \text{ selected PSU is segmented)} = \frac{\text{(Number of segments selected after segmentation of PSU)}}{\text{(number of segment created a PSU)}}$$

The value of f_2^i is to be equal to one for un-segmented PSUs.

$$f_3^i = \text{probability of selecting a household from the total listed households of a PSU or in segment(s) of a PSU} \\ = (25 * HR_i) / HL_i$$

Where HR_i is the household response rate of the i^{th} sampled PSU and HL_i is the number of households listed in i^{th} PSU in a district.

For urban PSU, f_1^i is computed either as the ratio of number of UFS blocks included in the sample to the total number of UFS blocks of the district.

The probability of selecting a household from the district works out to be

$$f^i = f_1^i * f_2^i * f_3^i$$

The non-normalized weight for the i^{th} PSU of the district is, $w^i = 1/f^i$ while the normalized weight used in the generation of district indicators for the i^{th} district would be

$$= \frac{\sum_i n_i}{\sum_i n_i * w^i} * w^i$$

Where n_i is the number of households interviewed in the i^{th} PSU. The weight for women and children are computed in the similar manner considering corresponding response rate.

3. SURVEY INSTRUMENTS

The main instrument for collection of data in DLHS-4 was a set of structured questionnaires, namely, household, ever married woman, and village questionnaires as components of household survey. In the facility, separate questionnaires are used for Sub-Health Centre (SHC), Primary Health Centre (PHC), Community Health Centre (CHC), Sub-Divisional Hospital (SDH) and District Hospital (DH). Household and ever married women questionnaires are bilingual, with questions in both Malayalam and English languages.

3.1 Household Questionnaire:- The household questionnaire starts with listing of all usual residents in each sample household including visitors who had stayed the night before the interview. The listing of usual resident members is used for identification of eligible respondents for ever married women and CAB (Clinical, Anthropometric and Biochemical) tests. For individual household member information on age, sex and marital status, relationship to the head of the household and education were collected. Marriages and deaths to members of household were also recorded. Efforts were made to get information about maternal deaths. Information were also collected on the main source of drinking water, type of toilet facility, source of lighting, type of cooking fuel, religion and caste of household head and ownership of durable goods in the household.

An added feature of household questionnaire of DLHS-4 is the collection of data on disability status, injury, acute and chronic illness for all members of the household.

Clinical, Anthropometric and Biochemical (CAB) tests: An important component of household questionnaire is the collection of biomarkers of eligible household members for the first time on a large scale demographic and health survey in the country at district level. This includes weight and height for all household members of age one month and above, Haemoglobin level for all household members aged 6 months and older, random blood sugar test and blood pressure measurements for all household members aged 18 years and above.

3.2 Ever Married Woman's Questionnaire:- The respondents for the ever married woman's questionnaire are ever married women in 15-49 years of age living in the sampled households. Details on age, age at marriage, place of birth, educational attainment, number of biological children ever born and surviving by sex were collected. Accounts of ante-natal checks, experience of pregnancy related complications, place of delivery, delivery attendant and post-partum care, together with history of contraceptive use, sex preference of children and fertility intentions were recorded. For the recent births, immunizations status of children was collected either from the immunization card or asking the mother about the status of immunization of the child. The other information collected includes knowledge and awareness about RTI/STI and HIV/AIDS by source and treatment seeking behavior of RTI/STI.

3.3 Village Questionnaire:- This questionnaire was designed to collect information on availability and accessibility of education, health, transport and communication facilities at village level. Functioning of village committees and utilization of fund were additionally collected from the sampled villages. Information relating to implementation and beneficiaries of various government programmes on girl child, maternal care, sanitation, food security,

employment generation, and women's empowerment are also gathered as part of village information.

3.4 Facility Questionnaire:- In the facility survey, the information collected at the SHC level were availability of human resources, physical infrastructure, equipments and essential drugs and MCH service provided in one month preceding the survey. From the PHC, status of availability for 24x7 facility and services for delivery and new born care were collected. Additional information collected at PHC level were availability of Lady Medical Officer, functional Labour Room, Operation Theater, number of beds, drug storage facilities, waiting room for OPD, availability of RCH related equipments, essential drugs and essential laboratory testing facilities. Information that were collected for Community Health Centre (CHC) includes availability of 24X7 services for delivery and new born care, status of in-position clinical, supporting and Para-medical staff, availability of specialists trained for NSV (Non-Scalpel Vasectomy), emergency obstetric, MTP, new born care, treatment of RTI / STI, IMNCI, ECG etc. Physical infrastructure of CHC such as water supply, electricity, communication, waste disposal facilities, OT, Labour Room and availability of residential quarters for medical doctors were also collected in the facility survey. From the Sub-Divisional and District Hospitals status of availability of essential laboratory and ambulance services, emergency obstetric care service, availability of specialists, nurses, paramedics and technicians either on regular or contractual basis were collected in addition to infrastructure, provision for bio-medical and waste disposal and availability of residential quarters for doctors, nurses and staff. The mode of collection of information for health facilities is directly asking to the concerned officials, physical inspection and recording from relevant registers.

3.5 Sample Implementation

The field implementation starts with the preparation of location and layout maps of sampled PSUs in rural areas and obtaining map of sampled NSSO UFS blocks in urban areas. This is followed by preparation of list of households which served as the sampling frame for selection of representative households and it involved mapping and listing of structures and households for each sampled primary sampling unit (PSU) following the preparation of location and layout maps. The mapping and listing was carried out for each PSU by a team comprising of a mapper, a lister and a supervisor. A PSU in rural area is a village or part of a village or a group of small villages and it is NSSO UFS block in an urban area.

From the sampling frame of households prepared by mapping and listing, samples of 28 households were selected by circular systematic sampling. Household and ever married women's questionnaires were canvassed by a team of 3 female and one male investigators, one supervisor and two health investigators were assigned for collection of CAB information. For quality assurance, field teams were monitored constantly by Project Officers, Officials of PRC, MoHFW, and Partner Institutes who facilitates DBS testing. Time to time, DLHS-4 Project Coordinators of IIPS also made field visits to check and provide support to field teams.

4. DEMOGRAPHIC BACKGROUND OF KERALA

Basic demographic indicators of Kerala and its districts as of Census 2011 are shown in table 1.1. The population of the state in Census 2011 is enumerated as 33406. The decadal growth rate of the state during 2001-2011 Census is 4.9 percent and decadal growth rate of above 10 percent were recorded in the districts of Mallappuram. The sex ratio of the state is 1,084 females per 1000 males, it is 1,028 the lowest in Ernakulam and 1,133 the highest in Kannur district. The overall literacy rate is 94 percent and the gender gap in literacy rate is 96.1 percent for males and 92.1 percent for females.

4.1 Sample Coverage

DLHS-4 surveyed a total of 778 primary sampling units (PSUs) covering 20,089 households with 92.3 percent response rate and 13,780 ever married women in reproductive age 15-49 years with 83.3 percent response rate. Table 1.2 shows the number of PSUs, households and ever married women interviewed and corresponding response rate by districts. Household response rate in the districts varies from 89.6 in Alappuza district to 99 percent in palakkad district while that for the ever married women varied from 68.5 in Kannur district to 99.7 percent in Palakkad district.

4.2 Village Facilities

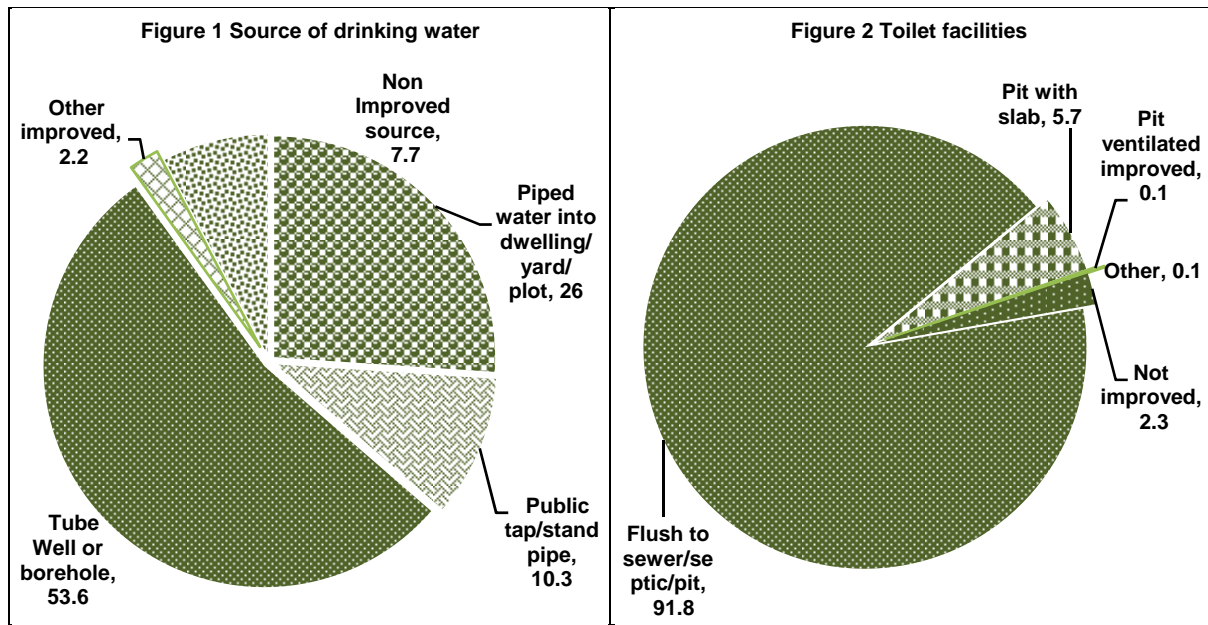
Total number of PSUs surveyed in Kerala is 778 out of this 379 are rural PSUs. Out of the total villages 95 percent have primary school in the village (Table 1.3). In 84 percent of the villages there is Sub- Health Centre (SHC) (Table 1.4a). Out of 379 villages, 85 percent of the villages have beneficiaries of ICDS, while 98 percent villages have JSY beneficiaries and 88 percent villages have beneficiaries of JSSK (Table 1.4b). As can be seen from table 1.15 almost all sampled villages (99.7%) have anganwadi centre, 97 percent have accessed to any government health facility about tow third of the sampled villages have Primary Health Centre (PHC) and 62 percent of the villages have Village Health Nutrition and Sanitation Committee (VHNSC).

4.3 Household Amenities and Characteristics

As regards housing condition, as can be noted from table 1.6(a), 70 percent of the surveyed households live in pucca houses, 3 percent in kachha houses and 27 percent in semi-pucca houses. As many as 99 percent of households have electricity connection, 48 percents of households use woods for cooking while 50 percent use LPG, 90 percent of households have mobile, 91 percent owned television, 23 percent owned bicycle while 45 percent owned motor cycle/ scooter and 17 percent households are having owned car/jeep/van.

The sources of drinking water are shown in figure 1 and it is noted that 54 percent of households are using tube well or borehole water for drinking and 26 percent of households are using piped water into dwelling/yard/plot for drinking. Ten percent of the households reported that public tap/stand pipe as source of drinking water. As can be seen from figure 2 households which do not have access to improved clean toilet constituted only 2 percent of the total surveyed households and 92 percent of the households have access to improved flush/septic/pit toilets.

Table 1.6 (b) provides household access to electricity, drinking water, toilet and cooking gas and type of house by districts. The mean household size of the state is 3.7 while it is 3.7 in rural and 3.8 in urban areas (Table 1.7). One member households constitute 3.5 percent of all surveyed households, 81 percent household heads are males, median age of the head of the households is 50 years. Hindu 59 percent is the main religion of the state followed by 21 Muslim and 19 percent Christen. A significant share 10 percent of the household heads are scheduled castes (SC) and 33 percent of household heads are from the other caste.



The age-sex composition of the population of Kerala is depicted in the population pyramid shown in figure 3. The pyramid is characterized by a shrinking base indicating declining trend in fertility, more females than males in 15-49 years and at older ages.

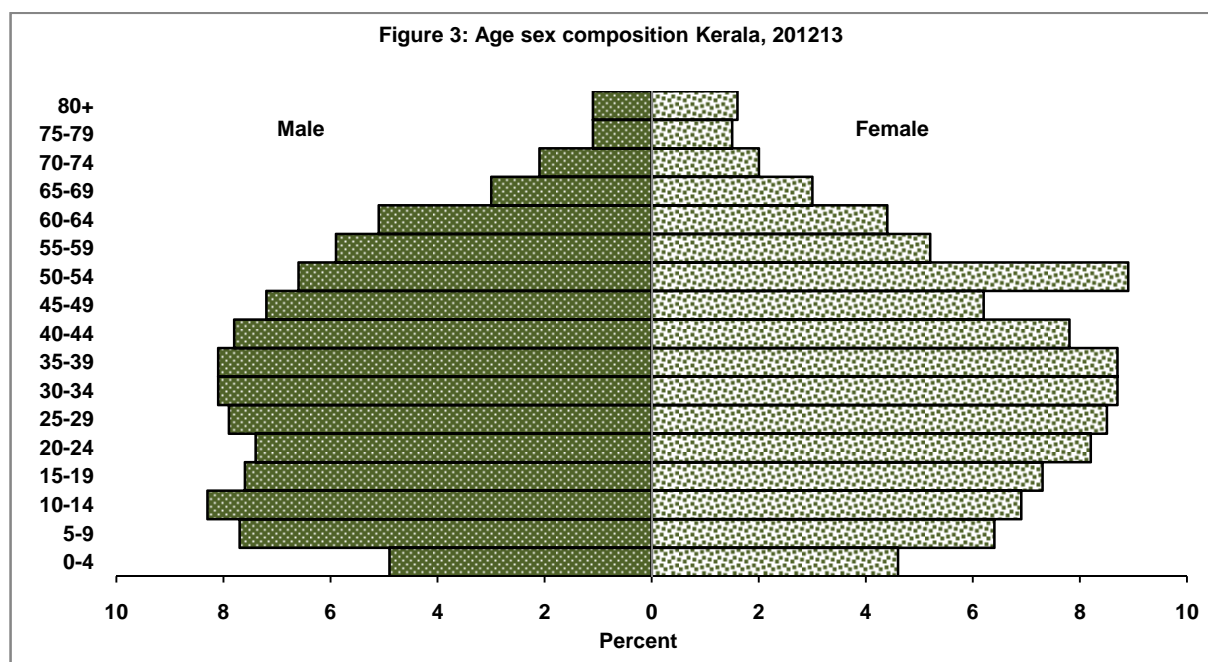
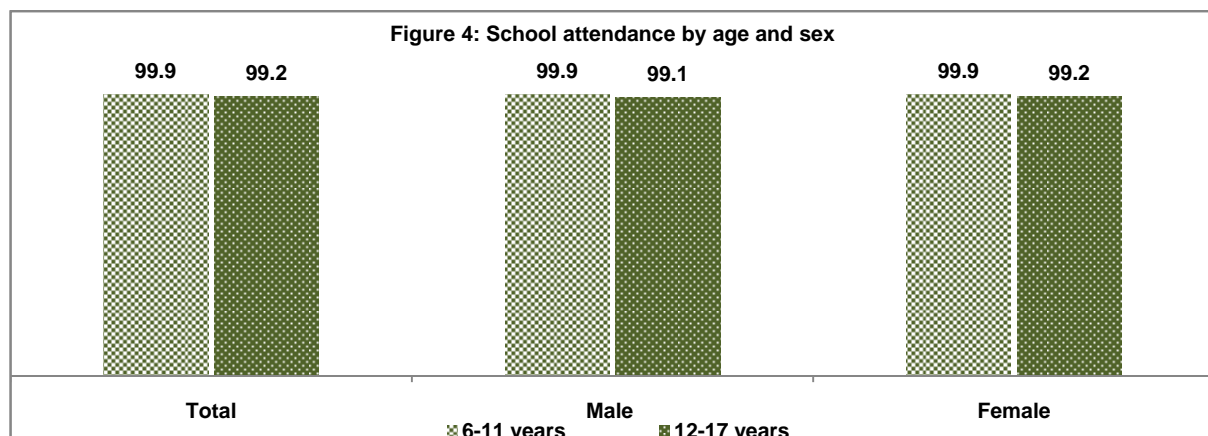


Table 1.8 provides differential in age-sex structures of rural and urban population of the state. As evident from table 1.9 there is sizeable proportion of unmarried males and females in 20-

29 years and another distinctive feature is that there are more widowed/divorced/separated among females than among females. The mean age at marriage for girls is 22.1 years while it is 28.3 years among boys. Mean age marriage for girls and boys by districts are shown in table 1.10. Three percent of the marriages among girls are below the legal age of 18 years and 1 percent of the boys got married below the legal age of 21 years. Tables 1.11 through 1.13 provide details about years of schooling of sampled household members by age, sex, caste and religion by rural-urban residence. Among females (7 years and older) is just 0.7 percent are non-literate and corresponding figure among males is 0.4 percent. More among females, 39.1 percent have 11 or more years of schooling as compared to 38.8 percent among males. Regardless of sex individuals about 20 percent of the literate population has less than five years of schooling. The non-literate persons are less in urban than in rural areas and more persons have 11 or more years of schooling in urban areas than among rural residents. Table 1.14 provides rate of current school attendance by age, residence, religion and castes.

Figure 4 shows the school attendance by age, 6-11 years and 12-17 years, the stage of primary and secondary education respectively and sex. The state achieved 99.9 percent school attendance among 6-11 years children and 99 percent among 12-17 years suggesting the existence of dropout at the secondary level. There is no evidence of sex differential in school attendance among 6-11 years but for 12-17 years, school attendance among females is 99.2 percent as compared 99.1 percent among males.



5. CHARACTERISTICS OF WOMEN AND FERTILITY

The distribution by age of women surveyed remains almost constant above age 25 years and above in both rural and urban settings. Age at consummation of marriage below 18 years is found to be low 9 percent among ever-married women between 15-49 years of age irrespective of place of residence. In rural areas, 9.4 percent of surveyed women reported their age at consummation of marriage below 18 years. In urban areas, 8.9 percent of surveyed women reported that they had started living with husband before reaching at age 18 years (Table 2.1). There are less non-literate women in rural (6.5%) than in urban areas (8.1%). Non-literate husbands are more by 2 percentage points compared to non-literate wives/women in rural areas. Around seven percent of women are non-literate whereas 69.3 percent of women are educated at least for 10 years. The proportion of husbands with 10 years or more schooling is 60.2 percent in rural, 62.5 percent in urban and 61.3 percent as

combined. Nearly 46 percent of the ever-married women were married for 15 years or more with a marginal difference between rural and urban settings. In case of less than 15 years of marital duration, the distribution of ever-married women in the categories of less than 5 years and 5-9 years marital duration are almost uniform, with around 16.5 percent except for the last category i.e. 21.2 percent for both rural and urban areas. The proportion of women belonging to Hindu has been highest and found to be 57 percent followed by Muslims (26%). The proportion of Hindu women is higher in rural area (58%) as compared to urban (55%). Muslim women are more (26.2%) in urban areas as compared to rural areas (25%). The percent distribution of women by caste/tribes is skewed towards other backward classes (55.4%) followed by women belonging to others caste (33.3%). The percent of women who belong to other backward classes is higher (58%) in urban than in the rural areas (53.2%).

Table 2.2 shows the distribution of years of schooling among surveyed women by background characteristics. The percentage of non-literate women (6%) is found to be lowest in the age group 40-44. Only 6 percent rural women and 8 percent urban women reported as non-literate in the survey. Relatively higher proportion of Jain (13.4%) and scheduled tribe women (13.8%) are found to be non-literate than other religion or cast/tribe groups respectively. Around 46 percent of surveyed women had 11 or more years of schooling in Kerala comprising 45.7 percent in rural and 45.9 percent in urban areas. In contrast, only 35.2 percent of Muslim and 35.5 percent of scheduled tribe women have 11 or more years of schooling. It is to be noted that at least 6.9 percent of women with 0-5 years of schooling and 6.4 percent of 6-8 years of schooling reported that their husband is non-literate. Other than scheduled caste and Muslim women, the distribution is skewed towards 9 and above years of schooling in Kerala.

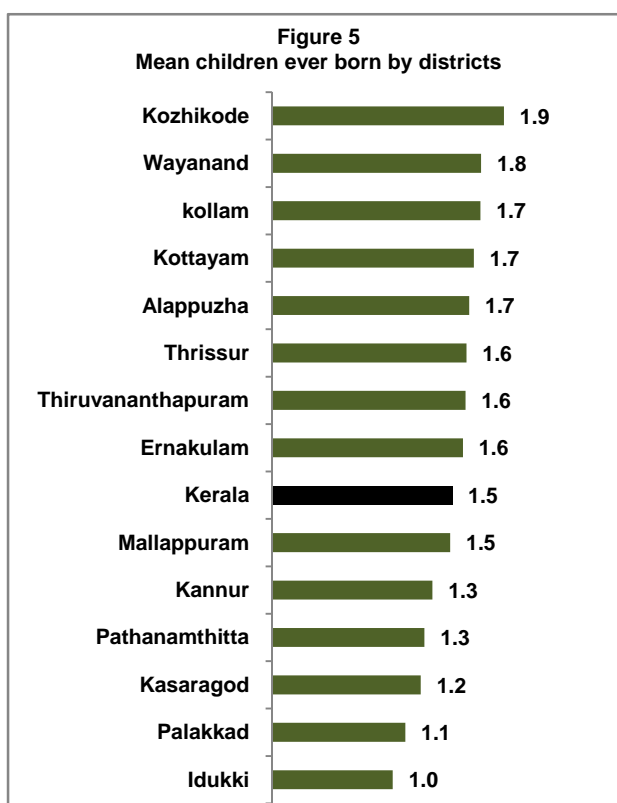
5.1 Birth Order

Out of the total births since January 1, 2008 to ever-married women, around 50.2 percent births comes from rural areas and the rest 49.8 percent from urban areas. Almost 41 percent of them belong to women in the age group 25-29 followed by 27.9 percent from women in the age group 20-24 (Table 2.3). The distribution of these births by religion shows that 56 percent births belong to Hindu and 30 percent to Muslim and rest belong to other than these two religions. The distribution of births by caste/tribes indicates that Other Backward Classes contribute maximum 62 percent followed by Others (26%) and Schedule Caste (12%). Out of the total births since January 1, 2008 to ever-married women, 49 percent were of second or higher order births (Table 2.3).

The births of second and higher order are more in proportion among ever-married women aged 15-49 who are from rural area (49%), belonging to Muslim (56%), belonging to scheduled caste (52%), and among women 35-39 years (76%), as compared to ever-married women educated at least 10 or more years of schooling and those belonging to other caste 45 percent (Table 2.3). Table 2.4 shows that the proportion of second and higher order births is the highest in Thrissur district (59%) and the lowest in Palakkad (0.0%). The proportion of first order birth has crossed the mark of 45 percent in Kannur, Wayanand, Kozhikode, Mallappuram and Kottayam, whereas it is more than 50 percent in Kasaragod, Palakkad, Alappuzha, Kollam and Thiruvananthapuram.

5.2 Mean Children Ever Born

Mean children ever born (CEB) to ever-married women aged 15-49 years is 1.5 with no difference by residence, while it is 0.8 for non-literate and 1.4 to women with at least 10 years of education. The completed fertility, measured in terms of average children ever born to ever-married women aged 40-49 years is nearly 1.9 in Kerala. The differentials by caste/tribes are marginal and ranges between 1.8 children for other caste to 2 children for other backward classes. Similarly, differential by religion are not wide and ranges between 2.3 children for Muslim to 2 for Hindu. The state level estimates for mean children ever born by sex of children are also shown. It indicates that on an average an excess of 0.13 male children to per female children ever born to ever-married women aged 15-49 years in the state as a whole.



The sex differentials in mean children ever born to ever-married women aged 15-49 years is found to be higher than state average in the above age 35 years, non literates, scheduled caste and tribes. In case of women 40-49 years, the sex differential in mean children ever born is found to be in the range of state level for almost across all socioeconomic background characteristics (Table 2.5).

The mean children ever born to ever-married women by district of Kerala is shown in Figure 5, it varies from 1.0 children in Idukki district to 1.9 children in Kozhikode district, while the state average is 1.5 children.

In Kerala, most of the outcomes (94.2%) of pregnancies which occurred since January 1, 2008 to currently married women aged 15-49 years turned to be live birth. Three percent of the pregnancies outcomes are reported as spontaneous abortion. Percentage of pregnancies that resulted in induced abortion is 2.2 percent for the state as a whole. Interestingly, age, education and religion of women depict a large variation in the percentage of pregnancies resulted as spontaneous abortion. For example, women in the age group below 20 years show higher percentage of spontaneous abortion (7%). The highest rate of spontaneous abortion is estimated for women who are non literate across all educational background of women. Women who belong to Muslim (3.3%), Hindu (3.2%) and Christian (2.8%). Similarly, percentage of induce abortions among the outcomes of pregnancies in the survey reference period is found to be high in the age groups 40-44 years (5.7%) and 45-49 years (5.2%), sex composition of children for one son (2.4%), one daughter only (2.3%), non literates (3.3%), Hindus (2.5%) and scheduled tribes 7.7 percent (Table 2.6). Percentage of pregnancies

resulted into spontaneous abortions varies from 0.0 percent in district Idukki to 13.0 percent in district Pathanamthitta. The other districts which show a higher rate of spontaneous abortion rate than the state figure are Kozhikode (4.9%), Wayanad (3.5%), Mallappuram (3.3%), Palakkad (3.5%), Kottayam (4.5%) and Thiruvananthapuram (3.4%). The induced abortion is found to be highest in Pathanamthitta (22%) and lowest in Thrissur and Wayanad (0.0%).

5.3 Fertility Intention and Sex Preferences for Additional Child

Fertility preferences of currently married women in terms of desire for an additional child, timing to have and preferred sex of desired additional child by number of living children are given in Table 2.8. Among those with no living children, about one-third of women (32.3%) want a child soon (within the next two years) and 5.6 percent want a child two or more years later. Among the currently married women aged 15-49 with one living child, 12.1 percent of wanted an additional child soon i.e. within two years. Most of the currently married women with two living children are either sterilized (67.2%) or want no more children (19.3%). In addition, not more than 14 percent of women desired another child once they attained three surviving children.

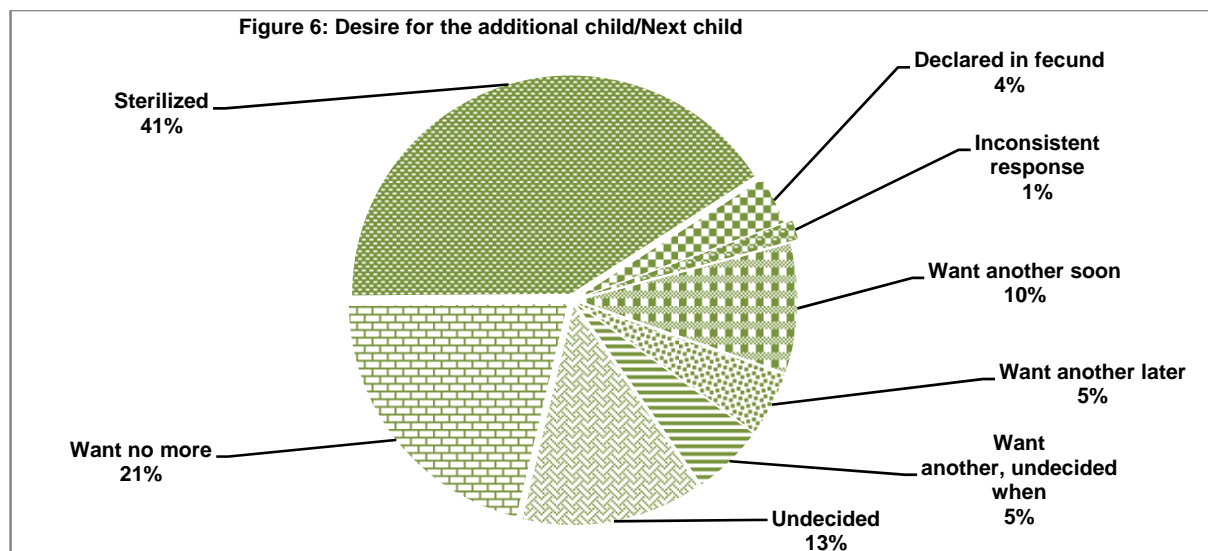


Figure 6 depicts the fertility preference of all currently married women regardless of number of living children. Twenty-one percent of currently married women want no more children, 9.5 percent want additional child soon, 13.4 are undecided about having and additional child and 41 percent have undergone sterilization. Among the currently married women with no living children but want an additional child, 52 percent reported that sex of the child does not matter 32 percent say it is up to God while 12 and 5 percent want to have an additional child as a boy and a girl respectively. Among those who had at least one living child and wanted to have another child, the percentage of women who were able to tell about preferred sex of additional child is quite high (ranges from 20.2% to 34.3%). With increasing number of living children, longing for an additional male child becomes more and more magnified from 20.2 percent among currently married women with one child to 34.3 percent among currently married women with four and more living children (Table 2.8).

6. MATERNAL HEALTH CARE

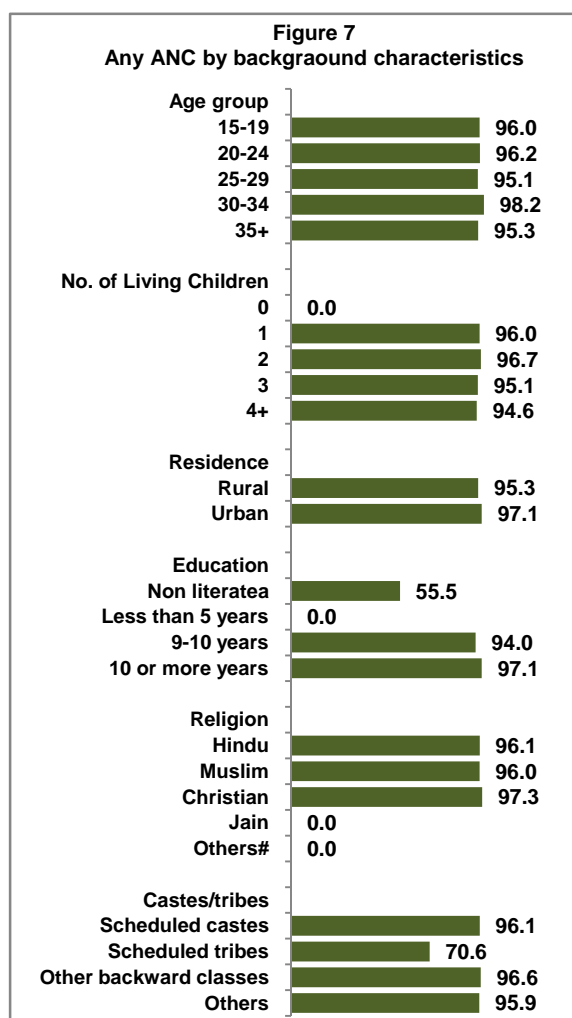
Maternal Health Care package of RCH programme focused more on ANC. The Maternal health care activities are implemented to strengthen and fulfill the RCH goals. ANC services provided by medical and paramedical professionals comprises of the regular physical checks with weight, height and blood pressure measure, Haemoglobin level test, consumption of IFA, Tetanus (TT) injection and the growth status and position of foetus. These primary services are made compulsory to be provided during the ANC check up from health facility. At least four checkups are made compulsory to complete the full ANC course in order to prevent and protect women from pregnancy related complication faced during the pregnancy and till the delivery. Janani Suraksha Yojna (JSY) is a scheme which is implemented in health facilities under the aegis of NRHM/NHM to promote institutional delivery and post-natal care to prevent maternal deaths.

6.1 ANC by Selected Background Characteristics

In Kerala 96 percent of the women had received at least one antenatal care (ANC) service during the pregnancy of their last birth in the three years period preceding the survey. The utilisation of government health facilities for ANC care is more 62 percent as compared to 59 percent of private health facility (Table 3.1).

Any ANC coverage by selected background characteristics are illustrated in figure 7. Any ANC received among the non-literate are 56 percent as against 97 percent among the women educated for 10 or more years of schooling. There is marginal difference between rural and urban areas (95.3% for rural & 97.1% for urban) in availing any ANC. Women who had received ANC with one living child is 96 percent whereas women with 4 and above living children is 95 percent.

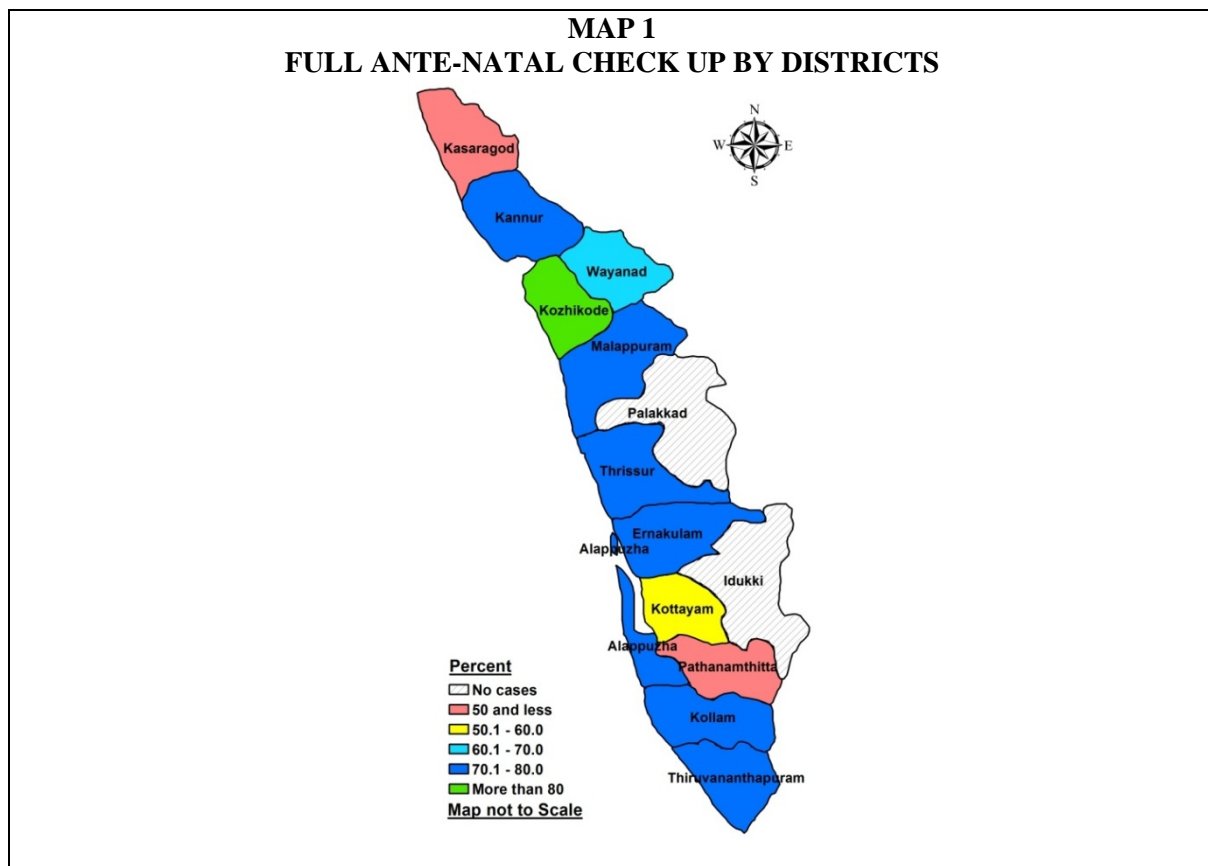
The coverage of any ANC is highest in Thiruvananthapuram district (99.5%) and lowest in Pathanamthitta district (47.1%) where only 18 women reported their last live or still birth after January 1, 2008. Majority of women from Palakkad district are availed ANC care from government health facilities (79%) which is the highest in the state. The lowest ANC coverage in government health



facilities was in Ernakulam district (35%). The DLHS-4 data reveals that more women availed ANC services from government health facilities as compared to private health facilities.

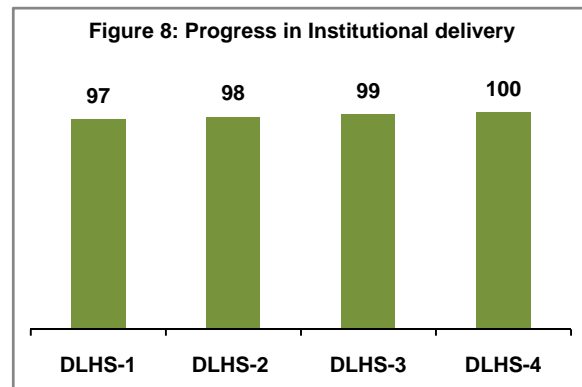
The specific components of ANC checkup which are supposed to be received by the women during the pregnancy were asked to respond. The proportion of women who received weight, height and blood pressure measurement, blood and urine tested, abdomen examined and sonography/ ultrasound test done are 91, 47, 87, 79, 79, 75 & 85 percent respectively, (Table 3.3). One important feature of ANC check up, i.e. ultrasound is higher among women who are having two living children (88%), having 10 or more years of schooling (87%), Christians (88%) and scheduled caste 90 percent (Table 3.3).

The proportion of women who had received at least three ANC is 86 percent in Kerala and the women who had received first ANC in the first trimester of the pregnancy is 77.2 percent (Table 3.5A). The proportion of women who had three ANC is highest among women who have two living children (88%), having 10 years and above schooling (87%), urban residence (87%), Christians (88%), and Other Backward Classes (86.6%). There is not much difference by age group between 15 to 35 years. The women who had full ANC (i.e. at least 3 ANC visits with 100+ IFA tablets/ Syrups consumed at least 1 TT) in Kerala is 70.3 percent. 84.6 percent of women had 2+ TT injections against 75.6 percent who had consumed 100+ IFA tablets/Syrups. The proportion of women who had received full ANC is highest in Kozhikode district 84 percent (Table 3.6). District wise variation in coverage of full ANC is shown in the Map 1.

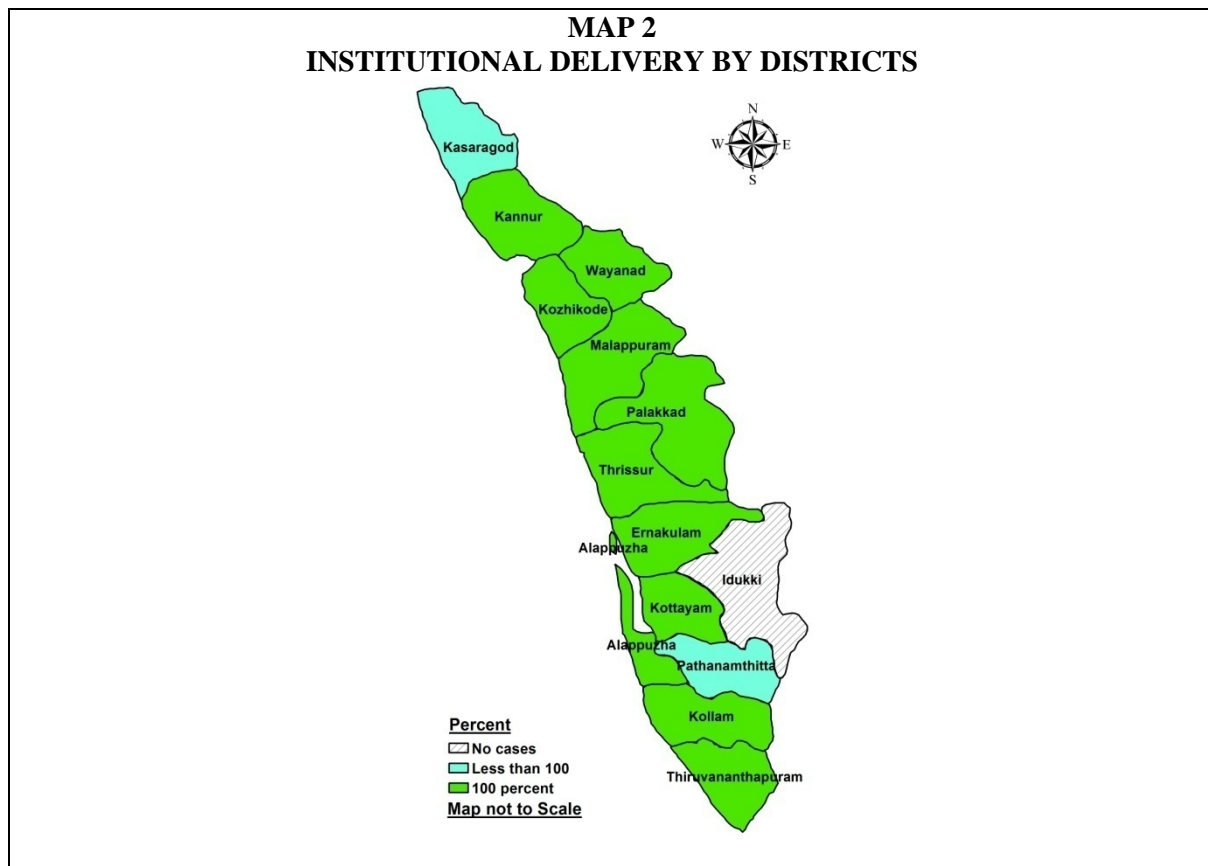


6.2 Institutional Delivery

In Kerala, the institutional delivery increased from 97 percent in DLHS-1 (1998-99) to 98 percent in DLHS-2 (2002-04) to 99 percent in DLHS-3 (2007-08) and it touch to 100 percent in DLHS-4 (2012-13). The institutional delivery in Kerala is presented in the figure 8.



Almost 100 percent of deliveries in the three years period preceding the survey which resulted either in still or live births were institutional (either in government/private health facilities), (Table 3.7). The highest proportion of institutional deliveries is observed for women with 10 or more years of education (99.8%). In most of the districts, the proportion of the institutional deliveries is almost 100 percent (Table 3.9). The home delivery cases which are assisted by skilled health persons are just 0.1 percent in Kerala. Out of the 14 districts, in the state almost 12 districts are having the institutional delivery 100 percent and in remaining 2 districts it varies from 94 to 99 percent respectively. District-wise variations in institutional delivery is presented in Map 2.



In Kerala, More than tow third of the institutional deliveries were use jeep/car/van for transportation and just 1.3 percent used Ambulance. Mean transportation cost for institutional deliveries reported of Rs.987. The mean delivery cost is Rs. 6,362 in government health facilities and Rs.17,813 in private health facilities. There is a large variation in institutional delivery cost between government and private health facilities.

The JSY financial assistance for institutional delivery had benefitted to 21.5 percent (Table 3.8). The highest benefitted women for institutional delivery are those in the age group of 20-24 years (23%), rural residents (22%), Hindu (27%) and scheduled tribes (41%).

6.3 Complications during Pregnancy, Delivery and Post-delivery Period

Women who either do not take ANC or had an incomplete course of ANC are exposed to the risk of maternal death. In Kerala as much as 45.1 percent women who had still/live births in the three years preceding the survey had some complications during pregnancy The proportion of women who had pregnancy complications ranges from 23.9 percent in Kasaragod to 62.5 percent in Kozhikode (Table 3.6). Out of those women who had reported complication during pregnancy 67.3 percent had sought treatment for pregnancy complications in Kerala (Table 3.13).

Around 16 percent of women in Kerala had faced at least one delivery complication. The main type of delivery complications experienced by women who had still or live births in the three years period preceding the survey are mainly obstructed labour (33.6%), premature labour (33.3%), prolong labour (25.4%), excessive bleeding (15.7%) and convulsion or high blood pressure (17.5%). Delivery complications are higher among women who had a caesarean delivery (25.2%) as compared to normal delivery (9.7%) (Table 3.10). In all the districts of Kerala, Palakkad district has the highest proportion of women who had a delivery complication (80.0%) and this proportion is lowest 6 percent in Thiruvananthapuram (Table 3.14).

Women in Kerala reported low post-delivery complications (9%) (Table 3.11). The major problem during post delivery period is high fever (38.5%), lower abdominal pain (44.6%) and followed by excessive bleeding 16.7 percent. Among the women who had post-delivery complications 76.3 percent had sought treatment (Table 3.15). In all the districts, women sought treatment for post delivery complication with highest in districts Kannur, Wayanand and Kottayam (100%).

7. CHILD HEALTH AND IMMUNIZATION

To promote child survival and prevent infant mortality, NHM/NRHM envisages new born care, breastfeeding initiation, infant food supplementation at the right time and a complete package of routine immunization for children. Eight nine percent of newborns during the three year period preceding the survey were examined within 24 hours of birth (Table 4.1). More newborns to women from urban resident, with 10 or more year of schooling and belonging to Christians have received newborn care within 24 hours compared to other background characteristics. In Kerala women who availed newborn care from government health facility constitute 43 percent as compared to private 57 percent. There is variation in

rural areas in government health facilities (42%) and private health facilities 58 percent, in urban area also found variation in government 45 percent and private 55 percent. Majority of women of Scheduled caste are going for check-up in government health facilities 75 percent than the private health facilities 25 percent. Other backward classes and even others used private health facilities 59 & 66 percent respectively than government health facility 41 & 34 percent respectively (Table 4.1).

Majority (93%) of children under age 3 years, born after January 1, 2008 were fed with colostrums. There is not much variation has been found across selected background characteristics of women (Table 4.2). Trissur district has the highest percentage of children who fed with colostrums/Khees (99%) and lowest (82 %) in Kasaragod district (Table 4.5). In Kerala 74 percent of women had initiated breastfeeding within one hour of birth of the child. Among districts the women in Malappuram has been least practiced by the initiation of breastfeeding within one hour of birth (60%) and most widely practiced in Thiruvantapuram district (91%). However, 93 percent of women in Kerala initiated breastfeeding within 24 hours of birth of their children, ranging from 85 percent in Kasaragod to 98 percent in Thrissur and Ernakulam (Table 4.5). The proportion of women who initiated breastfeeding within one hour, within 24 hours and after 24 hours of birth to children born in the three year period preceding the survey are 74, 93 and 1.3 percent respectively.

Duration of exclusive breast feeding has been highly practiced among less than 2 to 5 months old infant as it is ranges from 57 - 71 percent. Duration of exclusive breastfeeding has been decline with increasing age of children less than 3 years. About 21 percent children of age 6-9 months are given other fluids along with 30 percent semi solid and 31 percent solid food (Table 4.3).

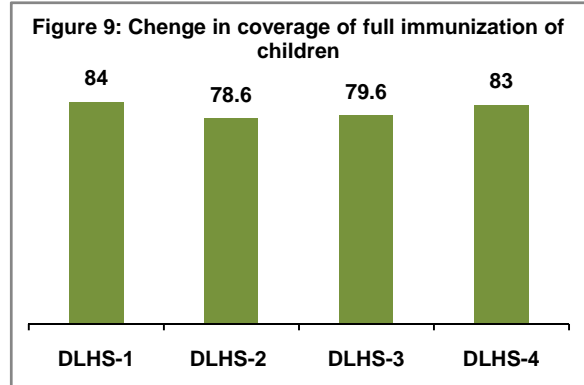
7.1 Immunization Coverage of Children (aged 12-23 Months)

The immunization coverage of children (aged 12-23 months) has been recorded either from vaccination card or by questioning to the mother in case the card was not available. Fifty four percent of children's immunization details was recorded from the vaccination card (Table 4.6). The coverage of full immunization was 83 percent among the children aged 12-23 months. Full immunization comprises of one dose of BCG, three doses of DPT & Polio and one dose of measles vaccines (Table 4.6). In Kerala the coverage of BCG and measles are 98 and 92 percent respectively.

In the Districts of Kerala, the coverage of full immunization was highest in Thiruvantapuram (96%), Alappuzha (94%) and lowest in Kasaragod with 40 percent. Out of 14 Districts of Kerala, 8 districts covered full immunization less than 83 percent whereas the remaining 6 districts covered more or equal to 83 percent (Table 4.7). Coverage of BCG and Polio is quite high all the districts, and the little bit fluctuation is with measles vaccine. The key to improvement in full immunization coverage is to monitor drop out at any stage of vaccination before completion of full course of immunization. Percentages of children aged 12-23 months who received full immunization was maximum by higher education of women.

One more noticeable feature in Kerala is that coverage of full immunization is not much affected by place of residence. It is 82 percent in rural areas and 83 percent in urban areas.

The coverage of full immunization was slightly declined from DLHS-1 to DLHS-2 (84 to 78.6%) but it had increased by one percent in DLHS-3 (79.6) and further increased in DLHS-4 (83%) is depicted in Figure 9.

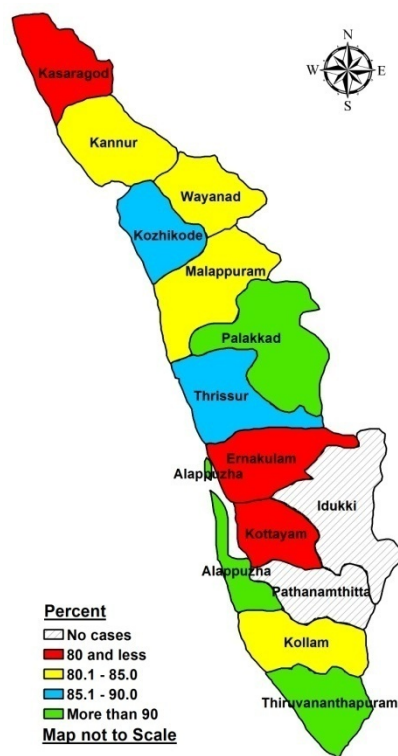


In regards to place of vaccination, children received vaccination from a Sub-Health Centre (10%) and from other government health facility (51%) (Table 4.8). District-wise variation in coverage of full Immunization is depicted spatially in the Map 3.

Eighty one percent children received at least one dose of Vitamin-A while 28 percent children are avail by 3 to 5 doses of vitamin-A in Kerala (Table 4.9). In Wayanad district 97 percent of children aged 12-35 months received at least one dose of Vitamin-A, while Malappuram district have minimum percentage of doses of Vitamin-A (62%). Besides this Kannur, Kottayam, Alappuzha, Kollam and Thiruvantanthapuram districts of Kerala have coverage of Vitamin-A is more than 84 percent (Table 4.7). There is no much variation in background characteristics of the children who had received at least one dose of Vitamin-A in Kerala.

Majority (89%) of children in Kerala had received Hepatitis-B vaccination. There is little bit difference in use of Hepatitis-B injection has been found by age of child and place of residence. But lower birth order and mother's higher education is more responsive to received Hepatitis-B injection than other characteristics (Table 4.9).

**MAP 3
FULL IMMUNIZATION COVERAGE OF CHILDREN (AGED 12-23 MONTHS) BY
DISTRICTS**



7.2 Management of Diarrhoea and Acute Respiratory Infection (ARI)

The information on knowledge of diarrhoea and ARI management was collected from women respondents as part of assessment of child care knowledge. Ninety percent of women having knowledge of diarrhoea management (Table 4.10). The common practice followed by women for treatment of diarrhoea is to give ORS (73%), salt and sugar solution (55%), plenty of fluids (36%), continue normal food (22%) and continue breastfeeding (19%) (Table 4.10). In Kerala 59 percent children who suffered from diarrhoea were treated by ORS, while 76 percent of them were given some other treatment (Table 4.11). Majority of children who had suffered from diarrhoea are treated in a private health facility (54%) compare to government health facility (40%) (Table 4.11).

In Kerala 68 percent of women are aware of danger signs of ARI. Regarding specific symptoms of ARI 43 percent of women know that difficulty in breathing, 37 percent pain in chest and 24 percent wheezing/whistling, 22 percent rapid breathing and 43 percent women having knowledge of others signs of ARI (Table 4.12).

Seven percent children had suffered from ARI in the last two weeks prior to the survey. Out of total children suffered from ARI, 89 percent children had sought advice/treatment. Majority (57%) of children had sought treatment at private health facility and 44 percent sought treatment at government health facility (Table 4.12).

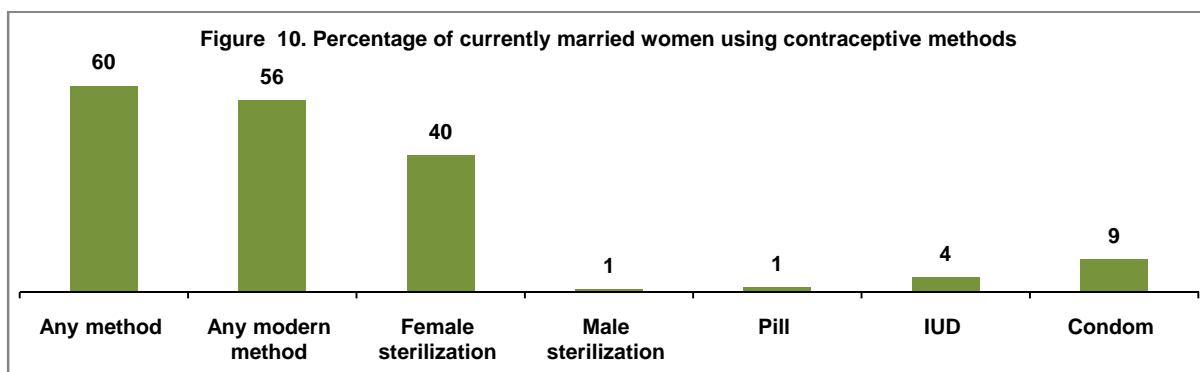
Highest proportion, 8 percent of last or last but one child born after January 1, 2008 in Malappuram districts had diarrhoea in the last two weeks prior to the survey and 69 percent of

them have sought advice/treatment for diarrhea (Table 4.13). In Thiruvananthapuram about 0.9 percent of children of the same cohort had diarrhea and 63 percent were sought treatment. The prevalence of ARI among children varies from 2.4 percent in Kasaragod, Kannur, and Thiruvananthapuram district to 12 percent in Kozhikode district. The treatment seeking for ARI or fever is 89 percent and above are in the districts Kozhikode, Malappuram, Kollam and Thiruvananthapuram (Table 4.13).

8. FAMILY PLANNING AND CONTRACEPTIVE USE

Family planning program in India has undergone many changes in terms of strategies, focus and objectives. Post ICPD 1996 program oriented itself in human right framework and planned to reduce unmet need for family planning. Strategies under NRHM were to create demand for family planning through enhancing child survival and improving maternal health. There is awareness to the extent of 83 percent about female sterilization but male sterilization is known to only 59 percent of the currently married women and condom is known to 67 percent of women. More than 66 percent of the women know about IUD. However new methods on menu of Indian program/or in market like female condom is known only 23 percent among currently married women. Female sterilization is the predominant limiting method ever being used by 39.5 percent of currently married women in 15-49 years and popular male oriented spacing or temporary method is condom ever being used by 24 percent of husbands of currently married women. IUD and Oral pills are being ever used by 10 and 4.3 percent of women respectively. Among the currently married women the proportion ever used any modern method is 66.1 percent, while 72 percent of women ever used any method. There is no substantial rural-urban difference in the ever use of any modern contraceptive use. However, female sterilization among rural women is 38.7 percent which is comparatively less than among urban women 40.4 percent.

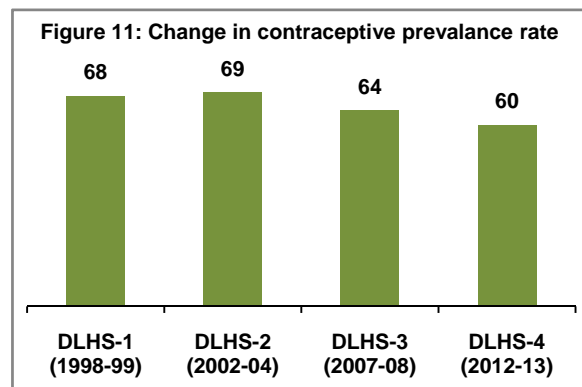
The status of current contraceptive use among currently married women or their husband shows that 56 percent of them were using one or other modern method mostly female sterilization (40%) at the time of survey. Condom is in use by 9 percent of currently married women's husbands, increased marginally from 4 percent in DLHS-3. The female sterilizations is low among non-literate women (13%) as compared to women educated for at least 10 or more years of schooling (36%).



Female sterilization regardless of family size is more among currently married women who have one or more living sons compared to those with no living son. Nearly 4 percent of women in 20-24 years, nearly 18 percent of women in 25-29 years and about 38 percent of

women in 30-34 years have been found to have undergone female sterilization at the time of survey. The mean age at the time of sterilization is 29 years in Kerala. Among the currently married women, proportion continuing IUD use for less than 2, 2-3 and more than 3 years are respectively 7, 8 and 31 percent respectively. Oral pill users continuing for more than 6 months constitute 32 percent of the total pill users and 33 percent of condom users are continuing use of condom for more than 6 months. It must be noted that the use of traditional methods has declined in Kerala probably being replaced by more effective method of contraception.

Contraceptive prevalence rate (CPR) for any modern method is more than 40 percent in all the districts except Kasargod (20%). Highest CPR for any modern method is 68 percent in Pathanamthitta district and lowest is 20 percent in Kasaragod district. The prevalence of female sterilization in eight districts are above the state average of 39.7 percent. The contrast in the source of terminal and temporary methods of contraceptive is that 64



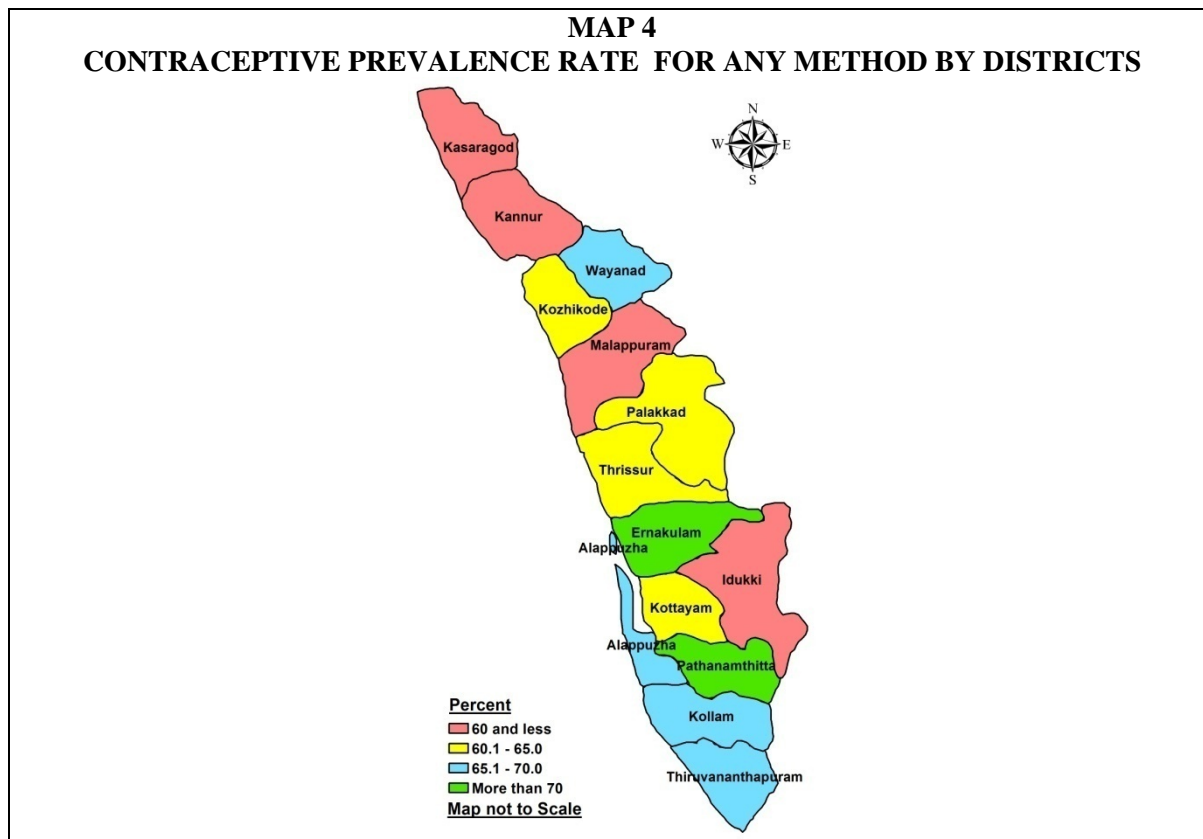
percent of currently married women have accessed government health facilities for limiting methods and 18.5 percent have availed government health facility service for spacing methods. The high and low utilization rate of government health facility for limiting and spacing methods is true for all the districts of Kerala. Nearly 33 percent of sterilized women and wives of sterilized men got monetary compensation for sterilization, with variation of 15 percent in Kasaragod and Idukki and 45 percent in Pathanamthitta district. As many as in 77 percent of sterilization cases monetary compensation is given at the time of discharge from the health facility.

Nearly 15 percent of sterilized women, 14 and 21 percent, users of IUD and Pills were informed about the side effects before the adoption and 4, 6 and 4 percents of women using the aforesaid methods have experienced side effect or health problem. Among the currently married women who have discontinued contraception the main reasons cited is related to Ifertility, side effect and other problems are 36, 16 and 48 percent respectively. For the younger women in 15-29 years reasons for discontinuation of contraception are mostly fertility related.

About 8 percent of currently married women aged 15-49 years, not using any contraception intend to adopt limiting method and 3.2 percent spacing method in future. Those who intend to adopt either limiting or spacing methods in future within 12 months, after 12 months and still undecided about the timing constitute 23.6, 20.3 and 56.1 percent respectively.

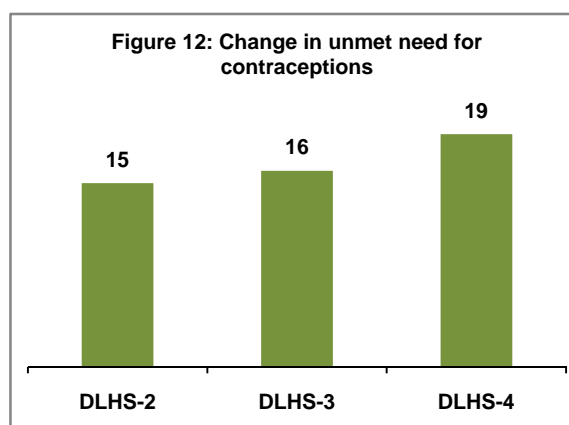
Unmet need for spacing includes the proportion of currently married women who are neither in menopause nor had hysterectomy nor are currently pregnant and who want more children after two years or later and are currently not using any family planning method. The women who are not sure about whether and when to have next child are also included in unmet need for spacing. In Kerala 11.6 percent of currently married women have unmet need for spacing.

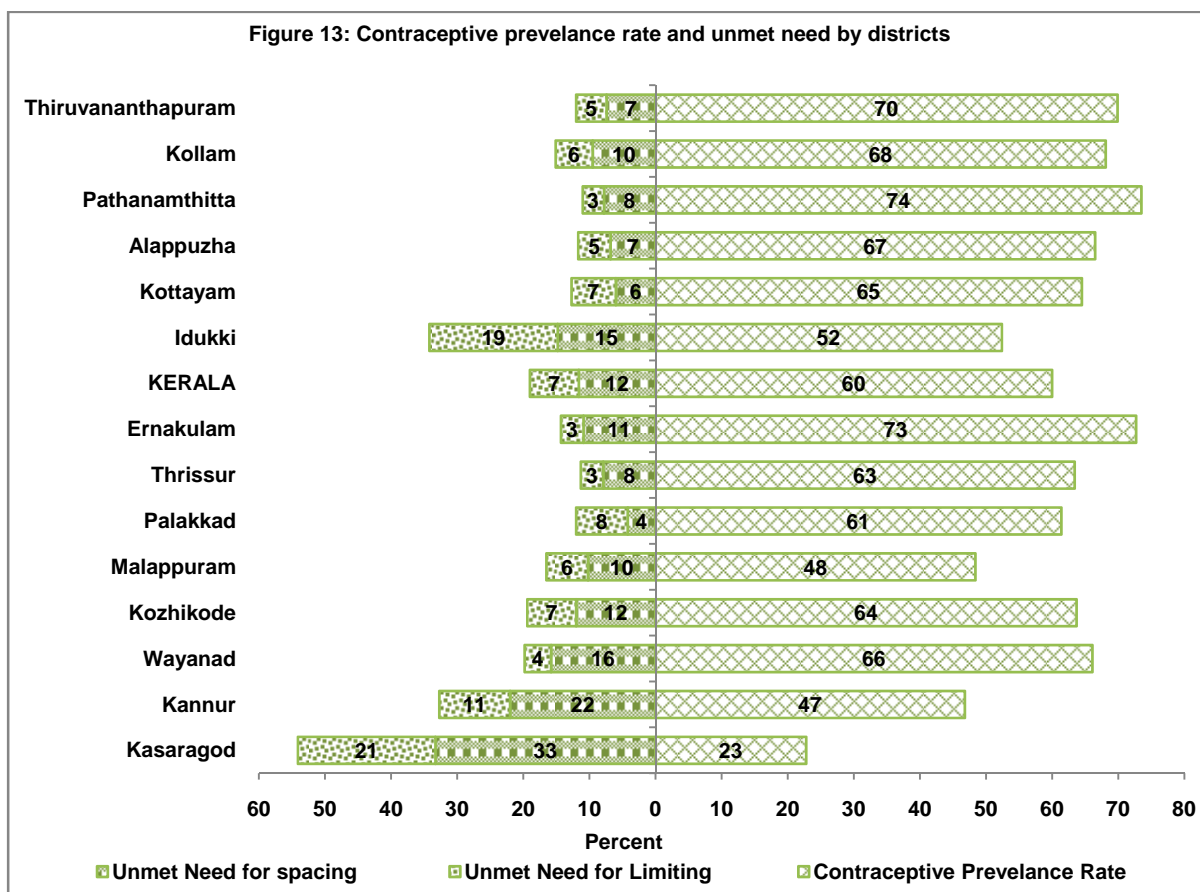
Unmet need for spacing is 18.4 percent for women with one living child and 39, 25, 19 percents for women aged 15-19, 20-24 and 25-29. On the other hand, currently married women who are still have physiologically potential for conceiving and want no more children are categorized as having unmet need for limiting. The unmet need of contraceptive for limiting is about 7.4 percent in the state.



Currently married women with unmet need for spacing is highest in Kasaragod district (33.3%) and lowest in Palakkad (4%). On the other hand unmet need for limiting is also highest in Kasaragod (20.8%) and lowest is in Pathanamthitta (3.2%).

The total unmet need of contraceptive has been almost constant in DLHS-2 to DLHS-3. It was 15 percent in 2002-04, 16 percent in 2007-08. In 2012-13 it seems unmet need has marginally increased to 19 percent. This is basically due to higher unmet need for spacing among the younger cohort, a sign of decline in the desire for large family size. District wise contraceptive prevalence rate and unmet need are presented in figure 13.





9. REPRODUCTIVE HEALTH

Reproductive health addresses the issues of reproductive processes, functions and system at all stages of life. Reproductive health is the ability for the people to have a responsible, satisfying and safe sex life and have the capability to reproduce and the freedom to decide if when and how often to do so. This means that the right of men and women to be informed of and to have access to safe, effective, affordable and acceptable methods of fertility regulation of their choice and the right of access to appropriate health care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant. The burden of diseases among women is due to reproductive function and system. The five main causes of the disease burden among women in developing countries are maternal, Sexually transmitted disease, tuberculosis, HIV infection, Depressive disorders. DLHS-4 has obtained information on awareness and prevalence of RTI/STI, HIV/AIDS, information and ways to avoid AIDS.

9.1 Menstruation Related Problems

The women reported to have menstruation related problems and have specific symptoms during three months preceding the survey by background characteristics is given in Table 6.1. Menstrual problems are experienced by 8.8 percent of women in Kerala. The problems of painful periods (44%) and irregular period (35.3%) are the main menstrual problems experienced by women. The other problems reported are frequent or short periods (10.3%), blood clots/excessive bleeding (6%) scanty bleeding (6.6%). The differentials in menstruation

related problems are found by age, place of residences and education of both husband and the women. Women who had consummated their marriage below 18 years of age have had menstruation related problems (8.6%) and 8.5 percent of women marriage above 18 years. The menstrual related problems also increased with duration of marriage. More than 8 percent of women had reported to have menstrual problems whose marital duration was 10-14 years and was more than 15 years. The menstrual related problems did not differ by caste and religion except Christian (2.2%).

9.2 Awareness of RTI/STI

The awareness of RTI/STI was obtained from ever married women. The women who are aware about RTI/STI were further asked on the modes of transmission and symptoms of the disease. Table 6.2 shows the percentage of women who have heard of RTI/STI by background characteristics. Around forty eight percent of women in Kerala had heard of RTI/STI. The proportion of women who were aware of RTI/STI was (46%) in urban areas and in rural areas (51%). Awareness of RTI/STI was lower among young women, women with low age at consummation of marriage, non-literate and women from Scheduled Caste. Awareness of RTI/STI increases with education of women. Fifty percent of women who had completed ten or more years of schooling were aware about RTI/STI.

Television is an important source of knowledge about RTI/STI, 88 percent women reported they had heard about RTI/STI from TV. Another major important sources of information about RTI/STI are cinema (73%), print media (40%), community leaders' meeting (49%). The sources of knowledge about RTI/STI differ by education of women and husband.

9.3 Knowledge Regarding Mode of Transmission of RTI/STI

The knowledge regarding mode of transmission of RTI/STI was asked to women who had heard of RTI/STI (Table 6.3). Thirty percent of women reported unsafe delivery, unsafe abortion (34%), unsafe sex with persons who have many partners (76%), unsafe sex with sex workers (46%) as a mode of transmission of RTI/STI. More than 32 percent women reported unsafe IUD insertion and unsafe sex with homosexuals were also reported by women as mode of the transmission of RTI/STI. The knowledge varies by residence, age at consummation, education of women and education of the husband.

Table 6.4 shows the common symptoms of reproductive tract infections/sexually transmitted infections among women. About 4 percent of ever married women have reported having symptoms related RTIs/STIs and experienced abnormal vaginal discharge. The women reported itching or irritation over vulva (3.5%), pain in lower abdomen not related to menses (3%). About 47 percent of women discussed the RTI/STI related problems with their husband or partner (Table 6.5). The women mostly sought treatment for RTI/STI (53%) from private health facility and 45 percent of women sought treatment in government health facility.

The women who have heard about RTI/STI varies from 27 percent in Kasaragod district to 73 percent in Kollam district. The districts where more than half of the women have heard about RTI/STI are, Kannur, Kozhikode, Thrissur, Kottayam, Alappuzha, Pathanamthitta and Kollam districts. Women reporting any abnormal vaginal discharge varied from 0.8 percent in

Thiruvananthapuram district to 10 percent in Pathnamthitta district. More than fifty percent of the women in 3 districts except Kannur, Palakkad, Ernakulam, Pathanamthitta, Kollam and Alappuzha had sought treatment for any RTIs/STIs including abnormal discharge.

9.4 Awareness of HIV/AIDS

The awareness on HIV/AIDS was asked to ever-married women age 15-49 years. Three fourth of the women had heard about HIV/AIDS. Television is the one of the major source of knowledge on HIV/AIDS. Fifty-eight percent of women reported that TV (87%) is the main source of knowledge on HIV/AIDS, cinema (76%), followed by print media (44%), Community's leaders meetings (48%), school adult education programs (25%), health personal (26%), husband (8%) and radio (34%) (Table 6.7). More than 73 percent of the women reported unsafe sex with person having many partners, transfusion of infected blood (61%) and sharing of injection/needle (46%) as mode of transmission of HIV/AIDS (Table 6.8). The reported modes of transmission of HIV/AIDS differ by residence, education of women and husband.

Table 6.9 shows knowledge of methods of preventing HIV. Seventy one percent of women were of the view that HIV/AIDS can be prevented by avoiding risks of getting infected through blood. About more than one-third of women were of the opinion that by using condom correctly during each sexual intercourse and having sex with one uninfected partner can prevent HIV/AIDS. The differences in the preventing HIV/AIDS were found by residence, age at consummation of marriage, education of women and husband. The misconception about transmission of HIV/AIDS from mosquito, flea or bedbug was reported by 9 percent of women. The other misconception was sharing food (2%), stepping on someone's urine/stool, sharing clothes (2%), hugging and shaking hand (2%) respectively.

The women who had heard about HIV/AIDS were asked the place to test the HIV/AIDS (Table 6.11). More than fifty three percent of women know the place where the HIV/AIDS could be tested. The differences in the place of test were found by residence, age at consummation of marriage, education of women and husband. Thirty five percent of women reported government hospital/dispensary and 39 percent reported private hospital/clinic as a place where people can go for HIV/AIDS test. The women who have heard about HIV/AIDS were asked if they had gone for the test. Fifty-four percent of women had undergone for HIV/AIDS test (Table 6.12).

10. PERSONAL HABITS

Personal habits of adults (age 15 and above) such as consumption or abuse of tobacco and alcohol, and eating unhealthy foods are usually viewed from the lens of risk-taking behaviour due to their adverse health outcomes. The emerging morbidity pattern from the personal habits is a crucial predictor of current as well as future health status of a population. It has become increasingly important to understand and examine the impact, these habits have on overall health status in India in the context of the epidemiologic and demographic transitions. Besides, the treatment seeking behaviours for these illnesses reflects the availability, accessibility, as well as quality of health care services. Studies have shown evidences of correlation between the shift towards non-communicable diseases (NCD) and increasing risk-

taking behaviours among adult individuals. For instance, excessive drinking is linked to acute and chronic physical health problems, particularly those related to the heart, blood circulation, respiratory, diabetes, mental health, cancer, crime and disorder, domestic violence, unprotected sex, unintended pregnancy, etc., (Room, Baboor, and Rehm, (2005). Alcohol consumption contributes to many diseases and is now the fifth leading risk-factor for the global disease (Lim, Vos, Flaxman, et al, 2012). Also, the economic burden of these NCD is equally serious - i.e., a 10 percent rise in NCDs is found associated with 1 percent lower rates of annual economic growth. However, programmes to combat NCDs were tremendously underfunded, and a low priority policy, as it is not part of the millennium development goals (MDG).

The WHO has recently stated that NCD such as cancer, diabetes, and hypertension are largest causes of death, and by 2020 cardiovascular diseases will be the largest cause of death and disability, including developing countries like India (WHO 2010). In 2012, the UN conference on sustainable development (Rio+20), referred to non-communicable diseases as “one of the major challenges for sustainable development in the 21st century”, emphasising the fundamental link between health and development. In the same year, the World Health Assembly endorsed an important new health goal: to reduce avoidable mortality from non-communicable diseases (NCDs) by 25% by 2025 (the 25 by 25 goal). The future threat to health is from NCDs, as the world also urbanizes faster than before.

Since 1990s India’s overall health status has shown tremendous improvement, which signals a change and shift in pattern of morbidity and causes of death to non-communicable diseases (NCD), despite still substantial contribution of communicable diseases. The NCD accounted for 42 percent of all deaths in India (56% in urban areas and 40% in rural areas), as compared to communicable diseases with 38 percent (RGI, 2003). Estimated prevalence of diabetes, hypertension, ischemic heart diseases (IHD) and stroke is 62.5, 159.5, 37.0 and 1.54 per 1000 respectively. In the National Health Policy (NHP), the Government of India (GOI) has committed to eradicating infectious illnesses and reducing the mortality associated with such illness (MOHFW, 2002). One of the goals of the NHP 2002 is a 50 percent reduction of deaths from TB, malaria, and other vector and water borne diseases by the year 2010.

This chapter presents findings on the personal risk-taking habits, acute and chronic (infectious and non-communicable) diseases, and their treatment-seeking behaviours.

10.1 Tobacco and Alcohol Use in India

In India, information about tobacco and alcohol use among adults has been collected by various household surveys such as the National Sample Survey (NSSO) (50th round, 1998), NFHS (1992-93, 1998-99, and 2005-06), DLHS (2007-08), the Global Adult Tobacco Survey-India (GATS-India, 2009-10), etc., each survey with specific objectives and methodology. According to GATS India, 35 percent of adults in India age 15 and over use tobacco in some form or the other, with higher use among adults in most North eastern region (39-67%), east (36-50%), and central (40-53%) (IIPS & MoH&FW, 2010).

In India, there are varieties of tobacco products and its use is also very diverse. The most common ways of tobacco use are the smoking and oral (smokeless) variety. Dominant among

the smoking form include cigarettes and bidis, while in case of the oral use of smokeless tobacco, chewing or applying to the teeth or gums (scented/unscented, with paan) are the popular forms, which has also become very popular in most parts of the country. The DLHS-4 also collects information related to tobacco and alcohol usage directly from among the eligible adults (women age 15-49 and men age 15-54).

In case of alcohol consumption, household surveys in India show that alcohol use among adults, both men and women, is not uncommon, but the use is found much lesser than tobacco use. Alcohol consumption is higher among men than females. Study in India indicated prevalence of current use of alcohol ranged from about 7 percent in Gujarat (state officially under prohibition) to a very high 75 percent in Arunachal Pradesh, and its consumption among women exceeded 5 percent only in the Northeastern region. DLHS-4 information on alcohol use by adult men and women comes from a substantial number of respondents (17,631 men and 22,698 women).

10.2 Tobacco Use in Kerala

As shown in Table 7.1, overall 13 percent of adults in Kerala use any kind of tobacco in one way or the other. However, tobacco use varies across the state by age, residence, education, region, etc. The survey clearly indicates that tobacco use is highest and more likely among men (27%), older persons age 35 plus (around 15%), illiterates (18%), rural residents (14%), and among schedule caste and tribes (about 19% each), etc.

In Kerala, the adults are using more of the smoking form (11%) as compared to the oral form (smokeless variety) of tobacco (6%). Use of smoke tobacco is higher among men (24%) as compared with females (below 1%), more likely to be higher among the older adults aged 35 and above (12-15%), and those with lesser education, and also among the scheduled caste (14%).

In general, it is observed that in Kerala use of tobacco among adults increases with age, but in contrast, declines with increase in educational status. The pattern of using tobacco among adults also differs hugely and shows an interesting scenario across the districts in Kerala. Of the 14 districts in the state, two districts, namely Kozhikode and Kottayam stand out as lower use of tobacco in the state (Table 7.4). Reporting of use of oral or smokeless form is highest in Pathanamthitta (19%), followed by Palakkad (18%). Other districts in which the proportion of adults using oral form of tobacco is over 10 percent are Malappuram and Idukki. In case of smoking form of tobacco the use among adults ranges from 5 percent in Kannur and Kottayam to 23 percent in Pathanamthitta. Other districts in which at least 10 percent of adults are likely to smoke are Malappuram, Palakkad, Ernakulam, Idukki, and Alappuzha.

The use of tobacco (all forms) among men is moderately high in Kerala (11% for oral or smokeless and 24% for smoking). It is interesting to note that both forms of tobacco use is the lowest among teenagers (around 2% each), but increases sharply from age 20 onwards (among youth) to older ages. Smokeless tobacco use is more common among men in rural areas than urban males, although the urban-rural gap is not so wide. Among men also, age and education emerge as important factors. The older males say age 30 years and above (12-17%) more likely to use smokeless tobacco products than those age less than 20 (around 2%).

Smoking form is higher among men aged 30 and above (26-32%), lesser education (26-27%), Christians (26%) and scheduled caste (30%).

In Kerala, strictly speaking, smoking form of tobacco is used widely by men (about 24%). However, in rural areas the proportion of non-smoke users (12%) is higher by about 2 percent than urban males (Table 7.2). About 7 percent of adult men use tobacco with paan, and below 1 percent with guthka/paan masala. Use of paan with tobacco among men is higher in urban areas (7%), while use of guthka/paan masala with tobacco is higher in rural areas (Table 7.5). Around 4 percent men use other forms of tobacco which is higher in rural areas than urban areas. About 11 percent of men are usual smokers (smoke at least once a day) in Kerala, while 13 percent are occasional smokers (Table 7.6).

Generally, use of tobacco is found to be very less among women, more so when compared with men. In Kerala, a small proportion of adult women (2%) reported using any kind of tobacco (Table 7.1). Among the women tobacco users, while only about 0.6 percent smoke, a similar proportion of them (2%) use the oral form or chew tobacco (Table 7.3).

The pattern of tobacco use observed among women is not similar to that found among men. For instance, majority of women tobacco users prefer the non-smoke form and they belong to rural areas, as compared with urban women. Just below 1 percent of women in rural and urban areas smoke. As presented in Tables 7.3, women tobacco users are mostly those with less education. Clearly, age and education play an important role in influencing such personal habits. Among those women who use non-smoke form/chew tobacco, about 1 percent use betel nut or paan (Table 7.5). Among women who smoke, just about 0.3 percent are usual smokers (smoke at least once a day) (Table 7.6).

10.3 Use of Alcohol in Kerala

Household surveys in India show that alcohol use among adults, both men and women, is not uncommon, but the use is found much lesser than tobacco use. Alcohol consumption is higher among men than women. Study in India indicated the prevalence of current use of alcohol ranged from about 7 percent in Gujarat (state officially under prohibition) to a very high 75 percent in Arunachal Pradesh, and its consumption among women exceeded 5 percent only in the Northeastern region. DLHS-4 information on alcohol use by adult men and women comes from a substantial number of respondents (17,631 men and 22,698 women).

As presented in Table 7.1, in Kerala 13 percent of adults consume alcohol. In the state, the level of consumption is found much higher among men (30%), adults aged above 35 (14-18%), people with 10 or more years of education (14%) and highest among scheduled caste (18%). Unlike use of tobacco, education does not make much impact on alcohol use as an important factor. Interestingly, use of alcohol is higher among more educated persons, as compared to the illiterates but the proportions do not differ drastically. The level of alcohol consumption by religious affiliation shows that the least consumption is among 'Others' (5%) and highest among Christians (17%).

In Kerala, alcohol consumption across the districts shows that of the 14 districts, only in 6 districts the level is less than 10 percent (Table 7.4). The prevalence of alcohol use across the

state ranges from 7 percent in Kozhikode to about 25 percent in Pathanamthitta. Consumption of alcohol is found high in districts such as Idukki (22%), Malappuram (19%) and Palakkad, Ernakulam and Alappuzha (around 18% each). Districts with less than 10 percent of adults consuming alcohol are Kasaragod, Kannur, Wayanad, Kozhikode, Kottayam, and Kollam.

In Kerala, consumption of alcohol is found more concentrated among males (30%), as compared with 0.8 percent among females (Table 7.2). Men who are more likely to consume alcohol are those in their 30's and 40's (30-40%), with higher education (above 30%), Christians (36%) and scheduled caste (39%). The reporting of consumption of alcohol is seen among the teenagers (3%). It is interesting to note that almost equal proportion of men in both rural and urban areas consume alcohol (around 30% each). Around 11 percent men are usual drinkers, while about 20 percent are occasional drinkers (Table 7.7)

Only about 1 percent of adult females reported consuming alcohol in Kerala (Table 7.3). The consumption of alcohol increases by age, with higher intake among older females age 35 and above (1%). Women who reported consumption of alcohol are those non-literate (2%), and belonging to scheduled tribe (4%).

11. MORBIDITY STATUS

In DLHS-4, for the first time, information on morbidity status of the household members was collected from the household respondent. The main objective is to get a somewhat fair idea about the prevalence of both acute illnesses (suffered for a week) and chronic illnesses (for a month or more), including disability (current) and injury (in last one year), suffered by any household member prior to the survey. Respondents were asked about occurrences of such illnesses among the household members, and to name the illness, including those diagnosed. Further, in case of occurrence of any disability, injury or illness, respondents were also asked about the nature of care sought, the type and place of health facility where treatment was done.

Depending on the nature and duration, all the illnesses or diseases are classified as (a) acute, and (b) chronic. Acute illness refers to those that occur suddenly with severe symptoms for short period during the last 15 days prior to the survey. Example includes diarrhoea, dysentery, acute respiratory tract infection (ARI), jaundice with fever, fever with chill/rigors/malaria, fever with rash, reproductive tract infections (RTI), etc. In case of chronic illness, those symptoms that persist for longer than one month in the past one year prior to the survey. The list provided includes both symptoms and associated diseases categories.

11.1 Disability and Injury

From each of the selected household, DLHS-4 collected information from the head of the household or adult respondent on any injury and on five specific disabilities that household members may have suffered from such as mental, visual, hearing, speech, and locomotor. As it is difficult to capture the type of injury and its severity from lay reporting, assessment is made indirectly from the type and duration of hospitalization required for the injury.

As presented in Table 7.8, in Kerala about 2 percent of the sample population reported suffering from any injury. The prevalence of any injury is a little higher in the rural areas (2.4%) compared to urban areas (1.8%). The prevalence of any injury (about 2% each) shows no variation between males and females in the state.

About 5 percent of the injuries reported were treated in intensive care. However, 20 percent of injuries were treated as in-patient with stay for less than a week, and 11 percent reported they treated as in-patient with stay for more than 2 weeks. Interestingly, in Kerala, about 51 percent of injuries were treated using other form of treatments, i.e. other than intensive care or staying/in-patient, such as out-patient, traditional healers, or home remedies. More of females go for other treatments (55%) as compared with males, while men are more likely to be treated in intensive care or as in-patient with stay less than 1 week. A higher proportion of injuries reported in urban areas than rural areas were treated using 'other' treatments (Table 7.10).

In Kerala, among the four disabilities, the prevalence of visual disability is a little higher (0.5%) as compared to other disabilities. Mental, speech and hearing disabilities are the other disabilities reported in Kerala (0.4%, 0.1% & 0.2% respectively). The prevalence of mental and visual disability is higher in rural areas (Table 7.9).

11.2 Reported Illnesses: Acute and Chronic

In order to assess the prevalence of illnesses from the selected household level in DLHS-4, the household respondents were first asked if any member of their households had suffered from any illness in the past one month or year. If reported that someone had suffered, more detail of the illness recorded, including main source of treatment. As mentioned earlier, all the illnesses are classified into (a) acute and (b) chronic, based on the nature and duration, and the information is collected from head or any adult member of the household.

Acute Illnesses

The prevalence of acute illness at the household level in Kerala is 8 percent. The differential in the prevalence of acute illness by residence shows little variation, with a much higher rate in the rural areas (9% against 7% in urban areas).

About 8 percent of household members reported suffering from any acute illness in Kerala. Among the prevailing acute illnesses, fever (other than those with rash or jaundice) is reported by nearly 58 percent, followed by fever with rash (10%), diarrhea/dysentery (6%), malaria (5%), and jaundice with fever and acute respiratory tract infection (ARI) (around 3% each). Proportion of persons suffering from 'other' acute illnesses is observed to be around 15 percent. Interestingly, for most of the acute illnesses reported, more men suffered from most acute illnesses than women. Prevalence of acute illnesses is also found higher in rural areas, barring malaria and fever (other type of fever).

Nearly everyone who had suffered from any acute illness sought treatment. Among those who had sought treatment, 55 percent preferred treatment at government facility, mainly in a hospital (36%), followed by a Primary Health Centre (PHC) (10%). About two fifth of those who had acute illnesses got treated in a private facility, mainly in a hospital (24%), followed

by dispensary/clinic (13%). About 4 percent with any acute illnesses were treated at DOTS centre or at home. In Kerala, use of government health facility for treatment of acute illness is quite common even in rural areas (59%), and more or less equally accessed by both males and females.

Chronic Illnesses

Survey results of chronic illnesses described pertain to prevalence, type, and source of treatment by sex and residence. In Kerala, about 7 percent of the households reported a member suffering from chronic illnesses that lasted for over a month in the past one year prior to the survey (Table 7.8). As shown in Table 7.13, reporting by symptoms of chronic illnesses suffered by household members is highest for diseases of the cardiovascular system (14.2%), followed by respiratory system (13.6%) and musculoskeletal system (6.4%). Diseases related to gastrointestinal system and central nervous system account for about 4 percent respectively. Interestingly, reporting of symptoms of chronic diseases other than the twelve identified diseases account for 46 percent.

In Kerala, not much differences observed in the reporting of symptoms of chronic diseases between males and females, except in case of some diseases. For instance, more males reported symptoms related to respiratory system (15% as compared with 12% among females), and cardiovascular system (18% versus 11% by females). In contrast, females reported more of symptoms related to disease of musculoskeletal system (8% compared to 5% among males), goitre (5% against about 1% among males) and 'other' diseases (Table 7.13).

By and large, most chronic illnesses show more or less similar prevalence in both rural and urban areas. However, some of these chronic illnesses show slightly higher prevalence either in rural or urban areas. For instance, urban residents reported more of diseases of musculoskeletal system (7%), goiter (4%), and 'others' (50%) than rural residents. In case of rural areas, much higher reporting related to diseases of respiratory system (15%) cardiovascular system (16%), central nervous system (6%), and eye problem (2%) is observed.

Household respondents were also asked about the nature and source of treatment for chronic illnesses suffered by any of their household member. In Kerala, 87 percent of those who suffered from chronic illnesses have details of diagnosis or treatment. About 9 percent have no details of diagnosis or treatment, and about 4 percent do not seek treatment at all. The proportion with no details of treatment (11%) is more in the rural areas as compared to urban areas (6%). Overall, 85 percent of rural residents and 90 percent of urban residents have details of diagnosis or treatment for the chronic illnesses. It is also observed that both males and females have more or less equal accessibility to health care services for chronic diseases (Table 7.13).

Interestingly, in Kerala, more or less similar pattern for health care services utilization for treatment of chronic illness is observed in both rural and urban areas. Around 50 percent patients suffering from chronic illness sought treatment at private health facilities. A very small proportion sought treatment at home or other health facilities.

Persons who sought treatment for chronic illnesses were also asked about the details of the diagnoses at the facility. In Kerala, diabetes (22%), hypertension and diseases related to heart (14% each) are the most commonly diagnosed chronic illnesses, followed by asthma or chronic respiratory failure (8%). Goitre accounts for about 5 percent of the diagnosed chronic illnesses, and below 1 percent with tuberculosis (TB). As expected, the proportion diagnosed with these chronic illnesses is much higher in urban areas, particularly hypertension, asthma or chronic respiratory failure, and goitre. The results show that more females suffered from hypertension (15% against 12% among males) and goitre (8% against 1%), while men are more suffered from diabetes (24% against 20% among females) and diseases related to heart (19% against 10%).

Contrast to situation in the general population, among the older persons age 60 and above the prevalence of most chronic illnesses is much higher. For instance, about 23 percent of older persons were diagnosed with diabetes, 18 percent with hypertension, 19 percent with diseases related to heart, and about 9 percent with asthma or chronic respiratory failure (Table 7.15). The prevalence of some of these chronic illnesses indicates that higher proportion of older persons in urban areas suffered from diabetes (25% against 21% in rural areas), hypertension (20% as compared with 16% in rural areas), and asthma or chronic respiratory failure (10% as compared with about 8% in rural areas). Similar to the situation in the general population, among the older persons also it is found that more females are diagnosed with hypertension (21% as compared with 15% among males). More of male older persons are diagnosed with diabetes, diseases related to heart, TB, and stroke, which is found to be similar in both urban and rural areas.

11.3 Tuberculosis (TB)

Tuberculosis has re-emerged as a major public health problem in many parts of the world, often as a concomitant illness to HIV/AIDS. Tuberculosis, once known as the ‘White Plague’, is contagious and spreads through droplets that can travel through the air when a person with the infection coughs, talks, or sneezes. Today, TB is a leading cause of death among people who are HIV-positive. Worldwide, an estimated one-third of the nearly 40 million people living with HIV/AIDS are co-infected with TB. In most developing countries, TB would continue to be a serious health threat even in the absence of HIV/AIDS due to the public health challenges posed by poverty, high illiteracy, and poor sanitation. The GOI has stated that ‘In 2005, a total of 97 percent population was covered under the Revised National Tuberculosis Programme. The government allocated Rs. 680 crores for the National Tuberculosis Control Programme (NTCP) in the 10th Plan (DGHS and WHO, 2005).

In Kerala, about 1 percent of the household population diagnosed with TB, which is found higher among males and in rural areas.

NUTRITION AND HEALTH

The DLHS-4 collected data on the nutritional status of children by measuring the height and weight of all children under age five in the selected households. The nutritional status assessment helps to identify sub groups of child population that face increase risk of faltered growth and potential health risks and vulnerabilities. The nutritional status of children in the

survey population is compared with WHO child growth standards, which are based on an international sample of ethnically, culturally and genetically diverse healthy children living under optimum conditions that are conducive to achieving a child's full genetic growth potential (WHO, 2006)¹. These standards can therefore be used to assess nutritional status of children all over the world, regardless of ethnicity, social and economic influence and child feeding practices. Accordingly, three standard indices of physical growth that describe the nutritional status of children are height-for-age (stunting), weight-for-height (wasting) and weight-for-age (underweight). Each of these indices provides different information about growth and body composition that can be used to assess nutritional status.

In DLHS-4, all children listed in the household, who were born in year 2008 or later were eligible for measurement of their height and weight. Thus, height and weight measurements were collected even from those children whose mothers may not have been interviewed in the survey. For this purpose, all the survey team carried with them two scales and two height boards, which were standardized in all aspects and calibrated for accuracy. Recumbent length was recorded for children under age two years. Standing height was measured for all other children. Table 8.1 represents percentage of children below age five classified as malnourished according to three anthropometric indices of nutritional status (height for age, weight for height and weight for age) by some selected background characteristics. The analysis is based on information collected from 3416 children from Kerala for whom complete and erodible anthropometric and age data are available.

Height-for-Age (Stunting)

Height-for-age measures linear growth. A child who is more than two standard deviations below the median (-2SD) of the WHO reference population in terms of height-for-age is considered short for his or her age and is stunted. This condition reflects the cumulative effect of chronic malnutrition. If a child is below three standard deviations (-3SD) from the reference median, he or she is considered to be severely stunted.

In Kerala, 23 percent children under age five are stunted and 9 percent are severely stunted. Variation in the prevalence of stunting by age group shows that stunting is highest (33%) in children age 19-24 months, followed by those in age 13-18 months (27%) and the lowest (11%) in children below age 6 months. Prevalence of severe stunting shows a similar pattern, with the highest proportion of severe stunting in children age 19-24 months (18%), followed by among those age 13-18 months (12%). Sex differential in the prevalence of stunting is not much pronounced (Table 8.1). The sex differential remains by and large the same even in case of severe stunting. Children under age five, living in rural areas and coming from schedule caste families are more likely to be stunted than others.

The prevalence of stunting is not uniform across different districts in Kerala. Stunting is the lowest in Kottayam (7%), followed by Ernakulam (14%), whereas the prevalence of stunting is highest in Pathanamthitta (50%). Severe stunting is the lowest in Kottayam (1%), Kannur

¹ World Health Organization (WHO) Multicentre Growth Reference Study Group. 2006. *WHO Child Growth Standards: Length/Height-for-Age, Weight-for-Length, Weight-for-Height and Body Mass Index-for-Age: Methods and Development*. Geneva, Switzerland: WHO.

and Alappuzha (5% each). On the other hand, Palakkad portrays the highest prevalence even in case of sever stunting (23.5%).

Weight -for-Height (Wasting)

Weight-for-height describes the current nutritional status. A child who is more than two standard deviations below (-2SD) the reference median for weight-for-height is considered to be too thin for his or her height, or wasted. This condition reflects acute or recent nutritional deficit. As with stunting, wasting is considered sever if the child is more than three standard deviations below the reference median. Overall 24 percent children in Kerala are wasted and 11 percent are severely wasted. Analysis by age group shows that wasting rages from a minimum 18 percent in children age 7-12 and age 19-24 months to the maximum 30 percentage in children age 25-35 months. Children residing in rural areas are less likely to be wasted than children living in urban areas (Tabl2 8.1). Children from scheduled caste are more likely to be wasted (31%) than the children in other caste groups. Variations by district portray that wasting in children ranges from 8 percent in Kannur to 35 percent in Thiruvananthapuram.

Weight- for-Age (Underweight)

Weight-for-age is a composite index of weight-for height and height-for-age. Thus, is does not distinguish between acute malnutrition (wasting) and chronic malnutrition (stunting). A child can be underweight for his age because he or she is stunted, because he or he is wasted, or both. Table 8.1 reveals that 21 percent of children under age 5 are underweight and 7 percent are severely underweight. The proportion of underweight children is the highest (26%) among children age 19-24 months and lowest (13 %) among children age 7-12 months. The sex differential in the proportion of underweight children is not so much pronounced. Rural children are more likely to be underweight (23%) than the urban children (20%). Children from scheduled caste are relatively more likely to be underweight (32%) than others caste group. By districts, underweight in children ranges from 16 percent in Kasaragod, Kozhikode and Kottayam to 86 percent in Palakkad.

Body Mass Index of Women

In many countries, chronic energy deficiency characterized by BMI of less than 18.5 among adults remains the predominant problem, leading to low productivity and reduced resistance to illness. Prevalence of overweight among women is also growing problem in developing countries. Overweight individuals are predisposed to a wide range of health problem including diabetes and heart diseases and also poor birth outcomes for pregnant women. The BMI is used to measure thinness or obesity. It is defined as weight in kilograms divided by height in meters squared (Kg/m²). A BMI of less than 18.5 is used to define thinness or acute under nutrition. A BMI of 25 or above usually indicates overweight and a BMI of 30 or above indicates obesity.

In DLHS -4, height and weight measurements in Kerala were obtained for 6380 women age 15-49 that were present in the sample households at the time of survey. Table 8.3 presents percentage of women age 15-49 by their BMI. The mean BMI is 23, which falls in the normal BMI classification. Overall 57 percent of women age 15-49 have a normal BMI , 14 percent

are undernourished or thin (BMI less than 18.5) and 30 percent are overweight or obese (BMI 25 or higher). It is evident from the table that there is profound variation in BMI by some selected background characteristics of women. Women age 15-19 are more likely to be thin or undernourished (36%) than women in other age groups. Rural women are slightly more likely to be thin or undernourished (14%) than their urban counterpart (13%), where as urban women are more likely to be overweight or obese as compared to rural women (32% and 28% respectively). Educational attainment doesn't show any consistent relationship with the proportion of thin or undernourished women. Among women who are non literate, nearly 12 percent are thin or underweight and 25 percent are overweight or obese. Women from scheduled caste households, having larger potential to have food insecurity, are much more likely to be thin in comparison to those from households from other caste-groups. Proportion of ever married women who are thin or underweight is not uniform across districts of Kerala. It ranges from the minimum of 3 percent in Wayanad to 22 percent in Palakkad. On the other hand, proportion of ever married women who are overweight or obese is the highest in Kozhikode and Kollam (38% each) and lowest in Wayanad and Palakkad (15% each).

Prevalence of Anemia

Anemia, characterized by a low level of hemoglobin in the blood, is major health problem in developing countries, especially among young children and pregnant women. Anemia among pregnant women may be an underlying cause of maternal mortality, spontaneous abortion, premature births, and low birth weight. The most common cause of anemia is inadequate dietary intake of nutrients necessary for synthesis of hemoglobin, such as iron, folic acid, and vitamin B12. Anemia also results from sickle cell disease, malaria, and parasitic infections (Benoist et al. 2008)². It is against this background, a number of interventions have been put in place to address anemia in children in developing countries. These include expanded distribution of iron supplements and deworming medication to children age 1-5 every six months.

In DLHS-4, all the usual residents of the selected households including children age 6-59 months were included in the anemia testing, where blood drops were collected using dried blood spot (DBS) method and tested in designated laboratories. The process of blood collection consists of obtaining blood droplets by pricking in the middle or ring finger with a retractable and non-reusable lancet. Before pricking, the finger was cleaned with a swab containing 70 percent isopropyl alcohol and allowed to dry. In case of those children where blood droplets were not possible from middle or ring finger, heel pricking was practiced and DBS were prepared.

Table 8.5 shows the anemia status of children age 6-59 months by some selected background characteristics. About half (49%) of children age 6-59 months suffer from some level of anemia (Hb <11.0g/dl), 20 percent of children have mild anemia and 26 percent have moderate anemia (Hb 7.0-9.9g/dl). About 3 percent of children age 6-59 months have severe anemia (Hb <7.0 g/dl). There is very less differential in prevalence of anemia among children

² Benoist, B. D., E. McLean, I. Egli, I., and M. Cogswell (eds.). 2008. *Worldwide Prevalence of Anaemia 1993–2005: WHO Global Database on Anaemia*. Geneva, Switzerland: World Health Organization

age 6-59 months by sex of child but noticeable difference has been found by place of residence. The prevalence any anemia is highest among other backward caste and scheduled caste (52% and 46 % respectively). Of course, Muslim children are comparatively less likely to suffer from any anemia than those from other religion.

The prevalence of any anemia declines sharply among school going population age 6-19 years (29%). The proportions of school going population age 6-19 years who suffer from mild and moderate anemia are 14 and 13 percent respectively. The pattern in decline in any anemia with increasing age is linear in nature with the maximum (33%) among those in the age-group 6 to 10 years and minimum (23%) in those age 17-19 years. Female children and those living in rural areas are little more likely to be anemic (Table 8.6). The prevalence of anemia also declines linearly with increasing years of schooling, from 37 percent among non literate to 24 percent among those having 10 or more years of schooling .Scheduled caste and other backward classes are also more likely to be anemic even in the school going population age 6-19 years.

Prevalence of anemia declines further in case of adult population age 20 years and above. It is evident from Table 8.7 that around 29 percent of adults age 20 years and above are anemic in Kerala. Adult women are 1.5 times more likely to be anemic than their male counterparts. Unlike to the school age population (age 6-19 years), adult population doesn't portray any pattern of prevalence of anemia with increasing age groups. There is very less difference in anemia by place of residence (Table 8.7). Increasing years of schooling shows linear decline in the prevalence of anemia but the pattern gets changed in case of male where prevalence of anemia remains by and large the same (32% to 38%) among male across the different years of schooling. Muslims religion portrays a distinct pattern with relatively higher prevalence of anemia even among adult age 20 years and above, which may have definite implication for the food security scheme in the state.

Prevalence of anemia among pregnant women poses much sever health consequences and may be an underlying course of maternal mortality, spontaneous abortion, premature births and low birth weight, Table 8.9 presents the percent of pregnant of women age 15-49 classified as having iron-deficiency (anemia) by degree of anemia and some selected background characteristics. It is evident from the table that around 35 percent of pregnant women in Kerala are anemic. About 16 percent of them have mild anemia (10.0-10.9 g/dl), 17 percent have moderate anemia and 3 percent have severe anemia. Pregnant women in Kerala who are in ages 40-49 are less likely to be face anemia. Women who belong to rural areas and coming from other backward caste households are more likely to be suffering with anemia.

Prevalence of Diabetes

Diabetes has serious consequences for individuals and poses a large burden on health services, especially in developing countries. According to the International Diabetes Federation (IDF), diabetes poses a daunting challenge to the sustainable development of the nation, as almost every tenth adult in India is estimated to be affected by either diabetes or pre-diabetes (IDF 2013). The latest global figures on diabetes, released by the International Diabetes Federation (IDF), has raised a serious alarm for India by saying that nearly 52% of

Indians aren't aware that they are suffering from high blood sugar (IDF, 2013)³. In DLHS-4, women and men age 18 and older in the selected households were eligible to have their blood glucose level tested. The blood glucose was measured using portable glucometer namely SD code free, where blood droplets were obtained by pricking in the middle or ring finger with a retractable and non-reusable lancet. Before pricking, the finger was cleaned with a swab containing 70 percent isopropyl alcohol and allowed to dry. In the process, the first two drops of blood were wiped away and third drop was drawn into the glucose strips.

Table 8.10 and 8.12 present data on random blood glucose values for men and women age 18 and above from the sample households included in DLHS-4. Data shows that 14 percent of men and 13 percent of women age 18 and above in Kerala suffer from diabetics as the level of blood glucose among those have been 160mg/dL or higher. Another 12 percent of men and 11 percent of women age 18 and above in Kerala are pre-diabetic. However, over three-fourth of men as well as women have normal level or even lower level of blood glucose.

Prevalence of diabetes increases linearly with increasing age among men as well as among women age 18 years and above. Men age 60 & above are about 10 times more likely to suffer with diabetes as compared to those in the age-group 18-29 years. The pattern remains by and large same even among women age 18 years and above (3% in the age group 18-29 years and 29% in age 60 years & above) (Table 8.12). Men and women age 18 and above who reside in urban as well as rural areas are equally likely to suffer from diabetes. Men and women who have less than 5 years of schooling are more likely to suffer from diabetes than their counterparts. Level of diabetes prevalence cuts across religion group, which may have implication for the differences in life style and food habits. Adult men and women who belong to Hindu religion are more likely to suffer from diabetes than the other religions. Though cast differentials in prevalence of diabetes is also profound but men and women who belongs to scheduled tribes are more likely to suffer from diabetes than others, which may be primarily due to changes in their life styles and dietary practices.

Tables 8.11 and 8.13 present the variation in the prevalence of diabetes among adult men and women aged 18 and above across different districts of Kerala. Among districts, men in Kottayam and Kollam have the highest prevalence of diabetes (23% each) followed by Thiruvantapuram (22%). On the other hand, men in Palakkad and Pathanamthitta have relatively lower prevalence (below 5%) of diabetes than other districts of Kerala. The pattern remains by and large the same even if we analyze the prevalence of diabetes among adult women in different districts of Kerala. The prevalence is the highest among adult women in Kannur (20%) and lowest in Palakkad (0.4 %).

Prevalence of Hypertension

Blood pressure rises and falls throughout the day. When blood pressure stays elevated over time. It is called high blood pressure. The medical term for high blood pressure is hypertension. Raised or high blood pressure acts as one of the contributing and intermediate risk factors for developing coronary heart disease, stroke, and kidney disease. The measurements taken for blood pressure in DLHS-4 were not intended to provide a medical

³ International Diabetes Federation (IDF). 2011. *Diabetes Atlas, 5th edition*. Brussels, Belgium: IDF

diagnosis of the disease but rather to provide a cross-sectional assessment of the prevalence of high blood pressure in the population at the time of the survey. Although the results of the blood pressure measurements are regarded only as a statistical description of the survey population, they provide insight into the size and characteristics of the population at risk for hypertension. The DLHS-4 is used Ross Max AW150 blood pressure monitor model; the automatic device included separate cuffs for measuring blood pressure in respondents with small, medium and large arm circumferences. Interviewers were adequately trained to use this device according to the recommended protocol. Two health investigators were included in each team for data collection.

Two measurements of both systolic and diastolic blood pressure were taken during the survey at approximately ten minutes interval and the average measurement was used to report respondent's blood pressure values. Tables 8.14 and 8.16 present the information on blood pressure values for men and women age 18 years and above by some selected background characteristics. In the table the blood pressure level has been defined into six categories depending upon various combinations of systolic blood pressure (SBP) and diastolic blood pressure (DBP). The value of SBP greater than 140 mmHg or DBP greater than 90 mmHg is defined as hypertensive with elevated blood pressure, which may have implications for need for medication on a priority basis(AHA, 2003)⁴. In DLHS we have taken SBP 130-139 or DBP 85-89 as the pre-hypertension. It is evident from Tables 8.14 and 8.16 that 13 percent of men and 11 percent of women age 18 years and above in Kerala are in the stage of pre-hypertension, while 36 percent men and 29 percent of women age 18 years and above are in the stage of hypertension and require medical attention on a priority basis. A relatively larger proportion of men as well as women age 18 years and above living in rural areas are found to be hypertensive (37% and 30% respectively) than those living in urban areas (34% and 28 % respectively).The pattern is by and large the same even in case of the pre-hypertension though the magnitude of difference reduces considerably. The pattern in prevalence of pre-hypertension and hypertension across different districts of Kerala are not uniform. Among men age 18 years and above, prevalence of pre-hypertension ranges from a minimum in Idukki (6%) to the maximum in Wayanad (26%). In case of hypertension, the prevalence ranges from a minimum in Palakkad (17%) to the maximum in Pathanamthitta (61%). In case of women age 18 years and above, the prevalence of pre-hypertension is the lowest in Palakkad (6%) among the 14 districts of Kerala. On the other hand, Wayanad (20%) is a leading district having higher prevalence of pre-hypertension among women age 18 years and above. District wise variation in the proportion of women age 18 years and above suffering with hypertension (SBP \geq 140 or DBP \geq 90) also portrays the same pattern with the lowest proportion of women in Palakkad (14%) and the highest proportion in Idukki (76%).

Use of Iodized Salt

Salt used in the household is the most common vehicle for iodine fortification to prevent the public health concerns of iodine deficiency disorders. The compound used for fortification of salt is potassium iodate (KIO₃).According to the World Health Organization, a country's salt iodization program is considered to be on a good track to eliminate iodine deficiency when

⁴ American Heart Association. <http://www.heart.org/HEARTORG/>.

90 percent of households use iodized salt. The 2012-13 DLHS-4 made an effort to assess household iodized salt consumption by testing iodine contents in the salt being used by the household.

Table 8.18 shows the proportion of households using iodized salt according to some selected background characteristics. Over all, salt was tested for iodine contain in 86 percent of household in Kerala and 49 percent households were found to use salt with adequate iodine contain. Another 34 percent households were found to use salt with iodine but the proportion of iodine contain was not adequate. There is no significant difference in use of iodine salt by place of residence (Table 8.18). Analyzing the variation in proportion of household using iodized salt by districts; it is evident from Table 8.19 that it ranges from a maximum in Thiruvantapuram (81%) to the minimum in Palakkad (10%).

13. HEALTH FACILITIES

The basic objective of the population linked facility survey conducted for the first time in DLHS-3 is to collect data on health personnel, availability of drugs/medicines, equipments, basic RCH care amenities, communication means and infrastructure at the level of, PHC and CHC, in order to assess the adequacy of RCH services in rural areas.

In DLHS-4 facility survey covered all Community Health Centres (CHCs) and the District Hospitals (DHs). All Sub-Health Centres and Primary Health Centres (PHCs) which were expected to serve the sampled population of selected PSU were also covered.

In Kerala, the average sampled rural population served per Sub-Health Centre, PHC and CHC are 9,113; 34,351 and 68,576 respectively (Table 9.1). In total, 379 villages were surveyed in DLHS-4 and the RCH services of these sampled villages were catered by 151 Sub-Health Centres, 181 PHCs and 137 CHCs.

Out of the 151 Sub-Health Centers functioning in government building, 79.3 percent have regular electricity. In 6.9 percent of these Sub-Health Centers there are labor rooms; and out of this all the SHCs have labor rooms are currently in use. Toilet facility is available in 89.7 percent of the sampled Sub-Health Centers located in government buildings. Ninety two percent of the Sub-Health Centers running in government buildings have provision for water (Table 9.2).

Eighty eight percent of the SHCs have displayed of citizen's charter at SHCs. The proportion of sampled Sub-Centre facilitated by Village Health Nutrition & Sanitation Committee (VHSC) 94.7 percent and untied funds received by 77.5 percent of SHCs for the previous financial year (Table 9.3).

Out of 151 surveyed SHCs 93.4 percent of the SHCs are having Auxiliary Nurse Mid Wife (ANM). Additional ANM is available in 21.3 percent of Sub-Health Centers in Kerala. Less than 50 percent of SHCs where Male Health Worker (MHW) are available in the districts of Thrissur, Kollam and Thiruvananthapuram. (Table 9.5).

In Kerala, out of 181 sampled PHCs, 87.9 percent of the PHCs are having MOs. Other human resources like LMOs (37.1%), AYUSH Doctors (17.6%) and Pharmacists (91.7%) are available at PHCs.

Residential quarters available for MO in 11.6 percent of PHCs, 28.2 percent of PHCs are functioning on a 24 hour basis. At least four beds are available at 87 percent of the PHCs (Table 9.6). About 93.9 percent of the PHCs have regular power supply. Out of 181 PHCs only 24.9 percent of the PHCs are having functional vehicles or vehicle on road.

Newborn care services are available in 66.7 percent of the sampled PHCs, 43.1 percent provide referral services for delivery cases, and 88.9 percent have conducted at least 10 deliveries during last one month (Table 9.7).

Eighty two percent of the PHCs have received untied fund 100 percent of the PHCs have utilized the fund for previous financial year (Table 9.8). Rogi Kalyan Samiti (RKS) has been constituted in 77.2 percent of PHCs and the Citizen's Charter displayed in 89.4 percent of sampled PHCs.

Out of 137 CHCs 94 are having Obstetric Gynecologist at the time of the survey (Table 9.9). Out of total 137 CHCs which have Pediatrician (51 CHCs), Anesthetist (24 CHCs) and Public Health Manager (54 CHCs) respectively.

The state as a whole, out of 137 CHCs 42 CHCs are blood storage facility, 69 CHCs in Kerala are designated as First Referral Units (FRUs). Out of the 137 CHCs, 35 and 37 CHCs are having functional Operation Theatres (OTs), and newborn care services respectively (Table 9.10).

Out of 137 CHCs, 126 have utilized untied fund (Table 9.11). Out of 137 CHCs, 131 have Citizen's charter displayed, 118 CHCs have constituted RKS, all CHCs where RKS is constituted are monitored regularly.

In Kerala, at the time of the survey, there are about 55 Sub Divisional Hospitals (SDHs). Information gathered at the Sub Divisional Hospitals (SDHs) level on the availability of the human resources and other services availability at the time of the survey in Kerala as a whole is as follows: Pediatricians (53 SDH), Radiographers (25 SDH). Out of 55 SDHs 2D Echo Facilities are available in 25 SDHs. Ultrasound Facility is available in 29 SDHs. Three phase connection is available at all the SDHs. Critical care area is available in 50 SDHs out of 55 SDHs. Suggestion and Complaint boxes are available in all 55 surveyed SDHs.

Fifteen District Hospitals has been surveyed in Kerala. Out of these 14 DHs are having Pediatricians, 13 DHs are having Radiographers. 2D Echo facility are available in 11 DHs. Ultra Sound facility is available in 14 DHs. Critical care area, three phase connections and suggestion and complaint boxes are available in all 15 DHs in Kerala.

BACKGROUND CHARACTERISTICS

TABLE 1.1 BASIC DEMOGRAPHIC INDICATORS

Basic demographic indicators of Kerala and its districts, Census 2011, India.

State/Districts	Population (in thousands)	Percentage urban	Percentage decadal growth rate ¹	Sex ratio ²	Percentage literate 7+		
					Male	Female	Total
Kasaragod	1,307.4	38.8	+8.58	1,079	94.0	86.5	90.1
Kannur	2,523.0	65.0	+4.73	1,133	97.2	93.3	95.1
Wayanand	817.4	3.9	+4.71	1,035	92.5	85.7	89.0
Kozhikode	3,086.3	67.2	+7.20	1,097	97.4	93.0	95.1
Mallappuram	4,112.9	44.2	+13.45	1,096	95.8	91.6	93.6
Palakkad	2,809.9	24.1	+7.35	1,067	93.1	85.8	89.3
Thrissur	3,121.2	67.2	+4.94	1,109	96.8	93.6	95.1
Ernakulam	3,282.4	68.1	+5.69	1,028	97.4	94.5	95.9
Idukki	1,109.0	4.7	-1.79	1,006	94.6	89.5	92.0
Kottayam	1,974.6	28.6	+1.07	1,040	98.0	96.5	97.2
Alappuzha	2,127.8	54.1	+0.88	1,100	97.4	94.2	95.7
Pathanamthitta	1,197.4	11.0	-2.97	1,129	97.4	95.8	96.5
Kollam	2,635.4	45.1	+1.94	1,113	96.1	92.3	94.1
Thiruvananthapuram	3,301.4	53.8	+2.07	1,088	95.1	91.2	93.0
Kerala	33,406.1	47.7	+4.91	1,084	96.1	92.1	94.0

Source: Primary Census Abstract, Series 20, Census of India, 2011.

¹ 2001-2011. ² Female per 1,000 males.**TABLE 1.2 NUMBER OF HOUSEHOLDS, EVER-MARRIED WOMEN**

Number of households and ever-married women interviewed by district, Kerala, 20012-13.

State/Districts	No of PSU		Number of households interviewed				Number of ever-married women interviewed			
	Rural	Urban	Total	Rural	Urban	HH response rate	Total	Rural	Urban	EW response rate
Kasaragod	43	27	1,806	1,112	694	92.3	1,180	699	481	83.2
Kannur	25	25	1,274	623	651	91.1	639	383	256	68.5
Wayanand	25	25	1,264	623	641	90.3	814	404	410	78.7
Kozhikode	26	34	1,511	657	854	90.0	1,262	579	683	81.8
Mallappuram	25	25	1,374	686	688	98.1	1,244	634	610	95.6
Palakkad	25	25	1,386	691	695	99.0	1,148	570	578	99.7
Thrissur	25	43	1,715	640	1075	90.1	965	397	568	74.9
Ernakulam	25	25	1,279	629	650	91.4	723	315	408	77.0
Idukki	25	25	1,289	644	645	92.7	879	440	439	89.9
Kottayam	25	25	1,292	652	640	92.3	772	394	378	77.7
Alappuzha	32	38	1,756	817	939	89.6	1,172	501	671	81.2
Pathanamthitta	25	25	1,296	647	649	92.6	1,063	541	522	96.6
Kollam	25	25	1,298	660	638	92.7	901	463	438	76.7
Thiruvananthapuram	28	32	1,549	727	822	92.2	1,018	517	501	82.2
Kerala	379	399	20,089	9,808	1,0281	92.3	13,780	6,837	6,943	83.3

Note: Table based on unweighted cases.

TABLE 1.3 DISTANCE FROM THE NEAREST EDUCATIONAL FACILITY

Percent distribution of sampled villages by distance from the nearest educational facility, Kerala, 2012-13

Educational facility	Within village	Distance from the village			Total percent (100%)
		< 5 km	5-9 km	10+ km	
Primary school	95.2	2.9	0.8	1.1	100.0
Middle school	91.1	4.6	3.4	0.9	100.0
Secondary school	86.7	5.4	6.3	1.5	100.0
Higher secondary school	75.9	6.7	7.6	9.8	100.0
College	37.9	6.3	10.3	45.5	100.0
Madrassa	43.3	48.3	1.4	7.1	100.0

Note: Distance from the village is calculated for only those villages which do not have the facility within the village.

Note: Table is based on unweighted cases.

TABLE 1.4(a) DISTANCE FROM THE NEAREST HEALTH FACILITY

Percent distribution of sampled villages by distance from the nearest health facility, Kerala, 2012-13

Health facility	Within village	Distance from the village ¹			More than 10km
		Within 3km	Within 5km	Within 10km	
Sub Health Centre	84.2	86.8	93.9	96.6	2.1
Primary Health Centre	75.5	86.8	89.4	98.9	1.1
Community Health Centre	33.8	61.6	64.0	87.3	13.0
District/Govt. Hospital	46.4	78.6	80.2	82.8	20.1
Government Dispensary	39.6	62.8	69.4	92.1	7.9
Private Clinic	85.0	94.7	96.3	99.2	0.8
Private Hospital	54.6	90.0	94.5	97.4	2.6
AYUSH Health Facility ²	50.7	97.1	97.9	98.7	1.3

¹ Including facilities within village.² AYUSH-Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy**TABLE 1.4(b) Programmes beneficiaries**

Percentage villages having any beneficiaries from selected programs , Kerala, 2012-13

Programmes	Percentage of villages ¹	Number of villages
Janani Suraksha Yojana (JSY)	97.8	272
Janani Shishu Suraksha Karyakram (JSSK)	87.5	210
Integrated Child Development Scheme (ICDS)	85.3	203
Total number of villages		379

¹Excluding missing cases.**TABLE 1.5 REASONS FOR DROPPING OUT OF SCHOOL**

Percentage of household population aged 6 to 17 years who dropped out of school by main reasons, Kerala, 2012-13

Reason	Total			Rural			Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
School too far	0.0	2.1	1.0	0.0	0.0	0.0	0.0	7.5	2.6
Further education not necessary	8.4	5.8	7.1	4.8	8.0	6.6	12.3	0.0	8.1
Required for work in household activities/ farm family/business	2.8	3.5	3.1	5.4	4.8	5.0	0.0	0.0	0.0
Required for outside work	11.6	2.1	7.1	17.1	0.0	7.6	5.7	7.5	6.3
Not interested in studies	20.2	10.0	15.4	33.9	10.3	20.8	5.3	9.1	6.6
Cost too much	5.0	0.0	2.6	0.0	0.0	0.0	10.4	0.0	6.9
Repeated failures	6.0	5.2	5.6	5.0	4.0	4.5	7.1	8.3	7.5
Got married	0.0	25.9	12.3	0.0	25.1	13.9	0.0	28.1	9.6
Others	46.0	45.5	45.8	33.9	47.8	41.6	59.1	39.5	52.4
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of persons**	38	33	71	18	22	40	20	11	31

** Unweighted cases.

TABLE 1.6(a) HOUSING CHARACTERISTICS AND HOUSEHOLD ASSETS

Percent of households by housing characteristics and household assets goods, by residence, Kerala 2012-13.

Housing characteristics	Total	Residence	
		Rural	Urban
Electricity			
Having electricity	98.8	98.6	98.9
Source of drinking water			
Improved source ¹	92.3	91.5	93.0
Sanitation facility			
Improved sanitation	97.7	97.1	98.4
Fuel used for cooking			
Liquefied Petroleum Gas (LPG)	50.4	42.4	59.5
Electricity	0.5	0.3	0.6
Kerosene	0.1	0.2	0.1
Wood	48.2	56.4	38.8
Others	0.0	0.0	0.0
Type of house			
Kachha	3.4	3.7	3.2
Semi - pucca	26.7	29.7	23.3
Pucca	69.6	66.6	73.0
Number of rooms			
1	1.1	1.2	1.0
2	6.0	6.1	5.7
3+	93.0	92.6	93.3
Household assets			
Radio/transistor	22.3	22.5	22.1
Television	91.0	90.5	91.6
Computer/ laptops without internet	13.2	12.1	14.5
Computer/ laptops with internet	18.1	17.5	18.8
Telephone only	31.9	31.7	32.2
Mobile only	90.3	90.5	89.9
Washing Machine	32.8	28.7	37.4
Refrigerator	55.9	53.3	58.8
Sewing machine	31.3	31.3	31.3
Watch/ clock	84.6	84.5	84.7
Bicycle	22.5	20.9	24.3
Motor cycle/ scooter	44.5	42.1	47.2
Car / Jeep/van	17.1	15.3	19.1
Tractor	1.2	1.2	1.3
Water pump/tube well	37.6	34.3	41.3
Cart driven by animal	.9	.9	.8
Cart driven by Machine	1.2	1.4	1.1
Other cart	1.4	1.4	1.4
Cooler/AC	16.0	15.9	16.1
Number of households**	20,089	9,808	10,281

¹Includes piped into dwelling piped to yard/plot, public tap/stand pipe/hand pump,/tube well/ bore well/well covered/spring tanker, cart with small tank and bottled water. **Unweighted cases.

TABLE 1.6(b) HOUSING CHARACTERISTICS BY DISTRICT

Percentage of households with selected characteristics by district, Kerala, 2012-13.

Districts	Residence					
	With electricity	Improved source of drinking water ¹	Improved access to Sanitation ²	Using Liquefied Petroleum Gas	Living in pucca house	Having BPL card
Kasaragod	98.0	87.4	97.9	32.7	67.6	29.3
Kannur	98.7	90.9	98.7	19.1	65.2	26.2
Wayanand	98.1	96.5	99.8	16.7	72.6	50.2
Kozhikode	99.3	97.2	99.8	24.2	75.7	34.8
Mallappuram	98.7	96.3	99.6	76.0	89.4	15.5
Palakkad	99.4	99.7	99.7	97.4	99.6	5.7
Thrissur	99.1	94.9	99.2	65.6	73.4	30.2
Ernakulam	99.6	94.5	99.0	57.0	71.1	32.6
Idukki	96.7	90.1	87.7	35.6	49.1	23.5
Kottayam	99.5	95.2	99.1	60.1	66.2	33.3
Alappuzha	99.2	94.0	98.7	56.2	76.3	42.8
Pathanamthitta	99.4	67.9	88.5	44.1	42.6	26.4
Kollam	98.5	92.6	99.4	57.8	63.2	39.5
Thiruvananthapuram	98.7	93.5	99.3	68.9	60.8	31.7
DLHS-4	98.8	92.3	97.7	50.4	69.6	30.4
DLHS-3	91.8	28.8	96.7	30.2	79.2	35.6

¹ Includes piped into dwelling piped to yard/plot, public tap/stand pipe/hand pump, /tube well/ bore well/well covered/spring tanker, cart with small tank and bottled water. ² Household having access to toilet facility = improved source of sanitation + flush not to sewer/septic/pit/twin pit + pit without slab + dry toilet.

TABLE 1.7 HOUSEHOLD CHARACTERISTICS

Percentage of the households by selected characteristics of the household head, household size and residence, Kerala, 2012-13.

Characteristics	Total	Residence	
		Rural	Urban
Sex			
Male	80.6	80.4	80.9
Female	19.4	19.6	19.1
Age			
< 30	4.1	4.5	3.7
30-44	28.5	28.2	28.7
45-59	39.0	39.3	38.7
60+	28.5	28.1	28.9
Median age	50	50	51
Religion			
Hindu	58.9	59.4	58.2
Muslim	21.4	21.5	21.3
Christian	19.3	18.6	20.0
Jain	0.2	0.1	0.4
Others	0.0	0.0	0.0
Caste/Tribe			
Scheduled caste	10.1	11.2	8.9
Scheduled tribes	1.8	2.1	1.4
Other backward classes	55.2	53.3	57.4
Others	32.9	33.4	32.3
Number of usual members			
1	3.5	3.6	3.4
2	16.3	16.0	16.6
3	28.6	28.7	28.5
4	26.6	27.0	26.1
5	13.5	13.7	13.3
6	6.2	6.3	6.0
7	2.5	2.4	2.7
8	1.2	1.1	1.3
9+	1.7	1.3	2.1
Total percent	100.0	100.0	100.0
Mean household size	3.7	3.7	3.7
Number of households**	20,089	9,808	10,281

Note: Total figure may not add to 100 percent due to 'do not know' or 'missing cases'.

**Unweighted cases.

TABLE 1.8 HOUSEHOLD POPULATION BY AGE AND SEX

Percent distribution of the household population by age, residence and sex, Kerala, 2012-13.

Age group	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
<1	0.9	0.9	0.9	0.8	0.8	0.9	1.0	1.1	0.9
1-4	3.9	4.0	3.7	3.9	4.0	3.7	3.9	4.0	3.7
5-9	7.0	7.7	6.4	7.2	7.9	6.6	6.8	7.5	6.2
10-14	7.6	8.3	6.9	7.7	8.3	7.1	7.5	8.3	6.7
15-19	7.5	7.6	7.3	7.6	7.6	7.5	7.4	7.7	7.1
20-24	7.8	7.4	8.2	7.8	7.5	8.1	7.8	7.2	8.3
25-29	8.2	7.9	8.5	8.3	8.0	8.7	8.1	7.9	8.4
30-34	8.4	8.1	8.7	8.5	8.3	8.7	8.2	7.8	8.6
35-39	8.4	8.1	8.7	8.3	8.3	8.4	8.5	8.0	9.1
40-44	7.8	7.8	7.8	7.6	7.4	7.9	8.0	8.3	7.7
45-49	6.7	7.2	6.2	6.8	7.3	6.3	6.6	7.1	6.2
50-54	7.8	6.6	8.9	7.7	6.6	8.8	7.9	6.6	9.1
55-59	5.6	5.9	5.2	5.4	5.7	5.1	5.8	6.2	5.3
60-64	4.7	5.1	4.4	4.6	5.0	4.3	4.8	5.2	4.5
65-69	3.0	3.0	3.0	3.0	3.1	2.9	3.1	3.0	3.1
70-74	2.0	2.1	2.0	1.9	2.1	1.8	2.1	2.0	2.1
75-79	1.3	1.1	1.5	1.3	1.1	1.5	1.3	1.2	1.4
80+	1.4	1.1	1.6	1.5	1.2	1.7	1.3	1.0	1.5
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Persons**	76,271	37,451	38,809	36,962	18,154	18,801	39,309	19,297	20,008
Sex ratio at birth ¹	107.4	na	na	95.7	na	na	117.2	na	na
Sex ratio 0-4 ¹	104.7	na	na	100.8	na	na	108.2	na	na

Table is based on the *de facto* population, i.e. persons who stayed in the household the night before the interview (including both usual residents and visitors). ¹ Females per 1000 males. na = Not applicable. ** Unweighted cases.

TABLE 1.9 MARITAL STATUS OF THE HOUSEHOLD POPULATION

Percent distribution of the household population (age 10 years and above) by marital status, age and sex, Kerala, 2012-13

Age group	Marital status				Total percent	Number of persons**
	Never married	Married, <i>gauna</i> not performed	Currently Married	Widowed/ divorced/ separated		
Total						
10-14	84.4	0.0	1.7	0.1	100.0	5,750
15-19	79.9	0.1	4.6	0.1	100.0	5,691
20-24	58.4	0.3	30.6	0.2	100.0	5,911
25-29	29.5	0.5	66.0	0.9	100.0	6,273
30-44	5.9	0.6	90.4	2.7	100.0	18,688
45-49	2.3	0.7	90.9	6.0	100.0	5,091
50-54	1.6	0.9	86.5	10.9	100.0	5,934
55-59	1.6	0.8	82.2	15.2	100.0	4,256
60+	1.6	1.0	64.0	33.4	100.0	9,431
Total	24.2	0.6	63.4	7.9	100.0	67,025
Male						
10-14	82.7	0.0	1.6	0.1	100.0	3,086
15-19	79.6	0.1	2.1	0.1	100.0	2,866
20-24	77.9	0.0	8.2	0.1	100.0	2,748
25-29	51.1	0.2	43.0	0.6	100.0	2,958
30-44	9.3	0.6	88.2	1.2	100.0	8,959
45-49	2.5	0.5	94.9	2.0	100.0	2,683
50-54	1.4	0.6	93.5	4.4	100.0	2,467
55-59	1.6	0.8	92.9	4.7	100.0	2,232
60+	1.5	1.1	86.9	10.4	100.0	4,612
Total	29.2	0.5	62.7	2.7	100.0	32,611
Female						
10-14	86.4	0.0	1.8	0.0	100.0	2,663
15-19	80.2	0.1	7.1	0.0	100.0	2,823
20-24	41.5	0.6	50.1	0.3	100.0	3,162
25-29	10.2	0.8	86.7	1.2	100.0	3,315
30-44	2.7	0.6	92.5	4.0	100.0	9,726
45-49	2.0	1.0	86.4	10.5	100.0	2,408
50-54	1.7	1.1	81.5	15.5	100.0	3,466
55-59	1.6	0.9	70.6	26.7	100.0	2,024
60+	1.6	0.8	42.0	55.4	100.0	4,818
Total	19.5	0.7	64.1	12.9	100.0	34,405

** Unweighted cases

TABLE 1.10 AGE AT MARRIAGE

Mean age at marriage and percentage of marriages below legally prescribed minimum age at marriage by sex, residence and districts Kerala, 2012-13.

Place of residence/ district	Mean age at marriage		Percentage of marriages below legal age at marriage		Currently married women aged 20-24 who were married before age 18 years
	Boys	Girls	Boys (<21 years)	Girls (<18 years)	
Kasaragod	28.5	21.9	1.4	3.8	14.2
Kannur	28.5	22.7	1.5	0.0	7.2
Wayanand	27.6	22.3	0.9	2.4	18.6
Kozhikode	28.6	22.2	0.0	2.3	12.2
Mallappuram	26.2	20.0	4.8	26.3	25.6
Palakkad	19.5	21.1	--	0.0	3.4
Thrissur	28.7	23.0	0.5	1.3	5.7
Ernakulam	28.5	23.4	0.0	0.8	5.3
Idukki	29.0	22.7	0.0	0.0	1.8
Kottayam	28.7	24.1	0.7	3.9	2.1
Alappuzha	26.1	24.0	0.0	0.0	4.1
Pathanamthitta	29.0	19.8	4.1	0.0	5.4
Kollam	28.8	23.0	0.0	0.5	--
Thiruvananthapuram	28.3	22.4	0.0	1.1	5.4
Rural	28.1	22.4	1.5	3.0	10.1
Urban	28.4	23.0	0.5	2.6	10.0
DLHS-4	28.2	22.6	1.0	2.8	10.1
DLHS-3	28.3	22.1	1.2	6.8	15.5

Reference period: January 1st, 2008 to survey date.-- Percentage not shown for less than 10 cases.

TABLE 1.11 EDUCATIONAL LEVEL OF THE HOUSEHOLD POPULATION

Percent distribution of household population age 7 years and above by literacy levels, years of schooling and background characteristics Kerala, 2012-13.

Background characteristics	Non-literate	Years of schooling among those who are literate				Missing	Total Percent	Number of persons**
		Less than 5	6 – 8	9 – 10	11 or more			
Total								
Age								
7-9	0.2	97.3	2.3	0.0	0.1	0.1	100.0	3,242
10-14	0.0	43.1	52.5	3.8	0.5	0.1	100.0	5,750
15-19	0.0	0.5	11.4	38.2	49.8	0.1	100.0	5,691
20-29	0.1	1.6	10.1	17.3	70.8	0.0	100.0	12,184
30-39	0.1	5.6	20.0	24.4	49.9	0.0	100.0	12,741
40-49	0.2	12.3	23.7	24.8	39.0	0.0	100.0	11,038
50+	1.6	30.2	23.5	17.8	26.9	0.0	100.0	19,621
Sex								
Male	0.4	19.4	21.6	19.8	38.8	0.1	100.0	34,357
Female	0.7	20.1	20.5	19.5	39.1	0.0	100.0	35,910
Religion								
Hindu	0.5	19.2	21.6	20.3	38.3	0.1	100.0	41,538
Muslim	0.7	23.1	22.7	18.6	34.9	0.0	100.0	15,924
Christian	0.4	17.7	17.4	19.1	45.3	0.0	100.0	12,500
Jain	0.0	7.9	3.3	0.6	88.2	0.0	100.0	143
Others	0.0	17.3	10.8	15.3	56.6	0.0	100.0	162
Caste								
Scheduled Caste	0.5	19.2	21.6	20.3	38.3	0.1	100.0	6,646
Scheduled Tribes	0.7	23.1	22.7	18.6	34.9	0.0	100.0	1,167
Other Backward Classes	0.4	17.7	17.4	19.1	45.3	0.0	100.0	38,573
Others	0.0	13.4	7.7	9.2	69.6	0.0	100.0	23,881
Total	0.5	19.8	21.0	19.7	38.9	0.1	100.0	70,267

** Unweighted cases.

TABLE 1.12 EDUCATIONAL LEVEL OF THE HOUSEHOLD POPULATION

Percent distribution of household population age 7 years and above by literacy levels, years of schooling and background characteristics Kerala, 2012-13.

Background characteristics	Non-literate	Years of schooling among those who are literate				Missing	Total Percent	Number of persons**
		Less than 5	6 - 8	9 - 10	11 or more			
Rural								
Age								
7-9	0.3	97.2	2.3	0.0	0.1	0.1	100.0	1,635
10-14	0.0	43.8	51.3	4.3	0.5	0.1	100.0	2,815
15-19	0.0	0.5	12.4	38.1	49.0	0.1	100.0	2,796
20-29	0.1	1.8	10.6	17.9	69.5	0.1	100.0	5,934
30-39	0.2	6.6	20.5	23.5	49.2	0.1	100.0	6,220
40-49	0.3	13.6	24.3	24.5	37.2	0.0	100.0	5,318
50+	1.9	33.6	24.0	15.9	24.7	0.0	100.0	9,357
Sex								
Male	0.4	21.0	21.8	19.2	37.5	0.0	100.0	16,676
Female	0.8	21.6	20.9	18.9	37.7	0.0	100.0	17,393
Religion								
Hindu	0.7	20.9	22.6	19.5	36.2	0.1	100.0	20,409
Muslim	0.6	24.5	21.4	17.7	35.8	0.0	100.0	7,623
Christian	0.5	18.8	17.4	19.3	44.1	0.0	100.0	5,912
Jain	0.0	12.7	7.2	0.0	80.1	0.0	100.0	40
Others	0.0	22.2	11.4	5.9	60.5	0.0	100.0	91
Caste								
Scheduled Caste	1.0	22.8	24.6	18.7	32.8	0.0	100.0	3,668
Scheduled Tribes	1.3	24.1	23.0	13.4	38.1	0.1	100.0	700
Other Backward Classes	0.6	22.7	22.9	19.4	34.4	0.1	100.0	17,741
Others	0.4	18.7	18.1	18.9	43.8	0.0	100.0	11,966
Total	0.6	21.3	21.4	19.0	37.6	0.0	100.0	34,075
** Unweighted cases.								

TABLE 1.13 EDUCATIONAL LEVEL OF THE HOUSEHOLD POPULATION

Percent distribution of household population age 7 years and above by literacy levels, years of schooling and background characteristics Kerala, 2012-13.

Background characteristics	Non-literate	Years of schooling among those who are literate				Missing	Total Percent	Number of persons**
		Less than 5	6 - 8	9 - 10	11 or more			
Urban								
Age								
7-9	0.1	97.4	2.4	0.0	0.0	0.1	100.0	1,607
10-14	0.0	42.4	53.7	3.2	0.6	0.1	100.0	2,935
15-19	0.0	0.4	10.2	38.4	50.7	0.2	100.0	2,895
20-29	0.0	1.4	9.6	16.7	72.2	0.0	100.0	6,250
30-39	0.0	4.4	19.5	25.3	50.7	0.0	100.0	6,521
40-49	0.1	10.9	23.1	25.1	40.7	0.1	100.0	5,720
50+	1.3	26.7	23.1	19.7	29.2	0.0	100.0	10,264
Sex*								
Male	0.3	17.8	21.4	20.5	40.0	0.1	100.0	17,671
Female	0.6	18.6	20.0	20.2	40.6	0.0	100.0	18,517
Religion								
Hindu	0.4	17.4	20.5	21.1	40.6	0.0	100.0	21,129
Muslim	0.7	21.8	24.0	19.5	34.0	0.1	100.0	8,301
Christian	0.4	16.6	17.4	18.9	46.6	0.1	100.0	6,588
Jain	0.0	5.9	1.7	0.8	91.5	0.0	100.0	103
Others	0.0	11.4	10.2	26.3	52.0	0.0	100.0	71
Caste								
Scheduled Caste	0.5	20.0	20.2	18.8	40.5	0.0	100.0	2,978
Scheduled Tribes	0.0	21.6	20.2	16.0	41.9	0.3	100.0	467
Other Backward Classes	0.5	20.5	23.8	20.5	34.7	0.0	100.0	20,832
Others	0.3	13.5	15.3	20.5	50.2	0.1	100.0	11,915
Total	0.4	18.2	20.7	20.3	40.3	0.1	100.0	36,192
** Unweighted cases.								

TABLE 1.14 CURRENTLY ATTENDING SCHOOL									
Percentage of household population (aged 6 to 17 years) attending school/college , Kerala, 2012-13.									
	Total			Male			Female		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Age									
6-10	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
11-13	99.9	99.6	99.8	99.9	99.4	99.7	99.9	99.8	99.9
14-17	98.6	99.2	98.9	98.6	99.2	98.9	98.6	99.2	98.9
Total	99.4	99.6	99.5	99.4	99.5	99.5	99.4	99.6	99.5
Religion									
Hindu	99.3	99.4	99.4	99.2	99.2	99.2	99.3	99.7	99.5
Muslim	99.4	99.8	99.6	99.8	99.9	99.8	98.9	99.7	99.2
Christian	99.8	99.6	99.7	99.8	99.7	99.8	99.8	99.5	99.6
Jain	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Others	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total	99.4	99.6	99.5	99.5	99.5	99.5	99.3	99.7	99.5
Caste/Tribe									
Scheduled Caste	97.9	99.2	98.4	97.3	98.5	97.9	98.5	100.0	99.1
Scheduled Tribes	97.9	96.8	97.6	98.9	96.5	98.1	96.9	97.3	97.0
Other Backward Classes	99.5	99.6	99.6	99.7	99.6	99.7	99.3	99.6	99.4
Others	99.7	99.7	99.7	99.8	99.6	99.7	99.7	99.9	99.8
Total	99.4	99.6	99.5	99.5	99.5	99.5	99.3	99.7	99.5

TABLE 1.15 AVAILABILITY OF FACILITY AND HEALTH PERSONNEL BY DISTRICT							
Percentage of villages with facility and health personnel by district, Kerala, 2012-13.							
District	Number of villages having facility**						Number of villages
	Primary or middle school	Sub-centre	PHCs	Any government health facility ¹	Anganwadi Centre	VHNSC	
Kasaragod	100.0	79.1	55.8	97.7	100.0	74.4	43
Kannur	100.0	100.0	100.0	100.0	100.0	4.0	25
Wayanad	100.0	92.0	88.0	92.0	100.0	88.0	25
Kozhikode	100.0	92.3	84.6	100.0	96.2	88.5	26
Mallappuram	100.0	40.0	32.0	72.0	100.0	4.0	25
Palakkad	100.0	0.0	0.0	100.0	100.0	100.0	25
Thrissur	100.0	100.0	100.0	100.0	100.0	36.0	25
Ernakulam	100.0	96.0	88.0	100.0	100.0	60.0	25
Idukki	88.0	88.0	80.0	100.0	100.0	0.0	25
Kottayam	100.0	92.0	88.0	100.0	100.0	96.0	25
Alappuzha	96.9	96.9	65.6	100.0	100.0	87.5	32
Pathanamthitta	100.0	100.0	100.0	100.0	100.0	12.0	25
Kollam	100.0	100.0	88.0	100.0	100.0	96.0	25
Thiruvananthapuram	100.0	100.0	100.0	100.0	100.0	100.0	28
Kerala	98.9	84.2	75.5	97.4	99.7	62.0	379

Note: Table is based on unweighted cases.** This information was collected from Sarpanch/Pradhan, PRI member, Gram Sevak, Village Secretary/officer or any other official at village level. ¹ Includes Sub-Centre, Primary Health Centre (including Block PHC), Community Health Centre or referral hospital, government hospital, and government dispensary within the village.
VHNSC = Village Health Nutrition and Sanitation Committee.

TABLE 1.16 BIRTH REGISTRATION

Proportion of children below age 5 years who have registered the birth with civil authority and received birth certificate, by background characteristics, Kerala, 2012-13.

Background characteristics	Number of children below 5 years**		
	Birth Registered	Having birth certificate ¹	
Age of the children			
Below 1 year	88.8	71.6	636
1 to 2 years	90.1	83.1	790
3-4 years	90.9	89.8	1,406
Sex of the children			
Male	89.2	85.5	1,726
Female	91.5	85.4	1,670
Place of residence			
Rural	89.1	84.2	1,586
Urban	91.6	86.8	1,810
Religion			
Hindu	93.3	84.9	1,859
Muslim	91.2	85.9	1,006
Christian	90.2	86.9	530
Others	--	--	01
Caste/Tribes			
Scheduled caste	93.3	81.1	337
Scheduled tribes	91.2	77.9	32
Other backward classes	90.2	85.3	2,106
Others	89.5	87.9	921
Total	90.3	85.5	3,396

¹Out of those registered-- Percentage not shown for less than 10 cases. **Unweighted cases.

TABLE 1.17 BIRTH REGISTRATION

Proportion of children below age 5 years whose birth have been registered with civil authority and received birth certificate, Kerala, 2012-13.

Districts	Birth Registered			Received birth certificate ¹			Number of children below 5 years**
	Rural	Urban	Total	Rural	Urban	Total	
Kasaragod	76.8	83.5	80.6	93.2	85.9	88.9	248
Kannur	90.3	92.0	90.7	82.4	93.0	85.3	140
Wayanad	87.6	94.4	90.9	85.5	93.3	89.5	220
Kozhikode	93.2	91.2	92.1	84.9	89.8	87.6	474
Mallappuram	96.3	94.5	95.1	86.6	88.0	87.5	246
Palakkad	72.7	70.3	71.0	100.0	88.4	92.2	32
Thrissur	89.2	84.1	86.2	83.4	85.9	84.8	301
Ernakulam	80.2	92.6	86.7	78.3	87.0	83.1	236
Idukki	--	--	--	--	--	--	02
Kottayam	91.9	94.8	93.3	77.4	80.3	78.7	293
Alappuzha	85.5	91.2	88.9	82.3	75.6	78.2	415
Pathanamthitta	(79.1)	(71.9)	(77.2)	(87.1)	(0.0)	(66.1)	12
Kollam	88.0	95.8	92.0	83.2	91.5	87.7	381
Thiruvananthapuram	97.1	96.5	96.8	88.8	92.1	90.3	396
Kerala	89.1	91.6	90.3	84.2	86.8	85.5	3,396

¹Out of those registered () Based on 10-20 unweighted cases. -- Percentage not shown for less than 10 cases. ** Unweighted cases.

CHARACTERISTICS OF WOMAN & FERTILITY

TABLE 2.1 BACKGROUND CHARACTERISTICS OF EVERMARRIED WOMEN

Percentage of ever married women age 15-49 years according to selected background characteristics, and place of residence, Kerala, 2012-13.

Background characteristics	Place of residence		
	Total	Rural	Urban
Age Group			
15-19	1.1	1.3	0.8
20-24	9.4	9.5	9.2
25-29	17.1	17.5	16.6
30-34	19.8	19.6	20.0
35-39	20.0	19.6	20.5
40-44	17.9	17.9	17.9
45-49	14.8	14.7	15.0
Consummation of marriage			
Below 18 years	9.1	9.4	8.9
18 years & above	90.9	90.6	91.1
Marital Duration			
Less than 5 years	16.5	16.2	16.9
5-9 years	16.6	16.7	16.4
10-14 years	21.2	21.1	21.2
15 or more years	45.7	45.9	45.5
Woman's education			
Non-literate ^a	7.3	6.5	8.1
Less than 5 years	1.4	1.5	1.3
5-9 years	22.0	22.9	21.1
10 or more years	69.3	69.1	69.5
Husband's education			
Non-literate ^a	8.8	8.5	9.1
Less than 5 years	2.3	2.6	1.9
5-9 years	27.6	28.6	26.5
10 or more years	61.3	60.2	62.5
Religion			
Hindu	56.7	58.0	55.3
Muslim	25.5	24.9	26.2
Christian	17.4	16.8	18.0
Jain	0.3	0.1	0.4
Others	0.2	0.2	0.1
Caste/tribes			
Scheduled caste	9.9	11.2	8.5
Scheduled tribes	1.5	1.7	1.2
Other backward classes	55.4	53.2	57.7
Others	33.3	33.9	32.6
(DLHS-4)**	13780	6837	6943
(DLHS-3)**	12360	9484	2876

^a Literate but did not attend school, are also included. **Unweighted cases.

TABLE 2.2 LEVEL OF EDUCATION OF EVER MARRIED WOMEN

Percent distribution of ever married women age 15-49 years according to selected background characteristics and years of schooling, Kerala , 2012-13.

Background characteristics	Non-literate	Literate but no schooling	Years of schooling				Total	Number of women**
			0-5 years	6-8 years	9-10 years	11 or more years		
Age group								
15-19	7.0	0.6	0.7	8.0	27.9	55.8	100.0	146
20-24	7.6	0.3	1.0	6.5	20.7	64.0	100.0	1293
25-29	6.2	0.3	1.7	13.6	20.9	57.4	100.0	2363
30-34	8.9	0.4	2.8	17.6	23.8	46.6	100.0	2732
35-39	6.2	0.1	5.6	19.1	24.6	44.3	100.0	2772
40-44	6.0	0.1	8.5	22.3	23.9	39.2	100.0	2459
45-49	7.7	0.1	13.6	23.8	25.6	29.1	100.0	2015
Place of residence								
Rural	6.4	0.2	6.1	18.3	23.4	45.7	100.0	6837
Urban	7.8	0.3	5.1	17.3	23.6	45.9	100.0	6943
Husband's education								
Non-literate ^a	64.8	1.8	6.9	6.4	8.0	12.1	100.0	1258
Less than 5 years	7.5	0.0	46.8	31.0	13.3	1.3	100.0	309
5-9 years	1.7	0.1	12.0	44.8	27.9	13.6	100.0	3644
10 or more years	1.1	0.1	1.0	6.9	24.1	66.8	100.0	8569
Religion								
Hindu	7.0	0.3	5.1	17.3	24.5	45.8	100.0	7716
Muslim	9.1	0.3	8.7	23.6	23.2	35.2	100.0	3575
Christian	4.1	0.1	3.0	11.6	21.2	60.0	100.0	2406
Jain	13.4	0.0	0.0	0.0	0.0	86.6	100.0	47
Others	0.0	0.0	0.0	4.0	9.6	86.5	100.0	27
Caste/tribes								
Scheduled caste	9.0	0.2	6.8	21.9	23.3	38.8	100.0	1356
Scheduled tribes	13.8	0.0	9.8	21.8	19.1	35.5	100.0	198
Other backward classes	7.5	0.2	6.8	21.3	25.2	38.9	100.0	7577
Others	5.4	0.2	3.0	10.7	20.9	59.7	100.0	4649
Kerala	7.1	0.2	5.6	17.8	23.5	45.8	100.0	13780

Note: Total includes women with missing information on husband's education, who are not shown separately.

^a Literate but did not attend school, are also included. ** Unweighted cases.

TABLE 2.3 BIRTH ORDER

Percent distribution of births^{###} among ever married women age 15-49 years according to selected background characteristics and birth order, Kerala, 2012-13.

Background characteristics	Distributio n of births	Birth order					Total	Number of births**
		1	2	3	4+	2 & above		
Age group								
15-19	1.6	95.8	4.2	0.0	0.0	4.2	100.0	25
20-24	27.9	76.8	21.8	1.4	0.0	23.2	100.0	436
25-29	40.9	49.5	41.1	8.8	0.5	50.5	100.0	645
30-34	21.7	28.3	53.4	15.8	2.5	71.7	100.0	331
35-39	6.9	24.2	47.5	18.9	9.4	75.8	100.0	108
40-45	0.8	(45.5)	(20.8)	(7.0)	(26.7)	(54.5)	(100.0)	14
45-49	0.2	--	--	--	--	--	--	04
Place of residence								
Rural	50.2	50.7	39.5	8.2	1.5	49.3	100.0	747
Urban	49.8	52.0	36.8	9.4	1.8	48.0	100.0	816
Education								
Non-literate ^a	0.5	--	--	--	--	--	--	08
Less than 5 years	0.2	--	--	--	--	--	--	03
5-9 years	16.6	33.9	43.5	17.7	4.9	66.1	100.0	266
10 or more years	82.7	54.9	37.1	7.1	0.9	45.1	100.0	1286
Religion								
Hindu	55.9	54.5	39.6	5.7	0.2	45.5	100.0	864
Muslim	29.5	44.2	34.7	16.0	5.2	55.8	100.0	479
Christian	14.4	53.6	40.0	6.4	0.0	46.4	100.0	219
Jain	na	na	na	na	na	na	na	00
Others	0.1	--	--	--	--	--	--	01
Caste/tribes								
Scheduled caste	11.6	47.7	43.1	9.1	0.0	52.3	100.0	176
Scheduled tribes	0.6	--	--	--	--	--	--	09
Other backward classes	62.0	50.5	37.7	9.4	2.3	49.5	100.0	976
Others	25.8	55.4	37.3	6.6	0.7	44.6	100.0	402
Kerala	100.0	51.4	38.2	8.8	1.6	48.6	100.0	1563

^{###} Last live/still birth since 01-01-2008. ^a Literate, but did not attend school are also included. () Based on 10-20 unweighted cases. -- Percentage not shown for less than 10 cases. na = Not applicable. ** Unweighted cases.

TABLE 2.4 BIRTH ORDER BY DISTRICTS

Percent distribution of births^{###} among ever married women age 15-49 years by birth order and districts, Kerala, 2012-13.

Districts	Distribution of births	Birth order					Total	Number of births**
		1	2	3	4+	2 & above		
Kasaragod	6.7	54.7	25.9	14.2	5.2	45.3	100.0	113
Kannur	3.3	49.9	43.4	5.0	1.7	50.1	100.0	59
Wayanand	5.4	47.7	38.3	14.0	0.0	52.3	100.0	80
Kozhikode	14.5	45.2	35.5	15.4	3.9	54.8	100.0	231
Mallappuram	7.0	46.9	28.4	15.7	9.0	53.1	100.0	121
Palakkad	0.7	((100.0)	(0.0)	(0.0)	(0.0)	(0.0)	(100.0)	15
Thrissur	6.7	41.4	50.7	8.0	0.0	58.6	100.0	100
Ernakulam	7.0	63.8	29.3	6.9	0.0	36.2	100.0	107
Idukki	na	na	na	na	na	na	na	00
Kottayam	9.3	49.4	42.4	8.2	0.0	50.6	100.0	142
Alappuzha	12.8	51.8	42.8	5.4	0.0	48.2	100.0	195
Pathanamthitta	0.2	--	--	--	--	--	--	03
kollam	12.8	54.6	39.7	5.7	0.0	45.4	100.0	186
Thiruvananthapuram	13.6	54.7	41.8	3.2	0.3	45.3	100.0	211
Kerala	100.0	51.4	38.1	8.8	1.6	48.6	100.0	1563

^{###} Last live/still birth since 01-01-2008. () Based on 10-20 unweighted cases, -- Percentage not shown for less than 10 cases. ** Unweighted cases.

TABLE 2.5 CHILDREN EVER BORN

Mean children ever born (MCEB) according to selected background characteristics of ever married women age 15-49 years and 40-49 years, Kerala, 2012-13.

Background characteristics	Mean children ever born to women age 15-49 years				Mean children ever born to women age 40-49 years			
	Total	Males	Females	Number of Women**	Total	Males	Females	Number of Women**
Age Group								
15-19	0.24	0.14	0.11	146	na	na	na	na
20-24	0.60	0.33	0.27	1294	na	na	na	na
25-29	1.13	0.62	0.51	2364	na	na	na	na
30-34	1.52	0.82	0.69	2734	na	na	na	na
35-39	1.76	0.95	0.80	2774	na	na	na	na
40-44	1.87	1.02	0.85	2460	1.87	1.02	.85	2460
45-49	1.95	1.03	0.92	2018	1.95	1.03	.92	2018
Residence								
Rural	1.53	0.83	0.70	6837	1.92	1.03	.90	2199
Urban	1.53	0.83	0.70	6953	1.88	1.02	.86	2279
Education								
Non-literate ^a	0.80	0.48	0.33	1024	1.15	0.64	0.51	326
Less than 5 years	2.14	1.09	1.05	224	2.30	1.16	1.14	142
5-9 years	1.98	1.04	0.95	2951	2.20	1.13	1.06	1339
10 or more years	1.44	0.79	0.65	9591	1.81	1.00	0.81	2671
Religion								
Hindu	1.47	0.79	0.68	7723	1.78	0.97	0.82	2645
Muslim	1.71	0.94	0.77	3577	2.32	1.26	1.06	953
Christian	1.47	0.79	0.68	2407	1.82	0.95	0.88	862
Jain	1.05	0.76	0.29	47	--	--	--	09
Others	1.30	0.83	0.47	27	--	--	--	07
Caste/tribes								
Scheduled caste	1.46	0.81	0.65	1356	1.83	1.02	0.81	402
Scheduled tribes	1.34	0.77	0.58	198	1.91	1.17	0.75	50
Other backward classes	1.59	0.85	0.74	7586	2.01	1.06	0.95	2352
Others	1.45	0.80	0.65	4650	1.77	0.96	0.81	1674
Kerala	1.53	0.83	0.70	13790	1.90	1.02	0.88	4478

Note: Total figure may not add to 100 due to 'don't know' and 'missing cases'. ^a Literate but not attend school are also included. na = Not applicable. -- Percentage not shown for less than 10 cases. ** Unweighted cases.

TABLE 2.6 OUTCOMES OF PREGNANCY

Percent distribution of all pregnancies of currently married women age 15-49 years by outcomes since 01-01-2008 according to background characteristics, Kerala, 2012-13.

Background characteristics	Number of Currently Married Women	Percentage of Currently pregnant women	Pregnancy outcome				Total percent	Number of pregnancies**
			Live birth	Still birth	Induced abortion	Spontaneous abortion		
Age group								
15-19	139	20.9	88.9	0.0	4.1	7.0	100.0	29
20-24	1243	17.2	94.5	0.1	1.2	4.2	100.0	640
25-29	2281	13.1	94.4	0.6	2.1	2.9	100.0	1218
30-34	2596	9.5	93.6	0.4	2.9	3.1	100.0	763
35-39	2622	3.6	96.6	0.8	1.2	1.4	100.0	302
40-44	2251	2.5	87.1	1.2	5.7	6.0	100.0	67
45-49	1774	1.2	90.1	0.0	5.2	4.7	100.0	39
Place of resident								
Urban	6400	8.9	94.4	0.5	2.2	2.8	100.0	1478
Rural	6506	9.3	93.9	0.4	2.1	3.6	100.0	1580
Sex-composition of living children								
One son only	2539	7.1	93.9	0.5	2.4	3.2	100.0	663
One daughter only	1640	7.9	94.6	0.7	2.3	2.4	100.0	528
One son, one daughter only	2902	3.5	97.3	0.3	1.0	1.4	100.0	714
Two sons only	1347	2.3	96.7	0.7	1.9	0.7	100.0	382
Three sons only	133	5.0	98.6	0.0	0.0	1.4	100.0	57
Three daughters only	134	2.6	97.2	0.0	0.0	2.8	100.0	61
Four and above	275	5.9	95.6	0.0	1.3	3.1	100.0	65
Woman's Education								
Non-literate ^a	832	4.4	85.5	7.5	3.3	3.6	100.0	27
Less than 5 years	195	4.7	--	--	--	--	--	10
5-9 years	2703	7.3	94.7	0.2	2.4	2.7	100.0	595
10 or more years	9176	10.1	94.2	0.4	2.1	3.3	100.0	2426
Husband's education								
Non-literate ^a	962	3.6	97.6	0.0	2.3	2.4	100.0	41
Less than 5 years	333	4.7	92.5	5.2	2.2	0.0	100.0	36
5-9 years	3384	9.2	93.4	0.4	2.2	4.1	100.0	953
10 or more years	8227	10.0	94.5	0.5	2.2	2.9	100.0	2028
Religion								
Hindu	7192	8.9	93.8	0.5	2.5	3.2	100.0	1705
Muslim	3357	9.8	94.2	0.5	1.9	3.3	100.0	917
Christian	2280	8.6	95.6	0.4	1.3	2.8	100.0	434
Jain	44	7.4	--	--	--	--	--	01
Others	26	14.1	--	--	--	--	--	01
Caste/tribes								
Scheduled caste	1244	9.0	94.1	0.3	1.8	3.8	100.0	341
Scheduled tribes	182	7.4	79.2	6.0	7.7	7.2	100.0	30
Other backward classes	7089	9.6	94.0	0.3	2.1	3.5	100.0	1894
Others	4391	8.4	95.2	0.7	2.2	2.0	100.0	793
Kerala	12906	9.1	94.2	0.5	2.2	3.2	100.0	3058

^a Literate but did not attend school, are also included. -- percentage not shown for less than 10 cases. ** Unweighted cases

TABLE 2.7 OUTCOMES OF PREGNANCY

Percent distribution of all pregnancies of currently married women age 15-49 years by outcomes since 01-01-2008 according to Districts, Kerala, 2012-13.

Districts	Number of Currently Married Women	Percentage of Currently pregnant women	Pregnancy outcome					Number of pregnancies* *
			Live birth	Still birth	Induced abortion	Spontaneous abortion	Total percent	
Kasaragod	1071	7.8	95.4	0.5	1.7	2.4	100.0	224
Kannur	577	4.2	94.8	0.7	2.3	2.1	100.0	119
Wayanand	786	7.3	94.5	2.1	0.0	3.5	100.0	172
Kozhikode	1196	7.2	92.8	0.2	2.1	4.9	100.0	464
Mallappuram	1192	13.5	96.1	0.0	0.6	3.3	100.0	239
Palakkad	1108	15.1	93.3	0.0	3.2	3.5	100.0	56
Thrissur	882	9.1	98.1	0.0	0.0	1.9	100.0	192
Ernakulam	682	3.5	98.2	0.7	0.6	0.5	100.0	203
Idukki	819	4.0	0.0	55.5	44.5	0.0	na	02
Kottayam	711	3.9	89.7	0.8	5.0	4.5	100.0	258
Alappuzha	1079	7.1	96.0	0.5	1.2	2.3	100.0	369
Pathanamthitta	985	7.6	61.8	3.3	21.9	13.0	100.0	37
kollam	851	4.5	93.2	0.0	3.6	3.1	100.0	358
Thiruvananthapuram	967	5.1	94.4	0.2	2.0	3.4	100.0	365
Kerala	12906	100.0	94.2	0.5	2.2	3.2	100.0	3058

** Unweighted cases.

TABLE 2.8 FERTILITY PREFERENCES

Percent distribution of currently married women age 15-49 years by desire since January 2008 for additional child, by number of surviving children, Kerala, 2012-13.

Desire for children	Number of surviving children					Total
	0	1	2	3	4+	
Desire for additional/next child						
Want another soon ¹	32.3	12.1	1.6	0.9	0.8	9.5
Want another later ²	5.6	10.5	1.1	1.1	0.4	4.7
Want another, undecided when Undecided	11.8	8.9	1.5	0.5	0.9	5.3
Want no more	22.5	19.4	7.4	6.6	5.4	13.4
Sterilized ³	15.8	28.0	19.3	14.0	24.1	21.1
Declared in fecund	3.1	12.7	67.2	75.6	65.7	41.0
Inconsistent response	8.1	4.9	1.4	1.2	2.8	3.5
	0.7	3.4	0.4	0.2	0.0	1.4
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women**	1974	4148	5222	1119	273	12736
Preferred sex of additional/ next child						
Boy	11.6	20.2	19.2	26.5	34.3	17.1
Girl	4.8	15.3	18.5	11.8	0.0	11.8
Doesn't matter	51.8	39.4	37.6	34.5	44.9	43.6
Up to God	31.8	25.1	24.7	27.1	20.8	27.5
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women**	999	1433	273	33	06	2744

¹ Want next birth within 2 years. ² Want to delay next birth for 2 or more years.

³ Includes both female and male sterilization. ⁴ Includes women who want another/next child. ** Unweighted cases.

MATERNAL HEALTH CARE

TABLE 3.1 PLACE OF ANTENATAL CHECK-UP

Percentage of women (aged 15-49) ^{###} who received any antenatal check-up (ANC) during pregnancy by source and place of antenatal check-ups, according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Any antenatal check-up ¹	Place of antenatal check-up ^b				Number of women ^{**}
		Government health facility ²		Private health facility ³	Others ⁴	
		Health facility	ICDS/Mobile unit			
Age group						
15-19	96.0	55.0	11.6	66.7	16.0	25
20-24	96.2	53.2	6.6	60.0	11.3	505
25-29	95.1	54.9	6.9	59.0	7.9	923
30-34	98.2	56.3	8.9	58.9	8.6	590
35+	95.3	50.3	9.4	59.5	10.8	287
No. of Living Children						
0	--	--	--	--	--	1
1	96.0	52.3	6.9	60.7	8.5	1069
2	96.7	57.3	8.5	56.7	9.3	978
3	95.1	50.3	7.6	63.1	12.1	239
4+	94.6	56.3	9.5	67.4	11.3	43
Residence						
Rural	95.3	52.4	6.6	59.4	8.6	1126
Urban	97.1	56.3	8.8	59.3	9.9	1204
Education						
Non literate ^a	55.5	72.0	10.6	18.9	0.0	20
Less than 5 years	--	--	--	--	--	7
9-10 years	94.0	68.4	7.2	45.9	8.2	436
10 or more years	97.1	51.0	7.8	62.7	9.5	1867
Religion						
Hindu	96.1	58.2	8.6	53.9	7.4	1298
Muslim	96.0	47.2	6.1	69.0	14.2	698
Christian	97.3	53.8	7.0	61.1	6.1	332
Jain	--	--	--	--	--	1
Others	--	--	--	--	--	1
Caste/tribes						
Scheduled caste	96.1	81.0	15.8	29.3	8.0	243
Scheduled tribes	(70.6)	(91.7)	(0.0)	(25.0)	(8.3)	17
Other backward classes	96.6	53.5	7.0	62.4	11.2	1431
Others	95.9	45.1	6.2	64.8	5.3	639
DLHS-4	96.2	54.3	7.7	59.4	9.2	2330
DLHS-3	99.8	39.3	5.0	67.7	NA	3302

^{###} Women who had their last live/still birth since 01-01-2008. ^a Literate but did not attend school are also included.
¹ Antenatal check-up done outside home or at home.
² Includes sub-centre, primary health centre, community health centre or rural hospital, urban health centre/ urban health post/ urban family welfare centre, government hospital or dispensary.
³ Includes private hospital/clinic.
⁴ Includes own home, parents home, other home and other.
^b Among those who had received any ANC those who had received any ANC. () Based on 10-20 unweighted cases.
-- Percentage not shown for less than 10 cases. NA: Not available. ** Unweighted cases.

TABLE 3.2 ANTENATAL CARE BY DISTRICT

Percentage of women (aged 15-49) ^{###} who received any antenatal check-up (ANC) during pregnancy by source and place of antenatal check-ups by districts, Kerala, 2012-13.

District/State	Place of antenatal check-up ^a					Number of Women**	
	Any ANC Check up	Government ¹ health facility			Private ² health facility		Others ³
		Health Facility	ICDS/Mobile Unit				
Kasaragod	79.3	60.1	8.6	50.6	3.6	166	
Kannur	96.6	38.6	0.9	69.4	1.4	88	
Wayanand	96.1	64.8	10.5	50.8	39.8	135	
Kozhikode	98.5	60.8	8.2	64.2	25.0	350	
Mallappuram	99.6	39.6	7.3	72.0	0.6	191	
Palakkad	85.6	79.3	10.5	31.1	7.0	42	
Thrissur	97.7	48.0	10.0	74.8	5.4	152	
Ernakulam	99.3	34.8	3.6	74.1	3.7	165	
Idukki	--	--	--	--	--	1	
Kottayam	95.2	65.3	8.7	50.1	1.7	181	
Alappuzha	99.5	64.2	17.8	35.8	0.0	295	
Pathanamthitta	(47.1)	(62.5)	(12.5)	(37.5)	(0.0)	18	
kollam	95.8	51.6	7.0	54.0	2.0	262	
Thiruvananthapuram	99.5	54.4	7.8	59.4	9.2	284	
DLHS-4	96.2	54.3	7.7	59.4	9.2	2330	
DLHS-3	99.8	39.3	5.0	67.7	NA	3302	

^a Total figure may not add to 100 percent due to 'do not know' and 'missing cases.. ^{###} Women who had their last live/still birth since 01-01-2008. ¹ Includes sub-centre, primary health centre, community health centre or rural hospital, urban health centre/urban health post/ urban family welfare centre, government hospital or dispensary.

² Includes Private hospital/clinic. ³ Includes own home, parents home, other home and others.

() Based on 10-20 unweighted cases. -- Percentage not shown for less than 10 cases. Na: Not available. ** Unweighted cases.

TABLE 3.3 COMPONENTS OF ANTENATAL CHECK-UPPercentage of women (aged 15-49) ^{###} who received specific components of antenatal check-up according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Weight measured	Height measured	Blood pressure checked	Blood tested (Hb)	Urine tested	Abdomen examined	Sonography /ultrasound	Number of Women**
Age group								
15-19	85.2	37.7	86.4	89.8	84.4	83.3	86.1	25
20-24	90.4	46.7	85.6	78.4	81.1	74.2	82.5	505
25-29	89.6	48.5	86.3	79.0	77.2	73.8	85.4	923
30-34	93.5	44.5	90.3	81.2	80.9	76.9	88.6	590
35+	90.3	44.4	84.6	78.0	74.5	75.1	82.7	287
No. of Living Children								
0	--	--	--	--	--	--	--	1
1	90.3	47.5	85.9	78.0	77.7	74.0	83.6	1069
2	91.5	45.2	88.4	80.9	80.6	76.8	87.6	978
3	90.8	46.7	86.1	80.3	77.8	73.1	84.2	239
4+	86.9	46.2	84.0	77.8	68.3	67.5	78.7	43
Residence								
Rural	89.1	45.3	86.7	76.8	74.4	71.2	85.3	1126
Urban	92.6	47.6	87.3	82.1	83.2	78.8	85.2	1204
Education								
Non- literate ^a	27.6	26.7	30.6	31.5	26.0	16.6	17.7	20
Less than five years	--	--	--	--	--	--	--	7
5-9 years	88.7	46.7	85.8	78.2	76.4	73.0	83.1	436
10 or more years	92.0	46.6	87.9	80.3	79.8	76.0	86.6	1867
Religion								
Hindu	90.8	46.5	86.7	79.5	77.6	75.7	85.5	1298
Muslim	89.2	43.2	87.3	79.1	78.3	72.5	83.6	698
Christian	94.6	53.1	87.7	80.1	84.5	77.5	88.2	332
Jain	--	--	--	--	--	--	--	1
Others [#]	--	--	--	--	--	--	--	1
Caste/tribes								
Scheduled Caste	94.2	53.1	90.1	83.9	82.9	79.7	90.2	243
Scheduled Tribes	(58.8)	(29.4)	(52.9)	(47.1)	(41.2)	(52.9)	(47.1)	17
Backward Classes	90.2	45.2	86.5	78.2	78.2	74.1	84.1	1431
Others	91.7	47.1	87.7	81.2	79.3	75.5	87.0	639
DLHS-4	90.8	46.5	87.0	79.4	78.7	74.9	85.3	2330
DLHS-3	96.8	46.0	98.5	98.7	98.9	98.1	93.3	3302

Note: Percentage may not add to 100.0 due to multiple responses.

^{###} Women who had their last live/still birth since 01-01-2008.^a Literate but did not attend school, are also included. () Based on 10-20 unweighted cases -- Percentage not shown based on less than 10 cases. ** Unweighted cases.

TABLE 3.4 WOMEN RECEIVED ADVICE DURING ANTENATAL CAREPercentage of women (aged 15-49)^{###} who received advice on different components, according to selected background characteristics, Kerala, 2012-13

Background characteristics	Nutrition for mother and child	Cleanliness at the time of delivery	Institutional delivery	Keep baby warm	Breast feeding	Advice for family planning		Number of Women**
						Spacing	Limiting	
Age group								
15-19	55.0	49.6	42.3	53.7	53.7	42.3	42.5	25
20-24	66.7	59.8	51.5	59.2	58.9	61.7	49.1	505
25-29	69.0	61.8	50.5	63.5	60.7	59.7	52.8	923
30-34	65.6	57.5	51.6	61.5	61.4	51.6	49.1	590
35+	68.5	63.2	53.3	62.2	60.6	57.5	56.4	287
No. of Living Children								
0	--	--	--	--	--	--	--	1
1	67.4	60.9	49.2	62.1	60.9	60.0	50.1	1069
2	68.2	61.1	53.4	62.3	60.3	57.5	54.8	978
3	66.4	58.1	53.1	62.4	63.3	50.4	47.5	239
4+	52.7	39.8	42.4	40.4	36.9	31.9	22.3	43
Residence								
Rural	66.1	59.5	49.7	61.2	61.4	56.8	51.2	1126
Urban	68.8	61.1	52.8	62.4	59.4	58.3	51.5	1204
Education								
Non-literate ^a	27.8	45.2	14.4	31.8	46.8	14.8	13.1	20
Less than 5 years	--	--	--	--	--	--	--	7
5-9 years	65.4	59.5	53.5	58.5	57.4	55.7	52.3	436
10 or more year	68.2	60.6	51.0	62.7	61.1	58.3	51.4	1867
Religion								
Hindu	67.8	63.2	51.1	64.3	62.5	58.9	52.4	1298
Muslim	64.9	54.8	50.8	57.4	54.8	54.5	46.0	698
Christian	70.8	60.1	52.4	61.0	63.4	58.3	57.8	332
Jain	--	--	--	--	--	--	--	1
Others [#]	--	--	--	--	--	--	--	1
Castes/tribes								
Scheduled castes	74.7	65.7	55.3	64.4	63.2	60.4	57.4	243
Scheduled Tribes	(58.3)	(58.3)	(33.3)	(66.7)	(41.7)	(66.7)	(58.3)	17
Other backward classes	64.4	57.2	48.7	59.1	57.5	54.8	46.9	1431
Others	71.5	65.1	55.8	66.6	66.3	62.3	58.5	639
DLHS-4	67.4	60.3	51.2	61.8	60.4	57.5	51.3	2330
DLHS-3	82.7	76.6	61.2	75.3	79.5	60.1	56.0	3302

^{###} Women who had their last live/still birth since 01-01-2008. ^a Literate but did not attend school are also included. () Based on 10-20 unweighted cases. -- Percentage not shown for less than 10 cases.** Unweighted cases.

TABLE 3.5 (A) ANTENATAL CARE: ANC VISITS AND TIME OF FIRST ANC

Percent distribution of women (aged 15-49)^{###} by the number of antenatal check-up and the stage of pregnancy at the time of first check-up during pregnancy according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Number of ANC Check up				Stage of pregnancy at the time of the first antenatal check-up			Number of Women**
	No Check up	1	2	3+	First trimester	Second trimester	Third trimester	
Age group								
15-19	12.1	0.0	3.1	84.8	75.1	9.2	3.6	25
20-24	12.4	0.3	.8	86.5	76.9	6.1	3.3	505
25-29	13.2	0.2	1.4	85.2	75.9	6.2	2.0	923
30-34	9.2	0.4	1.9	88.5	80.3	5.4	1.4	590
35+	15.9	0.0	1.1	83.0	75.7	3.7	2.8	287
No. of Living Children								
0	--	--	--	--	--	--	--	1
1	13.9	0.4	1.1	84.6	76.5	5.2	2.7	1069
2	10.4	0.2	1.8	87.6	78.0	6.5	1.7	978
3	12.4	0.0	0.7	86.9	75.7	5.7	2.7	239
4+	16.5	0.0	2.3	81.2	82.9	0.0	0.0	43
Residence								
Rural	12.9	0.4	2.0	84.7	73.4	6.5	2.6	1126
Urban	11.7	0.2	0.7	87.4	81.2	4.9	1.8	1204
Education								
Non-literate ^a	78.7	0.0	0.0	21.3	9.4	7.5	0.0	20
Less than 5 years	--	--	--	--	--	--	--	7
5-9 years	11.2	0.0	1.5	87.2	77.4	5.1	2.7	436
10 or more year	11.8	0.3	1.4	86.5	77.9	5.8	2.2	1867
Religion								
Hindu	13.3	0.3	1.6	84.8	76.6	5.6	2.1	1298
Muslim	10.8	0.1	1.4	87.7	76.2	5.7	3.4	698
Christian	11.0	0.3	0.5	88.1	81.6	6.2	0.6	332
Jain	--	--	--	--	--	--	--	1
Others	--	--	--	--	--	--	--	1
Castes/tribes								
Scheduled castes	12.7	0.0	2.7	84.5	84.1	4.3	0.3	243
Scheduled Tribes	(35.3)	(0.0)	(0.0)	(64.7)	(58.8)	(0.0)	(0.0)	17
Other backward classes	12.1	0.1	1.2	86.6	77.1	5.3	3.0	1431
Others	12.1	0.7	1.4	85.8	75.4	7.3	2.2	639
DLHS-4								
DLHS-4	12.3	0.3	1.4	86.0	77.2	5.7	2.2	2330
DLHS-3								
DLHS-3	4.5	0.1	0.2	95.2	95.6	3.9	0.2	3302

^a Literate but did not attend school are also included. () Based on 10-20 unweighted cases. -- Percentage not shown based on less than 10 cases. ** Unweighted cases.

TABLE 3.5 (B) ANTENATAL CARE: TT, IFA AND ANC

Percent distribution of women (aged 15-49) ^{###} by the number of tetanus toxoid (TT) injections and iron folic acid (IFA) tablets/syrup received during pregnancy, and the percentage who received full antenatal check-up (ANC) according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Women who received TT			Women who received IFA tablets/syrup equivalent			Number of Women**
	No TT	1	2+	No IFA/syrup	100+ IFA tablets	Full ANC ^b	
Age group							
15-19	4.0	8.4	87.6	0.0	88.1	77.0	25
20-24	6.1	9.6	84.2	2.8	73.4	69.2	505
25-29	8.0	7.8	84.2	1.9	75.2	70.0	923
30-34	3.3	9.2	87.5	2.4	78.3	72.9	590
35+	9.8	9.9	80.4	1.8	74.2	67.1	287
No. of Living Children							
0	--	--	--	--	--	--	1
1	7.0	8.6	84.4	3.2	73.1	67.7	1069
2	5.6	9.1	85.3	1.2	77.9	72.2	978
3	8.1	9.0	82.8	2.0	77.5	74.0	239
4+	10.4	6.5	83.1	0.0	77.6	70.9	43
Residence							
Rural	7.5	8.7	83.7	2.1	74.7	69.9	1126
Urban	5.6	8.9	85.5	2.3	76.5	70.7	1204
Education							
Non literate ^a	74.3	14.0	11.7	0.0	8.0	8.0	20
Less than 5 years	--	--	--	--	--	--	7
5-9 years	9.9	8.6	81.5	1.2	79.0	74.5	436
10 or more years	5.1	8.8	86.1	2.5	75.6	70.0	1867
Religion							
Hindu	7.1	8.6	84.2	2.2	75.8	69.8	1298
Muslim	6.4	8.9	84.6	2.6	76.4	72.6	698
Christian	4.5	9.3	86.3	1.5	73.4	68.0	332
Others	--	--	--	--	--	--	2
Castes/tribes							
Scheduled castes	5.2	5.5	89.3	1.4	71.9	65.3	243
Scheduled tribes	(29.4)	(29.4)	(41.2)	(11.8)	(41.2)	(35.3)	17
Other backward classes	6.5	9.1	84.4	2.2	77.0	71.7	1431
Others	6.8	8.9	84.4	2.2	74.9	70.0	639
DLHS-4	6.6	8.8	84.6	2.2	75.6	70.3	2330
DLHS-3	1.5	3.9	92.7	6.2	79.5	72.2	3302

Note: Percentage may not add to 100.0 due to multiple responses, do not know or missing cases.

^{###} Women who had their last live/still birth since 01-01-2008. ^a Literate but did not attend school are also included.

^b At least three visits for antenatal check-up, at least one TT injection received and 100+ IFA tablets/ syrup consumed. () Based on 10-20 unweighted cases. -- Percentage not shown for less than 10 cases. ** Unweighted cases.

TABLE 3.6 ANTENATAL CARE INDICATORS AND PREGNACY COMPLICATIONSPercentage of women (aged 15-49) ^{###} who received different types of antenatal care (ANC) by districts, Kerala, 2012-13.

District/State	antenatal check-up in the first trimester of pregnancy	three or more antenatal check-up	at least one tetanus toxoid injection	100+ IFA tablets/ syrup ¹	full ² antenatal check-up	Any complications	Number of Women**
Kasaragod	19.9	48.1	57.7	35.7	27.3	23.9	166
Kannur	64.1	77.0	95.6	86.1	70.3	36.1	88
Wayanand	73.8	85.8	93.0	65.7	64.2	56.3	135
Kozhikode	84.3	96.1	98.1	85.9	83.8	62.5	350
Mallappuram	88.4	91.2	98.6	81.8	78.0	56.6	191
Palakkad	55.9	53.8	85.6	10.7	2.1	34.8	42
Thrissur	86.6	93.6	97.7	76.6	73.6	46.4	152
Ernakulam	87.3	83.6	97.6	85.4	71.5	47.3	165
Idukki	--	--	--	--	--	--	1
Kottayam	67.8	70.0	91.0	77.3	58.2	35.4	181
Alappuzha	92.8	95.6	98.3	80.5	76.8	40.2	295
Pathanamthitta	(11.1)	(27.8)	(44.4)	(11.1)	(11.1)	(33.3)	18
kollam	76.5	92.7	94.8	77.9	76.9	56.7	262
Thiruvananthapuram	86.4	93.2	99.5	80.5	80.0	24.4	284
DLHS-4	77.2	86.0	93.6	75.6	70.3	45.1	2330
DLHS-3	95.6	95.2	96.6	73.3	72.2	63.2	3302

^{###} Women who had their last live/still birth since 01-01-2008.¹ 100 or more iron folic acid tablets including syrup.² At least three visits for antenatal check-up, at least one TT injection received and 100+ IFA tablets/ syrup consumed. () Based on 10-20 unweighted cases. -- Percentage not shown for less than 10 cases.** Unweighted cases.

TABLE 3.7 PLACE OF DELIVERY AND ASSISTANCE

Percent distribution of women (aged 15-49) ^{###} according to place of delivery, assistance during home deliveries, and safe deliveries according to background characteristics, Kerala, 2012-13.

Background characteristics	Institutional delivery			delivery at home	Home delivery assisted by skilled persons ¹	Percentage of SBA deliveries	Number of women**
	Government	Private	Total				
Age group							
15-19	35.2	64.8	100.0	0.0	0.0	100.0	25
20-24	44.6	55.1	99.8	0.0	0.0	99.8	505
25-29	46.9	52.8	99.7	0.2	0.1	99.8	923
30-34	46.4	53.4	99.9	0.1	0.0	99.9	590
35+	44.1	55.5	99.6	0.4	0.4	100.0	287
No. of Living Children							
0	--	--	--	--	--	--	1
1	45.2	54.5	99.7	0.1	0.1	99.8	1069
2	47.9	52.0	99.9	0.1	0.0	99.9	978
3	41.1	58.9	100.0	0.0	0.0	100.0	239
4+	38.1	56.5	94.6	5.4	2.6	97.2	43
Residence							
Rural	43.6	56.1	99.7	0.3	0.1	99.8	1126
Urban	48.2	51.7	99.8	0.1	0.1	99.9	1204
Education							
Non literate ^a	67.7	21.4	89.1	5.9	0.0	89.1	20
Less than 5 years	--	--	--	--	--	--	7
5-9 years	60.7	39.1	99.8	0.2	0.0	99.8	436
10 or more years	42.0	57.8	99.8	0.1	0.1	99.9	1867
Religion							
Hindu	52.1	47.6	99.8	0.1	0.0	99.8	1298
Muslim	34.6	65.3	99.8	0.2	0.2	100.0	698
Christian	43.6	55.9	99.6	0.4	0.2	99.8	332
Jain	--	--	--	--	--	--	1
Others	--	--	--	--	--	--	1
Castes/tribes							
Scheduled castes	75.9	23.6	99.5	0.5	0.0	99.5	243
Scheduled tribes	(82.4)	(17.6)	(100.0)	(0.0)	(0.0)	(100.0)	17
Other backward classes	44.1	55.8	99.9	0.0	0.0	99.9	1431
Others	37.2	62.4	99.6	0.3	0.2	99.7	639
DLHS-4	45.8	53.8	99.6	0.2	0.1	99.7	2330
DLHS-3	31.9	67.9	99.4	0.6	0.0	99.4	3302

Note: Percentage of women who had institutional and home delivery may not add to 100.0, as some deliveries took place on the way to the institute, working place, other place etc.

^{###} Women who had their last live/still birth since 01-01-2008. ^a Literate but did not attend school are also included.

¹ Includes Doctor/ANM/Nurse. ² Skilled Birth Attendant. () Based on 10-20 unweighted cases. -- Percentage not shown based on less than 10 cases.** Unweighted cases.

TABLE 3.8 MODE OF TRANSPORTATION USED FOR DELIVERY AND ARRANGEMENT OF TRANSPORTATION											
Percent distribution of women (aged 15-49) ^{###} who had institutional delivery, according to the transportation used to reach the health facility for delivery and transportation arrangement made according to selected background characteristics, Kerala, 2012-13.											
Background characteristics	Mode of transportation used to reach the health facility for delivery				Govt. financial assistance for delivery care (JSY) ^c		Number of women**	Mean Transport cost (Rupees)	Mean Delivery cost (Rupees)		Number of women**
	Ambulance	Jeep/ car	Motor cycle/scooter	Others ¹	Institutional	Home			Govt.	Private	
Age group											
15-19	0.0	76.3	4.6	19.1	15.7	--	25	375	4220	10346	18
20-24	2.1	80.8	7.4	9.5	22.9	--	505	879	6058	16803	264
25-29	1.3	78.0	7.8	12.7	20.6	--	923	1075	6505	17212	486
30-34	0.7	75.5	11.1	12.6	21.4	--	590	982	6266	19119	323
35+	1.8	79.7	6.1	11.8	21.8	--	287	891	6741	19833	155
No. of Living Children											
0	--	--	--	--	0.0	--	1	0	0	0	0
1	2.2	80.0	7.6	10.0	20.6	--	1069	969	7062	18377	564
2	0.7	76.5	9.4	13.4	24.8	--	978	917	5788	17847	527
3	0.6	77.7	8.3	13.3	14.1	--	239	1473	5729	15365	129
4+	0.0	73.9	2.3	18.3	0.0	--	43	750	7750	16813	26
Residence											
Rural	0.9	82.9	7.5	8.3	21.8	--	1126	1200	6273	18170	548
Urban	1.8	73.2	9.1	15.7	20.9	--	1204	772	6410	17467	698
Education											
Non literate ^a	0.0	76.5	0.0	12.6	4.0	--	20	0	4250	35000	5
Less than 5	--	--	--	--	--	--	7	0	5500	0	2
5-9 years	1.2	65.7	14.0	18.7	29.7	--	436	656	5800	16141	242
10 or more years	1.4	81.1	7.0	10.3	19.6	--	1867	1078	6615	18059	997
Religion											
Hindu	1.4	77.1	9.0	12.3	26.9	--	1298	964	6112	19408	678
Muslim	1.2	80.8	6.3	11.5	12.6	--	698	1064	6671	15709	384
Christian	1.7	76.8	9.7	11.4	17.5	--	332	976	6949	17709	183
Jain	--	--	--	--	--	--	1	0	2500	0	1
others	--	--	--	--	--	--	1	0	0	0	0
Castes/tribes											
Scheduled Castes	0.4	74.7	10.8	13.6	40.0	--	243	925	6359	19631	118
Scheduled Tribes	(5.9)	(64.7)	(23.5)	(5.9)	40.7	--	17	0	8250	17500	6
Other backward classes	1.4	75.7	8.4	14.3	19.8	--	1431	901	6132	17755	788
Others	1.5	85.3	6.6	6.6	17.2	--	639	1150	6988	17692	334
DLHS-4	1.3	78.1	8.3	11.9	21.5	--	2330	987	6362	17813	1246
DLHS-3	0.2	52.9	0.6	41.2	11.1	--	3302	3730	9285	9285	3312

^{###} Women who had their last live/still birth since 01-01-2008. ^a Literate but did not attend school are also included. () Based on 10-20 unweighted cases -- Percentage not shown based on less than 10 cases. ¹ Includes bus/train, tempo/auto/tractor, animal drawn cart, foot march. ^c Percentage women who got JSY assistance. ** Unweighted cases.

TABLE 3.9 PLACE OF DELIVERY AND ASSISTANCE CHARACTERISTICS BY DISTRICTPercent distribution of women (aged 15-49) ^{###} according to place of delivery, assistance during home deliveries, and safe deliveries by districts, Kerala, 2012-13.

District/State	Percentage of women who had institutional delivery	Percentage of women who had delivery at home	Home delivery assisted by skilled persons ¹	Percentage of SBA Delivery ²	Mean Delivery cost	Number of Women ^{**}
Kasaragod	98.0	0.7	0.0	98.0	16246	66
Kannur	100.0	0.0	0.0	100.0	9267	88
Wayanand	100.0	0.0	0.0	100.0	13548	135
Kozhikode	100.0	0.0	0.0	100.0	11947	350
Mallappuram	100.0	0.0	0.0	100.0	11166	191
Palakkad	100.0	0.0	0.0	100.0	4100	42
Thrissur	100.0	0.0	0.0	100.0	18050	152
Ernakulam	100.0	0.0	0.0	100.0	16171	165
Idukki	--	--	--	--	2000	1
Kottayam	100.0	0.0	0.0	100.0	13443	181
Alappuzha	100.0	0.0	0.0	100.0	9731	295
Pathanamthitta	(83.3)	(16.7)	(11.1)	(94.4)	4150	18
kollam	100.0	0.0	0.0	100.0	14718	262
Thiruvananthapuram	100.0	0.0	0.0	100.0	18403	284
DLHS-4	99.6	0.2	0.1	99.7	13401	2330
DLHS-3	99.4	0.6	0.0	99.4	-	3302

Note: Percentage of women who had institutional and home delivery may not add to 100.0, as some deliveries took place on the way to the institute, working place, other place etc.
^{###} Women who had their last live/still birth since 01-01-2008. ¹ Includes Doctor/ANM/Nurse. ² Skilled Birth Attendants () Based on 10-20 unweighted cases. -- Percentage not shown for less than 10 cases. ^{**} Unweighted cases..

TABLE 3.10 DELIVERY COMPLICATIONSPercentage of women (aged 15-49) ^{###} who had complication during delivery and type of complications during delivery, according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Any delivery complication	Type of delivery complications						Number of Women ^{**}
		Premature labour	Excessive bleeding	Prolonged labour	obstructed labour	Breech presentation	Convulsion/ high BP	
Age group								
15-19	8.8	0.0	52.0	0.0	48.0	52.0	0.0	25
20-24	16.3	37.9	15.3	25.1	37.2	11.7	10.7	505
25-29	15.0	29.1	19.5	28.3	35.0	14.1	22.5	923
30-34	16.1	33.5	10.4	25.7	29.3	10.6	13.6	590
35+	14.3	39.5	14.4	17.3	31.6	24.2	23.8	287
No. of Living Children								
0	--	--	--	--	--	--	--	1
1	18.6	27.4	18.5	28.0	35.1	15.0	15.3	1069
2	12.5	37.8	12.1	19.8	28.7	9.6	20.0	978
3	12.9	52.7	15.3	33.4	45.5	22.3	18.9	239
4+	14.1	29.9	0.0	17.7	33.1	36.2	34.6	43
Residence								
Rural	15.4	25.6	15.1	26.9	33.3	12.2	16.6	1126
Urban	15.4	41.1	16.4	23.9	34.0	15.9	18.3	1204
Number of ANC Visits								
No visit	17.5	43.3	27.9	39.6	33.4	18.6	21.2	292
1	--	--	--	--	--	--	--	6
2	7.8	100.0	69.2	100.0	65.3	34.5	0.0	32
3+	15.2	30.9	13.3	22.5	33.5	13.2	17.0	2000
Delivery								
Normal	9.7	43.2	28.3	45.2	25.6	13.6	19.8	1496
Caesarean	25.2	26.7	7.6	12.0	38.8	14.6	16.3	823
By Instrument or Assisted	(60.0)	(25.0)	(0.0)	(25.0)	(50.0)	(0.0)	(0.0)	10
Place of Delivery								
Government facility	17.1	38.5	19.3	31.9	29.6	14.4	13.9	1069
Private facility	14.0	27.9	12.0	18.6	37.9	13.6	21.2	1255
Home	--	--	--	--	--	--	--	4
Other	--	--	--	--	--	--	--	0
DLHS-4	15.5	33.3	15.7	25.4	33.6	14.0	17.5	2330
DLHS-3	23.0	32.3	11.8	14.2	37.3	12.4	17.4	3302

Note: Total figure may not add to 100 percent due to 'multiple responses', 'don't know' or 'missing cases'.
^{###} Women who had their last live/still birth since 01-01-2008. () Based on 10-20 unweighted cases. -- Percentage not shown based on less than 10 cases.
^{**} Unweighted cases.

TABLE 3.11 POST-DELIVERY COMPLICATIONS

Percentage of women (aged 15-49)^{##} who had post delivery complication and type of complications, according to selected background characteristics, Kerala, 2012 -13.

Background characteristics	Any post delivery complication	Type of post delivery complication					Number of women**
		High fever	Lower abdominal pain	Foul smelling vaginal discharge	Excessive bleeding	Other	
Age group							
15-19	13.4	65.7	68.5	0.0	34.3		25
20-24	10.1	36.7	51.9	9.9	14.6		505
25-29	8.4	40.6	42.9	5.8	15.3		923
30-34	9.7	37.0	40.7	5.0	17.4		590
35+	9.2	35.5	41.3	3.2	21.0		287
No. of Living Children							
0	--	--	--	--	--		1
1	9.1	40.8	43.9	8.9	15.9		1069
2	8.7	33.3	44.8	3.3	14.8		978
3	10.2	46.9	52.5	7.4	29.4		239
4+	20.4	41.3	29.0	0.0	10.0		43
Residence							
Rural	9.5	36.6	40.2	3.2	15.1		1126
Urban	9.0	40.5	49.5	9.3	18.5		1204
Delivery							
Normal	8.1	41.1	42.7	9.4	21.4		1496
Caesarean	11.4	35.2	47.1	2.0	10.8		823
By Instrument or Assisted	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)		10
Place of Delivery							
Government facility	9.1	46.9	49.2	11.6	14.1		1069
Private facility	9.4	31.5	40.9	1.6	18.9		1255
Home	--	--	--	--	--		4
Others	--	--	--	--	--		0
Who Conducted the Last Delivery							
Doctor	--	--	--	--	--		0
ANM/Nurse/Midwife/LHV	--	--	--	--	--		0
Dai	--	--	--	--	--		2
Relatives/Friends	--	--	--	--	--		2
None	--	--	--	--	--		0
DLHS-4	9.2	38.5	44.6	6.1	16.7		2330
DLHS-3	21.5	45.8	42.6	5.3	12.5		3302

^{##} Women who had their last live/still birth since 01-01-2008. () Based on 10-20 unweighted cases. -- Percentage not shown based on less than 10 cases. ** Unweighted cases.

TABLE 3.12 ANY CHECK-UP AFTER DELIVERYPercentage of women (aged 15-49)^{###} whether received any check-up after delivery according to background characteristics, Kerala, 2012-13.

Background characteristics	Check up within 48 hours after delivery	Check up within 48 hours after delivery at Home	Check up within 2 weeks after delivery	Check up within 14 to 42 days after delivery	Number of Women**
Age group					
15-19	100.0	--	100.0	100.0	25
20-24	94.0	--	94.9	95.2	505
25-29	94.3	--	95.1	95.2	923
30-34	98.0	--	98.5	98.5	590
35+	96.4	--	96.4	97.1	287
No. of Living Children					
0	--	--	--	--	1
1	95.0	--	95.5	95.8	1069
2	95.9	--	96.8	96.8	978
3	96.7	--	97.1	97.4	239
4+	92.1	--	92.1	92.1	43
Residence					
Rural	97.2	--	97.0	97.2	1126
Urban	93.7	--	95.3	95.4	1204
Education					
Non literate ^a	46.3	--	42.0	42.0	20
Less than 5 years	--	--	--	--	7
5-9 years	97.1	--	97.0	97.2	436
10 or more years	95.6	--	96.6	96.8	1867
Religion					
Hindu	95.9	--	95.8	96.1	1298
Muslim	95.2	--	96.7	96.8	698
Christian	95.0	--	96.7	96.7	332
Jain	--	--	--	--	1
Others	--	--	--	--	1
Castes/tribes					
Scheduled castes	97.2	--	97.2	97.2	243
Scheduled tribes	(93.8)	--	(88.2)	(88.2)	17
Other backward classes	95.6	--	96.3	96.5	1431
Others	94.5	--	95.5	96.0	639
DLHS-4	95.5	--	96.1	96.3	2330
DLHS-3	99.1	--	99.4	NA	3302

^{###} Women who had their last live/still birth since 01-01-2008. ^a Literate but did not attend school are also included. () Based on 10-20 unweighted cases. -- Percentage not shown based on less than 10 cases. NA: Not available. ** Unweighted cases.

TABLE 3.13 COMPLICATIONS DURING PREGNANCY, DELIVERY AND POST-DELIVERY PERIOD

Percentage of women (aged 15-49)^{###} who had extent of pregnancy, delivery and post-delivery complications and sought treatment for the problem according to background characteristics, Kerala, 2012-13.

Background characteristics	Who had complication during pregnancy	Sought treatment for pregnancy complication ¹	Who had delivery complication	Who had post-delivery complication	Sought treatment for post-delivery complication ²	Number of women**
Age group						
15-19	42.5	90.6	8.8	13.4	100.0	25
20-24	49.0	69.0	16.3	10.1	79.3	505
25-29	45.1	65.7	15.0	8.4	78.1	923
30-34	42.9	66.0	16.1	9.7	74.3	590
35+	43.2	70.5	14.3	9.2	65.5	287
No. of living Children						
0	--	--	--	--	--	1
1	47.8	68.4	18.6	9.1	76.5	1069
2	41.3	70.0	12.5	8.7	80.0	978
3	50.3	54.4	12.9	10.2	67.7	239
4+	33.5	58.0	14.1	20.4	51.5	43
Residence						
Rural	48.3	72.1	15.4	9.5	83.5	1126
Urban	41.8	61.7	15.4	9.0	68.6	1204
Education						
Non literate ^a	45.3	7.9	34.8	19.6	26.9	20
Less than five years	--	--	--	--	--	7
5-9 years	45.6	69.5	15.6	11.8	75.7	436
10 or more years	45.0	67.3	15.2	8.5	77.0	1867
Religion						
Hindu	43.2	68.0	16.5	8.4	73.4	1298
Muslim	52.1	63.6	14.0	12.2	78.4	698
Christian	38.7	74.3	14.0	6.4	82.1	332
Jain	--	--	--	--	--	1
Others	--	--	--	--	--	1
Castes/tribes						
Scheduled castes	41.7	78.1	16.8	7.0	71.8	243
Scheduled tribes	(41.2)	(71.4)	(5.9)	(5.9)	(0.0)	17
Other backward classes	48.1	67.3	14.5	9.8	78.5	1431
Others	40.1	63.9	17.1	8.9	73.7	639
DLHS-4						
	45.1	67.3	15.4	9.3	76.3	2330
DLHS-3						
	63.6	85.7	24.0	21.5	83.2	3302

^{###} Women who had their last live/still birth since 01-01-2008. ^a Literate but did not attend school are also included. ¹ Women who reported at least one complication of pregnancy. ² Women who reported at least one post delivery complication. () Based on 10-20 unweighted cases. -- Percentage not shown for less than 10 cases. ** Unweighted cases.

TABLE 3.14 COMPLICATIONS DURING PREGNANCY, DELIVERY AND POST-DELIVERY PERIOD

Percentage of women (aged 15-49)^{##} who had extent of pregnancy, delivery and post-delivery complications and sought treatment for the problem according to by districts, Kerala, 2012-13.

Background characteristics	Who had complication during pregnancy	Sought treatment for pregnancy complication ¹	Who had delivery complication	Who had post- delivery complication	Sought treatment for post-delivery complication ²	Number of women**
Kasaragod	23.9	44.9	14.4	9.4	23.8	166
Kannur	36.1	94.4	14.9	5.2	100.0	88
Wayanand	56.3	43.6	9.4	1.5	100.0	135
Kozhikode	62.5	66.8	15.6	15.6	77.8	350
Mallappuram	56.6	44.8	23.0	11.1	71.0	191
PALAKKAD	34.8	46.2	79.5	28.5	50.2	42
Thrissur	46.4	70.8	6.7	11.6	81.4	152
Ernakulam	47.3	84.4	17.5	12.4	78.4	165
Idukki	--	--	--	--	--	1
Kottayam	35.4	76.6	21.4	3.0	100.0	181
Alappuzha	40.2	71.5	13.2	6.3	75.2	295
Pathanamthitta	(33.3)	(16.7)	(22.2)	(5.6)	(100.0)	18
kollam	56.7	87.1	17.9	13.7	91.2	262
Thiruvananthapuram	24.4	47.2	6.0	2.6	0.0	284
DLHS-4	45.1	67.3	15.5	9.3	76.3	2330
DLHS-3	63.6	85.7	24.0	21.5	83.2	3302

^{##} Women who had their last live/still birth since 01-01-2008.

¹ Women who reported at least one complication of pregnancy. ² Women who reported at least one post delivery complication.

() Based on 10-20 unweighted cases. -- Percentage not shown for less than 10 cases.** Unweighted cases.

TABLE 3.15 AWARENESS OF THE DANGER SIGNS OF NEW BORN

Percentage of women (aged 15-49)^{###} who had awareness of the danger signs of new born, according to selected background characteristics, Kerala, 2012-13.

Background characteristic	Difficulty in breathing	Cold/hot to touch	Develop yellow staining on palm and soles	Blue tongue & Lips	Abnormal movement	Poor sucking of breast	Baby did not cry	Number of Women* *
Age group								
15-19	50.9	45.8	51.6	47.3	40.0	49.7	40.4	25
20-24	46.2	48.0	47.6	44.9	41.2	50.5	46.9	505
25-29	45.4	46.5	46.9	42.8	40.9	50.1	47.2	923
30-34	43.4	46.5	46.7	44.0	42.6	51.0	49.4	590
35+	46.0	48.2	48.1	43.0	42.5	54.7	44.2	287
Children ever born								
0	--	--	--	--	--	--	--	1
1	43.9	45.9	45.2	40.7	39.4	50.0	45.9	1069
2	45.8	47.3	46.9	45.4	43.2	52.5	48.6	978
3	47.1	50.0	56.0	47.5	44.1	49.2	48.2	239
4+	56.3	53.1	60.0	56.4	47.6	52.0	47.2	43
Residence								
Rural	46.3	50.2	47.1	43.6	41.5	51.9	46.4	1126
Urban	44.1	43.8	47.3	43.6	41.7	50.0	48.1	1204
Education								
Non literate	32.8	28.8	20.0	22.1	11.9	38.4	16.4	20
Less than 5 years	--	--	--	--	--	--	--	7
9-10 years	43.5	44.5	44.6	41.6	38.9	46.4	44.1	436
10 or more years	45.9	47.9	48.2	44.5	42.7	52.3	48.5	1867
Religion								
Hindu	44.6	47.0	46.0	42.6	41.8	52.1	46.8	1298
Muslim	51.2	51.9	54.8	50.7	45.8	52.0	52.5	698
Christian	35.7	37.6	37.1	33.7	32.9	44.8	38.8	332
Jain	--	--	--	--	--	--	--	1
Others	--	--	--	--	--	--	--	1
Castes/tribes								
Scheduled castes	47.4	53.4	51.5	46.6	47.6	55.4	50.7	243
Scheduled tribes	(29.4)	(47.1)	(17.6)	(29.4)	(35.3)	(41.2)	(23.5)	17
Other backward classes	44.6	45.9	47.0	43.6	39.5	48.6	46.9	1431
Others	46.1	47.0	46.8	42.8	43.9	54.7	47.3	639
DLHS-4								
	45.2	47.0	47.2	43.6	41.6	51.0	47.2	2330
DLHS-3								
	48.9	46.4	57.1	45.1	46.0	61.0	64.4	3302

^{###} Women who had their last live/still birth since 01-01-2008. ^a Literate but did not attend school are also included.

() Based on 10-20 unweighted cases. -- Percentage not shown for less than 10 cases. ** Unweighted cases.

CHILD HEALTH AND IMMUNIZATION

TABLE 4.1 TIMING AND CHILDHOOD CHECK-UPS

Percentage of children aged under 3 years received check up and place of check-up according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Children received Check-up within 24 hours of birth	Number of children**	Place of check-up ⁴					Total	Number of children ^{4**}
			Government ¹	Private ²	Home ³	Others			
Age group									
15-19	93.5	26	28.6	71.4	(0.0)	(0.0)	(100.0)	24	
20-24	89.6	419	43.4	56.6	0.0	0.0	100.0	375	
25-29	88.5	638	42.7	57.3	0.0	0.0	100.0	566	
30-34	88.3	335	44.5	55.5	0.0	0.0	100.0	297	
35-39	91.3	106	45.5	54.5	0.0	0.0	100.0	97	
40-44	(92.3)	16	(30.7)	69.3	(0.0)	(0.0)	(100.0)	12	
45-49	--	4	--	--	--	--	--	4	
Residence									
Rural	83.3	749	41.9	58.1	0.0	0.0	100.0	653	
Urban	90.6	795	44.7	55.3	0.0	0.0	100.0	722	
Mother's education									
Non-literate	--	8	--	--	--	--	--	5	
Less than 5 years	--	2	--	--	--	--	--	2	
5-9 years	86.9	261	60.5	39.5	0.0	0.0	100.0	227	
10 or more years	89.5	1,273	39.7	60.3	0.0	0.0	100.0	1141	
Religion									
Hindu	87.3	857	50.6	49.4	0.0	0.0	100.0	749	
Muslim	90.5	476	31.6	68.4	0.0	0.0	100.0	432	
Christian	92.2	210	39.4	60.6	0.0	0.0	100.0	193	
Jain	--	--	--	--	--	--	--	--	
Others	--	1	--	--	--	--	--	1	
Castes/Tribes									
Scheduled Castes	86.8	170	75.4	24.6	0.0	0.0	100.0	147	
Scheduled Tribes	--	11	--	--	--	--	--	7	
Other Backward Classes	88.6	971	41.1	58.9	0.0	0.0	100.0	861	
Others	91.5	392	34.4	65.5	0.0	0.0	100.0	360	
DLHS-4									
DLHS-4	88.9	1,544	43.2	56.8	0.0	0.0	100.0	1,375	
DLHS-3	99.0	2751	35.8	64.1	0.1	NA	100.0	2,691	

Note: Table based on youngest living child born since 01.01.2008. ¹ Literate but did not attend school are also included.

¹ Includes government hospital or dispensary, urban health centre/ urban health post/ urban family welfare centre, community health centre or rural hospital, primary health centre, sub-centre, ICDS and Govt. AYUSH hospital /clinic. ² Includes non-governmental hospital/ trust hospital or clinic, private hospital/clinic and private AYUSH hospital /clinic. ³ Includes Doctor ASHA and ANM/Nurse. ⁴ Among those Children who received check-up within 24 hours of birth.

NA: not available. ** Unweighted cases.

TABLE 4.2 INITIATION OF BREASTFEEDING

Percentage of youngest living child born since 01.01.2008 aged under 3 years whose mother started breastfeeding within one hour of birth, within 24 hours of birth and after 24 hours of birth according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Children received Colostrums/ <i>Khees</i> ^b	Initiation of breastfeeding			Number of children**
		Within one hour of birth	Within 24 hours of birth ¹	After 24 hours of birth	
Age group					
15-19	96.5	85.9	96.5	0.0	26
20-24	94.4	77.2	94.3	1.2	419
25-29	91.3	75.6	92.0	1.5	638
30-34	91.7	68.3	92.2	1.1	335
35-39	96.7	73.0	96.7	0.0	106
40-44	(75.0)	(62.5)	(75.0)	(25.0)	16
45-49	--	--	--	--	04
Residence					
Rural	91.5	72.6	92.1	1.1	749
Urban	93.7	75.8	93.7	1.5	795
Mother's education					
Non-literate ^a	--	--	--	--	08
Less than 5 years	--	--	--	--	02
5-9 years	91.9	75.1	92.0	1.3	261
10 or more years	92.8	73.9	93.1	1.3	1273
Religion					
Hindu	92.1	73.3	91.6	1.5	857
Muslim	93.1	75.2	94.3	0.6	476
Christian	93.8	75.4	95.1	1.8	210
Jain	--	--	--	--	0
Others	--	--	--	--	01
Castes/Tribes					
Scheduled Castes	92.3	71.1	90.9	1.0	170
Scheduled Tribes	(72.7)	(72.7)	(72.7)	(0.0)	11
Other Backward Classes	92.2	72.6	92.3	1.5	971
Others	94.0	79.4	95.6	0.9	392
DLHS-4					
	92.5	74.2	92.9	1.3	1544
DLHS-3					
	97.0	64.6	96.8	3.2	2751

Note: Table based on youngest living child born *since 01.01.2008*

¹ Includes children whose mother started breastfeeding within one hour of birth.

^a Literate but did not attend school are also included. ^b Yellowish thick milk secretion during the first few days after child birth. () Based on 10-20 unweighted cases. --Percentage not shown for less than 10 cases.

** Unweighted cases.

TABLE 4.3 BREASTFEEDING AND WEANING STATUS

Percentage of children aged under 3 years who had exclusive breastfeeding and weaning status, Kerala, 2012-13.

Age in months	Exclusive breastfeeding	Weaning status ¹				Number of children**
		Other fluids	Semisolid food	Solid food	Solid/semi-solid food	
<2	57.3	1.8	1.8	1.8	1.8	57
2-3	71.2	2.4	3.5	2.4	3.5	80
4-5	58.3	3.2	7.2	1.0	7.2	88
6-8	37.5	16.5	29.1	13.9	30.4	153
9-11	24.5	39.8	49.6	38.3	51.9	140
12-17	28.6	42.0	52.0	45.8	54.0	294
18-23	18.1	50.2	64.8	59.1	68.0	271
24-35	11.8	51.3	66.8	61.6	70.4	461
6-9	34.1	20.5	30.1	16.5	31.1	203
6-35 ²	21.3	43.6	56.7	49.3	59.5	1319

Note: Table based on youngest living child born since 01.01.2008. ¹ Based on those children who had breastfeeding with other fluids, semi solid food and solid food. ² Children aged 6-35 months breastfed for at least 6 months.

** Unweighted cases.

TABLE 4.4 EXCLUSIVE BREASTFEEDING

Percentage of youngest living child born since 01.01.2008 aged 0-5 months who received exclusive breastfeeding according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Exclusive breastfeeding	
	0-5 months	Number of children**
Age group		
15-19	--	08
20-24	61.5	70
25-29	81.1	57
30-34	65.7	51
35-39	(81.8)	11
40-44	--	02
45-49	--	--
Residence		
Rural	77.1	85
Urban	64.3	114
Mother's education		
Non-literate ^a	--	02
Less than 5 years	--	01
5-9 years	72.1	29
10 or more years	69.6	167
Religion		
Hindu	70.2	117
Muslim	67.6	62
Christian	75.9	20
Jain	--	--
Others	--	--
Castes/Tribes		
Scheduled Castes	82.7	28
Scheduled Tribes	--	--
Other Backward Classes	65.8	126
Others	73.5	45
DLHS-4	70.0	199
DLHS-3	68.9	441

^a Literate but did not attend school are also included. ** Unweighted cases.

TABLE 4.5 BREASTFEEDING BY DISTRICTS

Percentage of children aged under 3 years whose mother started breastfeeding within one hour of birth, within 24 hours of birth, and after 24 hours of birth by districts, Kerala, 2012-13.

Districts	Children received Colostrums/Khees ^a	Initiation of breastfeeding			Number of children**
		Within one hour of birth	Within 24 hours of birth ¹	After 24 hours of birth	
Kasaragod	81.8	75.2	85.0	1.1	110
Kannur	95.3	63.8	95.3	0.0	58
Wayanad	92.9	86.2	92.9	0.0	83
Kozhikode	93.2	73.6	92.3	0.7	238
Malappuram	95.4	60.2	96.7	0.0	117
Palakkad	(93.8)	(81.3)	(93.8)	(0.0)	16
Thrissur	98.8	83.5	98.1	0.7	97
Ernakulam	93.0	82.2	98.0	0.8	102
Idukki	--	--	--	--	--
Kottayam	87.0	62.5	87.7	4.7	143
Alappuzha	95.1	67.6	95.1	1.6	190
Pathanamthitta	--	--	--	--	08
Kollam	91.7	69.2	89.4	2.9	175
Thiruvananthapuram	96.3	91.0	96.3	0.0	207
DLHS-4	92.5	74.3	92.9	1.3	1544
DLHS-3	97.0	64.6	96.8	3.2	2751

Note: Table based on youngest living child born since 01.01.2008.

¹ Includes children whose mother started breastfeeding within one hour of birth. ^a Yellowish thick milk secretion during the first few days after child birth. () Based on 10-20 unweighted cases. -- Percentage not shown for less than 10 cases.** Unweighted cases.

TABLE 4.6 VACCINATION OF CHILDREN													
Percentage of children aged 12-23 months who received specific vaccination according to selected background characteristics Kerala, 2012-13.													
Background characteristics	BCG	DPT			Polio			Measles	Full vaccination ¹	No vaccination	Vaccination card seen	Number of children**	
		1	2	3	0	1	2						3
Residence													
Rural	96.3	97.7	96.1	93.4	5.3	94.2	93.0	89.8	90.0	81.7	0.0	49.1	256
Urban	98.7	98.2	96.7	92.0	2.4	96.0	92.7	88.1	93.1	83.4	0.4	51.6	292
Sex of child													
Male	97.0	98.1	95.8	91.6	3.7	95.5	93.2	89.5	91.1	81.5	0.4	52.4	279
Female	98.0	97.8	97.1	93.9	4.0	94.8	92.6	88.4	92.1	83.6	0.0	48.2	269
Birth order													
1	98.2	98.5	97.0	91.5	4.1	95.2	93.1	87.8	91.1	81.9	0.0	50.3	277
2	96.4	97.6	95.7	93.7	3.7	94.3	93.0	90.6	91.7	83.1	0.6	50.6	211
3	97.7	95.8	95.8	94.1	1.9	97.7	89.9	88.4	94.5	83.2	0.0	48.0	51
4+	--	--	--	--	--	--	--	--	--	--	--	--	9
Mother's education													
Non-literate	--	--	--	--	--	--	--	--	--	--	--	--	--
Less than 5 years	--	--	--	--	--	--	--	--	--	--	--	--	--
5-9 years	97.9	99.1	98.0	95.4	6.6	98.1	94.1	90.7	94.1	85.9	0.0	50.8	94
10 or more years	97.4	97.7	96.1	92.2	3.3	94.6	92.6	88.6	91.1	81.9	0.3	50.2	453
Religion													
Hindu	97.7	98.3	97.2	93.4	3.9	95.9	93.2	90.2	92.3	84.1	0.0	52.1	308
Muslim	96.9	96.4	93.3	89.4	4.9	92.6	90.8	85.1	88.8	78.7	0.7	48.7	168
Christian	97.9	100.0	100.0	97.0	1.2	97.2	96.2	92.2	94.5	84.6	0.0	46.7	72
Jain	--	--	--	--	--	--	--	--	--	--	--	--	--
Others	--	--	--	--	--	--	--	--	--	--	--	--	--
Castes/Tribes													
Scheduled Castes	96.5	98.2	95.2	91.2	3.7	93.4	90.2	90.2	91.9	84.5	0.0	55.5	61
Scheduled Tribes	--	--	--	--	--	--	--	--	--	--	--	--	3
Other Backward Classes	97.5	97.6	96.4	93.1	4.4	95.1	92.8	87.9	91.8	82.7	0.3	50.1	342
Others	97.6	99.4	97.4	92.3	2.9	95.5	93.6	89.9	90.8	81.0	0.0	48.3	132
DLHS-4													
DLHS-4	97.5	98.0	96.4	92.7	3.8	95.1	92.9	89.0	91.6	82.6	0.2	50.4	548
DLHS-3													
DLHS-3	99.1	96.9	94.9	87.1	1.6	98.4	96.4	86.6	87.9	79.6	0.5	76.0	921

Note. Table based on youngest living child born since 01.01.2008. ¹ BCG, three injections of DPT, three doses of Polio (excluding Polio 0) and measles. -- Percentage not shown for less than 10 cases. ** Unweighted cases.

TABLE 4.7 STATUS OF CHILDHOOD VACCINATION BY DISTRICTS

Percentage of children aged 12-23 months received specific vaccination and Vitamin-A supplementation by districts, Kerala, 2012-13.

Districts	Vaccination card seen	Vaccination Status						Percentage received any dose of Vitamin-A ²	Number of children**
		BCG	DPT 3	Polio 3	Measles	Full ¹	None		
Kasaragod	45.2	80.6	78.6	63.5	53.6	39.7	0.0	72.3	34
Kannur	28.6	(100.0)	(95.0)	(80.0)	(95.0)	(80.0)	0.0	90.4	20
Wayanad	18.3	100.0	96.5	83.4	92.6	83.4	0.0	96.5	25
Kozhikode	43.3	100.0	97.6	89.7	95.4	85.1	0.0	82.8	91
Malappuram	54.5	100.0	89.4	89.3	90.5	82.2	0.0	62.4	41
Palakkad	--	--	--	--	--	--	--	--	05
Thrissur	41.8	100.0	95.2	92.1	97.5	87.3	0.0	83.3	33
Ernakulam	49.4	92.9	86.8	89.9	89.6	71.4	0.0	63.6	46
Idukki	--	--	--	--	--	--	--	--	--
Kottayam	38.5	93.5	84.9	91.9	89.8	77.5	2.4	85.8	50
Alappuzha	64.0	100.0	97.4	97.1	97.1	94.0	0.0	90	65
Pathanamthitta	--	--	--	--	--	--	--	--	01
Kollam	76.2	100.0	91.3	84.5	92.3	82.9	0.0	84.7	65
Thiruvananthapuram	54.7	100.0	97.8	96.3	97.8	96.3	0.0	95.5	72
DLHS-4	50.4	97.5	92.7	89.0	91.6	82.6	0.2	83.4 [#]	548
DLHS-3	76.0	99.1	87.1	86.6	87.9	79.6	0.5	64.1	921

Note: Table based on youngest living child born since 01.01.2008. ¹ BCG, three injections of DPT, three doses of Polio (excluding Polio 0) and measles. ² Children aged 12-35 months. [#]Percentage in fact sheet children aged 9-35 months. ^{**} Unweighted cases.

TABLE 4.8 PLACE OF CHILDHOOD VACCINATION

Percentage of children aged 3 years received vaccination by place of vaccination, according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Place of vaccination						Number of children**
	Government health sector				Private health sector ¹	Others	
	Anganwadi Centre	Sub-Health Centre	Primary Health Centre	Other government health facility			
Residence							
Rural	13.5	10.8	31.9	45.0	41.0	0.0	684
Urban	17.5	9.5	21.9	57.8	45.1	0.0	738
Sex of the child							
Male	15.3	11.4	25.3	49.0	43.9	0.0	722
Female	15.7	8.9	28.6	53.8	42.2	0.0	700
Birth order							
1	14.4	8.6	25.3	49.1	45.9	0.0	713
2	15.8	11.0	30.0	53.6	40.6	0.0	554
3	21.2	14.5	25.6	53.6	37.8	0.0	129
4+	11.8	14.2	12.1	53.7	41.3	0.0	26
Mother's education							
Non-literate ^a	--	--	--	--	--	--	3
Less than 5 years	--	--	--	--	--	--	2
5-9 years	20.3	16.0	33.8	54.0	27.6	0.0	236
10 or more years	14.7	9.0	25.8	50.6	46.3	0.0	1178
Religion							
Hindu	15.4	10.4	27.6	53.8	38.4	0.0	781
Muslim	16.5	11.0	25.7	49.5	50.6	0.0	440
Christian	13.7	7.6	27.2	45.3	45.7	0.0	200
Jain	--	--	--	--	--	--	0
Others	--	--	--	--	--	--	1
Castes/Tribes							
Scheduled Castes	24.7	14.9	23.3	76.4	20.1	0.0	153
Scheduled Tribes	--	--	--	--	--	--	8
Other Backward Classes	15.6	11.2	28.8	49.3	45.4	0.0	893
Others	12.0	6.1	22.6	45.1	49.7	0.0	336
DLHS-4	15.5	10.2	26.9	51.3	43.1	0.0	1422
DLHS-3	NA	1.9	31.0	54.5	45.8	0.0	2775

Note: Table based on youngest living child born since 01.01.2008. ^a Literate but did not attend school are also included.

¹ Includes non-governmental hospital/trust hospital or clinic, private hospital and private doctor/clinic.

-- Percentage not shown for less than 10 cases. NA: Not available ^{**} Unweighted cases.

TABLE 4.9 VITAMIN-A AND HEPATITIS-B SUPPLEMENTATION FOR CHILDREN

Percentage of children aged 12-35 months received at least one dose of Vitamin-A, 3-5 doses of Vitamin-A and Hepatitis-B injection, according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Children who received at least one dose of Vitamin-A ^{##}	Children who received 3-5 doses of Vitamin-A	Children who received Hepatitis-B injection	Number of children**
Age of the child				
12-23 months	76.2	17.6	87.7	675
24-35 months	86.9	41.6	90.6	455
Residence				
Rural	79.2	25.0	87.9	558
Urban	81.8	31.0	89.8	572
Sex of the child				
Male	81.4	28.9	89.1	561
Female	79.5	26.9	88.7	568
Birth order				
1				
2	80.6	24.0	88.6	571
3	80.4	32.7	91.1	432
4+	82.3 (68.4)	31.3 (15.4)	83.4 73.6	108 19
Mother's education				
Non-literate ^a				
Less than 5 years	--	--	--	--
5-9 years	--	--	--	06
10 or more years	81.8	31.1	87.7	192
	80.4	27.4	89.3	931
Religion				
Hindu				
Muslim	83.1	29.7	89.9	604
Christian	77.5	24.2	86.3	362
Jain	77.6	29.0	91.0	163
Others	--	--	--	0
	--	--	--	1
Castes/Tribes				
Scheduled Castes	89.6	34.5	94.6	116
Scheduled Tribes	91.3	71.0	91.3	08
Other Backward Classes	79.7	26.4	87.4	706
Others	78.9	26.9	91.0	274
DLHS-4	80.5	28.0	88.8	1130
DLHS-3	64.1	10.2	73.0	1859

Note: Table based on youngest living child born since 01.01.2008. ^a Literate but not attend school are also included.

^{##} Children aged 9-35 months. --Percentage not shown for less than 10 cases. ^{**} Unweighted cases.

TABLE 4.10 AWARENESS REGARDING DIARRHOEA MANAGEMENT

Percentage of women who are aware of diarrhoea management according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Knowledge of diarrhoea management	Type of practices followed if child gets diarrhoea ¹					Number of women**	
		Give ORS	Salt and sugar solution	Continue normal food	Continue breast-feeding	Give plenty of fluids		Others
Age group								
15-19	72.4	59.5	42.8	10.8	10.6	18.2	12.9	139
20-24	84.5	70.2	48.6	20.7	18.8	29.7	11.3	1243
25-29	91.7	76.1	54.3	22.9	21.1	36.6	14.1	2281
30-34	91.9	75.1	54.7	23.1	20.1	37.9	16.0	2596
35-39	91.1	72.1	55.9	22.9	19.8	37.3	19.1	2622
40-44	91.4	70.9	55.5	20.9	18.9	35.0	20.5	2251
45-49	90.0	68.0	55.9	19.2	15.4	34.0	19.9	1774
Residence								
Rural	90.7	73.2	55.3	24.1	20.8	37.0	16.3	6400
Urban	90.2	71.3	53.6	19.2	17.4	33.9	18.0	6506
Mother's education								
Non-literate	68.4	57.2	42.9	30.4	17.1	35.3	1.7	862
Less than 5 years	80.6	53.7	39.6	11.2	4.6	22.6	19.9	165
5-9 years	88.0	59.8	39.4	8.2	8.1	22.2	25.8	2703
10 or more years	93.3	77.8	60.3	25.3	22.9	39.8	15.8	9176
Religion								
Hindu	90.6	72.4	52.2	20.0	17.7	34.6	17.8	7192
Muslim	88.4	68.1	51.3	20.9	18.9	32.8	18.5	3357
Christian	92.7	78.5	65.7	28.0	23.7	42.1	13.6	2280
Jain	100.0	33.2	78.2	27.9	17.3	35.2	0.0	44
Others	91.4	79.3	70.0	44.0	32.9	55.7	4.2	33
Castes/Tribes								
Scheduled Castes	89.3	71.8	54.7	25.2	24.3	43.6	17.0	1244
Scheduled Tribes	86.7	60.7	58.9	29.3	28.8	36.9	10.7	182
Other Backward Classes	90.3	70.1	50.1	17.2	14.8	29.5	19.4	7089
Others	91.1	76.5	61.3	27.8	24.2	42.9	13.8	4391
DLHS-4	90.4	72.3	54.5	21.7	19.1	35.5	17.2	12906
DLHS-3	84.5	62.1	58.0	7.3	4.9	63.1	2.1	12360

Note: Table based on women with last two surviving children born since 01.01.2008. ¹ Among women aware of diarrhoea management. ^a Literate but did not attend school are also included. ** Unweighted cases.

TABLE 4.11 TREATMENT OF DIARRHOEA								
Percentage of children suffered from diarrhoea and sought advice/ treatment according to selected background characteristics, Kerala, 2012-13.								
Background characteristics	Children suffered from diarrhoea ¹	Number of children	Given ORS	Children sought advice/ treatment	Source of treatment			Number of children**
					Government health facility ²	Private Health facility ³	Other	
Age group								
Less than 25	5.1	600	49.1	72.8	36.1	50.3	0.0	31
25-29	3.7	1020	56.2	77.8	40.3	59.7	0.0	39
30-34	2.8	625	(78.9)	(73.7)	(42.9)	(50.0)	(0.0)	19
35-39	4.9	215	(54.5)	(81.8)	(44.4)	(44.4)	(0.0)	11
40-49	0.0	46	--	--	--	--	--	0
Residence								
Rural	3.6	1196	59.7	75.7	23.7	59.2	0.0	44
Urban	4.1	1310	57.4	76.8	52.9	49.0	0.0	56
Mother's education								
Non-literate ^a	(5.6)	20	--	--	--	--	--	1
Less than 5 years	--	07	--	--	--	--	--	0
5-9 years	3.9	478	52.5	95.1	(36.8)	(57.9)	(0.0)	20
10 or more years	3.8	1998	60.6	72.7	42.0	51.2	0.0	79
Religion								
Hindu	2.9	1387	64.7	75.4	36.3	53.4	0.0	42
Muslim	5.7	758	61.0	80.6	44.8	54.3	0.0	45
Christian	3.7	360	(30.8)	(61.5)	(37.5)	(50.0)	(0.0)	13
Jain	--	--	--	--	--	--	--	0
Others	--	1	--	--	--	--	--	0
Castes/Tribes								
Scheduled Castes	2.3	275	--	--	--	--	--	6
Schedule Tribes	(0.0)	18	--	--	--	--	--	0
Other Backward Classes	4.2	1563	56.5	75.9	43.3	56.1	0.0	69
Others	3.4	588	(61.9)	(71.4)	(46.7)	(46.7)	(0.0)	21
DLHS-4	3.8	2506	58.5	76.3	39.5	53.7	0.0	100
DLHS-3	5.9	3769	45.6	78.8	38.5	63.7	NA	174

Note: Table based on women with last two surviving children born since 01.01.2008.

¹ Last two weeks prior to survey. ^a Literate but did not attend school are also included.

² Includes government hospital or dispensary, urban health centre/ urban health post/ urban family welfare centre, community health centre or rural hospital, primary health centre, sub-centre, ICDS and Govt. AYUSH hospital /clinic.

³ Includes non-governmental hospital/ trust hospital or clinic, private hospital/clinic and private AYUSH hospital /clinic.

-- Percentage not shown for less than 10 cases. () Based on 10-20 unweighted cases.** Unweighted cases.

Table 4.12 AWARENESS AND TREATMENT OF ACUTE RESPIRATORY INFECTION (ARI)													
Percentage of women who are aware of danger signs of ARI and whose children suffer from ARI and sought advice/treatment according to selected background characteristics, Kerala, 2012-13													
Background characteristics	Women aware of danger signs of ARI	Number of women**	Danger signs of Acute Respiratory Infection (ARI) ¹					Source of treatment ⁵					Number of children**
			Difficulty in breathing	Pain in chest and productive cough	Wheezing/whistling	Rapid breathing	Other Signs ²	Children suffered from ARI ³	Children sought advice/treatment ⁴	Government health facility ⁶	Private health facility ⁷	Others	
Age group													
15-19	50.4	139	29.2	25.2	13.6	10.0	31.7	17.0	--	--	--	--	26
20-24	65.7	1243	42.8	32.5	22.4	18.6	39.7	6.4	97.4	51.1	48.9	0.0	574
25-29	68.3	2281	44.0	37.7	24.5	21.2	43.7	6.9	94.4	37.1	62.9	0.0	1020
30-34	70.2	2596	45.4	38.4	24.2	22.4	45.3	8.3	79.4	53.6	50.8	0.0	625
35-39	70.5	2622	42.3	39.9	25.6	24.3	44.2	5.9	(100.0)	(33.3)	(66.7)	(0.0)	215
40-44	68.9	2251	41.8	37.1	24.2	23.5	43.7	5.3	--	--	--	--	36
45-49	65.8	1774	38.0	34.0	20.8	19.1	39.7	0.0	--	--	--	--	10
Residence													
Rural	67.9	6400	44.3	36.6	24.7	22.6	43.1	7.6	90.6	44.1	57.0	0.0	1196
Urban	69.0	6506	40.5	37.4	22.7	21.0	43.0	6.6	88.1	43.5	57.8	0.0	1310
Mother's education													
Non-literate ^a	63.1	862	48.6	34.1	22.7	13.2	44.3	(0.0)	--	--	--	--	20
Less than 5 years	47.0	165	27.6	18.0	7.4	10.7	22.3	--	--	--	--	--	7
5-9 years	49.6	2703	24.1	21.1	8.9	10.3	24.6	8.6	90.5	57.4	47.5	0.0	478
10 or more years	75.1	9176	47.8	42.5	28.7	26.3	49.0	6.9	89.1	39.8	60.3	0.0	1998
Religion													
Hindu	67.5	7192	40.6	34.8	21.3	20.3	40.9	7.4	90.2	52.0	50.0	0.0	1387
Muslim	62.9	3357	39.5	35.0	22.5	19.7	41.3	7.1	91.6	34.3	65.7	0.0	758
Christian	78.9	2280	52.6	46.2	33.1	29.5	52.2	6.2	81.0	27.6	72.4	0.0	360
Jain	100.0	44	32.0	80.1	26.7	14.3	40.6	--	--	--	--	--	0
Other	81.4	33	65.7	48.1	49.2	46.9	69.2	--	--	--	--	--	1
Castes/Tribes													
Scheduled Castes	64.6	1244	46.3	36.8	28.0	24.2	44.4	9.9	92.6	83.2	13.4	0.0	275
Scheduled Tribes	66.8	182	41.1	35.0	29.5	30.3	49.1	4.8	--	--	--	--	18
Other Backward Classes	65.1	7089	37.4	32.0	18.1	16.9	38.3	6.8	88.5	35.0	67.0	0.0	1563
Others	75.2	4391	49.7	45.4	31.6	28.8	50.3	6.7	89.5	37.5	64.8	0.0	650
DLHS-4													
DLHS-4	68.4	12906	42.5	37.0	23.8	21.8	43.1	7.1	89.4	43.8	57.4	0.0	2506
DLHS-3	38.5	12360	49.0	42.2	14.8	9.1	30.7	11.5	89.8	36.7	63.3	NA	3769

Note: Table based on women with last two surviving children born since 01.01.2008. ^a Literate but did not attend school are also included. ¹ Among women who are aware of any danger signs of ARI. ² Includes not able to drink or take a feed, excessive drowsy and difficulty to keep awake, running nose and others. ³ Last two weeks prior to survey. ⁴ Among children with ARI or fever in last two weeks who sought advice/ treatment. ⁵ Among children who sought advice/treatment. ⁶ Includes government hospital or dispensary, urban health centre/urban health post/urban family welfare centre, community health centre or rural hospital, primary health centre, sub-centre, ICDS and Govt. AYUSH hospital/clinic. ⁷ Includes non-governmental hospital/trust hospital or clinic, private hospital/clinic and private AYUSH hospital/clinic. () Based on 10-20 unweighted cases. -- Percentage not shown for less than 10 cases.

** Unweighted cases.

Table 4.13 AWARENESS OF ORS AND ACUTE RESPIRATORY INFECTION (ARI) BY DISTRICTS						
Percentage of women by awareness of ORS and percentage of children suffered from diarrhoea and ARI and sought advice/treatment by districts, Kerala, 2012-13						
Districts	Oral Rehydration Therapy/Solution (ORS)			Acute Respiratory Infection(ARI)		Number of children**
	Women aware of ORS	Children suffered from diarrhoea ¹	Children sought advice/treatment	Children suffered from ARI ¹	Children sought advice/treatment ²	
Kasaragod	70.0	5.1	74.1	2.4	73.2	162
Kannur	62.6	1.2	100.0	2.4	100.0	98
Wayanad	59.4	2.1	100.0	8.7	85.8	140
Kozhikode	68.6	4.9	63.4	11.7	89.8	382
Malappuram	79.7	8.0	69.1	8.6	94.4	206
Palakkad	85.0	0.0	--	0.0	--	26
Thrissur	71.1	3.7	84.9	3.7	82.2	169
Ernakulam	63.3	5.2	70.0	8.7	83.8	172
Idukki	60.2	--	--	--	--	--
Kottayam	67.2	3.3	72.9	9.7	84.6	206
Alappuzha	73.5	2.5	90.3	4.7	78.9	316
Pathanamthitta	86.8	(0.0)	--	(0.0)	--	10
Kollam	60.5	5.5	88.3	10.5	97.7	303
Thiruvananthapuram	67.7	0.9	62.5	2.4	100.0	316
DLHS-4	70.1	3.8	76.3	7.1	89.4	2506
DLHS-3	62.1	5.9	78.8	11.5	89.8	3769

Note: Table based on women with last two surviving children born since 01.01.2008.
¹ Last two weeks prior to survey. ² Among children with ARI or fever in last two weeks sought advice /treatment. -- Percentage not shown for less than 10 cases. () Based on 10-20 unweighted cases. ** Unweighted cases.

FAMILY PLANNING

TABLE 5.1 AWARENESS OF CONTRACEPTIVE METHODS
 Percentage of ever married and currently married women age 15-49 years who are aware of specific contraceptive method by place of residence, Kerala, 2012-13.

Contraceptive methods	Ever married women			Currently married women		
	Total	Rural	Urban	Total	Rural	Urban
Any method	92.6	91.4	93.8	93.3	91.8	95.0
Any modern method ¹	90.8	89.6	92.0	91.6	90.0	93.3
Female sterilization	81.6	81.3	82.0	82.5	81.6	83.4
Male sterilization	58.0	57.9	58.1	58.7	58.4	59.1
Intra Uterine Device	65.3	65.4	65.1	66.5	66.5	66.4
Pill	56.1	56.9	55.1	57.0	57.6	56.4
Emergency contraceptive pill	30.9	30.1	31.8	31.4	30.6	32.2
Injectables	23.7	24.5	22.7	24.1	25.3	22.8
Condom	66.1	66.3	65.9	67.0	66.8	67.2
Female condom	22.5	22.1	22.9	22.8	22.5	23.1
Rhythm method	35.9	32.9	39.1	36.6	33.7	39.8
Withdrawal method	30.3	28.4	32.4	30.6	28.6	32.8
Contraceptive herbs	4.7	6.2	3.0	4.7	6.3	3.0
Lactational Amenorrhoea Method(LAM)	6.2	8.3	4.1	6.4	8.4	4.2
Others	0.6	0.9	0.3	0.6	0.9	0.3
Number of women**	13780	6837	6953	12906	6400	6506

¹Includes female sterilization, male sterilization, Intra-Uterine Device, pill, condom, female condom, emergency Contraceptive Pill and Injectables ** Unweighted cases.

TABLE 5.2 AWARENESS OF CONTRACEPTIVE METHODS																
Percentage of currently married women age 15-49 years who are aware of specific contraceptive method according to selected background characteristics, Kerala, 2012-13.																
Background characteristics	Any method	Any modern method	Male sterilization	Female sterilization	IUD	Pill	ECP	Injectables	Condom	Female condom	Rhythm method	With-drawal method	Contraceptive herbs	LAM	Others	Number of women**
Age group																
15-24	89.2	85.5	50.9	70.8	59.5	52.0	33.0	26.4	67.9	23.9	37.7	28.8	5.0	4.9	0.8	1382
25-29	92.1	90.1	60.4	79.4	67.7	58.7	36.1	26.9	69.4	22.9	36.3	30.8	4.5	7.2	0.5	2281
30-34	92.2	90.6	58.5	81.0	66.1	56.8	34.5	25.4	66.0	22.4	36.2	29.7	5.2	6.8	0.6	2596
35-39	94.6	93.2	60.2	85.3	68.6	58.6	31.6	25.2	68.6	23.8	37.3	31.9	5.2	6.8	0.6	2622
40-49	95.3	94.0	59.7	87.4	67.0	56.9	26.1	20.2	64.9	21.9	36.2	30.9	4.1	5.8	0.5	4025
No. of living children																
0	81.5	77.7	44.6	58.6	47.0	43.4	32.2	25.3	58.1	24.7	32.1	22.8	4.1	3.7	0.7	2077
1	93.9	91.8	62.3	77.9	69.4	60.4	33.2	28.4	73.1	30.5	37.7	32.6	5.5	5.6	0.7	4179
2	96.9	95.8	62.1	92.3	71.7	60.6	31.4	22.3	67.8	18.9	38.4	32.4	4.6	8.1	0.6	5248
3	95.6	95.0	56.2	92.5	68.1	53.9	27.1	17.4	61.4	13.2	33.5	30.3	3.8	6.3	0.0	1127
4+	93.0	91.9	55.1	90.9	56.5	49.7	18.0	13.9	49.4	9.9	30.2	24.6	2.9	2.8	0.4	275
Residence																
Rural	91.8	90.0	58.4	81.6	66.5	57.6	30.6	25.3	66.8	22.5	33.7	28.6	6.3	8.4	0.9	6400
Urban	95.0	93.3	59.1	83.4	66.4	56.4	32.2	22.8	67.2	23.1	39.8	32.8	3.0	4.2	0.3	6506
Education																
Non-literate ^a	62.8	60.0	22.4	30.4	20.4	18.0	16.5	11.9	35.7	16.6	12.7	8.5	1.7	0.8	0.3	862
Less than five years	88.9	86.6	42.7	81.0	50.4	39.7	20.0	11.3	49.9	9.3	23.1	23.4	2.6	4.1	0.7	663
5-9 years	93.8	92.5	54.2	89.0	65.7	51.8	22.6	14.9	60.0	10.4	33.7	29.6	2.6	6.5	0.2	2205
10 or more years	96.3	94.5	64.3	85.6	71.9	63.1	35.8	28.4	72.8	27.4	40.5	33.4	5.6	7.0	0.7	9176
Religion																
Hindu	92.9	91.1	57.9	82.9	66.7	56.5	29.6	21.7	66.9	21.3	37.2	31.9	5.0	6.8	0.6	7192
Muslim	91.9	90.2	56.4	80.4	62.6	54.4	30.1	23.5	63.2	20.3	33.1	26.6	3.3	5.2	0.4	3357
Christian	96.5	95.1	65.8	85.7	72.6	63.4	39.4	33.1	72.4	31.4	40.2	32.8	5.7	6.5	0.7	2280
Jain	100.0	98.0	15.1	15.1	14.3	15.2	10.2	5.6	88.9	15.1	4.5	0.0	0.0	0.0	0.0	44
Others	96.1	81.3	29.5	43.9	34.7	37.7	26.4	22.1	69.1	23.0	33.3	25.8	11.7	7.4	3.9	26
Castes/tribes																
Scheduled castes	95.4	93.4	59.3	85.1	66.3	58.2	34.2	25.3	68.8	24.0	36.0	28.6	4.9	5.0	0.5	1244
Scheduled tribes	91.2	89.1	48.3	77.0	52.2	50.5	41.7	36.3	62.0	33.5	41.0	37.7	12.7	7.3	0.5	182
Other backward classes	91.6	89.8	55.7	81.1	63.0	54.2	28.7	20.4	62.8	18.1	34.8	29.3	3.9	6.4	0.6	7089
Others	95.7	94.1	64.0	84.2	72.7	61.6	34.5	29.4	73.5	29.7	39.7	33.1	5.7	6.7	0.6	4391
DLHS-4	93.3	91.6	58.7	82.5	66.5	57.0	31.4	24.1	67.0	22.8	36.6	30.6	4.7	6.4	0.6	12906
DLHS-3	99.9	99.9	90.3	99.4	94.8	94.9	70.9	65.4	93.4	46.5	78.8	73.3	NA	NA	0.0	11672

Note: IUD = Intra-Uterine Device; ECP = Emergency Contraceptive Pill; LAM =Lactational Amenorrhoea Method. NA: not available. ** Unweighted cases.

TABLE 5.3 AWARENESS OF CONTRACEPTIVE METHODS BY DISTRICT																
Percentage of currently married women age 15-49 years who are aware of specific contraceptive method by district, Kerala, 2012-13.																
District	Any method	Any modern method	Male sterilization	Female sterilization	IUD	Pill	ECP	Injectables	Condom	Female condom	Rhythm method	Withdrawal method	Contraceptive herbs	LAM	Other	Number of women**
Kasaragod	56.5	52.5	11.7	36.3	13.2	8.3	7.0	8.1	15.7	10.0	9.8	9.8	2.2	1.4	0.1	1071
Kannur	76.9	70.2	31.5	58.8	35.4	32.5	11.7	13.8	35.9	9.8	24.4	23.9	0.8	4.1	0.3	577
Wayanad	99.6	98.3	69.3	92.6	71.6	57.4	52.7	19.5	73.8	17.8	45.3	63.1	11.4	9.2	1.9	786
Kozhikode	99.9	99.9	75.5	98.0	87.5	78.5	38.9	22.8	82.4	14.5	48.5	43.1	2.9	10.2	0.2	1196
Malappuram	98.3	96.9	71.4	86.2	67.5	61.7	48.4	48.0	67.7	35.1	35.4	19.1	3.9	3.1	0.7	1192
Palakkad	99.3	99.2	72.7	73.4	74.8	75.2	63.7	64.5	82.9	48.0	34.8	16.2	6.1	3.8	2.0	1108
Thrissur	99.0	98.7	52.6	94.2	74.8	48.1	25.0	15.2	60.0	14.7	35.9	22.9	1.5	3.3	0.4	882
Ernakulam	99.1	92.0	39.1	86.4	53.5	39.2	21.0	13.8	50.9	15.7	37.8	29.0	6.8	8.1	0.4	682
Idukki	82.0	80.6	55.8	54.3	55.9	57.1	19.3	19.6	75.0	53.2	39.6	40.0	11.6	5.9	2.2	819
Kottayam	99.0	95.3	58.6	88.8	64.4	54.6	31.3	22.4	66.1	14.0	43.3	47.5	5.8	9.1	0.3	711
Alappuzha	99.8	98.9	67.9	95.5	76.2	74.1	34.9	18.2	75.4	22.8	55.4	32.3	2.8	7.4	0.0	1079
Pathanamthitta	96.7	96.0	80.5	84.4	77.3	63.9	32.2	29.1	88.2	46.4	37.4	38.6	7.2	4.1	0.1	985
Kollam	94.9	94.9	57.8	91.5	76.2	69.5	25.8	20.5	72.3	11.2	29.2	21.9	4.2	15.9	0.0	851
Thiruvananthapuram	99.5	98.3	59.2	97.5	79.9	56.6	14.4	12.9	76.3	8.0	31.7	28.8	0.2	1.5	0.0	967
DLHS-4	93.4	91.7	58.7	82.6	66.5	56.9	31.4	24.0	67.0	22.8	36.8	30.7	4.6	6.2	0.6	12906
DLHS-3	99.9	99.9	90.3	99.4	94.8	94.9	70.9	65.4	93.4	46.5	78.8	73.3	NA	NA	0.0	11672

Note: IUD = Intra-Uterine Device; ECP = Emergency Contraceptive Pill; LAM =Lactational Amenorrhoea Method. NA: Not available. ** Unweighted cases.

TABLE 5.4 EVER USE OF CONTRACEPTIVE METHOD														
Percentage of currently married women age 15-49 years who ever used specific contraceptive method according to selected background characteristics, Kerala , 2012-13.														
Background characteristics	Any method	Any modern method	Male sterilization	Female sterilization	IUD	Pill	ECP	Injectables	Condom	Female condom	Rhythm method	With-drawal method	Others	Number of women**
Age group														
15 - 19	32.4	24.5	0.0	0.5	0.8	3.2	0.0	0.6	20.6	1.1	9.4	13.0	0.0	139
20 - 24	50.1	39.2	0.1	4.2	5.7	4.6	1.0	1.1	27.7	2.0	14.2	13.8	0.0	1243
25 - 29	61.3	53.2	0.4	17.5	9.5	5.4	1.8	0.8	27.6	2.6	14.0	15.9	0.0	2281
30 - 34	70.2	64.4	1.2	38.1	9.1	4.1	1.7	1.3	25.7	3.2	13.6	13.7	0.1	2596
35 - 39	80.8	76.1	1.9	51.2	11.8	4.5	1.8	1.4	24.2	3.7	13.8	14.6	0.0	2622
40 - 44	83.1	79.5	2.6	55.7	12.0	3.9	1.0	0.8	22.0	2.9	12.4	13.6	0.0	2251
45 - 49	79.2	74.9	2.1	59.9	10.1	3.4	0.7	1.0	16.7	2.6	12.7	11.9	0.0	1774
No. of living children														
0	34.0	28.1	0.2	2.4	2.0	3.1	1.5	1.4	20.4	3.1	8.3	6.7	0.0	2077
1	66.8	57.9	1.8	11.3	13.9	4.6	1.6	1.4	31.5	5.4	13.6	14.7	0.1	4179
2	87.1	82.7	1.9	65.9	10.3	4.6	1.3	0.8	22.1	1.6	15.4	16.2	0.0	5248
3	85.8	82.2	0.8	74.7	9.5	4.1	1.1	0.5	15.5	0.7	13.1	15.0	0.0	1127
4+	72.7	69.6	0.4	64.9	4.4	3.8	0.4	0.4	11.2	0.2	9.6	10.1	0.0	275
Residence														
Rural	70.3	65.4	1.1	38.7	9.5	4.8	1.3	1.2	24.3	2.9	10.7	12.4	0.1	6400
Urban	73.7	66.7	1.8	40.4	10.5	3.8	1.5	0.9	23.6	3.0	16.2	15.8	0.0	6506
Education														
Non-literate ^a	36.9	35.5	0.5	12.8	1.4	0.9	0.9	1.1	21.1	6.1	2.6	2.2	0.0	862
Less than five years	70.1	66.4	1.3	60.2	4.9	3.0	0.6	0.2	10.3	0.7	10.1	13.4	0.0	663
5-9 years	75.0	68.4	0.9	57.8	7.1	3.5	1.3	0.9	14.6	0.5	14.2	16.1	0.0	2205
10 or more years	74.5	68.1	1.7	35.8	11.8	4.9	1.6	1.2	27.6	3.4	14.4	14.6	0.0	9176
Religion														
Hindu	72.9	66.9	1.6	41.9	10.4	4.0	1.6	0.9	24.0	2.5	14.1	14.9	0.0	7192
Muslim	64.9	59.0	1.1	33.9	7.9	4.3	0.7	1.1	21.5	2.2	11.1	12.5	0.0	3357
Christian	80.0	74.2	1.7	41.2	11.9	5.3	1.8	1.7	27.4	5.2	14.7	13.6	0.1	2280
Jain	22.8	22.8	0.0	2.8	0.0	2.1	2.1	0.0	17.9	0.0	0.0	0.0	0.0	44
Others	42.8	38.7	0.0	6.8	0.0	2.8	1.2	0.0	29.0	0.0	2.1	2.1	0.0	26
Castes/tribes														
Scheduled castes	75.5	68.8	1.6	40.9	7.8	3.2	1.6	0.7	26.9	3.6	12.6	13.5	0.0	1244
Scheduled tribes	68.5	64.6	3.3	35.9	2.1	3.6	5.1	1.2	26.3	10.7	13.8	20.6	0.0	182
Other backward classes	68.0	61.7	1.2	40.4	9.0	4.2	1.3	1.1	21.1	1.6	14.0	15.1	0.0	7089
Others	77.7	72.5	1.9	37.9	12.5	4.9	1.3	1.1	27.8	4.5	12.5	12.1	0.0	4391
DLHS-4	72.0	66.1	1.5	39.5	10.0	4.3	1.4	1.1	24.0	2.9	13.4	14.0	0.0	12906
DLHS-3	78.7	66.4	0.9	49.1	12.8	5.1	0.4	0.4	16.6	0.4	27.1	25.5	0.0	11672

Note: IUD = Intra-Uterine Device; ECP = Emergency Contraceptive Pill. ^a Literates but did not attend school are also included.** Unweighted cases.

TABLE 5.5 (A) CURRENT USE OF CONTRACEPTIVE METHODS

Percentage of currently married women age 15-49 years who are currently using specific contraceptive method according to selected background characteristics, Kerala , 2012-13.

Background characteristics	Any method	Any modern method	Male sterilization	Female sterilization	IUD	Pill	Condom	Rhythm method	Withdrawal method	Others	Number of women**
Age group											
15 - 19	15.3	10.3	0.0	0.5	0.8	1.4	7.6	0.0	5.0	0.0	139
20 - 24	29.7	22.8	0.1	4.4	3.6	2.3	11.9	1.9	4.7	0.1	1243
25 - 29	44.0	37.4	0.1	17.6	5.0	2.3	12.1	1.5	4.9	0.2	2281
30 - 34	58.0	53.7	0.4	38.2	4.1	1.1	9.6	1.4	2.8	0.1	2596
35 - 39	72.4	68.1	0.9	51.4	4.8	1.0	9.5	1.0	3.1	0.0	2622
40 - 44	74.7	72.2	1.6	55.8	5.1	0.5	8.9	0.7	1.7	0.1	2251
45 - 49	71.1	68.9	1.2	60.2	2.5	0.2	4.7	0.6	1.5	0.0	1774
No. of living children											
No children	15.3	12.7	0.1	2.8	0.6	1.7	7.3	0.7	1.6	0.1	2077
1 child											
1 son	50.7	42.8	1.6	11.9	11.1	1.8	15.7	1.9	5.7	0.2	2539
No son	46.3	37.7	0.5	10.8	7.8	1.8	16.0	2.1	6.5	0.0	1640
2 children											
1 or more sons	80.6	77.6	0.9	65.8	2.3	0.8	7.6	0.8	2.1	0.1	4249
No sons	79.1	76.5	0.3	67.3	2.5	0.4	6.1	0.8	1.6	0.1	999
3 children											
1 or more sons	81.2	79.5	0.2	75.4	1.2	0.3	2.4	0.7	0.8	0.1	993
No sons	76.0	76.0	0.0	71.2	1.4	0.7	2.8	0.0	0.0	0.0	134
4+ children											
1 or more sons	68.2	66.4	0.0	65.2	0.0	0.0	1.2	0.8	1.0	0.0	251
No sons	68.3	68.3	0.0	65.2	0.0	0.0	3.1	0.0	0.0	0.0	24
Residence											
Rural	59.9	55.7	0.5	38.9	4.0	1.2	10.7	0.7	3.4	0.0	6400
Urban	60.1	55.6	1.0	40.6	4.5	1.1	8.1	1.6	2.7	0.2	6506
Education											
Non-literate ^a	20.3	19.1	0.3	13.2	0.0	0.2	5.4	0.8	0.2	0.1	862
Less than five years	63.9	62.4	0.5	60.2	0.4	0.1	1.0	0.1	1.4	0.0	663
5-9 years	65.8	62.3	0.4	58.1	1.1	0.1	2.4	0.8	2.6	0.1	2205
10 or more years	61.8	56.8	0.9	36.0	5.7	1.6	12.2	1.3	3.6	0.1	9176
Religion											
Hindu	61.1	56.2	0.7	42.1	3.9	0.8	8.6	1.2	3.5	0.1	7192
Muslim	51.6	48.2	0.5	34.1	3.9	1.1	8.2	0.8	2.4	0.1	3357
Christian	69.5	65.2	1.0	41.4	6.1	2.5	13.6	1.4	2.8	0.1	2280
Jain	17.6	17.6	2.2	2.8	0.0	0.0	12.6	0.0	0.0	0.0	44
Others	54.9	49.9	0.0	12.5	0.0	0.0	37.4	5.0	0.0	0.0	26

Contd ...

TABLE 5.5 (A) CURRENT USE OF CONTRACEPTIVE METHODS

Background characteristics	Any method	Any modern method	Male sterilization	Female sterilization	IUD	Pill	Condom	Rhythm method	Withdrawal method	Other	Number of women**
Castes/tribes	65.7	59.9	0.4	40.9	2.9	0.6	15.0	2.2	3.5	0.1	1244
Scheduled castes	60.9	52.9	1.7	37.2	0.0	0.9	12.6	0.5	7.5	0.0	182
Scheduled tribes	55.5	51.3	0.6	40.6	3.0	0.9	6.0	0.9	3.1	0.1	7089
Other backward classes	65.9	61.7	1.0	38.1	7.0	1.9	13.3	1.3	2.8	0.0	4391
Others											
DLHS-4	60.0	55.7	0.7	39.7	4.3	1.2	9.4	1.1	3.1	0.1	12906
DLHS-3	64.4	55.9	0.8	49.1	1.8	0.4	3.7	4.5	4.0	0.0	11672

Note: IUD = Intra-Uterine Device; ECP = Emergency Contraceptive Pill .^a Literates but did not attend school are also included.** Unweighted cases.

TABLE 5.5 (B) DURATION OF USE OF SPACING METHODS

Percentage of currently married women age 15-49 years who are currently using spacing method by duration of use according to selected background characteristics, Kerala, 2012-13.

Background characteristics	IUD				Number of IUD users**	Pill		Condom	
	< 6 months	6 months to 2 years	2-3 years	3 or more years		> 6 months	Number of Pill users**	> 6 months	Number of condom users
Age group	---	---	---	---					
15 - 19	20.0	0.0	0.0	0.0	01	---	02	(18.2)	11
20 - 24	3.9	23.7	17.8	21.8	42	21.8	32	37.3	151
25 - 29	2.6	18.6	17.1	36.5	118	24.9	54	39.3	287
30 - 34	0.8	7.3	10.0	43.1	113	32.1	31	42.7	267
35 - 39	0.0	0.0	3.6	31.3	143	47.0	28	30.8	271
40 - 44	0.0	0.0	3.4	17.9	131	(50.0)	12	22.2	213
45 - 49		0.0	0.0	24.6	48	77.1	05	12.6	93
No. of living children									
0	(7.1)	(14.3)	(7.1)	(21.4)	14	8.2	38	33.1	160
1	3.4	6.4	7.5	24.6	435	37.3	82	35.2	682
2	1.8	6.2	11.7	49.6	133	44.2	40	29.8	417
3	(7.1)	(28.6)	(7.1)	(35.7)	14	---	04	28.8	30
4+	---	---	---	---	---	---	---	---	04
Residence									
Rural	3.1	7.0	9.5	30.8	273	33.6	83	26.8	731
Urban	3.5	7.3	7.4	30.2	323	30.3	81	42.0	562
Education									
Non-literate ^a	---	---	---	---	---	---	02	45.3	47
Less than five years	---	---	---	---	03	---	01	---	08
5-9 years	0.0	6.0	19.3	49.1	27	---	04	51.9	55
10 or more years	3.5	7.3	8.0	29.2	566	31.1	157	31.6	1183
Religion									
Hindu	2.2	9.0	9.0	32.3	306	42.3	63	30.8	651
Muslim	5.2	7.9	10.0	28.2	136	18.9	37	41.0	289
Christian	3.6	2.7	5.8	28.8	154	29.6	64	32.5	336
Jain	---	---	---	---	---	---	---	---	05
Others	---	---	---	---	---	---	---	(100.0)	10
Castes/tribes									
Scheduled castes	7.0	8.9	14.5	47.8	37	---	08	40.2	203
Scheduled tribes	---	---	---	---	---	---	02	43.8	25
Other backward classes	4.5	11.4	13.4	28.3	218	43.3	64	42.1	445
Others	2.0	4.0	4.2	30.0	341	20.0	90	23.7	620
DLHS-4	3.3	7.2	8.4	30.5	596	32.1	164	33.1	1293
DLHS-3	NA	NA	NA	NA	204	38.1	48	74.7	437

^a Literates but did not attend school, are also included. () based on 10-20 unweighted cases. --- Percentage not shown for less than 10 cases. NA: Not available.** Unweighted cases.

TABLE 5.6 AGE AT THE TIME OF STERILIZATION

Percent distribution of women age 15-49 years by age at the time of sterilization, according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Age at the time of sterilization						Total ¹	Mean age of sterilization	Number of women**
	<20	20 -24	25 -29	30 -34	35 -39	40 +			
Years since sterilization									
<2	0.0	10.2	38.5	32.9	13.0	5.3	100.0	30.39	308
2-3	0.3	11.7	36.7	32.3	12.3	6.8	100.0	30.41	349
4-5	0.6	15.9	39.0	26.6	13.8	4.1	100.0	29.36	335
6-7	0.7	20.6	38.8	28.7	10.1	1.2	100.0	28.52	476
8-9	0.7	23.5	44.9	23.5	6.3	1.1	100.0	27.79	373
10+	5.4	31.3	43.5	16.8	3.0	0.0	100.0	25.97	2333
No. of living children									
0	4.0	16.8	26.3	25.4	8.4	19.1	100.0	30.78	59
1	4.8	15.3	21.8	19.5	17.4	21.2	100.0	32.06	535
2	2.4	23.0	38.2	20.7	8.7	7.1	100.0	28.71	3440
3	2.6	19.3	37.5	24.3	9.1	7.2	100.0	29.25	830
4+	2.3	9.6	33.5	30.2	10.0	14.5	100.0	31.20	179
Residence									
Rural	3.1	20.8	34.9	21.7	9.7	9.8	100.0	29.37	2420
Urban	2.3	21.4	37.5	21.4	9.5	7.9	100.0	29.18	2623
Education									
Non-literate ^a	7.2	18.4	20.6	27.4	7.9	18.4	100.0	30.72	110
Less than five years	8.4	33.8	31.1	11.9	6.5	8.3	100.0	27.17	393
5-9 years	3.8	27.6	38.0	19.0	6.1	5.5	100.0	27.69	1272
10 or more years	1.5	17.0	36.6	23.6	11.5	9.9	100.0	30.09	3268
Religion									
Hindu	2.3	21.6	37.3	21.2	9.4	8.2	100.0	29.14	2997
Muslim	5.0	23.3	36.4	19.0	8.3	8.0	100.0	28.51	1116
Christian	1.2	16.8	32.3	25.9	11.8	12.0	100.0	30.60	923
Jain	---	---	---	---	---	---	---	---	02
Others	---	---	---	---	---	---	---	---	03
Castes/tribes									
Scheduled castes	4.0	23.5	33.5	22.6	9.2	7.3	100.0	28.74	497
Scheduled tribes	2.5	26.9	27.7	20.4	19.4	3.1	100.0	28.97	69
Other backward classes	3.3	23.5	38.3	19.1	8.2	7.7	100.0	28.58	2829
Others	1.3	15.9	33.7	25.6	11.9	11.6	100.0	30.63	1648
DLHS-4	2.7	21.1	36.2	21.6	9.6	8.9	100.0	29.27	5043
DLHS-3	2.1	29.4	44.4	19.7	4.2	0.3	100.0	26.8	5828

Note: ¹ Total figure may not add to 100 percent due to 'don't know' or 'missing cases'. ^a Literates but did not attend school, are also included. () based on 10-20 unweighted cases. --- Percentage not shown for less than 10 cases. ** Unweighted cases.

TABLE 5.7 CONTRACEPTIVE PREVALENCE RATE BY DISTRICT											
Percentage of currently married women age 15-49 years who are currently using any contraceptive method, by districts, Kerala, 2012-13.											
District	Any method	Any modern method	Male sterilization	Female sterilization	IUD	Pill	Condom	Rhythm method	Withdrawal method	Other	Number of Women**
Kasaragod	22.8	19.7	0.3	17.2	0.2	0.1	1.6	0.7	2.1	0.2	1071
Kannur	46.8	40.9	0.7	32.9	3.1	0.4	3.9	1.8	3.8	0.0	577
Wayanad	66.1	63.7	0.4	57.7	2.0	0.1	3.5	0.2	2.3	0.0	786
Kozhikode	63.7	59.4	0.3	51.2	2.8	0.6	4.5	0.6	3.5	0.1	1196
Malappuram	48.4	46.5	0.2	24.1	5.1	3.3	12.3	0.8	1.0	0.1	1192
Palakkad	61.4	61.1	1.3	19.7	9.2	7.1	21.8	0.2	0.1	0.0	1108
Thrissur	63.4	61.3	0.4	55.6	2.3	0.4	2.7	0.6	1.3	0.1	882
Ernakulam	72.7	63.7	1.5	52.7	3.7	0.4	5.4	7.0	1.7	0.3	682
Idukki	52.4	43.2	3.0	8.3	9.5	0.0	22.4	0.8	8.2	0.0	819
Kottayam	64.5	58.9	0.3	49.2	2.4	0.5	6.5	2.1	3.4	0.0	711
Alappuzha	66.5	62.9	0.7	52.3	2.1	0.9	6.9	1.4	2.0	0.2	1079
Pathanamthitta	73.5	68.4	2.3	13.4	17.6	1.2	33.9	1.0	3.9	0.2	985
Kollam	68.1	64.7	0.1	59.5	1.2	0.4	3.5	0.4	2.9	0.1	851
Thiruvananthapuram	69.9	61.1	0.1	55.2	0.9	0.1	4.8	0.8	8.0	0.0	967
DLHS-4	60.0	55.7	0.7	39.7	4.3	1.2	9.4	1.1	3.1	0.1	12906
DLHS-3	64.4	55.9	0.8	49.1	1.8	0.4	3.7	4.5	4.0	0.0	11672

Note: IUD = Intra Uterine Device. ** Unweighted cases.

TABLE 5.8 SOURCES OF MODERN CONTRACEPTIVE METHODS

Percent distribution of currently married women age 15-49 years who are currently using modern contraceptive methods by source according to selected background characteristics, Kerala, 2012-13.

Background Characteristics	Spacing Method				Number of women**	Limiting method				Number of women**
	Government ²	Private ³	Other ⁴	Total ¹		Government ⁵	Private ⁶	Other ⁷	Total ¹	
Age group										
15 - 19	(40.0)	(20.0)	(40.0)	100.0	16	---	---	---	---	01
20 - 24	20.8	12.1	67.1	100.0	247	81.4	18.6	0.0	100.0	54
25 - 29	23.8	18.3	57.9	100.0	507	65.0	35.0	0.0	100.0	390
30 - 34	16.0	16.6	67.4	100.0	457	62.2	37.8	0.0	100.0	968
35 - 39	19.7	10.0	70.2	100.0	503	62.5	37.5	0.0	100.0	1319
40 - 44	12.4	6.6	81.0	100.0	374	62.3	37.7	0.0	100.0	1251
45 - 49	8.2	8.3	83.6	100.0	152	66.2	33.7	0.1	100.0	1060
No. of living children										
0	23.7	8.0	68.4	100.0	232	76.2	23.8	0.0	100.0	59
1	20.8	14.2	65.0	100.0	1341	63.1	36.7	0.2	100.0	535
2	12.7	12.9	74.4	100.0	627	63.2	36.8	0.0	100.0	3440
3	13.0	18.3	68.7	100.0	52	64.1	35.9	0.0	100.0	830
4+	---	---	---	---	04	66.9	33.1	0.0	100.0	179
Residence										
Rural	17.2	9.9	72.9	100.0	1199	64.3	35.7	0.0	100.0	2420
Urban	20.3	17.6	62.1	100.0	1057	62.9	37.1	0.0	100.0	2623
Education										
Non-literate ^a	12.3	19.6	68.0	100.0	53	82.4	17.6	0.0	100.0	110
Less than five years	(37.5)	(0.0)	(62.5)	100.0	13	84.6	15.4	0.0	100.0	393
5-9 years	32.3	14.2	53.4	100.0	98	74.6	25.4	0.0	100.0	1272
10 or more years	18.0	12.9	69.1	100.0	2092	56.0	44.0	0.0	100.0	3268
Religion										
Hindu	19.1	13.0	67.9	100.0	1133	66.3	33.6	0.0	100.0	2997
Muslim	18.8	16.7	64.5	100.0	498	60.8	39.2	0.0	100.0	1116
Christian	17.7	10.9	71.4	100.0	608	57.9	42.1	0.0	100.0	923
Jain	---	---	---	---	05	---	---	---	---	02
Others	(10.0)	(0.0)	(90.0)	100.0	10	---	---	---	---	03
Castes/tribes										
Scheduled castes	18.2	8.1	73.8	100.0	263	84.6	15.4	0.0	100.0	497
Scheduled tribes	32.7	10.2	57.1	100.0	40	87.1	12.9	0.0	100.0	69
Other backward classes	19.8	18.6	61.6	100.0	818	65.3	34.6	0.0	100.0	2829
Others	16.9	10.6	72.5	100.0	1135	53.0	47.0	0.0	100.0	1648
DLHS-4	18.5	13.1	68.4	100.0	2256	63.6	36.4	0.0	100.0	5043
DLHS-3	21.2	55.5	23.3	100.0	490	62.9	36.4	0.7	100.0	5828

Note: Spacing method includes – pill (Daily/Weekly), condom (Male/Female), and Injectables and limiting method includes – male sterilization and female sterilization.

¹ Total figure may not add to 100 percent due to 'missing cases.

² Hospital, dispensary, UHC/UHP/UFWC, CHC/ Rural Hospital, PHC, Sub Health Centre/ANM, Mobile clinic, *Anganwadi* / ICDS centre, ASHA, Other Community Based Worker, AYUSH Hospital/Clinic and Other Public Health Sector.

³ Hospital, Doctor/Clinic, Mobile Clinic, AYUSH Hospital/Clinic, Traditional Healer, Pharmacy/Drugstore and Other Private Medical Sector.

⁴ NGO or Trust Hospital/clinic Private, Shop, Vending Machine, Husband, Relatives/Friends, Others and Don't Know.

⁵ Hospital, Dispensary, CHC/Rural Hospital, PHC, Mobile Clinic, Camp and Other Public Sector Health Facility.

⁶ Hospital, Doctor/Clinic, Mobile Clinic and Other Private Health Facility.

⁷ NGO or Trust Hospital/Clinic, Other and Don't Know.

^a Literates but did not attend school, are also included. () based on 10-20 unweighted cases. -- Percentage not shown for less than 10 cases. ** Unweighted cases.

TABLE 5.9 CASH BENEFITS RECEIVED AFTER STERILIZATION

Percent distribution of currently married women and wives of sterilized men who received cash benefits after sterilization, by districts, Kerala, 2012-13.

District	Received cash benefits	Cash benefits received			Total	Number of women**
		At the time of discharge	At the time of first follow-up	After several visits		
Kasaragod	14.5	76.7	10.0	13.3	100.0	184
Kannur	17.3	78.4	13.5	8.1	100.0	191
Wayanad	29.5	33.7	41.4	24.9	100.0	458
Kozhikode	36.7	77.9	15.4	6.7	100.0	615
Malappuram	28.6	85.7	4.4	9.9	100.0	290
Palakkad	36.8	87.9	7.7	4.4	100.0	229
Thrissur	27.5	78.3	10.9	10.9	100.0	494
Ernakulam	26.5	81.3	11.9	6.7	100.0	367
						99
Idukki	14.4	71.4	14.3	14.3	100.0	
Kottayam	31.0	77.5	11.3	11.3	100.0	357
Alappuzha	44.2	78.7	13.3	7.9	100.0	570
Pathanamthitta	45.0	76.4	19.4	4.2	100.0	145
Kollam	38.1	82.8	8.0	9.2	100.0	512
Thiruvananthapuram	39.9	89.9	2.3	7.8	100.0	532
DLHS-4	33.3	77.2	13.1	9.7	100.0	5043
DLHS-3	49.4	87.1	7.3	5.6	100.0	5828

** Unweighted cases.

TABLE 5.10 HEALTH PROBLEMS WITH CURRENT USE OF CONTRACEPTION AND TREATMENT RECEIVED

Percentage of currently married women age 15-49 years who are currently using contraceptive method and who were informed about side effects, had side effects with the method, treatment taken for side effect with the method, Kerala, 2012-13.

Health problems/side effect	Type of method		
	Female sterilization	IUD	Pill
Women who were informed about the side effects before adoption of the method	15.3	13.6	21.3
Women who had side-effect/health problem due to use of contraceptive method	4.3	6.4	4.0
Number of current users**	4939	602	189
Type of health problems/side effects¹			
Weakness/inability to work	15.1	20.9	---
Body ache/ backache	44.8	11.5	---
Abdominal pain	24.2	8.6	---
Weight gain	4.1	21.1	---
Dizziness	3.8	4.3	---
Nausea/vomiting	4.4	---	---
Fever	7.3	33.0	---
Breast tenderness	3.3	---	---
Irregular periods	4.5	4.1	---
Excessive bleeding	8.6	30.7	---
Spotting	2.4	7.2	---
Amenorrhoea	1.3	---	---
Cramps	2.7	---	---
Decreased libido	.7	---	---
Rashes/allergy	2.6	---	---
Infection	3.6	2.2	---
Others	2.4	3.4	---
Number of users with side effects**	253	37	08
Percentage of women received treatment	54.8	37.8	14.3
Source of treatment			
Government health facility	36.3	(21.4)	---
Private health facility	17.6	(17.8)	---
Other	0.0	(0.0)	---
Number of women with treatment taken**	114	14	01

Note:¹ Percentages may add to more than 100 because of multiple responses. () Based on 10-20 unweighted cases. --- Percentage not shown for less than 10 cases. ** Unweighted cases

TABLE 5.11 REASONS FOR DISCONTINUATION OF CONTRACEPTION

Percent distribution of currently married women age 15-49 years who are past users (currently non-users) by reason for discontinuation of the contraceptive method according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Reasons for discontinuation			Number of women**
	Fertility related ¹	Side effect related	Others ²	
Age group				
15 - 19	(44.0)	(12.0)	(44.0)	11
20 - 24	46.4	15.4	38.2	120
25 - 29	45.1	12.5	42.4	182
30 - 34	42.5	18.5	39.1	135
35 - 39	25.4	20.1	54.5	54
40 - 44	13.1	19.8	67.1	25
45 - 49	17.2	15.6	67.2	24
No. of living children				
0	43.2	22.7	34.1	161
1	37.8	14.5	47.7	273
2	25.4	14.1	60.5	95
3	(27.7)	(15.4)	(56.9)	18
4+	---	---	---	04
Residence				
Rural	37.4	19.8	42.8	252
Urban	34.4	13.6	52.1	299
Education				
Non-literate ^a	(7.9)	(27.0)	(65.1)	12
Less than five years	---	---	---	06
5-9 years	36.2	12.7	51.1	73
10 or more years	39.2	15.3	45.5	460
Religion				
Hindu	37.8	17.0	45.1	317
Muslim	31.4	16.2	52.4	146
Christian	37.1	13.1	49.8	87
Jain	---	---	---	00
Others	---	---	---	01
Castes/tribes				
Scheduled castes	36.4	24.6	39.0	43
Scheduled tribes	---	---	---	06
Other backward classes	36.4	19.1	44.5	325
Others	34.7	9.4	55.9	177
DLHS-4	35.7	16.4	47.9	551
DLHS-3	56.6	3.7	39.7	1604

^a Literates but did not attend school, are also included.

¹ Wanted child, method failed/became pregnant.

² Others include supply not available, difficult to get method, lack of pleasure, method was inconvenient, cost too much, family/husband opposed, not having sex, infrequent sex, husband away and others. () based on 10-20 unweighted cases. --- Percentage not shown for less than 10 cases. ** Unweighted cases

TABLE 5.12 FUTURE INTENTION TO USE CONTRACEPTION

Percent distribution of currently married women aged 15-49 years who are not using contraceptive method but having intention to use contraception in future by background characteristics, Kerala, 2012-13.

Background Characteristics	Future intention to use ¹		Want to use any family planning method			Number of non-users**
	Spacing Method	Limiting Method	Within 12 months	12 months and more	Undecided	
Age group						
15 - 19	5.7	6.5	24.2	7.1	68.7	89
20 - 24	5.9	10.8	19.9	22.4	57.7	674
25 - 29	3.2	11.8	21.7	20.0	58.3	1036
30 - 34	3.5	9.7	22.2	28.8	49.0	935
35 - 39	2.0	7.3	31.9	9.4	58.7	684
40 - 44	2.8	3.2	33.0	14.7	52.4	557
45 - 49	0.7	0.8	28.5	9.7	61.8	521
No. of living children						
0	2.6	4.7	18.4	11.3	70.4	1313
1	4.2	10.8	20.5	24.1	55.3	1861
2	2.9	8.5	36.3	20.5	43.2	1011
3	0.8	5.8	25.8	13.4	60.8	223
4+	0.0	3.2	30.8	31.0	38.2	88
Residence						
Rural	3.4	7.8	26.0	20.9	53.1	2196
Urban	2.9	8.4	21.0	19.7	59.3	2300
Education						
Non-literate ^a	2.1	2.5	35.5	11.2	53.3	589
Less than five years	0.4	1.8	8.8	0.0	91.2	230
5-9 years	1.4	7.9	23.8	11.5	64.6	696
10 or more years	4.0	9.7	23.1	22.7	54.1	2981
Religion						
Hindu	3.6	8.9	22.8	21.1	56.0	2440
Muslim	2.4	6.4	23.2	19.6	57.2	1424
Christian	3.6	9.0	27.7	16.5	55.8	585
Jain	0.0	0.0	0.0	0.0	0.0	35
Others	---	---	---	---	---	09
Castes/tribes						
Scheduled castes	5.2	12.2	35.7	15.3	48.9	355
Scheduled tribes	7.9	4.1	28.5	32.5	39.1	64
Other backward classes	2.5	8.2	21.8	21.3	56.9	2808
Others	3.9	7.0	21.8	19.7	58.5	1269
DLHS-4	3.2	8.1	23.6	20.3	56.1	4496
DLHS-3	2.0	15.3	16.5	18.5	65.0	4157

Note: Total figure may not add to N, sample total, due to 'don't know' or 'missing cases. Spacing method includes IUD, pills, condom (Male/Female) and Injectables. Limiting method includes male sterilization and female sterilization.

¹ Total figure may not add to 100 percent due to exclusion of other methods (Rhythm/ Periodic abstinence, Withdrawal, Undecided and Others). ^a Literates but did not attend school, are also included. ** Unweighted cases.

TABLE 5.13 ADVICE ON CONTRACEPTIVE USE

Percentage of currently married women age 15-49 years who are currently not using any contraceptive and were advised by the ANM/health worker to use modern contraception by suggested method and place of residence, Kerala , 2012-13.

Advice	Total	Residence	
		Rural	Urban
Percent Non-users advised to use modern contraceptive method ¹	39.9	42.6	37.2
Number of Non-users**	4496	2196	2300
Percent of Traditional method users advised to use modern method	20.2	18.9	21.5
Number of traditional method users**	546	269	277
Percent of non-users or traditional method users who were advised to use			
Female sterilization	16.8	16.8	16.8
Male sterilization	6.2	6.4	5.9
IUD	14.0	14.4	13.5
Pill(Daily/weekly)	5.8	6.4	0.4
Injectables	1.4	1.7	5.3
Condom	18.0	17.0	1.0
Female condom	2.7	3.1	19.1
Rhythmic /periodic abstinence	4.3	3.7	4.9
Withdrawal	4.9	6.1	3.8
Others	0.5	0.7	0.4

Note: Exclude women in menopause or those who have undergone hysterectomy.

¹ Includes Doctor, ANM, Health Worker, *anganwadi* Worker and ASHA. ** Unweighted cases.

TABLE 5.14 REASONS FOR NOT USING MODERN CONTRACEPTIVE METHODS AMONG RHYTHM AND WITHDRAWAL METHOD USERS

Percent distribution of currently married women age 15-49 years who are currently using rhythm or withdrawal method by reasons for not using modern contraceptive method, according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Reason for not using modern contraceptive method			Number of women**
	Fertility related	Opposition to use/lack of knowledge	Method related	
Age group				
15 - 19	---	---	---	07
20 - 24	25.2	10.6	64.2	79
25 - 29	27.8	19.4	52.8	148
30 - 34	22.5	32.3	45.1	109
35 - 39	17.5	25.8	56.7	109
40 - 44	11.1	37.4	51.5	55
45 - 49	16.5	24.6	58.9	39
No. of living children				
0	57.2	23.8	19.0	47
1	20.2	20.5	59.3	326
2	21.2	26.2	52.6	152
3	(9.1)	(54.5)	(36.4)	16
4+	---	---	---	05
Residence				
Rural	23.0	17.3	59.7	269
Urban	21.6	29.8	48.5	277
Education				
Non-literate ^a	---	---	---	09
Less than five years	(0.0)	(37.5)	(62.5)	11
5-9 years	16.2	18.7	65.2	76
10 or more years	23.6	24.8	51.6	450
Religion				
Hindu	20.9	19.4	59.7	338
Muslim	25.8	35.4	38.8	113
Christian	22.4	25.7	51.9	94
Jain	---	---	---	00
Others	---	---	---	01
Castes/tribes				
Scheduled castes	35.7	19.6	44.7	71
Scheduled tribes	(0.0)	(0.0)	(0.0)	14
Other backward classes	21.0	22.0	57.0	282
Others	18.0	29.7	52.3	179
DLHS-4	22.2	24.1	53.7	546
DLHS-3	4.8	27.4	67.8	992

^a Literates but did not attend school, are also included. () based on 10-20 unweighted cases. --- Percentage not shown for less than 10 cases ** Unweighted cases.

TABLE 5.15 UNMET NEED FOR FAMILY PLANNING SERVICES

Percentage of currently married women age 15-49 years by unmet need for family planning services according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Unmet need for FP			Number of women**
	Spacing ¹	Limiting ²	Total	
Age group				
15 – 19	39.1	3.7	42.8	139
20 - 24	25.4	3.1	28.5	1243
25 - 29	19.1	5.4	24.5	2281
30 - 34	12.6	6.9	19.5	2596
35 - 39	7.3	7.9	15.2	2622
40 - 44	4.8	10.0	14.8	2251
45 - 49	5.2	9.5	14.7	1774
Number of living children				
0	22.7	8.6	31.3	2077
1	18.4	7.6	26.0	4179
2	5.0	6.7	11.7	5248
3	4.8	6.6	11.4	1127
4+	3.8	14.6	18.4	275
Residence				
Rural	12.5	7.5	20.0	6400
Urban	10.7	7.3	18.0	6506
Education				
Non-literate ^a	29.2	24.4	53.6	862
Less than five years	8.0	12.6	20.6	663
5-9 years	9.7	8.7	18.3	2205
10 or more years	11.1	5.5	16.6	9176
Religion				
Hindu	11.7	7.6	19.3	7192
Muslim	13.6	8.5	22.1	3357
Christian	9.0	4.7	13.7	2280
Jain	0.0	27.6	27.6	44
Others	0.0	3.2	3.2	26
Castes/tribes				
Scheduled castes	9.3	5.8	15.0	1244
Scheduled tribes	15.4	8.1	23.6	182
Other backward classes	13.7	8.1	21.8	7089
Others	8.8	6.7	15.5	4391
DLHS-4	11.6	7.4	19.0	12906
DLHS-3	8.2	8.6	16.8	11672

Note: Total unmet need refers to unmet for limiting and spacing.

¹ Unmet need for spacing includes the proportion of currently married women who are neither in menopause nor had hysterectomy nor are currently pregnant and who want more children after two years or later and are currently not using any family planning method. The women who are not sure about whether and when to have next child are also included in unmet need for spacing.

² Unmet need for limiting includes the proportion of currently married women who are neither in menopause nor had hysterectomy nor are currently pregnant and do not want any more children but are currently not using any family planning method. ^a Literates but did not attend school, are also included. ** Unweighted cases

TABLE 5.16 UNMET NEED FOR FAMILY PLANNING SERVICES BY DISTRICT				
Percentage of currently married women age 15-49 years by unmet need for family planning services by districts, Kerala, 2012-13.				
District	Unmet need for FP			Number of women**
	Spacing ¹	Limiting ²	Total	
Kasaragod	33.3	20.8	54.2	1071
Kannur	22.0	10.7	32.7	577
Wayanad	15.8	4.0	19.8	786
Kozhikode	12.0	7.4	19.4	1196
Malappuram	10.2	6.3	16.6	1192
Palakkad	4.2	7.8	11.9	1108
Thrissur	7.9	3.4	11.3	882
Ernakulam	10.9	3.4	14.3	682
Idukki	14.8	19.4	34.2	819
Kottayam	6.0	6.7	12.7	711
Alappuzha	6.8	4.9	11.7	1079
Pathanamthitta	7.8	3.2	11.0	985
Kollam	9.5	5.6	15.1	851
Thiruvananthapuram	7.4	4.6	11.9	967
DLHS-4	11.6	7.4	19.0	12906
DLHS-3	8.2	8.6	16.8	11672

Note: Total unmet need refers to unmet for limiting and spacing.

¹ Unmet need for spacing includes the proportion of currently married women who are neither in menopause nor had hysterectomy nor are currently pregnant and who want more children after two years or later and are currently not using any family planning method. The women who are not sure about whether and when to have next child are also included in unmet need for spacing.

² Unmet need for limiting includes the proportion of currently married women who are neither in menopause nor had hysterectomy nor are currently pregnant and do not want any more children but are currently not using any family planning method. ** Unweighted cases.

REPRODUCTIVE HEALTH PROBLEMS

TABLE 6.1 MENSTRUATION RELATED PROBLEMS BY BACKGROUND CHARACTERISTICS

Percentage of ever married women aged 15-49 years who had any menstruation related problem during three months prior to survey and among them, reported specific symptoms according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Who had any menstruation related problem (%)	Total number of women ¹	Reported Symptoms among who had any menstruation problem								Number of women who had menstruation problem**
			No periods	Painful periods	Frequent or short periods	Irregular periods	Prolonged bleeding	Scanty bleeding	Inter-menstrual bleeding	Blood clots/excessive bleeding	
Age group											
15-19	5.2	118	--	--	--	--	--	--	0.0	0.0	06
20-24	9.2	1060	19.6	45.3	6.3	31.9	3.6	2.4	0.0	4.2	94
25-29	7.7	2083	15.1	40.5	7.8	36.3	12.8	6.6	1.3	4.1	159
30-34	8.6	2508	11.1	38.8	9.9	39.2	13.2	8.6	4.4	5.2	207
35-39	9.1	2649	15.0	45.2	13.7	32.0	14.6	9.1	3.3	7.3	236
40-44	9.0	2334	11.8	40.3	12.6	34.9	16.7	5.5	1.9	4.8	202
45-49	10.0	1649	15.7	31.6	8.1	36.0	16.9	4.5	3.9	9.6	160
Place of residence											
Rural	9.6	6128	14.4	40.1	9.7	35.5	15.8	6.5	3.7	6.4	575
Urban	8.0	6273	13.6	40.7	11.1	35.1	11.1	6.8	1.5	5.5	489
Age at consummation of marriage*											
Below 18 years	8.6	1069	6.0	39.9	9.4	41.8	17.3	4.9	3.4	3.0	90
18 years & above	8.5	10460	12.4	40.6	11.1	36.6	14.3	7.1	2.8	5.9	862
Marital duration*											
0-4	7.9	1765	18.4	44.7	3.3	38.5	5.3	0.5	0.0	2.7	137
5-9	8.3	1949	12.8	42.7	7.6	38.7	9.9	4.2	1.2	2.9	158
10-14	8.9	2603	14.4	40.1	13.2	33.1	13.8	10.8	4.6	6.0	220
15+	9.4	5487	13.5	38.9	12.2	34.3	17.5	6.9	2.9	7.2	507
Education											
Non-literate ^a	11.4	848	49.6	32.8	8.7	15.5	5.3	0.8	3.2	2.3	89
Less than 5 yrs	6.5	157	(18.2)	(18.2)	(27.3)	(18.2)	(18.2)	(9.1)	7.8	0.0	11
5-9 years	9.9	2681	7.9	39.8	7.5	40.3	10.2	3.3	2.3	6.5	262
10 or more years	8.3	8715	11.7	41.6	11.4	36.1	16.1	8.4	2.7	6.3	702
Husband's education											
Non-literate ^a	10.7	1017	45.0	36.2	10.0	11.5	5.7	1.4	2.8	4.3	101
Less than 5 yrs	8.3	275	0.0	34.4	19.0	44.7	16.6	8.6	7.6	7.4	24
5-9 years	10.2	3305	7.7	40.8	7.4	39.7	11.6	2.9	0.9	7.4	330
10 or more years	8.0	7804	12.9	41.1	11.7	36.5	16.3	9.5	3.6	5.4	609
Religion											
Hindu	9.3	6949	14.8	39.5	11.0	35.0	14.4	7.1	3.0	7.0	634
Muslim	8.6	3187	11.0	43.1	8.2	35.4	12.6	3.9	1.1	4.1	263
Christian	7.8	2188	14.0	40.3	11.3	37.3	13.3	9.1	4.5	5.0	163
Jain	2.2	44	--	--	--	--	--	--	0.0	0.0	01
Other	9.8	33	--	--	--	--	--	--	0.0	0.0	03

Contd...

TABLE 6.1 MENSTRUATION RELATED PROBLEMSBY BACKGROUND CHARACTERISTICS											
Background characteristics	Who had any menstruation related problem	Total number of women ¹	Reported Symptoms								Number of women who had menstruation problem**
			No periods	Painful periods	Frequent or short periods	Irregular periods	Prolonged bleeding	Scanty bleeding	Inter-menstrual bleeding	Blood clots/excessive bleeding	
Castes/Tribes											
Scheduled Castes	11.3	1249	9.8	35.7	14.1	44.2	15.6	8.3	7.2	3.9	139
Scheduled Tribes	11.7	180	9.7	36.4	4.6	18.0	0.0	13.4	9.0	18.4	21
Other Backward Classes	8.7	6778	12.8	43.3	8.1	33.2	12.5	4.5	1.6	6.3	572
Others	8.2	4194	18.4	37.4	12.9	36.5	16.1	9.2	2.4	5.4	332
DLHS-4	8.8	12401	14.1	40.4	10.3	35.3	13.8	6.6	2.7	6.0	1064
DLHS-3	24.2	10355	2.3	58.6	8.8	31.2	7.2	9.4	0.7	6.7	2506
Note: Total figure may not add to 100 percent due to multiple responses. *excluding missing cases. ^a Literate but did not attend school, are also included. ¹ Excludes pregnant, in amenorrhea, in menopause, had hysterectomy and ever menstruated women. ()based on 10-20 unweighted cases.-- percentage not shown for less than 10 cases. ** Unweighted cases.											

TABLE 6.2 SOURCE OF KNOWLEDGE ABOUT RTI/STIBY BACKGROUND CHARACTERISTICS

Percentage of ever married women aged 15- 49 years who have heard about RTI/STI, among them, who received information from specific sources according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Who have heard RTI/STI	Total number of women*	Source of Knowledge									Number of women heard of RTI/STI**
			Radio	T.V.	Cinema	Print media ¹	Health personnel ²	School/ adult education programs ³	Leaders/ community meeting ⁴	Husband	Relative/ friends	
Age group												
15-19	34.8	146	38.8	86.0	80.2	39.5	19.5	22.1	53.6	7.9	0.0	49
20-24	45.1	1293	33.6	87.3	75.2	39.5	19.4	26.1	50.7	8.6	2.3	576
25-29	50.2	2363	33.5	87.8	73.5	39.8	18.9	25.3	45.1	7.2	4.1	1183
30-34	48.6	2732	34.5	87.9	71.9	37.3	19.3	23.5	44.2	6.5	3.5	1307
35-39	49.8	2772	32.6	87.3	73.3	45.6	21.7	26.2	46.0	7.5	4.4	1357
40-44	48.4	2459	34.5	90.3	72.8	43.3	20.1	23.8	44.5	5.4	3.5	1177
45-49	45.1	2015	36.4	86.6	74.0	34.5	19.0	18.0	39.3	6.2	4.2	896
Residence												
Rural	50.6	6837	34.6	86.9	69.1	37.5	21.6	27.9	43.5	7.3	3.7	3402
Urban	45.5	6943	33.7	89.1	78.2	43.7	17.8	19.2	46.3	6.2	3.8	3143
Age at consummation of marriage*												
Below 18 years	35.1	1183	37.0	85.6	67.1	30.7	16.1	17.7	32.9	6.7	1.8	415
18 years & above	50.6	11647	34.0	88.3	74.0	41.2	19.9	24.5	45.5	6.6	3.8	5820
Marital duration*												
0-4												
5-9	45.8	2148	29.4	87.1	78.5	37.1	19.4	19.7	45.3	7.7	4.7	972
10-14	52.0	2158	34.4	87.2	73.8	39.9	18.8	24.3	43.2	7.2	3.3	1112
15+	51.1	2802	35.0	88.8	72.1	40.5	21.1	26.8	46.6	6.3	3.6	1420
	47.9	6003	35.4	88.3	72.0	42.3	19.9	24.6	44.7	6.4	3.6	2832
Education												
Non-literate ^a	9.1	1048	54.1	76.9	51.8	39.4	17.8	32.7	58.4	6.7	5.0	85
Less than 5 yrs	25.3	191	30.5	87.2	62.4	15.2	21.5	13.4	31.1	10.2	5.8	48
5-9 years	43.6	2950	26.4	85.3	74.8	31.0	19.0	10.2	26.5	6.5	2.1	1262
10 or more years	53.7	9591	35.9	88.8	73.3	43.0	20.1	27.4	49.4	6.8	4.1	5150
Husband's education												
Non-literate ^a	12.1	1258	42.3	77.3	57.4	30.6	16.0	29.7	58.5	10.7	2.9	136
Less than 5 years	30.8	309	22.8	84.1	62.7	20.0	12.4	4.9	20.7	8.8	0.0	93
5-9 years	46.6	3644	28.0	86.6	76.3	29.7	22.6	8.1	26.4	6.6	2.8	1671
10 or more years	54.1	8569	36.5	88.8	72.8	45.2	19.0	30.2	52.0	6.7	4.2	4645
Religion												
Hindu	49.9	7716	33.1	87.7	73.7	39.7	20.8	22.4	43.9	7.2	4.0	3812
Muslim	41.0	3575	34.5	88.5	74.6	37.4	17.5	21.4	41.5	5.7	1.8	1436
Christian	53.0	2406	35.6	87.7	70.4	45.7	19.9	31.0	50.5	6.9	5.3	1266
Jain	20.5	47	--	--	--	--	--	--	--	--	--	09
Others	62.4	36	86.6	100.0	81.6	23.8	5.7	23.7	64.2	5.0	0.0	22

Contd...

TABLE 6.2 SOURCE OF KNOWLEDGE ABOUT RTI/STIBY BACKGROUND CHARACTERISTICS

Background characteristics	Who have heard RTI/STI	Total number of women**	Source of Knowledge									Number of women heard of RTI/STI**
			Radio	T.V.	Cinema	Print media ¹	Health personnel ²	School/adult education programs ³	Leaders/community meeting ⁴	Husband	Relative/friends	
Castes/Tribes												
Scheduled Castes	43.5	1356	33.5	86.3	68.6	49.1	26.8	37.8	54.3	13.0	4.8	583
Scheduled Tribes	41.8	198	22.6	85.0	52.1	58.3	25.8	48.6	55.9	14.2	6.4	82
Other Backward Classes	46.8	7577	34.4	88.1	75.6	35.8	19.3	16.4	37.4	5.8	2.7	3482
Others	51.9	4649	34.4	88.1	71.7	44.3	18.7	30.7	53.0	6.5	4.9	2398
DLHS-4	48.1	13780	34.1	87.9	73.3	40.3	19.8	23.9	44.8	6.8	3.7	6545
DLHS-3	75.8	12360	42.5	66.0	9.9	61.9	16.5	7.3	8.3	3.4	27.0	9365

Note: Total figure may not add to 100 percent due to multiple responses.

*excluding missing cases. ^aLiterate but did not attend school, are also included. ¹ Includes News papers/books/magazines/slogans/pamphlets and posters.

² Includes Doctor/ASHA/health workers. ³ Includes school/teacher, adult education programs. ⁴ Includes religious/ political leaders, community meetings and exhibition/ Mela. -- percent not shown for less than 10 cases. ** Unweighted cases.

TABLE 6.3 KNOWLEDGE OF MODE OF TRANSMISSION OF RTI/STI BY BACKGROUND CHARACTERISTICS

Percentage of ever married women aged 15-49 years who have heard of RTI/STI and among them, who have knowledge of transmission of RTI/STI, according to selected background characteristics, Kerala, 2012-13.

Background characteristics	knowledge of transmission of RTI/STI								Number of women heard of RTI/STI **
	Heard of RTI/STI	Unsafe delivery	Unsafe abortion	Unsafe IUD insertion	Unsafe sex with homosexuals	Unsafe sex with persons who have many partners	Unsafe sex with sex workers	Other	
Age group									
15-19	34.8	27.7	37.6	26.8	18.1	76.9	33.9	5.3	49
20-24	45.1	27.6	30.4	28.6	38.2	72.5	42.7	6.4	576
25-29	50.2	31.5	34.1	34.9	43.6	75.8	47.2	4.9	1183
30-34	48.6	29.7	33.0	31.5	39.0	75.1	44.3	5.8	1307
35-39	49.8	32.2	39.2	35.5	41.8	79.2	48.6	5.3	1357
40-44	48.4	30.2	33.8	32.5	38.5	76.6	46.2	5.7	1177
45-49	45.1	24.3	27.9	26.8	29.4	74.8	44.9	6.4	896
Residence									
Rural	50.6	31.1	35.7	35.4	44.2	76.2	48.6	3.1	3402
Urban	45.5	28.0	31.4	28.4	32.4	76.0	42.8	8.7	3143
Age at consummation of marriage*									
Below 18 years	35.1	24.1	28.4	23.4	31.9	68.5	38.0	6.2	415
18 years & above	50.6	30.2	34.2	33.2	39.5	76.8	46.5	5.7	5820
Marital duration*									
0-4	45.8	25.1	27.2	26.4	32.8	74.7	40.6	6.5	972
5-9	52.0	28.5	30.4	30.3	38.7	75.3	45.1	5.5	1112
10-14	51.1	33.3	37.6	35.6	44.4	77.7	47.4	5.4	1420
15+	47.9	30.7	36.2	34.3	38.9	76.0	47.9	5.5	2832
Education									
Non-literate ^a	9.1	48.6	49.7	43.9	44.8	46.4	37.6	8.6	85
Less than 5 yrs	25.3	6.7	14.1	3.5	13.1	65.4	21.6	4.0	48
5-9 years	43.6	11.3	17.0	13.0	17.9	74.7	30.2	6.0	1262
10 or more years	53.7	34.3	37.9	37.2	44.3	77.0	50.3	5.6	5150
Husband's education									
Non-literate ^a	12.1	47.3	50.0	37.5	42.9	45.5	34.9	11.9	136
Less than 5 years	30.8	9.3	12.7	8.1	4.1	69.9	19.3	2.2	93
5-9 years	46.6	11.7	15.7	12.9	17.5	76.5	31.0	5.5	1671
10 or more years	54.1	36.5	40.7	39.9	47.6	76.9	52.6	5.6	4645
Religion									
Hindu	49.9	28.9	33.2	32.2	36.4	75.7	44.8	5.8	3812
Muslim	41.0	27.3	31.2	28.5	37.4	74.0	42.5	5.7	1436
Christian	53.0	33.5	37.0	35.2	46.6	79.4	52.6	5.3	1266
Jain	--	--	--	--	--	--	--	--	09
Others	62.4	67.8	78.7	73.0	68.3	84.9	68.7	6.2	22
Castes/Tribes									
Scheduled Castes	43.5	35.8	38.5	36.6	41.4	79.1	49.9	4.4	583
Scheduled Tribes	41.8	45.1	55.3	57.9	58.4	64.3	53.2	3.6	82
Other Backward Classes	46.8	23.9	27.5	25.4	29.8	72.5	38.4	7.2	3482
Others	51.9	36.3	41.1	40.2	50.8	81.1	55.9	3.8	2398
DLHS-4									
DLHS-4	48.1	29.7	33.7	32.2	38.7	76.1	45.9	5.7	6545
DLHS-3	75.8	4.2	3.7	6.2	19.7	81.3	24.0	7.7	9365

Note: Total figure may not add to 100 percent due to multiple responses.

*excluding missing cases. ^aLiterate but did not attend school, are also included. -- percent not shown for less than 10 cases cases.

** Unweighted cases.

TABLE 6.4 SYMPTOMS OF RTI/STIBY BACKGROUND CHARACTERISTICS

Percentage of ever married women aged 15-49 years who had reported abnormal vaginal discharge, other RTI/STI symptoms during three months prior to survey according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Women reported abnormal vaginal discharge	Women reported other RTI/STI symptoms ¹	Percentage reported specific symptom of RTI/STI ¹							Total number of women **
			Itching or irritation over vulva	Boils/Ulcers/Warts around vulva	Pain in lower abdomen not related menses	Swelling in the groin	Painful blister like lesions	Pain during sexual intercourse ²	Spotting after sexual intercourse ²	
Age group										
15-19	4.6	15.3	4.1	4.1	6.1	3.0	2.9	3.6	1.3	146
20-24	4.2	11.1	3.7	2.0	2.6	1.9	0.5	2.9	0.8	1293
25-29	4.2	9.4	3.4	1.9	2.4	1.2	0.5	1.9	0.4	2363
30-34	5.2	11.6	4.1	2.6	3.5	1.7	1.0	1.5	0.8	2732
35-39	4.9	10.5	3.3	1.3	2.6	1.3	1.0	1.3	0.4	2772
40-44	4.4	10.5	3.5	1.5	2.2	1.5	0.9	1.4	0.3	2459
45-49	3.4	9.8	3.1	2.0	3.3	1.1	1.1	1.0	0.4	2015
Residence										
Rural	4.4	11.4	3.7	1.8	2.8	1.6	1.0	2.0	0.5	6837
Urban	4.5	9.6	3.4	2.0	2.9	1.2	0.8	1.1	0.5	6943
Age at consummation of marriage*										
Below 18 years	3.8	11.8	4.4	3.1	3.7	2.1	0.9	1.2	0.3	1183
18 years & above	4.6	10.4	3.4	1.8	2.7	1.4	0.9	1.7	0.5	11647
Marital duration*										
0-4	3.8	9.6	3.2	1.4	2.5	1.3	0.4	2.6	0.7	2148
5-9	4.6	9.7	3.2	1.9	2.3	0.7	0.5	1.8	0.7	2158
10-14	4.9	10.7	4.0	2.5	3.1	2.0	0.9	1.3	0.6	2802
15+	4.6	11.0	3.5	1.8	2.9	1.5	1.2	1.4	0.4	6003
Education										
Non-literate ^a	2.2	24.1	12.3	12.3	13.0	7.2	2.8	1.5	0.3	1048
Less than 5 yrs	4.0	9.6	5.5	0.9	0.5	1.8	0.0	1.5	0.9	191
5-9 years	4.7	10.2	3.5	1.4	3.0	1.0	0.7	1.3	0.4	2950
10 or more years	4.6	9.2	2.6	1.0	1.8	0.9	0.8	1.7	0.6	9591
Husband's education										
Non-literate ^a	1.5	23.9	10.0	10.8	11.4	6.6	2.9	1.6	0.6	1258
Less than 5 years	3.8	9.9	3.9	2.0	3.9	1.4	1.0	3.0	0.3	309
5-9 years	4.8	10.0	3.7	1.0	2.7	1.0	0.7	1.3	0.4	3644
10 or more years	4.7	8.9	2.5	1.0	1.6	0.9	0.7	1.7	0.5	8569
Religion										
Hindu	4.5	10.9	3.6	1.8	2.7	1.4	0.9	1.7	0.4	7716
Muslim	4.3	10.5	4.1	2.6	3.7	1.7	0.9	1.5	0.5	3575
Christian	4.6	8.3	2.6	1.4	2.0	1.1	0.8	1.6	0.9	2406
Jain	0.0	79.4	2.4	2.4	2.4	2.4	9.9	1.9	0.0	47
Others	0.0	10.7	2.4	2.0	4.5	0.0	0.0	0.0	0.0	36

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TABLE 6.4 SYMPTOMS OF RTI/STIBY BACKGROUND CHARACTERISTICS

Background characteristics	Women reported abnormal vaginal discharge	Women reported other RTI/STI symptoms ¹	Percentage reported specific symptom of RTI/STI ¹							Total number of women **
			Itching or irritation over vulva	Boils/Ulcers/Warts around vulva	Pain in lower abdomen not related menses	Swelling in the groin	Painful blister like lesions	Pain during sexual intercourse ²	Spotting after sexual intercourse ²	
Castes/Tribes										
Scheduled Castes	4.9	8.7	3.1	0.9	2.1	1.0	0.6	1.8	0.5	1356
Scheduled Tribes	6.8	11.7	3.4	0.6	3.1	1.6	2.1	2.8	1.0	198
Other Backward Classes	4.4	12.4	4.3	2.5	3.4	1.8	1.0	1.6	0.5	7577
Others	4.3	7.9	2.4	1.3	2.1	0.9	0.8	1.5	0.5	4649
DLHS-4	4.5	10.5	3.5	1.9	2.8	1.4	0.9	1.6	0.5	13780
DLHS-3	9.2	12.0	5.7	1.2	3.4	0.3	0.2	2.1	0.2	12360

Note: Total figure may not add to 100 percent due to 'do not know' or 'missing cases.*excluding missing cases. ^aLiterate but did not attend school, are also included.
¹ Excluding women having abnormal vaginal discharge problem. ²Only for currently married women. ** Unweighted cases.

TABLE 6.5 DISCUSSED ABOUT RTI/STI PROBLEMS WITH HUSBAND AND SOUGHT TREATMENT BY BACKGROUND CHARACTERISTICS

Percentage of ever married women aged 15-49 years discussed RTI /STI problem with husband/partner and sought treatment among who reported any RTI/STI¹ problem and source of treatment according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Women discussed RTI/STI problems with husband/partner ¹	Women sought treatment ¹ for RTI/STI problems	Number of women having any RTI/STI ¹	Source of treatment			Number of women who sought treatment**
				Government	Private	Other	
Age group							
15-19	41.6	19.1	21	--	--	--	04
20-24	46.0	21.2	144	27.9	66.2	6.0	33
25-29	45.4	30.6	224	43.5	54.3	2.2	67
30-34	44.2	27.4	320	52.4	46.9	0.8	88
35-39	48.7	31.4	294	45.8	54.2	0.0	92
40-44	48.8	39.2	261	52.2	47.0	0.8	104
45-49	50.0	38.9	201	36.5	60.8	2.7	74
Residence							
Rural	49.3	31.6	777	47.6	50.7	1.7	242
Urban	44.1	31.5	688	42.2	56.1	1.7	220
Age at consummation of marriage*							
Below 18 years	50.5	31.5	140	40.2	57.5	2.3	45
18 years & above	48.4	31.6	1222	44.3	53.9	1.8	377
Marital duration*							
0-4	49.2	22.6	202	33.4	62.8	3.9	50
5-9	54.1	33.2	213	45.8	50.6	3.6	66
10-14	40.3	29.0	303	45.1	54.1	0.8	85
15+	50.6	35.5	667	45.4	53.4	1.2	232
Education							
Non-literate ^a	7.2	5.6	246	(64.3)	(35.7)	(0.0)	14
Less than 5 yrs	60.9	21.9	18	--	--	--	05
5-9 years	63.1	42.2	303	44.9	54.5	0.6	130
10 or more years	51.7	35.0	898	43.6	54.2	2.3	313
Husband's education							
Non-literate ^a	8.0	6.3	294	70.6	29.4	0.0	20
Less than 5 years	40.3	30.4	31	--	--	--	10
5-9 years	71.1	47.4	368	44.2	53.7	2.1	175
10 or more years	49.8	33.1	772	42.9	55.5	1.6	257
Religion							
Hindu	48.3	31.5	852	44.4	54.0	1.6	263
Muslim	47.1	30.7	369	38.5	59.2	2.2	119
Christian	48.2	37.7	201	57.5	41.3	1.2	77
Jain	3.1	5.3	38	--	--	--	02
Others	--	--	05	--	--	--	01
Castes/Tribes							
Scheduled Castes	55.1	38.4	118	60.1	39.9	0.0	46
Scheduled Tribes	61.5	40.3	23	--	--	--	09
Other Backward Classes	44.4	28.9	957	38.5	59.5	2.1	281
Others	50.2	35.9	367	53.6	44.9	1.6	126
DLHS-4							
	47.0	31.6	1465	45.2	53.1	1.7	462
DLHS-3							
	78.8	52.6	2151	42.9	55.9	1.2	1133

Note: Total figure may not add to 100 percent due to 'do not know' or 'missing cases.

*excluding missing cases. ^aLiterate but did not attend school, are also included. ¹ Any RTI/STI (Including abnormal vaginal discharge or other RTI/STI problem). -- percent not shown for less than 10 cases. () based on 10-20 unweighted cases. ** Unweighted cases.

TABLE 6.6 RTI/STI INDICATORS BY DISTRICTS

Percentage of ever married women aged 15-49 years who reported RTI/STI problem during three months prior to the survey and among them percentage sought treatment for the problem, by district, Kerala, 2012-13

Districts	Who heard about RTI/STI	Who reported any abnormal vaginal discharge	Who have any other symptoms of RTI/STI ¹	Total number of women**	Who sought treatment for any RTI/STI ²	Number of women having any RTI/STI ^{2*}
Kasaragod	27.1	4.8	19.9	1180	14.0	225
Kannur	51.5	1.3	8.5	639	25.6	57
Wayanand	26.6	2.5	5.2	814	30.7	43
Kozhikode	51.9	4.1	12.2	1262	56.2	157
Mallappuram	37.1	1.5	7.1	1244	36.5	89
Palakkad	46.2	1.6	16.4	1148	8.1	190
Thrissur	52.1	5.4	5.0	965	29.7	51
Ernakulam	30.7	2.5	12.2	723	44.3	84
Idukki	45.4	8.9	13.1	879	13.1	112
Kottayam	52.7	2.7	3.7	772	61.6	29
Alappuzha	65.8	6.9	10.9	1172	29.5	128
Pathanamthitta	71.3	10.2	12.5	1063	30.3	137
Kollam	73.1	8.1	16.1	901	49.3	148
Thiruvananthapuram	33.4	0.8	1.6	1018	(73.3)	15
DLHS-4	48.0	4.5	10.5	13780	30.8	1465
DLHS-3	75.8	9.2	12.0	12360	52.6	2151

¹ Excluding women having abnormal vaginal discharge.
² Any RTI/STI (Including abnormal vaginal discharge problem or other RTI/STI problem).
() based on 10-20 unweighted cases. ** Unweighted cases.

TABLE 6.7 KNOWLEDGE OF HIV/AIDS

Percentage of ever married women aged 15-49 years who have heard of HIV/AIDS and among them, who received information from specific sources according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Who have heard of HIV/AIDS	Total women**	Sources of knowledge for HIV/AIDS										Number of women heard of HIV/AIDS**
			Radio	T.V.	Cinema	Print media ¹	Health personnel ²	School/adult education programs ³	Leaders/community meetings ⁴	Husband	Relatives/friends	Other	
Age group													
15-19	70.5	146	30.1	82.5	79.5	45.8	23.6	24.0	58.9	6.9	0.8	2.6	105
20-24	75.4	1293	35.3	85.0	79.0	46.7	28.6	24.4	53.1	7.4	1.6	1.6	965
25-29	79.6	2363	34.9	87.7	77.4	45.6	27.8	25.3	52.4	8.1	2.4	1.8	1870
30-34	75.7	2732	35.6	86.3	74.9	43.5	28.5	23.2	47.9	8.0	2.4	1.5	2049
35-39	78.9	2772	34.6	87.9	75.2	45.9	27.0	26.7	47.8	8.8	3.0	1.9	2174
40-44	78.8	2459	34.6	88.4	76.8	43.3	23.7	26.3	46.1	6.8	2.7	1.3	1926
45-49	73.0	2015	31.5	86.5	73.4	39.6	23.3	21.6	40.5	8.3	2.5	1.1	1456
Residence													
Rural	78.3	6837	33.6	86.7	73.2	41.3	26.9	26.3	46.5	7.9	2.6	2.0	5312
Urban	75.8	6943	35.3	87.6	79.0	47.2	25.9	23.0	49.4	8.0	2.4	1.1	5233
Age at consummation of marriage*													
Below 18 years	67.7	1183	29.2	80.0	73.0	36.4	23.7	15.2	36.4	7.0	1.2	0.7	802
18 years & above	79.2	11647	34.7	87.7	77.0	45.5	26.6	25.7	49.2	7.9	2.6	1.6	9155
Marital duration*													
0-4	78.2	2148	33.7	87.1	79.3	42.3	25.5	21.4	50.8	7.8	3.0	2.1	1668
5-9	80.1	2158	32.7	86.4	77.7	44.6	27.7	23.9	48.1	7.3	1.7	1.5	1716
10-14	78.6	2802	36.3	87.4	74.7	46.3	28.0	25.9	50.5	8.0	2.4	1.7	2181
15+	77.3	6003	34.4	87.5	75.2	44.5	26.0	26.6	46.1	8.2	2.5	1.3	4614
Education													
Non-literate ^a	23.1	1048	50.9	83.9	51.7	35.2	31.7	17.8	51.0	7.0	2.8	1.4	231
Less than 5 yrs	54.7	191	23.6	82.6	56.1	24.7	9.8	15.1	32.3	6.8	1.7	0.0	104
5-9 years	74.1	2950	26.6	83.6	73.7	30.7	22.2	12.1	30.0	6.9	1.6	0.6	2172
10 or more years	84.1	9591	36.3	88.2	77.5	48.3	27.7	28.6	53.0	8.3	2.8	1.8	8038
Husband's education													
Non-literate ^a	26.4	1258	46.7	83.4	56.8	38.5	33.2	20.8	51.8	6.4	4.0	1.0	315
Less than 5 years	61.2	309	23.3	83.8	67.4	22.0	14.7	8.2	26.3	7.1	0.0	0.5	189
5-9 years	79.4	3644	28.7	85.9	76.4	33.0	23.5	10.7	30.8	6.8	1.7	0.7	2879
10 or more years	83.8	8569	36.6	87.9	76.9	49.7	27.7	31.4	55.6	8.6	2.9	2.0	7162
Religion													
Hindu	79.3	7716	35.3	87.6	77.1	43.2	27.8	22.7	47.5	7.8	2.9	1.7	6083
Muslim	69.7	3575	31.8	85.0	74.5	41.9	22.8	22.1	43.6	6.3	1.0	0.9	2473
Christian	81.4	2406	34.1	88.1	74.2	49.0	26.8	34.8	54.0	10.5	3.2	2.0	1948
Jain	29.0	47	(76.9)	(84.6)	(76.9)	(76.9)	(23.1)	(15.4)	(76.9)	(0.0)	(0.0)	(0.0)	13
Other	80.9	36	85.5	92.6	81.8	67.5	21.7	6.6	77.9	3.7	0.0	0.0	28

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TABLE 6.7 KNOWLEDGE OF HIV/AIDS

Background characteristics	Who have heard of HIV/AIDS	Total women**	Sources of knowledge for HIV/AIDS										Number of women heard of HIV/AIDS**
			Radio	T.V.	Cinema	Print media ¹	Health personnel ²	School/ adult education programs ³	Leaders/ community meetings ⁴	Husband	Relatives/ Friends	Other	
Castes/Tribes													
Scheduled Castes	73.9	1356	36.5	85.9	72.7	47.5	34.1	30.8	55.6	14.3	3.1	1.1	996
Scheduled Tribes	66.5	198	24.1	79.2	62.0	59.9	53.9	46.4	60.1	18.3	5.6	1.1	131
Other Backward Classes	75.0	7577	33.6	86.7	77.0	41.7	24.6	18.2	42.0	6.3	2.1	1.7	5629
Others	82.0	4649	35.6	88.3	75.7	46.3	26.2	32.3	54.3	8.4	2.9	1.4	3789
DLHS-4	77.1	13780	34.4	87.1	76.0	44.1	26.4	24.7	47.9	8.0	2.5	1.5	10545
DLHS-3	97.7	12360	49.7	79.1	12.1	65.4	16.5	7.6	10.8	4.4	35.2	3.3	12076
Note: Total figure may not add to 100 percent due to multiple responses * excluding missing cases. ¹ Literate but did not attend school, are also included. ¹ Includes News papers/books/magazines//slogans/pamphlets and posters. ² Includes Doctor/ASHA/health workers. ³ Includes school/teacher, adult education programs. ⁴ Includes religious/ political leaders, community meetings and exhibition/ <i>Me/a.</i> () based on 10-20 unweighted cases. ** Unweighted cases.													

TABLE 6.8 KNOWLEDGE ABOUT MODE OF TRANSMISSION OF HIV/AIDS BY BACKGROUND CHARACTERISTICS

Percentage of ever married women aged 15-49 years having knowledge of mode of transmission of HIV/AIDS among who have heard about HIV/AIDS according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Percentage of women who reported mode of transmission as							
	Unsafe sex with homosexuals	Unsafe sex with person having many partners	Unsafe sex with sex workers	Unprotected sex with HIV/AIDS infected person	Infected mother to child	Transfusion of infected blood	Sharing of injection/ Needles	Number of women who heard of HIV/AIDS**
Age group								
15-19	23.1	71.3	43.9	41.9	46.1	59.8	43.7	105
20-24	27.7	68.9	52.9	48.3	51.1	62.3	48.2	965
25-29	30.5	75.3	55.2	49.4	47.7	63.0	46.9	1870
30-34	28.0	73.3	50.7	49.8	45.5	61.2	45.1	2049
35-39	28.2	75.5	52.4	52.1	48.5	63.0	47.4	2174
40-44	23.3	73.7	47.9	49.9	44.7	60.9	46.4	1926
45-49	20.5	72.0	45.0	46.2	40.7	55.5	40.5	1456
Residence								
Rural	28.6	73.5	53.5	50.5	44.5	57.6	41.9	5312
Urban	24.1	73.6	47.5	48.4	48.1	65.0	50.0	5233
Age at consummation of marriage*								
Below 18 years	19.2	67.1	43.8	41.0	34.1	50.4	32.8	802
18 years & above	27.5	74.9	51.8	51.0	48.2	63.4	47.7	9155
Marital duration*								
0-4	24.8	71.8	48.6	46.9	47.2	63.1	46.7	1668
5-9	26.2	74.0	51.6	47.8	46.5	63.4	46.4	1716
10-14	30.8	75.3	53.6	52.3	48.7	61.9	46.7	2181
15+	25.9	73.7	50.8	50.5	45.7	60.5	45.5	4614
Education								
Non-literate ^a	32.0	39.7	35.2	34.8	33.3	30.9	22.2	231
Less than 5 yrs	12.6	66.2	21.1	18.9	14.5	24.0	14.9	104
5-9 years	9.7	71.4	32.5	34.1	25.0	46.6	29.9	2172
10 or more years	31.2	75.2	56.6	54.6	52.9	66.5	51.2	8038
Husband's Education								
Non-literate ^a	32.2	42.9	42.4	39.3	36.1	37.3	31.0	315
Less than 5 years	7.6	68.6	18.9	25.7	18.7	37.4	18.3	189
5-9 years	9.6	75.0	34.9	36.1	27.6	52.5	35.0	2879
10 or more years	33.9	74.5	58.6	56.3	55.3	66.5	51.7	7162
Religion								
Hindu	24.3	75.1	49.4	49.7	45.1	62.3	46.5	6083
Muslim	24.2	68.7	49.7	45.1	42.9	55.8	41.2	2473
Christian	35.2	74.8	55.5	54.0	53.6	63.7	49.1	1948
Jain	(92.3)	(92.3)	(76.9)	(69.2)	(69.2)	(76.9)	(15.4)	13
Other	67.2	86.4	82.4	78.7	65.7	77.6	64.4	28
Castes/Tribes								
Scheduled Castes	33.0	79.3	47.2	49.1	51.1	64.8	47.0	996
Scheduled Tribes	35.8	75.8	71.1	59.4	57.6	54.6	41.1	131
Other Backward Classes	19.7	70.5	45.7	45.9	40.3	58.1	42.1	5629
Others	34.8	76.6	58.5	54.8	53.5	65.0	51.1	3789
DLHS-4								
	26.5	73.6	50.7	49.5	46.2	61.1	45.8	10545
DLHS-3								
	9.8	71.7	27.9	34.4	23.0	55.2	NA	12076

Note: Total figure may not add to 100 percent due to multiple responses. *excluding missing cases. ^aLiterate but did not attend school, are also included. ()based on 10-20 unweighted cases. NA : Not available** Unweighted cases

TABLE 6.9 KNOWLEDGE OF HIV PREVENTION METHODS BY BACKGROUND CHARACTERISTICS

Percentage of ever married women aged 15-49 years who heard about HIV/AIDS, percentage who reported HIV/AIDS can be prevented in specific ways, according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Percentage who say that HIV/AIDS can be prevented by					Number of women having knowledge of HIV/AIDS**
	Using condom correctly during each sexual intercourse	Sex with one partner	avoid homosexual ¹	Avoid risks getting infected through bloods ²	Avoid Pregnancy when having HIV/AIDS	
Age group						
15-19	29.0	45.2	15.9	64.5	10.9	105
20-24	35.4	46.6	28.9	73.6	13.8	965
25-29	37.5	47.7	31.0	73.7	15.3	1870
30-34	36.9	48.8	28.8	72.3	15.7	2049
35-39	38.8	51.6	33.2	71.8	18.9	2174
40-44	35.1	49.8	28.1	70.8	19.1	1926
45-49	31.9	46.9	23.6	64.9	15.8	1456
Residence						
Rural	37.7	49.4	30.5	68.2	15.3	5312
Urban	34.4	48.3	27.6	74.5	18.2	5233
Age at consummation of marriage*						
Below 18 years	26.4	43.7	20.8	58.6	9.0	802
18 years & above	37.0	50.0	30.4	73.3	17.6	9155
Marital duration*						
0-4	35.4	44.8	25.1	73.2	13.8	1668
5-9	33.9	47.4	28.5	72.7	14.6	1716
10-14	38.2	51.3	32.5	72.5	17.5	2181
15+	36.8	50.3	30.0	70.3	18.6	4614
Education						
Non-literate ^a	36.3	36.3	27.1	41.2	11.9	231
Less than 5 yrs	12.2	34.0	6.5	33.2	5.0	104
5-9 years	18.2	40.7	12.6	53.9	7.3	2172
10 or more years	41.5	51.7	34.1	77.3	19.6	8038
Husband's education						
Non-literate ^a	35.6	38.9	26.9	49.9	12.5	315
Less than 5 years	16.6	34.4	6.2	42.2	3.0	189
5-9 years	20.7	42.9	13.4	60.3	7.5	2879
10 or more years	43.3	52.2	36.5	77.6	21.2	7162
Religion						
Hindu	34.5	48.7	27.8	72.5	17.0	6083
Muslim	33.1	46.2	26.8	64.3	13.2	2473
Christian	44.5	52.0	35.5	75.4	20.0	1948
Jain	(84.6)	(76.9)	(61.5)	(69.2)	(30.8)	13
Other	62.8	80.1	66.7	85.4	27.2	28
Castes/Tribes						
Scheduled Castes	37.7	53.5	30.2	72.7	21.1	996
Scheduled Tribes	42.4	55.4	51.7	71.6	22.4	131
Other Backward Classes	30.7	46.2	23.1	67.6	11.7	5629
Others	43.8	51.4	37.1	76.2	23.0	3789
DLHS-4						
	36.1	48.9	29.1	71.2	16.7	10545
DLHS-3						
	21.7	NA	NA	57.0	7.0	12076

Note: Total figure may not add to 100 percent due to multiple responses.

*excluding missing cases. ^a Literate but did not attend school, are also included. ¹ Includes sex with one partner, Limit number of sexual partner, Avoid sex with sex workers and avoids sex with homosexuals. ² Includes avoid sex with who inject drugs, use tested blood, use only new/ sterilized needles, avoid IV drip and avoid razors/blades. () based on 10-20 unweighted cases. NA: Not available. ** Unweighted cases.

TABLE 6.10 MISCONCEPTION ABOUT TRANSMISSION OF HIV/AIDS BY BACKGROUND CHARACTERISTICS

Percentage of ever married women aged 15-49 years having misconception about the transmission of HIV/AIDS among who have heard of HIV/AIDS, according to selected background characteristics, Kerala, 2012-13.

Background characteristics	Misconception about the transmission of HIV/AIDS						Number of women heard of HIV/AIDS**
	Shaking hand	Hugging	Sharing clothes	Sharing food	Stepping on someone's urine/stool	Get HIV/AIDS from mosquito, flea or bedbug	
Age group							
15-19	2.9	5.0	3.6	2.8	7.9	15.3	105
20-24	2.1	2.0	1.5	1.0	4.2	9.8	965
25-29	2.0	1.4	1.3	1.4	4.1	9.5	1870
30-34	2.9	2.2	1.7	2.0	4.4	8.5	2049
35-39	2.0	2.3	2.3	1.7	4.2	7.6	2174
40-44	2.3	2.4	2.2	2.4	5.0	9.3	1926
45-49	2.8	2.7	3.7	3.4	5.7	9.4	1456
Residence							
Rural	2.4	1.8	1.8	1.8	4.1	9.0	5312
Urban	2.3	2.6	2.4	2.3	5.1	8.9	5233
Age at consummation of marriage*							
Below 18 years	3.3	3.3	3.9	3.9	10.6	17.5	802
18 years & above	2.2	2.1	2.0	1.9	4.1	8.3	9155
Marital duration*							
0-4	2.1	1.7	1.4	1.2	3.4	8.0	1668
5-9	2.2	2.0	1.6	1.3	4.1	9.3	1716
10-14	2.3	1.8	1.7	2.1	5.0	9.1	2181
15+	2.5	2.5	2.7	2.5	4.9	9.1	4614
Education							
Non-literate ^a	4.8	2.9	2.8	2.5	3.7	6.6	231
Less than 5 yrs	4.9	6.3	3.0	2.8	6.0	10.5	104
5-9 years	4.4	5.2	5.1	4.7	9.3	14.9	2172
10 or more years	1.7	1.3	1.2	1.2	3.3	7.3	8038
Husband's education							
Non-literate ^a	3.3	2.1	1.8	1.1	2.8	5.8	315
Less than 5 years	5.9	5.3	3.8	4.5	9.8	14.2	189
5-9 years	3.3	3.8	4.0	3.6	7.6	13.3	2879
10 or more years	1.8	1.4	1.3	1.3	3.3	7.1	7162
Religion							
Hindu	2.2	1.9	2.0	1.7	4.0	8.1	6083
Muslim	3.2	3.6	3.2	3.3	7.6	13.4	2473
Christian	1.7	1.3	1.2	1.2	2.7	5.6	1948
Jain	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(46.2)	13
Other	12.5	2.8	0.0	3.8	3.8	26.1	28
Castes/Tribes							
Scheduled Castes	2.3	1.8	2.0	1.5	4.2	6.6	996
Scheduled Tribes	1.8	4.4	3.6	5.3	3.6	5.2	131
Other Backward Classes	2.8	2.8	2.7	2.7	5.6	10.9	5629
Others	1.8	1.2	1.2	1.1	3.2	6.8	3789
DLHS-4							
DLHS-4	2.4	2.2	2.1	2.0	4.6	8.9	10545
DLHS-3							
DLHS-3	4.3	6.5	7.2	6.5	11.7	25.9	12076

*excluding missing cases. ^aLiterate but did not attend school, are also included. () based on 10-20 unweighted cases. ** Unweighted cases.

TABLE 6.11 KNOWLEDGE ABOUT THE PLACE WHERE HIV/AIDS TEST CAN BE DONE

Percentage of ever married women aged 15-49 years having knowledge about place where HIV/AIDS test can be done according to selected background characteristics, Kerala 2012-13.

Background Characteristics	Who know the place of HIV/AIDS test	Total women heard of HIV/AIDS**	Places where people can go to get tested for HIV/AIDS							Number of women who know the place for HIV/AIDS test**
			Government				Private			
			Hospital/dispensary	CHC/PHC/Sub-Health Centre	VCTC/ICTC/RTI/STI Clinic	Other public/NGO hospital	Hospital/Clinic	VCTC/ICTC/RTI/STI Clinic	Other Pvt.	
Age Group										
15-19	39.5	105	21.5	3.4	6.7	2.4	54.7	4.2	2.4	41
20-24	55.6	965	32.6	2.3	8.0	2.0	43.8	7.2	1.0	526
25-29	62.2	1870	34.8	2.9	7.0	0.8	41.4	9.5	1.0	1149
30-34	56.3	2049	33.6	2.9	9.0	1.6	37.6	11.0	1.3	1145
35-39	55.0	2174	32.9	3.8	8.4	1.2	37.9	11.9	0.8	1192
40-44	47.1	1926	36.7	4.2	8.9	2.3	36.1	8.6	0.3	908
45-49	44.5	1456	38.3	4.6	8.5	1.3	37.1	7.2	0.6	653
Residence										
Rural	52.9	5312	34.5	4.0	9.2	1.3	37.1	9.8	0.7	2809
Urban	54.2	5233	34.7	2.8	7.3	1.7	40.7	9.5	1.1	2805
Age at consummation of marriage*										
Below 18 years	46.9	802	37.3	5.6	7.2	1.1	38.9	6.1	0.2	369
18 years & above	54.9	9155	34.0	3.3	8.2	1.5	39.4	9.9	0.8	5003
Marital Duration*										
0-4	58.5	1668	34.2	1.9	9.0	1.4	44.2	6.2	0.2	961
5-9	61.4	1716	33.4	3.3	7.7	1.1	41.5	9.1	1.2	1039
10-14	55.9	2181	33.0	3.0	9.6	1.7	36.7	11.3	1.5	1220
15+	48.5	4614	35.7	4.5	7.9	1.6	36.4	10.7	0.6	2240
Education										
Non-literate ^a	20.9	231	29.7	7.9	10.0	5.0	12.0	23.6	5.2	49
Less than 5 yrs	30.4	104	46.2	6.1	7.8	0.0	39.9	0.0	0.0	31
5-9 years	42.0	2172	42.9	8.8	4.7	1.2	35.0	2.5	0.2	913
10 or more years	57.9	8038	32.8	2.3	9.0	1.5	39.9	11.0	1.0	4621
Husband's Education										
Non-literate ^a	24.7	315	34.1	7.0	9.3	5.1	12.1	21.1	7.2	77
Less than 5 years	28.4	189	53.2	8.7	4.6	3.1	28.9	0.0	0.0	53
5-9 years	47.6	2879	45.6	5.7	5.5	1.0	35.5	2.4	0.0	1365
10 or more years	58.0	7162	30.5	2.5	9.3	1.5	40.6	12.1	1.1	4119
Religion										
Hindu	54.8	6083	34.6	3.6	8.4	1.4	38.7	9.3	0.7	3321
Muslim	48.7	2473	35.8	4.1	7.9	1.0	40.9	7.2	0.5	1191
Christian	55.7	1948	33.1	2.2	8.3	2.0	37.1	13.3	1.9	1086
Jain	(30.8)	13	--	--	--	--	--	--	--	04
Other	46.0	28	(25.0)	(0.0)	(25.0)	(8.3)	(33.3)	(8.3)	(0.0)	12

Contd...

TABLE 6.11 KNOWLEDGE ABOUT THE PLACE WHERE HIV/AIDS TEST CAN BE DONE

Background Characteristics	Who know the place of HIV/AIDS test	Total women heard of HIV/AIDS**	Places where people can go to get tested for HIV /AIDS							Number of women who know the place for HIV/AIDS test**
			Government			Private				
			Hospital/ dispensary	CHC/PHC/ Sub-Health Centre	VCTC/ICTC/ RTI/STI Clinic	Other public/NGO hospital	Hospital/ Clinic	VCTC/ICT C/ RTI/STI Clinic	Other Pvt.	
Castes/Tribes										
Scheduled Castes	59.2	996	40.4	1.5	8.1	1.2	31.7	11.9	2.8	592
Scheduled Tribes	50.4	131	24.0	0.0	5.6	2.6	25.6	34.4	4.2	67
Other Backward Classes	50.0	5629	36.4	4.5	8.0	1.3	39.9	6.6	0.3	2787
Others	57.4	3789	30.8	2.7	8.8	1.7	39.9	12.2	1.0	2168
DLHS-4	53.5	10545	34.6	3.4	8.3	1.5	38.8	9.6	0.9	5614
DLHS-3	50.0	12076	51.9	2.4	2.0	1.7	36.5	1.8	3.7	6045
Note: Total figure may not add to 100 percent due to 'do not know' or 'missing cases'. CHC= Community Health Centre; PHC= Primary Health Centre; VCTC/ICTC= voluntary/Integrated counseling and testing centre, NGO= Non Governmental Organization. *excluding missing cases. ^a Literate but did not attend school, are also included. -- percent not shown for less than 10 cases. ()based on 10-20 unweighted cases. NA: not available ** Unweighted cases.										

TABLE 6.12 UNDERGONE HIV/AIDS TEST

Percentage of ever married women aged 15-49 years undergone for HIV/AIDS test and time to be tested for HIV/AIDS, according to selected background characteristics, Kerala, 2012-13.

Background Characteristics	Who have been tested for HIV	Number of women heard HIV/AIDS**	Percentage who have been tested for HIV		Number of women went for HIV/AIDS test**
			Less than 12 months ago	1 or more than 1 years ago	
Age group					
15-19	27.1	105	(51.9)	(48.1)	14
20-24	49.1	965	39.9	60.1	181
25-29	59.6	1870	21.3	78.7	234
30-34	51.6	2049	13.4	86.6	137
35-39	44.5	2174	6.7	93.3	63
40-44	32.7	1926	4.5	95.5	29
45-49	23.5	1456	(3.3)	(96.7)	12
Residence					
Rural	42.3	5312	14.7	85.3	317
Urban	45.2	5233	15.2	84.8	353
Age at consummation of marriage*					
Below 18 years	36.8	802	13.9	86.1	39
18 years & above	45.5	9155	15.1	84.9	613
Marital duration*					
0-4	50.3	1668	41.4	58.6	336
5-9	61.6	1716	15.6	84.4	161
10-14	50.6	2181	8.8	91.2	98
15+	32.8	4614	4.8	95.2	72
Education					
Non-literate ^a	20.5	231	(26.1)	(73.9)	12
Less than 5 yrs	17.7	104	--	--	03
5-9 years	31.8	2172	14.3	85.7	101
10 or more years	48.0	8038	14.9	85.1	554
Husband's education					
Non-literate ^a	18.0	315	(23.6)	(76.4)	13
Less than 5 years	18.6	189	--	--	05
5-9 years	36.6	2879	15.9	84.1	172
10 or more years	48.5	7162	14.5	85.5	480
Religion					
Hindu	44.7	6083	15.2	84.8	405
Muslim	40.6	2473	15.7	84.3	153
Christian	44.7	1948	12.9	87.1	109
Jain	(7.7)	13	--	--	01
Other	35.2	28	--	--	02
Castes/Tribes					
Scheduled Castes	52.7	996	12.7	87.3	68
Scheduled Tribes	48.4	131	--	--	05
Other Backward Classes	40.5	5629	16.8	83.2	375
Others	45.9	3789	13.4	86.6	222
DLHS-4	43.7	10545	14.9	85.1	670
DLHS-3	14.8	12076	32.4	67.6	1788

*excluding missing cases. ^aLiterate but did not attend school, are also included.

-- percent not shown for less than 10 cases. () based on 10-20 unweighted cases. **Unweighted cases.

TABLE 6.13 HIV/AIDS INDICATORS BY DISTRICTS

Percentage of ever married women aged 15-49 years who have heard of HIV/AIDS, know HIV/AIDS prevention, transmission, places where people can go to get tested for HIV /AIDS and who have been tested for HIV/AIDS in the past 12 months, by districts, Kerala, 2012-13.

Districts	Who have heard of HIV/AIDS	Who know that HIV/AIDS can be prevented by using condom	Who know that HIV/AIDS can be transmitted from mother to her baby	Who know the places where people can go to get tested for HIV /AIDS	Who ever been tested for HIV/AIDS (%)	Who underwent HIV/AIDS test in the past 12 months among ever tested
Kasaragod	47.5	23.6	48.9	60.8	51.7	17.0
Kannur	75.5	29.4	52.8	59.8	44.2	15.2
Wayanand	70.4	30.1	55.0	47.7	46.0	8.4
Kozhikode	85.2	21.8	35.2	59.6	49.7	16.2
Mallappuram	66.2	60.7	61.0	39.1	29.2	20.3
Palakkad	70.8	80.6	68.9	36.1	16.2	37.7
Thrissur	83.7	32.0	33.0	46.5	32.4	15.2
Ernakulam	70.7	19.3	41.7	46.6	39.2	19.6
Idukki	60.7	75.6	88.5	64.2	85.7	1.8
Kottayam	86.8	19.5	33.4	50.4	39.2	17.3
Alappuzha	88.7	32.1	27.2	52.0	31.5	21.3
Pathanamthitta	89.3	69.5	78.1	76.6	83.0	3.3
Kollam	90.6	16.1	32.7	58.1	39.0	23.1
Thiruvananthapuram	87.2	13.2	31.0	51.8	42.3	24.8
DLHS-4	77.0	36.0	46.3	53.5	43.8	15.0
DLHS-3	97.7	21.7	23.0	50.0	14.8	32.4

PERSONAL HABITS AND MORBIDITY

TABLE 7.1 PERSONAL HABITS

Percentage of persons (age 15 years and above) who use any kind of tobacco, smoking and drinking habits by selected background characteristics, Kerala, 2012-13.

Background Characteristics	Percentage of persons			No. of persons**
	Percentage who use any kind of tobacco ¹	Percentage who use any kind of smoking	Percentage who Consume alcohol	
Age				
15-24	3.7	2.9	4.1	6160
25-29	9.4	7.2	11.5	3817
30-34	12.7	10.6	13.6	4280
35-39	14.9	13.4	16.9	4442
40-44	15.9	13.9	18.1	4146
45-49	16.4	14.9	17.7	3915
50+	15.5	11.7	14.1	13745
Sex				
Male	27.1	23.8	30.1	17631
Female	2.3	0.6	0.8	22698
Residence				
Rural	13.7	10.7	13.3	19916
Urban	12.1	10.5	13.5	20589
Education				
Non-literate ^a	17.7	9.3	10.3	2234
Less than 5 years	15.4	11.1	10.9	3305
5-9 years	12.8	10.8	13.5	8477
10 or more years	12.3	10.6	14.0	26489
Religion				
Hindu	13.5	10.8	14.6	23958
Muslim	10.4	8.5	7.2	8671
Christian	14.6	12.5	17.1	7652
Jain	6.4	4.9	7.0	120
Others	4.9	1.5	4.9	70
Castes/tribes				
Scheduled castes	18.6	13.5	17.6	3836
Scheduled tribes	18.5	11.3	16.2	659
Other backward classes	10.9	9.2	11.0	21408
Others	14.4	12.0	15.9	14602
DLHS-4	13.0	10.6	13.4	40505*

^a Literate but did not attend the school are also included. *Missing cases are excluded. **Unweighted cases

TABLE 7.2 PERSONAL HABITS-MEN

Percentage of Men (age 15 years and above) classified as having personal habits by selected background characteristics, Kerala, 2012-13.

Background characteristics	Percentage of men			Total number of Men covered**
	Using Smokeless Tobacco	Smoking	Consuming Alcohol	
Age of the men				
15-19	1.8	2.3	2.6	1388
20-24	5.5	10.8	15.3	1325
25-29	11.3	18.8	29.6	1490
30-34	12.4	25.8	32.7	1726
35-39	15.8	31.8	40.1	1841
40-44	16.9	31.6	41.0	1824
45 years and above	11.5	26.4	32.0	8037
Residence				
Rural	12.1	23.7	29.5	8685
Urban	10.5	23.9	30.8	8946
Education				
Non-literate ^a	18.7	26.0	28.7	769
Less than 5 years	9.1	27.1	26.9	1266
5-9 years	6.8	24.7	31.1	3617
10 or more years	12.7	22.9	30.3	11979
Religion				
Hindu	10.7	24.3	32.8	10400
Muslim	10.0	20.5	17.0	3627
Christian	14.9	26.3	36.0	3486
Jain	5.2	5.8	5.8	66
Others	3.4	2.9	9.7	37
Castes/tribes				
Scheduled castes	17.8	29.7	39.0	1695
Scheduled tribes	19.0	19.8	28.9	318
Other backward classes	7.2	21.4	25.7	9022
Others	15.3	25.8	34.1	6596
DLHS-4	11.4	23.8	30.1	17631*

^a Literate but did not attend school are also included.*Missing cases are excluded. **Unweighted cases.

TABLE 7.3 PERSONAL HABITS-WOMEN

Percentage of Women (age 15 years and above) classified as having personal habits by selected background characteristics, Kerala, 2012-13.

Background characteristics	Percentage of women			Total number of women covered**
	Using Smokeless Tobacco	Smoking	Consuming Alcohol	
Age of the women				
15-19	0.4	0.3	0.4	1485
20-24	0.5	0.2	0.6	1939
25-29	0.9	0.2	0.5	2305
30-34	0.8	0.5	0.9	2534
35-39	0.9	0.8	1.2	2587
40-44	1.1	0.6	0.9	2299
45 years and above	3.6	0.9	0.9	9549
Residence				
Rural	2.5	0.7	0.8	11154
Urban	1.4	0.6	0.9	11544
Education				
Non-literate ^a	9.7	1.8	2.0	1456
Less than 5 years	5.4	0.8	0.6	2018
5-9 years	1.6	0.6	0.7	4824
10 or more years	0.7	0.5	0.8	14400
Religion				
Hindu	2.4	0.7	0.8	13454
Muslim	1.5	0.4	0.5	5004
Christian	1.3	0.8	1.0	4134
Jain	0.0	3.7	8.5	54
Others	3.5	0.0	0.0	33
Castes/tribes				
Scheduled castes	5.6	0.8	1.0	2124
Scheduled tribes	6.5	3.2	4.0	340
Other backward classes	1.5	0.5	0.6	12284
Others	1.7	0.8	1.0	7950
DLHS-4	2.0	0.6	0.8	22698*

^a Literate but did not attend the school are also included. *Missing cases are excluded. **Unweighted cases.

TABLE 7.4 PERSONAL HABITS

Percentage of all persons (age 15 years and above) classified as having personal habits by districts, Kerala, 2012-13.

Districts	Percentage of all persons			Total number of all persons covered**
	Using Smokeless Tobacco	Smoking	Consuming Alcohol	
Kasaragod	7.3	7.9	9.2	3685
Kannur	2.8	4.6	6.7	2514
Wayanad	2.6	7.6	8.1	1918
Kozhikode	1.1	5.9	6.5	3268
Malappuram	15.6	18.7	19.4	2720
Palakkad	17.9	15.4	17.6	2951
Thrissur	1.9	7.5	12.3	3210
Ernakulam	4.6	12.8	17.5	2568
Idukki	13.5	20.4	21.9	2837
Kottayam	1.2	5.4	9.5	2513
Alappuzha	2.9	12.6	17.5	3834
Pathanamthitta	19.4	22.6	25.1	2748
Kollam	3.4	6.3	8.9	2507
Thiruvananthapuram	5.0	9.3	16.4	3232
DLHS-4	6.0	10.6	13.4	40505

**Unweighted cases.

TABLE 7.5 PERSONAL HABITS TOBACCO

Percentage of men and women age 15 years having habits of chewing Tobacco, Kerala, 2012-13.

Tobacco use	Tobacco chewing						Total
	Women			Men			
	Rural	Urban	Total	Rural	Urban	Total	
Use of Tobacco							
Pan with tobacco	1.3	0.6	1.0	6.4	7.4	6.8	3.5
Guthaka/ Pan masala with tobacco	0.1	0.1	0.1	1.0	0.4	0.7	0.4
Other forms of tobacco	1.1	0.7	0.9	4.7	2.7	3.8	2.1
Non-user	92.3	95.9	93.9	81.8	86.6	84.0	89.7
Not known	5.2	2.7	4.0	6.1	2.9	4.6	4.3
DLHS-4	2.5	1.4	2.0	12.1	10.5	11.4	6.0

TABLE 7.6 PERSONAL HABITS SMOKE

Percentage of men and women age 15 years having habits of smoking, Kerala, 2012-13.

Smoking habits	Smoking						Total
	Women			Men			
	Rural	Urban	Total	Rural	Urban	Total	
Usual smoker*	0.3	0.3	0.3	10.5	10.7	10.6	4.7
Occasional smoker	0.3	0.3	0.3	13.3	13.2	13.2	5.9
Ex-smoker	0.6	0.3	0.5	7.5	6.6	7.1	3.3
Non smoker	94.4	96.9	95.5	64.0	67.5	65.6	82.7
Not known	4.4	2.2	3.4	4.7	2.0	3.5	3.4
DLHS-4	0.7	0.6	0.6	23.7	23.9	23.8	10.6

* At least once every day

TABLE 7.7 PERSONAL HABITS DRINK ALCOHOL							
Percentage of men and women age 15 years having habits of drinking alcohol, Kerala, 2012-13.							
Smoking habits	drinking alcohol						Total
	Women			Men			
	Rural	Urban	Total	Rural	Urban	Total	
Usual drinker*	0.3	0.4	0.4	10.2	11.1	10.6	4.8
Occasional drinker	0.5	0.5	0.5	19.3	19.6	19.5	8.6
Ex-drinker	0.5	0.3	0.4	5.9	4.8	5.4	2.5
Non drinker	94.4	96.6	95.4	60.2	62.3	61.2	80.7
Not known	4.2	2.3	3.3	4.4	2.2	3.4	3.4
DLHS-4	0.8	0.9	0.8	29.5	30.8	30.1	13.4

* At least once every week

TABLE 7.8 MORBIDITY DETAILS			
Prevalence of any injury, acute illness and chronic illness according to place of residence, Kerala, 2012-13.			
Morbidity	Total	Residence	
		Rural	Urban
Prevalence Rate of Any Injury¹			
Male	2.1	2.4	1.8
Female	2.1	2.4	1.8
Total	2.1	2.4	1.8
Prevalence Rate of Acute Illness²			
Male	8.1	8.9	7.1
Female	7.8	8.5	7.0
Total	7.9	8.7	7.1
Prevalence Rate of Chronic Illness¹			
Male	6.6	6.6	6.7
Female	7.3	7.2	7.5
Total	7.0	6.9	7.1

¹ During last one year, ² During last fifteen days

TABLE 7.9 MORBIDITY DETAILS									
Percentage of household population having any form of disability as on the day of survey, Kerala, 2012-13.									
Type of Disability	Total			Rural			Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Mental Disability	0.4	0.4	0.4	0.5	0.4	0.5	0.4	0.4	0.4
Visual Disability	0.4	0.5	0.5	0.4	0.6	0.5	0.4	0.4	0.4
Hearing Disability	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2
Speech Disability	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1
Number of persons**	37451	38809	76260	18154	18801	36955	19297	20008	39305

**Unweighted cases & missing/others cases are excluded.

TABLE 7.10 MORBIDITY DETAILS									
Percentage of household population having any injury and received treatment during last one year, Kerala, 2012-13.									
Type of treatment	Total			Rural			Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Treated in intensive care unit for any time	5.2	4.0	4.8	4.8	3.9	4.5	5.7	4.3	5.2
Treated as in-patient with stay <1 week	21.2	18.1	20.0	22.9	18.9	21.4	18.7	16.7	17.9
Treated as in-patient with stay 1-2 week	13.8	10.9	12.7	17.4	12.6	15.6	8.4	8.3	8.4
Treated as in-patient with stay >2 week	11.1	11.6	11.3	10.9	12.4	11.5	11.3	10.4	10.9
Other treatment*	48.7	55.4	51.2	43.9	52.2	47.1	56.0	60.4	57.6
Number of persons**	1720	1030	2750	956	598	1554	764	432	1196

*Out patient /traditional healer/at home. **Unweighted cases & missing/others cases are excluded.

TABLE 7.11 MORBIDITY DETAILS									
Percentage of household population having acute illness during last 15 days, Kerala, 2012-13.									
Type of acute illness	Total			Rural			Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Diarrhea/ Dysentery	6.2	5.2	5.7	6.9	6.0	6.5	5.4	4.1	4.7
Acute respiratory tract infection	3.0	3.1	3.1	3.4	3.5	3.4	2.5	2.6	2.6
Jaundice with fever	4.2	2.7	3.4	4.1	2.5	3.3	4.2	2.9	3.5
Malaria	5.5	4.7	5.1	5.0	3.5	4.3	6.3	6.4	6.3
Fever of short duration with rashes	9.7	9.4	9.5	11.4	11.1	11.2	7.3	7.1	7.2
Reproductive tract infection	0.5	0.7	0.6	0.5	0.6	0.5	0.6	0.8	0.7
Other type of fever	56.1	58.8	57.5	55.2	58.9	57.0	57.3	58.7	58.0
Other	14.6	15.5	15.0	13.4	13.9	13.7	16.3	17.5	16.9
Number of persons**	2995	3023	6018	1634	1609	3243	1361	1414	2775

**Unweighted cases & missing/others cases are excluded.

TABLE 7.12 MORBIDITY DETAILS									
Percentage of household population having acute illness during last 15 days and received treatment by type of health facilities, Kerala, 2012-13.									
Place of treatment	Total			Rural			Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Government health facility									
Sub Health Centre	0.7	0.9	0.8	0.8	1.1	0.9	0.6	0.8	0.7
Primary health centre	9.1	11.1	10.1	12.6	14.7	13.7	4.1	6.2	5.2
Community Health centre	2.4	3.4	2.9	3.2	3.9	3.5	1.5	2.7	2.1
UHC/UHP/UFWC	0.7	0.4	0.6	0.4	0.3	0.3	1.2	0.5	0.9
Dispensary/ clinic	3.3	2.5	2.9	3.3	2.9	3.1	3.1	2.1	2.6
Hospital	38.1	34.7	36.4	37.9	34.1	36.0	38.3	35.6	36.9
AYUSH hospital/clinic	1.2	2.0	1.6	1.0	1.8	1.4	1.5	2.3	1.9
Private health facility									
Dispensary/ clinic	13.7	12.4	13.0	11.6	10.6	11.1	16.7	14.7	15.7
Hospital	23.0	24.3	23.7	21.6	23.5	22.5	24.9	25.5	25.2
AYUSH hospital/clinic	2.0	2.6	2.3	2.1	2.5	2.3	1.8	2.8	2.3
NGO/ trust hospital	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.1
Other*	3.6	3.8	3.7	3.5	3.3	3.4	3.8	4.5	4.2
Number of persons**	2957	2993	5950	1607	1591	3198	1350	1402	2752

* DOT centre and at home. **Unweighted cases & missing/others cases are excluded.

TABLE 7.13 MORBIDITY DETAILS

Percentage of household population having main symptoms of chronic illness persisting for more than one month and sought medical care and source of treatment, Kerala, 2012-13.

Place of treatment	Total			Rural			Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Prevalence Of Chronic Illness									
Disease of respiratory system	15.3	12.1	13.6	17.5	12.9	15.1	12.9	11.2	12.0
Disease of cardiovascular system	17.8	11.1	14.2	18.5	13.2	15.7	17.0	8.8	12.6
Disease of central nervous system	5.0	3.6	4.3	5.9	5.1	5.5	4.0	2.1	3.0
Disease of musculoskeletal system	4.7	7.8	6.4	4.2	7.4	5.9	5.3	8.4	6.9
Disease of gastrointestinal system	4.2	3.3	3.7	4.6	4.0	4.3	3.8	2.5	3.1
Disease of genitourinary system	2.2	2.3	2.3	2.3	2.6	2.4	2.0	2.1	2.0
Skin disease	3.7	2.6	3.1	3.4	2.4	2.8	4.1	2.9	3.5
Goitre	0.9	4.6	2.9	0.7	3.5	2.2	1.1	5.6	3.5
Elephantiasis	0.4	0.2	0.3	0.4	0.1	0.2	0.3	0.3	0.3
Eye problem	1.6	1.8	1.7	1.9	2.4	2.2	1.3	1.1	1.2
ENT problem	1.1	1.5	1.3	1.2	1.6	1.4	0.9	1.4	1.2
Mouth and dental problem	0.8	0.5	0.6	1.2	0.5	0.8	0.3	0.4	0.4
Other	42.3	48.6	45.7	38.3	44.3	41.4	46.9	53.3	50.3
Sought Medical Care									
Details of Diagnosis/Treatment available	86.4	88.1	87.3	84.3	85.2	84.8	88.6	91.2	90.0
Details of Diagnosis/Treatment not available	9.2	8.3	8.7	11.1	10.9	11.0	7.0	5.7	6.3
Not at all	4.5	3.6	4.0	4.5	3.9	4.2	4.4	3.2	3.7
Source of Treatment									
At government health facility	48.5	49.3	48.9	49.2	53.3	51.4	47.8	45.2	46.4
At private health facility	50.7	50.0	50.3	50.3	46.2	48.1	51.1	54.1	52.7
At home	0.4	0.5	0.4	0.1	0.4	0.2	0.8	0.5	0.6
Other	0.4	0.2	0.3	0.4	0.2	0.3	0.4	0.2	0.3

TABLE 7.14 MORBIDITY DETAILS

Percentage of household population diagnosed with chronic illness during last one year, Kerala, 2012-13.

Diagnosed chronic illness	Total			Rural			Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Diabetes	24.1	19.6	21.7	23.1	19.6	21.2	25.0	19.7	22.1
Hypertension	12.2	15.4	13.9	10.3	13.6	12.0	14.3	17.4	16.0
Disease related to heart*	18.7	9.8	13.9	18.9	10.8	14.6	18.5	8.8	13.2
Epilepsy	1.2	0.4	0.8	1.4	0.3	0.9	1.0	0.5	0.7
Asthma/chronic respiratory failure	7.4	8.6	8.0	6.3	7.5	7.0	8.5	9.6	9.1
Goitre/ thyroid disorder	1.2	8.2	5.0	0.9	6.7	4.0	1.6	9.8	6.0
Tuberculosis	0.8	0.4	0.6	1.2	0.3	0.7	0.5	0.5	0.5
Leprosy	0.2	0.0	0.1	0.2	0.1	0.1	0.1	0.0	0.0

* Chronic heart diseases, Myocardial infection/heart attack, stroke cerebro vascular accident.

TABLE 7.15 MORBIDITY DETAILS

Percentage of household population aged 60 years and above diagnosed with chronic illness during last one year, Kerala, 2012-13.

Diagnosed chronic illness	Total			Rural			Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Diabetes	23.0	22.4	22.7	20.2	21.0	20.6	25.6	23.6	24.6
Hypertension	14.9	20.8	18.0	12.5	18.9	15.9	17.1	22.7	20.0
Disease related to heart*	24.0	14.5	19.0	24.9	16.8	20.6	23.2	12.3	17.6
Asthma/chronic respiratory failure	9.0	8.6	8.8	8.8	6.9	7.8	9.3	10.2	9.7
Goitre/ thyroid disorder	0.8	2.9	1.9	0.6	2.3	1.5	0.8	3.4	2.2
Tuberculosis	0.9	0.3	0.6	1.7	0.0	0.8	0.2	0.5	0.4
Leprosy	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1
Cataract	1.0	1.0	1.0	1.5	1.0	1.2	0.6	1.1	0.8
Stroke	3.1	1.7	2.3	4.1	1.7	2.8	2.0	1.6	1.8

* Chronic heart diseases, Myocardial infection/heart attack, stroke cerebro vascular accident.

TABLE 7.16 TUBERCULOSIS				
Number of persons who have tuberculosis by background characteristics, Kerala, 2012-13.				
Background characteristics	Number of persons suffering from tuberculosis			Number of persons**
	Rural	Urban	Total	
Age				
15-19	00	01	01	5691
20-34	03	00	03	18524
35-44	00	01	01	12348
45-59	06	09	15	15281
60 and above	07	05	12	9431
Education				
Non-literate ^a	04	06	10	9012
Less than 5 years	05	05	10	8434
5-9 years	05	03	08	18043
10 or more years	03	03	06	40782
Religion				
Hindu	11	12	23	44791
Muslim	05	03	08	17681
Christian	01	02	03	13425
Jain	00	00	00	150
Others	00	00	00	97
Castes/tribes				
Scheduled castes	03	04	07	7211
Scheduled tribes	01	00	01	1227
Other backward classes	08	11	19	42255
Others	05	02	07	25578
DLHS-4	17	17	34	76271

^a Literate but did not attend the school are also included. **Unweighted cases.

HEALTH AND NUTRITIONAL STATUS

TABLE 8.1 NUTRITIONAL STATUS OF CHILDREN

Percentage of children under age five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, Kerala, 2012-13.

Background Characteristics	Height for Age				Weight for Height				Weight for Age				Number of eligible children**
	Below -3SD	Below -2SD	Above +2SD*	Mean Z-score (SD)	Below -3SD	Below -2SD	Above +2SD*	Mean Z-score (SD)	Below -3SD	Below -2SD	Above +2SD*	Mean Z-score (SD)	
Age group (month)													
0-6	6.2	11.1	88.9	18.6	12.7	19.0	81.0	12.6	8.1	21.6	78.4	4.4	324
7-12	3.7	17.6	82.4	20.3	7.4	17.9	82.1	13.0	4.9	12.7	87.3	6.6	382
13-18	12.4	26.8	73.2	16.2	10.1	19.2	80.8	3.8	1.8	20.0	80.0	7.9	350
19-24	17.6	32.8	67.2	15.7	9.5	17.9	82.1	7.7	7.3	26.0	74.0	9.8	312
25-35	8.8	21.1	78.9	17.9	15.3	29.6	70.4	3.2	7.0	18.9	81.1	6.5	640
36 and above	9.0	23.1	76.9	11.3	9.5	26.5	73.5	3.6	7.3	23.1	76.9	4.5	1408
Sex of child													
Male	9.0	22.0	78.0	14.3	9.3	21.0	79.0	5.2	6.1	21.9	78.1	4.6	1686
Female	9.9	23.6	76.4	15.6	12.4	27.4	72.6	5.8	6.9	20.1	79.9	7.3	1730
Place of residence													
Rural	9.6	25.4	74.6	13.9	10.6	22.3	77.7	5.8	8.2	22.6	77.4	5.1	1618
Urban	9.3	20.7	79.3	15.8	11.0	25.9	74.1	5.3	4.9	19.5	80.5	6.9	1798
Religion													
Hindu	8.1	21.6	78.4	14.5	11.4	27.3	72.7	4.7	6.0	22.4	77.6	6.4	1934
Muslim	13.2	26.3	73.7	15.5	8.8	18.8	81.2	6.5	7.2	19.9	80.1	5.6	970
Christian	8.1	21.0	79.0	15.4	12.1	23.1	76.9	6.3	6.7	18.5	81.5	5.3	511
Others [#]	--	--	--	--	--	--	--	--	--	--	--	--	1
Castes/Tribes													
Scheduled castes	13.5	27.0	73.0	23.3	15.3	30.6	69.4	1.8	7.3	32.1	67.9	8.8	360
Scheduled tribes	11.1	22.2	77.8	12.4	0.0	20.0	80.0	2.0	12.5	25.0	75.0	25.8	35
Other backward classes	10.6	24.5	75.5	13.0	10.5	24.0	76.0	5.6	6.1	20.1	79.9	6.0	2100
Others [#]	5.4	17.4	82.6	16.0	10.3	22.5	77.5	6.6	6.8	18.6	81.4	4.5	921
Kerala	9.4	22.8	77.2	14.9	10.8	24.2	75.8	5.5	6.5	21.0	79.0	6.0	3,416

Note: reference period: January 1st, 2008 to survey date. * +2SD includes Don't know. --percentage not shown for less than 10 cases.** unweighted cases

TABLE 8.2 NUTRITIONAL STATUS OF CHILDREN BY DISTRICTS													
Percentage of children under age five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by districts, Kerala 2012-13.													
Districts	Height for Age				Weight for Height				Weight for Age				Number of eligible children**
	below -3SD	below -2SD	above +2SD*	Mean Z-score (SD)	below -3SD	below -2SD	Above +2SD*	Mean Z-score (SD)	Below -3SD	Below -2SD	Percentage above +2SD*	Mean Z-score (SD)	
Kasaragod	13.0	22.2	77.8	35.7	11.5	23.1	76.9	13.0	10.8	16.2	83.8	22.6	284
Kannur	4.5	25.4	74.6	9.0	2.1	8.3	91.7	3.9	5.9	19.6	80.4	3.7	143
Wayanad	14.6	34.1	65.9	8.8	7.1	21.4	78.6	8.6	28.6	42.9	57.1	1.6	202
Kozhikode	11.4	29.1	70.9	9.9	6.0	14.8	85.2	3.5	5.6	15.9	84.1	4.3	458
Malappuram	13.9	27.8	72.2	20.5	13.7	23.5	76.5	7.5	1.8	26.3	73.7	1.8	234
Palakkad	23.5	29.4	70.6	52.6	25.0	25.0	75.0	2.0	28.6	85.7	14.3	14.9	32
Thrissur	9.9	28.8	71.2	19.2	8.5	23.7	76.3	9.9	11.3	25.4	74.6	7.2	269
Ernakulam	8.5	13.7	86.3	11.8	15.7	26.5	73.5	2.9	6.3	21.9	78.1	6.8	231
Idukki	--	--	--	--	--	--	--	--	--	--	--	--	3
Kottayam	1.2	7.1	92.9	20.1	13.6	32.2	67.8	13.1	4.2	15.5	84.5	10.0	318
Alappuzha	5.4	17.8	82.2	8.2	10.4	26.4	73.6	3.1	5.9	21.6	78.4	3.1	433
Pathanamthitta	0.0	50.0	50.0	49.5	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2.0	14
Kollam	12.2	26.7	73.3	8.3	11.5	29.5	70.5	2.9	5.8	23.6	76.4	2.8	346
Thiruvananthapuram	10.6	18.3	81.7	37.1	21.7	35.0	65.0	13.0	5.6	16.7	83.3	13.7	449
Kerala	9.4	22.8	77.2	14.9	10.8	24.2	75.8	5.5	6.5	21.0	79.0	6.0	3,416

Note: reference period: January 1st, 2008 to survey date. * +2SD includes Don't know.--percentage not shown for less than 10 cases .

** unweighted cases

TABLE 8.3 BMI (BODY MASS INDEX) OF WOMEN

Percentage of women age 15-49 average body mass index (BMI), and percentage with specific BMI levels, by background characteristics, Kerala, 2012-13.

Background characteristics	Mean Height	Mean BMI	Body Mass Index (BMI) in kg/m ²							Total number of Women**
			18.5-24.9 (normal)	Thin			Overweight/Obese			
				<18.5 (total thin)	17.0-18.4 (mildly thin)	<17.0 (moderately/severely thin)	≥25.0 (overweight or obese)	25.0-29.9 (overweight)	≥30.0 (obese)	
Age										
15-19	153.7	20.1	55.9	35.8	18.6	16.2	8.3	7.0	1.3	605
20-29	156.3	22.6	60.5	16.0	9.3	6.5	23.5	17.7	5.7	1786
30-39	156.9	23.6	55.1	11.2	6.4	4.7	33.7	25.1	8.1	2117
40-49	156.4	24.8	54.6	7.6	4.3	3.1	37.8	28.1	9.2	1872
Place of residence										
Rural	156.2	23.3	58.1	14.2	8.0	5.9	27.8	21.0	6.4	3248
Urban	156.4	23.4	54.8	13.4	7.4	5.7	31.8	23.5	7.9	3132
Education										
Non-literate ^a	159.0	22.6	63.0	12.3	7.2	4.0	24.7	22.2	2.5	90
Less than 5 years	154.8	25.8	49.0	17.7	6.5	10.7	33.4	20.8	12.5	208
5-9 years	156.3	23.8	52.9	11.7	6.6	5.0	35.5	26.6	8.3	1136
10 or more years	156.3	23.1	57.6	14.2	8.1	5.8	28.2	21.2	6.7	4946
Religion										
Hindu	156.2	23.1	57.0	15.0	8.1	6.8	27.9	21.5	6.1	3623
Muslim	156.7	24.1	53.8	11.9	7.2	4.4	34.3	24.0	9.8	1695
Christian	156.2	22.8	59.0	12.7	7.6	4.9	28.3	21.5	6.6	1038
Jain	(153.4)	(23.2)	(67.7)	(0.0)	(0.0)	(0.0)	(32.3)	(23.2)	(9.1)	12
Others [#]	(157.7)	(23.3)	(66.8)	(0.0)	(0.0)	(0.0)	(33.2)	(33.2)	(0.0)	12
Castes/Tribes										
Scheduled castes	154.6	22.5	54.9	19.7	10.8	8.7	25.4	18.0	7.2	572
Scheduled tribes	156.2	21.5	70.6	14.9	6.3	8.5	14.5	12.0	2.5	69
Other backward classes	156.4	23.3	56.0	13.6	7.6	5.6	30.4	22.6	7.5	3782
Others [#]	156.6	23.7	57.6	12.5	7.0	5.2	29.9	23.0	6.5	1957
Kerala	156.3	23.3	56.6	13.8	7.7	5.8	29.6	22.2	7.1	6,380

Note: reference period: January 1st, 2008 to survey date. ^a Literate but did not attend school, are also included. () based on less than 10-20 unweighted cases. ** unweighted cases**TABLE 8.4 BMI (BODY MASS INDEX) OF WOMEN (new)**

Percentage of women age 15-49 average body mass index (BMI), and percentage with specific BMI levels, by district, Kerala, 2012-13.

District	Mean Height	Mean BMI	Body Mass Index (BMI) in kg/m ²							Total number of Women**
			18.5-24.9 (normal)	Thin			Overweight/Obese			
				<18.5 (total thin)	17.0-18.4 (mildly thin)	<17.0 (moderately/severely thin)	≥25.0 (overweight or obese)	25.0-29.9 (overweight)	≥30.0 (obese)	
Kasaragod	158.3	22.2	62.4	16.5	10.0	6.2	21.1	15.1	5.9	546
Kannur	157.0	23.1	64.2	8.0	6.8	1.2	27.9	23.1	4.4	307
Wayanad	157.4	23.2	82.0	3.4	2.3	.5	14.6	11.9	2.7	175
Kozhikode	156.1	24.0	52.2	10.2	7.3	2.8	37.5	29.0	8.3	754
Malappuram	156.5	21.7	62.5	19.1	12.5	6.2	18.4	14.9	3.4	680
Palakkad	153.6	21.6	63.7	21.5	15.2	6.3	14.8	9.9	4.7	326
Thrissur	155.4	23.5	61.5	12.1	6.4	5.4	26.4	21.0	5.1	398
Ernakulam	156.8	23.6	54.4	18.7	7.3	11.1	26.8	17.9	8.1	460
Idukki	155.3	-	-	-	-	-	-	-	-	-
Kottayam	156.9	23.8	54.1	12.0	5.0	6.9	33.9	23.7	10.0	467
Alappuzha	155.3	23.4	52.4	14.7	7.4	6.9	33.0	24.6	7.8	625
Pathanamthitta	155.0	22.2	68.4	12.4	4.4	8.0	19.2	19.2	0.0	51
Kollam	156.0	24.6	49.7	12.6	5.2	7.0	37.7	27.2	10.1	713
Thiruvananthapuram	158.5	24.0	50.9	12.7	7.2	5.3	36.4	27.7	8.1	878
Kerala	156.3	23.3	56.5	13.8	7.7	5.8	29.6	22.2	7.1	6,380

** unweighted cases

TABLE 8.5 PREVELANCE OF ANEMIA AMONG CHILDREN

Percentage of children age (6-59 months) classified as having iron-deficiency (anaemia) by selected background characteristics, Kerala, 2012-13.

Background characteristics	Anaemia status by haemoglobin level				Total number of children <5 years**
	Mild anemia (10.0-10.9 g/dl)	Moderate anemia (7.0-9.9 g/dl)	Severe anemia (< 7g/dl)	Any anemia <11.0 g/dl	
Sex of Child					
Male	20.6	23.9	3.5	48.0	378
Female	19.3	27.2	2.6	49.1	342
Place of residence					
Rural	19.3	30.1	3.3	52.7	317
Urban	20.6	21.4	2.9	44.9	403
Religion					
Hindu	21.1	24.3	3.0	48.4	442
Muslim	17.8	34.6	1.5	53.8	159
Christian	18.8	18.0	5.4	42.2	119
Jain	--	--	--	--	0
Others	--	--	--	--	0
Castes/tribes					
Scheduled castes	22.3	17.4	5.9	45.6	75
Scheduled tribes	18.1	22.1	0.0	40.2	7
Other backward classes	18.8	29.4	3.3	51.5	430
Others	21.6	20.6	1.7	43.9	208
Kerala	20.0	25.5	3.1	48.5	720

Note: reference period: January 1st, 2008 to survey date. -- percentage not shown for less than 10 cases . ** Unweighted cases.**TABLE 8.6 ANAEMIA AMONG SCHOOL GOING/ADOLESCENT POPULATION**

Percentage of school going population (age 6-19 years) classified as having iron-deficiency (anaemia) by degree of anaemia and by selected background characteristics, Kerala, 2012-13.

Background characteristics	Anaemia status by haemoglobin level				Total number of school going population (age 6-19 years)**
	Mild anemia (10.0-10.9 g/dl)	Moderate anemia (7.0-9.9 g/dl)	Severe anemia (< 7g/dl)	Any anemia <11.0 g/dl	
Age					
6 yrs - 10 yrs	16.6	14.9	1.9	33.4	1495
11 yrs - 14 yrs	15.5	13.7	2.0	31.2	1263
15yrs – 16 yrs	10.4	13.2	2.2	25.7	794
17yrs – 19 yrs	10.8	10.7	1.6	23.0	1317
Sex					
Male	12.0	11.7	1.9	25.5	2486
Female	15.5	14.7	2.0	32.2	2381
Residence					
Rural	14.3	13.6	1.7	29.6	2344
Urban	13.1	12.7	2.2	28.0	2525
Education					
Non-literate ^a	17.7	17.8	1.7	37.1	302
Less than 5 years	18.4	15.0	2.3	35.6	933
5-9 years	13.6	13.9	1.7	29.1	1751
10 or more years	10.8	10.8	2.0	23.6	1883
Religion					
Hindu	13.2	13.4	2.1	28.7	2746
Muslim	14.2	14.4	2.2	30.9	1167
Christian	14.6	10.9	1.1	26.7	929
Jain	(6.2)	(0.0)	(0.0)	(6.2)	17
Others	(21.1)	(31.9)	(0.0)	(53.0)	10
Castes/tribes					
Scheduled castes	13.1	13.7	2.8	29.6	437
Scheduled tribes	12.8	9.5	0.0	22.4	54
Other backward classes	14.5	14.1	2.0	30.6	2734
Others	12.7	11.6	1.6	25.9	1644
Kerala	13.7	13.2	1.9	28.8	4,869

^a Literate but did not attend school are also included. () based on less than 10-20 unweighted cases. **un weighted cases

TABLE 8.7 ANAEMIA AMONG POPULATION AGED 20 YEARS AND ABOVE												
Percentage of population (age 20 years and above) classified as having iron-deficiency (anaemia) by degree of anaemia and selected background characteristics, Kerala, 2012-13.												
Background characteristics	Male				Female				Total			
	Mild anemia (10.0-10.9 g/dl)	Moderate anemia (7.0-9.9 g/dl)	Severe anemia (< 7g/dl)	Any anemia <11.0 g/dl	Mild anemia (10.0-10.9 g/dl)	Moderate anemia (7.0-9.9 g/dl)	Severe anemia (< 7g/dl)	Any anaemia <11.0 g/dl	Mild anemia (10.0-10.9 g/dl)	Moderate anemia (7.0-9.9 g/dl)	Severe anemia (< 7g/dl)	Any anaemia <11.0 g/dl
Age												
20yrs - 29 yrs	7.7	10.5	2.3	20.5	14.0	15.8	2.5	32.3	11.5	13.7	2.4	27.7
30 yrs - 39 yrs	7.6	10.6	2.7	21.0	14.0	15.3	2.4	31.7	11.4	13.4	2.5	27.3
40 yrs - 49 yrs	7.8	11.0	2.2	21.0	13.9	16.5	2.8	33.2	11.2	14.1	2.5	27.9
50 yrs and above	10.3	11.8	2.6	24.7	15.5	18.1	3.0	36.6	13.1	15.2	2.8	31.2
Residence												
Rural	8.6	11.8	2.5	22.9	14.2	17.2	2.9	34.3	11.8	14.8	2.7	29.4
Urban	8.8	10.4	2.5	21.7	14.9	15.9	2.5	33.3	12.3	13.6	2.5	28.4
Education												
Non-literate ^a	9.5	13.4	4.1	27.0	13.7	18.0	4.2	35.9	12.3	16.5	4.2	33.0
Less than 5 years	9.2	12.9	3.2	25.3	16.4	19.0	3.4	38.8	13.6	16.6	3.3	33.5
5-9 years	10.3	12.6	2.2	25.0	15.5	18.6	3.4	37.5	13.3	16.1	2.9	32.3
10 or more years	8.1	10.3	2.5	20.8	13.9	15.4	2.2	31.5	11.3	13.1	2.3	26.8
Religion												
Hindu	8.2	10.6	2.5	21.4	14.3	16.6	2.6	33.6	11.7	14.1	2.6	28.4
Muslim	9.5	12.6	3.2	25.3	15.5	18.4	3.5	37.4	13.0	16.0	3.4	32.4
Christian	9.5	11.1	2.0	22.6	13.8	14.8	2.0	30.6	11.9	13.1	2.0	27.0
Jain	5.9	18.0	2.4	26.3	2.9	2.0	0.0	4.9	4.5	10.4	1.2	16.1
Others [#]	6.3	3.7	2.9	12.8	27.9	15.6	0.0	43.4	17.9	10.1	1.3	29.3
Castes/tribes												
Scheduled castes	9.3	11.6	1.9	22.9	15.3	17.9	2.0	35.2	12.6	15.1	2.0	29.7
Scheduled tribes	7.7	10.5	1.9	20.1	11.2	14.1	3.4	28.7	9.4	12.3	2.7	24.5
Other backward classes	8.4	11.7	3.2	23.3	14.7	17.9	3.2	35.8	12.1	15.3	3.2	30.6
Others [#]	9.1	10.3	1.7	21.0	14.1	14.3	2.1	30.5	11.9	12.5	1.9	26.3
Kerala	8.7	11.1	2.5	22.4	14.5	16.6	2.7	33.9	12.0	14.3	2.6	28.9

^a Literate but did not attend school, are also included. [#] Include missing cases

TABLE 8.8 ANAEMIA AMONG POPULATION CHILDREN, ADOLESCENTS AGED 20 YEARS AND ABOVE

Percentage of children aged 6-59 months, adolescents aged 6-19 year and population aged 20 years and above having any and severe anaemia by districts, Kerala, 2012-13.

District	Children		Adolescents		Aged 20 years and above	
	Any anemia <11.0 g/dl	Severe anemia (< 7g/dl)	Any anemia <11.0 g/dl	Severe anemia (< 7g/dl)	Any anemia <11.0 g/dl	Severe anemia (< 7g/dl)
Kasaragod	43.0	11.3	51.5	12.7	41.8	11.3
Kannur	69.4	0.0	31.7	1.8	29.5	3.1
Wayanad	10.3	0.0	13.5	0.4	15.7	0.3
Kozhikode	57.7	3.8	38.6	2.1	37.8	2.3
Malappuram	45.6	0.0	32.4	1.8	35.6	2.0
Palakkad	20.6	0.0	18.5	2.5	19.2	1.4
Thrissur	32.2	0.0	24.9	1.7	26.7	1.8
Ernakulam	42.7	1.9	34.6	0.5	33.6	1.2
Idukki	0.0	0.0	3.2	0.0	3.6	0.0
Kottayam	39.4	0.0	28.7	2.5	29.1	2.1
Alappuzha	50.9	3.0	30.9	0.5	31.3	0.8
Pathanamthitta	0.0	0.0	12.6	0.5	18.8	2.6
Kollam	65.0	0.0	35.5	0.6	35.0	1.1
Thiruvananthapuram	48.7	7.7	24.3	1.9	20.8	1.5
Kerala	48.5	3.1	28.8	1.9	28.9	2.6

TABLE 8.9 ANAEMIA AMONG PREGNANT WOMEN

Percentage of pregnant women (age 15-49 years) classified as having iron-deficiency (anaemia) by degree of anaemia and by selected background characteristics and residence, Kerala, 2012-13.

Background characteristics	Anaemia status by haemoglobin level				Total number of Pregnant Women**
	Mild anemia (10.0-10.9 g/dl)	Moderate anemia (7.0-9.9 g/dl)	Severe anemia (< 7g/dl)	Any anemia <11.0 g/dl	
Age group (years)					
15-19	28.0	4.4	0.0	32.4	37
20-29	17.4	17.0	1.3	35.6	672
30-39	14.3	16.6	4.0	34.9	344
40-49	4.5	17.3	6.1	27.9	119
Residence					
Rural	16.4	15.4	3.5	35.3	578
Urban	14.4	18.0	1.4	33.8	594
Woman's Education					
Non-literate ^a	7.6	0.0	9.7	17.3	12
Less than 5 years	0.0	22.6	8.9	31.5	22
5-9 years	12.8	14.9	4.6	32.3	151
10 or more years	16.3	16.9	1.9	35.2	987
Religion					
Hindu	16.2	15.5	2.3	34.0	710
Muslim	15.2	17.2	3.5	35.9	318
Christian	12.9	20.6	1.2	34.6	141
Jain	--	--	--	--	1
Others	--	--	--	--	2
Castes/tribes					
Scheduled castes	20.1	24.4	1.7	46.2	112
Scheduled tribes	28.8	0.0	25.7	54.5	10
Other backward classes	14.6	16.6	3.2	34.4	703
Others	15.4	14.3	0.8	30.6	347
Kerala	15.5	16.6	2.5	34.6	1,172

^a Literate but did not attend school, are also included. -- percentage not shown for less than 10 cases .

** Unweighted cases

TABLE 8.10 PREVALENCE OF DIABETIES

Percentage of men (age 18 years and above) classified as having Sugar by selected background characteristics and residence, Kerala, 2012-13.

Background characteristics	Any type of blood sugar level			Total number of men Tested**
	Below 140	Mild (140-160)	Moderate/High (>160)	
Age group				
18 - 29	90.2	6.8	3.0	3175
30 - 39	82.9	10.5	6.6	3478
40 - 49	75.8	11.5	12.6	3459
50 - 59	65.7	15.2	19.1	2987
60 +	53.3	16.8	29.8	3141
Residence				
Rural	74.3	11.9	13.8	8003
Urban	73.5	12.3	14.2	8237
Education				
Non-literate ^a	57.8	16.8	25.4	743
Less than 5 years	58.7	16.8	24.5	1232
5-9 years	65.5	15.3	19.1	3338
10 or more years	79.4	10.2	10.4	10927
Religion				
Hindu	71.7	12.8	15.5	9581
Muslim	75.6	12.4	12.0	3315
Christian	78.3	10.0	11.7	3231
Jain	98.6	1.4	0.0	61
Others [#]	79.0	8.1	12.8	52
Castes/tribes				
Scheduled castes	76.2	12.1	11.7	1566
Scheduled tribes	75.8	15.6	8.6	300
Other backward classes	71.9	13.8	14.3	8288
Others	76.0	9.6	14.4	6086
Kerala	73.9	12.1	14.0	16,240

^a Literate but did not attend school are also included. * Unweighted cases**TABLE 8.11 PREVALENCE OF DIABETIES**

Percentage of men aged 18 years and above classified with level of any type of blood sugar by districts, Kerala, 2012-13.

districts	Any type of blood sugar level			Total number of men Tested**
	Below (<140)	Mild (140-160)	Moderate/High (>160)	
Kasaragod	66.9	20.0	13.1	1519
Kannur	58.1	22.1	19.8	1096
Wayanad	77.6	12.1	10.3	852
Kozhikode	70.6	13.0	16.5	1078
Malappuram	86.0	7.5	6.4	1126
Palakkad	95.3	4.2	0.5	1417
Thrissur	68.7	11.4	19.9	1138
Ernakulum	71.9	11.9	16.3	1055
Idukki	75.6	11.9	12.5	1332
Kottayam	63.5	13.6	22.8	922
Alappuzha	71.7	10.0	18.3	1393
Pathanamthita	86.8	9.8	3.5	1341
Kollam	65.8	11.1	23.1	785
Thiruvananthapuram	66.7	11.7	21.6	1186
Kerala	73.9	12.1	14.0	16,240

** Unweighted cases

TABLE 8.12 PREVALENCE OF DIABETIES

Percentage of Women (age 18 years and above) classified as having Sugar by selected background characteristics and residence, Kerala, 2012-13.

Background characteristics	Any type of blood sugar level			Total number of women Tested*
	Below (<140)	Mild (140-160)	Moderate/High (>160)	
Age group				
18 - 29	90.9	6.3	2.8	4663
30 - 39	85.6	8.9	5.5	5007
40 - 49	77.5	11.6	10.9	4345
50 - 59	62.9	16.1	21.1	3803
60 +	54.2	16.8	29.0	3391
Residence				
Rural	76.0	11.8	12.2	10381
Urban	76.1	11.0	12.9	10828
Education				
Non-literate ^a	59.0	16.9	24.1	1409
Less than 5 years	59.3	16.2	24.5	1951
5-9 years	67.5	15.1	17.4	4536
10 or more years	83.2	8.9	7.9	13313
Religion				
Hindu	74.4	12.2	13.4	12604
Muslim	78.0	10.7	11.3	4620
Christian	78.7	9.9	11.4	3882
Jain	100.0	0.0	0.0	54
Others [#]	86.9	9.2	3.8	49
Castes/tribes				
Scheduled castes	77.1	11.6	11.4	1968
Scheduled tribes	74.1	18.0	7.9	325
Other backward classes	75.2	12.1	12.7	11471
Others	77.1	10.2	12.8	7445
Kerala	76.0	11.4	12.5	21,209

^a Literate but did not attend school, are also included. * Unweighted cases.**TABLE 8.13 PREVALENCE OF DIABETIES**

Percentage of women aged 18 years and above classified with level of any type of blood Sugar by districts, Kerala, 2012-13.

Districts	Any type of blood sugar level			Total number of women Tested**
	Below (<140)	Mild (140-160)	Moderate/High (>160)	
Kasaragod	70.1	17.5	12.4	1,858
Kannur	61.8	18.6	19.7	1,254
Wayanad	81.6	10.9	7.4	955
Kozhikode	76.9	10.9	12.3	1,855
Malappuram	85.9	6.8	7.3	1,433
Palakkad	96.0	3.6	0.4	1,360
Thrissur	74.7	10.4	15.0	1,843
Ernakulum	74.3	12.0	13.7	1,310
Idukki	73.2	15.0	11.8	1,263
Kottayam	69.8	12.1	18.1	1,383
Alappuzha	77.3	9.3	13.4	2,184
Pathanamthita	87.3	9.7	3.1	1,206
Kollam	71.4	11.4	17.3	1,424
Thiruvananthapuram	69.9	11.7	18.4	1,881
Kerala	76.0	11.4	12.5	21,209

** Unweighted cases

TABLE 8.14 BLOOD PRESSURE

Percentage of men (age 18 years and above) classified as having Blood Pressure by selected background characteristics, Kerala, 2012-13.

Background characteristics	Status of Blood Pressure						Number of men blood pressure measured**	Number of men Covered**
	1	2	3	4	5	6		
Age group								
18-29	68.2	11.6	16.3	2.6	0.7	0.7	3294	3320
30 - 39	55.3	13.4	25.1	4.1	1.2	1.0	3547	3567
40 - 49	45.1	14.1	31.0	7.2	1.2	1.3	3548	3566
50 - 59	42.2	14.6	28.5	10.5	2.1	2.1	3055	3077
60 +	42.6	13.1	25.9	10.1	5.6	2.7	3198	3218
Residence								
Rural	49.8	13.1	26.4	7.2	1.9	1.7	8200	8272
Urban	52.6	13.6	24.0	6.2	2.3	1.3	8442	8476
Education								
Non-literate ^a	39.6	12.4	28.9	11.9	4.2	3.0	756	763
Less than 5 years	46.9	13.1	24.2	9.3	3.6	2.8	1254	1265
5-9 years	48.3	16.0	23.2	7.0	3.3	2.2	3413	3440
10 or more years	53.0	12.6	25.8	6.1	1.4	1.1	11219	11280
Religion								
Hindu	49.7	13.7	25.7	7.0	2.2	1.8	9825	9891
Muslim	52.2	13.5	24.4	6.3	2.2	1.5	3413	3424
Christian	53.3	12.3	25.4	6.5	1.6	0.8	3291	3320
Jain	72.8	6.8	18.7	0.0	1.7	0.0	61	61
Others [#]	74.0	3.2	13.3	4.1	2.6	2.8	52	52
Castes/tribes								
Scheduled castes	54.0	13.2	24.4	5.7	1.5	1.2	1600	1610
Scheduled tribes	43.8	13.8	32.8	5.4	1.8	2.5	304	304
Other backward classes	52.0	13.2	23.9	6.6	2.4	1.9	8523	8573
Others	49.3	13.6	27.0	7.3	1.9	1.0	6215	6261
Kerala	51.1	13.3	25.3	6.7	2.1	1.5	16,642	16,748

^a Literate but did not attend school are also included.** unweighted cases**TABLE 8.15 BLOOD PRESSURE**

Percentage of men (age 18 years and above) classified as having Blood Pressure by districts, Kerala, 2012-13.

Districts	Status of Blood Pressure						Number of men blood pressure measured**	Number of men aged 18 years & above**
	1	2	3	4	5	6		
Kasaragod	47.1	15.3	23.0	6.8	2.9	4.9	1592	1608
Kannur	39.4	15.6	28.1	8.2	4.7	4.0	1113	1121
Wayanad	39.0	25.6	27.9	5.4	1.3	0.8	867	873
Kozhikode	53.1	16.5	20.6	6.0	2.6	1.1	1116	1118
Malappuram	67.2	8.7	17.4	4.8	1.4	0.6	1137	1143
Palakkad	76.0	7.5	14.5	1.0	0.8	0.2	1433	1433
Thrissur	55.2	14.6	18.7	6.3	3.6	1.6	1135	1149
Ernakulam	52.5	14.8	24.3	5.5	2.0	0.9	1076	1097
Idukki	13.0	6.4	60.5	19.1	0.9	0.0	1424	1429
Kottayam	59.4	13.2	14.8	7.9	3.4	1.2	956	965
Alappuzha	66.0	10.9	16.2	5.0	1.5	0.4	1417	1423
Pathanamthitta	24.8	14.3	51.0	6.9	0.8	2.2	1354	1359
Kollam	68.6	10.4	13.0	5.7	1.3	1.0	830	837
Thiruvananthapuram	51.1	17.6	20.3	6.8	2.9	1.3	1192	1193
Kerala	51.2	13.3	25.2	6.7	2.1	1.5	16,642	16,748

** unweighted cases

Average Systolic	Average Diastolic					
	≤84	85-89	90-99	100-109	110-119	≥120
≤ 129	1	2	3	4	5	6
130-139	2	2	3	4	5	6
140-159	3	3	3	4	5	6
160-179	4	4	4	4	5	6
180-209	5	5	5	5	5	6
≥ 210	6	6	6	6	6	6

TABLE 8.16 BLOOD PRESSURE

Percentage of women (age 18 years and above) classified as having Blood Pressure by selected background characteristics, Kerala, 2012-13.

Background characteristics	Status of Blood Pressure						Number of women blood pressure measured**	Number of women aged 18 year & above**
	1	2	3	4	5	6		
Age group								
18 - 29	79.2	7.4	11.2	1.3	0.5	0.4	4826	4858
30 - 39	67.2	10.8	17.4	3.1	0.9	0.6	5101	5121
40 - 49	56.0	11.8	24.7	5.0	1.6	1.0	4440	4455
50 - 59	47.4	13.0	25.1	9.0	3.5	2.0	3870	3885
60 +	38.6	11.6	25.5	12.3	7.5	4.4	3483	3508
Residence								
Rural	58.7	11.0	21.0	5.5	2.4	1.4	10657	10711
Urban	61.4	10.4	18.9	5.4	2.4	1.5	11063	11116
Education								
Non-literate ^a	37.8	13.4	25.5	11.3	6.7	5.2	1438	1452
Less than 5 years	45.0	11.9	24.5	11.3	4.6	2.7	2004	2012
5-9 years	54.9	13.0	20.0	6.3	3.8	2.1	4647	4676
10 or more years	65.8	9.6	18.9	3.8	1.3	0.7	13631	13687
Religion								
Hindu	58.8	10.9	20.4	5.8	2.6	1.5	12906	12972
Muslim	62.4	10.9	18.0	4.5	2.5	1.7	4761	4780
Christian	60.3	10.1	21.4	5.5	1.7	1.1	3947	3969
Jain	75.1	3.8	19.0	2.1	0.0	0.0	54	54
Others	73.8	8.7	8.3	6.1	3.1	0.0	52	52
Castes/tribes								
Scheduled castes	62.3	9.8	19.1	5.4	2.1	1.3	2028	2038
Scheduled tribes	51.1	13.4	30.9	3.3	0.6	0.8	328	331
Other backward classes	61.4	11.0	18.1	5.3	2.6	1.7	11767	11817
Others [#]	57.4	10.5	22.8	5.8	2.3	1.1	7597	7641
Kerala	60.0	10.7	20.0	5.5	2.4	1.4	21,720	21,827

^a Literate but did not attend school are also included.**Unweighted cases**TABLE 8.17 BLOOD PRESSURE**

Percentage of women (age 18 years and above) classified as having Blood Pressure by districts, Kerala, 2012-13.

Districts	Status of Blood Pressure						Number of women blood pressure measured**	Number of women aged 18 years & above**
	1	2	3	4	5	6		
Kasaragod	51.7	14.4	21.2	5.6	3.3	3.7	1931	1947
Kannur	48.4	14.1	23.3	6.2	4.0	4.0	1285	1300
Wayanad	53.9	20.4	19.5	4.6	1.4	0.3	958	961
Kozhikode	64.3	11.2	16.6	4.3	2.6	1.0	1940	1943
Malappuram	71.3	8.0	13.5	4.7	1.6	0.9	1456	1461
Palakkad	80.2	5.6	11.8	1.6	0.8	0.1	1362	1363
Thrissur	64.4	11.4	14.9	5.4	2.8	1.1	1839	1855
Ernakulam	59.9	11.1	18.5	7.2	2.5	0.9	1340	1349
Idukki	16.3	8.3	60.6	13.7	1.2	0.0	1288	1291
Kottayam	64.8	9.9	15.0	5.3	3.5	1.5	1442	1454
Alappuzha	72.8	6.5	11.9	4.7	2.8	1.3	2219	2225
Pathanamthitta	28.4	14.8	49.1	5.8	0.7	1.3	1227	1229
Kollam	75.7	6.7	10.5	3.8	2.0	1.2	1528	1542
Thiruvananthapuram	58.7	12.3	17.6	6.5	3.0	1.8	1905	1907
Kerala	60.0	10.7	20.0	5.5	2.4	1.4	21,720	21,827

** unweighted cases

Average Systolic	Average Diastolic					
	≤84	85-89	90-99	100-109	110-119	≥120
≤ 129	1	2	3	4	5	6
130-139	2	2	3	4	5	6
140-159	3	3	3	4	5	6
160-179	4	4	4	4	5	6
180-209	5	5	5	5	5	6
≥ 210	6	6	6	6	6	6

TABLE 8.18 PRESENCE OF IODIZED SALT IN HOUSEHOLD

Percent distribution of household with salt tested for iodine content, by level of iodine in salt (Parts Per Million) according to background characteristics, Kerala, 2012-13.

Districts	Iodine content of salt				Number of Households**
	None 0 ppm	Inadequate (< 15 ppm)	Adequate (15 + ppm)	Not Tested*	
Age of head of Household					
Less than 30	7.4	50.7	32.9	9.0	811
30 - 44	2.9	39.6	46.0	11.5	5717
45 - 59	3.3	32.1	50.3	14.3	7838
60 +	3.6	27.6	52.5	16.3	5723
Residence					
Rural	5.1	32.8	49.4	12.6	9808
Urban	1.5	34.7	48.5	15.2	10281
Education of head of Household					
Non-literate ^a	5.4	32.3	50.3	12.1	1491
Less than 5 years	3.4	29.8	50.5	16.3	2418
5-9 years	4.9	29.0	49.9	16.2	5104
10 or more years	2.5	36.9	48.1	12.5	11076
Religion					
Hindu	4.0	31.0	50.6	14.3	11,807
Muslim	2.6	36.7	46.6	14.0	4,326
Christian	2.5	37.7	47.3	12.5	3,862
Jain	2.0	75.5	16.3	6.1	54
Others	2.4	65.9	26.8	4.9	40
Castes/Tribes					
Scheduled castes	4.1	31.4	50.5	14.0	1901
Scheduled tribes	3.3	41.1	41.7	13.9	337
Other backward classes	4.0	33.1	48.1	14.8	10602
Others	2.4	34.9	50.3	12.4	7249
Kerala	3.4	33.7	49.0	13.9	20089

^a Literate but did not attend school, are also included. Note: PPM: parts per million. * includes salt not at home, salt not tested, refused and missing cases. ** unweighted cases

TABLE 8.19 PRESENCE OF IODIZED SALT IN HOUSEHOLD

Percent distribution of household with salt tested for iodine content, by level of iodine in salt (Parts Per Million) by districts, Kerala, 2012-13.

Districts	Iodine content of salt				Number of Households**
	None 0 ppm	Inadequate (< 15 ppm)	Adequate (15 + ppm)	Not Tested/Missing*	
Kasaragod	6.9	43.8	40.0	9.2	1,806
Kannur	12.4	37.6	35.9	14.0	1,274
Wayanad	0.2	60.4	14.3	25.0	1,264
Kozhikode	0.2	47.7	37.5	14.6	1,511
Malappuram	0.5	47.4	46.8	5.3	1,374
Palakkad	1.2	82.7	10.2	5.9	1,386
Thrissur	0.7	18.4	64.9	16.1	1,715
Ernakulum	3.0	33.8	42.9	20.3	1,279
Idukki	10.5	32.5	49.4	7.7	1,289
Kottayam	1.0	11.9	73.8	13.3	1,292
Alappuzha	6.2	18.3	48.5	27.0	1,756
Pathanamthita	0.8	24.6	67.2	7.3	1,296
Kollam	1.8	12.6	68.3	17.3	1,298
Thiruvananthapuram	0.5	7.3	81.4	10.8	1,549
Kerala	3.3	33.7	49.0	13.9	20,089

Note: PPM: parts per million. *includes salt not at home, salt not tested, refused and missing cases. ** unweighted cases

HEALTH FACILITIES

TABLE 9.1: AVERAGE POPULATION COVERED BY HEALTH FACILITY BY DISTRICTS, KERALA, 2012-13.

District	Average population covered by		
	Sub-Health Centre	PHC	CHC
Kasaragod	10334	28875	24625
Kannur	5893	24439	73289
Wayanand	4709	28784	41140
Kozhikode	7032	33535	137115
Mallappuram	9514	10449	19728
Palakkad	7033	12556	16761
Thrissur	11199	33219	117089
Ernakulam	6948	30615	71464
Idukki	21250	31143	42000
Kottayam	6346	90611	65934
Alappuzha	6992	31309	22586
Pathanamthitta	30857	47100	83250
kollam	4356	48500	85917
Thiruvananthapuram	4114	30143	93519
Kerala	9113	34351	68576

PHC= Primary Health Centre; CHC= Community Health Centre. * CHC is not there.—No cases.

TABLE 9.2: STATUS OF INFRASTRUCTURE AT SUB-CENTRE FUNCTIONING IN GOVERNMENT BUILDING BY DISTRICTS, KERALA, 2012-13.

District	Number of Sub-Health Centres					Number of Sub-Health Centres with govt. Building	Total number of Sub-Health Centres
	Regular Electricity	Water#	Toilet	Labor room	Labor room in current use ¹		
Kasaragod	23.1	100.0	76.9	30.8	100.0	13	15
Kannur	57.1	71.4	85.7	0.0	-	07	16
Wayanand	100.0	75.0	93.8	0.0	-	16	16
Kozhikode	66.7	83.3	83.3	0.0	-	06	07
Mallappuram	80.0	100.0	60.0	00.0	-	05	05
Palakkad	66.7	100.0	100.0	0.0	-	03	04
Thrissur	100.0	100.0	94.7	0.0	-	19	21
Ernakulam	-	-	-	-	-	-	07
Idukki	100.0	100.0	100.0	12.5	100.0	08	08
Kottayam	100.0	100.0	100.0	0.0	-	01	08
Alappuzha	-	-	-	-	-	-	18
Pathanamthitta	85.7	100.0	100.0	14.3	100.0	07	07
kollam	100.0	100.0	100.0	0.0	-	01	08
Thiruvananthapuram	100.0	100.0	100.0	0.0	-	01	11
Kerala	79.3	92.0	89.7	6.9	100.0	87	151

-- No cases # Includes piped, bore well, well hand -pump and other source of water. ¹ Percentage calculated from number of labor room available.

TABLE 9.3: PERCENTAGE OF SUB-HEALTH CENTRES HAVING DIFFERENT ACTIVITIES BY DISTRICTS, KERALA, 2012-13.

District	Citizen's Charter displayed	VHSC Facilitated*	Untied Fund Received	Total number of Sub-Centres
Kasaragod	26.7	42.9	13.3	15
Kannur	75.0	100.0	100.0	16
Wayanand	100.0	100.0	100.0	16
Kozhikode	100.0	100.0	71.4	07
Mallappuram	80.0	-	0.0	05
Palakkad	75.0	0.0	0.0	04
Thrissur	100.0	100.0	95.2	21
Ernakulam	100.0	100.0	100.0	07
Idukki	100.0	85.7	37.5	08
Kottayam	100.0	100.0	75.0	08
Alappuzha	100.0	100.0	88.9	18
Pathanamthitta	85.7	85.7	100.0	07
kollam	100.0	100.0	100.0	08
Thiruvananthapuram	100.0	100.0	100.0	11
Kerala	88.1	94.7	77.5	151

VHSC= Village Health and Sanitation Committee. * Based on availability of VHSC.

TABLE 9.4: AVAILABLE HUMAN RESOURCES AT SUB-HEALTH CENTRES BY DISTRICTS, KERALA, 2012-13.

District	Human resources Status of Sub-Health Centre			Total number of SHCs
	ANM	MHW	Additional ANM	
Kasaragod	66.7	60.0	30.0	15
Kannur	100.0	75.0	6.3	16
Wayanand	100.0	93.8	6.3	16
Kozhikode	100.0	85.7	0.0	07
Mallappuram	60.0	80.0	0.0	05
Palakkad	100.0	100.0	0.0	04
Thrissur	90.5	38.1	36.8	21
Ernakulam	100.0	100.0	0.0	07
Idukki	100.0	100.0	100.0	08
Kottayam	87.5	100.0	42.9	08
Alappuzha	100.0	100.0	0.0	18
Pathanamthitta	100.0	100.0	100.0	07
kollam	100.0	50.0	0.0	08
Thiruvananthapuram	100.0	45.5	0.0	11
Kerala	93.4	76.2	21.3	151

ANM= Auxiliary Nurse Midwife. MHW= Male health Worker.

TABLE 9.5: AVAILABLE HUMAN RESOURCES AT PRIMARY HEALTH CENTRES BY DISTRICTS, KERALA, 2012-13.

District	Human resources Status of PHC				Total number of PHCs
	Medical officer	Lady Medical Officer**	AYUSH Doctor**	Pharmacist	
Kasaragod	100.0	50.0	50.0	100.0	08
Kannur	93.3	14.3	0.0	100.0	15
Wayanand	100.0	25.0	0.0	75.0	04
Kozhikode	100.0	72.7	9.1	81.8	11
Mallappuram	18.2	0.0	0.0	18.2	11
Palakkad	100.0	56.3	0.0	87.5	16
Thrissur	93.3	78.6	0.0	93.3	15
Ernakulam	100.0	0.0	0.0	100.0	12
Idukki	100.0	100.0	100.0	100.0	14
Kottayam	61.5	12.5	0.0	100.0	13
Alappuzha	73.9	0.0	0.0	100.0	23
Pathanamthitta	100.0	90.0	90.0	100.0	10
kollam	100.0	0.0	0.0	100.0	15
Thiruvananthapuram	100.0	0.0	0.0	100.0	14
Kerala	87.9	37.1	17.6	91.7	181

** Out of total medical officer

TABLE 9.6: AVAILABLE INFRASTRUCTURE AT PRIMARY HEALTH CENTRES BY DISTRICTS, KERALA, 2012-13.

District	Percentage of PHCs having					Total number of PHCs
	Residential Quarter for MO	Functioning PHC 24 hours	At least 4 beds	Regular power supply	Having functional vehicle	
Kasaragod	50.0	37.5	100.0	62.5	50.0	08
Kannur	6.7	13.3	0.0	100.0	6.7	15
Wayanand	25.0	50.0	66.7	75.0	50.0	04
Kozhikode	0.0	9.1	50.0	100.0	0.0	11
Mallappuram	0.0	9.1	100.0	45.5	18.2	11
Palakkad	43.8	12.5	81.3	93.8	100.0	16
Thrissur	0.0	0.0	-	100.0	0.0	15
Ernakulam	0.0	41.7	100.0	100.0	25.0	12
Idukki	7.1	100.0	100.0	100.0	100.0	14
Kottayam	0.0	38.5	100.0	100.0	15.4	13
Alappuzha	0.0	8.7	100.0	100.0	0.0	23
Pathanamthitta	0.0	100.0	100.0	100.0	0.0	10
kollam	13.3	13.3	66.7	100.0	6.7	15
Thiruvananthapuram	35.7	14.3	60.0	100.0	0.0	14
Kerala	11.6	28.2	86.8	93.9	24.9	181

MO= Medical Officer.

TABLE 9.7: SPECIFIC HEALTH FACILITIES AVAILABLE AT PRIMARY HEALTH CENTRES BY DISTRICTS, KERALA, 2012-13.

District	Percentage of PHCs having			Total number of PHCs
	New born care services*	Referral services for delivery**	Conducted at least 10 deliveries	
Kasaragod	100.0	100.0	100.0	08
Kannur	-	0.0	-	15
Wayanand	-	0.0	-	04
Kozhikode	-	0.0	-	11
Mallappuram	-	0.0	-	11
Palakkad	50.0	50.0	50.0	16
Thrissur	0.0	-	-	15
Ernakulam	-	0.0	-	12
Idukki	-	92.9	100.0	14
Kottayam	-	0.0	-	13
Alappuzha	-	0.0	-	23
Pathanamthitta	-	30.0	100.0	10
kollam	-	100.0	-	15
Thiruvananthapuram	-	0.0	-	14
Kerala	66.7	43.1	88.9	181

* Services based on during last one month. ** Based on PHC functioning on 24 hours basis. -- No cases

TABLE 9.8: NUMBER OF PRIMARY HEALTH CENTRES HAVING DIFFERENT ACTIVITIES BY DISTRICTS, KERALA, 2012-13.

District	Percentage of PHCs having				Total number of PHCs
	Citizen's Charter displayed	RKS constituted	Received untied fund*	Utilized untied fund**	
Kasaragod	75.0	62.5	50.0	100.0	08
Kannur	80.0	60.0	86.7	100.0	15
Wayanand	100.0	100.0	100.0	100.0	04
Kozhikode	100.0	81.8	100.0	100.0	11
Mallappuram	18.2	0.0	0.0	--	11
Palakkad	87.5	12.5	6.3	100.0	16
Thrissur	80.0	73.3	100.0	100.0	15
Ernakulam	100.0	100.0	100.0	100.0	12
Idukki	100.0	100.0	100.0	100.0	14
Kottayam	100.0	91.7	91.7	100.0	13
Alappuzha	100.0	100.0	100.0	100.0	23
Pathanamthitta	100.0	100.0	100.0	100.0	10
kollam	100.0	100.0	100.0	100.0	15
Thiruvananthapuram	100.0	100.0	100.0	100.0	14
Kerala	89.4	77.2	81.7	100.0	181

RKS = Rogi Kalyan Samiti.* Untied fund for previous financial year ** it includes full and partial utilization of fund. -- No cases

TABLE 9.9: HUMAN RESOURCES AVAILABLE AT COMMUNITY HEALTH CENTRES BY DISTRICTS, KERALA, 2012-13.

District	Number of CHCs having:				Total number of CHCs
	Obstetric Gynecologist	Pediatrician	Anesthetist	Public Health Manager	
Kasaragod	01	06	06	06	08
Kannur	06	02	00	01	06
Wayanand	05	01	00	01	05
Kozhikode	12	03	00	10	12
Mallappuram	00	11	02	02	11
Palakkad	00	10	01	00	10
Thrissur	11	02	00	07	11
Ernakulam	15	00	00	00	15
Idukki	05	01	01	06	06
Kottayam	05	03	02	02	07
Alappuzha	09	00	00	00	09
Pathanamthitta	00	12	12	12	12
kollam	12	00	00	00	12
Thiruvananthapuram	13	00	00	07	13
Kerala	94	51	24	54	137

TABLE 9.10: SPECIFIC HEALTH CARE FACILITIES AVAILABLE AT COMMUNITY HEALTH CENTRES BY DISTRICTS, KERALA, 2012-13.

District	Number of CHCs having:				Total number of CHCs
	Functional OT	Designated as FRU	New born care services ¹	Blood storage facility	
Kasaragod	04	05	05	05	08
Kannur	00	04	00	00	06
Wayanand	01	03	00	--	05
Kozhikode	02	07	02	00	12
Mallappuram	09	09	10	11	11
Palakkad	08	09	09	07	10
Thrissur	00	11	00	01	11
Ernakulam	00	01	00	02	15
Idukki	00	06	01	01	06
Kottayam	00	02	00	01	07
Alappuzha	01	00	00	03	09
Pathanamthitta	10	12	10	11	12
kollam	00	00	00	00	12
Thiruvananthapuram	00	00	00	00	13
Kerala	35	69	37	42	137

OT= Operation Theatre; FRU= First Referral Unit. -- No cases. ¹ Based on last one month services.

TABLE 9.11: NUMBER OF COMMUNITY HEALTH CENTRES HAVING DIFFERENT ACTIVITIES BY DISTRICTS, KERALA, 2012-13.

District	Number of CHCs having:				Total number of CHCs
	Citizen's charter displayed	RKS constituted	RKS Monitored regularly*	Utilized untied fund**	
Kasaragod	05	05	05	05	08
Kannur	06	03	03	05	06
Wayanand	05	04	04	05	05
Kozhikode	12	11	11	12	12
Mallappuram	11	10	10	10	11
Palakkad	10	08	08	07	10
Thrissur	10	08	08	11	11
Ernakulam	15	14	14	15	15
Idukki	06	06	06	06	06
Kottayam	07	06	06	06	07
Alappuzha	09	09	09	09	09
Pathanamthitta	10	09	09	10	12
kollam	12	12	12	12	12
Thiruvananthapuram	13	13	13	13	13
Kerala	131	118	118	126	137

*RKS monitored regularly is from number of RKS constituted. ** Including full and partial utilization. --: No facility available

TABLE 9.12: HUMAN RESOURCES & OTHER SERVICES AVAILABLE AT SUB DIVISIONAL HOSPITALS BY DISTRICTS, KERALA, 2012-13.

District	Number of SDHs having:							Total number of SDHs
	Pediatrician	Radiographer	2D Echo facility	Ultrasound facility	three phase connection	critical care area	suggestion and complaint box	
Kasaragod	-	-	-	-	-	-	-	00
Kannur	05	01	04	05	06	05	06	06
Wayanand	01	00	00	00	01	01	01	01
Kozhikode	03	00	01	00	04	00	04	04
Mallappuram	04	01	00	00	04	04	04	04
Palakkad	-	-	-	-	-	-	-	00
Thrissur	06	01	03	03	06	06	06	06
Ernakulam	06	05	06	06	06	06	06	06
Idukki	03	03	03	03	03	03	03	03
Kottayam	05	02	00	03	05	05	05	05
Alappuzha	04	04	04	04	04	04	04	04
Pathanamthitta	03	03	03	03	03	03	03	03
kollam	05	00	00	00	05	05	05	05
Thiruvananthapuram	08	05	01	02	08	08	08	08
Kerala	53	25	25	29	55	50	55	55

---: No facility available

TABLE 9.13: HUMAN RESOURCES & OTHER SERVICES AVAILABLE AT DISTRICT HOSPITALS BY DISTRICTS, KERALA, 2012-13.

District	Number of DHs having:							Total number of DHs
	Pediatrician	Radiographer	2D Echo facility	Ultrasound facility	three phase connection	critical care area	suggestion and complaint box	
Kasaragod	00	01	01	01	01	01	01	01
Kannur	01	00	01	01	01	01	01	01
Wayanand	01	01	01	01	01	01	01	01
Kozhikode	01	00	00	00	01	01	01	01
Mallappuram	01	01	01	01	01	01	01	01
Palakkad	01	01	00	01	01	01	01	01
Thrissur	01	01	01	01	01	01	01	01
Ernakulam	01	01	01	01	01	01	01	01
Idukki	01	01	01	01	01	01	01	01
Kottayam	01	01	00	01	01	01	01	01
Alappuzha	01	01	00	01	01	01	01	01
Pathanamthitta	02	02	02	02	02	02	02	02
kollam	01	01	01	01	01	01	01	01
Thiruvananthapuram	01	01	01	01	01	01	01	01
Kerala	14	13	11	14	15	15	15	15

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APPENDIX-L

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PGIMER, Chandigarh	Punjab, Chandigarh and Haryana
NIHFW, New Delhi	Delhi
NIOH, Ahmedabad	Gujarat, Daman & Diu and Dadra Nagar Haveli
NIRRH, Mumbai	Maharashtra (excluding Vidharbha) and Goa
MGIMS, Sewagram	Only Vidharbha, Maharashtra
RMRC, Dibrugarh	Sikkim and Arunachal Pradesh
RIMS, Imphal	Manipur, Mizoram & Nagaland
NEIGRIHMS, Shillong	Meghalaya
Government Medical College, Agartala	Tripura
Gandhi Medical College, Hyderabad	Andhra Pradesh & Telangana
NIE, Chennai	Tamil Nadu, Puducherry and Andaman & Nicobar Island
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