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Kerala



**National Family Health
Survey (NFHS-4)**

2015-16

India



International Institute for Population Sciences
Deonar, Mumbai 400 088

NATIONAL FAMILY HEALTH SURVEY (NFHS-4)

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2015-16

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CONTENTS

	Page
KEY FINDINGS	
Introduction.....	1
Household Characteristics	3
Education	4
Fertility	5
Family Planning.....	7
Infant and Child Mortality	9
Maternal Health.....	10
Child Health.....	13
Breastfeeding, Nutrition, and Anaemia	15
Adult Health and Health Care.....	18
HIV/AIDS.....	20
Sexual Behaviour	21
Women’s Empowerment.....	22
Domestic Violence	24

TABLES

Table 1	Results of the household and individual interviews.....	27
Table 2	Results of the household and individual interviews by district.....	28
Table 3	Household population by age, schooling, residence, and sex	29
Table 4	Household and housing characteristics.....	30
Table 5	Household possessions and land ownership	33
Table 6	School attendance	34
Table 7	Children's living arrangements and orphanhood.....	35
Table 8	Birth registration of children under age five	36
Table 9	Birth registration of children under age five by district.....	37
Table 10	Background characteristics of respondents	38
Table 11	Current fertility	40
Table 12	Fertility by background characteristics.....	41
Table 13	Teenage pregnancy and motherhood	42
Table 14	Birth order	43
Table 15	Birth intervals	44
Table 16	Fertility preferences by number of living children	45
Table 17	Desire not to have any more children.....	46
Table 18	Ideal number of children	47
Table 19	Indicators of sex preference.....	48
Table 20	Knowledge of contraceptive methods	50
Table 21	Current use of contraception by background characteristics.....	52
Table 22	Current use of contraceptive methods by district.....	54
Table 23	Hysterectomy	55

	Page
Table 24	Contraceptive use by men at last sexual intercourse.....56
Table 25	Source of modern contraceptive methods.....58
Table 26	Informed choice.....61
Table 27	Twelve-month contraceptive discontinuation rates62
Table 28	Men's contraception-related perceptions and knowledge.....63
Table 29	Need and demand for family planning among currently married women.....64
Table 30	Unmet need for family planning by district66
Table 31	Pregnancy outcome67
Table 32	Characteristics of abortions68
Table 33	Age at first marriage.....69
Table 34	Early childhood mortality rates70
Table 35	Early childhood mortality rates by background characteristics71
Table 36	High-risk fertility behaviour72
Table 37	Antenatal care.....73
Table 38	Antenatal care services and information received.....74
Table 39	Antenatal care indicators75
Table 40	Antenatal care indicators by district76
Table 41	Advice received during pregnancy77
Table 42	Pregnancies for which an ultrasound test was done78
Table 43	Pregnancy registration and Mother and Child Protection Card.....80
Table 44	Delivery and postnatal care.....81
Table 45	Delivery and postnatal care by background characteristics.....82
Table 46	Delivery and postnatal care by district.....83
Table 47	Delivery costs and financial assistance.....84
Table 48	Birth order and delivery characteristics by district.....85
Table 49	Timing of first health check after birth for the newborn.....86
Table 50	Trends in maternal care indicators.....87
Table 51	Male involvement in maternal care: Men's report88
Table 52	Vaccinations by background characteristics89
Table 53	Selected vaccinations by district90
Table 54	Prevalence and treatment of symptoms of ARI and fever.....91
Table 55	Prevalence and treatment of diarrhoea.....92
Table 56	Feeding practices during diarrhoea93
Table 57	Knowledge of ORS packets94
Table 58	ICDS coverage and utilization of ICDS services95
Table 59	Utilization of ICDS services during pregnancy and while breastfeeding97
Table 60	Nutritional status of children.....98
Table 61	Initial breastfeeding.....101
Table 62	Breastfeeding status by age102
Table 63	Median duration of breastfeeding and infant and young child feeding (IYCF) practices103
Table 64	Child feeding practices and nutritional status of children by district105

	Page
Table 65	Prevalence of anaemia in children..... 106
Table 66	Micronutrient intake among children..... 108
Table 67	Presence of iodized salt in household..... 110
Table 68	Presence of iodized salt in household by district..... 111
Table 69	Women's and men's food consumption 112
Table 70	Nutritional status of adults..... 113
Table 71	Prevalence of anaemia in adults 114
Table 72	Nutritional status and anaemia among children and women by district 115
Table 73	Knowledge and prevention of HIV/AIDS..... 116
Table 74	Accepting attitudes toward those living with HIV/AIDS..... 118
Table 75	Sexual behaviour, HIV testing, blood transfusion, and injections 120
Table 76	Knowledge of HIV/AIDS and sexual behaviour among youth 121
Table 77	Prevalence of tuberculosis 122
Table 78	Knowledge and attitudes toward tuberculosis 123
Table 79	Health insurance coverage among women and men 124
Table 80	Source of health care and health insurance coverage among households 125
Table 81	Health problems..... 126
Table 82	Health examinations..... 127
Table 83.1	Blood pressure status: Women 128
Table 83.2	Blood pressure status: Men 129
Table 84.1	Random blood glucose levels: Women..... 131
Table 84.2	Random blood glucose levels: Men..... 132
Table 85	Tobacco and alcohol use by women and men 133
Table 86	Methods of menstrual protection 134
Table 87	Employment and cash earnings of women and men 135
Table 88	Control over and magnitude of women's cash earnings 136
Table 89	Decision making..... 137
Table 90	Decision making by background characteristics..... 138
Table 91	Women's access to money and credit 140
Table 92	Ownership of assets..... 142
Table 93	Gender role attitudes..... 143
Table 94	Gender role attitudes by background characteristics 144
Table 95	Experience of physical and sexual violence 146
Table 96	Experience of violence during pregnancy 147
Table 97	Forms of spousal violence 148
Table 98	Spousal violence by background characteristics..... 149
Table 99	Spousal violence by husband's characteristics and empowerment indicators..... 151
Table 100	Injuries to women due to spousal violence..... 153
Table 101	Help seeking 154

APPENDIX

Estimates of sampling errors.....	155
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INTRODUCTION

The 2015-16 National Family Health Survey (NFHS-4), the fourth in the NFHS series, provides information on population, health, and nutrition for India and each state and union territory. For the first time, NFHS-4 provides district-level estimates for many important indicators. All four NFHS surveys have been conducted under the stewardship of the Ministry of Health and Family Welfare (MoHFW), Government of India. MoHFW designated the International Institute for Population Sciences (IIPS), Mumbai, as the nodal agency for the surveys. Funding for NFHS-4 was provided by the United States Agency for International Development (USAID), the United Kingdom Department for International Development (DFID), the Bill and Melinda Gates Foundation (BMGF), UNICEF, UNFPA, the MacArthur Foundation, and the Government of India. Technical assistance for NFHS-4 was provided by ICF, Maryland, USA. Assistance for the HIV component of the survey was provided by the National AIDS Control Organization (NACO) and the National AIDS Research Institute (NARI), Pune.

Four survey questionnaires—household, woman’s, man’s, and biomarker—were used to collect information in 19 languages using Computer Assisted Personal Interviewing (CAPI). All women age 15-49 and men age 15-54 in the selected sample households were eligible for interviewing. In the household questionnaire, basic information was collected on all usual members of the household and visitors who stayed in the household the previous night, as well as socioeconomic characteristics of the household, water and sanitation, health insurance, and number of deaths in the household in the three years preceding the survey. Two versions of the woman’s questionnaire were used in NFHS-4. The first version (district module), which collected information on women’s characteristics, marriage, fertility, contraception, reproductive health, children’s immunizations, and treatment of childhood illnesses, was fielded in the entire sample of NFHS-4 households. Information on these topics is available at the district, state, and national levels. In the second version of the questionnaire (state module), four additional topics, namely, sexual behaviour, HIV/AIDS, husband’s background and women’s work, and domestic violence, were also included. This version was fielded in a subsample of NFHS-4 households designed to provide information only at the state and national levels. The man’s questionnaire covered the man’s characteristics, marriage, number of children, contraception, fertility preferences, nutrition, sexual behaviour, attitudes towards gender roles, HIV/AIDS, and lifestyle. The biomarker questionnaire covered measurements of height, weight, and haemoglobin levels for children; height, weight, haemoglobin, blood pressure, and random blood glucose for women age 15-49 years and men age 15-54 years, and the collection of finger-stick blood for HIV testing in a laboratory. Questionnaire information and biomarkers were collected only with informed consent from the respondents.

The NFHS-4 sample was designed to provide estimates of all key indicators at the national and state levels, as well as estimates for most key indicators at the district level (for all 640 districts in India, as of the 2011 Census). The total sample size of approximately 572,000 households for India was based on the size needed to produce reliable indicator estimates for each district and for urban and rural areas in districts in which the urban population accounted for 30-70 percent of the total district population. The rural sample was selected

through a two-stage sample design with villages as the Primary Sampling Units (PSUs) at the first stage (selected with probability proportional to size), followed by a random selection of 22 households in each PSU at the second stage. In urban areas, there was also a two-stage sample design with Census Enumeration Blocks (CEB) selected at the first stage and a random selection of 22 households in each CEB at the second stage. At the second stage in both urban and rural areas, households were selected after conducting a complete mapping and household listing operation in the selected first-stage units.

The figures of NFHS-4 and earlier rounds may not be strictly comparable due to differences in sample size, and NFHS-4 will be a benchmark for future surveys. NFHS-4 fieldwork for Kerala was conducted in all 14 districts of the state from 8 March to 3 October 2016 by the Society for Promotion of Youth & Masses (SPYM) and collected information from 11,555 households, 11,033 women age 15-49 (including 2,397 women interviewed in PSUs in the state module), and 2,086 men age 15-54. Survey response rates were almost 100 for households, 98 percent for women, and 95 percent for men.

This report presents the key findings of the NFHS-4 survey in Kerala, followed by detailed tables and an appendix on sampling errors. At the time of finalization of this report, wealth quintiles for the country as a whole were not ready. Therefore, on finalization of the national report, the breakup of key indicators by wealth quintiles for all states will be provided as an additional document and uploaded on the official website of MoHFW and IIPS.

HOUSEHOLD CHARACTERISTICS

Household composition

Less than half of Kerala's households (47%) are in urban areas. On average, households in Kerala are comprised of 4 members. Twenty percent of households are headed by women, with 19 percent of the population living in female-headed households.

The majority (59%) of households in Kerala have household heads who are Hindu (59%). Twenty-three percent of households have household heads who are Muslim and 18 percent of households have Christian household heads.

About half (49%) of households in Kerala have household heads who belong to an other backward class, 10 percent belong to a schedule caste, and a very small proportion (1%) belong to a scheduled tribe. Almost two-fifths (38%) of household heads do not belong to scheduled castes, scheduled tribes, or other backward classes.

Twenty percent of Kerala's population is under age 15; 10 percent is age 65 and over. The overall sex ratio of the population is 1,049 females per 1,000 males, and the sex ratio of the population under seven years of age is slightly lower (1,020 females per 1,000 males). Ninety-two percent of persons have an *Aadhaar* card.

Among children below 18 years of age, 2 percent have experienced the death of one or both parents. In all, 79 percent of children below 18 years of age live with both parents, 19 percent live with one parent (mostly with their mother), and the remaining 2 percent live with neither parent. Births of almost all (98%) children under five years of age were registered with the civil authorities, and 87 percent of children have a birth certificate.

Housing characteristics

Almost 9 in 10 households in Kerala (89%) live in a *pucca* house and almost all households (99%) have electricity. Less than 1 percent of households do not use a sanitation facility, which means that household members practice open defecation, an improvement from 4 percent at the time of NFHS-3. Ninety-eight percent of households use an improved sanitation facility.

Almost all (98%) households in Kerala use an improved sanitation facility.

Ninety-four percent of households use an improved source of drinking water, but only 20 percent have water piped into their dwelling, yard, or plot. Urban households (23%) are more likely than rural households (18%) to have water piped into their dwelling, yard, or plot. Most households use a protected dug well, a protected spring, rainwater, or a community reverse osmosis (RO) plant as their source of drinking water (62%). Ninety-two percent of households treat their drinking water to make it potable (mostly by boiling). Fifty-seven percent of households use a clean fuel for cooking (mostly LPG or natural gas).

Selected household possessions

Almost all (98%) urban and rural households in Kerala have a mobile phone. Ninety-five percent of households have a bank or post office account. BPL cards are held by 30 percent of households, compared with 32 percent in NFHS-3. Twenty percent of rural households and 10 percent of urban households own agricultural land. Overall, 16 percent of all households in Kerala own agricultural land.

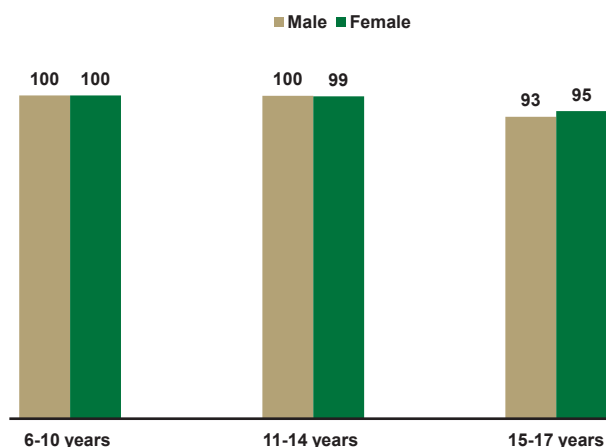
EDUCATION

School attendance among children

Ninety-seven percent of children age 6-17 years in Kerala attend school (98% in urban areas and 97% in rural areas). School attendance is universal at age 6-14 years, and then drops to 94 percent at age 15-17 years. There is almost no gender disparity in school attendance in the 6-14 year age group.

Are there gender differentials in children's school attendance?

Percentage of children attending school by age



Literacy, educational attainment, and media exposure

In NFHS-4, literate persons are those who have either completed at least standard six or passed a simple literacy test conducted as part of the survey. According to this measure, 98 percent of women age 15-49 and 99 percent of men age 15-49 are literate.

Almost half of women age 15-49 (48%) in Kerala have completed 12 or more years of schooling, compared with 45 percent of men.

Only 1 percent of women and men age 15-49 have never been to school. Forty-eight percent of women age 15-49 have completed 12 or more years of schooling, compared with 45 percent of men.

Media exposure is high among women and men in Kerala. More than 9 in 10 women and men watch television at least once a week. Men (89%) are much more likely than women (77%) to read a newspaper or magazine at least once a week. Only 1 percent of men and 3 percent of women are not regularly exposed to print media or other forms of media.

FERTILITY

Age at first marriage

The median age at first marriage is 21.5 years among women age 25-49 years. Eight percent of women age 20-24 years got married before the legal minimum age of 18, down from 15 percent in NFHS-3. Three percent of men age 25-29 years got married before the legal minimum age of 21, the same as in NFHS-3.

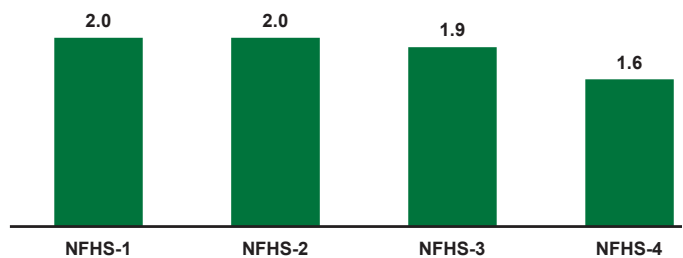
Fertility levels

The total fertility rate (TFR) in Kerala is 1.6 children per woman in both urban and rural areas, well below replacement level fertility. Fertility remained almost unchanged in the 13 years between NFHS-1 and NFHS-3 (1.9-2.0), but it declined by 0.4 children in the 10 years between NFHS-3 and NFHS-4.

Among births in the three years preceding the survey, 13 percent were of birth order three or higher, compared with 18 percent in NFHS-3.

Fertility Trends

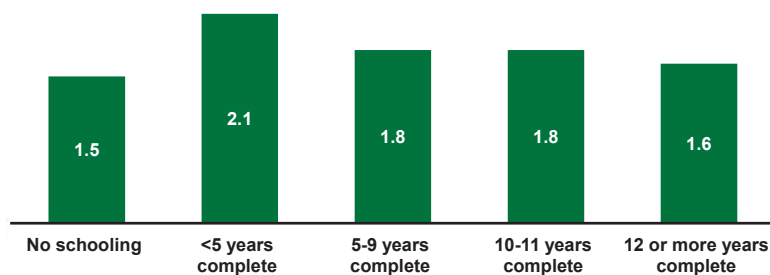
Total fertility rate
(children per woman)



The total fertility rate is below 2.0 children in every group except scheduled tribes (2.3) and women with less than 5 years of schooling (2.1).

How does fertility vary with schooling?

Total fertility rate (children per woman)



Pregnancy outcome

Ninety percent of last pregnancies in the five years preceding the survey ended in a live birth, and the remaining 10 percent terminated in foetal wastage (abortion, miscarriage, or stillbirth). Abortion and miscarriage are the most commonly reported types of foetal wastage, accounting for 5 percent each of all pregnancies. More than three-fourths (78%) of the abortions were performed in the private health sector (78%) and 21 percent were performed in the public health sector. One-sixth of women reporting an abortion reported having complications from the abortion.

health sector. One-sixth of women reporting an abortion reported having complications from the abortion.

Teenage pregnancy

Among young women age 15-19 in Kerala, 3 percent have already begun childbearing, that is, they have already had a live birth or are pregnant with their first child, down from 6 percent in NFHS-3. Two percent of women age 18 years have started childbearing, but this proportion increases sharply to 12 percent among women who are 19 years old. Muslim women age 15-19 are more likely to have begun childbearing than Hindu and Christian women. Women age 15-19 belonging to scheduled tribes are more likely to have begun childbearing women from than any other caste/tribe group.

Birth intervals

The median interval between births in the five years before the survey in Kerala is 49.5 months, eight months longer than in NFHS-3. Four percent of births take place within 18 months of the previous birth and 11 percent occur within 24 months. Twenty-six percent of births occur within three years of the previous birth. Research shows that waiting at least three years between children reduces the risk of infant mortality.

Twenty-six percent of births in Kerala occur within three years of the previous birth.

Fertility preferences

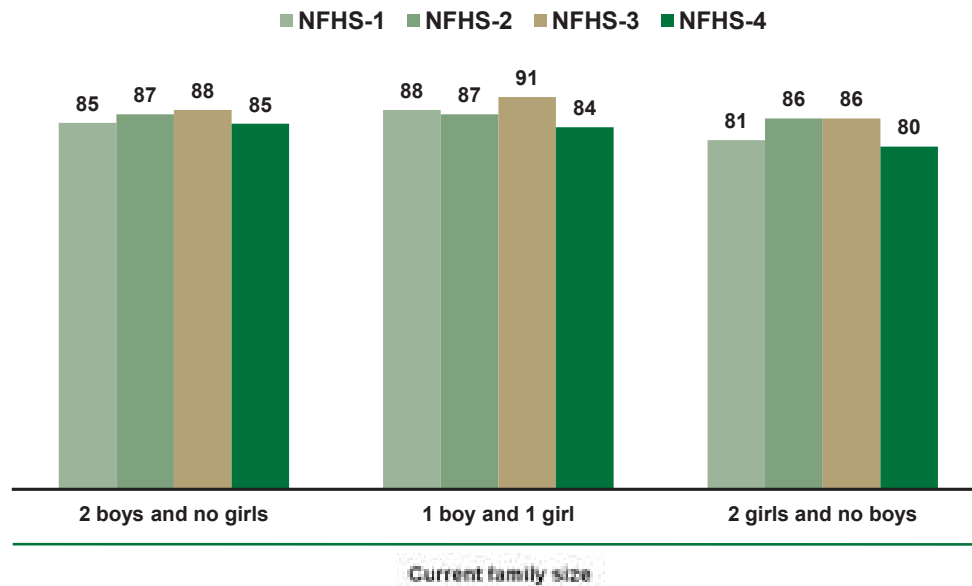
Sixty-three percent of currently married women and 66 percent of currently married men want no more children, are already sterilized, or have a spouse who is sterilized. Among those who want another child, 39 percent of women and 37 percent of men would like to wait at least two years before the next birth. Seventy-five percent of women and 80 percent of men consider the ideal family size to be two or fewer children.

In Kerala there is some preference for sons. Eleven percent of women and 15 percent of men want more sons than daughters, but only 5-7 percent of women and men want more daughters than sons. However, most men and women would like to have at least one son and at least one daughter.

Women's desire for more children is slightly affected by their current number of sons. For example, among women with two children, 85 percent with two sons and 84 percent with one son want no more children, compared with 80 percent with two daughters who want no more children. Notably, however, the proportion of currently married women with two children who want no more children irrespective of their number of sons decreased from 88 percent to 83 percent in the 10 years between NFHS-3 and NFHS-4.

How does son preference affect women's desire for children?

Percentage of currently married women with two children who want no more children



In Kerala, unplanned pregnancies are not common. There is almost no difference between the total wanted fertility rate (1.5 children per woman) and the total fertility rate (1.6 children per woman).

FAMILY PLANNING

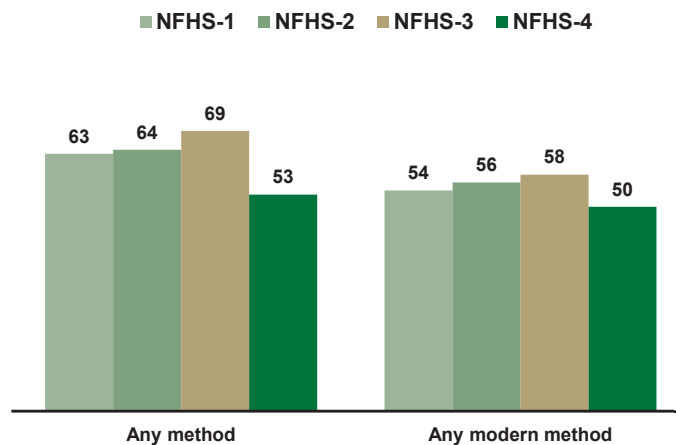
Contraceptive knowledge and use

Knowledge of contraception is almost universal in Kerala. However, some methods are still less well known. Only about half (49%) of currently married women know about injectables, and 43 percent know about female condoms. Among all women, 44 percent know about emergency contraception.

The contraceptive prevalence rate (CPR) among currently married women age 15-49 is 53 percent, considerably lower than in NFHS-3 (69%). Modern method use, at 50 percent, is also lower than its level in NFHS-3 (58%). Notably, the share of female sterilization in contraceptive method use increased from 71 percent in NFHS-3 to 86 percent in NFHS-4. Contraceptive use in NFHS-4 increases sharply with age, from 19 percent for women age 15-19 to 68 percent for women age 40-49.

How many women use family planning?

Percentage of currently married women

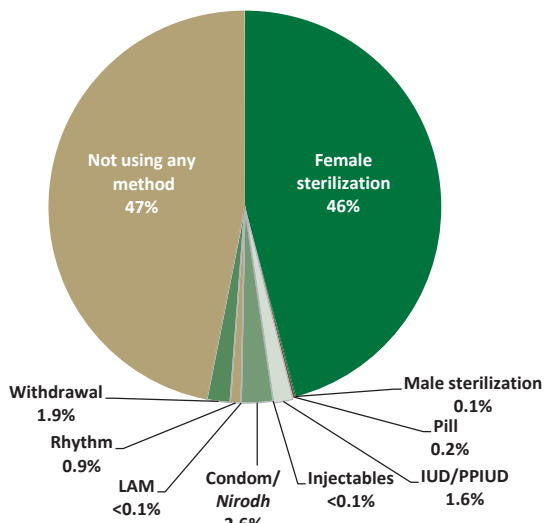


In Kerala, contraceptive use does not vary between rural areas and urban areas (53% each). Contraceptive prevalence varies substantially by schooling, decreasing from 73 percent among women with no schooling to 44 percent among women with 12 or more years of schooling (44%). Seventy-three percent of currently married women with no schooling use female sterilization, compared with 34 percent of currently married women with 12 or more years of schooling. Muslim women (43%) are much less likely to use contraception than Hindu women (58%) or Christian women (55%).

Women in Kerala are slightly more likely to use contraception if they already have a son. For example, among women with two children, 71 percent with at least one son use a method of family planning, compared with 67 percent of women with two daughters and no sons.

The most common modern spacing methods used by currently married women in Kerala are condoms/*Nirodhs* (3%) and IUDs or PPIUDs (2%).

What contraceptive methods do women use?
Currently married women



Sixty percent of sterilized women had their sterilization operation in the public sector, mainly in a government or municipal hospital, and 58 percent of condom/*Nirodh* users get their supply from the private sector. Seventy-one percent of IUD or PPIUD users had their IUD insertion in the public sector.

The 12-month discontinuation rate for all contraceptive methods is 43 percent. Sixty-three percent of users of modern spacing methods discontinued use within the first year after they adopted the method. The most common reason for discontinuation is 'other' fertility

related reasons (infrequent sex or husband away, difficulty of getting pregnant or menopausal, and marital dissolution or separation).

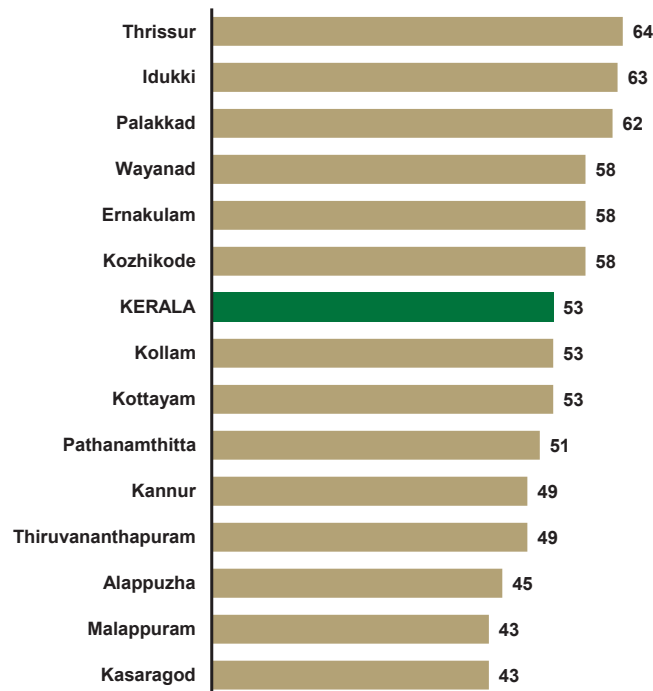
Only 55 percent of users of selected modern contraceptive methods were told by a health or family planning worker about other methods they could use.

Informed choice

Women who know about all available contraceptive methods and their side effects can make better choices about what method to use. Only 56 percent of users of selected modern contraceptive methods were ever told about possible side effects or problems with their method, only 48 percent were told what to do if they experienced any side effects, and only 55 percent were told by a health or family planning worker about other methods they could use.

Contraceptive Prevalence Rate by District

Percentage of currently married women



Men's attitudes

Fifteen percent of men age 15-49 in Kerala agree that contraception is women's business and a man should not have to worry about it. Only 16 percent of men think that women using contraception may become promiscuous. Seven in 10 men know that a condom, if used correctly, protects against pregnancy most of the time.

Unmet need

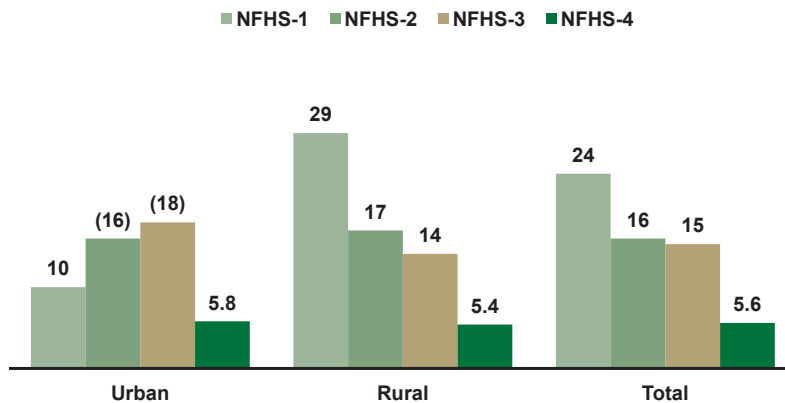
Unmet need for family planning is defined as the percentage of currently married women who either want to space their next birth or stop childbearing entirely, but are not using contraception. According to this definition, 14 percent of currently married women have an unmet need for family planning, up from 10 percent in NFHS-3. Currently, 80 percent of the demand for family planning is being satisfied and 75 percent of the demand is being satisfied by modern methods. The percentage of demand for family planning that is satisfied has decreased from 89 percent to 80 percent in the 10-year period since NFHS-3.

INFANT AND CHILD MORTALITY

The infant mortality rate in Kerala in NFHS-4 is estimated at 6 deaths before the age of one year per 1,000 live births, by far the lowest rate in any state in India. The infant mortality rate has decreased from the NFHS-3 estimate of 15, the NFHS-2 estimate of 16, and the NFHS-1 estimate of 24. The under-five mortality rate for Kerala is 7 deaths per 1,000 live births (also the lowest rate in India), down substantially from the NFHS-3 estimate of 16, the NFHS-2 estimate of 19, and the NFHS-1 estimate of 32.

Trends in Infant Mortality

Deaths per 1,000 live births



Girls have a slightly higher mortality rate than boys during the neonatal period (in the first month of life). Boys have slightly higher mortality rates than girls from age 1 month to 5 years. Infant and under-five mortality rates are less than 10 per 1,000 for almost every group.

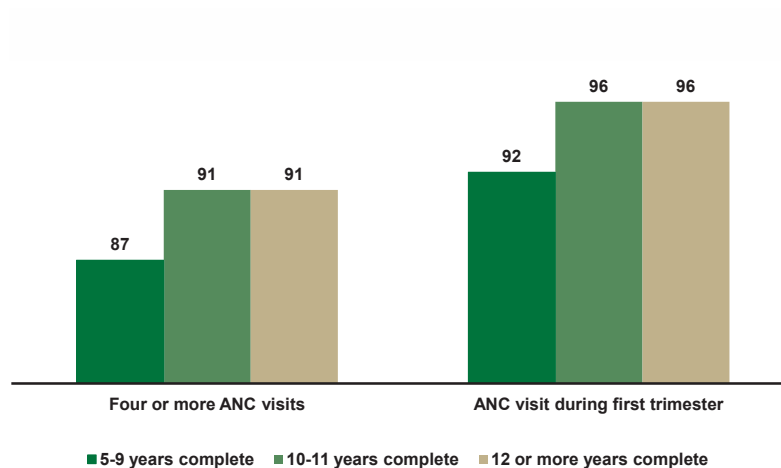
MATERNAL HEALTH

Antenatal care

Almost all mothers who gave birth in the five years preceding the survey received antenatal care (ANC) for their last birth from a health professional (99% from a doctor and less than 1% from an auxiliary nurse midwife (ANM), lady health visitor (LHV), nurse, or midwife). Less than 1 percent did not receive any antenatal care. Among mothers who gave birth in the five years preceding the survey, 90 percent registered the pregnancy for the most recent live birth. Among the registered pregnancies, 84 percent received a Mother and Child Protection Card (MCP Card).

How does appropriate antenatal care vary with schooling?

Percentage of last births in the past five years

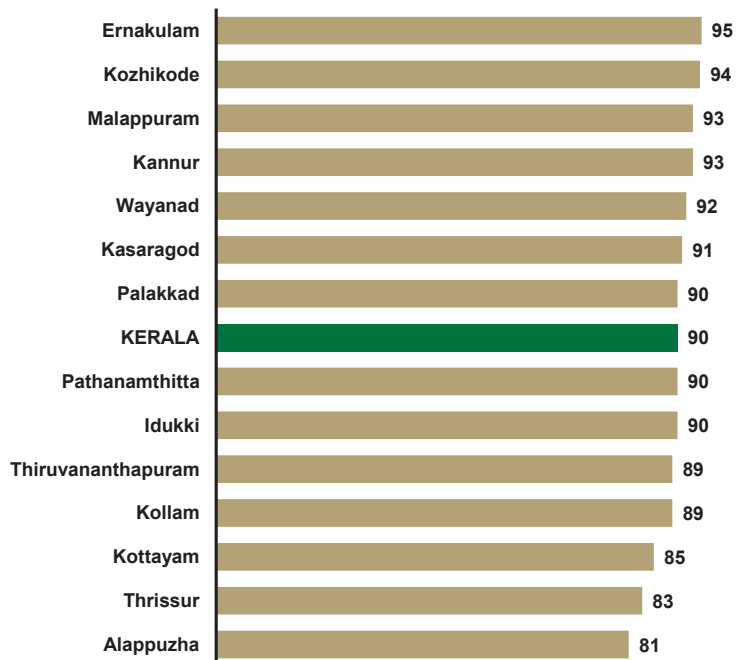


Note: Categories "No schooling" and "Less than 5 years of schooling" not shown since there are fewer than 25 unweighted cases.

Ninety-five percent of women received antenatal care during the first trimester of pregnancy, as is recommended. Ninety percent of mothers had four or more antenatal care visits. For 96 percent of their last births, mothers received iron and folic acid (IFA) supplements, but only 67 percent consumed them for the recommended 100 days or more. Ninety-seven percent of last births were protected against neonatal tetanus through tetanus toxoid vaccinations given to the mother. Twenty-one percent of mothers took an intestinal parasite drug during pregnancy.

Four or More Antenatal Care Visits by District

Percentage of last births in the past five years



Ninety percent of mothers in Kerala received at least four antenatal care visits for their last birth.

Among women with a live birth in the five years preceding the survey who met with a community health worker in the last three months of pregnancy for their most recent live birth, at least two-thirds received advice on each of five different areas (83% received advice on breastfeeding, 80% on keeping the baby warm, 73% on the importance of institutional delivery, 72% on family planning, and 68% on cord care).

Even when women receive antenatal care, sometimes they do not receive all the services needed to monitor their pregnancy. In Kerala, however, 99 percent of women who received antenatal care for their last birth received each of the services needed to monitor their pregnancy: having their weight taken, having their abdomen examined and blood pressure measured, having a urine sample taken, and having a blood sample taken.

An ultrasound test was performed during 96 percent of pregnancies in the five years preceding the survey. Because ultrasound testing is nearly universal, there is little variation in the prevalence of ultrasound testing by background characteristics.

Delivery care

Almost all births in Kerala take place in a health facility, mostly a private health facility (62%). Health facility births were also almost universal at the time of NFHS-3, as well. The universality of institutional births cuts across all the background characteristics.

Almost all births during the past five years took place in a health facility with assistance from a skilled provider. More than one-third of births (36%) were delivered by caesarean section, and 36 percent of caesarean sections (13% of all births) were emergency caesarean sections.

Among women who had a live birth in the five years preceding the survey that was delivered in a health facility, 20 percent received financial assistance under the *Janani Suraksha Yojana* (JSY) for their most recent birth. Scheduled caste women were much more likely than any other caste/tribe group of women to receive financial assistance under JSY, and Hindu women were more likely than Muslim or Christian women to receive financial assistance under JSY.

Almost all children in Kerala who were born in the past five years were born in a health facility and took place with assistance from a skilled provider.

Postnatal care

Early postnatal care for a mother helps safeguard her health and can reduce maternal mortality. In Kerala, 93 percent of mothers had a postnatal check after their last birth and 89 percent had a postnatal check within two days of the birth, as is recommended.

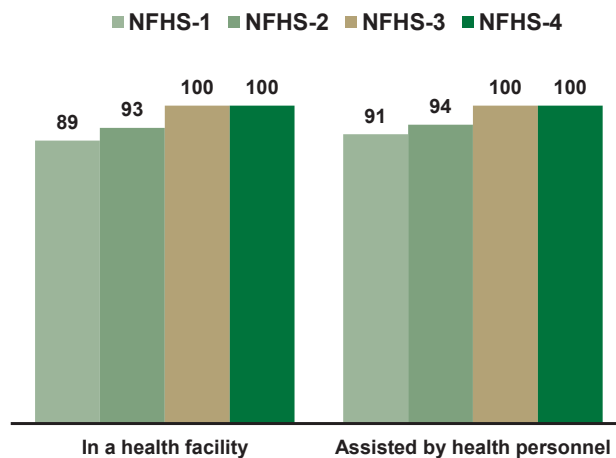
Forty-nine percent of last births in the five years preceding the survey received a health check in the first two days after birth and 49 percent of newborns either did not have any health check or had it after a week.

Male involvement in maternal care

Ninety-seven percent of men with a child under three years of age said that the youngest child's mother received antenatal care. Eighty-nine percent of men with a child under three years said they were present during at least one antenatal check received by the child's mother (92% in urban areas and 86% in rural areas), but only 57 percent were told by a health provider or health worker what to do if the mother had a pregnancy complication. Thirty-nine of men were told about vaginal bleeding or convulsions as signs of pregnancy complications, and 52-61 percent were told about other signs of pregnancy complications (high blood pressure, prolonged labour, and severe abdominal pain).

Are babies being delivered safely?

Percentage of births in the past five years



Among fathers with a child less than three years of age, 61-85 percent were given information about various aspects of maternal care. Eighty-five percent were told about the importance of proper nutrition for the mother during pregnancy and 81 percent were told about the importance of delivering the baby in a health facility. Sixty-one percent were told about family planning or delaying the next child by a health provider or a health worker.

CHILD HEALTH

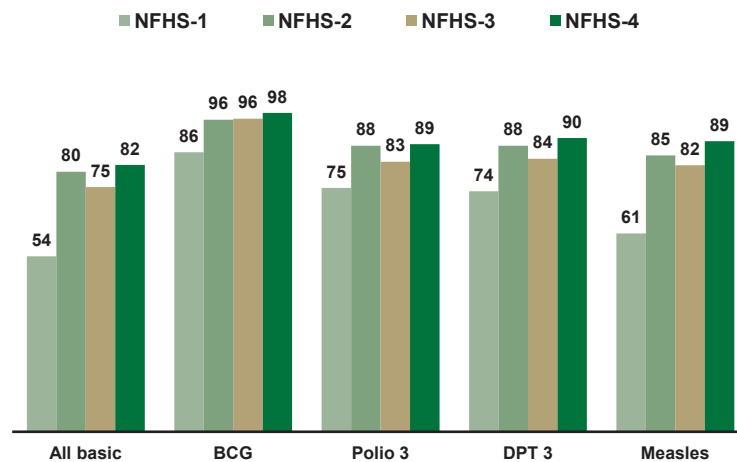
Vaccination of children

Eighty-two percent of children age 12-23 months received all basic vaccinations against six major childhood illnesses (tuberculosis, diphtheria, pertussis, tetanus, polio, and measles) at any time before the survey. However, almost all children are at least partially vaccinated; only 2 percent have not received any vaccinations at all.

Ninety-eight percent of children have received a BCG vaccination, and 89-90 percent of children received other basic vaccinations.

Trends in Vaccination Coverage

Percentage of children 12-23 months receiving vaccinations



Between NFHS-3 and NFHS-4, there was an increase in vaccination coverage for three doses of DPT (from 84% to 90%), measles (from 82% to 89%), BCG (from 96% to 98%), and three doses of polio vaccine (from 83% to 89%). Overall, there was an increase in the coverage of all basic vaccinations (from 75% to 82%). In addition, at the time of NFHS-4, 82 percent of children had received all three recommended doses of hepatitis B vaccine.

Muslim children (75%) were less likely to receive all basic vaccinations than Christian children (88%) or Hindu children (86%), but there is not much difference in vaccination coverage by other background characteristics.

More than 4 in 5 children age 12-23 months have received all basic vaccinations.

Childhood illnesses

In the two weeks before the survey, 1 percent of children under age five years had symptoms of an acute respiratory infection (cough accompanied by (1) short, rapid breathing that is chest related and/or (2) difficult breathing that is chest related).

Eleven percent of children under age five were reported to have had fever in the two weeks preceding the survey; 90 percent of these children were taken to a health facility or provider for advice or treatment.

Overall, 3 percent of children under age five years had diarrhoea in the two weeks preceding the survey. Seventy-six percent of these children were taken to a health facility or health provider. Ninety-seven percent of mothers of young children have heard of oral rehydration salt (ORS) packets for the treatment of diarrhoea, but only 49 percent of children with diarrhoea were given ORS. Seventy-five percent of children with diarrhoea were given gruel and 87 percent were given some type of oral rehydration therapy (ORT). Fourteen percent were given zinc supplements. Ten percent of children with diarrhoea did not receive any type of treatment at all.

To reduce dehydration and minimise the effects of diarrhoea on nutritional status, it is recommended that normal feeding of children be continued when they have diarrhoea and that the amount of fluids given should be increased. However, in Kerala only 21 percent of children with diarrhoea received more to drink than normal. Only one-third of children received the same amount to drink as usual. Of greater concern, almost half of children (46%) with diarrhoea were given less to drink. Only 34 percent of children with diarrhoea were given the same amount of food or more food, as recommended. Fifty-six percent of children with diarrhoea were given ORT or increased fluids and continued feeding, as is recommended.

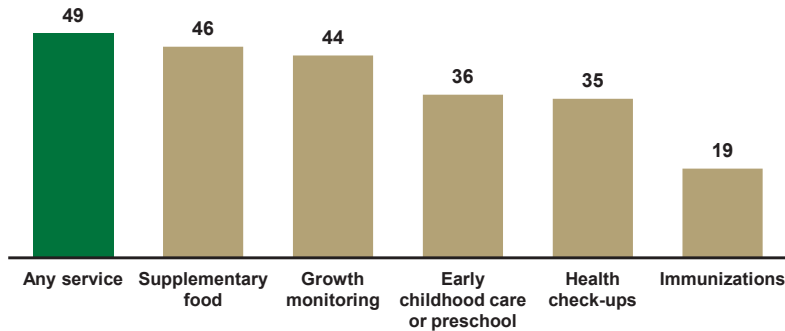
Integrated Child Development Services (ICDS)

The ICDS programme provides nutrition and health services for children under age six years and pregnant or breastfeeding women, as well as preschool activities for children age 3-5 years. These services are provided through community-based *anganwadi* centres.

Forty-nine percent of children under 6 years receive services of some kind from an *anganwadi* centre. The most common services that age-eligible children receive are supplementary food (46%), growth monitoring (44%), early childhood care or preschool (36%), and health check-ups (35%). The service that is least likely to be accessed is immunizations (19%). Over two-fifths of the mothers of children who were weighed at an *anganwadi* centre received counselling from an *anganwadi* worker or an ANM. Among children under 6 years, a little less than one-third of their mothers (32%) received any services from an *anganwadi* centre during pregnancy, and a little less than one-fourth of their mothers (24%) received any services while breastfeeding.

How many children received *anganwadi* centre services?

Percentage of age-eligible children receiving services



BREASTFEEDING, NUTRITION, AND ANAEMIA

Infant feeding

Although breastfeeding is nearly universal in Kerala, only 53 percent of children under 6 months are exclusively breastfed, as the World Health Organization (WHO) recommends. Ninety-five percent are put to the breast within the first day of life, but only 63 percent started breastfeeding in the first hour of life (as recommended). While the initiation of breastfeeding indicators show some improvement since NFHS-3, many infants are still deprived of the highly nutritious first milk (colostrum) and the antibodies it contains.

It is recommended that nothing be given to children other than breastmilk even in the first three days when the milk has not begun to flow regularly because prelacteal feeds limit the frequency of suckling by the infant and expose the baby to the risk of infection. However, 9 percent of children are given something other than breastmilk during the first three days. Overall, 98 percent of children continue breastfeeding at 1 year and 85 percent continue breastfeeding at 2 years.

After the first 6 months, breastmilk is no longer enough to meet the nutritional needs of infants. Therefore, complementary foods should be added to the diet of the child. However, at age 6-8 months less than two-thirds of children (63%) in Kerala receive breastmilk and complementary foods.

WHO has several recommendations for infant and young child feeding (IYCF) practices for children age 6-23 months. The key IYCF indicators measure the adequacy of dietary diversity and meal frequency for breastfed and nonbreastfed children. A little more than two-fifths of children age 6-23 months (44%) are fed the recommended minimum number of times per day and even fewer (38%) are fed from the appropriate number of food groups. Only 21 percent are fed according to all three recommended practices.

Micronutrient deficiency is a major contributor to childhood morbidity and mortality. Vitamin A is an essential nutrient for the immune system. Severe vitamin A deficiency (VAD) can cause eye damage and a higher risk of dying from measles and diarrhoeal disease. The Government of India recommends that children under 5 years of age receive vitamin A supplements every six months, starting at age 9 months. In Kerala, 76 percent of children age 9-59 months were given a vitamin A supplement in the past six months, but only 61 percent of children age 9-23 months ate vitamin A-rich foods during the day or night before the survey.

Iron deficiency is a primary cause of anaemia. Eating foods rich in iron and taking iron supplements can help prevent anaemia. Only 43 percent children age 9-23 months ate iron-rich foods during the day or night before the survey, and 18 percent of children age 6-59 months were given iron supplements in the week before the survey. In addition, 51 percent of children age 6-59 months were given deworming medication in last 6 months.

Children’s nutritional status

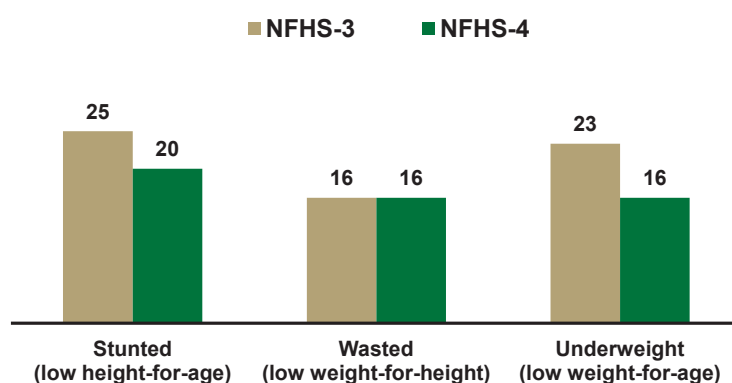
In Kerala, 20 percent of children under age five years are stunted, or too short for their age, which indicates that they have been undernourished for some time. Sixteen percent children are wasted, or too thin for their height, which may result from inadequate recent food intake or a recent illness causing weight loss, and 7 percent are severely wasted. Sixteen percent are underweight, which takes into account both chronic and acute undernutrition, and 3 percent of children are overweight. Even during the first six months of life, when almost all babies are breastfed, 16 percent of children are stunted, 26 percent are wasted, and 21 percent are underweight.

Children’s nutritional status in Kerala has shown improvement since NFHS-3. Stunting decreased by 5 percentage points, from 25 percent to 20 percent, in the 10 years between NFHS-3 and NFHS-4, and the percentage of children who are underweight decreased by 7 percentage points, from 23 percent to 16 percent. The proportion of children who are wasted has remained at the same level (16%).

There are differences in the level of undernutrition by some key background characteristics, but there is not much difference by residence and sex of the child. The level of undernutrition is relatively high among children of underweight mothers, children whose mothers have completed less than 12 years of schooling, and children whose size at birth was reported as small.

Trends in Children’s Nutritional Status

Percentage of children under five years



Note: Nutritional status estimates are based on the 2006 WHO International Reference Population

Adults' nutritional status

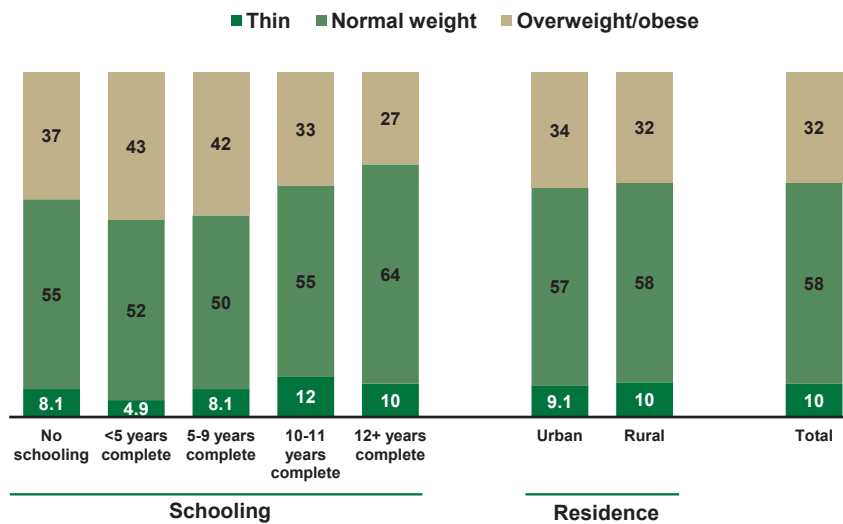
Forty-two percent of women and 37 percent of men age 15-49 are either too thin or overweight or obese. Women and men are more than three times more likely to be overweight or obese than to be thin. Ten percent of women and 9 men are too thin, compared with 32 percent of women and 29 percent of men who are overweight or obese.

Undernutrition is particularly common in the younger age groups, among those who have never been married, and among those from scheduled tribes. In contrast, overweight and obesity are most prevalent in older adults, and those with less schooling.

The use of iodized salt prevents iodine deficiency, which can lead to miscarriage, goitre, and mental retardation. Nearly all of Kerala's households (98%) used iodized salt at the time of the survey, an increase of 16 percentage points since NFHS-3.

How many women are at a healthy weight for their height?

Percent distribution of women

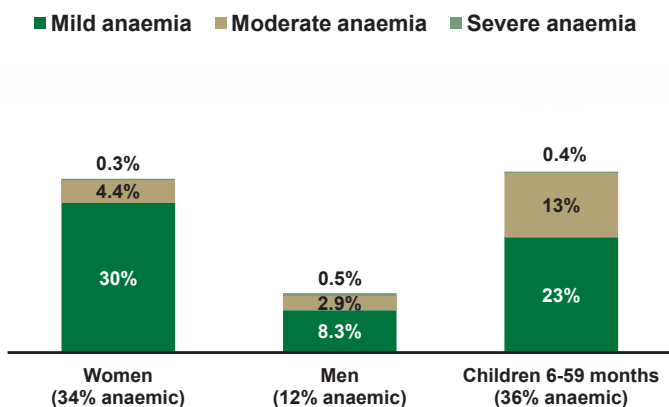


Anaemia

Anaemia is a condition that is marked by low levels of haemoglobin in the blood. Iron deficiency is estimated to be responsible for about half of all anaemia globally, but anaemia can also be caused by malaria, hookworm and other helminths, other nutritional deficiencies, chronic infections, and genetic conditions. Anaemia can result in maternal mortality, weakness, diminished physical and mental capacity, increased morbidity from infectious diseases, perinatal mortality, premature delivery, low birth weight, and (in children) impaired cognitive performance, motor development, and scholastic achievement. Anaemia is still a health problem in Kerala, especially among women and children.

More than one-third of children between the ages of 6 and 59 months (36%) are anaemic. This includes 23 percent who are mildly anaemic, 13 percent who are moderately anaemic, and 0.4 percent who suffer from severe anaemia. Anaemia among children is particularly high among younger children, children of birth order 4-5, Muslim children, and scheduled tribe children. Children of mothers who have anaemia are much more likely to be anaemic. Although anaemia levels among children vary somewhat according to background characteristics, anaemia among children is widespread in every group. Almost one-third (31-32%) of children are anaemic even if their mother has 12 or more years of schooling and even if their mother is not anaemic.

Anaemia among women, men, and children



Over one-third (34%) of women are anaemic, which includes 30 percent with mild anaemia, 4 percent with moderate anaemia, and 0.3 percent with severe anaemia. Anaemia is somewhat higher for women in urban areas, women with no formal schooling, and women from scheduled tribes. The level of anaemia is much lower among men (only 12% overall) in every group.

ADULT HEALTH AND HEALTH CARE

Tuberculosis

In Kerala, 369 persons per 100,000 are estimated to have medically treated tuberculosis, based on reports from household respondents. The prevalence of medically treated tuberculosis is higher among men (552) than among women (192) and is higher in rural areas (401) than in urban areas (332). The prevalence of TB is particularly high among older persons age 60 or more (999 per 100,000) and in households using solid fuel (561) for cooking.

Almost all respondents have heard of tuberculosis (97% of women and 88% of men). Among those who have heard of tuberculosis, 86 percent of women and 78 percent of men know that it is spread through the air by coughing or sneezing. About one-fifth (21%) of women, compared with just 11 percent of men have misconceptions about how tuberculosis is spread. Overall, 83 percent of women and 84 percent of men know that tuberculosis can be cured, and only 16 percent of women and 13 percent of men say that if a family member had tuberculosis, they would want to keep it a secret.

Diabetes, asthma, goitre, heart disease, and cancer

According to self-reports, 4,328 per 100,000 women age 15-49 and 4,310 per 100,000 men age 15-49 have diabetes. Overall, 3,141 women and 1,008 men per 100,000 suffer from asthma. The prevalence of goitre or any other thyroid disorder is 8,110 per 100,000 among women and only 473 per 100,000 among men. The prevalence of any heart disease is about the same among women (1,319 per 100,000) and men (1,324 per 100,000). Among the five diseases, cancer is the least common, with 166 women per 100,000, and 56 men per 100,000 reportedly suffering from cancer. The prevalence of all of these diseases among women and men is much higher in older age groups.

Blood pressure (hypertension)

Nine percent of women age 15-49 in Kerala have hypertension, including 6 percent with Stage 1 hypertension, 1 percent with Stage 2 hypertension, and 0.5 percent with Stage 3 hypertension. Almost two-thirds (66%) of women have normal blood pressure, including 1 percent of women with normal blood pressure who are taking medicine to lower their blood pressure. The prevalence of hypertension is slightly higher among men than women. Twelve percent of men in Kerala have hypertension, including 8 percent with Stage 1 hypertension and 1 percent each with Stage 2 and Stage 3 hypertension. About half (49%) of men have normal blood pressure, including 1 percent of men with normal blood pressure who are taking medicine to lower their blood pressure. For both women and men, hypertension increases with age and decreases with the level of schooling.

Blood glucose

NFHS-4 included measurement of random blood glucose among women age 15-49 and men age 15-54. Four percent of women age 15-49 in Kerala have high blood glucose levels, and an additional 5 percent have very high blood glucose levels. In comparison, 7 percent of men age 15-49 have high blood glucose levels, and an additional 6 have very high blood glucose levels. Older women and men have relatively high blood glucose levels.

Health examinations

In Kerala, 61 percent of women have ever undergone an examination of the cervix, 33 percent have ever undergone a breast examination, and 51 percent have ever undergone an examination of the oral cavity. Older women are more likely than younger women to have undergone each of these examinations.

Tobacco and alcohol use

Twenty-six percent of men age 15-49, but less than 1 percent of women age 15-49, use any type of tobacco. Men are more likely to smoke cigarettes (21%) than to use other types of tobacco. Among men, the use of any form of tobacco is higher in rural than in urban areas, primarily because men in rural areas are more likely to smoke *bidis* (7%) than men in urban areas (3%). Most men who smoke cigarettes or *bidis* smoked 1-5 cigarettes or *bidis* in the past 24 hours.

In Kerala, only 2 percent of women say that they drink alcohol. Men are more likely to drink alcohol (37%) than to use tobacco (26%). Among men who drink alcohol, 11 percent drink alcohol almost every day, 39 percent say they drink alcohol at least once a week, and 50 percent drink alcohol less than once a week (50%).

Source of health care

In Kerala, the public health sector is the main source of health care for 68 percent of households (72% in rural areas and 63% in urban areas). Within the public health sector, the most households report that their members go to a government hospital (46%), and within the private sector, more husbands (28%) go to a private hospital than other types of facilities.

Health insurance

Despite the emergence of a number of health insurance programmes and health schemes, less than half of households in Kerala (48%) have any kind of health insurance that covers at least one member of the household. Health insurance coverage is somewhat higher in rural areas (50%) than in urban areas (45%). In Kerala, among households with health insurance coverage, one type of health scheme/health insurance dominates: *Rashtriya Swasthya Bima Yojana* (79% of households), particularly in rural areas (84% of households).

Only 42 percent of women and 33 percent of men age 15-49 years are covered by any health scheme or health insurance. Coverage is higher in rural areas than urban areas, and it increases with age.

HIV/AIDS

Awareness of HIV or AIDS

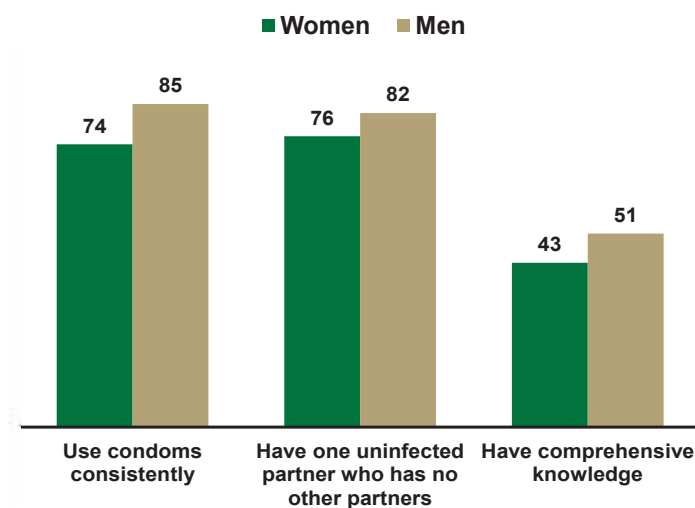
In Kerala, almost all adult men and women (99%) have heard of HIV or AIDS.

Knowledge of prevention and transmission

Men are much more likely than women to know how HIV/AIDS is transmitted and how to keep from getting it. For example, only 74 percent of women know that consistent condom use can help prevent HIV/AIDS, compared with 85 percent of men, and 76 percent of women know that having just one uninfected partner who has no other partners can reduce the chance of getting HIV/AIDS, compared with 82 percent of men.

Only 43 percent of women and 51 percent of men in Kerala have a 'comprehensive knowledge' about HIV/AIDS. This means they know that consistent use of condoms every time they have sex and having just one uninfected sex partner who has no other partners can reduce the chance of getting HIV/AIDS, they know that a healthy-looking person

Do people know how to prevent HIV/AIDS?
Percentage of women and men age 15-49



can have HIV/ AIDS, and they reject two common misconceptions about the transmission or prevention of HIV/AIDS. The level of comprehensive knowledge increases with the level schooling, and it is much higher among those who are regularly exposed to media. Knowledge that HIV/AIDS can be transmitted from a mother to her baby is higher among women (84%) than among men (75%).

HIV-related stigma

Only three-fourths of women (76%) women and men (74%) in Kerala would be willing to take care of a relative with HIV/AIDS in their home. A higher proportion of women (86%) and men (87%) say that a female teacher who has HIV/AIDS but is not sick should be allowed to continue teaching. Seventy-three percent of women and 78 percent of men say that they would buy fresh vegetables from a shopkeeper with HIV/AIDS. However, less than half of women (45%) and men (44%) say that if a family member got infected with HIV/AIDS, they would not want to keep it a secret. Overall, 28 percent of women and 29 percent of men express accepting attitudes towards people living with HIV/AIDS on all four indicators.

HIV testing prior to NFHS-4, blood transfusions, and safe injections

Only 12 percent of men and 43 percent of women age 15-49 had ever been tested for HIV prior to NFHS-4. Women and men in urban areas are slightly more likely to have ever been tested for HIV prior to NFHS-4 than rural women and men. Only 48 percent of women who had a live birth in the past five years and received ANC during pregnancy were tested for HIV during ANC. Urban women (46%) are slightly less likely than rural women (50%) to have been tested for HIV during ANC.

Less than half of women (48%) who had a live birth in the past five years and received ANC during pregnancy were tested for HIV during ANC.

In Kerala, 6 percent of women and men have ever had a blood transfusion. Thirty-six percent of men and 29 percent of women received any injection in the past 12 months. Among those who received an injection in the past 12 months, for 93 percent of women and 86 percent of men, a disposable syringe was used.

SEXUAL BEHAVIOUR

NFHS-4 included questions on respondents' sexual behaviour. Respondents were asked about their age at first sex, their current and previous sexual partners, higher-risk intercourse and condom use. In addition, men were asked whether they paid for sex in the past year. These questions are sensitive and subject to reporting bias, so the results should be interpreted with caution.

Higher-risk behaviour

Higher-risk sex is sexual intercourse with someone who is neither a spouse nor a cohabiting partner. Among those who had sex in the past 12 months, 4 percent of men and less than 1 percent of women in Kerala reported having had higher-risk sex in the past 12 months. The percentage of men who had higher-risk sexual intercourse in the past 12 months was twice as high in rural areas (6%) as in urban areas (3%). Only 2 percent of men and less than 1 percent of women said that they had multiple sex partners in the past 12 months.

One percent of all men said they had paid for sex in the past year.

WOMEN'S EMPOWERMENT

Women's hygiene

Using a hygienic method of menstrual protection is important for women's health and personal hygiene. In NFHS-4, young women age 15-24 were asked what method or methods they use for menstrual protection, if anything. In Kerala, 48 percent use cloth and 85 percent use sanitary napkins, 6 percent use locally prepared napkins, and 1 percent use tampons. Overall, 90 percent of women age 15-24 use a hygienic method of menstrual protection. Use of a hygienic method is lowest among women from scheduled tribes (71%) and scheduled castes (80%).

Employment and earnings

In Kerala, 21 percent of all women age 15-49 were employed in the 12 months preceding the survey, while in the same period 75 percent of all men age 15-49 were employed. Among employed women, 97 percent earned cash, including 1 percent whose earnings were in both cash and kind, and 3 percent were not paid at all. Almost all men who were employed earned cash, including men who earned cash and were also paid in-kind. Eighty-nine percent of employed women worked in non-agricultural occupations, compared with 92 percent of employed men.

Twenty-one percent of all women age 15-49 were employed in the 12 months preceding the survey; 89 percent of employed women were employed in non-agriculture occupations.

Among currently married women who work and are paid in cash, 91 percent decide how their earnings will be used, either alone or jointly with their husbands. Thirty-eight percent of women who work for cash say that they earn more than or about the same as their husbands. Eighty-one percent of currently married men who have wives who have cash earnings report that they alone or jointly with their wives decide how her earnings are used, and 33 percent of men who have cash earnings and whose wives have cash earnings say that their wife earns more than or about the same as them.

Decision making

Currently married women were asked who makes decisions about their own health care, major household purchases, and visits to their own family or relatives. Two-thirds of women (68%) participate in all three decisions. However, only 8-16 percent of women make each of these decisions alone. Overall, all of the decisions are most often jointly decided by women with their husband, and 8 percent of women do not participate in making any of the three decisions. Scheduled tribe women and women with no schooling are least likely to participate in decision making.

Currently married men were also asked who makes decisions about their own health care and major household purchases. Men were much more likely than women to report that they alone or jointly with their wife participated in both these decisions: 79 percent participated in making decisions about their own health care and 89 percent participated in decisions about major household purchases, while 6 percent did not participate in either of the decisions.

Other indicators of women's empowerment

Two-fifths of women (40%) in Kerala say they have some money that they can decide how to use. The proportion of women with money which they control is slightly higher among urban women (42%) than rural women (38%), increases sharply with age, and is highest among women who are employed for cash (86%), women with one or two children (48%), women with 12 or more years of schooling (46%), and Christian and Hindu women (46-47%).

Seventy-one percent of women have a bank or savings account that they themselves use. The percentage is highest, at 87 percent, among women who are employed for cash. Women's knowledge of microcredit programmes is quite widespread; 67 percent of women know of a microcredit programme in the area, but only 10 percent have ever taken a loan from a microcredit programme.

Seventy-one percent of women have a bank or savings account that they themselves use.

Only 12 percent of women are allowed to go by themselves to all three of the following places: the market, a health facility, and places outside the village/community. Women who are employed for cash have more than twice as much mobility (21%) as women who are not employed (10%).

Ownership of assets

Twenty-nine percent of women and 51 percent of men in Kerala own a house alone or jointly with someone else, and 23 percent of women and 36 percent of men own land alone or jointly with someone else. Ownership of both a house and land is higher for women in urban areas than in rural areas, and it increases with women's age.

Twenty-nine percent of women own a house alone or jointly with someone else, and 23 percent of women own land alone or jointly with someone else.

Eighty-one percent of women have a mobile phone that they themselves use, and among women who have a mobile phone that they themselves use, 84 percent can read SMS messages. Owning of a mobile phone that they themselves use is lowest for women from scheduled tribes, women with no schooling or less than 5 years of schooling, and women age 15-19. Among women who have a mobile phone that they themselves use, almost all women age 15-24 can read SMS messages.

Eighty-one percent of women in Kerala have a mobile phone that they themselves use.

Gender-role attitudes

In Kerala, more than two-thirds of women (69%) believe it is justifiable for a husband to beat his wife under some circumstances. Women are most likely to believe that wife beating is justified if a woman neglects the house or children (49%), shows disrespect for her in-laws (46%), or if her husband suspects her of being unfaithful (40%). In the case of men, 58 percent say that wife beating is justified in some circumstances, especially if the wife shows disrespect for her in-laws (47%). Even among those who have completed at least 12 years of schooling, 67 percent of women and 59 percent of men say that a husband is justified in beating his wife for one or more of the specified reasons.

More than three-fifths of women (63%) of women and 70 percent of men believe that a woman is justified in refusing to have sex with her husband if she knows he has a sexually transmitted disease, if she knows that he has sex with other women, and if she is tired or not in the mood. Men (70%) are more likely than women (63%) to agree that a wife is justified in refusing to have sex with her husband for all three reasons. More than three-fourths (78%) of men agree that if a wife refuses to have sex with her husband he does not have right to get angry and reprimand her, to refuse to give her financial support, to use force to have sex even if she doesn't want to, or to have sex with another woman.

DOMESTIC VIOLENCE

Among all women age 15-49 in Kerala, 13 percent have ever experienced physical violence and 5 percent have ever experienced sexual violence. In all, 15 percent of women have experienced physical or sexual violence. Among those who experienced physical violence since age 15, the most common perpetrator for ever-married women was the husband.

Fifteen percent of women age 15-49 in Kerala have ever experienced physical or sexual violence, which increases to 17 percent when emotional violence is included.

Violence during pregnancy

In Kerala, 1 percent of women who have ever been pregnant ever experienced physical violence during one or more of their pregnancies.

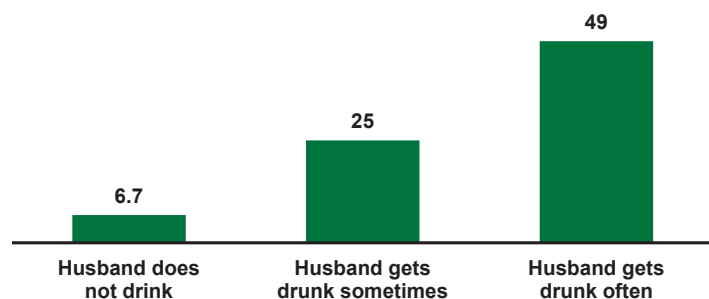
Spousal violence

Overall, 13 percent of ever-married women in Kerala have ever experienced any form of physical violence. Nine percent of ever-married women report having been pushed, shaken, or had something thrown at them by their husband and 7 percent have been slapped by their husband. Between 2 and 4 percent report having their arm twisted or hair pulled; being punched; or being kicked, dragged, or beaten up; and 1 percent each have experienced being choked or burned on purpose and being threatened or attacked with a knife, gun, or any other weapon. Three percent report that their husbands have physically forced them to have sex even when they did not want to and 1 percent report that their husband forced them with threats or other ways to perform sexual acts they did not want to perform. Overall, 14 percent of ever-married women have experienced spousal physical or sexual violence from their current husband or, if not currently married, from their most recent husband. Nine percent report ever experiencing spousal emotional violence (6% in the past 12 months prior to survey). Few ever-married women (2%) have ever initiated violence against their husband.

Although the prevalence of spousal violence is lower among more educated women, 7 percent of women who have at least 12 years of schooling have experienced physical or sexual spousal violence. Women who are employed for cash are more than twice as likely to have experienced spousal physical or sexual violence as women who are not employed. The contextual and intergenerational aspects of spousal violence are clear from the fact that women whose mothers were beaten by their fathers are about three times as likely to be in abusive marriages themselves as women whose mothers were not beaten by their fathers. Women whose husbands get drunk are much more likely than women whose husbands do not consume alcohol to experience physical or sexual spousal violence, especially if the husband gets drunk often (49%). However, 7 percent of even women whose husbands do not drink alcohol have experienced physical or sexual spousal violence. In fact, more than

Is alcohol use related to spousal physical or sexual violence?

Percentage of ever-married women experiencing violence



Note: Category "Husband drinks, but never gets drunk" not shown since there are fewer than 25 unweighted cases.

half of ever-married women (52%) who have ever experienced spousal violence (emotional, physical, or sexual) are afraid of their husbands most of the time.

Nearly one-quarter of women (23%) who have ever experienced spousal physical or sexual violence have suffered injuries as a result of the violence. By far, the most common type of injury is cuts, bruises, or aches.

Help seeking

Only 28 percent of women who have ever experienced physical or sexual violence by anyone have sought help. More than half of women (54%) have neither sought help nor told anyone about the violence. Abused women who have sought help most often seek help from their own families (68%). Only 8 percent of abused women who sought help for the violence sought help from the police, and 4 percent sought help from social service organizations.

Table 1 Results of the household and individual interviews

Number of households, number of interviews with women and men, and response rates, according to residence, Kerala, 2015-16

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	4,361	7,328	11,689
Households occupied	4,324	7,279	11,603
Households interviewed	4,296	7,259	11,555
Household response rate ¹	99.4	99.7	99.6
Interviews with women age 15-49			
Number of eligible women	4,254	6,973	11,227
Number of eligible women interviewed	4,187	6,846	11,033
Eligible women response rate ²	98.4	98.2	98.3
Interviews with men age 15-54			
Number of eligible men	874	1,319	2,193
Number of eligible men interviewed	834	1,252	2,086
Eligible men response rate ²	95.4	94.9	95.1

Note: Eligible women and men are women age 15-49 and men age 15-54 who stayed in the household the night before the household interview (including both usual residents and visitors). This table is based on the unweighted sample.

¹ Households interviewed/households occupied

² Respondents interviewed/eligible respondents

Table 2 Results of the household and individual interviews by district

Number of households, number of women and men interviewed, and response rates by residence and district, Kerala, 2015-16

District	Households interviewed			Household response rate ¹	Number of eligible women interviewed			Eligible women response rate ²	Number of eligible men interviewed			Eligible men response rate ²
	Urban	Rural	Total		Urban	Rural	Total		Urban	Rural	Total	
Alappuzha	412	414	826	99.4	360	358	718	98.4	67	68	135	93.8
Ernakulam	417	415	832	99.8	396	344	740	98.1	68	57	125	96.2
Idukki	44	767	811	100.0	44	666	710	99.7	22	120	142	98.6
Kannur	394	401	795	98.1	408	345	753	95.9	57	63	120	87.0
Kasaragod	383	416	799	98.8	400	423	823	96.4	76	67	143	92.3
Kollam	414	402	816	99.9	402	391	793	98.9	78	83	161	97.6
Kottayam	235	591	826	99.8	189	515	704	99.3	43	108	151	96.8
Kozhikode	417	418	835	99.8	426	475	901	98.7	71	68	139	96.5
Malappuram	418	417	835	100.0	484	508	992	98.9	86	96	182	96.3
Palakkad	197	631	828	99.8	220	596	816	96.3	88	125	213	91.4
Pathanamthitta	88	748	836	99.9	73	569	642	98.0	16	93	109	96.5
Thiruvananthapuram	419	415	834	100.0	379	404	783	99.5	77	75	152	100.0
Thrissur	414	415	829	99.4	366	383	749	99.2	61	66	127	97.7
Wayanad	44	809	853	99.6	40	869	909	98.7	24	163	187	93.5
Kerala	4,296	7,259	11,555	99.6	4,187	6,846	11,033	98.3	834	1,252	2,086	95.1

Note: This table is based on the unweighted sample.

¹ Households interviewed/households occupied

² Respondents interviewed/eligible respondents

Table 3 Household population by age, schooling, residence, and sex

Percent distribution of the *de facto* household population by residence and sex, according to age and schooling; and the percentage of individuals who have an *Aadhaar* card, Kerala, 2015-16

Background characteristic	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Age									
0-4	5.6	5.6	5.6	5.4	5.5	5.5	5.5	5.5	5.5
5-9	7.4	6.4	6.9	7.2	6.2	6.7	7.3	6.3	6.8
10-14	7.6	7.9	7.8	8.1	7.7	7.9	7.9	7.8	7.9
15-19	8.1	6.4	7.3	8.2	6.8	7.4	8.1	6.6	7.4
20-24	8.1	7.0	7.5	7.4	6.6	7.0	7.7	6.8	7.3
25-29	8.2	7.3	7.7	8.6	7.3	7.9	8.4	7.3	7.8
30-34	5.8	6.7	6.2	6.2	6.8	6.5	6.0	6.7	6.3
35-39	6.7	7.4	7.1	7.1	7.7	7.4	6.9	7.6	7.3
40-44	5.9	6.6	6.3	5.8	6.7	6.3	5.8	6.6	6.3
45-49	6.9	7.1	7.0	7.0	6.8	6.9	6.9	6.9	6.9
50-54	6.3	9.9	8.1	5.9	9.9	7.9	6.1	9.9	8.0
55-59	8.2	6.3	7.2	8.0	6.6	7.3	8.1	6.5	7.3
60-64	5.9	5.3	5.6	6.1	5.3	5.7	6.0	5.3	5.7
65-69	4.4	3.9	4.1	4.0	4.0	4.0	4.2	3.9	4.0
70-74	2.2	2.6	2.4	2.1	2.3	2.2	2.1	2.5	2.3
75-79	1.5	1.5	1.5	1.6	1.9	1.7	1.5	1.7	1.6
80+	1.2	2.2	1.7	1.4	2.0	1.7	1.3	2.1	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Aadhaar card									
Percentage with an <i>Aadhaar</i> card	90.2	91.7	91.0	91.2	92.6	91.9	90.8	92.2	91.5
Number	10,318	10,922	21,240	11,841	12,313	24,154	22,159	23,235	45,394
Sex ratio, all ages ¹	na	na	1,058	na	na	1,040	na	na	1,049
Sex ratio, age 0-6 years ¹	na	na	1,013	na	na	1,027	na	na	1,020
Schooling²									
No schooling	1.3	3.3	2.3	2.5	5.1	3.8	1.9	4.2	3.1
<5 years complete	12.9	14.9	13.9	14.8	15.9	15.4	13.9	15.4	14.7
5-9 years complete	33.4	32.7	33.0	35.4	33.9	34.6	34.4	33.3	33.9
10-11 years complete	20.2	17.7	18.9	20.0	18.1	19.0	20.1	17.9	19.0
12 or more years complete	32.0	31.2	31.6	27.0	26.6	26.8	29.3	28.7	29.0
Don't know	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	9,610	10,205	19,815	11,065	11,521	22,587	20,675	21,726	42,401
Median number of years of schooling completed	9.1	8.9	9.0	8.8	8.6	8.7	9.0	8.7	8.8

na = Not applicable

¹ Females per 1,000 males

² Population age 6 and above

Table 4 Household and housing characteristics

Percent distribution of urban, rural and total households and *de jure* population by household and housing characteristics, Kerala, 2015-16

Household and housing characteristic	Urban	Rural	Total	<i>De jure</i> population
Household headship				
Male	79.8	79.4	79.6	81.1
Female	20.2	20.6	20.4	18.9
Total	100.0	100.0	100.0	100.0
Mean household size	3.9	3.9	3.9	na
Household structure¹				
Nuclear	55.3	55.8	55.5	44.9
Non-nuclear	44.7	44.2	44.5	55.1
Total	100.0	100.0	100.0	100.0
Religion of household head				
Hindu	57.7	59.7	58.8	56.5
Muslim	27.0	19.4	22.9	26.6
Christian	15.2	20.8	18.2	16.8
Other	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0
Caste/tribe of household head				
Scheduled caste	7.9	11.7	9.9	10.0
Scheduled tribe	0.6	1.8	1.2	1.2
Other backward class	53.2	46.2	49.4	51.1
Other	37.0	39.2	38.2	36.6
Don't know	1.3	1.1	1.2	1.1
Total	100.0	100.0	100.0	100.0
Electricity				
Yes	99.5	98.9	99.2	99.2
No	0.5	1.1	0.8	0.8
Total	100.0	100.0	100.0	100.0
Source of drinking water				
Improved source	95.7	93.0	94.3	94.5
Piped water into dwelling/yard/plot	23.2	17.8	20.3	19.5
Public tap/standpipe	6.9	8.2	7.6	7.5
Tube well or borehole	3.9	4.6	4.3	4.4
Other improved ²	61.8	62.4	62.1	63.1
Unimproved source ³	4.2	7.0	5.7	5.5
Other source	0.1	0.1	0.1	0.0
Total	100.0	100.0	100.0	100.0
Time to obtain drinking water (round trip)				
Water on premises/delivered to dwelling	95.9	93.0	94.4	94.3
Less than 30 minutes	3.6	6.3	5.1	5.1
Thirty minutes or longer	0.4	0.6	0.5	0.5
Don't know	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0

Continued...

Table 4 Household and housing characteristics—Continued

Percent distribution of urban, rural and total households and *de jure* population by household and housing characteristics, Kerala, 2015-16

Household and housing characteristic	Urban	Rural	Total	<i>De jure</i> population
Water treatment prior to drinking⁴				
Boil	84.0	85.4	84.8	84.9
Strain through cloth	0.4	0.4	0.4	0.4
Use ceramic, sand, or other water filter	4.5	2.7	3.5	3.5
Electronic purifier	4.8	1.7	3.1	2.9
Other treatment	40.4	44.2	42.4	43.2
No treatment	7.6	8.8	8.2	8.1
Percentage using an appropriate treatment method ⁵	91.7	90.7	91.2	91.3
Sanitation facility				
Improved, not shared facility	98.7	97.5	98.1	98.2
Flush/pour flush to piped sewer system, septic tank, or pit latrine	90.9	87.4	89.0	88.6
Pit latrine with slab	7.7	10.0	8.9	9.4
Other ⁶	0.1	0.1	0.1	0.1
Shared facility ⁷	0.7	1.1	0.9	0.9
Flush/pour flush to piped sewer system, septic tank, or pit latrine	0.6	1.0	0.8	0.8
Pit latrine with slab	0.1	0.1	0.1	0.1
Unimproved	0.6	1.5	1.0	1.0
Flush/pour flush not to piped sewer system, septic tank, or pit latrine	0.2	0.1	0.1	0.2
Pit latrine without slab/open pit	0.1	0.2	0.1	0.1
No facility/open space/field	0.2	1.2	0.8	0.7
Total	100.0	100.0	100.0	100.0
Type of house⁸				
<i>Kachha</i>	0.3	0.5	0.4	0.3
<i>Semi-pucca</i>	7.9	12.8	10.5	10.5
<i>Pucca</i>	91.7	86.6	89.0	89.1
Missing	0.1	0.2	0.1	0.1
Total	100.0	100.0	100.0	100.0
Cooking fuel				
Electricity	0.4	0.4	0.4	0.4
LPG/natural gas	64.3	49.5	56.4	54.9
Biogas	0.5	0.6	0.6	0.6
Kerosene	0.1	0.3	0.2	0.2
Coal/lignite	0.1	0.0	0.1	0.1
Charcoal	0.0	0.0	0.0	0.0
Wood	34.3	49.0	42.1	43.8
Straw/shrubs/grass	0.1	0.0	0.0	0.0
No food cooked in the household	0.2	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0
Percentage using clean fuel for cooking ⁸	65.2	50.6	57.4	55.9
Percentage using solid fuel for cooking ⁹	34.5	49.1	42.3	43.9

Continued...

Table 4 Household and housing characteristics—Continued

Percent distribution of urban, rural and total households and *de jure* population by household and housing characteristics, Kerala, 2015-16

Household and housing characteristic	Urban	Rural	Total	<i>De jure</i> population
Place for cooking				
In the house, separate room	90.1	88.1	89.0	89.0
In the house, no separate room	4.9	5.6	5.3	5.0
In a separate building	2.7	4.2	3.5	3.9
Outdoors	2.3	2.0	2.1	2.1
No food cooked in household	0.2	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0
Number	5,382	6,173	11,555	45,158
Type of fire/stove among households using solid fuels¹⁰				
Stove	4.8	5.0	4.9	4.7
<i>Chullah</i>	30.1	32.9	31.8	31.7
Open fire	65.0	62.1	63.2	63.6
Total	100.0	100.0	100.0	100.0
Number using solid fuel	1,855	3,030	4,884	19,819
Frequency of smoking in the house¹¹				
Daily	17.5	22.4	20.1	21.3
Weekly	6.0	7.5	6.8	7.0
Monthly	1.0	1.1	1.0	1.0
Less than monthly	0.9	0.9	0.9	0.9
Never	74.7	68.0	71.1	69.8
Total	100.0	100.0	100.0	100.0
Number	5,382	6,173	11,555	45,158

na = Not applicable

¹ Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

² Protected dug well, protected spring, rainwater, community RO plant

³ Surface water, unprotected dug well, unprotected spring, cart with small tank, tanker truck, bottled water

⁴ Total may add to more than 100.0 because households may use more than one method of purification

⁵ Appropriate water treatment methods include boiling, bleaching, filtering, and electronic purifying

⁶ Includes ventilated improved pit (VIP)/biogas latrine and twin pit/composting toilet

⁷ Facilities that would be considered improved if they were not shared by two or more households

⁸ Houses made from mud, thatch, or other low-quality materials are called *kachha* houses, houses that use partly low-quality and partly high-quality materials are called *semi-pucca* houses, and houses made with high quality materials throughout, including the floor, roof, and exterior walls, are called *pucca* houses.

⁹ Electricity, LPG/natural gas, or biogas

¹⁰ Includes coal/lignite, charcoal, wood, straw/shrubs/grass, agricultural crop waste, and dung cakes

¹¹ Frequency of smoking by anyone inside the house

Table 5 Household possessions and land ownership

Percentage of urban, rural, and total households and *de jure* population possessing various household goods, means of transport, agricultural land, a house and farm animals and having a bank/post office account, health scheme/health insurance, a BPL card, and a long-lasting insecticide-treated (LLIN) mosquito net, Kerala, 2015-16

Household possessions	Urban	Rural	Total	<i>De jure</i> population
Household goods				
Mattress	94.5	89.9	92.1	92.6
Pressure cooker	88.9	80.8	84.6	85.9
Chair	99.2	98.9	99.0	99.2
Cot or bed	98.7	97.0	97.8	98.0
Table	96.1	92.6	94.2	94.9
Electric fan	98.7	94.3	96.4	96.8
Radio or transistor	22.9	16.8	19.7	19.2
Television (black and white)	1.0	1.4	1.2	1.0
Television (colour)	92.9	91.3	92.0	92.8
Any television	93.3	91.9	92.5	93.3
Sewing machine	39.5	34.0	36.6	39.0
Mobile telephone	98.0	97.1	97.5	98.5
Landline telephone	27.9	22.8	25.2	24.6
Internet	18.5	10.9	14.5	14.2
Computer	28.6	19.6	23.8	24.0
Refrigerator	78.4	66.1	71.8	73.3
Air conditioner/cooler	16.3	6.7	11.1	11.0
Washing machine	40.3	27.8	33.7	34.0
Watch or clock	95.4	93.9	94.6	95.1
Water pump	67.9	61.8	64.7	65.9
Thresher	0.5	0.5	0.5	0.5
Tractor	0.4	0.5	0.4	0.4
None of the above	0.0	0.1	0.0	0.0
Means of transport				
Bicycle	31.8	23.4	27.3	29.7
Motorcycle or scooter	60.4	53.0	56.4	60.1
Animal-drawn cart	0.4	0.4	0.4	0.4
Car	28.1	20.7	24.1	24.7
None of the above	25.5	34.4	30.2	27.1
Agricultural land				
No agricultural land	90.0	79.7	84.5	84.4
Agricultural land	10.0	20.3	15.5	15.6
Irrigated land only	6.8	13.6	10.4	10.6
Non-irrigated land only	1.8	4.2	3.1	3.0
Both irrigated and non-irrigated land	0.9	1.8	1.4	1.4
Irrigation not determined	0.4	0.7	0.6	0.6
Total	100.0	100.0	100.0	100.0
Percentage owning a house	81.5	85.2	83.5	84.6
Percentage owning farm animals ¹	23.3	37.4	30.9	32.8
Percentage having a bank account/post office account ²	95.4	94.5	95.0	95.6
Percentage covered by a health scheme/health insurance ³	45.3	49.8	47.7	48.4
Percentage having a BPL card	26.8	33.2	30.2	30.3
Percentage with an LLIN mosquito net	0.2	0.2	0.2	0.3
Number	5,382	6,173	11,555	45,158

BPL = Below poverty line

¹ Cows, bulls, buffaloes, camels, horses, donkeys, mules, goats, sheep, chickens, or ducks

² Percentage of households in which any usual member of the household has a bank account/post office account

³ Percentage of households in which any usual member of the household is covered by a health scheme/health insurance

Table 6 School attendance

Percentage of *de facto* household population age 6-17 years attending school in the 2015-16 school year by sex and residence, according to selected background characteristics, Kerala, 2015-16

Background characteristic	Male			Female			Total		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Age									
6-10 (Primary)	99.8	99.9	99.9	99.7	99.5	99.6	99.8	99.7	99.7
6-13 (Elementary)	99.8	99.5	99.6	99.6	99.4	99.5	99.7	99.5	99.6
11-13 (Upper primary)	99.7	98.9	99.3	99.5	99.3	99.4	99.6	99.1	99.3
14-15 (Secondary)	99.1	97.5	98.2	99.1	98.7	98.9	99.1	98.0	98.5
16-17 (Higher secondary)	86.1	87.4	86.8	90.5	89.0	89.7	88.2	88.2	88.2
11-14 years	99.8	99.3	99.5	99.5	99.2	99.3	99.6	99.2	99.4
15-17 years	92.8	93.1	93.0	95.2	94.4	94.8	93.9	93.7	93.8
6-14 years	99.8	99.4	99.6	99.5	99.3	99.4	99.7	99.3	99.5
6-17 years	97.2	97.1	97.1	98.0	97.5	97.8	97.6	97.3	97.4
Religion									
Hindu	97.5	96.7	97.1	98.4	97.5	97.9	97.9	97.1	97.5
Muslim	96.4	96.9	96.6	97.0	97.0	97.0	96.7	97.0	96.8
Christian	98.5	98.5	98.5	100.0	98.7	99.2	99.2	98.6	98.8
Caste/tribe									
Scheduled caste	94.6	92.8	93.4	96.6	95.0	95.6	95.5	93.9	94.4
Scheduled tribe	*	87.3	88.8	*	82.9	83.6	*	84.8	85.8
Other backward class	97.1	97.7	97.4	97.8	98.4	98.1	97.4	98.0	97.7
Other	98.2	98.2	98.2	98.8	98.5	98.6	98.5	98.3	98.4
Don't know	*	(96.9)	(95.7)	*	(85.1)	(94.2)	(97.8)	91.3	94.8

Note: In this table, children's age refers to their age at the start of the 2015-16 school year (assumed here to be April 2015).

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 7 Children's living arrangements and orphanhood

Percent distribution of *de jure* children under age 18 by their living arrangements, and percentage of children with one or both biological parents dead, according to background characteristics, Kerala, 2015-16

Background characteristic	Living with both parents	Living with mother but not with father	Living with father but not with mother	Not living with either parent	Total	Percentage with one or both parents dead ¹	Number of children
Age							
<5 years	72.9	25.4	0.6	1.2	100.0	0.6	2,437
5-9 years	80.1	18.0	0.7	1.2	100.0	1.4	3,019
10-14 years	81.7	15.2	1.1	2.1	100.0	2.5	3,519
15-17 years	80.4	15.1	1.5	2.9	100.0	3.8	1,981
Residence							
Urban	77.6	19.7	0.9	1.7	100.0	1.6	5,117
Rural	80.3	16.9	1.0	1.8	100.0	2.3	5,839
Sex							
Male	80.0	17.1	1.0	1.9	100.0	2.0	5,595
Female	78.1	19.4	0.8	1.6	100.0	1.9	5,360
Total age <15 years	78.8	18.9	0.8	1.5	100.0	1.6	8,975
Total age <18 years	79.1	18.2	0.9	1.8	100.0	2.0	10,955

¹ Includes children with father dead, mother dead, both parents dead, and one parent dead but missing information on survival status of the other parent

Table 8 Birth registration of children under age five

Percentage of *de jure* children under age five years whose birth was registered with the civil authorities, according to background characteristics, Kerala, 2015-16

Background characteristic	Percentage of children whose birth was registered		Total registered	<i>De jure</i> children
	Registered, has a birth certificate	Registered, does not have a birth certificate		
Age				
<2 years	77.6	18.2	95.9	907
2-4 years	92.0	6.8	98.8	1,529
Sex				
Male	87.7	9.9	97.6	1,195
Female	85.6	12.1	97.7	1,241
Residence				
Urban	86.7	10.6	97.2	1,150
Rural	86.6	11.5	98.1	1,287
Total	86.6	11.1	97.7	2,437

Table 9 Birth registration of children under age five by district

Percentage of *de jure* children under age five years whose birth was registered with the civil authorities, by district, Kerala, 2015-16

District	Percentage of children whose birth was registered			<i>De jure</i> children
	Registered, has a birth certificate	Registered, does not have a birth certificate	Total registered	
Alappuzha	79.0	15.5	94.5	124
Ernakulam	81.0	17.6	98.6	221
Idukki	88.0	10.5	98.4	61
Kannur	80.6	14.7	95.3	178
Kasaragod	91.2	7.2	98.4	107
Kollam	93.5	6.1	99.6	192
Kottayam	72.6	24.2	96.8	139
Kozhikode	87.0	10.2	97.2	203
Malappuram	91.0	6.6	97.6	394
Palakkad	92.5	7.5	100.0	257
Pathanamthitta	83.8	13.5	97.3	80
Thiruvananthapuram	93.8	5.1	98.9	240
Thrissur	78.1	17.9	96.0	172
Wayanad	86.1	9.0	95.2	69
Kerala	86.6	11.1	97.7	2,437

Table 10 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics and percentage exposed to various media, Kerala, 2015-16

Background characteristic	Weighted percent		Number of women		Number of men	
	Women	Men	Weighted	Unweighted	Weighted	Unweighted
Age						
15-19	13.6	16.5	1,504	1,484	306	304
20-24	13.8	15.0	1,519	1,533	278	271
25-29	14.8	14.1	1,630	1,617	261	265
30-34	14.0	13.6	1,541	1,521	252	251
35-39	15.4	14.5	1,703	1,709	270	273
40-44	13.9	12.7	1,536	1,579	236	250
45-49	14.5	13.7	1,601	1,590	253	250
Residence						
Urban	46.9	46.8	5,172	4,187	869	736
Rural	53.1	53.2	5,861	6,846	987	1,128
Schooling						
No schooling	1.0	0.6	106	156	11	17
<5 years complete	2.2	2.9	246	281	54	59
5-9 years complete	24.6	26.0	2,716	2,743	482	504
10-11 years complete	24.4	25.9	2,689	2,712	480	481
12 or more years complete	47.8	44.6	5,276	5,141	829	803
Literacy						
Literate ¹	97.9	98.7	10,796	10,745	1,831	1,830
Not literate	2.1	1.3	232	280	25	33
Not measured	0.0	0.0	5	8	0	1
Percentage exposed to various media						
Reads a newspaper/magazine at least once a week	77.4	88.6	8,536	8,335	1,644	1,611
Watches television at least once a week	91.9	93.5	10,140	10,112	1,736	1,734
Listens to the radio at least once a week	14.3	22.9	1,580	1,467	424	424
Visits the cinema/theatre at least once a month	14.6	29.4	1,606	1,467	546	551
Not regularly exposed to any media	3.0	1.0	331	370	18	27
Marital status						
Never married	22.7	45.8	2,500	2,511	850	839
Currently married	73.8	53.5	8,147	8,094	992	1,012
Married, <i>gauna</i> not performed	0.0	0.0	3	4	0	0
Widowed	2.3	0.1	251	275	2	3
Divorced/separated/deserted	1.2	0.6	131	149	11	10
Religion						
Hindu	56.5	57.8	6,229	6,240	1,073	1,049
Muslim	27.9	27.9	3,077	2,919	518	525
Christian	15.6	14.2	1,725	1,870	263	288
Other	0.0	0.1	2	4	3	2

Continued...

Table 10 Background characteristics of respondents—Continued

Percent distribution of women and men age 15-49 by selected background characteristics and percentage exposed to various media, Kerala, 2015-16

Background characteristic	Weighted percent		Number of women		Number of men	
	Women	Men	Weighted	Unweighted	Weighted	Unweighted
Caste/tribe						
Scheduled caste	9.7	9.3	1,075	1,087	172	158
Scheduled tribe	1.3	2.0	145	285	37	65
Other backward class	55.4	49.2	6,108	5,937	914	929
Other	33.2	37.6	3,666	3,683	698	676
Don't know	0.4	1.9	40	41	35	36
Total age 15-49	100.0	100.0	11,033	11,033	1,856	1,864
Age 50-54	na	11.0	na	na	230	222
Total age 15-54	na	100.0	na	na	2,086	2,086
Employment status (past 12 months)						
Employed at any time	21.1	74.6	501	526	1,384	1,396
In agricultural occupation	2.3	6.3	54	68	117	154
In non-agricultural occupation	18.5	66.3	439	448	1,231	1,206
Don't know	0.3	2.0	8	10	36	36
Not employed	78.9	25.4	1,871	1,871	472	468
Total age 15-49	100.0	100.0	2,372	2,397	1,856	1,864
Age 50-54	na	11.0	na	na	230	222
Total age 15-54	na	100.0	na	na	2,086	2,086

na = Not applicable

¹ Refers to women/men who can read a whole sentence or part of a sentence and women/men who completed standard 6 or higher (who are assumed to be literate)

Table 11 Current fertility

Age-specific and total fertility rates and crude birth rates from NFHS-4, NFHS-3, NFHS-2, and NFHS-1 by residence, Kerala, 2015-16

Age	NFHS-4			NFHS-3			NFHS-2			NFHS-1		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
15-19	0.022	0.020	0.021	0.022	0.042	0.035	0.013	0.041	0.039	0.033	0.040	0.038
20-24	0.109	0.111	0.110	0.113	0.162	0.144	0.128	0.179	0.166	0.149	0.164	0.160
25-29	0.122	0.113	0.117	0.143	0.140	0.141	0.097	0.137	0.128	0.121	0.123	0.123
30-34	0.045	0.052	0.048	0.056	0.050	0.052	0.042	0.039	0.040	0.036	0.063	0.054
35-39	0.014	0.013	0.013	0.012	0.012	0.012	0.022	0.014	0.016	0.013	0.019	0.017
40-44	0.001	0.001	0.001	0.000	0.001	0.001	0.000	0.004	0.003	0.003	0.008	0.006
45-49	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
TFR (15-49)	1.57	1.55	1.56	1.73	2.03	1.93	1.51	2.07	1.96	1.78	2.09	2.00
CBR	11.4	11.0	11.2	15.4	16.9	16.4	14.8	19.7	18.8	18.0	20.3	19.6

Note: Rates are for the period 1-36 months preceding the survey (approximately 1990-92 for NFHS-1, 1996-98 for NFHS-2, 2003-05 for NFHS-3, and 2013-15 for NFHS-4). Age-specific fertility rates are expressed per woman. Rates for the age group 45-49 might be slightly biased due to truncation.

TFR = Total fertility rate, expressed per woman

CBR = Crude birth rate, expressed per 1,000 population

Table 12 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women age 15-49 currently pregnant, mean number of children ever born to women age 40-49, and total wanted fertility rate, by background characteristics, Kerala, 2015-16

Background characteristic	Total fertility rate	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49	Total wanted fertility rate
Residence				
Urban	1.57	3.3	2.1	1.47
Rural	1.55	3.4	2.1	1.46
Schooling				
No schooling	1.50	0.4	2.5	0.30
<5 years complete	2.14	0.0	2.3	1.97
5-9 years complete	1.77	1.2	2.2	1.64
10-11 years complete	1.77	1.8	2.0	1.68
12 or more years complete	1.63	5.5	1.8	1.55
Religion				
Hindu	1.42	2.8	1.9	1.34
Muslim	1.86	4.5	2.7	1.72
Christian	1.51	3.3	1.9	1.45
Caste/tribe				
Scheduled caste	1.50	2.3	2.0	1.45
Scheduled tribe	2.31	3.4	2.5	1.98
Other backward class	1.58	3.4	2.2	1.49
Other	1.50	3.7	2.0	1.40
Total	1.56	3.4	2.1	1.47

Note: Total includes women who don't know their caste/tribe, who are not shown separately.

Table 13 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, by background characteristics, Kerala, 2015-16

Background characteristic	Percentage of women age 15-19 who:		Percentage of women age 15-19 who have begun childbearing	Number of women
	Have had a live birth	Are pregnant with first child		
Age				
15	0.0	0.0	0.0	294
16	0.0	0.0	0.0	266
17	0.0	0.0	0.0	313
18	1.1	1.2	2.3	329
19	7.0	5.3	12.4	302
Residence				
Urban	1.1	1.6	2.7	687
Rural	2.1	1.1	3.2	817
Schooling				
5-9 years complete	1.8	1.2	3.0	206
10-11 years complete	1.5	0.7	2.2	652
12 or more years complete	1.6	2.0	3.6	645
Marital status				
Never married	0.0	0.0	0.0	1,413
Currently married	27.6	22.7	50.3	88
Religion				
Hindu	1.2	0.7	1.9	779
Muslim	2.6	2.7	5.3	498
Christian	1.2	0.4	1.6	226
Caste/tribe				
Scheduled caste	1.5	1.3	2.8	137
Scheduled tribe	1.6	4.3	5.8	25
Other backward class	1.6	1.5	3.1	867
Other	1.9	0.9	2.8	472
Total	1.7	1.3	3.0	1,504

Note: Total includes women with less than 5 years of schooling, women who are widowed/divorced/separated/deserted, and women who don't know their caste/tribe, who are not shown separately.

Table 14 Birth order

Percent distribution of births to all women during the three years preceding the survey by birth order, according to background characteristics, Kerala, 2015-16, and percent distribution of births to women by birth order, NFHS-3

Background characteristic	Birth order				Total	Number of births
	1	2	3	4+		
Mother's current age						
20-29	60.3	34.6	4.6	0.5	100.0	980
30-39	18.4	50.6	22.2	8.7	100.0	427
Residence						
Urban	47.2	40.1	9.7	3.1	100.0	688
Rural	49.4	37.6	9.8	3.2	100.0	766
Mother's schooling						
5-9 years complete	26.8	40.3	22.7	10.3	100.0	207
10-11 years complete	32.5	46.8	15.7	5.1	100.0	273
12 or more years complete	57.6	36.4	5.1	0.9	100.0	966
Religion						
Hindu	56.3	39.6	3.7	0.4	100.0	748
Muslim	35.3	37.9	18.6	8.3	100.0	506
Christian	52.0	38.1	9.9	0.0	100.0	199
Caste/tribe						
Scheduled caste	57.9	37.1	5.0	0.0	100.0	137
Scheduled tribe	51.1	32.2	8.6	8.1	100.0	30
Other backward class	45.8	39.7	11.2	3.3	100.0	815
Other	50.0	38.1	8.5	3.5	100.0	462
Total	48.4	38.8	9.7	3.1	100.0	1,454
NFHS-3 (2005-06)	45.2	36.7	12.9	5.2	100.0	611

Note: Total includes information on births to women age 15-19 or 40-49, women who have no schooling or have less than 5 years of schooling, women belonging to "other" religions, and women who don't know their caste/tribe, which is not shown separately.

Table 15 Birth intervals

Percent distribution of births during the five years preceding the survey by interval since the preceding birth, and median number of months since the preceding birth, according to background characteristics, Kerala, 2015-16

Background characteristic	Months since preceding birth						Total	Number of non-first order births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+			
Mother's current age									
20-29	4.1	9.4	20.6	25.2	19.5	21.2	100.0	560	43.9
30-39	4.0	5.3	11.5	18.7	15.1	45.4	100.0	674	55.8
40-49	(1.8)	(0.0)	(3.1)	(7.1)	(4.7)	(83.3)	100.0	41	≥90.0
Residence									
Urban	4.7	6.7	14.8	20.8	18.9	34.1	100.0	601	49.3
Rural	3.4	7.2	15.6	21.5	14.7	37.6	100.0	674	49.8
Mother's schooling									
5-9 years complete	4.6	8.1	12.9	20.1	13.6	40.7	100.0	294	52.4
10-11 years complete	2.6	7.7	16.9	22.5	17.5	32.8	100.0	329	48.1
12 or more years complete	4.2	6.1	15.4	20.8	18.0	35.6	100.0	637	50.0
Religion									
Hindu	3.8	7.4	14.1	22.1	16.0	36.7	100.0	570	49.2
Muslim	3.0	5.7	15.8	21.2	18.7	35.6	100.0	554	50.5
Christian	8.9	9.8	17.0	17.5	12.1	34.6	100.0	151	43.7
Caste/tribe									
Scheduled caste	4.2	13.1	16.8	19.0	13.1	33.8	100.0	97	46.0
Scheduled tribe	(14.0)	(1.6)	(22.5)	(30.1)	(13.3)	(18.5)	100.0	23	(37.7)
Other backward class	2.9	6.7	15.2	21.3	18.1	35.9	100.0	758	50.3
Other	5.4	6.4	14.6	21.2	14.9	37.6	100.0	390	49.2
Birth order									
2-3	4.2	7.2	15.5	20.7	17.1	35.4	100.0	1,194	49.3
4-6	1.7	2.5	11.3	28.6	11.7	44.2	100.0	81	52.3
Sex of preceding birth									
Male	4.6	6.8	16.5	19.0	19.0	34.1	100.0	629	49.7
Female	3.5	7.1	13.9	23.3	14.5	37.7	100.0	646	49.3
Total	4.0	6.9	15.2	21.2	16.7	35.9	100.0	1,276	49.5

Note: First-order births are excluded from the table. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth. Total includes information on births to women age 15-19, births to women who have no schooling or have less than 5 years of schooling, births to women belonging to "other" religions, births of birth order 7 or more, and births to women who don't know their caste/tribe, which is not shown separately.

() Based on 25-49 unweighted cases

Table 16 Fertility preferences by number of living children

Percent distribution of currently married women and men age 15-49 by desire for children, according to number of living children, Kerala, 2015-16

Desire for children	Number of living children ¹						Total
	0	1	2	3	4	5	
WOMEN							
Want another soon ²	71.9	27.4	4.7	5.1	3.8	(5.6)	15.3
Want another later ³	7.0	31.8	4.3	2.4	2.7	(7.7)	11.0
Want another, undecided when	5.4	5.3	0.7	0.6	0.0	(0.0)	2.2
Undecided	4.8	6.3	2.6	5.2	4.4	(7.6)	4.1
Want no more	1.8	14.6	19.7	17.9	29.5	(30.0)	17.2
Sterilized ⁴	1.2	10.5	63.5	65.7	57.5	(46.2)	45.9
Declared infecund	7.9	4.0	4.4	3.2	2.2	(3.0)	4.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	611	1,994	4,229	1,032	212	50	8,147
MEN							
Want another soon ²	56.5	27.3	5.1	6.4	(4.7)	*	16.0
Want another later ³	11.4	29.7	2.3	1.8	(2.6)	*	9.9
Want another, undecided when	1.5	2.9	0.7	0.0	(0.0)	*	1.2
Undecided	7.4	5.1	4.9	10.6	(0.0)	*	5.7
Want no more	16.9	33.4	70.6	65.7	(78.2)	*	55.7
Sterilized ⁴	1.1	1.1	16.2	15.1	(14.4)	*	10.6
Declared infecund	5.2	0.5	0.3	0.3	(0.0)	*	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	105	241	477	124	31	11	992

¹ Includes current pregnancy of woman/wife

² Want next birth within 2 years

³ Want to delay next birth for 2 or more years

⁴ For women: Includes both female and male sterilization and women who have had a hysterectomy

For men: Includes male sterilization and men who mention in response to the question about desire for children that their wife has been sterilized

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 17 Desire not to have any more children

Percentage of currently married women and men age 15-49 who want no more children by number of living children, according to background characteristics, Kerala, 2015-16, and by number of living children, NFHS-3

Background characteristic	Women: Number of living children ¹					Total	Men: Number of living children ¹					Total
	0	1	2	3	4+		0	1	2	3	4+	
Age												
15-24	0.2	3.2	38.9	*	*	7.8	*	*	*	*	*	*
25-34	2.2	8.0	72.8	68.7	(77.1)	46.4	6.4	14.3	66.9	*	*	32.3
35-49	9.6	64.1	90.4	89.8	86.4	83.8	(32.7)	52.1	91.1	82.8	(93.2)	79.6
Residence												
Urban	2.1	25.6	83.1	82.1	81.8	62.4	(18.1)	32.3	87.6	82.4	*	65.9
Rural	3.8	24.6	83.4	85.0	87.5	63.7	18.0	36.7	86.2	79.3	(87.9)	66.8
Schooling												
No schooling	*	*	91.6	(98.1)	*	91.3	*	*	*	*	*	*
<5 years complete	*	*	85.8	94.1	*	77.9	*	*	(83.0)	*	*	83.9
5-9 years complete	5.1	40.4	86.9	86.8	86.6	77.3	(20.4)	27.1	87.5	85.3	(92.0)	70.8
10-11 years complete	5.4	37.3	84.9	76.3	(76.0)	70.4	*	41.7	87.6	(68.4)	*	67.3
12 or more years complete	1.9	17.3	79.3	82.4	*	48.9	(13.8)	31.1	86.0	*	*	57.5
Religion												
Hindu	3.9	27.9	89.9	92.5	(80.7)	66.5	12.7	33.6	92.4	(81.0)	*	66.3
Muslim	0.0	13.9	60.4	78.5	84.8	54.7	(20.7)	(40.4)	70.9	78.7	(93.5)	64.9
Christian	4.9	29.7	86.6	90.0	*	66.4	*	(29.2)	87.5	*	*	69.8
Caste/tribe												
Scheduled caste	1.7	25.0	89.6	93.1	*	66.5	*	(40.5)	93.8	*	*	74.9
Scheduled tribe	*	(21.5)	82.2	(94.7)	*	64.6	*	*	*	*	*	(69.3)
Other backward class	2.0	21.1	81.8	82.0	84.8	62.2	9.3	27.4	81.0	75.5	(89.7)	60.8
Other	4.3	30.9	83.8	84.1	85.4	63.6	(30.2)	44.2	92.0	(84.4)	*	72.1
Don't know	*	*	*	*	*	(56.9)	*	*	*	*	*	*
Number of living sons²												
0	3.0	21.4	79.5	80.7	(89.9)	40.1	18.0	30.1	79.1	*	*	45.0
1	na	29.4	84.0	83.4	85.8	69.8	na	39.8	89.3	(87.8)	*	76.0
2	na	na	84.8	82.3	78.5	83.9	na	na	89.6	(85.5)	*	88.2
3	na	na	na	89.9	86.9	88.9	na	na	na	*	*	(80.9)
4+	na	na	na	na	na	(93.2)	na	na	na	na	na	*
Total	3.0	25.1	83.2	83.6	84.9	63.1	18.0	34.5	86.8	80.8	(93.4)	66.4
NFHS-3 (2005-06)	2.1	25.7	88.0	91.0	92.2	69.3	(2.4)	14.5	60.6	51.7	*	44.0

Note: Women who have been sterilized or whose husband has been sterilized are considered to want no more children. Men who are sterilized or who mention in response to the question about desire for children that their wife has been sterilized are considered to want no more children.

na = Not applicable

¹ Includes current pregnancy of woman/wife

² Excludes pregnant women and men with pregnant wives

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 18 Ideal number of children

Percent distribution of women and men age 15-49 by ideal number of children, and mean ideal number of children, by number of living children, Kerala, 2015-16, and percent distribution of women and men age 15-49 by ideal number of children, NFHS-3

Ideal number of children	Number of living children ¹						Total	NFHS-3 (2005-06)
	0	1	2	3	4	5		
WOMEN								
0	4.0	2.7	2.4	1.8	3.8	4.3	2.9	0.8
1	8.8	9.5	2.1	0.8	0.0	0.0	5.3	6.0
2	69.5	71.2	76.2	24.8	13.4	1.4	66.5	62.6
3	13.3	13.1	15.3	53.7	17.1	19.1	18.1	17.5
4	2.7	2.6	3.2	14.8	48.0	14.6	5.1	5.3
5	0.7	0.5	0.6	2.5	11.0	37.4	1.2	2.0
6+	0.3	0.3	0.2	1.5	5.8	19.1	0.6	0.8
Non-numeric responses	0.7	0.0	0.1	0.2	0.8	4.1	0.3	5.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	3,171	2,111	4,373	1,082	224	53	11,033	3,566
Mean ideal number of children for²:								
All respondents	2.1	2.1	2.2	2.9	3.7	(4.5)	2.2	2.3
Number of all respondents	3,148	2,110	4,370	1,081	222	51	11,000	3,387
Currently married respondents	2.1	2.1	2.2	2.9	3.7	(4.5)	2.3	2.4
Number of currently married respondents	610	1,994	4,226	1,031	212	47	8,139	2,542
MEN								
0	6.0	2.1	0.0	1.5	(0.0)	*	3.5	1.0
1	7.6	16.9	2.7	0.0	(0.0)	*	6.9	7.0
2	69.3	68.4	84.9	25.9	(31.3)	*	69.5	67.0
3	10.5	11.1	6.7	54.0	(28.6)	*	12.8	15.2
4	2.9	1.4	4.3	12.4	(31.5)	*	4.2	3.9
5	0.8	0.0	1.2	3.2	(3.9)	*	1.2	1.1
6+	0.1	0.0	0.2	3.0	(4.7)	*	0.5	0.4
Non-numeric responses	2.7	0.0	0.2	0.0	(0.0)	*	1.5	4.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	959	247	481	124	31	11	1,856	1,006
Mean ideal number of children for²:								
All respondents	2.0	1.9	2.2	3.0	(3.2)	*	2.1	2.2
Number of all respondents	932	247	480	124	31	11	1,829	961
Currently married respondents	2.1	1.9	2.2	3.0	(3.2)	*	2.3	2.3
Number of currently married respondents	104	241	476	124	31	11	991	553

Note: Total number of children includes 6 or more children, who are not shown separately.

¹ Includes current pregnancy of woman/wife

² Means are calculated excluding respondents who gave non-numeric responses

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 19 Indicators of sex preference

Background characteristic	Women			Men						
	Percentage who want more sons than daughters	Percentage who want more daughters than sons	Percentage who want at least one daughter	Percentage who want more sons than daughters	Percentage who want at least one son	Percentage who want at least one daughter	Number of men			
Age										
15-19	11.3	5.4	73.5	71.2	1,489	19.2	3.5	74.2	62.2	298
20-29	10.2	6.6	76.3	74.8	3,140	13.2	4.0	68.6	63.9	527
30-39	10.8	7.0	74.6	74.0	3,240	13.0	5.1	69.4	65.3	516
40-49	12.4	6.4	76.0	74.1	3,130	16.6	5.3	67.8	65.1	488
Residence										
Urban	11.6	6.8	74.3	72.9	5,153	15.0	5.5	71.2	66.1	860
Rural	10.8	6.2	76.3	74.7	5,847	15.0	3.8	68.0	62.8	968
Schooling										
No schooling	13.6	12.3	66.9	64.4	106	*	*	*	*	10
<5 years complete	15.2	5.8	69.4	64.2	246	23.9	0.0	76.9	70.3	54
5-9 years complete	12.6	6.4	75.6	74.0	2,706	15.9	3.4	67.5	63.2	478
10-11 years complete	11.5	6.5	77.0	74.8	2,675	19.2	4.5	66.5	56.8	473
12 or more years complete	10.0	6.4	74.8	74.0	5,266	11.5	5.7	71.8	68.9	814
Marital status										
Never married	10.9	5.7	73.2	71.3	2,480	15.9	4.0	69.4	61.2	825
Currently married	11.2	6.8	75.9	74.6	8,139	14.1	4.9	69.5	66.8	991
Widowed/divorced/separated/deserted	11.0	5.1	76.0	74.0	381	*	*	*	*	13
Religion										
Hindu	9.0	5.6	76.5	75.0	6,218	11.0	4.9	67.3	64.0	1,053
Muslim	16.0	9.1	72.3	71.3	3,056	23.6	4.3	72.5	64.1	515
Christian	10.2	4.9	76.7	74.6	1,724	14.5	3.3	72.8	66.0	259

Continued...

Table 19. Indicators of sex preference—Continued

Background characteristic	Women			Men			Number of men			
	Percentage who want more sons than daughters	Percentage who want more daughters than sons	Percentage who want at least one daughter	Percentage who want more sons than daughters	Percentage who want more daughters than sons	Percentage who want at least one son				
Caste/tribe										
Scheduled caste	10.6	4.6	77.4	73.6	1,071	9.8	1.4	65.9	62.2	169
Scheduled tribe	6.9	10.3	68.9	69.8	145	11.2	3.4	78.0	78.5	37
Other backward class	12.2	6.6	75.9	74.7	6,092	16.7	4.4	69.5	63.9	906
Other	9.8	6.7	73.9	72.6	3,651	14.8	5.9	70.2	64.9	683
Don't know	(10.5)	(3.2)	(81.4)	(81.2)	40	(3.0)	(0.0)	(64.8)	(61.8)	34
Total	11.2	6.5	75.3	73.9	11,000	15.0	4.6	69.5	64.4	1,829
NFHS-3 (2005-06)	11.0	5.7	66.4	65.9	3,387	11.8	3.7	60.1	56.4	961

Note: Table excludes women and men who gave non-numeric responses to the questions on ideal number of children or ideal number of sons or daughters. Total includes women/men belonging to "other" religions, who are not shown separately.

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 20 Knowledge of contraceptive methods

Percentage of all women and men, currently married women and men, and never married women and men who know any contraceptive method by specific method and residence, Kerala, 2015-16

Method	Women			Men		
	All women	Currently married women	Never married women	All men	Currently married men	Never married men
URBAN						
Any method	98.8	99.7	95.7	98.2	99.5	96.9
Any modern method	98.8	99.7	95.7	98.2	99.5	96.9
Female sterilization	95.9	98.5	87.3	80.7	92.3	67.6
Male sterilization	78.8	85.1	58.5	76.9	89.8	62.2
IUD or PPIUD	79.1	86.4	54.8	40.4	50.8	28.7
Injectables	47.3	48.9	42.5	60.9	73.1	47.6
Pill	82.8	86.2	72.8	82.8	89.8	74.9
Condom/ <i>Nirodh</i>	93.2	95.6	86.0	97.5	99.2	95.7
Female condom	43.6	44.9	41.8	59.1	64.2	53.7
Lactational amenorrhoea method (LAM)	16.4	16.8	15.9	13.8	15.1	12.5
Emergency contraception	45.1	46.8	42.1	60.7	70.7	49.2
Other modern method	0.1	0.2	0.0	0.0	0.0	0.0
Pill, IUD/PPIUD, and condom/ <i>Nirodh</i> ¹	70.9	77.7	49.3	38.5	49.4	26.1
Any traditional method	62.9	69.3	43.1	75.4	87.6	61.4
Rhythm	51.8	57.1	35.5	55.3	72.0	36.6
Withdrawal	54.8	60.7	36.7	72.1	84.5	58.1
Other	0.2	0.2	0.3	0.5	0.6	0.5
Mean number of methods known by respondents age 15-49	6.9	7.3	5.7	7.0	8.0	5.9
Number of respondents age 15-49	5,172	3,854	1,153	869	458	408
RURAL						
Any method	98.4	99.5	94.7	97.8	98.5	97.1
Any modern method	98.3	99.4	94.7	97.8	98.3	97.1
Female sterilization	95.5	97.6	88.9	79.3	87.8	68.9
Male sterilization	77.5	82.6	61.6	72.3	82.7	59.2
IUD or PPIUD	78.8	85.1	59.4	42.1	52.5	29.2
Injectables	46.9	48.8	41.3	58.6	62.8	52.7
Pill	79.4	81.8	72.5	81.2	86.8	74.0
Condom/ <i>Nirodh</i>	91.8	93.7	86.5	96.1	97.0	95.0
Female condom	39.5	40.6	37.5	49.5	52.3	45.8
Lactational amenorrhoea method (LAM)	13.5	14.2	12.0	9.9	12.1	7.2
Emergency contraception	42.9	43.8	41.7	56.6	61.8	50.6
Other modern method	0.3	0.4	0.0	0.1	0.2	0.0
Pill, IUD/PPIUD, and condom/ <i>Nirodh</i> ¹	67.9	73.1	52.4	39.1	48.4	27.5
Any traditional method	62.1	68.5	42.9	72.6	83.3	59.1
Rhythm	51.0	56.5	35.5	51.0	63.3	35.6
Withdrawal	54.5	61.0	35.1	68.6	79.4	55.2
Other	0.3	0.3	0.3	0.6	0.9	0.2
Mean number of methods known by respondents age 15-49	6.7	7.1	5.7	6.7	7.4	5.7
Number of respondents age 15-49	5,861	4,293	1,350	987	534	443

Continued...

Table 20 Knowledge of contraceptive methods—Continued

Percentage of all women and men, currently married women and men, and never married women and men who know any contraceptive method by specific method and residence, Kerala, 2015-16

Method	Women			Men		
	All women	Currently married women	Never married women	All men	Currently married men	Never married men
	TOTAL					
Any method	98.6	99.6	95.1	98.0	98.9	97.0
Any modern method	98.5	99.5	95.1	98.0	98.8	97.0
Female sterilization	95.7	98.0	88.2	80.0	89.8	68.3
Male sterilization	78.1	83.8	60.1	74.4	86.0	60.7
IUD or PPIUD	78.9	85.7	57.2	41.3	51.7	28.9
Injectables	47.1	48.9	41.8	59.7	67.6	50.2
Pill	81.0	83.9	72.7	82.0	88.2	74.4
Condom/ <i>Nirodh</i>	92.4	94.6	86.2	96.8	98.0	95.3
Female condom	41.4	42.6	39.4	54.0	57.8	49.6
Lactational amenorrhoea method (LAM)	14.9	15.4	13.8	11.7	13.5	9.7
Emergency contraception	43.9	45.2	41.9	58.5	65.9	49.9
Other modern method	0.2	0.3	0.0	0.1	0.1	0.0
Pill, IUD/PPIUD, and condom/ <i>Nirodh</i> ¹	69.3	75.3	51.0	38.8	48.9	26.8
Any traditional method	62.5	68.9	43.0	73.9	85.3	60.2
Rhythm	51.4	56.8	35.5	53.0	67.3	36.1
Withdrawal	54.6	60.8	35.8	70.3	81.8	56.6
Other	0.3	0.2	0.3	0.6	0.7	0.3
Mean number of methods known by respondents age 15-49	6.8	7.2	5.7	6.8	7.7	5.8
Number of respondents age 15-49	11,033	8,147	2,503	1,856	992	850

IUD = Intrauterine device ; PPIUD = Postpartum intrauterine device

¹ All three methods

Table 21 Current use of contraception by background characteristics

Background characteristic	Percent distribution of currently married women by contraceptive method currently used, according to background characteristics, Kerala, 2015-16, and total for NFHS-3										Total	Number of women			
	Modern method					Traditional method									
	Any modern method	Female sterilization	Male sterilization	Pill	IUD or PPIUD	Injec-tables	Condom/ Nirodha	LAM	Other modern method	Any traditional method			Rhythm	Withdrawal	Not currently using
Age															
15-19	19.2	9.3	0.0	0.0	4.6	0.0	4.7	0.0	0.0	0.0	0.0	9.8	80.8	100.0	88
20-24	14.3	11.4	2.4	0.0	3.0	0.0	5.6	0.0	0.1	0.1	0.8	2.1	85.7	100.0	711
25-29	32.7	28.8	20.4	0.0	2.9	0.0	5.2	0.1	0.1	0.1	1.4	2.6	67.3	100.0	1,417
30-39	59.0	55.7	51.4	0.1	1.6	0.0	2.4	0.0	0.0	0.0	1.1	2.1	41.0	100.0	3,089
40-49	67.7	66.2	64.7	0.1	0.6	0.0	0.6	0.0	0.1	1.5	0.5	1.0	32.3	100.0	2,841
Residence															
Urban	53.3	50.6	45.7	0.0	1.5	0.0	3.0	0.0	0.0	0.0	0.9	1.9	46.7	100.0	3,854
Rural	52.9	50.1	45.9	0.1	1.7	0.0	2.2	0.0	0.1	2.8	1.0	1.9	47.1	100.0	4,293
Schooling															
No schooling	73.4	73.4	73.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.6	100.0	80
<5 years complete	61.5	58.2	57.6	0.0	0.3	0.3	0.0	0.0	0.0	3.3	1.0	2.4	38.5	100.0	197
5-9 years complete	61.7	59.2	57.0	0.0	1.0	0.0	0.9	0.0	0.1	2.5	0.5	2.0	38.3	100.0	2,269
10-11 years complete	58.2	55.5	52.3	0.2	1.0	0.0	1.9	0.0	0.0	2.7	1.0	1.7	41.8	100.0	1,952
12 or more years complete	44.2	41.1	34.1	0.0	2.4	0.0	4.1	0.0	0.1	3.1	1.2	2.0	55.8	100.0	3,648
Religion															
Hindu	57.7	54.9	49.6	0.1	1.8	0.0	3.0	0.0	0.1	2.8	1.0	1.8	42.3	100.0	4,547
Muslim	43.4	40.5	37.2	0.0	1.4	0.0	1.7	0.0	0.0	2.9	0.7	2.1	56.6	100.0	2,354
Christian	54.8	52.2	48.1	0.0	1.2	0.0	2.7	0.0	0.1	2.7	1.0	1.7	45.2	100.0	1,244
Caste/tribe															
Scheduled caste	57.2	54.8	50.3	0.2	2.0	0.0	2.3	0.0	0.0	2.5	0.8	1.7	42.8	100.0	779
Scheduled tribe	55.6	54.3	49.4	0.3	3.2	0.0	1.4	0.0	0.0	1.3	0.4	0.9	44.4	100.0	104
Other backward class	53.2	50.3	46.0	0.1	1.5	0.0	2.6	0.0	0.0	2.9	0.8	2.1	46.8	100.0	4,524
Other	51.8	49.0	44.2	0.0	1.6	0.0	2.6	0.0	0.1	2.8	1.2	1.6	48.2	100.0	2,705
Don't know	(45.0)	(41.2)	(32.5)	(0.0)	(2.5)	(0.0)	(6.2)	(0.0)	(0.0)	(3.8)	(2.1)	(1.7)	(55.0)	100.0	35

Continued...

Table 2.1 Current use of contraception by background characteristics—Continued

Background characteristic	Percent distribution of currently married women by contraceptive method currently used, according to background characteristics, Kerala, 2015-16, and total for NFHS-3											Number of women					
	Modern method					Traditional method					Total						
	Any method	Female sterilization	Male sterilization	Pill	IUD or PPIUD	Injections	Condom/Nirodh	LAM	Other modern method	Any traditional method			Rhythm	Withdrawal	Not currently using		
Number of living children																	
No children	6.9	5.4	0.9	0.0	0.2	0.1	0.0	0.0	4.2	0.0	0.0	1.5	0.2	1.3	93.1	100.0	793
1 child	25.4	20.2	10.5	0.1	0.2	3.7	0.0	0.0	5.5	0.0	0.2	5.3	1.6	3.7	74.6	100.0	1,966
1 son	26.6	20.9	11.2	0.2	0.3	3.5	0.0	0.0	5.4	0.0	0.3	5.7	1.5	4.2	73.4	100.0	994
No sons	24.2	19.4	9.8	0.0	0.1	4.0	0.0	0.0	5.5	0.0	0.0	4.8	1.6	3.1	75.8	100.0	972
2 children	70.3	68.1	65.4	0.1	0.1	1.1	0.0	0.0	1.4	0.0	0.0	2.1	0.7	1.4	29.7	100.0	4,106
1 or more sons	71.1	68.9	66.2	0.0	0.2	1.1	0.0	0.0	1.2	0.0	0.1	2.2	0.8	1.4	28.9	100.0	3,277
No sons	67.1	65.2	62.1	0.1	0.0	1.0	0.0	0.0	2.1	0.0	0.0	1.9	0.6	1.2	32.9	100.0	829
3 children	71.6	69.4	67.4	0.0	0.5	0.9	0.0	0.0	0.5	0.0	0.0	2.2	1.1	1.1	28.4	100.0	1,006
1 or more sons	72.2	70.3	68.4	0.0	0.5	0.8	0.0	0.0	0.5	0.0	0.0	2.0	0.9	1.1	27.8	100.0	872
No sons	67.2	63.5	61.1	0.0	0.0	1.5	0.0	0.0	1.0	0.0	0.0	3.7	2.2	1.5	32.8	100.0	133
4+ children	60.2	58.8	56.0	0.0	0.0	1.3	0.0	0.0	1.5	0.0	0.0	1.4	0.3	1.1	39.8	100.0	277
1 or more sons	59.4	57.8	57.0	0.0	0.0	0.2	0.0	0.0	0.6	0.0	0.0	1.6	0.3	1.2	40.6	100.0	246
No sons	(66.8)	(66.8)	(47.9)	(0.0)	(0.0)	(10.1)	(0.0)	(0.0)	(8.7)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(33.2)	100.0	30
Total	53.1	50.3	45.8	0.1	0.2	1.6	0.0	0.0	2.6	0.0	0.1	2.8	0.9	1.9	46.9	100.0	8,147
NFHS-3 (2005-06)	68.6	57.9	48.7	1.0	0.4	2.3	0.0	0.0	5.5	na	0.0	10.7	4.5	6.2	31.4	100.0	2,617

Note: If more than one method is used, only the most effective method is considered in this table. Total includes women belonging to "other" religions, who are not shown separately.
 IUD = Intrauterine device; PPIUD = Postpartum intrauterine device; LAM = Lactational amenorrhoea method
 na = Not available
 () Based on 25-49 unweighted cases

Table 22 Current use of contraceptive methods by district

Percentage of currently married women age 15-49 years using any contraceptive method, any modern method, female sterilization, male sterilization, any modern spacing method, and any traditional method, according to district, Kerala, 2015-16

District	Any method	Any modern method	Female sterilization	Male sterilization	Any modern spacing method ¹	Any traditional method ²	Number of women
Alappuzha	45.1	42.7	36.5	0.2	6.0	2.4	483
Ernakulam	57.8	55.0	49.9	0.1	5.0	2.8	755
Idukki	63.0	61.2	57.8	0.0	3.4	1.8	230
Kannur	49.2	47.8	44.1	0.0	3.7	1.4	587
Kasaragod	42.6	37.5	34.1	0.0	3.3	5.1	305
Kollam	53.1	50.6	46.2	0.0	4.4	2.4	709
Kottayam	52.9	50.0	42.2	0.0	7.8	2.9	428
Kozhikode	57.5	53.5	50.4	0.0	3.1	3.9	794
Malappuram	43.0	39.7	36.6	0.0	3.1	3.4	1,100
Palakkad	62.2	57.6	53.5	0.0	4.2	4.5	772
Pathanamthitta	50.9	49.9	44.5	0.0	5.4	1.0	278
Thiruvananthapuram	49.1	48.0	42.9	0.0	5.0	1.1	835
Thrissur	63.8	62.1	56.9	0.3	4.9	1.8	684
Wayanad	57.8	52.2	46.3	0.5	5.4	5.6	188
Kerala	53.1	50.3	45.8	0.1	4.5	2.8	8,147

¹ Includes pill, IUD/PPIUD, injectables, male condom, female condom, and lactational amenorrhoea method (LAM)

² Includes rhythm, withdrawal, and other traditional methods

Table 23 Hysterectomy

Percentage of women age 15-49 who have had a hysterectomy, and among women with a hysterectomy, percent distribution by place the hysterectomy was performed, according to background characteristics, Kerala, 2015-16

Background characteristic	Percentage of women who have had a hysterectomy	Number of women	Place of hysterectomy (%)		Total	Number of women with a hysterectomy
			Public health sector	Private health sector ¹		
Age						
< 30	0.0	4,653	*	*	100.0	1
30-39	0.6	3,244	*	*	100.0	19
40-49	5.8	3,136	41.6	58.4	100.0	181
Residence						
Urban	2.0	5,172	33.9	66.1	100.0	103
Rural	1.7	5,861	49.6	50.4	100.0	99
Schooling						
No schooling	3.5	106	*	*	100.0	4
<5 years complete	7.3	246	*	*	100.0	18
5-9 years complete	2.6	2,716	43.3	56.7	100.0	71
10-11 years complete	1.5	2,689	(35.3)	(64.7)	100.0	41
12 or more years complete	1.3	5,276	34.9	65.1	100.0	68
Religion						
Hindu	2.1	6,229	41.4	58.6	100.0	129
Muslim	1.1	3,077	(35.8)	(64.2)	100.0	35
Christian	2.2	1,725	(47.8)	(52.2)	100.0	37
Caste/tribe						
Scheduled caste	1.4	1,075	*	*	100.0	15
Scheduled tribe	0.3	145	nc	nc	nc	0
Other backward class	1.7	6,108	40.4	59.6	100.0	103
Other	2.2	3,666	42.3	57.7	100.0	82
Don't know	(1.1)	40	nc	nc	nc	0
Total	1.8	11,033	41.6	58.4	100.0	201

Note: Total includes women belonging to "other" religions, who are not shown separately.

nc = No cases

¹ Includes nongovernmental organizations or trust hospitals/clinics

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 24 Contraceptive use by men at last sexual intercourse

Percent distribution of currently married men and sexually active unmarried men age 15-49 by contraceptive used the last time they had sex, according to type of partner and background characteristics, Kerala, 2015-16

Background characteristic	Modern method				Traditional method				Number of men					
	Any modern method	Female sterilization	Male sterilization	Any modern method	Pill	IUD or PPIUD	Condom/ Nirodh	Other modern method		Any traditional method	Rhythm	Withdrawal	Not used at last sex	Total
Type of sexual partner														
Currently married	28.9	23.6	13.4	0.1	1.4	1.1	7.3	0.3	5.3	1.7	3.4	71.1	100.0	992
Wife	32.1	26.5	15.0	0.2	1.5	1.3	8.2	0.3	5.6	1.8	3.7	67.9	100.0	884
Other	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.8	1.6	97.6	100.0	108
Age														
25-29	32.3	22.0	2.8	0.0	1.4	3.5	14.2	0.0	10.3	2.0	8.3	67.7	100.0	93
30-34	27.6	22.1	5.5	0.0	1.6	1.6	13.3	0.0	5.5	1.3	3.5	72.4	100.0	188
35-39	32.1	24.7	17.3	0.0	0.9	1.2	4.3	1.2	7.4	2.1	5.3	67.9	100.0	245
40-44	29.3	25.1	15.5	0.0	1.9	0.9	6.7	0.0	4.2	1.8	2.4	70.7	100.0	226
45-49	26.5	24.2	17.4	0.6	0.6	0.0	5.7	0.0	2.2	1.5	0.7	73.5	100.0	243
Residence														
Urban	29.5	23.0	10.9	0.0	2.2	1.2	8.7	0.0	6.4	2.8	3.6	70.5	100.0	462
Rural	29.2	25.0	15.0	0.3	0.6	1.1	7.5	0.5	4.2	0.8	3.2	70.8	100.0	547
Schooling														
<5 years complete	30.6	27.0	19.3	0.0	1.9	0.0	2.6	3.2	3.6	2.8	0.8	69.4	100.0	51
5-9 years complete	26.2	22.0	15.5	0.4	0.8	0.2	5.1	0.0	4.2	0.9	3.0	73.8	100.0	375
10-11 years complete	25.4	20.5	11.9	0.0	0.3	1.4	6.8	0.0	4.9	1.3	3.6	74.6	100.0	239
12 or more years complete	35.4	28.4	10.7	0.0	2.5	2.1	12.8	0.4	6.9	2.8	4.2	64.6	100.0	338
Religion														
Hindu	32.4	27.4	14.8	0.0	1.8	1.6	9.0	0.2	4.9	1.7	3.0	67.6	100.0	567
Muslim	25.7	18.8	10.0	0.4	0.7	0.0	7.1	0.6	6.9	2.0	4.8	74.3	100.0	291
Christian	24.5	21.2	13.2	0.0	1.0	1.6	5.5	0.0	3.3	1.0	2.3	75.5	100.0	149

Continued...

Table 24 Contraceptive use by men at last sexual intercourse—Continued

Background characteristic	Modern method					Traditional method			Number of men				
	Any modern method	Female sterilization	Male sterilization	Pill	IUD or PPIUD	Nirodha	Condom/ Nirodha	Other modern method		Any traditional method	Rhythm	Withdrawal	Not used at last sex
Caste/tribe													
Scheduled caste	33.7	29.9	19.9	0.0	0.4	2.2	7.4	0.0	3.9	0.0	3.9	66.3	100.0
Scheduled tribe	(11.7)	(11.7)	(10.4)	(1.3)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(88.3)	100.0
Other backward class	31.8	26.2	15.3	0.0	1.6	0.9	7.8	1.5	5.7	1.5	3.9	68.2	100.0
Other	26.6	21.2	9.1	0.3	1.2	1.3	9.3	2.6	5.5	2.6	2.9	73.4	100.0
Total age 15-49	29.3	24.1	13.1	0.1	1.3	1.1	8.1	0.3	5.2	1.7	3.4	70.7	100.0
Age 50-54	34.7	31.4	26.7	0.0	0.7	0.5	3.6	0.0	3.3	0.1	3.2	65.3	100.0
Total age 15-54	30.3	25.4	15.6	0.1	1.2	1.0	7.2	0.2	4.9	1.4	3.4	69.7	100.0

Note: Total includes men whose sexual partner is not currently married, men age 15-19 or 20-24, men who have no schooling, men belonging to "other" religions, and men who don't know their caste/tribe, who are not shown separately.
IUD = Intrauterine device; PPIUD = Postpartum intrauterine device
() Based on 25-49 unweighted cases

Table 25 Source of modern contraceptive methods

Percent distribution of current users of modern contraceptive methods by most recent source of the method, according to residence, Kerala, 2015-16

Most recent source of method	Female sterilization	IUD or PPIUD	Condom/ <i>Nirodh</i>	All modern methods ¹
URBAN				
Public health sector	57.2	(74.5)	13.6	55.1
Government/municipal hospital	55.6	(52.8)	7.3	52.6
Government dispensary	0.2	(0.0)	0.0	0.2
UHC/UHP/UFWC	0.1	(1.9)	0.0	0.1
CHC/rural hospital/Block PHC	0.5	(9.8)	1.2	0.8
PHC/Additional PHC	0.0	(8.7)	1.1	0.3
Sub-centre/ANM	0.0	(1.3)	0.8	0.1
Government mobile clinic	0.0	(0.0)	0.2	0.0
Camp	0.5	(0.0)	0.0	0.4
Anganwadi/ICDS centre	0.0	(0.0)	1.0	0.1
ASHA	0.0	(0.0)	2.0	0.1
Other public health sector	0.3	(0.0)	0.0	0.3
NGO or trust hospital/clinic	0.1	(0.0)	0.0	0.1
Private health sector	42.7	(25.5)	61.1	43.2
Private hospital	41.6	(20.9)	3.6	38.7
Private doctor/clinic	0.8	(4.6)	0.7	0.9
Private mobile clinic	0.3	(0.0)	0.7	0.3
Pharmacy/drugstore	0.0	(0.0)	56.1	3.3
Other source	0.0	(0.0)	25.3	1.6
Shop	0.0	(0.0)	13.0	0.8
Husband	0.0	(0.0)	12.2	0.8
Total	100.0	100.0	100.0	100.0
Number of users	1,830	58	115	2,017

Continued...

Table 25 Source of modern contraceptive methods—Continued

Percent distribution of current users of modern contraceptive methods by most recent source of the method, according to residence, Kerala, 2015-16

Most recent source of method	Female sterilization	IUD or PPIUD	Condom/ Nirodh	All modern methods ¹
RURAL				
Public health sector	62.8	68.9	24.8	61.3
Government/municipal hospital	59.1	42.0	7.4	56.2
Government dispensary	0.1	0.0	0.0	0.1
UHC/UHP/UFWC	0.0	0.0	0.0	0.0
CHC/rural hospital/Block PHC	1.4	6.7	1.7	1.6
PHC/Additional PHC	0.6	15.3	10.6	1.6
Sub-centre/ANM	0.0	2.2	0.0	0.1
Government mobile clinic	0.0	2.7	0.9	0.1
Camp	1.4	0.0	0.0	1.3
ASHA	0.0	0.0	4.3	0.2
Other public health sector	0.0	0.0	0.0	0.0
NGO or trust hospital/clinic	0.1	0.0	0.0	0.1
Private health sector	37.1	31.1	52.9	37.4
Private hospital	36.0	31.1	1.4	34.3
Private doctor/clinic	0.9	0.0	0.0	0.8
Private mobile clinic	0.2	0.0	0.6	0.2
Pharmacy/drugstore	0.0	0.0	51.0	2.1
Other source	0.0	0.0	22.3	1.1
Shop	0.0	0.0	9.4	0.5
Husband	0.0	0.0	12.9	0.6
Total	100.0	100.0	100.0	100.0
Number of users	2,058	74	93	2,237

Continued...

Table 25 Source of modern contraceptive methods —Continued

Percent distribution of current users of modern contraceptive methods by most recent source of the method, according to residence, Kerala, 2015-16

Most recent source of method	Female sterilization	IUD or PPIUD	Condom/ Nirodh	All modern methods ¹
TOTAL				
Public health sector	60.1	71.4	18.6	58.4
Government/municipal hospital	57.5	46.8	7.3	54.5
Government dispensary	0.1	0.0	0.0	0.2
UHC/UHP/UFWC	0.1	0.8	0.0	0.1
CHC/rural hospital/Block PHC	1.0	8.1	1.4	1.2
PHC/Additional PHC	0.3	12.4	5.3	1.0
Sub-centre/ANM	0.0	1.8	0.5	0.1
Government mobile clinic	0.0	1.5	0.5	0.1
Camp	1.0	0.0	0.0	0.9
Anganwadi/ICDS centre	0.0	0.0	0.5	0.0
ASHA	0.0	0.0	3.0	0.1
Other public health sector	0.2	0.0	0.0	0.2
NGO or trust hospital/clinic	0.1	0.0	0.0	0.1
Private health sector	39.7	28.6	57.5	40.2
Private hospital	38.6	26.6	2.6	36.4
Private doctor/clinic	0.9	2.0	0.4	0.9
Private mobile clinic	0.2	0.0	0.7	0.2
Pharmacy/drugstore	0.0	0.0	53.8	2.7
Other source	0.0	0.0	23.9	1.3
Shop	0.0	0.0	11.4	0.6
Husband	0.0	0.0	12.5	0.7
Total	100.0	100.0	100.0	100.0
Number of users	3,888	133	208	4,253

Note: All information in this table is based on women's reports. Table includes all users of modern contraceptive methods regardless of their marital status. All modern methods include male sterilization, pill, and injectables, which are not shown separately.

UHC = Urban health centre; UHP = Urban health post; UFWC = Urban family welfare centre;

CHC = Community health centre; PHC = Primary health centre; ANM = Auxiliary nurse midwife;

ICDS = Integrated Child Development Services; ASHA = Accredited Social Health Activist;

NGO = Nongovernmental organization

¹ Excludes standard days method, lactational amenorrhoea method (LAM), and "other" modern methods

() Based on 25-49 unweighted cases

Table 26 Informed choice

Among women who are current users of selected modern contraceptive methods who started the last episode of use within the five years preceding the survey, the percentage who were informed about possible side effects or problems of that method, the percentage who were informed about what to do if they experienced side effects, and the percentage who were ever told by a health or family planning worker about other methods of family planning they could use, by method, according to residence, Kerala, 2015-16

Method	Percentage who were informed about possible side effects or problems of method used	Percentage who were informed about what to do if they experienced side effects	Percentage who were ever told by a health or family planning worker of other methods that could be used	Number of women
URBAN				
Female sterilization ¹	50.1	44.4	49.9	323
IUD or PPIUD	(91.1)	(78.2)	(71.5)	43
Total	55.0	48.5	52.6	367
RURAL				
Female sterilization ¹	52.9	43.3	53.3	373
IUD or PPIUD	76.3	72.2	72.4	61
Total	56.1	47.3	56.1	438
TOTAL				
Female sterilization ¹	51.6	43.8	51.7	696
IUD or PPIUD	82.3	74.6	72.0	104
Total	55.6	47.8	54.5	805

Note: Table includes only the contraceptive methods separately shown in the table and excludes users who obtained their method from friends/relatives or husband. Total includes pill users, who are not shown separately.

IUD = Intrauterine device; PPIUD = Postpartum intrauterine device

¹ Among women who were sterilized in the five years preceding the survey

() Based on 25-49 unweighted cases

Table 27 Twelve-month contraceptive discontinuation rates

Among women age 15-49 who started an episode of contraceptive use within the five years preceding the survey, the percentage of episodes discontinued within 12 months, by reason for discontinuation and specific method, Kerala, 2015-16

Method	Reason for discontinuation								Number of episodes of use ⁵	
	Method failure	Desire to become pregnant	Other fertility related reason ¹	Side effects/health concerns	Wanted more effective method	Other method related reason ²	Other reason	Any reason ³		Switched to another method ⁴
Female sterilization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	646
IUD or PPIUD	(0.7)	(11.7)	(7.7)	(11.4)	(0.0)	(1.8)	(1.3)	(34.6)	(2.6)	192
Condom/ <i>Nirodh</i>	1.5	20.2	21.2	3.2	1.4	6.3	14.3	68.2	7.1	555
Rhythm	(1.6)	(28.1)	(23.1)	(3.7)	(0.6)	(1.1)	(1.5)	(59.7)	(6.4)	130
Other ⁶	2.7	19.8	29.9	0.8	4.4	0.4	6.8	64.7	7.2	402
All modern spacing methods ⁷	1.3	18.6	18.9	7.8	1.5	5.2	10.1	63.3	6.5	841
All spacing methods ⁸	1.7	20.0	22.5	5.3	2.2	3.4	8.3	63.5	6.7	1,366
All methods	1.2	13.5	15.2	3.6	1.5	2.3	5.6	43.0	4.6	2,014

Note: Figures are based on life table calculations using information on episodes of contraceptive use that began 3-62 months preceding the survey. All methods includes male sterilization and pill, which are not shown separately.

IUD = Intrauterine device; PPIUD = Postpartum intrauterine device

¹ Includes infrequent sex/husband away, difficult to get pregnant/menopausal, and marital dissolution/separation

² Includes lack of access/too far, costs too much, and inconvenient to use

³ Reasons for discontinuation are mutually exclusive and add to the total in this column

⁴ The episodes of use included in this column are a subset of the discontinued episodes included in the discontinuation rate. A woman is considered to have switched to another method if she used a different method in the month following discontinuation or if she gave "wanted a more effective method" as the reason for discontinuation and started another method within two months of discontinuation.

⁵ Number of episodes of use includes both episodes of use that were discontinued during the period of observation and episodes of use that were not discontinued during the period of observation

⁶ Includes injectables, female condom, diaphragm, foam/jelly, standard days method, LAM, withdrawal, and other modern and traditional methods that are not shown separately

⁷ Includes other modern spacing methods that are not shown separately

⁸ Includes other spacing methods that are not shown separately

() Based on 25-49 unweighted cases

Table 28 Men's contraception-related perceptions and knowledge

Percentage of men age 15-49 who agree with two specific statements about women and contraception, and percent distribution of men according to their belief about the efficacy of condoms in preventing pregnancy, by background characteristics, Kerala, 2015-16

Background characteristic	Percentage of men who agree		Percentage of men who say that if a male condom is used correctly, it protects against pregnancy				Total	Number of men
	Contraception is women's business and a man should not have to worry about it	Women who use contraception may become promiscuous	Most of the time	Some times	Not at all	Don't know/unsure ¹		
Age								
15-19	11.7	10.1	57.8	16.2	0.0	26.1	100.0	306
20-24	17.5	19.4	67.0	22.3	0.6	10.1	100.0	278
25-29	16.4	15.9	74.6	19.1	1.0	5.3	100.0	261
30-34	11.0	16.9	74.3	18.0	0.5	7.2	100.0	252
35-39	13.9	10.9	71.3	24.4	0.3	3.9	100.0	270
40-44	13.0	19.2	76.7	19.2	0.4	3.8	100.0	236
45-49	18.9	18.0	70.5	21.3	0.2	7.9	100.0	253
Residence								
Urban	16.2	16.9	72.2	19.4	0.1	8.2	100.0	869
Rural	13.2	14.4	67.8	20.6	0.7	10.9	100.0	987
Schooling								
<5 years complete	11.7	8.2	69.5	17.9	0.0	12.6	100.0	54
5-9 years complete	15.4	17.4	70.6	18.8	0.9	9.7	100.0	482
10-11 years complete	13.7	11.7	67.1	18.8	0.2	13.8	100.0	480
12 or more years complete	14.9	17.3	71.5	21.5	0.3	6.7	100.0	829
Religion								
Hindu	12.7	14.0	71.4	18.3	0.4	9.9	100.0	1,073
Muslim	21.1	20.0	68.8	20.7	0.5	10.0	100.0	518
Christian	9.1	13.0	65.5	26.1	0.4	8.0	100.0	263
Caste/tribe								
Scheduled caste	13.5	14.3	68.7	16.5	0.0	14.8	100.0	172
Scheduled tribe	7.6	15.4	58.6	9.1	0.0	32.4	100.0	37
Other backward class	11.6	11.9	71.3	19.8	0.3	8.6	100.0	914
Other	19.5	20.6	69.4	22.2	0.7	7.7	100.0	698
Don't know	(8.2)	(19.1)	(59.7)	(11.7)	(1.5)	(27.1)	100.0	35
Total age 15-49	14.6	15.6	69.9	20.0	0.4	9.7	100.0	1,856
Age 50-54	13.3	15.7	74.4	17.2	1.4	7.0	100.0	230
Total age 15-54	14.5	15.6	70.4	19.7	0.5	9.4	100.0	2,086

Note: Total includes men who have no schooling and men belonging to "other" religions, who are not shown separately.

¹ Includes missing values and those who have never heard of male condoms

() Based on 25-49 unweighted cases

Table 29 Need and demand for family planning among currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by background characteristics, Kerala, 2015-16

Background characteristic	Unmet need for family planning			Met need for family planning (currently using)			Total demand for family planning ¹			Percentage of demand satisfied ²	Percentage of demand satisfied by modern methods ³	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total			
Age												
15-19	26.5	0.0	26.5	19.2	0.0	19.2	45.7	0.0	45.7	42.0	20.5	88
20-24	27.0	4.3	31.3	11.0	3.3	14.3	38.0	7.5	45.5	31.4	25.0	711
25-29	20.6	6.0	26.6	10.8	21.9	32.7	31.4	27.9	59.3	55.2	48.5	1,417
30-34	7.8	5.0	12.9	5.6	47.4	53.0	13.4	52.4	65.9	80.5	75.9	1,476
35-39	2.8	6.8	9.6	1.8	62.6	64.4	4.6	69.4	74.0	87.1	82.5	1,613
40-44	0.6	6.1	6.7	0.3	68.2	68.5	0.9	74.3	75.2	91.1	88.2	1,412
45-49	0.2	3.5	3.8	0.1	66.8	66.9	0.3	70.4	70.7	94.6	93.4	1,429
Residence												
Urban	8.8	5.5	14.3	5.0	48.3	53.3	13.8	53.8	67.6	78.9	74.8	3,854
Rural	7.9	5.2	13.2	4.1	48.9	52.9	12.0	54.1	66.1	80.1	75.8	4,293
Schooling												
No schooling	0.4	3.8	4.1	0.0	73.4	73.4	0.4	77.1	77.5	94.7	94.7	80
<5 years complete	0.7	3.1	3.8	0.9	60.6	61.5	1.6	63.7	65.3	94.1	89.0	197
5-9 years complete	3.4	5.0	8.4	1.6	60.1	61.7	5.0	65.1	70.0	88.0	84.5	2,269
10-11 years complete	6.0	5.9	11.9	3.1	55.1	58.2	9.1	60.9	70.0	83.0	79.3	1,952
12 or more years complete	13.3	5.5	18.7	7.4	36.8	44.2	20.6	42.3	62.9	70.3	65.3	3,648
Religion												
Hindu	7.3	5.2	12.5	5.0	52.7	57.7	12.3	57.9	70.2	82.2	78.1	4,547
Muslim	11.1	5.9	17.0	3.7	39.7	43.4	14.8	45.6	60.4	71.9	67.1	2,354
Christian	6.8	4.9	11.7	4.3	50.6	54.8	11.0	55.5	66.5	82.4	78.4	1,244

Continued...

Table 29 Need and demand for family planning among currently married women—Continued

Background characteristic	Unmet need for family planning			Met need for family planning (currently using)			Total demand for family planning ¹			Percentage of demand satisfied by modern methods ³	Number of women
	For family planning		Total	For spacing		Total	For limiting		Total		
	spacing	limiting		spacing	limiting		spacing	limiting			
Caste/tribe											
Scheduled caste	7.4	4.3	11.7	4.2	53.1	57.2	11.5	57.4	69.0	83.0	779
Scheduled tribe	7.3	3.5	10.8	4.2	51.4	55.6	11.5	54.9	66.4	83.8	104
Other backward class	8.5	5.4	13.9	4.6	48.6	53.2	13.1	53.9	67.1	79.3	4,524
Other	8.3	5.7	14.0	4.4	47.4	51.8	12.7	53.1	65.8	78.7	2,705
Don't know	(12.4)	(5.7)	(18.2)	(6.5)	(38.4)	(45.0)	(19.0)	(44.2)	(63.2)	(71.2)	35
Total	8.3	5.4	13.7	4.5	48.6	53.1	12.8	54.0	66.8	79.5	8,147

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al., 2012, Revising Unmet Need for Family Planning, DHS Analytical Studies No. 25, ICF International, Calverton, Maryland, USA. Unmet need for family planning refers to fecund women who are not using contraception but who wish to postpone the next birth (spacing) or stop childbearing altogether (limiting). Specifically, women are considered to have unmet need for spacing if they are: at risk of becoming pregnant, not using contraception, and either do not want to become pregnant within the next two years, or are unsure if or when they want to become pregnant; pregnant with a mistimed pregnancy; postpartum amenorrhoeic for up to two years following a mistimed birth and not using contraception. Women are considered to have unmet need for limiting if they are: at risk of becoming pregnant, not using contraception, and want no (more) children; pregnant with an unwanted pregnancy; postpartum amenorrhoeic for up to two years following an unwanted birth and not using contraception. Women who are classified as infecund have no unmet need because they are not at risk of becoming pregnant. Unmet need for family planning is the sum of unmet need for spacing and unmet need for limiting. Total includes women belonging to "other" religions, who are not shown separately.

¹ Total demand is the sum of unmet need and met need

² Percentage of demand satisfied is met need divided by total demand

³ Modern methods include female sterilization, male sterilization, pill, IUD/PPIUD, injectables, male condom, female condom, standard days method, diaphragm, foam/jelly, lactational amenorrhoea method (LAM), and other modern methods

() Based on 25-49 unweighted cases

Table 30 Unmet need for family planning by district

Percentage of currently married women age 15-49 with unmet need for family planning by district, Kerala, 2015-16 and total for NFHS-3

District	Total unmet need	Unmet need for spacing	Unmet need for limiting	Number of women
Alappuzha	17.7	7.2	10.5	483
Ernakulam	11.6	6.9	4.7	755
Idukki	8.0	5.1	2.9	230
Kannur	13.9	8.6	5.3	587
Kasaragod	15.2	10.4	4.8	305
Kollam	14.5	8.1	6.4	709
Kottayam	11.2	7.2	4.0	428
Kozhikode	13.3	8.8	4.5	794
Malappuram	17.4	11.3	6.1	1,100
Palakkad	12.0	7.3	4.8	772
Pathanamthitta	14.2	7.1	7.1	278
Thiruvananthapuram	14.8	9.0	5.8	835
Thrissur	10.3	7.4	2.9	684
Wayanad	11.2	7.5	3.7	188
Kerala	13.7	8.3	5.4	8,147
NFHS-3 (2005-06)	9.8	6.1	3.7	2,617

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al., 2012, Revising Unmet Need for Family Planning, DHS Analytical Studies No. 25, ICF International, Calverton, Maryland, USA. Unmet need for family planning refers to fecund women who are not using contraception but who wish to postpone the next birth (spacing) or stop childbearing altogether (limiting). Specifically, women are considered to have unmet need for spacing if they are: at risk of becoming pregnant, not using contraception, and either do not want to become pregnant within the next two years, or are unsure if or when they want to become pregnant; pregnant with a mistimed pregnancy; postpartum amenorrhoeic for up to two years following a mistimed birth and not using contraception. Women are considered to have unmet need for limiting if they are: at risk of becoming pregnant, not using contraception, and want no (more) children; pregnant with an unwanted pregnancy; postpartum amenorrhoeic for up to two years following an unwanted birth and not using contraception. Women who are classified as infertile have no unmet need because they are not at risk of becoming pregnant. Unmet need for family planning is the sum of unmet need for spacing and unmet need for limiting.

Table 31 Pregnancy outcome

Percent distribution of last pregnancies among women age 15-49 during the five years preceding the survey by pregnancy outcome, according to background characteristics, Kerala, 2015-16

Background characteristic	Pregnancy outcome				Total	Number of pregnancies
	Live birth	Abortion	Miscarriage	Stillbirth		
Mother's current age						
15-19	(94.7)	(0.0)	(1.3)	(4.0)	100.0	26
20-29	90.8	4.4	4.7	0.2	100.0	1,359
30-39	90.5	4.6	4.5	0.4	100.0	818
40-49	80.4	9.6	10.0	0.0	100.0	64
Residence						
Urban	89.3	5.3	5.2	0.2	100.0	1,076
Rural	91.5	3.9	4.3	0.3	100.0	1,191
Mother's schooling						
5-9 years complete	90.3	5.8	3.4	0.5	100.0	377
10-11 years complete	91.2	3.2	4.9	0.7	100.0	462
12 or more years complete	90.3	4.7	4.9	0.1	100.0	1,410
Religion						
Hindu	90.0	5.0	4.8	0.3	100.0	1,179
Muslim	91.6	3.7	4.4	0.3	100.0	798
Christian	89.3	5.3	5.4	0.0	100.0	290
Caste/tribe						
Scheduled caste	86.2	6.6	6.7	0.5	100.0	210
Scheduled tribe	92.1	0.0	7.9	0.0	100.0	39
Other backward class	91.6	3.8	4.3	0.2	100.0	1,295
Other	89.5	5.5	4.7	0.3	100.0	711
Total	90.4	4.6	4.7	0.3	100.0	2,267

Note: Total includes pregnancies of women who have no schooling or have less than 5 years of schooling, women belonging to "other" religions, and women who don't know their caste/tribe, which are not shown separately.

() Based on 25-49 unweighted cases

Table 32 Characteristics of abortions

Among women age 15-49 whose last pregnancy in the last five years ended in an abortion, percent distribution by place of abortion and person who performed the abortion, percentage who had complications from the abortion, according to residence, Kerala, 2015-16

Characteristic of abortion	Urban	Rural	Total
Place of abortion			
Public health sector	(12.3)	31.4	20.9
Private health sector ¹	(85.5)	68.6	77.9
At home	(2.2)	0.0	1.2
Total	100.0	100.0	100.0
Person who performed the abortion			
Doctor	(97.8)	98.9	98.3
Nurse/ANM/LHV	(0.0)	1.1	0.5
Self	(2.2)	0.0	1.2
Total	100.0	100.0	100.0
Complications from the abortion			
Percentage of women who had complications from the abortion	(22.1)	10.3	16.8
Number of women with abortions	57	47	104

ANM = Auxiliary nurse midwife; LHV = Lady health visitor

¹ Includes nongovernmental organizations or trust hospitals/clinics

() Based on 25-49 unweighted cases

Table 33 Age at first marriage

Percentage of women and men age 15-49 who were first married by specific exact ages, percentage never married, and median age at first marriage, first cohabitation with spouse, and first sexual intercourse according to current age, Kerala, 2015-16

Current age	Percentage first married by exact age:					Percentage never married	Number of respondents	Median age at first marriage	Median age at first cohabitation	Median age at first sex
	15	18	20	21	25					
WOMEN										
15-19	0.0	na	na	na	na	94.0	1,504	a	a	a
20-24	0.4	7.6	23.1	na	na	52.9	1,519	a	a	a
25-29	1.5	13.0	31.3	40.8	76.6	11.4	1,630	21.9	22.0	22.1
30-34	2.2	17.8	37.7	47.9	82.9	1.9	1,541	21.2	21.3	21.5
35-39	3.5	19.1	36.7	47.2	79.2	1.6	1,703	21.3	21.4	21.5
40-44	5.1	19.7	36.6	46.4	79.2	1.4	1,536	21.4	21.7	21.7
45-49	5.4	18.5	35.0	44.0	77.8	1.3	1,601	21.6	22.1	21.9
20-49	3.0	16.0	33.5	na	na	11.4	9,529	a	a	a
25-49	3.5	17.6	35.4	45.2	79.1	3.6	8,010	21.5	21.7	21.7
MEN										
15-19	0.0	na	na	na	na	99.9	306	a	a	a
20-24	0.0	0.0	0.4	na	na	97.3	278	a	a	a
25-29	0.0	0.1	0.7	2.8	13.1	66.1	261	a	a	a
30-34	0.1	0.3	1.0	2.7	19.1	26.6	252	28.8	28.7	28.4
35-39	0.7	1.2	3.0	4.2	19.8	9.1	270	28.5	28.4	28.1
40-44	0.6	2.2	4.0	8.4	25.5	3.2	236	27.8	27.6	27.6
45-49	1.8	2.2	6.0	8.9	26.4	1.2	253	28.3	27.8	28.3
20-49	0.5	1.0	2.4	na	na	35.1	1,550	a	a	a
25-49	0.6	1.2	2.9	5.3	20.7	21.6	1,272	a	a	a

na = Not applicable due to censoring

a = Omitted because less than 50 percent of the women or men were married, began living with their spouse, or had sexual intercourse for the first time before reaching the beginning of the age group.

Table 34 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey and for 0-4 years before NFHS-3, NFHS-2 and NFHS-1, by residence, Kerala, 2015-16

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality ¹ (PNN)	Infant mortality (${}_1q_0$)	Child mortality (${}_4q_1$)	Under-five mortality (${}_5q_0$)
URBAN					
0-4	4.4	1.4	5.8	2.4	8.1
5-9	6.8	0.0	6.8	0.0	6.8
10-14	5.8	6.7	12.5	0.6	13.1
NFHS-3 (0-4)	(15.0)	(3.0)	(18.0)	(0.0)	(18.0)
NFHS-2 (0-4)	(12.5)	(3.1)	(15.5)	(3.1)	(18.6)
NFHS-1 (0-4)	5.7	3.8	9.5	3.7	13.1
RURAL					
0-4	4.4	1.0	5.4	0.6	6.0
5-9	4.9	2.7	7.7	0.9	8.5
10-14	7.5	2.2	9.7	1.0	10.7
NFHS-3 (0-4)	9.9	4.2	14.1	1.4	15.5
NFHS-2 (0-4)	14.2	2.4	16.5	2.4	18.9
NFHS-1 (0-4)	19.0	9.8	28.7	10.0	38.5
TOTAL					
0-4	4.4	1.2	5.6	1.5	7.1
5-9	5.8	1.4	7.3	0.5	7.7
10-14	6.7	4.3	11.1	0.8	11.9
NFHS-3 (0-4)	11.5	3.8	15.3	1.0	16.3
NFHS-2 (0-4)	13.8	2.5	16.3	2.6	18.8
NFHS-1 (0-4)	15.5	8.2	23.8	8.4	32.0

¹ Computed as the difference between the infant and neonatal mortality rates.
() Based on 250-499 unweighted person-years of exposure to the risk of death

Table 35 Early childhood mortality rates by background characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the five-year period preceding the survey, by background characteristics, Kerala, 2015-16

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality ¹ (PNN)	Infant mortality (₁ q ₀)	Child mortality (₄ q ₁)	Under-five mortality (₅ q ₀)
Residence					
Urban	4.4	1.4	5.8	2.4	8.1
Rural	4.4	1.0	5.4	0.6	6.0
Schooling					
<10 years complete	(5.0)	(4.1)	(9.1)	1.6	(10.7)
10 or more years complete	4.3	0.6	4.8	1.4	6.3
Religion					
Hindu	3.7	1.8	5.5	2.4	7.8
Muslim	3.8	0.8	4.5	0.7	5.3
Christian	(8.8)	(0.0)	(8.8)	(0.0)	(8.8)
Caste/tribe					
Other backward class	5.3	1.7	7.1	0.4	7.5
Other ²	3.9	0.0	3.9	3.4	7.2
Child's sex					
Male	3.7	2.1	5.7	2.1	7.8
Female	5.1	0.3	5.4	0.9	6.3
Mother's age at birth					
20-29	4.3	1.1	5.4	2.0	7.4
30-39	(6.0)	(1.2)	(7.2)	(0.0)	(7.2)
Birth order					
1	2.4	1.5	4.0	1.8	5.8
2-3	6.6	0.9	7.6	1.2	8.8
Previous birth interval³					
2-3 years	(2.5)	(2.0)	(4.5)	(0.7)	(5.2)
4 years or more	8.7	0.0	8.7	0.0	8.7
Total	4.4	1.2	5.6	1.5	7.1

Note: Total includes children whose mothers have no schooling, children belonging to a scheduled caste or scheduled tribe, children with mothers' age at birth 15-19 or 40-49, children of birth order 4 or more, and children with a birth interval of less than 2 years, who are not shown separately.

¹ Computed as the difference between the infant and neonatal mortality rates

² Not belonging to a scheduled caste, scheduled tribe, or other backward class

³ Excludes first-order births

() Based on 250-499 unweighted person-years of exposure to the risk of death

Table 36 High-risk fertility behaviour

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Kerala, 2015-16

Risk category	Births in the 5 years preceding the survey		Percentage of currently married women ¹
	Percentage of births	Risk ratio	
Not in any high-risk category	40.2	1.0	64.3 ^a
Unavoidable risk category			
First order births between ages 18 and 34 years	46.1	0.8	7.9
Single high-risk category			
Mother's age <18	0.9	*	0.0
Mother's age >34	3.9	0.0	17.2
Birth interval <24 months	5.4	1.8	4.5
Birth order >3	2.1	(0.0)	1.3
Subtotal	12.3	0.8	22.9
Multiple high-risk category			
Mother's age >34 and birth interval <24 months	0.2	*	0.3
Mother's age >34 and birth order >3	1.1	(0.0)	4.1
Mother's age >34 and birth interval <24 months and birth order >3	0.0	*	0.1
Birth interval <24 months and birth order >3	0.2	*	0.4
Subtotal	1.4	(0.0)	4.9
In any avoidable high-risk category	13.7	0.7	27.8
Total	100.0	na	100.0
Number of births	2,453	na	8,147

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category.

na = Not applicable

¹ Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or greater than 34 years and 2 months, latest birth less than 15 months ago, or latest birth of order 3 or higher

^a Includes sterilized women

() Based on 25-49 unweighted cases

* Based on fewer than 25 unweighted cases

Table 37 Antenatal care

Percent distribution of women who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent live birth and percentage receiving ANC from a skilled provider, according to background characteristics, Kerala, 2015-16

Background characteristic	Doctor	ANM/nurse/ midwife/LHV	Anganwadi/ ICDS worker	ASHA	No one	Total	Number of women	Percentage receiving ANC from a skilled provider ¹
Mother's age at birth								
<20	99.0	0.6	0.0	0.0	0.4	100.0	118	99.6
20-34	98.8	0.3	0.1	0.0	0.7	100.0	1,874	99.2
35-49	100.0	0.0	0.0	0.0	0.0	100.0	123	100.0
Birth order								
1	99.3	0.4	0.0	0.1	0.3	100.0	924	99.6
2-3	98.6	0.3	0.2	0.0	0.9	100.0	1,115	98.9
4+	99.4	0.0	0.0	0.0	0.6	100.0	76	99.4
Residence								
Urban	98.7	0.4	0.3	0.1	0.6	100.0	998	99.1
Rural	99.1	0.2	0.0	0.0	0.6	100.0	1,117	99.4
Schooling								
5-9 years complete	98.1	0.8	0.4	0.0	0.7	100.0	352	98.9
10-11 years complete	99.2	0.5	0.3	0.0	0.0	100.0	433	99.7
12 or more years complete	99.0	0.1	0.0	0.1	0.8	100.0	1,314	99.1
Religion								
Hindu	98.7	0.3	0.1	0.1	0.8	100.0	1,099	99.0
Muslim	99.1	0.4	0.1	0.0	0.4	100.0	751	99.5
Christian	99.2	0.2	0.0	0.0	0.6	100.0	265	99.4
Caste/tribe								
Scheduled caste	98.3	0.5	0.7	0.0	0.4	100.0	196	98.8
Scheduled tribe	100.0	0.0	0.0	0.0	0.0	100.0	37	100.0
Other backward class	98.9	0.2	0.0	0.1	0.8	100.0	1,224	99.1
Other	99.4	0.2	0.2	0.0	0.3	100.0	647	99.6
Total	98.9	0.3	0.1	0.0	0.6	100.0	2,115	99.2

Note: If more than one source of ANC was mentioned, only the provider with the highest qualification is considered in this table. Total includes women who have no schooling or have less than 5 years of schooling, women belonging to "other" religions, and women who don't know their caste/tribe, who are not shown separately.

ANM = Auxiliary nurse midwife; LHV = Lady health visitor; ICDS = Integrated Child Development Services; ASHA = Accredited Social Health Activist

¹ Skilled provider includes doctor, auxiliary nurse midwife, nurse, midwife, and lady health visitor

Table 38 Antenatal care services and information received

Percentage of women who had a live birth in the five years preceding the survey who received antenatal care (ANC) for the most recent live birth by services and information received, according to residence and source of antenatal care, Kerala, 2015-16

Services/information	Residence		Source of ANC				Total
	Urban	Rural	Public health sector	Private health sector ¹	Both public and private health sector ¹	ANC received only at home	
Percentage receiving selected services during antenatal care							
Weighed	99.2	99.1	99.2	99.3	99.0	96.8	99.2
Blood pressure measured	99.0	99.0	99.0	99.3	99.0	95.8	99.0
Urine sample taken	98.9	99.5	99.5	99.2	99.0	97.2	99.2
Blood sample taken	99.2	99.6	99.5	99.4	99.0	98.4	99.4
Abdomen examined	99.1	99.7	99.4	99.4	99.0	98.4	99.4
Percentage receiving information on specific pregnancy complications							
Vaginal bleeding	29.8	23.5	26.8	26.4	25.8	22.5	26.5
Convulsions	16.4	11.3	14.8	12.8	12.4	11.6	13.7
Prolonged labour	28.7	23.1	26.3	25.4	22.2	19.2	25.8
Severe abdominal pain	30.5	27.8	29.6	29.1	31.5	28.2	29.1
High blood pressure	33.2	29.7	34.7	29.3	31.2	24.3	31.4
Where to go if experienced pregnancy complications	83.6	82.6	85.5	81.2	80.8	80.0	83.1
Number of women	993	1,110	943	1,227	162	95	2,102

¹ Includes nongovernmental organizations or trust hospitals/clinics

Table 39 Antenatal care indicators

Among women with a live birth in the five years preceding the survey, percentage who received different types of antenatal care (ANC) during the pregnancy for their most recent live birth, by background characteristics, Kerala, 2015-16

Background characteristic	Percentage who had four or more ANC visits	Percentage with an ANC visit in the first trimester of pregnancy	Percentage who received two or more TT injections during the pregnancy	Percentage whose last live birth was protected against neonatal tetanus ¹	Percentage who were given or bought IFA	Percentage who took IFA for at least 100 days	Percentage who had full antenatal care ²	Percentage who took an intestinal parasite drug	Number of women
Age at birth									
<20	91.2	95.3	94.6	96.9	93.6	68.7	59.5	15.6	118
20-34	90.1	95.2	95.0	96.4	96.3	66.8	61.0	21.4	1,874
35-49	91.0	93.7	92.8	96.4	96.6	71.1	65.6	20.5	123
Birth order									
1	91.3	96.2	96.4	97.4	96.6	65.7	60.3	20.2	924
2-3	89.4	94.2	93.8	95.8	96.0	68.1	62.1	22.2	1,115
4+	87.6	96.9	90.7	94.3	92.3	70.7	59.9	12.0	76
Residence									
Urban	88.5	96.2	94.3	96.2	95.9	69.7	63.1	21.2	998
Rural	91.7	94.2	95.4	96.7	96.3	64.9	59.5	20.8	1,117
Schooling									
5-9 years complete	87.2	92.2	91.7	94.1	95.1	64.2	56.0	23.2	352
10-11 years complete	90.9	95.6	95.2	96.7	93.7	65.6	58.6	16.7	433
12 or more years complete	90.9	95.9	95.6	97.0	97.3	68.5	63.7	21.9	1,314
Religion									
Hindu	89.9	94.3	94.9	96.4	97.5	65.8	59.3	23.7	1,099
Muslim	91.0	95.9	94.6	96.4	94.1	68.6	63.2	17.5	751
Christian	89.4	96.4	95.5	96.9	96.5	68.8	63.3	19.8	265
Caste/tribe									
Scheduled caste	92.0	94.3	91.8	95.0	95.5	56.0	49.7	21.6	196
Scheduled tribe	83.3	89.7	92.7	93.8	96.9	75.2	62.5	28.8	37
Other backward class	90.9	95.2	95.4	96.8	96.8	71.6	65.6	20.2	1,224
Other	89.2	95.5	95.0	96.4	95.0	62.0	56.9	21.8	647
Total	90.2	95.1	94.9	96.5	96.2	67.1	61.2	21.0	2,115

Note: Total includes women who have no schooling or have less than 5 years of schooling, women belonging to "other" religions, and women who don't know their caste/tribe, who are not shown separately.

TT = Tetanus toxoid; IFA = Iron and folic acid

¹ Includes mothers with two injections during the pregnancy for her last birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last birth), or four or more injections (the last within 10 years of the last live birth), or five or more injections at any time prior to the last birth

² Full antenatal care includes having received at least four antenatal care visits, having received at least one TT injection, and having taken IFA tablets or syrup for 100 or more days

Table 40 Antenatal care indicators by district

Among women with a live birth in the five years preceding the survey, percentage who received different types of antenatal care (ANC) during the pregnancy for their most recent live birth, and among women with registered pregnancies, percentage who received a Mother and Child Protection Card (MCP Card), by district, Kerala, 2015-16

District	Percentage who had four or more ANC visits	Percentage with an ANC visit in the first trimester of pregnancy	Percentage who took IFA for at least 100 days	Percentage who received two or more TT injections during the pregnancy	Percentage who had full antenatal care ¹	Number of women	Percentage of women who received an MCP Card	Number of registered pregnancies
Alappuzha	80.5	93.4	54.9	91.2	45.2	116	87.5	102
Ernakulam	94.7	93.5	71.0	95.8	69.3	186	83.6	164
Idukki	89.9	98.3	59.2	92.6	54.3	52	87.0	48
Kannur	93.2	96.7	75.4	96.5	71.5	156	90.1	147
Kasaragod	90.9	95.9	72.2	96.1	65.2	94	87.1	85
Kollam	88.7	94.1	56.7	96.5	51.8	168	84.8	141
Kottayam	85.4	98.0	59.4	98.3	52.7	122	95.5	116
Kozhikode	94.4	95.1	74.6	95.8	71.4	187	83.8	170
Malappuram	93.2	96.9	63.9	94.2	58.8	337	74.9	288
Palakkad	90.4	93.4	79.3	95.6	69.9	217	84.9	197
Pathanamthitta	90.0	86.6	68.6	89.0	61.4	72	91.1	64
Thiruvananthapuram	89.1	94.9	57.8	94.2	55.0	196	79.5	188
Thrissur	83.1	97.2	70.3	93.9	56.6	154	82.8	139
Wayanad	91.7	94.8	72.2	92.2	66.0	58	88.7	54
Kerala	90.2	95.1	67.1	94.9	61.2	2,115	84.2	1,903

TT = Tetanus toxoid; IFA = Iron and folic acid

¹ Full antenatal care includes having received at least four antenatal care visits, having received at least one TT injection, and having taken IFA tablets or syrup for 100 or more days

Table 41 Advice received during pregnancy

Among women with a live birth in the five years preceding the survey who met with a community health worker in the last three months of pregnancy for their most recent live birth, percentage who received different types of advice, by background characteristics, Kerala, 2015-16

Background characteristic	Percentage who received advice on:					Number of women who met with a community health worker in the last three months of pregnancy ¹
	Importance of institutional delivery	Cord care	Breastfeeding	Keeping the baby warm	Family planning	
Age at birth						
<20	81.4	69.4	87.0	80.8	74.7	58
20-34	72.4	67.7	83.3	79.9	71.7	1,007
35-49	79.9	69.1	80.5	83.6	70.1	63
Birth order						
1	75.7	69.5	86.1	82.3	75.5	460
2-3	70.5	67.0	81.7	78.5	69.4	630
4+	(89.7)	(61.2)	(77.4)	(81.8)	(67.6)	38
Residence						
Urban	73.6	66.8	83.1	81.2	71.8	516
Rural	73.1	68.7	83.6	79.3	71.8	612
Schooling						
5-9 years complete	75.1	69.0	81.9	80.9	74.3	196
10-11 years complete	76.6	66.2	86.7	82.5	68.1	243
12 or more years complete	71.6	68.1	82.6	79.0	72.5	682
Religion						
Hindu	73.8	69.2	86.0	80.5	72.7	611
Muslim	73.9	67.1	79.8	80.0	70.8	378
Christian	70.1	64.2	81.4	78.9	70.8	138
Caste/tribe						
Scheduled caste	78.3	73.6	85.8	86.1	82.3	111
Scheduled tribe	(76.2)	(68.6)	(80.2)	(70.3)	(78.8)	23
Other backward class	75.1	69.8	84.5	80.9	71.7	672
Other	68.2	62.5	80.7	78.1	67.9	316
Total	73.3	67.8	83.4	80.1	71.8	1,128

Note: Total includes pregnancies of women who have no schooling or have less than 5 years of schooling, women belonging to "other" religions, and women who don't know their caste/tribe, which are not shown separately.

¹ Community health worker includes auxiliary nurse midwife (ANM), lady health visitor (LHV), Accredited Social Health Activist (ASHA), *anganwadi* worker, and other community health worker

() Based on 25-49 unweighted cases

Table 42. Pregnancies for which an ultrasound test was done

Percentage of all pregnancies in the five years preceding the survey for which an ultrasound test was done and percent distribution of pregnancies with an ultrasound test by pregnancy outcome, according to background characteristics, Kerala, 2015-16

Background characteristic	Percentage of pregnancies with an ultrasound test	Number of pregnancies	Pregnancy outcome ¹			Number of pregnancies with an ultrasound test		
			Son	Daughter	Termination	Still pregnant	Total percent	ultrasound test
Mother's age at pregnancy								
<20	93.9	281	42.9	43.2	6.9	7.1	100.0	264
20-34	96.1	2,711	38.6	41.0	9.0	11.4	100.0	2,604
35-49	91.8	139	31.5	37.4	20.5	10.5	100.0	128
Residence								
Urban	95.3	1,495	38.2	41.0	10.3	10.5	100.0	1,425
Rural	96.0	1,636	39.0	41.0	8.5	11.5	100.0	1,571
Antenatal care visits²								
1-3	96.4	64	33.7	49.2	7.3	9.8	100.0	62
4+	95.8	2,480	38.7	40.8	9.6	10.9	100.0	2,375
Don't know	94.9	183	44.4	36.8	7.6	11.1	100.0	173
Mother's schooling								
<5 years complete	(98.2)	19	(38.1)	(40.8)	(21.1)	(0.0)	100.0	19
5-9 years complete	94.6	498	46.4	37.8	10.1	5.8	100.0	471
10-11 years complete	95.2	629	42.1	41.8	9.0	7.0	100.0	599
12 or more years complete	96.1	1,980	35.7	41.5	9.1	13.7	100.0	1,902
Religion								
Hindu	96.2	1,583	37.1	42.4	10.2	10.3	100.0	1,523
Muslim	95.5	1,117	41.8	38.9	7.8	11.5	100.0	1,068
Christian	94.2	429	36.0	41.4	10.3	12.3	100.0	404
Caste/tribe								
Scheduled caste	95.5	288	42.0	36.1	14.4	7.5	100.0	275
Scheduled tribe	97.2	55	45.1	38.0	8.6	8.4	100.0	54
Other backward class	95.4	1,772	39.4	42.5	7.6	10.5	100.0	1,689
Other	96.3	1,000	36.0	40.1	10.8	13.1	100.0	963

Continued...

Table 42. Pregnancies for which an ultrasound test was done—Continued

Percentage of all pregnancies in the five years preceding the survey for which an ultrasound test was done and percent distribution of pregnancies with an ultrasound test by pregnancy outcome, according to background characteristics, Kerala, 2015-16

Background characteristic	Percentage of pregnancies with an ultrasound test	Number of pregnancies	Pregnancy outcome ¹				Total percent	Number of pregnancies with an ultrasound test
			Son	Daughter	Termination	Still pregnant		
Mother's number of living children at time of pregnancy								
No children	96.5	1,466	37.2	44.2	7.0	11.5	100.0	1,415
1 child	95.9	1,243	40.2	37.8	10.3	11.6	100.0	1,191
0 sons	96.5	622	39.9	39.3	8.0	12.7	100.0	600
1 son	95.2	621	40.5	36.3	12.6	10.5	100.0	591
2 children	92.5	332	37.9	37.5	16.1	8.5	100.0	308
0 sons	93.3	91	34.7	48.5	8.8	7.9	100.0	85
1 or more sons	92.2	242	39.0	33.3	18.9	8.7	100.0	223
3 children	88.7	65	44.0	42.2	10.6	3.2	100.0	58
1 or more sons	(86.8)	46	(42.4)	(45.7)	(10.5)	(1.4)	100.0	40
Total	95.7	3,131	38.6	41.0	9.3	11.0	100.0	2,996

Note: Total includes pregnancies of women who had no antenatal care visits, women with no schooling, women belonging to "other" religions, women who don't know their caste/tribe, women who have 3 children with no sons, and women who have 4 or more children, which are not shown separately.

¹ For multiple births, sex of pregnancy outcome is the sex of the first listed birth

² Includes only the most recent pregnancy in the five years preceding the survey

() Based on 25-49 unweighted cases

Table 43 Pregnancy registration and Mother and Child Protection Card

Percentage of women who had a live birth in the five years preceding the survey who registered the pregnancy for the most recent live birth; and among registered pregnancies, the percentage by the timing of the registration and the percentage who received a Mother and Child Protection Card (MCP Card), by background characteristics, Kerala, 2015-16

Background characteristic	Percentage of pregnancies that were registered	Number of pregnancies	Timing of pregnancy registration		Percentage of mothers given an MCP Card	Number of registered pregnancies
			First trimester	Later		
Mother's age at birth						
<20	88.7	118	91.8	8.2	82.8	105
20-34	90.4	1,874	91.6	7.3	84.1	1,694
35-49	84.6	123	89.4	10.6	86.6	104
Birth order						
1	90.2	924	91.5	7.3	84.7	834
2-3	89.7	1,115	91.3	7.8	84.4	1,001
4+	90.4	76	94.5	5.5	74.1	69
Residence						
Urban	88.9	998	92.7	5.7	82.0	887
Rural	91.0	1,117	90.5	9.1	86.1	1,016
Schooling						
5-9 years complete	92.9	352	90.4	9.0	83.8	327
10-11 years complete	91.7	433	91.9	6.8	89.4	397
12 or more years complete	88.8	1,314	91.7	7.3	82.4	1,167
Religion						
Hindu	91.4	1,099	91.7	7.2	87.2	1,004
Muslim	88.3	751	90.7	8.2	78.8	663
Christian	88.7	265	93.0	6.6	86.3	235
Caste/tribe						
Scheduled caste	93.2	196	90.3	9.0	89.0	182
Scheduled tribe	91.5	37	94.6	4.3	86.6	34
Other backward class	90.3	1,224	91.0	7.9	84.4	1,106
Other	88.7	647	92.7	6.3	81.8	574
Total	90.0	2,115	91.5	7.5	84.2	1,903

Note: Total includes pregnancies of women who have no schooling or have less than 5 years of schooling, women belonging to "other" religions, and women who don't know their caste/tribe, which are not shown separately.

Table 44 Delivery and postnatal care

Percent distribution of live births in the five years preceding the survey by place of delivery and assistance during delivery, percentage delivered by a skilled provider and by caesarean section, percentage of live births delivered at home that were delivered by a skilled provider and percentage for which the delivery protocol was followed, and percent distribution of women giving birth in the five years preceding the survey by timing and type of provider of the first postnatal check of the mother for their most recent live birth, by residence, Kerala, 2015-16

Delivery and postnatal care descriptors	Urban	Rural	Total
Place of delivery			
Health facility	99.9	99.9	99.9
Public sector	35.6	40.8	38.4
NGO/trust	0.0	0.3	0.1
Private sector	64.3	58.8	61.4
At home	0.1	0.1	0.1
Own home	0.1	0.1	0.1
Total	100.0	100.0	100.0
Assistance during delivery¹			
Doctor	97.9	98.6	98.3
ANM/nurse/midwife/LHV	2.1	1.4	1.7
Dai (TBA)	0.0	0.0	0.0
Total	100.0	100.0	100.0
Percentage of all births delivered by a skilled provider ²	100.0	100.0	100.0
Percentage of home births delivered by a skilled provider ²	0.1	0.1	0.1
Percentage delivered by caesarean section	37.1	34.6	35.8
Percentage delivered by emergency caesarean section ³	14.5	11.4	12.8
Number of births	1,169	1,282	2,452
Timing after delivery of mother's first postnatal check⁴			
Less than 4 hours	78.0	79.9	79.0
4-23 hours	3.9	4.6	4.3
1-2 days	6.0	5.3	5.6
3-41 days	0.6	0.4	0.5
Don't know ⁵	4.5	2.8	3.6
No postnatal check	7.1	7.0	7.0
Total	100.0	100.0	100.0
Type of provider of mother's first postnatal check⁴			
Doctor	87.6	88.7	88.2
ANM/nurse/midwife/LHV	5.0	3.7	4.3
Other health personnel	0.0	0.3	0.2
Other	0.3	0.2	0.2
No postnatal check	7.1	7.0	7.0
Total	100.0	100.0	100.0
Number of last live births	998	1,117	2,115

NGO = Nongovernmental organization; ANM = Auxiliary nurse midwife; LHV = Lady health visitor; TBA = Traditional birth attendant

¹ If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this table

² Skilled provider includes doctor, auxiliary nurse midwife, nurse, midwife, lady health visitor, and other health personnel

³ A caesarean section for which the decision to have the operation was made after the onset of labour

⁴ Based on the last live birth in the five years preceding the survey. Postnatal checks are checks on the woman's health within 42 days of the birth

⁵ Includes missing

Table 45 Delivery and postnatal care by background characteristics

Percentage of live births in the five years preceding the survey delivered in a health facility and percentage delivered with assistance from health personnel, and percentage of women who had a live birth in the five years preceding the survey who received a postnatal check and who received a postnatal check within two days of birth for their most recent birth, by background characteristics, Kerala, 2015-16

Background characteristic	Percentage of births delivered in a public health facility	Percentage of births delivered in a private health facility	Percentage of births delivered in a health facility	Percentage of deliveries assisted by health personnel ¹	Number of births	Percentage of women with a postnatal check ^{2,3}	Percentage of women with a postnatal check within two days of birth ^{2,3}	Number of women
Mother's age at birth								
<20	39.4	60.6	100.0	100.0	159	93.9	85.3	118
20-34	38.6	61.3	99.9	100.0	2,167	92.9	89.1	1,874
35-49	32.7	67.3	100.0	100.0	126	93.3	88.7	123
Residence								
Urban	35.6	64.3	99.9	100.0	1,169	92.9	87.9	998
Rural	40.8	59.0	99.9	100.0	1,282	93.0	89.7	1,117
Birth order								
1	37.2	62.8	99.9	100.0	1,177	92.2	87.0	924
2-3	40.4	59.4	99.8	100.0	1,193	93.5	90.1	1,115
4+	25.3	74.7	100.0	100.0	81	93.6	93.6	76
Antenatal care visits²								
1-3	34.5	65.1	99.7	99.7	52	88.7	83.6	52
4+	39.3	60.6	99.9	100.0	1,908	93.1	89.4	1,908
Don't know	46.4	53.6	100.0	100.0	143	93.2	84.3	143
Mother's schooling								
5-9 years complete	47.5	52.0	99.6	100.0	411	91.4	86.7	352
10-11 years complete	47.8	52.0	99.8	100.0	512	95.4	91.5	433
12 or more years complete	32.1	67.9	100.0	100.0	1,509	92.5	88.5	1,314
Religion								
Hindu	47.5	52.5	100.0	100.0	1,253	92.0	86.7	1,099
Muslim	28.5	71.2	99.7	100.0	875	94.8	91.8	751
Christian	29.6	70.4	100.0	100.0	323	91.8	89.3	265
Caste/tribe								
Scheduled caste	67.9	32.1	100.0	100.0	220	95.4	90.3	196
Scheduled tribe	68.9	30.7	99.6	99.6	46	89.7	84.4	37
Other backward class	38.3	61.6	99.9	100.0	1,415	92.7	88.3	1,224
Other	28.0	71.9	99.9	100.0	758	93.0	90.0	647
Place of delivery								
Public health facility	100.0	0.0	100.0	100.0	940	93.4	90.2	837
Private health facility ⁴	0.0	100.0	100.0	100.0	1,509	92.7	88.0	1,277
Total	38.4	61.5	99.9	100.0	2,452	93.0	88.9	2,115

Note: Total includes births to women who had no antenatal care visits, women who have no schooling or have less than 5 years of schooling, women belonging to "other" religions, women who don't know their caste/tribe, and women who delivered at home, which are not shown separately.

¹ Health personnel includes doctor, auxiliary nurse midwife, nurse, midwife, lady health visitor, and other health personnel. If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this table.

² Based on the last live birth in the five years preceding the survey

³ Postnatal checks are checks on the woman's health within 42 days of the birth

⁴ Includes nongovernmental organizations or trust hospitals/clinics

Table 46 Delivery and postnatal care by district

Percentage of live births in the five years preceding the survey delivered in a health facility, percentage delivered with assistance from health personnel and percentage delivered by caesarean section, and percentage of women who had a live birth in the five years preceding the survey who received a postnatal check within two days of birth for their most recent birth, by district, Kerala, 2015-16

District	Percentage of births delivered in a public health facility	Percentage of births delivered in a private health facility	Percentage of births delivered in a health facility	Percentage of deliveries assisted by health personnel ¹	Percentage of births delivered by caesarean section	Number of births	Percentage of women with a postnatal check within two days of birth ²	Number of women
Alappuzha	44.5	55.5	100.0	100.0	43.6	130	79.6	116
Ernakulam	19.7	80.3	100.0	100.0	40.0	214	94.8	186
Idukki	43.9	56.1	100.0	100.0	47.1	60	86.2	52
Kannur	40.2	59.8	100.0	100.0	33.6	184	96.8	156
Kasaragod	28.5	71.5	100.0	100.0	26.3	107	88.0	94
Kollam	41.6	57.9	99.5	100.0	57.0	192	81.6	168
Kottayam	49.4	50.6	100.0	100.0	28.3	142	88.9	122
Kozhikode	45.5	54.5	100.0	100.0	33.8	212	84.3	187
Malappuram	32.7	66.9	99.6	100.0	24.0	388	93.8	337
Palakkad	33.0	67.0	100.0	100.0	34.4	261	89.0	217
Pathanamthitta	46.2	53.8	100.0	100.0	52.1	79	92.3	72
Thiruvananthapuram	50.6	49.4	100.0	100.0	41.0	235	88.0	196
Thrissur	34.7	65.3	100.0	100.0	33.7	179	86.2	154
Wayanad	47.3	52.4	99.7	99.7	22.8	69	83.2	58
Kerala	38.4	61.5	99.9	100.0	35.8	2,452	88.9	2,115

¹ Health personnel includes doctor, auxiliary nurse midwife, nurse, midwife, lady health visitor, and other health personnel. If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this table.

² Postnatal checks are checks on the woman's health within 42 days of the birth.

Table 47 Delivery costs and financial assistance

The average out-of-pocket cost paid for delivery for the most recent live birth among women who had a live birth in the five years preceding the survey that was delivered in a health facility by type of facility, and among women who had a live birth in the five years preceding the survey for the most recent birth that was delivered in a health facility, the percentage who received financial assistance under *Janani Suraksha Yojana* (JSY), according to background characteristics, Kerala, 2015-16

Background characteristic	Average cost (Rs.) ¹			Percentage who received financial assistance under JSY	Number of births in a health facility
	Public health facility	Private health facility	Any health facility		
Mother's age at birth					
<20	5,461	24,236	16,267	19.1	153
20-34	6,815	27,540	19,868	21.0	1,848
35-49	10,537	29,120	22,604	12.1	114
Birth order					
1	6,924	28,984	20,890	20.5	1,155
2-3	6,884	25,918	18,498	21.2	892
4+	6,663	20,702	17,406	6.2	67
Residence					
Urban	6,848	28,825	21,003	19.1	997
Rural	6,944	26,120	18,683	21.5	1,117
Schooling					
5-9 years complete	6,654	22,362	14,932	23.9	352
10-11 years complete	6,546	23,097	15,285	23.9	432
12 or more years complete	7,279	29,597	22,690	18.0	1,314
Religion					
Hindu	6,343	29,763	19,067	26.4	1,098
Muslim	5,893	23,387	18,730	12.8	750
Christian	12,204	31,044	25,114	16.7	265
Caste/tribe					
Scheduled caste	4,417	29,450	13,074	41.2	196
Scheduled tribe	3,638	26,045	10,935	29.7	37
Other backward class	7,313	25,218	18,530	20.0	1,224
Other	7,990	30,740	24,606	14.3	646
Total	6,901	27,419	19,768	20.4	2,114

Note: Total includes births to women who have no schooling or have less than 5 years of schooling, women belonging to "other" religions, and women who don't know their caste/tribe, which are not shown separately.

¹ Excludes women who don't know the cost

Table 48 Birth order and delivery characteristics by district

Percentage of births during the three years preceding the survey of birth order 3 or more, percentage of women who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent live birth and among women who had a live birth in the five years preceding the survey for the most recent birth that was delivered in a health facility, the percentage of women who received financial assistance under *Janani Suraksha Yojana* (JSY) by district, Kerala, 2015-16

District	Percentage of births of birth order 3 or more	Number of births	Percentage of last births receiving antenatal care from doctor	Percentage of last births receiving antenatal care from ANM/nurse/midwife/LHV	Number of last births	Percentage of births in a health facility receiving financial assistance under JSY	Number of births in a health facility
Alappuzha	7.1	70	97.8	24.2	116	14.4	116
Ernakulam	3.5	138	100.0	34.6	186	14.0	186
Idukki	8.4	34	100.0	33.4	52	23.3	52
Kannur	19.0	108	98.3	47.0	156	18.1	156
Kasaragod	25.1	62	97.3	42.4	94	10.4	94
Kollam	9.1	111	99.4	13.3	168	21.0	167
Kottayam	11.2	83	99.3	19.4	122	33.3	122
Kozhikode	18.5	130	100.0	45.9	187	20.3	187
Malappuram	26.4	216	100.0	36.5	337	16.8	337
Palakkad	11.0	150	97.1	25.7	217	23.1	217
Pathanamthitta	1.0	49	98.3	42.1	72	23.9	72
Thiruvananthapuram	2.4	153	97.8	14.3	196	28.3	196
Thrissur	9.9	112	99.0	39.6	154	18.4	154
Wayanad	15.0	37	100.0	47.3	58	27.8	57
Kerala	12.9	1,454	98.9	32.2	2,115	20.4	2,114

ANM = Auxiliary nurse midwife; LHV = Lady health visitor

Table 49 Timing of first health check after birth for the newborn

Percent distribution of last births in the five years preceding the survey by time after birth of first health check, and the percentage of births with a health check in the first two days after birth, according to background characteristics, Kerala, 2015-16

Background characteristic	Time after birth of newborn's first health check						No health check ¹	Total	Percentage of births with a health check in the first two days after birth	Number of births
	Less than 1 hour	1-3 hours	4-23 hours	1-2 days	3-6 days	Don't know				
Mother's age at birth										
<20	12.1	31.2	0.0	3.5	1.2	4.5	47.5	100.0	46.8	153
20-34	20.6	25.9	0.7	2.0	0.4	1.0	49.3	100.0	49.2	1,849
35-49	21.6	28.6	2.8	2.6	0.0	2.5	42.0	100.0	55.5	114
Birth order										
1	19.4	26.1	0.7	2.1	0.6	1.6	49.6	100.0	48.2	924
2-3	20.9	26.4	0.9	2.3	0.4	1.1	48.0	100.0	50.5	1,115
4-5	17.4	31.0	0.0	0.0	0.0	2.0	49.7	100.0	48.3	71
Place of delivery										
Public health facility	21.7	25.4	0.6	2.4	0.7	0.7	48.5	100.0	50.1	837
Private health facility ²	18.9	27.1	0.9	2.0	0.3	1.8	49.0	100.0	48.9	1,277
Residence										
Urban	22.4	21.8	1.2	2.9	0.8	1.0	50.0	100.0	48.2	998
Rural	18.0	30.6	0.4	1.5	0.1	1.7	47.7	100.0	50.5	1,117
Religion										
Hindu	22.4	24.6	0.7	2.5	0.6	1.6	47.7	100.0	50.2	1,099
Muslim	17.4	30.4	0.9	1.6	0.4	1.3	47.9	100.0	50.4	751
Christian	17.6	22.8	0.7	2.3	0.2	0.4	55.8	100.0	43.5	265
Caste/tribe										
Scheduled caste	15.7	34.7	1.1	2.5	1.0	0.6	44.3	100.0	54.1	196
Scheduled tribe	28.5	17.0	1.0	0.8	0.5	0.0	52.3	100.0	47.2	37
Other backward class	22.3	24.1	1.0	2.2	0.5	1.3	48.6	100.0	49.6	1,224
Other	16.7	29.2	0.3	1.8	0.2	1.8	49.9	100.0	48.0	647
Mother's schooling										
5-9 years complete	18.1	26.6	1.2	2.4	0.0	2.2	49.4	100.0	48.3	352
10-11 years complete	16.8	29.0	0.4	1.7	0.9	2.4	48.8	100.0	47.9	433
12 or more years complete	21.7	25.5	0.8	2.2	0.4	0.8	48.6	100.0	50.2	1,314
Total	20.0	26.4	0.8	2.2	0.5	1.4	48.8	100.0	49.4	2,115

Note: Total includes information on births of birth order 6 or more, births delivered at home, births to women who belong to "other" religions, births to women who don't know their caste/tribe, and births to women who have no schooling or have less than 5 years of schooling, which is not shown separately.

¹ Includes newborns who received a health check after the first week

² Includes nongovernmental organizations or trust hospitals/clinics

Table 50 Trends in maternal care indicators

Maternal care indicators for births during the three years preceding the survey by residence, NFHS-4 and NFHS-3, Kerala

Indicator	NFHS-4 (2015-16)	NFHS-3 (2005-06)
URBAN		
Percentage who received antenatal care ¹	89.6	96.9
Percentage who had at least four antenatal care visits ¹	87.2	96.9
Percentage who received antenatal care within the first trimester of pregnancy ¹	96.3	90.1
Percentage who received full antenatal care ^{1,2}	62.6	75.0
Percentage of births delivered in a health facility ³	99.9	100.0
Percentage of deliveries assisted by health personnel ^{3,4}	100.0	100.0
RURAL		
Percentage who received antenatal care ¹	94.0	93.2
Percentage who had at least four antenatal care visits ¹	91.3	91.6
Percentage who received antenatal care within the first trimester of pregnancy ¹	94.4	93.4
Percentage who received full antenatal care ^{1,2}	61.8	65.8
Percentage of births delivered in a health facility ³	100.0	99.3
Percentage of deliveries assisted by health personnel ^{3,4}	100.0	99.5
TOTAL		
Percentage who received antenatal care ¹	91.9	94.4
Percentage who had at least four antenatal care visits ¹	89.4	93.3
Percentage who received antenatal care within the first trimester of pregnancy ¹	95.3	92.3
Percentage who received full antenatal care ^{1,2}	62.2	68.8
Percentage of births delivered in a health facility ³	99.9	99.5
Percentage of deliveries assisted by health personnel ^{3,4}	100.0	99.7

¹ Based on the last birth to women in the three years preceding the survey

² Full antenatal care includes having received at least four antenatal care visits, having received at least one tetanus toxoid (TT) injection, and having taken iron and folic acid (IFA) tablets or syrup for 100 or more days

³ Based on all births in the three years preceding the survey

⁴ Doctor, auxiliary nurse midwife (ANM), nurse, midwife, lady health visitor (LHV), or other health personnel

Table 51 Male involvement in maternal care: Men's report

Among men age 15-49 whose youngest living child was age 0-35 months, percentage for whom the youngest child's mother received antenatal care, percentage who were present for at least one antenatal check-up, percentage who were told by a health provider or worker at any time during the pregnancy about specific signs of pregnancy complications, percentage to whom a health provider or worker spoke about specific aspects of maternal care at any time during the pregnancy, and percentage whose youngest child was delivered in a health facility, and among men with a child age 0-35 months whose youngest living child was not delivered in a health facility, percentage who were given specific home delivery related information, by residence, Kerala, 2015-16

Antenatal and delivery care information	Urban	Rural	Total
Percentage of men for whom the youngest child's mother received antenatal care	97.8	97.0	97.4
Percentage of men who were present at any antenatal check-up	91.8	86.4	89.0
Percentage who were told by a health provider or worker about the following signs of pregnancy complications:			
Vaginal bleeding	28.8	48.0	38.8
Convulsions	33.3	44.4	39.0
Prolonged labour	43.5	59.6	51.8
Severe abdominal pain	50.7	69.7	60.5
High blood pressure	50.3	61.7	56.2
Percentage ever told what to do if the mother had any pregnancy complications	45.2	67.3	56.7
Percentage whose youngest child age 0-35 months was delivered in a health facility	100.0	100.0	100.0
Percentage to whom a health provider or worker spoke about the following aspects of maternal care:			
The importance of delivering in a health facility	77.1	85.4	81.4
The importance of proper nutrition for the mother during pregnancy	84.8	85.8	85.3
Family planning or delaying his next child	52.6	68.0	60.5
Number of men with a youngest child age 0-35 months	124	133	257

Table 53 Selected vaccinations by district

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report) and percentage who received most vaccinations in a public health facility, by district, Kerala, 2015-16

District	3 doses of Hepatitis B	BCCG	3 doses of DPT	3 doses of polio	Measles	All basic vaccinations ¹	No vaccinations ²	Number of children	Percentage who received most vaccinations in a public health facility	Number of children who received any vaccinations
Ernakulam	(87.5)	(100.0)	(90.3)	(84.6)	(81.6)	(75.9)	(0.0)	32	(50.9)	32
Kannur	(80.6)	(98.5)	(94.3)	(88.6)	(97.0)	(87.1)	(1.5)	47	(82.3)	46
Kasaragod	(89.9)	(98.0)	(93.5)	(93.8)	(93.5)	(91.8)	(2.0)	22	(80.7)	22
Kollam	(85.0)	(100.0)	(98.5)	(87.3)	(93.1)	(87.3)	(0.0)	35	(82.8)	35
Kottayam	(100.0)	(100.0)	(100.0)	(100.0)	(95.2)	(95.2)	(0.0)	32	(68.2)	32
Kozhikode	(84.9)	(100.0)	(86.9)	(86.2)	(84.7)	(70.0)	(0.0)	48	(82.9)	48
Malappuram	77.1	95.1	80.8	77.1	78.8	70.6	4.9	76	(79.9)	72
Palakkad	(79.3)	(97.4)	(89.9)	(93.8)	(90.1)	(88.1)	(2.6)	55	(88.6)	54
Pathanamthitta	(77.5)	(92.5)	(89.1)	(96.3)	(92.6)	(78.0)	(0.0)	16	(71.5)	16
Thiruvananthapuram	(80.2)	(100.0)	(87.7)	(87.6)	(96.2)	(81.9)	(0.0)	42	(55.9)	42
Thrissur	(79.1)	(100.0)	(97.4)	(94.7)	(93.6)	(88.3)	(0.0)	35	(85.4)	35
Wayanad	(71.3)	(100.0)	(83.6)	(79.2)	(83.5)	(72.8)	(0.0)	14	(87.4)	14
Kerala	82.4	98.1	90.4	88.5	89.4	82.1	1.7	486	77.6	478

Note: Alappuzha and Idukki districts are not shown separately because there are fewer than 25 unweighted cases.

¹ Fully vaccinated with BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

² Child has not received any vaccinations listed in the table.

() Based on 25-49 unweighted cases

Table 54 Prevalence and treatment of symptoms of ARI and fever

Among children under age five, percentage who had symptoms of acute respiratory infection (ARI) and fever in the two weeks preceding the survey and percentage with fever who received specific treatments, according to background characteristics, Kerala, 2015-16

Background characteristic	Children under age five			Children under age five with fever	
	Percentage with symptoms of ARI ¹	Percentage with fever	Number of children	Percentage for whom treatment was sought from a health facility or provider ²	Number of children
Age in months					
<6	0.7	10.0	240	*	24
6-11	1.1	10.2	207	*	21
12-23	0.3	14.3	486	91.2	69
24-35	0.8	10.3	513	94.7	53
36-47	1.4	9.2	487	95.6	45
48-59	0.6	8.9	504	85.4	45
Sex					
Male	1.1	10.6	1,190	91.9	126
Female	0.5	10.5	1,246	87.8	131
Residence					
Urban	0.6	10.2	1,160	90.1	119
Rural	1.0	10.8	1,276	89.6	138
Mother's schooling					
5-9 years complete	1.7	11.0	406	84.3	45
10-11 years complete	0.9	10.1	508	94.5	51
12 or more years complete	0.5	10.5	1,503	89.7	158
Religion					
Hindu	0.9	12.3	1,245	87.4	153
Muslim	0.6	7.4	869	91.1	65
Christian	0.9	12.2	320	(97.1)	39
Caste/tribe					
Scheduled caste	2.7	17.7	219	(97.6)	39
Scheduled tribe	0.8	15.4	46	*	7
Other backward class	0.3	9.0	1,405	86.6	127
Other	1.0	10.6	754	92.8	80
Total	0.8	10.5	2,436	89.8	257

Note: Total includes children who have no schooling or have less than 5 years of schooling, children belonging to "other" religions, and children who don't know their caste/tribe, who are not shown separately.

¹ Symptoms of ARI (cough accompanied by short, rapid breathing or difficulty breathing which was chest related)

² Excludes pharmacy, shop, and traditional healer

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 55 Prevalence and treatment of diarrhoea

Percentage of children under age five who had diarrhoea in the two weeks preceding the survey and among children under age five who had diarrhoea in the two weeks preceding the survey, percentage who received advice or treatment from a health facility or health provider, who received oral rehydration therapy (ORT), who were given other treatments and who were given no treatment, by background characteristics, Kerala, 2015-16

Background characteristic	Percentage of children with diarrhoea	Number of children	Percentage of children with diarrhoea taken to a health facility or health provider ¹			Oral rehydration therapy (ORT)				Other treatments						
			Number of children with diarrhoea	Percentage of children with diarrhoea taken to a health facility or health provider ¹	Number of children with diarrhoea taken to a health facility or health provider ¹	Percent- age given fluid from ORS packets	Percent- age given gruel	Percent- age given either ORS or gruel	Percent- age given increased fluids	Any ORT	Percent- age given antibiotic drug	Percent- age given other drug ²	Percent- age given zinc supplements	Percent- age given intravenous solution	Percent- age given home remedy/ herbal/other	Percent- age not receiving any treatment
Age in months																
<6	1.7	240	*	*	*	*	*	*	*	*	*	*	*	*	*	4
6-11	8.0	207	*	*	*	*	*	*	*	*	*	*	*	*	*	17
12-23	5.5	486	(73.4)	(48.0)	(78.6)	(14.5)	(83.5)	(15.2)	(2.1)	(11.1)	(0.0)	(0.0)	(3.2)	(10.0)	27	
24-35	3.8	513	*	*	*	*	*	*	*	*	*	*	*	*	20	
36-47	1.3	487	*	*	*	*	*	*	*	*	*	*	*	*	6	
48-59	1.6	504	*	*	*	*	*	*	*	*	*	*	*	*	8	
Sex																
Male	3.5	1,190	(82.4)	(50.3)	(79.7)	(24.6)	(88.7)	(13.2)	(3.4)	(11.0)	(0.0)	(0.0)	(4.9)	(6.8)	41	
Female	3.2	1,246	(70.0)	(48.5)	(85.5)	(17.1)	(85.5)	(13.9)	(0.9)	(17.1)	(0.0)	(0.0)	(3.1)	(12.6)	40	
Residence																
Urban	2.7	1,160	(69.5)	(40.5)	(79.0)	(32.4)	(90.9)	(14.9)	(0.0)	(5.4)	(0.0)	(0.0)	(4.0)	(9.1)	31	
Rural	4.0	1,276	80.4	54.9	73.1	13.8	84.8	12.7	3.5	19.4	0.0	0.0	4.0	10.1	50	
Mother's schooling																
5-9 years complete	4.6	406	*	*	*	*	*	*	*	*	*	*	*	*	19	
10-11 years complete	3.8	508	*	*	*	*	*	*	*	*	*	*	*	*	19	
12 or more years complete	2.8	1,503	(83.9)	(55.8)	(87.8)	(21.8)	(91.3)	(12.3)	(3.3)	(18.3)	(0.0)	(0.0)	(5.7)	(2.6)	43	
Religion																
Hindu	3.4	1,245	(75.5)	(53.5)	(85.1)	(8.7)	(85.8)	(14.4)	(0.0)	(14.8)	(0.0)	(0.0)	(7.7)	(12.5)	42	
Muslim	3.1	869	(76.4)	(43.4)	(70.5)	(40.3)	(94.2)	(8.5)	(2.0)	(12.3)	(0.0)	(0.0)	(0.0)	(5.8)	27	
Christian	3.7	320	*	*	*	*	*	*	*	*	*	*	*	*	12	
Caste/tribe																
Scheduled caste	4.4	219	*	*	*	*	*	*	*	*	*	*	*	*	10	
Scheduled tribe	3.8	46	*	*	*	*	*	*	*	*	*	*	*	*	2	
Other backward class	3.0	1,405	(67.5)	(51.8)	(80.8)	(13.8)	(85.8)	(17.0)	(1.3)	(18.0)	(0.0)	(0.0)	(5.7)	(14.2)	42	
Other	3.7	754	(83.9)	(47.7)	(60.7)	(35.2)	(86.7)	(13.9)	(3.0)	(7.5)	(0.0)	(0.0)	(0.0)	(4.0)	28	
Total	3.3	2,436	76.3	49.4	75.3	20.9	87.1	13.5	2.2	14.0	0.0	0.0	4.0	9.7	82	

Note: ORT includes a solution prepared from an oral rehydration salt (ORS) packet and/or gruel and/or increased fluids. Total includes children whose mothers have no schooling or have less than 5 years of schooling, children belonging to "other" religions, and children whose caste/tribe is not known, who are not shown separately.

¹ Excludes pharmacy, shop, and traditional healer

² Includes antimotility drugs, other drugs, and unknown drugs

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 56 Feeding practices during diarrhoea

Percent distribution of children under age five who had diarrhoea in the two weeks preceding the survey by amount of liquids and food given compared with normal practice, according to background characteristics, Kerala, 2015-16

Background characteristic	Amount of liquids given				Amount of food given				Total	Percentage given increased fluids and continued feeding ¹	Percentage given ORT and continued feeding ¹	Number of children with diarrhoea			
	More	Same as usual	Some-what less	Much less	More	Same as usual	Some-what less	Much less					Never gave food		
Sex															
Male	(24.6)	(24.4)	(30.3)	(20.7)	100.0	(1.8)	(32.1)	(27.3)	(31.6)	(4.2)	(3.0)	100.0	(12.3)	(53.9)	41
Female	(17.1)	(41.8)	(19.4)	(21.8)	100.0	(4.8)	(28.4)	(30.9)	(33.0)	(2.9)	(0.0)	100.0	(10.8)	(58.4)	40
Residence															
Urban	(32.4)	(25.9)	(24.5)	(17.1)	100.0	(4.0)	(16.5)	(32.0)	(35.9)	(7.6)	(4.0)	100.0	(15.7)	(47.4)	31
Rural	13.8	37.4	25.1	23.7	100.0	2.8	38.7	27.3	30.1	1.1	0.0	100.0	9.1	61.5	50
Religion															
Hindu	(8.7)	(32.8)	(19.5)	(39.0)	100.0	(2.9)	(30.7)	(21.3)	(42.1)	(0.0)	(3.0)	100.0	(2.9)	(53.1)	42
Muslim	(40.3)	(27.8)	(31.8)	(0.0)	100.0	(5.2)	(29.9)	(37.4)	(16.7)	(10.7)	(0.0)	100.0	(25.6)	(66.8)	27
Caste/tribe															
Other backward class	(13.8)	(29.6)	(30.3)	(26.4)	100.0	(4.6)	(28.1)	(27.1)	(30.4)	(6.9)	(3.0)	100.0	(6.4)	(56.0)	42
Other ²	(35.2)	(39.0)	(20.5)	(5.3)	100.0	(2.6)	(34.0)	(30.3)	(33.1)	(0.0)	(0.0)	100.0	(20.8)	(53.6)	28
Total	20.9	33.0	24.9	21.2	100.0	3.3	30.3	29.1	32.3	3.6	1.5	100.0	11.6	56.1	82

Note: It is recommended that children should be given more liquids to drink during diarrhoea and food should not be reduced. Total includes Christian children and children belonging to "other" religions, and scheduled caste or scheduled tribe children, who are not shown separately.

ORT = Oral rehydration therapy, which includes a solution prepared from an oral rehydration salt packet and/or gruel and/or increased fluids

¹ Continued feeding includes children who were given more, same as usual, or somewhat less food during the diarrhoea episode

² Not belonging to a scheduled caste, scheduled tribe, or other backward class

() Based on 25-49 unweighted cases

Table 57 Knowledge of ORS packets

Percentage of all women and percentage of women who had a live birth in the five years preceding the survey who know about ORS packets for treatment of diarrhoea, by background characteristics, Kerala, 2015-16

Background characteristic	All women		Women who gave birth in the past five years	
	Percentage who know about ORS packets	Number of women	Percentage who know about ORS packets	Number of women
Age				
15-19	83.2	1,504	*	25
20-24	91.4	1,519	93.3	386
25-34	96.9	3,171	97.2	1,442
35-49	95.5	4,840	97.9	264
Residence				
Urban	94.0	5,172	95.9	1,000
Rural	93.3	5,861	97.0	1,117
Schooling				
No schooling	75.7	106	*	4
<5 years complete	87.9	246	*	12
5-9 years complete	92.9	2,716	92.9	352
10-11 years complete	92.2	2,689	96.7	434
12 or more years complete	95.4	5,276	97.5	1,314
Religion				
Hindu	94.0	6,229	96.8	1,100
Muslim	93.4	3,077	96.0	751
Christian	92.8	1,725	96.3	265
Caste/tribe				
Scheduled caste	91.7	1,075	96.8	196
Scheduled tribe	87.3	145	93.8	37
Other backward class	93.8	6,108	96.5	1,224
Other	94.3	3,666	96.3	648
Don't know	(87.1)	40	*	11
Total	93.6	11,033	96.5	2,117

Note: Total includes women who belong to "other" religions, who are not shown separately.

ORS = Oral rehydration salt

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 58 ICDS coverage and utilization of ICDS services

Percentage of children under age six years who received any service and received specific services from an anganwadi centre (AWC) in the 12 months preceding the survey, by background characteristics, Kerala, 2015-16

Background characteristic	Percentage of children age 0-71 months who received from an AWC				Children age 36-71 months		Children age 0-59 months		Children age 0-59 months who were weighed at an AWC		
	Any benefits ¹	Supplementary food ²	Any immunizations	Health check-ups	Percentage who went for early childhood care/preschool to an AWC	Number of children	Percentage of children who were weighed at an AWC	Number of children		Percentage whose mothers received counselling from an AWC after child was weighed	
Age in months											
<12	33.1	29.3	12.4	22.6	na	447	na	23.9	447	42.7	107
12-23	60.2	58.1	22.5	41.7	na	486	na	50.0	486	39.6	243
24-35	58.9	57.2	25.1	41.7	na	513	na	50.5	513	41.3	259
36-47	59.3	56.7	21.2	43.1	45.8	487	487	53.3	487	43.4	259
48-59	45.4	42.7	18.1	31.6	36.4	504	504	40.6	504	39.4	205
60-71	33.6	29.1	15.9	25.2	23.9	467	467	na	na	na	na
0-35	51.4	48.9	20.3	35.8	na	1,446	na	42.1	1,446	40.9	608
36-71	46.3	43.0	18.4	33.4	35.5	1,457	1,457	na	na	na	na
Sex											
Male	48.4	45.4	19.6	34.0	36.1	1,437	734	43.5	1,190	40.2	518
Female	49.2	46.4	19.1	35.1	34.9	1,466	724	44.5	1,246	42.1	554
Residence											
Urban	44.4	41.2	18.1	31.0	32.1	1,384	701	39.4	1,160	42.7	457
Rural	52.8	50.2	20.5	37.8	38.7	1,519	757	48.2	1,276	40.1	616
Mother's schooling											
<5 years complete	(59.3)	(52.8)	(37.5)	(48.1)	*	17	11	*	15	*	8
5-9 years complete	53.5	49.4	23.4	38.2	38.2	510	308	50.8	406	38.7	206
10-11 years complete	51.8	49.6	19.4	38.9	39.6	620	350	49.3	508	43.4	250
12 or more years complete	46.2	43.5	18.0	31.7	32.1	1,749	785	40.2	1,503	41.0	604

Continued...

Table 5.8 ICDS coverage and utilization of ICDS services—Continued

Percentage of children under age six years who received any service and received specific services from an *anganwadi* centre (AWC) in the 12 months preceding the survey, by background characteristics, Kerala, 2015-16

Background characteristic	Percentage of children age 0-71 months who received from an AWC			Children age 36-71 months		Children age 0-59 months		Children age 0-59 months who were weighed at an AWC		
	Any benefits ¹	Supplementary food ²	Any immunizations	Health check-ups	Number of children	Percentage who went for early childhood care/preschool to an AWC	Number of children weighed at an AWC	Percentage of children who were weighed at an AWC	Percentage whose mothers received counselling from an AWC after child was weighed	Number of children
Religion										
Hindu	54.0	50.9	22.2	38.6	1,470	40.7	726	48.7	40.3	606
Muslim	44.7	42.2	18.3	32.5	1,048	30.4	545	41.2	44.0	358
Christian	40.1	36.9	11.2	24.5	384	30.2	186	33.3	36.1	107
Caste/tribe										
Scheduled caste	61.8	59.6	29.8	47.4	256	49.7	119	57.0	42.4	125
Scheduled tribe	71.4	65.9	23.4	60.1	53	(68.0)	23	67.0	38.2	31
Other backward class	49.6	46.7	20.0	35.3	1,694	35.6	887	45.7	39.1	642
Other	42.3	39.6	14.9	28.3	885	29.3	424	35.8	46.7	270
Total	48.8	45.9	19.4	34.6	2,903	35.5	1,457	44.0	41.2	1,072

Note: Total includes children whose mothers have no schooling, children belonging to "other" religions, and children whose caste/tribe is not known, who are not shown separately.
na = Not applicable

ICDS = Integrated Child Development Services

¹ AWC benefits for children include distribution of supplementary food, growth monitoring, immunizations, health check-ups, and early childhood care/preschool

² Supplementary food includes both food cooked and served at the AWC on a daily basis or given in the form of take home rations

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 59 Utilization of ICDS services during pregnancy and while breastfeeding

Percentage of children under age six years whose mothers received specific benefits from an anganwadi centre (AWC) during pregnancy and while breastfeeding, according to background characteristics, Kerala, 2015-16

Background characteristic	Mother received from an AWC during pregnancy				Mother received from an AWC while breastfeeding ²					
	Any benefits	Supplementary food ¹	Health check-ups	Health and nutrition education	Number of children	Any benefits	Supplementary food ¹	Health check-ups	Health and nutrition education	Number of children breastfed
Residence										
Urban	32.0	30.5	18.9	21.1	1,384	23.1	22.1	13.6	15.0	1,384
Rural	31.4	30.0	19.5	22.7	1,519	25.0	24.0	15.3	16.9	1,519
Mother's schooling										
<5 years complete	(30.6)	(30.6)	(30.6)	(25.5)	17	(30.3)	(30.3)	(15.3)	(13.0)	17
5-9 years complete	38.2	35.7	22.0	24.8	510	27.7	27.2	17.3	20.0	510
10-11 years complete	36.1	34.7	21.7	25.3	620	27.7	26.9	16.9	18.6	620
12 or more years complete	28.2	26.9	17.4	19.9	1,749	21.7	20.5	12.8	14.0	1,749
Religion										
Hindu	37.4	36.2	22.7	25.6	1,470	27.5	26.6	17.6	19.3	1,470
Muslim	26.8	24.7	16.4	18.7	1,048	21.4	20.0	12.1	13.1	1,048
Christian	23.1	22.0	13.2	16.6	384	18.4	17.9	9.1	11.4	384
Caste/tribe										
Scheduled caste	36.4	35.3	25.7	25.4	256	33.8	32.1	22.7	24.3	256
Scheduled tribe	60.8	60.8	35.7	40.6	53	33.3	30.8	19.9	22.4	53
Other backward class	32.6	31.1	19.3	22.7	1,694	23.9	22.7	14.3	16.6	1,694
Other	26.8	25.3	16.3	18.5	885	21.1	20.8	12.4	12.3	885
Total	31.7	30.2	19.2	21.9	2,903	24.1	23.1	14.5	16.0	2,903

Note: Total includes children whose mothers have no schooling, children belonging to "other" religions, and children whose caste/tribe is not known, who are not shown separately.

ICDS = Integrated Child Development Services

¹ Supplementary food includes both food cooked and served at the AWC on a daily basis and food given in the form of take home rations

² Services are usually provided to breastfeeding mothers during the first six months of breastfeeding

() Based on 25-49 unweighted cases

Table 60 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, 2015-16, and total for NFHS-3

Background characteristic	Height-for-age ¹				Weight-for-height				Weight-for-age				Number of children
	Percentage below -3 SD	Percentage below -2 SD ²	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD ²	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD ²	Percentage above +2 SD	Mean Z-score (SD)	Percentage above +2 SD	
Age in months													
<6	7.6	16.1	-0.2	11.2	26.3	3.6	-1.2	7.1	20.6	2.2	-1.0	184	
6-8	4.1	14.4	-0.2	12.9	26.5	4.6	-1.1	8.4	19.4	1.3	-1.1	93	
9-11	8.2	16.8	-0.4	7.2	18.4	7.4	-0.4	1.3	8.4	0.9	-0.6	97	
12-17	9.2	24.8	-0.8	2.8	13.0	4.2	-0.3	2.3	11.6	0.3	-0.6	233	
18-23	13.8	30.5	-1.3	6.6	15.1	5.5	-0.5	5.8	20.8	0.2	-1.0	224	
24-35	7.0	18.8	-0.7	6.0	17.2	3.6	-0.7	4.3	17.2	2.2	-0.9	496	
36-47	4.0	17.7	-0.7	7.1	12.6	1.1	-0.7	2.2	15.1	1.3	-0.8	479	
48-59	4.9	17.9	-0.9	5.2	12.3	3.1	-0.6	2.2	15.1	1.3	-0.9	492	
Sex													
Male	7.4	19.5	-0.8	6.4	15.9	3.8	-0.7	3.1	16.4	1.1	-0.9	1,108	
Female	6.2	19.8	-0.6	6.7	15.6	3.1	-0.7	4.2	15.8	1.5	-0.8	1,189	
Birth interval in months³													
First birth ⁴	7.1	18.1	-0.7	6.9	16.0	4.2	-0.6	3.4	15.7	1.3	-0.8	1,073	
<24	4.3	19.8	-0.6	7.9	21.4	0.9	-1.1	5.1	23.8	0.0	-1.1	129	
24-47	7.1	24.8	-0.9	6.6	13.0	4.4	-0.6	3.8	16.3	2.0	-0.9	419	
48+	7.1	20.2	-0.7	5.5	15.9	2.3	-0.7	3.8	15.6	1.3	-0.9	617	
Birth order³													
1	7.1	18.2	-0.7	7.0	16.1	4.2	-0.6	3.3	15.8	1.2	-0.8	1,056	
2-3	6.8	22.0	-0.8	6.2	15.5	2.6	-0.7	4.0	16.6	1.5	-0.9	1,106	
4-5	6.8	16.0	-0.8	3.3	15.2	8.4	-0.3	3.3	15.6	2.3	-0.7	71	
Size at birth³													
Small	8.3	22.6	-1.0	8.7	28.3	4.0	-1.0	5.9	25.8	0.6	-1.3	142	
Average or larger	6.8	19.7	-0.7	6.2	14.7	3.5	-0.6	3.6	15.4	1.4	-0.8	2,070	

Continued...

Table 60 Nutritional status of children—Continued

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, 2015-16, and total for NFHS-3

Background characteristic	Height-for-age ¹				Weight-for-height				Weight-for-age				Number of children	
	Percentage below -3 SD	Percentage below -2 SD ²	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD ²	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD ²	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD		Percentage below -2 SD ²
Residence														
Urban	6.7	19.8	-0.6	7.0	15.9	4.0	-0.6	3.0	15.5	1.8	-0.8	1.8	15.5	1,081
Rural	6.9	19.5	-0.8	6.1	15.5	2.9	-0.7	4.2	16.7	1.0	-0.9	1.0	16.7	1,216
Mother's schooling⁵														
5-9 years complete	6.8	23.4	-1.0	7.8	15.9	2.9	-0.8	6.0	20.5	0.0	-1.1	0.0	20.5	380
10-11 years complete	6.9	24.1	-1.0	9.5	20.6	2.5	-0.8	4.3	23.6	0.9	-1.1	0.9	23.6	473
12 or more years complete	6.7	17.4	-0.6	5.3	14.0	4.0	-0.6	2.6	12.4	1.9	-0.7	1.9	12.4	1,383
Religion														
Hindu	6.8	19.5	-0.8	5.5	14.0	3.2	-0.6	3.7	17.1	1.5	-0.9	1.5	17.1	1,172
Muslim	7.1	22.7	-0.8	7.6	16.8	3.2	-0.7	4.1	16.0	0.8	-0.9	0.8	16.0	796
Christian	5.9	12.9	-0.4	7.6	19.1	4.7	-0.7	2.3	12.6	2.1	-0.7	2.1	12.6	328
Caste/tribe														
Scheduled caste	5.7	19.1	-0.9	7.7	18.6	2.8	-0.8	4.0	22.0	0.7	-1.1	0.7	22.0	229
Scheduled tribe	6.6	23.9	-1.1	4.1	18.8	0.0	-0.9	7.2	21.6	0.0	-1.2	0.0	21.6	36
Other backward class	7.7	22.0	-0.8	7.3	16.0	3.4	-0.7	3.9	16.4	1.4	-0.9	1.4	16.4	1,256
Other	5.5	15.9	-0.5	5.1	14.4	3.7	-0.6	2.7	12.6	1.3	-0.7	1.3	12.6	748
Mother's interview status														
Interviewed	7.0	20.0	-0.7	6.5	15.7	3.5	-0.7	3.7	16.2	1.4	-0.9	1.4	16.2	2,239
Not interviewed, and not in the household ⁶	(0.0)	(2.9)	(-0.4)	(5.8)	(15.4)	(0.7)	(-0.7)	(0.7)	(8.7)	(0.7)	(-0.7)	(0.7)	(8.7)	44

Continued...

Table 60 Nutritional status of children—Continued

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, 2015-16, and total for NFHS-3

Background characteristic	Height-for-age ¹						Weight-for-height						Weight-for-age									
	Percentage below -3 SD		Percentage below -2 SD ²		Mean Z-score (SD)		Percentage below -3 SD		Percentage below -2 SD ²		Percentage above +2 SD		Percentage below -3 SD		Percentage below -2 SD ²		Percentage above +2 SD		Mean Z-score (SD)		Number of children	
Mother's nutritional status⁷																						
Underweight (BMI < 18.5)	7.1	20.7	-1.0	6.6	21.5	1.0	-1.0	6.1	24.1	0.0	-1.2	187										
Normal (BMI 18.5-24.9)	7.9	21.2	-0.7	7.3	16.5	3.9	-0.6	3.6	15.9	1.2	-0.8	1,324										
Overweight (BMI ≥ 25.0)	5.1	17.3	-0.7	5.2	13.0	3.4	-0.6	3.3	14.9	2.0	-0.9	735										
Child's living arrangements																						
Living with both parents	8.0	21.0	-0.8	6.2	15.6	4.0	-0.6	3.9	17.1	1.2	-0.9	1,641										
Living with one or neither parent	3.9	16.2	-0.6	7.3	16.1	2.0	-0.7	2.9	13.5	1.7	-0.8	656										
Total	6.8	19.7	-0.7	6.5	15.7	3.4	-0.7	3.6	16.1	1.3	-0.9	2,297										
NFHS-3 (2005-06)	6.5	24.5	-1.1	4.1	15.9	1.2	-0.9	4.7	22.9	0.4	-1.2	925										

Note: Table is based on children who stayed in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards adopted in 2006. The indices in this table are NOT comparable to those based on the previously used 1977 NCHS/CDC/WHO Reference. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight. Total includes children of birth order 6 or more, children whose birth size is very small or is not known, children whose mothers have no schooling or have less than 5 years of schooling, children belonging to "other" religions, children whose caste/tribe is not known, children whose mothers were not interviewed but were in the household and children whose mothers nutritional status is missing, who are not shown separately.

- ¹ Recumbent length is measured for children under age 2, or in the few cases when the age of the child is unknown and the child is less than 85 cm; standing height is measured for all other children
- ² Includes children who are below -3 standard deviations (SD) from the WHO Child Growth Standards population median
- ³ Excludes children whose mothers were not interviewed
- ⁴ First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval
- ⁵ For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the household schedule.
- ⁶ Includes children whose mothers are deceased
- ⁷ Excludes children whose mothers were not weighed and measured, children whose mothers were not interviewed, and children whose mothers are pregnant or gave birth within the preceding 2 months. Mother's nutritional status in terms of BMI (body mass index) is presented in Table 70.
- () Based on 25-49 unweighted cases

Table 61 Initial breastfeeding

Among last-born children who were born in the two years preceding the survey, the percentage who were ever breastfed, and the percentage who started breastfeeding within one hour and one day of birth, and among last-born children born in the two years preceding the survey who were ever breastfed, the percentage who received a prelacteal feed, by background characteristics, Kerala, 2015-16

Background characteristic	Among last-born children born in the past two years:				Among last-born children born in the past two years who were ever breastfed:	
	Percentage ever breastfed	Percentage who started breastfeeding within one hour of birth ¹	Percentage who started breastfeeding within one day of birth ²	Number of last-born children	Percentage who received a prelacteal feed ³	Number of last-born ever breastfed children
Residence						
Urban	99.0	64.2	94.0	423	9.9	419
Rural	99.0	62.6	96.0	487	8.2	482
Sex						
Male	98.6	64.7	93.8	462	10.2	456
Female	99.4	61.9	96.4	448	7.7	445
Mother's schooling						
5-9 years complete	97.6	61.8	94.7	134	10.3	131
10-11 years complete	99.2	65.7	95.1	162	6.1	161
12 or more years complete	99.2	63.0	95.2	608	9.6	604
Religion						
Hindu	99.7	63.1	95.2	449	10.4	447
Muslim	99.6	67.2	96.2	321	6.9	320
Christian	95.3	55.5	92.2	140	9.3	133
Caste/tribe						
Scheduled caste	100.0	57.2	95.7	76	14.2	76
Scheduled tribe	(100.0)	(73.8)	(94.4)	16	(7.8)	16
Other backward class	99.3	63.0	96.3	521	7.8	518
Other	98.1	65.1	92.8	292	10.0	286
Total	99.0	63.3	95.1	910	9.0	901

Note: Table is based on last-born children born in the past two years whether the children are living or dead at the time of interview. Total includes children whose mothers have no schooling or have less than 5 years of schooling, children belonging to "other" religions, and children whose caste/tribe is not known, who are not shown separately.

TBA = Traditional birth attendant

¹ Includes children who started breastfeeding immediately after birth

² Includes children who started breastfeeding within one hour of birth

³ Children given something other than breastmilk during the first three days of life

() Based on 25-49 unweighted cases

Table 62 Breastfeeding status by age

Percent distribution of youngest children under two years living with the mother by breastfeeding status, percentage currently breastfeeding, and percentage of all children under two years using a bottle with a nipple, according to age in months, Kerala, 2015-16

Age in months	Not breastfeeding	Exclusively breastfed	Breastfeeding and consuming:				Total	Percentage currently breastfeeding	Number of youngest children under two years living with the mother	Percentage using a bottle with a nipple	Number of all children under two years
			Plain water only	Non-milk liquids/juice	Other milk	Complementary foods					
<2	(2.6)	(82.4)	(4.2)	(0.0)	(1.8)	(9.0)	100.0	(97.4)	44	(0.0)	45
2-3	0.0	57.8	11.7	7.3	10.8	12.4	100.0	100.0	83	9.3	85
4-5	0.7	37.5	17.6	3.5	13.4	27.3	100.0	99.3	105	20.5	110
6-8	3.5	8.6	5.3	5.6	13.9	63.1	100.0	96.5	103	40.6	106
9-11	2.0	2.6	4.2	4.4	1.9	84.9	100.0	98.0	99	33.6	101
12-17	5.1	4.5	1.2	0.5	3.4	85.4	100.0	94.9	251	35.1	256
18-23	14.2	2.4	2.1	1.9	1.8	77.7	100.0	85.8	216	27.4	230
<4	0.9	66.3	9.1	4.8	7.7	11.3	100.0	99.1	127	6.1	130
<6	0.8	53.2	13.0	4.2	10.3	18.5	100.0	99.2	232	12.7	240
6-9	2.6	6.7	4.9	5.3	10.4	70.1	100.0	97.4	137	41.3	140
12-15	2.5	4.4	1.1	0.7	4.2	87.1	100.0	97.5	179	33.8	179
12-23	9.3	3.5	1.6	1.1	2.6	81.8	100.0	90.7	468	31.5	486
20-23	14.9	2.6	1.4	1.7	1.9	77.5	100.0	85.1	145	27.4	154

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Children who are classified as breastfeeding and consuming plain water only consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, non-milk liquids/juice, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breastmilk and non-milk liquids and who do not receive other milk and who do not receive complementary foods are classified in the non-milk liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

() Based on 25-49 unweighted cases

Table 63 Median duration of breastfeeding and infant and young child feeding (IYCF) practices

Background characteristic	Median duration (months) of breastfeeding among last-born children born in the last three years ¹																
	Among breastfed children 6-23 months, percentage fed:				Among nonbreastfed children 6-23 months, percentage fed:				Among all children 6-23 months, percentage fed:								
	Any breast-feeding	Exclusive breast-feeding	Predominant breast-feeding ²	Number of children	4+ food groups ³	Minimum meal frequency ⁴	Both 4+ food groups and minimum	Milk or milk pro-ducts ⁵	4+ food groups ³	Minimum meal frequency ⁴	With 3 IYCF practices ⁶	Number of children	Breast-milk, or milk pro-ducts ⁷	4+ food groups ³	Minimum meal frequency ⁸	With 3 IYCF practices ⁶	Number of children
Age in months																	
6-8	na	na	na	na	14.4	51.8	11.4	99	*	*	*	4	97.3	13.9	50.7	11.0	103
9-11	na	na	na	na	26.4	35.5	6.7	97	*	*	*	2	98.0	26.4	34.8	6.5	99
12-17	na	na	na	na	40.1	41.9	23.0	239	*	*	*	13	99.4	39.7	43.0	22.1	251
18-23	na	na	na	na	53.6	44.1	32.1	186	(45.9)	(55.9)	(58.5)	31	92.3	53.9	46.1	32.2	216
Sex																	
Male	28.2	3.3	5.0	661	39.7	42.5	22.3	311	(52.3)	(43.5)	(52.5)	35	95.2	40.1	43.5	21.9	345
Female	29.1	(2.5)	4.9	705	36.1	43.7	20.3	310	*	*	*	14	98.1	36.5	44.4	20.8	324
Residence																	
Urban	28.1	3.2	5.2	632	40.2	41.6	19.5	275	*	*	*	21	97.5	41.4	42.7	19.9	296
Rural	30.1	2.7	4.7	734	36.1	44.4	22.7	345	(44.7)	(34.5)	(52.1)	28	95.8	36.0	45.0	22.5	374
Mother's schooling																	
5-9 years complete	(29.1)	*	(3.1)	191	33.1	36.2	17.5	97	*	*	*	10	91.8	34.0	36.1	17.4	108
10-11 years complete	27.9	(4.1)	(5.5)	260	30.8	39.8	15.7	111	*	*	*	7	97.0	32.1	41.1	16.0	118
12 or more years complete	29.0	2.9	5.1	908	41.3	45.6	23.9	409	(67.0)	(42.9)	(59.6)	32	97.6	41.4	46.6	23.9	441
Religion																	
Hindu	30.0	2.9	4.6	712	37.6	45.6	22.1	309	*	*	*	21	96.3	37.2	45.6	21.5	330
Muslim	27.4	3.5	5.6	472	36.7	40.8	21.6	224	*	*	*	12	97.8	38.6	42.1	22.0	236
Christian	*	*	(4.9)	182	42.1	40.5	17.7	87	*	*	*	16	94.5	41.8	43.1	19.6	103

Continued...

Table 63. Median duration of breastfeeding and infant and young child feeding (IYCF) practices—Continued

Background characteristic	Median duration (months) of breastfeeding among last-born children born in the last three years ¹		Among breastfed children 6-23 months, percentage fed:		Among nonbreastfed children 6-23 months, percentage fed:		Among all children 6-23 months, percentage fed:											
	Any breast-feeding	Exclu- sive breast- feeding ²	Predom- inant breast- feeding ²	Number of children	4+ food groups ³	Minimum meal fre- quency ⁴	Both 4+ food groups and mini- mum meal fre- quency ⁴	Number of children	Milk or milk pro- ducts ⁵	4+ food groups ³	Minimum meal fre- quency ⁴	With 3 IYCF prac- tices ⁶	Number of children	Breast- milk, or milk pro- ducts ⁷	4+ food groups ³	Minimum meal fre- quency ⁸	With 3 IYCF prac- tices ⁶	Number of children
Scheduled caste	(30.8)	*	*	130	34.1	45.0	22.7	50	*	*	*	*	6	91.9	30.5	42.7	20.3	56
Other backward class	29.0	2.5	4.8	773	36.4	43.3	20.3	365	*	*	*	*	23	96.7	38.1	43.7	20.5	388
Other ⁹	27.2	3.2	5.5	424	42.9	43.2	23.8	194	(72.2)	(34.3)	(69.5)	(26.7)	20	97.4	42.1	45.7	24.1	214
Total	28.7	2.9	5.0	1,366	37.9	43.1	21.3	621	53.4	44.3	54.7	22.3	49	96.6	38.4	44.0	21.4	670

Note: Total includes children whose mothers have no schooling or have less than 5 years schooling, scheduled tribe children, and children whose caste/tribe is not known, who are not shown separately.

na = Not applicable

¹ Median durations are based on the distributions at the time of the survey of the proportion of births by months since birth. Includes children living and deceased at the time of the survey. It is assumed that children not currently living with the mother are not currently breastfeeding.

² Either exclusively breastfed or received breastmilk and plain water and/or non-milk liquids only

³ Food groups are: a. infant formula, milk other than breastmilk, cheese or yogurt or other milk products; b. foods made from grains or roots, including porridge or gruel, fortified baby food; c. vitamin A-rich fruits and vegetables; d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, shellfish, or organ meats; g. beans, peas, lentils, or nuts; h. foods made with oil, fat, ghee, or butter

⁴ Receiving solid or semi-solid food at least twice a day for breastfed infants 6-8 months and at least three times a day for breastfed children 9-23 months

⁵ Includes two or more feedings of commercial infant formula, fresh, tinned and powdered animal milk, and yogurt

⁶ Nonbreastfed children age 6-23 months are considered to be fed with a minimum standard of three infant and young child feeding practices if they receive other milk or milk products at least twice a day, receive the minimum meal frequency, and receive solid or semi-solid foods from at least four food groups not including the milk or milk products food group

⁷ Breastfeeding, or not breastfeeding and receiving two or more feedings of commercial infant formula, fresh, tinned, and powdered animal milk, and yogurt

⁸ Children are fed the minimum recommended number of times per day according to their age and breastfeeding status as described in footnotes 4 and 6.

⁹ Not belonging to a scheduled caste, scheduled tribe, or other backward class

() Based on 25-49 unweighted cases

* Based on fewer than 25 unweighted cases

Table 64 Child feeding practices and nutritional status of children by district

Among last-born children in the past 2 years, percentage breastfed within one hour of birth, percentage of youngest children under age 6 months living with the mother who are exclusively breastfed, and 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 district, Kerala, 2015-16

District	Among last-born children in the past 2 years		Height-for-age ¹	Weight-for-height	Weight-for-age	Number of children
	Percentage breastfed within one hour of birth	Number of children	Percentage below -2 SD ²	Percentage below -2 SD ²	Percentage below -2 SD ²	
Alappuzha	59.5	49	14.5	16.6	17.2	124
Ernakulam	59.7	83	12.4	15.9	12.0	211
Idukki	(58.8)	20	15.1	24.2	14.8	57
Kannur	76.4	77	25.3	10.2	10.5	159
Kasaragod	63.6	39	18.7	9.7	13.9	97
Kollam	28.7	62	14.4	18.8	14.2	182
Kottayam	81.4	51	22.0	16.2	11.3	136
Kozhikode	72.6	74	18.0	13.5	18.5	204
Malappuram	65.1	134	26.3	22.3	17.3	344
Palakkad	63.4	93	20.2	10.3	19.1	248
Pathanamthitta	39.9	31	13.2	14.4	11.4	77
Thiruvananthapuram	66.5	94	19.5	13.1	21.5	227
Thrissur	65.8	76	20.8	15.3	14.0	169
Wayanad	66.0	26	27.7	23.9	27.2	64
Kerala	63.3	910	19.7	15.7	16.1	2,297

¹ Recumbent length is measured for children under age 2, or in the few cases when the age of the child is unknown and the child is less than 85 cm; standing height is measured for all other children.

² Based on the WHO Child Growth Standards population median

Table 65 Prevalence of anaemia in children

Percentage of children age 6-59 months classified as having anaemia, by background characteristics, Kerala, 2015-16 and total for NFHS-3

Background characteristic	Anaemia status by haemoglobin level			Any anaemia (<11.0 g/dl)	Number of children
	Mild (10.0-10.9 g/dl)	Moderate (7.0-9.9 g/dl)	Severe (<7.0 g/dl)		
Age in months					
6-11	28.2	20.6	0.6	49.4	178
12-23	23.5	21.6	1.1	46.2	472
24-35	23.0	10.3	0.5	33.8	499
36-47	21.0	7.9	0.0	28.9	479
48-59	21.4	7.6	0.0	29.0	499
Sex					
Male	22.0	12.5	0.6	35.2	1,039
Female	23.4	12.5	0.2	36.0	1,088
Birth order¹					
1	21.9	10.6	0.5	33.0	981
2-3	22.6	14.1	0.4	37.1	1,019
4-5	38.8	21.4	0.0	60.2	63
Residence					
Urban	22.9	12.1	0.5	35.5	1,007
Rural	22.5	12.9	0.4	35.7	1,120
Mother's schooling²					
5-9 years complete	27.8	11.9	0.0	39.8	358
10-11 years complete	26.7	15.0	0.6	42.2	449
12 or more years complete	20.1	11.8	0.5	32.3	1,260
Religion					
Hindu	19.6	10.8	0.4	30.8	1,078
Muslim	28.1	17.0	0.3	45.4	744
Christian	20.4	7.3	0.8	28.4	304
Caste/tribe					
Scheduled caste	22.3	10.0	0.0	32.3	216
Scheduled tribe	17.5	32.4	0.0	49.9	33
Other backward class	22.9	12.8	0.3	36.0	1,175
Other	23.4	11.9	0.7	36.0	678

Continued...

Table 65 Prevalence of anaemia in children—Continued

Percentage of children age 6-59 months classified as having anaemia, by background characteristics, Kerala, 2015-16 and total for NFHS-3

Background characteristic	Anaemia status by haemoglobin level			Any anaemia (<11.0 g/dl)	Number of children
	Mild (10.0-10.9 g/dl)	Moderate (7.0-9.9 g/dl)	Severe (<7.0 g/dl)		
Mother's interview status					
Interviewed	22.8	12.6	0.4	35.8	2,071
Not interviewed, and not in the household ³	(22.2)	(6.8)	(0.0)	(29.1)	44
Child's living arrangements					
Living with both parents	22.8	12.3	0.4	35.5	1,552
Living with one or neither parent	22.6	12.9	0.5	36.0	576
Mother's anaemia status⁴					
Not anaemic	20.8	10.1	0.3	31.1	1,326
Mildly anaemic	28.0	16.8	0.6	45.3	632
Moderately/severely anaemic	17.1	21.6	1.1	39.8	103
Total	22.7	12.5	0.4	35.6	2,127
NFHS-3 (2005-06)	23.5	20.5	0.5	44.5	824

Note: Table is based on children who stayed in the household the night before the interview. Prevalence of anaemia, based on haemoglobin levels, is adjusted for altitude using the CDC formulas (Centers for Disease Control (CDC). 1998. Recommendations to prevent and control iron deficiency in the United States. *Morbidity and Mortality Weekly Report* 47 (RR-3): 1-29). Haemoglobin levels shown in grams per decilitre (g/dl). Total includes information on children of birth order 6 or more, children whose mothers have no schooling or have less than 5 years of schooling, children belonging to "other" religions, children whose caste/tribe is not known, and children whose mothers were not interviewed but were in the household, which is not shown separately.

¹ Excludes children whose mothers were not interviewed

² For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the household schedule.

³ Includes children whose mothers are deceased

⁴ Mildly anaemic is classified as 10.0-11.9 g/dl for non-pregnant women and 10.0-10.9 g/dl for pregnant women. Moderately/severely anaemic is <10.0 g/dl. Adjusted for altitude and for smoking status. Excludes children whose mother's anaemia status is not known.

() Based on 25-49 unweighted cases

Table 66 Micronutrient intake among children

Percentage of youngest children age 9-23 months living with the mother who consumed vitamin A-rich and iron-rich foods in the day or night preceding the survey, percentage of children age 9-59 months who were given vitamin A supplements in the six months preceding the survey and percentage of children age 6-59 months who were given iron supplements in the past seven days, who were given deworming medication in the six months preceding the survey, and who live in households using iodized salt, by background characteristics, Kerala, 2015-16, and total for NFHS-3

Background characteristic	Youngest children age 9-23 months living with their mother			Children age 9-59 months			Children age 6-59 months			Children age 6-59 months in households with salt tested	
	Percentage who consumed foods rich in vitamin A in past 24 hours ¹	Percentage who consumed foods rich in iron in past 24 hours ²	Number of children	Percentage given vitamin A supplements in past 6 months	Number of children	Percentage given iron supplements in past 7 days	Percentage given deworming medication in past 6 months ³	Number of children	Percentage living in households using iodized salt ⁴	Number of children	Percentage living in households using iodized salt ⁴
Age in months											
6-8	na	na	na	na	na	20.3	13.9	106	98.6	106	98.6
9-11	47.5	22.1	99	70.9	101	20.6	15.2	101	96.5	100	96.5
12-17	57.7	40.7	251	86.6	256	18.8	36.9	256	99.5	266	99.5
18-23	69.6	54.6	216	81.9	230	19.2	49.9	230	97.8	236	97.8
24-35	na	na	na	78.9	513	18.5	60.8	513	98.2	524	98.2
36-47	na	na	na	73.2	487	15.4	57.3	487	97.9	521	97.9
48-59	na	na	na	68.3	504	17.0	55.3	504	98.1	519	98.1
Sex											
Male	61.5	43.8	287	73.7	1,014	17.2	52.2	1,075	97.8	1,107	97.8
Female	59.4	41.6	280	78.0	1,077	18.3	48.9	1,121	98.5	1,165	98.5
Birth order											
1	60.1	44.5	255	78.8	1,015	18.3	53.6	1,062	98.0	1,036	98.0
2-3	59.4	39.5	292	74.6	1,006	17.2	48.0	1,061	98.2	1,075	98.2
4-5	*	*	18	49.5	64	16.1	38.1	68	99.3	69	99.3
Breastfeeding status											
Breastfeeding	60.5	43.4	521	82.3	822	21.1	42.4	921	98.1	920	98.1
Not breastfeeding	60.6	35.6	45	71.8	1,269	15.4	56.3	1,275	98.1	1,266	98.1
Residence											
Urban	61.9	43.7	255	76.0	988	18.8	49.9	1,031	98.8	1,065	98.8
Rural	59.3	41.9	311	75.8	1,103	16.9	51.0	1,165	97.6	1,207	97.6

Continued...

Table 66 Micronutrient intake among children—Continued

Percentage of youngest children age 9-23 months living with the mother who consumed vitamin A-rich and iron-rich foods in the day or night preceding the survey, percentage of children age 9-59 months who were given vitamin A supplements in the six months preceding the survey and percentage of children age 6-59 months who were given iron supplements in the past seven days, who were given deworming medication in the six months preceding the survey, and who live in households using iodized salt, by background characteristics, Kerala, 2015-16, and total for NFHS-3

Background characteristic	Youngest children age 9-23 months living with their mother			Children age 9-59 months			Children age 6-59 months in households with salt tested		
	Percentage who consumed foods rich in vitamin A in past 24 hours ¹	Percentage who consumed foods rich in iron in past 24 hours ²	Number of children	Percentage given vitamin A supplements in past 6 months	Number of children	Percentage iron supplements given in past 7 days	Percentage given deworming medication in past 6 months ³	Number of children	Percentage living in households using iodized salt ⁴
Mother's schooling									
5-9 years complete	62.0	38.9	83	72.7	358	14.2	50.3	383	97.0
10-11 years complete	58.4	41.9	104	72.0	450	17.0	48.8	464	97.7
12 or more years complete	60.9	44.1	378	78.4	1,266	18.9	51.1	1,332	98.7
Religion									
Hindu	61.3	40.3	281	80.8	1,071	18.9	53.5	1,123	97.9
Muslim	58.6	45.1	202	67.4	753	15.4	43.7	786	98.4
Christian	62.2	45.2	84	80.3	266	20.2	57.1	286	98.4
Caste/tribe									
Scheduled caste	(56.8)	(32.1)	46	86.6	189	18.6	50.5	199	98.2
Scheduled tribe	*	*	8	66.7	38	23.9	62.7	40	100.0
Other backward class	60.5	42.8	331	73.4	1,216	16.2	47.1	1,274	98.0
Other	62.4	45.8	180	78.6	638	20.5	56.6	674	98.3
Don't know	*	*	2	*	10	*	*	10	(100.0)
Total	60.5	42.7	567	75.9	2,091	17.8	50.5	2,196	98.1
NFHS-3 (2005-06)	79.0	57.6	262	31.5	878	6.4	44.7	929	79.9

Note: Information on iron supplements and deworming medication is based on the mother's recall. Information on vitamin A supplementation is based on the vaccination card (where available) and mother's recall. Total includes information on children of birth order 6 or more, children whose mothers have no schooling or have less than 5 years of schooling, and children belonging to "other" religions, which is not shown separately.

na = Not applicable

¹ Includes meat and organ meats, fish, poultry, eggs, pumpkin, carrots, squash, and sweet potatoes that are yellow or orange inside, dark green leafy vegetables, ripe mango, papaya, cantaloupe, and jackfruit

² Includes meat and organ meats, fish, poultry, or eggs

³ Deworming for intestinal worms

⁴ Excludes children in households in which salt was not tested. Includes children whose mothers were not interviewed except for birth order, breastfeeding status and mothers schooling. For mother's schooling, excludes children whose mothers are not listed in the household schedule.

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 67 Presence of iodized salt in household

Percentage of households with salt tested for iodine content that have iodized salt, according to background characteristics, Kerala, 2015-16, and total for NFHS-3

Background characteristic	Among households with tested salt:	
	Percentage with iodized salt	Number of households
Residence		
Urban	98.8	5,365
Rural	98.1	6,162
Religion of household head		
Hindu	98.1	6,776
Muslim	99.1	2,644
Christian	98.6	2,098
Caste/tribe of household head		
Scheduled caste	98.1	1,145
Scheduled tribe	94.6	144
Other backward class	98.4	5,695
Other	98.6	4,405
Don't know	100.0	138
Total	98.4	11,527
NFHS-3 (2005-06)	82.6	2,986

Note: Total includes information about households whose head belongs to "other" religions, which is not shown separately.

Table 68 Presence of iodized salt in household by district

Percentage of households with salt tested for iodine content that have iodized salt, by district, Kerala, 2015-16

District	Among households with tested salt:	
	Percentage with iodized salt	Number of households
Alappuzha	98.2	753
Ernakulam	97.7	1,150
Idukki	99.1	376
Kannur	98.0	776
Kasaragod	94.2	409
Kollam	99.0	984
Kottayam	99.1	712
Kozhikode	98.4	1,019
Malappuram	99.3	1,234
Palakkad	97.2	1,086
Pathanamthitta	99.2	488
Thiruvananthapuram	99.2	1,233
Thrissur	99.2	1,056
Wayanad	96.9	252
Kerala	98.4	11,527

Table 69 Women's and men's food consumption

Percent distribution of women and men age 15-49 by frequency of consumption of specific foods, Kerala, 2015-16

Type of food	Frequency of consumption				Total	Number of respondents
	Daily	Weekly	Occasionally	Never		
WOMEN						
Milk or curd	40.6	29.5	19.9	10.0	100.0	11,033
Pulses or beans	21.3	66.4	11.8	0.5	100.0	11,033
Dark green leafy vegetables	8.7	54.0	35.6	1.7	100.0	11,033
Fruits	31.4	51.2	16.8	0.6	100.0	11,033
Eggs	6.5	49.9	36.1	7.5	100.0	11,033
Fish	64.7	26.6	6.0	2.7	100.0	11,033
Chicken or meat	1.7	37.7	55.3	5.3	100.0	11,033
Fish or chicken or meat	65.0	27.8	5.3	1.9	100.0	11,033
Fried foods	13.4	40.8	41.4	4.4	100.0	11,033
Aerated drinks	1.1	8.8	59.8	30.3	100.0	11,033
MEN						
Milk or curd	45.0	33.2	16.9	5.0	100.0	1,856
Pulses or beans	50.7	39.6	9.3	0.5	100.0	1,856
Dark green leafy vegetables	27.3	52.7	19.1	1.0	100.0	1,856
Fruits	27.9	53.8	17.6	0.7	100.0	1,856
Eggs	11.7	60.7	24.2	3.4	100.0	1,856
Fish	47.9	40.0	10.5	1.6	100.0	1,856
Chicken or meat	4.7	57.3	36.3	1.7	100.0	1,856
Fish or chicken or meat	49.3	40.7	9.2	0.7	100.0	1,856
Fried foods	14.7	52.6	29.2	3.5	100.0	1,856
Aerated drinks	11.3	38.1	38.1	12.5	100.0	1,856

Table 70 Nutritional status of adults

Percentage of women and men age 15-49 with specific body mass index (BMI) levels, by background characteristics, Kerala, 2015-16, and total for NFHS-3

Background characteristic	Body mass index: Women ¹				Body mass index: Men				
	<18.5 (total thin)	<17.0 (moderately/severely thin)	≥25.0 (overweight or obese)	≥30.0 (obese)	<18.5 (total thin)	<17.0 (moderately/severely thin)	≥25.0 (overweight or obese)	≥30.0 (obese)	Number of men
Age									
15-19	30.6	13.8	8.3	1.4	27.2	14.4	11.3	2.4	304
20-29	12.2	4.4	19.8	3.6	8.6	2.8	16.0	3.0	535
30-39	4.5	1.5	37.2	6.8	2.4	0.8	36.7	4.1	510
40-49	2.6	0.8	50.5	11.0	3.1	0.6	44.6	5.3	485
Marital status									
Never married	25.1	10.6	9.5	1.3	15.5	7.1	14.3	2.6	842
Currently married	4.9	1.7	39.5	8.1	2.5	0.5	40.7	4.9	979
Widowed/divorced/separated/deserted	4.8	1.9	38.5	7.1	*	*	*	*	13
Residence									
Urban	9.1	4.0	33.5	6.9	8.4	4.1	31.1	4.5	859
Rural	10.2	3.7	31.5	6.0	8.6	3.1	26.3	3.3	976
Schooling									
No schooling	8.1	2.5	36.8	8.0	*	*	*	*	11
<5 years complete	4.9	2.3	42.8	8.8	2.0	2.0	37.1	3.1	54
5-9 years complete	8.1	3.1	41.5	9.0	10.1	4.1	34.0	3.2	473
10-11 years complete	11.7	5.2	32.9	6.7	12.0	6.0	28.4	4.8	474
12 or more years complete	9.7	3.6	26.7	4.7	5.9	2.0	25.1	3.7	822
Religion									
Hindu	10.9	4.5	30.0	5.5	7.7	3.4	26.6	4.2	1,060
Muslim	8.5	3.0	35.8	7.7	9.3	4.1	31.6	3.3	510
Christian	7.0	2.7	35.4	7.5	10.2	3.5	30.2	3.4	262
Caste/tribe									
Scheduled caste	12.0	5.3	29.4	6.0	11.5	5.5	20.9	4.2	172
Scheduled tribe	20.1	9.2	19.6	5.4	16.9	5.4	30.4	3.4	35
Other backward class	9.9	3.8	32.8	6.5	7.2	3.1	29.1	3.8	899
Other	8.1	3.1	33.0	6.4	8.8	3.3	29.7	3.8	694
Don't know	(15.2)	(0.0)	(50.2)	(10.1)	(13.3)	(8.6)	(26.1)	(3.8)	35
Total age 15-49	9.6	3.8	32.4	6.4	8.5	3.6	28.5	3.8	1,834
Age 50-54	nc	nc	nc	nc	3.3	0.5	34.5	2.3	228
Total age 15-54	na	na	na	na	7.9	3.2	29.2	3.7	2,062
Age 15-49									
NFHS-3 (2005-06)	18.0	8.4	28.1	5.0	21.0	9.8	19.2	2.3	1,094

Note: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m²). Total includes women/men belonging to "other" religions, who are not shown separately.

nc = No cases

na = Not applicable

¹ Excludes pregnant women and women with a birth in the preceding 2 months

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 71 Prevalence of anaemia in adults

Percentage of women and men age 15-49 with anaemia by background characteristics, Kerala, 2015-16, and total for NFHS-3

Background characteristic	Women					Men				
	Mild (10.0-11.9 g/dl) ¹	Moderate (7.0-9.9 g/dl)	Severe (<7.0 g/dl)	Any anaemia (<12.0 g/dl) ²	Number of women	Mild (12.0-12.9 g/dl)	Moderate (9.0-11.9 g/dl)	Severe (<9.0 g/dl)	Any anaemia (<13.0 g/dl)	Number of men
Age										
15-19	33.8	3.7	0.2	37.7	1,476	10.4	2.7	1.3	14.3	295
20-29	28.7	3.5	0.3	32.5	3,088	8.0	3.8	0.0	11.8	530
30-39	30.2	4.7	0.4	35.3	3,197	6.9	2.4	0.0	9.3	506
40-49	27.5	5.2	0.3	33.1	3,090	9.0	2.7	1.0	12.7	479
Marital status										
Never married	31.3	3.6	0.3	35.2	2,457	10.2	3.1	0.4	13.8	830
Currently married	29.1	4.5	0.3	33.9	8,019	6.8	2.8	0.5	10.0	967
Widowed/divorced/separated/deserted	25.5	7.6	0.2	33.2	374	*	*	*	*	13
Maternity status										
Pregnant	16.6	6.0	0.0	22.6	361	na	na	na	na	na
Breastfeeding	31.9	3.3	0.3	35.5	1,127	na	na	na	na	na
Neither	29.7	4.5	0.3	34.5	9,362	na	na	na	na	na
Residence										
Urban	31.3	4.8	0.2	36.3	5,069	9.3	2.7	0.7	12.6	841
Rural	28.0	4.1	0.4	32.4	5,782	7.5	3.1	0.3	11.0	969
Schooling										
No schooling	30.8	7.4	0.7	38.9	106	*	*	*	*	11
<5 years complete	24.3	6.4	0.0	30.7	239	11.0	8.2	0.0	19.2	54
5-9 years complete	32.5	5.6	0.5	38.6	2,652	9.4	3.1	1.2	13.8	473
10-11 years complete	28.7	4.6	0.4	33.7	2,655	7.6	2.3	0.6	10.5	462
12 or more years complete	28.6	3.5	0.2	32.3	5,199	7.7	2.6	0.0	10.4	811
Religion										
Hindu	28.9	4.9	0.4	34.2	6,185	8.0	2.2	0.7	10.9	1,056
Muslim	32.7	4.2	0.2	37.1	2,953	9.9	4.1	0.2	14.2	491
Christian	26.0	2.8	0.1	29.0	1,710	7.0	3.5	0.0	10.5	261
Caste/tribe										
Scheduled caste	29.3	6.6	0.3	36.2	1,069	8.8	2.4	0.5	11.8	172
Scheduled tribe	36.3	11.2	0.5	48.0	145	6.0	7.5	0.0	13.5	35
Other backward class	30.5	4.2	0.3	35.0	5,974	8.5	2.9	0.2	11.7	886
Other	27.7	3.8	0.2	31.7	3,624	8.3	2.8	0.8	11.9	683
Don't know	(29.1)	(5.8)	(3.8)	(38.7)	39	(4.7)	(4.4)	(0.0)	(9.1)	35
Total age 15-49	29.5	4.4	0.3	34.2	10,851	8.3	2.9	0.5	11.7	1,810
Age 50-54	na	na	na	na	na	8.4	6.1	1.6	16.1	225
Total age 15-54	na	na	na	na	na	8.3	3.3	0.6	12.2	2,035
Age 15-49										
NFHS-3 (2005-2006)	24.2	6.1	0.5	30.8	3,701	4.2	4.1	0.4	8.6	1,077

Note: Table is based on women and men who stayed in the household the night before the interview. Prevalence is adjusted for altitude and for smoking status, if known, using the CDC formulas (Centers for Disease Control (CDC). 1998. Recommendations to prevent and control iron deficiency in the United States. *Morbidity and Mortality Weekly Report* 47 (RR-3): 1-29). Total include women/men belonging to "other" religions, who are not shown separately.

Haemoglobin in g/dl = grams per decilitre.

na = Not applicable

¹ For pregnant women the value is 10.0-10.9 g/dl

² For pregnant women the value is <11.0 g/dl

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 72 Nutritional status and anaemia among children and women by district

Percentage of children age 6-59 months classified as having anaemia and percentage of women age 15-49 with anaemia and specific body mass index (BMI) levels by district, Kerala, 2015-16

District	Percentage of children having any anaemia (<11.0 g/dl)		Percentage of women having any anaemia (<12.0 g/dl) ¹		Women with BMI <18.5 (total thin)	Women with BMI ≥25.0 (overweight or obese)	
	Percentage	Number of children	Percentage	Number of women		Number of women ²	
Alappuzha	24.9	108	26.9	645	12.4	37.7	615
Ernakulam	23.4	178	37.6	1,039	7.3	34.5	999
Idukki	29.4	58	25.7	318	10.2	28.9	306
Kannur	44.1	134	37.3	687	9.7	30.1	714
Kasaragod	37.7	87	35.0	420	13.0	27.5	406
Kollam	18.1	169	25.5	942	6.7	38.2	925
Kottayam	33.7	132	28.8	600	5.3	31.5	572
Kozhikode	39.7	188	42.9	1,045	12.3	27.1	1,005
Malappuram	54.6	355	38.6	1,442	8.8	34.1	1,381
Palakkad	41.1	227	42.2	1,030	13.5	32.1	1,022
Pathanamthitta	18.4	71	22.4	374	10.5	39.7	366
Thiruvananthapuram	20.5	206	22.5	1,127	9.0	33.6	1,099
Thrissur	39.4	154	42.1	924	8.2	28.1	903
Wayanad	45.6	60	32.2	258	12.2	24.3	255
Kerala	35.6	2,127	34.2	10,851	9.6	32.4	10,568

Note: Table is based on children/women who stayed in the household the night before the interview. Prevalence of anaemia, based on haemoglobin levels, is adjusted for altitude (and smoking status for women) using the CDC formulas (Centers for Disease Control (CDC). 1998. Recommendations to prevent and control iron deficiency in the United States. *Morbidity and Mortality Weekly Report* 47 (RR-3): 1-29). Haemoglobin levels shown in grams per decilitre (g/dl). The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m²).

¹ For pregnant women, the value is <11.0 g/dl

² Excludes pregnant women and women with a birth in the preceding 2 months

Table 73 Knowledge and prevention of HIV/AIDS

Percentage of women and men age 15-49 who have heard of HIV or AIDS and who, in response to prompted questions, say that people can reduce the risk of getting HIV/AIDS by using a condom every time they have sexual intercourse, who know that the risk of HIV/AIDS can be reduced by limiting sex to one uninfected partner, who have a comprehensive knowledge about HIV/AIDS, and who know that HIV/AIDS can be transmitted from a mother to a baby, by background characteristics, Kerala, 2015-16

Background characteristic	Percentage who have heard of HIV or AIDS		Percentage who know that people can reduce their chances of getting HIV/AIDS by using a condom every time they have sex		Percentage who know that the risk of HIV/AIDS can be reduced by limiting sex to one uninfected partner ¹		Percentage who have a comprehensive knowledge about HIV/AIDS ²		Percentage who know that HIV/AIDS can be transmitted from a mother to her baby		Number	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Age												
15-24	99.2	97.6	71.7	78.2	75.2	76.2	41.8	46.3	83.5	68.2	655	583
15-19	99.8	96.5	63.5	70.6	68.7	68.2	33.4	38.7	79.2	60.9	346	306
20-24	98.6	98.8	81.0	86.7	82.4	85.0	51.1	54.7	88.3	76.2	309	278
25-29	99.4	98.9	84.7	86.6	83.5	81.5	54.3	49.7	86.7	78.8	361	261
30-39	99.1	99.1	74.8	88.7	77.4	86.8	43.8	55.4	84.9	78.9	709	522
40-49	97.6	98.8	70.1	87.6	72.3	85.8	37.4	51.7	81.6	77.6	647	490
Residence												
Urban	99.3	99.0	74.9	86.1	77.4	86.0	42.5	51.8	84.2	81.1	1,154	869
Rural	98.3	98.2	73.5	83.7	75.2	79.3	43.6	49.8	83.6	70.0	1,218	987
Schooling												
No schooling	(70.1)	*	(8.7)	*	(8.0)	*	(1.2)	*	(64.5)	*	20	11
<5 years complete	90.3	94.7	40.2	81.0	44.5	86.5	10.6	31.0	63.3	57.4	66	54
5-9 years complete	98.1	98.2	63.4	80.2	67.8	80.8	29.0	39.3	78.1	70.9	596	482
10-11 years complete	99.0	97.8	72.5	82.1	76.3	79.0	38.9	48.8	80.3	71.1	551	480
12 or more years complete	100.0	99.6	83.7	89.6	83.8	85.6	55.1	60.0	90.2	81.5	1,139	829
Regular media exposure³												
Yes	99.0	98.6	75.0	85.0	76.9	82.7	44.2	51.0	84.7	75.3	2,287	1,837
No	92.0	(96.1)	53.3	(60.9)	61.8	(59.1)	12.3	(26.8)	63.7	(65.3)	86	18
Marital status												
Never married	99.8	98.1	70.6	80.2	73.8	77.6	42.2	46.5	83.5	71.2	530	850
Currently married	98.5	98.9	75.3	88.6	77.7	86.6	44.0	54.4	84.5	78.6	1,751	992
Widowed/divorced/separated/deserted	97.0	*	72.6	*	64.8	*	31.5	*	75.3	*	91	13

Continued...

Table 73 Knowledge and prevention of HIV/AIDS—Continued

Background characteristic	Percentage who have heard of HIV or AIDS		Percentage who know that people can reduce their chances of getting HIV/AIDS by using a condom every time they have sex		Percentage who know that the risk of HIV/AIDS can be reduced by limiting sex to one uninfected partner ¹		Percentage who have a comprehensive knowledge about HIV/AIDS ²		Percentage who know that HIV/AIDS can be transmitted from a mother to her baby		Number	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Whether been away from home for one month or more at a time in the past 12 months⁴												
Been away	99.2	99.8	77.9	85.4	79.0	78.7	42.9	48.4	89.3	72.2	143	213
Not been away	98.7	98.4	73.9	84.7	76.1	82.9	43.1	51.1	83.6	75.6	2,229	1,643
Whether been away from home for six months or more at a time in the past 12 months⁴												
Been away	98.0	100.0	68.2	89.0	74.9	80.7	25.9	50.7	87.1	74.9	50	107
Not been away	98.8	98.4	74.3	84.5	76.3	82.5	43.5	50.8	83.8	75.2	2,323	1,749
Religion												
Hindu	98.7	98.2	75.2	84.6	76.4	81.0	45.0	52.4	84.9	75.1	1,288	1,073
Muslim	98.6	98.5	71.3	85.2	76.6	83.8	38.3	45.0	80.6	73.6	728	518
Christian	99.4	99.9	76.7	84.7	75.7	85.3	46.1	55.2	87.3	78.4	354	263
Caste/tribe												
Scheduled caste	98.5	93.4	67.9	75.6	66.3	73.0	33.7	33.8	81.4	69.0	216	172
Scheduled tribe	79.4	89.9	36.0	62.8	34.9	65.6	23.7	21.5	51.6	54.8	33	37
Other backward class	99.2	99.4	74.7	87.2	78.0	84.4	44.4	52.4	82.5	73.8	1,340	914
Other	98.9	99.6	77.2	87.0	78.0	83.8	44.4	55.8	88.2	80.7	777	698
Don't know	*	(90.5)	*	(47.5)	*	(68.1)	*	(20.8)	*	(50.5)	6	35
Total	98.8	98.5	74.2	84.8	76.3	82.4	43.1	50.8	83.9	75.2	2,372	1,856

Note: Total includes women/men belonging to "other" religions, who are not shown separately.

¹ Partner who has no other sex partners

² Comprehensive knowledge means knowing that consistent use of condoms every time they have sex and having just one uninfected faithful sex partner can reduce the chance of getting HIV/AIDS, knowing that a healthy-looking person can have HIV/AIDS, and rejecting two common misconceptions about transmission or prevention of HIV/AIDS

³ Exposure to radio, television, or newspapers/magazines at least once a week or cinema at least once a month

⁴ For women, visits to parental/in-laws' home excluded

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 74 Accepting attitudes toward those living with HIV/AIDS

Among women and men age 15-49 who have heard of HIV/AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, Kerala, 2015-16

Background characteristic	Percentage of men who:											
	Are willing to care for a relative with HIV/AIDS in own home	Would buy fresh vegetables from a shopkeeper or vendor	Say that a female teacher who has HIV/AIDS but is not a sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with HIV/AIDS	Express accepting attitudes on all four indicators	Number of women who have heard of HIV/AIDS	Are willing to care for a relative with HIV/AIDS in own home	Would buy fresh vegetables from a shopkeeper or vendor	Say that a female teacher who has HIV/AIDS but is not a sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with HIV/AIDS	Express accepting attitudes on all four indicators	Number of men who have heard of HIV/AIDS
Age												
15-24	76.0	77.0	88.9	44.4	29.4	649	71.6	76.7	85.3	42.0	26.6	570
15-19	78.7	75.0	87.4	44.7	28.7	345	68.2	71.7	82.7	40.0	22.5	295
20-24	73.0	79.3	90.7	44.0	30.2	304	75.4	82.2	88.0	44.1	31.1	274
25-29	82.1	78.6	92.9	45.7	30.2	359	76.3	83.3	89.2	45.0	31.0	258
30-39	74.6	71.3	84.2	44.6	28.4	702	78.7	79.1	88.3	43.2	31.8	517
40-49	73.4	66.8	82.7	46.1	24.3	632	71.8	76.1	85.0	45.1	28.1	484
Residence												
Urban	74.5	71.3	87.0	46.5	28.6	1,146	73.6	78.2	88.2	39.5	24.6	860
Rural	77.1	74.2	86.0	43.7	27.2	1,197	75.0	78.1	85.1	47.2	33.0	969
Schooling												
<5 years complete	70.1	52.4	77.0	56.3	20.9	60	57.8	58.3	74.3	29.3	15.4	51
5-9 years complete	73.0	63.3	78.4	45.5	23.9	585	70.6	69.6	82.1	44.6	25.8	474
10-11 years complete	74.7	73.9	84.3	45.8	29.1	546	73.2	78.7	86.5	44.7	29.4	469
12 or more years complete	78.5	78.6	92.6	44.1	29.9	1,139	78.5	84.2	90.2	43.1	31.8	825
Regular media exposure¹												
Yes	76.1	73.1	86.9	45.2	28.3	2,264	74.5	78.4	86.9	43.5	29.2	1,811
No	67.8	63.0	72.5	42.4	15.3	79	(62.6)	(54.4)	(59.4)	(48.6)	(16.3)	18

Continued...

Table 74 Accepting attitudes toward those living with HIV/AIDS—Continued

Background characteristic	Percentage of women who:				Percentage of men who:				Number of men heard of HIV/AIDS	
	Are willing to care for a relative with HIV/AIDS in own home	Would buy fresh vegetables from a shopkeeper or vendor who has HIV/AIDS	Say that a female teacher who has HIV/AIDS but is not sick should be allowed to continue teaching HIV/AIDS	Would not want to keep secret that a family member got infected with HIV/AIDS	Are willing to care for a relative with HIV/AIDS in own home	Would buy fresh vegetables from a shopkeeper or vendor who has HIV/AIDS	Say that a female teacher who has HIV/AIDS but is not sick should be allowed to continue teaching HIV/AIDS	Would not want to keep secret that a family member got infected with HIV/AIDS		
Marital status										
Never married	78.3	77.5	90.8	47.5	72.9	78.2	85.5	41.7	27.7	834
Currently married	74.4	71.1	84.8	44.7	75.5	78.1	87.6	45.5	30.5	981
Widowed/divorced/separated/deserted	88.8	76.5	92.0	39.8	*	*	*	*	*	13
Religion										
Hindu	79.9	76.8	89.1	49.0	76.3	79.5	86.6	46.1	32.9	1,053
Muslim	68.3	63.1	78.8	41.3	70.1	74.6	86.2	36.3	20.7	510
Christian	76.3	78.1	92.6	38.5	74.4	79.6	87.4	46.9	29.3	263
Caste/tribe										
Scheduled caste	77.1	70.0	86.8	49.8	74.0	68.4	77.7	45.2	27.1	160
Scheduled tribe	66.2	48.6	65.2	40.4	69.7	49.5	68.4	50.3	32.4	33
Other backward class	75.8	70.9	85.0	45.3	70.5	76.5	86.7	45.9	30.2	908
Other	75.8	77.6	89.4	43.4	80.1	84.5	89.5	39.3	28.1	695
Don't know	*	*	*	*	(65.5)	(66.7)	(82.6)	(52.4)	(23.9)	32
Total	75.8	72.8	86.4	45.1	74.3	78.2	86.6	43.6	29.1	1,829

Note: Total includes women/men with no schooling and women/men belonging to "other" religions, who are not shown separately.

¹ Exposure to radio, television, or newspapers/magazines at least once a week or cinema at least once a month

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 75 Sexual behaviour, HIV testing, blood transfusion, and injections

Indicators of higher risk sexual behaviour, use of blood transfusion, prior HIV testing, and any injections for women and men age 15-49 by residence, Kerala, 2015-16

Behaviour	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Among those who had sexual intercourse in the past 12 months:									
Percentage who had two or more partners in the past 12 months	1.1	0.4	0.7	2.6	0.1	1.1	2.0	0.2	0.9
Percentage who had higher-risk intercourse in the past 12 months ¹	2.7	0.4	1.3	5.7	0.3	2.5	4.4	0.4	1.9
Percentage who had two or more partners and higher-risk intercourse in the past 12 months ¹	1.1	0.4	0.7	2.2	0.1	0.9	1.7	0.2	0.8
Number who had sexual intercourse in the past 12 months	409	691	1,100	507	768	1,276	917	1,459	2,376
Among those who had higher-risk sexual intercourse in the past 12 months:									
Percentage who reported using a condom at last higher-risk intercourse ¹	*	*	*	(54.5)	*	(51.9)	(56.0)	*	(53.7)
Number who had higher-risk sexual intercourse in the past 12 months	11	3	14	29	3	32	40	6	46
Among those who have ever had sexual intercourse:									
Mean number of sexual partners in lifetime	1.3	1.6	1.5	1.6	1.4	1.5	1.5	1.5	1.5
Number who have ever had sexual intercourse	426	836	1,263	525	927	1,452	952	1,763	2,715
Among all men:									
Percentage who paid for sexual intercourse in the past 12 months	0.6	na	na	1.5	na	na	1.1	na	na
Number of men	869	na	na	987	na	na	1,856	na	na
Among women with a birth in the past five years who received ANC during pregnancy, percentage who were tested for HIV during ANC									
Number of women with a birth in the past five years who received ANC during pregnancy	na	46.1	na	na	49.8	na	na	47.9	na
Percentage ever tested for HIV prior to NFHS-4	12.9	45.4	31.4	10.7	41.6	27.7	11.7	43.4	29.5
Percentage who have ever had a blood transfusion	6.2	5.1	5.6	6.4	6.3	6.3	6.3	5.7	6.0
Percentage who received any injection in the past 12 months	39.6	28.1	33.0	32.8	29.3	30.9	36.0	28.7	31.9
Mean number of injections in the past 12 months	4.2	2.1	3.2	2.8	3.0	2.9	3.5	2.6	3.0
Number of respondents	869	1,154	2,023	987	1,218	2,206	1,856	2,372	4,228
Among those who received an injection in the past 12 months, percentage for whom for the last injection, a disposable syringe was used									
Number who received an injection in the past 12 months	91.7	93.9	92.8	80.6	92.9	87.1	86.4	93.4	89.9
Number who received an injection in the past 12 months	344	324	668	324	357	681	668	680	1,349

na = Not applicable

ANC = Antenatal care

¹ Sexual intercourse with a partner who was neither a spouse nor who lived with the respondent

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 76 Knowledge of HIV/AIDS and sexual behaviour among youth

Indicators of HIV/AIDS knowledge and sexual behaviour for women and men age 15-24 by residence, Kerala, 2015-16

Knowledge and behaviour	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Knowledge									
Percentage with comprehensive knowledge about HIV/AIDS ¹	45.7	36.5	40.6	46.8	47.6	47.2	46.3	41.8	43.9
Percentage who know a condom source	79.2	55.8	66.2	83.7	56.3	70.0	81.6	56.0	68.1
Sexual behaviour									
Percentage who have ever had sexual intercourse	2.8	28.3	17.0	5.8	27.3	16.5	4.4	27.8	16.8
Percentage who had sexual intercourse before age 15	0.0	0.0	0.0	0.4	0.1	0.2	0.2	0.1	0.1
HIV testing, injections and blood transfusion									
Percentage ever tested for HIV prior to NFHS-4	1.9	17.1	10.4	1.8	15.4	8.6	1.9	16.3	9.5
Percentage who have ever had a blood transfusion	3.9	0.6	2.1	7.2	3.6	5.4	5.7	2.0	3.7
Percentage who received any injection in the past 12 months	45.5	29.8	36.7	33.6	28.6	31.1	39.2	29.2	33.9
Mean number of injections in the past 12 months	2.3	1.8	2.1	3.6	2.6	3.1	2.9	2.1	2.6
Number age 15-24	274	345	618	310	310	620	583	655	1,238
Among those who received an injection in the past 12 months, percentage for whom a disposable syringe was used	87.3	93.7	90.2	79.9	94.3	86.5	83.9	94.0	88.5
Number who received an injection in the past 12 months	124	103	227	104	89	193	228	191	420
Among those who have ever had sexual intercourse, percentage who used a condom at first sexual intercourse	*	12.0	13.6	*	8.9	13.3	(33.8)	10.6	13.4
Number who have ever had sexual intercourse	8	99	107	18	86	104	26	185	211
Among those who had sexual intercourse in the past 12 months, percentage who had higher-risk sexual intercourse in the past 12 months ²	*	0.0	3.2	*	2.1	13.1	*	1.0	8.3
Number who had sexual intercourse in the past 12 months	5	76	81	15	71	86	20	147	167
Among the never married:									
Percentage who have never had sexual intercourse	98.1	98.9	98.5	95.8	98.9	97.1	96.9	98.9	97.8
Percentage who had sexual intercourse in the past 12 months	1.0	0.0	0.5	3.4	0.7	2.2	2.2	0.3	1.4
Number never married	271	248	520	305	226	531	576	475	1,051

¹ Comprehensive knowledge means knowing that consistent use of condoms every time they have sex and having just one uninfected faithful sex partner can reduce the chance of getting HIV/AIDS, knowing that a healthy-looking person can have HIV/AIDS, and rejecting two common misconceptions about transmission or prevention of HIV/AIDS

² Sexual intercourse with a partner who was neither a spouse nor lived with the respondent

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 77 Prevalence of tuberculosis

Number of persons per 100,000 usual household residents suffering from any tuberculosis and medically treated tuberculosis by age, sex, and main type of cooking fuel, according to residence, Kerala, 2015-16

Age and sex	Number of persons per 100,000 suffering from:		
	Tuberculosis ¹	Medically treated tuberculosis ²	Number of usual residents
URBAN			
Sex			
Female	199	186	10,795
Male	485	485	10,347
Age			
<15	127	127	4,205
15-59	286	286	13,672
60+	837	792	3,264
Cooking fuel			
Solid fuel ³	541	541	7,736
Other fuel	223	212	13,405
Total	339	332	21,141
RURAL			
Sex			
Female	198	198	12,181
Male	618	610	11,836
Age			
<15	181	181	4,769
15-59	284	284	15,576
60+	1,208	1,182	3,672
Cooking fuel			
Solid fuel ³	576	573	12,082
Other fuel	232	227	11,935
Total	405	401	24,017
TOTAL			
Sex			
Female	199	192	22,976
Male	556	552	22,182
Age			
<15	156	156	8,975
15-59	285	285	29,248
60+	1,033	999	6,936
Cooking fuel			
Solid fuel ³	562	561	19,819
Other fuel	227	219	25,340
Total	374	369	45,158

¹ Includes medically treated tuberculosis

² Suffering from tuberculosis and received medical treatment

³ Includes coal, lignite, charcoal, wood, straw/shrubs/grass, agricultural crop waste, and dung cakes

Table 79 Health insurance coverage among women and men

Percentage of women and men age 15-49 who are covered by any health scheme or health insurance by background characteristics, Kerala, 2015-16

Background characteristic	Percentage of women covered by any health scheme or health insurance	Number of women	Percentage of men covered by any health scheme or health insurance	Number of men
Age				
15-19	37.9	1,504	26.2	306
20-24	37.7	1,519	29.8	278
25-34	40.2	3,171	34.0	513
35-49	45.5	4,840	36.8	759
Residence				
Urban	39.4	5,172	30.7	869
Rural	44.1	5,861	35.5	987
Schooling				
No schooling	42.9	106	*	11
<5 years complete	44.0	246	38.3	54
5-9 years complete	43.7	2,716	34.2	482
10-11 years complete	43.1	2,689	30.7	480
12 or more years complete	40.2	5,276	33.6	829
Religion				
Hindu	48.3	6,229	37.6	1,073
Muslim	29.6	3,077	23.2	518
Christian	40.7	1,725	35.0	263
Caste/tribe				
Scheduled caste	55.4	1,075	38.5	172
Scheduled tribe	61.1	145	39.8	37
Other backward class	39.5	6,108	35.3	914
Other	41.3	3,666	29.7	698
Don't know	(28.4)	40	(16.5)	35
Total age 15-49	41.9	11,033	33.2	1,856
Age 50-54	na	na	44.9	230
Total age 15-54	na	na	34.5	2,086

Note: Total includes women/men belonging to "other" religions, who are not shown separately.

na = Not applicable

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 80 Source of health care and health insurance coverage among households

Percent distribution of households by the source of health care that household members generally use when they get sick, percentage of households with at least one usual member covered by health insurance or a health scheme, and among households with at least one usual member covered by health insurance or a health scheme, type of health insurance/scheme coverage, according to residence, Kerala, 2015-16

Source	Residence		Total
	Urban	Rural	
Public health sector	62.5	71.9	67.5
Government/municipal hospital	44.1	47.7	46.1
Government dispensary	2.8	2.1	2.4
UHC/UHP/UFWC	0.4	0.4	0.4
CHC/rural hospital/Block PHC	4.6	6.1	5.4
PHC/additional PHC	9.3	14.5	12.1
Sub-centre	0.2	0.5	0.3
Vaidya/hakim/homeopath (AYUSH)	0.9	0.6	0.7
Government mobile clinic	0.0	0.1	0.0
Other public health sector	0.1	0.1	0.1
NGO or trust hospital/clinic	0.1	0.1	0.1
Private health sector	37.3	27.9	32.3
Private hospital	32.3	23.8	27.8
Private doctor/clinic	4.4	3.6	3.9
Private paramedic	0.1	0.0	0.1
Vaidya/hakim/homeopath (AYUSH)	0.4	0.4	0.4
Pharmacy/drugstore	0.1	0.1	0.1
Other source	0.1	0.1	0.1
Home treatment	0.0	0.1	0.1
Other	0.1	0.0	0.1
Total	100.0	100.0	100.0
Health insurance			
Percentage of households in which at least one usual member is covered by a health scheme or health insurance	45.3	49.8	47.7
Number of households	5,382	6,173	11,555
Type of coverage among households in which at least one usual member is covered by a health scheme/health insurance			
Employees' State Insurance Scheme (ESIS)	5.2	2.9	3.9
Central Government Health Scheme (CGHS)	4.7	2.5	3.5
State health insurance scheme	2.4	2.2	2.3
Rashtriya Swasthya Bima Yojana (RSBY)	71.3	84.3	78.6
Community health insurance programme	0.7	0.6	0.6
Other health insurance through employer	1.7	1.1	1.3
Medical reimbursement from employer	1.4	0.7	1.0
Other privately purchased commercial health insurance	15.6	8.1	11.4
Other	0.9	0.3	0.5
Number of households	2,437	3,073	5,509

UHC = Urban health centre; UHP = Urban health post; UFWC = Urban family welfare centre; CHC = Community health centre; PHC = Primary health centre; AYUSH = Ayurveda, yoga and naturopathy, *unani, siddha* and homeopathy; ICDS = Integrated Child Development Services; NGO = Nongovernmental organization

Table 81 Health problems

Number of women and men age 15-49 per 100,000 who reported that they have diabetes, asthma, goitre or any other thyroid disorder, any heart disease, or cancer, by background characteristics, Kerala, 2015-16

Background characteristic	Number of women per 100,000					Number of men per 100,000						
	Diabetes	Asthma	Goitre or any other thyroid disorder	Any heart disease	Cancer	Number of women	Diabetes	Asthma	Goitre or any other thyroid disorder	Any heart disease	Cancer	Number of men
Age												
15-19	0	1,594	3,445	219	98	1,504	377	418	0	690	0	306
20-34	1,603	2,099	6,779	586	71	4,690	1,886	461	562	927	0	791
35-49	8,314	4,631	10,850	2,371	279	4,840	8,418	1,815	570	1,992	136	759
Residence												
Urban	4,395	3,274	8,421	1,508	163	5,172	4,441	1,033	41	1,288	0	869
Rural	4,269	3,024	7,836	1,152	168	5,861	4,194	986	852	1,355	105	987
Schooling												
No schooling	6,913	3,511	4,131	600	399	106	*	*	*	*	*	11
<5 years complete	13,207	8,611	6,463	5,568	227	246	5,124	3,026	658	0	1,921	54
5-9 years complete	6,925	4,122	8,349	2,473	320	2,716	6,395	1,070	647	1,573	0	482
10-11 years complete	4,075	3,201	9,406	1,324	149	2,689	4,319	945	257	1,908	0	480
12 or more years complete	2,655	2,343	7,484	539	88	5,276	3,095	891	490	944	0	829
Marital status												
Never married	336	1,634	3,709	385	136	2,503	1,287	579	376	1,098	0	850
Currently married	5,469	3,493	9,325	1,583	175	8,147	6,779	1,389	562	1,339	104	992
Widowed/divorced/separated/deserted	6,150	5,500	11,029	1,796	171	383	*	*	*	*	*	13
Religion												
Hindu	4,080	3,405	8,548	1,370	141	6,229	3,985	875	630	1,116	96	1,073
Muslim	4,334	2,374	6,434	1,242	192	3,077	4,205	1,460	223	1,085	0	518
Christian	5,196	3,562	9,532	1,271	209	1,725	5,877	674	327	2,650	0	263
Caste/tribe												
Scheduled caste	3,783	3,178	9,177	2,143	152	1,075	4,765	0	1,353	2,276	0	172
Scheduled tribe	3,753	2,887	5,146	611	710	145	2,832	0	0	0	0	37
Other backward class	4,257	2,844	7,826	1,310	154	6,108	4,553	1,204	126	943	113	914
Other	4,562	3,670	8,356	1,135	169	3,666	3,746	1,103	758	1,724	0	698
Don't know	(10,572)	(0)	(11,050)	(0)	(0)	40	(8,545)	(0)	(0)	(0)	(0)	35
Total age 15-49	4,328	3,141	8,110	1,319	166	11,033	4,310	1,008	473	1,324	56	1,856
Age 50-54	na	na	na	na	na	na	17,142	1,463	1,553	5,634	0	230
Total age 15-54	na	na	na	na	na	na	5,725	1,058	592	1,799	50	2,086

Note: Total includes women/men belonging to "other" religions, who are not shown separately.

na = Not applicable

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 82 Health examinations

Percentage of women age 15-49 who have ever undergone specific health examinations by background characteristics, Kerala, 2015-16

Background characteristic	Type of examination			Number of women
	Cervix	Breast	Oral cavity	
Age				
15-19	6.3	4.7	41.3	1,504
20-24	33.6	19.8	48.8	1,519
25-34	76.1	39.6	51.7	3,171
35-49	77.4	42.5	53.7	4,840
Residence				
Urban	61.7	34.0	51.5	5,172
Rural	61.0	32.9	50.1	5,861
Schooling				
No schooling	67.2	27.4	32.9	106
<5 years complete	74.1	34.2	43.3	246
5-9 years complete	69.7	36.0	47.9	2,716
10-11 years complete	62.1	33.0	51.0	2,689
12 or more years complete	55.8	32.3	52.8	5,276
Religion				
Hindu	60.3	34.2	50.7	6,229
Muslim	64.3	32.3	51.4	3,077
Christian	59.6	32.2	50.0	1,725
Caste/tribe				
Scheduled caste	59.0	30.8	46.7	1,075
Scheduled tribe	62.9	30.4	40.6	145
Other backward class	62.6	33.3	51.3	6,108
Other	59.6	34.4	51.5	3,666
Don't know	(74.5)	(35.8)	(41.7)	40
Total	61.3	33.4	50.8	11,033

Note: Total includes women belonging to "other" religions, who are not shown separately.

() Based on 25-49 unweighted cases

Table 83.1 Blood pressure status: Women

Among women age 15-49, prevalence of hypertension, percent distribution of blood pressure values, and percentage having normal blood pressure and taking medication to lower blood pressure, by background characteristics, Kerala, 2015-16

Background characteristic	Prevalence of hypertension ¹	Pre-hypertensive			Hypertensive			Total	Percentage with normal blood pressure and taking medicine to lower blood pressure	Number of women
		Normal SBP <120 mmHg and DBP <80 mmHg	SBP 120-139 mmHg or DBP 80-89 mmHg	Stage 1: SBP 140-159 mmHg or DBP 90-99 mmHg	Stage 2: SBP 160-179 mmHg or DBP 100-109 mmHg	Stage 3: SBP ≥180 mmHg or DBP ≥110 mmHg				
Age										
15-19	1.2	88.2	10.9	0.8	0.1	0.0	100.0	0.3	1,497	
20-24	3.2	81.7	16.0	2.1	0.1	0.2	100.0	0.8	1,513	
25-29	4.2	77.5	19.5	2.5	0.3	0.1	100.0	0.8	1,621	
30-34	5.2	69.2	26.8	3.4	0.3	0.3	100.0	0.5	1,534	
35-39	10.0	60.0	32.1	6.5	0.6	0.8	100.0	0.9	1,695	
40-44	17.1	46.3	41.5	9.8	1.8	0.5	100.0	1.6	1,529	
45-49	23.1	43.6	39.2	13.1	2.4	1.7	100.0	1.2	1,588	
Residence										
Urban	8.4	68.0	26.0	4.8	0.6	0.6	100.0	0.9	5,141	
Rural	10.0	65.1	27.3	6.1	1.0	0.5	100.0	0.9	5,836	
Schooling										
No schooling	21.6	43.9	39.5	14.2	1.5	0.9	100.0	1.6	106	
<5 years complete	21.2	48.7	35.7	12.5	2.6	0.5	100.0	1.8	245	
5-9 years complete	13.3	56.6	33.1	7.8	1.5	1.0	100.0	1.0	2,698	
10-11 years complete	8.5	66.8	26.8	5.1	0.7	0.5	100.0	0.8	2,677	
12 or more years complete	6.7	72.6	22.7	4.0	0.4	0.3	100.0	0.8	5,251	
Religion										
Hindu	8.8	66.7	26.6	5.3	0.8	0.5	100.0	0.8	6,207	
Muslim	9.0	66.9	26.6	5.4	0.7	0.4	100.0	1.0	3,053	
Christian	11.0	64.5	27.4	6.3	1.0	0.8	100.0	0.8	1,715	
Caste/tribe										
Scheduled caste	8.5	68.5	24.6	5.5	0.9	0.4	100.0	0.8	1,071	
Scheduled tribe	7.1	65.8	28.4	5.2	0.3	0.3	100.0	0.8	145	
Other backward class	9.0	66.5	26.7	5.6	0.7	0.4	100.0	0.8	6,074	
Other	10.0	65.6	27.3	5.5	0.9	0.7	100.0	0.9	3,648	
Don't know	(5.7)	(72.6)	(21.6)	(0.0)	(5.7)	(0.0)	100.0	(0.0)	39	
Total	9.2	66.4	26.7	5.5	0.8	0.5	100.0	0.9	10,977	

Note: Total includes women belonging to "other" religions, who are not shown separately.

SBP = Systolic blood pressure; DBP = Diastolic blood pressure

¹ A woman is classified as having hypertension if she has SBP ≥140 mmHg or DBP ≥90 mmHg at the time of the survey, or she is currently taking antihypertension medication to control her blood pressure.

The term hypertension as used in this table is not meant to be a clinical diagnosis of the disease, but rather to provide an indication of the disease burden in the population at the time of the survey.

() Based on 25-49 unweighted cases

Table 83.2 Blood pressure status: Men

Among men age 15-49, prevalence of hypertension, percent distribution of blood pressure values, and percentage having normal blood pressure and taking medication to lower blood pressure, by background characteristics, Kerala, 2015-16

Background characteristic	Prevalence of hypertension ¹	Normal		Pre-hypertensive			Hypertensive			Total	Percentage with normal blood pressure and taking medicine to lower blood pressure	Number of men
		SBP <120 mmHg and DBP <80 mmHg	SBP 120-139 mmHg or DBP 80-89 mmHg	Stage 1:		Stage 2:		Stage 3:				
				SBP 140-159 mmHg or DBP 90-99 mmHg	SBP 160-179 mmHg or DBP 100-109 mmHg	SBP ≥180 mmHg or DBP ≥110 mmHg						
Age												
15-19	2.0	77.4	21.1	1.5	0.0	0.0	0.0	0.0	100.0	0.4	304	
20-24	4.4	61.6	34.6	3.8	0.0	0.0	0.0	0.0	100.0	0.6	277	
25-29	5.9	49.7	45.5	4.6	0.0	0.0	0.2	0.4	100.0	0.0	260	
30-34	12.7	46.2	42.6	7.8	3.1	0.9	1.5	1.5	100.0	0.6	251	
35-39	14.0	38.5	48.0	11.2	9.2	3.2	2.0	2.0	100.0	0.0	262	
40-44	19.6	32.9	52.6	9.2	3.2	2.0	2.0	2.0	100.0	1.1	235	
45-49	25.2	28.8	51.1	16.4	2.8	0.9	0.9	0.9	100.0	1.6	251	
Residence												
Urban	9.7	50.3	42.2	5.6	1.5	0.5	0.5	0.5	100.0	0.6	859	
Rural	13.0	47.9	40.8	9.3	1.2	0.8	0.8	0.8	100.0	0.6	979	
Schooling												
<5 years complete	28.3	36.1	42.9	19.9	0.0	0.0	1.1	1.1	100.0	4.7	54	
5-9 years complete	14.8	42.1	44.5	10.2	1.8	1.4	1.4	1.4	100.0	0.5	476	
10-11 years complete	11.8	52.2	37.4	7.6	2.0	0.8	0.8	0.8	100.0	0.4	474	
12 or more years complete	8.3	51.7	42.1	5.2	0.8	0.2	0.2	0.2	100.0	0.5	823	
Religion												
Hindu	12.9	46.6	42.2	8.5	1.5	1.1	1.1	1.1	100.0	0.4	1,061	
Muslim	9.1	52.2	40.5	6.3	1.0	0.0	0.0	0.0	100.0	1.1	511	
Christian	10.2	52.7	39.6	6.0	1.2	0.5	0.5	0.5	100.0	0.3	263	

Continued...

Table 83.2 Blood pressure status: Men—Continued

Among men age 15-49, prevalence of hypertension, percent distribution of blood pressure values, and percentage having normal blood pressure and taking medication to lower blood pressure, by background characteristics, Kerala, 2015-16

Background characteristic	Prevalence of hypertension ¹	Pre-hypertensive			Hypertensive			Percentage with normal blood pressure and taking medicine to lower blood pressure	Number of men
		Normal		Stage 1: SBP 140-159 mmHg or DBP 90-99 mmHg	Stage 2: SBP 160-179 mmHg or DBP 100-109 mmHg		Stage 3: SBP ≥ 180 mmHg or DBP ≥ 110 mmHg		
		SBP <120 mmHg and DBP <80 mmHg	SBP 120-139 mmHg or DBP 80-89 mmHg		SBP 140-159 mmHg or DBP 90-99 mmHg	SBP 160-179 mmHg or DBP 100-109 mmHg			
Caste/tribe									
Scheduled caste	15.3	46.7	38.8	11.4	2.6	0.5	100.0	0.8	172
Scheduled tribe	18.6	37.1	44.2	18.0	0.0	0.6	100.0	0.0	35
Other backward class	12.5	51.7	38.1	8.0	1.3	0.9	100.0	1.0	902
Other	9.3	46.7	45.8	5.9	1.2	0.4	100.0	0.1	694
Don't know	(2.7)	(48.9)	(50.7)	(0.4)	(0.0)	(0.0)	100.0	(0.0)	35
Total age 15-49	11.5	49.0	41.5	7.5	1.3	0.7	100.0	0.6	1,838
Age 50-54	26.4	28.0	50.2	17.2	2.9	1.7	100.0	0.9	227
Total age 15-54	13.1	46.7	42.4	8.6	1.5	0.8	100.0	0.6	2,064

Note: Total includes men with no schooling and men belonging to "other" religions, who are not shown separately.

SBP = Systolic blood pressure; DBP = Diastolic blood pressure

¹ A man is classified as having hypertension if he has SBP ≥ 140 mmHg or DBP ≥ 90 mmHg at time of survey, or he is currently taking antihypertension medication to control his blood pressure. The term hypertension as used in this table is not meant to be a clinical diagnosis of the disease, but rather to provide an indication of the disease burden in the population at the time of the survey.

() Based on 25-49 unweighted cases

Table 84.1 Random blood glucose levels: Women

Among women age 15-49, percent distribution of random blood glucose values, by background characteristics, Kerala, 2015-16

Background characteristic	Random blood glucose values			Total	Number of women
	≤140 mg/dl (normal)	141-160 mg/dl (high)	>160 mg/dl (very high)		
Age					
15-19	98.3	1.2	0.5	100.0	1,475
20-24	96.9	1.5	1.6	100.0	1,495
25-29	96.0	2.0	2.0	100.0	1,593
30-34	91.5	3.8	4.7	100.0	1,523
35-39	90.0	5.6	4.4	100.0	1,674
40-44	85.0	6.1	8.9	100.0	1,517
45-49	81.7	6.8	11.5	100.0	1,573
Residence					
Urban	91.6	3.6	4.8	100.0	5,069
Rural	91.0	4.2	4.8	100.0	5,781
Schooling					
No schooling	87.1	5.1	7.8	100.0	106
<5 years complete	82.0	6.3	11.7	100.0	239
5-9 years complete	88.5	4.4	7.1	100.0	2,652
10-11 years complete	91.6	3.7	4.8	100.0	2,655
12 or more years complete	93.0	3.6	3.3	100.0	5,198
Religion					
Hindu	91.4	3.9	4.7	100.0	6,185
Muslim	92.0	3.4	4.6	100.0	2,953
Christian	89.4	4.8	5.8	100.0	1,710
Caste/tribe					
Scheduled caste	91.4	3.7	4.9	100.0	1,069
Scheduled tribe	95.7	2.1	2.2	100.0	144
Other backward class	91.5	3.7	4.8	100.0	5,974
Other	90.8	4.3	4.9	100.0	3,624
Don't know	(85.0)	(1.9)	(13.1)	100.0	39
Total	91.3	3.9	4.8	100.0	10,850

Note: Total includes women belonging to "other" religions, who are not shown separately.

() Based on 25-49 unweighted cases

Table 84.2 Random blood glucose levels: Men

Among men age 15-49, percent distribution of random blood glucose values, by background characteristics, Kerala, 2015-16

Background characteristic	Random blood glucose values			Total	Number of men
	≤140 mg/dl (normal)	141-160 mg/dl (high)	>160 mg/dl (very high)		
Age					
15-19	96.0	2.4	1.6	100.0	295
20-24	93.8	3.4	2.8	100.0	271
25-29	86.8	8.6	4.6	100.0	259
30-34	87.2	7.3	5.5	100.0	245
35-39	86.8	6.6	6.6	100.0	261
40-44	77.1	11.6	11.3	100.0	231
45-49	77.5	9.1	13.4	100.0	249
Residence					
Urban	86.3	9.0	4.7	100.0	841
Rural	87.4	4.9	7.6	100.0	969
Schooling					
<5 years complete	83.9	4.6	11.5	100.0	54
5-9 years complete	85.5	6.7	7.8	100.0	473
10-11 years complete	91.1	3.8	5.1	100.0	462
12 or more years complete	85.4	8.9	5.7	100.0	811
Religion					
Hindu	86.4	8.1	5.5	100.0	1,056
Muslim	88.1	4.5	7.3	100.0	491
Christian	86.5	6.1	7.4	100.0	261
Caste/tribe					
Scheduled caste	85.1	4.7	10.3	100.0	172
Scheduled tribe	93.4	6.1	0.5	100.0	35
Other backward class	88.0	5.9	6.1	100.0	886
Other	85.0	8.8	6.1	100.0	683
Don't know	(97.2)	(2.8)	(0.0)	100.0	35
Total age 15-49	86.9	6.8	6.3	100.0	1,810
Age 50-54	77.2	10.4	12.4	100.0	225
Total age 15-54	85.8	7.2	7.0	100.0	2,035

Note: Total includes men who have no schooling and men belonging to "other" religions, who are not shown separately.

() Based on 25-49 unweighted cases

Table 85 Tobacco and alcohol use by women and men

Percentage of women and men age 15-49 by their use of tobacco and alcohol, percent distribution of those who smoke cigarettes or *bidis* by number of cigarettes/*bidis* smoked in the 24 hours preceding the survey, and among those who drink alcohol, the percent distribution of the frequency of alcohol consumption, by residence, Kerala, 2015-16

Tobacco use	Women			Men		
	Urban	Rural	Total	Urban	Rural	Total
Use of tobacco/alcohol						
Smokes cigarettes	0.0	0.0	0.0	21.1	21.6	21.4
Smokes <i>bidis</i>	0.0	0.0	0.0	3.3	7.0	5.3
Smokes cigars or pipe	0.0	0.0	0.0	1.9	2.2	2.1
Smokes <i>hookah</i>	0.0	0.0	0.0	0.1	0.1	0.1
Chews <i>paan</i> with tobacco	0.1	0.4	0.3	1.4	1.5	1.5
Uses other chewing tobacco	0.1	0.8	0.5	0.6	2.4	1.5
Uses <i>gutkha</i> or <i>paan masala</i> with tobacco	0.0	0.1	0.1	1.1	1.4	1.2
Uses <i>khaini</i>	0.0	0.0	0.0	0.8	1.3	1.1
Uses snuff	0.0	0.1	0.0	0.3	0.0	0.1
Uses other tobacco product	0.0	0.0	0.0	0.0	0.4	0.2
Uses any type of tobacco	0.1	1.4	0.8	23.6	27.5	25.7
Drinks alcohol	2.3	0.9	1.6	32.8	40.8	37.0
Number of respondents	5,172	5,861	11,033	869	987	1,856
Among those who smoke cigarettes/<i>bidis</i>, number of cigarettes/<i>bidis</i> smoked in the past 24 hours						
0	*	nc	*	14.9	11.5	13.0
1-2	*	nc	*	24.5	24.1	24.3
3-5	*	nc	*	29.4	26.0	27.5
6-9	*	nc	*	13.9	11.1	12.4
10 or more	*	nc	*	14.2	24.6	19.9
Don't know	*	nc	*	3.0	2.7	2.8
Total	100.0	nc	100.0	100.0	100.0	100.0
Number of cigarette/ <i>bidi</i> smokers	1	0	2	186	230	417
Among those who drink alcohol, frequency of drinking						
Almost every day	1.5	2.6	1.9	10.0	11.6	10.9
About once a week	7.2	6.7	7.0	38.3	40.2	39.4
Less than once a week	91.3	90.7	91.1	51.8	48.2	49.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number who drink alcohol	122	54	176	285	402	687

nc = No cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 86 Methods of menstrual protection

Percentage of women age 15-24 who use various methods of menstrual protection and percentage using a hygienic method, according to background characteristics, Kerala, 2015-16

Background characteristic	Type of menstrual protection ¹				Percentage using a hygienic method ²	Number of women
	Cloth	Locally prepared napkins	Sanitary napkins	Tampons		
Age						
15-19	49.1	6.5	85.3	1.0	90.8	1,504
20-24	46.9	6.1	84.0	0.5	89.2	1,519
Residence						
Urban	43.2	6.5	86.5	0.7	91.7	1,418
Rural	52.3	6.1	83.1	0.9	88.5	1,605
Schooling						
5-9 years complete	46.6	5.6	81.5	2.1	86.0	252
10-11 years complete	51.9	6.4	84.2	0.4	89.2	785
12 or more years complete	46.7	6.3	85.3	0.7	90.9	1,982
Religion						
Hindu	47.0	5.8	84.8	0.7	89.5	1,629
Muslim	55.3	5.6	84.4	1.1	89.1	951
Christian	35.9	9.4	85.0	0.3	93.9	443
Caste/tribe						
Scheduled caste	60.2	4.6	76.7	0.6	79.7	274
Scheduled tribe	63.8	3.3	67.7	0.0	71.0	46
Other backward class	50.6	6.4	86.0	0.8	91.3	1,726
Other	39.4	6.5	85.5	0.8	91.4	974
Total	48.0	6.3	84.7	0.8	90.0	3,023

Note: Table is based on women age 15-24 who have ever menstruated. Total includes women who have no schooling or have less than 5 years of schooling, women belonging to "other" religions, and women who don't know their caste/tribe, who are not shown separately.

¹ Respondents may report multiple methods so the sum may exceed 100 percent

² Locally prepared napkins, sanitary napkins, and tampons are considered to be hygienic methods of protection

Table 87 Employment and cash earnings of women and men

Percentage of women and men age 15-49 who were employed at any time in the 12 months preceding the survey and percent distribution of women and men employed in the 12 months preceding the survey by type of earnings and sector of employment, according to age, Kerala, 2015-16

Age	Percentage employed	Number of respondents	Percent distribution of employed respondents by type of earnings			Percent distribution of employed respondents by sector			Number of employed respondents	
			Cash only	Cash and in-kind only	In-kind only	Not paid	Total	Agriculture		Non-agriculture
WOMEN										
15-19	2.1	346	*	*	*	*	100.0	*	100.0	7
20-24	14.5	309	(90.8)	(0.0)	(1.0)	(8.3)	100.0	(11.3)	(88.7)	45
25-29	21.1	361	98.5	0.6	0.0	0.8	100.0	4.4	95.6	76
30-34	25.9	330	96.7	0.0	0.0	3.3	100.0	7.1	92.9	85
35-39	25.9	379	97.4	1.1	0.0	1.5	100.0	10.0	90.0	98
40-44	30.6	328	95.6	1.5	0.8	2.1	100.0	12.9	87.1	100
45-49	27.7	320	92.7	4.3	0.0	3.0	100.0	14.3	85.7	89
Total	21.1	2,372	95.1	1.4	0.2	3.3	100.0	10.7	89.3	501
MEN										
15-19	8.0	306	(93.6)	(6.4)	(0.0)	(0.0)	100.0	(18.0)	(82.0)	24
20-24	50.0	278	98.8	0.8	0.0	0.4	100.0	2.7	97.3	139
25-29	88.4	261	97.1	2.8	0.0	0.1	100.0	4.8	95.2	231
30-34	97.7	252	94.5	5.1	0.0	0.3	100.0	4.8	95.2	246
35-39	98.8	270	95.9	4.1	0.0	0.0	100.0	7.8	92.2	266
40-44	97.6	236	95.1	4.9	0.0	0.0	100.0	11.2	88.8	231
45-49	97.4	253	94.0	6.0	0.0	0.0	100.0	15.8	84.2	247
Total	74.6	1,856	95.6	4.3	0.0	0.1	100.0	8.4	91.6	1,384

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 88. Control over and magnitude of women's cash earnings

Percentage of currently married women and men age 15-49 by who decide how women's and men's cash earnings are used and by the magnitude of women's cash earnings compared with their husband's cash earnings, according to background characteristics, Kerala, 2015-16

Background characteristic	Percentage of currently married women who report that they:				Percentage of currently married men who report that:					
	Alone or jointly with their husband decide how their own earnings are used	Alone or jointly with their husband decide how their husband's earnings are used	Number of women whose husbands are employed for cash	Earn more or about the same as their husband	Number employed for cash and husbands are employed for cash	They alone or jointly with their wife decide how their earnings are used	Number of men with wives who are employed for cash	Their wife or jointly with them decides how their own earnings are used	Number employed for cash and whose wives are employed for cash	Their wife earns more or about the same as them
Age										
20-29	95.3	66.4	277	(46.8)	38	*	17	57.8	90	*
30-39	90.8	69.3	465	39.0	118	80.6	75	55.4	422	40.5
40-49	89.3	66.8	315	33.3	97	80.7	85	55.3	459	31.7
Residence										
Urban	91.5	68.0	492	40.6	128	82.0	93	53.6	446	39.4
Rural	90.1	67.1	578	35.3	126	79.5	84	57.3	525	26.0
Schooling										
<5 years complete	*	(52.5)	29	*	9	*	8	39.8	49	*
5-9 years complete	90.9	63.0	306	26.7	77	68.1	44	52.8	365	(28.5)
10-11 years complete	89.5	65.4	252	(23.6)	37	(93.6)	37	56.7	229	(22.8)
12 or more years complete	93.5	73.1	474	51.0	125	82.7	88	60.2	322	39.7
Religion										
Hindu	91.6	69.3	609	42.1	184	79.2	123	55.1	549	28.7
Muslim	(94.4)	63.5	300	*	19	*	22	48.5	279	*
Christian	86.1	68.4	159	24.8	50	(80.6)	32	71.3	141	(45.1)
Caste/tribe										
Scheduled caste	90.9	71.3	100	(38.5)	40	*	21	56.1	92	*
Scheduled tribe	*	(55.5)	17	*	7	*	2	(49.5)	20	*
Other backward class	89.5	65.6	586	33.4	106	81.1	67	54.7	491	30.3
Other	94.0	70.3	366	44.4	100	85.0	87	56.8	358	37.3
Total	90.8	67.5	1,071	38.0	254	80.8	177	55.6	971	33.1

Note: Total includes women/men age 15-19, women/men who have no schooling, women/men belonging to "other" religions, and women/men who don't know their caste/tribe, who are not shown separately.

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 89 Decision making

Percent distribution of currently married women and men age 15-49 by who usually make decisions about specific issues, by residence, Kerala, 2015-16

Decision	According to women, person who usually makes the decision				According to men, person who usually makes the decision							
	Mainly respondent	Respondent and husband jointly	Mainly husband	Someone else	Other	Total	Mainly respondent	Respondent and wife jointly	Mainly wife	Someone else	Other	Total
	URBAN											
Own health care	16.7	63.9	19.1	0.0	0.2	100.0	38.5	39.9	21.6	0.0	0.0	100.0
Major household purchases	12.7	68.2	15.7	2.6	0.8	100.0	27.2	62.2	10.6	0.1	0.0	100.0
Visits to her family or relatives	9.3	74.8	14.7	0.7	0.4	100.0	na	na	na	na	na	na
	RURAL											
Own health care	15.4	65.2	19.1	0.0	0.2	100.0	32.6	46.2	21.2	0.1	0.0	100.0
Major household purchases	9.9	68.2	19.7	1.9	0.3	100.0	21.1	67.5	11.1	0.3	0.1	100.0
Visits to her family or relatives	7.0	76.3	16.1	0.7	0.0	100.0	na	na	na	na	na	na
	TOTAL											
Own health care	16.0	64.6	19.1	0.0	0.2	100.0	35.3	43.3	21.4	0.0	0.0	100.0
Major household purchases	11.2	68.2	17.8	2.2	0.5	100.0	23.9	65.0	10.8	0.2	0.1	100.0
Visits to her family or relatives	8.1	75.6	15.4	0.7	0.2	100.0	na	na	na	na	na	na

na = Not applicable

Table 90 Decision making by background characteristics

Percentage of currently married women and men age 15-49 who usually make specific decisions either by themselves or jointly with their spouse, by background characteristics, Kerala, 2015-16

Background characteristic	Percentage of women who usually make specific decisions alone or jointly with their husband			Percentage of men who usually make specific decisions alone or jointly with their wife			Number of women	Number of men	
	Own health care	Making major household purchases	Visits to her family or relatives	Own health care	Making major household purchases	Percentage who participate in all three decisions			Percentage who participate in none of the three decisions
Age									
20-24	78.4	72.1	79.5	65.0	14.3	152	152	8	*
25-29	80.5	79.4	83.9	66.2	7.1	315	315	88	11.0
30-39	79.6	79.7	84.1	67.4	7.6	666	666	428	5.0
40-49	82.3	82.2	84.6	69.9	6.8	594	594	469	5.6
Residence									
Urban	80.6	80.9	84.2	69.1	8.3	836	836	458	5.7
Rural	80.6	78.2	83.3	66.3	7.6	915	915	534	5.8
Schooling									
No schooling	(50.9)	(57.9)	(64.4)	(29.1)	(19.8)	17	17	6	*
<5 years complete	66.7	72.5	75.2	55.9	17.1	56	56	51	1.8
5-9 years complete	74.6	76.2	78.7	60.1	9.5	495	495	374	6.1
10-11 years complete	84.8	80.0	82.5	68.9	7.9	394	394	235	4.7
12 or more years complete	83.9	82.1	88.5	73.4	6.1	789	789	327	6.9
Employment (past 12 months)									
Employed	82.2	80.2	88.1	67.0	3.3	383	383	973	5.7
Employed, for cash	82.7	81.0	89.0	68.2	3.0	373	373	971	5.7
Not employed	80.2	79.2	82.5	67.8	9.2	1,368	1,368	20	*

Continued...

Table 90 Decision making by background characteristics—Continued

Percentage of currently married women and men age 15-49 who usually make specific decisions either by themselves or jointly with their spouse, by background characteristics, Kerala, 2015-16

Background characteristic	Percentage of women who usually make specific decisions alone or jointly with their husband			Percentage of men who usually make specific decisions alone or jointly with their wife			Number of men			
	Own health care	Making major household purchases	Visits to her family or relatives	Percentage who participate in all three decisions	Percentage who participate in none of the three decisions	Number of women		Own health care	Making major household purchases	Percentage who participate in both decisions
Number of living children										
0	84.2	77.1	86.8	71.5	7.8	183	72.6	90.6	69.1	5.9
1-2	80.9	79.5	83.4	67.5	7.9	1,252	78.0	89.4	73.7	6.3
3-4	77.8	82.6	83.7	66.9	7.8	293	86.7	84.8	75.4	3.8
Household structure¹										
Nuclear	82.5	80.9	85.3	69.5	7.1	742	79.4	88.1	73.1	5.6
Non-nuclear	79.3	78.4	82.6	66.3	8.5	1,009	78.0	89.5	73.4	5.9
Religion										
Hindu	83.2	79.7	85.4	70.3	7.2	936	78.5	91.1	74.6	5.1
Muslim	75.2	76.9	78.8	62.2	11.2	557	78.2	83.7	69.7	7.8
Christian	83.6	83.9	88.0	70.0	3.9	255	79.5	90.8	74.9	4.5
Caste/tribe										
Scheduled caste	74.2	74.2	77.9	58.6	12.3	150	78.0	89.0	73.4	6.3
Scheduled tribe	50.0	62.0	68.9	41.1	27.0	28	(80.2)	(73.0)	(66.7)	(13.5)
Other backward class	80.3	79.8	82.6	67.9	8.3	996	78.4	89.6	72.6	4.6
Other	84.3	81.3	87.8	70.9	5.4	574	78.7	89.2	74.4	6.6
Total	80.6	79.5	83.7	67.6	7.9	1,751	78.6	88.9	73.3	5.8

Note: Total includes women/men age 15-19, women/men employed but not for cash, women/men who have 5 or more living children, women/men belonging to "other" religions, and women/men who don't know their caste/tribe, who are not shown separately.

¹ Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 91 Women's access to money and credit

Background characteristic	Women's access to money			Women's knowledge and use of microcredit programmes			Percentage of women allowed to go to three specified places alone ¹	Number of women
	Percentage who have money that they can decide how to use	Percentage who have a bank or savings account that they themselves use	Percentage who know of a microcredit programme	Percentage who have taken a loan from a microcredit programme	Percentage of women allowed to go to three specified places alone ¹			
Age								
15-19	11.6	51.2	47.8	0.1	2.8	346		
20-24	30.1	67.5	67.6	2.0	7.8	309		
25-29	48.0	72.8	69.0	5.7	9.4	361		
30-39	46.9	74.0	71.4	12.9	13.4	709		
40-49	48.2	77.4	71.4	17.5	18.4	647		
Residence								
Urban	42.2	70.3	64.7	9.3	9.5	1,154		
Rural	38.0	70.8	69.3	10.3	14.2	1,218		
Schooling								
No schooling	(28.7)	(61.5)	(64.9)	(12.9)	(8.1)	20		
<5 years complete	40.9	68.1	56.6	8.2	21.1	66		
5-9 years complete	34.9	65.1	68.5	15.4	12.6	596		
10-11 years complete	33.7	64.7	64.0	11.5	9.4	551		
12 or more years complete	46.1	76.6	68.5	6.0	12.2	1,139		
Employment (past 12 months)								
Employed	84.7	86.2	81.8	19.1	20.6	501		
Employed, for cash	86.3	86.7	81.3	19.0	21.2	483		
Not employed	28.1	66.4	63.2	7.3	9.5	1,871		
Number of living children								
0	27.3	63.9	60.7	2.5	7.6	732		
1-2	48.1	74.9	72.0	14.1	15.1	1,310		
3-4	37.4	69.2	61.7	9.2	8.9	307		

Continued...

Table 91 Women's access to money and credit—Continued

Percentage of women age 15-49 who have access to money, who know of a microcredit programme, who have taken a loan from a microcredit programme, and who are allowed to go to three specified places alone by background characteristics, Kerala, 2015-16

Background characteristic	Women's access to money				Women's knowledge and use of microcredit programmes			Number of women
	Percentage who they can decide how to use	Percentage who have a bank or savings account that they themselves use	Percentage who know of a microcredit programme	Percentage who have taken a loan from a microcredit programme	Percentage of women allowed to go to three specified places alone ¹	Percentage of women allowed to go to three specified places alone ¹		
Household structure²								
Nuclear	37.8	71.4	64.3	10.9	12.9	12.9	1,115	
Non-nuclear	42.1	69.8	69.6	8.8	10.9	10.9	1,257	
Religion								
Hindu	45.5	74.5	70.9	12.3	13.5	13.5	1,288	
Muslim	27.2	60.2	57.0	5.1	6.6	6.6	728	
Christian	46.5	77.7	73.8	10.3	17.0	17.0	354	
Caste/tribe								
Scheduled caste	42.7	71.1	70.8	19.0	13.8	13.8	216	
Scheduled tribe	27.3	70.2	62.5	8.2	8.6	8.6	33	
Other backward class	37.3	69.1	66.3	9.1	10.5	10.5	1,340	
Other	44.8	73.0	68.0	8.6	13.6	13.6	777	
Total	40.1	70.6	67.1	9.8	11.9	11.9	2,372	

Note: Total includes women who are employed but not for cash, women with 5 or more living children, women belonging to "other" religions, and women who don't know their caste/tribe, who are not shown separately.

¹ To the market, to the health facility, and to places outside the village/community

² Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals

() Based on 25-49 unweighted cases

Table 92 Ownership of assets

Percentage of women and men age 15-49 who own a house or land either alone or jointly, percentage of women who own a mobile phone that they themselves use, and among women who own a mobile phone, percentage who can read SMS messages, according to background characteristics, Kerala, 2015-16

Background characteristic	Women				Men				
	Own a house alone or jointly	Own land alone or jointly	Have a mobile phone that they themselves use	Number of women	Among women who have a mobile phone, percentage who can read SMS messages	Number of women	Own a house alone or jointly	Own land alone or jointly	Number of men
Age									
15-19	11.8	9.8	40.0	346	98.4	138	24.7	22.3	306
20-24	16.1	16.0	90.3	309	97.7	279	32.3	27.9	278
25-29	24.6	24.2	93.7	361	94.7	339	36.5	28.6	261
30-34	34.9	26.0	89.1	330	87.0	294	50.8	33.4	252
35-39	31.6	28.6	87.8	379	80.5	332	64.3	44.9	270
40-44	40.5	28.3	88.2	328	71.5	289	72.8	51.3	236
45-49	45.5	30.8	79.6	320	62.5	254	81.3	46.2	253
Residence									
Urban	25.0	21.3	81.1	1,154	85.5	936	52.7	35.6	869
Rural	33.2	25.5	81.2	1,218	82.6	990	48.8	35.9	987
Religion									
Hindu	32.0	25.5	81.8	1,288	85.9	1,053	48.1	32.9	1,073
Muslim	24.0	19.5	79.2	728	78.9	576	53.1	38.8	518
Christian	30.1	24.3	83.0	354	87.7	294	55.6	40.9	263
Caste/tribe									
Scheduled caste	28.7	19.7	73.5	216	70.3	159	49.5	27.3	172
Scheduled tribe	37.1	13.8	59.5	33	(46.3)	20	56.8	33.4	37
Other backward class	26.3	20.5	82.5	1,340	83.1	1,106	45.7	31.9	914
Other	34.0	29.8	81.9	777	90.1	637	55.9	41.3	698
Don't know	*	*	*	6	*	5	(73.5)	(68.4)	35
Schooling									
No schooling	(49.9)	(8.1)	(44.5)	20	*	9	*	*	11
<5 years complete	48.6	26.1	69.3	66	4.0	46	76.8	34.1	54
5-9 years complete	28.4	19.6	74.4	596	58.0	443	60.7	38.1	482
10-11 years complete	28.1	23.5	70.5	551	87.5	389	44.4	34.6	480
12 or more years complete	28.7	25.5	91.1	1,139	98.1	1,038	46.7	35.1	829
Total age 15-49	29.2	23.4	81.2	2,372	84.1	1,925	50.7	35.8	1,856
Age 50-54	na	na	na	na	na	na	90.3	51.2	230
Total age 15-54	na	na	na	na	na	na	55.0	37.5	2,086

Note: Total includes women/men belonging to "other" religions, who are not shown separately.

na = Not applicable

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 93 Gender role attitudes

Percentage of women and men age 15-49 with specific attitudes toward wife beating and refusal by a wife to have sex with her husband by reason, and percentage of men age 15-49 who agree that a man can behave in specific ways if his wife refuses to have sex with him, according to marital status, Kerala, 2015-16

Reason/behaviour	Ever-married		Never married		Total	
	Women	Men	Women	Men	Women	Men
Percentage who agree that a husband is justified in hitting or beating his wife if:						
She goes out without telling him	32.4	16.7	24.9	17.3	30.8	17.0
She neglects the house or children	50.5	21.2	45.9	22.6	49.4	21.8
She argues with him	31.4	11.6	25.2	16.5	30.0	13.8
She refuses to have sexual intercourse with him	14.3	4.3	11.8	7.6	13.7	5.8
She doesn't cook properly	15.7	5.0	12.4	6.2	14.9	5.5
He suspects her of being unfaithful	40.9	34.1	34.3	40.0	39.5	36.8
She shows disrespect for in-laws	47.6	43.6	40.8	50.6	46.1	46.8
Percentage who agree with at least one specified reason	70.5	55.2	65.8	61.6	69.4	58.1
Percentage who agree that a wife is justified in refusing to have sex with her husband when she:						
Knows her husband has a sexually transmitted disease	76.0	85.2	65.9	77.9	73.7	81.9
Knows her husband has sex with other women	83.7	87.0	72.7	80.2	81.3	83.9
Is tired or not in the mood	75.0	86.6	65.8	77.9	72.9	82.6
Percentage who agree with all three reasons	63.9	74.1	58.7	64.6	62.8	69.8
Percentage who agree with none of the three reasons	10.1	5.0	23.6	11.3	13.1	7.9
Percentage who agree that when a wife refuses to have sex with her husband, he has the right to:						
Get angry and reprimand her	na	17.0	na	18.7	na	17.8
Refuse to give her financial support	na	6.1	na	6.7	na	6.4
Use force to have sex even if she doesn't want to	na	4.1	na	4.5	na	4.3
Have sex with another woman	na	6.2	na	7.0	na	6.6
Percentage who agree with all four behaviours	na	1.6	na	1.2	na	1.5
Percentage who agree with none of the four behaviours	na	78.7	na	76.4	na	77.6
Number of respondents	1,842	1,006	530	850	2,372	1,856
na = Not applicable						

Table 94 Gender role attitudes by background characteristics

Percentage of women and men age 15-49 who agree that a husband is justified in hitting or beating his wife for at least one specified reason, who agree that a wife is justified in refusing to have sex with her husband for all specified reasons, and percentage of men who agree that when a wife refuses to have sex with her husband, the husband does not have the right to any of the four specified behaviours, by background characteristics, Kerala, 2015-16

Background characteristic	Percentage who agree that a husband is justified in hitting or beating his wife for at least one specified reason ¹		Percentage who agree that a wife is justified in refusing to have sex with her husband for all specified reasons ²		Percentage who agree that when a wife refuses to have sex with her husband, he does not have the right to any of the four specified behaviours ³		Number	
	Women	Men	Women	Men	Women	Men	Women	Men
Age								
15-19	65.7	61.5	52.6	60.5	71.2	71.2	346	306
20-24	67.4	61.5	68.0	68.9	74.4	74.4	309	278
25-29	71.3	56.1	67.8	71.2	74.0	74.0	361	261
30-39	69.1	54.7	66.1	72.1	75.9	75.9	709	522
40-49	71.8	58.7	59.2	72.9	76.0	76.0	647	490
Residence								
Urban	67.7	56.9	65.3	69.8	73.3	73.3	1,154	869
Rural	71.1	59.2	60.3	69.7	75.8	75.8	1,218	987
Schooling								
No schooling	(82.0)	*	(21.4)	*	*	*	20	11
<5 years complete	76.7	59.3	59.4	71.2	73.6	73.6	66	54
5-9 years complete	75.3	61.4	60.5	69.2	74.9	74.9	596	482
10-11 years complete	67.1	53.6	58.6	68.7	73.5	73.5	551	480
12 or more years complete	66.8	58.5	66.9	70.8	75.4	75.4	1,139	829
Employment (past 12 months)								
Employed	72.2	57.0	67.8	72.4	76.1	76.1	501	1,384
Employed, for cash	72.1	57.0	67.3	72.4	76.1	76.1	483	1,382
Not employed	68.7	61.3	61.4	62.0	70.4	70.4	1,871	472
Marital status								
Never married	65.8	61.6	58.7	64.6	70.7	70.7	530	850
Currently married	70.9	55.1	63.7	74.2	78.2	78.2	1,751	992
Widowed/divorced/separated/deserted	62.5	*	69.1	*	*	*	91	13

Continued...

Table 94 Gender role attitudes by background characteristics—Continued

Percentage of women and men age 15-49 who agree that a husband is justified in hitting or beating his wife for at least one specified reason, who agree that a wife is justified in refusing to have sex with her husband for all specified reasons, and percentage of men who agree that when a wife refuses to have sex with her husband, the husband does not have the right to any of the four specified behaviours, by background characteristics, Kerala, 2015-16

Background characteristic	Percentage who agree that a husband is justified in hitting or beating his wife for at least one specified reason ¹		Percentage who agree that a wife is justified in refusing to have sex with her husband for all specified reasons ²		Percentage who agree that when a wife refuses to have sex with her husband, he does not have the right to any of the four specified behaviours ³		Number	
	Women	Men	Women	Men	Women	Men	Women	Men
Number of living children								
0	66.6	60.2	59.2	65.8	71.8	71.8	732	984
1-2	70.3	55.9	65.0	72.5	78.3	78.3	1,310	716
3-4	73.4	53.3	61.4	83.9	78.0	78.0	307	142
Household structure⁴								
Nuclear	70.9	59.2	61.8	67.6	75.0	75.0	1,115	917
Non-nuclear	68.2	57.0	63.6	71.9	74.3	74.3	1,257	939
Religion								
Hindu	70.6	58.7	63.1	69.5	73.0	73.0	1,288	1,073
Muslim	70.1	56.4	62.8	68.6	76.2	76.2	728	518
Christian	63.9	59.3	61.4	72.7	78.1	78.1	354	263
Caste/tribe								
Scheduled caste	80.0	64.3	58.9	67.6	76.0	76.0	216	172
Scheduled tribe	66.4	60.8	40.2	59.6	63.2	63.2	33	37
Other backward class	70.1	53.8	64.3	70.4	77.0	77.0	1,340	914
Other	65.7	62.1	62.3	70.0	73.5	73.5	777	698
Don't know	*	(55.4)	*	(70.9)	(43.2)	(43.2)	6	35
Total	69.4	58.1	62.8	69.8	74.7	74.7	2,372	1,856

Note: Total includes women/men who are employed but not for cash, women/men with 5 or more living children, and women/men belonging to "other" religions, who are not shown separately.

¹ Specified reasons are: she goes out without telling him, she neglects the house or children, she argues with him, she refuses to have sexual intercourse with him, she doesn't cook properly, he suspects she is unfaithful, and she shows disrespect for in-laws.

² Specified reasons are: knows husband has a sexually transmitted disease, knows husband has sex with other women, and is tired or not in the mood.

³ Specified behaviours are: gets angry and reprimands her, refuses to give her financial support, uses force to have sex, and has sex with another woman.

⁴ Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals.

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

Table 95 Experience of physical and sexual violence

Percentage of women age 15-49 who have ever experienced physical or sexual violence; among those who have experienced physical violence, the person committing the violence; and among those who have experienced sexual violence, the person committing the violence the first time, by marital status, Kerala, 2015-16

Type of violence/perpetrator	Ever-married	Never married	Total
Type of violence experienced			
Physical violence only	10.8	7.6	10.1
Sexual violence only	1.2	1.2	1.2
Physical and sexual violence	3.7	1.9	3.3
Physical or sexual violence	15.8	10.7	14.7
Number of women	1,363	384	1,747
Person committing physical violence¹			
Current husband	88.9	*	75.1
Former husband	0.8	*	0.7
Father/step-father	7.8	*	15.6
Mother/step-mother	6.0	*	12.5
Sister/brother	2.0	*	3.1
Other relative	3.2	*	2.7
Former boyfriend	0.8	*	1.2
Teacher	0.3	*	0.6
Other	0.0	*	0.2
Number who experienced physical violence since age 15	199	37	235
Person committing sexual violence the first time			
Current husband	90.2	*	76.5
Former husband	3.2	*	2.7
Current/former boyfriend	0.0	*	0.7
Father/step-father	0.0	*	4.8
Other relative	1.7	*	1.7
Family friend	0.7	*	4.1
Stranger	0.7	*	3.5
Other	3.5	*	6.0
Number who experienced sexual violence	68	12	80

Note: All women were asked about their experience of physical violence since age 15. Ever-married women were also asked about their experience of spousal physical violence at any age.

¹ Women can report more than one person who committed the violence

* Percentage not shown; based on fewer than 25 unweighted cases

Table 96 Experience of violence during pregnancy

Among women age 15-49 who have ever been pregnant, percentage who have ever experienced physical violence during pregnancy, by background characteristics, Kerala, 2015-16

Background characteristic	Percentage who experienced violence during pregnancy	Number of women who have ever been pregnant
Age		
20-24	0.5	75
25-29	0.6	204
30-39	1.1	491
40-49	2.1	469
Residence		
Urban	0.9	599
Rural	1.8	653
Marital status		
Currently married	1.1	1,191
Widowed/divorced/ separated/deserted	3.4	60
Number of living children		
0	(1.0)	38
1-2	1.3	968
3-4	1.6	231
Schooling		
<5 years complete	12.7	46
5-9 years complete	1.8	372
10-11 years complete	0.7	310
12 or more years complete	0.4	512
Religion		
Hindu	1.8	664
Muslim	0.4	404
Christian	1.7	183
Caste/tribe		
Scheduled caste	2.9	104
Scheduled tribe	(1.8)	21
Other backward class	1.1	708
Other	1.4	415
Total	1.3	1,252

Note: Total includes women age 15-19, never married women, women with 5 or more living children, women who have no schooling, women belonging to "other" religions, and women who don't know their caste/tribe, who are not shown separately.

() Based on 25-49 unweighted cases

Table 97 Forms of spousal violence

Percentage of ever-married women age 15-49 who have experienced various forms of violence committed by their husband ever and in the 12 months preceding the survey, Kerala, 2015-16

Type of violence	Ever ¹	In the past 12 months		
		Often	Sometimes	Often or sometimes
Physical violence				
Any form of physical violence	13.0	1.7	6.4	8.1
Pushed her, shook her, or threw something at her	8.8	1.3	3.9	5.2
Twisted her arm or pulled her hair	3.5	0.7	1.0	1.7
Slapped her	7.0	0.7	3.7	4.4
Punched her with his fist or with something that could hurt her	3.0	0.6	1.3	1.9
Kicked her, dragged her, or beat her up	1.9	0.5	0.8	1.3
Tried to choke her or burn her on purpose	0.9	0.1	0.6	0.7
Threatened her or attacked her with a knife, gun, or any other weapon	0.5	0.0	0.4	0.4
Sexual violence				
Any form of sexual violence	4.5	0.7	2.5	3.2
Physically forced her to have sexual intercourse with him even when she did not want to	3.1	0.5	2.0	2.4
Physically forced her to perform any sexual acts she did not want to	1.4	0.3	0.6	0.9
Forced her with threats or in any other way to perform sexual acts she did not want to	3.0	0.6	1.3	1.9
Emotional violence				
Any form of emotional violence	8.7	1.5	4.7	6.2
Said or did something to humiliate her in front of others	4.6	1.1	2.1	3.2
Threatened to hurt or harm her or someone close to her	3.0	0.8	1.1	2.0
Insulted her or made her feel bad about herself	7.3	1.1	4.0	5.1
Any form of physical and/or sexual violence	14.3	1.9	7.6	9.5
Any form of physical and sexual violence	3.2	0.5	1.4	1.8
Any form of physical and/or sexual and/or emotional violence	16.5	2.5	9.3	11.9
Any form of physical and sexual and emotional violence	2.3	0.5	1.0	1.4
Any violence by women against their husband ²	1.7	0.3	0.8	1.0
Number of ever-married women	1,363	1,363	1,363	1,363

Note: Husband refers to the current husband for currently married women and the most recent husband for widowed, divorced, separated, or deserted women.

¹ Includes in the past 12 months

² Any violence by women against their husband when he was not already beating or physically hurting her

Table 98 Spousal violence by background characteristics

Percentage of ever-married women age 15-49 who have ever experienced emotional, physical, or sexual violence committed by their husband, according to background characteristics, Kerala, 2015-16

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical or sexual violence	Emotional, physical, or sexual violence	Number of women
Age						
20-24	3.2	3.0	3.1	5.1	6.9	104
25-29	4.4	5.9	2.2	7.4	9.8	232
30-39	10.5	14.3	6.3	15.8	17.6	515
40-49	10.5	17.5	4.3	18.5	21.2	492
Residence						
Urban	9.3	12.3	4.6	13.7	16.6	638
Rural	8.2	13.5	4.5	14.8	16.4	726
Schooling						
<5 years complete	16.2	27.9	8.8	29.0	31.2	50
5-9 years complete	15.8	21.5	6.8	23.7	28.1	387
10-11 years complete	7.7	12.9	3.0	13.9	15.3	333
12 or more years complete	4.0	6.1	3.5	7.1	8.3	580
Employment (past 12 months)						
Not employed	5.8	10.1	3.5	11.4	12.9	1,036
Employed for cash	18.6	22.4	8.1	23.8	28.3	318
Marital status						
Currently married	7.7	11.8	4.1	13.3	15.5	1,290
Widowed	16.4	19.6	10.4	19.6	21.2	56
Marital duration¹						
Married only once	7.3	11.6	3.8	12.7	15.0	1,256
0-4 years	1.5	2.9	2.3	4.1	4.5	217
5-9 years	4.7	6.7	2.1	7.9	10.5	208
10+ years	9.5	15.1	4.6	16.2	18.8	832
Married more than once	(18.6)	(17.1)	(14.5)	(27.3)	(31.0)	40
Number of living children						
0	8.2	10.8	2.3	11.1	11.9	150
1-2	8.6	12.7	4.2	14.0	16.7	967
3-4	9.6	15.1	7.6	17.6	18.8	231
Household structure²						
Nuclear	12.2	16.9	5.7	17.9	20.4	575
Non-nuclear	6.2	10.1	3.7	11.6	13.7	788
Religion						
Hindu	9.4	14.8	4.3	15.8	18.0	723
Muslim	6.5	8.7	4.1	10.3	11.9	440
Christian	11.5	15.6	6.4	18.0	21.2	198

Continued...

Table 98 Spousal violence by background characteristics—Continued

Percentage of ever-married women age 15-49 who have ever experienced emotional, physical, or sexual violence committed by their husband, according to background characteristics, Kerala, 2015-16

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical or sexual violence	Emotional, physical, or sexual violence	Number of women
Caste/tribe						
Scheduled caste	17.2	23.7	4.9	24.9	29.2	113
Scheduled tribe	(26.2)	(27.3)	(9.3)	(27.3)	(34.5)	23
Other backward class	8.0	12.6	4.5	13.6	15.6	773
Other	7.0	10.3	4.4	12.3	14.1	450
Respondent's father beat her mother						
Yes	19.6	27.0	9.6	30.2	36.3	214
No	6.4	10.0	3.4	11.0	12.5	1,137
Total	8.7	13.0	4.5	14.3	16.5	1,363

Note: Husband refers to the current husband for currently married women and the most recent husband for widowed, divorced, separated, or deserted women. Total includes women age 15-19, women who have no schooling, women who are employed but not for cash, divorced/separated/deserted women, women with 5 or more living children, women belonging to "other" religions, women who don't know their caste/tribe; and women who don't know whether their father beat their mother, who are not shown separately.

¹ Currently married women only

² Nuclear households are households comprised of a married couple or a man or a woman living alone or with unmarried children (biological, adopted, or fostered) with or without unrelated individuals

() Based on 25-49 unweighted cases

Table 99 Spousal violence by husband's characteristics and empowerment indicators

Percentage of ever-married women age 15-49 who have ever suffered emotional, physical, or sexual violence committed by their husband, according to his characteristics, marital characteristics, and selected empowerment indicators, Kerala, 2015-16

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical or sexual violence	Emotional, physical, or sexual violence	Number of women
Husband's schooling						
No schooling	(27.3)	(26.0)	(23.6)	(30.0)	(31.0)	20
<5 years complete	15.1	15.5	7.6	18.0	22.9	99
5-9 years complete	13.5	20.3	5.3	21.2	24.5	469
10-11 years complete	4.9	8.7	4.3	11.1	11.8	351
12 or more years complete	4.4	6.9	2.2	7.4	9.1	418
Husband's alcohol consumption						
Does not drink	4.6	5.6	2.1	6.7	8.7	898
Gets drunk sometimes	12.7	22.8	6.5	24.8	27.8	379
Gets drunk often	36.2	47.5	22.0	48.8	49.6	83
Spousal age difference¹						
Wife 1-4 years younger	10.9	14.5	5.2	15.7	18.8	371
Wife 5-9 years younger	7.0	9.8	3.9	11.2	13.6	629
Wife 10+ years younger	5.4	11.9	2.9	13.4	14.1	258
Spousal schooling difference						
Husband has more schooling	9.5	15.5	3.3	16.9	19.7	290
Wife has more schooling	8.4	13.0	5.3	14.4	16.6	690
Both have equal schooling	8.9	10.9	3.9	12.0	13.7	371
Number of marital control behaviours displayed by husband²						
0	4.4	8.5	2.1	9.4	11.1	1,065
1-2	14.4	20.1	7.2	22.7	26.3	244
3-4	(63.3)	(61.7)	(27.5)	(69.1)	(77.5)	39
Number of decisions in which women participate³						
0	14.2	16.8	9.2	18.6	21.1	111
1-2	9.5	14.1	5.5	17.4	20.8	325
3	6.1	10.3	3.0	11.0	12.7	853
Number of reasons for which wife beating is justified⁴						
0	5.3	7.7	4.1	9.4	11.1	404
1-2	9.2	15.9	4.7	17.3	18.6	342
3-4	9.8	14.3	3.7	14.6	17.1	377
5-6	12.8	15.3	5.9	18.0	22.7	175
7	10.8	16.1	7.5	17.0	19.4	66

Continued...

Table 99 Spousal violence by husband's characteristics and empowerment indicators—*Continued*

Percentage of ever-married women age 15-49 who have ever suffered emotional, physical, or sexual violence committed by their husband, according to his characteristics, marital characteristics, and selected empowerment indicators, Kerala, 2015-16

Background characteristic	Emotional violence	Physical violence	Sexual violence	Physical or sexual violence	Emotional, physical, or sexual violence	Number of women
Number of reasons given for refusing to have sexual intercourse with husband⁵						
0	10.9	14.3	3.9	14.3	17.8	145
1-2	7.9	11.9	3.2	13.1	15.9	354
3	8.7	13.1	5.2	14.8	16.5	865
Afraid of husband						
Most of the time	40.1	46.5	17.9	48.0	52.2	115
Sometimes	7.1	11.4	3.8	13.1	15.3	880
Never	2.8	6.1	2.2	6.6	8.1	368
Total	8.7	13.0	4.5	14.3	16.5	1,363

Note: Husband refers to the current husband for currently married women and the most recent husband for widowed, divorced, separated, or deserted women. Total includes women whose husbands drink alcohol, but never get drunk; women who are older or the same age as their husband; women who have never attended school and women whose husbands have never attended school; women whose husbands displayed 5-6 marital control behaviours, who are not shown separately.

¹ Currently married women only

² Behaviours include: Is jealous or angry if she talks to other men, frequently accuses her of being unfaithful, does not permit her to meet her female friends, tries to limit her contact with her family, insists on knowing where she is at all times, and does not trust her with any money

³ Currently married women only. Decisions included are decisions about own health care, major household purchases, and visits to her family or relatives.

⁴ Reasons given for which wife beating is justified include: she goes out without telling him, she neglects the house or children, she argues with him, she refuses to have sexual intercourse with him, she doesn't cook properly, he suspects she is unfaithful, and she shows disrespect for in-laws

⁵ Reasons given for refusing to have sexual intercourse with husband include: she knows her husband has a sexually transmitted disease, she knows her husband has sex with other women, and she is tired or not in the mood

() Based on 25-49 unweighted cases

Table 100 Injuries to women due to spousal violence

Percentage of ever-married women age 15-49 who have experienced spousal violence by types of injuries resulting from what their husband did to them, the type of violence, and whether they have experienced the violence ever and in the 12 months preceding the survey, Kerala, 2015-16

Type of spousal violence experienced	Percentage of women who have had:					Number of ever-married women
	Cuts, bruises, or aches	Severe burns	Eye injuries, sprains, dislocations, or minor burns	Deep wounds, broken bones, broken teeth, or any other serious injury	Any of these injuries	
Experienced physical violence¹						
Ever ²	22.3	2.1	5.6	5.1	24.0	177
In the past 12 months	25.5	2.3	5.7	6.2	27.7	110
Experienced sexual violence						
Ever ²	27.3	0.8	5.8	7.5	27.3	62
In the past 12 months	(28.2)	(1.2)	(8.1)	(7.9)	(28.2)	44
Experienced physical or sexual violence						
Ever ²	21.3	1.9	5.1	4.6	22.8	195
In the past 12 months	23.8	2.0	4.8	5.3	25.7	130
Experienced physical and sexual violence						
Ever ²	(33.9)	(1.2)	(8.2)	(10.6)	(33.9)	44
In the past 12 months	(38.9)	(2.1)	(14.4)	(13.9)	(38.9)	25

Note: Husband refers to the current husband for currently married women and the most recent husband for widowed, divorced, separated, or deserted women.

¹ Excludes women who reported violence only in response to a direct question on violence during pregnancy

² Includes violence in the past 12 months

() Based on 25-49 unweighted cases

Table 101 Help seeking

Percentage of women age 15-49 who have ever experienced physical or sexual violence by whether they have ever sought help, and among those who have sought help from any source, the source from which help was sought, according to the type of violence experienced and marital status, Kerala, 2015-16

Source	Type of violence experienced			Marital status		Total
	Physical only	Sexual only	Both physical and sexual	Ever-married	Never married	
Help seeking						
Never sought help and never told anyone	54.7	(59.4)	47.9	59.1	*	53.5
Never sought help but told someone	20.1	(24.1)	12.7	19.3	*	18.8
Sought help	25.2	(16.5)	39.4	21.6	*	27.7
Number of women who experienced violence	177	22	58	216	41	257
Sources of help among those who sought any help¹						
Own family	(71.7)	*	*	68.0	*	67.7
Husband's family	(23.9)	*	*	34.1	*	22.3
Current/former husband	(0.3)	*	*	0.3	*	0.2
Friend	(6.2)	*	*	7.5	*	12.9
Neighbour	(5.9)	*	*	11.4	*	9.2
Religious leader	(5.4)	*	*	7.0	*	4.6
Police	(5.5)	*	*	11.9	*	7.8
Lawyer	(13.6)	*	*	14.9	*	9.8
Social service organization	(1.4)	*	*	5.5	*	3.6
Other	(0.0)	*	*	0.0	*	3.4
Number of women who experienced violence and sought help	45	4	23	47	25	71

¹ Women can report more than one source from which they sought help.

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

APPENDIX

ESTIMATES OF SAMPLING ERRORS

The estimates from a sample survey are affected by two types of errors: (1) non-sampling errors, and (2) sampling errors. Non-sampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the fourth National Family Health Survey (NFHS-4) to minimize this type of error, non-sampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in NFHS-4 is only one of many samples that could have been selected from the same population, using the same design and expected sample size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability among all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the standard error for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the NFHS-4 sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for NFHS-4 is programmed in SAS. This procedure uses the Taylor linearization method for variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as total fertility rates and child mortality rates.

The Taylor linearization method treats any proportion or mean as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y , and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^2(r) = var(r) = \frac{1-f}{x^2} \sum_{h=1}^H \left[\frac{m_h}{m_h - 1} \left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h} \right) \right]$$

in which

$$z_{hi} = y_{hi} - rx_{hi}, \text{ and } z_h = y_h - rx_h$$

where h represents the stratum, which varies from 1 to H ,
 m_h is the total number of clusters selected in the h^{th} stratum,
 y_{hi} is the sum of the weighted values of variable y in the i^{th} cluster in the h^{th} stratum,
 x_{hi} is the sum of the weighted number of cases in the i^{th} cluster in the h^{th} stratum, and
 f is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers all but one cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the NFHS-4 sample for Kerala, there were 533 clusters. Hence, 533 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) = var(r) = \frac{1}{k(k-1)} \sum_{i=1}^k (r_i - r)^2$$

in which

$$r_i = kr - (k-1)r_{(i)}$$

where r is the estimate computed from the full sample of 533 clusters,
 $r_{(i)}$ is the estimate computed from the reduced sample of 532 clusters (i^{th} cluster excluded), and
 k is the total number of clusters.

In addition to the standard error, the design effect (DEFT) for each estimate is also computed, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. The relative standard error (SE/R) and confidence limits ($R \pm 2SE$) for each estimate are also computed.

Sampling errors for NFHS-4 are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for Kerala as a whole and for the urban and rural areas of the state. For each variable, the type of statistic (mean, proportion, rate, or ratio) and the base population are given in Table A.1. Table A.2 presents the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits ($R \pm 2SE$); for each variable. The DEFT is considered undefined when the standard error for a simple random sample is zero (when the estimate is close to 0 or 1).

Table A.1 List of variables for sampling errors, Kerala, 2015-16

Variable	Estimate	Base population
HOUSEHOLDS		
Using an improved source of drinking water	Proportion	Households
Using an improved sanitation facility	Proportion	Households
Using iodized salt	Proportion	Households
Sex ratio (females per 1,000 males)	Ratio	<i>De facto</i> household population, all ages
WOMEN		
No schooling (Females age 6 years and above)	Proportion	<i>De facto</i> household population of females age 6 and above
Urban residence	Proportion	Women age 15-49
No schooling (Women age 15-49)	Proportion	Women age 15-49
Completed 10 or more years of schooling	Proportion	Women age 15-49
Never married, including married <i>gauna</i> not performed	Proportion	Women age 15-49
Currently married	Proportion	Women age 15-49
Married before age 18	Proportion	Women age 20-49
Currently using any contraceptive method	Proportion	Currently married women age 15-49
Currently using a modern contraceptive method	Proportion	Currently married women age 15-49
Currently using a traditional contraceptive method	Proportion	Currently married women age 15-49
Currently using pill	Proportion	Currently married women age 15-49
Currently using IUD/PPIUD	Proportion	Currently married women age 15-49
Currently using condom/ <i>Nirodh</i>	Proportion	Currently married women age 15-49
Currently using female sterilization	Proportion	Currently married women age 15-49
Using public health sector source of contraception	Proportion	Women age 15-49 currently using modern methods of contraception
Unmet need for family planning	Proportion	Currently married women age 15-49
Want no more children	Proportion	Currently married women age 15-49
Want to delay next birth at least 2 years	Proportion	Currently married women age 15-49
Mother received four or more antenatal care (ANC) visits	Proportion	Women with at least one birth in last five years (last birth)
Took iron and folic acid (IFA) for 100 days or more	Proportion	Women with at least one birth in last five years (last birth)
Birth registration	Proportion	<i>De jure</i> children under age 5 years
Births delivered by a health personnel	Proportion	Births in last 5 years
Institutional delivery	Proportion	Births in last 5 years
Postnatal check for mother within 2 days of birth	Proportion	Women with at least one birth in last five years (last birth)
Postnatal check for newborn within 2 days of birth	Proportion	Women with at least one birth in last five years (last birth)
Exclusive breastfeeding	Proportion	Children under age 6 months
Children with diarrhoea	Proportion	Children under age 5 years
Treated with oral rehydration salt (ORS) packets	Proportion	Children under age 5 years with diarrhoea in last 2 weeks
Children with diarrhoea taken to a health provider	Proportion	Children under age 5 years with diarrhoea in last 2 weeks
Child received BCG vaccination	Proportion	Children age 12-23 months
Child received DPT vaccination (3 doses)	Proportion	Children age 12-23 months
Child received polio vaccination (3 doses)	Proportion	Children age 12-23 months
Child received measles vaccination	Proportion	Children age 12-23 months
Child received hepatitis B vaccination (3 doses)	Proportion	Children age 12-23 months
Child with all basic vaccinations	Proportion	Children age 12-23 months
Children given vitamin A supplement in past 6 months	Proportion	Children age 9-59 months
Height-for-age, stunting (below -2SD)	Proportion	Children under age 5 years who were measured
Weight-for-height, wasting (below -2SD)	Proportion	Children under age 5 years who were measured
Weight-for-age, underweight (below -2SD)	Proportion	Children under age 5 years who were measured
Children with any anaemia	Proportion	Children age 6-59 months with an anaemia test
Women with any anaemia	Proportion	Women age 15-49 with an anaemia test
Body mass index (BMI) <18.5 kg/m ²	Proportion	Women age 15-49 who were measured
Body mass index (BMI) ≥25.0 kg/m ²	Proportion	Women age 15-49 who were measured
Have heard of HIV/AIDS	Proportion	Women age 15-49
Have comprehensive knowledge about HIV/AIDS	Proportion	Women age 15-49
Ever experienced physical or sexual violence	Proportion	Women age 15-49
Total fertility rate (last 3 years)	Rate	Women
Neonatal mortality	Rate	Births in last 5 years
Postneonatal mortality	Rate	Births in last 5 years
Infant mortality	Rate	Births in last 5 years
Child mortality	Rate	Births in last 5 years
Under-five mortality	Rate	Births in last 5 years
MEN		
No schooling (Males age 6 years and above)	Proportion	<i>De facto</i> household population of males age 6 and above
Urban residence	Proportion	Men age 15-49
No schooling (Men age 15-49)	Proportion	Men age 15-49
Completed 10 or more years of schooling	Proportion	Men age 15-49
Never married, including married <i>gauna</i> not performed	Proportion	Men age 15-49
Currently married	Proportion	Men age 15-49
Married before age 21	Proportion	Men age 25-49
Want no more children	Proportion	Currently married men age 15-49
Want to delay next birth at least 2 years	Proportion	Currently married men age 15-49
Men with any anaemia	Proportion	Men age 15-49 with an anaemia test
Body mass index (BMI) <18.5 kg/m ²	Proportion	Men age 15-49 who were measured
Body mass index (BMI) ≥25.0 kg/m ²	Proportion	Men age 15-49 who were measured
Have heard of HIV/AIDS	Proportion	Men age 15-49
Have comprehensive knowledge about HIV/AIDS	Proportion	Men age 15-49

Table A.2 Sampling errors: Total sample, Kerala, 2015-16

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative standard error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
HOUSEHOLDS								
Using an improved source of drinking water	0.943	0.004	11,555	11,555	1.650	0.004	0.936	0.950
Using an improved sanitation facility	0.981	0.002	11,555	11,555	1.447	0.002	0.977	0.984
Using iodized salt	0.984	0.002	11,524	11,527	1.299	0.002	0.981	0.987
Sex ratio (females per 1,000 males)	1048.555	8.813	22,045	22,159	1.225	0.008	1030.930	1066.181
WOMEN								
No schooling (Females age 6 years and above)	0.042	0.002	21,642	21,726	1.556	0.051	0.038	0.047
Urban residence	0.469	0.007	11,033	11,033	1.503	0.015	0.455	0.483
No schooling (Women age 15-49)	0.010	0.001	11,033	11,033	1.088	0.105	0.008	0.012
Completed 10 or more years of schooling	0.722	0.007	11,033	11,033	1.577	0.009	0.708	0.735
Never married, including married <i>gauna</i> not performed	0.227	0.005	11,033	11,033	1.172	0.021	0.218	0.236
Currently married	0.738	0.005	11,033	11,033	1.183	0.007	0.729	0.748
Married before age 18	0.160	0.006	9,549	9,529	1.610	0.038	0.148	0.172
Currently using any contraceptive method	0.531	0.009	8,094	8,147	1.702	0.018	0.512	0.550
Currently using a modern contraceptive method	0.503	0.009	8,094	8,147	1.657	0.018	0.485	0.521
Currently using a traditional contraceptive method	0.028	0.003	8,094	8,147	1.363	0.089	0.023	0.033
Currently using pill	0.002	0.001	8,094	8,147	1.174	0.293	0.001	0.003
Currently using IUD/PPIUD	0.016	0.002	8,094	8,147	1.156	0.100	0.013	0.019
Currently using condom/ <i>Nirodh</i>	0.026	0.002	8,094	8,147	1.201	0.082	0.021	0.030
Currently using female sterilization	0.458	0.009	8,094	8,147	1.640	0.020	0.440	0.476
Using public health sector source of contraception	0.584	0.012	4,215	4,253	1.623	0.021	0.559	0.608
Unmet need for family planning	0.137	0.005	8,094	8,147	1.319	0.037	0.127	0.147
Want no more children	0.631	0.008	8,094	8,147	1.416	0.012	0.616	0.646
Want to delay next birth at least 2 years	0.110	0.004	8,094	8,147	1.238	0.039	0.101	0.118
Mother received four or more antenatal care (ANC) visits	0.902	0.008	2,127	2,115	1.290	0.009	0.885	0.919
Took iron and folic acid (IFA) for 100 days or more	0.671	0.015	2,127	2,115	1.450	0.022	0.642	0.701
Birth registration	0.977	0.003	2,425	2,437	1.057	0.004	0.970	0.984
Births delivered by a health personnel	1.000	0.000	2,460	2,452	0.418	0.000	1.000	1.000
Institutional delivery	0.999	0.001	2,460	2,452	1.144	0.001	0.997	1.000
Postnatal check for mother within 2 days of birth	0.889	0.009	2,127	2,115	1.258	0.010	0.871	0.906
Postnatal check for newborn within 2 days of birth	0.494	0.016	2,127	2,115	1.444	0.032	0.463	0.526
Exclusive breastfeeding	0.532	0.039	223	232	1.175	0.072	0.455	0.610
Children with diarrhoea	0.033	0.004	2,443	2,436	1.104	0.120	0.025	0.041
Treated with oral rehydration salt (ORS) packets	0.494	0.063	86	82	1.143	0.128	0.367	0.621
Children with diarrhoea taken to a health provider	0.763	0.054	86	82	1.152	0.071	0.654	0.872
Child received BCG vaccination	0.981	0.007	492	486	1.132	0.007	0.967	0.995
Child received DPT vaccination (3 doses)	0.904	0.014	492	486	1.077	0.016	0.875	0.933
Child received polio vaccination (3 doses)	0.885	0.017	492	486	1.144	0.019	0.852	0.918
Child received measles vaccination	0.894	0.015	492	486	1.084	0.017	0.863	0.924
Child received hepatitis B vaccination (3 doses)	0.824	0.019	492	486	1.083	0.023	0.786	0.861
Child with all basic vaccinations	0.821	0.020	492	486	1.169	0.025	0.780	0.861
Children given vitamin A supplement in past 6 months	0.759	0.013	2,109	2,091	1.285	0.017	0.734	0.785
Height-for-age, stunting (below -2SD)	0.197	0.010	2,291	2,297	1.187	0.052	0.176	0.217
Weight-for-height, wasting (below -2SD)	0.157	0.009	2,291	2,297	1.189	0.060	0.138	0.176
Weight-for-age, underweight (below -2SD)	0.161	0.009	2,291	2,297	1.113	0.055	0.143	0.179
Children with any anaemia	0.356	0.016	2,114	2,127	1.419	0.044	0.325	0.387
Women with any anaemia	0.342	0.008	10,822	10,851	1.657	0.022	0.327	0.357
Body mass index (BMI) <18.5 kg/m ²	0.096	0.003	10,550	10,568	1.214	0.036	0.090	0.103
Body mass index (BMI) ≥25.0 kg/m ²	0.325	0.006	10,550	10,568	1.347	0.019	0.312	0.337
Have heard of HIV/AIDS	0.988	0.003	2,397	2,372	1.138	0.003	0.982	0.993
Have comprehensive knowledge about HIV/AIDS	0.431	0.014	2,397	2,372	1.422	0.033	0.402	0.460
Ever experienced physical or sexual violence	0.147	0.012	1,747	1,747	1.470	0.085	0.122	0.172
Total fertility rate (last 3 years)	1.561	0.048	31,783	31,761	1.252	0.031	1.465	1.658
Neonatal mortality	4.403	1.456	2,498	2,494	1.100	0.331	1.492	7.314
Postneonatal mortality	1.188	0.605	2,505	2,505	0.904	0.509	0.000	2.398
Infant mortality	5.591	1.570	2,498	2,494	1.068	0.281	2.452	8.730
Child mortality	1.470	0.940	2,498	2,488	1.302	0.639	0.000	3.350
Under-five mortality	7.053	1.803	2,500	2,495	1.122	0.256	3.448	10.658
MEN								
No schooling (Males age 6 years and above)	0.019	0.001	20,585	20,675	1.506	0.076	0.016	0.022
Urban residence	0.468	0.016	1,864	1,856	1.352	0.033	0.437	0.499
No schooling (Men age 15-49)	0.006	0.002	1,864	1,856	0.982	0.294	0.002	0.009
Completed 10 or more years of schooling	0.705	0.014	1,864	1,856	1.338	0.020	0.677	0.733
Never married, including married <i>gauna</i> not performed	0.458	0.013	1,864	1,856	1.126	0.028	0.432	0.484
Currently married	0.535	0.013	1,864	1,856	1.117	0.024	0.509	0.560
Married before age 21	0.053	0.007	1,289	1,272	1.183	0.139	0.039	0.068
Want no more children	0.664	0.018	1,012	992	1.228	0.027	0.627	0.700
Want to delay next birth at least 2 years	0.099	0.010	1,012	992	1.043	0.099	0.079	0.119
Men with any anaemia	0.117	0.011	1,816	1,810	1.369	0.089	0.096	0.138
Body mass index (BMI) <18.5 kg/m ²	0.085	0.009	1,844	1,834	1.246	0.100	0.068	0.102
Body mass index (BMI) ≥25.0 kg/m ²	0.285	0.013	1,844	1,834	1.177	0.045	0.260	0.311
Have heard of HIV/AIDS	0.985	0.004	1,864	1,856	1.439	0.004	0.977	0.993
Have comprehensive knowledge about HIV/AIDS	0.508	0.021	1,864	1,856	1.821	0.042	0.465	0.550

Table A.3 Sampling errors: Urban sample, Kerala, 2015-16

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative standard error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
HOUSEHOLDS								
Using an improved source of drinking water	0.957	0.004	4,296	5,382	1.339	0.004	0.949	0.966
Using an improved sanitation facility	0.987	0.003	4,296	5,382	1.501	0.003	0.982	0.992
Using iodized salt	0.988	0.002	4,281	5,365	1.169	0.002	0.984	0.992
Sex ratio (females per 1,000 males)	1058.457	14.165	8,296	10,318	1.164	0.013	1030.127	1086.788
WOMEN								
No schooling (Females age 6 years and above)	0.033	0.002	8,202	10,205	1.247	0.076	0.028	0.038
Currently using any contraceptive method	0.533	0.015	3,109	3,854	1.637	0.027	0.504	0.563
Currently using a modern contraceptive method	0.506	0.014	3,109	3,854	1.568	0.028	0.477	0.534
Currently using a traditional contraceptive method	0.028	0.004	3,109	3,854	1.286	0.137	0.020	0.035
Currently using pill	0.003	0.001	3,109	3,854	1.072	0.371	0.001	0.005
Currently using IUD/PPIUD	0.015	0.003	3,109	3,854	1.153	0.167	0.010	0.020
Currently using condom/ <i>Nirodh</i>	0.030	0.004	3,109	3,854	1.196	0.122	0.023	0.037
Currently using female sterilization	0.457	0.014	3,109	3,854	1.558	0.030	0.429	0.485
Using public health sector source of contraception	0.551	0.020	1,571	2,017	1.592	0.036	0.511	0.591
Unmet need for family planning	0.143	0.008	3,109	3,854	1.296	0.057	0.127	0.159
Want no more children	0.624	0.012	3,109	3,854	1.334	0.019	0.601	0.647
Mother received four or more antenatal care (ANC) visits	0.885	0.014	817	998	1.237	0.016	0.857	0.913
Took iron and folic acid (IFA) for 100 days or more	0.697	0.024	817	998	1.487	0.035	0.648	0.745
Birth registration	0.972	0.006	917	1,150	1.020	0.006	0.961	0.984
Births delivered by a health personnel	1.000	0.000	947	1,169	NA	0.000	1.000	1.000
Institutional delivery	0.999	0.001	947	1,169	0.889	0.001	0.998	1.001
Postnatal check for mother within 2 days of birth	0.879	0.014	817	998	1.197	0.016	0.851	0.906
Postnatal check for newborn within 2 days of birth	0.482	0.023	817	998	1.332	0.049	0.436	0.529
Children with diarrhoea	0.027	0.006	939	1,160	1.100	0.216	0.015	0.038
Treated with oral rehydration salt (ORS) packets	0.405	0.104	27	31	1.065	0.257	0.197	0.614
Children with diarrhoea taken to a health provider	0.695	0.095	27	31	1.040	0.137	0.504	0.886
Child received BCG vaccination	0.983	0.011	173	217	1.136	0.011	0.961	1.005
Child received DPT vaccination (3 doses)	0.905	0.022	173	217	1.005	0.025	0.860	0.950
Child received polio vaccination (3 doses)	0.896	0.024	173	217	1.018	0.026	0.849	0.943
Child received measles vaccination	0.903	0.023	173	217	1.028	0.026	0.856	0.949
Child received hepatitis B vaccination (3 doses)	0.827	0.028	173	217	0.990	0.034	0.771	0.884
Child with all basic vaccinations	0.822	0.032	173	217	1.116	0.039	0.757	0.887
Children given vitamin A supplement in past 6 months	0.760	0.021	804	988	1.322	0.028	0.718	0.803
Height-for-age, stunting (below -2SD)	0.198	0.016	866	1,081	1.110	0.079	0.167	0.230
Weight-for-height, wasting (below -2SD)	0.159	0.015	866	1,081	1.121	0.094	0.130	0.189
Weight-for-age, underweight (below -2SD)	0.155	0.014	866	1,081	1.081	0.090	0.127	0.182
Children with any anaemia	0.355	0.023	805	1,007	1.315	0.066	0.308	0.402
Women with any anaemia	0.363	0.012	4,084	5,069	1.599	0.033	0.339	0.387
Body mass index (BMI) <18.5 kg/m ²	0.091	0.005	4,017	4,962	1.166	0.058	0.080	0.101
Body mass index (BMI) ≥25.0 kg/m ²	0.335	0.010	4,017	4,962	1.404	0.031	0.314	0.356
Have heard of HIV/AIDS	0.993	0.003	982	1,154	0.992	0.003	0.987	0.998
Have comprehensive knowledge about HIV/AIDS	0.425	0.023	982	1,154	1.484	0.055	0.378	0.472
Total fertility rate (last 3 years)	1.571	0.068	12,050	14,881	1.109	0.044	1.434	1.708
Neonatal mortality	4.388	2.161	966	1,191	1.006	0.492	0.066	8.709
Postneonatal mortality	1.417	1.127	971	1,192	0.928	0.795	0.000	3.672
Infant mortality	5.805	2.420	966	1,191	0.988	0.417	0.965	10.645
Child mortality	2.357	1.892	964	1,184	1.285	0.803	0.000	6.140
Under-five mortality	8.148	3.006	966	1,191	1.082	0.369	2.136	14.161
MEN								
No schooling (Males age 6 years and above)	0.013	0.002	7,734	9,610	1.448	0.149	0.009	0.016
Want no more children	0.659	0.024	384	458	0.973	0.036	0.612	0.706
Men with any anaemia	0.126	0.016	713	841	1.321	0.130	0.093	0.159
Body mass index (BMI) <18.5 kg/m ²	0.084	0.014	727	859	1.296	0.163	0.057	0.112
Body mass index (BMI) ≥25.0 kg/m ²	0.311	0.023	727	859	1.265	0.073	0.265	0.356
Have heard of HIV/AIDS	0.990	0.007	736	869	1.772	0.007	0.976	1.003
Have comprehensive knowledge about HIV/AIDS	0.518	0.034	736	869	1.843	0.066	0.450	0.586

Table A.4 Sampling errors: Rural sample, Kerala, 2015-16

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative standard error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
HOUSEHOLDS								
Using an improved source of drinking water	0.930	0.006	7,259	6,173	1.843	0.006	0.919	0.941
Using an improved sanitation facility	0.975	0.003	7,259	6,173	1.456	0.003	0.969	0.980
Using iodized salt	0.981	0.002	7,243	6,162	1.401	0.002	0.976	0.985
Sex ratio (females per 1,000 males)	1039.927	10.973	13,749	11,841	1.245	0.011	1017.981	1061.872
WOMEN								
No schooling (Females age 6 years and above)	0.051	0.003	13,440	11,521	1.784	0.067	0.044	0.058
Currently using any contraceptive method	0.529	0.012	4,985	4,293	1.721	0.023	0.505	0.554
Currently using a modern contraceptive method	0.501	0.012	4,985	4,293	1.706	0.024	0.477	0.525
Currently using a traditional contraceptive method	0.028	0.003	4,985	4,293	1.411	0.117	0.022	0.035
Currently using pill	0.001	0.001	4,985	4,293	1.232	0.473	0.000	0.003
Currently using IUD/PPIUD	0.017	0.002	4,985	4,293	1.131	0.121	0.013	0.021
Currently using condom/ <i>Nirodh</i>	0.022	0.002	4,985	4,293	1.097	0.104	0.017	0.026
Currently using female sterilization	0.459	0.012	4,985	4,293	1.681	0.026	0.435	0.483
Using public health sector source of contraception	0.613	0.015	2,644	2,237	1.573	0.024	0.583	0.643
Unmet need for family planning	0.132	0.006	4,985	4,293	1.289	0.047	0.119	0.144
Want no more children	0.637	0.010	4,985	4,293	1.465	0.016	0.617	0.657
Mother received four or more antenatal care (ANC) visits	0.917	0.010	1,310	1,117	1.267	0.011	0.897	0.936
Took iron and folic acid (IFA) for 100 days or more	0.649	0.018	1,310	1,117	1.381	0.028	0.612	0.685
Birth registration	0.981	0.004	1,508	1,287	1.027	0.004	0.973	0.988
Births delivered by a health personnel	1.000	0.000	1,513	1,282	0.452	0.000	1.000	1.000
Institutional delivery	0.999	0.001	1,513	1,282	1.320	0.001	0.996	1.001
Postnatal check for mother within 2 days of birth	0.897	0.011	1,310	1,117	1.271	0.012	0.876	0.919
Postnatal check for newborn within 2 days of birth	0.505	0.021	1,310	1,117	1.523	0.042	0.462	0.547
Children with diarrhoea	0.040	0.006	1,504	1,276	1.105	0.141	0.028	0.051
Treated with oral rehydration salt (ORS) packets	0.549	0.077	59	50	1.189	0.141	0.394	0.703
Children with diarrhoea taken to a health provider	0.804	0.063	59	50	1.224	0.079	0.678	0.931
Child received BCG vaccination	0.979	0.009	319	269	1.126	0.009	0.961	0.997
Child received DPT vaccination (3 doses)	0.903	0.019	319	269	1.130	0.021	0.866	0.941
Child received polio vaccination (3 doses)	0.876	0.023	319	269	1.245	0.027	0.829	0.922
Child received measles vaccination	0.886	0.020	319	269	1.129	0.023	0.846	0.927
Child received hepatitis B vaccination (3 doses)	0.821	0.025	319	269	1.155	0.031	0.771	0.871
Child with all basic vaccinations	0.820	0.026	319	269	1.199	0.032	0.767	0.872
Children given vitamin A supplement in past 6 months	0.758	0.015	1,305	1,103	1.182	0.020	0.728	0.788
Height-for-age, stunting (below -2SD)	0.195	0.013	1,425	1,216	1.231	0.068	0.168	0.221
Weight-for-height, wasting (below -2SD)	0.155	0.012	1,425	1,216	1.214	0.076	0.132	0.179
Weight-for-age, underweight (below -2SD)	0.167	0.011	1,425	1,216	1.104	0.066	0.145	0.189
Children with any anaemia	0.357	0.021	1,309	1,120	1.485	0.058	0.316	0.399
Women with any anaemia	0.324	0.010	6,738	5,782	1.669	0.029	0.305	0.343
Body mass index (BMI) <18.5 kg/m ²	0.102	0.005	6,533	5,606	1.228	0.045	0.093	0.111
Body mass index (BMI) ≥25.0 kg/m ²	0.316	0.007	6,533	5,606	1.208	0.022	0.302	0.329
Have heard of HIV/AIDS	0.983	0.004	1,415	1,218	1.247	0.004	0.974	0.991
Have comprehensive knowledge about HIV/AIDS	0.436	0.017	1,415	1,218	1.298	0.039	0.402	0.470
Total fertility rate (last 3 years)	1.553	0.069	19,733	16,880	1.372	0.044	1.416	1.690
Neonatal mortality	4.417	1.976	1,532	1,303	1.171	0.447	0.465	8.368
Postneonatal mortality	0.985	0.550	1,534	1,313	0.537	0.559	0.000	2.085
Infant mortality	5.401	2.047	1,532	1,303	1.118	0.379	1.307	9.495
Child mortality	0.648	0.460	1,534	1,304	0.734	0.709	0.000	1.568
Under-five mortality	6.046	2.092	1,534	1,304	1.077	0.346	1.862	10.230
MEN								
No schooling (Males age 6 years and above)	0.025	0.002	12,851	11,065	1.576	0.087	0.021	0.030
Want no more children	0.668	0.027	628	534	1.446	0.041	0.613	0.722
Men with any anaemia	0.110	0.014	1,103	969	1.389	0.123	0.083	0.137
Body mass index (BMI) <18.5 kg/m ²	0.086	0.010	1,117	976	1.167	0.122	0.065	0.107
Body mass index (BMI) ≥25.0 kg/m ²	0.263	0.014	1,117	976	1.028	0.053	0.235	0.291
Have heard of HIV/AIDS	0.982	0.005	1,128	987	1.190	0.005	0.972	0.991
Have comprehensive knowledge about HIV/AIDS	0.498	0.026	1,128	987	1.745	0.052	0.446	0.550



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