Timor-Leste

Demographic and Health Survey 2016

Key Indicators

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Key Indicators Report

General Directorate of Statistics
Ministry of Finance
Dili, Timor-Leste

The DHS Program
ICF
Rockville, Maryland, USA

May 2017

The 2016 Timor-Leste Demographic and Health Survey (2016 TLDHS) was implemented by the General Directorate of Statistics, Ministry of Finance from 16 September to 22 December 2016. Technical and financial support for the 2016 TLDHS was provided by the Government of Timor-Leste, the United States Agency for International Development (USAID), the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), the European Union, and the World Bank. ICF provided technical assistance through The DHS Program, a USAID-funded project that provides support and technical assistance in the implementation of population and health surveys in countries worldwide.

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Recommended citation:

General Directorate of Statistcs (GDS) and ICF. 2017. *Timor-Leste Demographic and Health Survey 2016: Key Indicators*. Dili, Timor-Leste: GDS, and Rockville, Maryland, USA: ICF.

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ABBREVIATIONS

ACT	artemisinin-based combination therapy
AIDS	acquired immune deficiency syndrome
ANC	antenatal care
ARI	acute respiratory infection
ASFR	age-specific fertility rate
BCG	Bacille Calmette-Guérin
CAPI	computer-assisted personal interviewing
CBR	crude birth rate
CPR	contraceptive prevalence rate
CSPro	Censuses and Surveys Processing
DHS	Demographic and Health Survey
DPT	diphtheria, pertussis, and tetanus vaccine
EA	enumeration area
GDS	General Directorate of Statistics, Timor-Leste
GFR	general fertility rate
HepB	hepatitis B
Hib	*Haemophilus influenzae* Type B
HIV	human immunodeficiency virus
ITN	insecticide-treated net
IUD	intrauterine contraceptive device
LAM	lactational amenorrhea method
LLIN	long-lasting insecticidal nets
MOH	Ministry of Health
NGO	non-governmental organization
ORS	oral rehydration salts
ORT	oral rehydration therapy
SD	standard deviation
SDM	standard days method
TFR	total fertility rate
TLDHS	Timor-Leste Demographic and Health Survey
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WHO	World Health Organization

FOREWORD

The data collection for the 2016 Timor-Leste Demographic and Health Survey (TLDHS) was implemented between September 16 and December 22, 2016, by the General Directorate of Statistics (GDS), Ministry of Finance in collaboration with the Ministry of Health. The Demographic and Health Surveys (DHS) Program is a global program coordinated by ICF in Rockville, Maryland, USA. Technical and financial support for the 2016 TLDHS was provided by the Government of Timor-Leste, the United States Agency for International Development (USAID), the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), the European Union, and the World Bank.

The main purpose of the 2016 TLDHS is to provide the data needed to monitor and evaluate population, health, and nutrition programs on a regular basis. The TLDHS provides a comprehensive overview of population and maternal and child health issues, and the data are freely accessible to all stakeholders. This Key Indicators report presents selected findings from the survey.

The 2016 TLDHS covers household and respondent characteristics, fertility and family planning, infant and child health and mortality, maternal health and maternal and adult mortality, child and adult nutrition, malaria, HIV/AIDS, disability, early childhood development, non-communicable diseases, and gender-based violence. The survey also included measuring the height and weight of children and adults and testing children and adults for anemia; these measures will provide data for analysis of nutrition indicators throughout the country.

Special thanks go to the TLDHS team that oversaw the implementation of the 2016 TLDHS. I would also like to thank all the respondents and the community that participated in providing information during the survey field work.

H.E. Helder Lopes
Vice Minister for Finance

1 INTRODUCTION

The General Directorate of Statistics (GDS), Ministry of Finance conducted the Timor-Leste Demographic and Health Survey (TLDHS) from September 16 through December 22, 2016, with a nationally representative sample of 11,829 households. All selected households were eligible for interview with the Household Questionnaire and for anthropometry measurements among women age 15-49 years and children age 0-59 months. All women age 15-49 in selected households were eligible for individual interviews. In a subsample of one-third of households, men age 15-59 were eligible for interview with the Man's Questionnaire and for anthropometry measurement. Additionally, in that same subsample, men, women, and children were eligible for anemia testing. All data was directly recorded using Computer Assisted Personal Interviewing (CAPI) on tablet computers.

ICF provided technical assistance through The DHS Program, which is funded by the United States Agency for International Development (USAID), and which offers support and technical assistance for the implementation of population and health surveys in countries worldwide.

Technical and financial support for the 2016 TLDHS was provided by the Government of Timor-Leste, the United States Agency for International Development (USAID), the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), the European Union, and the World Bank.

This Key Indicators report presents selected findings of the 2016 TLDHS. A comprehensive analysis of the survey data will be presented in a final report to be published in late 2017.

1.1 SURVEY OBJECTIVES

The 2016 Timor-Leste Demographic and Health Survey (TLDHS) was designed to provide information to monitor and evaluate population and health status in Timor-Leste. Accordingly, the 2016 TLDHS collected information on fertility levels, marriage, sexual activity, fertility preferences, breastfeeding practices, and awareness and use of family planning methods. The 2016 TLDHS also generated other indicators relevant to the Sustainable Development Goals (SDGs). The survey protocol was reviewed and approved by the ICF Institutional Review Board.

The primary objective of the 2016 TLDHS is to provide current estimates of basic demographic and health indicators. More specifically, the 2016 TLDHS:

- Collected data at the national level, which allows the calculation of key demographic indicators, particularly fertility, and child, adult, and maternal mortality rates
- Provided data to explore the direct and indirect factors that determine the levels and trends of fertility and child mortality
- Measured the levels of contraceptive knowledge and practice
- Obtained data on key aspects of maternal and child health, including immunization coverage, prevalence and treatment of diarrhea and other diseases among children under age 5, and maternity care, including antenatal visits and assistance at delivery
- Obtained data on child feeding practices, including breastfeeding, and collected anthropometric measures to assess nutritional status in children, women, and men
- Measured anemia in women, men, and children

- Collected data on the knowledge and attitudes of women and men about sexually-transmitted diseases and HIV/AIDS, potential exposure to the risk of HIV infection (risk behaviors and condom use), coverage of HIV testing and counseling, and other key HIV/AIDS programs
- Measured key education indicators, including school attendance ratios, level of educational attainment, and literacy levels
- Collected information on the extent of disability
- Collected information on non-communicable diseases
- Collected information on early childhood development
- Collected information on the extent of gender-based violence

2 SURVEY IMPLEMENTATION

2.1 SAMPLE DESIGN

The sampling frame used for the 2016 TLDHS is the 2015 Timor-Leste Population and Housing Census (2015 TLPHC) provided by the Timor-Leste General Directorate of Statistics (GDS). The sampling frame is a complete list of enumeration areas (EAs) created for the 2015 population census. In the 2015 TLPHC, there are an average of 89 households per EA. The sampling frame contains information about the administrative unit, the type of residence, the number of residential households, and the male and female population in each of the EAs.

There are five geographic regions in Timor-Leste, and these are subdivided into 12 municipalities and special administrative region (SAR) Oecussi. The 2016 TLDHS sample was designed to produce reliable estimates of indicators for the country as a whole, for urban and rural areas, and for each of the 13 municipalities. A representative probability sample of approximately 12,000 households was drawn; the sample was stratified and selected in two stages. In the first stage, 455 EAs were selected with probability proportional to EA size from the 2015 TLPHC: 129 EAs in urban areas and 326 EAs in rural areas. In the second stage, 26 households were randomly selected within each of the 455 EAs; the sampling frame for this household selection was the 2015 TLPHC household listing available from the census database. It was decided not to conduct a standard DHS household listing operation because the 2015 TLPHC listing was less than a year old and there were constraints on the survey's funding and timeline.

In the list of households provided by the 2015 TLPHC, each dwelling was identified by a unique number, its GIS coordinates, and a computerized map indicating the dwelling's position. At the time of fieldwork, GDS also provided the names of the household heads for the selected households. These data were uploaded to the tablet computers used for data collection to assist survey teams in locating the selected households. Interviewers only contacted pre-selected households. The sample design and sample size calculations took into consideration anticipated rates of non-response at the household and individual levels. No replacements or changes of the pre-selected households were allowed in order to prevent bias. Because of the nonproportional sample allocation to the sampling strata and the fixed sample size per cluster, the survey is not self-weighting. The resulting data have, therefore, been weighted to be representative at the national and domain levels.

All selected households were eligible for an interview with the Household Questionnaire. All women age 15-49 and children age 0-59 months who were either permanent residents of the selected households or visitors who stayed in the household the night before the survey were eligible for anthropometric measurements, and these women were eligible for interview. In one-third of the sampled households, all men age 15-59, including both usual residents and visitors who stayed in the household the night before the interview, were eligible for individual interview. In the subsample of households selected for the men's interview, anemia testing was performed among consenting women age 15-49 and consenting men age 1559, and among children age 6-59 months whose parents or guardians consented. In addition, a subsample consisting of one eligible woman in two-thirds of households (those households not selected for the men's interviews) was randomly selected to be asked questions about gender-based violence.

2.2 QUESTIONNAIRES

Four questionnaires were used for the 2016 TLDHS: the Household Questionnaire, the Woman's Questionnaire, the Man's Questionnaire, and the Biomarker Questionnaire. These questionnaires, based on The DHS Program's standard Demographic and Health Survey questionnaires, were adapted to reflect the population and health issues relevant to Timor-Leste. Feedback was solicited from various stakeholders representing government ministries and agencies, non-governmental organizations, and development partners. After the preparation of the questionnaires in English, the questionnaires were translated into Tetum. Each questionnaire was programmed into the tablet computers to facilitate computer-assisted personal interviewing (CAPI).

The Household Questionnaire listed all members of and visitors to the selected households. Basic demographic information was collected on the characteristics of each person, including age, sex, marital status, education, and relationship to the head of the household. Parents' survival status was collected for children under age 18. Data on age and sex of household members obtained in the Household Questionnaire were used to identify women and men who were eligible for individual interviews and to identify women, men, and children eligible for anthropometry measurement and anemia testing. The Household Questionnaire also collected information on characteristics of the household dwelling, including source of water, type of toilet facilities, materials used to construct the house, ownership of various consumer goods, use of iodized salt, and types and use of mosquito nets. Finally, the Household Questionnaire included a set of questions on disability, based on the module developed by the Washington Group, asked for all household members age 5 and above.

The Woman's Questionnaire collected information from all eligible women age 15-49. Women were asked questions on:

- Background characteristics (age, education, literacy, religion, etc.)
- Reproductive history
- Knowledge and use of contraceptive methods
- Antenatal, delivery, and postnatal care
- Breastfeeding and infant feeding practices
- Immunization, child health, and nutrition
- Marriage and recent sexual activity
- Fertility preferences
- Husband's background and respondent's work
- Knowledge about HIV/AIDS and other sexually transmitted diseases
- Other health issues, for example, recent injections, smoking habits, and alcohol use ▪ Adult and maternal mortality
- Gender-based violence (one woman per household)
- Early childhood development
- Youth
- Non-communicable diseases

The Man's Questionnaire was administered to all men age 15-59 in the subsample of households selected for the men's interview. The Man's Questionnaire collected much of the same information elicited with the Woman's Questionnaire, although it was shorter and did not contain a detailed reproductive history or questions on maternal and child health.

The Biomarker Questionnaire recorded the anthropometry measurements and anemia testing results.

Interviewers used tablet computers to record all questionnaire responses during the interviews. The tablet computers had Bluetooth® technology to enable remote electronic transfer of files, such as assignments from the team supervisor to the interviewers, individual questionnaires among survey team members, and completed questionnaires from interviewers to team supervisors. The CAPI data collection system was developed by The DHS Program with the mobile version of CSPro. The CSPro software was developed jointly by the U.S. Census Bureau, Serpro S.A., and The DHS Program.

2.3 ANTHROPOMETRY MEASUREMENT AND ANEMIA TESTING

The 2016 TLDHS conducted anthropometry measurement and anemia testing. Women age 15-49 years and children age 0-59 months were eligible for anthropometry measurement in all households. In one-third of the sampled households, men age 15-59 were also eligible for anthropometry measurement. In this

subsample, anemia testing was performed among consenting women age 15-49 and men age 15-59 years and among children age 6-59 months whose parents or guardians consented.

Anthropometry. Height and weight measurements were recorded for children age 0-59 months, women age 15-49, and men age 15-59.

Anemia testing. Blood specimens for anemia testing were collected from eligible women and men who voluntarily consented to be tested and from all children age 6-59 months for whom consent was obtained from their parents or the adult responsible for the children. Blood samples were obtained from a drop of blood taken from a finger prick (or a heel prick for children age 6-11 months). A drop of blood from the prick site was drawn into a microcuvette, and hemoglobin analysis was carried out on-site with a batteryoperated portable HemoCue analyser. Results were provided verbally and in writing. Parents of children with a hemoglobin level below 7 g/dl were instructed to take the child to a health facility for follow-up care. Likewise, nonpregnant women, pregnant women, and men were referred for follow-up care if their hemoglobin levels were below 9 g/dl, 7 g/dl, and 9 g/dl, respectively. All households in which anemia testing was conducted were given a brochure that explained the causes and prevention of anemia.

2.4 TRAINING

2.4.1 Pretest

Pretest training took place from June 13 to July 6, 2016, at the GDS offices in Dili, Timor-Leste. The TLDHS technical team and The DHS Program staff trained 24 participants to administer the Household, Woman's, Man's, and Biomarker questionnaires with tablet computers, to take anthropometric measurements, and to collect blood samples for anemia testing. Participants were staff from GDS and the Ministry of Health (MOH). Classroom training addressed all aspects of the questionnaire content and interviewing procedures and included practice in taking anthropometric measurements and testing blood for anemia. Pretest fieldwork took place from July 7 through July 12 in eight clusters comprising a mixture of rural and urban settings near Dili (these clusters were not included in the 2016 TLDHS survey sample). After the fieldwork, on July 13, a debriefing workshop was held to look at the issues emanating from the pretest. Feedback from the debriefing was used to finalize the questionnaires and to improve field logistics before the main training and the actual survey.

2.4.2 Training of Trainers

Following the pretest, The DHS Program staff conducted a two-day training of trainers on July 15 and July 16 with the participants of the pretest. Sessions highlighted adult learning principles and guidelines on conducting effective training. The participants worked in groups to develop lesson plans on these questionnaire topics using various training techniques, for example, a slide presentation, flip charts, an interactive question-and-answer session, a case study, and role play. They were encouraged to develop participatory methods for the training. These participants were trained to be involved during the pretest, lead specific sessions during the main training, and also monitor the fieldwork of the survey.

2.4.3 Main Training

The TLDHS Main Training took place from August 10 to September 13, 2016, at two government facilities in Dili, Timor-Leste, and was attended by 120 trainees, consisting of 80 women and 40 men. Questionnairerelated training included instruction on interviewing techniques and field procedures, questionnaire content, administering questionnaires via CAPI on tablet computers, and mock interviews between participants in the classroom. Biomarker-related training topics included lectures, demonstrations of measurement and testing procedures, and standardization of height and weight measurements. The training was led by the TLDHS technical team and DHS Program staff; guest speakers from the Ministry of Health and from the GDS Geographic Information Systems (GIS) team supplemented the training.

Three days of field practice were organized to provide trainees with additional hands-on practice before the actual fieldwork. Participants were evaluated through classwork, in-class exercises, quizzes, and observations conducted during field practice. The selection of supervisors and field editors was based on experience in leading survey teams and performance during the pretest and main training. Supervisors and field editors received additional instruction and practice on performing supervisory activities with the CAPI system. These activities included assigning households and receiving completed interviews from interviewers, recognizing and dealing with error messages, receiving a system update and distributing updates to interviewers, resolving duplicated cases, closing clusters, and transferring interviews to the central office via a secure Internet file streaming system (IFSS). In addition to training on the CAPI material, supervisors and field editors received instruction on their roles and responsibilities.

2.5 FIELDWORK

Data collection was conducted by 20 field teams, each consisting of one superviser, one editor, three female interviewers, one male interviewer, one health technician, and one driver. Supervisors were responsible for the team, contacting local officials, locating and assigning the selected households, maintaining the pace of work, conducting household interviews as needed, and assisting with and providing oversight to anthropometry measurement. Editors were responsible for transferring questionnaires to interviewers, collecting completed questionnaires, resolving inconsistencies in questionnaires, completing the cluster data file, transferring data to the central office, and observing interviews. Interviewers were responsible for conducting household and individual interviews with eligible respondents, anthropometry measurement, and anemia testing.

Electronic data files were collected from each interviewer's tablet computer every day. Data was transferred data to the central data processing office via IFSS. Staff from GDS, MOH, USAID, UNFPA, and The DHS Program coordinated and supervised fieldwork activities. Data collection took place over a 3-month period, from September 16 to December 22, 2016.

2.6 DATA PROCESSING

All electronic data files for the 2016 TLDHS were transferred via IFSS to the GDS central office in Dili, where they were stored on a password-protected computer. The data processing operation included registering and checking for inconsistencies, incompleteness, and outliers. Data editing and cleaning included structure and consistency checks to ensure completeness of work in the field. The central office also conducted secondary editing, which required resolution of computer-identified inconsistencies and coding of open-ended questions. The data were processed by two staff who took part in the main fieldwork training. Data editing was accomplished with CSPro software. Secondary editing and data processing were initiated in October 2016 and completed in February 2017.

3 KEY FINDINGS

3.1 RESPONSE RATES

Table 1 shows response rates for the 2016 TLDHS. A total of 11,829 households were selected for the sample, of which 11,660 were occupied. Of the occupied households, 11,502 were successfully interviewed, which yielded a response rate of 99 percent.

In the interviewed households, 12,998 eligible women were identified for individual interviews. Interviews were completed with 12,607 women, yielding a response rate of 97 percent. In the subsample of households selected for the men's interviews, 4,878 eligible men were identified and 4,622 were successfully interviewed, yielding a response rate of 95 percent. Response rates were higher in rural than in urban areas, with the difference being more pronounced among men (97 percent versus 90 percent, respectively) than among women (98 percent versus 94 percent, respectively). The lower response rates for men were likely due to their more frequent and longer absences from the household.

Table 1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Timor-Leste DHS 2016

	Residence		
Result	Urban	Rural	Total
Household interviews			
Households selected	3,355	8,474	11,829
Households occupied	3,288	8,372	11,660
Households interviewed	3,215	8,287	11,502
			98.6
Household response rate[1]	97.8	99.0	
Interviews with women age 15-49			
Number of eligible women	4,592	8,406	12,998
Number of eligible women interviewed	4,337	8,270	12,607
			97.0
Eligible women response rate[2]	94.4	98.4	
Interviews with men age 15-59			
Number of eligible men	1,666	3,212	4,878
Number of eligible men interviewed	1,497	3,125	4,622
			94.8
Eligible men response rate[2]	89.9	97.3	

[1] Households interviewed/households occupied
[2] Respondents interviewed/eligible respondents

3.2 CHARACTERISTICS OF RESPONDENTS

Table 2 shows the weighted and unweighted numbers and the weighted percent distributions of women and men age 15-49 interviewed in the 2016 TLDHS, by background characteristics. Slightly more than one-half of respondents are under age 30 (57 percent of women and 55 percent of men), reflecting the young age structure of the population. The majority of respondents are Catholic (98 percent of both women and men).

Around one-third of women (37 percent) and one-half of men (50 percent) have never married. Women are more likely to be married or living together with a partner (i.e., in union) than men (61 percent and 49 percent, respectively). A majority of respondents live in rural areas (67 percent of women and 66 percent of men). Women and men have similar levels of education; 22 percent of women and 19 percent of men have no education, while 52 percent of women and 51 percent of men have secondary education. Eleven percent of women and 12 percent of men reported attending more than secondary school.

Table 2 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Timor-Leste DHS 2016

	Women			Men		
Background characteristic	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	23.7	2,985	3,126	24.6	1,001	1,053
20-24	17.2	2,165	2,047	16.9	689	676
25-29	15.9	2,011	1,925	13.2	539	505
30-34	14.1	1,772	1,789	13.7	557	533
35-39	9.0	1,141	1,175	8.9	361	357
40-44	11.4	1,438	1,440	11.7	478	476
45-49	8.7	1,096	1,105	11.0	450	459

Religion						
Roman Catholic	98.3	12,396	12,385	98.4	4,009	3,989
Muslim	0.3	43	46	0.4	17	16
Protestant	1.3	166	173	1.1	46	52
Hindu	0.0	2	2	0.1	3	2
Other	0.0	0	1	0.0	0	0
Marital status						
Never married	36.6	4,615	4,689	50.1	2,043	2,038
Married	53.9	6,799	6,751	44.6	1,817	1,781
Living together	7.1	898	877	4.6	186	213
Divorced/separated	1.3	161	151	0.4	17	14
Widowed	1.1	133	139	0.3	12	13
Residence Urban	33.2	4,182	4,337	33.7	1,374	1,355
Rural	66.8	8,425	8,270	66.3	2,701	2,704
Municipality						
Aileu	4.2	524	1,047	4.3	174	354
Ainaro	4.1	515	768	4.5	184	273
Baucau	10.2	1,288	896	9.5	388	267
Bobonaro	7.5	946	915	7.5	305	318
Covalima	5.9	750	852	5.8	234	264
Dili	25.4	3,206	1,661	26.9	1,098	536
Ermera	9.3	1,178	943	8.6	350	281
Lautem	5.1	645	867	4.6	188	251
Liquiça	6.0	757	944	6.3	255	307
Manatuto	4.4	555	933	4.3	177	282
Manufahi	5.4	676	1,087	5.5	225	385
SAR of Oecussi	6.2	778	773	5.2	212	207
Viqueque	6.3	791	921	7.0	285	334
Education No education	21.7	2,741	2,692	19.0	772	783
Primary	15.2	1,922	1,946	18.1	736	709
Secondary	52.0	6,561	6,823	50.6	2,063	2,128
More than secondary	11.0	1,383	1,146	12.4	504	439
Wealth quintile						
Lowest	16.5	2,085	2,059	15.9	648	653
Second	18.1	2,287	2,319	20.2	823	836
Middle	19.2	2,423	2,538	19.9	809	842
Fourth	22.0	2,771	3,005	20.7	844	926
Highest	24.1	3,041	2,686	23.3	950	802
Total 15-49	100.0	12,607	12,607	100.0	4,075	4,059
Men 50-59	na	na	na	na	547	563
Total 15-59	na	na	na	na	4,622	4,622

Note: Education categories refer to the highest level of education attended, whether or not that level was completed. na = Not applicable

3.3 FERTILITY

To generate data on fertility, all women who were interviewed were asked to report the total number of sons and daughters to whom they had ever given birth. To ensure that all information was reported, women were asked separately about children still living at home, those living elsewhere, and those who had died. A complete birth history was then obtained, including information on the sex, date of birth, and survival status of each child. Age at death for children who had died was also recorded.

Table 3 shows age-specific fertility rates (ASFRs) among women by 5-year age groups for the 3-year period preceding the survey. Age-specific and total fertility rates were calculated directly from the birth history data. The sum of age-specific fertility rates (known as the Total Fertility Rate, or TFR) is a summary measure of the level of fertility. It can be interpreted as the number of children a woman would have by the end of her childbearing years if she were to pass through those years bearing children at the current observed age-specific rates. If fertility were to remain constant at current levels, a woman from TimorLeste would bear an average of 4.2 children in her lifetime. Fertility is noticeably higher for rural women than for urban women (4.6 and 3.5, respectively).

Trends in fertility in Timor-Leste can be examined by observing a time series of estimates produced from previous demographic surveys (Figure 1). The data indicate that fertility in Timor-Leste has declined from 7.8 children per woman in 2003 to 4.2 children per woman in 2016.

Table 3 Current fertility

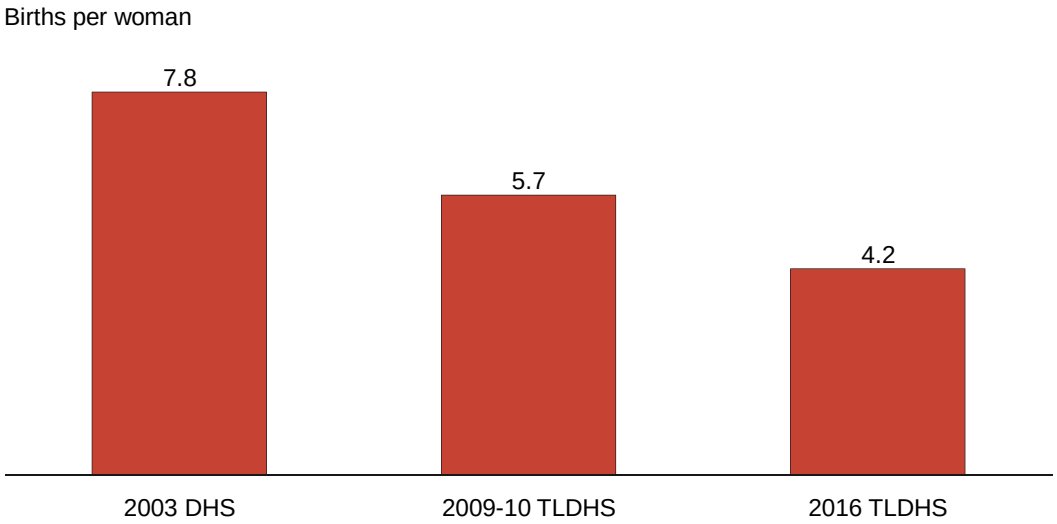
Age-specific and total fertility rates, general fertility rate, and the crude birth rate for the 3 years preceding the survey, according to residence, Timor-Leste DHS 2016

Notes: Age-specific fertility rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation. Rates are for the period 1-36 months prior to interview.

	Residence		
Age group	Urban	Rural	Total
TFR: Total fertility rate expressed per woman			
15-19	19	55	42
20-24	132	222	188
25-29	189	242	223
30-34	193	198	196
35-39	125	116	119
40-44	42	61	56
45-49	9	20	17
TFR (15-49)	3.5	4.6	4.2
GFR	113	149	136
CBR	28.4	26.2	26.8

GFR: General fertility rate expressed per 1,000 women age 15-44
CBR: Crude birth rate expressed per 1,000 population

Figure 1 **Trends in total fertility rate, 2000-2016**



3.4 TEENAGE PREGNANCY AND MOTHERHOOD

The age at which childbearing starts has important consequences for the overall level of fertility as well as the health and welfare of the mother and the child. Early age at initiation of childbearing lengthens the reproductive period. Children born to very young mothers are at increased risk of sickness and death. Teenage mothers are more likely to experience adverse pregnancy outcomes and are more constrained in their ability to pursue educational opportunities than young women who delay childbearing.

Table 4.1 shows the percentage of women age 15-49 who gave birth by exact ages, the percentage who have never given birth, and the median age at first birth, according to current age. Medians for women age 15-19, 20-24, and 20-49 are not presented because less than 50 percent had given birth before the lowest age in the

cohort. The median age at first birth for women age 25-29 is 23.1 years. Only 10 percent of Timorese women age 25-49 have given birth by age 18, while approximately one-quarter have given birth by age 20 (24 percent). Age at first birth appears to be increasing compared with the 2009-10 TLDHS which reported 14 percent of women age 25-49 had given birth by age 18 and 29 percent by age 20.

Table 4.1 Age at first birth

Percentage of women age 15-49 who gave birth by exact ages, percentage who have never given birth, and median age at first birth, according to current age, Timor-Leste DHS 2016

	Percentage who gave birth by exact age					Percentage who have never given birth	Number of women	Median age at first birth
Current age	15	18	20	22	25			
15-19	0.3	na	na	na	na	94.8	2,985	a
20-24	0.3	7.4	19.5	na	na	59.5	2,165	a
25-29	1.2	7.9	23.5	40.2	63.9	24.2	2,011	23.1
30-34	0.9	8.6	23.1	42.3	65.6	12.0	1,772	22.9
35-39	1.6	10.6	26.8	47.3	69.5	8.2	1,141	22.3
40-44	1.7	12.6	24.9	41.8	64.5	7.0	1,438	23.1
45-49	1.8	10.8	22.0	37.0	57.7	6.9	1,096	23.9
20-49	1.1	9.3	23.0	na	na	23.4	9,622	a
25-49	1.3	9.8	24.0	41.6	64.4	13.0	7,458	23.0

na = Not applicable due to censoring
a = Omitted because less than 50 percent of women had a birth before reaching the beginning of the age group

Table 4.2 shows the percentage of women age 15-19 who had given birth or were pregnant with their first child at the time of the survey, according to background characteristics. Overall, 7 percent of women age 1519 had begun childbearing: 5 percent had had a live birth and 2 percent were pregnant at the time of the interview. The proportion of teenagers who had begun childbearing rises rapidly with age, from 1 percent at age 15 to 18 percent at age 19. Rural teenagers and those with no education tend to start childbearing earlier than other teenagers. Ten percent of the teenagers in Bobonaro, Liquica, and SAR of Oecussi had begun childbearing compared with 4 percent of those in Ainaro and 3 percent of those in Ermera. The chances of having a child as a teenager decrease with increasing wealth.

Table 4.2 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, according to background characteristics, Timor-Leste DHS 2016

	Percentage of women age 15-19 who:			
Background characteristic	Have had a live birth	Are pregnant with first child	Percentage who have begun childbearing	Number of women
Age				
15	0.1	0.4	0.5	671
16	0.8	0.7	1.5	592
17	3.3	1.2	4.5	703
18	10.0	3.7	13.7	522
19	14.8	3.4	18.2	495
Residence				
Urban	3.0	0.9	4.0	1,011
Rural	6.2	2.1	8.4	1,974
Municipality Aileu	5.5	2.4	7.8	130
Ainaro	3.5	0.5	4.0	122
Baucau	4.5	2.1	6.6	339
Bobonaro	7.1	2.6	9.7	192
Covalima	7.3	2.1	9.3	188
Dili	4.3	2.0	6.3	714

Ermera	2.4	0.5	2.9	294
Lautem	4.4	0.3	4.7	159
Liquiça	9.2	0.6	9.7	175
Manatuto	5.1	2.9	8.0	129
Manufahi	6.0	1.7	7.8	192
SAR of Oecussi	7.1	3.3	10.4	162
Viqueque	5.1	1.1	6.2	188
Education No education	12.8	2.1	14.8	171
Primary	8.5	3.0	11.5	322
Secondary	4.3	1.6	5.9	2,431
More than secondary	(0.0)	(0.0)	(0.0)	60
Wealth quintile Lowest	8.0	2.7	10.7	443
Second	8.3	2.8	11.0	504
Middle	5.2	0.8	6.1	571
Fourth	4.0	1.7	5.7	727
Highest	2.4	1.1	3.5	740
Total	5.2	1.7	6.9	2,985

Note: Figures in parentheses are based on 25-49 unweighted cases.

3.5 FERTILITY PREFERENCES

Information on fertility preferences is used to assess the potential demand for family planning services for the purposes of attaining a desired number of children and to determine the spacing of pregnancies. To elicit information on fertility preferences, several questions were asked of currently married women (pregnant or not) regarding whether they want to have another child and, if so, how soon.

Table 5 shows that 14 percent of married women age 15-49 want to have another child soon (within the next two years), and 19 percent want to have another child later (in two or more years). Nearly three in ten (29 percent) do not want any more children or are sterilized, and 30 percent are undecided if they want to have another child or not. The percentage of undecided women has increased since the 2009-10 TLDHS, from 17 percent to 30 percent, while the percentage who do not want any more has decreased over time (35 percent to 27 percent).

Fertilty perferences are related to the number of living children; 42 percent of women with no living children want to have a child soon compared with 9 percent or less among women with 4 or more children. Similarly, the proportion of women who want to stop childbearing or are sterilized increases with the number of living children, from 5 percent of women with one child to 36 percent of women with four children to 61 percent of women with six or more children.

Table 5 Fertility preferences by number of living children

Percent distribution of currently married women age 15-49 by desire for children, according to number of living children, Timor-Leste DHS 2016

	Number of living children[1]							
Desire for children	0	1	2	3	4	5	6+	Total
Have another soon[2]	42.0	21.5	18.6	15.6	8.7	7.7	4.0	14.3
Have another later[3]	4.2	37.2	30.1	21.2	13.9	9.3	3.4	18.9
Have another, undecided when	4.5	11.0	8.2	8.5	4.1	4.1	0.7	6.1
Undecided	34.7	24.1	29.7	32.2	35.9	28.7	27.9	29.9
Want no more	1.8	4.7	11.3	20.0	33.4	45.8	59.0	27.2
Sterilized[4]	0.2	0.2	0.8	1.2	2.2	2.6	1.9	1.4
Declare infecund	12.7	1.4	1.3	1.3	1.8	1.8	3.2	2.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	368	1,279	1,305	1,291	1,167	916	1,373	7,697

[1] The number of living children includes current pregnancy.
[2] Wants next birth within 2 years
[3] Wants to delay next birth for 2 or more years [4] Includes both female and male sterilization

3.6 FAMILY PLANNING

Family planning refers to a conscious effort by a couple to use contraceptive methods to attain a desired number of children and space the number of children they have (WHO 2016). Contraceptive methods are globally classified as modern or traditional methods (Festin et al 2016). Modern methods include female sterilization, the pill, the intrauterine contraceptive device (IUD), implants, injectables, male condoms, standard days method (SDM), lactational amhenorrea method (LAM), Billings Method, and other methods such as emergency contraception, female condoms, or male sterilization. Methods such as rhythm, withdrawal, and folk methods are grouped as traditional. The MOH refers to fertility awareness methods such as SDM, Billings and LAM as natural methods of family planning.

Table 6 shows the percent distribution of currently married women by the contraceptive method they currently use, according to background characteristics. Overall, 26 percent of women are using a method of family planning; 24 percent use a modern method, while 2 percent use a traditional method. The most popular methods are injectables (12 percent) and implants (6 percent). The contraceptive prevalence rate (CPR) jumps from 2 percent among women with no living children to 24 percent among women with one

Table 6 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49, by contraceptive method currently used, according to background characteristics, Timor-Leste DHS 2016

Background characteristic	Any method	Any modern method	Modern method										Any tradi-tional method	Traditional method			Not currently using	Total	Number of women
			Female sterili-zation	IUD	Implants	Inject-ables	Pill	Male condom	SDM	LAM	Billings method	Other		Rhythm	With-drawal	Other			
Number of living children																			
0	2.2	0.5	0.1	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	1.6	0.0	97.8	100.0	566
1-2	23.5	21.4	0.5	0.8	6.0	10.9	2.4	0.0	0.4	0.3	0.1	0.0	2.0	0.8	1.1	0.1	76.5	100.0	2,517
3-4	32.4	30.2	1.7	2.5	7.0	15.5	2.9	0.0	0.1	0.3	0.2	0.0	2.3	0.3	1.9	0.1	67.6	100.0	2,376
5+	28.1	26.5	2.2	3.3	7.0	11.5	1.8	0.1	0.4	0.0	0.0	0.1	1.6	0.5	1.0	0.1	71.9	100.0	2,238
Age																			
15-19	10.4	8.1	0.0	0.0	1.8	3.6	1.9	0.0	0.0	0.8	0.0	0.0	2.3	0.0	2.3	0.0	89.6	100.0	245
20-24	20.1	18.7	0.0	0.9	5.7	10.2	1.7	0.0	0.2	0.1	0.0	0.0	1.4	0.1	1.3	0.0	79.9	100.0	1,031
25-29	28.9	26.5	0.1	1.3	7.5	14.4	2.8	0.0	0.1	0.2	0.1	0.0	2.4	0.7	1.5	0.2	71.1	100.0	1,575
30-34	32.6	31.1	1.5	1.9	8.4	15.3	2.8	0.2	0.3	0.4	0.1	0.1	1.5	0.6	0.9	0.0	67.4	100.0	1,574
35-39	32.0	29.4	2.6	3.5	6.7	12.8	3.1	0.0	0.5	0.2	0.0	0.0	2.6	0.3	2.3	0.1	68.0	100.0	1,006
40-44	25.2	23.5	2.8	3.7	5.2	9.6	1.6	0.0	0.4	0.0	0.2	0.0	1.7	0.5	1.2	0.1	74.8	100.0	1,301
45-49	15.6	13.5	1.7	1.1	2.8	6.7	0.8	0.0	0.3	0.0	0.0	0.0	2.0	0.9	0.9	0.3	84.4	100.0	965
Residence																			
Urban	26.8	23.0	2.6	2.3	7.4	6.4	2.7	0.1	0.9	0.3	0.3	0.0	3.8	1.5	2.2	0.1	73.2	100.0	2,252
Rural	25.7	24.5	0.9	1.9	5.7	13.9	2.0	0.0	0.0	0.1	0.0	0.0	1.2	0.1	1.0	0.1	74.3	100.0	5,445
Municipality																			
Aileu	33.3	32.8	0.2	1.2	4.3	19.0	8.1	0.0	0.0	0.0	0.1	0.0	0.5	0.3	0.0	0.2	66.7	100.0	292
Ainaro	17.7	17.0	2.1	0.8	2.6	9.6	1.8	0.0	0.0	0.2	0.0	0.0	0.7	0.2	0.0	0.4	82.3	100.0	329
Baucau	24.7	20.5	1.8	6.5	4.5	5.8	1.3	0.0	0.4	0.0	0.1	0.2	4.2	0.3	3.9	0.0	75.3	100.0	789
Bobonaro	32.0	30.1	2.4	1.1	11.8	13.9	1.0	0.0	0.0	0.0	0.0	0.0	1.8	0.1	1.8	0.0	68.0	100.0	648
Covalima	32.6	31.8	0.7	0.2	3.3	25.1	2.5	0.0	0.0	0.0	0.0	0.0	0.8	0.3	0.5	0.0	67.4	100.0	479
Dili	28.6	23.9	2.8	2.5	8.2	5.2	3.0	0.1	1.0	0.7	0.4	0.0	4.7	1.6	2.9	0.2	71.4	100.0	1,732
Ermera	18.5	18.2	0.1	0.4	6.8	9.6	1.2	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.2	0.0	81.5	100.0	707
Lautem	8.2	8.2	0.5	2.1	4.5	0.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	91.8	100.0	406
Liquiça	26.0	25.4	0.1	0.5	2.3	18.4	4.1	0.0	0.0	0.0	0.0	0.0	0.6	0.2	0.2	0.2	74.0	100.0	479
Manatuto	21.9	21.2	0.9	2.6	3.2	12.9	1.2	0.0	0.3	0.0	0.0	0.0	0.7	0.5	0.1	0.0	78.1	100.0	373
Manufahi	35.9	34.1	0.6	0.9	8.1	20.9	3.0	0.1	0.1	0.5	0.0	0.0	1.8	0.0	1.6	0.2	64.1	100.0	404
SAR of Oecussi	34.8	34.6	0.9	1.7	7.6	22.5	1.9	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	65.2	100.0	545
Viqueque	17.0	17.0	0.2	1.8	3.8	10.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	83.0	100.0	514
Education																			
No education	21.8	21.2	0.6	1.6	5.8	11.7	1.3	0.0	0.0	0.2	0.0	0.0	0.6	0.0	0.4	0.2	78.2	100.0	2,201
Primary	30.1	28.8	1.3	1.5	6.9	16.4	2.4	0.0	0.3	0.1	0.0	0.0	1.3	0.3	0.9	0.1	69.9	100.0	1,430
Secondary	26.3	23.9	1.7	2.4	5.9	10.8	2.5	0.1	0.3	0.1	0.0	0.0	2.4	0.7	1.7	0.0	73.7	100.0	3,366
More than secondary	29.3	24.0	2.1	2.5	7.1	6.5	3.4	0.0	0.8	0.7	1.0	0.0	5.3	1.2	3.6	0.5	70.7	100.0	701
Wealth quintile																			
Lowest	24.0	23.4	0.4	1.0	5.7	14.7	1.6	0.0	0.0	0.1	0.0	0.0	0.6	0.0	0.5	0.2	76.0	100.0	1,389
Second	22.1	21.5	0.9	0.9	4.3	12.8	2.4	0.0	0.0	0.2	0.0	0.0	0.6	0.0	0.6	0.0	77.9	100.0	1,511
Middle	25.6	24.2	0.4	2.3	5.8	14.0	1.4	0.0	0.0	0.2	0.0	0.0	1.4	0.1	1.2	0.1	74.4	100.0	1,547
Fourth	27.8	25.3	1.9	2.5	6.7	10.9	3.1	0.0	0.2	0.0	0.0	0.0	2.5	0.3	2.0	0.2	72.2	100.0	1,604
Highest	29.8	25.5	2.9	3.1	8.1	6.8	2.5	0.1	1.1	0.4	0.4	0.1	4.3	1.9	2.4	0.0	70.2	100.0	1,646
Total	26.0	24.1	1.4	2.0	6.2	11.7	2.2	0.0	0.3	0.2	0.1	0.0	1.9	0.5	1.4	0.1	74.0	100.0	7,697

Note: If more than one method is used, only the most effective method is considered in this tabulation.
IUD = Intrauterine device; SDM = Standard days method; LAM = Lactational amenorrhea method

or two living children. Contraceptive use increases with age, peaking at age 30-34 (33 percent), before declining to 16 percent among women age 45-49. CPR is lowest in Lautem at 8 percent and is 33 percent or higher in Aileu, Covalima, Manufahi, and SAR of Oecussi.Women with no education (22 percent) are less likely to use a method than women who have any education (26 percent to 30 percent).

Contraception has increased slightly over time. Use of any method increased from 22 percent in the 200910 TLDHS to the current 26 percent; this reflects an increase of approximately 8,300 more users among currently married women age 15-49. Use of modern methods also increased from 21 percent to 24 percent. Among modern methods, use increased for long-acting methods such as the IUD and implants.

3.7 NEED AND DEMAND FOR FAMILY PLANNING

The proportion of women who want to stop childbearing or who want to space their next birth is a crude measure of the extent of the need for family planning, given that not all of these women are exposed to the risk of pregnancy and some may already be using contraception. This section discusses the extent of the need and potential demand for family planning services. Women who want to postpone their next birth for 2 or more years or who want to stop childbearing altogether but are not using a contraceptive method are said to have an unmet need for family planning. Pregnant women are considered to have an unmet need for spacing or limiting if their pregnancy was mistimed or unwanted. Similarly, amenorrhoeic women are categorized as having an unmet need if their last birth was mistimed or unwanted. Women who are currently using a family planning method are said to have a met need for family planning. Total demand for family planning services comprises those who fall in the met need and unmet need categories.

Table 7 presents data on unmet need, met need, and total demand for family planning among currently married women and sexually active unmarried women. Figure 2 presents trends in unmet need, modern contraceptive use, and percentage of total demand satisfied with modern methods among currently married women. These indicators help evaluate the extent to which family planning programs in Timor-Leste meet the demand for services. The definition of unmet need for family planning has been revised so that data on levels of unmet need are comparable over time and across surveys. The unmet need estimates in Figure 2 for the previous TLDHS survey have been recalculated using the revised definition of unmet need (Bradley et al. 2012).

Table 7 shows that 25 percent of currently married women have an unmet need for family planning services, while 26 percent of currently married women are using a contraceptive method. Therefore, one-half (51 percent) of currently married women in Timor-Leste have a demand for family planning. At present, 51 percent of the total demand for family planning is being met, mostly by modern methods (47 percent of total demand). Thus, if all married women who said they want to space or limit their children were to use family planning methods, the CPR would increase from the current level of 26 percent to 51 percent.

Among sexually active unmarried women, 75 percent have an unmet need for family planning, and 6 percent are currently using a contraceptive method. The total demand for family planning among unmarried sexually active women is 81 percent, and at present, only 8 percent of the potential demand for family planning is being met. If all of the unmarried sexually active women who said they want to space or limit their births were to use family planning methods, the CPR for these women would increase from 6 percent to 81 percent.

Table 7 Need and demand for family planning among currently married women and sexually active unmarried women

Percentage of currently married women and sexually active unmarried women age 15-49 with unmet need for family planning, percentage with met need for family planning, percentage with met need for family planning who are using modern methods, percentage with demand for family planning, percentage with demand for family planning that is satisfied, and percentage with demand for family planning that is satisfied with modern methods, according to background characteristics, Timor-Leste DHS 2016

	Unmet need	Met need for family planning (currently using)	Total demand	Percentage of demand satisfied[1]

Background characteristic	Unmet need for family planning	Met need for family planning: Modern methods[2]	Total demand for family planning[3]: Modern methods[2]	Total demand for family planning[3]: All methods	Number of women	Demand satisfied[1]: All methods	Demand satisfied[1]: Modern methods[2]
			CURRENTLY MARRIED WOMEN				
Age							
15-19	26.4	10.4	8.1	36.8	245	28.4	22.1
20-24	28.9	20.1	18.7	49.0	1,031	41.0	38.2
25-29	30.8	28.9	26.5	59.7	1,575	48.4	44.4
30-34	28.3	32.6	31.1	60.9	1,574	53.5	51.0
35-39	27.5	32.0	29.4	59.5	1,006	53.8	49.4
40-44	21.4	25.2	23.5	46.6	1,301	54.2	50.5
45-49	10.3	15.6	13.5	25.9	965	60.2	52.3
Residence Urban	26.0	26.8	23.0	52.8	2,252	50.8	43.5
Rural	25.0	25.7	24.5	50.7	5,445	50.6	48.3
Municipality							
Aileu	20.6	33.3	32.8	54.0	292	61.8	60.8
Ainaro	24.1	17.7	17.0	41.8	329	42.3	40.7
Baucau	29.9	24.7	20.5	54.6	789	45.2	37.5
Bobonaro	23.7	32.0	30.1	55.6	648	57.4	54.1
Covalima	20.2	32.6	31.8	52.8	479	61.8	60.2
Dili	24.9	28.6	23.9	53.5	1,732	53.4	44.6
Ermera	35.7	18.5	18.2	54.2	707	34.2	33.6
Lautem	29.4	8.2	8.2	37.6	406	21.7	21.7
Liquiça	22.1	26.0	25.4	48.0	479	54.0	52.9
Manatuto	21.2	21.9	21.2	43.1	373	50.9	49.3
Manufahi	21.1	35.9	34.1	56.9	404	63.0	59.9
SAR of Oecussi	21.4	34.8	34.6	56.2	545	61.9	61.5
Viqueque	25.6	17.0	17.0	42.6	514	39.9	39.9
Education No education	23.1	21.8	21.2	44.9	2,201	48.5	47.2
Primary	23.8	30.1	28.8	53.9	1,430	55.8	53.5
Secondary	27.5	26.3	23.9	53.9	3,366	48.9	44.4
More than secondary	24.6	29.3	24.0	53.9	701	54.4	44.5
Wealth quintile Lowest	27.1	24.0	23.4	51.1	1,389	47.0	45.8
Second	27.4	22.1	21.5	49.5	1,511	44.7	43.4
Middle	22.6	25.6	24.2	48.2	1,547	53.1	50.3
Fourth	25.2	27.8	25.3	53.1	1,604	52.5	47.7
Highest	24.5	29.8	25.5	54.3	1,646	54.9	47.0
Total	25.3	26.0	24.1	51.3	7,697	50.7	46.9
			SEXUALLY ACTIVE UNMARRIED WOMEN[4]				
Residence	*	*	*	*		*	*
Urban					17		
Rural	(68.6)	(10.8)	(0.0)	(79.5)	25	(13.6)	(0.0)
Total	(74.7)	(6.4)	(0.0)	(81.1)	43	(7.9)	(0.0)

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al., 2012. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

1 Percentage of demand satisfied is met need divided by total demand.

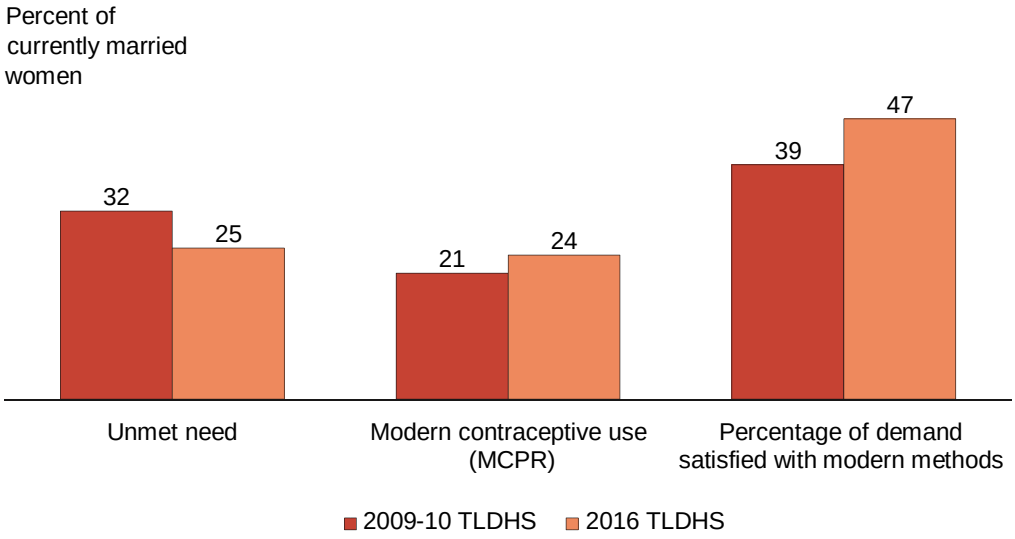
2 Modern methods include female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, standard days method (SDM), lactational amenorrhea method (LAM), and Billings Method.

3 Total demand is the sum of unmet need and met need.

4 Women who have had sexual intercourse within 30 days preceding the survey.

Figure 2 shows that the proportion of married women with unmet need for family planning has decreased slightly from 32 percent in the 2009-10 TLDHS to 25 percent in 2016. At the same time, the proportion of married women using modern contraceptive methods has increased somewhat from 21 percent in 2009-10 to 24 percent in 2016. The percentage of the demand for family planning that is satisfied with modern contraceptive methods has also increased from 39 percent in 2009-10 to 47 percent in 2016.

Figure 2 **Trends in unmet need, modern contraceptive use, and percentage of demand satisfied with modern methods, 2010-2016**



3.8 EARLY CHILDHOOD MORTALITY

Infant and child mortality rates are basic indicators of a country's socioeconomic situation and quality of life (UNDP 2007). Estimates of childhood mortality are based on information collected in the birth history section of the Woman's Questionnaire, which includes questions about women's aggregate childbearing experience (the number of sons and daughters who live with their mother, the number who live elsewhere, and the number who have died). Table 8 presents estimates for three successive 5-year periods prior to the 2016 TLDHS. The rates are estimated directly from the information recorded in the birth history about a child's birth date, survivorship status, and age at death for children who died. This information is used to directly estimate the following five mortality rates:

Neonatal mortality: the probability of dying within the first month of life

Postneonatal mortality: the probability of dying after the first month of life but before the first birthday (the difference between infant and neonatal mortality)

Infant mortality: the probability of dying before the first birthday

Child mortality: the probability of dying between the first and the fifth birthday

Under-5 mortality: the probability of dying between birth and the fifth birthday

All rates are expressed per 1,000 live births, except for child mortality, which is expressed per 1,000 children surviving to age 12 months.

As shown in Table 8, during the 5 years immediately preceding the survey, the infant mortality rate was 30 deaths per 1,000 live births. The child mortality rate was 12 deaths per 1,000 children surviving to age 12

months, while the overall under-5 mortality rate was 41 deaths per 1,000 live births. The neonatal mortality rate was 19 deaths per 1,000 live births. The postneonatal mortality rate was 11 deaths per 1,000 live births.

Table 8 Early childhood mortality rates

Neonatal, postneonatal, infant, child and under-5 mortality rates for 5-year periods preceding the survey, Timor-Leste DHS 2016

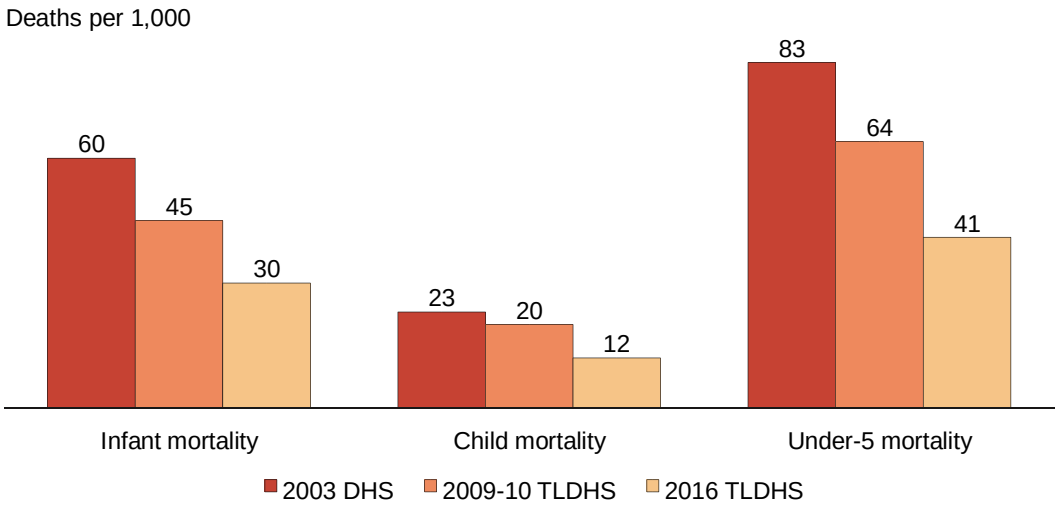
Period preceding survey	Mortality rates				
	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
0-4	19	11	30	12	41
5-9	15	15	30	10	40
10-14	19	17	36	9	45

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

Figure 3 presents trends in childhood mortality, as assessed through previous surveys. There appears to be a decline in childhood mortality over time; for example, under-5 mortality rates decreased from 83 deaths per 1,000 live births during the 5 years immediately preceding the 2003 DHS, to 64 deaths per 1,000 live births in the 5 years prior to the 2009-10 TLDHS, to 41 deaths per 1,000 live births in the most recent 5-year period. Infant and child mortality appear to have similarly decreased.

An initial review of the data indicates mortality in the 2016 TLDHS may be underestimated, particularly for the periods 5-9 and 10-14 years prior to the survey. Childhood mortality during these periods measured in the 2016 TLDHS should correspond with the 0-4 and 5-9 rates of the 2009-10 TLDHS; instead, the 2016 numbers are substantially lower. Additionally, the 2016 mortality trends are relatively flat and do not show decline over the last 15 years; for example, the under-5 mortality rate for 10-14 years ago is 45, that for 5-9 years ago is 40, and the rate for 0-4 years ago is 41 (Table 8). Overall, childhood mortality results should be considered with caution.

***Figure 3* Trends in childhood mortality, 1998-2016**



3.9 MATERNAL CARE

In the 2016 TLDHS, women who had given birth in the 5 years preceding the survey were asked a number of questions about maternal care. Mothers were asked if they had obtained antenatal care (ANC) during the pregnancy for their most recent live birth in the 5 years preceding the survey and whether they had received tetanus toxoid injections while pregnant. For each live birth over the same period, mothers were also asked what type of assistance they received at the time of delivery. Finally, women who had a live birth in the 2 years before the survey were asked if they received a postnatal check during the first two days after delivery. Table 9 summarizes information on the coverage of these maternal health services.

3.9.1 Antenatal Care

Antenatal care (ANC) from a skilled provider is important to monitor pregnancy and reduce morbidity and mortality risks for the mother and child during pregnancy, delivery, and the postnatal period (within 42 days after delivery). The 2016 TLDHS results show that 84 percent of women who gave birth in the 5 years preceding the survey received ANC from a skilled provider at least once for their last birth. More than threequarters (77 percent) of women had four or more ANC visits.

Women age 20-34 were more likely to have accessed ANC from a skilled provider and more likely to have had four or more ANC visits compared with their older or younger counterparts. Urban women were more likely to recieve ANC compared with rural women; 92 percent received ANC from a skilled provider and 87 percent had four or more ANC visits compared with 81 percent and 72 percent among rural women. Reciept of ANC generally increases with education and wealth.

3.9.2 Tetanus Toxoid Vaccination

Tetanus toxoid injections are given during pregnancy to prevent neonatal tetanus, a major cause of early infant death in many developing countries that often results from failure to observe hygienic procedures during delivery. Table 9 shows that 72 percent of women received sufficient doses of tetanus toxoid to protect their last birth against neonatal tetanus. Women who are age 35-49 at the birth of the child, those living in rural areas, those with less education, and those belonging to the lower wealth quintiles are less likely to have had their last birth protected from tetanus. For instance, only 63 percent of women with no education had their last birth protected from tetanus compared with 85 percent of women with more than a secondary level of education.

3.9.3 Delivery Care

Access to proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that may lead to death or serious illness for the mother, baby, or both (Van Lerberghe and De Brouwere 2001; WHO 2006). About 6 in 10 (57 percent) live births in the 5 years preceding the survey were delivered by a skilled provider, and about one-half (49 percent) were delivered in a health facility.

Eighty-seven percent of births to urban mothers were assisted by a skilled provider and 84 percent were delivered in a health facility, as compared with 45 percent and 34 percent, respectively, of births to rural women. By municipality, the percentage of births assisted by a skilled provider and the percentage delivered in a health facility is lowest in Ermera (20 and 15 percent) and highest in Dili (85 and 83 percent). Mothers' education and wealth ranged widely depending on whether the birth was attended by a skilled provider and whether the birth took place in a health facility. For example, 33 percent of births to mothers with no education were assisted by a skilled provider and 26 percent were delivered in a health facility, as compared with 95 percent and 91 percent of births to mothers with more than a secondary education. A similar relationship is apparent with wealth. For example, 26 percent of births to mothers in the lowest wealth quintile were assisted by a skilled provider, and 17 percent were delivered in a health facility, as compared with 90 percent and 87 percent, respectively, of births to mothers with more than a secondary education.

Table 9 Maternal care indicators

Among women age 15-49 who had a live birth in the 5 years preceding the survey, the percentage who received antenatal care from a skilled provider for the most recent live birth, percentage with four or more ANC visits for the most recent live birth, and percentage whose most recent live birth was protected against neonatal tetanus; among all live births in the five years before the survey, percentage delivered by a skilled provider and percentage delivered in a health facility; and among women age 15-49 who had a live birth in the 2 years preceding the survey, percentage who received a postnatal check during the first 2 days after giving birth, according to background characteristics, Timor-Leste DHS 2016

	Women who had a live birth in the 5 years preceding the survey				Live births in the 5 years preceding the survey			Women who had a live birth in the 2 years preceding the survey	
Background characteristic	Percentage protected antenatal care from a skilled provider[1]	Percentage with 4+ ANC visits	Percentage whose most recent live birth was protected against neonatal tetanus[2]	Number of women	Percentage delivered by a skilled provider[1]	Percentage delivered in a health facility	Number of births	Percentage of women receiving postnatal check during the first 2 days after birth[3]	Number of women
Mother's age at birth									
<20	80.4	73.2	72.6	305	53.8	42.3	560	31.0	223
20-34	85.8	78.1	72.8	3,750	58.3	50.5	5,586	36.1	2,213
35-49	80.1	72.4	68.6	946	50.7	41.9	1,195	28.1	430
Residence Urban									
	92.2	87.0	77.2	1,478	86.5	84.0	2,103	56.1	783
Rural	81.1	72.4	69.8	3,522	44.8	34.2	5,238	26.4	2,083
Municipality Aileu									
	89.3	77.5	79.9	190	70.7	59.4	279	27.5	116
Ainaro	69.2	52.5	54.5	235	22.7	18.2	381	12.4	152
Baucau	80.3	75.4	69.1	524	61.6	51.9	762	39.8	335
Bobonaro	78.8	73.5	67.8	436	48.6	44.6	629	30.3	239
Covalima	85.1	78.2	69.0	302	60.1	47.3	419	35.0	165
Dili	92.9	88.1	75.9	1,150	85.0	83.2	1,656	60.1	610
Ermera	71.0	58.5	60.2	427	19.8	15.4	689	11.5	234
Lautem	83.8	78.4	74.4	253	65.1	53.4	403	16.9	161
Liquiça	83.2	79.1	88.8	342	44.8	35.2	483	32.9	204
Manatuto	89.9	84.5	86.2	235	65.8	46.9	352	21.0	140
Manufahi	76.9	60.2	69.2	266	47.1	29.9	376	33.1	154
SAR of Oecussi	88.8	79.0	67.9	331	33.5	22.8	457	29.5	175
Viqueque	92.7	84.8	71.1	312	58.8	43.1	455	30.8	180
Mother's education No education	71.9	63.4	63.3	1,213	32.8	25.9	1,851	22.6	655
Primary	83.8	73.6	69.9	919	44.8	33.9	1,345	24.5	485
Secondary	89.3	82.3	74.6	2,390	66.9	58.0	3,491	38.0	1,444
More than secondary	92.5	88.7	85.0	478	94.6	91.2	654	61.6	282
Wealth quintile Lowest									
	74.3	63.4	62.2	954	26.2	16.7	1,494	14.8	561
Second	78.7	68.7	65.7	999	38.8	28.0	1,500	21.9	587
Middle	83.1	75.0	72.7	985	56.2	45.8	1,440	32.5	593
Fourth	90.3	84.8	79.4	1,044	73.7	66.3	1,471	43.1	582
Highest	94.6	90.6	79.0	1,018	90.2	87.3	1,436	61.5	542
Total	84.4	76.7	72.0	5,000	56.7	48.5	7,341	34.5	2,866

Note: If more than one source of assistance was mentioned, only the provider with the highest qualifications is considered in this tabulation.

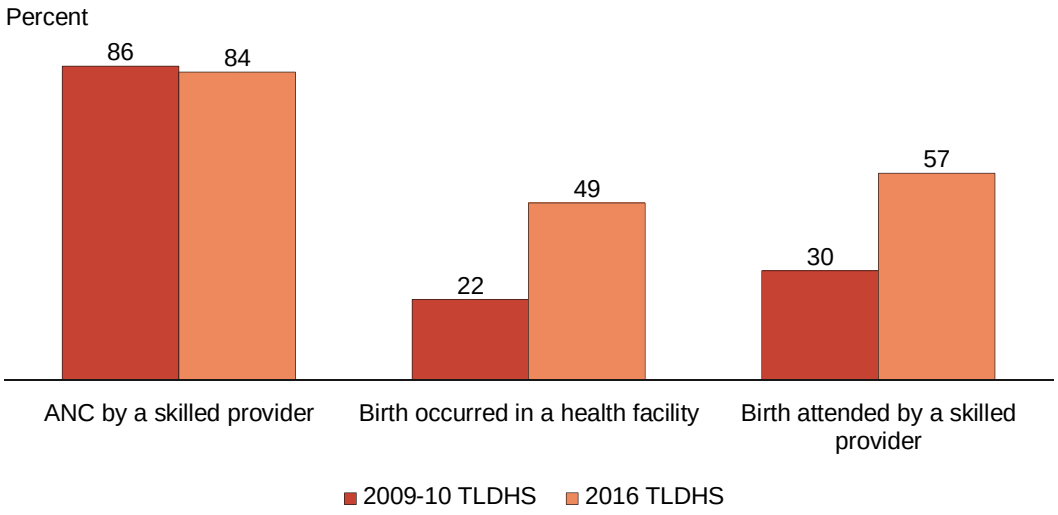
[1] Skilled provider includes doctor, nurse/midwife, and assistant nurse.

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

[3] Includes women who received a check from a doctor, midwife, nurse, community health worker, or traditional birth attendant

As shown in Figure 4, there is little change over time in the percentage of women receiving ANC from a skilled provider. The proportion of women whose births occurred in a health facility has increased more dramatically (from 22 percent in 2009-10 to 49 percent in 2016). Similarly, the proportion of women whose births were attended by a skilled provider has risen from 30 percent in 2009-10 to 57 percent in 2016.

Figure 4 **Trends in maternal health care, 2010-2016**



3.9.4 Postnatal Care for the Mother

A large proportion of maternal and neonatal deaths occur during the first 48 hours after delivery. Thus, prompt postnatal care (PNC) for both the mother and the child is important to treat any complications that arise from the delivery, as well as to provide the mother with important information on caring for herself and her child. Safe motherhood programs recommend that all women receive a check of their health within 2 days after delivery.

To assess the extent of postnatal care utilization, respondents were asked, for their last birth in the 2 years preceding the survey, whether they had received a postnatal check and the timing of the first postnatal check. As shown in Table 9, 35 percent of women reported receiving a postnatal check during the first 2 days after birth.

The proportion of women who received a postnatal check during the first 2 days after delivery is higher in urban areas than rural areas (56 versus 26 percent), and increases with both education and wealth. There is variation in the proportion of women who received a timely postnatal check by municipality, ranging from a low of 12 percent in Ainaro and Ermera to a high of 60 percent in Dili.

3.10 CHILD HEALTH AND NUTRITION

The 2016 TLDHS collected data on a number of key child health indicators such as vaccinations of young children, nutritional status as assessed by anthropometry, infant feeding practices, and treatment practices when a child is ill.

3.10.1 Vaccination of Children

Universal immunization of children against six common vaccine-preventable diseases (tuberculosis, diphtheria, whooping cough (pertussis), tetanus, polio, and measles) is crucial to reducing infant and child mortality. The 2016 TLDHS collected information on coverage from these vaccines among children born in the 3 years preceding the survey. The information obtained in the survey on differences in vaccination status

among subgroups of children is useful for program planning and targeting resources toward areas most in need.

According to guidelines developed by the World Health Organization (WHO), children have received all basic vaccinations when they have received a vaccination against tuberculosis (also known as BCG), three doses each of the DPT-HepB-Hib/pentavalent and polio vaccines, and a vaccination against measles. The BCG vaccine is usually given at birth or at first clinical contact, while the DPT-HepB-Hib and polio vaccines are given at approximately age 6, 10, and 14 weeks. Measles vaccinations should be given at or soon after age 9 months. A child age 12-23 months is considered to be fully immunized (all age-appropriate vaccinations) in Timor-Leste if the child has received all basic vaccinations, plus a birth dose of polio vaccine.

Information on vaccination coverage was obtained in two ways in the 2016 TLDHS: from written vaccination records, including the LISIO or other child health card/book, and from mothers' verbal reports. In the TLDHS, for each child born in the 3 years before the survey, mothers were asked to show the interviewer the LISIO or other card used to record the child's immunizations. If the LISIO or card was available, the interviewer copied the dates of each vaccination received. If a vaccination was not recorded in the LISIO or card as being given, the mother was asked to recall whether the child had received any vaccinations in addition to those on the LISIO or card. If the mother was not able to present the LISIO or card for a child, she was asked to recall whether the child had received BCG, polio, DPT-HepB-Hib, or measles vaccine. If she indicated that the child had received the polio or DPT-HepB-Hib vaccine, she was asked the number of doses that the child had received.

In Timor-Leste, a new LISIO was designed and released during survey fieldwork. Accordingly, the CAPI data collection system allowed interviewers to record vaccine data using either the older or newer LISIO format. Among children age 12-23 months, 56 percent had written vaccination records; overall, data was collected from written records for 51 percent children (data not shown). Mother's recall may not be as reliable as written vaccination records, and therefore may result in an underestimate of vaccinations (Miles et al 2013).

Table 10 presents data on vaccination coverage among children age 12-23 months by background information. Children age 12-23 months are the youngest cohort to have reached the age by which a child should have received the required vaccines. Table 10 shows that 49 percent of children age 12-23 months received all basic vaccinations, and 45 percent received all age-appropriate vaccinations. Nineteen percent of children in this age group had not received any vaccinations. Eighty-one percent of children received the BCG vaccination, 78 percent the first dose of DPT-HepB-Hib, and 73 percent the first (non-birth) dose of polio. Sixty-nine percent of children received a measles vaccination. Coverage rates decline for subsequent doses, with 62 percent of children receiving the recommended three doses of DPT-HepB-Hib and 54 percent the three doses of polio.

Male children are slightly less likely to receive all basic vaccinations compared with female children (47 percent compared with 51 percent). First-born children, urban children, and children of mothers with more than secondary eduction are more likely to receive all basic vaccinations compared with their counterparts. Basic vaccination coverage is highest in Baucau (67 percent) and lowest in Ermera (31 percent). Receipt of all basic vaccinations increases with household wealth.

Basic vaccination coverage has declined slightly since the 2009-10 TLDHS, from 53 percent of children with all basic vaccinations to 49 percent in 2016.

Table 10 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or LISIO or the mother's report), percentage with all basic vaccinations, percentage with all age-appropriate vaccinations, and percentage with no vaccinations, according to background characteristics, Timor-Leste DHS 2016

Background characteristic	BCG	DPT-HepB-Hib 1	DPT-HepB-Hib 2	DPT-HepB-Hib 3	Polio[1] 0 (birth dose)	Polio[1] 1	Polio[1] 2	Polio[1] 3	Sarampo (measles-containing vaccine)	All basic vaccina-tions[2]	appropriate vaccina-tions[1]	No vaccina-tions	All age Number of children
Sex													
Male	80.5	77.1	69.2	60.6	70.6	71.7	63.4	52.2	68.3	47.0	43.1	19.5	742
Female	80.5	79.8	74.4	62.8	72.8	74.6	65.6	56.5	70.4	50.5	47.4	18.9	714
Birth order 1	81.8	82.3	77.8	68.2	74.9	77.9	71.2	61.6	71.1	55.1	52.1	17.6	376
2-3	82.9	78.8	71.2	60.1	75.3	73.3	62.2	51.9	70.8	46.3	44.5	17.1	537
4-5	80.0	77.3	70.1	59.7	70.0	71.2	62.5	52.8	68.1	47.1	43.6	19.7	330
6+	72.8	72.1	65.0	57.2	59.6	67.0	61.5	49.9	64.5	46.2	37.6	26.7	213
Residence Urban	87.2	86.8	74.5	65.7	81.6	76.5	67.3	56.6	74.2	50.6	48.4	12.7	405
Rural	77.9	75.2	70.7	60.1	67.9	71.8	63.4	53.4	67.5	48.0	44.0	21.7	1,051
Municipality Aileu	91.0	88.8	82.1	68.2	81.6	80.1	73.1	60.8	89.7	58.0	54.7	9.0	59
Ainaro	74.0	69.2	55.5	48.9	61.4	61.5	48.5	41.5	62.1	35.0	33.1	26.0	73
Baucau	87.9	87.5	86.0	78.7	81.2	85.6	79.2	74.3	79.6	67.4	61.7	12.1	168
Bobonaro	80.2	75.9	72.5	61.7	66.1	75.8	70.1	53.7	65.5	46.7	41.6	18.1	121
Covalima	71.4	67.8	63.5	48.0	66.4	61.4	54.4	43.3	59.3	40.2	40.2	28.6	99
Dili	88.9	88.9	74.7	65.6	82.4	78.3	67.1	56.9	74.5	52.1	49.4	11.1	323
Ermera	58.6	58.6	57.4	47.6	52.1	54.1	50.2	36.8	52.5	30.6	26.5	41.4	127
Lautem	80.5	75.2	72.6	69.7	78.2	73.7	70.8	66.2	65.5	57.2	53.9	18.2	78
Liquiça	81.3	77.0	70.9	58.5	69.4	71.8	59.3	55.0	70.1	52.4	46.8	18.7	89
Manatuto	82.7	81.7	79.8	78.2	75.7	80.6	78.3	66.2	74.2	61.2	57.0	17.3	58
Manufahi	72.3	69.4	64.5	53.5	62.1	61.8	49.9	38.9	67.5	34.2	32.6	26.2	80
SAR of Oecussi	85.3	82.0	79.1	54.1	64.9	77.6	61.7	48.3	68.7	39.2	34.8	14.7	87
Viqueque	77.1	74.1	63.9	56.9	67.6	73.3	65.0	52.6	65.8	47.7	45.1	22.9	93
Education No education	70.1	66.4	60.4	51.1	59.4	61.9	55.1	45.4	58.8	40.6	37.9	29.3	336
Primary	79.4	77.4	74.5	61.9	67.8	72.3	64.5	54.2	71.8	51.3	45.4	20.6	252
Secondary	83.0	81.1	73.3	63.8	75.9	75.1	66.1	56.4	70.8	49.8	46.7	16.8	726
More than secondary	94.3	94.6	85.8	75.4	86.2	90.6	78.1	64.6	82.4	57.8	54.8	5.2	143
Wealth quintile Lowest	69.4	64.0	58.2	48.1	55.0	60.1	48.4	41.0	54.4	37.4	33.6	30.6	268
Second	74.2	71.9	68.0	57.5	66.2	68.0	60.9	50.6	61.2	43.3	39.7	25.7	301
Middle	80.4	80.2	73.7	60.4	70.3	74.7	67.3	55.9	74.8	50.1	45.0	18.2	285
Fourth	86.1	84.6	78.1	68.8	81.6	77.4	70.5	60.3	76.7	55.5	52.6	13.9	324
Highest	91.5	90.2	79.5	72.4	83.5	84.4	74.0	62.4	78.2	56.3	54.2	8.5	278

[1] .10.2 Childhood Acute Respiratory Infection, Fever, and Diarrhea

Acute respiratory infection (ARI), fever, and dehydration from diarrhea are important contributing causes of childhood morbidity and mortality in developing countries (WHO 2003). Prompt medical attention when a child has the symptoms of these illnesses is crucial in reducing child deaths. In the 2016 TLDHS, mothers were asked if each child under age 5 had experienced an episode of diarrhea; short, rapid breathing or difficulty breathing as a result of a chest-related problem (symptoms of ARI); or a fever in the 2 weeks preceding the survey. Respondents were also asked if treatment was sought when the child was ill. It should be noted that the morbidity data collected are subjective because they are based on a mother's perception of illnesses without validation by medical personnel.

Table 11 shows that treatment was sought for 70 percent of children with ARI symptoms, 56 percent of those with a fever, and 65 percent of children with diarrhea. Seventy percent of children with diarrhea received a rehydration solution from an oral rehydration salt (ORS) packet or pre-packaged ORS fluid; 50 percent were given zinc supplements; and 40 percent received both ORS and zinc supplements. Fifty-two percent of children with diarrhea were given oral rehydration therapy (ORT) and/or increased fluids.

Total	80.5	78.4	71.8	61.7	71.7	73.1	64.5	54.3	69.3	48.7	45.2	19.2	1,456

BCG = Bacille Calmette-Guérin
DPT = diphtheria-pertussis-tetanus
HepB = hepatitis B
Hib = *Haemophilus influenzae* type b
Note: Children are considered to have received the vaccine if it was either written on the child's vaccination card or LISIO or reported by the mother. For children whose vaccination information is based on the mother's report, date of vaccination is not collected. The proportions of vaccinations given during the first and second years of life are assumed to be the same as for children with a written record of vaccination. [1] Polio 0 is the polio vaccination given at birth.
[2] BCG, three doses of DPT-HepB-Hib, three doses of oral polio vaccine (excluding polio vaccine given at birth), and one dose of Sarampo (measles-containing vaccine)
[3] BCG, three doses of DPT-HepB-Hib, polio vaccine given at birth, three doses of oral polio vaccine, and one dose of Sarampo (measles-containing vaccine)

Table 11 Treatment for acute respiratory infection, fever, and diarrhea

Among children under age 5 who had symptoms of acute respiratory infection (ARI) or had fever in the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, and among children under age 5 who had diarrhea during the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, percentage given a fluid made from oral rehydration salt (ORS) packets or given pre-packaged ORS fluid, percentage given zinc, percentage given ORS and zinc, percentage given increased fluids and continued feeding, and percentage who continued feeding and were given ORT and/or increased fluids, according to background characteristics, Timor-Leste DHS 2016

	Children with symptoms of ARI[1]		Children with fever		Children with diarrhea						
Background characteristic	Percentage for whom advice or treatment was sought[2]	Number of children	Percentage for whom advice or treatment was sought[2]	Number of children	Percentage for whom advice or treatment was sought[2]	Percentage given fluid from ORS packet or pre-packaged ORS fluid	Percentage given zinc	Percentage given ORS and zinc	Percentage given increased fluids and continued feeding[3]	Percentage who continued feeding[3] and were given ORT and/or increased fluids	Number of children
Age in months											
<6	*	10	61.1	83	53.9	40.8	51.7	27.7	9.1	29.2	58
6-11	*	15	56.0	113	64.5	67.8	41.3	29.7	4.8	47.4	77
12-23	(65.4)	34	54.0	259	67.7	76.1	50.1	43.8	5.1	57.9	259
24-35	(74.0)	33	57.8	192	63.9	72.6	52.6	45.3	5.1	52.5	148
36-47	*	27	50.3	138	62.9	70.7	53.3	44.7	5.5	55.5	113
48-59	*	19	56.7	146	65.3	67.5	49.4	34.4	4.1	46.1	100
Sex											
Male	66.5	82	54.3	497	67.7	72.6	48.6	39.3	6.6	53.9	421
Female	75.9	57	57.0	433	60.5	66.5	52.3	41.5	3.7	48.8	335
Residence											
Urban	(86.0)	53	66.5	323	70.8	69.1	56.0	46.5	6.5	52.9	299
Rural	60.6	86	49.7	607	60.4	70.4	46.4	36.2	4.5	50.8	456
Municipality											
Aileu	*	5	66.8	43	66.3	71.4	60.2	51.5	4.0	55.2	30
Ainaro	*	10	46.1	45	(66.1)	(65.0)	(54.1)	(46.1)	(0.0)	(44.1)	22
Baucau	*	9	(56.0)	57	(50.1)	(63.2)	(46.3)	(30.9)	(1.5)	(39.3)	45
Bobonaro	*	19	52.5	53	66.1	65.2	70.7	53.9	6.9	48.3	54
Covalima	*	5	(66.7)	40	(79.5)	(78.9)	(54.1)	(50.4)	(1.3)	(68.0)	50
Dili	*	38	67.5	263	69.5	72.0	54.8	47.2	9.0	57.8	247
Ermera	*	8	21.6	94	(52.6)	(77.9)	(33.1)	(23.4)	(3.8)	(50.5)	63
Lautem	*	5	(55.3)	37	61.7	57.7	26.4	13.0	3.6	32.2	42
Liquiça	*	10	43.7	96	38.3	66.4	72.7	55.2	0.0	46.6	68
Manatuto	*	4	71.9	33	(72.5)	(83.7)	(28.3)	(25.9)	(8.6)	(50.3)	26
Manufahi	*	7	55.0	34	(77.0)	(83.1)	(33.4)	(25.6)	(9.5)	(50.9)	23
SAR of Oecussi	*	10	51.1	88	69.9	62.7	36.3	26.8	4.2	54.3	59
Viqueque	*	9	70.2	47	(76.3)	(57.3)	(38.2)	(29.9)	(3.5)	(36.7)	27
Mother's education											
No education	(61.2)	31	48.0	196	58.3	69.8	46.0	35.9	2.8	54.6	131
Primary	(76.2)	29	60.9	170	72.6	73.3	49.6	37.4	5.1	48.9	135
Secondary	63.3	59	52.9	477	62.1	67.7	48.3	38.3	5.5	50.0	412
More than secondary	*	20	76.5	86	73.9	75.7	68.3	63.3	9.2	60.3	78
Wealth quintile											
Lowest	(66.5)	27	42.5	171	59.3	62.2	41.4	31.3	3.8	47.7	107
Second	*	23	50.3	150	55.2	72.2	49.2	37.2	3.0	49.1	128
Middle	*	21	53.9	208	64.1	72.3	51.7	40.8	3.1	48.7	125
Fourth	(73.2)	34	59.6	201	62.6	68.0	41.1	34.2	6.9	49.3	208
Highest	(98.4)	34	68.2	201	76.3	73.2	65.0	54.0	7.5	60.2	188
Total	70.3	139	55.5	930	64.5	69.9	50.2	40.3	5.3	51.6	756

ORT = Oral rehydration therapy

Note: ORT includes fluid prepared from oral rehydration salt (ORS) packets, pre-packaged ORS fluid, and recommended homemade fluids (RHF). An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

[1] Symptoms of ARI include short, rapid breathing which was chest-related and/or difficult breathing which was chest-related.

[2] Excludes advice or treatment from a traditional practitioner

[3] Continued feeding includes children who were given more, same as usual, or somewhat less food during the diarrhea episode.

3.10.3 Infant and Young Child Feeding Practices

Breastfeeding is sufficient and beneficial for infant nutrition in the first 6 months of life. Breastfeeding immediately after birth also helps the uterus contract, which reduces the mother's postpartum blood loss. Supplementing breast milk before the child is age 6 months is discouraged because it may inhibit breastfeeding and expose the infant to illness. Infants older than 6 months need other food and drink while they continue to breastfeed until age 2 or older. Breastmilk still is an important source of energy, protein, and other nutrients such as vitamin A and iron. Complimentary foods should include a variety of options, such as peeled, cooked, and mashed vegetables, grains, pulses and fruit, some oil, and also meat, eggs, chicken, and dairy products to provide adequate nourishment (Pan American Health Organization 2002).

The 2016 TLDHS collected data on infant and young child feeding (IYCF) practices for all children born in the 2 years preceding the survey. Table 12 shows breastfeeding practices by child's age. Fifty percent of infants under age 6 months are exclusively breastfed. Contrary to the recommendation that children under age 6 months be exclusively breastfed, 11 percent consume plain water, 3 percent consume nonmilk liquids, 7 percent consume other milk, and 22 percent consume complementary foods in addition to breast milk. Seven percent of infants under age 6 months are not breastfed at all. The percentage of children exclusively breastfed decreases sharply with age, from 64 percent of infants age 0-1 month to 53 percent of infants age 2-3 months and, further, to 35 percent of infants age 4-5 months. Eighteen percent of infants under age 6 months are fed using a bottle with a nipple, a practice that is discouraged because of the risk of illness to the child.

Breastfeeding a child until age 2 is recommended. However, the proportion of children who are currently breastfeeding decreases with increasing child age from 83 percent among children age 9-11 months to 60 percent among children 12-17 months, and finally to 40 percent among children age 18-23 months.

Table 12 Breastfeeding status by age

Percent distribution of youngest children under age 2 who are living with their mother, by breastfeeding status, percentage currently breastfeeding; and percentage of all children under age 2 using a bottle with a nipple, according to age in months, Timor-Leste DHS 2016

	Breastfeeding status										
Age in months	Not breast-feeding	Exclusively breast-feeding	Breast-feeding and consuming plain water only	Breast-feeding and consuming non-milk liquids[1]	Breast-feeding and consuming other milk	Breastfeeding and consuming complementary foods	Total	Percentage currently breast-feeding	Number of youngest children under age 2 living with the mother	Percentage using a bottle with a nipple	Number of all children under age 2
0-1	4.6	63.7	8.1	5.1	6.4	12.2	100.0	95.4	238	12.1	243
2-3	7.1	52.7	11.3	3.4	10.1	15.4	100.0	92.9	247	13.3	252
4-5	9.7	34.5	12.6	0.7	4.6	37.9	100.0	90.3	243	26.7	254
6-8	11.2	13.2	10.9	3.8	4.0	57.0	100.0	88.8	369	24.9	383
9-11	17.0	5.6	7.2	1.6	1.8	66.7	100.0	83.0	313	23.2	331
12-17	39.8	3.5	2.8	1.6	0.5	51.7	100.0	60.2	745	27.0	809
18-23	59.7	1.4	1.7	1.0	0.1	36.1	100.0	40.3	550	25.1	647
0-3	5.9	58.1	9.7	4.2	8.3	13.8	100.0	94.1	485	12.7	495
0-5	7.1	50.2	10.7	3.0	7.1	21.9	100.0	92.9	728	17.5	750
6-9	11.7	12.4	11.1	3.1	3.5	58.2	100.0	88.3	488	24.7	512
12-15	37.6	3.4	2.6	2.1	0.4	54.0	100.0	62.4	499	28.6	531
12-23	48.3	2.6	2.3	1.3	0.4	45.1	100.0	51.7	1,295	26.1	1,456
20-23	60.2	1.4	1.4	0.9	0.2	36.0	100.0	39.8	356	24.8	425

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 breastfeeding, breastfeeding and consuming plain water, non-milk liquids, other milk, and complementary foods (solids and semisolids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breast milk 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.

[1] Non-milk liquids include juice, juice drinks, or other liquids

The minimum acceptable diet indicator is used to assess the proportion of children age 6-23 months who meet minimum standards with respect to IYCF practices. Specifically, children age 6-23 months who have a minimum acceptable diet meet all three IYCF criteria below:

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

2. Fed with foods from four or more of the following groups: a. infant formula, milk other than breast milk, and cheese or yogurt or other milk products; b. foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; c. vitamin A-rich fruits and vegetables; d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, and shellfish (and organ meats); and g. legumes and nuts

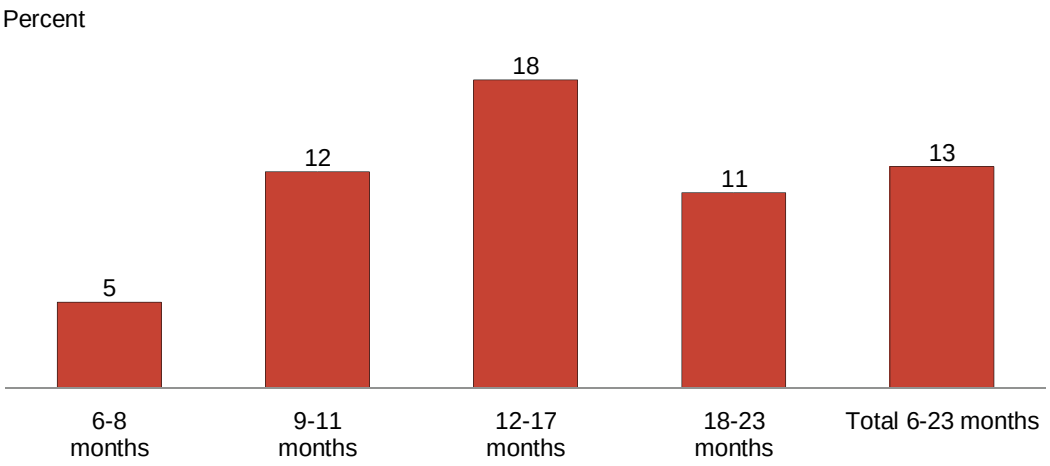
3. Fed the minimum recommended number of times per day according to their age and breastfeeding status:

    a. For breastfed children, minimum meal frequency is receiving solid or semi-solid food at least twice a day for infants age 6-8 months and at least three times a day for children age 9-23 months.

    b. For children age 6-23 months who are not breastfed, minimum meal frequency is receiving solid or semisolid food or milk feeds at least four times a day.

Figure 5 shows the percentage of children being fed the minimum acceptable diet, by age. In total, only 13 percent of children age 6-23 months have met the criteria for a minimum acceptable diet.

Figure 5 **Minimum acceptable diet according to age, in months**



Timor-Leste DHS 2016

3.11 ANEMIA PREVALENCE IN CHILDREN, WOMEN, AND MEN

Anemia is a condition marked by low levels of hemoglobin in the blood. Iron is a key component of hemoglobin, and iron deficiency is estimated to be responsible for half of all anemia globally. Other causes of anemia include hookworm and other helminths, malaria infection, other nutritional deficiencies, chronic infections, and genetic conditions. Anemia is a serious concern for children because it can impair cognitive development, stunt growth, and increase morbidity from infectious diseases. As a part of the 2016 TLDHS,

hemoglobin levels were successfully measured for 87 percent of children age 6-59 months eligible for testing, 98 percent of women age 15-49 eligible for testing, and 98 percent of men age 15-59 eligible for testing.

Tables 13.1-13.3 present anemia prevalence for children age 6-59 months, women age 15-49, and men age 15-49, respectively, by background characteristics. Hemoglobin levels were adjusted for altitude and, for women and men, by smoking status. Children and pregnant women with hemoglobin levels below 11.0 g/dl were defined as anemic. For non-pregnant women, hemoglobin levels below 12.0 g/dl were defined as anemic, while for men, levels below 13.0 g/dl were defined as anemic.

Four in ten children age 6-59 months (40 percent) suffered from some degree of anemia: 28 percent were mildly anemic, 12 percent moderately anemic, and less than 1 percent severely anemic. The prevalence of anemia decreases with age from a high of 62 percent among children age 6-8 months to a low of 28 percent among children age 48-59 months. There is little variation in anemia by sex or by urban-rural status. The lowest municipality-level prevalence of anemia is among children living in Manufahi (19 percent), and the highest in Liquica (61 percent).

Almost one-quarter (23 percent) of women age 15-49 are anemic. The majority of these women are mildly anemic (19 percent); 4 percent are moderately anemic, and 1 percent are severely anemic. The proportion of women with any anemia is slightly higher in urban areas than in rural areas (25 percent and 22 percent, respectively). By municipality, anemia prevalence among women ranges from 10 percent in Manufahi to 46 percent in SAR of Oecussi. Fewer men are considered anemic compared with women and children. Thirteen percent of men age 15-49 are anemic, ranging from 5 percent in Dili and Manufahi to 28 percent in Ermera.

Table 13.1 Anemia among children

Percentage of children age 6-59 months classified as having any, mild, moderate, and severe anemia, according to background characteristics, Timor-Leste DHS 2016

Background characteristic	Any anemia <11.0 g/dl	Severity of anemia: Mild anemia 10.0-10.9 g/dl	Moderate anemia 7.0-9.9 g/dl	Severe anemia <7.0 g/dl	Number
Sex					
Male	40.8	27.0	13.7	0.1	1,078
Female	39.9	28.4	10.8	0.7	940
Age in months 6-8	61.7	34.8	25.9	1.1	81
9-11	59.9	36.6	21.0	2.3	90
12-17	57.3	34.0	23.3	0.0	264
18-23	45.8	27.4	18.1	0.3	199
24-35	40.8	29.4	11.0	0.4	448
36-47	33.2	25.5	7.3	0.4	477
48-59	27.7	21.5	6.0	0.2	458
Residence Urban	41.0	30.0	10.9	0.1	488
Rural	40.1	26.9	12.8	0.5	1,529
Municipality Aileu	30.9	13.3	17.5	0.0	68
Ainaro	45.6	27.3	16.8	1.5	121
Baucau	37.6	23.3	14.3	0.0	224
Bobonaro	38.8	28.3	10.1	0.3	180
Covalima	46.1	35.4	9.8	0.9	132
Dili	41.5	33.1	8.4	0.0	365
Ermera	41.1	32.5	7.6	1.0	159
Lautem	37.9	30.5	7.4	0.0	122
Liquiça	60.9	30.2	29.2	1.6	165
Manatuto	49.1	37.3	11.8	0.0	89
Manufahi	18.9	13.9	5.0	0.0	116
SAR of Oecussi	41.0	25.2	15.8	0.0	115
Viqueque	28.8	17.0	11.7	0.0	162

Wealth quintile					
Lowest	38.6	26.5	11.8	0.2	416
Second	38.7	25.7	12.5	0.5	442
Middle	39.6	26.0	13.4	0.2	411
Fourth	44.6	29.4	14.9	0.4	397
Highest	40.6	31.4	8.5	0.7	351
Total	40.4	27.6	12.3	0.4	2,017

Note: Table is based on children who stayed in the household the night before the interview. Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude using CDC formulas (CDC 1998). Hemoglobin is in grams per deciliter (g/dl).

Table 13.2 Anemia among women

Percentage of women age 15-49 classified as having any, mild, moderate, and severe anemia, according to background characteristics, Timor-Leste DHS 2016

Background characteristic	Non-pregnant / Pregnant	Any anemia	Severity of anemia: Mild anemia	Moderate anemia	Severe anemia	Number
			Non-pregnant <12.0 g/dl	10.0-11.9 g/dl	7.0-9.9 g/dl	<7.0 g/dl	
			Pregnant <11.0 g/dl	10.0-10.9 g/dl	7.0-9.9 g/dl	<7.0 g/dl	
Residence Urban		24.8	19.8	4.5	0.5	1,373
Rural		21.7	17.9	3.3	0.5	2,828
Municipality						
Aileu		13.6	12.0	1.7	0.0	166
Ainaro		16.0	14.2	1.7	0.0	189
Baucau		29.9	24.9	4.4	0.6	416
Bobonaro		19.5	16.0	2.5	1.0	315
Covalima		17.4	13.5	2.8	1.1	262
Dili		27.0	21.4	5.2	0.3	1,058
Ermera		18.2	15.9	2.3	0.0	371
Lautem		22.6	20.4	2.3	0.0	219
Liquiça		15.9	13.1	2.5	0.4	275
Manatuto		20.5	17.8	2.7	0.0	186
Manufahi		9.7	8.8	0.9	0.0	215
SAR of Oecussi		46.1	33.7	10.4	2.0	244
Viqueque		18.2	14.3	3.3	0.6	287
Wealth quintile						
Lowest		22.9	18.3	4.0	0.5	681
Second		21.1	16.4	4.3	0.3	826
Middle		23.6	20.7	2.5	0.4	820
Fourth		22.0	17.6	3.6	0.8	911
Highest		23.9	19.5	4.2	0.2	963
Total		22.7	18.5	3.7	0.5	4,201

Note: Table is based on women who stayed in the household the night before the interview. Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude and smoking using CDC formulas (CDC 1998). Hemoglobin is in grams per deciliter (g/dl).

Table 13.3 Anemia among men

Percentage of men aged 15-49 years classified as having any anemia, according to background characteristics, Timor-Leste DHS 2016

Background characteristic	Any anemia <13.0 g/dl	Number
Residence		
Urban	7.4	1,309
Rural	15.7	2,647
Municipality		
Aileu	20.3	171
Ainaro	11.4	182
Baucau	9.6	378
Bobonaro	17.2	291
Covalima	13.7	231
Dili	5.4	1,047
Ermera	27.5	332
Lautem	21.9	187
Liquiça	16.1	248
Manatuto	9.0	172
Manufahi	4.8	225
SAR of Oecussi	22.0	206
Viqueque	13.2	285
Wealth quintile		
Lowest	13.7	628
Second	17.3	813
Middle	16.1	789
Fourth	11.9	813
Highest	6.7	913
Total 15-49	12.9	3,956
Men 50-59	15.6	529
Total 15-59	13.2	4,485

Note: Table is based on men who stayed in the household the night before the interview. Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude and smoking using CDC formulas (CDC, 1998). Hemoglobin in grams per deciliter (g/dl).

3.12 OWNERSHIP AND USE OF MOSQUITO NETS

3.12.1 Ownership of Mosquito Nets

The use of insecticide-treated mosquito nets is a primary health intervention designed to reduce malaria transmission in Timor-Leste. An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment or (2) a net that has been soaked with insecticide within the past 12 months. Longlasting insecticidal nets (LLINs) are a subset of ITNs. An LLIN is a factory-treated mosquito net made with netting material that has insecticide incorporated within or bound around the fibers. The current generation of LLINs lasts 3 to 5 years, after which the net should be replaced.

All households in the 2016 TLDHS were asked if they owned mosquito nets and if so, what type and how many. Table 14 presents the percentage of households with at least one ITN, the average number of ITNs per household, and the percentage of households with at least one ITN for every two persons who stayed in the household the previous night, according to background characteristics. Among all households in TimorLeste, 64 percent possess at least one ITN. On average, there are 1.5 ITNs per household.

Table 14 Household possession of insecticide-treated nets

Percentage of households with at least one insecticide-treated net (ITN); average number of ITNs per household; and percentage of households with at least one ITN per two persons who stayed in the household last night, by background characteristics, Timor-Leste DHS 2016

Background characteristic	Percentage of households with at least one insecticide-treated net (ITN)[1]	Average number of insecticide-treated nets (ITN)[1] per household	Number of households	Percentage of households with at least one insecticide-treated net (ITN)[1] for every two persons who stayed in the household last night	Number of households with at least one person who stayed in the household last night[2]
Residence					
Urban	57.2	1.3	2,744	23.7	2,738
Rural	66.2	1.6	8,758	35.7	8,751
Municipality					
Aileu	71.9	1.8	414	31.2	414
Ainaro	51.4	1.1	617	25.3	615
Baucau	61.2	1.7	1,383	35.1	1,383
Bobonaro	56.2	1.3	953	26.8	953
Covalima	74.3	1.7	787	45.2	787
Dili	53.9	1.1	2,016	19.0	2,010
Ermera	51.3	1.1	1,175	22.3	1,175
Lautem	74.0	1.8	695	43.5	695
Liquiça	65.8	1.7	721	34.8	720
Manatuto	73.6	1.8	505	37.9	505
Manufahi	72.3	2.0	556	37.2	554
SAR of Oecussi	87.3	2.0	883	54.9	880
Viqueque	70.1	1.7	798	39.5	798
Wealth quintile					
Lowest	55.8	1.1	2,802	29.7	2,799
Second	67.0	1.5	2,417	33.6	2,414
Middle	69.3	1.7	2,288	36.6	2,284
Fourth	74.1	1.9	2,079	39.1	2,077
Highest	55.0	1.4	1,916	25.1	1,914
Total	64.0	1.5	11,502	32.8	11,489

[1] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment, including longlasting insecticidal nets (LLINs) or (2) a net that has been soaked with insecticide within the past 12 months. [2] De facto household members

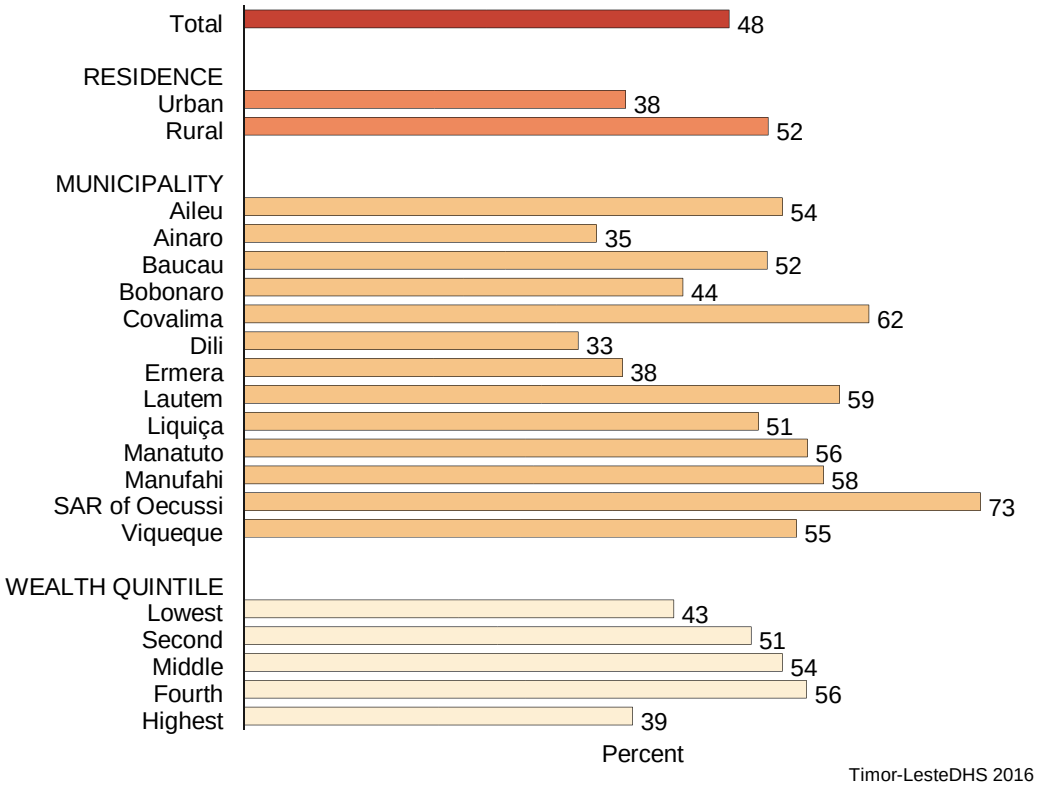
The percentage of households that own at least one ITN is higher in rural households (66 percent) compared with urban households (57 percent). Ownership of at least one ITN is highest in SAR of Oecussi (87 percent) and lowest in Ainaro and Ermera (both 51 percent).

One-third (33 percent) of households in Timor-Leste had at least one ITN for every two persons who stayed in the household the night before the survey. The percentage is higher in rural households than in urban households (36 percent and 24 percent, respectively). By municipality, the percentage of households with at least one ITN for every two persons who stayed in the household the night before the survey is highest in SAR of Oecussi at 55 percent and lowest in Dili at 19 percent. With the exception of households in the highest wealth quintile, the percentage of households with at least one ITN for every two persons increases with wealth.

ITN ownership has improved from 41 percent in the 2009-10 TLDHS to 64 percent in the 2016 survey, and the average number of ITNs per household has improved from 0.8 to 1.5. Improvement is especially notable in rural areas.

Figure 6 shows the percentage of the de facto population with access to an ITN, that is the percentage who could sleep under an ITN if each ITN in the household were used by up to two people. Overall, 48 percent of the household population has access to an ITN. Those living in rural areas (52 percent), those living in SAR of Oecussi (73 percent), and those in the fourth highest wealth quintile (56 percent) are the most likely to have access to an ITN.

Figure 6 **Percentage of the de facto household population with access to an insecticide-treated net**



3.12.2 Use of ITNs by Children and Pregnant Women

Community-level protection against malaria helps reduce the spread of disease and offers additional protection against malaria for those who are most vulnerable: children under age 5 and pregnant women. Table 16 presents the use of mosquito nets among children and pregnant women.

Fifty-six percent of children under age 5 slept under an ITN the night before the survey. As might be expected, the figure is higher for children in households that have ITNs; 79 percent of those in households with at least one ITN slept under an ITN the night before the survey. Sixty percent of pregnant women age 15-49 in all households slept under an ITN the night before the survey. In households with at least one ITN, 80 percent of pregnant women slept under an ITN the night before the survey. Children and pregnant women living in rural areas are more likely than those in urban areas to have slept under an ITN. The proportion of children and women sleeping under an ITN the night before the survey is generally lowest in Ainaro and Dili. With the exception of those living in households in the highest wealth quintile, the percentage of children and of women who slept under an ITN the night before the survey increases with wealth.

The percentage of children and pregnant women who slept under an ITN the night before the survey has improved from 41 percent each in the 2009-10 TLDHS to 56 percent and 60 percent, respectively, in 2016.

Table 15 Use of insecticide-treated nets by children and pregnant women

Percentage of children under age 5 who, the night before the survey, slept under an insecticide-treated net (ITN); among children under age 5 in households with at least one ITN, percentage who slept under an ITN the night before the survey; percentage of pregnant women age 15-49 who, the night before the survey, slept under an ITN; and among pregnant women age 15-49 in households with at least one ITN, percentage who slept under an ITN the night before the survey, according to background characteristics, Timor-Leste DHS 2016

	Children under age 5 in all households		Children under age 5 in households with at least one ITN[1]		Pregnant women age 15-49 in all households		Pregnant women age 15-49 in households with at least one ITN[1]	
Background characteristic	Percentage who slept under an ITN[1] last night	Number of children	Percentage who slept under an ITN[1] last night	Number of children	Percentage who slept under an ITN[1] last night	Number of pregnant women	Percentage who slept under an ITN[1] last night	Number of pregnant women
Residence								
Urban	48.2	2,097	77.2	1,310	50.0	235	71.5	164
Rural	58.6	5,529	79.9	4,051	65.5	441	83.7	345
Municipality Aileu	60.5	294	73.5	242	(81.2)	19	(97.1)	16
Ainaro	39.7	391	76.7	202	(45.5)	29	*	15
Baucau	63.0	825	81.6	637	(65.0)	66	(79.3)	54
Bobonaro	53.5	659	83.2	423	(58.3)	48	(81.6)	34
Covalima	63.6	435	79.2	349	(89.8)	41	(97.1)	38
Dili	44.6	1,606	75.6	946	46.2	199	67.9	135
Ermera	47.7	738	76.4	460	(48.6)	41	*	28
Lautem	67.1	436	84.5	346	(64.4)	32	(85.4)	24
Liquiça	62.1	528	89.1	368	68.2	47	(91.6)	35
Manatuto	63.9	356	82.6	276	78.4	37	92.9	32
Manufahi	62.9	396	82.7	301	(62.2)	25	(83.8)	19
SAR of Oecussi	61.3	485	67.1	443	(70.8)	52	(72.4)	51
Viqueque	64.2	476	83.2	367	60.3	40	(83.9)	29
Wealth quintile								
Lowest	49.2	1,581	74.9	1,038	60.2	108	74.8	87
Second	58.7	1,567	80.0	1,149	64.8	129	86.1	97
Middle	62.8	1,496	82.5	1,139	67.3	123	88.0	94
Fourth	62.8	1,498	82.6	1,139	64.5	167	79.3	136
Highest	45.3	1,483	74.9	896	45.2	150	70.4	96
Total	55.7	7,625	79.3	5,361	60.1	676	79.8	510

Note: Table is based on children who stayed in the household the night before the interview. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.
[1] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment, or (2) a net that has been soaked with insecticide within the past 12 months

3.12.3 Prevalence, Diagnosis, and Prompt Treatment of Fever among Children

In moderately to highly endemic areas of malaria, acute clinical disease is almost always confined to young children who suffer high parasite densities. If untreated, this condition can progress very rapidly to severe malaria, which can lead to death. The diagnosis of malaria is based on clinical criteria and supplemented by the detection of parasites in the blood (parasitological or confirmatory diagnosis). Fever is a major manifestation of malaria in young children, although it also accompanies other illnesses. In Timor-Leste, artemisinin-based combination therapy (ACT) is the recommended first-line treatment for uncomplicated malaria.

In the 2016 TLDHS, for each child under age 5, mothers were asked if the child had experienced an episode of fever in the 2 weeks preceding the survey and, if so, whether treatment and advice were sought. Information was also collected about the type and timing of the treatment given.

Table 16 shows 13 percent of children under age 5 had a fever during the 2 weeks preceding the survey. The prevalence of fever was slightly higher among children in urban areas than children in rural areas (16 percent

and 12 percent, respectively). Advice or treatment was sought for 57 percent of children with a fever, and 25 percent had blood taken from a finger or heel for testing. Advice or treatment for fever was more likely to be sought for children in urban areas than for children in rural areas (68 percent and 51 percent, respectively). Among children with a fever who took any antimalarial drug, only 11 percent took ACT.

Table 16 Prevalence, diagnosis, and prompt treatment of children with fever

Percentage of children under age 5 with fever in the 2 weeks preceding the survey; among children under age 5 with fever, percentage for whom advice or treatment was sought and percentage who had blood taken from a finger or heel; and among children under age 5 with fever who took any antimalarial drug, percentage who took any artemisinin-based combination therapy (ACT), according to background characteristics, Timor-Leste DHS 2016

	Children under age 5		Children under age 5 with fever			Children under age 5 with fever who took any antimalarial drug	
Background characteristic	Percentage with fever in the 2 weeks preceding the survey	Number of children	Percentage for whom advice or treatment was sought[1]	Percentage who had blood taken from a finger or heel for testing	Number of children	Percentage who took any ACT	Number of children
Residence							
Urban	15.8	2,044	68.1	26.3	323	(4.0)	42
Rural	12.1	5,024	51.2	23.6	607	(17.0)	51
Municipality						*	
Aileu	15.9	271	66.8	33.9	43		0
Ainaro	12.5	358	46.1	15.9	45	*	1
Baucau	7.9	727	(56.0)	(11.9)	57	*	3
Bobonaro	8.6	617	53.6	27.1	53	*	8
Covalima	9.9	405	(68.4)	(40.7)	40	*	3
Dili	16.5	1,596	69.2	23.8	263	*	35
Ermera	14.1	664	26.5	9.0	94	*	16
Lautem	9.3	398	(57.5)	(23.8)	37	*	4
Liquiça	20.6	467	43.7	36.4	96	*	18
Manatuto	9.9	332	71.9	52.5	33	*	1
Manufahi	9.4	360	55.0	23.5	34	*	1
SAR of Oecussi	20.2	438	54.9	18.4	88	*	2
Viqueque	10.7	435	70.2	27.7	47	*	2
Wealth quintile							
Lowest	12.1	1,416	44.5	17.5	171	*	9
Second	10.4	1,444	51.2	23.8	150	*	24
Middle	15.0	1,389	54.4	21.5	208	*	11
Fourth	14.1	1,424	61.5	26.3	201	*	27
Highest	14.4	1,396	70.7	32.4	201	*	22
Total	13.2	7,068	57.1	24.5	930	11.1	93

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.
[1] Excludes advice or treatment from a traditional practitioner

3.13 HIV/AIDS AWARENESS, KNOWLEDGE, AND BEHAVIOR

3.13.1 Knowledge of HIV Prevention

The 2016 TLDHS included a series of questions that addressed respondents' knowledge of HIV prevention, their awareness of modes of HIV transmission, and behaviors that can prevent the spread of HIV.

Table 17 shows that 29 percent of women and 52 percent of men age 15-49 know that consistent use of condoms is a means of preventing the spread of HIV. Thirty-four percent of women and 54 percent of men know that limiting sexual intercourse to one faithful, uninfected partner can reduce the chances of contracting

HIV. Twenty-six percent of women and 47 percent of men know that both using condoms and limiting sexual intercourse to one uninfected partner are means of preventing HIV.

Across municipalities, there are some large differences in knowledge about the value of using condoms and limiting sexual intercourse to one uninfected partner. Knowledge that doing both—using condoms and limiting sexual intercourse to one uninfected partner—is a way to prevent HIV is lowest in Viqueque (6 percent among women and 13 percent among men) and highest in Dili (48 percent among women and 67 percent among men). Knowledge about HIV prevention methods among women and men increases with education and wealth.

Table 17 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting HIV by using condoms every time they have sexual intercourse and by having one sex partner who is not infected and has no other partners, according to background characteristics, Timor-Leste DHS 2016

	Percentage of women who say HIV can be prevented by:				Percentage of men who say HIV can be prevented by:			
Background characteristic	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Number of men
Age								
15-24	30.3	36.7	25.5	1,765	48.3	50.2	43.1	1,690
15-19	23.6	30.4	19.6	984	40.7	42.6	35.5	1,001
20-24	38.8	44.6	32.9	782	59.4	61.1	54.2	689
25-29	34.9	38.7	30.7	692	58.1	62.7	54.5	539
30-39	33.1	37.5	30.5	982	58.3	59.8	52.8	918
40-49	19.0	23.0	16.2	866	46.8	50.0	43.9	928
Residence Urban	51.8	58.6	45.7	1,427	71.7	73.1	65.0	1,374
Rural	18.3	22.5	15.7	2,878	41.3	44.2	37.8	2,701
Municipality Aileu	31.0	34.2	23.9	169	67.6	71.9	64.4	174
Ainaro	14.6	16.7	12.1	189	29.0	32.3	24.8	184
Baucau	22.2	25.5	20.3	421	53.6	51.4	48.2	388
Bobonaro	30.2	39.5	26.4	327	45.9	52.0	44.8	305
Covalima	21.9	29.3	19.1	262	23.4	26.2	20.4	234
Dili	54.8	60.8	48.3	1,105	74.9	74.4	67.1	1,098
Ermera	13.7	17.5	8.7	394	50.7	46.5	42.8	350
Lautem	24.0	33.4	21.8	219	36.9	39.8	35.7	188
Liquiça	21.3	25.5	17.9	280	62.1	69.0	59.7	255
Manatuto	18.2	21.6	14.9	187	33.2	40.1	30.1	177
Manufahi	26.7	30.3	26.0	215	38.9	46.9	36.4	225
SAR of Oecussi	21.5	24.9	20.1	250	53.9	53.1	50.0	212
Viqueque	6.9	9.3	5.9	287	13.4	26.3	13.4	285
Education No education	8.3	10.2	6.7	988	27.6	28.8	25.0	772
Primary	11.9	16.8	10.4	641	37.6	40.9	34.4	736
Secondary	34.7	41.0	30.1	2,194	57.1	59.0	51.0	2,063
More than secondary	72.0	77.8	64.1	481	85.8	91.0	82.5	504
Wealth quintile Lowest	9.2	9.4	7.6	692	29.9	31.6	26.2	648
Second	14.3	18.5	11.9	841	41.2	43.8	37.0	823
Middle	23.5	28.0	20.4	836	43.8	47.8	40.5	809
Fourth	32.5	40.3	28.5	941	60.4	61.2	55.2	844
Highest	58.2	65.1	51.4	995	73.9	76.7	68.1	950
Total 15-49	29.4	34.4	25.6	4,305	51.5	53.9	47.0	4,075

Men 50-59	na	na	na	na	36.3	39.4	32.7	547
Total 15-59	na	na	na	na	49.7	52.2	45.3	4,622

na = Not applicable
[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners

3.13.2 Comprehensive Knowledge about HIV Prevention among Young People

Table 18 shows comprehensive knowledge about HIV prevention among young people age 15-24. Comprehensive knowledge about HIV prevention is defined as knowing that both condom use and limiting sexual intercourse to one uninfected partner are HIV prevention methods, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about HIV transmission: that HIV can be transmitted by mosquito bites or by sharing food with a person who has HIV. Knowledge of how HIV is transmitted is crucial to enabling people to avoid HIV infection, and this is especially true for young people, who are often at greater risk because they may have shorter relationships with more partners or engage in other risky behaviors.

Table 18 shows that 8 percent of young women and 15 percent of young men have comprehensive knowledge about HIV. This is a slight decrease since the 2009-10 TLDHS where 12 percent of women and 20 percent of men reported comprehensive knowledge of HIV. Among both sexes, the proportion with comprehensive knowledge increases with age and education, and is positively associated with urban residence.

Table 18 Comprehensive knowledge about HIV prevention among young people

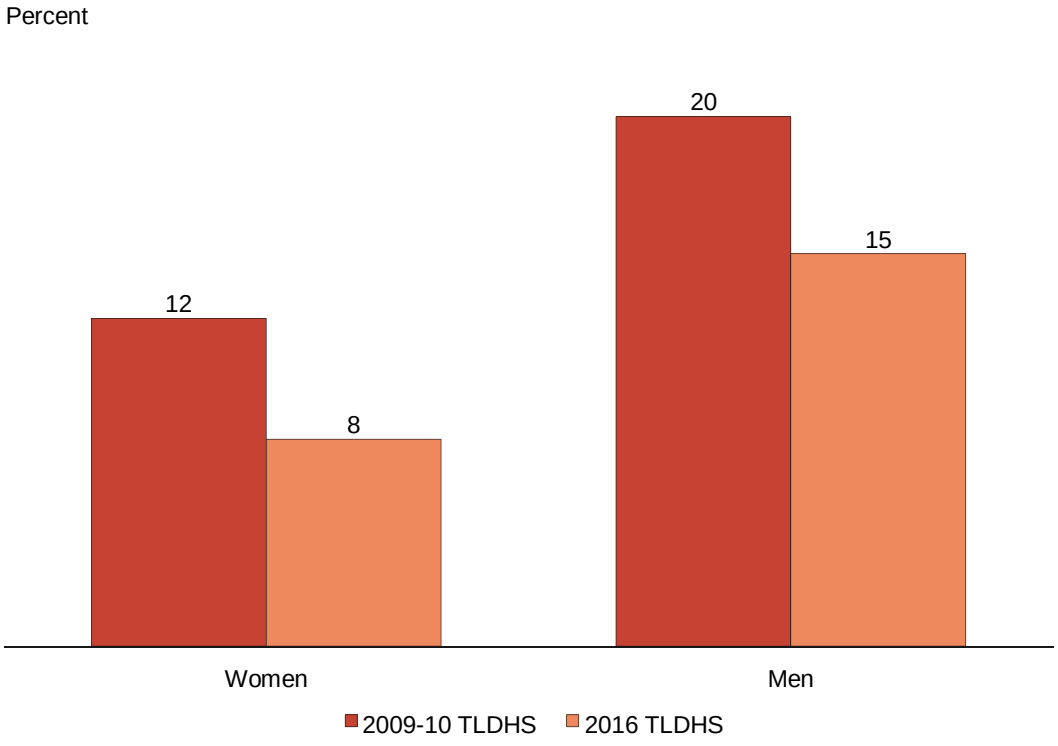
Percentage of young women and young men age 15-24 with comprehensive knowledge about HIV prevention, according to background characteristics, Timor-Leste DHS 2016

	Women age 15-24		Men age 15-24	
Background characteristic	Percentage with comprehensive knowledge about HIV prevention[1]	Number of women	Percentage with comprehensive knowledge about HIV prevention[1]	Number of men
Age 15-19				
	5.9	984	12.7	1,001
15-17	4.3	656	10.8	634
18-19	9.1	328	15.9	367
20-24	9.9	782	17.4	689
20-22	9.6	487	16.4	440
23-24	10.4	295	19.3	249
Marital status				
Never married	7.5	1,329	14.4	1,561
Ever had sex	(5.0)	41	22.6	323
Never had sex	7.6	1,288	12.2	1,237
Ever married	8.1	436	17.6	130
Residence Urban				
	12.6	656	23.2	609
Rural	4.8	1,109	9.8	1,081
Municipality Aileu				
	5.2	73	9.2	74
Ainaro	2.7	66	7.5	66
Baucau	1.9	168	10.9	176
Bobonaro	4.4	116	23.0	139
Covalima	8.0	100	6.3	91
Dili	12.9	511	21.6	474
Ermera	4.9	160	9.5	131
Lautem	16.1	88	12.3	74
Liquiça	10.0	136	16.7	113
Manatuto	6.2	69	14.1	70

Manufahi	5.9	96	4.3	102
SAR of Oecussi	0.0	65	23.1	62
Viqueque	1.4	117	5.6	117
Education No education	2.7	176	2.8	175
Primary	2.8	162	5.2	234
Secondary	6.3	1,226	16.1	1,172
More than secondary	24.4	202	37.7	109
Wealth quintile				
Lowest	2.5	241	7.4	234
Second	3.6	338	11.1	346
Middle	5.0	341	9.5	328
Fourth	8.7	414	18.4	374
Highest	14.8	431	22.3	408
Total 15-24	7.7	1,765	14.6	1,690

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Comprehensive knowledge about HIV prevention means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about transmission or prevention of HIV.

Figure 7 **Trends in comprehensive knowledge of HIV among young people, 2010-2016**



3.13.3 Multiple Sexual Partners

Information on sexual behavior is important in designing and monitoring intervention programs to control the spread of HIV. The 2016 TLDHS included questions on respondents' sexual partners during the 12 months preceding the survey and during their lifetime. Information was also collected on use of condoms at respondents' last sexual intercourse. These questions are sensitive, and it is recognized that some respondents

may have been reluctant to provide information on recent sexual behavior. Results are shown in Table 19.1 for women and Table 19.2 for men.

Overall, less than one percent of women age 15-49 reported that they had more than one partner in the past 12 months. Among women who had intercourse with someone who was not a husband nor a partner living with them, 21 percent reported using a condom during their last sexual intercourse with the person. The mean number of lifetime partners among all women who have ever had sexual intercourse is 1.8.

Three percent of all men age 15-49 reported that they had more than one partner in the past 12 months. Among men who had two or more partners in the past 12 months, 24 percent reported using a condom during their last sexual intercourse. Among those who had intercourse with a person who was neither their wife nor living with him, 30 percent reported using a condom at last sex with this person. The mean number of lifetime partners among all men who have ever had sexual intercourse is 2.5.

Table 19.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Women

Among all women age 15-49, percentage who had sexual intercourse with more than one sexual partner in the past 12 months, and percentage who had intercourse in the past 12 months with a person who was neither their husband nor lived with them; among those having more than one partner in the past 12 months, percentage reporting that a condom was used during last intercourse; among women age 15-49 who had sexual intercourse in the past 12 months with a person who was neither their husband nor lived with them, percentage who used a condom during last sexual intercourse with such a partner; and among women who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to background characteristics, Timor-Leste DHS 2016

	All women			Women who had 2+ partners in the past 12 months		Women who had intercourse in the past 12 months with a person who was neither their husband nor lived with them		Women who ever had sexual intercourse[1]	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had inter-course in the past 12 months with a person who was neither their husband nor lived with them	Number of women	Percentage who reported using a condom during last sexual inter-course	Number of women	Percentage who reported using a condom during last sexual inter-course with such a partner	Number of women	Mean number of sexual partners in lifetime	Number of women
Age					*				
15-24	0.1	1.2	5,149		7	26.5	62	1.8	1,350
15-19	0.0	0.7	2,985	*	1	*	21	1.6	255
20-24	0.3	1.9	2,165	*	6	(29.0)	42	1.8	1,095
25-29	0.3	1.2	2,011	*	7	(7.9)	23	1.7	1,585
30-39	0.5	0.7	2,913	*	14	*	21	1.8	2,623
40-49	0.4	0.2	2,534	*	10	*	5	1.7	2,339
Marital status									
Never married	0.1	1.5	4,615	*	4	21.8	71	1.4	170
Married/living together	0.4	0.4	7,697	(2.4)	35	(19.6)	31	1.8	7,452
Divorced/separated/ widowed	0.1	2.9	294	*	0	*	9	1.7	275
Residence Urban	0.3	1.0	4,182	*	14	(20.0)	42	1.5	2,198
Rural	0.3	0.8	8,425	(9.6)	25	20.9	68	1.8	5,699
Municipality				*		*			
Aileu	0.7	0.8	524		4		4	1.5	297
Ainaro	0.0	0.1	515	*	0	*	0	2.0	334
Baucau	0.1	0.4	1,288	*	1	*	5	1.1	841
Bobonaro	0.4	2.1	946	*	4	*	20	1.6	684
Covalima	0.3	0.0	750	*	2	*	0	1.8	502
Dili	0.2	1.0	3,206	*	7	*	32	1.2	1,662
Ermera	0.3	0.1	1,178	*	3	*	2	1.2	730
Lautem	0.6	1.1	645	*	4	*	7	4.9	420
Liquiça	0.3	0.7	757	*	2	*	5	1.0	492

Manatuto	0.2	0.2	555	*	1	*	1	2.4	370
Manufahi	0.6	3.6	676	*	4	(42.0)	24	1.2	452
SAR of Oecussi	0.4	0.9	778	*	3	*	7	1.6	579
Viqueque	0.6	0.3	791	*	5	*	3	3.8	533
Education No education	0.4	0.6	2,741	*	12	*	18	1.6	2,291
Primary	0.3	0.6	1,922	*	7	*	12	1.8	1,483
Secondary	0.3	0.9	6,561	(10.1)	20	26.3	56	1.9	3,413
More than secondary	0.1	1.7	1,383	*	1	*	24	1.3	710
Wealth quintile Lowest	0.2	0.8	2,085	*	5	*	17	1.5	1,469
Second	0.4	0.8	2,287	*	8	*	17	2.0	1,569
Middle	0.3	0.8	2,423	*	8	(18.7)	20	1.9	1,605
Fourth	0.3	1.0	2,771	*	7	(14.9)	28	1.8	1,648
Highest	0.4	0.9	3,041	*	11	(31.1)	29	1.5	1,607
Total	0.3	0.9	12,607	(6.2)	39	20.6	111	1.8	7,897

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.
[1] Means are calculated excluding respondents who gave non-numeric responses and outliers.

Table 19.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men

Among all men age 15-49, percentage who had sexual intercourse with more than one sexual partner in the past 12 months, and percentage who had intercourse in the past 12 months with a person who was neither their wife nor lived with them; among those having more than one partner in the past 12 months, percentage reporting that a condom was used during last intercourse; among men age 15-49 who had sexual intercourse in the past 12 months with a person who was neither their wife nor lived with them, percentage who used a condom during last sexual intercourse with such a partner; and among men who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to background characteristics, Timor-Leste DHS 2016

	All men			Men who had 2+ partners in the past 12 months		Men who had intercourse in the past 12 months with a person who was neither their wife nor lived with them		Men who ever had sexual intercourse[1]	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had inter-course in the past 12 months with a person who was neither their wife nor lived with them	Number of men	Percentage who reported using a condom during last sexual inter-course	Number of men	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of men	Mean number of sexual partners in lifetime	Number of men
Age									
15-24	2.6	14.8	1,690	(25.0)	45	27.0	250	2.2	416
15-19	0.8	8.2	1,001	*	8	29.8	82	2.3	112
20-24	5.3	24.3	689	(17.1)	36	25.7	168	2.2	304
25-29	3.9	21.0	539	*	21	33.1	113	3.1	405
30-39	4.4	11.0	918	(25.0)	40	31.3	101	2.5	776
40-49	1.8	2.7	928	*	16	(41.0)	25	2.2	827
Marital status									
Never married	3.0	20.4	2,043	(44.0)	61	29.9	417	2.6	560
Married/living together	2.8	2.9	2,003	5.4	56	36.7	59	2.4	1,837
Divorced/separated/ widowed	(16.7)	(49.2)	29	*	5	*	14	*	27
Residence Urban	4.5	20.0	1,374	35.5	62	37.2	274	2.7	838
Rural	2.2	8.0	2,701	(12.9)	60	20.8	215	2.3	1,586

Municipality Aileu				*					
	1.1	6.9	174		2	(39.7)	12	2.0	93
Ainaro	1.5	7.1	184	*	3	*	13	2.7	125
Baucau	5.7	14.0	388	*	22	(31.9)	54	1.6	219
Bobonaro	6.3	13.9	305	*	19	(26.3)	42	3.8	201
Covalima	1.9	4.2	234	*	4	*	10	1.3	88
Dili	3.8	20.1	1,098	*	42	40.3	221	2.7	689
Ermera	1.4	3.7	350	*	5	*	13	2.4	191
Lautem	2.4	7.4	188	*	5	*	14	2.5	122
Liquiça	2.4	13.7	255	*	6	(18.6)	35	2.6	170
Manatuto	1.5	4.0	177	*	3	*	7	1.4	96
Manufahi	0.1	17.2	225	*	0	9.5	39	1.5	143
SAR of Oecussi	4.3	10.6	212	*	9	(14.0)	23	2.9	140
Viqueque	0.6	2.6	285	*	2	*	7	3.1	148
Education No education	1.9	6.5	772	*	15	(14.1)	50	2.1	537
Primary	2.4	8.1	736	*	17	17.8	59	2.3	493
Secondary	3.1	12.9	2,063	26.7	64	33.1	267	2.4	989
More than secondary	5.2	22.5	504	(39.8)	26	36.3	113	3.4	405
Wealth quintile Lowest				*					
	2.3	5.8	648		15	(6.2)	38	2.3	401
Second	2.8	7.6	823	*	23	12.9	62	2.4	476
Middle	1.1	9.0	809	*	9	26.9	73	2.1	473
Fourth	3.0	15.1	844	(9.2)	25	30.9	128	2.4	487
Highest	5.3	19.9	950	(38.8)	50	41.0	189	2.9	587
Total 15-49	3.0	12.0	4,075	24.4	122	30.0	490	2.5	2,424
Men 50-59	0.5	2.3	547	*	3	*	13	2.4	492
Total 15-59	2.7	10.9	4,622	23.8	125	29.7	502	2.5	2,916

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

[1] Means are calculated excluding respondents who gave non-numeric responses and outliers.

3.14 COVERAGE OF HIV TESTING SERVICES

Knowledge of HIV status helps HIV-negative individuals make specific decisions to reduce risk and increase safer sex practices so that they can remain disease free. Among those who have HIV, knowledge of their status allows them to take action to protect their sexual partners and access treatment.

To assess awareness and coverage of HIV testing services, TLDHS respondents were asked if they had ever been tested for HIV. If they said that they had been tested, they were asked if they had received the results of their last test and where they had been tested. If they said they had never been tested, they were asked if they knew a place where they could go to be tested.

Tables 20.1 and 20.2 show that only a small percentage of respondents age 15-49 know of a place where they could get an HIV test, and this percentage is much smaller for women compared with men (7 percent of women and 26 percent of men). Knowledge of a place to get an HIV test was highest for women of urban residence, women in Aileu and in Dili, women with more than secondary education, and women in the highest wealth quintile. By comparison, men in urban households and in Aileu, Dili, Ermera, and Liquica were more likely to know where to get tested compared with their counterparts. As among women, knowledge of a place to get tested increased with education and wealth.

Tables 20.1 and 20.2 also show coverage of HIV testing services. Among respondents age 15-49, a majority have never been tested for HIV: 96 percent among both women and men. Most of those who had been tested said that they had received the results of the last test they took. Three percent of women and of men had ever been tested and had received the results of their last test. Less than 2 percent of women and men had been tested in the 12-month period preceding the survey and had been told the results of the last test they took.

Table 20.1 Coverage of prior HIV testing: Women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, percentage of women ever tested, and percentage of women who were tested in the past 12 months and received the results of the last test, according to background characteristics, Timor-Leste DHS 2016

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women/men by testing status and by whether they received the results of the last test: Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total	Percentage ever tested	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of women
Age								
15-24	6.1	1.3	0.9	97.8	100.0	2.2	0.8	1,765
15-19	4.5	0.2	0.7	99.1	100.0	0.9	0.0	984
20-24	8.1	2.6	1.3	96.1	100.0	3.9	1.7	782
25-29	10.0	4.3	2.8	93.0	100.0	7.0	1.6	692
30-39	8.0	4.1	1.2	94.7	100.0	5.3	1.9	982
40-49	4.2	2.1	0.3	97.6	100.0	2.4	1.0	866
Marital status Never married	5.1	0.7	0.7	98.5	100.0	1.5	0.4	1,567
Ever had sex	5.4	2.5	0.7	96.8	100.0	3.2	1.2	88
Never had sex	5.1	0.6	0.7	98.6	100.0	1.4	0.4	1,479
Married or living together	7.8	3.6	1.4	95.0	100.0	5.0	1.7	2,628
Divorced/separated/ widowed	6.1	3.8	1.6	94.6	100.0	5.4	1.0	110
Residence Urban	11.4	5.0	1.8	93.2	100.0	6.8	2.4	1,427
Rural	4.5	1.4	0.8	97.8	100.0	2.2	0.6	2,878
Municipality Aileu	14.8	3.6	0.9	95.5	100.0	4.5	2.9	169
Ainaro	5.4	2.6	0.8	96.6	100.0	3.4	1.2	189
Baucau	4.7	0.9	1.5	97.6	100.0	2.4	0.9	421
Bobonaro	8.0	3.7	0.9	95.4	100.0	4.6	1.7	327
Covalima	5.5	0.7	0.7	98.6	100.0	1.4	0.3	262
Dili	11.1	5.3	1.7	93.0	100.0	7.0	2.1	1,105
Ermera	4.2	0.0	1.1	98.9	100.0	1.1	0.0	394
Lautem	6.8	2.8	1.5	95.8	100.0	4.2	0.2	219
Liquiça	3.1	1.7	0.6	97.7	100.0	2.3	0.8	280
Manatuto	7.1	3.2	1.8	95.1	100.0	4.9	2.3	187
Manufahi	3.3	1.6	0.0	98.4	100.0	1.6	0.6	215
SAR of Oecussi	4.8	1.5	1.5	97.0	100.0	3.0	0.7	250
Viqueque	0.3	0.0	0.1	99.9	100.0	0.1	0.0	287
Education No education	1.3	0.4	0.1	99.6	100.0	0.4	0.4	988
Primary	3.0	1.1	1.0	97.9	100.0	2.1	0.4	641
Secondary	7.8	2.5	1.3	96.1	100.0	3.9	1.0	2,194
More than secondary	18.3	9.3	2.8	87.9	100.0	12.1	4.8	481
Wealth quintile Lowest	3.0	0.1	0.9	99.0	100.0	1.0	0.1	692
Second	3.3	0.7	0.6	98.6	100.0	1.4	0.5	841
Middle	5.2	1.1	1.4	97.5	100.0	2.5	0.4	836
Fourth	6.0	2.6	0.8	96.6	100.0	3.4	1.3	941
Highest	14.4	7.1	2.0	91.0	100.0	9.0	3.1	995
Total	6.8	2.6	1.2	96.3	100.0	3.7	1.2	4,305

[1] Includes *don't know/missing* responses

Table 20.2 Coverage of prior HIV testing: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, percentage of men ever tested, and percentage of men who were tested in the past 12 months and received the results of the last test, according to background characteristics, Timor-Leste DHS 2016

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women/men by testing status and by whether they received the results of the last test: Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total	Percentage who have been tested for HIV in the past 12 months and received the results of the last test: Percentage ever tested	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of men
Age								
15-24	21.3	1.1	0.9	98.0	100.0	2.0	0.7	1,690
15-19	16.7	0.5	1.0	98.5	100.0	1.5	0.3	1,001
20-24	27.8	2.0	0.8	97.2	100.0	2.8	1.3	689
25-29	32.1	4.1	0.8	95.1	100.0	4.9	3.0	539
30-39	28.9	4.1	1.1	94.8	100.0	5.2	2.2	918
40-49	27.8	3.1	1.5	95.4	100.0	4.6	1.9	928
Marital status								
Never married	24.6	2.0	0.9	97.1	100.0	2.9	1.3	2,043
Ever had sex	34.4	5.6	1.1	93.3	100.0	6.7	3.6	612
Never had sex	20.4	0.5	0.8	98.7	100.0	1.3	0.3	1,431
Married or living together	27.3	3.3	1.2	95.5	100.0	4.5	2.0	2,003
Divorced/separated/ widowed	(21.5)	(2.7)	(1.9)	(95.4)	100.0	(4.6)	(2.7)	29
Residence Urban	34.7	5.0	0.2	94.8	100.0	5.2	3.3	1,374
Rural	21.4	1.4	1.5	97.1	100.0	2.9	0.8	2,701
Municipality Aileu	37.8	2.5	4.0	93.5	100.0	6.5	2.0	174
Ainaro	20.4	3.3	0.6	96.1	100.0	3.9	1.8	184
Baucau	14.5	1.9	0.4	97.7	100.0	2.3	1.3	388
Bobonaro	28.7	5.6	0.2	94.2	100.0	5.8	3.4	305
Covalima	20.2	1.3	1.0	97.7	100.0	2.3	0.4	234
Dili	37.4	4.6	0.1	95.3	100.0	4.7	3.4	1,098
Ermera	38.0	0.0	0.0	100.0	100.0	0.0	0.0	350
Lautem	5.0	0.6	0.0	99.4	100.0	0.6	0.4	188
Liquiça	38.3	2.5	0.6	97.0	100.0	3.0	1.1	255
Manatuto	20.1	4.0	9.9	86.0	100.0	14.0	0.7	177
Manufahi	12.2	0.3	1.8	97.9	100.0	2.1	0.2	225
SAR of Oecussi	19.9	1.7	2.1	96.2	100.0	3.8	0.3	212
Viqueque	1.5	0.1	0.6	99.3	100.0	0.7	0.0	285
Education No education	14.4	0.3	0.4	99.4	100.0	0.6	0.3	772
Primary	16.4	1.0	0.7	98.3	100.0	1.7	0.5	736
Secondary	26.4	2.4	1.4	96.2	100.0	3.8	1.4	2,063
More than secondary	55.5	9.5	1.2	89.3	100.0	10.7	6.4	504
Wealth quintile Lowest	13.9	0.7	1.1	98.2	100.0	1.8	0.5	648
Second	22.9	1.0	1.8	97.2	100.0	2.8	0.3	823
Middle	22.1	1.9	0.7	97.4	100.0	2.6	1.1	809
Fourth	27.4	1.6	1.1	97.3	100.0	2.7	1.0	844
Highest	38.6	7.0	0.6	92.4	100.0	7.6	4.6	950

Total 15-49	25.9	2.6	1.1	96.3	100.0	3.7	1.6	4,075
Men 50-59	19.4	0.9	0.7	98.4	100.0	1.6	0.8	547
Total 15-59	25.1	2.4	1.0	96.5	100.0	3.5	1.5	4,622

Note: Figures in parentheses are based on 25-49 unweighted cases. [1]
Includes *don't know/missing* responses

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