



National Survey on NCDs & NCD Risk Factor Among Adults

and Availability & Readiness Of
NCD Services in Health Facilities

Timor-Leste 2023

Fact Sheet



World Health
Organization

Timor-Leste



FACT SHEET of NCD Risk Factors in Timor-Leste

FACT SHEETS

NCDs and NCD risk factors among adults, Timor-Leste 2023

The STEPS survey of noncommunicable disease (NCD) risk factors in Timor-Leste was carried out from Oct-Dec 2023.

The survey was a population-based survey of adults aged 18-69. A multi-stage stratified cluster sampling design was used to produce representative data for that age range in Timor-Leste.

A total of 3517 adults participated in the Step 1 and Step 2 with a response rate of 81.4%.

The number of participants attended in Step 3 was 3317 with a response rate of 76.7%.

Step 1: Tobacco use	Both Sexes	Males	Females
Percentage who currently smoke tobacco	42.8	74.7	14.9
	(38.2-47.5)	(67.5-80.8)	(11.2-19.5)
Percentage who currently smoke tobacco daily	30.2	57.4	6.4
	(25.6-35.1)	(48.8-65.6)	(4.6-8.9)
Percentage who currently use smokeless tobacco	26.0	15.4	35.3
	(21.4-31.2)	(10.9-21.2)	(27.7-43.8)
Percentage who currently use smokeless tobacco daily	3.8	5.3	2.5
	(2.4-6.1)	(2.9-9.8)	(1.4-4.5)
Percentage who currently use tobacco in any form (smoked and/ or smokeless)	60.0	77.5	44.6
	(55.0-64.7)	(72.1-82.2)	(37.9-51.6)
For those who smoke tobacco daily			
Average age started smoking (years)	18.2	17.5	23.6
	(17.7-18.8)	(16.8-18.2)	(19.7-27.6)
Percentage of daily smokers smoking manufactured cigarettes	87.8	86.9	94.5
	(81.1-92.4)	(79.6-91.9)	(86.6-97.1)
For those who currently smoke tobacco			
Percentage who noticed health warnings on cigarette packages during the past 30 days	27.2	26.2	31.5
	(19.8-36.2)	(18.9-35.2)	(16.5-51.6)
Percentage who saw health warnings on cigarette packages during the past 30 days and thought of quitting	33.4	32.7	35.2
	(18.2-53.2)	(15.8-55.9)	(10.0-72.6)

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Percentage exposed to second hand smoke at home	80.6	85.2	76.6
	(76.8-83.9)	(80.5-88.9)	(70.1-82.1)
Percentage exposed to second hand smoke at work place	52.1	61.3	44.1
	(43.2-60.9)	(51.8-70.1)	(35.2-53.5)
Percentage currently using electronic cigarettes	2.4	4.3	0.8
	(1.1-5.4)	(1.9-9.6)	(0.1-4.7)
Step 1: Alcohol consumption	Both Sexes	Males	Females
Percentage who are lifetime abstainers	45.4	25.3	62.9
	(38.2-52.7)	(20.5-30.8)	(53.3-71.6)
Percentage who are past 12-month abstainers	9.8	8.5	10.9
	(5.9-15.7)	(5.7-12.5)	(5.6-20.0)
Percentage who are currently drink (drank alcohol in the past 30 days)	28.6	45.9	13.4
	(25.2-32.2)	(40.2-51.7)	(9.6-18.4)
Percentage who engage in heavy episodic drinking (6 or more drinks on any occasion in the past 30 days)	3.7	5.0	2.6
	(2.6-5.2)	(3.0-8.1)	(1.2-5.2)
Step 1: Tobacco smoking and alcohol			
Percentage who are currently drink (drank alcohol in the past 30 days) and also are also current smokers	20.1	40.1	2.6
	(17.5-22.9)	(35.0-45.4)	(1.3-5.1)
Step 1: Diet			
Mean number of days fruit consumed in a typical week	2.5	2.4	2.6
	(2.3-2.7)	(2.2-2.5)	(2.4-2.9)
Mean number of servings of fruit consumed on average per day	1.1	1.1	1.2
	(1.0-1.3)	(0.9-1.2)	(1.0-1.3)
Mean number of days vegetables consumed in a typical week	6.6	6.6	6.6
	(6.4-6.7)	(6.4-6.7)	(6.4-6.7)
Mean number of servings of vegetables consumed on average per day	4.2	4.1	4.2
	(4.0-4.4)	(3.9-4.3)	(3.9-4.5)
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	46.7	49.3	44.6
	(41.1-52.4)	(43.3-55.2)	(37.3-52.1)



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Percentage who always or often add salt or salty sauce to their food before eating or as they are eating	74.8	78.4	71.7
	(64.1-83.2)	(67.9-86.1)	(60.3-80.9)
Percentage who always or often eat processed foods high in salt	6.8	7.0	6.6
	(5.1-9.0)	(4.6-10.6)	(4.5-9.6)
Percentage who knew the WHO recommendation of maximum intake of salt as less than 5g/day	0.7	0.4	1.1
	(0.3-1.6)	(0.1-0.9)	(0.5-2.5)
Step 1: Physical activity			
Percentage with insufficient physical activity (defined as < 150 minutes of moderate-intensity activity per week, or equivalent)	35.7	42.3	30.1
	(32.5-39.1)	(37.4-47.3)	(24.4-36.4)
Median time spent in physical activity on average per day (minutes) (presented with inter-quartile range)	102.9	85.7	120.0
	(0.0-214.3)	(0.0-240.0)	(25.7-205.7)
Percentage not engaging in vigorous activity	65.2	52.6	76.2
	(59.9-70.1)	(44.8-60.2)	(71.0-80.7)
Step 1: Cervical cancer screening	Both Sexes	Males	Females
Percentage of women aged 30-49 years who have ever had a screening test for cervical cancer			0.6
			(0.2-1.8)
Step 2: Physical measurements			
Mean body mass index - BMI (kg/m2)	21.8	21.3	22.3
	(21.4-22.2)	(20.9-21.6)	(21.6-22.9)
Percentage who are overweight (BMI ≥ 25 kg/m2)	18.1	12.4	23.4
	(14.4-22.6)	(9.1-16.7)	(17.9-29.9)
Percentage who are obese (BMI ≥ 30 kg/m2)	3.4	1.7	4.9
	(1.7-6.5)	(0.7-3.9)	(2.3-10.0)
Average waist circumference (cm)		77.1	80.3
		(75.4-78.8)	(78.8-81.8)
Mean systolic blood pressure - SBP (mmHg), including those currently on medication for raised BP	122.7	122.9	122.6
	(120.4-125.1)	(120.0-125.8)	(119.8-125.4)

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Mean diastolic blood pressure - DBP (mmHg), including those currently on medication for raised BP	79.2	78.7	79.7
	(78.2-80.2)	(77.1-80.3)	(78.8-80.6)
Percentage with raised BP (SBP $\geq$ 140 and/or DBP $\geq$ 90 mmHg or currently on medication for raised BP)	22.3	18.2	25.9
	(19.7-25.1)	(15.6-21.0)	(21.0-31.4)
Aware - Percentage who were aware of having hypertension among those with raised BP (SBP $\geq$ 140 and/or DBP $\geq$ 90 mmHg or currently on medication for raised BP)	49.1	64.0	37.9
	(39.2-59.0)	(48.3-77.3)	(30.4-46.0)
Treatment - Percentage who were on treatment for hypertension among those with raised BP (SBP $\geq$ 140 and/or DBP $\geq$ 90 mmHg or currently on medication for raised BP)	13.3	11.5	14.6
	(7.3-22.9)	(6.0-20.9)	(6.5-29.6)
Controlled - Percentage who recorded SBP<140 and DBP <90 mmHg among those whose with raised BP (SBP $\geq$ 140 and/or DBP $\geq$ 90 mmHg or currently on medication for raised BP)	4.0	6.0	2.5
	(1.8-8.7)	(2.3-15.2)	(1.1-5.8)
Step 3: Biochemical measurements	Both Sexes	Males	Females
Mean fasting blood glucose, including those currently on medication for raised blood glucose (mg/dl)	84.9	85.4	84.4
	(81.1-88.6)	(79.9-90.9)	(80.1-88.7)
Percentage with impaired fasting glycaemia defined as having capillary whole blood value $\geq$ 5.6 mmol/L (100 mg/dl) and <6.1 mmol/L (126 mg/dl)	5.0	2.6	7.2
	(3.4-6.7)	(0.9-4.3)	(4.0-10.4)
Percentage with raised fasting blood glucose (defined as having capillary whole blood value $\geq$ 6.1 mmol/L (126 mg/dl)) or currently on medication for raised blood glucose	5.3	5.5	5.1
	(3.8-7.3)	(3.4-9.0)	(3.0-8.4)
Aware -Percentage who were aware of having diabetes among those with raised blood sugar (126 mg/dl) or currently on medication for raised blood sugar	20.0	9.3	28.7
	(9.6-37.0)	(2.0-34.2)	(14.6-48.6)
Treatment - Percentage who were on treatment for diabetes among those with raised blood sugar (126 mg/dl) or currently on medication for raised blood sugar	12.3	2.1	20.7
	(4.3-30.7)	(0.6-6.9)	(8.2-43.2)



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Mean total blood cholesterol, including those currently on medication for raised cholesterol (mg/dl)	141.3	132.1	149.6
	(137.4-145.2)	(125.9-138.3)	(144.4-154.8)
Percentage with raised total cholesterol (≥ 5.0 mmol/L or ≥ 190 mg/dl or currently on medication for raised cholesterol)	13.8	10.1	17.1
	(11.1-17.0)	(6.8-14.6)	(13.4-21.6)
Cardiovascular disease (CVD) risk	Both Sexes	Males	Females
Percentage aged 40-69 years with a 10-year CVD risk $\geq 20\%$ or with existing CVD	3.4	4.7	1.9
	(1.4-8.0)	(1.5-13.8)	(0.7-5.1)
Summary of combined risk factors			
Current daily smokers			
Less than 5 servings of fruits & vegetables per day			
Insufficient physical activity			
Overweight (BMI ≥ 25 kg/m ²)			
Raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg) or currently on medication for raised BP			
Percentage with none of the above risk factors	8.2	3.7	12.2
	(5.5-12.0)	(2.1-6.3)	(7.6-19.0)
Percentage with three or more of the above risk factors, among aged 18 to 44 years	20.6	27.5	14.9
	(15.9-26.3)	(21.7-34.1)	(8.6-24.6)
Percentage with three or more of the above risk factors, among aged 45 to 69 years	29.0	36.2	21.0
	(21.5-37.9)	(28.3-45.0)	(12.6-32.9)
Percentage with three or more of the above risk factors, among aged 18 to 69 years	23.0	30.2	16.5
	(18.7-27.8)	(25.2-35.7)	(11.2-23.6)

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Road safety	Both Sexes	Males	Females
Percentage involved in a road traffic accident (as a driver, passenger, pedestrian, cyclist) in the past 12 months	13.0	15.7	10.7
	(8.2-19.9)	(9.2-25.3)	(6.4-17.2)
Percentage who always wore a seat belt as a driver or passenger of a motor vehicle in past 30 days	14.6	17.2	12.4
	(10.2-20.6)	(11.1-25.5)	(8.0-18.6)
Percentage who always wore a helmet as a passenger on a motorcycle or motor-scooter in past 30 days	81.4	84.4	78.7
	(75.8-86.0)	(79.4-88.4)	(71.7-84.4)
Vision and hearing			
Percentage who ever had vision/eyes checked by a doctor or other health worker	12.0	10.6	13.3
	(9.4-15.3)	(7.4-15.1)	(9.1-18.9)
Percentage who ever had hearing checked by a doctor or other health worker	3.6	2.5	4.6
	(2.0-6.4)	(1.2-5.1)	(2.4-8.4)
Oral Health			
Ever visited a dentist	17.8	17.5	18.0
	(15.1-20.8)	(14.1-21.6)	(13.8-23.1)
Percentage daily cleaning of teeth	86.3	88.6	84.2
	(80.3-90.7)	(82.6-92.8)	(77.6-89.2)

Household Energy use	Households
Percentage households primarily cooking with clean fuels and technology	44.2
	(33.6-55.4)
Household use of iodized salt	Households
Percentage of households using salt with adequate concentration of iodine (>=15ppm)	92.8
	(88.3-95.6)



FACT SHEET of NCD Risk Factors in Timor-Leste

The information related to NCD costs was administered to the respondents of the STEP1 questionnaire who also reported as suffering from one or more of the major NCDs (Hypertension, Diabetes, Ischemic Heart Diseases, Chronic lung diseases, Chronic kidney diseases, Cancer, Stroke). A total of 388 adults responded as suffering from one or more of the major NCDs specified.

Based on the self reported direct (medical and non-medical) and indirect costs incurred following information related to out of pocket expenditure (OOPE) were analyzed.

- Mean OOPE (medical and non-medical) and indirect] (in USD) on hospitalization due to NCD in the past 12 months (n=107)
- Mean OOPE (direct (medical and non-medical) and indirect) in USD) on outpatient care due to NCDs in the past one month (n=292)
- % population with catastrophic OOPE due to NCDs (whose annual out of pocket expenditure on NCDs greater than 10 percent of their annual household income) among population aged 18-69 years.

Non communicable diseases costs	Both Sexes	Males	Females
Percentage who reported as suffering from one or more of the major NCDs (Hypertension, Diabetes, Ischemic Heart Diseases , Chronic lung diseases, Chronic kidney diseases, Cancer, Stroke)	12.6	11.1	13.9
	(10.4-15.3)	(9.0-13.7)	(10.3-18.6)
	(22.9-49.4)	(19.7-62.8)	(18.9-48.8)
Mean out of pocket expenditure [direct (medical and non-medical) and indirect] on hospitalization due to NCD in the past 12 months (in USD)	43.0	78.9	12.4
	(0.0-86.4)	(0.0-176.0)	(0.0-27.3)
Mean out of pocket total expenditure (direct (medical and non-medical) and indirect) on outpatient care due to NCDs in the past one month (in USD)	22.1	12.4	27.3
	(6.0-38.2)	(0.0-26.4)	(4.5-50.1)
% population with catastrophic out of pocket total expenditure due to NCDs (whose annual out of pocket expenditure on NCDs greater than 10 percent of their annual household income) among population aged 18-69 years	1.9	1.1	2.5
	(1.0-3.3)	(0.6-2.2)	(1.2-5.3)

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Availability and readiness of NCD services in health facilities, Timor-Leste 2023

Facilities surveyed

Health Posts with doctors	45
CHC 1 and 2	22 (out of 61) (36% of the CHC1 and 2 in the country)
CHC 3	7 (out of 9) (78% of the CHC 3 in the country)
Referral Hospitals	5 (all)
National Hospital	1

General infrastructure	Infrastructure	Health Post (N=45)	Community Health Centre -1 & 2 (N=22)	Community Health Centre-3 (N=7)	Referral Hospital (N=5)	National Hospital (N=1)
Communication	Availability of email or internet access within the facility	55.6	81.8	5	5	1
Power	Availability of electricity	97.8	100.0	7	5	1
Water and sanitation	Availability of Drinking water for patients at all times when open for services	15.6	27.3	4	5	1
	Availability of toilet on the premises that is accessible for patients	91.1	86.4	6	4	1
Emergency transport	Availability of multifunctional vehicle for emergency transportation either stationed or that the facility can call for	NR	100.0	7	4	1
	Availability of ambulance for emergency transportation either stationed or that the facility can call for	NR	NR	7	4	1



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General infrastructure	Infrastructure	Health Post (N=45)	Community Health Centre -1 & 2 (N=22)	Community Health Centre-3 (N=7)	Referral Hospital (N=5)	National Hospital (N=1)
Availability of NCD related services	Availability of basic laboratory services	NR	NR	7	5	1
NR - not relevant as the facility is not assigned to provide the service						

General infrastructure	Service Delivery	Health Post (N=45)	Community Health Centre -1 & 2 (N=22)	Community Health Centre-3 (N=7)	Referral Hospital (N=5)	National Hospital (N=1)
Integrated screening for NCDs	Integrated screening for NCDs					
	Availability of screening and services for Diabetes, Hypertension, CVD cardiovascular diseases and chronic respiratory disease	55.6	68.2	7	2	1
	Availability of any cancer screening/related services	11.1	18.2	2	2	1
Follow up and management services for NCDs	NCD Follow up and management services					
	For patients with hypertension	NR	NR	6 for long-term patients of IHD, 5 for long-term patients of stroke, 2 for long-term patients of PAD	2	1
	For patients with diabetes	NR	NR	5	2	1

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General infrastructure	Service Delivery	Health Post (N=45)	Community Health Centre -1 & 2 (N=22)	Community Health Centre-3 (N=7)	Referral Hospital (N=5)	National Hospital (N=1)
	For patients with chronic respiratory diseases	NR	NR	7	2	1
	NR - not relevant as the facility is not assigned to provide the service					
Availability of NCD related services	Service availability					
Management of acute complications of NCDs	Availability of services for managing acute coronary event-myocardial infarction(heart attack), angina	NR	NR	NR	2	1
	Availability of services for managing acute heart failure	NR	NR	NR	2	1
	Availability of services for managing Acute stroke	NR	NR	5	2	1
	Availability of services for managing acute exacerbations of asthma and chronic obstructive pulmonary diseases	NR	NR	7	2	1
	Availability of services for managing acute coronary event-myocardial infarction(heart attack), angina	NR	NR	NR	2	1
	Availability of services for managing acute heart failure	NR	NR	NR	2	1
	Availability of services for managing Acute stroke	NR	NR	5	2	1



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General infrastructure	Service Delivery	Health Post (N=45)	Community Health Centre -1 & 2 (N=22)	Community Health Centre-3 (N=7)	Referral Hospital (N=5)	National Hospital (N=1)
	NR - not relevant as the facility is not assigned to provide the service					
Mental health services	Availability of mental health promotion in the community	NR	NR	5	1	1
	Availability of services for follow up of patients diagnosed with mental illnesses to check on continuation of treatment	46.7	77.3	5	1	1
	Availability of services for screening and proactive case finding of psychosis, depression, and anxiety disorders	NR	NR	3	1	1
	Availability of screening services for detection of dementia	NR	NR	3	1	1
	Availability of services for diagnosis and management of depression	NR	NR	4	1	1
	Availability of mental health promotion in the community	NR	NR	5	1	1
	Availability of services for follow up of patients diagnosed with mental illnesses to check on continuation of treatment	46.7	77.3	7	1	1
	NR - not relevant as the facility is not assigned to provide the service					

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General infrastructure	Service Delivery	Health Post (N=45)	Community Health Centre -1 & 2 (N=22)	Community Health Centre-3 (N=7)	Referral Hospital (N=5)	National Hospital (N=1)
Oral health services	Oral health services					
	Availability of services for identifying common dental problems requiring interventions	33.3	63.6	6	5	1
Eye care services	Eye care services					
	Availability of services for identification and referral of suspected conjunctivitis	84.4	86.4	5	5	1
	Availability of services for early identification of visual problems (e.g. cataract, glaucoma, eye tumour)	44.4	54.5	3 for cataract, 4 for glaucoma, 2 for eye tumour	4 for cataract, 4 for glaucoma, 3 for eye tumour	1
	Availability of emergency care for eye trauma	48.9	45.5	NA	NA	NA
	NA - not assessed, NR - not relevant as the facility is not assigned to provide the service					
Readiness to offer selected key NCD services	Readiness (Over all readiness score)	HP	CHC 1 & 2	CHC 3	RH	NH
	Integrated Screening for NCDs	42	56	80	57	00
	Screening for Chronic respiratory disease	59	62	75	58	100
	Follow-up and management of hypertension	NR	NR	78	68	81
	Follow-up and management of diabetes	NR	NR	73	63	96
	Follow-up and management of	NR	NR	76	72	100



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General infrastructure	Service Delivery	Health Post (N=45)	Community Health Centre -1 & 2 (N=22)	Community Health Centre-3 (N=7)	Referral Hospital (N=5)	National Hospital (N=1)
	chronic respiratory disease					
As a score based on the availability of key tracer items to offer the services under the domains of	NA - not assessed NR - not relevant as the facility is not assigned to provide the service					

the 1990s, the number of people in the world who are under 15 years of age is expected to increase by 1.5 billion, from 1.2 billion in 1990 to 2.7 billion in 2010.

As the world's population grows, the demand for food and other resources will increase. The world's population is expected to reach 9 billion by 2050, and the demand for food will increase by 50% by 2030.

The world's population is also becoming more urban. In 1990, 54% of the world's population lived in urban areas. By 2010, this is expected to increase to 69%.

The world's population is also becoming more diverse. In 1990, 54% of the world's population was of European descent. By 2010, this is expected to decrease to 44%.

The world's population is also becoming more educated. In 1990, 54% of the world's population was illiterate. By 2010, this is expected to decrease to 44%.

The world's population is also becoming more mobile. In 1990, 54% of the world's population lived in rural areas. By 2010, this is expected to decrease to 44%.

The world's population is also becoming more affluent. In 1990, 54% of the world's population lived on less than \$2 a day. By 2010, this is expected to decrease to 44%.

The world's population is also becoming more healthy. In 1990, 54% of the world's population lived in poor health. By 2010, this is expected to decrease to 44%.

The world's population is also becoming more environmentally conscious. In 1990, 54% of the world's population was not concerned about the environment. By 2010, this is expected to decrease to 44%.

The world's population is also becoming more technologically advanced. In 1990, 54% of the world's population did not have access to electricity. By 2010, this is expected to decrease to 44%.

The world's population is also becoming more socially responsible. In 1990, 54% of the world's population did not care about social issues. By 2010, this is expected to decrease to 44%.

The world's population is also becoming more environmentally friendly. In 1990, 54% of the world's population did not care about the environment. By 2010, this is expected to decrease to 44%.

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