# F **Noncommunicable diseases** risk behaviours among adults in the South-East Asia Region | Findings from STEPS and GATS





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Naveen Agarwal coordinated overall publication work, conceptualization and reporting the survey results and performed all data management; Arpita Mehta led the data collection and validation of results.

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## Message from the Regional Director WHO South-East Asia Region



Noncommunicable diseases (NCDs) are a major killer in the WHO South-East Asia Region. NCDs claim the lives of an estimated 8.5 million people every year, accounting for 62% of overall deaths and 48% of all premature deaths (deaths before the age of 70 years) in the Region. Prevention and control of NCDs is the major priority to prevent premature deaths and to reduce related health-care costs.

Four modifiable lifestyle-related risk behaviours – namely tobacco use, unhealthy diet, insufficient physical activity and harmful use of alcohol are responsible for the majority of NCDs in the WHO South-East Asia Region. There are about 246 million smokers and over 290 million smokeless tobacco users. Of total population, 80%

does not consume the recommended five portions of fruits and vegetables a day. In addition, 35–61% of males and 63–89% of females do not engage in vigorous physical activities.

The behavioral risk factors described above lead to four metabolic risk factors for NCDs, which are overweight/obesity, high blood pressure, raised blood sugar and abnormal blood lipids – quite prevalent in the populations of our Region. The prevalence of overweight varies from 8% to 30% among men and 8% to 52% among females. Approximately one third of the adult population suffers from hypertension. The prevalence of raised blood sugar in adults aged 25 years and above ranges from 6.6% to 12.2% in the Region. The prevalence of raised cholesterol in the adult population is as high as 50% in some Member States.

With an understanding of the raising trends of NCDs, WHO has been monitoring the situation very closely. This publication, '*Noncommunicable diseases risk behaviours among adults in the South-East Asia Region: Findings from STEPS and GATS*', was developed based on the results of the Global Adult Tobacco Surveys (GATS) and the WHO STEPwise approach to noncommunicable disease risk factor surveillance (STEPS). GATS is a nationally representative household survey on tobacco use while STEPS is the WHO's recommended tool for surveillance of chronic noncommunicable diseases and risk factors among adults. Both provide an entry point for low- and middle-income countries to get started on surveillance activities on NCDs.

The evidence contained in this publication, which includes data on adult health risks, both behavioural and metabolic risk factors, will help inform governments, policy-makers and other stakeholders on how to better prevent and control the NCD epidemic. Alongside renewing political commitment and strengthening alliances, we must increase public awareness on issues related to noncommunicable diseases and the need to avoid risky behaviours that enhance the likelihood of contracting NCDs and leading to premature death. Not only will this ensure physical, mental and social well-being of our people, but will also lead to a more productive workforce and healthier population in the South-East Asia Region.

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Dr Poonam Khetrapal Singh Regional Director WHO South-East Asia Region

#### Introduction

This publication, entitled 'Noncommunicable diseases risk behaviours among adults in the South-East Asia Region: Findings from STEPS and GATS', conveys the most recent quantitative surveillance results focusing on noncommunicable disease (NCDs)-related risk behaviours among adults from the WHO STEPwise approach to NCD risk factor surveillance (STEPS) and tobacco use among adults from the Global Adult Tobacco Survey (GATS) in Member States of the WHO South-East Asia Region.

STEPS is a WHO recommended tool for surveillance of risk factors related to NCDs. The survey results provide an entry point for low- and middle-income countries to get started on NCD surveillance activities. It is also designed to help countries build and strengthen their capacity to conduct surveillance. Different countries use different age groups for STEPS, depending on the country context.

STEPS is conducted as a sequential process. First, it gathers the information on risk factors with a standard core and expended questions with optional items to gather the information on basic demographic information, tobacco use, alcohol consumption, fruit and vegetable consumption, salt intake, physical activity, history of raised blood pressure, diabetes, raised total cholesterol and cardiovascular disease, life-style advice, cervical cancer screening, mental health, oral health, sexual health, tobacco policy, and violence and injury. Second, it conducts simple physical measurements to measure blood pressure, height and weight, and waist circumference. And third, it collects urine and blood samples for biochemical analysis to measure fasting blood sugar, total cholesterol and urinary sodium and creatinine.

This publication contains data from STEPS surveys for Bangladesh (2010) for age group 25 years and above, Bhutan (2014), Sri Lanka (2015) and Timor-Leste (2014) for age group 18–69 years, Malé, Maldives (2011) for age group 15–64 years, Myanmar (2014) for age group 25–64 years and Nepal (2013) for age group 15–69 years.

GATS is a component of the Global Tobacco Surveillance System (GTSS), which is a global standard protocol for systematically monitoring adult tobacco use, covering both smoking and smokeless tobacco products, and tracking key tobacco control indicators. GATS is a nationally representative school-based survey of adults, 15 years of age and older, and is designed to produce cross-sectional estimates for each country with the aim of supporting capacity of countries for the designing, implementation and evaluation of tobacco control policies. It is also an important tool to assist countries in supporting WHO MPOWER, a package of six evidence-based demand reduction measures contained in the WHO Framework Convention on Tobacco Control (WHO FCTC).

GATS uses a standard core questionnaire with a set of optional questions on tobacco use and key tobacco control indicators that permit adaptation to meet the needs of the country. The GATS interview consists of two parts: the Household Questionnaire (household screening) and the Individual Questionnaire (individual interview); it is conducted using an electronic data collection device. The Household Questionnaire is used to determine if the selected household. Once the roster of eligible residents of the household is completed, one individual is randomly selected to complete the Individual Questionnaire. The Individual Questionnaire asks questions about background characteristics; tobacco smoking; smokeless tobacco; cessation; secondhand smoke; economics; media; and knowledge, attitudes, and perceptions about tobacco. This publication contains data from GATS for Bangladesh (2009), India (2009–2010), Indonesia (2011) and Thailand (2011) for age group 15 years and older.

This publication contains selected indicators relating to tobacco use and other related risk behaviours of adults in Member States of the WHO South-East Asia Region. The tobacco indicators are taken from GATS or STEPS and other indicators relating to risk behaviours (history– dietary behaviours, physical activity, alcohol use, cervical cancer screening; physical measurements – body mass index, blood pressure, waist circumference; biochemical measurements – fasting blood glucose level, blood glucose level 2 hours after glucose load, total blood cholesterol, urine sodium and urine creatinine) are taken from STEPS. The latest findings from surveys conducted in Member States are presented in the publication.

The target audience includes governments, policy-makers, development partners, civil society and nongovernmental organizations, academics, researchers, and other stakeholders who are contributing to health and other related policies and programmes concerning NCDs.



Indicators presented with both infographics and data tables

Indicators presented with data tables only

Indicators collected in GATS and STEPS but not presented in this publication



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Results for adults aged 25+ years (including 95% CI)	Overall	Males	Females
TEP 1: Tobacco use <sup>b</sup>			
Percentage who currently smoke tobacco	<b>23.0%</b> (21.9–24.2)	<b>44.7%</b> (42.5–47.0)	<b>1.5%</b> (1.1–2.1)
Percentage who currently smoke tobacco daily	<b>20.9%</b> (19.8–22.0)	<b>40.7%</b> (38.5–42.9)	<b>1.3%</b> (0.9–1.9)
Percentage who currently use smokeless tobacco	<b>27.2%</b> (25.5–28.9)	<b>26.4%</b> (24.2–28.6)	<b>27.9%</b> (25.9–30.0)
ercentage who currently use smokeless tobacco daily	<b>23.7%</b> (22.1–25.3)	<b>20.7%</b> (18.7–22.9)	<b>26.6%</b> (24.7–28.6)
ercentage who currently use tobacco in any form (smoked and/or smokeless)	<b>43.3%</b> (41.7–45.0)	<b>58.0%</b> (55.9–60.1)	<b>28.7%</b> (26.7–30.8)
verage age started smoking (years) for daily users	<b>18.8</b> (18.4–19.2)	<b>18.4</b> (18.1–18.8)	<b>26.5</b> (21.6–31.3)
Percentage of current smokers smoking manufactured cigarettes	<b>14.1%</b> (13.2–15.2)	<b>28.3%</b> (26.3–30.4)	*
Percentage of current smokers smoking bidis	<b>11.2</b> (10.0–12.4)	<b>21.4</b> (19.2–23.7)	<b>1.1</b> (0.7–1.5)
lean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	<b>5.1</b> (4.6–5.6)	<b>5.2</b> (4.7–5.7)	<b>0.8</b> (0.2–1.4)
Percentage of adults exposed to second—hand smoke at work during the past 30 days	<b>63.0%</b> (59.2–66.7)	<b>67.8%</b> (63.7–71.6)	<b>30.4%</b> (24.1–37.6)
Percentage of adults exposed to second-hand smoke in public places (in any of these places : government buildings, health care facilities, restaurants, public transportation, etc.) luring the past 30 days	<b>45.0%</b> (43.4–46.5)	<b>69.4%</b> (67.0–71.6)	<b>20.8%</b> (19.1–22.7)
Percentage of current smokers who have made an attempt to quit in past 12 months	<b>47.3%</b> (43.9–50.8)	<b>47.8%</b> (44.4–51.3)	<b>31.5%</b> (18.4–48.4)
ercentage of current smokers advised by a health care provider to quit smoking in past 12 months	<b>52.9%</b> (47.0–58.6)	<b>52.7%</b> (46.8–58.5)	*
TEP 1: Alcohol Consumption °			
ercentage who are lifetime abstainers	<b>94.4</b> (92.4–96.4)	<b>99.8</b> (90.0–91.8)	<b>91.0</b> (99.6–99.9)
Percentage who currently drink (drank alcohol in the past 30 days)	<b>0.9%</b> (0.8–1.2)	<b>1.5%</b> (1.1–1.9)	**
vercentage who engage in heavy episodic drinking (men who had 5 or more / women who had 4 or nore drinks on any day in the past 30 days)	<b>66.7%</b> (55.9–75.9)	<b>66.7%</b> (55.5–76.2)	**
STEP 1: Diet °			
Aean number of days fruit consumed (in a typical week)	<b>1.8</b> (1.8–1.9)	<b>1.7</b> (1.6–1.7)	<b>1.9</b> (1.9–2.0)
lean number of servings of fruit consumed on average per day (in a typical week)	<b>1.7</b> (1.5–1.8)	<b>1.4</b> (1.3–1.6)	<b>1.9</b> (1.7–2.2)
lean number of days vegetables consumed (in a typical week)	<b>6.1</b> (6.1–6.1)	<b>5.7</b> (5.7–5.8)	<b>6.4</b> (6.4–6.4)
lean number of servings of vegetables consumed on average per day (in a typical week)	<b>2.3</b> (2.2–2.4)	<b>2.1</b> (2.0–2.2)	<b>2.5</b> (2.3–2.7)
ercentage who ate less than 5 servings of fruit and/or vegetables on average per day in a typical week)	<b>95.7%</b> (95.3–96.1)	<b>97.6%</b> (97.1–98.0)	<b>94.1%</b> (93.4–94.8)



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<b>Results for adults aged 25+ years</b> (including 95% CI)	Overall	Males	Females
STEP 1: Physical activity °			
Percentage with low levels of activity (defined as <600 MET–minutes per week)***	<b>27.0%</b> (25.9–28.1)	<b>10.5%</b> (9.5–11.5)	<b>41.3%</b> (39.6–43.1)
Percentage with high levels of activity (defined as ≥3000 MET— minutes per week)***	<b>52.8%</b>	<b>74.9%</b>	<b>33.7%</b>
	(51.4–54.3)	(72.3–77.5)	(32.1–35.4)
Percentage not engaging in vigorous activity	<b>61.8%</b>	<b>55.9%</b>	<b>67.1%</b>
	(60.7–63.0)	(54.2–57.6)	(65.5–68.6)
STEP 2: Physical measurements °			
Mean body mass index — BMI (kg/m²)	<b>21.5</b> (21.4–21.6)	<b>21.0</b> (20.8–21.1)	<b>22.0</b> (21.8–22.1)
Percentage who are overweight (BMI 25.0–29.9 kg/m²)	<b>14.3%</b>	<b>11.1%</b>	<b>17.0%</b>
	(13.6–15.0)	(10.2–12.1)	(15.9–18.0)
Percentage who are obese (BMI ≥30 kg/m²)	<b>3.6%</b>	<b>2.2%</b>	<b>4.9%</b>
	(3.3–4.0)	(1.8–2.6)	(4.3–5.5)
Average waist circumference (cm)	<b>76.6</b>	<b>77.7</b>	<b>75.7</b>
	(76.4–76.8)	(77.4–78.0)	(75.3–76.0)
Mean systolic blood pressure – SBP (mmHg), among all respondents	<b>120.0</b>	<b>121.0</b>	<b>119.0</b>
	(119.4–120.1)	(120.7–121.8)	(118.0–119.0
Mean diastolic blood pressure – DBP (mmHg), among all respondents	<b>76.0</b>	<b>78.0</b>	<b>75.0</b>
	(76.1–76.6)	(77.2–77.8)	(75.0–75.7)
Percentage with raised BP (SBP $\geq$ 140 and/or DBP $\geq$ 90 mmHg)	<b>14.8%</b>	<b>15.6%</b>	<b>14.2%</b>
	(14.0–15.6)	(14.4–16.8)	(13.1–15.3)
Percentage with raised BP (SBP $\geq$ 140 and/or DBP $\geq$ 90 mmHg an/ or currently on medication for raised BP)	<b>17.9%</b>	<b>18.5%</b>	<b>17.3%</b>
	(17.0–18.8)	(17.2–19.8)	(16.2–18.5)
Percentage with raised BP (SBP $\geq$ 160 and/or DBP $\geq$ 100 mmHg)	<b>5.5%</b>	<b>5.8%</b>	<b>5.3%</b>
	(5.1–6.0)	(5.3–6.7)	(4.6–5.8)
Summary of combined risk factors			
Current daily smokers     Insufficient physical activity     Reserved RP (SRP > 140 and (as RPR > 00 mmHz as surrently on mediation for raised RP)	<ul> <li>Less than 5 serving</li> <li>Overweight (BMI ≥ 1)</li> </ul>	s of fruit and vegetables 25 kg/m²)	per day

• Raised BP (SBP  $\geq$  140 and/or DBP  $\geq$  90 mmHg or currently on medication for raised BP)

Percentage with raised risk (at least three of the risk factors included above), aged 25 to 44 years old	<b>21.0%</b> (19.8–22.2)	<b>17.0%</b> (15.3–18.8)	<b>23.6%</b> (22.0–25.3)
Percentage with raised risk (at least three of the risk factors included above), aged 45 to 64 years old	<b>40.0%</b>	<b>33.0%</b>	<b>49.5%</b>
	(37.9–42.1)	(30.5–35.6)	(46.1–53.2)
Percentage with three or more of the above risk factors, aged 25–64 years old	<b>28.3%</b>	<b>24.7%</b>	<b>31.5%</b>
	(27.2–29.4)	(23.2–26.2)	(30.0–33.1)

#### **Technical Notes:**

a. Population for year 2015 from "UN, World Population Prospects: The 2015 Revision : https://esa.un.org/unpd/wpp/DataQuery/ (accessed on 15 August 2016); b. World Health Organization, Regional Office for South East Asia. Global Adult Tobacco Survey (GATS) Bangladesh report 2009. (aged 15+ years); c. World Health Organization, Regional Office for South East Asia. Noncommunicable disease risk factor survey Bangladesh 2010.

\* Sample size was less than 25; \*\* Sample size was less than 50; \*\*\* Complete definitions of low and high levels of physical activity and other conditions are specified in the GPAQ Analysis Guide, available at: http://www.who.int/chp/STEPs/GPAQ ;







Results for adults aged 18–69 years (including 95% CI)	Overall	Males	Females
TEP 1: Tobacco use <sup>b</sup>			
Percentage who currently smoke tobacco	<b>7.4%</b> (5.8–9.0)	<b>10.8%</b> (8.1–13.6)	<b>3.1%</b> (2.0–4.2)
Percentage who currently smoke tobacco daily	<b>4.3%</b> (3.3–5.4)	<b>6.0%</b> (4.3–7.8)	<b>2.1%</b> (1.3–3.0)
Percentage who currently use smokeless tobacco	<b>19.7%</b> (16.5–22.9)	<b>26.5%</b> (22.1–31.0)	(1.0 0.0) <b>11.0%</b> (8.6–13.5)
Percentage who currently use smokeless tobacco daily	<b>18.5%</b> (15.3–21.7)	<b>25.2%</b> (20.7–29.7)	<b>9.9%</b> (7.5–12.4)
Percentage who currently use tobacco in any form (smoked and/or smokeless)	<b>24.8%</b> (21.4–28.3)	<b>33.6%</b> (28.8–38.5)	<b>13.6%</b> (10.9–16.4
verage age started smoking (years) for daily users	<b>18.9</b> (17.5–20.3)	<b>19.0</b> (17.3–20.8)	*
Aean duration of smoking among current daily smokers	<b>13.0</b> (10.8–15.2)	<b>11.9</b> (9.6–14.2)	*
Percentage of adults exposed to second—hand smoke at home during the past 30 days	<b>20.7%</b> (18.0–23.4)	<b>20.7%</b> (17.0–24.4)	<b>20.7%</b> (17.8–23.6
Percentage of adults exposed to second—hand smoke in the closed areas in their Porkplace during the past 30 days	<b>24.6%</b> (21.5–27.7)	<b>29.0%</b> (24.6–33.4)	<b>19.1%</b> (15.9–22.3
Percentage of current smokers who have tried to quit smoking	<b>69.0%</b> (59.8–78.1)	<b>66.0%</b> (55.2–76.8)	<b>82.1%</b> (68.6–95.7
Percentage of current smokers advised by a health care provider to quit smoking in wast 12 months	<b>31.8%</b> (22.6–41.0)	<b>33.2%</b> (22.2–44.3)	*
Percentage of daily smokers smoking manufactured cigarettes	<b>84.1%</b> (76.3–92.0)	<b>90.1%</b> (82.2–98.0)	*
STEP 1: Alcohol consumption <sup>b</sup>			
Percentage who are lifetime abstainers	<b>39.0%</b> (35.7–42.3)	<b>30.6%</b> (26.2–35.0)	<b>49.8%</b> (45.9–53.7
Percentage who are past 12 month abstainers	<b>10.8%</b> (8.8–12.8)	<b>12.1%</b> (9.2–14.9)	<b>9.3%</b> (7.0–11.6)
Percentage who currently drink (drank alcohol in the past 30 days)	<b>42.4%</b> (39.3–45.5)	<b>50.0%</b> (45.5–54.5)	<b>32.8%</b> (29.5–36.0
Percentage who engage in heavy episodic drinking (6 or more drinks on any occasion n the past 30 days)	<b>22.4%</b> (19.5–25.3)	<b>29.0%</b> (24.9–33.1)	<b>14.1%</b> (11.3–16.9
STEP 1: Diet <sup>o</sup>			
lean number of days fruit consumed in a typical week	<b>1.7</b> (1.5–1.9)	<b>1.6</b> (1.4–1.8)	<b>1.9</b> (1.7–2.1)
Aean number of servings of fruit consumed on average per day	<b>0.7</b> (0.6–0.8)	<b>0.7</b> (0.5–0.8)	<b>0.8</b> (0.7–0.9)
lean number of days vegetables consumed in a typical week	<b>5.6</b> (5.4–5.7)	<b>5.6</b> (5.5–5.8)	<b>5.5</b> (5.3–5.7)
lean number of servings of vegetables consumed on average per day	<b>3.8</b> (3.4–4.1)	<b>4.0</b> (3.5–4.4)	<b>3.5</b> (3.1–3.8)
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	<b>66.9%</b> (61.7–72.0)	<b>64.8%</b> (58.3–71.2)	<b>69.6%</b> (64.4–74.7
ercentage who always or often add salt or salty sauce to their food before eating or as they are ating	<b>7.8%</b> (5.4–10.2)	<b>7.4%</b> (4.4–10.5)	<b>8.3%</b> (6.2–10.4)
Percentage who always or often eat processed foods high in salt	<b>11.1%</b> (9.3–12.9)	<b>11.0%</b> (8.4–13.6)	<b>11.2%</b> (9.1–13.3)



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<b>Results for adults aged 18–69 years</b> (including 95% CI)	Overall	Males	Females
STEP 1: Physical activity <sup>b</sup>			
Percentage with insufficient physical activity (defined as <150 minutes of moderate	<b>6.4%</b>	<b>3.8%</b>	<b>9.6%</b>
ntensity activity per week,or equivalent)**	(4.7–8.0)	(2.5–5.0)	(6.8–12.4)
Median time spent in physical activity on average per day (minutes)	<b>330</b>	<b>367.1</b>	<b>274.3</b>
(presented with inter—quartile range P25—P75)	377.1	362.1	377.1
Aean time spent in physical activity per day (minutes)	<b>350.5</b>	<b>383.7</b>	<b>308.3</b>
	(330.0–371.0)	(357.3–410.2)	(283.9–332.8)
Percentage not engaging in vigorous activity	<b>48.8%</b>	<b>35.2%</b>	<b>66.0%</b>
	(44.6–53.1)	(30.3–40.2)	(61.2–70.9)
STEP 1: Mental health <sup>6</sup>			
Percentage of respondents who seriously considered attempting suicide in the last 12 months	<b>2.4</b>	<b>0.9</b>	<b>4.2</b> (2.5–5.9)
among all respondents	(1.5–3.2)	(0.3–1.6)	
Percentage of respondents who have ever attempted suicide among all respondents	<b>0.6</b>	<b>0.0</b>	<b>1.4</b>
	(0.3–1.0)	(0.3–1.6)	(0.6–2.2)
Percentage of respondents who have ever had anyone in their close family attempt suicide	<b>1.5</b>	<b>1.1</b>	<b>2.0</b>
	(1.0–2.0)	(0.3–1.8)	(1.2–2.7)
Percentages of respondents who have ever had anyone in their close family die from suicide	<b>1.8</b>	<b>1.4</b>	<b>2.3</b>
	(1.1–2.5)	(0.5–2.2)	(1.2–3.4)
STEP 1: Cervical cancer screening <sup>6</sup>			
Percentage of women aged 30–49 years who have ever had a screening test for cervical cancer	-	-	<b>64.1%</b> (59.0–69.2)
STEP 2: Physical measurements <sup>b</sup>			
Vlean body mass index — BMI (kg/m²)	<b>24.0</b>	<b>23.5</b>	<b>24.5</b>
	(23.7–24.2)	(23.2–23.9)	(24.2–24.8)
Percentage who are overweight (BMI ≥25 kg/m²)	<b>26.7%</b>	<b>22.8%</b>	<b>31.9%</b>
	(23.8–29.6)	(19.0–26.7)	(28.4–35.5)
Percentage who are obese (BMI ≥30 kg/m²)	<b>6.2%</b>	<b>4.5%</b>	<b>8.5%</b>
	(5.1–7.4)	(2.9–6.0)	(6.8–10.2)
verage waist circumference (cm)	_	<b>81.9</b> (81.0–82.9)	<b>79.5</b> (78.7–80.4)
Nean systolic blood pressure – SBP (mmHg), including those currently on nedication for raised BP	<b>126.2</b>	<b>128.0</b>	<b>123.8</b>
	(125.1–127.2)	(126.6–129.4)	(122.5–125.1
Aean diastolic blood pressure – DBP (mmHg), including those currently on nedication for raised BP	<b>85.0</b> (84.0–85.9)	<b>84.6</b> (83.4–85.9)	<b>85.4</b> (84.5–86.3)
ercentage with raised BP (SBP $\geq$ 140 and/or DBP $\geq$ 90 mmHg or currently on edication for raised BP)	<b>35.7%</b>	<b>35.5%</b>	<b>35.9%</b>
	(32.8–38.6)	(31.5–39.6)	(32.5–39.4)
Percentage with raised BP (SBP ≥140 and/or DBP ≥90 mmHg) excluding those on medication for aised BP	<b>32.9%</b>	<b>33.6%</b>	<b>32.0%</b>
	(30.0–35.8)	(29.5–37.6)	(28.6–35.4)
Percentage with raised BP (SBP $\geq$ 160 and/or DBP $\geq$ 100 mmHg or currently on nedication for raised BP)	<b>14.4%</b> (12.3–16.5)	<b>13.3%</b> (10.4–16.2)	<b>15.8%</b> (13.4–18.2)

<b>Results for adults aged 18–69 years</b> (including 95% CI)	Overall	Males	Females
STEP 3: Biochemical measurements <sup>b</sup>			
Mean fasting blood glucose, including those currently on medication for raised	<b>88.8</b>	<b>88.7</b>	<b>88.9</b> (87.4–90.4)
blood glucose (mg/dl)	(87.4–90.2)	(86.9–90.5)	
Percentage with impaired fasting glycaemia (capillary whole blood value	<b>10.7%</b>	<b>11.4%</b>	<b>10.0%</b>
25.6mmol/L(100mg/dl) and <6.1mmol/L(110mg/dl)	(8.6–12.9)	(8.2–14.5)	(7.9–12.0)
Percentage with raised fasting blood glucose (capillary whole blood value	<b>6.4%</b>	<b>6.5%</b>	<b>6.3%</b>
26.1 mmol/L(110 mg/dl) or currently on medication for raised blood glucose)	(5.0–7.8)	(4.6–8.5)	(4.7–7.9)
Aean total blood cholesterol, including those currently on medication for	<b>146.1</b>	<b>144.1</b>	<b>148.7</b>
aised cholesterol (mg/dl)	(143.4–148.9)	(140.3–147.9)	(146.0–151.4)
Percentage with raised total cholesterol ( $\geq$ 5.0mmol/L or $\geq$ 190mg/dl or currently on medication for raised cholesterol)	<b>12.5%</b>	<b>11.9%</b>	<b>13.3%</b>
	(10.6–14.4)	(9.1–14.7)	(11.3–15.3)
dean intake of salt per day (in grams)	<b>9.0</b>	<b>9.6</b>	<b>8.0</b>
	(8.8–9.1)	(9.4–9.8)	(7.9–8.2)
Cardiovascular disease (CVD) risk <sup>6</sup>			
Percentage aged 40–69 years with a 10–year CVD risk $\geq$ 30%, or with existing CVD***	<b>1.8%</b>	<b>1.5%</b>	<b>2.2%</b>
	(1.0–2.6)	(0.4–2.7)	(1.0–3.4)
Summary of combined risk factors <sup>b</sup>			
<ul> <li>Current daily smokers</li> <li>Insufficient physical activity</li> <li>Raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)</li> </ul>	<ul> <li>Less than 5 servings of fruit and vegetables per day</li> <li>Overweight (BMI ≥ 25 kg/m<sup>2</sup>)</li> </ul>		
Percentage with low risk (i.e. none of the risk factors included above)	<b>12.7%</b>	<b>15.3%</b>	<b>9.3%</b>
	(10.2–15.2)	(11.4–19.2)	(7.3–11.3)
Parcentare with raised rick (at least three of the rick factors included above) ared 18-30 years old	10.7%	9.5%	12.3%

Percentage with raised risk (at least three of the risk factors included above), aged 18–39 years old	<b>10.7%</b>	<b>9.5%</b>	<b>12.3%</b>
	(8.6–12.8)	(6.6–12.5)	(9.6–15.0)
Percentage with raised risk (at least three of the risk factors included above), aged 40-69 years old	<b>18.9%</b>	<b>14.4%</b>	<b>24.6%</b>
	(15.7–22.2)	(10.7–18.1)	(19.9–29.3)
Percentage with three or more of the above risk factors, aged 18–69 years old	<b>13.5%</b>	<b>11.2%</b>	<b>16.7%</b>
	(11.8–15.3)	(8.6–13.7)	(14.1–19.2)

#### **Technical Notes:**

a. Population for year 2015 from United Nations. World population prospects: the 2012 revision. New York: Population Division, Department of Economics and Social Affairs, 2015; b. World Health Organization, Regional Office for South East Asia. National survey for noncommunicable disease risk factors and mental health using WHO STEPS approach in Bhutan – 2014

\* Sample size was less than 50; \*\* Complete definitions of low and high levels of physical activity and other conditions are specified in the GPAQ Analysis Guide, available at: http://www.who.int/chp/ steps/GPAQ ; \*\*\* A 10-year CVD risk of >30% is defined according to age, sex, blood pressure, smoking status (current smokers OR those who quit smoking less than 1 year before the assessment), total cholesterol, and diabetes (previously diagnosed OR a fasting plasma glucose concentration >7.0mmol/l (126 mg/dl)



**Exposure to second-hand smoke** 



## **INDIA**

Results for adults aged 15+ ye	ears (including 95% Cl)	Overall	Males	Females
Tobacco use <sup>b</sup>				
Percentage who currently smoke tobacco		<b>14.0%</b> (13.4–14.6)	<b>24.3%</b> (23.3–25.3)	<b>2.9%</b> (2.6–3.4)
Percentage who currently smoke tobacco daily		<b>10.7%</b> (10.2–11.2)	<b>18.3%</b> (17.4–19.3)	<b>2.4%</b> (2.1–2.8)
Current any cigarette smokers		5.7% _	<b>10.3%</b> _	0.8% -
Percentage who currently use smokeless tobacco		<b>25.9%</b> (24.9–26.9)	<b>32.9%</b> (31.6–34.2)	<b>18.4%</b> (17.4–19.5)
Percentage who currently use smokeless tobacco daily		<b>21.4%</b> (20.5–22.3)	<b>27.4%</b> (26.2–28.7)	<b>14.9%</b> (14.0–15.9)
Percentage who currently use tobacco in any form (smoked an	d/or smokeless)	<b>34.6%</b> (33.6–35.5)	<b>47.9%</b> (46.7–49.1)	<b>20.3%</b> (19.2–21.3)
Average age started smoking (years) for daily users		<b>18.3</b> (17.9–18.6)	<b>18.3</b> (18.0–18.7)	<b>17.2</b> (15.7–18.7)
Percentage of current smokers smoking manufactured cigarett	es	<b>5.2%</b> (4.9–5.6)	<b>9.6%</b> (9.0–10.3)	<b>0.5%</b> (0.4–0.7)
Mean number of manufactured cigarettes smoked per day (by	smokers of manufactured cigarettes)	<b>6.2</b> (5.8–6.6)	<b>6.1</b> (5.8–6.5)	<b>7.0</b> (5.6–8.5)
Percentage of adults exposed to second-hand smoke at home	e during the past 30 days	<b>40.0%</b> (38.6–41.4)	<b>40.7%</b> (39.0–42.3)	<b>39.3%</b> (37.7–40.9)
Percentage of adults exposed to second—hand smoke in the cl the past 30 days	losed areas in their workplace during	<b>29.9%</b> (28.2–31.6)	<b>32.2%</b> (30.3–34.2)	<b>19.4%</b> (16.4–22.7)
Percentage of current smokers who tried to quit smoking in pa	st 12 months	<b>38.4%</b> (36.3–40.5)	<b>38.3%</b> (36.1–40.5)	<b>38.9%</b> (33.5–44.6)
Percentage of current smokers advised by a health care provid	ler to quit smoking in past 12 months	<b>46.3%</b> (43.6–49.0)	<b>47.3%</b> (44.5–50.1)	<b>38.9%</b> (31.5–46.8)

Technical Notes: a. Population for year 2015 from "UN, World Population Prospects: The 2015 Revision : https://esa.un.org/unpd/wpp/DataQuery/ (accessed on 15 August 2016); b. International Institute for Popula-tion Sciences (IIPS), Mumbai and Ministry of Health and Family Welfare, Government of India. Global Adult Tobacco Survey (GATS) India 2009–2010.

## INDONESIA



**Exposure to second-hand smoke** 



## **INDONESIA**

Results for adults aged 15+ years (including 95% CI)	Overall	Males	Females
Tobacco use <sup>b</sup>			
Percentage who currently smoke tobacco	<b>34.8%</b> (33.2–36.4)	<b>67.0%</b> (64.4–69.5)	<b>2.7%</b> (2.0–3.5)
Percentage who currently smoke tobacco daily	<b>29.2%</b>	<b>56.7%</b>	<b>1.8%</b>
	(27.6–30.9)	(53.8–59.6)	(1.4–2.4)
Current cigarette smokers (among current tobacco smokers)	_	<b>67.0%</b> (64.4–69.5)	<b>2.7%</b> (2.0–3.5)
Percentage who currently use smokeless tobacco	<b>1.7%</b> (1.4–2.2)	<b>1.5%</b> (1.1–2.2)	<b>2.0%</b> (1.4–2.7)
Percentage who currently use smokeless tobacco daily	<b>1.2%</b>	<b>1.1%</b>	<b>1.3%</b>
	(0.9–1.5)	(0.8–1.6)	(0.9–1.8)
Percentage who currently use tobacco in any form (smoked and/or smokeless)	<b>36.1%</b>	<b>67.4%</b>	<b>4.5%</b>
	(34.4–37.8)	(64.8–69.9)	(3.6–5.6)
Average age started smoking (years) for daily users	<b>17.6</b> (17.3–17.9)	<b>17.6</b> (17.3–17.9)	*
Percentage of daily smokers smoking manufactured cigarettes(white cigarettes)	_	<b>4.3%</b> (3.2–5.8)	<b>0.1%</b> (0.0–0.4)
Percentage of daily smokers smoking Kretek	_	<b>60.9</b> (57.9–63.8)	<b>2.3%</b> (1.7–3.1)
Mean number of manufactured cigarettes smoked per day	<b>14.7</b>	<b>15.0</b>	*
(by smokers of manufactured cigarettes)	(12.9–16.5)	(13.1–16.8)	
Percentage of adults exposed to second-hand smoke at home during the past 30 days	<b>78.4%</b>	<b>81.4%</b>	<b>75.4%</b>
	(75.1–81.4)	(78.1–84.3)	(71.7–78.9
Percentage of adults exposed to second-hand smoke in the closed areas in their workplace during the past 30 days	<b>51.3%</b>	<b>58.0%</b>	<b>41.4%</b>
	(45.8–56.8)	(51.6–64.2)	(35.4–47.5
Percentage of current smokers who tried to stop smoking in past 12 months	<b>30.4%</b>	<b>29.8%</b>	<b>44.6%</b>
	(26.8–34.2)	(26.2–33.7)	(35.9–53.7)
Percentage of current smokers advised by a health care provider to stop smoking in past 12 months	<b>34.6%</b>	<b>35.7%</b>	<b>13.0%</b>
	(29.2–40.5)	(30.3–41.6)	(5.6–27.2)

#### **Technical Notes:**

a. United Nations. World population prospects: the 2012 revision. New York: Population Division, Department of Economics and Social Affairs, 2015; b. World Health Organization, Regional Office for South East Asia. Global Adult Tobacco Survey (GATS): Indonesia Report 2011

\* Sample size was less than 25;





Insufficient physical activity

Overweight (BMI  $\geq$  25 kg/m<sup>2</sup>)

Raised BP (SBP  $\geq$  140 and/or DBP  $\geq$  90 mmHg or currently on medication for raised BP)

40% on raised risk

(at least 3 risk factors)

<b>10</b> 5





- <u>-</u>





Results for adults aged 15–64 years (including 95%	CI) Overall	Males	Females	
STEP 1: Physical activity <sup>b</sup>				
Percentage with low levels of activity (defined as <600 MET—minutes per week)**	<b>45.9%</b> (43.2–48.7)	<b>39.1%</b> (35.1–43.2)	<b>52.4%</b> (48.9–55.9)	
Percentage with high levels of activity (defined as $\ge$ 3000 MET— minutes per week)**	<b>33.5%</b> (30.9–36.1)	<b>46.1%</b> (41.9–50.3)	<b>21.5%</b> (18.7–24.4)	
Median time spent in physical activity on average per day (minutes) (presented with inter–quartile range)	<b>34.3</b> (0.0–120.0)	<b>60.0</b> (0.0–180.0)	<b>21.4</b> (0.0–68.6)	
Percentage not engaging in vigorous activity	<b>73.8%</b> (71.4–76.3)	<b>58.8%</b> (54.6–62.9)	<b>88.1%</b> (85.8–90.5)	
STEP 2: Physical measurements <sup>b</sup>				
Mean body mass index – BMI (kg/m2)	<b>23.7</b> (23.4–23.9)	<b>23.2</b> (22.8–23.6)	<b>24.2</b> (23.8–24.6)	
Percentage who are overweight (BMI ≥25 kg/m2)	<b>37.1%</b> (34.6–39.6)	<b>32.0%</b> (28.3–35.8)	<b>42.3%</b> (38.9–45.7)	
Percentage who are obese (BMI ≥30 kg/m2)	<b>11.5%</b> (9.9–13.1)	<b>8.6%</b> (6.4–10.8)	<b>14.5%</b> (12.3–16.7)	
Average waist circumference (cm)	-	<b>79.1</b> (78.0–80.2)	<b>78.9</b> (78.0–79.9)	
Mean systolic blood pressure – SBP (mmHg) (including those currently on medication for raised BP)	<b>119.7</b> (118.9–120.5)	<b>122.8</b> (121.6–124.0)	<b>116.7</b> (115.6–117.7	
Mean diastolic blood pressure – DBP (mmHg) (including those currently on medication for raised BP)	<b>75.5</b> (74.9–76.1)	<b>76.5</b> (75.5–77.4)	<b>74.5</b> (73.7–75.3)	
Percentage with raised BP (SBP ${\geq}140$ and/or DBP ${\geq}90$ mmHg or currently on medication for raised BP)	<b>16.6%</b> (14.8–18.4)	<b>19.0%</b> (16.0–22.1)	<b>14.3%</b> (12.4–16.3)	
Percentage with raised BP (SBP ${\geq}140$ and/or DBP ${\geq}90$ mmHg) excluding those on medication for raised BP	<b>14.7%</b> (13.0–16.4)	<b>17.3%</b> (14.4–20.3)	<b>12.1%</b> (10.3–13.9)	
Summary of combined risk factors				
<ul> <li>Current daily smokers</li> <li>Insufficient physical activity</li> <li>Raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)</li> </ul>	<ul> <li>Less than 5 servings of fruit and vegetables per day</li> <li>Overweight (BMI ≥ 25 kg/m<sup>2</sup>)</li> </ul>			
Percentage with low risk (i.e. none of the risk factors included above)	<b>1.1%</b> (0.4–1.8)	<b>0.9%</b> (0.0–2.0)	<b>1.4%</b> (0.5–2.3)	
Percentage with raised risk (at least three of the risk factors included above), aged 25 to 44 years old	<b>34.2%</b> (30.1–38.2)	<b>38.1%</b> (31.3–45.0)	<b>30.1%</b> (25.8–34.4)	
Percentage with raised risk (at least three of the risk factors included above), aged 45 to 64 years old	<b>54.3%</b> (48.9–59.8)	<b>51.7%</b> (42.9–60.5)	<b>57.2%</b> (51.0–63.4)	
Percentage with three or more of the above risk factors, aged 25–64 years old	39.5%	41.8%	37.1%	

#### **Technical Notes:**

a. Population for year 2015 from "UN, World Population Prospects: The 2015 Revision : https://esa.un.org/unpd/wpp/DataQuery/ (accessed on 15 August 2016); b. World Health Organization. WHO STEPS survey on risk factors for noncommunicable diseases Maldives (Malé), 2011

(36.2-42.9)

(36.3-47.4)

(33.5-40.8)

\* Sample size was less than 50; \*\* Complete definitions of low and high levels of physical activity and other conditions are specified in the GPAQ Analysis Guide, available at: http://www.who.int/chp/steps/GAPQ

Percentage with three or more of the above risk factors, aged 25-64 years old





## **MYANMAR**



Results for adults aged 25–64 years (including 95% CI)	Overall	Males	Females
STEP 1: Tobacco use <sup>6</sup>			
Percentage who currently smoke tobacco	<b>26.1%</b>	<b>43.8%</b>	<b>8.4%</b>
	(23.8–28.4)	(40.8–46.7)	(6.4–10.3)
Percentage who currently smoke tobacco daily	<b>20.7%</b> (18.2–23.3)	<b>34.0%</b> (30.5–37.5)	<b>7.4%</b> (5.6–9.3)
Percentage who currently use smokeless tobacco	<b>43.2%</b>	<b>62.2%</b>	<b>24.1%</b>
	(39.2–47.1)	(58.3–66.1)	(19.5–28.7)
Percentage who currently use smokeless tobacco daily	<b>30.3%</b>	<b>44.5%</b>	<b>16.1%</b>
	(27.0–33.6)	(40.9–48.1)	(12.8–19.4)
Percentage of current tobacco users	<b>54.4%</b>	<b>79.8%</b>	<b>29.1%</b>
	(50.4–58.4)	(77.1–82.4)	(23.9–34.2)
Nean Duration of smoking among daily smokers	<b>24.2</b>	<b>23.3</b>	<b>28.2</b>
	(22.7–25.7)	(21.7–25.0)	(26.4–30.0)
Percentage of current smokers who have tried to quit smoking	<b>43.7%</b>	<b>42.0%</b>	<b>52.5%</b>
	(37.7–49.6)	(35.2–48.7)	(46.4–58.6)
Percentage of current smokers advised by a health care provider to quit smoking	<b>33.5%</b>	<b>30.2%</b>	<b>48.1%</b>
n past 12 months	(27.0–39.9)	(23.6–36.9)	(39.3–56.8)
Percentage of adults exposed to second—hand smoke at home during the past 30 days	<b>39.1%</b>	<b>32.1%</b>	<b>46.0%</b>
	(35.7–42.5)	(27.5–36.8)	(42.5–49.5)
Percentage of adults exposed to second—hand smoke in the closed areas in their	<b>27.5%</b>	<b>31.8%</b>	<b>23.6%</b>
workplace during the past 30 days	(20.9–34.2)	(23.5–40.1)	(17.5–29.6)
Average age started smoking (years) for daily users	<b>19.8</b>	<b>19.3</b>	<b>22.3</b>
	(19.2–20.4)	(18.7–19.8)	(20.7–23.9)
Percentage of daily smokers smoking manufactured cigarettes	<b>28.1%</b>	<b>33.4%</b>	<b>3.5%</b>
	(21.6–34.5)	(26.2–40.7)	(1.1–5.9)
Percentage of current smokers smoking manufactured cigarettes	<b>33.0%</b> (26.7–39.3)	<b>38.4%</b> (31.6–45.3)	<b>4.6%</b> (1.9–7.2)
Mean number of manufactured cigarettes smoked per day	<b>1.5</b>	<b>1.9</b>	<b>0.1</b>
by smokers of manufactured cigarettes)	(1.0–2.0)	(1.3–2.4)	(0.0–0.2)
STEP 1: Alcohol consumption <sup>6</sup>			
Percentage who are lifetime abstainers	<b>68.8%</b>	<b>41.9%</b>	<b>95.8%</b>
	(64.6 <del>-</del> 73.1)	(36.7–47.0)	(94.2–97.5)
Percentage who are past 12 month abstainers	<b>5.7%</b>	<b>10.0%</b>	<b>1.5%</b>
	(4.5–6.9)	(8.0–12.0)	(0.8–2.2)
Percentage who currently drink (drank alcohol in the past 30 days)	<b>19.8%</b>	<b>38.1%</b>	<b>1.5%</b>
	(16.8–22.8)	(33.9–42.2)	(0.7–2.3)
Percentage who engage in heavy episodic drinking (6 or more drinks on any day in the past 30 days)	<b>10.3%</b>	<b>20.3%</b>	<b>0.3%</b>
	(8.3–12.3)	(17.2–23.3)	(0.1–0.5)

#### **MYANMAR**

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<b>Results for adults aged 25–64 years</b> (including 95% CI)	Overall	Males	Females
STEP 1: Diet <sup>b</sup>			
Mean number of days fruit consumed in a typical week	<b>2.5</b>	<b>2.3</b>	<b>2.6</b>
	(2.2–2.7)	(2.0–2.6)	(2.3–2.9)
Mean number of servings of fruit consumed on average per day	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>
	(0.6–0.8)	(0.6–0.8)	(0.6–0.8)
Mean number of days vegetables consumed in a typical week	<b>5.5</b>	<b>5.4</b>	<b>5.6</b>
	(5.2–5.8)	(5.0–5.7)	(5.4–5.8)
Mean number of servings of vegetables consumed on average per day	<b>2.1</b>	<b>2.2</b>	<b>2.0</b>
	(1.9–2.2)	(2.0–2.4)	(1.9–2.1)
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	<b>86.6%</b>	<b>85.2%</b>	<b>87.9%</b>
	(84.1–89.0)	(82.0–88.3)	(85.8–90.1)
STEP 1: Physical activity <sup>b</sup>			
Percentage with insufficient physical activity (defined as <150 minutes of moderate intensity activity per week,or equivalent)	<b>15.7%</b>	<b>12.5%</b>	<b>18.8%</b>
	(12.9–18.4)	(9.7–15.3)	(15.8–21.9)
Median time spent in physical activity on average per day (minutes) (presented with inter–quartile	<b>214</b>	<b>274</b>	<b>177</b>
range)	(57–416)	(86–454)	(30–360)
Percentage not engaging in vigorous activity	<b>74.5%</b>	<b>61.1%</b>	<b>87.9%</b>
	(69.5–79.5)	(54.9–67.4)	(83.8–92.1)
STEP 1: Cervical Cancer Screening <sup>b</sup>			
Percentage of women aged 30–49 years who have ever had a screening test for cervical cancer	-	-	<b>4.4%</b> (2.7–6.0)
STEP 2: Physical measurements <sup>b</sup>			
Mean body mass index – BMI (kg/m²)	<b>22.3</b> (22.0–22.6)	<b>21.5</b> (21.2–21.8)	<b>23.2</b> (22.8–23.5)
Percentage who are overweight (BMI $\ge$ 25 kg/m²)	<b>22.4%</b>	<b>14.1%</b>	<b>30.8%</b>
	(19.3–25.4)	(11.5–16.7)	(27.5–34.1)
Percentage who are obese (BMI ≥30 kg/m²)	<b>5.5%</b>	<b>2.6%</b>	<b>8.4%</b>
	(4.2–6.7)	(1.8–3.5)	(6.6–10.1)
Average waist circumference (cm)	-	<b>77.3</b> (76.0–78.6)	<b>76.9</b> (75.7–78.1)
Mean systolic blood pressure – SBP (mmHg), including those currently on medication for raised BP	<b>125</b>	<b>126</b>	<b>124</b>
	(123–126)	(124–128)	(122–126)
Mean diastolic blood pressure – DBP (mmHg), including those currently on medication for raised BP	<b>81</b>	<b>81</b>	<b>81</b>
	(80–82)	(80–82)	(80–83)
Percentage with raised BP (SBP $\geq$ 140 and/or DBP $\geq$ 90 mmHg or currently on medication for raised BP)	<b>26.4%</b> (23.2–29.5)	<b>24.7%</b> (20.1–29.3)	<b>28.0%</b> (24.8–31.3)
Percentage with raised BP (SBP $\geq$ 140 and/or DBP $\geq$ 90 mmHg) who are not currently on medication for raised BP	<b>90.8%</b>	<b>93.2%</b>	<b>88.7%</b>
	(87.3–94.3)	(90.1–96.3)	(84.5–92.9)

## **MYANMAR**

<b>Results for adults aged 25–64 years</b> (including 95% CI)	Overall	Males	Females
STEP 3: Biochemical measurements <sup>®</sup>			
Mean fasting blood glucose, including those currently on medication for raised blood glucose (mg/dl)	<b>92</b> (90–94)	<b>90</b> (89–93)	<b>93</b> (91–95)
Percentage with impaired fasting glycaemia (plasma equivalent value of capillary whole blood $\geq$ 6.1 mmol/L(110 mg/dl) and <7.0 mmol/L(126 mg/dl)	<b>3.6%</b> (2.8–4.5)	<b>4.0%</b> (2.8–5.3)	<b>3.2%</b> (2.6–3.9)
Mean 2—hour glucose value after glucose load(mg)	<b>125</b> (120–130)	<b>119</b> (114–124)	<b>131</b> (126–135)
Percentage with impaired glucose tolerance(2–hour plasma equivalent value of capillary whole blood after glucose load $\geq$ 7.8 mmol/L(140 mg/dl) and <11.1 mmol/L(200 mg/dl)	<b>19.5%</b> (16.5–23.0)	<b>15.2%</b> (12.2–18.9)	<b>23.9%</b> (20.0–28.3)
Percentage with raised fasting blood glucose (plasma equivalent glucose value of capillary whole blood $\geq$ 7.0 mmol/L (126 mg/dl)	<b>5.9%</b> (4.6–7.2)	<b>4.7%</b> (3.4–6.1)	<b>7.0%</b> (5.5–8.5)
Percentage with raised fasting blood glucose or raised 2–hour blood glucose as defined below or currently on medication for raised blood glucose (raised fasting blood glucose=plasma equivalent glucose value of capillary whole blood ≥7.0 mmol/L (126 mg/dl) raised 2–hour blood glucose=plasma equivalent glucose value of capillary whole blood ≥11.1 mmol/L (200mg/dl)	<b>10.5%</b> (8.3–13.1)	<b>9.1%</b> (6.9–11.8)	<b>11.8%</b> (9.6–14.6)
Mean total blood cholesterol, including those currently on medication for raised cholesterol (mg/dl)	<b>178</b> (175–182)	<b>173</b> (169–177)	<b>184</b> (180–188)
Percentage with raised total cholesterol ( $\geq$ 5.0 mmol/L or 190mg/dl or currently on medication for raised cholesterol)	<b>36.7%</b> (32.2–41.2)	<b>30.9%</b> (26.5–35.4)	<b>42.5%</b> (37.7–47.2)
Cardiovascular disease (CVD) risk <sup>6</sup>			
Percentage aged 40–64 years with a 10–year CVD risk $\geq$ 30%, or with existing CVD**	<b>12.1%</b> (9.9–14.3)	<b>8.5%</b> (6.2–10.7)	<b>15.7%</b> (13.1–18.3)
Summary of combined risk factors <sup>b</sup>			
<ul> <li>Current daily smokers</li> <li>Insufficient physical activity</li> <li>Raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)</li> </ul>	<ul> <li>Less than 5 servings of fruit and vegetables per day</li> <li>Overweight (BMI ≥ 25 kg/m<sup>2</sup>)</li> </ul>		
Percentage with low risk (i.e. none of the risk factors included above)	<b>6.2%</b> (4.7–7.6)	<b>6.6%</b> (4.6–8.6)	<b>5.7%</b> (4.2–7.3)
Percentage with raised risk (at least three of the risk factors included above), aged 25 to 44 years old	<b>14.6%</b> (12.1–17.2)	<b>13.6%</b> (10.2–17.1)	<b>15.7%</b> (13.0–18.5)
Percentage with raised risk (at least three of the risk factors included above),	27.5%	25.9%	<b>29.3%</b>

**Technical Notes:** 

aged 45 to 64 years old

Percentage with three or more of the above risk factors, aged 25-64 years old

a. Population for year 2015 from "UN, World Population Prospects: The 2015 Revision : https://esa.un.org/unpd/wpp/DataQuery/ (accessed on 15 August 2016); b. Ministry of Health. Report on national survey of diabetes mellitus and risk factors for noncommunicable diseases in Myanmar (2014).

\* Sample size was less than 50; \*\* A 10-year CVD risk of >30% is defined according to age, sex, blood pressure, smoking status (current smokers OR those who quit smoking less than 1 year before the assessment), total cholesterol, and diabetes (previously diagnosed OR a fasting plasma glucose concentration >7.0mmol/l (126 mg/dl)

(24.3-30.8)

19.6%

(16.9-22.2)

(20.8-30.9)

18.3%

(14.4-22.3)

(25.3–33.7)

20.9%

(18.1-23.6)





Results for adults aged 15–69 years (including 95% CI)	Overall	Males	Females
STEP 1: Tobacco use <sup>b</sup>			
Percentage who currently smoke tobacco	<b>18.5%</b>	<b>27.0%</b>	<b>10.3%</b>
	(16.5–20.5)	(23.7–30.4)	(8.7–11.9)
ercentage who currently smoke tobacco daily	<b>15.8%</b> (13.8–17.7)	<b>22.2%</b> (18.9–25.4)	<b>9.6%</b> (8.1–11.2)
ercentage who currently use smokeless tobacco	<b>17.8%</b>	<b>31.3%</b>	<b>4.8%</b>
	(15.8–19.8)	(27.4–35.2)	(3.7–5.9)
ercentage who currently use smokeless tobacco daily	<b>16.3%</b>	<b>28.5%</b>	<b>4.5%</b>
	(14.4–18.2)	(25.0–32.0)	(3.5–5.5)
ercentage who currently use tobacco in any form (smoked and/or smokeless)	<b>30.8%</b>	<b>48.1%</b>	<b>14.1%</b>
	(28.3–33.2)	(43.7–52.4)	(12.3–15.9)
verage age started smoking (years) for daily users	<b>18.2</b>	<b>18.5</b>	<b>17.6</b>
	(17.7–18.7)	(17.8–19.1)	(16.9–18.4)
ercentage of daily smokers smoking manufactured cigarettes	<b>84.8%</b>	<b>89.9%</b>	<b>73.5%</b>
	(80.2–89.4)	(85.0–94.9)	(66.3–80.6)
ercentage of current smokers smoking manufactured cigarettes	<b>86.1%</b>	<b>90.7%</b>	<b>74.3%</b>
	(81.9–90.2)	(86.4–95.0)	(67.5–81.1)
lean number of manufactured cigarettes smoked per day	<b>6.2</b>	<b>6.6</b>	<b>5.1</b>
by smokers of manufactured cigarettes)	(5.5–6.8)	(5.8–7.4)	(4.4–5.8)
urrent daily tobacco users	<b>27.7%</b>	<b>42.7%</b>	<b>13.2%</b>
	(25.3–30.1)	(38.5–47.0)	(11.5–14.9)
ercentage of adults exposed to second–hand smoke at home during the past 30 days	<b>36.1%</b>	<b>37.3%</b>	<b>35.0%</b>
	(33.0–39.2)	(33.0–41.6)	(31.8–38.2)
ercentage of adults exposed to second—hand smoke in the closed areas in	<b>37.2%</b>	<b>43.4%</b>	<b>31.3%</b>
heir workplace during the past 30 days	(33.9–40.5)	(38.8–47.9)	(28.0–34.6)
ercentage of current smokers who tried to quit smoking in past 12 months	<b>26.0%</b>	<b>27.4%</b>	<b>22.5%</b>
	(20.5–31.5)	(20.5–34.2)	(16.0–28.9)
ercentage of current smokers advised by a health care provider to quit	<b>22.3%</b>	<b>23.0%</b>	<b>20.5%</b>
noking in past 12 months	(16.9–27.7)	(16.2–29.7)	(12.8–28.2)
TEP 1: Alcohol consumption <sup>b</sup>			
ercentage who are lifetime abstainers	<b>73.5%</b>	<b>58.0%</b>	<b>88.3%</b>
	(70.7–76.3)	(53.5–62.6)	(85.9–90.7)
ercentage who are past 12 month abstainers	<b>4.5%</b>	<b>6.8%</b>	<b>2.3%</b>
	(3.6–5.4)	(5.2–8.5)	(1.6–3.0)
ercentage who currently drink (drank alcohol in the past 30 days)	<b>17.4%</b>	<b>28.0%</b>	<b>7.1%</b>
	(15.0–19.7)	(24.3–31.8)	(5.2–9.0)
Percentage who engage in heavy episodic drinking (men who had 5 or more / women who had 4 or nore drinks on any day in the past 30 days)	_	<b>18.6%</b> (15.3–21.9)	<b>2.9%</b> (2.0–3.8)




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<b>Results for adults aged 15–69 years</b> (including 95% Cl)			
STEP 1: Diet <sup>6</sup>			
Mean number of days fruit consumed in a typical week	<b>1.9</b>	<b>2.0</b>	<b>1.9</b>
	(1.8–2.1)	(1.8–2.2)	(1.7–2.1)
Mean number of servings of fruit consumed on average per day	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>
	(0.4–0.5)	(0.4–0.6)	(0.4–0.5)
Mean number of days vegetables consumed in a typical week	<b>4.8</b>	<b>4.8</b>	<b>4.8</b>
	(4.6–4.9)	(4.6–5.0)	(4.6–4.9)
Mean number of servings of vegetables consumed on average per day	<b>1.4</b> (1.3–1.4)	<b>1.4</b> (1.3–1.5)	<b>1.3</b> (1.3–1.4)
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	<b>98.9%</b>	<b>98.9%</b>	<b>98.9%</b>
	(98.4–99.4)	(98.1–99.6)	(98.3–99.5)
Percentage who always or often add salt or salty sauce to their food before	<b>4.7%</b> (3.7–5.8)	<b>4.0%</b>	<b>5.5%</b>
ating or as they are eating		(2.4–5.6)	(4.2–6.7)
Percentage who always or often eat processed foods high in salt	<b>11.5%</b>	<b>13.6%</b>	<b>9.4%</b>
	(9.5–13.4)	(10.6–16.6)	(7.4–11.4)
STEP 1: Physical activity <sup>6</sup>			
Percentage with low levels of activity (defined as <600 MET–minutes per week)**	<b>3.5%</b>	<b>4.5%</b>	<b>2.4%</b>
	(2.6–4.3)	(3.1–5.9)	(1.8–3.0)
Percentage with high levels of activity (defined as $\geq$ 3000 MET– minutes per week)**	<b>85.0%</b>	<b>83.6%</b>	<b>86.3%</b>
	(83.0–87.0)	(80.7–86.4)	(84.2–88.4)
Median time spent in physical activity on average per day (minutes)	<b>240.0</b>	<b>242.1</b>	<b>240.0</b>
(presented with inter–quartile range)	(143.6–360.0)	(135.0–381.4)	(150.0–360.0
Percentage not engaging in vigorous activity	<b>53.6%</b> (50.1–57.1)	<b>43.5%</b> (39.1–47.9)	<b>63.3%</b> (59.4–67.2)
STEP 2: Physical measurements <sup>b</sup>			
Mean body mass index — BMI (kg/m²)	<b>22.4</b> (22.2–22.6)	<b>22.4</b> (22.1–22.7)	<b>22.4</b> (22.2–22.7)
Percentage who are overweight (BMI 25.0— —29.9 kg/m²)	<b>17.7%</b>	<b>18.0%</b>	<b>17.3%</b>
	(15.8–19.5)	(15.2–20.8)	(15.4–19.2)
Percentage who are obese (BMI ≥30 kg/m²)	<b>4.0%</b> (3.1–4.8)	<b>3.1%</b> (2.0–4.3)	<b>4.8%</b> (3.7–5.9)
Average waist circumference (cm)	_	<b>79.8</b> (79.0–80.7)	<b>76.7</b> (76.0–77.5)
Mean systolic blood pressure – SBP (mmHg), including those currently	<b>127.4</b>	<b>131.1</b>	<b>123.9</b>
on medication for raised BP	(126.5–128.3)	(129.9–132.3)	(122.8–124.9
Aean diastolic blood pressure – DBP (mmHg), including those currently	<b>79.8</b>	<b>81.2</b>	<b>78.5</b>
n medication for raised BP	(79.2–80.4)	(80.2–82.2)	(77.8–79.1)
Percentage with raised BP (SBP $\geq$ 140 and/or DBP $\geq$ 90 mmHg or currently in medication for raised BP)	<b>25.7%</b>	<b>31.1%</b>	<b>20.6%</b>
	(23.5–27.9)	(27.7–34.5)	(18.5–22.7)
Percentage with raised BP (SBP $\geq$ 140 and/or DBP $\geq$ 90 mmHg) excluding those on medication for	<b>23.4%</b>	<b>28.7%</b>	<b>18.5%</b> (16.4–20.5)
aised BP	(21.3–25.6)	(25.3–32.1)	

Results for adults aged 15–69 years (including 95% CI)	Overall	Males	Females
STEP 3: Biochemical measurements <sup>b</sup>			
Mean fasting blood glucose, including those currently on medication	<b>91.5</b>	<b>93.4</b>	<b>89.7</b>
for raised blood glucose (mg/dl)	(90.0–92.9)	(91.2–95.6)	(88.3–91.0)
Percentage with impaired fasting glycaemia (plasma venous value	<b>4.1%</b> (3.0–5.2)	<b>5.1%</b>	<b>3.2%</b>
≥110 mg/dl and < 126 mg/dl)		(3.4–6.7)	(2.2–4.1)
Percentage with raised fasting blood glucose (plasma venous value	<b>3.6%</b>	<b>4.6%</b>	<b>2.7%</b>
≥126 mg/dl or currently on medication for raised blood glucose)	(2.9–4.4)	(3.4–5.7)	(1.9–3.6)
Mean total blood cholesterol, including those currently on medication for raised cholesterol (mg/dl)	<b>162.3</b>	<b>163.4</b>	<b>161.2</b>
	(159.7–164.9)	(159.7–167.0)	(158.6–163.8)
Percentage with raised total cholesterol ( $\geq$ 190 mg/dl or currently on medication for raised cholesterol)	<b>22.7%</b>	<b>24.5%</b>	<b>21.0%</b>
	(20.5–24.9)	(21.3–27.7)	(18.7–23.3)
Summary of combined risk factors <sup>b</sup>			
<ul> <li>Current daily smokers</li> <li>Insufficient physical activity</li> <li>Raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)</li> </ul>	<ul> <li>Less than 5 serving</li> <li>Overweight (BMI ≥</li> </ul>	s of fruit and vegetables 25 kg/m²)	per day
Percentage with low risk (i.e. none of the risk factors included above)	<b>0.4%</b> (0.1–0.7)	<b>0.1%</b> (0.0–0.2)	<b>0.7%</b> (0.2–1.2)
Percentage with raised risk (at least three of the risk factors included above), aged 15 to 44 years old	<b>9.8%</b>	<b>13.5%</b>	<b>6.3%</b>
	(8.2–11.5)	(10.7–16.3)	(5.0–7.6)
Percentage with raised risk (at least three of the risk factors included above)	29.5%	33 5%	25 5%

Percentage with low risk (i.e. none of the risk factors included above)	<b>0.4%</b> (0.1–0.7)	<b>0.1%</b> (0.0–0.2)	<b>0.7%</b> (0.2–1.2)
Percentage with raised risk (at least three of the risk factors included above), aged 15 to 44 years old	<b>9.8%</b>	<b>13.5%</b>	<b>6.3%</b>
	(8.2–11.5)	(10.7–16.3)	(5.0–7.6)
Percentage with raised risk (at least three of the risk factors included above), aged 45 to 69 years old	<b>29.5%</b>	<b>33.5%</b>	<b>25.5%</b>
	(26.4–32.7)	(29.1–37.9)	(21.8–29.2)
Percentage with three or more of the above risk factors, aged 15–69 years old	<b>15.1%</b> (13.5–16.8)	<b>19.0%</b> (16.5–21.5)	<b>11.4%</b> (9.8–13.0)

#### **Technical Notes:**

a. Population for year 2015 from "UN, World Population Prospects: The 2015 Revision : https://esa.un.org/unpd/wpp/DataQuery/ (accessed on 15 August 2016); b. Aryal, KK, et al Noncommunicable disease risk factors: STEPS survey Nepal 2013. Kathmandu: Nepal Health Research Council

\* Sample size was less than 50; \*\* Complete definitions of low and high levels of physical activity and other conditions are specified in the GPAQ Analysis Guide, available at: http://www.who.int/chp/ steps/GPAQ





	Results for adults aged 18–69 years (including 95% CI)	Overall	Males	Females
	STEP 1: Tobacco use <sup>b</sup>			
	Percentage who currently smoke tobacco	<b>15.0%</b> (13.6–16.4)	<b>29.4%</b> (26.8–31.9)	*
	Percentage who currently smoke tobacco daily	<b>10.2%</b> (9.1–11.3)	<b>19.9%</b> (17.8–22.0)	*
5	Percentage who currently smoke cigarettes	<b>15.7%</b> (13.7–17.6)	<b>24.5%</b> (22.0–27.1)	*
	Percentage who currently smoke cigarettes daily	<b>7.9%</b> (6.9–9.0)	<b>12.4%</b> (11.1–13.7)	*
	Percentage who currently use smokeless tobacco	<b>15.8%</b> (14.3–17.4)	<b>26.0%</b> (23.3–28.8)	<b>5.3%</b> (4.3–6.3)
	Percentage who currently use smokeless tobacco daily	<b>11.7%</b> (10.4–12.9)	<b>18.9%</b> (16.7–21.2)	<b>4.1%</b> (3.3–5.0)
	Percentage who currently use tobacco	<b>25.8%</b> (24.1–27.6)	<b>45.7%</b> (42.7–48.6)	<b>5.3%</b> (4.3–6.3)
	Percentage who currently use tobacco daily	<b>20.0%</b> (18.5–21.5)	<b>35.3%</b> (32.6–38.0)	<b>4.1%</b> (3.3–5.0)
	Average age started smoking (years) for daily users	<b>20.6</b> (20.1–21.1)	<b>20.5</b> (20.0–20.9)	*
	Percentage of daily smokers smoking manufactured cigarettes	<b>82.4%</b> (78.6–86.2)	<b>82.9%</b> (79.1–86.7)	*
	Average number of cigarettes smoked per day (among daily cigarette smokers)	<b>5.1</b> (4.3–5.9)	<b>5.1</b> (4.3–5.9)	*
	Percentage of adults exposed to second-hand smoke at home during the past 30 days	<b>23.5%</b> (21.5–25.5)	<b>25.2%</b> (22.5–28.0)	<b>21.6%</b> (19.3–23.9
	Percentage of adults exposed to second-hand smoke in the closed areas in their workplace during the past 30 days	<b>24.1%</b> (21.4–26.8)	<b>36.1%</b> (32.2–39.9)	<b>11.1%</b> (8.7–13.6)
	Percentage of current smokers who have tried to quit smoking	<b>51.8%</b> (46.9–56.7)	<b>51.8%</b> (46.9–56.8)	*
	Percentage of current smokers advised by a health care provider to quit smoking in past 12 months	<b>35.0%</b> (30.0–40.1)	<b>35.2%</b> (30.1–40.2)	*
	STEP 1: Alcohol consumption <sup>b</sup>			
	Percentage who are lifetime abstainers	<b>67.9%</b> (66.0–69.8)	<b>40.2%</b> (37.0–43.4)	<b>96.5%</b> (95.5–97.4
1	Percentage who are past 12 month abstainers	<b>5.8%</b> (4.6–6.8)	<b>9.7%</b> (7.9–11.4)	<b>1.8%</b> (1.2–2.3)
	Percentage who currently drink (drank alcohol in the past 30 days)	<b>17.9%</b> (16.5–19.4)	<b>34.8%</b> (32.0–37.6)	<b>0.5%</b> (0.2–0.8)
	Percentage who engage in heavy episodic drinking (6 or more drinks on any day in the past 30 days)	<b>8.6%</b> (7.4–9.7)	<b>16.8%</b> (14.5–19.0)	*



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<b>Results for adults aged 18–69 years</b> (including 95% CI)	Overall	Males	Females	
STEP 1: Diet <sup>®</sup>				
Mean number of days fruit consumed	<b>3.6</b>	<b>3.5</b>	<b>3.8</b>	
	(3.5–3.7)	(3.4–3.6)	(3.7–3.9)	
Mean number of servings of fruit consumed on average per day	<b>1.3</b> (1.2–1.4)	<b>1.3</b> (1.2–1.5)	<b>1.3</b> (1.2–1.4)	
Mean number of days vegetables consumed	<b>6.6</b> (6.5–6.6)	<b>6.5</b> (6.5–6.6)	<b>6.6</b> (6.6–6.7)	
Mean number of servings of vegetables consumed on average per day	<b>3.0</b>	<b>3.0</b>	<b>3.1</b>	
	(2.8–3.2)	(2.8–3.2)	(2.9–3.3)	
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	<b>72.5%</b>	<b>73.1%</b>	<b>72.0%</b>	
	(69.7–75.4)	(69.7–76.5)	(68.8–75.1)	
Percentage who always or often add salt or salty sauce to their food before eating	<b>21.8%</b>	<b>21.8%</b>	<b>21.8%</b>	
or as they are eating	(18.7–25.0)	(18.3–25.4)	(18.3–25.2)	
Percentage who always or often eat processed foods high in salt	<b>26.6%</b>	<b>28.3%</b>	<b>24.8%</b>	
	(23.9–29.3)	(25.0–31.7)	(21.9–27.6)	
STEP 1: Physical activity <sup>6</sup>				
Percentage with low levels of activity (defined as <150 minutes of	<b>30.4%</b>	<b>22.5%</b>	<b>38.4%</b>	
moderate—intensity activity per week,or equivalent)**	(27.9–32.8)	(19.4–25.6)	(35.5–41.4)	
vledian time spent in physical activity on average per day (minutes)	<b>77.1</b> (12.8–240.0)	<b>124.3</b>	<b>42.8</b>	
presented with inter—quartile range)		(25.71–336.4)	(4.3–150.0)	
Percentage not engaging in vigorous activity	<b>73.6%</b>	<b>58.3%</b>	<b>89.2%</b>	
	(71.6–75.6)	(55.1–61.5)	(87.5–90.8)	
STEP 1: Cervical cancer screening <sup>®</sup>				
Percentage of women aged 30–49 years who have ever had a screening test for cervical cancer	-	-	<b>24.5%</b> (21.8–27.3)	
STEP 2: Physical measurements <sup>b</sup>				
Mean body mass index — BMI (kg/m²)	<b>22.9</b>	<b>22.4</b>	<b>23.5</b>	
	(22.7–23.1)	(22.2–22.7)	(23.2–23.7)	
Percentage who are overweight (BMI 25.0–29.9 kg/m²)	<b>23.4%</b> (21.9–24.9)	<b>21.0%</b> (18.7–23.3)	<b>26.0%</b> (24.1–27.8)	
Percentage who are obese (BMI ≥30 kg/m²)	<b>5.9%</b>	<b>3.5%</b>	<b>8.4%</b>	
	(5.1–6.7)	(2.5–4.5)	(7.2–9.6)	
werage waist circumference (cm)	-	<b>82.3</b> (81.5–83.2)	<b>82.1</b> (81.3–82.9)	
Mean systolic blood pressure — SBP (mmHg), including those currently	<b>125.1</b>	<b>126.8</b>	<b>123.4</b>	
on medication for raised BP	(124.4–125.8)	(125.9–127.7)	(122.4–124.4)	
Mean diastolic blood pressure – DBP (mmHg), including those currently	<b>80.5</b>	<b>80.5</b>	<b>80.4</b>	
on medication for raised BP	(80.0–81.0)	(79.8–81.1)	(79.8–81.1)	
Percentage with raised BP (SBP ≥140 and/or DBP ≥90 mmHg or currently	<b>26.1%</b>	<b>25.4%</b>	<b>26.7%</b>	
on medication for raised BP)	(24.4–27.7)	(23.0–27.9)	(24.7–28.6)	
Percentage with raised BP (SBP ≥140 and/or DBP ≥90 mmHg) excluding those on medication for	<b>21.0%</b>	<b>21.9%</b>	<b>20.2%</b>	
aised BP	(19.5–22.6)	(19.5–24.2)	(18.3–22.0)	

Less than 5 servings of fruit and vegetables per day

• Overweight (BMI  $\ge 25 \text{ kg/m}^2$ )

Results for adults aged 18–69 years (including 95% CI)	Overall	Males	Females	
STEP 3: Biochemical measurements <sup>b</sup>				
Mean fasting blood glucose, including those currently on medication for raised	<b>81.6</b>	<b>81.9</b>	<b>81.4</b>	
blood glucose (mg/dl)	(79.8–83.5)	(79.6–84.2)	(79.3–83.5)	
Percentage with impaired fasting glycaemia (plasma venous value	<b>3.8%</b>	<b>4.4%</b>	<b>3.2%</b>	
≥110 mg/dl and < 126 mg/dl)	(3.1–4.5)	(3.2–5.5)	(2.4–4.0)	
Percentage with raised fasting blood glucose (plasma venous value ≥126 mg/dl or currently on medication for raised blood glucose)	<b>7.4%</b>	<b>7.3%</b>	<b>7.6%</b>	
	(6.4–8.5)	(5.9–8.7)	(6.4–8.8)	
Mean total blood cholesterol, including those currently on medication for raised cholesterol (mg/dl)	<b>152.2</b>	<b>146.8</b>	<b>157.8</b>	
	(149.5–154.9)	(143.6–150.0)	(154.7–160.9)	
Percentage with raised total cholesterol ( $\geq$ 190 mg/dl or currently on medication for raised cholesterol)	<b>23.7%</b>	<b>19.1%</b>	<b>28.4%</b>	
	(21.7–25.7)	(16.5–21.6)	(26.0–30.9)	
Cardiovascular disease (CVD) risk <sup>6</sup>				
Percentage aged $40-69$ years with a $10-year$ CVD risk $\ge 30\%$ , or with existing CVD***	<b>9.1%</b>	<b>8.9%</b>	<b>9.3%</b>	
	(7.8–10.4)	(6.9–10.9)	(7.6–11.1)	
Summary of combined risk factors <sup>b</sup>				

Current daily smokers

Insufficient physical activity

• Raised BP (SBP  $\ge$  140 and/or DBP  $\ge$  90 mmHg or currently on medication for raised BP)

Percentage with low risk (i.e. none of the risk factors included above)	<b>8.2%</b>	<b>7.6%</b>	<b>8.8%</b>
	(6.8–9.6)	(5.9–9.4)	(7.1–10.5)
Percentage with raised risk (at least three of the risk factors included above), aged 18 to 44 years old	<b>12.5%</b>	<b>12.1%</b>	<b>13.0%</b>
	(10.9–14.1)	(9.6–14.5)	(10.9–15.0)
Percentage with raised risk (at least three of the risk factors included above), aged 45 to 69 years old	<b>27.8%</b> (25.5–30.0)	<b>24.0%</b> (20.8–27.2)	<b>31.4%</b> (28.5–34.3)
Percentage with three or more of the above risk factors, aged 18–69 years old	<b>18.3%</b>	<b>16.4%</b>	<b>20.2%</b>
	(16.8–19.7)	(14.3–18.5)	(18.4–22.1)

### **Technical Notes:**

a. Population for year 2015 from United Nations. World population prospects: the 2012 revision. New York: Population Division, Department of Economics and Social Affairs, 2015; b. STEPS survey Sri Lanka 2015, Noncommunicable disease risk factor survey Sri Lanka 2015

Lahka 2015, Noncommunicatie usease risk factor survey sit Laika 2013
\* Sample size was less than 50; \*\* Complete definitions of low and high levels of physical activity and other conditions are specified in the GPAQ Analysis Guide, available at: http://www.who.int/chp/ steps/GPAQ; \*\*\* A 10—year CVD risk of >30% is defined according to age, sex, blood pressure, smoking status (current smokers OR those who quit smoking less than 1 year before the assessment), total cholesterol, and diabetes (previously diagnosed OR a fasting plasma glucose concentration >7.0mmol/l (126 mg/dl)



**Exposure to second-hand smoke** 



### THAILAND

Results for adults aged 15+ years (including 95% CI)	Overall	Males	Females
Tobacco use <sup>b</sup>			
Percentage who currently smoke tobacco	<b>24.0%</b> (22.8–25.1)	<b>46.6%</b> (44.7–48.4)	<b>2.6%</b> (2.2–3.1)
Percentage who currently smoke tobacco daily	<b>21.5%</b> (20.4–22.6)	<b>42.0%</b> (40.2–43.9)	<b>2.1%</b> (1.8–2.5)
Current cigarette smokers (among current tobacco smokers)	<b>15.2%</b>	<b>30.1%</b>	<b>1.1%</b>
	(14.3–16.2)	(28.4–31.9)	(0.9–1.4)
Percentage who currently use smokeless tobacco	<b>3.2%</b>	<b>1.1%</b>	<b>5.2%</b>
	(2.8–3.7)	(0.8–1.5)	(4.5–6.1)
Percentage who currently use smokeless tobacco daily	<b>2.9%</b>	<b>0.7%</b>	<b>5.0%</b>
	(2.5–3.4)	(0.5–1.0)	(4.3–5.8)
Percentage who currently use tobacco in any form (smoked and/or smokeless)	<b>26.9%</b>	<b>47.2%</b>	<b>7.6%</b>
	(25.7–28.1)	(45.3–49.1)	(6.8–8.6)
Average age started smoking (years) for daily users	<b>17.4</b>	<b>17.3</b>	<b>19.0</b>
	(17.1–17.7)	(17.0–17.7)	(17.7–20.2
Percentage of current smokers smoking manufactured cigarettes	<b>15.2%</b>	<b>30.1%</b>	<b>1.1%</b>
	(14.3–16.2)	(28.4–31.9)	(0.9–1.4)
Mean number of manufactured cigarettes smoked per day	<b>12.5</b>	<b>12.6</b>	<b>9.3</b>
(by smokers of manufactured cigarettes)	(12.0–12.9)	(12.2–13.1)	(8.2–10.4
Percentage of adults exposed to second-hand smoke at home during the past 30 days	<b>36.0%</b>	<b>39.9%</b>	<b>32.3%</b>
	(34.3–37.7)	(37.7–42.1)	(30.5–34.2
Percentage of adults exposed to second-hand smoke in the closed areas in their workplace during the past 30 days	<b>30.5%</b>	<b>37.1%</b>	<b>22.8%</b>
	(28.1–32.9)	(33.9–40.3)	(20.4–25.5
Percentage of current smokers who tried to stop smoking in past 12 months	<b>36.7%</b>	<b>36.5%</b>	<b>39.4%</b>
	(34.0–39.4)	(33.7–39.3)	(32.4–46.9
Percentage of current smokers advised by a health care provider to stop	<b>55.8%</b>	<b>55.9%</b>	<b>54.5%</b>
smoking in past 12 months	(52.0–59.5)	(51.9–59.9)	(44.6–64.0

### **Technical Notes:**

a. Population for year 2015 from "UN, World Population Prospects: The 2015 Revision : https://esa.un.org/unpd/wpp/DataQuery/ (accessed on 15 August 2016); b. World Health Organization, Regional Office for South East Asia. Global Adult Tobacco Survey (GATS): Thailand Report 2011





	STEP 1: Tobacco use <sup>b</sup>			
	STEP 1: TODACCO USE			
	Percentage who currently smoke tobacco	<b>48.6%</b> (38.4–58.7)	<b>69.5%</b> (67.0–72.0)	<b>9.6%</b> (5.8–13.
	Percentage who currently smoke tobacco daily	<b>35.0%</b> (29.8–40.3)	<b>49.6%</b> (46.3–53.0)	<b>7.8%</b> (2.8–12)
-	Current cigarette smokers (among current tobacco smokers)	<b>94.8%</b> (88.0–100.0)	<b>95.2%</b> (88.9–100.0)	<b>89.3</b> % (76.4–10
-	Percentage who currently use smokeless tobacco	<b>19.8%</b> (16.3–23.4)	<b>16.1%</b> (14.0–18.2)	<b>26.8%</b> (17.9–35
•	Percentage who currently use smokeless tobacco daily	<b>13.8%</b> (10.4–17.2)	<b>14.0%</b> (9.6–18.4)	<b>13.4%</b> (11.4–15
-	Percentage who currently use tobacco in any form (smoked and/or smokeless)	<b>56.1%</b> (53.3–58.8)	<b>70.6%</b> (68.9–72.4)	<b>28.9%</b> (18.6–39
-	Current daily tobacco users	<b>37.9%</b> (35.4–40.4)	<b>50.1%</b> (46.2–54.1)	<b>15.1%</b> (13.3–16
-	Average age started smoking (years) for daily users	<b>16.4</b> (15.2–17.6)	<b>16.3</b> (15.3–17.3)	<b>17.6</b> (13.8–21
-	Percentage of daily smokers smoking manufactured cigarettes	<b>94.5%</b> (87.7–100.0)	<b>94.6%</b> (88.0–100.0)	<b>93.0%</b> (82.5–10
-	Mean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	<b>12.1</b> (8.6–15.7)	<b>12.9</b> (8.9–17.0)	<b>2.9</b> (1.6–4.
-	Percentage of adults exposed to second-hand smoke at home during the past 30 days	<b>92.1%</b> (83.6–100.0)	<b>94.6%</b> (87.8–100.0)	<b>87.4%</b> (78.3–96
-	Percentage of adults exposed to second-hand smoke in the closed areas in their workplace during the past 30 days	<b>51.0%</b> (33.8–68.2)	<b>38.9%</b> (13.9–63.9)	<b>74.4%</b> (62.6–86
-	Percentage of current smokers who tried to quit smoking in past 12 months	<b>23.0%</b> (13.1–33.0)	<b>19.1%</b> (7.3–31.0)	<b>75.2%</b> (47.3–10
-	Percentage of current smokers advised by a health care provider to quit smoking in past 12 months	<b>22.5%</b> (7.6–37.4)	<b>22.4%</b> (8.7–36.1)	<b>23.3%</b> (0.0–51
	STEP 1: Alcohol consumption <sup>b</sup>			
	Percentage who are lifetime abstainers	<b>57.7%</b> (53.7–61.8)	<b>39.4%</b> (37.2–41.6)	<b>92.1%</b> (86.3–97
•	Percentage who are past 12 month abstainers	<b>5.5%</b> (4.8–6.1)	<b>6.9%</b> (6.2–7.6)	<b>2.8%</b> (0.6–5.
-	Percentage who currently drink (drank alcohol in the past 30 days)	<b>28.6%</b> (20.3–36.9)	<b>42.8%</b> (37.1–48.6)	<b>2.0%</b> (0.5–3.
	Percentage who engage in heavy episodic drinking (6 or more drinks on any day in the past 30 days)	<b>14.5%</b> (12.7–16.4)	<b>21.8%</b> (20.1–23.4)	<b>1.0%</b> (0.1–1.



	<b>Results for adults aged 18–69 years</b> (including 95% CI) STEP 1: Diet <sup>®</sup>			
		2.3	2.2	2.6
	Mean number of days fruit consumed in a typical week	(1.8–2.8)	(1.9–2.5)	(1.5–3.7)
	Mean number of servings of fruit consumed on average per day	<b>0.9</b> (0.6–1.2)	<b>1.0</b> (0.7–1.2)	<b>0.9</b> (0.5–1.2)
	Mean number of days vegetables consumed in a typical week	<b>6.7</b> (6.3–7.0)	<b>6.7</b> (6.3–7.1)	<b>6.6</b> (6.3–6.9)
	Mean number of servings of vegetables consumed on average per day	<b>5.0</b> (3.1–7.0)	<b>6.3</b> (3.8–8.9)	<b>2.8</b> (2.5–3.0)
	Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	<b>77.5%</b> (73.0–82.0)	<b>70.7%</b> (64.1–77.4)	<b>90.4%</b> (82.9–97.8
•	Percentage who always or often add salt or salty sauce to their food before eating or as they are eating	<b>78.0%</b> (70.2–85.8)	<b>74.7%</b> (67.0–82.5)	<b>84.1%</b> (79.2–89.1
	Percentage who always or often eat processed foods high in salt	<b>12.9%</b> (10.9–14.8)	<b>15.8%</b> (12.2–19.4)	<b>7.3%</b> (1.8–12.9
	STEP 1: Physical activity <sup>b</sup>			
	Percentage with insuffiicent physical activity (defined as<150 minutes of moderate—intensity activity per week,or equivalent)	<b>16.7%</b> (7.8–25.6)	<b>12.8%</b> (7.6–18.0)	<b>23.3%</b> (10.9–35.7
	Median time spent in physical activity on average per day (minutes) (presented with inter—quartile range)	<b>85.7</b> (34.3–199.3)	<b>154.3</b> (34.3–248.6)	<b>47.1</b> (21.4–102.
	Percentage not engaging in vigorous activity	<b>52.4%</b> (50.6–54.1)	<b>39.9%</b> (38.0–41.9)	<b>73.3%</b> (64.0–82.6
	STEP 1: Violence and injury <sup>b</sup>			
	Percentage of respondents who have been involved in a road traffic crash during the past 12 months	<b>3.0</b> (0.0–6.3)	<b>3.6</b> (0.0–8.3)	<b>1.9</b> (0.4–3.4)
•	Percentage of respondents seriously injured as a result of road traffic crash among those involved in a road traffic crash in the past 12 months	<b>49.6</b> (36.2–62.9)	<b>46.9</b> (31.0–62.8)	<b>59.0</b> (40.6–77.5
-	Percentage of respondents injured in a non-road traffic related accident that required medical attention in the past 12 months	<b>2.5</b> (0.0–5.3)	<b>2.4</b> (0.0–5.4)	<b>2.8</b> (0.6–5.1)
	Percentage of respondents who were seriously injured other than road traffic crashes (due to fall) in the past 12 months	<b>62.5</b> (50.9–74.2)	<b>72.3</b> (55.8–88.8)	<b>47.1</b> (32.9–61.2
	Percentage of respondents who have driven a motorized vehicle after having had 2 or more alcoholic drinks in the past 30 days	<b>9.6</b> (8.2–11.0)	<b>14.8</b> (12.6–16.9)	<b>2.5</b> (0.0–5.1)
	Percentage of respondents who rode in a motorized vehicle where the driver has had 2 or more alcoholic drinks in the past 30 days	<b>7.5</b> (5.2–9.7)	<b>12.5</b> (9.4–15.7)	<b>0.5</b> (0.0–1.2)
	Percentage of respondents involved in a violent incident during the past 12 months resulting in an injury	<b>1.0</b> (0.0–2.1)	<b>1.1</b> (0.0–2.7)	<b>0.7</b> (0.0–1.5)
	STEP 1: Cervical cancer screening <sup>6</sup>			
	Percentage of women aged 30–49 years who have ever had a screening test for cervical cancer	-	-	<b>1.1%</b> (0.0–2.3)
	STEP 2: Physical measurements <sup>b</sup>			
	Mean body mass index – BMI (kg/m²)	<b>21.2</b> (21.0–21.5)	<b>21.3</b> (20.9–21.8)	<b>21.0</b> (20.7–21.3
		(21.0 21.0)	(20.0 21.0)	

Results for adults aged 18–69 years (including 95% CI)	Overall	Males	Females	
Percentage who are obese (BMI $\ge$ 30 kg/m <sup>2</sup> )	<b>0.9%</b>	<b>0.7%</b>	<b>1.3%</b>	
	(0.0–1.8)	(0.0–1.5)	(0.2–2.4)	
Average waist circumference (cm)	_	<b>71.3</b> (68.0–74.7)	<b>77.4</b> (75.7–79.0)	
Mean systolic blood pressure – SBP (mmHg), including those currently	<b>129.0</b>	<b>133.1</b>	<b>121.4</b>	
on medication for raised BP	(123.7–134.4)	(126.9–139.2)	(120.7–122.2)	
Mean diastolic blood pressure – DBP (mmHg), including those currently	<b>83.1</b>	<b>83.5</b>	<b>82.4</b>	
on medication for raised BP	(80.4–85.8)	(80.7–86.2)	(80.1–84.7)	
Percentage with raised BP (SBP $\geq$ 140 and/or DBP $\geq$ 90 mmHg or currently on medication for raised BP)	<b>39.3%</b>	<b>45.3%</b>	<b>28.0%</b>	
	(23.2–55.4)	(27.3–63.3)	(21.5–34.5)	
Percentage with raised BP (SBP ${\geq}140$ and/or DBP ${\geq}90$ mmHg) excluding those on medication for raised BP	<b>38.6%</b>	<b>44.8%</b>	<b>26.9%</b>	
	(21.7–55.6)	(26.1–63.6)	(19.6–34.3)	
STEP 3: Biochemical measurements <sup>b</sup>				
Mean fasting blood glucose, including those currently on medication for	<b>77.6</b>	<b>79.7</b>	<b>74.0</b>	
raised blood glucose (mg/dl)	(75.8–79.4)	(76.7–82.6)	(71.4–76.6)	
Percentage with impaired fasting glycaemia (capillary whole blood value	<b>4.1%</b> (2.2–6.1)	<b>5.7%</b>	<b>1.2%</b>	
≥5.6mmol/L(100mg/dl) and <6.1mmol/L (110mg/dl)		(3.0–8.5)	(0.2–2.2)	
Percentage with raised fasting blood glucose (capillary whole blood value	<b>1.5%</b>	<b>1.5%</b>	<b>1.6%</b>	
≥6.1 mmol/L (110 mg/dl) or currently on medication for raised blood glucose)	(0.0–3.2)	(0.0–3.5)	(0.3–2.9)	
Mean total blood cholesterol, including those currently on medication for raised cholesterol (mg/dl)	<b>149.9</b>	<b>143.7</b>	<b>160.7</b>	
	(144.7–155.1)	(139.7–147.8)	(147.7–173.7)	
Percentage with raised total cholesterol ( $\geq$ 5.0mmol/L or $\geq$ 190mg/dl or currently on medication for raised cholesterol)	<b>21.0%</b>	<b>18.5%</b>	<b>25.5%</b>	
	(11.4–30.6)	(9.8–27.2)	(12.0–39.0)	
Cardiovascular disease (CVD) risk <sup>6</sup>				
Percentage aged 40–69 years with a 10–year CVD risk $\geq$ 30%, or with existing CVD**	<b>1.4%</b>	<b>0.9%</b>	<b>2.9%</b>	
	(0.0–2.9)	(0.0–2.2)	(1.5–4.1)	
Summary of combined risk factors <sup>b</sup>				
<ul> <li>Current daily smokers</li> <li>Insufficient physical activity</li> <li>Raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)</li> </ul>	<ul> <li>Less than 5 serving</li> <li>Overweight (BMI ≥ 3)</li> </ul>	s of fruit and vegetables 25 kg/m²)	per day	
Percentage with low risk (i.e. none of the risk factors included above)	<b>7.8%</b> (6.4–9.3)	<b>10.1%</b> (6.7–13.4)	<b>4.2%</b> (0.6–7.9)	
Percentage with raised risk (at least three of the risk factors included above), aged 18 to 44 years old	<b>16.3%</b>	<b>16.0%</b>	<b>16.7%</b>	
	(13.5–19.1)	(14.2–17.8)	(11.3–22.1)	

Percentage with three or more of the above risk factors, aged 18–69 years old

Percentage with raised risk (at least three of the risk factors included above),

#### **Technical Notes:**

aged 45 to 69 years old

a. Population for year 2015 from United Nations. World population prospects: the 2012 revision. New York: Population Division, Department of Economics and Social Affairs, 2015;
 b. World Health Organization, Regional Office for South East Asia. National survey for noncommunicable disease risk factors and injuries using WHO STEPS approach in Timor–Leste 2014
 \* Sample size was less than 50; \*\* A 10–year CVD risk of >30% is defined according to age, sex, blood pressure, smoking status (current smokers OR those who quit smoking less than 1 year before the assessment), total cholesterol, and diabetes (previously diagnosed OR a fasting plasma glucose concentration >7.0mmol/l (126 mg/dl)

28.2%

(22.8-33.5)

19.4%

(16.1 - 22.7)

32.0%

(29.6-34.3)

21.1%

(19.0-23.3)

**16.1%** (12.1–20.1)

16.6%

(12.0-21.3)

This publication, entitled 'NCD risk behaviours among adults in the South-East Asia Region: Findings from STEPS and GATS', conveys the most recent quantitative surveillance results focusing on noncommunicable disease (NCDs)-related risk behaviours among adults from the WHO STEPwise approach to NCD risk factor surveillance (STEPS) and tobacco use among adults from the Global Adult Tobacco Survey (GATS) in Member States of the WHO South-East Asia Region.

This publication contains selected indicators relating to tobacco use and other related risk behaviours of adults in Member States of the WHO South-East Asia Region. The tobacco indicators are taken from GATS or STEPS and other indicators relating to risk behaviours (history– dietary behaviours, physical activity, alcohol use, cervical cancer screening; physical measurements – body mass index, blood pressure, waist circumference; biochemical measurements – fasting blood glucose level, blood glucose level 2 hours after glucose load, total blood cholesterol, urine sodium and urine creatinine) are taken from STEPS. The latest findings from surveys conducted in Member States are presented in the publication.



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