



# Malawi STEPS Survey 2009

## Fact Sheet

The STEPS survey of chronic disease risk factors in Malawi was carried out from July 2009 to September 2009. Malawi carried out Step 1, Step 2 and Step 3. Socio demographic and behavioural information was collected in Step 1. Physical measurements such as height, weight and blood pressure were collected in Step 2. Biochemical measurements were collected to assess blood glucose and cholesterol levels in Step 3. The STEPS survey in Malawi was a population-based survey of adults aged 25-64. A multi-stage cluster sample design was used to produce representative data for that age range in Malawi. A total of 5,206 adults participated in the Malawi STEPS survey, of which 67.5% were female. The overall response rate was 95.5%.

Results for adults aged 25-64 years (incl. 95% CI)	Both Sexes	Males	Females
<b>Step 1 Tobacco Use</b>	n=5,206	n= 1,690	n=3,516
Percentage who currently smoke tobacco	<b>14.1%</b> (12.7 – 15.6)	<b>25.9%*</b> (23.3 – 28.5)	<b>2.9%</b> (2.1 – 3.8)
Percentage who currently smoke tobacco daily	<b>12.4%</b> (11.0 – 13.7)	<b>22.8%*</b> (20.5 – 25.2)	<b>2.4%</b> (1.7 – 3.2)
<i>For those who smoke tobacco daily</i>			
Average age started smoking (years)	<b>22.1</b> (21.4 – 22.9)	<b>21.9</b> (21.2 – 22.7)	<b>24.6</b> (21.5 – 27.7)
Percentage of daily smokers smoking manufactured cigarettes	<b>46.4%</b> (40.3 – 52.4)	<b>49.9%*</b> (43.3 – 56.4)	<b>14.6%</b> (7.8 – 21.4)
Mean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	<b>2.8</b> (2.4 – 3.3)	<b>3.0</b> (2.5 – 3.5)	<b>1.5</b> (0.1 – 3.0)
<b>Step 1 Alcohol Consumption</b>	n=5,206	n= 1,690	n=3,516
Percentage who are lifetime abstainers	<b>68.1%</b> (65.8 – 70.4)	<b>47.4%</b> (43.9 – 50.9)	<b>87.8%*</b> (86.1 – 89.6)
Percentage who are past 12 month abstainers	<b>10.5%</b> (9.3 – 11.7)	<b>15.3%*</b> (13.1 – 17.3)	<b>6.0%</b> (5.0 – 7.0)
Percentage who currently drink (drank alcohol in the past 30 days)	<b>16.9%</b> (15.1 – 18.7)	<b>30.1%*</b> (27.2 – 33.1)	<b>4.2%</b> (3.2 – 5.2)
Percentage who engage in heavy episodic drinking (men who had 5 or more / women who had 4 or more drinks on any day in the past 30 days)	--	<b>19.0%*</b> (16.5 – 21.5)	<b>2.3%</b> (1.6 – 3.1)
<b>Step 1 Fruit and Vegetable Consumption (in a typical week)</b>	n=5,177	n=1,679	n=3,498
Mean number of days fruit consumed	<b>2.0</b> (1.8 – 2.1)	<b>2.0</b> (1.8 – 2.1)	<b>2.0</b> (1.8 – 2.2)
Mean number of servings of fruit consumed on average per day	<b>0.5</b> (0.4 – 0.5)	<b>0.5</b> (0.4 – 0.5)	<b>0.5</b> (0.4 – 0.6)
Mean number of days vegetables consumed	<b>5.6</b> (5.5 – 5.7)	<b>5.5</b> (5.3 – 5.6)	<b>5.7</b> (5.6 – 5.9)
Mean number of servings of vegetables consumed on average per day	<b>1.6</b> (1.6 – 1.7)	<b>1.6</b> (1.5 – 1.6)	<b>1.7</b> (1.6 – 1.8)
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	<b>97.5%</b> (96.8 – 98.2)	<b>98.0%</b> (97.2 – 98.7)	<b>97.1%</b> (96.2 – 98.0)
<b>Step 1 Physical Activity</b>	n=4,057	n=1,355	n=2,702
Percentage with low levels of activity (defined as < 600 MET-minutes per week)*	<b>9.5%</b> (8.0 – 10.9)	<b>6.3%</b> (4.8 – 7.8)	<b>12.6%*</b> (10.6 – 14.7)
Percentage with high levels of activity (defined as ≥ 3000 MET-minutes per week)*	<b>83.7%</b> (81.5 – 85.9)	<b>88.0%</b> (85.8 – 90.2)	<b>79.4%</b> (76.6 – 82.2)
Median time spent in physical activity on average per day (minutes) (presented with inter-quartile range)	<b>261.4</b> (150.0 – 385.7)	<b>300.0</b> (188.6 – 428.6)	<b>231.4</b> (120.0 – 342.9)
Percentage not engaging in vigorous activity	<b>17.8%</b> (15.5 – 20.1)	<b>13.2%</b> (10.9 – 15.5)	<b>22.3%*</b> (19.3 – 25.3)

\* For complete definitions of low and high levels of physical activity, other conditions are specified in the GPAQ Analysis Guide, available at: <http://www.who.int/chp/steps/GPAQ/en/index.html>



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Results for adults aged 25-64 years (incl. 95% CI)	Both Sexes	Males	Females
<b>Step 2 Physical Measurements:</b>			
<b>Body mass index (BMI):</b>	n=4,845	n=1,664	n=3,181
Mean body mass index - BMI (kg/m <sup>2</sup> )	<b>23.0</b> (22.8 – 23.1)	<b>22.4</b> (22.3 – 22.6)	<b>23.5</b> (23.3 – 23.7)
Percentage who are overweight (BMI ≥ 25 kg/m <sup>2</sup> )	<b>21.9%</b> (20.4 – 23.5)	<b>16.1%</b> (14.1 – 18.0)	<b>28.1%*</b> (25.9 – 30.2)
Percentage who are obese (BMI ≥ 30 kg/m <sup>2</sup> )	<b>4.6%</b> (4.0 – 5.3)	<b>2.0%</b> (1.3 – 2.6)	<b>7.3%*</b> (6.3 – 8.4)
Mean waist circumference (cm)	--	<b>77.3</b> (76.6 – 78.0)	<b>78.6</b> (77.8 – 79.4)
<b>Blood pressure (BP):</b>	n=3,910	n=1,183	n=2,727
Mean systolic blood pressure - SBP (mmHg), including those currently on medication for raised BP	<b>132.8</b> (131.8 – 133.8)	<b>135.8</b> (134.4 – 137.2)	<b>130.3</b> (129.2 – 131.4)
Mean diastolic blood pressure - DBP (mmHg), including those currently on medication for raised BP	<b>79.1</b> (78.5 – 79.8)	<b>79.1</b> (78.3 – 80.0)	<b>79.1</b> (78.4 – 79.8)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)	<b>32.9%</b> (30.6 – 35.2)	<b>37.2%*</b> (33.6 – 40.8)	<b>29.2%</b> (27.1 – 31.3)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg) who are not currently on medication for raised BP	<b>94.9%</b> (93.5 – 96.3)	<b>96.4%</b> (94.7 – 98.1)	<b>93.3%</b> (91.1 – 95.5)
<b>Step 3 Biochemical Measurement</b>			
<b>Fasting blood sugar:</b>	n=3,056	n=911	n=2,144
Mean fasting blood glucose, including those currently on medication for raised blood glucose (mg/dl)	<b>76.9</b> (74.6 – 79.2)	<b>77.9</b> (75.0 – 80.7)	<b>76.0</b> (74.0 – 78.0)
Percentage with impaired fasting glycaemia as defined below • plasma venous value ≥6.1 mmol/L (110 mg/dl) and <7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥5.6 mmol/L (100 mg/dl) and <6.1 mmol/L (110 mg/dl)	<b>4.2%</b> (3.0 – 5.4)	<b>5.7%</b> (3.9 – 7.5)	<b>2.7%</b> (1.6 – 3.8)
Percentage with raised fasting blood glucose as defined below or currently on medication for raised blood glucose • plasma venous value ≥ 7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥ 6.1 mmol/L (110 mg/dl)	<b>5.6%</b> (2.6 – 8.5)	<b>6.5%</b> (2.6 – 10.3)	<b>4.7%</b> (2.4 – 7.0)
<b>Total cholesterol:</b>	n=2,587	n=775	n=1,812
Mean total blood cholesterol, including those currently on medication for raised cholesterol (mg/dl)	<b>168.6</b> (167.0 – 170.3)	<b>166.9</b> (164.9 – 168.9)	<b>170.3</b> (168.7 – 171.9)
Percentage with raised total cholesterol (≥ 5.0 mmol/L or ≥ 190 mg/dl or currently on medication for raised cholesterol)	<b>8.7%</b> (7.4 – 10.0)	<b>6.3%</b> (4.6 – 8.1)	<b>11.0%*</b> (9.4 – 12.6)
<b>Summary of combined risk factors</b>			
<ul style="list-style-type: none"> <li>current daily smokers</li> <li>less than 5 servings of fruits &amp; vegetables per day</li> <li>low level of activity</li> </ul>		<ul style="list-style-type: none"> <li>overweight (BMI ≥ 25 kg/m<sup>2</sup>)</li> <li>raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)</li> </ul>	
	n=2,842	n=940	n=1,902
Percentage with none of the above risk factors	<b>1.0%</b> (0.6 – 1.4)	<b>0.3%</b> (0.0 – 0.7)	<b>1.6%</b> (1.0 – 2.3)
Percentage with three or more of the above risk factors, aged 25 to 44 years	<b>13.0%</b> (11.1 – 14.9)	<b>15.3%</b> (12.2 – 18.4)	<b>10.7%</b> (8.6 – 12.7)
Percentage with three or more of the above risk factors, aged 45 to 64 years	<b>23.7%</b> (20.6 – 26.9)	<b>22.6%</b> (17.6 – 27.5)	<b>24.7%</b> (20.6 – 28.9)
Percentage with three or more of the above risk factors, aged 25 to 64 years	<b>16.5%</b> (14.7 – 18.4)	<b>17.6%</b> (14.8 – 20.4)	<b>15.5%</b> (13.5 – 17.6)

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