

# Kuwait STEPS Survey 2006



The STEPS survey of chronic disease risk factors in Kuwait was carried out from March 2006 to June 2007. Kuwait 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 Kuwait was a population-based survey of adults aged 20-64 years. A stratified random sample, with equal proportions, design was used to produce representative data for that age range in Kuwait. A total of 2,280 adults participated in the Kuwait STEPS survey. The overall response rate was 77.6%. A repeat survey is planned for 2010 if funds permit.

Results for adults aged 20-64 years	Both Sexes	Males	Females
<b>Step 1 Tobacco Use</b>			
Percentage who currently smoke tobacco daily	20.6% (18.5 – 22.7)	37.8% (34.1 – 41.4)	3.0% (2.0 – 4.0)
<i>For those who smoke tobacco daily</i>			
Average age started smoking (years)	18.5 (17.9 – 19.1)	16.1 (17.6 – 18.7)	23.1 (21.0 – 25.3)
Average years of smoking	13.8 (12.9 – 14.7)	13.7 (12.7 – 14.7)	15.1 (10.8 – 19.4)
Percentage smoking manufactured cigarettes	85.0% (81.1 – 88.9)	86.0% (82.0 – 90.0)	72.3% (56.6 – 88.0)
Mean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	22.1 (20.8 – 23.6)	22.0 (20.4 – 23.8)	23.4 (15.7 – 31.1)
<b>Step 1 Alcohol Consumption</b>			
Percentage of abstainers (who did not drink alcohol in the last year)	97.3% (96.5 – 98.1)	94.9% (93.3 – 96.4)	99.8% (99.6 – 100.0)
Percentage of current drinkers (who drank alcohol in the past 30 days)	2.7% (1.9 – 3.5)	5.1% (3.6 – 6.7)	0.2% (0.0 – 0.4)
<i>For those who drank alcohol in the last 30 days</i>			
Percentage who drank alcohol on 4 or more days in the last week	100.0% (100.0 – 100.0)	100.0% (100 – 100)	100.0% (100.0 – 100.0)
Percentage of women who had 4 or more drinks on any day in the last week			100.0% (100.0 – 100.0)
Percentage of men who had 5 or more drinks on any day in the last week		28.4% (5.0 – 51.8)	
<b>Step 1 Fruit and Vegetable Consumption (in a typical week)</b>			
Mean number of days fruit consumed	4.75 (4.74 – 4.75)	4.76 (4.75 – 4.78)	4.73 (4.71 – 4.74)
Mean number of servings of fruit consumed per day	2.22 (2.22 – 2.23)	2.32 (2.32 – 2.33)	2.12 (2.12 – 2.13)
Mean number of days vegetables consumed	4.93 (4.92 – 4.94)	4.82 (4.81 – 4.83)	5.04 (5.03 – 5.06)
Mean number of servings of vegetables consumed per day	1.57 (1.57 – 1.58)	1.60 (1.59 – 1.64)	1.55 (1.54 – 1.55)
Percentage who ate less than 5 of combined servings of fruit & vegetables per day	81.0% (80.8 – 81.1)	79.2% (79.0 – 79.4)	82.8% (82.6 – 83.0)

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<b>Step 1 Physical Activity</b>			
Percentage with low levels of activity (defined as <600 MET-minutes/week)	<b>55.4%</b> (55.2 – 55.6)	<b>47.8%</b> (47.5 – 48.0)	<b>63.2%</b> (63.0 – 63.5)
Percentage with high levels of activity (defined as ≥3000 MET-minutes/week)	<b>14.6%</b> (14.5 – 14.7)	<b>17.8%</b> (17.8 – 18.0)	<b>11.4%</b> (11.2 – 11.6)
Median time spent in physical activity per day (minutes)	<b>15.0</b> (0.0 – 55.7)	<b>21.4</b> (0.0 – 64.3)	<b>6.4</b> (0.0 – 42.9)
Mean time spent in physical activity per day (minutes)	<b>45.1</b> (41.2 – 48.9)	<b>52.2</b> (46.0 – 58.5)	<b>37.7</b> (33.4 – 42.1)
<b>Step 2 Physical Measurements</b>			
Mean body mass index - BMI (kg/m <sup>2</sup> )	<b>29.6</b> (29.3 – 30.0)	<b>28.9</b> (28.4 – 29.3)	<b>30.5%</b> (30.1 – 30.9)
Percentage who are overweight or obese (BMI ≥ 25 kg/m <sup>2</sup> )	<b>75.4</b> (74.9 – 75.9)	<b>73.6</b> (73.1 – 74.2)	<b>77.4</b> (76.8 – 78.0)
Percentage who are obese (BMI ≥ 30 kg/m <sup>2</sup> )	<b>41.9</b> (39.6 – 44.3)	<b>36.4</b> (32.9 – 39.9)	<b>47.9</b> (44.9 – 50.8)
Average waist circumference (cm)		<b>96.3</b> (95.1 – 97.5)	<b>88.8</b> (87.9 – 89.7)
Mean systolic blood pressure - SBP (mmHg), excluding those currently on medication for raised BP	<b>117.8</b> (117.0 – 118.2)	<b>120.0</b> (119.1 – 120.8)	<b>115.0</b> (114.2 – 115.8)
Mean diastolic blood pressure - DBP (mmHg), excluding those currently on medication for raised BP	<b>77.7</b> (77.3 – 78.1)	<b>79.4</b> (79.0 – 80.0)	<b>75.9</b> (75.3 – 76.9)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)	<b>20.5%</b> (20.4 – 20.7)	<b>21.3%</b> (21.1 – 21.5)	<b>19.7%</b> (19.5 – 19.9)
Percentage with raised BP (SBP ≥ 160 and/or DBP ≥ 100 mmHg or currently on medication for raised BP)	<b>10.9%</b> (10.8 – 11.0)	<b>9.0%</b> (8.9 – 9.2)	<b>12.9%</b> (12.7 – 13.1)
<b>Step 3 Biochemical Measurements</b>			
Mean fasting blood glucose (mmol/L), excluding those currently on medication for raised blood glucose	<b>5.14</b> (5.01 – 5.25)	<b>5.23</b> (5.15 – 5.30)	<b>5.04</b> (5.00 – 5.10)
Percentage with raised fasting blood glucose as defined below or currently on medication for raised blood glucose • plasma venous value ≥ 7.0 mmol/L	<b>12.4%</b> (11.0 – 13.8)	<b>13.3%</b> (11.1 – 15.5)	<b>11.5%</b> (9.7 – 13.2)
Mean total blood cholesterol (mmol/L)	<b>4.9</b> (4.9 – 5.0)	<b>5.0</b> (4.9 – 5.0)	<b>4.9</b> (4.9 – 5.0)
Percentage with raised total cholesterol (≥ 5.2 mmol/L)	<b>38.6%</b> (36.4 – 40.9)	<b>40.1%</b> (36.6 – 43.7)	<b>37.2%</b> (34.4 – 39.9)
Percentage with raised total cholesterol (≥ 6.5 mmol/L)	<b>7.2%</b> (8.1 – 8.3)	<b>8.1%</b> (6.3 – 9.9)	<b>6.3%</b> (4.9 – 7.6)
<b>Summary of combined risk factors</b>			
<ul style="list-style-type: none"> <li>current daily smokers</li> <li>less than 5 servings of fruit &amp; vegetables per day</li> <li>low level of activity (&lt;600 MET - minutes)</li> <li>overweight or obese (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>			
Percentage with low risk (i.e. none of the risk factors included above)	<b>0.8%</b> (0.2 – 0.9)	<b>0.6%</b> (0.0 – 1.2)	<b>0.6%</b> (0.2 – 1.0)
Percentage with raised risk (at least three of the risk factors included above), aged 20 to 44 years old	<b>55.4%</b> (52.6 – 58.3)	<b>61.4%</b> (57.1 – 65.7)	<b>48.5%</b> (44.9 – 52.1)
Percentage with raised risk (at least three of the risk factors included above), aged 45 to 64 years old	<b>70.0%</b> (66.5 – 73.4)	<b>62.7%</b> (57.2 – 68.2)	<b>75.6%</b> (71.3 – 79.9)