## Swaziland STEPS Survey 2007

## Fact Sheet

The STEPS survey of chronic disease risk factors in Swaziland was carried out from October 2007 to November 2007. Swaziland 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 Swaziland was a populationbased survey of adults aged 25-64. A stratified multi - stage sampling design was used to produce representative data for that age range in Swaziland. A total of 1,302 adults participated in the Swaziland STEPS survey. The overall response rate was $87 \%$. A repeat survey is planned for 2012 if funds permit.

| Results for adults aged 25-64 years (incl. 95\% CI) | Both Sexes | Males | Females |
| :---: | :---: | :---: | :---: |
| Step 1 Tobacco Use |  |  |  |
| Percentage who currently smoke tobacco | $\begin{gathered} \hline 7.1 \% \\ (5.2-9.0) \end{gathered}$ | $\begin{gathered} 12.9 \% \\ (9.0-16.7) \end{gathered}$ | $\begin{gathered} \hline 2.2 \% \\ (1.1-3.2) \end{gathered}$ |
| Percentage who currently smoke tobacco daily | $\begin{gathered} 5.9 \% \\ (4.3-7.6) \end{gathered}$ | $\begin{gathered} 11.1 \% \\ (7.7-14.5) \end{gathered}$ | $\begin{gathered} 1.5 \% \\ (0.6-2.5) \end{gathered}$ |
| For those who smoke tobacco daily |  |  |  |
| Average age started smoking (years) | * | * | * |
| Percentage smoking manufactured cigarettes | $\begin{gathered} 55.4 \% \\ (42.2-68.5) \end{gathered}$ | $\begin{gathered} 54.0 \% \\ (39.0-69.0) \end{gathered}$ | * |
| Mean number of manufactured cigarettes smoked per day | * | * | * |
| Step 1 Alcohol Consumption |  |  |  |
| Percentage of abstainers (who did not drink alcohol in the last year ) | $\begin{gathered} 85.1 \% \\ (82.3-87.9) \end{gathered}$ | $\begin{gathered} 74.6 \% \\ (70.0-79.5) \end{gathered}$ | $\begin{gathered} 94.1 \% \\ (92.3-95.9) \end{gathered}$ |
| Percentage of current drinkers (who drank alcohol in the past 30 days) | $\begin{gathered} 11.8 \% \\ (9.3-14.2) \end{gathered}$ | $\begin{gathered} 20.1 \% \\ (15.6-24.7) \end{gathered}$ | $\begin{gathered} \hline 4.6 \% \\ (3.0-6.2) \end{gathered}$ |
| Among current drinkers |  |  |  |
| Percentage who drank alcohol on 4 or more days in the last week | $\begin{gathered} 27.4 \% \\ (17.4-37.4) \end{gathered}$ | $\begin{gathered} \hline 31.0 \% \\ (19.6-42.5) \end{gathered}$ | * |
| Percentage who binge drink (men who had 5 or more / women who had 4 or more drinks on any day in the last week) | - | $\begin{gathered} 50.5 \% \\ (37.2-63.7) \end{gathered}$ | * |
| Step 1 Fruit and Vegetable Consumption (in a typical week) |  |  |  |
| Mean number of days fruit consumed | $\begin{gathered} 3.3 \\ (3.1-3.4) \end{gathered}$ | $\begin{gathered} 3.3 \\ (3.0-3.6) \end{gathered}$ | $\begin{gathered} 3.2 \\ (3.0-3.5) \end{gathered}$ |
| Mean number of servings of fruit consumed on average per day | $\begin{gathered} 1.1 \\ (0.9-1.2) \end{gathered}$ | $\begin{gathered} 1.0 \\ (0.9-1.2) \end{gathered}$ | $\begin{gathered} 1.0 \\ (0.9-1.2) \end{gathered}$ |
| Mean number of days vegetables consumed | $\begin{gathered} 4.9 \\ (4.7-5.1) \end{gathered}$ | $\begin{gathered} 4.7 \\ (4.5-5.1) \end{gathered}$ | $\begin{gathered} 5.0 \\ (4.9-5.2) \end{gathered}$ |
| Mean number of servings of vegetables consumed on average per day | $\begin{gathered} 1.6 \\ (1.5-1.8) \end{gathered}$ | $\begin{gathered} 1.4 \\ (1.3-1.6) \end{gathered}$ | $\begin{gathered} 1.8 \\ (1.6-1.9) \end{gathered}$ |
| Percentage who ate less than 5 combined servings of fruit and/or vegetables on average per day | $\begin{gathered} 87.4 \% \\ (85.1-89.8) \end{gathered}$ | $\begin{gathered} 89.6 \% \\ (86.5-92.8) \end{gathered}$ | $\begin{gathered} 85.6 \% \\ (82.7-88.5) \end{gathered}$ |
| Step 1 Physical Activity |  |  |  |
| Percentage with low levels of activity (defined as <600 MET-minutes/week) | $\begin{gathered} 33.1 \% \\ (29.8-36.3) \end{gathered}$ | $\begin{gathered} 26.2 \% \\ (21.4-31.0) \end{gathered}$ | $\begin{gathered} 38.9 \% \\ (34.9-42.8) \end{gathered}$ |
| Percentage with high levels of activity (defined as $\geq 3000$ METminutes/week) | $\begin{gathered} 53.3 \% \\ (49.7-56.9) \end{gathered}$ | $\begin{gathered} 61.4 \% \\ (56.2-66.6) \end{gathered}$ | $\begin{gathered} 46.4 \% \\ (42.1-50.7) \end{gathered}$ |
| Median time spent in physical activity per day (minutes) | $\begin{gathered} 102.9 \\ (11.1-342.9) \end{gathered}$ | $\begin{gathered} 145.7 \\ (25.7-441.4) \end{gathered}$ | $\begin{gathered} 81.4 \\ (4.3-240) \end{gathered}$ |
| Percentage not engaging in vigorous physical activity | $\begin{gathered} 49.3 \% \\ (45.5-53.1) \end{gathered}$ | $\begin{gathered} 39.0 \% \\ (33.5-44.4) \end{gathered}$ | $\begin{gathered} 58.0 \% \\ (53.6-62.3) \end{gathered}$ |

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| Results for adults aged 25-64 years (incl. 95\% CI) | Both Sexes | Males | Females |
| :---: | :---: | :---: | :---: |
| Step 2 Physical Measurements |  |  |  |
| Mean body mass index-BMI (kg/m ${ }^{2}$ ) | $\begin{gathered} 26.7 \\ (26.3-27.1) \end{gathered}$ | $\begin{gathered} 24.8 \\ (24.3-25.3) \end{gathered}$ | $\begin{gathered} 28.4 \\ (27.9-28.9) \end{gathered}$ |
| Percentage who are overweight ( $\mathrm{BMI} \geq 25 \mathrm{~kg} / \mathrm{m}^{2}$ ) | $\begin{gathered} 52.9 \% \\ (49.5-56.3) \end{gathered}$ | $\begin{gathered} \hline 38.2 \% \\ (33.1-43.3) \end{gathered}$ | $\begin{gathered} 65.4 \% \\ (61.9-69.0) \end{gathered}$ |
| Percentage who are obese ( $\mathrm{BMI} \geq 30 \mathrm{~kg} / \mathrm{m}^{2}$ ) | $\begin{gathered} 24.3 \% \\ (21.8-26.9) \end{gathered}$ | $\begin{gathered} 13.6 \% \\ (10.2-16.9) \end{gathered}$ | $\begin{gathered} \hline 33.5 \% \\ (30.2-36.9) \end{gathered}$ |
| Average waist circumference (cm) | - | $\begin{gathered} 81.2 \\ (80.3-82.1) \end{gathered}$ | $\begin{gathered} 82.4 \\ (81.6-83.1) \\ \hline \end{gathered}$ |
| Mean systolic blood pressure - SBP (mmHg), excluding those currently on medication for raised BP | $\begin{gathered} 125.2 \\ (124.0-126.4) \end{gathered}$ | $\begin{gathered} 126.3 \\ (124.5-128.1) \\ \hline \end{gathered}$ | $\begin{gathered} 124.2 \\ (122.7-125.7) \end{gathered}$ |
| Mean diastolic blood pressure - DBP ( mmHg ), excluding those currently on medication for raised BP | $\begin{gathered} 80.5 \\ (79.5-81.4) \\ \hline \end{gathered}$ | $\begin{gathered} 80.2 \\ (78.9-81.5) \\ \hline \end{gathered}$ | $\begin{gathered} 80.7 \\ (79.5-81.9) \end{gathered}$ |
| Percentage with raised BP (SBP $\geq 140$ and/or DBP $\geq 90 \mathrm{mmHg}$ or currently on medication for raised BP) | $\begin{gathered} 36.0 \% \\ (32.8-39.2) \end{gathered}$ | $\begin{gathered} 37.6 \% \\ (33.0-42.3) \end{gathered}$ | $\begin{gathered} 34.7 \% \\ (30.7-38.6) \end{gathered}$ |
| Percentage with raised BP (SBP $\geq 160$ and/or DBP $\geq 100 \mathrm{mmHg}$ or currently on medication for raised BP) | $\begin{gathered} 17.0 \% \\ (14.8-19.1) \end{gathered}$ | $\begin{gathered} 16.1 \% \\ (12.8-19.5) \end{gathered}$ | $\begin{gathered} 17.7 \% \\ (14.9-20.4) \end{gathered}$ |
| Step 3 Biochemical Measurement |  |  |  |
| Mean fasting blood glucose [choose accordingly: mmol/L or mg/dl], excluding those currently on medication for raised blood glucose | $\begin{gathered} 3.4 \\ (3.4-3.5) \\ \hline \end{gathered}$ | $\begin{gathered} 4.2 \\ (3.8-4.5) \end{gathered}$ | $\begin{gathered} 4.3 \\ (4.1-4.5) \end{gathered}$ |
| Percentage with impaired fasting glycaemia as defined below <br> - plasma venous value $\geq 6.1 \mathrm{mmol} / \mathrm{L}(110 \mathrm{mg} / \mathrm{dl})$ and $<7.0 \mathrm{mmol} / \mathrm{L}(126 \mathrm{mg} / \mathrm{dl})$ <br> - capillary whole blood value $\geq 5.6 \mathrm{mmol} / \mathrm{L}(100 \mathrm{mg} / \mathrm{dl})$ and $<6.1 \mathrm{mmol} / \mathrm{L}(110 \mathrm{mg} / \mathrm{dl})$ | $\begin{gathered} 3.7 \% \\ (1.8-5.6) \end{gathered}$ | $\begin{gathered} 2.2 \% \\ (0.0-5.3) \end{gathered}$ | $\begin{gathered} 4.5 \% \\ (2.0-7.0) \end{gathered}$ |
| Percentage with raised blood glucose as defined below or currently on medication for raised blood glucose <br> - plasma venous value $\geq 7.0 \mathrm{mmol} / \mathrm{L}$ or $\geq 126 \mathrm{mg} / \mathrm{dl}$ <br> - capillary whole blood value $\geq 6.1 \mathrm{mmol} / \mathrm{L}$ or $\geq 110 \mathrm{mg} / \mathrm{dl}$ | $\begin{gathered} 14.5 \% \\ (10.6-18.4) \end{gathered}$ | $\begin{gathered} 16.2 \% \\ (8.3-24.1) \end{gathered}$ | $\begin{gathered} 13.5 \% \\ (9.2-17.8) \end{gathered}$ |
| Mean total blood cholesterol (mol/L) | $\begin{gathered} 3.4 \\ (3.4-3.5) \end{gathered}$ | $\begin{gathered} 3.4 \\ (3.3-3.5) \end{gathered}$ | $\begin{gathered} 3.4 \\ (3.4-3.5) \end{gathered}$ |
| Percentage with raised total cholesterol ( $\geq 5.0 \mathrm{mmol} / \mathrm{L}$ or $\geq 190 \mathrm{mg} / \mathrm{dl}$ ) | $\begin{gathered} 5.8 \% \\ (4.4-7.1) \end{gathered}$ | $\begin{gathered} 3.8 \% \\ (2.0-5.6) \end{gathered}$ | $\begin{gathered} 7.4 \% \\ (5.5-9.4) \end{gathered}$ |
| Percentage with raised total cholesterol ( $\geq 6.2 \mathrm{mmol} / \mathrm{L}$ or $\geq 240 \mathrm{mg} / \mathrm{dl}$ ) | $\begin{gathered} 0.8 \% \\ (0.3-1.3) \end{gathered}$ | $\begin{gathered} 0.6 \% \\ (0.0-1.3) \end{gathered}$ | $\begin{gathered} 1.0 \% \\ (0.3-1.8) \end{gathered}$ |
| Summary of combined risk factors <br> - current daily smokers <br> - overweight ( $\mathrm{BMI} \geq 25 \mathrm{~kg} / \mathrm{m}^{2}$ ) <br> - less than 5 servings of fruits and/or vegetables on <br> - raised BP (SBP $\geq 140$ and/or DBP $\geq 90 \mathrm{mmHg}$ or average per day currently on medication for raised BP ) <br> - Low level of activity (<600 MET -minutes) |  |  |  |
| Percentage with none of the risk factors included above | $\begin{gathered} 1.9 \% \\ (1.0-2.9) \end{gathered}$ | $\begin{gathered} \hline 1.8 \% \\ (0.4-3.2) \end{gathered}$ | $\begin{gathered} 2.0 \% \\ (0.8-3.2) \end{gathered}$ |
| Percentage with at least three of the risk factors included above, aged 25 to 44 years old | $\begin{gathered} 30.4 \% \\ (27.0-33.8) \end{gathered}$ | $\begin{gathered} 23.7 \% \\ (18.3-29.2) \end{gathered}$ | $\begin{gathered} 35.8 \% \\ (31.1-40.5) \end{gathered}$ |
| Percentage with at least three of the risk factors included above, aged 45 to 64 years old | $\begin{gathered} 47.8 \% \\ (42.5-53.1) \end{gathered}$ | $\begin{gathered} 41.1 \% \\ (32.0-50.2) \end{gathered}$ | $\begin{gathered} 53.2 \% \\ (47.2-59.2) \end{gathered}$ |
| Percentage with at least three of the risk factors included above, aged 25 to 64 years old | $\begin{gathered} 35.5 \% \\ (32.4-38.5) \end{gathered}$ | $\begin{gathered} 28.8 \% \\ (23.8-33.7) \end{gathered}$ | $\begin{gathered} 40.9 \% \\ (36.9-45.0) \end{gathered}$ |

For additional information, please contact: STEPS country focal point Dr. Lindiwe Tsabedze (lindiwetsabedze@yahoo.co.uk)

