

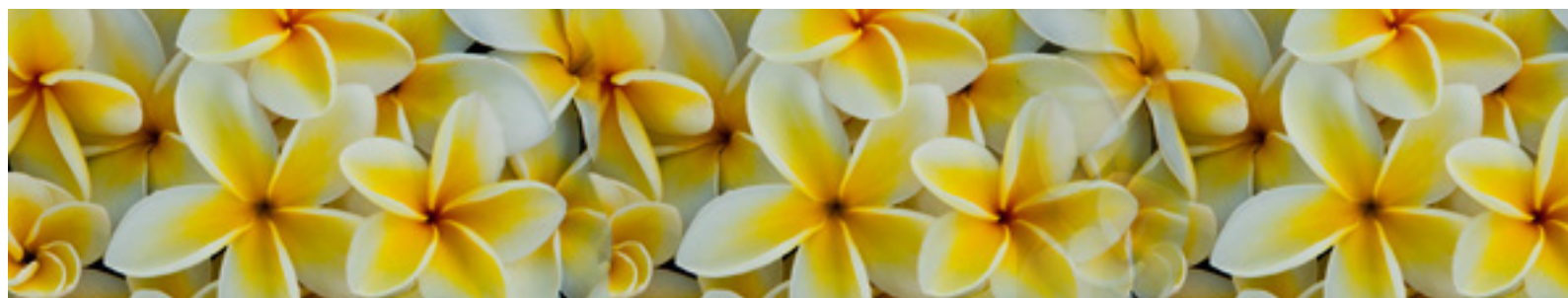


# **Cook Islands**

# **NCD Risk Factors**

# **STEPS REPORT 2013-2015**

**in collaboration with World Health Organization (WHO)**



# **Cook Islands NCD Risk Factors STEPS REPORT 2013-2015**

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## LIST OF ABBREVIATIONS

|        |   |
|--------|---|
| BMI    | Body Mass Index   |
| BP     | Blood Pressure  |
| CHD    | Coronary Heart Disease                                      |
| CI     | Confidence Interval   |
| CVD    | Cardiovascular Disease                                      |
| DBP    | Diastolic Blood Pressure                                    |
| DM     | Diabetes Mellitus   |
| FBS    | Fasting Blood Sugar   |
| GDP    | gross domestic product                                      |
| HTN    | Hypertension  |
| HQ     | Headquarter   |
| MET    | Metabolic Equivalent  |
| mg/dl  | Milligrams per decilitre (unit of blood chemistry values)   |
| mmHg   | Millimetres of mercury (unit of blood pressure measurement) |
| mmol/L | Millimoles per litre (unit for blood chemistry values)      |
| MoH    | Ministry of Health  |
| NCD    | Noncommunicable diseases                                    |
| PA     | Physical activity   |
| SBP    | Systolic Blood Pressure                                     |
| WHO    | World Health Organization                                   |

## Foreword from Ministry of Health



Like many developing countries and Pacific Islands, the Cook Islands has undergone a transition from traditional diet and cultural practices to a more modern and western lifestyle which has led to an alarming rise in chronic diseases such as obesity, diabetes, hypertension, cancer and heart diseases. The social and economic related impacts on our livelihoods have made it paramount that we quickly tackle this health burden in an effective and sustainable manner.

Non Communicable Diseases (NCDs) are the number one leading cause of death that almost every country in the world and especially the Pacific Island countries are experiencing right now. In order for us all to address this urgent growing problem effectively and efficiently, we must all have accurate information regarding the risk factors that contribute to the development of NCDs.

The Cook Islands completed their first NCD STEPs Survey in 2004 and this 2nd NCD STEPs Survey in 2015 has provided us an opportunity to reassess the prevalence of NCDs and its risk factors in the Cook Islands. The 2nd STEPs survey is part of the ongoing surveillance of NCDs in the Cook Islands that provides information to guide the Ministry of Health and Cook Islands Government in strategic planning and mobilisation of resources to control and reduce the impacts of NCDs in the Cook Islands.

A comparison of the two surveys (the first one in 2003-2004 and the second one in 2013-2015) aged 25-64 years, reveals some positive trends, but also some negative ones. Reductions are seen in the number of current smokers (43.9% → 31.9%), in those with low physical activity levels (low: 75.3% → 33.0%) and those with raised blood cholesterol levels (75.2 → 50.9). A small change was seen in the number of people abstaining (lifetime) from alcohol (10.3% → 15.1%) and no significant changes were seen in prevalence of raised blood pressure and raised blood glucose or fruit and vegetable consumption. What is of concern is the significant increase in mean BMI 32.8 kg/m<sup>2</sup> → 34.5 kg/m<sup>2</sup>) and prevalence of obesity (61.4% → 72.2%).

We need to strengthen current multisectoral strategies in place to control and reduce the prevalence of NCDs and its impact on the health of Cook Islanders. I would like to express my sincere appreciation and gratitude to the many dedicated staff of the Ministry of Health and community partners who have worked very hard in conducting the survey and compiling the data.

Lastly but not the least, we would like to express our sincere appreciation and acknowledgement to the World Health Organization (WHO), Fiji National University, School of Public Health and Community Medicine, University of New South Wales, Centre for the Prevention of Obesity and Non Communicable Diseases (C-POND) Reference Group for their tremendous help and support in completing this report.

Let us use the findings and recommendations in the reports to strengthen our efforts in working together to prevent and control NCDs and improving the health of all Cook Islanders, achieving our vision of "All Cook Islanders living healthier lives and achieving their aspirations".

Kia Orana e Kia Manuia



Honourable Nandi Glassie  
Minister for Health  
Cook Islands



## Foreword from the World Health Organization



Dr Corinne Capuano  
Director of Pacific Technical Support  
WHO Representative for the South Pacific



Dr Rasul Baghirov  
WHO Representative in Samoa,  
American Samoa, Cook Islands, Niue and  
Tokelau

WHO has been pleased to collaborate with the Cook Islands Ministry of Health in undertaking this second STEPS survey.

The second Global status report on noncommunicable diseases (2014) from WHO, released in January 2015, has again highlighted the considerable human, social and economic consequences of NCDs worldwide. The Pacific Islands are no exception to this global phenomenon, where NCDs are the leading causes of premature mortality.

To combat the NCD crisis, in 2013, the World Health Assembly adopted a comprehensive global monitoring framework with nine targets and 25 indicators. The STEPwise approach to Surveillance of NCD Risk Factors (STEPS) is able to provide information for six of these nine targets.

This report summarizes the findings of The Cook Islands' second STEPS survey (conducted in 2013 to 2015), and provides an important comparison to the previous survey (conducted 2003 to 2004). Some of the key findings of this survey are:

- Tobacco use has decreased by 12% (now 31.9% of adults) between (2003-2004) and (2013-2015).
- The proportion of people engaging in high levels of physical activity increased markedly from 11.8% to 48.1% between (2003-2004) and (2013-2015).
- Only 11.1% of men and 17.9% of women were found to meet the WHO recommended level of fruits and/or vegetables consumption (five servings on average per day), in 2013-2015.
- 89.5% of respondents were found to be overweight or obese.

Unfortunately, the current statistics still show that Cook Islanders are at high risk of developing an NCD, with 99.4% of all Cook Islanders having more than one of the key risk factors surveyed (daily smoking, inadequate fruit and vegetable consumption, low level of physical activity, overweight/obesity and raised blood pressure). More than half of Cook Islanders are at a high risk of developing an NCD, a result of having 3 or more of these risk factors combined. This emphasises the need for continued focus on both prevention and management. Regular surveillance of NCDs is critical to monitor the trends, and guide public health interventions and policy-making.

## Executive Summary

The Cook Islands conducted its first NCD STEPS survey in 2003-2004; published in 2011. This second NCD STEPS was a population-based survey undertaken by the Ministry of Health starting in 2012. The ethnic composition of the survey respondents was predominantly Cook Islands Maori (94.8%) who were resident in the Cook Islands. The mean of 12.5 years of education indicates that many individuals had completed secondary school and some had tertiary qualifications. Cook Islanders also hold New Zealand citizenship.

The targeted sample (18-64 years) was enumerated in 2012 as a result of the Population and Housing Census conducted on 1 December 2011. The overall response rate was 63%, with 1,272 respondents.

Overall, the sex distribution (49.3% men and 50.7% women) of respondents included a higher percentage of women (58.1%) than men (41.9%) in the younger age group and a higher percentage of men (56.7%) than women (43.3%) in the older age group, which is not consistent with the sex distribution in the source population. Almost two thirds of the respondents participated in STEP 3 with 61% assessed on blood glucose levels and 65% on total blood cholesterol.

### Behavioural Risk Factors

Current smokers (those who smoked in the last 12 months) comprised 32.6% of all respondents, with a higher proportion among men (37.9%) than women (27.7%). The highest proportion of current smokers occurred among younger men (41.7%).

Three quarters (74.7%) of all current smokers smoked daily: Mean age, respondents started to smoke, was 18.7 years for men and 19.3 years for women. The younger age groups of both sexes reported starting smoking earlier than the older age groups.

Almost all (89.0%) daily smokers smoked manufactured cigarettes. More than two thirds (67.5%) of current smokers had tried to stop smoking over the past 12 months, suggesting a clear need provide support and extend cessation programs. More than one third of respondents (36.8%) experienced second hand smoke at home and 37.7% experienced second hand smoke at workplace, significantly more among men (44.7% in men compared to 31.3% in women). This indicates a need to ensure that all workplaces are smoke-free.

Current alcohol drinkers (drinking alcohol in the last 30 days) were almost a half (46.2%) of all respondents: 56.8% of men and 36.9% of women. On a single drinking occasion current male drinkers consumed 9.5 standard drinks whereas current female drinkers consumed 6.3 standard drinks.

Young men consumed the highest number of standard drinks (10.1%) per occasion. Their consumption was significant higher than that of older men and younger and older women.

A small percentage of male (3.4%) and female (2.0%) respondents were Category III high-end drinkers (defined as  $\geq 60$ g of pure alcohol or  $\geq 6$  standard drinks on average per occasion among men and  $\geq 40$ g or  $\geq 4$  standard drinks among women).

A high proportion (85.4%) of respondents in both sexes (88.9% of men and 82.1% of women) consumed less than the WHO recommended level of consumption of five servings of fruit and/or vegetables on an average day. Men consumed fruit and/or vegetables statistically less frequently on average per day than women.

More than one third (36.4%) of all study participants always or often added salt to food before or while eating and almost half of respondents (48.8%) added salt to their food when cooking or preparing foods at home.

Almost one quarter (24.2%) of respondents experienced oral pain or discomfort in the past 12 months, and 14.2% experienced difficulties in chewing food.

On average, 22.8% of men and 39.5% of women had a low level of physical activity, 15.7% of men and 22.0% of women had moderate levels of physical activity and 61.4% of men and 38.5% of women had high levels.

Half of men's physical activity was work-related (51.4%) followed by recreation-related (35.9%) and transport-related (12.8%) activity. Women's physical activity was 38.5% recreation-related, 35.7% work-related and 25.8% transport-related.

## Physical Risk Factors

Men, on average, were 10.8cm taller, and 8.4kg heavier than women.

The mean body mass index (BMI) of all respondents was 34.0 kg/m<sup>2</sup> (33.6 kg/m<sup>2</sup> for men and 34.3 kg/m<sup>2</sup> for women), indicating that the respondents were, on average, obese.

More than two thirds (68.7%) of men were obese and 20.0% were overweight, while 70.7% of women were obese and 19.5% overweight. Overall, 89.5% of the respondents were either overweight or obese.

The mean waist circumference for men was 105.5cm, which is above the 102cm cut-off point for increased risk of high blood pressure, high blood cholesterol, type-2 diabetes, heart disease and stroke among men. Women had an average waist circumference of 104.3cm, which is well above the 88cm cut-off point for women.

Hypertension (defined as SBP  $\geq$  140 and/or DBP  $\geq$  90 mmHg or currently on medication for raised blood pressure) was identified in 28.5% of all respondents (34.7% of men and 23.2% of women). The difference between the sexes is overall statistically significant.

## Biochemical Risk Factors

The proportion of the sample with raised blood glucose (defined as fasting raised blood glucose (plasma equivalent)  $\geq$  7.0 mmol/L (126 mg/dl)) or currently on medication for raised blood glucose, was overall 23.5% (25.1% among men and 22.3% among women). The proportions with raised blood glucose increase significantly with age in both sexes.

The results for raised total blood cholesterol ( $\geq$  5.0mmol/l) indicate that almost half (46.5%) of all respondents had raised blood cholesterol (54.4% among men and 40.5% among women) and were at high risk of developing coronary artery disease.

## Combined Risk Factors

Almost all (99.4%) of respondents had multiple risk factors; 54.7% with 3 to 5 risk factors and 44.7% with 1 to 2 risk factors. Among men 57.3% had 3-5 risk factors and among women 52.1% had 3-5 risk factors.

Of all the respondents, aged 40-64, 2.1% (1.9% of men and 2.2% of women) were at a 30% or greater risk of developing cardiovascular disease in the next ten years.

## Changes since the previous survey

The comparison of the two surveys (the first one in 2003-2004 and the second one now in 2013-2015, reveals some positive trends, but also some negative ones (values given below stated for all age groups and both sexes (2003-2004 - 2013-2015).

- Significant reduction in current smokers (43.9%  $\rightarrow$  31.9%).
- Significant increase in abstainers from alcohol in the last 12 months (10.3%  $\rightarrow$  15.1%).
- No significant change in fruit and vegetable consumption.
- Improvements in physical activity levels (low: 75.3%  $\rightarrow$  33.0% and high 11.8%  $\rightarrow$  48.1%).
- Significant increase in mean BMI (32.8 kg/m<sup>2</sup>  $\rightarrow$  34.5 kg/m<sup>2</sup>) and prevalence of obesity (61.4%  $\rightarrow$  72.2%).
- No significant change in prevalence of raised blood pressure.
- No significant change in prevalence of raised blood glucose.
- Significant reduction in prevalence of raised blood cholesterol (75.2  $\rightarrow$  50.9).

There were some differences in sampling methodology between the two surveys, and the above therefore require further consideration.

## Conclusion

These behavioural, physiological and biochemical measurements indicate the significant presence of NCD risk factors in Cook Islands among both sexes. The Cook Islands STEPS Survey has confirmed that NCDs pose a major threat to public health and longevity, and a challenge to productivity.

A national strategy with multisectoral approach exists however requires a consistent strengthening across all sectors to address cross-sectoral contributing factors, such as: the availability of fruit and vegetables for daily consumption; the licensing and regulation of products that impact adversely on health status and health education campaigns on the outcomes of high-risk behaviours, particularly among young people, who may yet have the potential to avoid NCDs.

Given the high rates and increasing potential for NCDs in Cook Islands, efforts to improve secondary prevention (early diagnosis) and tertiary prevention (treatment and the prevention of relapses and sequelae) must become priority health policy.

### **Recommendations**

- Strengthen information on the current baseline for NCDs mortality and morbidity in line with the need to report on the Pacific regional goal to reduce NCD premature deaths by 25% by 2025.
- Repeat the NCD STEPwise surveys at 5 to 7 year intervals supplemented by MoH surveillance (PEN (Cardiovascular risk assessment), workplace and school based surveys) to determine the effectiveness, or otherwise, of NCD prevention and control measures implemented.
- Strengthen health promotion initiatives promoting healthy eating and explore use of taxes to regulate consumption
- Develop a salt reduction strategy
- Work collaboratively with relevant ministries, civil societies and agencies to increase availability of fresh fruit and vegetables
- Strengthen and expand current initiatives aimed at reducing risk factors – smoking cessation, Cardiovascular risk assessment, community education and awareness, smokefree workplaces and homes, etc
- Explore other initiatives to compliment or add value to current initiatives

# 1. Introduction

## 1.1. Background Information

In all countries, non-communicable diseases (NCDs) are responsible for a high proportion of death and disability. Age standardised death rates suggest that a high proportion of men (40%) and women (30%) are dying prematurely (before age 60) in the Cook Islands (MoH, 2012).<sup>ii</sup>

In developing countries, the burden of disease caused by NCDs is increasing rapidly and there are significant social, economic, and health consequences for these countries. The 2004 Global Burden of Disease study concluded that “cardiovascular diseases were responsible for the largest proportion of NCD deaths under the age of 70 (39%), followed by cancers (27%). Chronic respiratory diseases, digestive diseases and other NCDs were together responsible for approximately 30% of deaths, and diabetes was responsible for 4%” (WHO 2008).<sup>ii</sup>

WHO (2004) stated that “behavioural risk factors, including tobacco use, physical inactivity, and unhealthy diet, are responsible for about 80% of coronary heart disease and cerebrovascular disease”.<sup>iii</sup> The 2014 Global Status Report on Noncommunicable Diseases (WHO 2014) stated that “As the leading cause of death globally, NCDs were responsible for 38 million (68%) of the world’s 56 million deaths in 2012.<sup>i</sup> More than 40% of them (16 million) were premature deaths under age 70 years. Almost three quarters of all NCD deaths (28 million), and the majority of premature deaths (82%), occur in low- and middle-income countries”.<sup>iv,xii</sup>

Based on current trends, by the year 2020 these diseases are predicted to account for 73% of deaths and 60% of the world’s disease burden (WHO NCD Surveillance Strategy 2012).<sup>v</sup> Most of these increases will reflect the epidemiological transition in developing countries; from communicable to noncommunicable diseases. Unless the increasing NCD prevalence won’t be reversed, the disability and dependency that accompanies NCDs will present an increasing burden on nations, health facilities and on families.

## 1.2. The National Context

### 1.2.1 Geography

The Cook Islands comprises 15 islands spread over 850,000 square miles (2.2 million square kilometres) of ocean in the middle of the South Pacific between Tonga to the west and the Society Islands to the east.

The Cook Islands consists of two main groups, one in the north and one in the south. The southern group has nine “high” islands mainly of volcanic origin although some are virtually atolls. The majority of the population lives in the southern group. The northern group comprises six true atolls.<sup>vi</sup>

### 1.2.2 Population and Culture

The total resident population from the 2011 census was 14,974. Approximately 72% of the population live on Rarotonga, 21% in the southern group islands and 7% in the northern group islands. The remote Pa Enua (outer islands) are experiencing a steady decline: about 65% of the population now lives on Rarotonga. Population loss remains a concern to the Cook Islands and is an economic risk.

Cook Islanders are predominantly Cook Island Maori (Polynesian) in ethnicity making up 81% of the resident population.<sup>vii</sup>

### 1.2.3 Government

The Cook Islands have been a self-governing nation in free association with New Zealand since 1965. The Cook Islands have a constitutional monarchy headed by Queen Elizabeth II in her role as Monarch of New Zealand, represented by Queen’s Representative. By convention, the appointment of the Queen’s Representative is made by Her Majesty upon the recommendation of the Prime Minister of the Cook Islands. Article 27 of the Constitution establishes “a sovereign Parliament for the Cook Islands, to be called the Parliament of the Cook Islands”, consisting of 25 members (up from 22 in 1965) elected by secret ballot under a system of universal suffrage. The Cook Islands are governed by a Prime Minister who is the leader of the majority party in the legislature.<sup>viii</sup>



### 1.2.4 Economy

The major economic activities in the Cook Islands are tourism, fishing, agriculture and financial services. There were economic troubles in 1996–1997 but were resolved through a programme of reforms including public service, public asset devolvement and economic strengthening and stimulation, supported largely by New Zealand and the Asian Development Bank.

The Cook Islands is an economically stable democracy with strong support from New Zealand and other partners. New Zealand retains responsibility for external affairs and defence in consultation with Cook Islands. New Zealand and Australia harmonize aid to support the National Sustainable Development Plan (NSDP) 2011–2015 through direct budget support.<sup>ix</sup>

### 1.2.5 Health Infrastructure

The Cook Islands National Health Strategy 2012–16 provides comprehensive information on the health services and population health status. The Ministry of Health is subdivided into three (3) Directorates: Hospital Services, Community Services and Funding and Planning.<sup>x</sup>

Facilities consists Rarotonga General Hospital with 100 beds and providing health specialist visits and organising overseas referrals, Aitutaki Hospital with 44 beds, six Health Centres, 14 Dental Clinics and 52 Child Welfare Clinics. (Aitutaki hospital is termed a Pa Enua hospital, it mainly provides the basic primary health care services).

The Cook Islands National Health Strategy 2012–16 (p9) includes the comment that “Overall, the Cook Islands are relatively well equipped to provide basic primary and secondary level care”. General clinical services “are supplemented by visiting specialist teams and access to tertiary services through our referral processes to overseas providers”.<sup>x</sup>

### 1.2.6 Health Status

The Cook Islands National Health Strategy 2012–16 (p9) provides the following comment in relation to noncommunicable diseases... “there are growing problems facing Cook Islands with regards to NCDs such as diabetes, cardiovascular diseases, hypertension, obesity and their risk factors (e.g., tobacco smoking, excessive alcohol consumption, physical inactivity and poor diet). NCDs are the main cause of mortality. Morbidity is also dominated by NCDs, including circulatory system diseases, respiratory system and endocrine ailments, and nutritional and metabolic diseases. The Cook Islands’ STEPS survey report showed that in 2003–2004, in the adult population aged 25–64 years, prevalence of obesity was 61.4%, prevalence of hypertension was 33.2%, prevalence of diabetes was 23.6%, and the prevalence of elevated blood cholesterol was 75.2%”.<sup>x,iv,xiii</sup>

## 1.3 Developing NCD STEPS in Cook Islands

The 2004 NCD STEPS Report for Cook Islands provided significant evidence of the presence of NCDs and population-wide NCD risk factors. This second Cook Islands NCD STEPS report provides the opportunity for comparisons with the 2004 report in order to identify the extent of progress made against NCDs and NCD risk factors.

A MoH STEPS Implementation Plan was developed in August 2012 to guide data collection. Because of growing concern about the prevalence of NCD risk factors and diseases among 18–25 year olds, this younger cohort was included to the second STEPS survey sample. The Implementation Plan anticipated a sample size of 2,012 people aged 18–64 years and an expected response rate of 80%, which would produce a sample of 1,609 respondents. The Implementation Plan defined that health staff would conduct data collection while doing their normal duties. Logistical difficulties extended the period of data collection.<sup>xi</sup>

## 2. Objectives

The overall aim of the NCD STEPS risk factor survey is to investigate the prevalence of key NCDs and their associated risk factors.

The STEPS survey:

- Documents the prevalence and magnitude of key NCDs among adults
- Documents the prevalence and magnitude of major modifiable risk factors for NCDs, including smoking, alcohol consumption, poor eating patterns, physical inactivity, obesity, high blood pressure, raised blood glucose and cholesterol.
- Compares NCDs and their risk factors by age and sex groups.

## 3. Methodology

### 3.1 Survey Structure

The Cook Islands STEPS survey followed a sequential three-step process as follows (Figure 1):

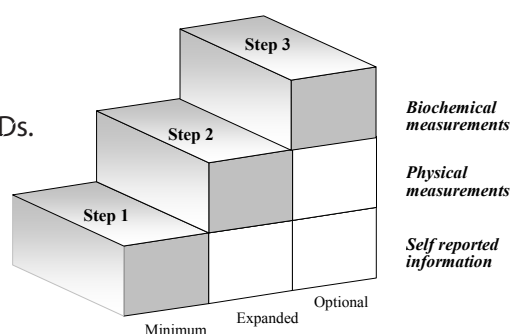
Step 1: A questionnaire-based (interview) survey on tobacco use, alcohol drinking, fruit and vegetable consumption, and physical activity.

Step 2: Physiological measures of blood pressure, height, weight, and waist circumference.

Step 3: Biochemical measures of fasting blood glucose and total cholesterol.

The Cook Islands NCD STEPS Survey follows the introduction of Questionnaire version 2.2 in 2013-2015. Similar to other NCD STEPS surveys conducted in the Pacific region, the Cook Islands survey collected core information across all three steps. NCD STEPS standardized survey methodology were followed. Differences between age groups or sexes are statistically significant if 95% Confidence Intervals (CI) do not overlap.

Figure 1. The WHO STEPwise approach to surveillance of NCDs.



### 3.2 Sample Size

A sample size of around 2000 was calculated, based on expected 80% response rate. Overall, 1,272 individuals participated in the STEPS Survey, representing 7.1% of the total population of 14,974 people on census night. The relatively small response rate (63.6%) is attributed to out-of-date household listings, timing of the survey work and employment-related absences, and some sensitivities regarding the length of the questionnaire.

### 3.3 Survey Sampling Methodology

The STEPS Survey was a population based cross-sectional survey of 18-64 year olds in the Cook Islands. The sample size calculation was estimated for the recommended core age groups (25-64 years) but with the decision to use only 2 age groups: 25-44, and 45-64 for men and women using the following corrections:

- Design Effect of 1.0 (only clustering at Household level)
- 95% confidence interval; p value .05
- 85% response rate (90% achieved in 2003)
- Baseline: .33
- FPC – 10% adjustment.

Because of growing concern about the prevalence of NCD risk factors and disease among 18-24 year olds this younger cohort was added to the overall STEPS sample. Based on the 2006 population, this yielded a total population sample of 2,275 people aged 18-64 yrs. A final, scientifically valid, sample size of 2,012 people age 18-64 years was selected based on the corrections above but with an expected response rate of 80% and 2 age groups: 18-44, and 45-64 for men and women.

The survey personnel obtained informed consent from survey participants, gave fasting instructions to those participating in STEP 3, and made appointment times for those who consented to participate in the survey. Various venues were organised around the island for participants to access for data collection for steps 1,2 and 3. Participants were notified of the venues at time of contact and this information was also advertised on television, radio and newspaper.

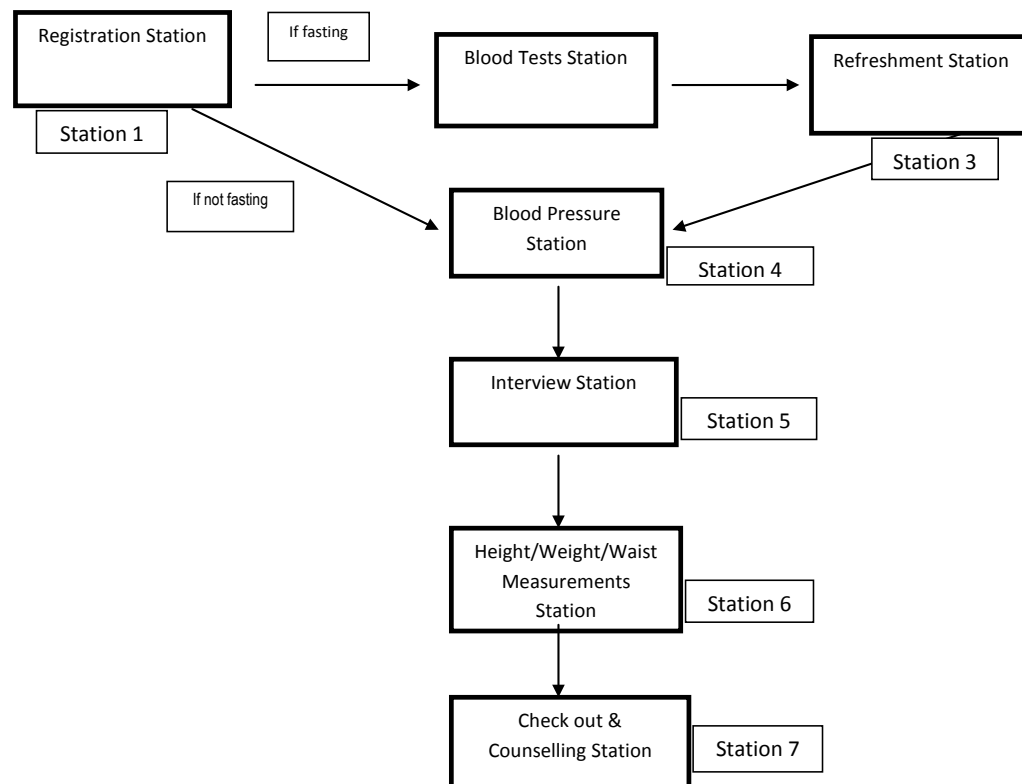


Figure 2: Sequence of data collection and stations at the survey base.

### 3.4 Data Collection Process

#### 3.4.1 Registration of Participants

At the registration station, survey personnel:

- Confirmed consent of the participant to be involved in the survey.
- Ensured that participants understood steps 1, 2 and 3 involved in the survey.
- Obtained participant date of birth and confirmed that they were within their target group.
- Confirmed fasting status of the participant.
- Directed the participant to the appropriate station depending on their fasting status.

#### 3.4.2 Step 1 - Behavioural Risk Factors Interviews

All participants participated in a face-to-face interview in which questions were asked on smoking, alcohol, fruit and vegetable consumption, physical activity, oral health, salt use, violence and injury and history of chronic conditions and medications. Survey staff asked questions on demographic indicators, including education level, work status and household income in total.

#### 3.4.3 Step 2 - Physical Measurements

Survey staff conducted the physical measurements following the recommended STEPwise protocols. The OMRON M4 Digital Automatic Blood Pressure Monitor was used to measure resting blood pressure. Blood pressure was measured three times; the first reading followed by two more measurements taken in 2-3 minute intervals. The three readings of the blood pressure were recorded, and the average of the second and third readings was used in the analysis.

Height and weight were measured once using the Seca Leicester Height Measurement to the nearest whole centimetre and the Siltec PS500L to the nearest 0.1 kg, respectively. Participants were measured without shoes and wearing only light clothing. Waist circumference was measured once using the Figure Finder constant tension tape and recorded to the nearest 0.1 cm. Waist circumference of pregnant participants was not measured.



### 3.4.4 Step 3 - Biochemical Measurements

The survey included assessments of fasting blood glucose and fasting total cholesterol. Participants fasted from 10:00pm the previous night until 7:00am the following morning, when their whole blood samples were drawn using the method of finger prick. Samples were tested for cholesterol using Accutrend plus in the field, with for glucose using Accucheck performa and displayed as plasma equivalent.

### 3.4.5 Check-out Station

All participants received health advice and counseling and were provided with literature about smoking, alcohol drinking, obesity and nutrition, physical activity, hypertension, diabetes, and heart diseases. Participants who were identified as being at high risk of developing, or with advanced chronic conditions were referred to the Hospital Health Services for a follow-up clinical examination.

## 3.5 Data Management and Analysis

### 3.5.1 Data Entry

Hand-held PDAs were used to record data as collected. When shortages of PDAs in some sites occurred, data was collected initially by hard copy and then transferred to PDAs when possible. Tracking forms were not consistently kept during the survey.

### 3.5.2 Data Analysis

Data analyses were conducted using the EpiInfo 2002 Version 3.5.1. Analysis was undertaken by the Division of Pacific Technical Support, and verified by WHO HQ NCD surveillance team.

## 4. Results

The results presented below are supplemented by additional information in the Complete Data Book presented at Appendix 2.

### 4.1 Characteristics of the Survey Population

The age range of 18-64 years was divided into two age groups: 18-44 years (637 participants) in which women exceeded men, and 45-64 years (635 participants) in which men exceeded women.

For STEP 3, glucose testing was conducted among 774 respondents (60.8% of all respondents) and total cholesterol was assessed among 831 respondents (65.3% of all respondents).

Table 1. Demographic description of the survey respondents

| Age Group    | Men        |             | Women      |             | Both Sexes  |            |
|--------------|------------|-------------|------------|-------------|-------------|------------|
|              | N          | %           | n          | %           | n           | %          |
| 18-44        | 267        | 41.9        | 370        | 58.1        | 637         | 50.1       |
| 45-64        | 360        | 56.7        | 275        | 43.3        | 635         | 49.9       |
| <b>18-64</b> | <b>627</b> | <b>49.3</b> | <b>645</b> | <b>50.7</b> | <b>1272</b> | <b>100</b> |

Table 2 shows that the majority of those surveyed were Cook Islands Maori

Table 2. Ethnicity of the survey respondents

| Age Group    | Ethnicity Both Sexes |                     |            |            |
|--------------|----------------------|---------------------|------------|------------|
|              | N                    | % Cook Island Maori | % European | % Other    |
| 18-44        | 635                  | 95.0                | 1.4        | 3.6        |
| 45-64        | 634                  | 94.6                | 2.4        | 3.0        |
| <b>18-64</b> | <b>1269</b>          | <b>94.8</b>         | <b>1.9</b> | <b>3.3</b> |

Table 3 shows that the mean years of education was similar between sexes and age groups. The marginal longer education of younger females (13.0%) compared to younger males (12.3%) supports the notion of equal access to education in the Cook Islands. The mean of 12.5% years of education indicates that many individuals completed secondary school and some have tertiary qualifications.

Marginal larger proportions of women completed secondary school (58.5%) and tertiary education compared to men (55.0% respectively 18.2%). (See Appendix 2: Level of Education).

Table 3. Mean number of years of education by sex and age group

| Age Group    | Men        |             | Women      |             | Both Sexes  |             |
|--------------|------------|-------------|------------|-------------|-------------|-------------|
|              | N          | Mean        | N          | Mean        | n           | Mean        |
| 18-44        | 257        | 12.3        | 351        | 13.0        | 608         | 12.7        |
| 45-64        | 332        | 12.3        | 265        | 12.3        | 597         | 12.3        |
| <b>18-64</b> | <b>589</b> | <b>12.3</b> | <b>616</b> | <b>12.7</b> | <b>1205</b> | <b>12.5</b> |

Table 4 shows that 54.2% of respondents were currently married, 10.2% were cohabiting with a partner and 26.1% had never married. A smaller proportion in total 9.5% was of other marital status (separated, divorced or widowed).

While 61.5% of men stated that they were married, only 47.1% of women stated likewise; 30.9% of women and 21.1% of men stated that they had never married (see Appendix 2.)

Table 4. Marital Status by age group for both sexes combined

| Age Group    | N           | % Never married | % Currently married | % Separated | % Divorced | % Widowed  | % Cohabiting |
|--------------|-------------|-----------------|---------------------|-------------|------------|------------|--------------|
| 18-44        | 611         | 40.3            | 38.5                | 2.6         | 1.1        | 1.0        | 16.7         |
| 45-64        | 628         | 12.3            | 69.6                | 3.8         | 3.3        | 7.2        | 3.8          |
| <b>18-64</b> | <b>1239</b> | <b>26.1</b>     | <b>54.2</b>         | <b>3.2</b>  | <b>2.2</b> | <b>4.1</b> | <b>10.2</b>  |

Table 5 shows that 12.2% of the sample was in unpaid work (studying, conducting home duties and/or subsistence agriculture). Public sector employment is important in Cook Islands; 46.5% of the survey group were government employees. In non-government employment were 29.6% and in self-employment were 11.7%.

A greater proportion of men (50.9%) compared to women (42.2%) were in government employment, a greater proportion of women (32.3%) than men (26.9%) were in non-government employment; and a greater proportion of men (14.9%) than of women (8.6%) were self-employed.

Table 5. Employment status, both sexes by age group

| Age Group (years) | Both Sexes  |                       |                           |                 |             |
|-------------------|-------------|-----------------------|---------------------------|-----------------|-------------|
|                   | n           | % Government employee | % Non-government employee | % Self-employed | % Unpaid    |
| 18-44             | 631         | 45.5                  | 37.9                      | 7.0             | 9.7         |
| 45-64             | 634         | 47.5                  | 21.5                      | 16.4            | 14.7        |
| <b>18-64</b>      | <b>1265</b> | <b>46.5</b>           | <b>29.6</b>               | <b>11.7</b>     | <b>12.2</b> |

Table 6 shows that 29.9% of the survey group were engaged in home duties, 21.4% were retired:10.4% were employed but not paid and 7.8% were students. Of those unemployed, 26.0% were able to work and 4.5% were unable.

The majority of the homemaker group were women (41.7% of all women compared to 2.7% of all men). Women were the largest proportion of students (10.2% of all women compared to 2.2% of all men). Almost one third of men (30.4%) and almost one quarter of women (24.1%) were unemployed but able to work (see Appendix 2).

Table 6. Unpaid work and Unemployed, both sexes by age group

| Age Group (years) | Both Sexes |             |            |              |             |                |                    |
|-------------------|------------|-------------|------------|--------------|-------------|----------------|--------------------|
|                   | n          | % Non-paid  | % Student  | % Home-maker | % Retired   | Unemployed     |                    |
|                   |            |             |            |              |             | % Able to work | % Not able to work |
| 18-44             | 61         | 9.8         | 19.7       | 32.8         | 1.6         | 31.1           | 4.9                |
| 45-64             | 93         | 10.8        | 0          | 28.0         | 34.4        | 22.6           | 4.3                |
| <b>18-64</b>      | <b>154</b> | <b>10.4</b> | <b>7.8</b> | <b>29.9</b>  | <b>21.4</b> | <b>26.0</b>    | <b>4.5</b>         |

The mean per capita income calculated on 520 respondents among the survey group was \$10,181.79 New Zealand dollars. The low response for this particular question limits its reliability. (See Appendix 2)

## 4.2 Tobacco Use

Tobacco use was measured by asking participants if they currently smoke tobacco products. Respondents were categorized into the following smoking status:

- Current smokers – those who had smoked any tobacco products (such as cigarettes, cigars or rolled tobacco) in the past 12 months.
- Daily smokers – those who smoke any tobacco product every day.
- Non-daily smokers – those current smokers who do not smoke on a daily basis.

Table 7 shows that current smokers comprised 32.6% (95% CI= 30.7-34.5) of all respondents, with a higher proportion among men (37.9%, 95% CI= 34.2-41.5%) than among women (27.7%, 95% CI= 24.9-30.5%). The highest proportion of current smokers occurred among young men (41.7%, 95% CI= 37.7-45.7%).

Table 7. Percentage of current smokers by sex and age group

| Age Group    | Men        |                  |                  | Women      |                  |                  | Both Sexes  |                  |                  |
|--------------|------------|------------------|------------------|------------|------------------|------------------|-------------|------------------|------------------|
|              | N          | % Current smoker | 95% CI           | N          | % Current smoker | 95% CI           | n           | % Current smoker | 95% CI           |
| 18-44        | 267        | 41.7             | 37.7-45.7        | 368        | 29.4             | 26.5-32.3        | 635         | 35.1             | 32.9-37.4        |
| 45-64        | 358        | 30.8             | 26.7-34.9        | 273        | 23.9             | 18.2-29.5        | 631         | 27.4             | 23.8-31.1        |
| <b>18-64</b> | <b>625</b> | <b>37.9</b>      | <b>34.2-41.5</b> | <b>641</b> | <b>27.7</b>      | <b>24.9-30.5</b> | <b>1266</b> | <b>32.6</b>      | <b>30.7-34.5</b> |

Table 8 shows that 28.4% (95% CI= 25.7-34.3%) of men smoked daily, 9.5% (95% CI= 6.8-12.1%) smoked non-daily and 62.1% did not smoke in the past twelve months (17.4%, 95% CI=15.4-19.4% former smokers + 44.7%, 95% CI= 40.7-48.7% who never smoked). The highest proportion of daily smokers (30.0%, 95% CI= 25.7-34.3%) among men occurred in the younger age group.

Table 8. Current smoking status among men by age group

| Age Group    | Current Smoker |                |                  |             | Non Smoker      |                 |                  |                |                  |
|--------------|----------------|----------------|------------------|-------------|-----------------|-----------------|------------------|----------------|------------------|
|              | N              | % Daily smoker | 95% CI           | % Non-daily | 95% CI          | % Former smoker | 95% CI           | % Never smoked | 95% CI           |
| 18-44        | 267            | 30.0           | 25.7-34.3        | 11.7        | 8.3-15.1        | 13.0            | 11.0-15.1        | 45.2           | 40.3-50.2        |
| 45-64        | 358            | 25.4           | 21.4-29.4        | 5.4         | 4.1-6.6         | 25.5            | 21.3-29.6        | 43.7           | 39.4-48.1        |
| <b>18-64</b> | <b>625</b>     | <b>28.4</b>    | <b>24.9-31.9</b> | <b>9.5</b>  | <b>6.8-12.1</b> | <b>17.4</b>     | <b>15.4-19.4</b> | <b>44.7</b>    | <b>40.7-48.7</b> |

Table 9 shows that 20.6% (95% CI= 16.6-24.5%) of women smoked daily, 7.1% (95% CI= 5.3-8.9%) smoked non-daily and 72.3% did not smoke in the past twelve months (18.1%, 95% CI= 16.1-20.1% former smokers + 54.2%, 95% CI= 50.8-57.6% who never smoked). The highest proportion of daily smokers (20.9%, 95% CI= 16.9-25.0%) among women occurred in the younger age group too.

Table 9. Current smoking status among women by age group

| Age Group    | Current Smoker |                |                  |             | Non Smoker     |                 |                  |                |                  |
|--------------|----------------|----------------|------------------|-------------|----------------|-----------------|------------------|----------------|------------------|
|              | N              | % Daily smoker | 95% CI           | % Non-daily | 95% CI         | % Former smoker | 95% CI           | % Never smoked | 95% CI           |
| 18-44        | 368            | 20.9           | 16.9-25.0        | 8.5         | 6.1-10.8       | 17.7            | 15.2-20.2        | 52.9           | 49.2-56.6        |
| 45-64        | 273            | 19.8           | 14.4-25.1        | 4.1         | 2.5-5.8        | 19.1            | 16.4-21.7        | 57.0           | 51.3-62.7        |
| <b>18-64</b> | <b>641</b>     | <b>20.6</b>    | <b>16.6-24.5</b> | <b>7.1</b>  | <b>5.3-8.9</b> | <b>18.1</b>     | <b>16.1-20.1</b> | <b>54.2</b>    | <b>50.8-57.6</b> |

Table 10 shows that 24.3% (95% CI= 22.3-26.4%) of both sexes smoked tobacco daily, 8.3% (95% CI= 6.7-9.9%) are non-daily smokers and 67.4% did not smoke in the past twelve months (17.8%, 95% CI= 16.3-19.2% former smokers + 49.6%, 95% CI=47.8-51.4 who never smoked). The highest rate of daily smokers was in the younger age group, although the difference between younger and older age group is not statistically significant.

Table 10. Current smoking status among both sexes of by age group

| Age Group    | Current Smoker |                |                  |             | Non Smoker     |                 |                  |                |                  |
|--------------|----------------|----------------|------------------|-------------|----------------|-----------------|------------------|----------------|------------------|
|              | n              | % Daily smoker | 95% CI           | % Non-daily | 95% CI         | % Former smoker | 95% CI           | % Never smoked | 95% CI           |
| 18-44        | 635            | 25.2           | 23.0-27.3        | 10.0        | 8.1-11.8       | 15.5            | 13.9-17.2        | 49.4           | 47.0-51.7        |
| 45-64        | 631            | 22.7           | 19.1-26.2        | 4.8         | 3.5-6.0        | 22.4            | 19.8-24.9        | 50.2           | 46.9-53.5        |
| <b>18-64</b> | <b>1266</b>    | <b>24.3</b>    | <b>22.3-26.4</b> | <b>8.3</b>  | <b>6.7-9.9</b> | <b>17.8</b>     | <b>16.3-19.2</b> | <b>49.6</b>    | <b>47.8-51.4</b> |

Table 11 shows that of all current smokers almost three quarters (74.7%, 95% CI= 69.9-79.4%) smoked on a daily basis, with similar percentages in both sexes but higher percentages among the older age groups. When both sexes are combined (82.6%, 95% CI=77.9-87.3%), there is a statistically significant difference between younger and older age group (71.7%, 95% CI=66.9-76.3%).

Table 11. Percentage of all current smokers who smoke daily by sex and age

| Age Group    | Men        |                        |                  | Women      |                        |                  | Both Sexes |                        |                  |
|--------------|------------|------------------------|------------------|------------|------------------------|------------------|------------|------------------------|------------------|
|              | N          | % Daily current smoker | 95% CI           | n          | % Daily current smoker | 95% CI           | n          | % Daily current smoker | 95% CI           |
| 18-44        | 111        | 72.0                   | 64.1-79.8        | 98         | 71.2                   | 61.9-80.5        | 209        | 71.6                   | 66.9-76.3        |
| 45-64        | 115        | 82.6                   | 78.4-86.7        | 63         | 82.7                   | 75.6-89.7        | 178        | 82.6                   | 77.9-87.3        |
| <b>18-64</b> | <b>226</b> | <b>75.0</b>            | <b>68.5-81.5</b> | <b>161</b> | <b>74.2</b>            | <b>66.0-82.4</b> | <b>387</b> | <b>74.7</b>            | <b>69.9-79.4</b> |

Table 12 shows that that the mean age respondents started to smoke was 18.7 years (95% CI= 18.1-19.3) for men and 19.3 years (95% CI= 18.5-20.2) for women. The younger age groups of both sexes reported starting smoking at a younger age than the older age groups. Both sexes combined, younger age group reported starting smoking at 17.8 years (95% CI= 17.4-18.2) compared to the older age group which started at 21.8 years (95% CI= 21.0-22.6). In both sexes, difference between age group is statistically significant.

Table 12. Mean age started smoking among current daily smokers

| Age Group    | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|--------------|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
|              | n          | % Mean Age  | 95% CI           | n          | % Mean Age  | 95% CI           | n          | % Mean Age  | 95% CI           |
| 18-44        | 80         | 17.9        | 17.6-18.3        | 66         | 17.6        | 16.7-18.5        | 146        | 17.8        | 17.4-18.2        |
| 45-64        | 88         | 20.5        | 19.1-21.9        | 51         | 23.6        | 21.3-25.9        | 139        | 21.8        | 21.0-22.6        |
| <b>18-64</b> | <b>168</b> | <b>18.7</b> | <b>18.1-19.3</b> | <b>117</b> | <b>19.3</b> | <b>18.5-20.2</b> | <b>285</b> | <b>19.0</b> | <b>18.7-19.3</b> |

Table 13 shows the mean number of years which current daily smokers had been smoking. In total it was 18.6 years (95% CI= 17.4-19.8). Men had been smoking longer (20.2 years, 95% CI= 19.1-21.3) compared to women (16.6 years, 95% CI= 14.4-18.9).

Table 13. Mean number of years of smoking among current daily smokers

| Age Group    | Men        |                 |                  | Women      |                 |                  | Both Sexes |                 |                  |
|--------------|------------|-----------------|------------------|------------|-----------------|------------------|------------|-----------------|------------------|
|              | n          | % Mean duration | 95% CI           | n          | % Mean duration | 95% CI           | n          | % Mean duration | 95% CI           |
| 18-44        | 88         | 15.0            | 13.8-16.1        | 66         | 11.7            | 9.9-13.5         | 146        | 13.5            | 12.9-14.1        |
| 45-64        | 88         | 32.0            | 30.8-33.2        | 51         | 28.7            | 26.5-30.8        | 139        | 30.6            | 29.9-31.2        |
| <b>18-64</b> | <b>168</b> | <b>20.2</b>     | <b>19.1-21.3</b> | <b>117</b> | <b>16.6</b>     | <b>14.4-18.9</b> | <b>285</b> | <b>18.6</b>     | <b>17.4-19.8</b> |

Table 14 shows that the majority (89.0%, 95% CI= 84.8-93.1%) of current daily smokers smoked manufactured cigarettes. Although more women than men reported smoking manufactured cigarettes, the difference is not statistically significant.

Table 14. Percentage of current daily smokers who smoke manufactured cigarettes.

| Age Group    | Men        |                                 |                  | Women      |                                 |                  | Both Sexes |                                 |                  |
|--------------|------------|---------------------------------|------------------|------------|---------------------------------|------------------|------------|---------------------------------|------------------|
|              | n          | % Manufactured cigarette smoker | 95% CI           | n          | % Manufactured cigarette smoker | 95% CI           | n          | % Manufactured cigarette smoker | 95% CI           |
| 18-44        | 71         | 95.4                            | 91.6-99.1        | 67         | 90.6                            | 83.5-97.7        | 138        | 93.1                            | 88.5-97.7        |
| 45-64        | 76         | 66.0                            | 53.4-78.5        | 52         | 95.0                            | 89.8-100.0       | 128        | 79.3                            | 73.3-85.3        |
| <b>18-64</b> | <b>147</b> | <b>86.4</b>                     | <b>79.3-93.5</b> | <b>119</b> | <b>91.9</b>                     | <b>87.6-96.1</b> | <b>266</b> | <b>89.0</b>                     | <b>84.8-93.1</b> |

Table 15 shows that 14.2% (95% CI= 10.1-18.2%) of both sexes smoked 25 or more cigarettes per day, 10.3% (95% CI= 7.9-12.6%) smoked between 15-24 cigarettes per day, 27.5% (95% CI= 21.5-33.5%) smoked between 10 and 14 cigarettes a day and 18.8% smoked between 5 and 9 cigarettes per day. Almost 30% (29.2%, 95% CI= 26.0-32.4%) smoked less than 5 cigarettes per day.

Table 15. Percentage of daily cigarette smokers among both sexes smoking given quantities of manufactured or hand-rolled cigarettes per day

| Age Group    | Both Sexes |             |                  |             |                  |              |                  |              |                 |             |                  |
|--------------|------------|-------------|------------------|-------------|------------------|--------------|------------------|--------------|-----------------|-------------|------------------|
|              | n          | % <5 cigs   | 95% CI           | % 5-9 cigs  | 95% CI           | % 10-14 cigs | 95% CI           | % 15-24 cigs | 95% CI          | % ≥25 cigs  | 95% CI           |
| 18-44        | 133        | 31.1        | 26.5-35.7        | 16.6        | 10.8-22.4        | 28.5         | 19.7-37.3        | 11.8         | 8.0-15.6        | 12.0        | 9.2-14.8         |
| 45-64        | 118        | 24.8        | 19.3-30.3        | 23.9        | 14.9-33.0        | 25.2         | 16.1-34.3        | 6.6          | 2.2-11.0        | 19.4        | 8.1-30.7         |
| <b>18-64</b> | <b>251</b> | <b>29.2</b> | <b>26.0-32.4</b> | <b>18.8</b> | <b>13.1-24.5</b> | <b>27.5</b>  | <b>21.5-33.5</b> | <b>10.3</b>  | <b>7.9-12.6</b> | <b>14.2</b> | <b>10.1-18.2</b> |

Table 16 shows that more than two thirds (67.5%, 95% CI= 64.0-71.0%) of current smokers of both sexes had tried to stop smoking over the past 12 months. This high proportion of smokers which wanted to stop smoking indicates that some form of assistance may be needed.

Table 16. Current smokers who have tried to stop smoking in the past 12 months

| Age Group    | Men        |                         |                  | Women      |                         |                  | Both Sexes |                         |                  |
|--------------|------------|-------------------------|------------------|------------|-------------------------|------------------|------------|-------------------------|------------------|
|              | n          | % Tried to stop smoking | 95% CI           | n          | % Tried to stop smoking | 95% CI           | n          | % Tried to stop smoking | 95% CI           |
| 18-44        | 111        | 67.2                    | 62.0-72.4        | 98         | 67.3                    | 58.9-75.7        | 209        | 67.3                    | 62.8-71.7        |
| 45-64        | 115        | 65.5                    | 54.1-77.0        | 63         | 71.7                    | 54.1-89.3        | 178        | 68.1                    | 64.2-72.0        |
| <b>18-64</b> | <b>226</b> | <b>66.7</b>             | <b>62.2-71.3</b> | <b>161</b> | <b>68.5</b>             | <b>63.5-73.4</b> | <b>387</b> | <b>67.5</b>             | <b>64.0-71.0</b> |

Table 17 shows that more than one third of all respondents (36.8%) were exposed to second-hand smoke at home, with no significant differences between sexes but higher rates among younger age group.

Table 17. Percentage of respondents exposed second-hand smoke at home in the past 30 days

| Age Group    | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|--------------|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
|              | N          | % Exposed   | 95% CI           | n          | % Exposed   | 95% CI           | n           | % Exposed   | 95% CI           |
| 18-44        | 248        | 36.1        | 30.4-41.9        | 347        | 42.8        | 39.3-46.2        | 595         | 39.7        | 35.8-43.6        |
| 45-64        | 341        | 33.9        | 28.8-39.0        | 266        | 28.0        | 22.4-33.6        | 607         | 31.0        | 28.7-33.4        |
| <b>18-64</b> | <b>589</b> | <b>35.3</b> | <b>30.1-40.6</b> | <b>613</b> | <b>38.1</b> | <b>35.7-40.4</b> | <b>1202</b> | <b>36.8</b> | <b>33.8-39.7</b> |

Table 18 shows that more than one third (37.7%, 95% CI= 35.7-39.7) of all respondents were exposed to second hand smoke at workplace. Rates of exposure were significantly higher among men (44.7%, 95% CI= 40.6-48.9%) than among women (31.3%, 95% CI= 27.5-35.7%). This is likely due to higher rates of paid employment in men.

Table 18. Percentage of respondents exposed to second-hand smoke at workplace in the past 30 days

| Age Group    | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|--------------|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
|              | n          | % Exposed   | 95% CI           | n          | % Exposed   | 95% CI           | n           | % Exposed   | 95% CI           |
| 18-44        | 243        | 43.0        | 39.4-46.6        | 345        | 31.8        | 27.3-36.4        | 588         | 37.0        | 34.6-39.3        |
| 45-64        | 339        | 47.8        | 41.9-53.7        | 264        | 30.1        | 26.0-34.3        | 603         | 39.1        | 35.2-43.0        |
| <b>18-64</b> | <b>582</b> | <b>44.7</b> | <b>40.6-48.9</b> | <b>609</b> | <b>31.3</b> | <b>27.5-35.1</b> | <b>1191</b> | <b>37.7</b> | <b>35.7-39.7</b> |

### 4.3 Alcohol Consumption

This section describes the respondents' patterns of alcohol consumption. To assess patterns and prevalence of alcohol consumption, respondents were asked if they ever consumed alcohol, and if yes in what frequency and what quantity of alcohol they consumed. Those who had consumed an alcoholic drink in the past 30 days were classified as 'current drinkers'.

Table 19 shows that 56.8% (95% CI= 54.5-59.2%) of men were current drinkers (defined as drinking alcohol in the last 30 days), 10.2% (95% CI= 8.5-11.9%) were non-current drinkers (have drunk alcohol in the last 12 months, but not in the last 30 days), 13.6% (95% CI= 11.9-15.4%) abstained from drinking alcohol in the last 12 months and 19.4% (95% CI= 17.6-21.1%) were lifetime abstainers.

Table 19. Percentage of alcohol consumption among men during the past 12 months by age group

| Age Group    | Men        |                                  |                  |  |                 |                            |                  |                      |                  |
|--------------|------------|----------------------------------|------------------|--|-----------------|----------------------------|------------------|----------------------|------------------|
|              | n          | % Current drinker (past 30 days) | 95% CI           | % Drank in past 12 months, not current | 95% CI          | % Past 12 months abstainer | 95% CI           | % Lifetime abstainer | 95% CI           |
| 18-44        | 267        | 60.0                             | 56.0-63.9        | 10.3                                   | 8.6-12.1        | 13.5                       | 11.5-15.5        | 16.2                 | 13.0-19.4        |
| 45-64        | 359        | 51.0                             | 46.1-56.0        | 9.9                                    | 7.2-12.5        | 13.9                       | 10.6-17.3        | 25.2                 | 21.9-28.4        |
| <b>18-64</b> | <b>626</b> | <b>56.8</b>                      | <b>54.5-59.2</b> | <b>10.2</b>                            | <b>8.5-11.9</b> | <b>13.6</b>                | <b>11.9-15.4</b> | <b>19.4</b>          | <b>17.6-21.1</b> |

Table 20 shows that 36.9% (95% CI= 30.4-42.3%) of women were current drinkers, 21.9% (95% CI= 18.5-25.3%) were non-current drinkers, 14.5% (95% CI= 13.1-16.0%) abstained from drinking alcohol in the past 12 months and 27.2% (95% CI= 23.3-31.2%) were lifetime abstainers.

Table 20. Percentage of alcohol consumption among women during the past 12 months by age group

| Age Group    | Women      |                                  |                  |  |                  |                            |                  |                      |                  |
|--------------|------------|----------------------------------|------------------|--|------------------|----------------------------|------------------|----------------------|------------------|
|              | n          | % Current drinker (past 30 days) | 95% CI           | % Drank in past 12 months, not current | 95% CI           | % Past 12 months abstainer | 95% CI           | % Lifetime abstainer | 95% CI           |
| 18-44        | 368        | 39.9                             | 33.4-46.3        | 24.8                                   | 20.9-28.8        | 11.7                       | 10.0-13.5        | 23.6                 | 20.5-26.7        |
| 45-64        | 272        | 28.4                             | 21.7-35.1        | 15.1                                   | 12.5-17.7        | 20.9                       | 17.3-24.5        | 35.6                 | 27.4-43.7        |
| <b>18-64</b> | <b>640</b> | <b>36.4</b>                      | <b>30.4-42.3</b> | <b>21.9</b>                            | <b>18.5-25.3</b> | <b>14.5</b>                | <b>13.1-16.0</b> | <b>27.2</b>          | <b>23.3-31.2</b> |

Table 21 shows that among both sexes almost half (46.2%, 95% CI= 42.8-49.6%) of all respondents were current drinkers, 16.2% (95% CI=13.8-18.6%) were non-current drinkers, 14.1% (95% CI= 12.8-15.4%) abstained from drinking alcohol in the past 12 months and 23.4% (95% CI= 21.2-25.7%) were lifetime abstainers.

Table 21. Percentage of alcohol consumption among both sexes during the past 12 months by age group

| Age Group    | Both Sexes  |                                  |                  |  |                  |                            |                  |                      |                  |
|--------------|-------------|----------------------------------|------------------|--|------------------|----------------------------|------------------|----------------------|------------------|
|              | n           | % Current drinker (past 30 days) | 95% CI           | % Drank in past 12 months, not current | 95% CI           | % Past 12 months abstainer | 95% CI           | % Lifetime abstainer | 95% CI           |
| 18-44        | 635         | 49.2                             | 44.6-53.8        | 18.1                                   | 15.5-20.7        | 12.5                       | 11.5-13.6        | 20.1                 | 17.8-22.5        |
| 45-64        | 631         | 40.1                             | 37.2-43.0        | 12.4                                   | 10.5-14.3        | 17.3                       | 14.4-20.2        | 30.2                 | 26.3-34.1        |
| <b>18-64</b> | <b>1266</b> | <b>46.2</b>                      | <b>42.8-49.6</b> | <b>16.2</b>                            | <b>13.8-18.6</b> | <b>14.1</b>                | <b>12.8-15.4</b> | <b>23.4</b>          | <b>21.2-25.7</b> |

Table 22 shows the mean number of drinking occasions that current drinkers had at least one drink.. Men had 4.7 (95% CI= 4.3-5.2) occasions on which they had at least one drink, women had 4.2 (95% CI= 3.6-4.8) of such occasions and both sexes combined had 4.5 (95% CI= 4.12-4.9) of such occasions in the past 30 days.



Table 22. Mean number of drinking occasions in the past 30 days among current (past 30 days) drinkers

| Age Group    | Men        |            |                | Women      |            |                | Both Sexes |            |                |
|--------------|------------|------------|----------------|------------|------------|----------------|------------|------------|----------------|
|              | n          | Mean       | 95% CI         | n          | Mean       | 95% CI         | n          | Mean       | 95% CI         |
| 18-44        | 148        | 4.9        | 4.2-5.6        | 133        | 4.2        | 3.3-5.0        | 281        | 4.6        | 3.9-5.2        |
| 45-64        | 166        | 4.4        | 3.8-5.0        | 73         | 4.3        | 3.0-5.5        | 239        | 4.3        | 3.8-4.9        |
| <b>18-64</b> | <b>314</b> | <b>4.7</b> | <b>4.3-5.2</b> | <b>206</b> | <b>4.2</b> | <b>3.6-4.8</b> | <b>520</b> | <b>4.5</b> | <b>4.1-4.9</b> |

Table 23 shows the mean number of standard drinks consumed by male and female current drinkers on average on a drinking day. One standard drink contains approximately 10g of pure alcohol.

It is shown that on average 9.5 (95% CI= 9.1-10.0) standard drinks are consumed by male current drinkers on a drinking day and 6.3 (95% CI= 5.6-7.1) standard drinks by female current drinkers. In total, on average 8.2 (95% CI= 7.6-8.8) standard drinks were consumed by respondents on a drinking day. Younger men consumed a statistically significant higher amount of standard drinks (10.1, 95% CI= 9.5-10.8) than older men (8.2, 95% CI= 7.3-9.2) and both age groups in women.

Table 23. Mean number of standard drinks per drinking occasion among current (past 30 days) drinkers

| Age Group    | Men        |            |                 | Women      |            |                | Both Sexes |            |                |
|--------------|------------|------------|-----------------|------------|------------|----------------|------------|------------|----------------|
|              | n          | Mean       | 95% CI          | n          | Mean       | 95% CI         | n          | Mean       | 95% CI         |
| 18-44        | 146        | 10.1       | 9.5-10.8        | 130        | 6.5        | 5.8-7.3        | 276        | 8.6        | 7.9-9.3        |
| 45-64        | 167        | 8.2        | 7.3-9.2         | 73         | 5.6        | 4.3-6.9        | 240        | 7.3        | 6.6-8.1        |
| <b>18-64</b> | <b>313</b> | <b>9.5</b> | <b>9.1-10.0</b> | <b>203</b> | <b>6.3</b> | <b>5.6-7.1</b> | <b>516</b> | <b>8.2</b> | <b>7.6-8.8</b> |

Table 24 shows that 3.4% (95% CI= 2.0-4.7%) of men and 2.0% (95% CI= 1.0-3.0%) of women drank at the level of Category III on a single drinking occasion within the last 30 days. (Category III drinking is defined as drinking  $\geq 60$ g of pure alcohol on average per day for men and  $\geq 40$ g for women.) See Appendix 2 for levels I and II.

Table 24. Percentage of respondents who had six or more drinks (men) or four or more drinks (women) on a single drinking occasion in the past 30 days.

| Age Group (years) | Men        |                |                | Women      |                |                | Both Sexes  |                |                |
|-------------------|------------|----------------|----------------|------------|----------------|----------------|-------------|----------------|----------------|
|                   | n          | % Category III | 95% CI         | n          | % Category III | 95% CI         | n           | % Category III | 95% CI         |
| 18-44             | 247        | 3.2            | 1.4-5.1        | 354        | 2.0            | 0.4-3.7        | 601         | 2.6            | 1.1-4.1        |
| 45-64             | 335        | 3.6            | 1.8-5.5        | 265        | 2.0            | 1.0-3.0        | 600         | 2.8            | 1.9-3.7        |
| <b>18-64</b>      | <b>582</b> | <b>3.4</b>     | <b>2.0-4.7</b> | <b>619</b> | <b>2.0</b>     | <b>1.0-3.0</b> | <b>1201</b> | <b>2.7</b>     | <b>1.7-3.6</b> |

Table 25 shows the mean maximum number of drinks consumed on a single drinking occasion in the past 30 days. Men consumed on average a maximum of 11.9 (95% CI= 11.3-12.5) drinks; which differs statistically significant from women. They consumed on average a maximum of 9.0 drinks (95% CI= 7.8-10.2). Younger men consumed a higher average maximum of drinks (12.7, 95% CI= 11.3-12.5) than older men (10.2, 95% CI= 9.0-11.5) and women.

Table 25. Mean maximum number of drinks consumed on a single drinking occasion

| Age Group    | Men        |              |                  | Women      |              |                 | Both Sexes |              |                  |
|--------------|------------|--------------|------------------|------------|--------------|-----------------|------------|--------------|------------------|
|              | n          | Mean maximum | 95% CI           | n          | Mean maximum | 95% CI          | n          | Mean maximum | 95% CI           |
| 18-44        | 139        | 12.7         | 12.0-13.4        | 127        | 9.7          | 8.5-10.9        | 266        | 11.4         | 10.7-12.1        |
| 45-64        | 165        | 10.2         | 9.0-11.5         | 74         | 6.9          | 5.4-8.5         | 239        | 9.1          | 8.3-9.8          |
| <b>18-64</b> | <b>304</b> | <b>11.9</b>  | <b>11.3-12.5</b> | <b>201</b> | <b>9.0</b>   | <b>7.8-10.2</b> | <b>505</b> | <b>10.7</b>  | <b>10.1-11.3</b> |



#### 4.4 Fruit and Vegetable Consumption

Respondents' fruit and vegetable intake was assessed by asking how many days they consumed fruit and vegetables in a typical week, and how many servings of each type they consumed on one of those days.

Table 26 shows that both sexes, on average, consumed fruit on 3.8 days (95% CI= 3.7-4.0) in a typical week, with men consuming fruits statistically less frequently (3.4 days, 95% CI= 3.2-3.5) than women (4.3 days, 95% CI= 4.0-4.5) in both age groups.

Table 26. Mean number of days fruit consumed in a typical week (by sex and age group)

| Age Group    | Men        |                     |                | Women      |                     |                | Both Sexes  |                     |                |
|--------------|------------|---------------------|----------------|------------|---------------------|----------------|-------------|---------------------|----------------|
|              | n          | Mean number of days | 95% CI         | n          | Mean number of days | 95% CI         | n           | Mean number of days | 95% CI         |
| 18-44        | 263        | 3.3                 | 3.1-3.4        | 358        | 4.1                 | 3.9-4.3        | 621         | 3.7                 | 3.6-3.8        |
| 45-64        | 357        | 3.6                 | 3.4-3.7        | 272        | 4.7                 | 4.4-4.9        | 629         | 4.1                 | 3.9-4.2        |
| <b>18-64</b> | <b>620</b> | <b>3.4</b>          | <b>3.2-3.5</b> | <b>630</b> | <b>4.3</b>          | <b>4.0-4.5</b> | <b>1250</b> | <b>3.8</b>          | <b>3.7-4.0</b> |

Table 27 shows that both sexes, on average, consumed vegetables on 3.7 days (95% CI= 3.6-3.8) in a typical week, with men consuming vegetables statistically less frequently (3.4 days, 95% CI= 3.3-3.5) than women (3.9 days 95% CI= 3.8-4.1). Statistically significant, men in the older age group consumed vegetables less frequently (3.2 days 95% CI= 3.1-3.3) than men in the younger age group (3.6 days 95% CI= 3.4-3.8) and all women.

Table 27. Mean number of days vegetables consumed in a typical week (by sex and age group)

| Age Group    | Men        |                     |                | Women      |                     |                | Both Sexes  |                     |                |
|--------------|------------|---------------------|----------------|------------|---------------------|----------------|-------------|---------------------|----------------|
|              | n          | Mean number of days | 95% CI         | n          | Mean number of days | 95% CI         | n           | Mean number of days | 95% CI         |
| 18-44        | 263        | 3.6                 | 3.4-3.8        | 353        | 3.9                 | 3.8-4.1        | 616         | 3.7                 | 3.6-3.9        |
| 45-64        | 356        | 3.2                 | 3.1-3.3        | 272        | 4.0                 | 3.8-4.2        | 628         | 3.6                 | 3.5-3.7        |
| <b>18-64</b> | <b>619</b> | <b>3.4</b>          | <b>3.3-3.5</b> | <b>625</b> | <b>3.9</b>          | <b>3.8-4.1</b> | <b>1244</b> | <b>3.7</b>          | <b>3.6-3.8</b> |

Table 28 shows differences between men and women in both age groups in the number of servings of fruits on an average day. On average, women consumed 1.8 servings (95% CI= 1.6-1.9) of fruit and men consumed a statistically significant smaller amount of fruits on average (1.3, 95% CI= 1.2-1.4).

Table 28. Mean number of servings of fruit on an average per day when fruits were eaten

| Age Group    | Men        |             |                | Women      |             |                | Both Sexes  |             |                |
|--------------|------------|-------------|----------------|------------|-------------|----------------|-------------|-------------|----------------|
|              | N          | Mean serves | 95% CI         | n          | Mean serves | 95% CI         | n           | Mean serves | 95% CI         |
| 18-44        | 255        | 1.2         | 1.1-1.3        | 345        | 1.6         | 1.5-1.8        | 600         | 1.4         | 1.3-1.5        |
| 45-64        | 344        | 1.5         | 1.3-1.6        | 266        | 2.1         | 1.9-2.3        | 610         | 1.8         | 1.7-1.9        |
| <b>18-64</b> | <b>599</b> | <b>1.3</b>  | <b>1.2-1.4</b> | <b>611</b> | <b>1.8</b>  | <b>1.6-1.9</b> | <b>1210</b> | <b>1.5</b>  | <b>1.5-1.6</b> |

Table 29 shows no differences between men and women in the younger age group in the number of servings of vegetables on an average day (1.2 servings), but men in the older age group consumed statistically less (1.1 servings, 95% CI= 1.0-1.2) than women (1.5, 95% CI= 1.3-1.7) in the same age group.

Table 29. Mean number of servings of vegetables on an average per day when vegetables were eaten

| Age Group    | Men        |             |                | Women      |             |                | Both Sexes  |             |                |
|--------------|------------|-------------|----------------|------------|-------------|----------------|-------------|-------------|----------------|
|              | n          | Mean serves | 95% CI         | N          | Mean serves | 95% CI         | n           | Mean serves | 95% CI         |
| 18-44        | 255        | 1.2         | 1.1-1.3        | 338        | 1.2         | 1.1-1.3        | 593         | 1.2         | 1.2-1.3        |
| 45-64        | 343        | 1.1         | 1.0-1.2        | 266        | 1.5         | 1.3-1.7        | 609         | 1.3         | 1.2-1.4        |
| <b>18-64</b> | <b>598</b> | <b>1.2</b>  | <b>1.1-1.2</b> | <b>604</b> | <b>1.3</b>  | <b>1.2-1.4</b> | <b>1202</b> | <b>1.2</b>  | <b>1.2-1.3</b> |

Table 30 shows statistically significant differences between men and women in both age groups in the number of servings of fruit and/or vegetables consumed on an average day. On average, women consumed more servings (3.1, 95% CI= 2.9-3.3) than men (2.4, 95% CI= 2.3-2.5). Table 30. Mean number of servings of fruit and/or vegetables on average per day

| Age Group    | Men        |             |                | Women      |             |                | Both Sexes  |             |                |
|--------------|------------|-------------|----------------|------------|-------------|----------------|-------------|-------------|----------------|
|              | N          | Mean serves | 95% CI         | n          | Mean serves | 95% CI         | n           | Mean serves | 95% CI         |
| 18-44        | 259        | 2.4         | 2.2-2.5        | 347        | 2.8         | 2.7-3.0        | 606         | 2.6         | 2.5-2.7        |
| 45-64        | 345        | 2.5         | 2.3-2.7        | 266        | 3.6         | 3.3-3.9        | 611         | 3.1         | 2.9-3.2        |
| <b>18-64</b> | <b>604</b> | <b>2.4</b>  | <b>2.3-2.5</b> | <b>613</b> | <b>3.1</b>  | <b>2.9-3.3</b> | <b>1217</b> | <b>2.8</b>  | <b>2.6-2.9</b> |

Table 31 shows that 85.4% (95% CI= 83.4-87.4) of respondents consumed less than the WHO recommended consumption of five servings of fruit and/or vegetables on an average day. The difference in the proportions in the older age group of men (88.4%, 95% CI= 85.4-91.4%) and women (75.4%, 95% CI= 69.8-81.0%) is statistically significant.

Table 31. Percentage of those eating less than five servings of fruit and/or vegetables on average per day

| Age Group    | Men        |                      |                  | Women      |                      |                  | Both Sexes  |                      |                  |
|--------------|------------|----------------------|------------------|------------|----------------------|------------------|-------------|----------------------|------------------|
|              | n          | % < 5 serves per day | 95% CI           | n          | % < 5 serves per day | 95% CI           | n           | % < 5 serves per day | 95% CI           |
| 18-44        | 259        | 89.2                 | 85.6-92.7        | 347        | 85.2                 | 82.4-88.1        | 606         | 87.1                 | 85.0-89.2        |
| 45-64        | 345        | 88.4                 | 85.4-91.4        | 266        | 75.4                 | 69.8-81.0        | 611         | 82.0                 | 79.4-84.7        |
| <b>18-64</b> | <b>604</b> | <b>88.9</b>          | <b>86.7-91.1</b> | <b>613</b> | <b>82.1</b>          | <b>79.4-84.9</b> | <b>1217</b> | <b>85.4</b>          | <b>83.4-87.4</b> |

#### 4.5 Dietary Salt

Table 32 shows that more than one third (36.4%, 95% CI= 34.3-38.6%) of respondents always or often added salt or to food before or while eating. Among both, men and women, salt addition was highest in the younger age group (men: 39.6%, 95% CI= 34.8-44.4%, women: 37.1%, 95% CI=34.5-39.8%), although it was not statistically significant. (See Appendix 2 for more information on salt)

Table 32. Percentage of all respondents who always or often add salt to their food before eating or while eating

| Age Group    | Men        |               |                  | Women      |               |                  | Both Sexes  |               |                  |
|--------------|------------|---------------|------------------|------------|---------------|------------------|-------------|---------------|------------------|
|              | n          | % adding salt | 95% CI           | n          | % adding salt | 95% CI           | n           | % adding salt | 95% CI           |
| 18-44        | 266        | 39.6          | 34.8-44.4        | 365        | 37.1          | 34.5-39.8        | 631         | 38.3          | 35.6-40.9        |
| 45-64        | 355        | 33.0          | 29.1-36.9        | 272        | 32.4          | 27.8-37.1        | 627         | 32.7          | 29.5-35.9        |
| <b>18-64</b> | <b>621</b> | <b>37.3</b>   | <b>33.9-40.7</b> | <b>637</b> | <b>35.7</b>   | <b>32.9-38.5</b> | <b>1258</b> | <b>36.4</b>   | <b>34.3-38.6</b> |

Table 33 shows that almost half (48.8%, 95% CI= 46.6-50.9%) of all respondents added salt to their food when cooking or preparing foods at home. There were no statistically significant differences between sexes and age groups.

Table 33. Percentage of all respondents who always or often add salt to their food when cooking or preparing food at home

| Age Group    | Men        |               |                  | Women      |               |                  | Both Sexes  |               |                  |
|--------------|------------|---------------|------------------|------------|---------------|------------------|-------------|---------------|------------------|
|              | n          | % adding salt | 95% CI           | n          | % adding salt | 95% CI           | n           | % adding salt | 95% CI           |
| 18-44        | 265        | 48.5          | 44.0-53.1        | 363        | 48.3          | 45.6-51.0        | 628         | 48.4          | 45.8-51.0        |
| 45-64        | 355        | 47.0          | 43.1-51.0        | 272        | 51.9          | 46.5-57.3        | 627         | 49.4          | 45.6-53.2        |
| <b>18-64</b> | <b>620</b> | <b>48.0</b>   | <b>44.6-51.4</b> | <b>635</b> | <b>49.4</b>   | <b>46.4-52.5</b> | <b>1255</b> | <b>48.8</b>   | <b>46.6-50.9</b> |

Table 34 shows that almost half (46.9%, 95% CI= 44.3-49.6%) of all respondents indicated that they often eat processed food high in salt, with little difference between sexes and ages.

Table 34. Percentage of all respondents who often or always eat processed food high in salt

| Age Group    | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|--------------|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
|              | n          | %           | 95% CI           | n          | %           | 95% CI           | n           | %           | 95% CI           |
| 18-44        | 265        | 47.8        | 43.0-52.5        | 364        | 48.2        | 44.3-52.1        | 629         | 48.0        | 44.7-51.3        |
| 45-64        | 355        | 46.4        | 41.5-51.2        | 272        | 42.9        | 38.0-47.9        | 627         | 44.7        | 40.9-48.5        |
| <b>18-64</b> | <b>620</b> | <b>47.3</b> | <b>44.0-50.5</b> | <b>636</b> | <b>46.6</b> | <b>43.2-49.9</b> | <b>1256</b> | <b>46.9</b> | <b>44.3-49.6</b> |

Table 35 shows that 70.8% (95% CI= 66.3-75.3%) of all respondents think lowering salt intake is very important, 23.0% (95% CI= 19.1-26.8%) think it is important and 6.2% (95% CI= 5.1-7.4%) think it is not at all important.

Table 35. Percentage of respondents who think lowering salt in diet is very, somewhat or not at all important.

| Age Group (years) | Both Sexes  |                  |                  |                      |                  |                        |                |
|-------------------|-------------|------------------|------------------|----------------------|------------------|------------------------|----------------|
|                   | N           | % Very important | 95% CI           | % Somewhat important | 95% CI           | % Not at all important | 95% CI         |
| 18-44             | 585         | 69.7             | 63.7-75.7        | 23.7                 | 18.4-29.0        | 6.6                    | 5.2-7.9        |
| 45-64             | 589         | 73.0             | 70.6-75.4        | 21.4                 | 19.3-23.6        | 5.6                    | 4.3-6.9        |
| <b>18-64</b>      | <b>1174</b> | <b>70.8</b>      | <b>66.3-75.3</b> | <b>23.0</b>          | <b>19.1-26.8</b> | <b>6.2</b>             | <b>5.1-7.4</b> |

#### 4.6. Oral Health

Table 36 shows that almost one quarter (24.2%, 95% CI= 22.4-25.9%) of all respondents experienced oral pain or discomfort in the past 12 months. The highest percentage was among men in the older age group, although it does not differ significantly from women or younger men.

Table 36. Percentage of respondents having oral pain or discomfort caused by their teeth or mouth during the past 12 months

| Age Group    | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|--------------|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
|              | n          | %           | 95% CI           | n          | %           | 95% CI           | n           | %           | 95% CI           |
| 18-44        | 266        | 24.4        | 20.8-28.1        | 365        | 23.8        | 17.5-30.0        | 631         | 24.1        | 21.3-26.8        |
| 45-64        | 356        | 27.0        | 22.6-31.5        | 270        | 21.5        | 15.3-27.8        | 626         | 24.4        | 19.5-29.3        |
| <b>18-64</b> | <b>622</b> | <b>25.3</b> | <b>21.9-28.8</b> | <b>635</b> | <b>23.1</b> | <b>19.8-26.3</b> | <b>1257</b> | <b>24.2</b> | <b>22.4-25.9</b> |

Table 37 shows that 14.2% (95% CI= 13.0-15.5%) of respondents had difficulties chewing food over the past 12 months. Percentages were highest among men in the older age group, although the differences across sex or age are not statistically significant.

Table 37. Percentage of respondents having difficulties in chewing foods during the past 12 months

| Age Group    | Men        |             |                  | Women      |             |                 | Both Sexes  |             |                  |
|--------------|------------|-------------|------------------|------------|-------------|-----------------|-------------|-------------|------------------|
|              | n          | %           | 95% CI           | n          | %           | 95% CI          | n           | %           | 95% CI           |
| 18-44        | 266        | 13.3        | 10.7-16.0        | 365        | 12.8        | 9.2-16.5        | 631         | 13.1        | 11.4-14.8        |
| 45-64        | 356        | 18.3        | 13.5-23.1        | 270        | 14.7        | 9.1-20.3        | 626         | 16.5        | 14.4-18.7        |
| <b>18-64</b> | <b>622</b> | <b>15.1</b> | <b>12.5-17.7</b> | <b>635</b> | <b>13.4</b> | <b>9.9-16.9</b> | <b>1257</b> | <b>14.2</b> | <b>13.0-15.5</b> |

#### 4.7 Physical Activity

Respondents were asked how often (frequency) and how long (duration) they engaged in three different domains of physical activity (PA) in a typical week: work-related PA, transport-related PA and recreation-related PA. In working- and recreational domains, respondents were asked how many days per week and how many hours/minutes per day they participated in moderate and vigorous intensity activities. In the transport domain, respondents were asked how often and how long they either walked and/or cycled to and from places.

The three physical activity domains were first examined separately to determine the proportion of activity undertaken in each domain as a component of total physical activity. Overall, combining all domains, three

levels of activity were recorded: low, moderate, and high intensity. The proportions meeting the global targets for physical activity (WHO 2010) were also calculated.

To identify cut-off limits for the three different levels of energy expenditure (i.e. low, moderate or high) the daily duration of activity was converted into MET-minutes per day. METs (Metabolic Equivalents) are common to express the intensity of physical activities, and are used in the analysis of the Global Physical Activity Questionnaire.

MET is the ratio of the associated metabolic rate for a specific activity divided by the resting metabolic rate. The energy cost of sitting is equivalent to a resting metabolic rate of 1 MET.

For the calculation of MET-minutes, the total time spent in physical activity during a typical week, the number of days and the intensity of the physical activity are taken into account.

In this report, the following MET values were allocated to the three physical activity domains:

| Domain     | MET value  |
|------------|--|
| Work       | <ul style="list-style-type: none"> <li>Moderate MET value = 4.0</li> <li>Vigorous MET value = 8.0</li> </ul> |
| Transport  | Cycling and walking MET value = 4.0  |
| Recreation | <ul style="list-style-type: none"> <li>Moderate MET value = 4.0</li> <li>Vigorous MET value = 8.0</li> </ul> |

The following levels of activity in terms of MET minutes were defined as:

**High activity:** A person reaching any of the following criteria:

- Vigorous-intensity activity on at least 3 days achieving a minimum of at least 1,500 MET-minutes/week OR
- 7 or more days of any combination of walking, moderate- or vigorous-intensity activities achieving a minimum of at least 3,000 MET-minutes per week.

**Moderate activity:** A person not meeting the criteria for the “high” category, but meeting any of the following criteria:

- 3 or more days of vigorous-intensity activity of at least 20 minutes per day OR
- 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day OR
- 5 or more days of any combination of walking, moderate- or vigorous-intensity activities achieving a minimum of at least 600 MET-minutes per week.

**Low activity:** A person not meeting any of the above mentioned criteria and active at <600 MET minutes per week

Table 38 shows that 22.8% (95% CI= 20.9-24.8%) of men had low levels of physical activity, 15.7% (95% CI= 14.3-17.2%) moderate levels and 61.4% (95% CI= 59.3-63.5%) high levels.

Table 38. Level of total physical activity among men by age group

| Age Group (years) | Men        |             |                  |             |                  |             |                  |
|-------------------|------------|-------------|------------------|-------------|------------------|-------------|------------------|
|                   | n          | % Low       | 95% CI           | % Moderate  | 95% CI           | % High      | 95% CI           |
| 18-44             | 256        | 21.3        | 18.1-24.5        | 13.2        | 11.2-15.2        | 65.5        | 61.9-69.1        |
| 45-64             | 336        | 25.8        | 22.2-29.3        | 20.5        | 17.7-23.3        | 53.7        | 50.8-56.6        |
| <b>18-64</b>      | <b>592</b> | <b>22.8</b> | <b>20.9-24.8</b> | <b>15.7</b> | <b>14.3-17.2</b> | <b>61.4</b> | <b>59.3-63.5</b> |

Table 39 shows women respondents' distribution across the three levels of physical activity, with 39.5% (95% CI= 34.9-44.2%) having low levels of physical activity, 22.0% (95% CI= 18.6-25.4%) moderate levels and 38.5% (95% CI= 36.0-41.1%) high levels.

One third (34.9%, 95% CI= 28.9-40.8) of younger women and half (49.9%, 95% CI= 45.2-54.6%) of women in the older age group had low levels of physical activity.

Table 39. Level of total physical activity among women by age group

| Age Group<br>(years) | Women      |             |                  |             |                  |             |                  |
|----------------------|------------|-------------|------------------|-------------|------------------|-------------|------------------|
|                      | n          | % Low       | 95% CI           | % Moderate  | 95% CI           | % High      | 95% CI           |
| 18-44                | 348        | 34.9        | 28.9-40.8        | 20.7        | 15.1-26.3        | 44.5        | 41.9-47.1        |
| 45-64                | 262        | 49.9        | 45.2-54.6        | 24.9        | 19.6-30.2        | 25.2        | 20.9-29.5        |
| <b>18-64</b>         | <b>610</b> | <b>39.5</b> | <b>34.9-44.2</b> | <b>22.0</b> | <b>18.6-25.4</b> | <b>38.5</b> | <b>36.0-41.1</b> |

Table 40 shows the distribution of both sexes across the three levels of physical activity, with 31.5% (95% CI= 29.4-33.7%) having low levels of physical activity, 19.0% (95% CI= 17.2-20.7%) having moderate levels and 49.5% (95% CI= 48.8-51.2%) having high levels of physical activity.

Table 40. Level of total physical activity among both sexes by age group

| Age Group<br>(years) | Both Sexes  |             |                  |             |                  |             |                  |
|----------------------|-------------|-------------|------------------|-------------|------------------|-------------|------------------|
|                      | n           | % Low       | 95% CI           | % Moderate  | 95% CI           | % High      | 95% CI           |
| 18-44                | 604         | 28.5        | 25.9-31.2        | 17.2        | 14.2-20.2        | 54.3        | 51.8-56.7        |
| 45-64                | 598         | 37.6        | 34.6-40.7        | 22.7        | 19.5-25.8        | 39.7        | 36.9-42.6        |
| <b>18-64</b>         | <b>1202</b> | <b>31.5</b> | <b>29.4-33.7</b> | <b>19.0</b> | <b>17.2-20.7</b> | <b>49.5</b> | <b>47.8-51.2</b> |

Table 41 shows the mean number of total minutes spent in all physical activity domains on an average day. On average, men spent 207.4 minutes (95% CI= 193.3-221.5) and women 112.5 minutes (95% CI= 102.0-123.0) in physical activity per day. The difference of 95 minutes per day between both sexes; and the differences between sexes in each age group, are statistically significant.

Table 41. Mean minutes of total physical activity on average per day

| Age Group    | Men        |              |                    | Women      |              |                    | Both Sexes  |              |                    |
|--------------|------------|--------------|--------------------|------------|--------------|--------------------|-------------|--------------|--------------------|
|              | n          | Mean minutes | 95% CI             | n          | Mean minutes | 95% CI             | n           | Mean minutes | 95% CI             |
| 18-44        | 256        | 212.0        | 196.4-227.6        | 348        | 117.7        | 99.9-135.6         | 604         | 161.6        | 148.4-174.7        |
| 45-64        | 336        | 198.8        | 180.9-216.6        | 262        | 100.8        | 83.5-118.1         | 598         | 150.7        | 140.1-161.3        |
| <b>18-64</b> | <b>592</b> | <b>207.4</b> | <b>193.3-221.5</b> | <b>610</b> | <b>112.5</b> | <b>102.0-123.0</b> | <b>1202</b> | <b>158.0</b> | <b>148.4-167.6</b> |

Tables 42-44 show the mean number of total minutes spent in work, transport and recreation-related physical activity on average per day.

Table 42 shows the mean number of minutes spent in work-related physical activity on average per day. Men spent 137.2 minutes (95% CI= 123.7-150.7) and women 60.8 minutes (95% CI=52.0-69.6) in work-related physical activity per day. The differences between sexes are statistically significant as well as the ones in both age groups.

Table 42. Mean minutes per day of work-related physical activity by gender and age group

| Age Group    | Men        |              |                    | Women      |              |                  | Both Sexes  |              |                   |
|--------------|------------|--------------|--------------------|------------|--------------|------------------|-------------|--------------|-------------------|
|              | n          | Mean minutes | 95% CI             | n          | Mean minutes | 95% CI           | n           | Mean minutes | 95% CI            |
| 18-44        | 256        | 133.5        | 120.2-146.9        | 348        | 60.6         | 45.4-75.8        | 604         | 94.5         | 83.3-105.8        |
| 45-64        | 336        | 144.1        | 122.9-165.3        | 262        | 61.1         | 44.8-77.5        | 598         | 103.4        | 93.4-113.5        |
| <b>18-64</b> | <b>592</b> | <b>137.2</b> | <b>123.7-150.7</b> | <b>610</b> | <b>60.8</b>  | <b>52.0-69.6</b> | <b>1202</b> | <b>97.4</b>  | <b>88.4-106.5</b> |

Table 43 shows the mean number of minutes spent in transport-related physical activity on average per day. Men spent 21.5 minutes (95% CI= 19.0-23.9) and women 17.4 minutes (95% CI= 12.4-22.3) in transport-related activity per day. There are no statistically significant differences between sexes.

Table 43. Mean minutes per day of transport-related physical activity by gender and age group

| Age Group    | Men        |              |                  | Women      |              |                  | Both Sexes  |              |                  |
|--------------|------------|--------------|------------------|------------|--------------|------------------|-------------|--------------|------------------|
|              | n          | Mean minutes | 95% CI           | n          | Mean minutes | 95% CI           | n           | Mean minutes | 95% CI           |
| 18-44        | 256        | 23.1         | 18.3-28.0        | 348        | 17.8         | 11.1-24.6        | 604         | 20.3         | 15.5-25.1        |
| 45-64        | 336        | 18.4         | 14.2-22.5        | 262        | 16.3         | 13.2-19.5        | 598         | 17.4         | 15.4-19.3        |
| <b>18-64</b> | <b>592</b> | <b>21.5</b>  | <b>19.0-23.9</b> | <b>610</b> | <b>17.4</b>  | <b>12.4-22.3</b> | <b>1202</b> | <b>19.3</b>  | <b>16.3-22.3</b> |

Table 44 shows the mean number of minutes spent in recreation-related physical activity on average per day. Men spend 48.7 minutes (95% CI= 44.2-53.2) and women 34.4 minutes (95% CI= 30.4-38.3) in recreation-related activity per day. The differences between sexes are statistically significant as well as the ones in both age groups.

Table 44. Mean minutes of physical activity from recreation-related physical activity by gender and age group

| Age Group    | Men        |              |                  | Women      |              |                  | Both Sexes  |              |                  |
|--------------|------------|--------------|------------------|------------|--------------|------------------|-------------|--------------|------------------|
|              | n          | Mean minutes | 95% CI           | n          | Mean minutes | 95% CI           | n           | Mean minutes | 95% CI           |
| 18-44        | 256        | 55.3         | 49.9-60.8        | 348        | 39.3         | 35.2-43.3        | 604         | 46.7         | 43.0-50.5        |
| 45-64        | 336        | 36.3         | 32.0-40.6        | 262        | 23.4         | 19.6-27.1        | 598         | 29.9         | 26.7-33.2        |
| <b>18-64</b> | <b>592</b> | <b>48.7</b>  | <b>44.2-53.2</b> | <b>610</b> | <b>34.4</b>  | <b>30.4-38.3</b> | <b>1202</b> | <b>41.2</b>  | <b>37.6-44.9</b> |

Table 45 shows the composition of total physical activity among men across the three types of activity (work, transport and recreation). Half of their physical activity was work-related (51.4%, 95% CI= 46.4-56.4%) followed by recreation-related (35.9%, 95% CI= 32.4-39.3%) and transport related physical activity (12.8%, 95% CI= 11.0-14.5%).

A higher proportion of younger men engaged in recreation related physical activity (40.4%, 95% CI= 36.8-44.0%) which differs statistically from the older age group (27.0%, 95% CI= 23.8-30.2%).

Table 45. Composition of total physical activity among men by age group

| Age Group (years) | Men        |                      |                  |                          |                  |                              |                  |
|-------------------|------------|----------------------|------------------|--------------------------|------------------|------------------------------|------------------|
|                   | n          | % Activity from work | 95% CI           | % Activity for transport | 95% CI           | % Activity during recreation | 95% CI           |
| 18-44             | 234        | 48.0                 | 43.3-52.7        | 11.5                     | 10.0-13.1        | 40.4                         | 36.8-44.0        |
| 45-64             | 300        | 57.8                 | 51.8-63.9        | 15.1                     | 11.8-18.5        | 27.0                         | 23.8-30.2        |
| <b>18-64</b>      | <b>534</b> | <b>51.4</b>          | <b>46.4-56.4</b> | <b>12.8</b>              | <b>11.0-14.5</b> | <b>35.9</b>                  | <b>32.4-39.3</b> |

Table 46 shows the composition of total physical activity among women across the three types of activity (work, transport and recreation). The highest proportions are in recreation-related (38.5%, 95% CI= 36.0-41.0%) and work related physical activity (35.7%, 95% CI= 32.8-38.7%) followed by transport-related physical activity (25.8%, 95% CI= 21.8-29.9%).

Table 46. Composition of total physical activity among women by age group

| Age Group (years) | Women      |                      |                  |                          |                  |                              |                  |
|-------------------|------------|----------------------|------------------|--------------------------|------------------|------------------------------|------------------|
|                   | n          | % Activity from work | 95% CI           | % Activity for transport | 95% CI           | % Activity during recreation | 95% CI           |
| 18-44             | 282        | 34.2                 | 31.6-36.8        | 23.3                     | 18.8-27.8        | 42.5                         | 39.2-45.8        |
| 45-64             | 205        | 39.4                 | 33.3-45.4        | 31.7                     | 27.1-36.3        | 28.9                         | 24.4-33.4        |
| <b>18-64</b>      | <b>487</b> | <b>35.7</b>          | <b>32.8-38.7</b> | <b>25.8</b>              | <b>21.8-29.9</b> | <b>38.5</b>                  | <b>36.0-41.0</b> |



Table 47 shows the composition of total physical activity in both sexes combined across the three types of activity (work, transport and recreation). The majority of physical activity is work-related (43.7%, 95% CI= 41.6-45.9%) followed by recreation-related (37.1%, 95% CI= 34.5-39.8%) and transport-related (19.1%, 95% CI=17.8-20.4%) physical activity.

Table 47. Composition of total physical activity among both sexes by age group

| Age Group (years) | Both Sexes  |                      |                  |                          |                  |                                |                  |
|-------------------|-------------|----------------------|------------------|--------------------------|------------------|--------------------------------|------------------|
|                   | n           | % Activity from work | 95% CI           | % Activity for transport | 95% CI           | % Activity during leisure time | 95% CI           |
| 18-44             | 516         | 41.1                 | 38.5-43.6        | 17.5                     | 15.6-19.3        | 41.5                           | 38.4-44.6        |
| 45-64             | 505         | 49.4                 | 46.7-52.2        | 22.7                     | 20.2-25.1        | 27.9                           | 25.8-29.9        |
| <b>18-64</b>      | <b>1021</b> | <b>43.7</b>          | <b>41.6-45.9</b> | <b>19.1</b>              | <b>17.8-20.4</b> | <b>37.1</b>                    | <b>34.5-39.8</b> |

Table 48 shows that one third of men (33.9%, 95% CI= 31.5-36.2%) and nearly to two thirds of women (62.0%, 95% CI= 59.5-64.4%) did not engage in vigorous physical activity (calculated from work and recreation-related activities). The differences between sexes are statistically significant as well as the ones in both age groups.

Among men the increase in those with no vigorous physical activity from the younger age group (25.7%, 95% CI= 23.1-28.3%) to the older age group (49.1%, 95% CI= 45.2-53.1%) is statistically significant. A similar increase is found in younger age group of women (55.9%, 95% CI= 52.1-59.7%) compared to the older age group of women (75.5%, 95% CI= 71.5-79.6%).

Table 48. Percentage of respondents not engaging in vigorous physical activity

| Age Group    | Men        |                        |                  | Women      |                        |                  | Both Sexes  |                        |                  |
|--------------|------------|------------------------|------------------|------------|------------------------|------------------|-------------|------------------------|------------------|
|              | N          | % no vigorous activity | 95% CI           | n          | % no vigorous activity | 95% CI           | n           | % no vigorous activity | 95% CI           |
| 18-44        | 256        | 25.7                   | 23.1-28.3        | 348        | 55.9                   | 52.1-59.7        | 604         | 41.9                   | 39.2-44.5        |
| 45-64        | 336        | 49.1                   | 45.2-53.1        | 262        | 75.5                   | 71.5-79.6        | 598         | 62.1                   | 59.2-65.0        |
| <b>18-64</b> | <b>592</b> | <b>33.9</b>            | <b>31.5-36.2</b> | <b>610</b> | <b>62.0</b>            | <b>59.5-64.4</b> | <b>1202</b> | <b>48.5</b>            | <b>46.9-50.1</b> |

Table 49 shows the proportion meeting the recommended targets for physical activity. Overall 77% of respondents meet the recommended level of physical activity (95% CI 75.2-78.8), with lower levels in the older age group. Less women (69.2% 95%CI 65.6-72.9) than men (85.4% 95%CI) meet the recommended levels.

Table 49: Percentage of respondents meetings recommended physical activity levels

| Age Group    | Men        |                |                  | Women      |                |                  | Both Sexes  |                |                  |
|--------------|------------|----------------|------------------|------------|----------------|------------------|-------------|----------------|------------------|
|              | N          | Meet recommend | 95% CI           | n          | Meet recommend | 95% CI           | n           | Meet recommend | 95% CI           |
| 18-44        | 256        | 87.2           | 84.4-89.9        | 348        | 72.0           | 66.6-77.3        | 604         | 79.0           | 76.6-81.5        |
| 45-64        | 336        | 82.1           | 79.4-84.7        | 262        | 63.2           | 57.4-68.9        | 598         | 72.9           | 69.5-76.1        |
| <b>18-64</b> | <b>592</b> | <b>85.4</b>    | <b>83.6-87.1</b> | <b>610</b> | <b>69.2</b>    | <b>65.6-72.9</b> | <b>1202</b> | <b>77.0</b>    | <b>75.2-78.8</b> |

#### 4.8 Physical measurements

Height and weight of each participant (excluding pregnant women) was measured following the standardized STEPS protocol. The body mass index (BMI) of each participant was calculated by dividing weight (kilograms) by square of height (metres<sup>2</sup>). BMI risk categories are defined as follows:

|               |                   |
|---------------|-------------------|
| Underweight   | BMI < 18.5        |
| Normal weight | 18.5 ≤ BMI ≤ 24.9 |
| Overweight    | BMI ≥ 25.0        |
| Obese         | BMI ≥ 30.0        |

### 4.8.1 Height and Weight

Table 50 shows the mean height of those measured among the survey participants. On average, men were 10.8cm taller than women were, difference was statistically significant.

Table 50. Mean height (cm) by sex and age group

| Age Group (years) | Men        |              |                    | Women      |              |                    |
|-------------------|------------|--------------|--------------------|------------|--------------|--------------------|
|                   | n          | Mean         | 95% CI             | n          | Mean         | 95% CI             |
| 18-44             | 220        | 175.7        | 174.6-176.8        | 283        | 164.5        | 163.9-165.1        |
| 45-64             | 239        | 173.4        | 172.5-174.4        | 194        | 163.0        | 162.4-163.6        |
| <b>18-64</b>      | <b>459</b> | <b>174.8</b> | <b>174.1-175.6</b> | <b>477</b> | <b>164.0</b> | <b>163.6-164.4</b> |

Table 51 shows the mean weight of the survey participants. On average, men were 8.4kg heavier than women were, difference was statistically significant.

Table 51. Mean weight (kg) by gender and age group

| Age Group (years) | Men        |              |                    | Women      |             |                  |
|-------------------|------------|--------------|--------------------|------------|-------------|------------------|
|                   | n          | Mean         | 95% CI             | n          | Mean        | 95% CI           |
| 18-44             | 221        | 104.3        | 101.9-106.7        | 279        | 96.5        | 92.4-100.7       |
| 45-64             | 238        | 102.2        | 97.5-106.9         | 194        | 92.2        | 90.7-93.7        |
| <b>18-64</b>      | <b>459</b> | <b>103.5</b> | <b>100.6-106.4</b> | <b>473</b> | <b>95.1</b> | <b>92.4-97.8</b> |

### 4.8.2 Body Mass Index and Weight Categories

Table 52 shows the average mean body mass index (BMI) of respondents. Mean BMI was 34.0 kg/m<sup>2</sup> (95% CI= 33.7-34.3) for both sexes, 33.6 kg/m<sup>2</sup> (95% CI= 33.0-34.2) for men and 34.3 kg/m<sup>2</sup> (95% CI= 33.9-34.8) for women.

Average BMI was above 30 kg/m<sup>2</sup> in all age and sex groups, indicating that the respondents were, on average, obese. There were no statistically significant differences between sex and/or age groups.

Table 52. Mean body mass index (kg/m<sup>2</sup>) by sex and age group

| Age Group (years) | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|-------------------|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
|                   | N          | Mean        | 95% CI           | n          | Mean        | 95% CI           | n          | Mean        | 95% CI           |
| 18-44             | 218        | 33.4        | 32.8-33.9        | 270        | 34.2        | 33.6-34.7        | 488        | 33.8        | 33.4-34.2        |
| 45-64             | 236        | 34.1        | 33.1-35.1        | 194        | 34.7        | 34.1-35.3        | 430        | 34.4        | 33.9-34.9        |
| <b>18-64</b>      | <b>454</b> | <b>33.6</b> | <b>33.0-34.2</b> | <b>464</b> | <b>34.3</b> | <b>33.9-34.8</b> | <b>918</b> | <b>34.0</b> | <b>33.7-34.3</b> |

Table 53 shows that according to BMI classifications more than two thirds (68.7%, 95% CI= 65.4-72.0%) of men were obese, 20.0% (95% CI= 17.6-22.4%) were overweight, 11.1% (95% CI= 8.8-13.4%) were of normal weight and 0.2% (95% CI= 0.1-0.3%) were underweight.

Combining overweight and obese rates, 88.7% of men were either overweight or obese. There are no statistically significant differences between age groups.

Table 53. BMI classifications among men by age group

| Age Group (years) | Men        |                     |                |                           |                 |                            |                  |               |                  |
|-------------------|------------|---------------------|----------------|---------------------------|-----------------|----------------------------|------------------|---------------|------------------|
|                   | n          | % Underweight <18.5 | 95% CI         | % Normal weight 18.5-24.9 | 95% CI          | % Overweight BMI 25.0-29.9 | 95% CI           | % Obese ≥30.0 | 95% CI           |
| 18-44             | 218        | 0.0                 | 0.0-0.0        | 12.9                      | 9.9-15.8        | 18.7                       | 15.5-21.9        | 68.5          | 64.1-72.8        |
| 45-64             | 236        | 0.5                 | 0.1-0.9        | 8.2                       | 5.5-10.9        | 22.2                       | 18.1-26.3        | 69.1          | 64.2-74.1        |
| <b>18-64</b>      | <b>454</b> | <b>0.2</b>          | <b>0.1-0.3</b> | <b>11.1</b>               | <b>8.8-13.4</b> | <b>20.0</b>                | <b>17.6-22.4</b> | <b>68.7</b>   | <b>65.4-72.0</b> |



Table 54 shows that according to BMI classifications more than two thirds (70.7%, 95% CI= 68.6-76.5%) of women were obese, 19.5% (95% CI= 17.6-21.4%) were overweight, 9.8% (95% CI 8.3-11.2%) were of normal weight and nobody registered as underweight.

Combining overweight and obese rates, 90.2% of women were either overweight or obese. A marginally significant decrease in the proportion with normal weight exists between younger (11.3%, 95% CI= 8.7-13.8%) and older (6.8%, 95% CI= 5.1-8.5%) age groups.

Table 54. BMI classifications among women by age group

| Age Group (years) | Women      |                      |          |                           |                 |                             |                  |               |                  |
|-------------------|------------|----------------------|----------|---------------------------|-----------------|-----------------------------|------------------|---------------|------------------|
|                   | N          | % Under-weight <18.5 | 95% CI   | % Normal weight 18.5-24.9 | 95% CI          | % Over-weight BMI 25.0-29.9 | 95% CI           | % Obese ≥30.0 | 95% CI           |
| 18-44             | 270        | -                    | -        | 11.3                      | 8.7-13.8        | 18.8                        | 17.1-20.6        | 69.9          | 67.1-72.7        |
| 45-64             | 194        | -                    | -        | 6.8                       | 5.1-8.5         | 20.9                        | 17.3-24.5        | 72.3          | 68.2-76.5        |
| <b>18-64</b>      | <b>464</b> | <b>-</b>             | <b>-</b> | <b>9.8</b>                | <b>8.3-11.2</b> | <b>19.5</b>                 | <b>17.6-21.4</b> | <b>70.7</b>   | <b>68.6-72.8</b> |

Table 55 shows that according to BMI classifications more than two thirds (69.8%, 95% CI= 67.8-71.8%) of all respondents were obese, 19.7% (95% CI= 18.1-21.4%) were overweight, 10.4% (95% CI= 8.9-11.9%) were of normal weight and 0.1% (95% CI= 0.0-0.1%) were underweight.

Combining overweight and obese rates, 89.5% of all respondents were either overweight or obese. A marginally significant decrease in the proportion with normal weight exists between younger (12.0%, 95% CI= 9.8-14.2%) and older (7.5%, 95% CI= 6.0-9.0%) age groups, due to the differences between the age groups among women.

Table 55. BMI classifications among both sexes by age group

| Age Group (years) | Both Sexes |                      |                |                           |                 |                             |                  |               |                  |
|-------------------|------------|----------------------|----------------|---------------------------|-----------------|-----------------------------|------------------|---------------|------------------|
|                   | n          | % Under-weight <18.5 | 95% CI         | % Normal weight 18.5-24.9 | 95% CI          | % Over-weight BMI 25.0-29.9 | 95% CI           | % Obese ≥30.0 | 95% CI           |
| 18-44             | 488        | 0.0                  | 0.0-0.0        | 12.0                      | 9.8-14.2        | 18.8                        | 16.8-20.7        | 69.2          | 66.5-72.0        |
| 45-64             | 430        | 0.2                  | 0.1-0.4        | 7.5                       | 6.0-9.0         | 21.5                        | 18.4-24.7        | 70.7          | 67.0-74.5        |
| <b>18-64</b>      | <b>918</b> | <b>0.1</b>           | <b>0.0-0.1</b> | <b>10.4</b>               | <b>8.9-11.9</b> | <b>19.7</b>                 | <b>18.1-21.4</b> | <b>69.8</b>   | <b>67.8-71.8</b> |

### 4.8.3 Waist Circumference

Waist circumference is a measure of central obesity and a measure of the risk of cardiovascular diseases. The cut-off points that increase the risk of NCDs are ≥102 cm for men and ≥ 88 cm for women (WHO) .

Table 56 shows the average waist circumference for men as 105.5 cm, which is above the 102 cm cut-off point for increased risk among men in both age groups. Women had an average waist circumference of 104.3 cm, which is also well above the cut-off point for women in both age groups.

Table 56. Mean waist circumference (cm) by sex and age group (excluding pregnant women)

| Age Group (years) | Men        |              |                    | Women      |              |                    |
|-------------------|------------|--------------|--------------------|------------|--------------|--------------------|
|                   | n          | Mean         | 95% CI             | n          | Mean         | 95% CI             |
| 18-44             | 211        | 103.8        | 102.5-105.0        | 276        | 103.4        | 102.0-104.7        |
| 45-64             | 229        | 108.3        | 105.0-111.7        | 192        | 106.1        | 104.6-107.6        |
| <b>18-64</b>      | <b>440</b> | <b>105.5</b> | <b>103.4-107.6</b> | <b>468</b> | <b>104.3</b> | <b>103.3-105.2</b> |

## 4.9 Blood Pressure and Hypertension

As part of the Step 2 protocol, survey participants had their blood pressure measured. Participants were also asked if they have had their blood pressure measured in the last 12 months, whether they have ever been told in the last 12 months by a health worker that they have high blood pressure, and if they were currently receiving any medical treatment for high blood pressure.

The STEPS protocol reports to consider those of having a raised blood pressure if they have:

- a mean systolic blood pressure of  $\geq 140$  mmHg, whether or not they have previously been told by a health worker that they have high blood pressure, OR
- a mean diastolic blood pressure of  $\geq 90$  mmHg, whether or not they have previously been told by a health worker that they have high blood pressure, OR
- normal mean systolic and diastolic blood pressures (i.e. normotensive) AND who were currently receiving anti-hypertensive medication, whether or not they have previously been told by a health worker that they have high blood pressure.

Those participants who reported having been previously told by a health worker that they have high blood pressure, but who were normotensive and NOT on anti-hypertensive medication, were NOT included among those considered to have hypertension.

Table 57 shows that the mean systolic blood pressure was below 140mmHg for both sexes: on average 132.5mmHg for men and 124.2mmHg for women. There are statistically significant differences between the age groups and sexes.

Table 57. Mean systolic blood pressure (mmHg) by sex and age group

| Age Group (years) | Men        |              |                    | Women      |              |                    |            |              |                    |
|-------------------|------------|--------------|--------------------|------------|--------------|--------------------|------------|--------------|--------------------|
|                   | n          | Mean         | 95% CI             | N          | Mean         | 95% CI             | n          | Mean         | 95% CI             |
| 18-44             | 213        | 129.6        | 128.0-131.2        | 280        | 119.8        | 119.1-120.6        | 493        | 124.2        | 123.1-125.2        |
| 45-64             | 221        | 137.4        | 135.8-139.1        | 186        | 133.6        | 131.7-135.5        | 407        | 135.5        | 134.4-136.6        |
| <b>18-64</b>      | <b>434</b> | <b>132.5</b> | <b>131.1-133.8</b> | <b>466</b> | <b>124.2</b> | <b>123.2-125.3</b> | <b>900</b> | <b>128.0</b> | <b>126.9-129.2</b> |

Table 58 shows that the mean diastolic blood pressure was below 90mmHg for both sexes: 80.4mmHg (95% CI= 79.7-81.0mmHg) for men and 77.7mmHg (95% CI= 76.8-78.5mmHg) for women. The difference between the sexes is statistically significant overall and in both age groups.

Among men, diastolic blood pressure increases significantly from 78.0mmHg (95% CI= 77.0-79.0mmHg) in the younger age group to 84.4mmHg (95% CI= 83.7-85.0mmHg) in the older age group. Among women, diastolic blood pressure increases significantly from 75.0mmHg (95% CI= 75.0-76.7mmHg) in the younger age group to 81.5mmHg (95% CI= 79.9-83.1mmHg) in the older age group.

Table 58. Mean diastolic blood pressure (mmHg) by sex and age group

| Age Group (years) | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|-------------------|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
|                   | N          | Mean        | 95% CI           | n          | Mean        | 95% CI           | N          | Mean        | 95% CI           |
| 18-44             | 213        | 78.0        | 77.0-79.0        | 280        | 75.9        | 75.0-76.7        | 493        | 76.8        | 76.1-77.5        |
| 45-64             | 221        | 84.4        | 83.7-85.0        | 186        | 81.5        | 79.9-83.1        | 407        | 82.9        | 82.1-83.7        |
| <b>18-64</b>      | <b>434</b> | <b>80.4</b> | <b>79.7-81.0</b> | <b>466</b> | <b>77.7</b> | <b>76.8-78.5</b> | <b>900</b> | <b>78.9</b> | <b>78.3-79.5</b> |

Table 59 shows that 28.5% (95% CI= 25.3-31.7%) of all respondents had raised blood pressure or were currently on medication for raised blood pressure: 34.7% of men (95% CI= 30.4-39.1%) and 23.2% of women (95% CI= 20.5-25.9%).

Table 59. Percentage with raised blood pressure SBP  $\geq 140$  and/or DBP  $\geq 90$  mmHg or currently on medication for raised blood pressure

| Age Group<br>(years) | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|----------------------|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
|                      | N          | %           | 95% CI           | n          | %           | 95% CI           | N          | %           | 95% CI           |
| 18-44                | 213        | 24.7        | 20.3-29.1        | 280        | 14.5        | 11.6-17.4        | 493        | 19.0        | 16.2-21.8        |
| 45-64                | 222        | 51.8        | 46.4-57.2        | 189        | 41.5        | 36.3-46.7        | 411        | 46.6        | 42.6-50.6        |
| <b>18-64</b>         | <b>435</b> | <b>34.7</b> | <b>30.4-39.1</b> | <b>469</b> | <b>23.2</b> | <b>20.5-25.9</b> | <b>904</b> | <b>28.5</b> | <b>25.3-31.7</b> |

The percentage of all respondents with a raised BP (SBP  $\geq 140$  and/or DBP  $\geq 90$  mmHg) and those who were not currently on medication for raised blood pressure was 23.6% (95% CI= 20.2-26.9%) and was statistically different between both sexes, 30.8% (95% CI= 25.8-35.8%) of men and 17.3% (95% CI= 14.8-19.7%) of women. (See Appendix 2).

#### 4.10 Fasting Blood Glucose and Diabetes

Non-fasting participants were excluded for these measures in step 3. Survey participants were asked if they have been told by a health worker in the previous 12 months that they have diabetes, and whether they were currently receiving any medical treatment for diabetes. To measure fasting blood sugar levels, whole blood was drawn using the finger prick method.

Estimates of elevated blood glucose prevalence were calculated based on the raised blood glucose test results and by following the WHO guidelines for defining elevated fasting blood glucose (plasma equivalent).

- fasting raised blood glucose (plasma equivalent) value of glucose was greater than or equal to 7.0 mmol/L whether or not they have previously been told by a health worker that they have diabetes, OR
- normal raised blood glucose (plasma equivalent) value of glucose was less than 7.0 mmol/L AND they were currently receiving anti-diabetes medication prescribed by a health worker.

Note that these calculated values do not reflect diabetes rates, only a second raised fasting blood glucose result is required to confirm diagnosis. That's why the term elevated blood glucose is used in this report. Those participants who have been advised by a health worker that they have diabetes but who had normal fasting blood glucose, and who were NOT on anti-diabetes medication or on a special diet prescribed by a health worker, were NOT included among those considered as having elevated blood glucose.

Table 60 shows that on average the respondents' plasma glucose does not exceed 7mmol/l.

Table 60. Mean fasting blood glucose (plasma equivalent) (mmol/l) by sex and age group

| Age Group<br>(years) | Men        |            |                | Women      |            |                | Both Sexes |            |                |
|----------------------|------------|------------|----------------|------------|------------|----------------|------------|------------|----------------|
|                      | n          | Mean       | 95% CI         | n          | Mean       | 95% CI         | n          | Mean       | 95% CI         |
| 18-44                | 169        | 6.2        | 6.0-6.4        | 259        | 6.2        | 5.8-6.6        | 428        | 6.2        | 6.0-6.4        |
| 45-64                | 176        | 7.2        | 6.8-7.7        | 170        | 7.2        | 6.9-7.5        | 346        | 7.2        | 7.0-7.4        |
| <b>18-64</b>         | <b>345</b> | <b>6.6</b> | <b>6.5-6.7</b> | <b>429</b> | <b>6.5</b> | <b>6.2-6.8</b> | <b>774</b> | <b>6.6</b> | <b>6.4-6.7</b> |

Table 61 shows the prevalence of raised blood glucose (plasma equivalent). In total almost one quarter (23.5%, 95% CI= 21.8-25.2%) of respondents had elevated raised blood glucose (plasma equivalent).

Among men 25.1%, (95% CI= 20.6-29.6%) had elevated plasma glucose, which increased significantly from the younger age group (17.0%, 95% CI= 10.8-23.1%) to the older age group (39.1%, 95% CI=33.3-45.0%). The same is found for women.

Among women 22.3%, (95% CI= 18.2-26.5%) had elevated plasma glucose which increased significantly from the younger age group (17.4%, 95% CI= 12.2-22.7%) to the older age group (32.9%, 95% CI= 27.9-37.9%).

Table 61. Prevalence of elevated blood glucose (plasma equivalent): Raised blood glucose ( $\geq 7.0$  mmol/L (126 mg/dl) or currently on medication for diabetes and/or diagnosed with diabetes

| Age Group<br>(years) | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|----------------------|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
|                      | n          | %           | 95% CI           | N          | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44                | 169        | 17.0        | 10.8-23.1        | 259        | 17.4        | 12.2-22.7        | 428        | 17.2        | 15.1-19.4        |
| 45-64                | 176        | 39.1        | 33.3-45.0        | 170        | 32.9        | 27.9-37.9        | 346        | 35.8        | 32.2-39.4        |
| <b>18-64</b>         | <b>345</b> | <b>25.1</b> | <b>20.6-29.6</b> | <b>429</b> | <b>22.3</b> | <b>18.2-26.5</b> | <b>774</b> | <b>23.5</b> | <b>21.8-25.2</b> |

#### 4.11 Total Cholesterol

For elevated total blood cholesterol, a cut-off point  $\geq 5.0$  mmol/L (or  $\geq 190$  mg/dl) was used to classify respondents as being at high risk for coronary artery disease.

Table 62 shows the mean levels of cholesterol with 5.0mmol/L (95% CI= 5.0-5.1mmol/L) for all respondents. For men it was 5.1 mmol/L (95% CI= 5.0-5.1mmol/L) and for women 5.0mmol/L (95% CI= 4.9-5.0mmol/L).

Levels over 5mmol/l are shown in both sexes.. Between the sexes a statistically significant difference exists only between the younger male and female age group.

Table 62. Mean levels of total cholesterol (mmol/l) by sex and age group

| Age Group<br>(years) | Men        |            |                | Women      |            |                | Both Sexes |            |                |
|----------------------|------------|------------|----------------|------------|------------|----------------|------------|------------|----------------|
|                      | n          | Mean       | 95% CI         | n          | Mean       | 95% CI         | n          | Mean       | 95% CI         |
| 18-44                | 190        | 5.1        | 5.0-5.2        | 273        | 4.8        | 4.8-4.9        | 463        | 4.9        | 4.9-5.0        |
| 45-64                | 186        | 5.1        | 5.0-5.2        | 182        | 5.2        | 5.1-5.4        | 368        | 5.2        | 5.1-5.2        |
| <b>18-64</b>         | <b>376</b> | <b>5.1</b> | <b>5.0-5.1</b> | <b>455</b> | <b>5.0</b> | <b>4.9-5.0</b> | <b>831</b> | <b>5.0</b> | <b>5.0-5.1</b> |

Table 63 shows that 46.5% (95% CI= 44.3-48.8%) of all respondents had raised total blood cholesterol or were currently on medication for raised cholesterol: among men, 54.4% (95% CI= 51.5-57.3%) and among women, 40.5% (95% CI= 37.2-43.7%) had raised blood cholesterol. The difference between the sexes is statistically significant, as well as the increase among women from the younger age group (32.0%, 95% CI = 28.9-35.2%) to the older age group (58.1%, 95% CI = 52.5-63.7%).

Table 63. Percentage with raised total blood cholesterol ( $\geq 5.0$  mmol/L or  $\geq 190$  mg/dl) or currently on medication for raised cholesterol

| Age Group<br>(years) | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|----------------------|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
|                      | N          | %           | 95% CI           | n          | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44                | 190        | 52.6        | 48.1-57.0        | 273        | 32.0        | 28.9-35.2        | 463        | 40.8        | 37.8-43.7        |
| 45-64                | 186        | 57.7        | 52.4-62.9        | 182        | 58.1        | 52.5-63.7        | 368        | 57.9        | 54.5-61.3        |
| <b>18-64</b>         | <b>376</b> | <b>54.4</b> | <b>51.5-57.3</b> | <b>455</b> | <b>40.5</b> | <b>37.2-43.7</b> | <b>831</b> | <b>46.5</b> | <b>44.3-48.8</b> |

#### 4.12 Combined Raised Risk Factors

The combination of risk factors for NCDs from STEP 1 and STEP 2 describes the percentage of survey participants with 0, 1-2, or 3-5 of the following risk factors:

- current daily smoker
- less than 5 servings of fruits & vegetables per day
- low level of activity (<600 MET minutes)
- overweight or obese (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).

Table 64 shows that more than half (57.3%, 95% CI= 52.5-62.2%) of men had 3-5 risk factors, 42.0% (95% CI= 37.4-46.7%) had 1-2 risk factors and 0.6% (95% CI=0.2-1.1%) had no risk factors.

The statistically significant decrease in 1-2 risk factors from the younger age group (50.0%, 95% CI=43.5-56.6%) to the older age group (32.0%, 95% CI= 26.2-37.9%) is mirrored by a statistically significant increase in 3-5 risk factors from the younger age group (50.0%, 95% CI 43.5-56.5%) to the older age group (66.6%, 95% CI=60.4-72.7%).

Table 64. Summary of combined risk factors among men by age group

| Age Group (years) | Men        |                       |                |                         |                  |                         |                  |
|-------------------|------------|-----------------------|----------------|-------------------------|------------------|-------------------------|------------------|
|                   | N          | % with 0 risk factors | 95% CI         | % with 1-2 risk factors | 95% CI           | % with 3-5 risk factors | 95% CI           |
| 18-44             | 159        | 0.0                   | 0.0-0.0        | 50.0                    | 43.5-56.5        | 50.0                    | 43.5-56.5        |
| 45-64             | 213        | 1.4                   | 0.2-2.6        | 32.0                    | 26.2-37.9        | 66.6                    | 60.4-72.7        |
| <b>18-64</b>      | <b>372</b> | <b>0.6</b>            | <b>0.2-1.1</b> | <b>42.0</b>             | <b>37.4-46.7</b> | <b>57.3</b>             | <b>52.5-62.2</b> |

Table 65 shows that more than half (52.1%, 95% CI= 47.8-56.4%) of women had 3-5 risk factors, 47.2% (95% CI= 42.5-51.9%) had 1-2 risk factors and 0.7% (95% CI=0.0-1.8%) had no risk factors.

The statistically significant decrease in 1-2 risk factors from the younger age group (55.8%, 95% CI= 49.7-61.9%) to the older age group (36.4%, 95% CI= 31.3-41.5%) is mirrored by a statistically significant increase of 3-5 risk factors from the younger age group (43.5%, 95% CI 38.3-48.9%) to the older age group (62.8%, 95% CI= 57.5-68.1%). These findings are similar to the findings of the male respondents.

Table 65. Summary of combined risk factors among women by age group

| Age Group (years) | Women      |                       |                |                         |                  |                         |                  |
|-------------------|------------|-----------------------|----------------|-------------------------|------------------|-------------------------|------------------|
|                   | N          | % with 0 risk factors | 95% CI         | % with 1-2 risk factors | 95% CI           | % with 3-5 risk factors | 95% CI           |
| 18-44             | 184        | 0.6                   | 0.0-2.3        | 55.8                    | 49.7-61.9        | 43.5                    | 38.2-48.9        |
| 45-64             | 183        | 0.8                   | 0.0-1.7        | 36.4                    | 31.3-41.5        | 62.8                    | 57.5-68.1        |
| <b>18-64</b>      | <b>367</b> | <b>0.7</b>            | <b>0.0-1.8</b> | <b>47.2</b>             | <b>42.5-51.9</b> | <b>52.1</b>             | <b>47.8-56.4</b> |

Table 66 shows that more than half (54.7%, 95% CI= 51.4-57.9%) of both sexes had 3-5 risk factors, 44.7% (95% CI= 41.4-48.0%) had 1-2 risk factors and 0.7% (95% CI=0.2-1.1%) had no risk factors.

The statistically significant decrease in 1-2 risk factors from the younger age group (53.0%, 95% CI=49.2-56.7%) to the older age group (34.2%, 95% CI= 30.5-38.0%) is mirrored by a statistically significant increase of 3-5 risk factors from the younger age group (46.7%, 95% CI 43.3-50.1%) to the older age group (64.7%, 95% CI= 60.7-68.6%) which already occurs in both sexes independently.

Table 66. Summary of combined risk factors among both sexes by age group

| Age Group (years) | Both Sexes |                       |                |                         |                  |                         |                  |
|-------------------|------------|-----------------------|----------------|-------------------------|------------------|-------------------------|------------------|
|                   | N          | % with 0 risk factors | 95% CI         | % with 1-2 risk factors | 95% CI           | % with 3-5 risk factors | 95% CI           |
| 18-44             | 343        | 0.3                   | 0.0-1.2        | 53.0                    | 49.2-56.7        | 46.7                    | 43.3-50.1        |
| 45-64             | 396        | 1.1                   | 0.5-1.7        | 34.2                    | 30.5-38.0        | 64.7                    | 60.7-68.6        |
| <b>18-64</b>      | <b>739</b> | <b>0.7</b>            | <b>0.2-1.1</b> | <b>44.7</b>             | <b>41.4-48.0</b> | <b>54.7</b>             | <b>51.4-57.9</b> |

### 4.13 Cardiovascular Disease Risk

The combination of the following risk factors from STEP 1 and STEP 2 allows the estimation of a 10-year risk of developing cardiovascular diseases (CVD) in those aged 40-64 years. Those who have a 30% or greater risk to develop CVD in the next ten years have the highest risk.

- current daily smoker
- raised BP (SBP  $\geq$  140 and/or DBP  $\geq$  90 mmHg or currently on medication for raised BP).
- Raised Blood Glucose (plasma equivalent value  $\geq$  7mmol/L or currently on medication for raised diabetes)

Table 67 shows that 2.1% (95% CI= 1.2-2.9%) of all respondents aged between 40 and 69 years were at 30% or greater risk of developing a cardiovascular disease in the next ten years: 1.9% (95% CI= 0.5-3.3%) of men and 2.2% (95% CI= 0.9-3.5%) of women. There were no statistically significant differences between sexes and/or the age groups.

Table 67. Percentage of respondents with a 10-year CVD risk  $\geq$ 30% or with existing CVD by sex and age

| Age Group<br>(years) | Men        |            |                | Women      |            |                | Both Sexes |            |                |
|----------------------|------------|------------|----------------|------------|------------|----------------|------------|------------|----------------|
|                      | n          | %          | 95% CI         | n          | %          | 95% CI         | n          | %          | 95% CI         |
| 40-54                | 123        | 1.0        | 0.2-1.9        | 147        | 1.2        | 0.4-1.9        | 270        | 1.1        | 0.3-1.9        |
| 55-64                | 67         | 3.8        | 0.0-8.8        | 63         | 4.9        | 0.0-9.9        | 130        | 4.4        | 0.6-8.1        |
| <b>40-64</b>         | <b>190</b> | <b>1.9</b> | <b>0.5-3.3</b> | <b>210</b> | <b>2.2</b> | <b>0.9-3.5</b> | <b>400</b> | <b>2.1</b> | <b>1.2-2.9</b> |

## 5. Summary of Changes since 2003-2004 Steps Survey

In order to compare the two surveys (2003-2004 and 2013-2015), only data of those aged 25-64 years were extracted. Apparent changes in behaviours and risk factors between the two surveys are evident. To identify the changes as continuing trend it will be necessary to do follow-up STEPS surveys in the future. Because of differences between both population samples, the comparisons between both surveys have to be viewed with some caution.

### Changes between the two surveys are as follows:

**Combined Risk Factors:** A statistically significant reduction in the percentage of respondents with 3-5 risk factors - from 76.6% (95%CI: 73.5-79.7%) to 46.7% (95% CI= 43.3-50.1%).

### Behavioural Risk Factors:

**Tobacco Use:** A statistically significant reduction in the percentage of current smokers - by 12% from 43.9% (95% CI= 40.0-47.9%) to 31.9% (95% CI= 29.5-34.3%) of respondents.

A statistically significant reduction in the percentage of daily smokers among current smokers - by 8.9% from 33.3% (95% CI= 30.4-36.2%) to 24.4% (95% CI= 22.0-26.8%).

**Alcohol:** A statistically significant increase in the percentage of respondents who abstained from drinking alcohol in the last 12 months - by 4.8% from 10.3% (95% CI= 8.0-12.7%) to 15.1% (95% CI= 13.6-16.5%).

**Fruit and Vegetables:** A non-significant increase in the percentage of those consuming less than 5 combined servings of fruit and vegetables per day - by 3.0% from 81.8% (95% CI= 79.4-84.2%) to 84.8% (95% CI= 82.3-87.3%).

**Physical Activity:** A statistically significant reduction in the percentage of respondents with low levels of physical activity - by 42.3% from 75.3% (95% CI= 71.6-79.1%) to 33.0% (95% CI= 31.0-35.1%).

### Physical Risk Factors:

**Overweight and Obesity:** A statistically significant increase in the average Body Mass Index (BMI) score - by 1.7 from 32.8 (95% CI= 32.4-33.2) to 34.5 (95% CI= 34.2-34.8)..

A statistically significant increase in the percentage of those obese (BMI  $\geq 30\text{kg/m}^2$ ) - by 10.8% from 61.4% (95% CI= 58.7%-64.2%) to 72.2% (95% CI= 71.2-74.2%).

A non-significant increase in the percentage of those who were either overweight (BMI  $\geq 25\text{kg/m}^2$ ) or obese - by 2.6% from 88.5% (95% CI= 86.9-90.1%) to 91.1% (95% CI= 89.5-92.6%).

### Metabolic Risk Factors:

**Raised blood pressure:** A non-significant decrease in the percentage of those with elevated blood pressure (SBP  $\geq 140$  and/or DBP  $\geq 90$  mmHg or who were currently on medication for raised blood pressure - by 0.3% from 33.2% (95% CI= 26.5-39.9%) to 32.9% (95% CI= 30.4-35.4%).

### Biochemical Risk Factors:

**Elevated blood glucose (plasma equivalent):** A non-significant increase in the percentage of those with fasting blood glucose (capillary whole blood  $\geq 6.0\text{mmol/L}$  OR plasma (equivalent) blood glucose  $\geq 7.0\text{mmol/L}$ ) - by 3.2% from 23.6% (95% CI= 19.7-27.4%) to 26.8% (95% CI= 24.8-28.8%).

**Blood Cholesterol:** A statistically significant reduction in the percentage of respondents with raised blood cholesterol ( $\geq 5.0\text{mmol/L}$ ) - by 24.3% from 75.2% (95% CI= 71.9-78.5%) to 50.9% (95% CI= 48.7-53.2%).



## 6. Discussion and Conclusions

This section summarizes key findings from the STEPS survey 2013-2015 and presents a range of recommendations to control NCDs in Cook Islands. Behavioural risk factors for NCDs are common in Cook Islands, they present public health problems for both sexes at all ages of adulthood and contribute to the estimation of a higher risk of developing NCDs. As the combination of risk factors increases so does the risk of developing and dying from an NCD increases too.

Almost all (99.4%) respondents had multiple risk factors; 54.7% with 3 to 5 risk factors and 44.7% with 1 to 2 risk factors. The significant reduction since 2004 in the percentage of those aged 25-64 years with 3-5 risk factors is mostly due to the decrease in 'current' and daily smoking, the increase in high levels of physical activity and the decrease in the proportion not engaging in vigorous activity. These changes provide the opportunity to evaluate and to document the health education and promotion activities which have been effective, and to identify other factors that may have contributed. Of the respondents aged 40-64, 2.1% were at a 30% increased risk of developing cardiovascular diseases in the next 10 years.

However, current smokers still comprised one third (32.6%) of all respondents, with a higher proportion among men (37.9%) than among women (27.7%) and the highest proportion among younger men (41.7%). Importantly, more than two thirds of current smokers have tried to quit smoking in the past 12 months. A general reduction in smoking is seen among those aged 25-64 years since 2004 and suggests that some form of 'quit smoking' assistance is likely to produce further reductions. It is shown that more than one third of all respondents were exposed to second-hand smoke in both, home- and workplace. These findings suggest the need for further education on the dangers of passive smoking and the improvement of regulation and compliance in workplaces.

Although there had been an increase since 2004 in respondents among those aged 25-64 years who abstained from drinking alcohol, current alcohol drinkers (those who drank in the past 30 days) comprised almost half (46.2%) of all respondents, and reported drinking on an average of 4.5 days in the past 30 day. On a drinking day men consumed 9.5 standard drinks and women consumed 6.3 standard drinks. A standard drink contains approximately 10g of pure alcohol. Young men consumed the greatest quantity of standard drinks (10.1) and exceeded older men's and all women's consumption. A small proportion of male (3.4%) and women current drinkers (2.0%) drank at the level of Category 3 (high-end drinking).

High proportions of both men (88.9%) and women (82.1%) consumed less than the WHO recommended level of consumption of five servings of fruit and/or vegetables on an average per day. This had not improved among those aged 25-64 since 2004, and indicates that a greater understanding of food supply and in particular supply and availability of fruits and vegetables is required.

The significant increase in the proportion of respondents who had high levels of physical activity among those aged 25-64 years is the largest behavioural change since 2003-2004 seen in this STEPS comparison. More men (61.4%) than women (38.5%) engaged now in High Level physical activity. However, more than one fifth (22.8%) of men and one third of women (39.5%) still had low levels of physical activity. In the older age group, more women (49.9%) than men (25.8%) had low levels of physical activity. There was a significant decline in recreation-related activity in both sexes when age increases. This suggests that programs and support to develop and train physical activity leaders for age-appropriate recreation activities should be provided. These findings also suggest a need to identify a way to increase physical activity among women, particularly as they get older.

Physical activity differed between the sexes. Half (51.4%) of men's physical activity was work-related and 35.9% recreation related, while women's physical activity was 38.5% recreation-related and 35.7% work-related. Women engaged more than men in transport-related activity.

The proportion of obesity among respondents aged 25-64 years had increased significantly since 2004. Measures of the body mass index (BMI) of respondents indicated that the group was, on average, obese ( $\geq 30\text{kg/m}^2$ ). This finding appears inconsistent with the finding of a statistically significant increase in the proportion of those who engaged in High Level physical activity. This requires further investigation in a follow-up survey, including the role of diet and meal portion size.



More than two thirds (68.7%) of men and 70.7% of women were obese and on average one fifth of both sexes were overweight. Overall, 89.5% of all respondents were either overweight or obese. High rates of obesity and overweight in the Cook Islands population, combined with reducing activity in the older age group, particularly among women, suggest a strong need for continuing activity in supporting weight management programs and in increasing physical activity.

As an indicator of higher CVD-risk, the mean waist circumference shows that both, men and women, exceed the cut-off points for an increased risk of high blood pressure, high blood cholesterol, type 2 diabetes, heart disease and stroke. Men had on average a waist circumference of 105.5cm, (3.5cm above the 102cm cut-off point for men) and women of 104.3cm, (16.3cm above the 88cm cut-off point for women).

The percentage of respondents with raised blood pressure among those aged 25-64 years is unchanged since 2004. Hypertension (defined as SBP  $\geq 140$  and/or DBP  $\geq 90$  mmHg or currently on medication for raised blood pressure) was found in 28.5% of all respondents - a higher proportion among men (34.7%) than among women (23.2%). The difference between the sexes is statistically significant but still unexplained and worthy of further investigation.

Almost one quarter of respondents (23.5%) have raised blood glucose (defined as fasting raised blood glucose (plasma equivalent  $\geq 7.0$  mmol/L (126 mg/dl) or currently on medication for diabetes and/or diagnosed with diabetes) - 25.1% among men and 22.3% among women. The small increase of 3.2% among those aged 25-64 years in having raised blood glucose from 2003-2004 to 2013-2015 suggests a slow but concerning increase in the prevalence of raised blood glucose, as it occurs in many Pacific countries.

Despite an apparent significant reduction since 2004 in the proportion of respondents aged 25-64 with raised blood cholesterol (defined as  $\geq 5.0$  mmol/L or  $\geq 190$  mg/dl or currently on medication for raised cholesterol), almost half of all respondents (46.5%) have raised blood cholesterol - 54.4% of men and 40.5% of women – and are therefore at increased risk of developing coronary artery disease. The statistically significant higher proportion of men than women who have raised blood cholesterol suggests a particular need to influence men's dietary behaviour.

These behavioural, physiological and biochemical measures indicate the significant presence of NCD risk factors in the Cook Islands. This Cook Islands NCD STEPS survey has confirmed that NCDs continue to pose a threat to public health and long life, and a challenge to productivity in persons. Continuing the NCD STEPS surveys in the Cook Islands into the future will allow the identification of trends over time, and suggest the modifications required to reduce the incidence and prevalence of NCDs in the population. Strengthening implementation of the Ngakianga Kapiti Oraanga Meitaki – Cook Islands National Strategy and Action Plan for Non Communicable Diseases 2015-2019 by all stakeholders is required to address cross-sectoral contributing factors, such as: the availability of fruit and vegetables for daily consumption; the licensing and regulation of products that impact adversely on health status, and health education campaigns on the outcomes of high-risk behaviours, particularly among young people, who may yet have the potential to avoid NCDs.

Given the high rates and increasing potential for NCDs in Cook Islands, efforts to improve secondary prevention (early diagnosis) and tertiary prevention (treatment and the prevention of relapses and disease sequelae) will also remain critical, alongside effective primary prevention.

Importantly, all of the risk factors mentioned before are modifiable. However, for a strategy to be effective, the population has to recognize the risks and appreciate the outcome of improved health. This change will need to be driven by information, such as that provided in this NCD STEPS report; and provided in a manner that is sensitive to the prevailing social, economic and cultural environments of Cook Islands.

## 7. Recommendations

- Re-evaluate progress towards achieving the Ngakianga Kapiti Oraanga Meitaki – Cook Islands National Strategy and Action Plan for Non Communicable Diseases 2015-2019, adjust essential resource mobilization, and demonstrate political commitment.
- Explore and/or enforce the legal frameworks and regulatory mechanisms to reduce NCD risk factors, such as food alcohol and tobacco legislation, by providing adequate support and resources and training
- Strengthen Food Regulations by developing food standards to incorporate salt reduction strategies and to reduce the content of salt in processed and imported foods and added to food in food outlets.
- Strengthen health promotion initiatives promoting healthy eating including reviewing the importation of the quality of imported foods and the impact on the food status of locally grown food and vegetables.
- Use the opportunity of the publication of this Cook Islands NCD Risk Factors STEPS Report to initiate a focussed NCD risk factor reduction campaign targeted at smoking, diabetes prevention and obesity reduction through the improving diet and activity.
- Strengthen Enforcement of existing prohibitions on the sale of tobacco products to young people.

### Addressing NCD risk factors

- Support local fruit and vegetable production and internal marketing of local products to encourage healthy eating practices of consumption according to WHO guidelines.
- Develop physical activity-friendly environments, such as public walking tracks, workplace and community fitness facilities and programs to address the low level of recreation-related physical activity, particularly among women and older people.
- Specifications:
  - Develop anti-smoking campaigns to reduce smoking uptake, with particular emphasis on young people.
  - Enforce regulations regarding smoking in workplaces and public places to reduce exposure to secondary-hand smoking (passive smoking).
  - Strengthen and expand Smoke Free home initiative
  - Expand quit smoking programs to assist the significant proportion of smokers who attempt to give it up.
  - Support the implementation of alcohol reduction strategies in line with current alcohol legislation and harm minimization strategies.
  - Conduct health promotion and education campaigns to increase public awareness of the adverse effects of excessive consumption of high-fat, high-salt, and high-sugar foods.
  - Strengthen and support health promotion initiatives promoting healthy food preparation
  - Support lifelong healthy eating behaviours, commencing with exclusive breastfeeding from birth and healthy infant feeding practices.

### Establishing and maintaining coalitions and partnerships

- Collaborate with media organizations, churches and NGO's with a common interest in NCD prevention to develop a multi-media strategy to create awareness and advocate for NCD prevention and control.
- Build coalitions and partnerships across sectors to address NCD risk factors that are beyond the authority of the Ministry of Health, such as food importation and agricultural policy.

Actions for the management of patients: screening, early diagnosis, treatment and prevention of premature death

The Ministry of Health Services should:

- Strengthen a responsive health care system to address early screening, diagnosis, treatment and referral through an effective primary health care system that delivers the package of essential NCD interventions.
- Determine a realistic set of resources (including appropriately trained human resources and basic equipment and supplies) to make them available at all levels of the health care system.
- Strengthen community-based (and family) care and management of individuals with diagnosed NCDs.
- Support behaviour change in organizations and workplaces through health risk assessments and referrals.

#### **Maintaining quality surveillance and public health information system/practices**

- Establish strong relationships with local government in the Cook Islands to maintain a systematic and rigorous approach to NCD STEPS data collection supported by people trained in implementing the survey, in order to create an ongoing and robust NCD STEPS surveillance system.
- Strengthen information on the current baseline for NCDs mortality and morbidity in line with the need to report on the Pacific regional goal to reduce NCD premature deaths by 25% by 2025.
- Repeat the NCD STEPwise surveys at 5 to 7 years intervals supplemented by MoH surveillance (PEN CVRA), workplace and school based surveys to determine the effectiveness, or otherwise, of NCD prevention and control measures implemented.

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## KEY CONTACTS

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## **APPENDICES:**

Appendix 1: Cook Islands STEPS Survey Questionnaire

Appendix 2: Supplementary Tables - Data Book of the Cook Islands STEPS Survey



# WHO STEPS Instrument for Chronic Disease Risk Factor Surveillance

## Cook Islands

### Survey Information

| Location and Date |                                      | Response  | Code |
|-------------------|--------------------------------------|---|------|
| 1                 | Cluster/Centre/Village ID            | <input type="text"/>  | I1   |
| 2                 | Cluster/Centre/Village name          | <input type="text"/>  | I2   |
| 3                 | Interviewer ID                       | <input type="text"/>  | I3   |
| 4                 | Date of completion of the instrument | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/><br>dd mm year | I4   |

| Participant Id Number <input type="text"/> |                                      |   |      |
|--|--------------------------------------|---|------|
| Consent, Interview Language and Name       |                                      | Response  | Code |
| 5  | Consent has been read and obtained   | Yes 1   | I5   |
|  |                                      | No 2 If NO, END   |      |
| 6  | Interview Language                   | English 1   | I6   |
|  |                                      | Cook Island Maori 2                                     |      |
| 7  | Time of interview<br>(24 hour clock) | <input type="text"/> : <input type="text"/><br>hrs mins | I7   |
| 8  | Family Surname                       | <input type="text"/>                                    | I8   |
| 9  | First Name                           | <input type="text"/>                                    | I9   |
| Additional Information that may be helpful |                                      |   |      |
| 10   | Contact phone number where possible  | <input type="text"/>                                    | I10  |

Record and file identification information (I5 to I10) separately from the completed questionnaire.

## Step 1 Demographic Information

| CORE: Demographic Information |   |   |                                      |      |
|-------------------------------|---|---|--------------------------------------|------|
| Question                      |   | Response  |                                      | Code |
| 11                            | Sex (Record Male / Female as observed)  | Male  | 1                                    | C1   |
|                               |   | Female  | 2                                    |      |
| 12                            | What is your date of birth?<br>Don't Know 77 77 7777  | <div> <div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div> </div> <div>dd mm year</div> <div>If known, Go to C4</div> |                                      | C2   |
| 13                            | How old are you?  | Years   | <div> <div></div> <div></div> </div> | C3   |
| 14                            | In total, how many years have you spent at school or in full-time study (excluding pre-school)? | Years   | <div> <div></div> <div></div> </div> | C4   |

| EXPANDED: Demographic Information |  |                              |    |    |
|-----------------------------------|--|------------------------------|----|----|
| 15                                | What is the highest level of education you have completed?   | No formal schooling          | 1  | C5 |
|                                   |  | Less than primary school     | 2  |    |
|                                   |  | Primary school completed     | 3  |    |
|                                   |  | Secondary school completed   | 4  |    |
|                                   |  | College/University completed | 5  |    |
|                                   |  | Post graduate degree         | 6  |    |
|                                   |  | Refused                      | 88 |    |
| 16                                | What is your ethnic background?  | Cook Island Maori            | 1  | C6 |
|                                   |  | European                     | 2  |    |
|                                   |  | Other                        | 3  |    |
|                                   |  | Refused                      | 88 |    |
| 17                                | What is your marital status?   | Never married                | 1  | C7 |
|                                   |  | Currently married            | 2  |    |
|                                   |  | Separated                    | 3  |    |
|                                   |  | Divorced                     | 4  |    |
|                                   |  | Widowed                      | 5  |    |
|                                   |  | Cohabiting                   | 6  |    |
|                                   |  | Refused                      | 88 |    |
| 18                                | Which of the following best describes your main work status over the past 12 months?<br><br>(USE SHOWCARD) | Government employee          | 1  | C8 |
|                                   |  | Non-government employee      | 2  |    |
|                                   |  | Self-employed                | 3  |    |
|                                   |  | Non-paid                     | 4  |    |
|                                   |  | Student                      | 5  |    |
|                                   |  | Homemaker                    | 6  |    |
|                                   |  | Retired                      | 7  |    |
|                                   |  | Unemployed (able to work)    | 8  |    |
|                                   |  | Unemployed (unable to work)  | 9  |    |
|                                   |  | Refused                      | 88 |    |



|    |  |                  |                      |    |
|----|--|------------------|----------------------|----|
| 19 | How many people older than 18 years, including yourself, live in your household? | Number of people | <input type="text"/> | C9 |
|----|--|------------------|----------------------|----|

#### EXPANDED: Demographic Information, Continued

| Question |  | Response                                |                               | Code |
|----------|--|---|-------------------------------|------|
| 20       | Taking the past year, can you tell me what the average earnings of the household have been?<br><br>(RECORD ONLY ONE, NOT ALL 3)                  | Per week                                | <input type="text"/> Go to T1 | C10a |
|          |  | OR per month                            | <input type="text"/> Go to T1 | C10b |
|          |  | OR per year                             | <input type="text"/> Go to T1 | C10c |
|          |  | Refused                                 | 88                            | C10d |
| 21       | If you don't know the amount, can you give an estimate of the annual household income if I read some options to you? Is it<br><br>(READ OPTIONS) | < 10,000                                | 1                             | C11  |
|          |  | More than or equal to 10,000, < 20,000  | 2                             |      |
|          |  | More than or equal to 20,000, < 30,000  | 3                             |      |
|          |  | More than or equal to 30,000, < 40,000  | 4                             |      |
|          |  | More than or equal to 40,000, < 50,000  | 5                             |      |
|          |  | More than or equal to 50,000, < 60,000  | 6                             |      |
|          |  | More than or equal to 60,000, < 80,000  | 7                             |      |
|          |  | More than or equal to 80,000, < 100,000 | 8                             |      |
|          |  | More than or equal to 100,000           | 9                             |      |
|          |  | Don't Know                              | 77                            |      |
|          |  | Refused                                 | 88                            |      |

## Step 1 Behavioural Measurements

#### CORE: Tobacco Use

Now I am going to ask you some questions about tobacco use.

| Question |   | Response      |   | Code |
|----------|---|---------------|---|------|
| 22       | Do you currently smoke any tobacco products, such as cigarettes, cigars or pipes?<br><br>(USE SHOWCARD) | Yes           | 1   | T1   |
|          |   | No            | 2 If No, go to T8                             |      |
| 23       | Do you currently smoke tobacco products daily?  | Yes           | 1   | T2   |
|          |   | No            | 2   |      |
| 24       | How old were you when you first started smoking?  | Age (years)   | <input type="text"/>                          | T3   |
|          |   | Don't know 77 | <input type="text"/> If Known, go to T5a/T5aw |      |
| 25       | Do you remember how long ago it was?<br><br>(RECORD ONLY 1, NOT ALL 3)                                  | In Years      | <input type="text"/> If Known, go to T5a/T5aw | T4a  |
|          |   | OR in Months  | <input type="text"/> If Known, go to T5a/T5aw | T4b  |
|          |   | OR in Weeks   | <input type="text"/>                          | T4c  |
|          |   | Don't know 77 | <input type="text"/>                          |      |

|    |  | DAILY↓                             |   | WEEKLY↓   |                      |
|----|--|------------------------------------|---|---|----------------------|
|    |  |                                    |   |   |                      |
| 26 | On average, how many of the following products do you smoke each day/week?<br><br>(IF LESS THAN DAILY, RECORD WEEKLY)<br><br>(RECORD FOR EACH TYPE, USE SHOWCARD)<br><br>Don't Know 7777 | Manufactured cigarettes            | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>   | T5a/T5aw             |
|    |  | Hand-rolled cigarettes             | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>   | T5b/T5bw             |
|    |  | Pipes full of tobacco              | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>   | T5c/T5cw             |
|    |  | Cigars, cheroots, cigarillos       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>   | T5d/T5dw             |
|    |  | Number of Shisha sessions          | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>   | T5e/T5ew             |
|    |  | Other                              | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>If Other, go to T5other, else go to T6 | T5f/T5fw             |
|    |  | Other (please specify):            | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |   | T5other/<br>T5otherw |
| 27 | During the past 12 months, have you tried to stop smoking?   | Yes                                | 1   |   | T6                   |
|    |  | No                                 | 2   |   |                      |
| 28 | During any visit to a doctor or other health worker in the past 12 months, were you advised to quit smoking tobacco?   | Yes                                | 1   | If T2=Yes, go to T17; if T2=No, go to T9  | T7                   |
|    |  | No                                 | 2   | If T2=Yes, go to T17; if T2=No, go to T9  |                      |
|    |  | No visit during the past 12 months | 3   | If T2=Yes, go to T17; if T2=No, go to T9  |                      |
| 29 | In the past, did you ever smoke any tobacco products? (USE SHOWCARD)   | Yes                                | 1   |   | T8                   |
|    |  | No                                 | 2   | If No, go to T17  |                      |
| 30 | In the past, did you ever smoke daily?   | Yes                                | 1   | If T1=Yes, go to T17, else go to T10  | T9                   |
|    |  | No                                 | 2   | If T1=Yes, go to T17, else go to T10  |                      |

| EXPANDED: Tobacco Use |  |  |  |      |
|-----------------------|--|--|--|------|
| Question              |  | Response                                     |  | Code |
| 31                    | How old were you when you stopped smoking?   | Age (years)                                  | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>                     | T10  |
|                       |  | Don't Know 77                                | <input type="checkbox"/> <input type="checkbox"/> If Known, go to T17                          |      |
| 32                    | How long ago did you stop smoking?<br><br>(RECORD ONLY 1, NOT ALL 3)<br><br>Don't Know 77  | Years ago                                    | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> If Known, go to T17 | T11a |
|                       |  | OR Months ago                                | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> If Known, go to T17 | T11b |
|                       |  | OR Weeks ago                                 | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>                     | T11c |
|                       |  |  |  |      |
| 33                    | During the past 7 days, on how many days did someone in your home smoke when you were present?   | Number of days                               | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>                     | T17  |
|                       |  | Don't know 77                                | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>                     |      |
| 34                    | During the past 7 days, on how many days did someone smoke in closed areas in your workplace (in the building, in a work area or a specific office) when you were present? | Number of days                               | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>                     | T18  |
|                       |  | Don't know or don't work in a closed area 77 | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>                     |      |

## CORE: Alcohol Consumption

The next questions ask about the consumption of alcohol.

| Question |  | Response                         |  | Code |
|----------|--|----------------------------------|--|------|
| 35       | Have you ever consumed an alcoholic drink such as beer, wine, spirits, home brew or ready-to-drink (RTD) alcohol products?<br><br>(USE SHOWCARD OR SHOW EXAMPLES)                | Yes                              | 1  | A1a  |
|          |  | No                               | 2 If No, go to D1  |      |
| 36       | Have you consumed an alcoholic drink within the past 12 months?  | Yes                              | 1  | A1b  |
|          |  | No                               | 2 If No, go to D1  |      |
| 37       | During the past 12 months, how frequently have you had at least one alcoholic drink?<br><br>(READ RESPONSES, USE SHOWCARD)   | Daily                            | 1  | A2   |
|          |  | 5-6 days per week                | 2  |      |
|          |  | 1-4 days per week                | 3  |      |
|          |  | 1-3 days per month               | 4  |      |
|          |  | Less than once a month           | 5  |      |
| 38       | Have you consumed an alcoholic drink within the past 30 days?  | Yes                              | 1  | A3   |
|          |  | No                               | 2 If No, go to D1  |      |
| 39       | During the past 30 days, on how many occasions did you have at least one alcoholic drink?  | Number<br>Don't know 77          | <input type="text"/> <input type="text"/> <input type="text"/> | A4   |
| 40       | During the past 30 days, when you drank alcohol, on average, how many standard alcoholic drinks did you have during one drinking occasion?<br><br>(USE SHOWCARD)                 | Number<br>Don't know 77          | <input type="text"/> <input type="text"/> <input type="text"/> | A5   |
| 41       | During the past 30 days, what was the largest number of standard alcoholic drinks you had on a single occasion, counting all types of alcoholic drinks together?                 | Largest number<br>Don't Know 77  | <input type="text"/> <input type="text"/> <input type="text"/> | A6   |
| 42       | During the past 30 days, how many times did you have<br><br>for men: five or more<br><br>for women: four or more<br><br>standard alcoholic drinks in a single drinking occasion? | Number of times<br>Don't Know 77 | <input type="text"/> <input type="text"/> <input type="text"/> | A7   |

## CORE: Diet

The next questions ask about the fruits and vegetables that you usually eat. I have a nutrition card here that shows you some examples of local fruits and vegetables. Each picture represents the size of a serving. As you answer these questions please think of a typical week in the last year.

| Question |   | Response                            |   | Code |
|----------|---|-------------------------------------|---|------|
| 43       | In a typical week, on how many days do you eat fruit?<br><br>(USE SHOWCARD) | Number of days<br>Don't Know 77     | <input type="text"/> <input type="text"/> <input type="text"/> If Zero days, go to D3 | D1   |
| 44       | How many servings of fruit do you eat on one of those days? (USE SHOWCARD)  | Number of servings<br>Don't Know 77 | <input type="text"/> <input type="text"/> <input type="text"/>                        | D2   |
| 45       | In a typical week, on how many days do you eat vegetables? (USE SHOWCARD)   | Number of days<br>Don't Know 77     | <input type="text"/> <input type="text"/> <input type="text"/> If Zero days, go to D5 | D3   |

|    |   |                                     |                      |    |
|----|---|-------------------------------------|----------------------|----|
| 46 | How many servings of vegetables do you eat on one of those days? (USE SHOWCARD) | Number of servings<br>Don't know 77 | <input type="text"/> | D4 |
|----|---|-------------------------------------|----------------------|----|

### EXPANDED: Diet

|    |   |                                     |  |         |
|----|---|-------------------------------------|--|---------|
| 47 | What type of oil or fat is most often used for meal preparation in your household?<br><br>(USE SHOWCARD)<br>(SELECT ONLY ONE) | Vegetable oil                       | 1  | D5      |
|    |   | Lard or suet                        | 2  |         |
|    |   | Butter or ghee                      | 3  |         |
|    |   | Margarine                           | 4  |         |
|    |   | Coconut oil or cream                | 5  |         |
|    |   | Other                               | 6 If Other, go to D5 other                   |         |
|    |   | None in particular                  | 7  |         |
|    |   | None used                           | 8  |         |
|    |   | Don't know                          | 77   |         |
|    |   | Other                               | <input type="text"/>                         | D5other |
| 48 | On average, how many meals per week do you eat that were not prepared at a home? By meal, I mean breakfast, lunch and dinner. | Number<br>Don't know 77             | <input type="text"/>                         | D6      |
| 49 | In a typical week, on how many days do you eat fresh fish?<br>(USE SHOWCARD)  | Number of days<br>Don't Know 77     | <input type="text"/> If Zero days, go to X3  | X1      |
| 50 | How many servings of fresh fish do you eat on one of those days? (USE SHOWCARD)   | Number of servings<br>Don't Know 77 | <input type="text"/>                         | X2      |
| 51 | In a typical week, on how many days do you eat canned/tinned fish? (USE SHOWCARD)   | Number of days<br>Don't Know 77     | <input type="text"/> If Zero days, go to DS1 | X3      |
| 52 | How many servings of canned/tinned fish do you eat on one of those days? (USE SHOWCARD)                                       | Number of servings<br>Don't know 77 | <input type="text"/>                         | X4      |

### CORE: Dietary salt

The next questions ask about your knowledge, attitudes and behaviour towards dietary salt. Dietary salt includes ordinary table salt, unrefined salt such as sea salt, iodized salt and salty sauces such as soya sauce or fish sauce (see showcard). The following questions are on adding salt to the food right before you eat it, on how food is prepared in your home, on eating processed foods that are high in salt such as breads, instant noodles, tinned and processed meats or sauces, and questions on controlling your salt intake. Please answer the questions even if you consider yourself to eat a diet low in salt.

| Question |  | Response   |    | Code |
|----------|--|------------|----|------|
| 53       | How often do you add salt to your food before you eat it or as you are eating it?<br><br>(SELECT ONLY ONE)<br><br>(USE SHOWCARD) | Always     | 1  | DS1  |
|          |  | Often      | 2  |      |
|          |  | Sometimes  | 3  |      |
|          |  | Rarely     | 4  |      |
|          |  | Never      | 5  |      |
|          |  | Don't know | 77 |      |

|    |  |                             |    |     |
|----|--|-----------------------------|----|-----|
| 54 | How often is salt added in cooking or preparing foods in your household?   | Always                      | 1  | DS2 |
|    |  | Often                       | 2  |     |
|    |  | Sometimes                   | 3  |     |
|    |  | Rarely                      | 4  |     |
|    |  | Never                       | 5  |     |
|    |  | Don't know                  | 77 |     |
| 55 | How often do you eat processed food high in salt, such as breads, instant noodles, tinned and processed meats or sauces?<br><br>(USE SHOWCARD) | Always                      | 1  | DS3 |
|    |  | Often                       | 2  |     |
|    |  | Sometimes                   | 3  |     |
|    |  | Rarely                      | 4  |     |
|    |  | Never                       | 5  |     |
|    |  | Don't know                  | 77 |     |
| 56 | How much salt do you think you consume?  | Far too much                | 1  | DS4 |
|    |  | Too much                    | 2  |     |
|    |  | Just the right amount       | 3  |     |
|    |  | Too little                  | 4  |     |
|    |  | Far too little              | 5  |     |
|    |  | Don't know                  | 77 |     |
| 57 | What do you think is the recommended amount of salt you should consume per day to be healthy?  | Less than 10g (2 teaspoon)  | 1  | X5  |
|    |  | Less than 5g (1 teaspoon)   | 2  |     |
|    |  | Less than 2g (1/2 teaspoon) | 3  |     |
|    |  | Don't know                  | 4  |     |
| 58 | Do you think that too much salt in your diet could cause a serious health problem?   | Yes                         | 1  | DS5 |
|    |  | No                          | 2  |     |
|    |  | Don't know                  | 77 |     |
| 59 | How important to you is lowering the salt in your diet?  | Very important              | 1  | DS6 |
|    |  | Somewhat important          | 2  |     |
|    |  | Not at all important        | 3  |     |
|    |  | Don't know                  | 77 |     |

|    |  |  |                          |          |
|----|--|--|--------------------------|----------|
| 60 | Do you do anything of the following on a regular basis to control your salt intake?<br>(RECORD FOR EACH) |  |                          |          |
|    | Avoid/minimize consumption of processed foods  | Yes  | 1                        | DS7a     |
|    |  | No   | 2                        |          |
|    | Look at the salt or sodium labels on food  | Yes  | 1                        | DS7b     |
|    |  | No   | 2                        |          |
|    | Do not add salt on the table   | Yes  | 1                        | DS7c     |
|    |  | No   | 2                        |          |
|    | Buy low salt/sodium alternatives   | Yes  | 1                        | DS7d     |
|    |  | No   | 2                        |          |
|    | Do not add salt when cooking   | Yes  | 1                        | DS7e     |
|    |  | No   | 2                        |          |
|    | Use spices other than salt when cooking  | Yes  | 1                        | DS7g     |
|    |  | No   | 2                        |          |
|    | Avoid eating out   | Yes  | 1                        | DS7g     |
|    |  | No   | 2                        |          |
|    | Other  | Yes  | 1 If Yes, go to DS7other | DS7h     |
|    |  | No   | 2                        |          |
|    | Other (please specify)   | <div style="border-bottom: 1px solid black; width: 100px; display: inline-block;"></div> |                          | DS7other |

### CORE: Oral health

The next questions ask about your oral health status and related behaviours.

| Question |   | Response         |                                 | Code |
|----------|---|------------------|---------------------------------|------|
| 61       | How many natural teeth do you have?             | No natural teeth | 1 If no natural teeth, go to O4 | O1   |
|          |   | 1 to 9 teeth     | 2                               |      |
|          |   | 10 to 19 teeth   | 3                               |      |
|          |   | 20 teeth or more | 4                               |      |
|          |   | Don't know       | 77                              |      |
| 62       | How would you describe the state of your teeth? | Excellent        | 1                               | O2   |
|          |   | Very Good        | 2                               |      |
|          |   | Good             | 3                               |      |
|          |   | Average          | 4                               |      |
|          |   | Poor             | 5                               |      |
|          |   | Very Poor        | 6                               |      |
|          |   | Don't Know       | 77                              |      |

|    |   |  |                           |         |
|----|---|--|---------------------------|---------|
| 63 | How would you describe the state of your gums?                              | Excellent  | 1                         | O3      |
|    |   | Very Good  | 2                         |         |
|    |   | Good   | 3                         |         |
|    |   | Average  | 4                         |         |
|    |   | Poor   | 5                         |         |
|    |   | Very Poor  | 6                         |         |
|    |   | Don't know   | 77                        |         |
| 64 | Do you have any removable dentures?   | Yes  | 1                         | O4      |
|    |   | No   | 2 If No, go to O6         |         |
| 65 | Which of the following removable dentures do you have?<br>(RECORD FOR EACH) |  |                           |         |
|    | An upper jaw denture  | Yes  | 1                         | O5a     |
|    |   | No   | 2                         |         |
|    | A lower jaw denture   | Yes  | 1                         | O5b     |
|    |   | No   | 2                         |         |
|    | 66  | During the past 12 months, did your teeth or mouth cause any pain or discomfort? | Yes                       | 1       |
| No |   |  | 2                         |         |
| 67 | How long has it been since you last saw a dentist?                          | Less than 6 months   | 1                         | O7      |
|    |   | 6-12 months  | 2                         |         |
|    |   | More than 1 year but less than 2 years   | 3                         |         |
|    |   | 2 or more years but less than 5 years  | 4                         |         |
|    |   | 5 or more years  | 5                         |         |
|    |   | Never received dental care   | 6 If Never, go to O9      |         |
| 68 | What was the main reason for your last visit to the dentist?                | Consultation / advice  | 1                         | O8      |
|    |   | Pain or trouble with teeth, gums or mouth  | 2                         |         |
|    |   | Treatment / Follow-up treatment  | 3                         |         |
|    |   | Routine check-up treatment   | 4                         |         |
|    |   | Other  | 5 If Other, go to O8other |         |
|    |   | Other (please specify)   | <input type="text"/>      | O8other |

### CORE: Oral health, Continued

| Question | Response | Code |
|----------|----------|------|
|----------|----------|------|



|    |   |   |                          |          |
|----|---|---|--------------------------|----------|
| 69 | How often do you clean your teeth?  | Never   | 1 If Never, go to O13a   | O9       |
|    |   | Once a month  | 2                        |          |
|    |   | 2-3 times a month   | 3                        |          |
|    |   | Once a week   | 4                        |          |
|    |   | 2-6 times a week  | 5                        |          |
|    |   | Once a day  | 6                        |          |
|    |   | Twice or more a day   | 7                        |          |
| 70 | Do you use toothpaste to clean your teeth?                                | Yes   | 1                        | O10      |
|    |   | No  | 2 If No, go to O12a      |          |
| 71 | Do you use toothpaste containing fluoride?                                | Yes   | 1                        | O11      |
|    |   | No  | 2                        |          |
|    |   | Don't know  | 77                       |          |
| 72 | Do you use any of the following to clean your teeth?<br>(RECORD FOR EACH) |   |                          |          |
|    | Toothbrush  | Yes   | 1                        | O12a     |
|    |   | No  | 2                        |          |
|    | Wooden toothpicks   | Yes   | 1                        | O12b     |
|    |   | No  | 2                        |          |
|    | Plastic toothpicks  | Yes   | 1                        | O12c     |
|    |   | No  | 2                        |          |
|    | Thread (dental floss)   | Yes   | 1                        | O12d     |
|    |   | No  | 2                        |          |
|    | Charcoal  | Yes   | 1                        | O12e     |
|    |   | No  | 2                        |          |
|    | Chewstick / miswak  | Yes   | 1                        | O12f     |
|    |   | No  | 2                        |          |
|    | Other   | Yes   | 1 If Yes, go to O12other | O12g     |
|    |   | No  | 2                        |          |
|    | Other (please specify)  | <div style="display: flex; justify-content: space-between; width: 150px;"> <div style="width: 10px; height: 10px; border: 1px solid black;"></div> <div style="width: 10px; height: 10px; border: 1px solid black;"></div> <div style="width: 10px; height: 10px; border: 1px solid black;"></div> <div style="width: 10px; height: 10px; border: 1px solid black;"></div> <div style="width: 10px; height: 10px; border: 1px solid black;"></div> <div style="width: 10px; height: 10px; border: 1px solid black;"></div> <div style="width: 10px; height: 10px; border: 1px solid black;"></div> <div style="width: 10px; height: 10px; border: 1px solid black;"></div> </div> |                          | O12other |

|    |   |     |   |      |
|----|---|-----|---|------|
| 73 | Have you experienced any of the following problems during the past 12 months because of the state of your teeth?<br>(RECORD FOR EACH) |     |   |      |
|    | Difficulty in chewing foods   | Yes | 1 | O13a |
|    |   | No  | 2 |      |
|    | Difficulty with speech/trouble pronouncing words  | Yes | 1 | O13b |
|    |   | No  | 2 |      |
|    | Felt tense because of problems with teeth or mouth  | Yes | 1 | O13c |
|    |   | No  | 2 |      |
|    | Embarrassed about appearance of teeth   | Yes | 1 | O13d |
|    |   | No  | 2 |      |
|    | Avoid smiling because of teeth  | Yes | 1 | O13e |
|    |   | No  | 2 |      |
|    | Sleep is often interrupted  | Yes | 1 | O13f |
|    |   | No  | 2 |      |
|    | Days not at work because of teeth or mouth  | Yes | 1 | O13g |
|    |   | No  | 2 |      |
|    | Difficulty doing usual activities   | Yes | 1 | O13h |
|    |   | No  | 2 |      |
|    | Less tolerant of spouse or people close to you  | Yes | 1 | O13i |
|    |   | No  | 2 |      |
|    | Reduced participation in social activities  | Yes | 1 | O13j |
|    |   | No  | 2 |      |

## CORE: Physical Activity

Next I am going to ask you about the time you spend doing different types of physical activity in a typical week. Please answer these questions even if you do not consider yourself to be a physically active person.

Think first about the time you spend doing work. Think of work as the things that you have to do such as paid or unpaid work, study/training, household chores, harvesting food/crops, fishing or hunting for food, seeking employment. In answering the following questions 'vigorous-intensity activities' are activities that require hard physical effort and cause large increases in breathing or heart rate, 'moderate-intensity activities' are activities that require moderate physical effort and cause small increases in breathing or heart rate.

| Question  | Response   | Code   |             |
|---|--|--|-------------|
| <b>Work</b>   |  |  |             |
| 74  | Does your work involve vigorous-intensity activity that causes large increases in breathing or heart rate like [carrying or lifting heavy loads, digging or construction work] for at least 10 minutes continuously?<br><br>(USE SHOWCARD) | Yes 1  | P1          |
|   | No 2 If No, go to P 4  |  |             |
| 75  | In a typical week, on how many days do you do vigorous-intensity activities as part of your work?  | Number of days <input type="text"/>  | P2          |
| 76  | How much time do you spend doing vigorous-intensity activities at work on a typical day?   | Hours : minutes<br><input type="text"/> : <input type="text"/><br>hrs mins | P3<br>(a-b) |
| 77  | Does your work involve moderate-intensity activity, that causes small increases in breathing or heart rate such as brisk walking [or carrying light loads] for at least 10 minutes continuously?<br><br>(USE SHOWCARD)                     | Yes 1  | P4          |
|   | No 2 If No, go to P 7  |  |             |
| 78  | In a typical week, on how many days do you do moderate-intensity activities as part of your work?  | Number of days <input type="text"/>  | P5          |
| 79  | How much time do you spend doing moderate-intensity activities at work on a typical day?   | Hours : minutes<br><input type="text"/> : <input type="text"/><br>hrs mins | P6<br>(a-b) |
| <b>Travel to and from places</b>  |  |  |             |
| The next questions exclude the physical activities at work that you have already mentioned.   |  |  |             |
| Now I would like to ask you about the usual way you travel to and from places. For example to work, for shopping, to market, to place of worship. |  |  |             |
| 80  | Do you walk or use a bicycle (pedal cycle) for at least 10 minutes continuously to get to and from places?   | Yes 1  | P7          |
|   | No 2 If No, go to P 10   |  |             |
| 81  | In a typical week, on how many days do you walk or bicycle for at least 10 minutes continuously to get to and from places?   | Number of days <input type="text"/>  | P8          |
| 82  | How much time do you spend walking or bicycling for travel on a typical day?   | Hours : minutes<br><input type="text"/> : <input type="text"/><br>hrs mins | P9<br>(a-b) |

| CORE: Physical Activity, Continued  |   |                 |   |              |
|---|---|-----------------|---|--------------|
| Question  |   | Response        |   | Code         |
| Recreational activities   |   |                 |   |              |
| The next questions exclude the work and transport activities that you have already mentioned. |   |                 |   |              |
| Now I would like to ask you about sports, fitness and recreational activities (leisure).      |   |                 |   |              |
| 83  | Do you do any vigorous-intensity sports, fitness or recreational (leisure) activities that cause large increases in breathing or heart rate like [running or football] for at least 10 minutes continuously?<br><br>(USE SHOWCARD)                              | Yes             | 1   | P10          |
|   |   | No              | 2 If No, go to P 13                                     |              |
| 84  | In a typical week, on how many days do you do vigorous-intensity sports, fitness or recreational (leisure) activities?  | Number of days  | <input type="text"/>                                    | P11          |
| 85  | How much time do you spend doing vigorous-intensity sports, fitness or recreational activities on a typical day?  | Hours : minutes | <input type="text"/> : <input type="text"/><br>hrs mins | P12<br>(a-b) |
| 86  | Do you do any moderate-intensity sports, fitness or recreational (leisure) activities that cause a small increase in breathing or heart rate such as brisk walking, [cycling, swimming, volleyball] for at least 10 minutes continuously?<br><br>(USE SHOWCARD) | Yes             | 1   | P13          |
|   |   | No              | 2 If No, go to P16                                      |              |
| 87  | In a typical week, on how many days do you do moderate-intensity sports, fitness or recreational (leisure) activities?  | Number of days  | <input type="text"/>                                    | P14          |
| 88  | How much time do you spend doing moderate-intensity sports, fitness or recreational (leisure) activities on a typical day?  | Hours : minutes | <input type="text"/> : <input type="text"/><br>hrs mins | P15<br>(a-b) |

| EXPANDED: Physical Activity   |   |                 |   |              |
|---|---|-----------------|---|--------------|
| Sedentary behaviour   |   |                 |   |              |
| The following question is about sitting or reclining at work, at home, getting to and from places, or with friends including time spent sitting at a desk, sitting with friends, traveling in car, bus, train, reading, playing cards or watching television, but do not include time spent sleeping.<br><br>(USE SHOWCARD) |   |                 |   |              |
| 89  | How much time do you usually spend sitting or reclining on a typical day? | Hours : minutes | <input type="text"/> : <input type="text"/><br>hrs mins | P16<br>(a-b) |

## CORE: Injury

The next questions ask about different experiences and behaviours that are related to road traffic injuries.

| Question |  | Response   |                            | Code |
|----------|--|--|----------------------------|------|
| 90       | In the past 30 days, how often did you use a seat belt when you were the driver or passenger of a motor vehicle?             | All of the time  | 1                          | V1   |
|          |  | Sometimes  | 2                          |      |
|          |  | Never  | 3                          |      |
|          |  | Have not been in a vehicle in past 30 days                     | 4                          |      |
|          |  | No seat belt in the car I usually am in                        | 5                          |      |
|          |  | Don't Know   | 77                         |      |
|          |  | Refused  | 88                         |      |
| 91       | In the past 30 days, how often did you wear a helmet when you drove or rode as a passenger on a motorcycle or motor-scooter? | All of the time  | 1                          | V2   |
|          |  | Sometimes  | 2                          |      |
|          |  | Never  | 3                          |      |
|          |  | Have not been on a motorcycle or motor-scooter in past 30 days | 4                          |      |
|          |  | Do not have a helmet   | 5                          |      |
|          |  | Don't Know   | 77                         |      |
|          |  | Refused  | 88                         |      |
| 92       | In the past 12 months, have you been involved in a road traffic crash as a driver, passenger, pedestrian, or cyclist?        | Yes (as driver)  | 1                          | V3   |
|          |  | Yes (as passenger)   | 2                          |      |
|          |  | Yes (as pedestrian)  | 3                          |      |
|          |  | Yes (as a cyclist)   | 4                          |      |
|          |  | No   | 5 If No, go to H1          |      |
|          |  | Don't know   | 77 If don't know, go to H1 |      |
|          |  | Refused  | 88 If Refused, go to H1    |      |
| 93       | Did you have any injuries in this road traffic crash which required medical attention?                                       | Yes  | 1                          | V4   |
|          |  | No   | 2                          |      |
|          |  | Don't know   | 77                         |      |
|          |  | Refused  | 88                         |      |

| CORE: History of Raised Blood Pressure |   |          |                   |      |
|--|---|----------|-------------------|------|
| Question                               |   | Response |                   | Code |
| 94                                     | Have you ever had your blood pressure measured by a doctor or other health worker?                              | Yes      | 1                 | H1   |
|  |   | No       | 2 If No, go to H6 |      |
| 95                                     | Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension? | Yes      | 1                 | H2a  |
|  |   | No       | 2 If No, go to H6 |      |
| 96                                     | Have you been told in the past 12 months?   | Yes      | 1                 | H2b  |
|  |   | No       | 2                 |      |

| EXPANDED: History of Raised Blood Pressure |   |  |     |     |
|--|---|--|-----|-----|
| 97   | Are you currently receiving any of the following treatments/advice for high blood pressure prescribed by a doctor or other health worker? |  |     |     |
|  | Drugs (medication) that you have taken in the past two weeks  | Yes  | 1   | H3a |
|  |   | No   | 2   |     |
|  | Advice to reduce salt intake  | Yes  | 1   | H3b |
|  |   | No   | 2   |     |
|  | Advice or treatment to lose weight  | Yes  | 1   | H3c |
|  |   | No   | 2   |     |
|  | Advice or treatment to stop smoking   | Yes  | 1   | H3d |
|  |   | No   | 2   |     |
|  | Advice to start or do more exercise   | Yes  | 1   | H3e |
|  |   | No   | 2   |     |
|  | 98  | Have you ever seen a traditional healer for raised blood pressure or hypertension? | Yes | 1   |
| No   |   |  | 2   |     |
| 99   | Are you currently taking any herbal or traditional remedy for your raised blood pressure?   | Yes  | 1   | H5  |
|  |   | No   | 2   |     |

| CORE: History of Diabetes |  |          |                    |      |
|---------------------------|--|----------|--------------------|------|
| Question                  |  | Response |                    | Code |
| 100                       | Have you ever had your blood sugar measured by a doctor or other health worker?                          | Yes      | 1                  | H6   |
|                           |  | No       | 2 If No, go to L1a |      |
| 101                       | Have you ever been told by a doctor or other health worker that you have raised blood sugar or diabetes? | Yes      | 1                  | H7a  |
|                           |  | No       | 2 If No, go to L1a |      |
| 102                       | Have you been told in the past 12 months?  | Yes      | 1                  | H7b  |
|                           |  | No       | 2                  |      |

| EXPANDED: History of Diabetes |  |     |   |     |
|-------------------------------|--|-----|---|-----|
| 103                           | Are you currently receiving any of the following treatments/advice for diabetes prescribed by a doctor or other health worker? |     |   |     |
|                               | Insulin  | Yes | 1 | H8a |
|                               |  | No  | 2 |     |
|                               | Drugs (medication) that you have taken in the past two weeks   | Yes | 1 | H8b |
|                               |  | No  | 2 |     |
|                               | Special prescribed diet  | Yes | 1 | H8c |
|                               |  | No  | 2 |     |
|                               | Advice or treatment to lose weight   | Yes | 1 | H8d |
|                               |  | No  | 2 |     |
|                               | Advice or treatment to stop smoking  | Yes | 1 | H8e |
|                               |  | No  | 2 |     |
|                               | Advice to start or do more exercise  | Yes | 1 | H8f |
|                               |  | No  | 2 |     |
| 104                           | Have you ever seen a traditional healer for diabetes or raised blood sugar?  | Yes | 1 | H9  |
|                               |  | No  | 2 |     |
| 105                           | Are you currently taking any herbal or traditional remedy for your diabetes?   | Yes | 1 | H10 |
|                               |  | No  | 2 |     |

| CORE: History of Cholesterol |  |          |                   |      |
|------------------------------|--|----------|-------------------|------|
| Question                     |  | Response |                   | Code |
| 106                          | Have you ever had your cholesterol measured by a doctor or other health worker?  | Yes      | 1                 | L1a  |
|                              |  | No       | 2 If No, go to X6 |      |
| 107                          | Have you ever been told by a doctor or other health worker that you have raised cholesterol?   | Yes      | 1                 | L2a  |
|                              |  | No       | 2 If No, go to X6 |      |
| 108                          | Have you been told in the past 12 months?  | Yes      | 1                 | L2b  |
|                              |  | No       | 2                 |      |
| 109                          | Are you currently receiving any of the following treatments/advice for raised cholesterol prescribed by a doctor or other health worker? |          |                   |      |
|                              | Oral treatment (medication) taken in the last 2 weeks  | Yes      | 1                 | L3a  |
|                              |  | No       | 2                 |      |
|                              | Special prescribed diet  | Yes      | 1                 | L3b  |
|                              |  | No       | 2                 |      |



| CORE: History of Heart Attack |                                   |          |                   |      |
|-------------------------------|-----------------------------------|----------|-------------------|------|
| Question                      |                                   | Response |                   | Code |
| 110                           | Have you ever had a heart attack? | Yes      | 1                 | X6   |
|                               |                                   | No       | 2 If No, go to X8 |      |
|                               |                                   |          |                   |      |

| EXPANDED: History of Heart Attack |  |     |   |     |
|-----------------------------------|--|-----|---|-----|
| 111                               | Are you currently receiving any of the following treatments/advice for heart attack prescribed by a doctor or other health worker? |     |   |     |
|                                   | Drugs (medication) that you have taken in the past two weeks   | Yes | 1 | X7a |
|                                   |  | No  | 2 |     |
|                                   | Special prescribed diet  | Yes | 1 | X7b |
|                                   |  | No  | 2 |     |
|                                   | Advice or treatment to lose weight   | Yes | 1 | X7c |
|                                   |  | No  | 2 |     |
|                                   | Advice or treatment to stop smoking  | Yes | 1 | X7d |
|                                   |  | No  | 2 |     |
|                                   | Advice to start or do more exercise  | Yes | 1 | X7e |
|                                   |  | No  | 2 |     |

| CORE: History of Stroke |                             |          |                   |      |
|-------------------------|-----------------------------|----------|-------------------|------|
| Question                |                             | Response |                   | Code |
| 112                     | Have you ever had a stroke? | Yes      | 1                 | X8   |
|                         |                             | No       | 2 If No, go to M1 |      |

| EXPANDED: History of Stroke |  |     |   |     |
|-----------------------------|--|-----|---|-----|
| 113                         | Are you currently receiving any of the following treatments/advice for stroke prescribed by a doctor or other health worker? |     |   |     |
|                             | Drugs (medication) that you have taken in the past two weeks   | Yes | 1 | X9a |
|                             |  | No  | 2 |     |
|                             | Advice to reduce salt intake   | Yes | 1 | X9b |
|                             |  | No  | 2 |     |
|                             | Advice or treatment to lose weight   | Yes | 1 | X9c |
|                             |  | No  | 2 |     |
|                             | Advice or treatment to stop smoking  | Yes | 1 | X9d |
|                             |  | No  | 2 |     |
|                             | Advice to start or do more exercise  | Yes | 1 | X9e |
|                             |  | No  | 2 |     |

## Step 2 Physical Measurements

### CORE: Height and Weight

| Question |  | Response            |                      | Code |
|----------|--|---------------------|----------------------|------|
| 114      | Interviewer ID                         |                     | <input type="text"/> | M1   |
| 115      | Device IDs for height and weight       | Height              | <input type="text"/> | M2a  |
|          |  | Weight              | <input type="text"/> | M2b  |
| 116      | Height                                 | in Centimetres (cm) | <input type="text"/> | M3   |
| 117      | Weight<br>If too large for scale 666.6 | in Kilograms (kg)   | <input type="text"/> | M4   |
| 118      | For women: Are you pregnant?           | Yes                 | 1 If Yes, go to M 8  | M5   |
|          |  | No                  | 2                    |      |

### CORE: Waist

|     |                     |                     |                      |    |
|-----|---------------------|---------------------|----------------------|----|
| 119 | Device ID for waist |                     | <input type="text"/> | M6 |
| 120 | Waist circumference | in Centimetres (cm) | <input type="text"/> | M7 |

### CORE: Blood Pressure

|     |   |                  |                      |      |
|-----|---|------------------|----------------------|------|
| 121 | Interviewer ID  |                  | <input type="text"/> | M8   |
| 122 | Device ID for blood pressure  |                  | <input type="text"/> | M9   |
| 123 | Cuff size used  | Small            | 1                    | M10  |
|     |   | Medium           | 2                    |      |
|     |   | Large            | 3                    |      |
|     |   | Extra large      | 4                    |      |
| 124 | Reading 1   | Systolic ( mmHg) | <input type="text"/> | M11a |
|     |   | Diastolic (mmHg) | <input type="text"/> | M11b |
| 125 | Reading 2   | Systolic ( mmHg) | <input type="text"/> | M12a |
|     |   | Diastolic (mmHg) | <input type="text"/> | M12b |
| 126 | Reading 3   | Systolic ( mmHg) | <input type="text"/> | M13a |
|     |   | Diastolic (mmHg) | <input type="text"/> | M13b |
| 127 | During the past two weeks, have you been treated for raised blood pressure with drugs (medication) prescribed by a doctor or other health worker? | Yes              | 1                    | M14  |
|     |   | No               | 2                    |      |

### Step 3 Biochemical Measurements

#### CORE: Blood Glucose

| Question |  | Response        |   | Code |
|----------|--|-----------------|---|------|
| 128      | During the past 12 hours have you had anything to eat or drink, other than water?  | Yes             | 1   | B1   |
|          |  | No              | 2   |      |
| 129      | Technician ID  |                 | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>               | B2   |
| 130      | Device ID  |                 | <input type="text"/> <input type="text"/>   | B3   |
| 131      | Time of day blood specimen taken (24 hour clock)   | Hours : minutes | <input type="text"/> <input type="text"/> : <input type="text"/> <input type="text"/><br>hrs mins | B4   |
| 132      | Fasting blood glucose  | mmol/l          | <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>             | B5   |
| 133      | Today, have you taken insulin or other drugs (medication) that have been prescribed by a doctor or other health worker for raised blood glucose? | Yes             | 1   | B6   |
|          |  | No              | 2   |      |

#### CORE: Blood Lipids

|     |  |        |   |    |
|-----|--|--------|---|----|
| 134 | Device ID  |        | <input type="text"/> <input type="text"/>   | B7 |
| 135 | Total cholesterol  | mmol/l | <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> | B8 |
| 136 | During the past two weeks, have you been treated for raised cholesterol with drugs (medication) prescribed by a doctor or other health worker? | Yes    | 1   | B9 |
|     |  | No     | 2   |    |

#### EXPANDED: Salt

|     |                    |  |   |     |
|-----|--------------------|--|---|-----|
| 137 | Spot urine test    |  | <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> | X10 |
| 138 | 24 Hour collection |  | <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> | X11 |

**SUPPLEMENTARY TABLES**  
**DATA BOOK OF COOK ISLANDS**  
**STEPS SURVEY**

## Demographic Information Results

**Age group by sex** Description: Summary information by age group and sex of the respondents.

Instrument question:

- Sex
- What is your date of birth?

| Age group and sex of respondents |     |      |       |      |            |      |
|----------------------------------|-----|------|-------|------|------------|------|
| Age Group<br>(years)             | Men |      | Women |      | Both Sexes |      |
|                                  | n   | %    | n     | %    | n          | %    |
| 18-44                            | 267 | 41.9 | 370   | 58.1 | 637        | 50.1 |
| 45-64                            | 360 | 56.7 | 275   | 43.3 | 635        | 49.9 |
| 18-64                            | 627 | 49.3 | 645   | 50.7 | 1272       | 100  |

Analysis Information:

- Questions used: C1, C2
- Epi Info program name: Cagesex (unweighted)

**Education** Description: Mean number of years of education among respondents.

Instrument question:

- In total, how many years have you spent at school or in full-time study (excluding pre-school)?

| Mean number of years of education |     |      |       |      |            |      |
|-----------------------------------|-----|------|-------|------|------------|------|
| Age Group<br>(years)              | Men |      | Women |      | Both Sexes |      |
|                                   | n   | Mean | n     | Mean | n          | Mean |
| 18-44                             | 257 | 12.3 | 351   | 13.0 | 608        | 12.7 |
| 45-64                             | 332 | 12.3 | 265   | 12.3 | 597        | 12.3 |
| 18-64                             | 589 | 12.3 | 616   | 12.7 | 1205       | 12.5 |

Analysis Information:

- Questions used: C4
- Epi Info program name: Ceduyears (unweighted)

**Highest level of education** Description: Highest level of education achieved by the survey respondents.

Instrument question:

- What is the highest level of education you have completed?

| Highest level of education |         |                       |                            |                            |                              |                                 |                                  |
|----------------------------|---------|-----------------------|----------------------------|----------------------------|------------------------------|---------------------------------|----------------------------------|
| Age Group<br>(years)       | Men     |                       |                            |                            |                              |                                 |                                  |
|                            | (years) | % No formal schooling | % Less than primary school | % Primary school completed | % Secondary school completed | % College/ University completed | % Post graduate degree completed |
| 18-44                      | 266     | 0                     | 0.8                        | 16.2                       | 61.7                         | 19.2                            | 2.3                              |
| 45-64                      | 354     | 0.6                   | 0.8                        | 23.4                       | 50.0                         | 17.5                            | 7.6                              |
| 18-64                      | 620     | 0.3                   | 0.8                        | 20.3                       | 55.0                         | 18.2                            | 5.3                              |

| Highest level of education |            |                       |                            |                            |                              |                                 |                                  |
|----------------------------|------------|-----------------------|----------------------------|----------------------------|------------------------------|---------------------------------|----------------------------------|
| Age Group<br>(years)       | Women      |                       |                            |                            |                              |                                 |                                  |
|                            | n          | % No formal schooling | % Less than primary school | % Primary school completed | % Secondary school completed | % College/ University completed | % Post graduate degree completed |
| 18-44                      | 360        | 0.3                   | 0                          | 9.7                        | 61.4                         | 22.2                            | 6.4                              |
| 45-64                      | 273        | 0.4                   | 0.7                        | 14.7                       | 54.6                         | 21.6                            | 8.1                              |
| <b>18-64</b>               | <b>633</b> | <b>0.3</b>            | <b>0.3</b>                 | <b>11.8</b>                | <b>58.5</b>                  | <b>22.0</b>                     | <b>7.1</b>                       |

| Highest level of education |             |                       |                            |                            |                              |                                 |                                  |
|----------------------------|-------------|-----------------------|----------------------------|----------------------------|------------------------------|---------------------------------|----------------------------------|
| Age Group<br>(years)       | Both Sexes  |                       |                            |                            |                              |                                 |                                  |
|                            | n           | % No formal schooling | % Less than primary school | % Primary school completed | % Secondary school completed | % College/ University completed | % Post graduate degree completed |
| 18-44                      | 626         | 0.2                   | 0.3                        | 12.5                       | 61.5                         | 20.9                            | 4.6                              |
| 45-64                      | 627         | 0.5                   | 0.8                        | 19.6                       | 52.0                         | 19.3                            | 7.8                              |
| <b>18-64</b>               | <b>1253</b> | <b>0.3</b>            | <b>0.6</b>                 | <b>16.0</b>                | <b>56.7</b>                  | <b>20.1</b>                     | <b>6.2</b>                       |

Analysis Information:

- Questions used: C5
- Epi Info program name: Ceduhigh (unweighted)

Description: Summary results for the ethnicity of the respondents.

Ethnicity

Instrument Question:

- What is your [insert relevant ethnic group/racial group/cultural subgroup/others] background?

| Ethnic group of respondents |             |                     |            |            |
|-----------------------------|-------------|---------------------|------------|------------|
| Age Group<br>(years)        | Both Sexes  |                     |            |            |
|                             | n           | % Cook Island Maori | % European | % Other    |
| 18-44                       | 635         | 95.0                | 1.4        | 3.6        |
| 45-64                       | 634         | 94.6                | 2.4        | 3.0        |
| <b>18-64</b>                | <b>1269</b> | <b>94.8</b>         | <b>1.9</b> | <b>3.3</b> |

Analysis Information:

- Questions used: C6
- Epi Info program name: Cethnic (unweighted)

Description: Marital status of survey respondents.

Marital status

Instrument question:

- What is your marital status?

| Marital status       |            |                 |                     |             |            |            |              |
|----------------------|------------|-----------------|---------------------|-------------|------------|------------|--------------|
| Age Group<br>(years) | Men        |                 |                     |             |            |            |              |
|                      | n          | % Never married | % Currently married | % Separated | % Divorced | % Widowed  | % Cohabiting |
| 18-44                | 257        | 35.4            | 40.5                | 3.1         | 1.6        | 0.4        | 19.1         |
| 45-64                | 358        | 10.9            | 76.5                | 3.4         | 2.5        | 2.5        | 4.2          |
| <b>18-64</b>         | <b>615</b> | <b>21.1</b>     | <b>61.5</b>         | <b>3.3</b>  | <b>2.1</b> | <b>1.6</b> | <b>10.4</b>  |

| Marital status    |            |                 |                     |             |            |            |              |
|-------------------|------------|-----------------|---------------------|-------------|------------|------------|--------------|
| Age Group (years) | Women      |                 |                     |             |            |            |              |
|                   | n          | % Never married | % Currently married | % Separated | % Divorced | % Widowed  | % Cohabiting |
| 18-44             | 354        | 43.8            | 37.0                | 2.3         | 0.6        | 1.4        | 15.0         |
| 45-64             | 270        | 14.1            | 60.4                | 4.4         | 4.4        | 13.3       | 3.3          |
| <b>18-64</b>      | <b>624</b> | <b>30.9</b>     | <b>47.1</b>         | <b>3.2</b>  | <b>2.2</b> | <b>6.6</b> | <b>9.9</b>   |

| Marital status    |             |                 |                     |             |            |            |              |
|-------------------|-------------|-----------------|---------------------|-------------|------------|------------|--------------|
| Age Group (years) | Both Sexes  |                 |                     |             |            |            |              |
|                   | n           | % Never married | % Currently married | % Separated | % Divorced | % Widowed  | % Cohabiting |
| 18-44             | 611         | 40.3            | 38.5                | 2.6         | 1.1        | 1.0        | 16.7         |
| 45-64             | 628         | 12.3            | 69.6                | 3.8         | 3.3        | 7.2        | 3.8          |
| <b>18-64</b>      | <b>1239</b> | <b>26.1</b>     | <b>54.2</b>         | <b>3.2</b>  | <b>2.2</b> | <b>4.1</b> | <b>10.2</b>  |

Analysis Information:

- Questions used: C7
- Epi Info program name: Cmaritalstatus (unweighted)

Employment status Description: Proportion of respondents in paid employment and those who are unpaid. Unpaid includes persons who are non-paid, students, homemakers, retired, and unemployed.

Instrument question:

- Which of the following best describes your main work status over the past 12 months?

| Employment status |            |                       |                           |                 |            |
|-------------------|------------|-----------------------|---------------------------|-----------------|------------|
| Age Group (years) | Men        |                       |                           |                 |            |
|                   | n          | % Government employee | % Non-government employee | % Self-employed | % Unpaid   |
| 18-44             | 265        | 47.9                  | 39.6                      | 9.1             | 3.4        |
| 45-64             | 360        | 53.1                  | 17.5                      | 19.2            | 10.3       |
| <b>18-64</b>      | <b>625</b> | <b>50.9</b>           | <b>26.9</b>               | <b>14.9</b>     | <b>7.4</b> |

| Employment status |            |                       |                           |                 |             |
|-------------------|------------|-----------------------|---------------------------|-----------------|-------------|
| Age Group (years) | Women      |                       |                           |                 |             |
|                   | n          | % Government employee | % Non-government employee | % Self-employed | % Unpaid    |
| 18-44             | 366        | 43.7                  | 36.6                      | 5.5             | 14.2        |
| 45-64             | 274        | 40.1                  | 26.6                      | 12.8            | 20.4        |
| <b>18-64</b>      | <b>640</b> | <b>42.2</b>           | <b>32.3</b>               | <b>8.6</b>      | <b>16.9</b> |

| Employment status |             |                       |                           |                 |             |
|-------------------|-------------|-----------------------|---------------------------|-----------------|-------------|
| Age Group (years) | Both Sexes  |                       |                           |                 |             |
|                   | n           | % Government employee | % Non-government employee | % Self-employed | % Unpaid    |
| 18-44             | 631         | 45.5                  | 37.9                      | 7.0             | 9.7         |
| 45-64             | 634         | 47.5                  | 21.5                      | 16.4            | 14.7        |
| <b>18-64</b>      | <b>1265</b> | <b>46.5</b>           | <b>29.6</b>               | <b>11.7</b>     | <b>12.2</b> |



Analysis Information:

- Questions used: C8
- Epi Info program name: Cworkpaid (unweighted)

Unpaid work and unemployed Description: Proportion of respondents in unpaid work.

Instrument question:

- Which of the following best describes your main work status over the past 12 months?

| Unpaid work and unemployed |            |             |            |              |             |                |                    |
|----------------------------|------------|-------------|------------|--------------|-------------|----------------|--------------------|
| Age Group (years)          | Both Sexes |             |            |              |             |                |                    |
|                            | n          | % Non-paid  | % Student  | % Home-maker | % Retired   | Unemployed     |                    |
|                            |            |             |            |              |             | % Able to work | % Not able to work |
| 18-44                      | 61         | 9.8         | 19.7       | 32.8         | 1.6         | 31.1           | 4.9                |
| 45-64                      | 93         | 10.8        | 0          | 28.0         | 34.4        | 22.6           | 4.3                |
| <b>18-64</b>               | <b>154</b> | <b>10.4</b> | <b>7.8</b> | <b>29.9</b>  | <b>21.4</b> | <b>26.0</b>    | <b>4.5</b>         |

Analysis Information:

- Questions used: C8
- Epi Info program name: Cworknotpaid (unweighted)

Per capita annual income Description: Mean reported per capita annual income of respondents in local currency.

Instrument question:

- How many people older than 18 years, including yourself, live in your household?
- Taking the past year, can you tell me what the average earning of the household has been?

| Mean annual per capita income |          |
|-------------------------------|----------|
| n                             | Mean     |
| 520                           | 10181.79 |

Analysis Information:

- Questions used: C9, C10a-d
- Epi Info program name: Cmeanincome (unweighted)

Estimated household earnings Description: summary of participant household earnings by quintile.

Instrument question:

- If you don't know the amount, can you give an estimate of the annual household income if I read some options to you?

| Estimated household earnings |                                       |   |   |  |                                   |
|------------------------------|---------------------------------------|---|---|--|-----------------------------------|
| n                            | % Quintile 1: Under \$...<10,000..... | % Quintile 2: \$...10,000...-\$...20,000... | % Quintile 3: \$20,000.....-\$...30,000.... | % Quintile 4: \$..40,000.....-\$.....50,000. | % Quintile 5: Over \$.50,000..... |
| 408                          | 22.5                                  | 33.3  | 21.8  | 8.3  | 14.0                              |

Analysis Information:

- Questions used: C11
- Epi Info program name: Cquintile (unweighted)

## Tobacco Use

Current  
smoking

Description: Current smokers among all respondents.

Instrument questions:

- Have you ever smoked any tobacco products?
- Do you currently smoke any tobacco products, such as cigarettes, cigars, or pipes?
- Do you currently smoke tobacco products daily?

| Percentage of current smokers |            |                        |                  |            |                        |                  |             |                        |                  |
|-------------------------------|------------|------------------------|------------------|------------|------------------------|------------------|-------------|------------------------|------------------|
| Age Group<br>(years)          | Men        |                        |                  | Women      |                        |                  | Both Sexes  |                        |                  |
|                               | n          | %<br>Current<br>smoker | 95% CI           | n          | %<br>Current<br>smoker | 95% CI           | n           | %<br>Current<br>smoker | 95% CI           |
| 18-44                         | 267        | 41.7                   | 37.7-45.7        | 368        | 29.4                   | 26.5-32.3        | 635         | 35.1                   | 32.9-37.4        |
| 45-64                         | 358        | 30.8                   | 26.7-34.9        | 273        | 23.9                   | 18.2-29.5        | 631         | 27.4                   | 23.8-31.1        |
| <b>18-64</b>                  | <b>625</b> | <b>37.9</b>            | <b>34.2-41.5</b> | <b>641</b> | <b>27.7</b>            | <b>24.9-30.5</b> | <b>1266</b> | <b>32.6</b>            | <b>30.7-34.5</b> |

Analysis Information:

- Questions used: T1, T2, T8
- Epi Info program name: Tsmokestatus (unweighted); TsmokestatusWT (weighted)

Smoking  
Status

Description: Smoking status of all respondents.

Instrument questions:

- Have you ever smoked any tobacco products?
- Do you currently smoke any tobacco products, such as cigarettes, cigars, or pipes?
- Do you currently smoke tobacco products daily?

| Smoking status       |            |                |                  |             |                 |               |                  |                |                  |
|----------------------|------------|----------------|------------------|-------------|-----------------|---------------|------------------|----------------|------------------|
| Age Group<br>(years) | Men        |                |                  |             |                 |               |                  |                |                  |
|                      | n          | Current smoker |                  |             |                 | Non-smokers   |                  |                |                  |
|                      |            | % Daily        | 95% CI           | % Non-daily | 95% CI          | % Past smoker | 95% CI           | % Never smoker | 95% CI           |
| 18-44                | 267        | 30.0           | 25.7-34.3        | 11.7        | 8.3-15.1        | 13.0          | 11.0-15.1        | 45.2           | 40.3-50.2        |
| 45-64                | 358        | 25.4           | 21.4-29.4        | 5.4         | 4.1-6.6         | 25.5          | 21.3-29.6        | 43.7           | 39.4-48.1        |
| <b>18-64</b>         | <b>625</b> | <b>28.4</b>    | <b>24.9-31.9</b> | <b>9.5</b>  | <b>6.8-12.1</b> | <b>17.4</b>   | <b>15.4-19.4</b> | <b>44.7</b>    | <b>40.7-48.7</b> |

| Smoking status       |            |                |                  |             |                |               |                  |                |                  |
|----------------------|------------|----------------|------------------|-------------|----------------|---------------|------------------|----------------|------------------|
| Age Group<br>(years) | Women      |                |                  |             |                |               |                  |                |                  |
|                      | n          | Current smoker |                  |             |                | Non-smokers   |                  |                |                  |
|                      |            | % Daily        | 95% CI           | % Non-daily | 95% CI         | % Past smoker | 95% CI           | % Never smoker | 95% CI           |
| 18-44                | 368        | 20.9           | 16.9-25.0        | 8.5         | 6.1-10.8       | 17.7          | 15.2-20.2        | 52.9           | 49.2-56.6        |
| 45-64                | 273        | 19.8           | 14.4-25.1        | 4.1         | 2.5-5.8        | 19.1          | 16.4-21.7        | 57.0           | 51.3-62.7        |
| <b>18-64</b>         | <b>641</b> | <b>20.6</b>    | <b>16.6-24.5</b> | <b>7.1</b>  | <b>5.3-8.9</b> | <b>18.1</b>   | <b>16.1-20.1</b> | <b>54.2</b>    | <b>50.8-57.6</b> |

| Smoking status       |             |                |                  |             |                |               |                  |                |                  |
|----------------------|-------------|----------------|------------------|-------------|----------------|---------------|------------------|----------------|------------------|
| Age Group<br>(years) | Both Sexes  |                |                  |             |                |               |                  |                |                  |
|                      | n           | Current smoker |                  |             |                | Non-smokers   |                  |                |                  |
|                      |             | % Daily        | 95% CI           | % Non-daily | 95% CI         | % Past smoker | 95% CI           | % Never smoker | 95% CI           |
| 18-44                | 635         | 25.2           | 23.0-27.3        | 10.0        | 8.1-11.8       | 15.5          | 13.9-17.2        | 49.4           | 47.0-51.7        |
| 45-64                | 631         | 22.7           | 19.1-26.2        | 4.8         | 3.5-6.0        | 22.4          | 19.8-24.9        | 50.2           | 46.9-53.5        |
| <b>18-64</b>         | <b>1266</b> | <b>24.3</b>    | <b>22.3-26.4</b> | <b>8.3</b>  | <b>6.7-9.9</b> | <b>17.8</b>   | <b>16.3-19.2</b> | <b>49.6</b>    | <b>47.8-51.4</b> |

Analysis Information:

- Questions used: T1, T2, T8
- Epi Info program name: Tsmokestatus (unweighted); TsmokestatusWT (weighted)

Frequency of smoking Description: Percentage of current daily smokers among smokers.

Instrument question:

- Do you currently smoke any tobacco products, such as cigarettes, cigars, or pipes?
- Do you currently smoke tobacco products daily?

| Current daily smokers among smokers |            |                 |                  |            |                 |                  |            |                 |                  |
|-------------------------------------|------------|-----------------|------------------|------------|-----------------|------------------|------------|-----------------|------------------|
| Age Group (years)                   | Men        |                 |                  | Women      |                 |                  | Both Sexes |                 |                  |
|                                     | n          | % Daily smokers | 95% CI           | n          | % Daily smokers | 95% CI           | n          | % Daily smokers | 95% CI           |
| 18-44                               | 111        | 72.0            | 64.1-79.8        | 98         | 71.2            | 61.9-80.5        | 209        | 71.6            | 66.9-76.3        |
| 45-64                               | 115        | 82.6            | 78.4-86.7        | 63         | 82.7            | 75.6-89.7        | 178        | 82.6            | 77.9-87.3        |
| <b>18-64</b>                        | <b>226</b> | <b>75.0</b>     | <b>68.5-81.5</b> | <b>161</b> | <b>74.2</b>     | <b>66.0-82.4</b> | <b>387</b> | <b>74.7</b>     | <b>69.9-79.4</b> |

Analysis Information:

- Questions used: T1, T2
- Epi Info program name: Tsmokefreq (unweighted); TsmokefreqWT (weighted)

Initiation of smoking Description: Mean age of initiation and mean duration of smoking, in years, among daily smokers (no total age group for mean duration of smoking as age influences these values).

Instrument questions:

- How old were you when you first started smoking daily?
- Do you remember how long ago it was?

| Mean age started smoking |            |             |                  |            |             |                  |            |             |                  |
|--------------------------|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
| Age Group (years)        | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|                          | n          | Mean age    | 95% CI           | n          | Mean age    | 95% CI           | n          | Mean age    | 95% CI           |
| 18-44                    | 80         | 17.9        | 17.6-18.3        | 66         | 17.6        | 16.7-18.5        | 146        | 17.8        | 17.4-18.2        |
| 45-64                    | 88         | 20.5        | 19.1-21.9        | 51         | 23.6        | 21.3-25.9        | 139        | 21.8        | 21.0-22.6        |
| <b>18-64</b>             | <b>168</b> | <b>18.7</b> | <b>18.1-19.3</b> | <b>117</b> | <b>19.3</b> | <b>18.5-20.2</b> | <b>285</b> | <b>19.0</b> | <b>18.7-19.3</b> |

| Mean age started smoking |            |             |                  |            |             |                  |            |             |                  |
|--------------------------|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
| Age Group (years)        | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|                          | n          | Mean age    | 95% CI           | n          | Mean age    | 95% CI           | n          | Mean age    | 95% CI           |
| 18-44                    | 80         | 15.0        | 13.8-16.1        | 66         | 11.7        | 9.9-13.5         | 146        | 13.5        | 12.9-14.1        |
| 45-64                    | 88         | 32.0        | 30.8-33.2        | 51         | 28.7        | 26.5-30.8        | 139        | 30.6        | 29.9-31.2        |
| <b>18-64</b>             | <b>168</b> | <b>18.7</b> | <b>19.1-21.3</b> | <b>117</b> | <b>16.6</b> | <b>14.4-18.9</b> | <b>285</b> | <b>18.6</b> | <b>17.4-19.8</b> |

Analysis Information:

- Questions used: T1, T2, T3, T4a-c
- Epi Info program name: Tsmokeagetime (unweighted); TsmokeagetimeWT (weighted)
- 

Manufactured cigarette smokers Description: Percentage of smokers who use manufactured cigarettes among daily smokers and among current smokers.

Instrument question:

- On average, how many of the following do you smoke each day?

| Manufactured cigarette smokers among daily smokers |            |                                 |                  |            |                                 |                  |            |                                 |                  |
|--|------------|---------------------------------|------------------|------------|---------------------------------|------------------|------------|---------------------------------|------------------|
| Age Group (years)                                  | Men        |                                 |                  | Women      |                                 |                  | Both Sexes |                                 |                  |
|  | n          | % Manufactured cigarette smoker | 95% CI           | n          | % Manufactured cigarette smoker | 95% CI           | n          | % Manufactured cigarette smoker | 95% CI           |
| 18-44  | 71         | 95.4                            | 91.6-99.1        | 67         | 90.6                            | 83.5-97.7        | 138        | 93.1                            | 88.5-97.7        |
| 45-64  | 76         | 66.0                            | 53.4-78.5        | 52         | 95.0                            | 89.8-100.0       | 128        | 79.3                            | 73.3-85.3        |
| <b>18-64</b>                                       | <b>147</b> | <b>86.4</b>                     | <b>79.3-93.5</b> | <b>119</b> | <b>91.9</b>                     | <b>87.6-96.1</b> | <b>266</b> | <b>89.0</b>                     | <b>84.8-93.1</b> |

| Manufactured cigarette smokers among current smokers |            |                                 |                  |            |                                 |                  |            |                                 |                  |
|--|------------|---------------------------------|------------------|------------|---------------------------------|------------------|------------|---------------------------------|------------------|
| Age Group (years)                                    | Men        |                                 |                  | Women      |                                 |                  | Both Sexes |                                 |                  |
|  | n          | % Manufactured cigarette smoker | 95% CI           | n          | % Manufactured cigarette smoker | 95% CI           | n          | % Manufactured cigarette smoker | 95% CI           |
| 18-44  | 96         | 95.1                            | 92.0-98.3        | 94         | 92.2                            | 87.2-97.3        | 190        | 93.8                            | 90.3-97.2        |
| 45-64  | 91         | 66.5                            | 55.5-77.6        | 60         | 92.2                            | 85.6-98.7        | 151        | 78.4                            | 72.5-84.2        |
| <b>18-64</b>   | <b>187</b> | <b>87.4</b>                     | <b>81.6-93.3</b> | <b>154</b> | <b>92.2</b>                     | <b>88.4-96.0</b> | <b>341</b> | <b>89.7</b>                     | <b>85.6-93.7</b> |

#### Analysis Information:

- Questions used: T1, T2, T5a, T5aw
- Epi Info program name: Tsmokeman (unweighted); TsmokemanWT (weighted)

Amount of tobacco used among smokers by type

Description: Mean amount of tobacco used by daily smokers per day, by type.

Instrument question:

- On average, how many of the following do you smoke each day?

| Mean amount of tobacco used by daily smokers by type |            |                             |                 |            |                            |                |            |                            |          |
|--|------------|-----------------------------|-----------------|------------|----------------------------|----------------|------------|----------------------------|----------|
| Age Group (years)                                    | Men        |                             |                 |            |                            |                |            |                            |          |
|  | n          | Mean # of manufactured cig. | 95% CI          | n          | Mean # of hand-rolled cig. | 95% CI         | n          | Mean # of pipes of tobacco | 95% CI   |
| 18-44  | 71         | 10.3                        | 8.2-12.4        | 75         | 4.0                        | 3.1-4.8        | 72         | 0.0                        | -        |
| 45-64  | 74         | 8.3                         | 5.8-10.8        | 81         | 6.7                        | 5.6-7.8        | 76         | 0.0                        | -        |
| <b>18-64</b>   | <b>145</b> | <b>9.7</b>                  | <b>8.4-11.0</b> | <b>156</b> | <b>4.8</b>                 | <b>4.2-5.4</b> | <b>148</b> | <b>0.0</b>                 | <b>-</b> |

| Mean amount of tobacco used by daily smokers by type |            |  |                |            |                                 |                |
|--|------------|--|----------------|------------|---------------------------------|----------------|
| Age Group (years)                                    | Men        |  |                |            |                                 |                |
|  | n          | Mean # of cigars, cheerots, cigarillos | 95% CI         | n          | Mean # of other type of tobacco | 95% CI         |
| 18-44  | 72         | 0.0                                    | 0.0-0.1        | 71         | 0.5                             | 0.2-0.7        |
| 45-64  | 78         | 0.4                                    | 0.1-0.7        | 76         | 0.1                             | 0.0-0.4        |
| <b>18-64</b>   | <b>150</b> | <b>0.1</b>                             | <b>0.1-0.2</b> | <b>147</b> | <b>0.3</b>                      | <b>0.2-0.5</b> |

| Mean amount of tobacco used by daily smokers by type |            |                             |                 |            |                            |                |            |                            |        |
|--|------------|-----------------------------|-----------------|------------|----------------------------|----------------|------------|----------------------------|--------|
| Age Group (years)                                    | Women      |                             |                 |            |                            |                |            |                            |        |
|  | n          | Mean # of manufactured cig. | 95% CI          | n          | Mean # of hand-rolled cig. | 95% CI         | n          | Mean # of pipes of tobacco | 95% CI |
| 18-44  | 66         | 8.6                         | 6.1-11.2        | 68         | 2.4                        | 1.8-3.0        | 69         | 0.0                        | -      |
| 45-64  | 52         | 12.0                        | 8.4-15.5        | 51         | 1.9                        | 0.6-3.3        | 49         | 0.0                        | -      |
| <b>18-64</b>   | <b>118</b> | <b>9.6</b>                  | <b>7.2-12.0</b> | <b>119</b> | <b>2.3</b>                 | <b>1.8-2.7</b> | <b>118</b> | <b>0.0</b>                 | -      |

| Mean amount of tobacco used by daily smokers by type |            |  |                |            |                                 |                |
|--|------------|--|----------------|------------|---------------------------------|----------------|
| Age Group (years)                                    | Women      |  |                |            |                                 |                |
|  | n          | Mean # of cigars, cheerots, cigarillos | 95% CI         | n          | Mean # of other type of tobacco | 95% CI         |
| 18-44  | 68         | 0.1                                    | 0.0-0.1        | 66         | 0.1                             | 0.0-0.3        |
| 45-64  | 49         | 0.2                                    | 0.0-0.8        | 49         | 0.0                             | -              |
| <b>18-64</b>   | <b>117</b> | <b>0.1</b>                             | <b>0.0-0.3</b> | <b>115</b> | <b>0.1</b>                      | <b>0.0-0.2</b> |

| Mean amount of tobacco used by daily smokers by type |            |                             |                 |            |                            |                |            |                            |        |
|--|------------|-----------------------------|-----------------|------------|----------------------------|----------------|------------|----------------------------|--------|
| Age Group (years)                                    | Both Sexes |                             |                 |            |                            |                |            |                            |        |
|  | n          | Mean # of manufactured cig. | 95% CI          | n          | Mean # of hand-rolled cig. | 95% CI         | n          | Mean # of pipes of tobacco | 95% CI |
| 18-44  | 137        | 9.5                         | 8.6-10.4        | 143        | 3.3                        | 2.7-3.8        | 141        | 0.0                        | -      |
| 45-64  | 126        | 10.0                        | 7.4-12.6        | 132        | 4.6                        | 3.3-5.9        | 125        | 0.0                        | -      |
| <b>18-64</b>   | <b>263</b> | <b>9.7</b>                  | <b>8.9-10.5</b> | <b>275</b> | <b>3.7</b>                 | <b>3.3-4.0</b> | <b>266</b> | <b>0.0</b>                 | -      |

| Mean amount of tobacco used by daily smokers by type |            |  |                |            |                                 |                |
|--|------------|--|----------------|------------|---------------------------------|----------------|
| Age Group (years)                                    | Both Sexes |  |                |            |                                 |                |
|  | n          | Mean # of cigars, cheerots, cigarillos | 95% CI         | n          | Mean # of other type of tobacco | 95% CI         |
| 18-44  | 140        | 0.0                                    | 0.0-0.1        | 137        | 0.3                             | 0.2-0.4        |
| 45-64  | 127        | 0.3                                    | 0.1-0.6        | 125        | 0.1                             | 0.0-0.2        |
| <b>18-64</b>   | <b>267</b> | <b>0.1</b>                             | <b>0.1-0.2</b> | <b>262</b> | <b>0.2</b>                      | <b>0.1-0.3</b> |

#### Analysis Information:

- Questions used: T1, T2, T5a-T5f
- Epi Info program name: Tsmoketype (unweighted); TsmoketypeWT (weighted)

Smoked tobacco consumption Description: Percentage of current smokers who smoke each of the following products.

Instrument question:

- On average, how many of the following do you smoke each day/week?

| Percentage of current smokers smoking each of the following products |            |                |                  |                     |                  |                    |        |
|--|------------|----------------|------------------|---------------------|------------------|--------------------|--------|
| Age Group (years)  | Men        |                |                  |                     |                  |                    |        |
|  | n          | % manuf. cigs. | 95% CI           | % hand-rolled cigs. | 95% CI           | % pipes of tobacco | 95% CI |
| 18-44  | 111        | 84.2           | 80.8-87.5        | 38.8                | 30.4-47.3        | -                  | -      |
| 45-64  | 115        | 54.0           | 46.2-61.9        | 61.3                | 54.3-68.3        | -                  | -      |
| <b>18-64</b>   | <b>226</b> | <b>75.6</b>    | <b>70.2-81.0</b> | <b>45.3</b>         | <b>39.5-51.1</b> | -                  | -      |

| Percentage of current smokers smoking each of the following products |            |                                |                |            |                |
|--|------------|--------------------------------|----------------|------------|----------------|
| Age Group (years)  | Men        |                                |                |            |                |
|  | n          | % cigars, cheroots, cigarillos | 95% CI         | % other    | 95% CI         |
| 18-44  | 111        | 1.8                            | 0.0-6.5        | 4.7        | 1.9-7.4        |
| 45-64  | 115        | 1.7                            | 0.7-2.8        | 2.4        | 0.0-6.7        |
| <b>18-64</b>   | <b>226</b> | <b>1.8</b>                     | <b>0.0-5.0</b> | <b>4.0</b> | <b>2.6-5.5</b> |

| Percentage of current smokers smoking each of the following products |            |                |                  |                     |                  |                    |        |
|--|------------|----------------|------------------|---------------------|------------------|--------------------|--------|
| Age Group (years)  | Women      |                |                  |                     |                  |                    |        |
|  | n          | % manuf. cigs. | 95% CI           | % hand-rolled cigs. | 95% CI           | % pipes of tobacco | 95% CI |
| 18-44  | 98         | 90.1           | 85.9-94.3        | 30.8                | 23.8-37.8        | -                  | -      |
| 45-64  | 63         | 88.4           | 81.7-95.2        | 34.7                | 20.9-48.5        | -                  | -      |
| <b>18-64</b>   | <b>161</b> | <b>89.7</b>    | <b>86.8-92.5</b> | <b>31.8</b>         | <b>27.1-36.5</b> | -                  | -      |

| Percentage of current smokers smoking each of the following products |            |                                |                |            |                |
|--|------------|--------------------------------|----------------|------------|----------------|
| Age Group (years)  | Women      |                                |                |            |                |
|  | n          | % cigars, cheroots, cigarillos | 95% CI         | % other    | 95% CI         |
| 18-44  | 98         | 1.3                            | 0.0-2.8        | 5.9        | 2.0-9.9        |
| 45-64  | 63         | 2.3                            | 0.0-7.9        | 2.3        | 0.0-7.9        |
| <b>18-64</b>   | <b>161</b> | <b>1.6</b>                     | <b>0.0-3.6</b> | <b>5.0</b> | <b>1.7-8.3</b> |

| Percentage of current smokers smoking each of the following products |            |                |                  |                     |                  |                    |        |
|--|------------|----------------|------------------|---------------------|------------------|--------------------|--------|
| Age Group (years)  | Both Sexes |                |                  |                     |                  |                    |        |
|  | n          | % manuf. cigs. | 95% CI           | % hand-rolled cigs. | 95% CI           | % pipes of tobacco | 95% CI |
| 18-44  | 209        | 86.8           | 84.2-89.4        | 35.2                | 28.9-41.6        | -                  | -      |
| 45-64  | 178        | 68.5           | 64.3-72.8        | 50.1                | 40.8-59.3        | -                  | -      |
| <b>18-64</b>   | <b>387</b> | <b>81.8</b>    | <b>78.8-84.7</b> | <b>39.3</b>         | <b>35.9-42.8</b> | -                  | -      |

| Percentage of current smokers smoking each of the following products |                                |                |            |                |
|--|--------------------------------|----------------|------------|----------------|
| Age Group (years)  |                                |                |            |                |
|  | % cigars, cheroots, cigarillos | 95% CI         | % other    | 95% CI         |
| 18-44  | 1.6                            | 0.0-4.4        | 5.2        | 3.3-7.2        |
| 45-64  | 2.0                            | 0.0-4.2        | 2.4        | 0.0-6.3        |
| <b>18-64</b>   | <b>1.7</b>                     | <b>0.0-3.9</b> | <b>4.5</b> | <b>3.1-5.8</b> |

#### Analysis Information:

- Questions used: T1, T2, T5a-T5fw
- Epi Info program name: Tsmoketypeprev (unweighted); TsmoketypeprevWT (weighted)

Cigarette smoking

Description: Percentage of daily cigarette smokers smoking given quantities of manufactured or hand-rolled cigarettes per day.

Instrument question:

- On average, how many of the following do you smoke each day?

| Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day |            |               |                  |                |                  |                  |                  |                  |                |                 |                  |
|--|------------|---------------|------------------|----------------|------------------|------------------|------------------|------------------|----------------|-----------------|------------------|
| Age Group (years)  | Men        |               |                  |                |                  |                  |                  |                  |                |                 |                  |
|  | n          | % <5<br>cigs. | 95% CI           | % 5-9<br>cigs. | 95% CI           | % 10-14<br>cigs. | 95% CI           | % 15-24<br>cigs. | 95% CI         | % ≥ 25<br>cigs. | 95% CI           |
| 18-44  | 69         | 33.0          | 26.5-39.5        | 18.9           | 12.5-25.3        | 23.5             | 14.1-32.8        | 8.4              | 5.1-11.8       | 16.2            | 12.1-20.4        |
| 45-64  | 68         | 28.6          | 21.5-35.7        | 33.0           | 19.2-46.7        | 18.1             | 11.0-25.2        | 3.3              | 0.0-6.7        | 17.0            | 4.4-29.6         |
| <b>18-64</b>   | <b>137</b> | <b>31.7</b>   | <b>26.5-36.8</b> | <b>23.1</b>    | <b>16.0-30.2</b> | <b>21.9</b>      | <b>15.6-28.1</b> | <b>6.9</b>       | <b>4.6-9.2</b> | <b>16.5</b>     | <b>13.3-19.6</b> |

| Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day |            |               |                  |                |                 |                  |                  |                  |                  |                 |                 |
|--|------------|---------------|------------------|----------------|-----------------|------------------|------------------|------------------|------------------|-----------------|-----------------|
| Age Group (years)  | Women      |               |                  |                |                 |                  |                  |                  |                  |                 |                 |
|  | n          | % <5<br>cigs. | 95% CI           | % 5-9<br>cigs. | 95% CI          | % 10-14<br>cigs. | 95% CI           | % 15-24<br>cigs. | 95% CI           | % ≥ 25<br>cigs. | 95% CI          |
| 18-44  | 64         | 29.1          | 23.5-34.6        | 14.2           | 8.4-20.0        | 33.9             | 24.0-43.8        | 15.5             | 9.6-21.4         | 7.4             | 0.4-14.4        |
| 45-64  | 50         | 20.6          | 12.0-29.2        | 14.0           | 7.1-20.8        | 33.1             | 18.4-47.8        | 10.3             | 1.7-18.9         | 22.1            | 8.3-35.8        |
| <b>18-64</b>   | <b>114</b> | <b>26.6</b>   | <b>22.1-31.0</b> | <b>14.1</b>    | <b>9.7-18.5</b> | <b>33.7</b>      | <b>26.1-41.2</b> | <b>14.0</b>      | <b>10.0-17.9</b> | <b>11.7</b>     | <b>4.0-19.4</b> |

| Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day |            |               |                  |                |                  |                  |                  |                  |                 |                 |                  |
|--|------------|---------------|------------------|----------------|------------------|------------------|------------------|------------------|-----------------|-----------------|------------------|
| Age Group (years)  | Both Sexes |               |                  |                |                  |                  |                  |                  |                 |                 |                  |
|  | n          | % <5<br>cigs. | 95% CI           | % 5-9<br>cigs. | 95% CI           | % 10-14<br>cigs. | 95% CI           | % 15-24<br>cigs. | 95% CI          | % ≥ 25<br>cigs. | 95% CI           |
| 18-44  | 133        | 31.1          | 26.5-35.7        | 16.6           | 10.8-22.4        | 28.5             | 19.7-37.3        | 11.8             | 8.0-15.6        | 12.0            | 9.2-14.8         |
| 45-64  | 118        | 24.8          | 19.3-30.3        | 23.9           | 14.9-33.0        | 25.2             | 16.1-34.3        | 6.6              | 2.2-11.0        | 19.4            | 8.1-30.7         |
| <b>18-64</b>   | <b>251</b> | <b>29.2</b>   | <b>26.0-32.4</b> | <b>18.8</b>    | <b>13.1-24.5</b> | <b>27.5</b>      | <b>21.5-33.5</b> | <b>10.3</b>      | <b>7.9-12.6</b> | <b>14.2</b>     | <b>10.1-18.2</b> |

Analysis Information:

- Questions used: T1, T2, T5a, T5b
- Epi Info program name: Tcigs (unweighted); TcigsWT (weighted)

Ex-daily smokers & ex-smokers Description: Percentage of ex-daily smokers among all respondents and among ex-smokers, and the mean duration, in years, since ex-smokers quit smoking.

Instrument question:

- In the past did you ever smoke?
- How old were you when you stopped smoking?

| Ex-daily smokers among all respondents (includes current non-daily smokers) |            |                    |                  |            |                    |                 |             |                    |                  |
|---|------------|--------------------|------------------|------------|--------------------|-----------------|-------------|--------------------|------------------|
| Age Group (years)   | Men        |                    |                  | Women      |                    |                 | Both Sexes  |                    |                  |
|   | n          | % ex-daily smokers | 95% CI           | n          | % ex-daily smokers | 95% CI          | n           | % ex-daily smokers | 95% CI           |
| 18-44   | 267        | 11.4               | 7.4-15.5         | 368        | 9.1                | 7.6-10.5        | 635         | 10.2               | 8.2-12.1         |
| 45-64   | 358        | 17.5               | 14.1-20.9        | 273        | 13.4               | 10.6-16.2       | 631         | 15.5               | 13.5-17.5        |
| <b>18-64</b>  | <b>625</b> | <b>13.5</b>        | <b>10.8-16.3</b> | <b>641</b> | <b>10.4</b>        | <b>9.0-11.8</b> | <b>1266</b> | <b>11.9</b>        | <b>10.3-13.5</b> |

| Ex-daily smokers among ex-smokers |            |                    |                  |            |                    |                  |            |                    |                  |
|-----------------------------------|------------|--------------------|------------------|------------|--------------------|------------------|------------|--------------------|------------------|
| Age Group (years)                 | Men        |                    |                  | Women      |                    |                  | Both Sexes |                    |                  |
|                                   | n          | % ex-daily smokers | 95% CI           | n          | % ex-daily smokers | 95% CI           | n          | % ex-daily smokers | 95% CI           |
| 18-44                             | 35         | 48.5               | 30.8-66.2        | 68         | 38.6               | 32.7-44.4        | 103        | 42.4               | 34.7-50.2        |
| 45-64                             | 92         | 63.5               | 55.5-71.6        | 57         | 61.6               | 52.3-70.9        | 149        | 62.7               | 57.5-67.9        |
| <b>18-64</b>                      | <b>127</b> | <b>56.2</b>        | <b>44.7-67.8</b> | <b>125</b> | <b>46.0</b>        | <b>40.5-51.5</b> | <b>252</b> | <b>50.8</b>        | <b>44.9-56.7</b> |



| Mean years since cessation |            |               |                  |            |               |                 |            |               |                  |
|----------------------------|------------|---------------|------------------|------------|---------------|-----------------|------------|---------------|------------------|
| Age Group<br>(years)       | Men        |               |                  | Women      |               |                 | Both Sexes |               |                  |
|                            | n          | Mean<br>years | 95% CI           | n          | Mean<br>years | 95% CI          | n          | Mean<br>years | 95% CI           |
| 18-44                      | 30         | 9.3           | 5.4-13.3         | 61         | 7.1           | 6.1-8.2         | 91         | 7.9           | 6.1-9.8          |
| 45-64                      | 87         | 17.2          | 15.7-18.7        | 53         | 21.9          | 18.4-25.3       | 140        | 19.0          | 17.3-20.8        |
| <b>18-64</b>               | <b>117</b> | <b>13.6</b>   | <b>11.7-15.6</b> | <b>114</b> | <b>11.8</b>   | <b>9.6-14.0</b> | <b>231</b> | <b>12.6</b>   | <b>10.7-14.6</b> |

Analysis Information:

- Questions used: T1, T2, T8, T9, T10, T11a-c
- Epi Info program name: Tsmokeexdaily (unweighted); TsmokeexdailyWT (weighted)

Cessation Description: Percentage of current smokers who have tried to stop smoking during the past 12 months.

Instrument question:

- During the past 12 months, have you tried to stop smoking?

| Current smokers who have tried to stop smoking |            |             |                  |            |             |                  |            |             |                  |
|--|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
| Age Group<br>(years)                           | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|  | n          | %           | 95% CI           | n          | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44  | 111        | 67.2        | 62.0-72.4        | 98         | 67.3        | 58.9-75.7        | 209        | 67.3        | 62.8-71.7        |
| 45-64  | 115        | 65.5        | 54.1-77.0        | 63         | 71.7        | 54.1-89.3        | 178        | 68.1        | 64.2-72.0        |
| <b>18-64</b>                                   | <b>226</b> | <b>66.7</b> | <b>62.2-71.3</b> | <b>161</b> | <b>68.5</b> | <b>63.5-73.4</b> | <b>387</b> | <b>67.5</b> | <b>64.0-71.0</b> |

Analysis Information:

- Questions used: T1, T2, T6
- Epi Info program name: Tcessation (unweighted); TcessationWT (weighted)

Advice to stop smoking Description: Percentage of current smokers who have been advised by a doctor or other health worker to stop smoking, among those smokers who have had a visit to a doctor or other health worker in the past 12 months.

Instrument question:

- During any visit to a doctor or other health worker in the past 12 months, were you advised to quit smoking tobacco?

| Current smokers who have been advised by doctor to quit smoking |            |             |                  |            |             |                  |            |             |                  |
|---|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
| Age Group<br>(years)  | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|   | n          | %           | 95% CI           | n          | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44   | 90         | 51.9        | 46.7-57.1        | 89         | 55.4        | 48.0-62.8        | 179        | 53.6        | 49.3-57.8        |
| 45-64   | 103        | 61.9        | 44.3-79.5        | 57         | 65.4        | 52.1-78.8        | 160        | 63.4        | 55.7-71.2        |
| <b>18-64</b>  | <b>193</b> | <b>55.1</b> | <b>46.4-63.8</b> | <b>146</b> | <b>58.1</b> | <b>51.1-65.1</b> | <b>339</b> | <b>56.5</b> | <b>52.2-60.9</b> |

Analysis Information:

- Questions used: T1, T2, T7
- Epi Info program name: Tcessation (unweighted); TcessationWT (weighted)

Exposure to second-hand smoke in home in past 7 days Description: Percentage of respondents exposed second-hand smoke in the home on one or more days in the past 7 days.

Instrument question:

- In the past 7 days, how many days did someone in the house smoke when you were present?

| Exposed to second-hand smoke in home on 1 or more of the past 7 days |            |             |                  |            |             |                  |             |             |                  |
|--|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
| Age Group (years)  | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|  | n          | % Exposed   | 95% CI           | n          | % Exposed   | 95% CI           | n           | % Exposed   | 95% CI           |
| 18-44  | 248        | 36.1        | 30.4-41.9        | 347        | 42.8        | 39.3-46.2        | 595         | 39.7        | 35.8-43.6        |
| 45-64  | 341        | 33.9        | 28.8-39.0        | 266        | 28.0        | 22.4-33.6        | 607         | 31.0        | 28.7-33.4        |
| <b>18-64</b>   | <b>589</b> | <b>35.3</b> | <b>30.1-40.6</b> | <b>613</b> | <b>38.1</b> | <b>35.7-40.4</b> | <b>1202</b> | <b>36.8</b> | <b>33.8-39.7</b> |

Analysis Information:

- Questions used: T17
- Epi Info program name: Tetshome (unweighted); TetshomeWT (weighted)

Exposure to second-hand smoke in the workplace in past 7 days

Description: Percentage of respondents exposed to second-hand smoke in the workplace on one or more days in the past 7 days.

Instrument question:

- In the past 7 days, how many days did someone smoke in closed areas in your workplace (in the building, in a work area or a specific office) when you were present?

| Exposed to second-hand smoke in the workplace on 1 or more of the past 7 days |            |             |                  |            |             |                  |             |             |                  |
|---|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
| Age Group (years)   | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|   | n          | % Exposed   | 95% CI           | n          | % Exposed   | 95% CI           | n           | % Exposed   | 95% CI           |
| 18-44   | 243        | 43.0        | 39.4-46.6        | 345        | 31.8        | 27.3-36.4        | 588         | 37.0        | 34.6-39.3        |
| 45-64   | 339        | 47.8        | 41.9-53.7        | 264        | 30.1        | 26.0-34.3        | 603         | 39.1        | 35.2-43.0        |
| <b>18-64</b>  | <b>582</b> | <b>44.7</b> | <b>40.6-48.9</b> | <b>609</b> | <b>31.3</b> | <b>27.5-35.1</b> | <b>1191</b> | <b>37.7</b> | <b>35.7-39.7</b> |

Analysis Information:

- Questions used: T18
- Epi Info program name: Tetswork (unweighted); TetsworkWT (weighted)

## Alcohol Consumption

Alcohol consumption status

Description: Alcohol consumption status of all respondents.

Instrument questions:

- Have you ever consumed an alcoholic drink such as ...?
- Have you consumed an alcoholic drink in the past 12 months?
- Have you consumed an alcoholic drink in the past 30 days?

| Alcohol consumption status |            |                                  |                  |  |                 |                            |                  |                      |                  |
|----------------------------|------------|----------------------------------|------------------|--|-----------------|----------------------------|------------------|----------------------|------------------|
| Age Group (years)          | Men        |                                  |                  |  |                 |                            |                  |                      |                  |
|                            | n          | % Current drinker (past 30 days) | 95% CI           | % Drank in past 12 months, not current | 95% CI          | % Past 12 months abstainer | 95% CI           | % Lifetime abstainer | 95% CI           |
| 18-44                      | 267        | 60.0                             | 56.0-63.9        | 10.3                                   | 8.6-12.1        | 13.5                       | 11.5-15.5        | 16.2                 | 13.0-19.4        |
| 45-64                      | 359        | 51.0                             | 46.1-56.0        | 9.9                                    | 7.2-12.5        | 13.9                       | 10.6-17.3        | 25.2                 | 21.9-28.4        |
| <b>18-64</b>               | <b>626</b> | <b>56.8</b>                      | <b>54.5-59.2</b> | <b>10.2</b>                            | <b>8.5-11.9</b> | <b>13.6</b>                | <b>11.9-15.4</b> | <b>19.4</b>          | <b>17.6-21.1</b> |

| Alcohol consumption status |            |                                  |                  |  |                  |                            |                  |                      |                  |
|----------------------------|------------|----------------------------------|------------------|--|------------------|----------------------------|------------------|----------------------|------------------|
| Age Group (years)          | Women      |                                  |                  |  |                  |                            |                  |                      |                  |
|                            | n          | % Current drinker (past 30 days) | 95% CI           | % Drank in past 12 months, not current | 95% CI           | % Past 12 months abstainer | 95% CI           | % Lifetime abstainer | 95% CI           |
| 18-44                      | 368        | 39.9                             | 33.4-46.3        | 24.8                                   | 20.9-28.8        | 11.7                       | 10.0-13.5        | 23.6                 | 20.5-26.7        |
| 45-64                      | 272        | 28.4                             | 21.7-35.1        | 15.1                                   | 12.5-17.7        | 20.9                       | 17.3-24.5        | 35.6                 | 27.4-43.7        |
| <b>18-64</b>               | <b>640</b> | <b>36.4</b>                      | <b>30.4-42.3</b> | <b>21.9</b>                            | <b>18.5-25.3</b> | <b>14.5</b>                | <b>13.1-16.0</b> | <b>27.2</b>          | <b>23.3-31.2</b> |

| Alcohol consumption status |             |                                  |                  |  |                  |                            |                  |                      |                  |
|----------------------------|-------------|----------------------------------|------------------|--|------------------|----------------------------|------------------|----------------------|------------------|
| Age Group (years)          | Both Sexes  |                                  |                  |  |                  |                            |                  |                      |                  |
|                            | n           | % Current drinker (past 30 days) | 95% CI           | % Drank in past 12 months, not current | 95% CI           | % Past 12 months abstainer | 95% CI           | % Lifetime abstainer | 95% CI           |
| 18-44                      | 635         | 49.2                             | 44.6-53.8        | 18.1                                   | 15.5-20.7        | 12.5                       | 11.5-13.6        | 20.1                 | 17.8-22.5        |
| 45-64                      | 631         | 40.1                             | 37.2-43.0        | 12.4                                   | 10.5-14.3        | 17.3                       | 14.4-20.2        | 30.2                 | 26.3-34.1        |
| <b>18-64</b>               | <b>1266</b> | <b>46.2</b>                      | <b>42.8-49.6</b> | <b>16.2</b>                            | <b>13.8-18.6</b> | <b>14.1</b>                | <b>12.8-15.4</b> | <b>23.4</b>          | <b>21.2-25.7</b> |

Analysis Information:

- Questions used: A1a, A1b, A3
- Epi Info program name: Aconsumption (unweighted); AconsumptionWT (weighted)

Frequency of alcohol consumption      Description: Frequency of alcohol consumption in the past 12 months among those respondents who have drank in the last 12 months.

Instrument question:

- During the past 12 months, how frequently have you had at least one alcoholic drink?

| Frequency of alcohol consumption in the past 12 months |            |            |                |                    |                |                    |                  |                     |                  |                  |                  |
|--|------------|------------|----------------|--------------------|----------------|--------------------|------------------|---------------------|------------------|------------------|------------------|
| Age Group (years)                                      | Men        |            |                |                    |                |                    |                  |                     |                  |                  |                  |
|  | n          | % Daily    | 95% CI         | % 5-6 days p. week | 95% CI         | % 1-4 days p. week | 95% CI           | % 1-3 days p. month | 95% CI           | % < once a month | 95% CI           |
| 18-44  | 191        | 2.5        | 1.5-3.5        | 5.1                | 2.8-7.4        | 26.6               | 22.1-31.1        | 43.5                | 38.7-48.4        | 22.2             | 18.5-25.9        |
| 45-64  | 222        | 4.9        | 2.7-7.2        | 3.9                | 1.9-5.8        | 33.9               | 29.4-38.4        | 31.5                | 26.6-36.4        | 25.7             | 20.3-31.1        |
| <b>18-64</b>   | <b>413</b> | <b>3.3</b> | <b>2.3-4.3</b> | <b>4.7</b>         | <b>3.1-6.4</b> | <b>28.9</b>        | <b>25.1-32.8</b> | <b>39.7</b>         | <b>35.9-43.5</b> | <b>23.3</b>      | <b>20.7-26.0</b> |

| Frequency of alcohol consumption in the past 12 months |            |            |                |                    |                |                    |                  |                     |                  |                  |                  |
|--|------------|------------|----------------|--------------------|----------------|--------------------|------------------|---------------------|------------------|------------------|------------------|
| Age Group (years)                                      | Women      |            |                |                    |                |                    |                  |                     |                  |                  |                  |
|  | n          | % Daily    | 95% CI         | % 5-6 days p. week | 95% CI         | % 1-4 days p. week | 95% CI           | % 1-3 days p. month | 95% CI           | % < once a month | 95% CI           |
| 18-44  | 231        | 0.3        | 0.0-1.1        | 1.1                | 0.4-1.8        | 17.3               | 13.9-20.6        | 36.1                | 32.2-39.9        | 45.3             | 41.0-49.6        |
| 45-64  | 120        | 3.3        | 0.7-5.8        | 1.0                | 0.4-1.6        | 13.4               | 8.8-18.1         | 27.2                | 20.2-34.3        | 55.1             | 46.1-64.0        |
| <b>18-64</b>   | <b>351</b> | <b>1.0</b> | <b>0.0-1.9</b> | <b>1.0</b>         | <b>0.5-1.6</b> | <b>16.4</b>        | <b>13.7-19.1</b> | <b>34.1</b>         | <b>30.4-37.7</b> | <b>47.5</b>      | <b>43.9-51.1</b> |

| Frequency of alcohol consumption in the past 12 months |            |            |                |                    |                |                    |                  |                     |                  |                  |                  |
|--|------------|------------|----------------|--------------------|----------------|--------------------|------------------|---------------------|------------------|------------------|------------------|
| Age Group (years)                                      | Both Sexes |            |                |                    |                |                    |                  |                     |                  |                  |                  |
|  | n          | % Daily    | 95% CI         | % 5-6 days p. week | 95% CI         | % 1-4 days p. week | 95% CI           | % 1-3 days p. month | 95% CI           | % < once a month | 95% CI           |
| 18-44  | 422        | 1.4        | 0.9-1.9        | 3.1                | 2.1-4.0        | 21.8               | 19.1-24.5        | 39.7                | 36.6-42.8        | 34.0             | 31.9-36.1        |
| 45-64  | 342        | 4.3        | 2.5-6.0        | 2.7                | 1.4-4.1        | 25.8               | 22.4-29.3        | 29.8                | 26.4-33.3        | 37.3             | 34.2-40.4        |
| <b>18-64</b>   | <b>764</b> | <b>2.2</b> | <b>1.6-2.8</b> | <b>3.0</b>         | <b>2.2-3.7</b> | <b>22.9</b>        | <b>20.5-25.3</b> | <b>37.0</b>         | <b>34.4-39.6</b> | <b>34.9</b>      | <b>33.2-36.7</b> |

Analysis Information:

- Questions used: A1a, A1b, A2
- Epi Info program name: Afrequency (unweighted); AfrequencyWT (weighted)

Drinking occasions in the past 30 days

Description: Mean number of occasions with at least one drink in the past 30 days among current (past 30 days) drinkers.

Instrument question:

- During the past 30 days, on how many occasions did you have at least one alcoholic drink?

| Mean number of drinking occasions in the past 30 days among current (past 30 days) drinkers |            |            |                |            |            |                |            |            |                |
|---|------------|------------|----------------|------------|------------|----------------|------------|------------|----------------|
| Age Group (years)   | Men        |            |                | Women      |            |                | Both Sexes |            |                |
|   | n          | Mean       | 95% CI         | n          | Mean       | 95% CI         | n          | Mean       | 95% CI         |
| 18-44   | 148        | 4.9        | 4.2-5.6        | 133        | 4.2        | 3.3-5.0        | 281        | 4.6        | 3.9-5.2        |
| 45-64   | 166        | 4.4        | 3.8-5.0        | 73         | 4.3        | 3.0-5.5        | 239        | 4.3        | 3.8-4.9        |
| <b>18-64</b>  | <b>314</b> | <b>4.7</b> | <b>4.3-5.2</b> | <b>206</b> | <b>4.2</b> | <b>3.6-4.8</b> | <b>520</b> | <b>4.5</b> | <b>4.1-4.9</b> |

Analysis Information:

- Questions used: A1a, A1b, A3, A4
- Epi Info program name: Aoccasions (unweighted); AoccasionsWT (weighted)

Standard drinks per drinking day

Description: Mean number of standard drinks consumed on a drinking occasion among current (past 30 days) drinker.

Instrument question:

- During the past 30 days, when you drank alcohol, on average, how many standard alcoholic drinks did you have during one occasion?

| Mean number of standard drinks per drinking occasion among current (past 30 days) drinkers |            |            |                 |            |            |                |            |            |                |
|--|------------|------------|-----------------|------------|------------|----------------|------------|------------|----------------|
| Age Group (years)  | Men        |            |                 | Women      |            |                | Both Sexes |            |                |
|  | n          | Mean       | 95% CI          | n          | Mean       | 95% CI         | n          | Mean       | 95% CI         |
| 18-44  | 146        | 10.1       | 9.5-10.8        | 130        | 6.5        | 5.8-7.3        | 276        | 8.6        | 7.9-9.3        |
| 45-64  | 167        | 8.2        | 7.3-9.2         | 73         | 5.6        | 4.3-6.9        | 240        | 7.3        | 6.6-8.1        |
| <b>18-64</b>   | <b>313</b> | <b>9.5</b> | <b>9.1-10.0</b> | <b>203</b> | <b>6.3</b> | <b>5.6-7.1</b> | <b>516</b> | <b>8.2</b> | <b>7.6-8.8</b> |

Analysis Information:

- Questions used: A1a, A1b, A3, A5
- Epi Info program name: Anumdrinkperday (unweighted); AnumdrinkperdayWT (weighted)

Average volume drinking categories among all respondents

Description: Percentage of respondents engaging in category II and category III drinking. Category III is defined as drinking  $\geq 60$ g of pure alcohol on average per day for men and  $\geq 40$  g for women. Category II is defined as drinking 40-59.9g of pure alcohol on average per day for men and 20-39.9g for women. A standard drink contains approximately 10g of pure alcohol.

Instrument questions:

- During the past 30 days, on how many occasions did you have at least one alcoholic drink?
- During the past 30 days, when you drank alcohol, on average, how many standard alcoholic drinks did you have during one occasion?

| Category III drinking among all respondents |            |                |                |            |                |                |             |                |                |
|---|------------|----------------|----------------|------------|----------------|----------------|-------------|----------------|----------------|
| Age Group (years)                           | Men        |                |                | Women      |                |                | Both Sexes  |                |                |
|   | n          | % Category III | 95% CI         | n          | % Category III | 95% CI         | n           | % Category III | 95% CI         |
| 18-44                                       | 247        | 3.2            | 1.4-5.1        | 354        | 2.0            | 0.4-3.7        | 601         | 2.6            | 1.1-4.1        |
| 45-64                                       | 335        | 3.6            | 1.8-5.5        | 265        | 2.0            | 1.0-3.0        | 600         | 2.8            | 1.9-3.7        |
| <b>18-64</b>                                | <b>582</b> | <b>3.4</b>     | <b>2.0-4.7</b> | <b>619</b> | <b>2.0</b>     | <b>1.0-3.0</b> | <b>1201</b> | <b>2.7</b>     | <b>1.7-3.6</b> |

| Category II drinking among all respondents |            |               |                |            |               |                |             |               |                |
|--|------------|---------------|----------------|------------|---------------|----------------|-------------|---------------|----------------|
| Age Group (years)                          | Men        |               |                | Women      |               |                | Both Sexes  |               |                |
|  | n          | % Category II | 95% CI         | n          | % Category II | 95% CI         | n           | % Category II | 95% CI         |
| 18-44                                      | 247        | 2.9           | 0.6-5.3        | 354        | 3.0           | 1.7-4.2        | 601         | 2.9           | 1.8-4.1        |
| 45-64                                      | 335        | 0.0           | 0.0-0.0        | 265        | 0.4           | 0.1-0.7        | 600         | 0.2           | 0.0-0.4        |
| <b>18-64</b>                               | <b>582</b> | <b>1.9</b>    | <b>0.4-3.3</b> | <b>619</b> | <b>2.2</b>    | <b>1.3-3.1</b> | <b>1201</b> | <b>2.0</b>    | <b>1.3-2.8</b> |

Analysis Information:

- Questions used: A1a, A1b, A3, A4, A5
- Epi Info program name: Acategories (unweighted); AcategoriesWT (weighted)

Average volume drinking categories among current (past 30 days) drinkers

Description: Percentage of current (last 30 days) drinker engaging in category I, category II and category III drinking. Category III is defined as drinking  $\geq 60$ g of pure alcohol on average per day for men and  $\geq 40$  g for women. Category II is defined as drinking 40-59.9g of pure alcohol on average per day for men and 20-39.9g for women. Category I is defined as drinking  $< 40$ g of pure alcohol on average per day for men and  $< 20$  for women. A standard drink contains approximately 10g of pure alcohol.

Instrument questions:

- During the past 30 days, on how many occasions did you have at least one alcoholic drink?
- During the past 30 days, when you drank alcohol, on average, how many standard alcoholic drinks did you have during one occasion?

| Category I, II and III drinking among current (past 30 days) drinkers |            |                |                |               |                |              |                  |
|---|------------|----------------|----------------|---------------|----------------|--------------|------------------|
| Age Group (years)   | Men        |                |                |               |                |              |                  |
|   | n          | % Category III | 95% CI         | % Category II | 95% CI         | % Category I | 95% CI           |
| 18-44   | 140        | 5.7            | 2.7-8.6        | 5.1           | 1.0-9.2        | 89.2         | 84.4-94.0        |
| 45-64   | 163        | 7.6            | 3.6-11.5       | 0.0           | 0.0-0.0        | 92.4         | 88.5-96.4        |
| <b>18-64</b>  | <b>303</b> | <b>6.3</b>     | <b>3.8-8.7</b> | <b>3.5</b>    | <b>0.7-6.3</b> | <b>90.3</b>  | <b>86.8-93.7</b> |

| Category I, II and III drinking among current (past 30 days) drinkers |            |                |                |               |                |              |                  |
|---|------------|----------------|----------------|---------------|----------------|--------------|------------------|
| Age Group (years)   | Women      |                |                |               |                |              |                  |
|   | n          | % Category III | 95% CI         | % Category II | 95% CI         | % Category I | 95% CI           |
| 18-44   | 127        | 5.5            | 1.4-9.6        | 8.0           | 4.1-11.9       | 86.5         | 81.3-91.7        |
| 45-64   | 72         | 7.5            | 1.9-13.2       | 1.6           | 0.0-3.2        | 90.9         | 83.8-97.9        |
| <b>18-64</b>  | <b>199</b> | <b>6.0</b>     | <b>3.3-8.6</b> | <b>6.4</b>    | <b>3.2-9.7</b> | <b>87.6</b>  | <b>83.7-91.5</b> |

| Category I, II and III drinking among current (past 30 days) drinkers |            |                |                |               |                |              |                  |
|---|------------|----------------|----------------|---------------|----------------|--------------|------------------|
| Age Group (years)   | Women      |                |                |               |                |              |                  |
|   | n          | % Category III | 95% CI         | % Category II | 95% CI         | % Category I | 95% CI           |
| 18-44   | 267        | 5.6            | 2.8-8.4        | 6.4           | 3.7-9.0        | 88.1         | 84.5-91.6        |
| 45-64   | 235        | 7.5            | 5.2-9.9        | 0.6           | 0.1-1.0        | 91.9         | 89.4-94.4        |
| <b>18-64</b>  | <b>502</b> | <b>6.1</b>     | <b>4.2-8.1</b> | <b>4.7</b>    | <b>2.8-6.6</b> | <b>89.2</b>  | <b>86.8-91.5</b> |

Analysis Information:

- Questions used: A1a, A1b, A3, A4, A5
- Epi Info program name: Acategories (unweighted); AcategoriesWT (weighted)

Largest number of drinks in the past 30 days

Description: Largest number of drinks consumed during a single occasion in the past 30 days among current (past 30 days) drinker).

Instrument question:

- During the past 30 days what was the largest number of standard alcoholic drinks you had on a single occasion, counting all types of alcoholic drinks together?

| Mean maximum number of drinks consumed on one occasion in the past 30 days |            |                     |                  |            |                     |                 |            |                     |                  |
|--|------------|---------------------|------------------|------------|---------------------|-----------------|------------|---------------------|------------------|
| Age Group (years)  | Men        |                     |                  | Women      |                     |                 | Both Sexes |                     |                  |
|  | n          | Mean maximum number | 95% CI           | n          | Mean maximum number | 95% CI          | n          | Mean maximum number | 95% CI           |
| 18-44  | 139        | 12.7                | 12.0-13.4        | 127        | 9.7                 | 8.5-10.9        | 266        | 11.4                | 10.7-12.1        |
| 45-64  | 165        | 10.2                | 9.0-11.5         | 74         | 6.9                 | 5.4-8.5         | 239        | 9.1                 | 8.3-9.8          |
| <b>18-64</b>   | <b>304</b> | <b>11.9</b>         | <b>11.3-12.5</b> | <b>201</b> | <b>9.0</b>          | <b>7.8-10.2</b> | <b>505</b> | <b>10.7</b>         | <b>10.1-11.3</b> |

Analysis Information:

- Questions used: A1a, A1b, A3, A6
- Epi Info program name: Alargestnum (unweighted); AlargestnumWT (weighted)

Description: Percentage of men who had five or more/women who had four or more drinks on any day in the past 30 days during a single occasion among the total population.

Five/four or more drinks on a single occasion

Instrument question:

- During the past 30 days, how many times did you have  
for men: five or more  
for women: four or more  
standard alcoholic drinks in a single drinking occasion?

| Five/four or more drinks on a single occasion at least once during the past 30 days among total population |            |              |                  |            |             |                  |
|--|------------|--------------|------------------|------------|-------------|------------------|
| Age Group (years)  | Men        |              |                  | Women      |             |                  |
|  | n          | % ≥ 5 drinks | 95% CI           | n          | % ≥ 4drinks | 95% CI           |
| 18-44  | 267        | 56.0         | 50.7-61.2        | 368        | 35.1        | 28.1-42.1        |
| 45-64  | 359        | 44.9         | 40.2-49.6        | 272        | 23.4        | 17.5-29.3        |
| <b>18-64</b>   | <b>626</b> | <b>52.1</b>  | <b>49.7-54.5</b> | <b>640</b> | <b>31.5</b> | <b>25.5-37.6</b> |

Analysis Information:

- Questions used: A1a, A1b, A3, A7
- Epi Info program name: Aepisodicmen and Aepisodicwomen (unweighted); AepisodicmenWT and AepisodicwomenWT (weighted)

Five/four or more drinks on a single occasion  
Description: Mean number of times in the past 30 days on which current (past 30 days) drinker consumed five (for men)/four (for women) or more drinks during a single occasion among current (past 30 days) drinkers.

Instrument question:

- During the past 30 days, how many times did you have  
for men: five or more  
for women: four or more  
standard alcoholic drinks in a single drinking occasion?

| Mean number of times with five/four or more drinks during a single occasion in the past 30 days among current drinkers |            |                      |                |            |                      |                |
|--|------------|----------------------|----------------|------------|----------------------|----------------|
| Age Group (years)  | Men        |                      |                | Women      |                      |                |
|  | n          | Mean number of times | 95% CI         | n          | Mean number of times | 95% CI         |
| 18-44  | 156        | 4.3                  | 3.9-4.7        | 139        | 3.4                  | 2.8-3.9        |
| 45-64  | 185        | 2.7                  | 2.5-3.0        | 79         | 2.1                  | 1.7-2.4        |
| <b>18-64</b>   | <b>341</b> | <b>3.8</b>           | <b>3.5-4.1</b> | <b>218</b> | <b>3.1</b>           | <b>2.6-3.6</b> |

Analysis Information:

- Questions used: A1a, A1b, A3, A7
- Epi Info program name: Aepisodicmen and Aepisodicwomen (unweighted); AepisodicmenWT and AepisodicwomenWT (weighted)

## Fruit and Vegetable Consumption

Mean number of days of fruit and vegetable consumption  
Description: mean number of days fruit and vegetables consumed.

Instrument questions:

- In a typical week, on how many days do you eat fruit?
- In a typical week, on how many days do you eat vegetables?

| Mean number of days fruit consumed in a typical week |            |                     |                |            |                     |                |             |                     |                |
|--|------------|---------------------|----------------|------------|---------------------|----------------|-------------|---------------------|----------------|
| Age Group (years)                                    | Men        |                     |                | Women      |                     |                | Both Sexes  |                     |                |
|  | n          | Mean number of days | 95% CI         | n          | Mean number of days | 95% CI         | n           | Mean number of days | 95% CI         |
| 18-44  | 263        | 3.3                 | 3.1-3.4        | 358        | 4.1                 | 3.9-4.3        | 621         | 3.7                 | 3.6-3.8        |
| 45-64  | 357        | 3.6                 | 3.4-3.7        | 272        | 4.7                 | 4.4-4.9        | 629         | 4.1                 | 3.9-4.2        |
| <b>18-64</b>   | <b>620</b> | <b>3.4</b>          | <b>3.2-3.5</b> | <b>630</b> | <b>4.3</b>          | <b>4.0-4.5</b> | <b>1250</b> | <b>3.8</b>          | <b>3.7-4.0</b> |

| Mean number of days vegetables consumed in a typical week |            |                           |                |            |                           |                |             |                           |                |
|---|------------|---------------------------|----------------|------------|---------------------------|----------------|-------------|---------------------------|----------------|
| Age Group<br>(years)                                      | Men        |                           |                | Women      |                           |                | Both Sexes  |                           |                |
|   | n          | Mean<br>number<br>of days | 95% CI         | n          | Mean<br>number<br>of days | 95% CI         | n           | Mean<br>number<br>of days | 95% CI         |
| 18-44   | 263        | 3.6                       | 3.4-3.8        | 353        | 3.9                       | 3.8-4.1        | 616         | 3.7                       | 3.6-3.9        |
| 45-64   | 356        | 3.2                       | 3.1-3.3        | 272        | 4.0                       | 3.8-4.2        | 628         | 3.6                       | 3.5-3.7        |
| <b>18-64</b>  | <b>619</b> | <b>3.4</b>                | <b>3.3-3.5</b> | <b>625</b> | <b>3.9</b>                | <b>3.8-4.1</b> | <b>1244</b> | <b>3.7</b>                | <b>3.6-3.8</b> |

Analysis Information:

- Questions used: D1, D3
- Epi Info program name: Ddays (unweighted); DdaysWT (weighted)

Mean number of servings of fruit and vegetable consumption Description: mean number of fruit, vegetable, and combined fruit and vegetable servings on average per day.

Instrument questions:

- In a typical week, on how many days do you eat fruit?
- How many servings of fruit do you eat on one of those days?
- In a typical week, on how many days do you eat vegetables?
- How many servings of vegetables do you eat on one of those days?

| Mean number of servings of fruit on average per day |            |                                  |                |            |                                  |                |             |                                  |                |
|---|------------|----------------------------------|----------------|------------|----------------------------------|----------------|-------------|----------------------------------|----------------|
| Age Group<br>(years)                                | Men        |                                  |                | Women      |                                  |                | Both Sexes  |                                  |                |
|   | n          | Mean<br>number<br>of<br>servings | 95% CI         | n          | Mean<br>number<br>of<br>servings | 95% CI         | n           | Mean<br>number<br>of<br>servings | 95% CI         |
| 18-44   | 255        | 1.2                              | 1.1-1.3        | 345        | 1.6                              | 1.5-1.8        | 600         | 1.4                              | 1.3-1.5        |
| 45-64   | 344        | 1.5                              | 1.3-1.6        | 266        | 2.1                              | 1.9-2.3        | 610         | 1.8                              | 1.7-1.9        |
| <b>18-64</b>  | <b>599</b> | <b>1.3</b>                       | <b>1.2-1.4</b> | <b>611</b> | <b>1.8</b>                       | <b>1.6-1.9</b> | <b>1210</b> | <b>1.5</b>                       | <b>1.5-1.6</b> |

| Mean number of servings of vegetables on average per day |            |                                  |                |            |                                  |                |             |                                  |                |
|--|------------|----------------------------------|----------------|------------|----------------------------------|----------------|-------------|----------------------------------|----------------|
| Age Group<br>(years)                                     | Men        |                                  |                | Women      |                                  |                | Both Sexes  |                                  |                |
|  | n          | Mean<br>number<br>of<br>servings | 95% CI         | n          | Mean<br>number<br>of<br>servings | 95% CI         | n           | Mean<br>number<br>of<br>servings | 95% CI         |
| 18-44  | 255        | 1.2                              | 1.1-1.3        | 338        | 1.2                              | 1.1-1.3        | 593         | 1.2                              | 1.2-1.3        |
| 45-64  | 343        | 1.1                              | 1.0-1.2        | 266        | 1.5                              | 1.3-1.7        | 609         | 1.3                              | 1.2-1.4        |
| <b>18-64</b>   | <b>598</b> | <b>1.2</b>                       | <b>1.1-1.2</b> | <b>604</b> | <b>1.3</b>                       | <b>1.2-1.4</b> | <b>1202</b> | <b>1.2</b>                       | <b>1.2-1.3</b> |

| Mean number of servings of fruit and/or vegetables on average per day |            |                                  |                |            |                                  |                |             |                                  |                |
|---|------------|----------------------------------|----------------|------------|----------------------------------|----------------|-------------|----------------------------------|----------------|
| Age Group<br>(years)  | Men        |                                  |                | Women      |                                  |                | Both Sexes  |                                  |                |
|   | n          | Mean<br>number<br>of<br>servings | 95% CI         | n          | Mean<br>number<br>of<br>servings | 95% CI         | n           | Mean<br>number<br>of<br>servings | 95% CI         |
| 18-44   | 259        | 2.4                              | 2.2-2.5        | 347        | 2.8                              | 2.7-3.0        | 606         | 2.6                              | 2.5-2.7        |
| 45-64   | 345        | 2.5                              | 2.3-2.7        | 266        | 3.6                              | 3.3-3.9        | 611         | 3.1                              | 2.9-3.2        |
| <b>18-64</b>  | <b>604</b> | <b>2.4</b>                       | <b>2.3-2.5</b> | <b>613</b> | <b>3.1</b>                       | <b>2.9-3.3</b> | <b>1217</b> | <b>2.8</b>                       | <b>2.6-2.9</b> |

Analysis Information:

- Questions used: D1, D2, D3, D4
- Epi Info program name: Dservings (unweighted); DservingsWT (weighted)



Fruit and vegetable consumption per day

Description: Frequency of fruit and/or vegetable consumption.

Instrument questions:

- In a typical week, on how many days do you eat fruit?
- How many servings of fruit do you eat on one of those days?
- In a typical week, on how many days do you eat vegetables?
- How many servings of vegetables do you eat on one of those days?

| Number of servings of fruit and/or vegetables on average per day |            |                              |                  |                |                  |                |                  |               |                 |
|--|------------|------------------------------|------------------|----------------|------------------|----------------|------------------|---------------|-----------------|
| Age Group (years)  | Men        |                              |                  |                |                  |                |                  |               |                 |
|  | n          | % no fruit and/or vegetables | 95% CI           | % 1-2 servings | 95% CI           | % 3-4 servings | 95% CI           | % ≥5 servings | 95% CI          |
| 18-44  | 259        | 29.0                         | 24.5-33.6        | 42.7           | 40.1-45.3        | 17.4           | 15.2-19.6        | 10.8          | 7.3-14.4        |
| 45-64  | 345        | 26.4                         | 22.8-29.9        | 43.3           | 39.9-46.7        | 18.7           | 15.6-21.8        | 11.6          | 8.6-14.6        |
| <b>18-64</b>   | <b>604</b> | <b>28.1</b>                  | <b>24.7-31.5</b> | <b>42.9</b>    | <b>40.7-45.2</b> | <b>17.9</b>    | <b>16.0-19.7</b> | <b>11.1</b>   | <b>8.9-13.3</b> |

| Number of servings of fruit and/or vegetables on average per day |            |                              |                  |                |                  |                |                  |               |                  |
|--|------------|------------------------------|------------------|----------------|------------------|----------------|------------------|---------------|------------------|
| Age Group (years)  | Women      |                              |                  |                |                  |                |                  |               |                  |
|  | n          | % no fruit and/or vegetables | 95% CI           | % 1-2 servings | 95% CI           | % 3-4 servings | 95% CI           | % ≥5 servings | 95% CI           |
| 18-44  | 347        | 16.4                         | 13.9-18.9        | 44.5           | 40.9-48.2        | 24.3           | 20.2-28.4        | 14.8          | 11.9-17.6        |
| 45-64  | 266        | 15.8                         | 12.8-18.8        | 38.2           | 33.6-42.8        | 21.4           | 19.0-23.7        | 24.6          | 19.0-30.2        |
| <b>18-64</b>   | <b>613</b> | <b>16.2</b>                  | <b>14.1-18.3</b> | <b>42.5</b>    | <b>39.3-45.8</b> | <b>23.4</b>    | <b>20.5-26.3</b> | <b>17.9</b>   | <b>15.1-20.6</b> |

| Number of servings of fruit and/or vegetables on average per day |             |                              |                  |                |                  |                |                  |               |                  |
|--|-------------|------------------------------|------------------|----------------|------------------|----------------|------------------|---------------|------------------|
| Age Group (years)  | Both Sexes  |                              |                  |                |                  |                |                  |               |                  |
|  | n           | % no fruit and/or vegetables | 95% CI           | % 1-2 servings | 95% CI           | % 3-4 servings | 95% CI           | % ≥5 servings | 95% CI           |
| 18-44  | 606         | 22.3                         | 19.6-25.1        | 43.7           | 41.6-45.8        | 21.0           | 18.3-23.8        | 12.9          | 10.9-15.0        |
| 45-64  | 611         | 21.2                         | 18.8-23.7        | 40.8           | 37.8-43.8        | 20.0           | 17.6-22.4        | 18.0          | 15.3-20.6        |
| <b>18-64</b>   | <b>1217</b> | <b>22.0</b>                  | <b>19.8-24.1</b> | <b>42.7</b>    | <b>40.8-44.6</b> | <b>20.7</b>    | <b>18.6-22.8</b> | <b>14.6</b>   | <b>12.6-16.6</b> |

Analysis Information:

- Questions used: D1, D2, D3, D4
- Epi Info program name: Dfiveormore (unweighted); DfiveormoreWT (weighted)

Fruit and vegetable consumption per day

Description: Percentage of those eating less than five servings of fruit and/or vegetables on average per day.

Instrument questions:

- In a typical week, on how many days do you eat fruit?
- How many servings of fruit do you eat on one of those days?
- In a typical week, on how many days do you eat vegetables?
- How many servings of vegetables do you eat on one of those days?

| Less than five servings of fruit and/or vegetables on average per day |            |                                 |                  |            |                                 |                  |             |                                 |                  |
|---|------------|---------------------------------|------------------|------------|---------------------------------|------------------|-------------|---------------------------------|------------------|
| Age Group<br>(years)  | Men        |                                 |                  | Women      |                                 |                  | Both Sexes  |                                 |                  |
|   | n          | % < five<br>servings<br>per day | 95% CI           | n          | % < five<br>servings<br>per day | 95% CI           | n           | % < five<br>servings<br>per day | 95% CI           |
| 18-44   | 259        | 89.2                            | 85.6-92.7        | 347        | 85.2                            | 82.4-88.1        | 606         | 87.1                            | 85.0-89.2        |
| 45-64   | 345        | 88.4                            | 85.4-91.4        | 266        | 75.4                            | 69.8-81.0        | 611         | 82.0                            | 79.4-84.7        |
| <b>18-64</b>  | <b>604</b> | <b>88.9</b>                     | <b>86.7-91.1</b> | <b>613</b> | <b>82.1</b>                     | <b>79.4-84.9</b> | <b>1217</b> | <b>85.4</b>                     | <b>83.4-87.4</b> |

Analysis Information:

- Questions used: D1, D2, D3, D4
- Epi Info program name: Dfiveormore (unweighted); DfiveormoreWT (weighted)

Type of oil used most frequently Description: Type of oil or fat most often used for meal preparation in households (presented only for both sexes because results are for the household not individuals).

Instrument question:

- What type of oil or fat is most often used for meal preparation in your household?

## Both Sexes

| Type of oil or fat most often used for meal preparation in household |                   |               |                  |            |                |                  |                |            |                |
|--|-------------------|---------------|------------------|------------|----------------|------------------|----------------|------------|----------------|
| Age group  | n<br>(households) | Vegetable oil | 95% CI           | % Lard     | 95% CI         | % Butter or Ghee | 95% CI         | % Margarin | 95% CI         |
| 18-44  | 627               | 83.3          | 81.4-85.1        | 1.1        | 0.3-1.9        | 6.4              | 5.3-7.6        | 2.7        | 2.1-3.3        |
| 45-64  | 618               | 81.1          | 77.9-84.3        | 1.4        | 0.9-2.0        | 3.3              | 2.0-4.5        | 5.1        | 3.8-6.4        |
| <b>Total</b>   | <b>1245</b>       | <b>82.6</b>   | <b>80.5-84.7</b> | <b>1.2</b> | <b>0.7-1.8</b> | <b>5.4</b>       | <b>4.5-6.3</b> | <b>3.5</b> | <b>2.9-4.1</b> |

| Type of oil or fat most often used for meal preparation in household |            |                |            |                |                      |                |
|--|------------|----------------|------------|----------------|----------------------|----------------|
| Age group  | % Coconut  | 95% CI         | % Other    | 95% CI         | % None in particular | 95% CI         |
| 18-44  | 1.5        | 1.0-2.1        | 1.7        | 1.1-2.3        | 3.2                  | 1.6-4.7        |
| 45-64  | 2.5        | 1.0-4.0        | 2.5        | 1.5-3.4        | 4.1                  | 2.3-5.9        |
| <b>Total</b>   | <b>1.8</b> | <b>1.4-2.3</b> | <b>2.0</b> | <b>1.5-2.5</b> | <b>3.5</b>           | <b>2.2-4.8</b> |

Analysis Information:

- Questions used: D5
- Epi Info program name: Doil (unweighted); DoilWT (weighted)

Eating outside home Description: Mean number of meals per week eaten outside a home.

Instrument question:

- On average, how many meals per week do you eat that were not prepared at a home? By meal, I mean breakfast, lunch and dinner.

| Mean number of meals eaten outside a home |            |            |                |            |            |                |             |            |                |
|---|------------|------------|----------------|------------|------------|----------------|-------------|------------|----------------|
| Age Group<br>(years)                      | Men        |            |                | Women      |            |                | Both Sexes  |            |                |
|   | n          | mean       | 95% CI         | n          | mean       | 95% CI         | n           | mean       | 95% CI         |
| 18-44                                     | 252        | 2.2        | 1.8-2.5        | 351        | 2.5        | 2.4-2.7        | 603         | 2.4        | 2.2-2.5        |
| 45-64                                     | 351        | 1.4        | 1.2-1.7        | 267        | 1.5        | 1.3-1.8        | 618         | 1.5        | 1.4-1.6        |
| <b>18-64</b>                              | <b>603</b> | <b>1.9</b> | <b>1.6-2.2</b> | <b>618</b> | <b>2.2</b> | <b>2.1-2.3</b> | <b>1221</b> | <b>2.1</b> | <b>1.9-2.2</b> |

Analysis Information:

- Questions used: D6
- Epi Info program name: Dmealsout (unweighted); DmealsoutWT (weighted)

## Fish and Canned/Tinned Fish Consumption

Mean number of days of fruit and vegetable consumption

Description: mean number of days fruit and vegetables consumed.

Instrument questions:

- In a typical week, on how many days do you eat fish?
- In a typical week, on how many days do you eat tinned/canned fish?

| Mean number of days fish consumed in a typical week |            |                     |                |            |                     |                |             |                     |                |
|---|------------|---------------------|----------------|------------|---------------------|----------------|-------------|---------------------|----------------|
| Age Group (years)                                   | Men        |                     |                | Women      |                     |                | Both Sexes  |                     |                |
|   | n          | Mean number of days | 95% CI         | n          | Mean number of days | 95% CI         | n           | Mean number of days | 95% CI         |
| 18-44   | 265        | 3.0                 | 2.8-3.3        | 359        | 2.1                 | 2.0-2.2        | 624         | 2.5                 | 2.4-2.7        |
| 45-64   | 355        | 3.3                 | 3.1-3.5        | 267        | 2.6                 | 2.3-2.9        | 622         | 3.0                 | 2.8-3.1        |
| <b>18-64</b>  | <b>620</b> | <b>3.1</b>          | <b>2.9-3.3</b> | <b>626</b> | <b>2.3</b>          | <b>2.1-2.4</b> | <b>1246</b> | <b>2.7</b>          | <b>2.6-2.8</b> |

| Mean number of days tinned/canned fish consumed in a typical week |            |                     |                |            |                     |                |             |                     |                |
|---|------------|---------------------|----------------|------------|---------------------|----------------|-------------|---------------------|----------------|
| Age Group (years)   | Men        |                     |                | Women      |                     |                | Both Sexes  |                     |                |
|   | n          | Mean number of days | 95% CI         | n          | Mean number of days | 95% CI         | n           | Mean number of days | 95% CI         |
| 18-44   | 261        | 1.3                 | 1.2-1.5        | 358        | 1.3                 | 1.2-1.4        | 619         | 1.3                 | 1.2-1.4        |
| 45-64   | 353        | 1.4                 | 1.3-1.5        | 269        | 1.4                 | 1.2-1.5        | 622         | 1.4                 | 1.3-1.4        |
| <b>18-64</b>  | <b>614</b> | <b>1.3</b>          | <b>1.2-1.4</b> | <b>627</b> | <b>1.3</b>          | <b>1.3-1.4</b> | <b>1241</b> | <b>1.3</b>          | <b>1.3-1.4</b> |

Analysis Information:

- Questions used: X1, X3
- Epi Info program name X1X3WT (unweighted); X1X3WT (weighted)

Mean number of servings of Fish/Tinned Fish consumption

Description: mean number of fresh fish and canned fish combined fresh fish and canned fish servings on average per day.

Instrument questions:

- In a typical week, on how many days do you eat fish?
- How many servings of fish do you eat on one of those days?
- In a typical week, on how many days do you eat canned/tinned fish
- How many servings of canned/tinned fish do you eat on one of those days?

| Mean number of servings of fish on average per day |            |                         |                |            |                         |                |             |                         |                |
|--|------------|-------------------------|----------------|------------|-------------------------|----------------|-------------|-------------------------|----------------|
| Age Group (years)                                  | Men        |                         |                | Women      |                         |                | Both Sexes  |                         |                |
|  | n          | Mean number of servings | 95% CI         | n          | Mean number of servings | 95% CI         | n           | Mean number of servings | 95% CI         |
| 18-44  | 257        | 1.0                     | 0.9-1.1        | 347        | 0.6                     | 0.6-0.7        | 604         | 0.8                     | 0.7-0.8        |
| 45-64  | 344        | 1.2                     | 1.1-1.3        | 259        | 0.9                     | 0.7-1.2        | 603         | 1.1                     | 0.9-1.2        |
| <b>18-64</b>                                       | <b>601</b> | <b>1.1</b>              | <b>1.0-1.1</b> | <b>606</b> | <b>0.7</b>              | <b>0.6-0.8</b> | <b>1207</b> | <b>0.9</b>              | <b>0.8-0.9</b> |

| Mean number of servings of canned/tinned fish on average per day |            |                         |                |            |                         |                |             |                         |                |
|--|------------|-------------------------|----------------|------------|-------------------------|----------------|-------------|-------------------------|----------------|
| Age Group (years)  | Men        |                         |                | Women      |                         |                | Both Sexes  |                         |                |
|  | n          | Mean number of servings | 95% CI         | n          | Mean number of servings | 95% CI         | n           | Mean number of servings | 95% CI         |
| 18-44  | 254        | 0.3                     | 0.2-0.5        | 347        | 0.3                     | 0.3-0.3        | 601         | 0.3                     | 0.2-0.4        |
| 45-64  | 344        | 0.3                     | 0.3-0.4        | 261        | 0.4                     | 0.3-0.5        | 605         | 0.4                     | 0.3-0.4        |
| <b>18-64</b>   | <b>598</b> | <b>0.3</b>              | <b>0.2-0.4</b> | <b>608</b> | <b>0.3</b>              | <b>0.3-0.3</b> | <b>1206</b> | <b>0.3</b>              | <b>0.3-0.4</b> |

| Mean number of servings of fish and/or canned/tinned fish on average per day |            |                         |                |            |                         |                |             |                         |                |
|--|------------|-------------------------|----------------|------------|-------------------------|----------------|-------------|-------------------------|----------------|
| Age Group (years)  | Men        |                         |                | Women      |                         |                | Both Sexes  |                         |                |
|  | n          | Mean number of servings | 95% CI         | n          | Mean number of servings | 95% CI         | n           | Mean number of servings | 95% CI         |
| 18-44  | 261        | 1.3                     | 1.1-1.4        | 353        | 0.9                     | 0.8-1.0        | 614         | 1.1                     | 1.0-1.2        |
| 45-64  | 348        | 1.5                     | 1.4-1.6        | 264        | 1.3                     | 0.9-1.6        | 612         | 1.4                     | 1.2-1.5        |
| <b>18-64</b>   | <b>609</b> | <b>1.4</b>              | <b>1.3-1.5</b> | <b>617</b> | <b>1.0</b>              | <b>0.9-1.1</b> | <b>1226</b> | <b>1.2</b>              | <b>1.1-1.3</b> |

Analysis Information:

- Questions used: X1, X2, X3, X4
- Epi Info program name: X2X4 (unweighted); X2X4WT (weighted)

## Dietary Salt

Adding salt at meal

Description: Percentage of all respondents who always or often add salt to their food before eating or as they are eating.

Instrument questions:

- How often do you add salt to your food before you eat it or as you are eating it?

| Add salt always or often before eating or when eating |            |             |                  |            |             |                  |             |             |                  |
|---|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
| Age Group (years)                                     | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|   | n          | %           | 95% CI           | n          | %           | 95% CI           | n           | %           | 95% CI           |
| 18-44   | 266        | 39.6        | 34.8-44.4        | 365        | 37.1        | 34.5-39.8        | 631         | 38.3        | 35.6-40.9        |
| 45-64   | 355        | 33.0        | 29.1-36.9        | 272        | 32.4        | 27.8-37.1        | 627         | 32.7        | 29.5-35.9        |
| <b>18-64</b>  | <b>621</b> | <b>37.3</b> | <b>33.9-40.7</b> | <b>637</b> | <b>35.7</b> | <b>32.9-38.5</b> | <b>1258</b> | <b>36.4</b> | <b>34.3-38.6</b> |

Analysis Information:

- Question used: DS1
- Epi Info program name: Deating (unweighted); DeatingWT (weighted)

Adding salt when cooking

Description: Percentage of all respondents who always or often add salt to their food when cooking or preparing foods at home.

Instrument questions:

- How often is salt added in cooking or preparing foods in your household?

| Add salt always or often when cooking or preparing food at home |            |             |                  |            |             |                  |             |             |                  |
|---|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
| Age Group (years)   | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|   | n          | %           | 95% CI           | n          | %           | 95% CI           | n           | %           | 95% CI           |
| 18-44   | 265        | 48.5        | 44.0-53.1        | 363        | 48.3        | 45.6-51.0        | 628         | 48.4        | 45.8-51.0        |
| 45-64   | 355        | 47.0        | 43.1-51.0        | 272        | 51.9        | 46.5-57.3        | 627         | 49.4        | 45.6-53.2        |
| <b>18-64</b>  | <b>620</b> | <b>48.0</b> | <b>44.6-51.4</b> | <b>635</b> | <b>49.4</b> | <b>46.4-52.5</b> | <b>1255</b> | <b>48.8</b> | <b>46.6-50.9</b> |

| Always or often consume processed food high in salt |            |             |                  |            |             |                  |             |             |                  |
|---|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
| Age Group<br>(years)                                | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|   | n          | %           | 95% CI           | n          | %           | 95% CI           | n           | %           | 95% CI           |
| 18-44   | 265        | 47.8        | 43.0-52.5        | 364        | 48.2        | 44.3-52.1        | 629         | 48.0        | 44.7-51.3        |
| 45-64   | 355        | 46.4        | 41.5-51.2        | 272        | 42.9        | 38.0-47.9        | 627         | 44.7        | 40.9-48.5        |
| <b>18-64</b>  | <b>620</b> | <b>47.3</b> | <b>44.0-50.5</b> | <b>636</b> | <b>46.6</b> | <b>43.2-49.9</b> | <b>1256</b> | <b>46.9</b> | <b>44.3-49.6</b> |

Analysis Information:

- Question used: DS3
- Epi Info program name: Dprocessed (unweighted); DprocessedWT (weighted)

### Salt consumption

Description: Percentage of all respondents who think they consume far too much or too much salt.

Instrument questions:

- How much salt do you think you consume?

| Think they consume far too much or too much salt |            |             |                  |            |             |                  |             |             |                  |
|--|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
| Age Group<br>(years)                             | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|  | n          | %           | 95% CI           | n          | %           | 95% CI           | n           | %           | 95% CI           |
| 18-44  | 246        | 27.6        | 23.0-32.2        | 335        | 31.7        | 26.0-37.3        | 581         | 29.7        | 26.2-33.3        |
| 45-64  | 327        | 11.9        | 8.7-15.0         | 261        | 21.9        | 18.3-25.4        | 588         | 16.9        | 14.7-19.0        |
| <b>18-64</b>                                     | <b>573</b> | <b>22.1</b> | <b>19.1-25.1</b> | <b>596</b> | <b>28.5</b> | <b>24.1-33.0</b> | <b>1169</b> | <b>25.4</b> | <b>23.0-27.9</b> |

| Self-reported quantity of salt consumed |            |                |                |             |                  |                         |                  |              |                  |                  |                |
|---|------------|----------------|----------------|-------------|------------------|-------------------------|------------------|--------------|------------------|------------------|----------------|
| Age Group<br>(years)                    | Men        |                |                |             |                  |                         |                  |              |                  |                  |                |
|   | n          | % Far too much | 95% CI         | % Too much  | 95% CI           | % Just the right amount | 95% CI           | % Too little | 95% CI           | % Far too little | 95% CI         |
| 18-44                                   | 246        | 6.6            | 3.9-9.3        | 21.0        | 17.2-24.8        | 60.4                    | 54.1-66.7        | 10.4         | 7.3-13.5         | 1.6              | 0.9-2.3        |
| 45-64                                   | 327        | 2.6            | 1.7-3.5        | 9.3         | 6.4-12.1         | 64.2                    | 60.3-68.1        | 20.0         | 16.4-23.6        | 4.0              | 2.0-6.0        |
| <b>18-64</b>                            | <b>573</b> | <b>5.2</b>     | <b>3.5-6.9</b> | <b>16.9</b> | <b>14.5-19.3</b> | <b>61.7</b>             | <b>57.5-65.9</b> | <b>13.7</b>  | <b>11.6-15.9</b> | <b>2.4</b>       | <b>1.7-3.2</b> |

| Self-reported quantity of salt consumed |            |                |                 |             |                  |                         |                  |              |                 |                  |                |
|---|------------|----------------|-----------------|-------------|------------------|-------------------------|------------------|--------------|-----------------|------------------|----------------|
| Age Group<br>(years)                    | Women      |                |                 |             |                  |                         |                  |              |                 |                  |                |
|   | n          | % Far too much | 95% CI          | % Too much  | 95% CI           | % Just the right amount | 95% CI           | % Too little | 95% CI          | % Far too little | 95% CI         |
| 18-44                                   | 335        | 8.3            | 6.4-10.2        | 23.4        | 18.8-28.0        | 55.6                    | 49.0-62.2        | 9.1          | 6.9-11.4        | 3.7              | 2.3-5.0        |
| 45-64                                   | 261        | 7.6            | 4.5-10.8        | 14.2        | 11.7-16.8        | 59.3                    | 53.3-65.2        | 15.3         | 10.8-19.7       | 3.6              | 1.3-5.9        |
| <b>18-64</b>                            | <b>596</b> | <b>8.1</b>     | <b>6.0-10.1</b> | <b>20.5</b> | <b>16.8-24.1</b> | <b>56.8</b>             | <b>51.0-62.5</b> | <b>11.1</b>  | <b>9.3-12.9</b> | <b>3.6</b>       | <b>2.5-4.8</b> |

| Self-reported quantity of salt consumed |             |                |                |             |                  |                         |                  |              |                  |                  |                |
|---|-------------|----------------|----------------|-------------|------------------|-------------------------|------------------|--------------|------------------|------------------|----------------|
| Age Group<br>(years)                    | Both Sexes  |                |                |             |                  |                         |                  |              |                  |                  |                |
|   | n           | % Far too much | 95% CI         | % Too much  | 95% CI           | % Just the right amount | 95% CI           | % Too little | 95% CI           | % Far too little | 95% CI         |
| 18-44                                   | 581         | 7.5            | 6.0-9.0        | 22.3        | 19.3-25.3        | 57.8                    | 53.6-62.0        | 9.7          | 7.9-11.6         | 2.7              | 1.9-3.5        |
| 45-64                                   | 588         | 5.1            | 3.5-6.7        | 11.7        | 10.0-13.5        | 61.7                    | 57.3-66.2        | 17.6         | 14.0-21.2        | 3.8              | 2.4-5.2        |
| <b>18-64</b>                            | <b>1169</b> | <b>6.7</b>     | <b>5.4-7.9</b> | <b>18.8</b> | <b>16.6-20.9</b> | <b>59.1</b>             | <b>55.5-62.8</b> | <b>12.4</b>  | <b>10.9-13.8</b> | <b>3.1</b>       | <b>2.3-3.9</b> |

Analysis Information:

- Question used: DS4
- Epi Info program name: Dsaltquantity (unweighted); DsaltquantityWT (weighted)

Recommended amount of salt use

Description: Percentage of respondents who think what is the recommended amount of salt to be consumed per day to be healthy

Instrument questions:

- What do you think is the recommended amount of salt you should consume per day to be healthy??

| Amount of salt you should consumed per day |            |                             |                 |                             |                  |                                |                  |
|--|------------|-----------------------------|-----------------|-----------------------------|------------------|--------------------------------|------------------|
| Age Group (years)                          | Men        |                             |                 |                             |                  |                                |                  |
|  | n          | % less than 10g – 2teaspoon | 95% CI          | % Less than 5g – 1 teaspoon | 95% CI           | % Less than 2g - half teaspoon | 95% CI           |
| 18-44                                      | 179        | 11.5                        | 7.9-15.0        | 31.6                        | 27.5-35.7        | 56.9                           | 52.0-61.8        |
| 45-64                                      | 240        | 4.6                         | 2.9-6.2         | 30.0                        | 25.7-34.4        | 65.4                           | 60.8-70.0        |
| <b>18-64</b>                               | <b>419</b> | <b>9.0</b>                  | <b>6.6-11.3</b> | <b>31.0</b>                 | <b>27.8-34.2</b> | <b>60.0</b>                    | <b>56.3-63.7</b> |

| Importance of lowering salt in diet |            |                             |                 |                             |                  |                                |                  |
|-------------------------------------|------------|-----------------------------|-----------------|-----------------------------|------------------|--------------------------------|------------------|
| Age Group (years)                   | Women      |                             |                 |                             |                  |                                |                  |
|                                     | n          | % less than 10g – 2teaspoon | 95% CI          | % Less than 5g – 1 teaspoon | 95% CI           | % Less than 2g - half teaspoon | 95% CI           |
| 18-44                               | 263        | 9.6                         | 5.7-13.5        | 31.9                        | 28.6-35.3        | 58.5                           | 53.9-63.1        |
| 45-64                               | 213        | 6.5                         | 4.2-8.8         | 25.9                        | 21.1-30.7        | 67.7                           | 62.6-72.7        |
| <b>18-64</b>                        | <b>476</b> | <b>8.5</b>                  | <b>5.7-11.4</b> | <b>29.9</b>                 | <b>26.8-33.1</b> | <b>61.5</b>                    | <b>57.6-65.4</b> |

| Importance of lowering salt in diet |            |                             |                 |                             |                  |                                |                  |
|-------------------------------------|------------|-----------------------------|-----------------|-----------------------------|------------------|--------------------------------|------------------|
| Age Group (years)                   | Both Sexes |                             |                 |                             |                  |                                |                  |
|                                     | n          | % less than 10g – 2teaspoon | 95% CI          | % Less than 5g – 1 teaspoon | 95% CI           | % Less than 2g - half teaspoon | 95% CI           |
| 18-44                               | 442        | 10.4                        | 7.5-13.3        | 31.8                        | 28.9-34.7        | 57.8                           | 54.4-61.2        |
| 45-64                               | 453        | 5.6                         | 4.1-7.0         | 27.9                        | 24.6-31.1        | 66.6                           | 63.2-69.9        |
| <b>18-64</b>                        | <b>895</b> | <b>8.7</b>                  | <b>6.6-10.8</b> | <b>30.4</b>                 | <b>27.8-33.1</b> | <b>60.8</b>                    | <b>57.8-63.8</b> |

Analysis Information:

- Question used: X5
- Epi Info program name: X5 (unweighted); X5WT (weighted)

**Salt knowledge**

Description: Percentage of respondents who think consuming too much salt could cause a serious health problem.

Instrument questions:

- Do you think that too much salt in your diet could cause a serious health problem?

| Think consuming too much salt could cause serious health problem |            |             |                  |  |            |             |                  |  |             |             |                  |
|--|------------|-------------|------------------|--|------------|-------------|------------------|--|-------------|-------------|------------------|
| Age Group<br>(years)   | Men        |             |                  |  | Women      |             |                  |  | Both Sexes  |             |                  |
|  | n          | %           | 95% CI           |  | n          | %           | 95% CI           |  | n           | %           | 95% CI           |
| 18-44  | 266        | 78.0        | 72.7-83.3        |  | 367        | 86.5        | 84.4-88.6        |  | 633         | 82.6        | 79.6-85.6        |
| 45-64  | 357        | 79.7        | 75.3-84.1        |  | 272        | 83.9        | 80.4-87.5        |  | 629         | 81.8        | 79.5-84.0        |
| <b>18-64</b>   | <b>623</b> | <b>78.6</b> | <b>74.8-82.5</b> |  | <b>639</b> | <b>85.7</b> | <b>84.0-87.4</b> |  | <b>1262</b> | <b>82.3</b> | <b>80.3-84.3</b> |

**Analysis Information:**

- Question used: D10
- Epi Info program name: Dhealth (unweighted); DhealthWT (weighted)

**Lowering salt**

Description: Percentage of respondents who think lowering salt in diet is very, somewhat or not at all important.

Instrument questions:

- How important to you is lowering the salt in your diet?

| Importance of lowering salt in diet |            |                  |                  |                      |                  |                        |                |
|-------------------------------------|------------|------------------|------------------|----------------------|------------------|------------------------|----------------|
| Age Group (years)                   | Men        |                  |                  |                      |                  |                        |                |
|                                     | n          | % Very important | 95% CI           | % Somewhat important | 95% CI           | % Not at all important | 95% CI         |
| 18-44                               | 239        | 66.0             | 56.5-75.6        | 27.6                 | 17.8-37.4        | 6.4                    | 4.5-8.3        |
| 45-64                               | 327        | 69.2             | 65.9-72.5        | 23.9                 | 20.6-27.2        | 6.8                    | 5.0-8.7        |
| <b>18-64</b>                        | <b>566</b> | <b>67.2</b>      | <b>60.9-73.5</b> | <b>26.3</b>          | <b>20.1-32.4</b> | <b>6.6</b>             | <b>5.3-7.9</b> |

| Importance of lowering salt in diet |            |                  |                  |                      |                  |                        |                |
|-------------------------------------|------------|------------------|------------------|----------------------|------------------|------------------------|----------------|
| Age Group (years)                   | Women      |                  |                  |                      |                  |                        |                |
|                                     | n          | % Very important | 95% CI           | % Somewhat important | 95% CI           | % Not at all important | 95% CI         |
| 18-44                               | 346        | 72.8             | 69.1-76.5        | 20.5                 | 18.1-23.0        | 6.7                    | 4.7-8.7        |
| 45-64                               | 262        | 76.8             | 72.5-81.0        | 18.9                 | 15.4-22.5        | 4.3                    | 2.9-5.7        |
| <b>18-64</b>                        | <b>608</b> | <b>74.0</b>      | <b>70.3-77.7</b> | <b>20.0</b>          | <b>17.6-22.5</b> | <b>5.9</b>             | <b>4.2-7.7</b> |

| Importance of lowering salt in diet |             |                  |                  |                      |                  |                        |                |
|-------------------------------------|-------------|------------------|------------------|----------------------|------------------|------------------------|----------------|
| Age Group (years)                   | Both Sexes  |                  |                  |                      |                  |                        |                |
|                                     | n           | % Very important | 95% CI           | % Somewhat important | 95% CI           | % Not at all important | 95% CI         |
| 18-44                               | 585         | 69.7             | 63.7-75.7        | 23.7                 | 18.4-29.0        | 6.6                    | 5.2-7.9        |
| 45-64                               | 589         | 73.0             | 70.6-75.4        | 21.4                 | 19.3-23.6        | 5.6                    | 4.3-6.9        |
| <b>18-64</b>                        | <b>1174</b> | <b>70.8</b>      | <b>66.3-75.3</b> | <b>23.0</b>          | <b>19.1-26.8</b> | <b>6.2</b>             | <b>5.1-7.4</b> |

**Analysis Information:**

- Question used: D9
- Epi Info program name: Dlower (unweighted); DlowerWT (weighted)

**Controlling salt intake**

Description: Percentage of respondents who take specific action on a regular basis to control salt intake.

Instrument question:

- Do you do any of the following on a regular basis to control your salt intake?

| Limit consumption of processed foods |            |             |                  |            |             |                  |             |             |                  |
|--------------------------------------|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
| Age Group (years)                    | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|                                      | n          | %           | 95% CI           | n          | %           | 95% CI           | n           | %           | 95% CI           |
| 18-44                                | 266        | 56.7        | 51.5-62.0        | 367        | 63.9        | 58.4-69.3        | 633         | 60.6        | 55.8-65.3        |
| 45-64                                | 357        | 63.0        | 59.7-66.2        | 271        | 73.3        | 70.1-76.6        | 628         | 68.0        | 65.9-70.1        |
| <b>18-64</b>                         | <b>623</b> | <b>58.9</b> | <b>55.1-62.7</b> | <b>638</b> | <b>66.8</b> | <b>62.9-70.7</b> | <b>1261</b> | <b>63.0</b> | <b>59.7-66.3</b> |

| Look at the salt or sodium content on food labels |            |             |                  |            |             |                  |             |             |                  |
|---|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
| Age Group<br>(years)                              | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|   | n          | %           | 95% CI           | n          | %           | 95% CI           | n           | %           | 95% CI           |
| 18-44   | 266        | 26.2        | 21.9-30.5        | 367        | 36.1        | 32.3-39.9        | 633         | 31.5        | 29.8-33.3        |
| 45-64   | 357        | 29.7        | 26.0-33.4        | 271        | 33.3        | 29.8-36.9        | 628         | 31.5        | 29.6-33.3        |
| <b>18-64</b>                                      | <b>623</b> | <b>27.4</b> | <b>24.5-30.4</b> | <b>638</b> | <b>35.2</b> | <b>32.9-37.6</b> | <b>1261</b> | <b>31.5</b> | <b>30.1-32.9</b> |

| Do not add salt on the table |            |             |                  |            |             |                  |             |             |                  |
|------------------------------|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
| Age Group<br>(years)         | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|                              | n          | %           | 95% CI           | n          | %           | 95% CI           | n           | %           | 95% CI           |
| 18-44                        | 266        | 37.7        | 35.2-40.3        | 367        | 49.6        | 44.4-54.8        | 633         | 44.1        | 41.3-46.9        |
| 45-64                        | 357        | 46.0        | 41.5-50.5        | 271        | 50.4        | 44.6-56.2        | 628         | 48.1        | 46.0-50.3        |
| <b>18-64</b>                 | <b>623</b> | <b>40.6</b> | <b>38.5-42.8</b> | <b>638</b> | <b>49.8</b> | <b>47.1-52.6</b> | <b>1261</b> | <b>45.4</b> | <b>43.4-47.4</b> |

| Buy low salt/sodium alternatives |            |             |                  |            |             |                  |             |             |                  |
|----------------------------------|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
| Age Group<br>(years)             | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|                                  | n          | %           | 95% CI           | n          | %           | 95% CI           | n           | %           | 95% CI           |
| 18-44                            | 266        | 23.2        | 20.0-26.3        | 367        | 30.5        | 26.9-34.2        | 633         | 27.1        | 24.6-29.6        |
| 45-64                            | 357        | 27.2        | 24.0-30.3        | 270        | 31.3        | 25.8-36.9        | 627         | 29.2        | 26.2-32.2        |
| <b>18-64</b>                     | <b>623</b> | <b>24.6</b> | <b>22.5-26.6</b> | <b>637</b> | <b>30.8</b> | <b>27.2-34.4</b> | <b>1260</b> | <b>27.8</b> | <b>25.6-30.0</b> |

| Do not add salt when cooking |            |             |                  |            |             |                  |             |             |                  |
|------------------------------|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
| Age Group<br>(years)         | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|                              | n          | %           | 95% CI           | n          | %           | 95% CI           | n           | %           | 95% CI           |
| 18-44                        | 266        | 36.3        | 33.7-38.8        | 367        | 47.7        | 41.4-54.0        | 633         | 42.4        | 38.7-46.2        |
| 45-64                        | 357        | 41.3        | 37.7-45.0        | 270        | 42.1        | 36.6-47.6        | 627         | 41.7        | 39.0-44.4        |
| <b>18-64</b>                 | <b>623</b> | <b>38.1</b> | <b>36.0-40.2</b> | <b>637</b> | <b>46.0</b> | <b>42.6-49.4</b> | <b>1260</b> | <b>42.2</b> | <b>40.2-44.2</b> |

| Use spices other than salt when cooking |            |             |                  |            |             |                  |             |             |                  |
|---|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
| Age Group<br>(years)                    | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|   | n          | %           | 95% CI           | n          | %           | 95% CI           | n           | %           | 95% CI           |
| 18-44                                   | 266        | 59.8        | 54.4-65.2        | 367        | 62.6        | 59.8-65.4        | 633         | 61.3        | 58.2-64.4        |
| 45-64                                   | 357        | 60.4        | 57.1-63.6        | 270        | 69.7        | 65.8-73.5        | 627         | 64.8        | 62.7-67.0        |
| <b>18-64</b>                            | <b>623</b> | <b>60.0</b> | <b>56.2-63.8</b> | <b>637</b> | <b>64.7</b> | <b>62.4-67.1</b> | <b>1260</b> | <b>62.5</b> | <b>60.1-64.8</b> |

| Avoid eating foods prepared outside of a home |            |             |                  |            |             |                  |             |             |                  |
|---|------------|-------------|------------------|------------|-------------|------------------|-------------|-------------|------------------|
| Age Group<br>(years)                          | Men        |             |                  | Women      |             |                  | Both Sexes  |             |                  |
|   | n          | %           | 95% CI           | n          | %           | 95% CI           | n           | %           | 95% CI           |
| 18-44   | 266        | 46.6        | 43.5-49.7        | 367        | 51.2        | 45.3-57.1        | 633         | 49.1        | 45.5-52.6        |
| 45-64   | 357        | 52.1        | 46.5-57.6        | 270        | 52.6        | 49.0-56.2        | 627         | 52.3        | 48.4-56.2        |
| <b>18-64</b>                                  | <b>623</b> | <b>48.5</b> | <b>45.3-51.7</b> | <b>637</b> | <b>51.6</b> | <b>47.0-56.2</b> | <b>1260</b> | <b>50.1</b> | <b>46.7-53.5</b> |

| Do other things specifically to control your salt intake |            |            |                |            |            |                |             |            |                |
|--|------------|------------|----------------|------------|------------|----------------|-------------|------------|----------------|
| Age Group<br>(years)                                     | Men        |            |                | Women      |            |                | Both Sexes  |            |                |
|  | n          | %          | 95% CI         | n          | %          | 95% CI         | n           | %          | 95% CI         |
| 18-44  | 266        | 1.1        | 0.4-1.7        | 367        | 2.6        | 1.4-3.9        | 633         | 1.9        | 1.1-2.7        |
| 45-64  | 357        | 1.9        | 0.8-3.1        | 270        | 1.8        | 0.9-2.8        | 627         | 1.9        | 0.9-2.9        |
| <b>18-64</b>   | <b>623</b> | <b>1.4</b> | <b>0.7-2.1</b> | <b>637</b> | <b>2.4</b> | <b>1.4-3.4</b> | <b>1260</b> | <b>1.9</b> | <b>1.2-2.6</b> |

#### Analysis Information:

- Questions used: DS7a-h
- Epi Info program name: Dcontrol (unweighted); DcontrolWT (weighted)



# Oral Health

Percentage of respondents having natural teeth

Description: Percentage of respondents who have no natural teeth, 1-9 natural teeth, 10-19 natural teeth, or 20 or more natural teeth.

Instrument question:

- How many natural teeth do you have?

| Percentage of respondents with natural teeth |            |                    |                |                       |                |                         |                  |                      |                  |
|--|------------|--------------------|----------------|-----------------------|----------------|-------------------------|------------------|----------------------|------------------|
| Age Group (years)                            | Men        |                    |                |                       |                |                         |                  |                      |                  |
|  | n          | % No natural teeth | 95% CI         | % 1 - 9 natural teeth | 95% CI         | % 10 - 19 natural teeth | 95% CI           | % ≥ 20 natural teeth | 95% CI           |
| 18-44  | 229        | 0.5                | 0.2-0.9        | 0.9                   | 0.3-1.5        | 7.4                     | 3.9-10.9         | 91.2                 | 87.1-95.2        |
| 45-64  | 336        | 10.1               | 6.8-13.4       | 6.7                   | 4.5-8.8        | 32.5                    | 25.8-39.3        | 50.7                 | 45.8-55.7        |
| <b>18-64</b>                                 | <b>565</b> | <b>4.1</b>         | <b>3.0-5.1</b> | <b>3.0</b>            | <b>2.1-4.0</b> | <b>16.8</b>             | <b>14.5-19.1</b> | <b>76.1</b>          | <b>73.4-78.8</b> |

| Percentage of respondents with natural teeth |            |                    |                |                       |                |                         |                  |                      |                  |
|--|------------|--------------------|----------------|-----------------------|----------------|-------------------------|------------------|----------------------|------------------|
| Age Group (years)                            | Women      |                    |                |                       |                |                         |                  |                      |                  |
|  | n          | % No natural teeth | 95% CI         | % 1 - 9 natural teeth | 95% CI         | % 10 - 19 natural teeth | 95% CI           | % ≥ 20 natural teeth | 95% CI           |
| 18-44  | 341        | 1.5                | 0.1-2.8        | 1.5                   | 0.6-2.4        | 12.0                    | 9.9-14.1         | 85.0                 | 82.8-87.3        |
| 45-64  | 261        | 5.6                | 4.0-7.3        | 9.4                   | 6.0-12.8       | 35.7                    | 30.3-41.1        | 49.3                 | 43.5-55.1        |
| <b>18-64</b>                                 | <b>602</b> | <b>2.8</b>         | <b>1.8-3.8</b> | <b>4.0</b>            | <b>3.0-5.0</b> | <b>19.5</b>             | <b>17.3-21.7</b> | <b>73.7</b>          | <b>71.5-75.9</b> |

| Percentage of respondents with natural teeth |             |                    |                |                       |                |                         |                  |                      |                  |
|--|-------------|--------------------|----------------|-----------------------|----------------|-------------------------|------------------|----------------------|------------------|
| Age Group (years)                            | Both Sexes  |                    |                |                       |                |                         |                  |                      |                  |
|  | n           | % No natural teeth | 95% CI         | % 1 - 9 natural teeth | 95% CI         | % 10 - 19 natural teeth | 95% CI           | % ≥ 20 natural teeth | 95% CI           |
| 18-44  | 570         | 1.1                | 0.3-1.8        | 1.2                   | 0.5-2.0        | 10.0                    | 7.7-12.2         | 87.8                 | 85.1-90.5        |
| 45-64  | 597         | 7.9                | 6.0-9.8        | 8.0                   | 6.1-9.9        | 34.1                    | 29.4-38.8        | 50.0                 | 45.7-54.3        |
| <b>18-64</b>                                 | <b>1167</b> | <b>3.4</b>         | <b>2.7-4.1</b> | <b>3.5</b>            | <b>2.9-4.1</b> | <b>18.2</b>             | <b>16.4-20.1</b> | <b>74.8</b>          | <b>73.0-76.7</b> |

Analysis Information:

- Questions used: O1
- Epi Info program name: Onatural (unweighted); OnaturalWT (weighted)

Percentage of respondents having poor or very poor state of teeth

Description: Percentage of respondents having a poor or very poor state of teeth among those having natural teeth.

Instrument question:

- How would you describe the state of your teeth?

| Percentage of respondents having poor or very poor state of teeth among those having natural teeth |            |   |                |            |   |                |             |   |                |
|--|------------|---|----------------|------------|---|----------------|-------------|---|----------------|
| Age Group<br>(years)   | Men        |   |                | Women      |   |                | Both Sexes  |   |                |
|  | n          | % having poor or very poor state of teeth | 95% CI         | n          | % having poor or very poor state of teeth | 95% CI         | n           | % having poor or very poor state of teeth | 95% CI         |
| 18-44  | 245        | 5.7                                       | 4.0-7.4        | 355        | 3.7                                       | 1.7-5.8        | 600         | 4.6                                       | 3.0-6.2        |
| 45-64  | 314        | 9.8                                       | 7.7-11.9       | 250        | 4.9                                       | 2.7-7.2        | 564         | 7.3                                       | 5.7-9.0        |
| <b>18-64</b>   | <b>559</b> | <b>7.1</b>                                | <b>5.7-8.5</b> | <b>605</b> | <b>4.1</b>                                | <b>2.1-6.0</b> | <b>1164</b> | <b>5.5</b>                                | <b>4.1-6.9</b> |

Analysis Information:

- Questions used: O2
- Epi Info program name: Ohealthteeth (unweighted); OhealthteethWT (weighted)

Percentage of respondents having poor or very poor state of gums

Description: Percentage of respondents having a poor or very poor state of gums among those having natural teeth.

Instrument question:

- How would you describe the state of your teeth?

| Percentage of respondents having poor or very poor state of gums among those having natural teeth |            |  |                |            |  |                |             |  |                |
|---|------------|--|----------------|------------|--|----------------|-------------|--|----------------|
| Age Group<br>(years)  | Men        |  |                | Women      |  |                | Both Sexes  |  |                |
|   | n          | % having poor or very poor state of gums | 95% CI         | n          | % having poor or very poor state of gums | 95% CI         | n           | % having poor or very poor state of gums | 95% CI         |
| 18-44   | 245        | 2.9                                      | 1.9-4.0        | 353        | 2.3                                      | 1.1-3.5        | 598         | 2.6                                      | 1.9-3.3        |
| 45-64   | 315        | 8.7                                      | 6.6-10.7       | 250        | 1.5                                      | 0.7-2.3        | 565         | 5.0                                      | 3.9-6.2        |
| <b>18-64</b>  | <b>560</b> | <b>4.8</b>                               | <b>3.9-5.8</b> | <b>603</b> | <b>2.1</b>                               | <b>1.0-3.2</b> | <b>1163</b> | <b>3.4</b>                               | <b>2.7-4.0</b> |

Analysis Information:

- Questions used: O3
- Epi Info program name: Ohealthgums (unweighted); OhealthgumsWT (weighted)

Percentage of respondents having removable dentures

Description: Percentage of respondents having removable dentures.

Instrument question:

- Do you have any removable dentures?

| Percentage of respondents having removable dentures |            |                             |                  |            |                             |                  |             |                             |                  |
|---|------------|-----------------------------|------------------|------------|-----------------------------|------------------|-------------|-----------------------------|------------------|
| Age Group<br>(years)                                | Men        |                             |                  | Women      |                             |                  | Both Sexes  |                             |                  |
|   | n          | % Having removable dentures | 95% CI           | n          | % Having removable dentures | 95% CI           | n           | % Having removable dentures | 95% CI           |
| 18-44   | 266        | 14.5                        | 11.6-17.5        | 367        | 16.5                        | 13.2-19.9        | 633         | 15.6                        | 13.4-17.8        |
| 45-64   | 356        | 40.3                        | 34.6-46.0        | 270        | 48.1                        | 42.9-53.4        | 626         | 44.1                        | 40.7-47.5        |
| <b>18-64</b>  | <b>622</b> | <b>23.6</b>                 | <b>21.5-25.7</b> | <b>637</b> | <b>26.2</b>                 | <b>23.5-28.8</b> | <b>1259</b> | <b>24.9</b>                 | <b>23.2-26.7</b> |

Analysis Information:

- Questions used: O4, O5a, O5b
- Epi Info program name: Odentures (unweighted); OdenturesWT (weighted)

Type of removable dentures among those having removable dentures

Description: Percentage of respondents who have an upper jaw denture, a lower jaw denture, or an upper and a lower jaw denture among those having removable dentures.

Instrument questions:

- Do you have any removable dentures?
- Which of the following removable dentures do you have?

| Percentage of respondents having an upper jaw denture among those having removable dentures |            |                               |                  |            |                               |                  |            |                               |                  |
|---|------------|-------------------------------|------------------|------------|-------------------------------|------------------|------------|-------------------------------|------------------|
| Age Group (years)   | Men        |                               |                  | Women      |                               |                  | Both Sexes |                               |                  |
|   | n          | % Having an upper jaw denture | 95% CI           | n          | % Having an upper jaw denture | 95% CI           | n          | % Having an upper jaw denture | 95% CI           |
| 18-44   | 39         | 86.4                          | 80.9-91.9        | 63         | 77.8                          | 69.7-86.0        | 102        | 81.6                          | 75.9-87.3        |
| 45-64   | 141        | 90.3                          | 82.1-98.5        | 123        | 94.8                          | 91.6-98.0        | 264        | 92.7                          | 90.1-95.2        |
| <b>18-64</b>  | <b>180</b> | <b>88.8</b>                   | <b>83.0-94.5</b> | <b>186</b> | <b>87.4</b>                   | <b>83.8-91.0</b> | <b>366</b> | <b>88.0</b>                   | <b>85.1-91.0</b> |

| Percentage of respondents having a lower jaw denture among those having removable dentures |            |                              |                  |            |                              |                  |            |                              |                  |
|--|------------|------------------------------|------------------|------------|------------------------------|------------------|------------|------------------------------|------------------|
| Age Group (years)  | Men        |                              |                  | Women      |                              |                  | Both Sexes |                              |                  |
|  | n          | % Having a lower jaw denture | 95% CI           | n          | % Having a lower jaw denture | 95% CI           | n          | % Having a lower jaw denture | 95% CI           |
| 18-44  | 39         | 60.6                         | 48.6-72.5        | 63         | 68.9                         | 62.2-75.5        | 102        | 65.2                         | 60.5-70.0        |
| 45-64  | 141        | 57.2                         | 50.1-64.3        | 123        | 32.6                         | 28.1-37.1        | 264        | 44.2                         | 40.5-47.9        |
| <b>18-64</b>   | <b>180</b> | <b>58.5</b>                  | <b>53.9-63.2</b> | <b>186</b> | <b>48.4</b>                  | <b>43.3-53.4</b> | <b>366</b> | <b>53.0</b>                  | <b>49.8-56.2</b> |

| Percentage of respondents having an upper and a lower jaw denture among those having removable dentures |            |   |                  |            |   |                  |            |   |                  |
|---|------------|---|------------------|------------|---|------------------|------------|---|------------------|
| Age Group (years)   | Men        |   |                  | Women      |   |                  | Both Sexes |   |                  |
|   | n          | % Having an upper and a lower jaw denture | 95% CI           | n          | % Having an upper and a lower jaw denture | 95% CI           | n          | % Having an upper and a lower jaw denture | 95% CI           |
| 18-44   | 39         | 47.0                                      | 30.4-63.5        | 63         | 46.7                                      | 39.5-54.0        | 102        | 46.8                                      | 38.1-55.6        |
| 45-64   | 141        | 47.5                                      | 43.6-51.5        | 123        | 27.3                                      | 22.7-32.0        | 264        | 36.8                                      | 34.2-39.5        |
| <b>18-64</b>  | <b>180</b> | <b>47.3</b>                               | <b>39.5-55.1</b> | <b>186</b> | <b>35.8</b>                               | <b>31.3-40.2</b> | <b>366</b> | <b>41.0</b>                               | <b>36.2-45.9</b> |

Analysis Information:

- Questions used: O4, O5a-b
- Epi Info program name: Odentures (unweighted); OdenturesWT (weighted)

Percentage of respondents having oral pain or discomfort

Description: Percentage of respondents who have pain or discomfort caused by their teeth or mouth during the past 12 months.

Instrument question:

- During the past 12 months, did your teeth or mouth cause any pain or discomfort?

| Percentage having oral pain or discomfort |            |                                  |                  |            |                                  |                  |             |                                  |                  |
|---|------------|----------------------------------|------------------|------------|----------------------------------|------------------|-------------|----------------------------------|------------------|
| Age Group (years)                         | Men        |                                  |                  | Women      |                                  |                  | Both Sexes  |                                  |                  |
|   | n          | % Having oral pain or discomfort | 95% CI           | n          | % Having oral pain or discomfort | 95% CI           | n           | % Having oral pain or discomfort | 95% CI           |
| 18-44                                     | 266        | 24.4                             | 20.8-28.1        | 365        | 23.8                             | 17.5-30.0        | 631         | 24.1                             | 21.3-26.8        |
| 45-64                                     | 356        | 27.0                             | 22.6-31.5        | 270        | 21.5                             | 15.3-27.8        | 626         | 24.4                             | 19.5-29.3        |
| <b>18-64</b>                              | <b>622</b> | <b>25.3</b>                      | <b>21.9-28.8</b> | <b>635</b> | <b>23.1</b>                      | <b>19.8-26.3</b> | <b>1257</b> | <b>24.2</b>                      | <b>22.4-25.9</b> |

Analysis Information:

- Questions used: O6
- Epi Info program name: Opain (unweighted); OpainWT (weighted)

Percentage of respondents having seen a dentist during the past 12 months

Description: Percentage of respondents having seen a dentist during the past 12 months.

Instrument question:

- How long has it been since you last saw a dentist?

| Percentage of respondents having seen a dentist during the past 12 months |            |   |                  |            |   |                  |             |   |                  |
|---|------------|---|------------------|------------|---|------------------|-------------|---|------------------|
| Age Group (years)   | Men        |   |                  | Women      |   |                  | Both Sexes  |   |                  |
|   | n          | % having seen a dentist during the past 12 months | 95% CI           | n          | % having seen a dentist during the past 12 months | 95% CI           | n           | % having seen a dentist during the past 12 months | 95% CI           |
| 18-44   | 239        | 39.6  | 35.4-43.7        | 344        | 42.3  | 37.7-46.9        | 583         | 41.1  | 38.3-43.8        |
| 45-64   | 332        | 43.3  | 36.4-50.1        | 261        | 40.0  | 33.4-46.5        | 593         | 41.6  | 39.0-44.3        |
| <b>18-64</b>  | <b>571</b> | <b>40.9</b>                                       | <b>37.2-44.6</b> | <b>605</b> | <b>41.6</b>                                       | <b>37.2-45.9</b> | <b>1176</b> | <b>41.3</b>                                       | <b>39.4-43.1</b> |

Analysis Information:

- Questions used: O7
- Epi Info program name: Odentalvisit (unweighted); OdentalvisitWT (weighted)

Percentage of respondents who have never received dental care

Description: Percentage of respondents who have never received dental care.

Instrument question:

- How long has it been since you last saw a dentist?

| Percentage of respondents who have never received dental care |            |                                    |                |            |                                    |                |             |                                    |                |
|---|------------|------------------------------------|----------------|------------|------------------------------------|----------------|-------------|------------------------------------|----------------|
| Age Group<br>(years)  | Men        |                                    |                | Women      |                                    |                | Both Sexes  |                                    |                |
|   | n          | % never<br>received<br>dental care | 95% CI         | n          | % never<br>received<br>dental care | 95% CI         | n           | % never<br>received<br>dental care | 95% CI         |
| 18-44   | 239        | 2.2                                | 1.1-3.4        | 344        | 4.1                                | 2.1-6.1        | 583         | 3.2                                | 1.9-4.6        |
| 45-64   | 332        | 3.2                                | 0.3-6.0        | 261        | 2.0                                | 0.9-3.2        | 593         | 2.6                                | 1.2-4.0        |
| <b>18-64</b>  | <b>571</b> | <b>2.5</b>                         | <b>1.4-3.7</b> | <b>605</b> | <b>3.4</b>                         | <b>1.9-4.9</b> | <b>1176</b> | <b>3.0</b>                         | <b>2.3-3.7</b> |

Analysis Information:

- Questions used: O7
- Epi Info program name: Odentalvisit (unweighted); OdentalvisitWT (weighted)

Main reason for  
last visit to the  
dentist among  
those who ever  
visited a dentist

Description: Main reason for last visit to the dentist among those who ever visited a dentist.

Instrument question:

- What was the reason for your last visit to the dentist?

| Main reason for last visit to the dentist among those who ever visited a dentist |            |                                |                |  |                  |                             |                  |                                       |                  |            |                |
|--|------------|--------------------------------|----------------|--|------------------|-----------------------------|------------------|---------------------------------------|------------------|------------|----------------|
| Age Group<br>(years)   | Men        |                                |                |  |                  |                             |                  |                                       |                  |            |                |
|  | n          | % Consul-<br>tation/<br>advice | 95%<br>CI      | % Pain<br>or<br>trouble<br>with<br>teeth<br>or<br>gums | 95%<br>CI        | %<br>Follow-up<br>treatment | 95%<br>CI        | %<br>Routine<br>check-up<br>treatment | 95%<br>CI        | %<br>Other | 95%<br>CI      |
| 18-44  | 234        | 6.8                            | 5.2-8.3        | 39.5   | 30.7-48.4        | 26.3                        | 16.9-35.8        | 27.4                                  | 23.7-31.0        | 0.0        | 0.0-0.0        |
| 45-64  | 321        | 5.7                            | 3.8-7.7        | 36.9   | 33.3-40.4        | 31.4                        | 26.7-36.0        | 25.5                                  | 21.1-29.9        | 0.5        | 0.1-0.9        |
| <b>18-64</b>   | <b>555</b> | <b>6.4</b>                     | <b>5.0-7.8</b> | <b>38.6</b>  | <b>33.4-43.8</b> | <b>28.2</b>                 | <b>22.6-33.7</b> | <b>26.7</b>                           | <b>23.7-29.7</b> | <b>0.2</b> | <b>0.1-0.3</b> |

| Main reason for last visit to the dentist among those who ever visited a dentist |            |                                |                |   |                  |                              |                  |                                    |                  |            |                |
|--|------------|--------------------------------|----------------|---|------------------|------------------------------|------------------|------------------------------------|------------------|------------|----------------|
| Age Group<br>(years)   | Women      |                                |                |   |                  |                              |                  |                                    |                  |            |                |
|  | n          | % Consul-<br>tation/<br>advice | 95% CI         | % Pain<br>or<br>trouble<br>with<br>teeth or<br>gums | 95% CI           | % Follow-<br>up<br>treatment | 95% CI           | % Routine<br>check-up<br>treatment | 95% CI           | % Other    | 95% CI         |
| 18-44  | 335        | 5.0                            | 2.9-7.2        | 34.9  | 31.5-38.4        | 27.9                         | 24.1-31.8        | 31.2                               | 26.0-36.4        | 0.9        | 0.5-1.3        |
| 45-64  | 256        | 6.2                            | 3.2-9.1        | 28.3  | 23.8-32.8        | 33.1                         | 25.0-41.3        | 32.4                               | 23.6-41.2        | 0.0        | 0.0-0.0        |
| <b>18-64</b>   | <b>591</b> | <b>5.4</b>                     | <b>4.2-6.6</b> | <b>32.8</b>   | <b>30.2-35.5</b> | <b>29.6</b>                  | <b>24.9-34.3</b> | <b>31.6</b>                        | <b>25.7-37.5</b> | <b>0.6</b> | <b>0.3-0.9</b> |

| Main reason for last visit to the dentist among those who ever visited a dentist |             |                                |                |  |                  |                              |                  |                                    |                  |            |                |
|--|-------------|--------------------------------|----------------|--|------------------|------------------------------|------------------|------------------------------------|------------------|------------|----------------|
| Age Group<br>(years)   | Both Sexes  |                                |                |  |                  |                              |                  |                                    |                  |            |                |
|  | n           | % Consul-<br>tation/<br>advice | 95% CI         | % Pain or<br>trouble<br>with<br>teeth or<br>gums | 95% CI           | % Follow-<br>up<br>treatment | 95% CI           | % Routine<br>check-up<br>treatment | 95% CI           | % Other    | 95% CI         |
| 18-44  | 569         | 5.8                            | 4.3-7.4        | 37.1   | 32.8-41.3        | 27.2                         | 24.2-30.2        | 29.4                               | 26.0-32.9        | 0.5        | 0.3-0.7        |
| 45-64  | 577         | 6.0                            | 4.4-7.5        | 32.6   | 30.3-34.9        | 32.3                         | 26.4-38.1        | 28.9                               | 23.0-34.8        | 0.2        | 0.1-0.4        |
| <b>18-64</b>   | <b>1146</b> | <b>5.9</b>                     | <b>4.8-6.9</b> | <b>35.6</b>                                      | <b>32.5-38.6</b> | <b>28.9</b>                  | <b>27.4-30.4</b> | <b>29.3</b>                        | <b>25.5-33.1</b> | <b>0.4</b> | <b>0.2-0.6</b> |

Analysis Information:

- Questions used: O7, O8
- Epi Info program name: Oreasonvisit (unweighted); OreasonvisitWT (weighted)

Description: Percentage of respondents cleaning their teeth at least once / at least twice a day.

Percentage  
cleaning  
teeth at  
least once  
/ at least  
twice a day

Instrument question:

- How often do you clean your teeth?

| Percentage of respondents cleaning their teeth at least once a day |            |  |                  |            |                                       |                  |             |                                       |                  |
|--|------------|--|------------------|------------|---------------------------------------|------------------|-------------|---------------------------------------|------------------|
| Age Group<br>(years)   | Men        |  |                  | Women      |                                       |                  | Both Sexes  |                                       |                  |
|  | n          | %<br>cleaning<br>teeth at<br>least daily | 95% CI           | n          | % cleaning<br>teeth at<br>least daily | 95% CI           | n           | % cleaning<br>teeth at<br>least daily | 95% CI           |
| 18-44  | 266        | 83.5                                     | 80.1-86.9        | 365        | 89.0                                  | 86.6-91.4        | 631         | 86.4                                  | 84.6-88.3        |
| 45-64  | 356        | 79.4                                     | 76.8-82.0        | 270        | 92.7                                  | 90.1-95.3        | 626         | 85.9                                  | 84.3-87.5        |
| <b>18-64</b>   | <b>622</b> | <b>82.1</b>                              | <b>79.5-84.6</b> | <b>635</b> | <b>90.1</b>                           | <b>88.5-91.8</b> | <b>1257</b> | <b>86.3</b>                           | <b>84.9-87.6</b> |

| Percentage of respondents cleaning their teeth at least twice a day |            |  |                  |            |  |                  |             |  |                  |
|---|------------|--|------------------|------------|--|------------------|-------------|--|------------------|
| Age Group<br>(years)  | Men        |  |                  | Women      |  |                  | Both Sexes  |  |                  |
|   | n          | %<br>cleaning<br>teeth<br>at least<br>twice a<br>day | 95% CI           | n          | %<br>cleaning<br>teeth<br>at least<br>twice a<br>day | 95% CI           | n           | %<br>cleaning<br>teeth<br>at least<br>twice a<br>day | 95% CI           |
| 18-44   | 266        | 51.0   | 47.0-55.0        | 365        | 71.1   | 67.2-74.9        | 631         | 61.7   | 58.6-64.9        |
| 45-64   | 356        | 44.3   | 41.4-47.2        | 270        | 69.2   | 64.2-74.3        | 626         | 56.4   | 53.7-59.0        |
| <b>18-64</b>  | <b>622</b> | <b>48.6</b>  | <b>45.8-51.4</b> | <b>635</b> | <b>70.5</b>  | <b>67.4-73.6</b> | <b>1257</b> | <b>60.0</b>  | <b>57.9-62.1</b> |

Analysis Information:

- Questions used: O9
- Epi Info program name: Ofreqclean (unweighted); OfreqcleanWT (weighted)

Percentage of  
respondents  
using

Description: Percentage of respondents using toothpaste among those cleaning their teeth.

toothpaste

Instrument question:

- Do you use toothpaste to clean your teeth?

| Percentage of respondents using toothpaste among those cleaning their teeth |            |                       |                  |            |                       |                  |             |                       |                  |
|---|------------|-----------------------|------------------|------------|-----------------------|------------------|-------------|-----------------------|------------------|
| Age Group<br>(years)  | Men        |                       |                  | Women      |                       |                  | Both Sexes  |                       |                  |
|   | n          | % using<br>toothpaste | 95% CI           | n          | % using<br>toothpaste | 95% CI           | n           | % using<br>toothpaste | 95% CI           |
| 18-44   | 263        | 95.2                  | 93.9-96.6        | 363        | 99.8                  | 99.3-100.0       | 626         | 97.7                  | 97.0-98.4        |
| 45-64   | 345        | 94.9                  | 93.2-96.6        | 265        | 97.3                  | 95.6-99.0        | 610         | 96.1                  | 95.1-97.1        |
| <b>18-64</b>  | <b>608</b> | <b>95.1</b>           | <b>94.1-96.2</b> | <b>628</b> | <b>99.0</b>           | <b>98.3-99.7</b> | <b>1236</b> | <b>97.2</b>           | <b>96.6-97.7</b> |

Analysis Information:

- Questions used: O10
- Epi Info program name: Otoothpaste (unweighted); OtoothpasteWT (weighted)

Percentage of respondents using toothpaste containing fluoride

Description: Percentage of respondents using toothpaste containing fluoride among those using toothpaste.

Instrument question:

- Do you use toothpaste containing fluoride?

| Percentage of respondents using toothpaste containing fluoride among those using toothpaste |            |  |                  |            |  |                  |             |  |                  |
|---|------------|--|------------------|------------|--|------------------|-------------|--|------------------|
| Age Group (years)   | Men        |  |                  | Women      |  |                  | Both Sexes  |  |                  |
|   | n          | % using toothpaste containing fluoride | 95% CI           | n          | % using toothpaste containing fluoride | 95% CI           | n           | % using toothpaste containing fluoride | 95% CI           |
| 18-44   | 229        | 93.7                                   | 91.6-95.8        | 313        | 97.1                                   | 94.2-99.9        | 542         | 95.5                                   | 93.5-97.6        |
| 45-64   | 309        | 91.0                                   | 88.3-93.7        | 247        | 95.7                                   | 93.9-97.5        | 556         | 93.3                                   | 91.9-94.8        |
| <b>18-64</b>  | <b>538</b> | <b>92.7</b>                            | <b>91.5-94.0</b> | <b>560</b> | <b>96.6</b>                            | <b>94.6-98.7</b> | <b>1098</b> | <b>94.8</b>                            | <b>93.6-96.0</b> |

Analysis Information:

- Questions used: O10, O11
- Epi Info program name: Of fluoride (unweighted); Of fluoride WT (weighted)

Percentage using a various tools to clean teeth among those cleaning their teeth

Description: Percentage of respondents who use a tooth brush, wooden toothpicks, plastic toothpicks, thread (dental floss), charcoal, chewstick/miswak or something else to clean their teeth among those cleaning their teeth.

Instrument question:

- Which of the following do you use to clean your teeth?

| Percentage of respondents using various tools to clean teeth |            |               |                  |            |                      |                  |            |                       |                |            |                         |                  |
|--|------------|---------------|------------------|------------|----------------------|------------------|------------|-----------------------|----------------|------------|-------------------------|------------------|
| Age Group (years)  | Men        |               |                  |            |                      |                  |            |                       |                |            |                         |                  |
|  | n          | % Tooth-brush | 95% CI           | n          | % Wooden tooth-picks | 95% CI           | n          | % Plastic tooth-picks | 95% CI         | n          | % Thread (dental floss) | 95% CI           |
| 18-44  | 263        | 94.8          | 93.4-96.2        | 263        | 24.3                 | 18.7-29.9        | 263        | 5.3                   | 3.9-6.8        | 263        | 26.9                    | 22.4-31.4        |
| 45-64  | 345        | 95.2          | 93.8-96.6        | 345        | 19.2                 | 17.1-21.3        | 345        | 4.5                   | 3.0-5.9        | 345        | 16.1                    | 12.4-19.7        |
| <b>18-64</b>   | <b>608</b> | <b>94.9</b>   | <b>93.9-96.0</b> | <b>608</b> | <b>22.5</b>          | <b>18.9-26.1</b> | <b>608</b> | <b>5.0</b>            | <b>4.0-6.0</b> | <b>608</b> | <b>23.1</b>             | <b>19.2-27.0</b> |

| Percentage of respondents using various tools to clean teeth |            |        |   |                     |        |            |            |                 |  |
|--|------------|--------|---|---------------------|--------|------------|------------|-----------------|--|
| Age Group (years)  |            |        |   |                     |        |            |            |                 |  |
|  | % Charcoal | 95% CI | n | % Chewstick/ miswak | 95% CI | n          | % Other    | 95% CI          |  |
| 18-44  | -          | -      | - | -                   | -      | 262        | 7.8        | 5.8-9.8         |  |
| 45-64  | -          | -      | - | -                   | -      | 344        | 10.5       | 8.6-12.4        |  |
| <b>18-64</b>   | -          | -      | - | -                   | -      | <b>606</b> | <b>8.7</b> | <b>7.4-10.1</b> |  |

| Percentage of respondents using various tools to clean teeth |            |               |                  |            |                      |                  |            |                       |                |            |                         |                  |
|--|------------|---------------|------------------|------------|----------------------|------------------|------------|-----------------------|----------------|------------|-------------------------|------------------|
| Age Group (years)  | Women      |               |                  |            |                      |                  |            |                       |                |            |                         |                  |
|  | n          | % Tooth-brush | 95% CI           | n          | % Wooden tooth-picks | 95% CI           | n          | % Plastic tooth-picks | 95% CI         | n          | % Thread (dental floss) | 95% CI           |
| 18-44  | 363        | 99.2          | 98.6-99.8        | 363        | 28.6                 | 23.9-33.2        | 363        | 8.4                   | 6.4-10.4       | 363        | 38.8                    | 35.3-42.3        |
| 45-64  | 265        | 100.0         | 100.0-100.0      | 265        | 24.9                 | 21.7-28.2        | 265        | 4.0                   | 2.8-5.1        | 265        | 23.9                    | 21.5-26.3        |
| <b>18-64</b>   | <b>628</b> | <b>99.5</b>   | <b>99.0-99.9</b> | <b>628</b> | <b>27.5</b>          | <b>24.1-30.8</b> | <b>628</b> | <b>7.1</b>            | <b>5.6-8.6</b> | <b>628</b> | <b>34.3</b>             | <b>31.7-36.9</b> |

| Percentage of respondents using various tools to clean teeth |            |        |   |                     |        |            |            |                |  |
|--|------------|--------|---|---------------------|--------|------------|------------|----------------|--|
| Age Group (years)  |            |        |   |                     |        |            |            |                |  |
|  | % Charcoal | 95% CI | n | % Chewstick/ miswak | 95% CI | n          | %Other     | 95% CI         |  |
| 18-44  | -          | -      | - | -                   | -      | 360        | 4.9        | 3.4-6.5        |  |
| 45-64  | -          | -      | - | -                   | -      | 265        | 3.4        | 1.8-5.1        |  |
| <b>18-64</b>   | -          | -      | - | -                   | -      | <b>625</b> | <b>4.5</b> | <b>3.3-5.7</b> |  |

| Percentage of respondents using various tools to clean teeth |             |               |                  |             |                      |                  |             |                       |                |             |                         |                  |
|--|-------------|---------------|------------------|-------------|----------------------|------------------|-------------|-----------------------|----------------|-------------|-------------------------|------------------|
| Age Group (years)  | Both Sexes  |               |                  |             |                      |                  |             |                       |                |             |                         |                  |
|  | n           | % Tooth-brush | 95% CI           | n           | % Wooden tooth-picks | 95% CI           | n           | % Plastic tooth-picks | 95% CI         | n           | % Thread (dental floss) | 95% CI           |
| 18-44  | 626         | 97.2          | 96.5-97.8        | 626         | 26.6                 | 25.0-28.2        | 626         | 7.0                   | 5.7-8.3        | 626         | 33.3                    | 30.4-36.1        |
| 45-64  | 610         | 97.5          | 96.8-98.2        | 610         | 22.0                 | 20.6-23.3        | 610         | 4.2                   | 3.3-5.2        | 610         | 19.9                    | 17.8-22.0        |
| <b>18-64</b>   | <b>1236</b> | <b>97.3</b>   | <b>96.8-97.7</b> | <b>1236</b> | <b>25.1</b>          | <b>23.8-26.4</b> | <b>1236</b> | <b>6.1</b>            | <b>5.1-7.1</b> | <b>1236</b> | <b>28.9</b>             | <b>26.3-31.6</b> |

| Percentage of respondents using various tools to clean teeth |            |        |   |                     |        |             |            |                |  |
|--|------------|--------|---|---------------------|--------|-------------|------------|----------------|--|
| Age Group (years)  |            |        |   |                     |        |             |            |                |  |
|  | % Charcoal | 95% CI | n | % Chewstick/ miswak | 95% CI | n           | %Other     | 95% CI         |  |
| 18-44  | -          | -      | - | -                   | -      | 622         | 6.3        | 5.1-7.5        |  |
| 45-64  | -          | -      | - | -                   | -      | 609         | 7.1        | 5.7-8.4        |  |
| <b>18-64</b>   | -          | -      | - | -                   | -      | <b>1231</b> | <b>6.5</b> | <b>5.6-7.5</b> |  |

#### Analysis Information:

- Questions used: O12a-g
- Epi Info program name: Ocleaningtool (unweighted); OcleaningtoolWT (weighted) \

Percentage of respondents having difficulty in chewing foods

Description: Percentage of respondents having difficulty in chewing foods during the past 12 months.

Instrument questions:

- Have you experienced any of the following problems during the past year because of the state of your teeth?
- Difficulty in chewing foods?



| Percentage of respondents having difficulty in chewing foods during the past 12 months |            |                               |                  |            |                               |                 |             |                               |                  |
|--|------------|-------------------------------|------------------|------------|-------------------------------|-----------------|-------------|-------------------------------|------------------|
| Age Group (years)  | Men        |                               |                  | Women      |                               |                 | Both Sexes  |                               |                  |
|  | n          | % Difficulty in chewing foods | 95% CI           | n          | % Difficulty in chewing foods | 95% CI          | n           | % Difficulty in chewing foods | 95% CI           |
| 18-44  | 266        | 13.3                          | 10.7-16.0        | 365        | 12.8                          | 9.2-16.5        | 631         | 13.1                          | 11.4-14.8        |
| 45-64  | 356        | 18.3                          | 13.5-23.1        | 270        | 14.7                          | 9.1-20.3        | 626         | 16.5                          | 14.4-18.7        |
| <b>18-64</b>   | <b>622</b> | <b>15.1</b>                   | <b>12.5-17.7</b> | <b>635</b> | <b>13.4</b>                   | <b>9.9-16.9</b> | <b>1257</b> | <b>14.2</b>                   | <b>13.0-15.5</b> |

Analysis Information:

- Questions used: O13a-j
- Epi Info program name: Oproblem (unweighted); OproblemWT (weighted)

Percentage of respondents having difficulty with speech/trouble pronouncing words

Description: Percentage of respondents having difficulty with speech/trouble pronouncing words during the past 12 months.

Instrument questions:

- Have you experienced any of the following problems during the past year because of the state of your teeth?
- Difficulty with speech/trouble pronouncing words?

| Percentage of respondents having difficulty with speech/trouble pronouncing words during the past 12 months |            |  |                |            |  |                |             |  |                |
|---|------------|--|----------------|------------|--|----------------|-------------|--|----------------|
| Age Group (years)   | Men        |  |                | Women      |  |                | Both Sexes  |  |                |
|   | n          | % Difficulty with speech/trouble pronouncing words | 95% CI         | n          | % Difficulty with speech/trouble pronouncing words | 95% CI         | n           | % Difficulty with speech/trouble pronouncing words | 95% CI         |
| 18-44   | 266        | 4.7  | 2.6-6.8        | 365        | 2.0  | 0.6-3.4        | 631         | 3.2  | 1.8-4.7        |
| 45-64   | 356        | 10.4   | 7.3-13.5       | 270        | 5.7  | 1.6-9.9        | 626         | 8.1  | 5.8-10.5       |
| <b>18-64</b>  | <b>622</b> | <b>6.7</b>   | <b>5.3-8.1</b> | <b>635</b> | <b>3.1</b>   | <b>1.2-5.1</b> | <b>1257</b> | <b>4.9</b>   | <b>3.4-6.3</b> |

Analysis Information:

- Questions used: O13a-j
- Epi Info program name: Oproblem (unweighted); OproblemWT (weighted)

Percentage of respondents feeling tense because of problems with teeth or mouth

Description: Percentage of respondents feeling tense because of problems with teeth or mouth during the past 12 months.

Instrument questions:

- Have you experienced any of the following problems during the past year because of the state of your teeth?
- Felt tense because of problems with teeth or mouth?

| Percentage of respondents feeling tense because of problems with teeth or mouth during the past 12 months |            |   |                 |            |   |                |             |   |                |
|---|------------|---|-----------------|------------|---|----------------|-------------|---|----------------|
| Age Group (years)   | Men        |   |                 | Women      |   |                | Both Sexes  |   |                |
|   | n          | % Feeling tense because of problems with teeth or mouth | 95% CI          | n          | % Feeling tense because of problems with teeth or mouth | 95% CI         | n           | % Feeling tense because of problems with teeth or mouth | 95% CI         |
| 18-44   | 266        | 9.1   | 7.0-11.2        | 365        | 3.9   | 2.9-4.9        | 631         | 6.3   | 5.2-7.5        |
| 45-64   | 356        | 6.9   | 4.1-9.7         | 270        | 7.1   | 4.6-9.6        | 626         | 7.0   | 5.4-8.6        |
| <b>18-64</b>  | <b>622</b> | <b>8.3</b>  | <b>6.4-10.3</b> | <b>635</b> | <b>4.9</b>  | <b>3.9-5.9</b> | <b>1257</b> | <b>6.6</b>  | <b>5.5-7.6</b> |

Analysis Information:

- Questions used: O13a-j
- Epi Info program name: Oproblem (unweighted); OproblemWT (weighted)

Percentage of respondents being embarrassed about appearance of teeth

Description: Percentage of respondents being embarrassed about appearance of teeth during the past 12 months.

Instrument questions:

- Have you experienced any of the following problems during the past year because of the state of your teeth?
- Embarrassed about appearance of teeth?

| Percentage of respondents being embarrassed because of appearance of teeth during the past 12 months |            |  |                |            |  |                |             |  |                |
|--|------------|--|----------------|------------|--|----------------|-------------|--|----------------|
| Age Group (years)  | Men        |  |                | Women      |  |                | Both Sexes  |  |                |
|  | n          | % Embarrassed because of appearance of teeth | 95% CI         | n          | % Embarrassed because of appearance of teeth | 95% CI         | n           | % Embarrassed because of appearance of teeth | 95% CI         |
| 18-44  | 266        | 6.2  | 4.4-8.0        | 365        | 4.3  | 3.0-5.7        | 631         | 5.2  | 4.3-6.1        |
| 45-64  | 356        | 12.4   | 9.9-14.9       | 270        | 5.0  | 1.7-8.3        | 626         | 8.9  | 6.7-11.0       |
| <b>18-64</b>   | <b>622</b> | <b>8.4</b>                                   | <b>7.0-9.7</b> | <b>635</b> | <b>4.5</b>                                   | <b>3.5-5.6</b> | <b>1257</b> | <b>6.4</b>                                   | <b>5.5-7.3</b> |

Analysis Information:

- Questions used: O13a-j
- Epi Info program name: Oproblem (unweighted); OproblemWT (weighted)

Percentage of respondents avoiding smiling because of teeth

Description: Percentage of respondents avoiding smiling because of teeth during the past 12 months.

Instrument questions:

- Have you experienced any of the following problems during the past year because of the state of your teeth?
- Avoid smiling because of teeth?

| Percentage of respondents avoiding smiling because of teeth during the past 12 months |            |                                     |                |            |                                     |                |            |                                     |                |
|---|------------|-------------------------------------|----------------|------------|-------------------------------------|----------------|------------|-------------------------------------|----------------|
| Age Group (years)   | Men        |                                     |                | Women      |                                     |                | Both Sexes |                                     |                |
|   | n          | % Avoiding smiling because of teeth | 95% CI         | n          | % Avoiding smiling because of teeth | 95% CI         | n          | % Avoiding smiling because of teeth | 95% CI         |
| 18-44   | 71         | 1.1                                 | 0.4-1.8        | 95         | 2.4                                 | 0.9-3.9        | 166        | 1.8                                 | 0.7-2.9        |
| 45-64   | 35         | 10.1                                | 0.1-20.2       | 31         | 0.0                                 | 0.0-0.0        | 66         | 4.4                                 | 1.0-7.9        |
| <b>18-64</b>  | <b>106</b> | <b>2.5</b>                          | <b>0.7-4.3</b> | <b>126</b> | <b>2.0</b>                          | <b>0.7-3.2</b> | <b>232</b> | <b>2.2</b>                          | <b>0.8-3.7</b> |

Analysis Information:

- Questions used: O13a-j
- Epi Info program name: Oproblem (unweighted); OproblemWT (weighted)

|   |  |
|---|--|
| Percentage of respondents with interruptions in sleep | <p>Description: Percentage of respondents whose sleep was often interrupted during the past 12 months.</p> <p>Instrument questions:</p> <ul style="list-style-type: none"> <li>• Have you experienced any of the following problems during the past year because of the state of your teeth?</li> <li>• Sleep is often interrupted?</li> </ul> |
|---|--|

| Percentage of respondents with interruptions in sleep during the past 12 months |            |                           |                |            |                           |                |             |                           |                |
|---|------------|---------------------------|----------------|------------|---------------------------|----------------|-------------|---------------------------|----------------|
| Age Group (years)   | Men        |                           |                | Women      |                           |                | Both Sexes  |                           |                |
|   | n          | % Sleep often interrupted | 95% CI         | n          | % Sleep often interrupted | 95% CI         | n           | % Sleep often interrupted | 95% CI         |
| 18-44   | 266        | 5.9                       | 4.6-7.3        | 365        | 3.8                       | 2.4-5.2        | 631         | 4.8                       | 3.9-5.7        |
| 45-64   | 356        | 8.0                       | 4.9-11.1       | 270        | 4.2                       | 2.0-6.4        | 626         | 6.2                       | 4.7-7.6        |
| <b>18-64</b>  | <b>622</b> | <b>6.6</b>                | <b>5.4-7.9</b> | <b>635</b> | <b>3.9</b>                | <b>2.8-5.1</b> | <b>1257</b> | <b>5.2</b>                | <b>4.6-5.9</b> |

Analysis Information:

- Questions used: O13a-j
- Epi Info program name: Oproblem (unweighted); OproblemWT (weighted)

|   |  |
|---|--|
| Percentage of respondents with days not at work because of teeth or mouth | <p>Description: Percentage of respondents with days not at work because of teeth or mouth during the past 12 months.</p> <p>Instrument questions:</p> <ul style="list-style-type: none"> <li>• Have you experienced any of the following problems during the past year because of the state of your teeth?</li> <li>• Days not at work because of teeth or mouth?</li> </ul> |
|---|--|

| Percentage of respondents with days not at work because of teeth or mouth during the past 12 months |            |                         |                |            |                         |                |             |                         |                |
|---|------------|-------------------------|----------------|------------|-------------------------|----------------|-------------|-------------------------|----------------|
| Age Group (years)   | Men        |                         |                | Women      |                         |                | Both Sexes  |                         |                |
|   | n          | % With days not at work | 95% CI         | n          | % With days not at work | 95% CI         | n           | % With days not at work | 95% CI         |
| 18-44   | 266        | 3.8                     | 1.9-5.6        | 365        | 1.7                     | 0.7-2.7        | 631         | 2.6                     | 1.3-4.0        |
| 45-64   | 356        | 1.8                     | 1.0-2.7        | 270        | 0.6                     | 0.0-1.2        | 626         | 1.2                     | 0.7-1.7        |
| <b>18-64</b>  | <b>622</b> | <b>3.1</b>              | <b>1.8-4.4</b> | <b>635</b> | <b>1.3</b>              | <b>0.6-2.0</b> | <b>1257</b> | <b>2.2</b>              | <b>1.2-3.1</b> |

Analysis Information:

- Questions used: O13a-j
- Epi Info program name: Oproblem (unweighted); OproblemWT (weighted)

|  |  |
|--|--|
| Percentage of respondents having difficulty doing usual activities | <p>Description: Percentage of respondents having difficulty doing usual activities during the past 12 months.</p> <p>Instrument questions:</p> <ul style="list-style-type: none"> <li>• Have you experienced any of the following problems during the past year because of the state of your teeth?</li> <li>• Difficulty doing usual activities?</li> </ul> |
|--|--|

| Percentage of respondents having difficulty doing usual activities during the past 12 months |            |  |                |            |  |                |             |  |                |
|--|------------|--|----------------|------------|--|----------------|-------------|--|----------------|
| Age Group (years)  | Men        |  |                | Women      |  |                | Both Sexes  |  |                |
|  | n          | % Having difficulty doing usual activities | 95% CI         | n          | % Having difficulty doing usual activities | 95% CI         | n           | % Having difficulty doing usual activities | 95% CI         |
| 18-44  | 266        | 2.4  | 1.3-3.5        | 365        | 1.5  | 0.4-2.5        | 631         | 1.9  | 1.4-2.4        |
| 45-64  | 356        | 1.3  | 0.3-2.3        | 270        | 0.8  | 0.0-2.2        | 626         | 1.1  | 0.6-1.6        |
| <b>18-64</b>   | <b>622</b> | <b>2.0</b>                                 | <b>1.0-3.1</b> | <b>635</b> | <b>1.3</b>                                 | <b>0.3-2.2</b> | <b>1257</b> | <b>1.6</b>                                 | <b>1.3-2.0</b> |

Analysis Information:

- Questions used: O13a-j
- Epi Info program name: Oproblem (unweighted); OproblemWT (weighted)

Percentage of respondents being less tolerant of spouse or people close to them Description: Percentage of respondents having been less tolerant of spouse or people close to them during the past 12 months.

being less tolerant of spouse or people close to them

Instrument questions:

- Have you experienced any of the following problems during the past year because of the state of your teeth?
- Less tolerant of spouse or people close to you?

| Percentage of respondents having been less tolerant of spouse or people close to them during the past 12 months |            |                             |                |            |                             |                |             |                             |                |
|---|------------|-----------------------------|----------------|------------|-----------------------------|----------------|-------------|-----------------------------|----------------|
| Age Group (years)   | Men        |                             |                | Women      |                             |                | Both Sexes  |                             |                |
|   | n          | % Having been less tolerant | 95% CI         | n          | % Having been less tolerant | 95% CI         | n           | % Having been less tolerant | 95% CI         |
| 18-44   | 266        | 1.3                         | 0.5-2.2        | 365        | 2.7                         | 1.8-3.7        | 631         | 2.1                         | 1.6-2.6        |
| 45-64   | 356        | 2.1                         | 1.1-3.0        | 270        | 0.7                         | 0.1-1.3        | 626         | 1.4                         | 0.8-2.0        |
| <b>18-64</b>  | <b>622</b> | <b>1.6</b>                  | <b>1.0-2.2</b> | <b>635</b> | <b>2.1</b>                  | <b>1.5-2.8</b> | <b>1257</b> | <b>1.9</b>                  | <b>1.6-2.2</b> |

Analysis Information:

- Questions used: O13a-j
- Epi Info program name: Oproblem (unweighted); OproblemWT (weighted)

Percentage of respondents having reduced participation in social activities Description: Percentage of respondents having reduced participation in social activities during the past 12 months.

having reduced participation in social activities

Instrument questions:

- Have you experienced any of the following problems during the past year because of the state of your teeth?
- Reduced participation in social activities?

| Percentage of respondents having reduced participation in social activities during the past 12 months |            |   |                |            |   |                |             |   |                |
|---|------------|---|----------------|------------|---|----------------|-------------|---|----------------|
| Age Group (years)   | Men        |   |                | Women      |   |                | Both Sexes  |   |                |
|   | n          | % Having reduced participation in social activities | 95% CI         | n          | % Having reduced participation in social activities | 95% CI         | n           | % Having reduced participation in social activities | 95% CI         |
| 18-44   | 266        | 1.6   | 0.9-2.4        | 365        | 1.2   | 0.6-1.7        | 631         | 1.4   | 0.8-1.9        |
| 45-64   | 356        | 0.9   | 0.2-1.6        | 270        | 1.3   | 0.6-1.9        | 626         | 1.1   | 0.5-1.7        |
| <b>18-64</b>  | <b>622</b> | <b>1.4</b>  | <b>0.7-2.0</b> | <b>635</b> | <b>1.2</b>  | <b>0.7-1.7</b> | <b>1257</b> | <b>1.3</b>  | <b>0.7-1.8</b> |

Analysis Information:

- Questions used: O13a-j
- Epi Info program name: Oproblem (unweighted); OproblemWT (weighted)

## Physical Activity

**Introduction** A population's physical activity (or inactivity) can be described in different ways. The two most common ways are

- (1) to estimate a population's mean or median physical activity using a continuous indicator such as MET-minutes per week or time spent in physical activity, and
- (2) to classify a certain percentage of a population as 'inactive' by setting up a cut-point for a specific amount of physical activity.

When analyzing GPAQ data, both continuous as well as categorical indicators are used.

**Metabolic Equivalent (MET)** METs (Metabolic Equivalents) are commonly used to express the intensity of physical activities, and are also used for the analysis of GPAQ data.

Applying MET values to activity levels allows us to calculate total physical activity. MET is the ratio of a person's working metabolic rate relative to the resting metabolic rate. One MET is defined as the energy cost of sitting quietly, and is equivalent to a caloric consumption of 1 kcal/kg/hour. For the analysis of GPAQ data, existing guidelines have been adopted: It is estimated that, compared to sitting quietly, a person's caloric consumption is four times as high when being moderately active, and eight times as high when being vigorously active.

Therefore, for the calculation of a person's total physical activity using GPAQ data, the following MET values are used:

| Domain     | MET value   |
|------------|---|
| Work       | <ul style="list-style-type: none"><li>• Moderate MET value = 4.0</li><li>• Vigorous MET value = 8.0</li></ul> |
| Transport  | Cycling and walking MET value = 4.0   |
| Recreation | <ul style="list-style-type: none"><li>• Moderate MET value = 4.0</li><li>• Vigorous MET value = 8.0</li></ul> |

**Categorical indicator** For the calculation of a categorical indicator, the total time spent in physical activity during a typical week, the number of days as well as the intensity of the physical activity are taken into account.

The three levels of physical activity suggested for classifying populations are low, moderate, and high. The criteria for these levels are shown below.

- **High**  
A person reaching any of the following criteria is classified in this category:
  - Vigorous-intensity activity on at least 3 days achieving a minimum of at least 1,500 MET-minutes/week OR
  - 7 or more days of any combination of walking, moderate- or vigorous-intensity activities achieving a minimum of at least 3,000 MET-minutes per week.
- **Moderate**  
A person not meeting the criteria for the "high" category, but meeting any of the following criteria is classified in this category:
  - 3 or more days of vigorous-intensity activity of at least 20 minutes per day OR
  - 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day OR
  - 5 or more days of any combination of walking, moderate- or vigorous-intensity activities achieving a minimum of at least 600 MET-minutes per week.
- **Low**  
A person not meeting any of the above mentioned criteria falls in this category.

Levels  
of total  
physical  
activity

Description: Percentage of respondents classified into three categories of total physical activity.

Instrument questions:

- activity at work
- travel to and from places
- recreational activities

| Level of total physical activity |            |             |                  |             |                  |             |                  |
|----------------------------------|------------|-------------|------------------|-------------|------------------|-------------|------------------|
| Age Group<br>(years)             | Men        |             |                  |             |                  |             |                  |
|                                  | n          | % Low       | 95% CI           | % Moderate  | 95% CI           | % High      | 95% CI           |
| 18-44                            | 256        | 21.3        | 18.1-24.5        | 13.2        | 11.2-15.2        | 65.5        | 61.9-69.1        |
| 45-64                            | 336        | 25.8        | 22.2-29.3        | 20.5        | 17.7-23.3        | 53.7        | 50.8-56.6        |
| <b>18-64</b>                     | <b>592</b> | <b>22.8</b> | <b>20.9-24.8</b> | <b>15.7</b> | <b>14.3-17.2</b> | <b>61.4</b> | <b>59.3-63.5</b> |

| Level of total physical activity |            |             |                  |             |                  |             |                  |
|----------------------------------|------------|-------------|------------------|-------------|------------------|-------------|------------------|
| Age Group<br>(years)             | Women      |             |                  |             |                  |             |                  |
|                                  | n          | % Low       | 95% CI           | % Moderate  | 95% CI           | % High      | 95% CI           |
| 18-44                            | 348        | 34.9        | 28.9-40.8        | 20.7        | 15.1-26.3        | 44.5        | 41.9-47.1        |
| 45-64                            | 262        | 49.9        | 45.2-54.6        | 24.9        | 19.6-30.2        | 25.2        | 20.9-29.5        |
| <b>18-64</b>                     | <b>610</b> | <b>39.5</b> | <b>34.9-44.2</b> | <b>22.0</b> | <b>18.6-25.4</b> | <b>38.5</b> | <b>36.0-41.1</b> |

| Level of total physical activity |             |             |                  |             |                  |             |                  |
|----------------------------------|-------------|-------------|------------------|-------------|------------------|-------------|------------------|
| Age Group<br>(years)             | Both Sexes  |             |                  |             |                  |             |                  |
|                                  | n           | % Low       | 95% CI           | % Moderate  | 95% CI           | % High      | 95% CI           |
| 18-44                            | 604         | 28.5        | 25.9-31.2        | 17.2        | 14.2-20.2        | 54.3        | 51.8-56.7        |
| 45-64                            | 598         | 37.6        | 34.6-40.7        | 22.7        | 19.5-25.8        | 39.7        | 36.9-42.6        |
| <b>18-64</b>                     | <b>1202</b> | <b>31.5</b> | <b>29.4-33.7</b> | <b>19.0</b> | <b>17.2-20.7</b> | <b>49.5</b> | <b>47.8-51.2</b> |

Analysis Information:

- Questions used: P1-P15b
- Epi Info program name: Ptotallevels (unweighted); PtotallevelsWT (weighted)

Total  
physical  
activity-  
mean

Description: Mean minutes of total physical activity on average per day.

Instrument questions

- activity at work
- travel to and from places
- recreational activities

| Mean minutes of total physical activity on average per day |            |              |                    |            |              |                    |             |              |                    |
|--|------------|--------------|--------------------|------------|--------------|--------------------|-------------|--------------|--------------------|
| Age Group<br>(years)                                       | Men        |              |                    | Women      |              |                    | Both Sexes  |              |                    |
|  | n          | Mean minutes | 95% CI             | n          | Mean minutes | 95% CI             | n           | Mean minutes | 95% CI             |
| 18-44  | 256        | 212.0        | 196.4-227.6        | 348        | 117.7        | 99.9-135.6         | 604         | 161.6        | 148.4-174.7        |
| 45-64  | 336        | 198.8        | 180.9-216.6        | 262        | 100.8        | 83.5-118.1         | 598         | 150.7        | 140.1-161.3        |
| <b>18-64</b>   | <b>592</b> | <b>207.4</b> | <b>193.3-221.5</b> | <b>610</b> | <b>112.5</b> | <b>102.0-123.0</b> | <b>1202</b> | <b>158.0</b> | <b>148.4-167.6</b> |

Analysis Information:

- Questions used: P1-P15b
- Epi Info program name: Ptotal (unweighted); PtotalWT (weighted)

Total physical activity-median Description: Median minutes of total physical activity on average per day.

Instrument questions

- activity at work
- travel to and from places
- recreational activities

| Median minutes of total physical activity on average per day |             |                |                                |             |                |                                |             |                |                                |
|--|-------------|----------------|--------------------------------|-------------|----------------|--------------------------------|-------------|----------------|--------------------------------|
| Age Group (years)  | Men         |                |                                | Women       |                |                                | Both Sexes  |                |                                |
|  | n           | Median minutes | Inter-quartile range (P18-P75) | n           | Median minutes | Inter-quartile range (P18-P75) | n           | Median minutes | Inter-quartile range (P18-P75) |
| 18-44  | 1001        | 128.6          | 42.9-308.6                     | 1152        | 51.4           | 11.4-154.3                     | 2153        | 85.7           | 25.7-222.9                     |
| 45-64  | 534         | 115.7          | 38.6-295.7                     | 514         | 42.9           | 4.3-122.9                      | 1048        | 75.0           | 17.1-210.0                     |
| <b>18-64</b>   | <b>1535</b> | <b>128.6</b>   | <b>42.9-308.6</b>              | <b>1666</b> | <b>112.5</b>   | <b>8.6-137.1</b>               | <b>3201</b> | <b>85.7</b>    | <b>21.4-220.7</b>              |

Analysis Information:

- Questions used: P1-P15b
- Epi Info program name: Ptotal (unweighted); PtotalmedianWT (weighted)

Domain-specific physical activity-mean Description: Mean minutes spent in work-, transport- and recreation-related physical activity on average per day.

Instrument questions:

- activity at work
- travel to and from places
- recreational activities

| Mean minutes of work-related physical activity on average per day |            |              |                    |            |              |                  |             |              |                   |
|---|------------|--------------|--------------------|------------|--------------|------------------|-------------|--------------|-------------------|
| Age Group (years)   | Men        |              |                    | Women      |              |                  | Both Sexes  |              |                   |
|   | n          | Mean minutes | 95% CI             | n          | Mean minutes | 95% CI           | n           | Mean minutes | 95% CI            |
| 18-44   | 256        | 133.5        | 120.2-146.9        | 348        | 60.6         | 45.4-75.8        | 604         | 94.5         | 83.3-105.8        |
| 45-64   | 336        | 144.1        | 122.9-165.3        | 262        | 61.1         | 44.8-77.5        | 598         | 103.4        | 93.4-113.5        |
| <b>18-64</b>  | <b>592</b> | <b>137.2</b> | <b>123.7-150.7</b> | <b>610</b> | <b>60.8</b>  | <b>52.0-69.6</b> | <b>1202</b> | <b>97.4</b>  | <b>88.4-106.5</b> |

| Mean minutes of transport-related physical activity on average per day |            |              |                  |            |              |                  |             |              |                  |
|--|------------|--------------|------------------|------------|--------------|------------------|-------------|--------------|------------------|
| Age Group (years)  | Men        |              |                  | Women      |              |                  | Both Sexes  |              |                  |
|  | n          | Mean minutes | 95% CI           | n          | Mean minutes | 95% CI           | n           | Mean minutes | 95% CI           |
| 18-44  | 256        | 23.1         | 18.3-28.0        | 348        | 17.8         | 11.1-24.6        | 604         | 20.3         | 15.5-25.1        |
| 45-64  | 336        | 18.4         | 14.2-22.5        | 262        | 16.3         | 13.2-19.5        | 598         | 17.4         | 15.4-19.3        |
| <b>18-64</b>   | <b>592</b> | <b>21.5</b>  | <b>19.0-23.9</b> | <b>610</b> | <b>17.4</b>  | <b>12.4-22.3</b> | <b>1202</b> | <b>19.3</b>  | <b>16.3-22.3</b> |

| Mean minutes of recreation-related physical activity on average per day |            |              |                  |            |              |                  |             |              |                  |
|---|------------|--------------|------------------|------------|--------------|------------------|-------------|--------------|------------------|
| Age Group (years)   | Men        |              |                  | Women      |              |                  | Both Sexes  |              |                  |
|   | n          | Mean minutes | 95% CI           | n          | Mean minutes | 95% CI           | n           | Mean minutes | 95% CI           |
| 18-44   | 256        | 55.3         | 49.9-60.8        | 348        | 39.3         | 35.2-43.3        | 604         | 46.7         | 43.0-50.5        |
| 45-64   | 336        | 36.3         | 32.0-40.6        | 262        | 23.4         | 19.6-27.1        | 598         | 29.9         | 26.7-33.2        |
| <b>18-64</b>  | <b>592</b> | <b>48.7</b>  | <b>44.2-53.2</b> | <b>610</b> | <b>34.4</b>  | <b>30.4-38.3</b> | <b>1202</b> | <b>41.2</b>  | <b>37.6-44.9</b> |

Analysis Information:

- Questions used: P1-P15b
- Epi Info program name: Psetspecific (unweighted); PsetspecificWT (weighted)

Domain-specific physical activity - median      Description: Median minutes spent on average per day in work-, transport- and recreation-related physical activity.

Instrument questions:

- activity at work
- travel to and from places
- recreational activities

| Median minutes of work-related physical activity on average per day |            |                |                                |            |                |                                |             |                |                                |
|---|------------|----------------|--------------------------------|------------|----------------|--------------------------------|-------------|----------------|--------------------------------|
| Age Group (years)   | Men        |                |                                | Women      |                |                                | Both Sexes  |                |                                |
|   | n          | Median minutes | Inter-quartile range (P18-P75) | n          | Median minutes | Inter-quartile range (P18-P75) | n           | Median minutes | Inter-quartile range (P18-P75) |
| 18-44   | 256        | 133.5          | 0-214.3                        | 348        | 0              | 0-60.0                         | 604         | 12.9           | 0-128.6                        |
| 45-64   | 336        | 144.1          | 0-214.3                        | 262        | 0              | 0-51.1                         | 598         | 17.1           | 0-128.6                        |
| <b>18-64</b>  | <b>592</b> | <b>60.0</b>    | <b>0-214.3</b>                 | <b>610</b> | <b>0</b>       | <b>0-60.0</b>                  | <b>1202</b> | <b>15.0</b>    | <b>0-128.6</b>                 |

| Median minutes of transport-related physical activity on average per day |            |                |                                |            |                |                                |             |                |                                |
|--|------------|----------------|--------------------------------|------------|----------------|--------------------------------|-------------|----------------|--------------------------------|
| Age Group (years)  | Men        |                |                                | Women      |                |                                | Both Sexes  |                |                                |
|  | n          | Median minutes | Inter-quartile range (P18-P75) | n          | Median minutes | Inter-quartile range (P18-P75) | n           | Median minutes | Inter-quartile range (P18-P75) |
| 18-44  | 256        | 0              | 0-17.1                         | 348        | 0              | 0-17.1                         | 604         | 0              | 0-17.1                         |
| 45-64  | 336        | 0              | 0-17.1                         | 262        | 0              | 17.1                           | 598         | 0              | 0-17.1                         |
| <b>18-64</b>   | <b>592</b> | <b>0</b>       | <b>0-17.1</b>                  | <b>610</b> | <b>0</b>       | <b>17.1</b>                    | <b>1202</b> | <b>0</b>       | <b>0-17.1</b>                  |

| Median minutes of recreation-related physical activity on average per day |            |                |                                |            |                |                                |             |                |                                |
|---|------------|----------------|--------------------------------|------------|----------------|--------------------------------|-------------|----------------|--------------------------------|
| Age Group (years)   | Men        |                |                                | Women      |                |                                | Both Sexes  |                |                                |
|   | n          | Median minutes | Inter-quartile range (P18-P75) | n          | Median minutes | Inter-quartile range (P18-P75) | n           | Median minutes | Inter-quartile range (P18-P75) |
| 18-44   | 256        | 34.3           | 0-77.1                         | 348        | 17.1           | 0-51.4                         | 604         | 21.5           | 0-64.3                         |
| 45-64   | 336        | 0              | 0-42.9                         | 262        | 0              | 25.7                           | 598         | 0              | 0-34.3                         |
| <b>18-64</b>  | <b>592</b> | <b>21.4</b>    | <b>0-68.6</b>                  | <b>610</b> | <b>5.7</b>     | <b>0-42.9</b>                  | <b>1202</b> | <b>12.9</b>    | <b>0-51.4</b>                  |



Analysis Information:

- Questions used: P1-P15b
- Epi Info program name: Psetspecific (unweighted); PsetspecificmedianWT (weighted)

No physical activity by domain

Description: Percentage of respondents classified as doing no work-, transport- or recreational-related physical activity.

Instrument questions:

- activity at work
- travel to and from places
- recreational activities

| No work-related physical activity |            |                       |                  |            |                       |                  |             |                       |                  |
|-----------------------------------|------------|-----------------------|------------------|------------|-----------------------|------------------|-------------|-----------------------|------------------|
| Age Group (years)                 | Men        |                       |                  | Women      |                       |                  | Both Sexes  |                       |                  |
|                                   | n          | % no activity at work | 95% CI           | n          | % no activity at work | 95% CI           | n           | % no activity at work | 95% CI           |
| 18-44                             | 256        | 34.7                  | 28.8-40.6        | 348        | 57.5                  | 54.1-60.8        | 604         | 46.9                  | 44.3-49.4        |
| 45-64                             | 336        | 31.8                  | 26.3-37.2        | 262        | 60.1                  | 54.6-65.7        | 598         | 45.7                  | 43.0-48.3        |
| <b>18-64</b>                      | <b>592</b> | <b>33.7</b>           | <b>28.4-39.0</b> | <b>610</b> | <b>58.3</b>           | <b>54.6-61.9</b> | <b>1202</b> | <b>46.5</b>           | <b>44.6-48.4</b> |

| No transport-related physical activity |            |                             |                  |            |                             |                  |             |                             |                  |
|--|------------|-----------------------------|------------------|------------|-----------------------------|------------------|-------------|-----------------------------|------------------|
| Age Group (years)                      | Men        |                             |                  | Women      |                             |                  | Both Sexes  |                             |                  |
|  | n          | % no activity for transport | 95% CI           | n          | % no activity for transport | 95% CI           | n           | % no activity for transport | 95% CI           |
| 18-44                                  | 256        | 63.2                        | 58.4-67.9        | 348        | 58.4                        | 53.5-63.2        | 604         | 60.6                        | 56.2-65.0        |
| 45-64                                  | 336        | 56.3                        | 53.1-59.6        | 262        | 60.7                        | 56.1-65.4        | 598         | 58.5                        | 55.6-61.4        |
| <b>18-64</b>                           | <b>592</b> | <b>60.8</b>                 | <b>57.6-64.0</b> | <b>610</b> | <b>59.1</b>                 | <b>55.5-62.7</b> | <b>1202</b> | <b>59.9</b>                 | <b>56.8-63.1</b> |

| No recreation-related physical activity |            |                             |                  |            |                             |                  |             |                             |                  |
|---|------------|-----------------------------|------------------|------------|-----------------------------|------------------|-------------|-----------------------------|------------------|
| Age Group (years)                       | Men        |                             |                  | Women      |                             |                  | Both Sexes  |                             |                  |
|   | n          | % no activity at recreation | 95% CI           | n          | % no activity at recreation | 95% CI           | n           | % no activity at recreation | 95% CI           |
| 18-44                                   | 256        | 30.0                        | 26.9-33.1        | 348        | 39.5                        | 35.9-43.1        | 604         | 35.1                        | 32.6-37.5        |
| 45-64                                   | 336        | 50.8                        | 47.0-54.7        | 262        | 65.3                        | 61.2-69.4        | 598         | 58.0                        | 55.0-60.9        |
| <b>18-64</b>                            | <b>592</b> | <b>37.2</b>                 | <b>35.1-39.4</b> | <b>610</b> | <b>47.4</b>                 | <b>44.5-50.4</b> | <b>1202</b> | <b>42.5</b>                 | <b>40.8-44.3</b> |

Analysis Information:

- Questions used: P1-P15b
- Epi Info program name: Pnoactivitybyset (unweighted); PnoactivitybysetWT (weighted)

Composition of total physical activity

Description: Percentage of work, transport and recreational activity contributing to total activity.

Instrument questions:

- activity at work
- travel to and from places
- recreational activities

| Composition of total physical activity |            |                      |                  |                          |                  |                                |                  |
|--|------------|----------------------|------------------|--------------------------|------------------|--------------------------------|------------------|
| Age Group (years)                      | Men        |                      |                  |                          |                  |                                |                  |
|  | n          | % Activity from work | 95% CI           | % Activity for transport | 95% CI           | % Activity during leisure time | 95% CI           |
| 18-44                                  | 234        | 48.0                 | 43.3-52.7        | 11.5                     | 10.0-13.1        | 40.4                           | 36.8-44.0        |
| 45-64                                  | 300        | 57.8                 | 51.8-63.9        | 15.1                     | 11.8-18.5        | 27.0                           | 23.8-30.2        |
| <b>18-64</b>                           | <b>534</b> | <b>51.4</b>          | <b>46.4-56.4</b> | <b>12.8</b>              | <b>11.0-14.5</b> | <b>35.9</b>                    | <b>32.4-39.3</b> |

| Composition of total physical activity |            |                      |                  |                          |                  |                                |                  |
|--|------------|----------------------|------------------|--------------------------|------------------|--------------------------------|------------------|
| Age Group (years)                      | Women      |                      |                  |                          |                  |                                |                  |
|  | n          | % Activity from work | 95% CI           | % Activity for transport | 95% CI           | % Activity during leisure time | 95% CI           |
| 18-44                                  | 282        | 34.2                 | 31.6-36.8        | 23.3                     | 18.8-27.8        | 42.5                           | 39.2-45.8        |
| 45-64                                  | 205        | 39.4                 | 33.3-45.4        | 31.7                     | 27.1-36.3        | 28.9                           | 24.4-33.4        |
| <b>18-64</b>                           | <b>487</b> | <b>35.7</b>          | <b>32.8-38.7</b> | <b>25.8</b>              | <b>21.8-29.9</b> | <b>38.5</b>                    | <b>36.0-41.0</b> |

| Composition of total physical activity |             |                      |                  |                          |                  |                                |                  |
|--|-------------|----------------------|------------------|--------------------------|------------------|--------------------------------|------------------|
| Age Group (years)                      | Both Sexes  |                      |                  |                          |                  |                                |                  |
|  | n           | % Activity from work | 95% CI           | % Activity for transport | 95% CI           | % Activity during leisure time | 95% CI           |
| 18-44                                  | 516         | 41.1                 | 38.5-43.6        | 17.5                     | 15.6-19.3        | 41.5                           | 38.4-44.6        |
| 45-64                                  | 505         | 49.4                 | 46.7-52.2        | 22.7                     | 20.2-25.1        | 27.9                           | 25.8-29.9        |
| <b>18-64</b>                           | <b>1021</b> | <b>43.7</b>          | <b>41.6-45.9</b> | <b>19.1</b>              | <b>17.8-20.4</b> | <b>37.1</b>                    | <b>34.5-39.8</b> |

#### Analysis Information:

- Questions used: P1-P15b
- Epi Info program name: Pcomposition(unweighted); PcompositionWT (weighted)

No vigorous physical activity Description: Percentage of respondents not engaging in vigorous physical activity.

Instrument questions:

- activity at work
- recreational activities

| No vigorous physical activity |            |                        |                  |            |                        |                  |             |                        |                  |
|-------------------------------|------------|------------------------|------------------|------------|------------------------|------------------|-------------|------------------------|------------------|
| Age Group (years)             | Men        |                        |                  | Women      |                        |                  | Both Sexes  |                        |                  |
|                               | n          | % no vigorous activity | 95% CI           | n          | % no vigorous activity | 95% CI           | n           | % no vigorous activity | 95% CI           |
| 18-44                         | 256        | 25.7                   | 23.1-28.3        | 348        | 55.9                   | 52.1-59.7        | 604         | 41.9                   | 39.2-44.5        |
| 45-64                         | 336        | 49.1                   | 45.2-53.1        | 262        | 75.5                   | 71.5-79.6        | 598         | 62.1                   | 59.2-65.0        |
| <b>18-64</b>                  | <b>592</b> | <b>33.9</b>            | <b>31.5-36.2</b> | <b>610</b> | <b>62.0</b>            | <b>59.5-64.4</b> | <b>1202</b> | <b>48.5</b>            | <b>46.9-50.1</b> |

#### Analysis Information:

- Questions used: P1-P15b
- Epi Info program name: Pnovigorous(unweighted); PnovigorousWT (weighted)

Sedentary Description: Minutes spent in sedentary activities on a typical day.

Instrument question:

- sedentary behaviour

| Minutes spent in sedentary activities on average per day |            |              |                    |                |                                |
|--|------------|--------------|--------------------|----------------|--------------------------------|
| Age Group (years)  | Men        |              |                    |                |                                |
|  | n          | Mean minutes | 95% CI             | Median minutes | Inter-quartile range (P18-P75) |
| 18-44  | 266        | 254.6        | 238.2-271.0        | 240.0          | 120-360.0                      |
| 45-64  | 357        | 210.4        | 202.3-218.6        | 180.0          | 60-300.0                       |
| <b>18-64</b>   | <b>623</b> | <b>239.1</b> | <b>226.5-251.6</b> | <b>210</b>     | <b>120.0-360.0</b>             |

| Minutes spent in sedentary activities on average per day |            |              |                    |                |                                |
|--|------------|--------------|--------------------|----------------|--------------------------------|
| Age Group (years)  | Women      |              |                    |                |                                |
|  | n          | Mean minutes | 95% CI             | Median minutes | Inter-quartile range (P18-P75) |
| 18-44  | 366        | 298.2        | 282.1-314.3        | 300            | 120.0-480.0                    |
| 45-64  | 270        | 254.0        | 236.3-271.7        | 240            | 120.0-360.0                    |
| <b>18-64</b>   | <b>636</b> | <b>284.7</b> | <b>274.1-295.3</b> | <b>300.0</b>   | <b>120.0-420.0</b>             |

| Minutes spent in sedentary activities on average per day |             |              |                    |                |                                |
|--|-------------|--------------|--------------------|----------------|--------------------------------|
| Age Group (years)  | Both Sexes  |              |                    |                |                                |
|  | n           | Mean minutes | 95% CI             | Median minutes | Inter-quartile range (P18-P75) |
| 18-44  | 632         | 278.0        | 263.9-292.1        | 240.0          | 120.0-420.0                    |
| 45-64  | 627         | 231.5        | 222.1-240.9        | 180.0          | 90.0-360.0                     |
| <b>18-64</b>   | <b>1259</b> | <b>262.8</b> | <b>252.5-273.1</b> | <b>240.0</b>   | <b>120.0-360.0</b>             |

Analysis Information:

- Question used : P16a-b
- Epi Info program name: Psedentary (unweighted);
  - PsedentaryWT (weighted)
  - PsedentarymedianWT (weighted)

## Violence and Injury

Percentage of drivers or passengers not always using seat belt

Description: Percentage of drivers or passengers of a motor vehicle who did not always use a seat belt or were otherwise unrestrained during the past 30 days.

Instrument question:

- In the past 30 days, how often did you use a seat belt when you were the driver or passenger of a motor vehicle?

| Percentage of drivers or passengers not always using a seat belt |            |                              |                  |            |                              |                  |             |                              |                |
|--|------------|------------------------------|------------------|------------|------------------------------|------------------|-------------|------------------------------|----------------|
| Age Group (years)  | Men        |                              |                  | Women      |                              |                  | Both Sexes  |                              |                |
|  | n          | % Not always using seat belt | 95% CI           | n          | % Not always using seat belt | 95% CI           | n           | % Not always using seat belt | 95% CI         |
| 18-44  | 253        | 99.2                         | 98.7-99.7        | 354        | 97.8                         | 97.0-98.5        | 607         | 1.6                          | 0.9-2.2        |
| 45-64  | 334        | 98.4                         | 97.5-99.3        | 260        | 97.8                         | 96.8-98.9        | 594         | 1.9                          | 1.2-2.6        |
| <b>18-64</b>   | <b>587</b> | <b>98.9</b>                  | <b>98.4-99.5</b> | <b>614</b> | <b>97.8</b>                  | <b>97.2-98.4</b> | <b>1201</b> | <b>1.7</b>                   | <b>1.1-2.2</b> |

No law re seat belt use in Cooks. Relatively low speed limit not seen a critical area

Analysis Information:

- Questions used: V1
- Epi Info program name: Vseatbelt (unweighted); VseatbeltWT (weighted)

Percentage of motorcycle or motor-scooter drivers not always using helmet

Description: Percentage of drivers or passengers of a motorcycle or motor-scooter who did not always wear a helmet during the past 30 days.

Instrument question:

- In the past 30 days, how often did you wear a helmet when you drove or rode as a passenger on a motorcycle or motor-scooter?

| Percentage of drivers or passengers of a motorcycle or motor-scooter not always using a helmet |            |                           |                  |            |                           |                   |             |                           |                |
|--|------------|---------------------------|------------------|------------|---------------------------|-------------------|-------------|---------------------------|----------------|
| Age Group (years)  | Men        |                           |                  | Women      |                           |                   | Both Sexes  |                           |                |
|  | n          | % Not always using helmet | 95% CI           | n          | % Not always using helmet | 95% CI            | n           | % Not always using helmet | 95% CI         |
| 18-44  | 253        | 98.7                      | 97.9-99.5        | 357        | 99.8                      | 99.3-100.0        | 610         | 0.7                       | 0.4-1.0        |
| 45-64  | 337        | 97.5                      | 96.1-98.8        | 256        | 99.4                      | 99.0-99.8         | 593         | 1.6                       | 0.8-2.3        |
| <b>18-64</b>   | <b>590</b> | <b>98.3</b>               | <b>97.6-99.0</b> | <b>613</b> | <b>99.7</b>               | <b>99.4-100.0</b> | <b>1203</b> | <b>1.0</b>                | <b>0.7-1.3</b> |

Helmet use is only required if over 40km/hr – instant fine if get caught

Analysis Information:

- Questions used: V2
- Epi Info program name: Vhelmet (unweighted); VhelmetWT (weighted)

Past 12 months involvement in a road traffic crash

Description: Percentage of respondents who have been involved in a road traffic crash during the past 12 months.

Instrument question:

- In the past 12 months, have you been involved in a road traffic crash as a passenger, driver, or pedestrian?

| Percentage of respondents involved in a road traffic crash during the past 12 months |            |                                    |                 |            |                                    |                |             |                                    |                |
|--|------------|------------------------------------|-----------------|------------|------------------------------------|----------------|-------------|------------------------------------|----------------|
| Age Group (years)  | Men        |                                    |                 | Women      |                                    |                | Both Sexes  |                                    |                |
|  | n          | % Involved in road traffic crashes | 95% CI          | N          | % Involved in road traffic crashes | 95% CI         | n           | % Involved in road traffic crashes | 95% CI         |
| 18-44  | 257        | 9.7                                | 7.0-12.4        | 365        | 6.8                                | 3.1-10.5       | 622         | 8.1                                | 5.9-10.3       |
| 45-64  | 339        | 6.2                                | 4.0-8.5         | 261        | 4.2                                | 0.8-7.5        | 600         | 5.2                                | 3.6-6.9        |
| <b>18-64</b>   | <b>596</b> | <b>8.5</b>                         | <b>6.7-10.3</b> | <b>626</b> | <b>6.0</b>                         | <b>2.8-9.2</b> | <b>1222</b> | <b>7.2</b>                         | <b>5.4-8.9</b> |

Very high – is this correct, did they misunderstand question

Analysis Information:

- Questions used: V3
- Epi Info program name: Vcrash (unweighted); VcrashWT (weighted)

Percentage of serious injury among those involved in a road traffic crash

Description: Percentage of passengers, drivers, or pedestrians that had serious injuries requiring medical attention from a road traffic crash among those involved in a road traffic crash in the past 12 months.

Instrument questions:

- Did you have any injuries in this road traffic crash which required medical attention?
- In the past 12 months, have you been involved in a road traffic crash as a passenger, driver, or pedestrian?

| Percentage of respondents seriously injured as a result of road traffic crash among those involved in a road traffic crash |           |                     |        |           |                     |        |            |                     |                  |
|--|-----------|---------------------|--------|-----------|---------------------|--------|------------|---------------------|------------------|
| Age Group (years)  | Men       |                     |        | Women     |                     |        | Both Sexes |                     |                  |
|  | n         | % Seriously injured | 95% CI | n         | % Seriously injured | 95% CI | n          | % Seriously injured | 95% CI           |
| <b>18-64</b>   | <b>43</b> | -                   | -      | <b>34</b> | -                   | -      | <b>77</b>  | <b>84.6</b>         | <b>80.0-89.3</b> |

\*\* n<50 within age groups.

Analysis Information:

- Questions used: V3, V4
- Epi Info program name: Vcrashinjury (unweighted); VcrashinjuryWT (weighted)

## Blood Pressure and Diabetes History

Blood pressure measurement and diagnosis

Description: Blood pressure measurement and diagnosis among all respondents.

Instrument questions:

- Have you ever had your blood pressure measured by a doctor or other health worker?
- Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension?
- Have you been told in the past 12 months?

| Blood pressure measurement and diagnosis |            |                  |                  |                           |                  |  |                |                                   |                  |
|--|------------|------------------|------------------|---------------------------|------------------|--|----------------|-----------------------------------|------------------|
| Age Group (years)                        | Men        |                  |                  |                           |                  |  |                |                                   |                  |
|  | n          | % Never measured | 95% CI           | % measured, not diagnosed | 95% CI           | % diagnosed, but not within past 12 months | 95% CI         | % diagnosed within past 12 months | 95% CI           |
| 18-44                                    | 266        | 20.7             | 17.0-24.4        | 65.0                      | 58.3-71.7        | 2.7  | 1.7-3.8        | 11.5                              | 8.4-14.7         |
| 45-64                                    | 354        | 7.2              | 4.8-9.6          | 54.5                      | 49.1-60.0        | 5.8  | 3.5-8.0        | 32.5                              | 27.8-37.3        |
| <b>18-64</b>                             | <b>620</b> | <b>16.0</b>      | <b>13.6-18.4</b> | <b>61.3</b>               | <b>57.7-65.0</b> | <b>3.8</b>                                 | <b>2.8-4.8</b> | <b>18.9</b>                       | <b>16.6-21.3</b> |

| Blood pressure measurement and diagnosis |            |                  |                  |                           |                  |  |                |                                   |                  |
|--|------------|------------------|------------------|---------------------------|------------------|--|----------------|-----------------------------------|------------------|
| Age Group (years)                        | Women      |                  |                  |                           |                  |  |                |                                   |                  |
|  | n          | % Never measured | 95% CI           | % measured, not diagnosed | 95% CI           | % diagnosed, but not within past 12 months | 95% CI         | % diagnosed within past 12 months | 95% CI           |
| 18-44                                    | 365        | 17.6             | 15.3-19.9        | 68.6                      | 62.4-74.9        | 4.0  | 1.2-6.8        | 9.8                               | 6.5-13.1         |
| 45-64                                    | 270        | 8.4              | 5.4-11.4         | 61.3                      | 54.2-68.3        | 5.0  | 3.7-6.4        | 25.3                              | 20.7-30.0        |
| <b>25-64</b>                             | <b>635</b> | <b>14.8</b>      | <b>13.1-16.5</b> | <b>66.4</b>               | <b>63.5-69.2</b> | <b>4.3</b>                                 | <b>2.5-6.2</b> | <b>14.5</b>                       | <b>12.4-16.7</b> |

| Blood pressure measurement and diagnosis |             |                  |                  |                           |                  |  |                |                                   |                  |
|--|-------------|------------------|------------------|---------------------------|------------------|--|----------------|-----------------------------------|------------------|
| Age Group (years)                        | Both sexes  |                  |                  |                           |                  |  |                |                                   |                  |
|  | n           | % Never measured | 95% CI           | % measured, not diagnosed | 95% CI           | % diagnosed, but not within past 12 months | 95% CI         | % diagnosed within past 12 months | 95% CI           |
| 18-44                                    | 631         | 19.0             | 17.1-21.0        | 66.9                      | 65.0-68.8        | 3.4  | 2.1-4.7        | 10.6                              | 9.4-11.8         |
| 45-64                                    | 624         | 7.8              | 6.3-9.2          | 57.8                      | 54.8-60.7        | 5.4  | 4.3-6.5        | 29.0                              | 26.1-32.0        |
| <b>18-64</b>                             | <b>1255</b> | <b>15.3</b>      | <b>13.7-17.0</b> | <b>63.9</b>               | <b>62.4-65.4</b> | <b>4.1</b>                                 | <b>3.1-5.0</b> | <b>16.6</b>                       | <b>15.3-18.0</b> |

Analysis Information:

- Question used: H1, H2a, H2b
- Epi Info program name: Hbloodpressure (unweighted); HbloodpressureWT (weighted)

Blood pressure treatment among those diagnosed

Description: raised blood pressure treatment results among those previously diagnosed with raised blood pressure.

Instrument questions:

- Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension?
- Are you currently receiving any of the following treatments/advice for high blood pressure prescribed by a doctor or other health worker?
- Drugs (medication) that you have taken in the last 2 weeks?

| Currently taking blood pressure drugs prescribed by doctor or health worker among those diagnosed |            |               |                  |            |               |                  |            |               |                  |
|---|------------|---------------|------------------|------------|---------------|------------------|------------|---------------|------------------|
| Age Group (years)   | Men        |               |                  | Women      |               |                  | Both Sexes |               |                  |
|   | n          | % taking meds | 95% CI           | n          | % taking meds | 95% CI           | n          | % taking meds | 95% CI           |
| 18-44   | 39         | 39.1          | 32.9-45.4        | 47         | 27.8          | 18.7-36.9        | 86         | 33.2          | 26.0-40.3        |
| 45-64   | 134        | 68.0          | 63.3-72.7        | 80         | 69.1          | 61.9-76.3        | 214        | 68.5          | 64.8-72.2        |
| <b>18-64</b>  | <b>173</b> | <b>56.3</b>   | <b>50.7-61.9</b> | <b>127</b> | <b>48.1</b>   | <b>38.3-58.0</b> | <b>300</b> | <b>52.4</b>   | <b>47.6-57.2</b> |

Analysis Information:

- Questions used: H1, H2a, H3a
- Epi Info program name: Hraisedbpadvice (unweighted); HraisedbpadviceWT (weighted)

Blood pressure lifestyle advice

Description: Percentage of respondents who received lifestyle advice from a doctor or health worker to treat raised blood pressure among those previously diagnosed with raised blood pressure.

Instrument questions:

- When was your blood pressure last measured by a health professional?
- Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension?
- Are you currently receiving any of the following treatments/advice for high blood pressure prescribed by a doctor or other health worker?

| Advised by doctor or health worker to reduce salt intake among those previously diagnosed |            |             |                  |            |             |                  |            |             |                  |
|---|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
| Age Group (years)   | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|   | n          | %           | 95% CI           | n          | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44   | 39         | 62.6        | 51.3-73.8        | 47         | 66.0        | 54.8-77.3        | 86         | 64.4        | 56.7-72.1        |
| 45-64   | 134        | 70.0        | 61.2-78.9        | 80         | 71.4        | 63.2-79.7        | 214        | 70.6        | 63.8-77.4        |
| <b>18-64</b>  | <b>173</b> | <b>67.0</b> | <b>58.3-75.7</b> | <b>127</b> | <b>68.7</b> | <b>60.9-76.4</b> | <b>300</b> | <b>67.8</b> | <b>62.6-73.0</b> |

| Advised by doctor or health worker to lose weight among those previously diagnosed |            |             |                  |            |             |                  |            |             |                  |
|--|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
| Age Group (years)  | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|  | n          | %           | 95% CI           | n          | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44  | 39         | 69.1        | 55.3-83.0        | 47         | 75.2        | 65.4-85.0        | 86         | 72.3        | 63.4-81.3        |
| 45-64  | 134        | 77.1        | 70.9-83.3        | 80         | 74.2        | 62.9-85.5        | 214        | 75.9        | 71.7-80.0        |
| <b>18-64</b>   | <b>173</b> | <b>73.9</b> | <b>64.3-83.4</b> | <b>127</b> | <b>74.7</b> | <b>67.6-81.8</b> | <b>300</b> | <b>74.3</b> | <b>69.8-78.7</b> |

| Advised by doctor or health worker to start or do more exercise among those previously diagnosed |            |             |                  |            |             |                  |            |             |                  |
|--|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
| Age Group (years)  | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|  | n          | %           | 95% CI           | n          | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44  | 39         | 74.5        | 64.9-84.0        | 47         | 73.8        | 61.2-86.4        | 86         | 74.1        | 65.2-83.0        |
| 45-64  | 134        | 80.0        | 74.2-85.7        | 80         | 77.0        | 70.7-83.2        | 214        | 78.7        | 74.8-82.5        |
| <b>18-64</b>   | <b>173</b> | <b>77.7</b> | <b>70.6-84.9</b> | <b>127</b> | <b>75.4</b> | <b>69.0-81.7</b> | <b>300</b> | <b>76.6</b> | <b>71.4-81.8</b> |

Analysis Information:

- Questions used: H1, H2a, H3(b-e)
- Epi Info program name: Hraisedbplifestyle (unweighted); HraisedbplifestyleWT (weighted)

Blood pressure advice by a traditional healer Description: Percentage of respondents who have sought advice or received treatment from traditional healers for raised blood pressure among those previously diagnosed with raised blood pressure.

Instrument questions:

- When was your blood pressure last measured by a health professional?
- Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension?
- Have you ever seen a traditional healer for raised blood pressure?
- Are you currently taking any herbal or traditional remedy for your high blood pressure?

| Seen a traditional healer among those previously diagnosed |            |             |                  |            |            |                |            |            |             |                 |
|--|------------|-------------|------------------|------------|------------|----------------|------------|------------|-------------|-----------------|
| Age Group (years)  | Men        |             |                  | Women      |            |                |            | Both Sexes |             |                 |
|  | n          | %           | 95% CI           | n          | %          | 95% CI         |            | n          | %           | 95% CI          |
| 18-44  | 39         | 25.5        | 17.7-33.4        | 47         | 3.5        | 0.0-7.5        | 3.5        | 86         | 13.9        | 9.6-18.3        |
| 45-64  | 134        | 16.2        | 7.0-25.3         | 80         | 9.2        | 4.4-14.1       | 9.2        | 214        | 13.2        | 7.0-19.4        |
| <b>18-64</b>   | <b>173</b> | <b>20.0</b> | <b>14.1-25.9</b> | <b>127</b> | <b>6.3</b> | <b>3.4-9.3</b> | <b>6.3</b> | <b>300</b> | <b>13.5</b> | <b>9.9-17.1</b> |

| Currently taking herbal or traditional remedy for high blood pressure among those previously diagnosed |            |             |                 |            |            |                 |            |             |                 |
|--|------------|-------------|-----------------|------------|------------|-----------------|------------|-------------|-----------------|
| Age Group (years)  | Men        |             |                 | Women      |            |                 | Both Sexes |             |                 |
|  | n          | %           | 95% CI          | n          | %          | 95% CI          | n          | %           | 95% CI          |
| 18-44  | 39         | 11.7        | 8.4-15.0        | 47         | 3.5        | 0.0-7.0         | 86         | 7.4         | 3.8-10.9        |
| 45-64  | 134        | 12.5        | 7.9-17.1        | 80         | 13.4       | 9.0-17.7        | 214        | 12.9        | 9.5-16.2        |
| <b>18-64</b>   | <b>173</b> | <b>12.2</b> | <b>9.1-15.2</b> | <b>127</b> | <b>8.4</b> | <b>4.1-12.7</b> | <b>300</b> | <b>10.4</b> | <b>7.5-13.3</b> |

Analysis Information:

- Questions used: H1, H2a, H4, H5
- Epi Info program name: Hraisedbptrad (unweighted); HraisedbptradWT (weighted)

Diabetes measurement and diagnosis Description: Diabetes measurement and diagnosis among all respondents.

Instrument questions:

- Have you ever had your blood sugar measured by a doctor or other health worker?
- Have you ever been told by a doctor or other health worker that you have raised blood sugar or diabetes?
- Have you been told in the past 12 months?

| Blood sugar measurement and diagnosis |            |                  |                  |                           |                  |  |                |                                   |                 |
|---------------------------------------|------------|------------------|------------------|---------------------------|------------------|--|----------------|-----------------------------------|-----------------|
| Age Group (years)                     | Men        |                  |                  |                           |                  |  |                |                                   |                 |
|                                       | n          | % Never measured | 95% CI           | % measured, not diagnosed | 95% CI           | % diagnosed, but not within past 12 months | 95% CI         | % diagnosed within past 12 months | 95% CI          |
| 18-44                                 | 266        | 27.7             | 21.8-33.5        | 65.5                      | 56.3-74.7        | 2.3  | 0.8-3.7        | 4.5                               | 2.2-6.9         |
| 45-64                                 | 355        | 12.2             | 8.4-16.0         | 65.6                      | 57.6-73.5        | 4.7  | 2.5-6.8        | 17.6                              | 13.0-22.2       |
| <b>18-64</b>                          | <b>621</b> | <b>22.2</b>      | <b>18.5-26.0</b> | <b>65.5</b>               | <b>61.3-69.8</b> | <b>3.1</b>                                 | <b>2.3-3.9</b> | <b>9.1</b>                        | <b>7.6-10.7</b> |



| Blood sugar measurement and diagnosis |            |                  |                  |                           |                  |  |                |                                   |                 |
|---------------------------------------|------------|------------------|------------------|---------------------------|------------------|--|----------------|-----------------------------------|-----------------|
| Age Group (years)                     | Women      |                  |                  |                           |                  |  |                |                                   |                 |
|                                       | n          | % Never measured | 95% CI           | % measured, not diagnosed | 95% CI           | % diagnosed, but not within past 12 months | 95% CI         | % diagnosed within past 12 months | 95% CI          |
| 18-44                                 | 365        | 25.2             | 20.7-29.7        | 65.6                      | 60.5-70.6        | 2.2  | 1.0-3.3        | 7.1                               | 4.9-9.3         |
| 45-64                                 | 270        | 9.9              | 6.7-13.1         | 67.4                      | 60.0-74.8        | 5.2  | 3.6-6.8        | 17.5                              | 13.5-21.5       |
| <b>18-64</b>                          | <b>635</b> | <b>20.5</b>      | <b>17.8-23.3</b> | <b>66.1</b>               | <b>63.6-68.7</b> | <b>3.1</b>                                 | <b>2.0-4.2</b> | <b>10.2</b>                       | <b>8.9-11.6</b> |

| Blood sugar measurement and diagnosis |             |                  |                  |                           |                  |  |                |                                   |                 |
|---------------------------------------|-------------|------------------|------------------|---------------------------|------------------|--|----------------|-----------------------------------|-----------------|
| Age Group (years)                     | Both sexes  |                  |                  |                           |                  |  |                |                                   |                 |
|                                       | n           | % Never measured | 95% CI           | % measured, not diagnosed | 95% CI           | % diagnosed, but not within past 12 months | 95% CI         | % diagnosed within past 12 months | 95% CI          |
| 18-44                                 | 631         | 26.4             | 24.2-28.5        | 65.5                      | 62.4-68.6        | 2.2  | 1.0-3.5        | 5.9                               | 4.9-6.9         |
| 45-64                                 | 625         | 11.1             | 9.4-12.8         | 66.5                      | 64.0-68.9        | 4.9  | 3.8-6.0        | 17.5                              | 15.3-19.8       |
| <b>18-64</b>                          | <b>1256</b> | <b>21.3</b>      | <b>19.6-23.1</b> | <b>65.8</b>               | <b>63.6-68.1</b> | <b>3.1</b>                                 | <b>2.3-3.9</b> | <b>9.7</b>                        | <b>8.7-10.8</b> |

Analysis Information:

- Question used: H6, H7a, H7b
- Epi Info program name: Hdiabetes (unweighted); HdiabetesWT (weighted)

Diabetes treatment among those diagnosed

Description: Diabetes treatment results among those previously diagnosed with raised blood sugar or diabetes.

Instrument questions:

- Have you ever had your blood sugar measured by a doctor or other health worker?
- Have you ever been told by a doctor or other health worker that you have raised blood sugar or diabetes?
- Are you currently receiving any of the following treatments/advice for diabetes prescribed by a doctor or other health worker?

| Currently taking insulin prescribed for diabetes among those previously diagnosed |           |                  |                 |           |                  |                 |            |                  |                 |
|---|-----------|------------------|-----------------|-----------|------------------|-----------------|------------|------------------|-----------------|
| Age Group (years)   | Men       |                  |                 | Women     |                  |                 | Both Sexes |                  |                 |
|   | n         | % taking insulin | 95% CI          | n         | % taking insulin | 95% CI          | n          | % taking insulin | 95% CI          |
| 18-44   | 18        | 6.2              | 5.3-7.0         | 33        | 5.3              | 1.7-8.9         | 51         | 5.6              | 3.1-8.2         |
| 45-64   | 79        | 6.3              | 0.0-12.9        | 58        | 12.3             | 0.0-25.5        | 137        | 9.3              | 1.5-17.1        |
| <b>18-64</b>  | <b>97</b> | <b>6.3</b>       | <b>2.2-10.4</b> | <b>91</b> | <b>9.0</b>       | <b>3.2-14.8</b> | <b>188</b> | <b>7.7</b>       | <b>3.8-11.7</b> |

| Currently taking oral drugs prescribed for diabetes among those previously diagnosed |           |               |                  |           |               |                  |            |               |                  |
|--|-----------|---------------|------------------|-----------|---------------|------------------|------------|---------------|------------------|
| Age Group (years)  | Men       |               |                  | Women     |               |                  | Both Sexes |               |                  |
|  | n         | % taking meds | 95% CI           | n         | % taking meds | 95% CI           | n          | % taking meds | 95% CI           |
| 18-44  | 18        | 15.1          | 13.0-17.1        | 33        | 33.1          | 20.9-45.3        | 51         | 26.1          | 20.3-31.8        |
| 45-64  | 79        | 62.0          | 50.2-73.7        | 58        | 61.7          | 50.8-72.7        | 137        | 61.8          | 56.4-67.3        |
| <b>18-64</b>   | <b>97</b> | <b>45.0</b>   | <b>28.6-61.5</b> | <b>91</b> | <b>48.0</b>   | <b>36.6-59.3</b> | <b>188</b> | <b>46.6</b>   | <b>41.5-51.7</b> |

Analysis Information:

- Questions used: H6, H7a, H8a, H8b
- Epi Info program name: Hdiabetes (unweighted); HdiabetesWT (weighted)

Diabetes lifestyle advice Description: Percentage of respondents who received diabetes lifestyle advice from a doctor or health worker among those previously diagnosed with diabetes.

Instrument questions:

- Have you ever had your blood sugar measured by a doctor or other health worker?
- Have you ever been told by a doctor or other health worker that you have raised blood sugar or diabetes?
- Are you currently receiving any of the following treatments/advice for diabetes prescribed by a doctor or other health worker?

| Advised by doctor or health worker to have special prescribed diet among those previously diagnosed |           |             |                  |           |             |                  |            |             |                  |
|---|-----------|-------------|------------------|-----------|-------------|------------------|------------|-------------|------------------|
| Age Group (years)   | Men       |             |                  | Women     |             |                  | Both Sexes |             |                  |
|   | n         | %           | 95% CI           | n         | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44   | 18        | -           | -                | 33        | -           | -                | 51         | 21.6        | 13.9-29.2        |
| 45-64   | 79        | 42.4        | 31.4-53.5        | 58        | 43.8        | 36.8-50.8        | 137        | 43.1        | 37.6-48.6        |
| <b>18-64</b>  | <b>97</b> | <b>35.0</b> | <b>25.0-45.0</b> | <b>91</b> | <b>33.1</b> | <b>25.9-40.2</b> | <b>188</b> | <b>33.9</b> | <b>27.4-40.5</b> |

\*\* n<50, sample size is too small , to report the % and 95%CI

| Advised by doctor or health worker to lose weight among those previously diagnosed |           |             |                  |           |             |                  |            |             |                  |
|--|-----------|-------------|------------------|-----------|-------------|------------------|------------|-------------|------------------|
| Age Group (years)  | Men       |             |                  | Women     |             |                  | Both Sexes |             |                  |
|  | n         | %           | 95% CI           | n         | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44  | 18        | -           | -                | 33        | -           | -                | 51         | 64.8        | 58.4-71.2        |
| 45-64  | 79        | 71.2        | 58.3-84.1        | 58        | 71.6        | 64.9-78.3        | 137        | 71.4        | 63.1-79.7        |
| <b>18-64</b>   | <b>97</b> | <b>66.3</b> | <b>57.5-75.2</b> | <b>91</b> | <b>70.5</b> | <b>64.7-76.3</b> | <b>188</b> | <b>68.6</b> | <b>62.8-74.4</b> |

(\*\* n<50, sample size is too small , to report the % and 95%CI.)

| Advised by doctor or health worker to stop smoking among those previously diagnosed |           |             |                  |           |             |                  |            |             |                  |
|---|-----------|-------------|------------------|-----------|-------------|------------------|------------|-------------|------------------|
| Age Group (years)   | Men       |             |                  | Women     |             |                  | Both Sexes |             |                  |
|   | n         | %           | 95% CI           | n         | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44   | 18        | -           | -                | 33        | -           | -                | 51         | -           | -                |
| 45-64   | 79        | 45.4        | 35.0-55.7        | 58        | 54.3        | 47.3-61.4        | 137        | 49.7        | 44.2-55.2        |
| <b>18-64</b>  | <b>97</b> | <b>41.8</b> | <b>34.6-48.9</b> | <b>91</b> | <b>43.1</b> | <b>36.2-50.0</b> | <b>188</b> | <b>42.5</b> | <b>37.8-47.2</b> |

(\*\* n<50, sample size is too small , to report the % and 95%CI.)

| Advised by doctor or health worker to start or do more exercise among those previously diagnosed |           |             |                  |           |             |                  |            |             |                  |
|--|-----------|-------------|------------------|-----------|-------------|------------------|------------|-------------|------------------|
| Age Group (years)  | Men       |             |                  | Women     |             |                  | Both Sexes |             |                  |
|  | n         | %           | 95% CI           | n         | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44  | 18        | -           | -                | 33        | -           | -                | 51         | 62.7        | 55.4-70.0        |
| 45-64  | 79        | 71.7        | 61.3-82.1        | 58        | 71.6        | 61.5-81.7        | 137        | 71.7        | 62.3-81.0        |
| <b>18-64</b>   | <b>97</b> | <b>64.1</b> | <b>55.3-73.0</b> | <b>91</b> | <b>71.0</b> | <b>65.8-76.3</b> | <b>188</b> | <b>67.8</b> | <b>62.4-73.3</b> |

(\*\* n<50, sample size is too small , to report the % and 95%CI.)

Analysis Information:

- Questions used: H6, H7a, H8c-f
- Epi Info program name: Hdiabeteslifestyle (unweighted); HdiabeteslifestyleWT (weighted)

Diabetes advice by traditional healer

Description: Percentage of respondents who have sought advice or treatment from traditional healers for diabetes among those previously diagnosed.

Instrument questions:

- Have you ever had your blood sugar measured by a doctor or other health worker?
- Have you ever been told by a doctor or other health worker that you have raised blood sugar or diabetes?
- Have you ever seen a traditional healer for diabetes or raised blood sugar?
- Are you currently taking any herbal or traditional remedy for your diabetes?

| Seen a traditional healer for diabetes among those previously diagnosed |           |             |                 |           |            |                |            |            |                 |
|---|-----------|-------------|-----------------|-----------|------------|----------------|------------|------------|-----------------|
| Age Group (years)   | Men       |             |                 | Women     |            |                | Both Sexes |            |                 |
|   | n         | %           | 95% CI          | n         | %          | 95% CI         | n          | %          | 95% CI          |
| 18-44   | 18        | -           | -               | 33        | -          | -              | 51         | -          | 1.9-5.0         |
| 45-64   | 79        | 14.6        | 7.2-22.1        | 58        | 9.9        | 6.2-13.6       | 137        | 12.3       | 8.5-16.1        |
| <b>18-64</b>  | <b>97</b> | <b>12.6</b> | <b>7.9-17.2</b> | <b>91</b> | <b>5.1</b> | <b>2.9-7.3</b> | <b>188</b> | <b>8.5</b> | <b>6.3-10.7</b> |

(\*\* n<50, sample size is too small , to report the % and 95%CI.)

| Currently taking herbal or traditional treatment for diabetes among those previously diagnosed |           |             |                  |           |            |                |            |            |                 |
|--|-----------|-------------|------------------|-----------|------------|----------------|------------|------------|-----------------|
| Age Group (years)  | Men       |             |                  | Women     |            |                | Both Sexes |            |                 |
|  | n         | %           | 95% CI           | n         | %          | 95% CI         | n          | %          | 95% CI          |
| 18-44  | 18        | -           | -                | 33        | -          | -              | 51         | 6.1        | 3.3-8.8         |
| 45-64  | 79        | 13.2        | 7.8-18.6         | 58        | 6.8        | 4.2-9.4        | 137        | 10.1       | 7.3-12.8        |
| <b>18-64</b>   | <b>97</b> | <b>14.0</b> | <b>10.5-17.6</b> | <b>91</b> | <b>3.5</b> | <b>2.0-5.1</b> | <b>188</b> | <b>8.4</b> | <b>6.5-10.2</b> |

(\*\* n<50, sample size is too small , to report the % and 95%CI.)

Analysis Information:

- Questions used: H6, H7a, H9, H10
- Epi Info program name: Hdiabetestradd (unweighted); HdiabetestraddWT (weighted)

## History of Heart Attack and Stroke

Heart attack among those previously diagnosed

Description: History of heart attack or stroke

Instrument questions:

- Have you ever had a heart attack?
- Have you ever had a stroke?

| History of heart attack |            |                      |                |            |                      |                |             |                      |                |
|-------------------------|------------|----------------------|----------------|------------|----------------------|----------------|-------------|----------------------|----------------|
| Age Group (years)       | Men        |                      |                | Women      |                      |                | Both Sexes  |                      |                |
|                         | n          | % had a heart attack | 95% CI         | n          | % had a heart attack | 95% CI         | n           | % had a heart attack | 95% CI         |
| 18-44                   | 266        | 0.0                  | 0.0-0.0        | 364        | 0.0                  | 0.0-0.0        | 630         | 0.0                  | 0.0-0.0        |
| 45-64                   | 356        | 2.0                  | 1.0-3.0        | 270        | 2.2                  | 0.6-3.9        | 626         | 2.1                  | 1.4-2.9        |
| <b>18-64</b>            | <b>622</b> | <b>0.7</b>           | <b>0.4-1.0</b> | <b>634</b> | <b>0.7</b>           | <b>0.1-1.2</b> | <b>1256</b> | <b>0.7</b>           | <b>0.5-0.9</b> |

| History of stroke |            |                |                |            |                |                |             |                |                |
|-------------------|------------|----------------|----------------|------------|----------------|----------------|-------------|----------------|----------------|
| Age Group (years) | Men        |                |                | Women      |                |                | Both Sexes  |                |                |
|                   | n          | % had a stroke | 95% CI         | n          | % had a stroke | 95% CI         | n           | % had a stroke | 95% CI         |
| 18-44             | 266        | 1.1            | 0.4-1.7        | 364        | 0.0            | 0.0-0.0        | 630         | 0.5            | 0.2-0.8        |
| 45-64             | 356        | 2.3            | 1.2-3.3        | 270        | 1.3            | 0.6-1.9        | 626         | 1.8            | 1.1-2.5        |
| <b>18-64</b>      | <b>622</b> | <b>1.5</b>     | <b>0.8-2.1</b> | <b>634</b> | <b>0.4</b>     | <b>0.2-0.6</b> | <b>1256</b> | <b>0.9</b>     | <b>0.6-1.3</b> |

## Physical Measurements

Height,  
weight  
and BMI

Description: Mean height, weight, and body mass index among all respondents (excluding pregnant women for weight and BMI).

Instrument questions:

- Height
- Weight

| Mean height (cm)     |            |              |                    |            |              |                    |
|----------------------|------------|--------------|--------------------|------------|--------------|--------------------|
| Age Group<br>(years) | Men        |              |                    | Women      |              |                    |
|                      | n          | Mean         | 95% CI             | n          | Mean         | 95% CI             |
| 18-44                | 220        | 175.7        | 174.6-176.8        | 283        | 164.5        | 163.9-165.1        |
| 45-64                | 239        | 173.4        | 172.5-174.4        | 194        | 163.0        | 162.4-163.6        |
| <b>18-64</b>         | <b>459</b> | <b>174.8</b> | <b>174.1-175.6</b> | <b>477</b> | <b>164.0</b> | <b>163.6-164.4</b> |

| Mean weight (kg)     |            |              |                    |            |             |                  |
|----------------------|------------|--------------|--------------------|------------|-------------|------------------|
| Age Group<br>(years) | Men        |              |                    | Women      |             |                  |
|                      | n          | Mean         | 95% CI             | n          | Mean        | 95% CI           |
| 18-44                | 221        | 104.3        | 101.9-106.7        | 279        | 96.5        | 92.4-100.7       |
| 45-64                | 238        | 102.2        | 97.5-106.9         | 194        | 92.2        | 90.7-93.7        |
| <b>18-64</b>         | <b>459</b> | <b>103.5</b> | <b>100.6-106.4</b> | <b>473</b> | <b>95.1</b> | <b>92.4-97.8</b> |

| Mean BMI (kg/m <sup>2</sup> ) |            |             |                  |            |             |                  |            |             |                  |
|-------------------------------|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
| Age Group<br>(years)          | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|                               | n          | Mean        | 95% CI           | n          | Mean        | 95% CI           | n          | Mean        | 95% CI           |
| 18-44                         | 218        | 33.4        | 32.8-33.9        | 270        | 34.2        | 33.6-34.7        | 488        | 33.8        | 33.4-34.2        |
| 45-64                         | 236        | 34.1        | 33.1-35.1        | 194        | 34.7        | 34.1-35.3        | 430        | 34.4        | 33.9-34.9        |
| <b>18-64</b>                  | <b>454</b> | <b>33.6</b> | <b>33.0-34.2</b> | <b>464</b> | <b>34.3</b> | <b>33.9-34.8</b> | <b>918</b> | <b>34.0</b> | <b>33.7-34.3</b> |

Analysis Information:

- Questions used: M3, M4, M5
- Epi Info program name: Mbmi (unweighted); MbmiWT (weighted)

BMI  
categories

Description: Percentage of respondents (excluding pregnant women) in each BMI category.

Instrument questions:

- Height
- Weight

| BMI classifications  |            |                         |                |                              |                 |                    |                  |                  |                  |
|----------------------|------------|-------------------------|----------------|------------------------------|-----------------|--------------------|------------------|------------------|------------------|
| Age Group<br>(years) | Men        |                         |                |                              |                 |                    |                  |                  |                  |
|                      | n          | % Under-weight<br><18.5 | 95% CI         | % Normal weight<br>18.5-24.9 | 95% CI          | % BMI<br>25.0-29.9 | 95% CI           | % Obese<br>≥30.0 | 95% CI           |
| 18-44                | 218        | 0.0                     | 0.0-0.0        | 12.9                         | 9.9-15.8        | 18.7               | 15.5-21.9        | 68.5             | 64.1-72.8        |
| 45-64                | 236        | 0.5                     | 0.1-0.9        | 8.2                          | 5.5-10.9        | 22.2               | 18.1-26.3        | 69.1             | 64.2-74.1        |
| <b>18-64</b>         | <b>454</b> | <b>0.2</b>              | <b>0.1-0.3</b> | <b>11.1</b>                  | <b>8.8-13.4</b> | <b>20.0</b>        | <b>17.6-22.4</b> | <b>68.7</b>      | <b>65.4-72.0</b> |

| BMI classifications |            |                      |        |                           |                 |                 |                  |               |                  |
|---------------------|------------|----------------------|--------|---------------------------|-----------------|-----------------|------------------|---------------|------------------|
| Age Group (years)   | Women      |                      |        |                           |                 |                 |                  |               |                  |
|                     | n          | % Under-weight <18.5 | 95% CI | % Normal weight 18.5-24.9 | 95% CI          | % BMI 25.0-29.9 | 95% CI           | % Obese ≥30.0 | 95% CI           |
| 18-44               | 270        | -                    | -      | 11.3                      | 8.7-13.8        | 18.8            | 17.1-20.6        | 69.9          | 67.1-72.7        |
| 45-64               | 194        | -                    | -      | 6.8                       | 5.1-8.5         | 20.9            | 17.3-24.5        | 72.3          | 68.2-76.5        |
| <b>18-64</b>        | <b>464</b> | -                    | -      | <b>9.8</b>                | <b>8.3-11.2</b> | <b>19.5</b>     | <b>17.6-21.4</b> | <b>70.7</b>   | <b>68.6-72.8</b> |

| BMI classifications |            |                      |                |                           |                 |                 |                  |               |                  |
|---------------------|------------|----------------------|----------------|---------------------------|-----------------|-----------------|------------------|---------------|------------------|
| Age Group (years)   | Both Sexes |                      |                |                           |                 |                 |                  |               |                  |
|                     | n          | % Under-weight <18.5 | 95% CI         | % Normal weight 18.5-24.9 | 95% CI          | % BMI 25.0-29.9 | 95% CI           | % Obese ≥30.0 | 95% CI           |
| 18-44               | 488        | 0.0                  | 0.0-0.0        | 12.0                      | 9.8-14.2        | 18.8            | 16.8-20.7        | 69.2          | 66.5-72.0        |
| 45-64               | 430        | 0.2                  | 0.1-0.4        | 7.5                       | 6.0-9.0         | 21.5            | 18.4-24.7        | 70.7          | 67.0-74.5        |
| <b>18-64</b>        | <b>918</b> | <b>0.1</b>           | <b>0.0-0.1</b> | <b>10.4</b>               | <b>8.9-11.9</b> | <b>19.7</b>     | <b>18.1-21.4</b> | <b>69.8</b>   | <b>67.8-71.8</b> |

Analysis Information:

- Questions used: M3, M4, M5
- Epi Info program name: Mbmiclass (unweighted); MbmiclassWT (weighted)

BMI ≥25 Description: Percentage of respondents being classified as overweight (BMI≥25)

Instrument questions:

- Height
- Weight

| BMI≥25            |            |             |                  |            |             |                  |            |             |                  |
|-------------------|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
| Age Group (years) | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|                   | n          | % BMI≥25    | 95% CI           | n          | % BMI≥25    | 95% CI           | n          | % BMI≥25    | 95% CI           |
| 18-44             | 218        | 87.1        | 84.2-90.1        | 270        | 88.7        | 86.2-91.3        | 488        | 88.0        | 85.8-90.2        |
| 45-64             | 236        | 91.3        | 88.5-94.1        | 194        | 93.2        | 91.5-94.9        | 430        | 92.3        | 90.6-93.9        |
| <b>18-64</b>      | <b>454</b> | <b>88.7</b> | <b>86.4-91.0</b> | <b>464</b> | <b>90.2</b> | <b>88.8-91.7</b> | <b>918</b> | <b>89.5</b> | <b>88.1-91.0</b> |

Analysis Information:

- Questions used: M3, M4, M5
- Epi Info program name: Mbmiclass (unweighted); MbmiclassWT (weighted)

Waist circumference Description: Mean waist circumference among all respondents (excluding pregnant women).

Instrument question:

- Waist circumference measurement

| Waist circumference (cm) |            |              |                    |            |              |                    |
|--------------------------|------------|--------------|--------------------|------------|--------------|--------------------|
| Age Group (years)        | Men        |              |                    | Women      |              |                    |
|                          | n          | Mean         | 95% CI             | n          | Mean         | 95% CI             |
| 18-44                    | 211        | 103.8        | 102.5-105.0        | 276        | 103.4        | 102.0-104.7        |
| 45-64                    | 229        | 108.3        | 105.0-111.7        | 192        | 106.1        | 104.6-107.6        |
| <b>18-64</b>             | <b>440</b> | <b>105.5</b> | <b>103.4-107.6</b> | <b>468</b> | <b>104.3</b> | <b>103.3-105.2</b> |

Analysis Information:

- Questions used: M5, M7
- Epi Info program name: Mwaist (unweighted); MwaistWT (weighted)

Blood pressure Description: Mean blood pressure among all respondents, including those currently on medication for raised blood pressure.  
Instrument question:  
• Reading 1-3 systolic and diastolic blood pressure

| Mean systolic blood pressure (mmHg) |            |              |                    |            |              |                    |            |              |                    |
|-------------------------------------|------------|--------------|--------------------|------------|--------------|--------------------|------------|--------------|--------------------|
| Age Group (years)                   | Men        |              |                    | Women      |              |                    | Both Sexes |              |                    |
|                                     | n          | Mean         | 95% CI             | n          | Mean         | 95% CI             | n          | Mean         | 95% CI             |
| 18-44                               | 213        | 129.6        | 128.0-131.2        | 280        | 119.8        | 119.1-120.6        | 493        | 124.2        | 123.1-125.2        |
| 45-64                               | 221        | 137.4        | 135.8-139.1        | 186        | 133.6        | 131.7-135.5        | 407        | 135.5        | 134.4-136.6        |
| <b>18-64</b>                        | <b>434</b> | <b>132.5</b> | <b>131.1-133.8</b> | <b>466</b> | <b>124.2</b> | <b>123.2-125.3</b> | <b>900</b> | <b>128.0</b> | <b>126.9-129.2</b> |

| Mean diastolic blood pressure (mmHg) |            |             |                  |            |             |                  |            |             |                  |
|--------------------------------------|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
| Age Group (years)                    | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|                                      | n          | Mean        | 95% CI           | n          | Mean        | 95% CI           | n          | Mean        | 95% CI           |
| 18-44                                | 213        | 78.0        | 77.0-79.0        | 280        | 75.9        | 75.0-76.7        | 493        | 76.8        | 76.1-77.5        |
| 45-64                                | 221        | 84.4        | 83.7-85.0        | 186        | 81.5        | 79.9-83.1        | 407        | 82.9        | 82.1-83.7        |
| <b>18-64</b>                         | <b>434</b> | <b>80.4</b> | <b>79.7-81.0</b> | <b>466</b> | <b>77.7</b> | <b>76.8-78.5</b> | <b>900</b> | <b>78.9</b> | <b>78.3-79.5</b> |

Analysis Information:

- Questions used: M11a, M11b, M12a, M12b, M13a, M13b
- Epi Info program name: Mbloodpressure (unweighted); MbloodpressureWT (weighted)

Raised blood pressure Description: Percentage of respondents with raised blood pressure.

Instrument question:

- During the past two weeks, have you been treated for raised blood pressure with drugs (medication) prescribed by a doctor or other health worker?
- Reading 1-3 systolic and diastolic blood pressure

| SBP ≥140 and/or DBP ≥ 90 mmHg, excluding those on medication for raised blood pressure |            |             |                  |            |             |                  |            |             |                  |
|--|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
| Age Group (years)  | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|  | n          | %           | 95% CI           | n          | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44  | 209        | 23.7        | 18.9-28.5        | 272        | 12.5        | 9.8-15.2         | 481        | 17.5        | 14.5-20.5        |
| 45-64  | 192        | 44.6        | 38.4-50.8        | 155        | 29.0        | 24.0-34.0        | 347        | 36.9        | 32.4-41.5        |
| <b>18-64</b>   | <b>401</b> | <b>30.8</b> | <b>25.8-35.8</b> | <b>427</b> | <b>17.3</b> | <b>14.8-19.7</b> | <b>828</b> | <b>23.6</b> | <b>20.2-26.9</b> |

| SBP ≥140 and/or DBP ≥ 90 mmHg or currently on medication for raised blood pressure |            |             |                  |            |             |                  |            |             |                  |
|--|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
| Age Group (years)  | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|  | n          | %           | 95% CI           | n          | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44  | 213        | 24.7        | 20.3-29.1        | 280        | 14.5        | 11.6-17.4        | 493        | 19.0        | 16.2-21.8        |
| 45-64  | 222        | 51.8        | 46.4-57.2        | 189        | 41.5        | 36.3-46.7        | 411        | 46.6        | 42.6-50.6        |
| <b>18-64</b>   | <b>435</b> | <b>34.7</b> | <b>30.4-39.1</b> | <b>469</b> | <b>23.2</b> | <b>20.5-25.9</b> | <b>904</b> | <b>28.5</b> | <b>25.3-31.7</b> |

| SBP ≥160 and/or DBP ≥ 100 mmHg, excluding those on medication for raised blood pressure |            |            |                |            |            |                |            |            |                |
|---|------------|------------|----------------|------------|------------|----------------|------------|------------|----------------|
| Age Group (years)   | Men        |            |                | Women      |            |                | Both Sexes |            |                |
|   | n          | %          | 95% CI         | n          | %          | 95% CI         | n          | %          | 95% CI         |
| 18-44   | 209        | 2.4        | 1.3-3.5        | 272        | 3.9        | 2.5-5.2        | 481        | 3.2        | 2.1-4.3        |
| 45-64   | 192        | 10.7       | 5.6-15.8       | 155        | 9.1        | 6.4-11.8       | 347        | 9.9        | 6.7-13.2       |
| <b>18-64</b>  | <b>401</b> | <b>5.2</b> | <b>3.3-7.2</b> | <b>427</b> | <b>5.4</b> | <b>4.0-6.7</b> | <b>828</b> | <b>5.3</b> | <b>3.8-6.8</b> |

| SBP $\geq$ 160 and/or DBP $\geq$ 100 mmHg or currently on medication for raised blood pressure |            |             |                 |            |             |                  |            |             |                 |
|--|------------|-------------|-----------------|------------|-------------|------------------|------------|-------------|-----------------|
| Age Group (years)  | Men        |             |                 | Women      |             |                  | Both Sexes |             |                 |
|  | n          | %           | 95% CI          | n          | %           | 95% CI           | n          | %           | 95% CI          |
| 18-44  | 213        | 3.7         | 2.0-5.5         | 280        | 6.0         | 4.3-7.8          | 493        | 5.0         | 3.5-6.5         |
| 45-64  | 222        | 22.3        | 15.1-29.5       | 189        | 25.1        | 20.2-30.0        | 411        | 23.7        | 19.5-28.0       |
| <b>18-64</b>   | <b>435</b> | <b>10.6</b> | <b>7.8-13.4</b> | <b>469</b> | <b>12.2</b> | <b>10.2-14.1</b> | <b>904</b> | <b>11.4</b> | <b>9.8-13.1</b> |

Analysis Information:

- Questions used: M11a, M11b, M12a, M12b, M13a, M13b, M14
- Epi Info program name: Mraisedbp (unweighted); MraisedbpWT (weighted)

Treatment and control of raised blood pressure

Description: Percentage of respondents with treated and/or controlled of raised blood pressure among those with raised blood pressure (SBP  $\geq$ 140 and/or DBP  $\geq$  90 mmHg) or currently on medication for raised blood pressure.

Instrument questions:

- During the past two weeks, have you been treated for raised blood pressure with drugs (medication) prescribed by a doctor or other health worker?
- Reading 1-3 systolic and diastolic blood pressure

| Respondents with treated and/or controlled raised blood pressure |            |  |                |   |                 |   |                  |
|--|------------|--|----------------|---|-----------------|---|------------------|
| Age Group (years)  | Men        |  |                |   |                 |   |                  |
|  | n          | % On medication and SBP<140 and DBP<90 | 95% CI         | % On medication and SBP $\geq$ 140 and/or DBP $\geq$ 90 | 95% CI          | % Not on medication and SBP $\geq$ 140 and/or DBP $\geq$ 90 | 95% CI           |
| 18-44  | 46         | -                                      | -              | -   | -               | -   | -                |
| 45-64  | 102        | 10.6                                   | 6.0-15.2       | 18.1  | 11.6-24.7       | 71.2  | 61.5-81.0        |
| <b>18-64</b>   | <b>148</b> | <b>6.3</b>                             | <b>3.8-8.7</b> | <b>12.4</b>   | <b>8.0-16.8</b> | <b>81.3</b>   | <b>75.1-87.6</b> |

(\*\* n<50, sample size is too small , to report the % and 95%CI.)

| Respondents with treated and/or controlled raised blood pressure |            |  |                 |   |                  |   |                  |
|--|------------|--|-----------------|---|------------------|---|------------------|
| Age Group (years)  | Women      |  |                 |   |                  |   |                  |
|  | n          | % On medication and SBP<140 and DBP<90 | 95% CI          | % On medication and SBP $\geq$ 140 and/or DBP $\geq$ 90 | 95% CI           | % Not on medication and SBP $\geq$ 140 and/or DBP $\geq$ 90 | 95% CI           |
| 18-44  | 34         | -                                      | -               | -   | -                | -   | -                |
| 45-64  | 75         | 12.1                                   | 8.8-15.4        | 29.3  | 20.6-38.0        | 58.6  | 50.0-67.2        |
| <b>18-64</b>   | <b>109</b> | <b>9.3</b>                             | <b>6.3-12.3</b> | <b>21.5</b>   | <b>16.0-27.0</b> | <b>69.2</b>   | <b>62.9-75.5</b> |

(\*\* n<50, sample size is too small , to report the % and 95%CI.)

| Respondents with treated and/or controlled raised blood pressure |            |  |                |   |                  |   |                  |
|--|------------|--|----------------|---|------------------|---|------------------|
| Age Group (years)  | Both Sexes |  |                |   |                  |   |                  |
|  | n          | % On medication and SBP<140 and DBP<90 | 95% CI         | % On medication and SBP≥140 and/or DBP≥90 | 95% CI           | % Not on medication and SBP≥140 and/or DBP≥90 | 95% CI           |
| 18-44  | 80         | 3.0                                    | 0.0-6.1        | 7.8                                       | 3.8-11.9         | 89.2  | 85.1-93.2        |
| 45-64  | 177        | 11.3                                   | 7.9-14.7       | 23.4                                      | 17.9-28.9        | 65.3  | 58.4-72.1        |
| <b>18-64</b>   | <b>257</b> | <b>7.7</b>                             | <b>5.9-9.4</b> | <b>16.6</b>                               | <b>12.8-20.4</b> | <b>75.7</b>                                   | <b>71.1-80.3</b> |

Analysis Information:

- Questions used: M11a, M11b, M12a, M12b, M13a, M13b, M14
- Epi Info program name: Mraisedbp (unweighted); MraisedbpWT (weighted)

## Biochemical Measurements

| Mean fasting blood glucose (mmol/L) |            |            |                |            |            |                |            |            |                |
|-------------------------------------|------------|------------|----------------|------------|------------|----------------|------------|------------|----------------|
| Age Group (years)                   | Men        |            |                | Women      |            |                | Both Sexes |            |                |
|                                     | n          | Mean       | 95% CI         | n          | Mean       | 95% CI         | n          | Mean       | 95% CI         |
| 18-44                               | 169        | 6.2        | 6.0-6.4        | 259        | 6.2        | 5.8-6.6        | 428        | 6.2        | 6.0-6.4        |
| 45-64                               | 176        | 7.2        | 6.8-7.7        | 170        | 7.2        | 6.9-7.5        | 346        | 7.2        | 7.0-7.4        |
| <b>18-64</b>                        | <b>345</b> | <b>6.6</b> | <b>6.5-6.7</b> | <b>429</b> | <b>6.5</b> | <b>6.2-6.8</b> | <b>774</b> | <b>6.6</b> | <b>6.4-6.7</b> |

| Mean fasting blood glucose (mg/dl) |            |              |                    |            |              |                    |            |              |                    |
|------------------------------------|------------|--------------|--------------------|------------|--------------|--------------------|------------|--------------|--------------------|
| Age Group (years)                  | Men        |              |                    | Women      |              |                    | Both Sexes |              |                    |
|                                    | n          | Mean         | 95% CI             | n          | Mean         | 95% CI             | n          | Mean         | 95% CI             |
| 18-44                              | 169        | 112.2        | 108.9-115.4        | 259        | 111.7        | 104.2-119.3        | 428        | 111.9        | 107.9-115.9        |
| 45-64                              | 176        | 130.3        | 122.1-138.5        | 170        | 130.0        | 124.5-135.5        | 346        | 130.1        | 126.5-133.7        |
| <b>18-64</b>                       | <b>345</b> | <b>118.8</b> | <b>116.3-121.3</b> | <b>429</b> | <b>117.5</b> | <b>112.4-122.7</b> | <b>774</b> | <b>118.1</b> | <b>114.9-121.2</b> |

Analysis Information:

- Questions used: B1, B5
- Epi Info program name:
  - measurement in mmol/L: Bglucose (unweighted); BglucoseWT (weighted)
  - measurement in mg/dl: BglucoseMg (unweighted); BglucoseMgWT (weighted)

| Impaired Fasting Glycaemia* |            |             |                  |            |             |                  |            |             |                  |
|-----------------------------|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
| Age Group (years)           | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|                             | n          | %           | 95% CI           | n          | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44                       | 169        | 23.4        | 19.3-27.5        | 259        | 21.3        | 15.0-27.6        | 428        | 22.1        | 18.4-25.9        |
| 45-64                       | 176        | 26.7        | 23.6-29.8        | 170        | 24.0        | 17.0-31.1        | 346        | 25.3        | 22.2-28.3        |
| <b>18-64</b>                | <b>345</b> | <b>24.6</b> | <b>21.7-27.5</b> | <b>429</b> | <b>22.1</b> | <b>16.0-28.3</b> | <b>774</b> | <b>23.2</b> | <b>19.9-26.5</b> |

| Raised blood glucose or currently on medication for diabetes ** |            |             |                  |            |             |                  |            |             |                  |
|---|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
| Age Group (years)   | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|   | n          | %           | 95% CI           | n          | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44   | 169        | 17.0        | 10.8-23.1        | 259        | 17.4        | 12.2-22.7        | 428        | 17.2        | 15.1-19.4        |
| 45-64   | 176        | 39.1        | 33.3-45.0        | 170        | 32.9        | 27.9-37.9        | 346        | 35.8        | 32.2-39.4        |
| <b>18-64</b>  | <b>345</b> | <b>25.1</b> | <b>20.6-29.6</b> | <b>429</b> | <b>22.3</b> | <b>18.2-26.5</b> | <b>774</b> | <b>23.5</b> | <b>21.8-25.2</b> |



| Currently on medication for diabetes |            |            |                 |            |            |                |             |            |                |
|--------------------------------------|------------|------------|-----------------|------------|------------|----------------|-------------|------------|----------------|
| Age Group (years)                    | Men        |            |                 | Women      |            |                | Both Sexes  |            |                |
|                                      | n          | %          | 95% CI          | n          | %          | 95% CI         | n           | %          | 95% CI         |
| 18-44                                | 267        | 1.5        | 0.6-2.4         | 370        | 3.9        | 2.9-4.9        | 637         | 2.9        | 2.0-3.7        |
| 45-64                                | 360        | 16.1       | 11.3-21.0       | 275        | 15.9       | 12.8-19.0      | 635         | 16.0       | 13.8-18.2      |
| <b>18-64</b>                         | <b>627</b> | <b>7.7</b> | <b>5.4-10.1</b> | <b>645</b> | <b>8.1</b> | <b>6.9-9.3</b> | <b>1272</b> | <b>7.9</b> | <b>6.8-9.0</b> |

Raised blood glucose is defined as either

- plasma venous value:  $\geq 7.0$  mmol/L (126 mg/dl)
- capillary whole blood value:  $\geq 6.1$  mmol/L (110 mg/dl)
- 

\* Impaired fasting glycaemia is defined as either

- plasma venous value:  $\geq 6.1$  mmol/L (110mg/dl) and  $<7.0$  mmol/L (126mg/dl)
- capillary whole blood value:  $\geq 5.6$  mmol/L (100mg/dl) and  $<6.1$  mmol/L (110mg/dl)
- 

Analysis Information:

- Questions used: H8a, H8b, B1, B5, B6

Epi Info program name:

- measurement in mmol/L: Bglucose (unweighted); BglucoseWT (weighted)
- measurement in mg/dl: BglucoseMg (unweighted); BglucoseMgWT (weighted)

Total cholesterol

Description: Mean total cholesterol among all respondents including those currently on medication for raised cholesterol.

Instrument questions:

- Total cholesterol measurement

| Mean total cholesterol (mmol/L) |            |            |                |            |            |                |            |            |                |
|---------------------------------|------------|------------|----------------|------------|------------|----------------|------------|------------|----------------|
| Age Group (years)               | Men        |            |                | Women      |            |                | Both Sexes |            |                |
|                                 | n          | Mean       | 95% CI         | n          | Mean       | 95% CI         | n          | Mean       | 95% CI         |
| 18-44                           | 190        | 5.1        | 5.0-5.2        | 273        | 4.8        | 4.8-4.9        | 463        | 4.9        | 4.9-5.0        |
| 45-64                           | 186        | 5.1        | 5.0-5.2        | 182        | 5.2        | 5.1-5.4        | 368        | 5.2        | 5.1-5.2        |
| <b>18-64</b>                    | <b>376</b> | <b>5.1</b> | <b>5.0-5.1</b> | <b>455</b> | <b>5.0</b> | <b>4.9-5.0</b> | <b>831</b> | <b>5.0</b> | <b>5.0-5.1</b> |

| Mean total cholesterol (mg/dl) |            |              |                    |            |              |                    |            |              |                    |
|--------------------------------|------------|--------------|--------------------|------------|--------------|--------------------|------------|--------------|--------------------|
| Age Group (years)              | Men        |              |                    | Women      |              |                    | Both Sexes |              |                    |
|                                | n          | Mean         | 95% CI             | n          | Mean         | 95% CI             | n          | Mean         | 95% CI             |
| 18-44                          | 190        | 196.7        | 193.1-200.4        | 273        | 186.7        | 184.5-188.9        | 463        | 191.0        | 188.9-193.0        |
| 45-64                          | 186        | 196.9        | 193.9-200.0        | 182        | 202.2        | 195.8-208.5        | 368        | 199.7        | 196.7-202.7        |
| <b>18-64</b>                   | <b>376</b> | <b>196.8</b> | <b>194.8-198.8</b> | <b>455</b> | <b>191.7</b> | <b>188.8-194.5</b> | <b>831</b> | <b>193.9</b> | <b>192.0-195.9</b> |

Analysis Information:

- Questions used: B8
- Epi Info program name:
  - measurement in mmol/L: Btotalipids (unweighted); BtotalipidsWT (weighted)
  - measurement in mg/dl: BtotalipidsMg (unweighted); BtotalipidsMgWT (weighted)

Raised total cholesterol

Description: Percentage of respondents with raised total cholesterol and percentage of respondents currently on medication for raised cholesterol.

Instrument questions:

- Total cholesterol measurement
- During the past two weeks, have you been treated for raised cholesterol with drugs (medication) prescribed by a doctor or other health worker?

| Total cholesterol $\geq$ 5.0 mmol/L or $\geq$ 190 mg/dl or currently on medication for raised cholesterol |            |             |                  |            |             |                  |            |             |                  |
|---|------------|-------------|------------------|------------|-------------|------------------|------------|-------------|------------------|
| Age Group (years)   | Men        |             |                  | Women      |             |                  | Both Sexes |             |                  |
|   | n          | %           | 95% CI           | n          | %           | 95% CI           | n          | %           | 95% CI           |
| 18-44   | 190        | 52.6        | 48.1-57.0        | 273        | 32.0        | 28.9-35.2        | 463        | 40.8        | 37.8-43.7        |
| 45-64   | 186        | 57.7        | 52.4-62.9        | 182        | 58.1        | 52.5-63.7        | 368        | 57.9        | 54.5-61.3        |
| <b>18-64</b>  | <b>376</b> | <b>54.4</b> | <b>51.5-57.3</b> | <b>455</b> | <b>40.5</b> | <b>37.2-43.7</b> | <b>831</b> | <b>46.5</b> | <b>44.3-48.8</b> |

| Total cholesterol $\geq$ 6.2 mmol/L or $\geq$ 240 mg/dl or currently on medication for raised cholesterol |            |             |                  |            |             |                 |            |             |                  |
|---|------------|-------------|------------------|------------|-------------|-----------------|------------|-------------|------------------|
| Age Group (years)   | Men        |             |                  | Women      |             |                 | Both Sexes |             |                  |
|   | n          | %           | 95% CI           | n          | %           | 95% CI          | n          | %           | 95% CI           |
| 18-44   | 190        | 15.5        | 12.2-18.8        | 273        | 6.9         | 5.4-8.4         | 463        | 10.5        | 8.9-12.2         |
| 45-64   | 186        | 20.2        | 16.0-24.3        | 182        | 22.2        | 16.1-28.2       | 368        | 21.2        | 16.9-25.5        |
| <b>18-64</b>  | <b>376</b> | <b>17.1</b> | <b>14.1-20.2</b> | <b>455</b> | <b>11.8</b> | <b>9.6-14.1</b> | <b>831</b> | <b>14.1</b> | <b>11.9-16.4</b> |

#### Analysis Information:

- Questions used: B8, B9
- Epi Info program name:
  - measurement in mmol/L: Btotalipids (unweighted); BtotalipidsWT (weighted)
  - measurement in mg/dl: BtotalipidsMg (unweighted); BtotalipidsMgWT (weighted)

## Summary of Combined Risk Factors

#### Summary of Combined Risk Factors

Description: Percentage of respondents with 0, 1-2, or 3-5 of the following risk factors:

- current daily smoker
- less than 5 servings of fruits & vegetables per day
- low level of activity (<600 MET -minutes)
- overweight or obese (BMI  $\geq$  18 kg/m<sup>2</sup>)
- raised BP (SBP  $\geq$  140 and/or DBP  $\geq$  90 mmHg or currently on medication for raised BP).

Instrument questions: combined from Step 1 and Step 2

| Summary of Combined Risk Factors |            |                       |                |                         |                  |                         |                  |
|----------------------------------|------------|-----------------------|----------------|-------------------------|------------------|-------------------------|------------------|
| Age Group (years)                | Women      |                       |                |                         |                  |                         |                  |
|                                  | n          | % with 0 risk factors | 95% CI         | % with 1-2 risk factors | 95% CI           | % with 3-5 risk factors | 95% CI           |
| 18-44                            | 184        | 0.6                   | 0.0-2.3        | 55.8                    | 49.7-61.9        | 43.5                    | 38.2-48.9        |
| 45-64                            | 183        | 0.8                   | 0.0-1.7        | 36.4                    | 31.3-41.5        | 62.8                    | 57.5-68.1        |
| <b>18-64</b>                     | <b>367</b> | <b>0.7</b>            | <b>0.0-1.8</b> | <b>47.2</b>             | <b>42.5-51.9</b> | <b>52.1</b>             | <b>47.8-56.4</b> |

| Summary of Combined Risk Factors |            |                       |                |                         |                  |                         |                  |
|----------------------------------|------------|-----------------------|----------------|-------------------------|------------------|-------------------------|------------------|
| Age Group (years)                | Both Sexes |                       |                |                         |                  |                         |                  |
|                                  | n          | % with 0 risk factors | 95% CI         | % with 1-2 risk factors | 95% CI           | % with 3-5 risk factors | 95% CI           |
| 18-44                            | 343        | 0.3                   | 0.0-1.2        | 53.0                    | 49.2-56.7        | 46.7                    | 43.3-50.1        |
| 45-64                            | 396        | 1.1                   | 0.5-1.7        | 34.2                    | 30.5-38.0        | 64.7                    | 60.7-68.6        |
| <b>18-64</b>                     | <b>739</b> | <b>0.7</b>            | <b>0.2-1.1</b> | <b>44.7</b>             | <b>41.4-48.0</b> | <b>54.7</b>             | <b>51.4-57.9</b> |

#### Analysis Information:

- Questions used: T1, T2, D1-D4, P1-P15b, M3, M4, M5, M11a-M13b, M14
- Epi Info program name: Raisedrisk (unweighted); RaisedriskWT (weighted)

## Cardiovascular disease risk

CVD risk of  
≥30% or  
existing CVD

Description: Percentage of respondents aged 40-69 years with a 10-year cardiovascular disease (CVD) risk\* ≥30% or with existing CVD

Instrument questions: combined from Step 1, 2 and 3

- Gender, age
- Current and former smoking
- History of diabetes, CVD
- Systolic blood pressure measurements
- Fasting status, glucose and total cholesterol measurements.

| Percentage of respondents with a 10-year CVD risk ≥30% or with existing CVD |            |            |                |            |            |                |            |            |                |
|---|------------|------------|----------------|------------|------------|----------------|------------|------------|----------------|
| Age Group<br>(years)  | Men        |            |                | Women      |            |                | Both Sexes |            |                |
|   | n          | %          | 95% CI         | n          | %          | 95% CI         | n          | %          | 95% CI         |
| 40-54   | 123        | 1.0        | 0.2-1.9        | 147        | 1.2        | 0.4-1.9        | 270        | 1.1        | 0.3-1.9        |
| 55-69   | 67         | 3.8        | 0.0-8.8        | 63         | 4.9        | 0.0-9.9        | 130        | 4.4        | 0.6-8.1        |
| <b>40-69</b>  | <b>190</b> | <b>1.9</b> | <b>0.5-3.3</b> | <b>210</b> | <b>2.2</b> | <b>0.9-3.5</b> | <b>400</b> | <b>2.1</b> | <b>1.2-2.9</b> |

\* 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 >7.0 mmol/l (126 mg/dl)).

Analysis Information:

- Questions used: C1, C2, C3, T1, T8, T10, T11a-c, H6, H7a, B1, B5, B8
- Epi Info program name: CVDrisk (unweighted); CVDriskWT (weighted)



