

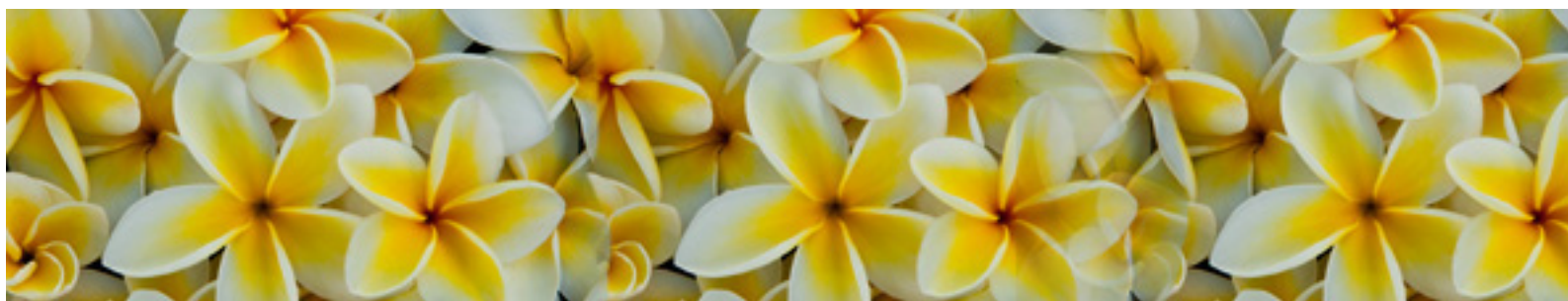


# **Cook Islands**

# **NCD Risk Factors**

# **STEPS REPORT 2013-2015**

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



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

**Printed in Suva, Fiji**

## Acknowledgements

The Cook Islands NCD Risk Factors STEPS Report has been possible due to the combined efforts of several organizations and individuals. The STEPS Report is a collaborative effort between Te Marae Ora, Cook Islands Ministry of Health (MoH) and the World Health Organization (WHO). Research staff of the Fiji National University contributed to the salt intake survey.

For their contributions in planning and conducting the STEPS survey and disseminating its results through this report, we acknowledge and appreciate the efforts of the following involved:

This report was drafted by Dr Graham Roberts PhD, Senior Visiting Fellow, School of Public Health and Community Medicine, University of New South Wales and member of the (Centre for the Prevention of Obesity and Non-communicable Diseases (C-POND) Reference Group.

We acknowledge the support of WHO in the implementation of this survey, including Dr Colin Bell, Dr Wendy Snowden and Nola Vanualailai (Division of Pacific Technical Support), Dr Melanie Cowan, Dr Leanne Riley (WHO HQ NCD Surveillance team).

Lastly, but more importantly, we thank the respondents and the people of the Cook Islands for spending their valuable time in participating in the STEPS survey.

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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):

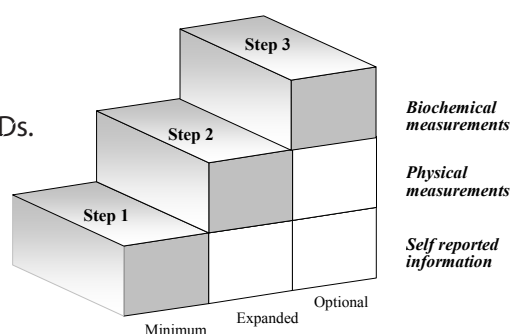
Step 1: A questionnaire-based (interview) survey on tobacco use, alcohol drinking, fruit and vegetable consumption, and physical activity.

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.

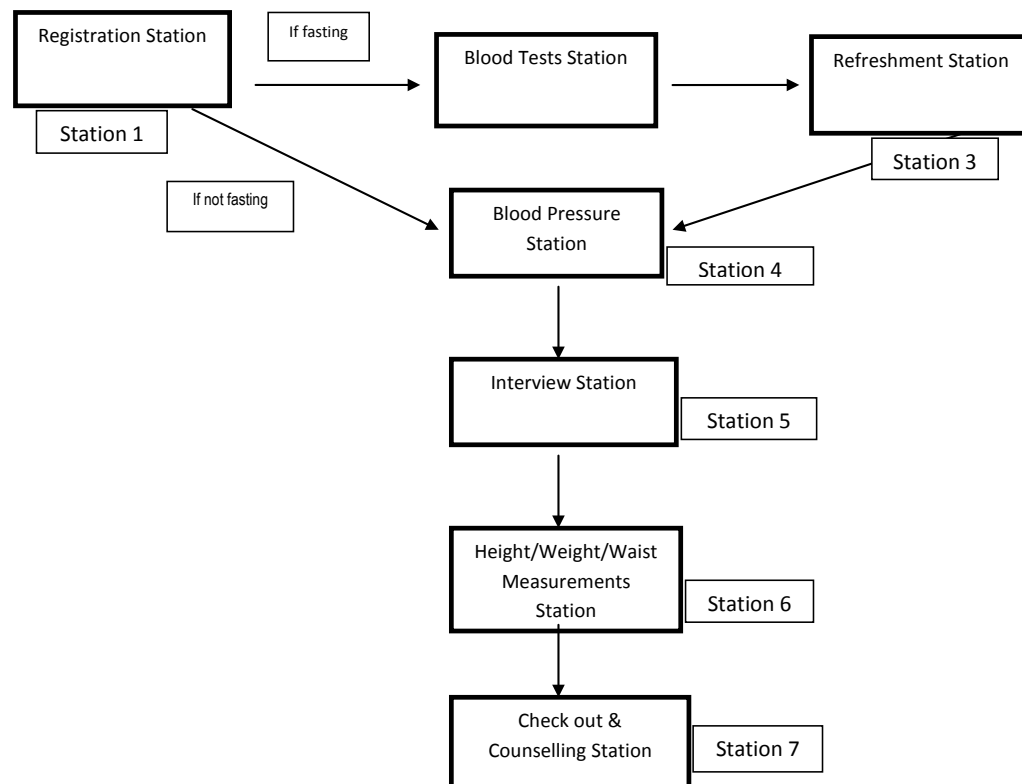


Figure 2: Sequence of data collection and stations at the survey base.

### 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 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 (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 (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>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 (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 (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 (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 (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 (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 (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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- xiv World Health Organization, Population nutrient intake goals for preventing diet-related chronic diseases. [http://www.who.int/nutrition/topics/5\\_population\\_nutrient/en/index5.html](http://www.who.int/nutrition/topics/5_population_nutrient/en/index5.html) Accessed 11<sup>th</sup> January 2016.

## KEY CONTACTS

Secretary for Health: Elizabeth Iro

Director of Community Health Services

Health Promotion Manager: Karen Tairea

Health Promotion Officer: Tania Avare

## **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"/> 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 (24 hour clock)	<input type="text"/> : <input type="text"/> 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? 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?  (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	<u>    </u>	C9
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#### 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?  (RECORD ONLY ONE, NOT ALL 3)	Per week	<u>    </u> Go to T1	C10a
		OR per month	<u>    </u> Go to T1	C10b
		OR per year	<u>    </u> 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  (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?  (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)		T3
		Don't know 77	<u>    </u> If Known, go to T5a/T5aw	
25	Do you remember how long ago it was?  (RECORD ONLY 1, NOT ALL 3)	In Years	<u>    </u> If Known, go to T5a/T5aw	T4a
		OR in Months	<u>    </u> If Known, go to T5a/T5aw	T4b
		OR in Weeks	<u>    </u>	T4c
	Don't know 77			

		DAILY↓		WEEKLY↓	
26	On average, how many of the following products do you smoke each day/week?  (IF LESS THAN DAILY, RECORD WEEKLY)  (RECORD FOR EACH TYPE, USE SHOWCARD)  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"/> 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/ 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?  (RECORD ONLY 1, NOT ALL 3)  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?  (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?  (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 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?  (USE SHOWCARD)	Number 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 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  for men: five or more  for women: four or more  standard alcoholic drinks in a single drinking occasion?	Number of times 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?  (USE SHOWCARD)	Number of days 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 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 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 Don't know 77	<input type="text"/>	D4
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### EXPANDED: Diet

47	What type of oil or fat is most often used for meal preparation in your household?  (USE SHOWCARD) (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 Don't know 77	<input type="text"/>	D6
49	In a typical week, on how many days do you eat fresh fish? (USE SHOWCARD)	Number of days 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 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 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 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?  (SELECT ONLY ONE)  (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?  (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? (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? (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	O6
		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
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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? (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? (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?  (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  _____	P2
76	How much time do you spend doing vigorous-intensity activities at work on a typical day?	Hours : minutes ____ : ____ hrs mins	P3 (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?  (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  _____	P5
79	How much time do you spend doing moderate-intensity activities at work on a typical day?	Hours : minutes ____ : ____ hrs mins	P6 (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  _____	P8
82	How much time do you spend walking or bicycling for travel on a typical day?	Hours : minutes ____ : ____ hrs mins	P9 (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?  (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"/> hrs mins	P12 (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?  (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"/> hrs mins	P15 (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.  (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"/> hrs mins	P16 (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	H4
		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 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		_____	B2
130	Device ID		_____	B3
131	Time of day blood specimen taken (24 hour clock)	Hours : minutes	____ : ____ hrs mins	B4
132	Fasting blood glucose	mmol/l	_____ . _____	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		_____	B7
135	Total cholesterol	mmol/l	_____ . _____	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		_____ . _____	X10
138	24 Hour collection		_____ . _____	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 (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 (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 (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 (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 (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 (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 (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 (years)	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>

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 (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 (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 (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>	<b>-</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>	<b>-</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>	<b>-</b>	<b>-</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 cigs.	95% CI	% 5-9 cigs.	95% CI	% 10-14 cigs.	95% CI	% 15-24 cigs.	95% CI	% ≥ 25 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 cigs.	95% CI	% 5-9 cigs.	95% CI	% 10-14 cigs.	95% CI	% 15-24 cigs.	95% CI	% ≥ 25 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 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>

#### 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 (years)	Men			Women			Both Sexes		
	n	Mean years	95% CI	n	Mean years	95% CI	n	Mean 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 (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 (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 drunk 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 (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	3.6	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 (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	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 (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	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 (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	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 (years)	Men			Women			Both Sexes		
	n	% < five servings per day	95% CI	n	% < five servings per day	95% CI	n	% < five servings 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 (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 (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 (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 (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 (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 (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 (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 (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 (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 (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 (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 (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 (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 (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 (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 (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 (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 (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 (years)	Men			Women			Both Sexes		
	n	% never received dental care	95% CI	n	% never received dental care	95% CI	n	% never received 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 (years)	Men										
	n	% Consul- tation/ advice	95% CI	% Pain or trouble with teeth or gums	95% CI	% Follow-up treatment	95% CI	% Routine check-up treatment	95% CI	% Other	95% 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 (years)	Women										
	n	% Consul- tation/ advice	95% CI	% Pain or trouble with teeth or gums	95% CI	% Follow- up treatment	95% CI	% Routine check-up 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 (years)	Both Sexes										
	n	% Consul- tation/ advice	95% CI	% Pain or trouble with teeth or gums	95% CI	% Follow- up treatment	95% CI	% Routine check-up 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 (years)	Men			Women			Both Sexes		
	n	% cleaning teeth at least daily	95% CI	n	% cleaning teeth at least daily	95% CI	n	% cleaning teeth at 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 (years)	Men			Women			Both Sexes		
	n	% cleaning teeth at least twice a day	95% CI	n	% cleaning teeth at least twice a day	95% CI	n	% cleaning teeth at least twice a 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 (years)	Men			Women			Both Sexes		
	n	% using toothpaste	95% CI	n	% using toothpaste	95% CI	n	% using 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>
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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>
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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>
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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 (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 (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 (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 (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 (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 (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 (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 (years)	Men								
	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	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 $\geq$ 140 and/or DBP $\geq$ 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 $\geq$ 140 and/or DBP $\geq$ 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 $\geq$ 160 and/or DBP $\geq$ 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: Btotallipids (unweighted); BtotallipidsWT (weighted)
  - measurement in mg/dl: BtotallipidsMg (unweighted); BtotallipidsMgWT (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 (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)



