



Solomon Islands NCD Risk Factors STEPS REPORT 2015

in collaboration with World Health Organization (WHO)



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Acknowledgements

This Solomon Islands NCD risk factors STEPS REPORT (referred to as the “Report”) is a product of the combined effort of several organizations and individuals. We acknowledge all the contributions, dedication and determination in completing the survey and finalizing the Report.

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LIST OF ABBREVIATIONS

AGP	Alpha (α)-1 acid glycoprotein
BIS	Body Iron Store
BMI	Body Mass Index
BP	Blood Pressure
CBA	Childbearing Age
CI	Confidence Interval
CKD	Chronic Kidney Disease
CRP	C-reactive protein
CVD	Cardiovascular Diseases
DBP	Diastolic Blood Pressure
DM	Diabetes Mellitus
ETS	Environmental Tobacco Smoke
FBS	Fasting Blood Sugar
GDP	Gross Domestic Product
HTN	Hypertension
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 value)
MoH	Ministry of Health
NCD	Noncommunicable diseases
RBP	Serum retinol equivalent
RCF	Red Blood Cell Folate
SBP	Systolic Blood Pressure
UIC	Urinary Iodine Concentration
WHO	World Health Organization
MHMS	Ministry of Health and Medical Services

Foreword by Ministry of Health



Dr Tenneth Dalipanda
Permanent Secretary
Ministry of Health and Medical Services

The Solomon Islands Government acknowledges and renews its commitments to prevent and control noncommunicable disease (NCD) among all Solomon Islanders. We understand the urgency of increasing efforts to meet the nine voluntary global targets for NCDs, noting recent developments such as the global adoption of the Sustainable Development Goals which includes a clear target to reduce premature deaths due to NCDs. Progress in this regard has to be regularly measured and reported to ensure proper implementation.

The year 2017 is a significant checkpoint: the publication of findings from this second NCD STEPS survey gathered in 2015 provides the Ministry and all other stakeholders a suitable evidence base upon which to draft its new multi-sectoral strategies and action plans for the NCD epidemic. We are also simultaneously working with the WHO to report on the country's capacity for NCD prevention and control. The information gathered will contribute to a better understanding of what needs to be improved so that the recommendations in this STEPS report may be implemented.

We thank the World Health Organization (WHO) for the support it has always provided since we first did the NCD STEPS survey in 2005 up to now. We now call on all other partners in health and other sectors to join us in reading through the findings of this second NCD STEPS survey and acting upon its recommendations.

We look forward to planning for and doing the next NCD STEPS survey come 2020.

Meanwhile, let us all get to work with greater resolve and focus to prevent and control NCDs.

Foreword by the World Health Organization



Dr Sevil Huseynova
WHO Representative to Solomon Islands

The World Health Organization (WHO) is pleased to collaborate with the Solomon Islands Ministry of Health in undertaking and reporting on the country's second Noncommunicable Diseases STEPwise approach to surveillance (NCD STEPS) survey.

People of all age groups, regions and countries are affected by NCDs, and the Pacific Islands are no exception. NCDs are the leading causes of premature mortality, driven by the forces of rapid unplanned urbanization, globalization and population ageing. To combat the NCD crisis, the World Health Assembly adopted a comprehensive global monitoring framework with nine targets and 25 indicators in 2013. WHO has also developed a global NCD action plan, which provides a road map with policy options to address the four modifiable risk factors, to be implemented between 2013 and 2020.

Six of the nine global targets are assessed primarily through population-based risk factor surveys, including WHO's NCD STEPS survey. As such, Solomon Islands' second NCD STEPS survey is important for tracking progress towards these targets. The findings will enable the government to monitor and evaluate its programmes to prevent and control NCDs; enable prioritization; and guide strategic planning to help the country achieve the 25% reduction of premature mortality from NCDs by 2025.

This report summarizes the findings of Solomon Islands' second STEPS survey, undertaken in 2014/2015. Some of the key findings of this survey are:

- 36.6% of the population were current smokers, with men more likely to smoke than women;
- 66.8% of the population were current betel nut chewers, with men more likely to chew than women and those aged 18-29 years than those aged 45-69 year olds;
- 18.3% had drunk alcohol in the last 30 days, with men being more likely to be drinkers than women;
- 87.9% did not consume the recommended 5 minimum daily servings of fruits and vegetables;
- 46.6% of the population always or often added salt before eating or when eating, with younger Solomon Islanders aged 18-29 years being more likely to do so than those aged 45-69 year olds;
- 60.0% of the population always or often added salt when cooking or preparing food at home;
- On average, Solomon Islanders consumed 0.3 servings of sugary drinks per day;
- 18.6% of the population did not meet the WHO global recommendations on physical activity for health, women being more likely than men;
- 55.7% had high physical activity levels, with men more likely to engage in high levels of physical activity than women and women being more physically inactive than men;
- 13.3% of the population had a mild mental disorder, 4.3% had a moderate mental disorder and 1.2% had a severe mental disorder;
- 22.8% of the population were obese, 36.7% were overweight and 1.8% were underweight, with women, particularly those aged 30-44 and 45-69 year olds, being more likely to be classified as obese than men;
- 19.6% had raised blood pressure of SBP \geq 140 mmHg and/or DBP \geq 90 mmHg or were currently on

medication, particularly older adults;

- 7.1% had raised blood pressure of SBP ≥ 160 and/or DBP ≥ 100 mmHg or were currently on medication, particularly older adults;
- 20.1% of the population were categorized as having impaired fasting glycaemia (plasma equivalent value - ≥ 6.1 mmol/L (110mg/dl) and < 7.0 mmol/L (126mg/dl));
- 14.3% had raised blood glucose (plasma equivalent value) or were currently on medication for diabetes (≥ 7.0 mmol/L (126 mg/dl), particularly older adults;
- 30.4% had total cholesterol of ≥ 5.0 mmol/L or ≥ 190 mg/dl or were currently on medication for raised cholesterol, particularly women those aged 30-44 and 45-69 year olds;
- 7.7% had total cholesterol ≥ 6.2 mmol/L or ≥ 240 mg/dl or were currently on medication for raised cholesterol, particularly women; and
- 33.1% had 3-5 risk factors, particularly older adults.

In the 10 years between the first and second STEPS, there have been some positive changes such as in the proportion of adults abstaining from alcohol and consumption of more servings of fruit and vegetables. However, there are also some areas of concern such as physical inactivity, and increase in proportion of adults with raised blood pressure and cholesterol.

As the burden of NCDs will continue to grow and strain existing health resources and systems, WHO recommends that Solomon Islands conducts regular surveillance of NCDs, create healthy public policies and environments, and scale up efforts to promote healthy lifestyles.

Executive Summary

Solomon Islands conducted its first NCD STEPS survey in 2005-2006 and the report was published in 2010. The first survey provided baseline assessment of the NCD risk factors. However, as only three main provinces were included in that survey, the data was not considered nationally representative. This second NCD STEPS survey provides current and nationally representative data on NCDs and their associated risk factors. Although not entirely comparable, a brief comparison will be made to see how prevalence has changed since the first survey. Planning for this second survey began in 2014, and data was collected from April 2015 to December 2015. The Ministry of Health and Medical Services led the implementation of the survey with technical and financial support from the World Health Organization and the Australian Agency for International Development (AusAID).

The key objectives of the NCD STEPS survey were:

- To document the prevalence and magnitude of key NCDs and their modifiable risk factors among adults aged 18-69 year olds.
- To compare NCDs and their risk factors across three age groups and between men and women.
- To monitor progress towards achieving the 9 voluntary global targets by 2025.

The Solomon Islands STEPS survey used a multi-stage sampling method, based on the 2009 census to select the enumeration areas with probability proportionate to size, from which households were randomly selected. A representative sample of 2525 participants aged between 18 and 69 years from across Solomon Islands was surveyed with a total response rate of almost 60%.

Data collection was a sequential three-step process as follows:

STEP 1: Interview-based questionnaire on selected major health risk behaviours including smoking, alcohol consumption, fruit and vegetable consumption, and physical activity.

STEP 2: Physiological measures of health risks such as blood pressure, body mass and waist girth circumference.

STEP 3: Biochemical measures of health risks including fasting blood glucose and blood lipids. Assessment of iodine and albuminuria level was also undertaken in Solomon Islands.

All aspects of the survey were managed by the Solomon Islands MHMS staff.

A total of 2525 individuals, 94.8% Melanesians, 3.1% Polynesians, 1.9% Micronesians and 0.2% others participated in the survey. The survey respondents included 55.4% women (n=1398) and 44.6% men (n=1127). Men and women had similar mean number of years of education (7.9 years and 7.3 years respectively), which suggests equal access to education in the participants in the sample. More than a third have completed at least primary school level of education, 20.7% have secondary school education, 9.1% have college or post-graduate degrees, and 27.1% have no formal schooling or less than primary school education. More than half are in unpaid work (non-paid, studying, conducting home duties, retired) or unemployed; 38.1% are self-employed; 7.9% are non-government employees and 6.1% are government employees.

Behavioural risk factors

This survey found that more than one third of the population (36.6%) were current smokers – 54.5% of men and 21.0% of women. Men were more likely to be current smokers than women, and smoked more manufactured cigarettes per day (5.2 among men compared to 3.2 among women). On average, Solomon Islanders began smoking at the age of 18.5 years – men started earlier at 17.7 years than women at 20.5 years. More than half of the population (65.0%) have been exposed to second-hand smoke in homes and 53.2% in workplaces.

A significant proportion of the population (66.8%) also currently chew betel nut – more men (72.3%) than women (61.9%); and more among those aged 18-29 years (72.9%) than those aged 45-69 year olds (57.3%). Majority of those who currently chew betel nut (70.4%) chew it daily with no significant differences between men and women and between the three age groups. On average, Solomon Islanders started chewing betel nut at 17.3 years with no significant differences between men and women. Nearly half (49.2%) of those who chew betel nut also smoke while chewing – significantly more among men (69.5%) than women (28.3%).

Majority of the Solomon Islanders (60.8%) were lifetime abstainers from drinking alcohol, 18.3% were current drinkers, 11.7% drank in the past 12 months and 9.2% did not drink in the past 12 months. Significantly more men than women were drinkers – among men, 31.9% were current drinkers and 17.8% drank in the past 12 months; and among women, 6.2% were current drinkers and 6.3% drank in the past 12 months. Younger men aged 18-29 were more likely to have drank alcohol in the past 12 months though not currently (24.6%) than those aged 45-69 year olds (13.5%). Among current drinkers, the mean number of drinking occasions in the past 30 days was 3.8; the mean number of standard drinks per occasion was 8.3. With regards to binge drinking, 16.3% did so at least once in the past 30 days – men were much more likely to binge drink than women (29.1% of men had done so in the prior 30 days, compared to 4.8% of women); and there were no statistically significant differences between the three age groups.

The majority (87.9%) of men and women consumed less than the recommended five servings of fruit and/or vegetables per day – 12.9% did not consume any fruit and/or vegetables; 44.2% consumed 1-2 servings on average per day; 30.8% consumed 3-4 servings; and 12.1% consumed 5 or more servings on average per day. The mean number of days fruit was consumed in a typical week was 2.7 days and 4.7 days for vegetables; and the mean number of servings of fruit and/or vegetables consumed on average per day was 2.9.

Nearly half (46.6%) of the population always or often added salt before eating or when eating, and 60.0% did so when cooking or preparing food at home. Younger Solomon Islanders aged 18-29 years were more likely to add salt before or when eating (49.7%) compared to those aged 45-69 (37.0%); and there was no difference between men and women. In terms of consumption of processed food high in salt, 22.4% of the population always or often consumed processed food high in salt with no significant differences between men and women and between the three age groups.

Sugary drinks were consumed on average 0.3 servings per day with no significant differences between men and women and between the three age groups. The survey found that an average of 1.3 teaspoons of sugar is added to each drink per day, with no significant differences between men and women and between the three age groups.

Less than one fifth (18.6%) of the population did not meet the WHO recommendations on physical activity for health – significantly more women (23.4%) than men (13.3%) did not meet the recommendations. More than half (55.7%) were engaged in high levels of physical activity, 17.6% in moderate levels and 26.7% in low levels. Significantly more women (33.9%) than men (18.6%) had low levels of physical activity; more women (20.7%) than men (14.2%) moderate levels of physical activity; and more men (67.2%) than women (45.4%) had high levels of physical activity.

The mean minutes of total physical activity Solomon Islanders engaged in on average per day was 175.7 minutes – men significantly more than women (225.7 minutes compared to 131.1 minutes) with no difference between the three age groups. Work-related physical activity was the major contributor to total physical activity

(60.2%), then transport (25.7%) and recreation (14.1%). On the other hand, the mean number of minutes daily Solomon Islanders spent in sedentary activities was 155.2, with no significant differences between men and women as well as between the three age groups.

Historical risk factors

The survey found that 58.7% of the population had never had their blood pressure measured, 31.2% had been measured but not diagnosed with raised blood pressure or hypertension, 3.4% had been diagnosed but not within the past 12 months, and 6.7% were diagnosed within the past 12 months. Significantly more Solomon Islanders aged 18-29 years were never measured than those aged 30-44 and 45-69 year olds; and significantly fewer Solomon Islanders aged 18-29 were diagnosed but not within the past 12 months than those aged 30-44 and 45-69. The proportion of Solomon Islanders diagnosed with raised blood pressure/hypertension within the past 12 months increased with age – 2.6% among 18-29 years, 6.5% among 30-44 and 12.4% among 45-69 year olds; and more women (8.3%) than men (5.0%).

Nearly three-quarters (73.8%) of the population had never had their blood sugar measured, 22.8% were measured but had not been diagnosed raised blood sugar or diabetes, 1.5% were diagnosed but not within the past 12 months and 1.8% were diagnosed within the past 12 months. The proportion of Solomon Islanders who had never had their blood sugar measured decreased with age – 86.5% of 18-29 year olds, 71.3% of 30-44 year olds and 61.4% of 45-69 year olds. There was no significant difference between men and women.

The majority (97.7%) of the population had never had their cholesterol measured, 2.0% had been measured but not diagnosed with raised cholesterol, 0.1% had been diagnosed but not within the past 12 months and 0.2% were diagnosed within the past 12 months. There were no significant differences between men and women and between the three age groups.

In terms of receiving lifestyle advice from a doctor or health worker: (a) 25.3% of the population had been advised to quit using tobacco or not start; (b) 24.9% had been advised to reduce salt in the diet; (c) 32.5% had been advised to eat at least five servings of fruit and/or vegetables each day; (d) 34.0% had been advised to reduce fat in the diet; (e) 35.7% had been advised to do more physical activity; and (f) 33.0% had been advised to maintain a healthy body weight or to lose weight.

Among women aged 30-49 year olds, 16.2% had ever been screened for cervical cancer.

Mental health

With regards to the state of mental well-being, 81.1% of Solomon Islanders were classified as likely to be well (by their score on a K10 mental health survey), 13.3% classified as having a mild mental disorder, 4.3% a moderate mental disorder and 1.2% a severe mental disorder. There were no statistically significant differences between men and women and between the three age groups.

Oral health

Most Solomon Islanders (89.1%) had more than 20 natural teeth, 8.0% had 10-19 natural teeth, 2.3% had 1-9 natural teeth and 0.7% had none, with no difference between men and women. The proportion of Solomon Islanders with more than 20 natural teeth decreased with age, which corresponds to the deterioration of the state of the teeth and gums. Of those who have natural teeth, 17.1% self-reported that they had poor or very poor state of teeth and 5.8% had poor or very poor state of gums. Overall, nearly a quarter (23.0%) had experienced oral pain or discomfort during the past 12 months – significantly fewer among those aged 18-29 year olds than those aged 30-44 and 45-69 year olds.

Physical risk factors

The mean body mass index (BMI) of Solomon Islanders was 26.8 kg/m² – women were found to have a higher mean than men (27.3 kg/m² for women and 26.3 kg/m² for men); and those aged 18-29 years had a lower mean (25.5 kg/m²) than those aged 30-44 (27.4 kg/m²) and 45-69 (27.5 kg/m²) years.

According to the BMI risk categories, 38.7% were of normal weight, 36.7% were overweight, 22.8% were obese and 1.8% were underweight. A higher proportion of women (27.0%) than men (18.1%) were classified as obese; and among women those aged 30-44 (32.9%) and 45-69 year olds (29.0%) were more likely to be obese than those aged 18-29 year olds (16.5%). Younger Solomon Islanders aged 18-29 years were more likely to be classified as having normal weight (50.3%) than those aged 30-44 (35.0%) and 45-69 year olds (32.2%).

The mean waist circumference of men was 86.2 cm and 86.4 cm for women. Younger men and women aged 18-29 year olds had a significantly lower mean waist circumference than those aged 30-44 and 45-69 year olds. The mean waist-hip ratio of men and women was the same (0.9) with no significant differences between the three age groups as well.

Nearly one fifth of the population (19.6%) had raised blood pressure of SBP \geq 140 and/or DBP \geq 90 mmHg or were currently on medication for the condition; and 7.1% had raised blood pressure of SBP \geq 160 and/or DBP \geq 100 mmHg or were currently on medication for the condition. Prevalence increased with age and there was no significant difference between men and women.

Overall, the mean systolic blood pressure (SBP) was 122.4 mm Hg and the mean diastolic blood pressure (DBP) was 77.9 mm Hg with no significant differences between men and women. The mean SBP and DBP were higher among those aged 45-69 than those aged 18-29 and 30-44 year olds.

Biochemical risk factors

The mean fasting plasma glucose was 6.0 mmol/L, and older Solomon Islanders aged 45-69 had a significantly higher mean (6.5 mmol/L) than those aged 18-29 (5.7 mmol/L) and 30-44 (6.0 mmol/L). There was no significant difference between men and women. A round one fifth (20.1%) were categorized as having impaired fasting glycaemia; 14.3% had raised blood glucose (plasma) or were currently on medication for diabetes, and 0.8% were currently on medication for diabetes.

The mean total cholesterol was 4.5 mmol/L. The survey found that 30.4% had total cholesterol of \geq 5.0 mmol/L (classified as higher risk for coronary artery disease) or were currently on medication for raised cholesterol.

The mean salt intake assessed through spot urine collection (including those who fasted and those who did not) was 9.7 g/day, with men having a significantly higher mean (10.8 g) than women (8.6 g). There was no statistically significant difference between the three age groups.

Assessed through blood haemoglobin, among women of childbearing age 18-49 year olds, 48.9% had anaemia – 3.7% had mild anaemia, 34.9% had moderate anaemia and 10.3% had severe anaemia; and the mean haemoglobin level was 11.5 g/dL.

Combined risk factors

In Solomon Islands, 64.1% had 1-2 risk factors, 33.1% had 3-5 risk factors and 2.8% had no risk factors. A significantly higher proportion of Solomon Islanders aged 18-29 years (70.4%) had 1-2 risk factors compared to those aged 45-69 year olds (54.9%); and a significantly higher proportion of those aged 45-69 years (42.7%) had 3-5 risk factors compared to those aged 18-29 year olds (24.8%). There was no significant difference between men and women.

Regarding the population's risk of cardiovascular diseases (CVD), 9.9% of those aged 40-69 years had a 10-year CVD risk \geq 30% or had existing CVD. There were no statistically significant differences between men and women and between the two age groups.

Comparison of results with previous survey

Comparison of the two surveys (the first one in 2005 and the second one now in 2015) among adults aged 18-64 years reveals some positive trends but also some negative ones. Only changes which are statistically significant are presented here.

- No significant change in percentage who currently smoke tobacco
- No significant change in mean age of initiation among current daily smokers
- Increase in the mean number of servings of fruit consumed per day (0.8 → 1.2)
- Increase in the mean number of servings of vegetables consumed per day (1.4 → 1.8)
- Reduction in the proportion of adults who consumed less than 5 servings of fruit and/or vegetables on average per day (93.1% → 87.8%)
- Reduction in the proportion of adults with insufficient physical activity (defined as <150 minutes of moderate-intensity activity per week, or equivalent) (33.0% → 18.3%)
- No significant change in the prevalence of overweight
- Increase in the proportion of adults with raised BP (SBP ≥140 and/or DBP ≥90 mmHg) including those on meds (7.9% → 25.3%)
- Increase in the proportion of adults with raised BP (SBP ≥160 and/or DBP ≥100 mmHg) including those on meds (2.5% → 9.8%)
- Increase in the proportion of adults with impaired fasting glycaemia (10.6%** → 20.0%***)
***capillary whole blood value (≥5.6 mmol/L (100 mg/dl) and <6.1 mmol/L (110 mg/dl)) - 2005 STEPS survey*
****plasma equivalent value (≥7.0 mmol/L (126 mg/dl)) - 2015 STEPS survey*
- No significant change in the prevalence of raised fasting blood glucose (diabetes)
- No significant change in the prevalence of raised total cholesterol (≥ 5.0 mmol/l ≥ 190mg/dl)
- Increase in proportion of adults with raised total cholesterol (≥ 6.2 mmol/l ≥ 240 mg/dl) or who were currently on medication for raised cholesterol (4.7% → 10.0%)
- Increase in proportion of adults with none of the risk factors (included -current daily smokers, less than 5 servings of fruits and/or vegetables on average per day, low level of activity, overweight (BMI ≥ 25 kg/m²) and raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg) (0.4% → 2.8%)
- Decrease in proportion of adults with with at least three of the risk factors included above, aged 45 to 64 years old (46.4% → 32.9%)

Conclusion

The data has provided current data on NCD risk factors in Solomon Islands, and will enable monitoring of progress and evaluation of the impact of health promotion programmes and interventions. Efforts need to be increased to reduce prevalence of tobacco use and betel nut chewing, to prevent youth from initiating smoking, to reduce harmful use of alcohol, and continue to promote consumption of fruits and vegetables, physical activity and regular health checks.

Solomon Islands has a National NCD Action Plan: a multisectoral approach to prevent lifestyle-related diseases 2010-2017 and a National Health Strategic Plan 2011-2015, which calls for implementation and collaboration across ministries to enable healthier choices. The plans aim to establish supportive policies and legislative frameworks, create health-promoting settings and strengthen health services to manage NCDs. These will have to be updated to reflect priorities identified in this survey report. Health system and community support are also essential in ensuring early diagnosis as well as access to and adherence to treatment regimens.

Recommendations

A summary of priority actions for Solomon Islands are outlined below:

Governance and leadership

- Evaluate progress in implementation of the National NCD Action Plan 2010-2017 and National Health Strategic Plan 2016-2020 with all relevant stakeholders and develop updated plans referencing findings from this report.
- Secure adequate and increased resources for health promotion and NCDs.

Surveillance

- Establish an ongoing and robust NCD STEPS surveillance system to enable monitoring of trends and use of data for action.

Strategies to address NCD risk factors

- Address tobacco and betel nut use through increasing excise tax on sales, enforcing tobacco legislation and regulations (i.e. smoke-free policy and ban on sale of single sticks and to minors), providing cessation services and reducing local production of betel.
- Address harmful use of alcohol through increasing excise tax on sales, controlling access to alcohol by youth, enforcing restrictions on production and sale of illicit alcohol such as kwaso, and strictly enforcing legislation and regulations providing for licences to sell.
- Work with relevant sectors such as food producers and manufacturers to reduce level of sodium, free and added sugars, portion size, energy density and pricing to encourage production and sale of healthier options that are affordable.
- Create health-enabling environments and settings (e.g. villages, workplaces, schools, markets) to promote healthy living.

Establish and maintain coalitions and partnerships

- Build coalitions and partnerships across sectors beyond the authority of the Ministry of Health such as customs (food importation), trade, tax, commercial investment and agriculture to address NCD risk factors. Collaborate with media and civil society organizations including faith-based organizations to implement programmes and support advocacy and education.

Strengthen health systems

- Expand implementation of the WHO package of essential NCD interventions (PEN) in primary care to prevent and control NCDs, moving towards the attainment of universal health coverage.
- Assess gaps in human resources and service delivery and develop a policy to fill the gaps and meet demand for services.
- Implement supplementation and fortification programmes to reduce micronutrient deficiency.

1. INTRODUCTION

1.1. Background and rationale

Noncommunicable diseases are now the leading causes of morbidity and mortality in many countries including Solomon Islands. NCDs were responsible for 68% of the world's deaths in 2012; and out of the 38 million deaths worldwide due to NCDs, more than 40% were premature, affecting people under 70 years of age. The majority of premature deaths were found to be in low- and middle-income countries. It was estimated that between 2011 and 2025, the economic losses from NCDs, if nothing changed, would be US\$7 trillion. This far exceeds the annual cost of US\$11.2 billion to implement a set of high-impact interventions.ⁱ

In 2011, world leaders committed to addressing NCDs through the Political Declaration of the High-Level Meeting of the General Assembly on the Prevention and Control of NCDs. Subsequently in 2013, the World Health Assembly (WHA) adopted a comprehensive global monitoring framework and nine voluntary global targets to be attained by 2025. The WHA had also endorsed a set of actions, outlined in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020, to be implemented by Member States and WHO.ⁱⁱ

Solomon Islands has a National Strategic Health Plan 2011-2015 which aimed to reduce burden from NCDs through health promotion and prevention (screening), with some case management and treatment services. These include actions to promote physical activity, reduce malnutrition, tobacco use, excess alcohol use and betel nut use. Solomon Islands also has the National NCD Action Plan 2010-2017. The plan outlined actions such as: to establish a multisectoral council to oversee activities; impose tax on alcohol, sugary drinks and high fat foods; review and update existing policies on nutrition as well as guidelines on food standards and diet; improve space for physical activities through town planning; promote physical activity in schools; enforce tobacco legislation and enact by-laws on sale of betel nut and kwaso; and conduct social marketing campaigns, healthy lifestyle programmes and advocacy activities. Tackling NCDs will require strong leadership and political commitment at the highest level of government and policy coherence across different government departments.ⁱⁱⁱ

For Solomon Islands to achieve the overarching 25% reduction of premature mortality from the four major NCDs by 2025, it needs to know the current prevalence of risk factors contributing to NCDs. As such, this survey was conducted to provide current estimates on NCDs and risk factors, inform development of policies and programmes, and assess progress and effectiveness of strategies and interventions. Repeated surveys will enable Solomon Islands to map trends and report on progress made in attaining the nine voluntary global targets.

1.2. The national context

1.2.1 Geography

Solomon Islands is an archipelago of 6 large islands and approximately 900 smaller islands located in the south-west Pacific Ocean. Its total land area of 30 400 square kilometres is widely scattered over 1.3 million square kilometres of the Pacific.^{iv} There are two seasons: wet from November to April and dry from May to October.

1.2.2 Population and culture

The population of Solomon Islands was estimated to be 583,591 in 2015.^v The total fertility rate was estimated at 4.0 in 2013.^{vi} About 40.6% are in the 0-14 year age group, 55.9% in the 15-64 year age group and 3.5% are 65 years or older.^{vii} Life expectancy at birth is currently 67 years.^{viii}

The English language is the official language and Melanesian Pidgin is spoken with numerous indigenous languages.^{ix}

1.2.3 Government

Solomon Islands became independent in 1978 and is governed by a Prime Minister elected by the Parliament and the Governor General is appointed by the British monarch.^x

1.2.4 Economy

Solomon Islands is classified by the World Bank as a lower middle-income country.^{xi} Solomon Islands' gross national income per capita was US\$1920 in 2015.^{xii} Major economic activities include subsistence farming, fishing, mining and timber.^{xiii} There had been ethnic conflicts in 1999 and 2003 that hindered economic progress.^{xiv}

1.2.5 Health infrastructure and health status

Health services are accessible to most people. There are Ministry of Health and Medical Services facilities, church-run hospitals and traditional healers. Overall, there are 116 primary health care centres, 29 district-level referral hospitals and 12 general hospitals.^{xv} Data collected in 2011 showed that health worker to population ratio was 0.21 physicians per 1000 population, 1.87 nurses per 1000, 0.07 dentists per 1000 population, 0.09 pharmacists per 1000 population and 0.26 midwives per 1000 population.^{xvi,xvii}

Communicable diseases and NCDs are both priorities for Solomon Islands.^{xviii} The Ministry of Health has the National NCD Action Plan 2010-2017 to target tobacco use, alcohol use, physical inactivity and unhealthy diet. The burden of NCDs is rising with increasing rates of diabetes and relatively high prevalence of overweight and obesity. Some of the leading causes of death are related to NCDs such as stroke, diabetes and ischaemic heart disease.^{xix} However, leading causes of morbidity are still communicable diseases such as malaria and yaws.^{xx} Child and maternal mortality rates have decreased but are still high, further compounded by under-nutrition. Rates for sexually transmitted infections are increasing and there are high rates of gender-based and sexual violence.^{xxi}

According to the 2013-2017 WHO Country Cooperation Strategy, the island is faced with several challenges: (1) Solomon Islands is heavily reliant on foreign aid and donor contributions, (2) the economy is unsustainable, (3) logistics, transport, geography and politics are challenging, and (4) there are high rates of unemployment, high youth population, gender inequalities and unequal economic distribution. There are opportunities however to alleviate the situation: (1) strong social structures and sense of community, (2) commitment of the government and partners to the National Health Strategic Plan, and (3) commitment of the government to providing primary health care.^{xxii}

1.3. Developing NCD STEPS in Solomon Islands

Solomon Islands conducted the first NCD STEPS survey in 2005-2006 and included 2,833 respondents aged 15-64. The survey was conducted in three provinces, namely Honiara, Gizo and Auki, due to limited resources. As such, the data collected then was not nationally representative. This second NCD STEPS survey includes respondents aged 18-69 and provides necessary information on the current prevalence of NCD risk factors nationally. This will inform resource allocation for NCD prevention and control, inform policy and programmes, enable monitoring of progress towards the global NCD targets by 2025, and enable reporting as part of country commitments to the UN Political Declaration on NCDs.

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 objectives were:

- To document the prevalence and magnitude of key NCDs and their modifiable risk factors among adults aged 18-69.
- To compare NCDs and their risk factors across three age groups and between men and women.
- To monitor progress towards achieving the 9 voluntary global targets by 2025.

Solomon Islands' objectives were to:

- Describe the current levels of risk factors for chronic diseases in the Solomon Islander population.
- Track the direction and magnitude of changes in risk factors since the first STEPS.
- Obtain a baseline assessment of salt intake, sources of salt in the diet, and consumer attitudes towards salt.
- Measure iodine, iron and folate intake in women of childbearing age.
- Evaluate health promotion campaigns, policies, interventions and services.
- Collect data which can be used to predict likely future demands for health services.
- Build country capacity for survey planning, implementation, analysis, reporting and publication.
- Contribute to a regional NCD data repository and country-level reporting in 2016, 2025 to the UN.

3. METHODOLOGY

3.1. Survey structure

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

- Step 1: A questionnaire-based (interview) survey on tobacco and betel nut use, alcohol drinking, diet, oral health 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. With urine collection for salt estimation.

The second Solomon Islands NCD STEPS Survey in 2014 used Version 3.1 of the questionnaire whilst Version 1.4 was used in the first survey in 2005. Similar to other NCD STEPS surveys conducted in the Pacific region, the Solomon Islands survey collected core information across all three steps. NCD STEPS standardized survey methodology was followed. Differences between age groups or sexes are statistically significant if 95% Confidence Intervals (CI) do not overlap.

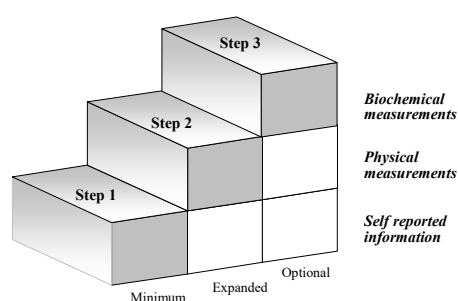


Figure 1. The WHO STEPwise approach to surveillance of NCDs.

3.3. Survey sampling methodology

The second Solomon Islands STEPS Survey was a population-based survey of 18-69 year olds. This second STEPS was intended to be nationally representative. Therefore, a multi-stage cluster sampling method was used to identify wards where data collection would take place. The STEPS sampling spreadsheet was completed using the most recent census information; and enumeration areas (EAs) were identified using probability proportionate to size (PPS). The following provinces were included: Choiseul, Western, Isabel, Central, Guadalcanal, Malaita, Makira-Ulawa, Temotu and Honiara. (Only Rennell-Belona was not identified from the random sampling). A total of 177 EAs were selected from across these 9 provinces. See annex 3 for additional details.

3.3. Sample size

A sample size of 4322 was calculated, according to the WHO standard formula for STEPS to ensure national representativeness and the Kish method was used to select participants from households. Overall, 2525 individuals participated yielding a response rate of 58.4%. The relatively small response rate may be attributed to out-of-date household listings, timing of the survey work and also inaccessibility of some locations in bad weather.

3.4. Data collection process

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. Participants were given a referral to a clinic and informed to go the following day for physical and biochemical measurements. This information was also advertised on television, radio and newspaper.

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's 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, betel nut, alcohol, fruit and vegetable consumption, rice and noodles, salt, fat and sugar consumption, physical activity, history of chronic conditions and medications, cervical cancer screening, mental health and oral health. Expanded questions were also included such as on betel nut, noodles, bakery products and consumption of sugary and sweet beverages. Survey staff also asked questions on demographic indicators, including education level, work status and household income. The questionnaire was administered through a personal digital assistant (PDA).

3.4.3. Step 2 - physical measurements

Survey staff obtained physical measurements following the recommended STEPwise protocols. Height and weight were measured once using the Seca 213 Stadiometer to the nearest whole centimetre and the Seca 813 digital scales to the nearest 0.1 kg, respectively. Participants were measured without shoes and wearing only light clothing. The weight of pregnant participants was not measured.

Waist circumference was measured once using the Seca 201 constant tension tape and recorded to the nearest 0.1 cm. Waist and hip circumference of pregnant participants was not measured.

The OMRON M6 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.

3.4.4 Step 3 - biochemical measurements

The survey included taking blood and urine samples. To measure fasting blood glucose and total cholesterol, participants fasted from 10:00pm the previous night until 7:00am the following morning. Capillary blood samples were drawn using the finger prick method; and the Cardiochek PA was used to measure cholesterol and glucose in samples.

A representative sub-sample of 1200 participants (to have at least 500 participants assuming refusal rate was 50%) were also invited to provide a spot urine sample to measure salt intake (sodium and creatinine). To validate the spot sample, participants who provided spot urine sample from Guadalcanal, Honiara and Malaita were asked to provide a 24-hour urine sample (at least 300 participants).

Participants who provided urine samples were also asked to participate in a sub-study which included measurement of capillary blood for creatinine (via finger prick method and meter) and urinary albumin (via dipstick) to assess kidney function.

Women of childbearing ages 18-49 years (at least 200 women) who provided urine samples had their urine tested for iodine; and household salt from the homes of these women was tested for iodine levels. Testing was done in the field; and participants were asked to place a pinch of salt in a small ziploc plastic bag labelled with the participant's identification number. Samples were tested at the end of each day and data recorded in a data-sheet as well as in the PDA.

All women of childbearing age (18-49 years old) had capillary blood samples drawn using the finger prick method to measure haemoglobin in selected areas.

3.4.5. Check-out station

All participants received health advice and counselling and were provided with literature about smoking, alcohol drinking, obesity and nutrition, physical activity, hypertension, diabetes, and heart diseases. Participants with, or who were identified as being at high risk of, 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.

3.5.2 Data weighting and analysis

Post-stratification weights were calculated using the 2009 census of the population aged 18-69 years. This weighting adjusted for certain age/sex with an aged breakdown 18- 29, 30-44, 45-69 for men and women. Weighted sample means were computed for continuous variable. Frequency distributions were calculated using weighted frequencies for categorical variables. For both weighted frequencies estimates and weighted means 95% confidence intervals were reported.

Data analyses were conducted using the Epi Info Version 3.5.4. Analysis was undertaken by the Division of Pacific Technical Support, and verified by WHO HQ NCD surveillance team. The WHO Office in Suva compiled the whole Data Book and the reader is being advised that statistically significant differences are identified when confidence intervals at 95% CI do not overlap.

4. RESULTS

The results presented below are supplemented by additional information in the Data book presented at appendix 2.

4.1. Characteristics of the survey population

The survey respondents (2525) were divided into three age groups: 18-29 years (654 participants), 30-44 (1023 participants) and 45-69 (848 participants); and women made up more than half of the respondents (55.4%).

The mean per capita annual income calculated based on 2248 participants who responded to the survey question was SBD 9792.8.

Table 1. Demographics of survey respondents

Age group and sex of respondents						
Age group (years)	Men		Women		Both sexes	
	n	%	n	%	n	%
18-29	284	43.4	370	56.6	654	25.9
30-44	408	39.9	615	60.1	1023	40.5
45-69	435	51.3	413	48.7	848	33.6
18-69	1127	44.6	1398	55.4	2525	100.0

Table 2 shows that the survey respondents were primarily Melanesian (94.8%) with the rest composed of Polynesian (3.1%), Micronesian (1.9%) and others (0.2%).

Table 2. Ethnicity of survey respondents

Ethnic group of respondents					
Age group (years)	Both sexes				
	n	% Melanesian	% Polynesian	% Micronesian	% Other ethnic group
18-29	654	94.3	3.5	2.0	0.2
30-44	1023	95.2	2.9	1.9	0.0
45-69	848	94.6	3.1	2.0	0.4
18-69	2525	94.8	3.1	1.9	0.2

Table 3 shows that the younger age group (18-29 years) has slightly more years of education (9.1 years) compared to 7.6 years among 30-44 year olds and 6.2 years among 45-69 year olds. Men and women have similar mean number of years of education (7.9 years and 7.3 years respectively) which suggests equal access to education in Solomon Islands.

Table 3. Mean number of years of education

Mean number of years of education						
Age group (years)	Men		Women		Both sexes	
	n	Mean	n	Mean	n	Mean
18-29	276	9.5	366	8.8	642	9.1
30-44	398	8.0	591	7.3	989	7.6
45-69	412	6.7	374	5.7	726	6.2
18-69	1086	7.9	1331	7.3	2417	7.5

Table 4 shows that 36.9% have completed at least primary school level of education, 20.7% have completed secondary school education, 6.2% have completed high school education and 9.1% have college or post-graduate degrees. For the highest level of education among men or women, please see appendix 2.

Table 4. Highest level of education attained, both sexes combined

Age group (years)	Highest level of education							
	Both sexes							
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% High school completed	% College/university completed	% Post graduate degree completed
18-29	652	3.1	12.9	29.3	33.4	12.7	8.6	0.0
30-44	1020	6.3	19.0	39.0	19.6	5.1	10.8	0.2
45-69	843	14.0	24.0	40.1	12.1	2.5	6.9	0.5
18-69	2515	8.0	19.1	36.9	20.7	6.2	8.9	0.2

Table 5 shows that most respondents are currently married (71.7%), 17.4% have never married and 10.9% are of other marital status (separated, divorced, widowed or cohabiting). For marital status among men or women, please see appendix 2.

Table 5. Marital status, both sexes combined

Age group (years)	Marital status						
	Both sexes						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
18-29	653	51.8	41.0	1.7	0.5	0.5	4.6
30-44	1023	6.6	85.8	2.3	1.1	1.1	3.0
45-69	848	3.9	78.3	2.9	1.4	11.8	1.7
18-69	2524	17.4	71.7	2.4	1.0	4.5	3.0

Table 6 shows that more than half of the survey respondents (59.8%) are in unpaid work (non-paid, studying, conducting home duties, retired) or unemployed. More than one-third (38.1%) are self-employed, 7.9% are non-government employees and 6.1% are government employees.

A greater proportion of women than men are in unpaid work (72.3% of women vs. 44.4% of men) and the rest are mostly self-employed (16.7% of women and 37.8% of men). For employment status by sex, please see tables in appendix 2.

Table 6. Employment status, both sexes combined

Age group (years)	Employment status				
	Both sexes				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
18-29	653	3.2	6.7	17.8	72.3
30-44	1020	9.3	9.5	28.5	52.6
45-69	847	4.5	7.0	29.6	58.9
18-69	2520	6.1	7.9	38.1	59.8

Table 7 shows that among those engaged in unpaid work, majority were home-makers (45.7%), 10.5% were students, 3.4% were retired and 4.2% were not paid. Among the unemployed, 30.6% were able to work whilst 5.5% were unable.

Among women who were unpaid and unemployed, most were home-makers (57.6%), 29.6% were unemployed and the rest were either students, retirees or engaged in non-paid work. Among men, most were unemployed (49.5%), 21.6% were home-makers and the rest were in non-paid work, students or retirees. For details on type of unpaid or unemployment status by sex, please see appendix 2.

Table 7. Unpaid work and unemployment, both sexes combined

Unpaid work and unemployed							
Age group (years)	Both sexes						
	n	% Non-paid	% Student	% Homemaker	% Retired	Unemployed	
						% Able to work	% Not able to work
18-29	472	4.0	31.6	30.1	0.2	29.4	4.7
30-44	537	3.9	1.5	58.3	0.4	32.2	3.7
45-69	499	4.6	0.4	46.9	9.8	30.1	8.2
18-69	1508	4.2	10.5	45.7	3.4	30.6	5.5

4.2. Tobacco use

This section elaborates on tobacco consumption status, levels and patterns in the Solomon Islands. The questionnaire asked whether they smoked tobacco products and were then categorized into the following:

- Current smokers – those who currently smoke any tobacco products (such as cigarettes, cigars or pipes).
- Current daily smokers – those who currently smoke tobacco products daily.
- Current non-daily smokers – those who currently smoke tobacco products but not daily.
- Current smokeless tobacco users – those who currently used smokeless tobacco products (such as snuff, chewing tobacco or betel).
- Current daily smokeless tobacco users – those who currently used smokeless tobacco products daily.
- Current non-daily smokeless tobacco users – those who currently used smokeless tobacco products but not daily.
- Current tobacco users – those who currently used smoking and smokeless tobacco products.

Table 8 shows that more than one third of the Solomon Islands population (37.3%, 95%CI= 33.2-41.3) were current smokers. Significantly more men (54.5%, 95%CI= 48.8-60.2) than women (21.0%, 95%CI= 17.4-24.5) were current smokers – more than twice the proportion of men than women. There was no statistically significant difference in smoking prevalence between the three age groups.

Table 8. Percentage of current smokers

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
18-29	273	59.0	52.7-65.3	363	22.1	15.6-28.7	636	39.3	34.6-44.0
30-44	395	54.7	45.9-63.6	604	21.2	16.9-25.5	999	35.6	30.8-40.5
45-69	424	49.1	38.7-59.4	409	18.9	12.3-25.5	832	34.6	25.9-43.3
18-69	1092	54.5	48.8-60.2	1376	21.0	17.4-24.5	2467	36.6	32.6-40.6

Table 9 shows that most men (48.8%, 95%CI= 43.0-54.6) were current daily smokers, 5.7% (95%CI= 4.3-7.2) were current non-daily smokers, and 37.3% (95%CI= 32.2-42.4) never smoked any tobacco products.

There was no statistically significant difference between the three age groups.

Table 9. Smoking status among men

Smoking status - Current smoker									
Age group (years)	Men								
	n	% Daily	95% CI	% Non-daily	95% CI	% former smoker	95% CI	% never smoked	95% CI
18-29	273	52.3	46.1-58.6	6.7	3.6-9.8	6.2	2.6-9.8	34.8	27.8-41.8
30-44	395	49.8	41.5-58.1	5.0	2.5-7.4	8.9	3.5-14.3	36.4	28.5-44.2
45-69	424	43.5	32.6-54.4	5.6	3.3-7.8	9.6	6.0-13.2	41.3	32.5-50.2
18-69	1092	48.8	43.0-54.6	5.7	4.3-7.2	8.2	5.7-10.7	37.3	32.2-42.4

Table 10 shows that the majority of women were never-smokers – 72.5% (95%CI= 68.2-76.8) never smoked, 17.1% (95%CI= 14.1-20.1) current daily smokers and 3.9% (95%CI=2.6-5.2) were current non-daily smokers. There was no statistically significant difference between the three age groups.

Table 10. Smoking status among women

Smoking status - Current smoker									
Age group (years)	Women								
	n	% Daily	95% CI	% Non-daily	95% CI	% former smoker	95% CI	% never smoked	95% CI
18-29	363	16.6	10.5-22.6	5.6	3.2-8.0	7.0	4.2-9.7	70.9	63.5-78.3
30-44	604	17.7	14.2-21.2	3.5	1.5-5.5	5.4	3.6-7.2	73.4	68.9-77.9
45-69	409	16.7	10.2-23.1	2.2	0.6-3.8	7.8	3.7-12.0	73.3	64.9-81.6
18-69	1376	17.1	14.1-20.1	3.9	2.6-5.2	6.5	4.7-8.3	72.5	68.2-76.8

Table 11 shows that more than half overall indicated that they were never-smokers – 56.1% (95%CI= 52.0-60.2) never smoked, 31.8% (95%CI= 28.0-35.7) were current daily smokers and 4.7% (95%CI= 3.8-5.7) were current non-daily smokers. There was no statistically significant difference between the three age groups.

Significantly more men than women were current daily smokers whilst significantly more women than men were non-smokers (compare tables 9 and 10).

Table 11. Smoking status, both sexes combined

Smoking status - Current smoker									
Age group (years)	Both								
	n	% Daily	95% CI	% Non-daily	95% CI	% former smoker	95% CI	% never smoked	95% CI
18-29	636	33.2	28.7-37.8	6.1	4.3-7.9	6.6	4.2-9.1	54.1	48.6-59.6
30-44	999	31.5	27.2-35.8	4.2	2.5-5.8	6.9	4.4-9.4	57.4	52.9-62.0
45-69	833	30.6	21.8-39.4	4.0	2.5-5.4	8.8	6.2-11.3	56.6	48.4-64.9
18-69	2468	31.8	28.0-35.7	4.7	3.8-5.7	7.3	5.8-8.8	56.1	52.0-60.2

Table 12 shows that among current smokers, 86.1% (95%CI= 83.2-88.9) smoke daily – 88.6% (95%CI= 85.4-91.7) of men and 80.4% (95%CI= 75.4-85.4) of women. Slightly more male smokers than female smokers smoked daily. There was no statistically significant difference between the three age groups.

Table 12. Percentage of current smokers who smoke 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
18-29	178	86.4	80.8-91.9	82	74.6	64.3-84.9	260	82.8	77.9-87.6
30-44	248	90.3	86.2-94.5	126	82.1	73.9-90.3	374	87.6	83.5-91.7
45-69	199	89.1	83.9-94.2	78	87.0	78.6-95.4	277	88.5	83.7-93.3
18-69	625	88.6	85.4-91.7	286	80.4	75.4-85.4	911	86.1	83.2-88.9

Table 13 shows that the mean age of initiating smoking among current daily smokers was 18.5 (95%CI= 17.7-19.3) years. Male smokers started smoking at an earlier age (17.7 years, 95%CI= 16.7-18.8) than female smokers (20.5 years, 95%CI= 19.8-21.1), and the difference was statistically significant.

Overall, the 18-29 year olds started smoking at an earlier age (16.7 years, 95%CI= 16.3-17.2) than the 30-44 year olds (19.2 years, 95%CI= 18.4-20.1), and the difference was statistically significant.

Table 13. Mean age started smoking among current daily smokers

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
18-29	145	16.3	15.6-16.9	56	18.0	17.2-18.7	201	16.7	16.3-17.2
30-44	220	18.2	17.0-19.4	97	21.7	20.7-22.7	317	19.2	18.4-20.1
45-69	165	19.0	15.2-22.9	55	22.0	19.8-24.1	220	19.8	16.6-23.0
18-69	530	17.7	16.7-18.8	208	20.5	19.8-21.1	738	18.5	17.7-19.3

Table 14 shows that the mean duration of smoking among current daily smokers was 17.8 years – 18.6 years (95%CI= 16.0-21.3) for men and 15.8 years (95%CI= 12.4-19.2) for women; and 7.10 years (95%CI= 6.5-7.6) for those aged 18-29, 16.9 years (95%CI= 16.2-17.6) for those aged 30-44 and 34.3 years (95%CI= 30.4-38.3) for those aged 45-69.

There was a statistically significant difference in mean duration of smoking between all three age groups but no statistically significant difference between men and women.

Table 14. Mean duration of smoking among current daily smokers

Mean duration of smoking									
Age group (years)	Men			Women			Both sexes		
	n	Mean duration	95% CI	n	Mean duration	95% CI	n	Mean duration	95% CI
18-29	145	7.3	6.5-8.2	56	6.3	5.1-7.4	201	7.0	6.5-7.6
30-44	220	18.1	17.3-18.9	97	14.2	12.8-15.5	317	16.9	16.2-17.6
45-69	165	34.6	31.0-38.2	55	33.6	27.9-39.3	220	34.3	30.4-38.3
18-69	530	18.6	16.0-21.3	208	15.8	12.4-19.2	738	17.8	15.2-20.5

Table 15 shows that the majority 75.5% (95%CI= 70.4-80.6) of current daily smokers smoked manufactured cigarettes – 76.4% (95%CI= 70.8-82.0) of male current daily smokers and 73.2% (95%CI= 61.8-84.6) of female current daily smokers.

Overall, significantly more 18-29 82.9% (95%CI= 76.5-89.3) and 30-44 year old smokers 78.1% (95%CI= 71.2-85.1) smoked manufactured cigarettes than those aged 45-69 61.1% (95%CI= 53.4-68.9).

Table 15. Percentage of current daily smokers who smoked manufactured cigarettes

Manufactured cigarette smokers among current 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
18-29	151	80.4	73.8-87.1	59	89.3	79.2-99.5	210	82.9	76.5-89.3
30-44	222	80.0	72.1-87.9	98	74.2	61.9-86.4	320	78.1	71.2-85.1
45-69	168	66.0	52.4-79.6	62	47.2	26.6-67.9	230	61.1	53.4-68.9
18-69	541	76.4	70.8-82.0	219	73.2	61.8-84.6	760	75.5	70.4-80.6

Table 16 shows that the mean amount of tobacco used by current daily smokers were: 4.6 (95%CI= 4.1-5.2) manufactured cigarettes, 2.9 (95%CI= 2.5-3.2) hand-rolled cigarettes, 0.5 (95%CI= 0.3-1.0) piped tobacco, 1.3% (95%CI= 0.8-1.9) other cigars and 1.0 (95%CI= 0.7-1.2) of other types of tobacco. Please refer to appendix 2 for details.

Women who are daily smokers consume on average less cigarettes per day than men. Please see appendix 2 for details.

Table 16. Mean amount of tobacco used by current daily smokers by type and age, both sexes combined

Mean amount of tobacco used by current 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	n	Mean # of other cigars	95% CI
18-29	209	4.6	3.9-5.2	207	2.9	2.3-3.4	159	0.1	0.0-0.2	84	1.1	0.5-1.7
30-44	318	4.9	4.1-5.8	318	2.9	2.4-3.4	239	0.7	0.4-0.9	137	1.2	0.6-1.8
45-69	229	4.2	3.2-5.2	233	2.8	1.6-4.0	170	0.7	0.3-1.0	92	2.1	1.1-3.1
18-69	756	4.6	4.1-5.2	758	2.9	2.5-3.2	568	0.5	0.3-0.6	313	1.3	0.8-1.9

Table 17 shows that overall, 7.2% (95%CI= 5.7-8.6) were ex-daily smokers. Significantly more men were ex-daily smokers – 10.6% (95%CI= 7.8-13.5) of men and 4.4% (95%CI= 2.8-5.9) of women.

There was no statistically significant difference between the three age groups.

Table 17. Percentage of ex-daily smokers

Ex-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
18-29	244	7.5	4.3-10.7	355	3.1	1.0-5.3	599	5.1	3.2-7.0
30-44	348	12.6	6.8-18.4	585	4.2	2.6-5.8	933	7.7	5.0-10.3
45-69	404	11.6	7.8-15.4	396	6.4	2.5-10.4	800	9.1	6.4-11.7
18-69	996	10.6	7.8-13.5	1336	4.4	2.8-5.9	2332	7.2	5.7-8.6

Table 18 shows that overall, 3.4% (95%CI= 1.8-5.0) were current users of smokeless tobacco (e.g. snuff, chewing tobacco or betel) – 4.0% (95%CI= 1.2-6.8) of men and 2.9% (95%CI= 1.1-4.6) of women.

There were no statistically significant differences between men and women and between the age groups.

Table 18. Percentage of respondents who were current users of smokeless tobacco

Current users of smokeless tobacco									
Age group (years)	Men			Women			Both sexes		
	n	% Current users	95% CI	n	% Current users	95% CI	n	% Current users	95% CI
18-29	284	3.7	1.3-6.0	370	2.7	0.8-4.7	654	3.2	1.8-4.6
30-44	408	6.6	0.5-12.7	614	1.8	0.6-3.1	1022	3.9	1.2-6.6
45-69	435	1.0	0.1-1.9	414	5.0	0.0-10.1	849	2.9	0.3-5.4
18-69	1127	4.0	1.2-6.8	1398	2.9	1.1-4.6	2525	3.4	1.8-5.0

Table 19 shows that most Solomon Islanders 96.6% (95%CI= 95.0-98.2) do not use smokeless tobacco.

There were no statistically significant differences between men and women and between the three age groups. Please see appendix 2 for details.

Table 19. Status of smokeless tobacco use

Smokeless tobacco use							
Age group (years)	Both sexes						
	n	Current user				% Does not use smokeless tobacco	95% CI
		% Daily	95% CI	% Non-daily	95% CI		
18-29	652	1.1	0.3-2.0	2.0	0.8-3.3	96.8	95.4-98.2
30-44	1016	2.4	0.0-5.0	1.5	0.5-2.5	96.1	93.3-98.8
45-69	847	1.6	0.0-4.0	1.2	0.1-2.4	97.1	94.6-99.7
18-69	2515	1.8	0.4-3.1	1.6	0.9-2.3	96.6	95.0-98.2

Table 20 shows that more than one third of the population 37.3% (95%CI= 33.5-41.2) were current tobacco users (smoking and smokeless). Significantly more men 55.0%, (95%CI= 49.4-60.6) than women 22.0% (95%CI= 18.3-25.7) were current tobacco users – more than twice the proportion.

There was no statistically significant difference between the three age groups.

Table 20. Percentage of current tobacco users (smoking and smokeless)

Current tobacco users									
Age group (years)	Men			Women			Both sexes		
	n	% Current users	95% CI	n	% Current users	95% CI	n	% Current users	95% CI
18-29	271	59.3	53.0-65.6	363	23.3	16.4-30.1	634	40.0	35.1-44.9
30-44	394	55.6	46.6-64.6	602	21.1	16.9-25.3	996	36.0	31.2-40.8
45-69	424	49.3	39.0-59.5	408	21.8	14.2-29.3	832	36.1	27.6-44.6
18-69	1089	55.0	49.4-60.6	1373	22.0	18.3-25.7	2462	37.3	33.5-41.2

Table 21 shows that 32.2% (95%CI= 28.4-35.9) of the population were daily tobacco users. Significantly more men 48.8% (95%CI= 43.0-54.6) than women 17.7% (95%CI= 14.5-20.9) were daily tobacco users.

There was no statistically significant difference between the three age groups.

Table 21. Percentage of daily tobacco users (smoking and smokeless)

Daily tobacco users									
Age group (years)	Men			Women			Both sexes		
	n	% Daily users	95% CI	n	% Daily users	95% CI	n	% Daily users	95% CI
18-29	271	52.0	45.7-58.3	363	17.3	11.0-23.6	634	33.4	28.7-38.1
30-44	394	49.9	41.7-58.2	602	17.2	14.0-20.4	996	31.3	27.1-35.5
45-69	424	43.6	32.8-54.4	408	19.2	12.0-26.4	832	31.9	23.3-40.6
18-69	1089	48.8	43.0-54.6	1373	17.7	14.5-20.9	2462	32.2	28.4-35.9

Table 22 shows that there are high rates of exposure to environmental tobacco smoke (ETS). More than half overall 65.0% (95%CI= 62.4-68.6) have been exposed to ETS in homes in the past 7 days – 67.9% (95%CI= 62.9-73.0) of men and 62.4% (95%CI= 58.7-66.1) of women.

There were no statistically significant differences between men and women and between the three age groups.

Table 22. Percentage who reported exposure to ETS in homes in the past 7 days

Exposed to ETS in homes 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
18-29	282	72.4	66.6-78.2	370	60.1	52.8-67.5	652	65.9	61.0-70.7
30-44	406	63.9	54.6-73.2	610	62.8	58.2-67.5	1016	63.3	57.9-68.7
45-69	435	68.1	60.4-75.8	413	64.9	58.6-71.1	848	66.6	60.6-72.5
18-69	1123	67.9	62.9-73.0	1393	62.4	58.7-66.1	2516	65.0	61.4-68.6

Table 23 shows that 53.2% (95%CI= 48.1-58.2) overall reported exposure to ETS in the workplace in the past 7 days – 56.6% (95%CI= 50.2-62.9) of men and 50.1% (95%CI= 45.0-55.2) of women.

There were no statistically significant differences between men and women and between the three age groups.

Table 23. Percentage who reported exposure to ETS in the workplace in the past 7 days

Exposed to ETS 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
18-29	235	57.9	51.2-64.7	302	50.8	41.9-59.7	537	54.2	47.6-60.7
30-44	366	63.3	55.2-71.3	534	50.8	45.4-56.2	900	56.3	51.1-61.4
45-69	376	46.3	34.9-57.7	336	47.5	39.1-55.8	712	46.8	38.0-55.7
18-69	977	56.6	50.2-62.9	1172	50.1	45.0-55.2	2149	53.2	48.1-58.2

4.1. Betel nut use

Table 24 shows that overall, 66.8% (95%CI= 62.7-70.8) currently chewed betel nut (used in the last 30 days). Significantly more men 72.3% (95%CI= 67.9-76.6) than women (61.9%, 95%CI= 57.2-66.7) currently chewed betel nut.

Those aged 18-29 were more likely to chew betel nut 72.9% (95%CI= 67.7-78.1) compared to those aged 45-69 57.3% (95%CI= 50.0-64.5).

Table 24. Percentage of respondents who were current betel nut chewers (chewed during the last 30 days)

Percentage who were current betel nut chewers									
Age group (years)	Men			Women			Both sexes		
	n	% currently chewed betel nut	95% CI	n	% currently chewed betel nut	95% CI	n	% currently chewed betel nut	95% CI
18-29	282	77.9	72.2-83.7	369	68.4	61.6-75.2	651	72.9	67.7-78.1
30-44	403	74.5	68.1-80.8	609	62.6	56.9-68.2	1012	67.7	63.0-72.5
45-69	434	62.7	54.2-71.3	412	51.2	43.6-58.9	846	57.3	50.0-64.5
18-69	1119	72.3	67.9-76.6	1390	61.9	57.2-66.7	2509	66.8	62.7-70.8

Table 25 shows that majority (70.4%, 95%CI= 67.3-73.5) of those who currently chew betel nut chew it daily and 29.6% (95%CI= 26.5-32.7) chew it non-daily.

There were no statistically significant differences between men and women and between the three age groups. Please see Appendix 2 for details.

Table 25. Percentage of those chewing betel nut daily among those who currently chewed

Percentage of respondents chewing betel nut daily among those who currently chewed					
Age group (years)	Both sexes				
	n	% currently chewed daily	95% CI	% currently chewed non-daily	95% CI
18-29	471	69.8	65.5-74.1	30.2	25.9-34.5
30-44	684	73.7	69.4-78.0	26.3	22.0-30.6
45-69	461	65.2	56.8-73.6	34.8	26.4-43.2
18-69	1616	70.4	67.3-73.5	29.6	26.5-32.7

Table 26 shows that the mean age of initiation of chewing betel nut among those who chewed daily was 17.3 years (95%CI= 16.8-19.1). The mean age of initiation decreases as current age decreases.

There was no statistically significant difference between men and women.

Table 26. Mean age of initiation of chewing betel nut among those who chewed daily

Mean age of Initiation of chewing betel nut among those who chewed daily											
Age group (years)	Men				Women				Both sexes		
	n	Mean	95% CI		n	Mean	95% CI		n	Mean	95% CI
18-29	147	14.1	13.2-14.9		158	14.8	14.3-15.4		305	14.5	14.0-14.9
30-44	234	17.0	15.9-18.0		240	18.5	17.6-19.3		474	17.7	17.0-18.4
45-69	165	21.9	19.7-24.1		128	21.1	19.2-23.0		293	21.6	20.0-23.1
18-69	546	17.1	16.3-17.8		526	17.6	17.0-18.2		1072	17.3	16.8-17.8

Table 27 shows that the mean duration of chewing betel nut among those who chewed daily was 17.9 years (95%CI= 16.8-19.1). There was no statistically significant difference between men and women.

Table 27. Mean duration of chewing betel nut among those who chewed daily

Mean duration of chewing betel nut among those who chewed daily											
Age group (years)	Men				Women				Both sexes		
	n	Mean	95% CI		n	Mean	95% CI		n	Mean	95% CI
18-29	147	9.4	8.4-10.3		158	8.6	8.0-9.3		305	9.0	8.4-9.6
30-44	234	19.3	18.3-20.2		240	18.1	17.1-19.0		474	18.7	18.0-19.4
45-69	165	31.6	28.8-34.4		128	32.6	28.7-36.5		293	32.0	29.6-34.4
18-69	546	18.6	17.3-19.8		526	17.3	15.6-19.0		1072	17.9	16.8-19.1

Table 28 shows that nearly half 49.2% (95%CI= 45.5-53.0) of those who currently chewed betel nut also smoked while chewing. Significantly more men 69.5% (95%CI= 64.4-74.6) than women (28.3%, 95%CI= 24.7-31.9) smoked while chewing betel nut.

There was no statistically significant difference between the three age groups.

Table 28. Percentage who smoked while chewing betel nut

Smoking while chewing betel nut									
Age group (years)	Men			Women			Both sexes		
	n	% current betel nut chewing and smoking	95% CI	n	% current betel nut chewing and smoking	95% CI	n	% current betel nut chewing and smoking	95% CI
18-29	219	71.6	64.8-78.3	251	29.8	23.7-35.9	470	50.7	46.3-55.2
30-44	307	68.3	59.2-77.3	377	26.2	21.7-30.6	684	46.3	41.3-51.3
45-69	256	68.5	59.0-78.0	204	30.2	20.5-39.9	460	52.3	42.3-62.3
18-69	782	69.5	64.4-74.6	832	28.3	24.7-31.9	1614	49.2	45.5-53.0

4.1. Alcohol consumption

This section elaborates on alcohol consumption status, levels and patterns. Respondents were asked whether they consumed alcohol and were then categorized into the following:

- Current drinkers – those who consumed alcohol in the past 30 days.
- Occasional drinkers – those who consumed alcohol in the past 12 month but not in the past 30 days.
- Past 12 months abstainers – those who have consumed alcohol but had not done so in the past 12 months.
- Non-drinkers or lifetime abstainers – those who have never consumed alcohol in his/her lifetime.

Table 29 shows that the majority of men were non-current drinkers – 37.7% (95%CI= 33.2-42.2) of Solomon Islander men were lifetime abstainers, 12.6% (95%CI= 9.9-15.3) had not consumed alcohol in the past 12 months. 17.8% (95%CI= 14.2-21.4) had consumed alcohol in the past 12 months and a further approximately one third of men 31.9% (95%CI= 26.6-37.2) were current drinkers (had drunk in last 30 days).

Younger men aged 18-29 were more likely to have consumed alcohol in the past 12 months 24.6% (95%CI= 18.8-30.4) than older men aged 45-69 (13.5%, 95%CI= 8.8-18.2); and were less likely to have abstained in the past 12 months 6.3%, 95%CI= 2.6-10.0) compared to men aged 30-44 (17.4%, 95%CI= 11.7-23.0). Older men aged 45-69 were significantly more likely to be lifetime abstainer (48.3%, 95%CI= 39.1-57.5) than younger men aged 30-44 (31.0%, 95%CI= 24.8-37.3).

Table 29. Alcohol consumption status of men

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
18-29	281	33.0	27.1-38.9	24.6	18.8-30.4	6.3	2.6-10.0	36.1	30.4-41.8
30-44	404	36.5	28.7-44.3	15.1	9.3-20.8	17.4	11.7-23.0	31.0	24.8-37.3
45-69	435	24.6	12.5-36.8	13.5	8.8-18.2	13.5	9.1-18.0	48.3	39.1-57.5
18-69	1120	31.9	26.6-37.2	17.8	14.2-21.4	12.6	9.9-15.3	37.7	33.2-42.2

Table 30 shows that majority of women were lifetime abstainers (never consumed alcohol) 81.3% (95%CI= 78.0-84.5) and 6.2% (95%CI= 4.9-7.5) abstained from alcohol in the past 12 months. 6.3% (95%CI= 4.6-8.0) had consumed alcohol in the past 12 months and a further 6.2%, (95%CI= 3.9-8.4) were current drinkers.

There was no statistically significant difference between the three age groups.

Table 30. Alcohol consumption status of women

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
18-29	370	9.2	3.7-14.7	7.6	4.1-11.1	6.9	4.4-9.3	76.3	68.6-84.1
30-44	609	4.9	3.0-6.9	5.9	3.9-8.0	5.8	3.7-7.9	83.3	79.9-86.8
45-69	413	4.1	1.4-6.8	5.3	2.4-8.1	6.1	3.2-8.9	84.5	79.5-89.6
18-69	1392	6.2	3.9-8.4	6.3	4.6-8.0	6.2	4.9-7.5	81.3	78.0-84.5

Table 31 shows that 60.8% (95%CI= 57.8-63.8) overall were lifetime abstainers and 9.2% (95%CI= 7.8-10.6) abstained from alcohol in the past 12 months. 18.3% (95%CI= 15.5-21.0) were current drinkers and a further 11.7% (95%CI= 9.8-13.7) drank in the past 12 months.

Younger people aged 18-29 were more likely to have consumed alcohol in the past 12 months 15.6% (95%CI= 12.4-18.7) than those aged 45-69 (9.9%, 95%CI= 7.1-12.8). There was no statistically significant difference between the three age groups otherwise.

Significantly more women than men abstained from alcohol (both lifetime and past 12 months). Correspondingly, significantly more men than women are alcohol drinkers (i.e. current and past 12 months). (Compare Tables 29 and 30.)

Table 31. Alcohol consumption status, both sexes combined

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
18-29	651	20.3	16.1-24.4	15.6	12.4-18.7	6.6	4.6-8.6	57.6	52.4-62.7
30-44	1013	18.7	14.9-22.5	9.9	7.1-12.8	10.8	7.9-13.7	60.5	56.1-65.0
45-69	848	14.9	8.2-21.6	9.6	6.9-12.3	10.0	7.1-12.9	65.5	59.8-71.3
18-69	2512	18.3	15.5-21.0	11.7	9.8-13.7	9.2	7.8-10.6	60.8	57.8-63.8

Table 32 shows that majority of those who consumed alcohol in the past 12 months drank infrequently – 62.7% drink less than once a month (95%CI= 56.2-69.2) and 16.7% (95%CI= 11.3-22.2) drink 1-3 days per month. A small percentage drank daily or weekly – 18.2% (95%CI= 13.1-23.3) drank 1-4 days per week, 2.1% (95%CI= 0.7-3.5) drank 5-6 days per week and 0.3% (95%CI= 0.0-0.6) drank daily.

There were no significant differences between the three age groups in terms of the frequency of alcohol consumption.

Significantly more men than women drank alcohol 1-3 days per month – 17.7% (95%CI= 11.5-24.0) of men and 13.0% (95%CI= 6.4-19.6) of women. For details on the frequency of alcohol consumption for men and women, please see Appendix 2.

Table 32. Frequency of alcohol consumption among those who drank in the last 12 months, both sexes combined

Frequency of alcohol consumption in the past 12 months											
Age group (yrs)	Both sexes										
	n	% Daily	95% CI	% 5-6 days p. week	95% CI	% 1-4 days p. week	95% CI	% 1-3 days p. mth	95% CI	% < once a mth	95% CI
18-29	204	0.1	0.0-0.4	1.7	0.0-3.9	23.2	13.7-32.7	15.9	9.9-22.0	59.0	50.1-67.9
30-44	261	0.3	0.0-0.8	2.2	0.0-4.8	16.9	11.6-22.2	19.2	10.2-28.1	61.5	52.3-70.6
45-69	144	0.6	0.0-1.8	2.6	0.0-5.2	11.2	4.4-17.9	13.6	5.7-21.6	72.1	60.4-83.7
18-69	609	0.3	0.0-0.6	2.1	0.7-3.5	18.2	13.1-23.3	16.7	11.3-22.2	62.7	56.2-69.2

Table 33 shows that the mean number of drinking occasions among current drinkers was 3.8 (95%CI= 3.1-4.6) in the past 30 days.

There were no statistically significant differences between the three age groups; and the number of female respondents was too small to report any difference between men and women.

Table 33. Mean number of drinking occasions in the past 30 days among current drinkers

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
18-69	314	3.8	2.9-4.7	70	-	-	384	3.8	3.1-4.6

Participants were briefly taught about the standard drink measurement using showcards, then asked about their intake of standard drinks.

Table 34 shows that the mean number of standard drinks current drinkers consumed at each occasion was 8.3 (95%CI= 7.4-9.1) – 8.5 (95%CI= 7.6-9.4) for men (the number of female respondents was too small to report)

Table 34. Mean number of standard drinks consumed on a drinking occasion among current drinkers

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
18-69	315	8.5	7.6-9.4	69	-	-	384	8.3	7.4-9.1

Participants were asked questions about the number of standard drinks they consumed during one occasion during the prior 30 days. From this information the approximate amount of pure alcohol consumed per occasion could be calculated (one standard drink is approximately 10g pure alcohol).

Table 35 shows that overall, a very small percentage of the population drink at the high-end level (0.8%, 95%CI= 0.4-1.2) – 1.3% (95%CI= 0.5-2.1) of men and 0.3% (95%CI= 0.0-0.6) of women.

There were no statistically significant differences between men and women and between the three age groups.

Table 35. Percentage who drink at the high-end level (≥ 60 g of pure alcohol on average per occasion among men and ≥ 40 g of pure alcohol on average per occasion among women)

Percentage drinking at high-end level (≥ 60 g of pure alcohol on average per occasion among men and ≥ 40 g of pure alcohol on average per occasion among women)									
Age group (years)	Men			Women			Both sexes		
	n	% ≥ 60 g	95% CI	n	% ≥ 40 g	95% CI	n	% high-end level	95% CI
18-29	278	2.0	0.0-4.0	369	0.0	0.0-0.0	647	0.9	0.0-1.9
30-44	402	1.2	0.2-2.1	609	0.7	0.0-1.3	1011	0.9	0.3-1.5
45-69	434	0.6	0.0-1.4	413	0.0	0.0-0.0	847	0.3	0.0-0.7
18-69	1114	1.3	0.5-2.1	1391	0.3	0.0-0.6	2505	0.8	0.4-1.2

Table 36 shows that overall, a very small percentage of the population drink at the intermediate level (0.3%, 95%CI= 0.0-0.6 – 0.5% (95%CI= 0.0-1.2) of men and 0.1% (95%CI= 0.0-0.4) of women. There were no statistically significant differences between men and women and between the three age groups

Table 36. Percentage who drink at the intermediate level (40-59.9g of pure alcohol on average per occasion among men and 20-39.9g of pure alcohol on average per occasion among women)

Percentage drinking at intermediate level (40-59.9g of pure alcohol on average per occasion among men and 20-39.9g of pure alcohol on average per occasion among women)									
Age group (years)	Men			Women			Both sexes		
	n	% 40-59.9g	95% CI	n	% 20-39.9g	95% CI	n	% intermediate level	95% CI
18-29	278	0.9	0.0-2.7	369	0.0	0.0-0.0	647	0.4	0.0-1.2
30-44	402	0.5	0.0-1.1	609	0.0	0.0-0.0	1011	0.2	0.0-0.5
45-69	434	0.1	0.0-0.4	413	0.6	0.0-1.7	847	0.4	0.0-0.9
18-69	1114	0.5	0.0-1.2	1391	0.1	0.0-0.4	2505	0.3	0.0-0.6

Table 37 shows that overall, 16.9% (95%CI= 14.2-19.7 of the population drink at the lower-end level. Significantly more men 29.8% (95%CI= 24.4-35.2) than women 5.6% (95%CI= 3.5-7.8) consume alcohol at the lower-end level. There was no statistically significant difference between the three age groups.

Table 37. Percentage who drink at the lower-end level (< 40 g of pure alcohol on average per occasion among men and < 20 g of pure alcohol on average per occasion among women)

Percentage drinking at lower-end level (< 40 g of pure alcohol on average per occasion among men and < 20 g of pure alcohol on average per occasion among women)									
Age group (years)	Men			Women			Both sexes		
	n	% < 40 g	95% CI	n	% < 20 g	95% CI	n	% lower-end level	95% CI
18-29	278	29.6	23.6-35.6	369	8.8	3.3-14.3	647	18.5	14.5-22.5
30-44	402	34.6	26.7-42.5	609	4.3	2.3-6.3	1011	17.5	13.6-21.3
45-69	434	23.7	11.5-36.0	413	3.5	1.5-5.6	847	14.1	7.3-20.9
18-69	1114	29.8	24.4-35.2	1391	5.6	3.5-7.8	2505	16.9	14.2-19.7

Table 38 shows that among current drinkers, 94.0%, (95%CI= 91.1-96.9) engaged in lower-end level of drinking, 4.2% (95%CI= 1.9-6.6) in high-end level and 1.8% (95%CI= 0.0-3.5) in intermediate level of drinking.

There were no statistically significant differences between men and women and the three age groups. For further details on drinking levels of male and female current drinkers, please see Appendix 2.

Table 38. Percentage of current drinkers with different drinking levels, both sexes combined

High-end, intermediate, and lower-end level drinking among current (past 30 days) drinkers							
Age group (years)	Both sexes						
	n	% high-end	95% CI	% intermediate	95% CI	% lower-end	95% CI
18-29	121	4.7	0.0-9.4	2.1	0.0-6.2	93.2	87.0-99.5
30-44	175	4.8	1.7-7.9	1.2	0.0-2.6	94.0	90.6-97.4
45-69	86	2.2	0.0-5.2	2.4	0.0-6.2	95.5	90.5-100.0
18-69	382	4.2	1.9-6.6	1.8	0.0-3.5	94.0	91.1-96.9

Table 39 shows that the mean maximum number of standard drinks current drinkers consumed on one occasion in the past 30 days was 12.5 (95%CI= 10.2-14.9).

There were no statistically significant differences between the three age groups; and the number of female respondents was too small to report any difference between men and women.

Table 39. Mean maximum number of standard drinks consumed on one occasion in the past 30 days among current drinkers

Mean maximum number of standard 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
18-69	315	13.0	10.2-15.9		69	-	-	384	12.5
									95% CI
									10.2-14.9

Table 40 shows that 16.2% overall had six or more drinks on a single occasion at least once in the past 30 days – men were significantly more likely to binge drink 29.1% (95%CI= 24.0-34.2) than women 4.8% (95%CI= 2.6-6.9). There was no statistically significant difference between the three age groups.

Table 40. Percentage who had six or more drinks on a single occasion at least once during the past 30 days

Six or more drinks on a single occasion at least once during the past 30 days among total population									
Age group (years)	Men				Women			Both sexes	
	n	% ≥6 drinks	95% CI		n	% ≥6 drinks	95% CI	n	% ≥6 drinks
18-29	281	31.3	25.6-37.0		370	6.7	1.3-12.1	651	18.2
30-44	404	33.1	25.8-40.3		609	4.5	2.8-6.1	1013	16.9
45-69	435	21.5	9.0-34.0		413	2.5	0.6-4.4	848	12.5
18-69	1120	29.1	24.0-34.2		1392	4.8	2.6-6.9	2512	16.2
									95% CI
									13.5-18.9

Table 41 shows that the mean number of times current drinkers consumed six or more drinks on a single occasion in the past 30 days was 2.4 (95%CI= 2.0-2.9).

There were no statistically significant differences between the three age groups; and the number of female respondents was too small to report any difference between men and women.

Table 41. Mean number of times current drinkers consumed six or more drinks on a single occasion in the past 30 days

Mean number of times with six or more drinks during a single occasion in the past 30 days among current drinkers											
Age group (years)	Men				Women				Both sexes		
	n	Mean number of times	95% CI		n	Mean number of times	95% CI		n	Mean number of times	95% CI
18-69	309	2.7	2.1-3.2		65	-	-		374	2.4	2.0-2.9

Table 42 shows that in the past 7 days, 49.5% (95%CI= 40.1-59.0) of current drinkers reported drinking 1-2 days, 29.3% (95%CI= 22.2-36.4) did not drink, 8.6% (95%CI= 5.1-12.1) drank 3-4 days, 11.3% (95%CI= 4.5-18.1) drank daily and 1.3% (95%CI= 0.0-2.7) drank 5-6 days.

There were no statistically significant differences between the three age groups. The number of female respondents was too small to report any difference between men and women.

For details on the frequency of alcohol consumptions among male and female current drinkers in the past 7 days, please see Appendix 2.

Table 42. Frequency of alcohol consumption among current drinkers in the past 7 days, both sexes combined

Frequency of alcohol consumption in the past 7 days among current drinkers											
Age group (yrs)	Both sexes										
	n	% Daily	95% CI	% 5-6 days	95% CI	% 3-4 days	95% CI	% 1-2 days	95% CI	% 0 days	95% CI
18-29	114	7.7	2.6-12.8	2.3	0.0-5.8	9.6	3.1-16.1	47.6	36.4-58.9	32.7	23.4-42.1
30-44	163	18.5	4.7-32.2	0.2	0.0-0.7	9.5	4.5-14.5	43.0	33.8-52.2	28.8	19.4-38.2
45-69	80	3.8	0.8-6.9	1.5	0.0-4.6	5.0	0.0-11.3	65.3	44.0-86.6	24.3	7.3-41.4
18-69	357	11.4	4.8-18.0	1.3	0.0-2.7	8.6	5.1-12.1	49.5	40.1-59.0	29.3	22.2-36.4

Table 43 shows that current drinkers consumed on average 6.0 (95%CI= 2.8-9.2) standard drinks per day in the past 7 days.

There was no statistically significant difference between the three age groups; and the number of female respondents was too small to report any difference between men and women.

Table 43. Mean number of standard drinks current drinkers consumed on average per day in the past 7 days

Mean number of standard drinks consumed on average per day in the past 7 days among current drinkers											
Age group (years)	Men				Women				Both sexes		
	n	Mean number	95% CI		n	Mean number	95% CI		n	Mean number	95% CI
18-69	294	6.7	2.8-10.6		63	-	-		357	6.0	2.8-9.2

Table 44 shows that 13.1% (95%CI= 8.6-17.6) of current drinkers consumed unrecorded alcohol in the past 7 days. Unrecorded alcohol includes alcohol brewed at home, brought over the border, not intended for drinking or that is untaxed.

Current drinkers aged 18-29 were more likely to consume unrecorded alcohol compared to those in the older age groups – 24.0% (95%CI= 14.6-33.3) among those aged 18-29 compared to 6.5% (95%CI= 3.0-10.1) among 30-44 year olds and 7.0% (95%CI= 0.7-13.2) among 45-69 year olds.

The number of female respondents was too small to report.

Table 44. Percentage of current drinkers who consumed unrecorded alcohol in the past 7 days

Consumption of unrecorded alcohol in the past 7 days											
Age group (years)	Men				Women				Both sexes		
	n	% consuming unrecorded alcohol	95% CI		n	% consuming unrecorded alcohol	95% CI		n	% consum- ing un- recorded alcohol	95% CI
18-69	315	12.3	8.0-16.5		69	-	-		384	13.1	8.6-17.6

Table 45 shows that 18.1% (95%CI= 14.1-22.2) of past 12 month drinkers had experienced being unable to stop drinking monthly or more frequently and 12.2% (95%CI= 8.5-15.9) experienced it less than monthly. Most 69.7% (95%CI= 64.0-75.4) have never experienced being unable to stop drinking.

Significantly more past 12 month drinkers aged 30-44 experienced being unable to stop drinking once they had started - monthly or more frequently (21.7%, 95%CI= 15.9-27.5) than those aged 45-69 (10.3%, 95%CI= 4.9-15.7).

For more details on male and female past 12 month drinkers, please see Appendix 2.

Table 45. Percentage of past 12 month drinkers who were not able to stop drinking once started during the past year, both sexes combined

Frequency of not being able to stop drinking once started during the past 12 months among past 12 month drinkers							
Age group (years)	Both sexes						
	n	% monthly or more frequently	95% CI	% less than monthly	95% CI	% never	95% CI
18-29	220	18.7	12.8-24.7	13.8	7.2-20.4	67.4	58.6-76.2
30-44	275	21.7	15.9-27.5	13.0	8.3-17.6	65.4	57.8-73.0
45-69	165	10.3	4.9-15.7	7.6	3.6-11.6	82.1	75.0-89.3
18-69	660	18.1	14.1-22.2	12.2	8.5-15.9	69.7	64.0-75.4

Table 46 shows that the majority (68.4%, 95%CI= 63.3-73.8) of past 12 month drinkers had never failed to do what was normally expected from them. However, 18.7% (95%CI= 13.9-23.5) reported failing to do what was normally expected from them because of drinking monthly or more frequently; and 12.9% (95% CI= 9.1-16.6) reported failing to do so less than monthly.

Those in the younger age group of 18-29 years were more likely to report failing to do what was normally expected from them monthly or more frequently (21.1%, 95%CI= 14.6-27.7) compared to those aged 45-69 (8.1%, 95%CI= 3.3-12.9).

Significantly more men than women reported failing to do what was normally expected from them monthly or more frequently – 20.9% (95%CI= 15.9-26.0) of men compared to 8.1% (95%CI= 3.2-13.0) of women; and more men than women reported failing to do so less than monthly – 13.6% (95%CI= 10.0-17.2) of men compared to 7.1% (95%CI= 0.0-17.1) of women. For details please see Appendix 2.

Table 46. Frequency of past 12 month drinkers failing to do what was normally expected from them because of drinking during the past 12 months, both sexes combined

Frequency of past 12 month drinkers failing to do what was normally expected from them because of drinking during the past 12 months							
Age group (years)	Both sexes						
	n	% monthly or more frequently	95% CI	% less than monthly	95% CI	% never	95% CI
18-29	220	21.1	14.6-27.7	14.2	8.5-19.9	64.7	57.3-72.0
30-44	275	21.9	13.1-30.7	12.0	8.1-15.9	66.1	57.5-74.7
45-69	165	8.1	3.3-12.9	11.9	5.9-18.0	79.9	72.0-87.9
18-69	660	18.7	13.9-23.5	12.9	9.1-16.6	68.4	63.0-73.8

Table 47 shows that majority (80.6%, 95%CI= 76.3-84.9) of past 12 month drinkers did not need a first drink in the morning to get going. However, 11.7% (95%CI= 8.6-14.5) needed to monthly or more frequently and 7.7% (95%CI= 4.7-10.7) needed it less than monthly.

There were no statistically significant differences between men and women and the three age groups. For details on men and women and the frequency of them needing a first drink in the morning to get going, please see Appendix 2.

Table 47. Frequency of past 12 month drinkers needing a first drink in the morning to get going during the past 12 months, both sexes combined

Frequency of past 12 month drinkers needing a first drink in the morning to get going during the past 12 months							
Age group (years)	Both sexes						
	n	% monthly or more frequently	95% CI	% less than monthly	95% CI	% never	95% CI
18-29	220	12.8	8.1-17.5	9.8	3.7-15.9	77.4	69.9-84.8
30-44	275	11.8	7.3-16.2	4.6	2.1-7.1	83.6	78.5-88.6
45-69	165	9.4	4.4-14.4	9.5	3.9-15.1	81.1	72.4-89.9
18-69	660	11.7	8.9-14.5	7.7	4.7-10.7	80.6	76.3-84.9

Table 48 shows that 21.3% (95%CI= 15.3-27.4) of former drinkers stopped drinking due to health reasons; with no statistically significant difference between the three age groups. The number of female respondents by age was too low to report.

Table 48. Percentage of former drinkers who stopped drinking due to health reasons

Percentage of former drinkers who stopped drinking due to health reasons									
Age group (years)	Men				Women			Both sexes	
	n	% stopping due to health reasons	95% CI		n	% stopping due to health reasons	95% CI	n	% stopping due to health reasons
18-69	138	21.4	13.4-29.4		90	-	-	228	21.3
									15.3-27.4

Table 49 shows that overall, the majority (82.9%, 95%CI= 80.2-85.6) of the population never had family or partner problems due to someone else's drinking during the past 12 months. However, 11.9% (95%CI= 9.7-14.2) had such problems less than monthly and 5.2% (95%CI= 3.7-6.7) had them monthly or more frequently.

Significantly more aged 30-44 (7.1%, 95%CI= 4.1-10.0) had family or partner problems due to someone else's drinking monthly or more frequently than those aged 45-69 (2.8%, 95%CI= 1.6-4.0).

There was no statistically significant difference between men and women. For more details, please see Appendix 2.

Table 49. Frequency of family/partner problems due to someone else's drinking during the past 12 months, both sexes combined

Frequency of family/partner problems due to someone else's drinking during the past 12 months							
Age group (years)	Both sexes						
	n	% monthly or more frequently	95% CI	% less than monthly	95% CI	% never	95% CI
18-29	650	4.8	2.9-6.7	13.4	10.3-16.5	81.8	78.5-85.1
30-44	1015	7.1	4.1-10.0	10.9	8.7-13.1	82.0	78.9-85.1
45-69	847	2.8	1.6-4.0	11.5	4.5-18.5	85.6	78.4-92.8
18-69	2512	5.2	3.7-6.7	11.9	9.7-14.2	82.9	80.2-85.6

4.1. Fruit and vegetable consumption

WHO recommends at least five portions (approximately 400 grams) of fruits and vegetables a day to reduce the risk of NCDs. To assess respondents' fruit and vegetable intake, they were asked 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. Typical serving sizes were demonstrated using showcards.

Table 50 shows that the mean number of days fruit was consumed in a typical week was 2.7 days (95%CI= 2.5-2.8). There were no statistically significant differences between men and women and between the three age groups.

Table 50. Mean number of days fruit was consumed in a typical week

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
18-29	280	2.6	2.3-2.9	370	3.0	2.7-3.3	650	2.8	2.6-3.1
30-44	404	2.5	2.2-2.8	610	2.7	2.5-3.0	1014	2.7	2.4-2.9
45-69	429	2.6	2.3-2.8	411	2.4	2.2-2.7	840	2.5	2.3-2.7
18-69	1113	2.6	2.4-2.7	1391	2.8	2.5-3.0	2504	2.7	2.5-2.8

Table 51 shows that the mean number of days vegetables was consumed in a typical week was 4.7 days (95%CI= 4.5-4.8). There were no statistically significant differences between men and women and between the three age groups.

Table 51. Mean number of days vegetables were consumed in a typical week

Mean number of days vegetables were 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
18-29	280	4.5	4.2-4.9	370	4.7	4.4-5.0	650	4.6	4.4-4.9
30-44	405	4.6	4.3-4.9	610	4.7	4.5-5.0	1015	4.7	4.5-4.9
45-69	432	4.8	4.4-5.2	412	4.7	4.4-5.0	844	4.8	4.4-5.1
18-69	1117	4.6	4.4-4.9	1392	4.7	4.5-4.9	2509	4.7	4.5-4.8

Table 52 shows that the mean number of servings of fruit and/or vegetables consumed on average per day was 2.9 (95%CI= 2.8-3.1).

There were no statistically significant differences between men and women and between the three age groups in terms of the mean number of servings of fruit and/or vegetables consumed on average per day.

Solomon Islanders consumed 1.2 (95%CI= 1.0-1.3) servings of fruits and 1.8 (95%CI= 1.7-1.9) servings of vegetables on average per day. There were no statistically significant differences in consumption of fruits and vegetables between men and women and between the three age groups. Please see Appendix 2 for more details.

Table 52. Mean number of servings of fruit and/or vegetables on average per day

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
18-29	280	2.9	2.5-3.2		369	2.8	2.6-3.1		649	2.8	2.6-3.1
30-44	404	2.9	2.6-3.2		609	2.9	2.6-3.1		1013	2.9	2.7-3.1
45-69	431	3.2	2.9-3.6		412	2.8	2.6-3.1		843	3.0	2.8-3.3
18-69	1115	3.0	2.8-3.2		1390	2.9	2.7-3.0		2505	2.9	2.8-3.1

Table 53 shows that overall, 12.9% (95%CI= 10.6-15.3) did not consume any fruit and/or vegetables; 44.2% (95%CI= 41.3-47.1) consumed 1-2 servings; 30.8% (95%CI= 27.1-34.4) consumed 3-4 servings; and 12.1% (95%CI= 10.1-14.1) consumed more than 5 servings on average per day.

There were no statistically significant differences between the three age groups and between men and women. For details on the number of fruit and/or vegetable servings consumed by men and women, please see Appendix 2.

Table 53. Percentage who consumed the specified number of servings of fruit and/or vegetables on average per day, both sexes combined

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
18-29	649	12.4	9.2-15.7	45.3	41.3-49.2	31.3	26.6-36.1	11.0	8.0-13.9
30-44	1013	13.0	9.4-16.6	46.8	42.6-50.9	27.7	24.1-31.2	12.6	9.9-15.3
45-69	843	13.5	9.6-17.4	38.8	32.4-45.2	35.0	26.4-43.7	12.7	9.5-15.9
18-69	2505	12.9	10.6-15.3	44.2	41.3-47.1	30.8	27.1-34.4	12.1	10.1-14.1

Table 54 shows that overall, 87.9% (95%CI= 85.9-89.9) consumed less than five servings of fruit and/or vegetables per day. There were no statistically significant differences between men and women and between the three age groups.

Table 54. Percentage who consumed less than five servings of fruit and/or vegetables on average per day

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
18-29	280	89.7	85.2-94.1		369	88.5	84.9-92.1		649	89.0	86.1-92.0
30-44	404	88.1	84.6-91.7		609	86.8	83.3-90.3		1013	87.4	84.7-90.1
45-69	431	85.6	81.0-90.3		412	89.1	85.3-92.9		843	87.3	84.1-90.5
18-69	1115	87.9	85.4-90.4		1390	87.9	85.5-90.3		2505	87.9	85.9-89.9

Table 55 shows that majority (45.2%, 95%CI= 33.6-56.7) of those who did not eat fruits and vegetables cited availability of fruits and vegetables as a reason preventing them followed by 33.1% (95%CI= 19.2-47.1) who cited time. These were the main factors that prevent them from eating more fruits and vegetables.

There were no statistically significant differences between the three age groups and between men and women. For more details on reasons cited by men and women, please see Appendix 2.

Table 55. Percentage who cited the specified reasons for not eating more fruits and vegetables.

Reasons for not eating more fruits and vegetables									
Age group (years)	Both sexes								
	n	% Cost	95% CI	% Avail-ability	95% CI	% Prefer to sell it	95% CI	%Don't like	95% CI
18-29	49	11.2	0.0-25.1	55.0	36.2-73.9	1.6	0.0-4.8	5.9	0.0-12.0
30-44	64	23.3	9.0-37.6	35.4	22.3-48.5	0.0	0.0-0.0	2.5	0.0-6.6
45-69	63	6.0	0.0-12.6	46.4	26.7-66.1	0.7	0.0-2.1	3.8	0.0-9.3
18-69	176	14.7	6.4-22.9	45.2	33.6-56.7	0.8	0.0-2.0	4.1	0.9-7.2

Reasons for not eating more fruits and vegetables (continued)					
Age group (years)	Both sexes				
	n	% Time	95% CI	% Other	95% CI
18-29	49	26.2	8.6-43.8	0.0	0.0-0.0
30-44	64	36.6	20.1-53.2	2.2	0.0-5.2
45-69	63	37.7	19.2-56.2	5.4	0.0-12.0
18-69	176	33.1	19.2-47.1	2.2	0.2-4.2

4.1. Rice and noodles consumption

Table 56 shows that the mean number of days Solomon Islanders consumed rice in a typical week was 5.3 (95%CI= 5.1-5.5) – 5.1 (95%CI= 4.9-5.4) for men and 5.4 (95%CI= 5.2-5.6) for women. There were no statistically significant differences between men and women and between the three age groups.

Table 56. Mean number of days rice was consumed in a typical week

Mean number of days rice 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
18-29	280	5.2	4.9-5.6		368	5.7	5.4-5.9		648	5.4	5.2-5.7
30-44	404	5.2	4.8-5.6		609	5.4	5.1-5.7		1013	5.3	5.1-5.6
45-69	433	5.0	4.6-5.4		412	5.0	4.7-5.4		845	5.0	4.7-5.3
18-69	1117	5.1	4.9-5.4		1389	5.4	5.2-5.6		2506	5.3	5.1-5.5

Table 57 shows that the mean number of servings of rice Solomon Islanders consumed on average per day was 2.2 (95%CI= 2.1-2.3).

There were no statistically significant differences between men and women and between the three age groups.

Table 57. Mean number of servings of rice consumed on average per day

Mean number of servings of rice 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
18-29	280	2.2	2.0-2.4		366	2.2	2.0-2.4		646	2.2	2.0-2.4
30-44	404	2.3	2.0-2.5		607	2.2	2.0-2.4		1011	2.2	2.1-2.4
45-69	430	2.3	1.9-2.6		411	2.0	1.8-2.2		841	2.1	1.9-2.4
18-69	1114	2.3	2.1-2.4		1384	2.2	2.0-2.3		2498	2.2	2.1-2.3

Table 58 shows that the mean number of days Solomon Islanders consumed noodles in a typical week was 2.7 (95%CI= 2.5-2.8) – 2.8 (95%CI= 2.5-3.1) for men and 2.5 (95%CI= 2.4-2.7) for women.

There were no statistically significant differences between men and women and between the three age groups.

Table 58. Mean number of days noodles were consumed in a typical week

Mean number of days noodles were 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
18-29	280	2.9	2.6-3.2		369	2.9	2.7-3.2		649	2.9	2.7-3.1
30-44	403	2.7	2.4-3.0		607	2.5	2.3-2.7		1010	2.6	2.4-2.8
45-69	431	2.8	2.2-3.5		409	2.0	1.8-2.3		840	2.4	2.0-2.8
18-69	1114	2.8	2.5-3.1		1385	2.5	2.4-2.7		2499	2.7	2.5-2.8

Table 59 shows that the mean number of servings of noodles Solomon Islanders consumed on average per day was 0.7 (95%CI= 0.6-0.7). There were no statistically significant differences between men and women and between the three age groups.

Table 59. Mean number of servings of noodles consumed on average per day

Mean number of servings of noodles 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
18-29	260	0.8	0.6-0.9		343	0.8	0.6-0.9		603	0.8	0.7-0.9
30-44	359	0.7	0.6-0.8		522	0.6	0.5-0.7		881	0.6	0.6-0.7
45-69	374	0.6	0.5-0.8		344	0.5	0.4-0.6		718	0.6	0.5-0.7
18-69	993	0.7	0.6-0.8		1209	0.6	0.6-0.7		2202	0.7	0.6-0.7

Table 60 shows that the mean number of days Solomon Islanders consumed bread in a typical week was 1.9 (95%CI= 1.6-2.2). Solomon Islanders aged 18-29 consumed bread more often (2.3 days, 95%CI= 1.9-2.7) than those aged 45-69 (1.3 days, 95%CI= 1.0-1.6).

There were no statistically significant differences between men and women.

Table 60. Mean number of days bread was consumed in a typical week

Mean number of days bread 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
18-29	280	2.0	1.7-2.4		367	2.5	2.0-3.0		647	2.3	1.9-2.7
30-44	403	2.0	1.4-2.6		604	1.8	1.4-2.1		1007	1.9	1.5-2.2
45-69	430	1.5	1.0-1.9		407	1.2	0.9-1.5		837	1.3	1.0-1.6
18-69	1113	1.9	1.5-2.2		1378	1.9	1.6-2.2		2491	1.9	1.6-2.2

Table 61 shows that the mean number of servings of bread Solomon Islanders consumed on average per day was 1.0 (95%CI= 0.8-1.2). Solomon Islanders aged 45-69 consumed less bread (0.6, 95%CI= 0.5-0.7) than those aged 18-29 (1.4, 95%CI= 1.1-1.7) and those aged 30-44 (1.0, 95%CI= 0.8-1.2). Among men and women, those aged 45-69 consumed less bread than those aged 18-29. There was no statistically significant difference between men and women.

Table 61. Mean number of servings of bread consumed on average per day

Mean number of servings of bread 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
18-29	278	1.3	1.0-1.7		363	1.4	1.1-1.8		641	1.4	1.1-1.7
30-44	398	1.1	0.7-1.4		595	1.0	0.8-1.2		993	1.0	0.8-1.2
45-69	420	0.6	0.4-0.8		403	0.6	0.5-0.8		823	0.6	0.5-0.7
18-69	1096	1.0	0.8-1.3		1361	1.1	0.9-1.2		2457	1.0	0.8-1.2

Table 62 shows that the mean number of days Solomon Islanders consumed bakery products in a typical week was 2.4 (95%CI= 2.2-2.6). Examples of bakery products are cake, navy biscuits, ring cake, pancake and pasta.

There were no statistically significant differences between men and women and between the three age groups.

Table 62. Mean number of days bakery products were consumed in a typical week

Mean number of days bakery products were consumed in a typical week											
Age group (years)	Men				Women				Both sexes		
	n	Mean number of days	95% CI		n	Mean number of servings	95% CI		n	Mean number of days	95% CI
18-29	280	2.6	2.2-2.9		368	2.6	2.3-2.9		648	2.6	2.3-2.9
30-44	404	2.6	2.2-3.0		609	2.3	2.1-2.5		1013	2.4	2.2-2.7
45-69	430	2.1	1.8-2.4		409	2.0	1.8-2.3		839	2.1	1.9-2.3
18-69	1114	2.4	2.2-2.7		1386	2.4	2.2-2.5		2500	2.4	2.2-2.6

Table 63 shows that the mean number of servings of bakery products Solomon Islanders consumed on average per day was 0.9 (95%CI= 0.8-1.0).

Solomon Islanders aged 45-69 consumed less bakery products (0.7, 95%CI= 0.6-0.8) than those aged 18-29 (1.0, 95%CI= 0.9-1.2). Among men and women, those aged 45-69 consumed less bakery products than those aged 18-29. There was no statistically significant difference between men and women.

Table 63. Mean number of servings of bakery products consumed on average per day

Mean number of servings of bakery products 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
18-29	278	1.1	0.9-1.3		366	0.9	0.8-1.1		644	1.0	0.9-1.2
30-44	401	1.0	0.8-1.2		605	0.9	0.8-1.0		1006	0.9	0.8-1.0
45-69	426	0.7	0.6-0.9		404	0.6	0.5-0.7		830	0.7	0.6-0.8
18-69	1105	1.0	0.8-1.1		1375	0.8	0.8-0.9		2480	0.9	0.8-1.0

Table 64 shows that the mean number of servings of bread and/or bakery products Solomon Islanders consumed on average per day was 1.9 (95%CI= 1.7-2.1).

Solomon Islanders aged 45-69 consumed less bread and/or bakery products (1.3, 95%CI= 1.1-1.4) than those aged 18-29 (2.4, 95%CI= 2.1-2.7) and those aged 30-44 (1.9, 95%CI= 1.7-2.2). Among men and women, those aged 45-69 consumed less bakery products than those aged 18-29 and 30-44.

There was no statistically significant difference between men and women.

Table 64. Mean number of servings of bread and/or bakery products consumed on average per day

Mean number of servings of bread and/or bakery products consumed 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
18-29	279	2.4	2.0-2.9		367	2.4	2.0-2.7		646	2.4	2.1-2.7
30-44	402	2.0	1.7-2.4		606	1.8	1.6-2.1		1008	1.9	1.7-2.2
45-69	430	1.3	1.1-1.6		410	1.2	1.0-1.4		840	1.3	1.1-1.4
18-69	1111	2.0	1.7-2.2		1383	1.9	1.6-2.1		2494	1.9	1.7-2.1

4.1. Dietary salt

WHO recommends less than 5 g of salt (approximately 1 teaspoon, regardless of whether it is added during cooking/eating, naturally present or in processed foods) per day to reduce risk of high blood pressure and consequently risk of heart disease and stroke. Respondents were asked how much and how often they added salt or salty sauce, how much salty processed food they consumed, their knowledge of salt and its health consequences, and actions they have taken to control salt intake.

Table 65 shows that overall, 46.6% (95%CI= 42.0-51.1) of the population always or often added salt before eating or when eating – 48.8% (95%CI= 43.0-54.7) of men and 44.6 % (95%CI= 39.9-49.2) of women.

Younger Solomon Islanders aged 18-29 (49.7%, 95%CI= 44.0-55.5) and 30-44 years (50.0%, 95%CI= 44.1-55.9) were more likely to add salt always or often before or when eating compared to those aged 45-69 (37.0%, 95%CI= 30.6-43.4). There was no statistically significant difference between men and women.

Table 65. Percentage who add salt always or often before eating or when eating

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
18-29	280	51.3	44.0-58.6		368	48.4	41.7-55.0		648	49.7	44.0-55.5
30-44	400	53.0	44.3-61.8		607	47.7	42.2-53.2		1007	50.0	44.1-55.9
45-69	432	40.4	31.7-49.1		412	33.3	26.8-39.9		844	37.0	30.6-43.4
18-69	1112	48.8	43.0-54.7		1387	44.6	39.9-49.2		2499	46.6	42.0-51.1

Table 66 shows that overall, 60.0% (95%CI= 56.7-63.4) always or often added salt when cooking or preparing food at home. There were no statistically significant differences between men and women and between the three age groups.

Table 66. Percentage who add salt always or often when cooking or preparing food at home

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
18-29	281	61.2	55.3-67.0		369	61.3	54.1-68.5		650	61.2	56.4-66.1
30-44	401	60.2	52.5-68.0		610	62.8	58.4-67.1		1011	61.7	57.3-66.1
45-69	431	57.9	49.3-66.6		412	53.7	47.0-60.4		843	55.9	49.4-62.4
18-69	1113	59.9	55.2-64.6		1391	60.2	56.8-63.6		2504	60.0	56.7-63.4

Table 67 shows that overall, 22.4% (95%CI= 18.7-26.0) always or often consumed processed food high in salt – 21.5% (95%CI= 17.2-25.9) of men and 23.1% (95%CI= 19.0-27.2) of women. Examples of “processed foods high in salt” were given as foods which have been altered from their natural state including cheese, bacon, fast food, pickles and preserves, and processed meat. There were no statistically significant differences between men and women and between the three age groups.

Table 67. Percentage who always or often consumed processed food high in salt

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
18-29	280	23.3	17.7-29.0		366	24.8	18.3-31.3		646	24.1	19.3-29.0
30-44	403	24.0	15.8-32.1		609	24.4	19.1-29.6		1012	24.2	19.0-29.3
45-69	431	16.3	10.0-22.6		410	18.2	13.4-23.1		841	17.2	12.6-21.8
18-69	1114	21.5	17.2-25.9		1385	23.1	19.0-27.2		2499	22.4	18.7-26.0

Table 68 shows that overall, 2.6% (95%CI= 1.7-3.5) reported that they consumed far too much salt and 17.1% (95%CI= 14.5-19.6) reported that they consumed too much salt. Majority (65.4%, 95%CI= 61.8-69.0) reported that they consumed just the right amount of salt, 13.7% (95%CI= 11.3-16.6) that they consumed too little and 1.2% (95%CI= 0.8-1.6) consumed far too little.

Solomon Islanders aged 45-69 were more likely to report consuming far too little salt (3.1%, 95%CI= 1.8-4.4) compared to those aged 18-29 (0.4%, 95%CI= 0.0-0.9) and those aged 30-44 (0.6%, 95%CI= 0.2-1.0).

There were no statistically significant differences between the three age groups for the other categories and between men and women. For more details on what men and women reported on the amount of salt they consumed, please see Appendix 2.

Table 68. Percentage who self-reported how much salt they consumed, both sexes combined

Self-reported quantity of salt consumed											
Age group (years)	Both sexes										
	n	% Far too much	95% CI	% Too much	95% CI	% Just the right amt	95% CI	% Too little	95% CI	% Far too little	95% CI
18-29	628	1.7	0.7-2.8	19.7	15.5-23.9	66.1	61.8-70.4	12.1	8.5-15.6	0.4	0.0-0.9
30-44	987	3.2	1.7-4.6	17.6	14.1-21.2	64.3	59.3-69.3	14.3	10.8-17.7	0.6	0.2-1.0
45-69	812	2.8	1.4-4.3	12.8	9.3-16.3	66.2	60.2-72.1	15.1	12.2-18.0	3.1	1.8-4.4
18-69	2427	2.6	1.7-3.5	17.1	14.5-19.6	65.4	61.8-69.0	13.7	11.3-16.2	1.2	0.8-1.6

Table 69 shows that overall, 47.7% (95%CI= 42.8-52.7) stated that lowering salt in diet was very important, 37.4% (95%CI= 33.2-41.6) as somewhat important and 14.8% (95%CI= 11.2-18.4) as not at all important.

There were no statistically significant differences between the three age groups and between men and women. For more details on the responses of men and women, please see Appendix 2.

Table 69. Percentage who stated the different perceived importance of lowering salt in diet, both sexes

Perceived 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
18-29	548	46.5	39.7-53.3	41.6	35.2-48.0	11.9	9.1-14.7
30-44	881	50.3	44.9-55.7	35.1	30.8-39.5	14.6	11.3-17.9
45-69	742	45.3	37.4-53.1	35.9	29.4-42.4	18.8	8.7-29.0
18-69	2171	47.7	42.8-52.7	37.4	33.2-41.6	14.8	11.2-18.4

Table 70 shows that overall, 69.0% (95%CI= 65.4-72.6) thought that consuming too much salt could cause serious health problems – 65.2% (95%CI= 60.3-70.1) of men and 72.4% (95%CI= 69.0-75.9) of women.

There were no statistically significant differences between men and women and between the three age groups.

Table 70. Percentage who think that consuming too much salt could cause serious health problems

Think that 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
18-29	281	64.7	58.1-71.3		369	75.6	70.7-80.5		650	70.5	65.9-75.1
30-44	405	69.2	62.4-75.9		610	70.0	64.4-75.7		1015	69.7	64.7-74.6
45-69	433	60.6	50.8-70.4		412	72.4	66.3-78.4		845	66.2	58.6-73.7
18-69	1119	65.2	60.3-70.1		1391	72.4	69.0-75.9		2510	69.0	65.4-72.6

Table 71 shows that overall, 35.5% (95%CI= 31.3-39.6) indicated that they limited consumption of processed foods to control salt intake – 33.6% (95%CI= 28.2-39.0) among men and 37.1% (95%CI= 32.9-41.3) among women. Among men, those aged 30-44 (37.8%, 95%CI= 32.5-43.2) were more likely than those aged 18-29 (28.7%, 95%CI= 23.0-34.3) to respond that they limited consumption of processed foods to control salt intake.

Table 71. Percentage who limited consumption of processed foods to control salt intake

Limited consumption of processed foods											
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	281	25.3	19.4-31.1		369	31.7	24.1-39.2		650	28.7	23.0-34.3
30-44	405	39.3	30.8-47.8		610	36.7	31.9-41.5		1015	37.8	32.5-43.2
45-69	433	35.7	27.7-43.8		412	45.8	39.3-52.3		845	40.5	34.3-46.8
18-69	1119	33.6	28.2-39.0		1391	37.1	32.9-41.3		2510	35.5	31.3-39.6

Table 72 shows that overall, 13.7% (95%CI= 11.4-16.1) looked at the salt or sodium content on food labels – 13.5% (95%CI= 10.9-16.1) of men and 14.0% (95%CI= 11.0-16.9) of women.

There were no statistically significant differences between men and women and between the three age groups.

Table 72. Percentage who looked at the salt or sodium content on food labels

Looked 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
18-29	281	8.6	4.6-12.5		369	15.3	9.1-21.5		650	12.2	8.1-16.2
30-44	405	15.9	10.8-21.1		610	14.7	11.6-17.8		1015	15.2	12.0-18.4
45-69	433	16.0	11.2-20.8		412	10.6	7.4-13.9		845	13.4	10.1-16.8
18-69	1119	13.5	10.9-16.1		1391	14.0	11.0-16.9		2510	13.7	11.4-16.1

Table 73 shows that overall, 15.8% (95%CI= 12.8-18.8) bought low salt or sodium alternatives – 13.8% (95%CI=10.5-17.1 of men and 17.5% (95%CI= 13.9-21.2) of women.

There were no statistically significant differences between men and women and between the three age groups.

Table 73. Percentage of who bought low salt or sodium alternatives

Bought low salt/sodium alternatives											
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	281	8.4	4.4-12.4		369	17.7	11.5-23.9		650	13.3	8.7-17.9
30-44	405	16.1	11.2-21.1		610	17.1	12.8-21.4		1015	16.7	13.0-20.3
45-69	433	17.1	12.0-22.1		412	18.1	13.6-22.6		845	17.6	13.3-21.8
18-69	1119	13.8	10.5-17.1		1391	17.5	13.9-21.2		2510	15.8	12.8-18.8

Table 74 shows that overall, 35.6% (95%CI= 31.5-39.8) used spices other than salt when cooking – 34.5% (95%CI= 29.1-39.9) of men and 36.6% (95%CI= 32.5-40.8) of women.

There were no statistically significant differences between men and women and between the three age groups.

Table 74. Percentage who used spices other than salt when cooking

Use spices other than salt when cooking											
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	281	29.4	22.1-36.7		369	39.0	30.7-47.3		650	34.5	28.5-40.5
30-44	405	39.9	31.1-48.6		610	36.3	31.6-41.0		1015	37.8	32.6-43.1
45-69	433	33.4	25.6-41.3		412	33.9	27.3-40.4		845	33.6	27.5-39.7
18-69	1119	34.5	29.1-39.9		1391	36.6	32.5-40.8		2510	35.6	31.5-39.8

Table 75 shows that overall, 24.1% (95%CI= 20.6-27.7) avoided eating foods prepared outside a home – 23.1% (95%CI= 18.4-27.9) of men and 25.1% (95%CI= 21.1-29.0) of women.

Among men, those aged 30-44 (31.1%, 95%CI= 22.2-40.1) were more likely than those aged 18-29 (16.2%, 95%CI= 11.5-20.9) to avoid eating foods prepared outside of a home. Other than that, there were no statistically significant differences between men and women and between the three age groups.

Table 75. Percentage of who avoided eating foods prepared outside a home

Avoid eating foods prepared outside of a home											
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	281	16.2	11.5-20.9		369	23.1	16.0-30.3		650	19.9	15.3-24.5
30-44	405	31.1	22.2-40.1		610	24.8	21.0-28.6		1015	27.6	22.2-32.9
45-69	433	20.5	14.8-26.3		412	28.4	22.7-34.1		845	24.2	19.4-29.0
18-69	1119	23.1	18.4-27.9		1391	25.1	21.1-29.0		2510	24.1	20.6-27.7

Table 76 shows that overall, 14.0% (95%CI= 11.3-16.6) have done other things specifically to control salt intake – 13.3% (95%CI= 10.4-16.3) of men and 14.6% (95%CI= 11.4-17.7) of women.

Table 76. Percentage who have done other things specifically to control salt intake

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
18-29	281	6.9	3.0-10.8		369	10.8	6.2-15.5		650	9.0	5.9-12.1
30-44	405	15.9	10.9-20.8		610	15.6	11.9-19.3		1015	15.7	12.2-19.2
45-69	433	17.3	11.9-22.8		412	18.0	12.9-23.1		845	17.7	13.4-21.9
18-69	1119	13.3	10.4-16.3		1391	14.6	11.4-17.7		2510	14.0	11.3-16.6

4.1. Other dietary behaviours

Respondents were asked what type of oil or fat they used for preparing meals, how often they ate outside, and how often they consumed meals containing coconut, cream or lolo.

Table 77 shows that majority of the households surveyed (69.3%, 95%CI= 64.5-74.0) used vegetable oil, 23.0% (95%CI= 18.1-27.8) used coconut oil, none used butter, 1.7% (95%CI= 0.8-2.6) used margarine, and 5.2% (95%CI= 3.3-7.8) used none.

Table 77. Type of oil or fat most often used for meal preparation in household

Type of oil or fat most often used for meal preparation in household								
n (house-holds)	% Vegetable oil	95% CI	% Lard	95% CI	% Butter	95% CI	% Margarine	95% CI
1373	69.3	64.5-74.0	0.4	0.0-0.9	0.0	0.0-0.1	1.7	0.8-2.6

Type of oil or fat most often used for meal preparation in household (continued)				
n (house-holds)	% coconut oil	95% CI	% None used	95% CI
1373	23.0	18.1-27.8	5.2	3.3-7.8

Table 78 shows that Solomon Islanders ate 2.0 meals (95%CI= 1.7-2.3) outside a home on average per week – 2.3 (95%CI= 1.9-2.7) among men and 1.8 (95%CI= 1.5-2.1) among women.

There were no statistically significant differences between men and women and between the three age groups.

Table 78. Mean number of meals eaten outside a home on average per week

Mean number of meals eaten outside a home on average per week											
Age group (years)	Men				Women				Both sexes		
	n	Mean	95% CI		n	Mean	95% CI		n	Mean	95% CI
18-29	270	2.1	1.5-2.6		352	1.5	1.1-1.9		622	1.8	1.4-2.1
30-44	390	2.5	1.8-3.2		574	2.1	1.6-2.5		964	2.2	1.8-2.7
45-69	418	2.3	1.4-3.2		385	1.6	1.1-2.1		803	2.0	1.4-2.6
18-69	1078	2.3	1.9-2.7		1311	1.8	1.5-2.1		2389	2.0	1.7-2.3

Table 79 shows that more than a third of the population (39.3%, 95%CI= 34.1-44.4) prepared meals with fresh coconut cream or milk every day, 16.7% (95%CI= 13.7-19.6) more than once a week, 4.4% (95%CI= 3.4-5.4) once a week, 37.7% (95%CI= 33.3-42.2) occasionally and 2.0% (95%CI= 1.3-2.6) never.

There were no statistically significant differences between the three age groups and between men and women. For more details on how often men and women prepare meals with fresh coconut cream or milk, please refer to Appendix 2.

Table 79. Frequency of preparing meals with fresh coconut cream or milk, both sexes combined

Meals prepared with fresh coconut cream or milk											
Age group (yrs)	Both sexes										
	n	% Every day	95% CI	% More than once a week	95% CI	% Once a week	95% CI	% Occasionally/sometimes	95% CI	% Never	95% CI
18-29	650	32.9	26.7-39.0	17.5	13.4-21.6	4.5	2.4-6.6	43.0	36.8-49.2	2.1	0.8-3.4
30-44	1014	41.7	36.0-47.4	15.7	12.3-19.0	4.0	2.8-5.2	37.5	32.5-42.5	1.1	0.6-1.7
45-69	841	43.7	35.4-52.0	17.2	12.9-21.4	4.7	3.1-6.4	31.3	25.3-37.3	3.1	1.6-4.6
18-69	2505	39.3	34.1-44.4	16.7	13.7-19.6	4.4	3.4-5.4	37.7	33.3-42.2	2.0	1.3-2.6

4.1. Sugar consumption

WHO recommends limiting free sugars intake to prevent unhealthy weight gain and risk of dental caries. In this section, survey respondents were asked how often and how many sugary drinks were consumed as well as how much sugar was added. Sugary drinks include fizzy drinks (excluding pure unsweetened fruit juice), cordials or drink mixes, milo and homemade drinks with added sugar; and one serving of sugary drink refers to one can of drink or one large glass.

Table 80 shows that Solomon Islanders consumed a mean of 0.3 servings (95%CI= 0.2-0.4) of sugary drinks in a day. Solomon Islanders aged 45-69 years consumed fewer servings of sugary drinks in a day (0.2, 95%CI=0.1-0.3) than those aged 18-29 (0.4, 95%CI= 0.3-0.5). There were no statistically significant differences between men and women.

Table 80. Mean number of servings of sugary drinks consumed in a day

Mean number of servings of sugary drinks consumed per day									
Age group (years)	Men			Women			Both sexes		
	n	mean	95% CI	n	mean	95% CI	n	mean	95% CI
18-29	275	0.4	0.3-0.5	361	0.4	0.2-0.6	636	0.4	0.3-0.5
30-44	394	0.3	0.2-0.4	591	0.3	0.2-0.4	985	0.3	0.2-0.4
45-69	420	0.2	0.1-0.3	402	0.2	0.1-0.2	822	0.2	0.1-0.3
18-69	1089	0.3	0.3-0.4	1354	0.3	0.2-0.4	2443	0.3	0.2-0.4

Table 81 shows that Solomon Islanders added 1.3 teaspoons (95%CI= 1.2-1.5) of sugar on average to each drink – 1.4 teaspoons (95%CI= 1.3-1.6) among men and 1.3 teaspoons (95%CI= 1.2-1.4) among women.

There were no statistically significant differences between men and women and between the three age groups.

Table 81. Mean number of teaspoons of sugar added to a drink per day

Mean number of teaspoons of sugar added to a drink per day									
Age group (years)	Men			Women			Both sexes		
	n	Mean # of teaspoons	95% CI	n	Mean # of teaspoons	95% CI	n	Mean # of teaspoons	95% CI
18-29	245	1.7	1.4-1.9	320	1.4	1.3-1.6	565	1.5	1.4-1.7
30-44	338	1.3	1.1-1.5	496	1.2	1.1-1.4	834	1.3	1.1-1.4
45-69	363	1.3	1.0-1.5	319	1.1	0.9-1.3	682	1.2	1.0-1.4
18-69	946	1.4	1.3-1.6	1135	1.3	1.2-1.4	2081	1.3	1.2-1.5

4.10. Physical activity

Introduction

A population's physical activity (or inactivity) can be described in different ways. The two most common ways used for analysing Global Physical Activity Questionnaire (GPAQ) data 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.
- 2) To classify the population into specific groups by setting cut-off points for a specific amount of physical activity.

Continuous indicator: Metabolic Equivalent (MET)

METs are commonly used to express the intensity of physical activities; and 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. Guidelines have been adopted for the analysis of GPAQ data: 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. 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">▪ Moderate MET value = 4.0▪ Vigorous MET value = 8.0
Transport	<ul style="list-style-type: none">▪ Cycling and walking MET value = 4.0
Recreation	<ul style="list-style-type: none">▪ Moderate MET value = 4.0▪ Vigorous MET value = 8.0

Categorical indicator: WHO global recommendations on physical activity for health

Calculation of the recommended amount of physical activity for health takes into account the total time spent in physical activity during a typical week and the intensity of the physical activity.

Throughout the week, including activity for work, during transport and leisure time, adults should do at least:

- 150 minutes of moderate-intensity physical activity OR
- 75 minutes of vigorous-intensity physical activity OR
- An equivalent combination of moderate- and vigorous-intensity physical activity achieving at least 600 MET-minutes.
- The three levels of physical activity for classifying populations were low, moderate and high. The criteria for these levels are shown below.

High	Moderate	Low
<p>A person who meets the following criteria:</p> <ul style="list-style-type: none"> Vigorous-intensity activity on at least 3 days achieving a minimum of at least 1,500 MET-minutes/week <p>OR</p> <ul style="list-style-type: none"> 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 	<p>A person who does not meet the criteria for the "high" category but meets the following:</p> <ul style="list-style-type: none"> 3 or more days of vigorous-intensity activity of at least 20 minutes per day <p>OR</p> <ul style="list-style-type: none"> 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day <p>OR</p> <ul style="list-style-type: none"> 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. 	<p>A person who does not meet any of the abovementioned criteria.</p>

Note that total physical activity refers to physical activity of any level and from any domain. Levels of physical activity in the population are not normally distributed; therefore the median number of minutes of physical activity is also reported to allow more detailed analysis.

Table 82 shows that overall, 18.6% (95%CI= 15.7-21.6) of Solomon Islanders did not meet the WHO recommendations on physical activity for health. A significantly higher proportion of women (23.4%, 95%CI= 20.0-26.8) than men (13.3%, 95%CI= 9.8-16.9) did not meet the recommendations.

There was no statistically significant difference between the three age groups.

Table 82. Percentage who did not meet WHO recommendations on physical activity for health

Not meeting WHO recommendations on physical activity for health											
Age group (years)	Men				Women				Both sexes		
	n	% not meeting recs	95% CI		n	% not meeting recs	95% CI		n	% not meeting recs	95% CI
18-29	269	10.9	5.5-16.4		354	25.7	19.4-31.9		623	18.8	14.0-23.5
30-44	395	14.0	8.2-19.8		586	23.4	19.2-27.5		981	19.3	15.5-23.0
45-59	427	15.2	10.6-19.8		393	20.1	14.5-25.7		820	17.5	13.4-21.6
18-69	1091	13.3	9.8-16.9		1333	23.4	20.0-26.8		2424	18.6	15.7-21.6

Table 83 shows that majority of men (67.2%, 95%CI= 62.6-71.8) engaged in high levels of physical activity, 14.2% (95%CI= 11.6-16.8) in moderate levels and 18.6% (95%CI= 14.6-22.5) in low levels.

More men aged 45-69 engaged in moderate levels of physical activity (18.7%, 95%CI= 13.7-23.7) than those aged 18-29 (10.0%, 95%CI= 6.4-13.6).

There was no statistically significant difference between the three age groups.

Table 83. Classification of men according to their total physical activity level

Age group (years)	Level of total physical activity						
	Men						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
18-29	269	16.1	9.0-23.2	10.0	6.4-13.6	73.9	65.8-82.0
30-44	395	18.0	12.1-23.9	14.4	10.4-18.4	67.6	61.3-73.9
45-69	427	22.1	16.4-27.8	18.7	13.7-23.7	59.2	50.3-68.2
18-69	1091	18.6	14.6-22.5	14.2	11.6-16.8	67.2	62.6-71.8

Table 84 shows that 45.4% (95%CI= 41.4-49.5) of women were engaged in high levels of physical activity, 20.7% (95%CI= 17.8-23.5) in moderate levels and 33.9% (95%CI= 29.7-38.1) in low levels.

There was no statistically significant difference between the three age groups.

Table 84. Classification of women according to their total physical activity level

Age group (years)	Level of total physical activity						
	Women						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
18-29	354	36.2	28.8-43.6	21.0	16.0-26.1	42.8	35.5-50.1
30-44	586	31.5	26.8-36.1	18.8	15.0-22.6	49.7	45.0-54.5
45-69	393	35.2	27.8-42.6	23.6	18.3-28.9	41.2	34.3-48.1
18-69	1333	33.9	29.7-38.1	20.7	17.8-23.5	45.4	41.4-49.5

Table 85 shows that overall, most participants (55.7%, 95%CI= 52.3-59.1) had high levels of physical activity, 17.6% (95%CI= 15.5-19.7) moderate levels and 26.7% (95%CI= 23.2-30.1) low levels.

Significantly more women (33.9%, 95%CI= 29.7-38.1) than men (18.6%, 95%CI= 14.6-22.5) had low levels of physical activity. Slightly more women (20.7%, 95%CI= 17.8-23.5) than men (14.2%, 95%CI= 11.6-16.8) had moderate levels of physical activity. Correspondingly, more men than women had significant high levels of physical activity.

There were no statistically significant differences between the three age groups.

Table 85. Classification according to their total physical activity level, both sexes combined

Age group (years)	Level of total physical activity						
	Both sexes						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
18-29	623	26.8	20.7-32.9	15.9	12.5-19.3	57.4	50.8-64.0
30-44	981	25.6	21.5-29.6	16.9	14.1-19.7	57.5	53.5-61.6
45-69	820	28.3	23.9-32.6	21.0	17.3-24.6	50.8	45.3-56.2
18-69	2424	26.7	23.2-30.1	17.6	15.5-19.7	55.7	52.3-59.1

Table 86 shows that the mean minutes of total physical activity Solomon Islanders engaged in on average per day was 175.7 minutes (95%CI= 161.4-190.0). Men engaged in significantly more physical activity on average per day (225.7 minutes, 95%CI= 205.3-246.1) than women (131.1 minutes, 95%CI= 117.6-144.6).

There was no statistically significant difference between the three age groups.

Table 86. Mean minutes of total physical activity on average per day

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
18-29	269	246.6	207.7-285.4		354	111.6	94.6-128.6		623	174.8	152.8-196.7
30-44	395	211.3	185.3-237.3		586	140.1	121.9-158.3		981	171.2	154.2-188.2
45-69	427	220.7	189.5-251.9		393	142.4	117.6-167.2		820	183.9	161.0-206.8
18-69	1091	225.7	205.3-246.1		1333	131.1	117.6-144.6		2424	175.7	161.4-190.0

Table 87 shows that the median minutes of total physical activity Solomon Islanders engaged in per day was 114.3 minutes. Men engaged in physical activity more than two times longer on average per day than women (171.4 compared to 77.1 minutes). Those aged 30-44 engaged in the most amount of physical activity in terms of duration followed by the 18-29 year olds then 45-69 year olds.

Table 87. Median minutes of total physical activity on average per day

Median minutes of total physical activity on average per day											
Age group (years)	Men				Women				Both sexes		
	n	Median minutes	Inter-quartile range (P25-P75)		n	Median minutes	Inter-quar- tile range (P25-P75)		n	Median minutes	Inter-quar- tile range (P25-P75)
18-29	269	171.4	77.1-342.9		354	68.6	19.3-154.3		623	111.4	34.3-240.0
30-44	395	162.9	60.0-300.0		586	90.0	21.4-205.7		981	120.0	31.4-248.6
45-69	427	170.7	52.1-330.7		393	77.1	30.0-188.6		820	103.6	37.1-291.4
18-69	1091	171.4	60.0-330.7		1333	77.1	21.4-188.6		2424	114.3	34.3-252.9

Table 88 shows that mean minutes of work-related physical activity Solomon Islanders engaged in on average per day was 117.8 minutes (95%CI= 106.2-129.4).

Men engaged in more work-related physical activity (146.9 minutes, 95%CI= 129.8-163.9) compared to women (91.9 minutes, 95%CI= 80.8-103.1). Among women, those aged 18-29 engaged in less work-related physical activity (68.1 minutes, 95%CI= 56.5-79.6) than those aged 30-44 (103.1 minutes, 95%CI= 86.9-119.3) and those aged 45-69 (105.4 minutes, 95%CI= 85.3-125.6).

Overall, there was no statistically significant difference between the three age groups.

Table 88. Mean minutes of work-related physical activity on average per day

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
18-29	269	138.1	113.1-163.1		354	68.1	56.5-79.6		623	100.8	86.5-115.1
30-44	395	148.8	126.9-170.6		586	103.1	86.9-119.3		981	123.1	109.0-137.1
45-69	427	154.4	125.2-183.6		393	105.4	85.3-125.6		820	131.4	110.6-152.2
18-69	1091	146.9	129.8-163.9		1333	91.9	80.8-103.1		2424	117.8	106.2-129.4

Table 89 shows that the median minutes of work-related physical activity Solomon Islanders engaged in on average per day was 51.4 minutes. Men engaged in two times more work-related physical activity than women – 85.7 minutes for men and 42.6 minutes for women. Those in the older age groups engaged in slightly more work-related physical activity than those aged 18-29.

Table 89. Median minutes of work-related physical activity on average per day

Median minutes of work-related physical activity on average per day											
Age group (years)	Men				Women				Both sexes		
	n	Median minutes	Inter-quar- tile range (P25-P75)		n	Median minutes	Inter-quar- tile range (P25-P75)		n	Median minutes	Inter-quar- tile range (P25-P75)
18-29	269	77.1	17.1-192.9		354	34.3	0-77.1		623	51.4	8.6-120.0
30-44	395	94.3	25.7-205.7		586	47.1	0-154.3		981	68.6	12.9-171.4
45-69	427	68.6	21.4-231.4		393	51.4	8.6-137.1		820	60.0	12.9-197.1
18-69	1091	85.7	21.4-205.7		1333	42.6	0-120.0		2424	51.4	10.0-154.3

Table 90 shows that the mean minutes of transport-related physical activity Solomon Islanders engaged in on average per day was 33.4 minutes (95%CI= 26.5-40.3) – 40.6 minutes (95%CI= 28.3-52.9) among men and 27.0 minutes (95%CI= 22.6-31.4) among women. There were no statistically significant differences between men and women and between the three age groups.

Table 90. Mean minutes of transport-related physical activity on average per day

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
18-29	269	35.8	26.2-45.4		354	25.1	19.0-31.2		623	30.1	24.5-35.7
30-44	395	34.5	27.6-41.4		586	26.4	21.3-31.6		981	29.9	25.5-34.4
45-69	427	53.9	17.3-90.6		393	30.9	21.8-40.0		820	43.1	21.3-64.9
18-69	1091	40.6	28.3-52.9		1333	27.0	22.6-31.4		2424	33.4	26.5-40.3

Table 91 shows that the median minutes of transport-related physical activity Solomon Islanders engaged in was very low with only 12.9 minutes. Men engaged in two times more transport-related physical activity than women – 17.1 minutes for men compared to 8.6 minutes for women. The median minutes of transport-related physical activity increased with age.

Table 91. Median minutes of transport-related physical activity on average per day

Median minutes of transport-related physical activity on average per day											
Age group (years)	Men				Women				Both sexes		
	n	Median minutes	Inter-quartile range (P25-P75)		n	Median minutes	Inter-quartile range (P25-P75)		n	Median minutes	Inter-quartile range (P25-P75)
18-29	269	14.3	0-40.0		354	8.6	0-25.7		623	10.0	0-34.3
30-44	395	17.1	0-51.4		586	10.0	0-25.7		981	12.9	0-38.6
45-69	427	17.1	0-51.4		393	10.7	0-34.3		820	15.0	0-42.9
18-69	1091	17.1	0-42.9		1333	8.6	0-28.6		2424	12.9	0-38.6

Table 92 shows that the mean minutes of recreation-related physical activity Solomon Islanders engaged in on average per day was 24.4 minutes (95%CI= 20.7-28.2).

Men engaged in three times more recreation-related physical activity (38.2 minutes, 95%CI= 31.6-44.8) than women (12.2 minutes, 95%CI= 9.4-14.9). Among men and women, there were statistically significant differences between the age groups.

Overall, Solomon Islanders aged 18-29 engaged in four and a half times more recreation-related physical activity (43.8 minutes, 95%CI= 34.4-53.3) than those aged 45-69 (9.4 minutes, 95%CI= 5.3-13.5), and two and a half times more than those aged 30-44 (18.2 minutes, 95%CI= 14.0-22.4).

Table 92. Mean minutes of recreation-related physical activity on average per day

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
18-29	269	72.7	56.0-89.4	354	18.4	11.2-25.7	623	43.8	34.4-53.3
30-44	395	28.0	21.1-34.9	586	10.6	7.2-13.9	981	18.2	14.0-22.4
45-69	427	12.3	6.3-18.3	393	6.0	2.4-9.7	820	9.4	5.3-13.5
18-69	1091	38.2	31.6-44.8	1333	12.2	9.4-14.9	2424	24.4	20.7-28.2

Table 93 shows that for men, work contributed to 59.0% (95%CI= 55.4-62.7) of total physical activity, transport to 23.4% (95%CI= 19.4-27.3) and leisure to 17.6% (95%CI= 15.0-20.2).

There were differences between the age groups as to which activity contributed the most and least to total physical activity. Among younger men aged 18-29, work contributed the most to physical activity followed by leisure then transport. Among older men aged 30-44 and 45-69, work followed by transport contributed most to total physical activity then leisure.

Work contributed to a significantly higher proportion of total physical activity for 30-44 year olds (63.3%, 95%CI= 59.5-67.1) compared to 18-29 year olds (51.1%, 95%CI= 45.6-56.6). Transport contributed to a significantly higher proportion of total physical activity for 45-69 year olds (31.8%, 95%CI= 21.3-42.2) compared to 18-29 year olds (18.2%, 95%CI= 15.1-21.2). Leisure contributed to a significantly higher proportion of total physical activity for 18-29 year olds (30.8%, 95%CI= 26.3-35.2) compared to both 30-44 year olds (15.1%, 95%CI= 11.7-18.4) and 45-69 year olds (5.4%, 95%CI= 3.4-7.3).

Table 93. Composition of work, transport and leisure activity to total physical activity for men

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
18-29	245	51.1	45.6-56.6	18.2	15.1-21.2	30.8	26.3-35.2
30-44	355	63.3	59.5-67.1	21.6	18.6-24.7	15.1	11.7-18.4
45-69	373	62.9	53.0-72.7	31.8	21.3-42.2	5.4	3.4-7.3
18-69	973	59.0	55.4-62.7	23.4	19.4-27.3	17.6	15.0-20.2

Table 94 shows that for women, work contributed to 61.2% (95%CI= 58.4-64.0) of total physical activity, transport to 27.9% (95%CI= 25.0-30.8) and leisure to 10.9% (95%CI= 8.7-13.2).

Work contributed to a significantly higher proportion of total physical activity for 30-44 year olds (63.3%, 95%CI= 59.3-67.3) and 45-69 year olds (66.4%, 95%CI= 60.3-72.5) compared to 18-29 year olds (54.7%, 95%CI= 50.5-59.0).

There was no significant difference between the three age groups in terms of how much transport contributed to total physical activity. Leisure contributed to a significantly higher proportion of total physical activity for 18-29 year olds (17.1%, 95%CI= 12.2-22.1) compared to 30-44 year olds (9.6%, 95%CI= 7.2-12.0) and 45-69 year olds (4.8%, 95%CI= 2.1-7.5).

Table 94. Composition of work, transport and leisure activity to total physical activity for women

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
18-29	293	54.7	50.5-59.0	28.1	23.7-32.6	17.1	12.2-22.1
30-44	510	63.3	59.3-67.3	27.1	23.3-30.9	9.6	7.2-12.0
45-69	346	66.4	60.3-72.5	28.9	22.9-34.8	4.8	2.1-7.5
18-69	1149	61.2	58.4-64.0	27.9	25.0-30.8	10.9	8.7-13.2

Table 95 shows that for Solomon Islanders, work contributed 60.2% (95%CI= 57.5-62.8) to total physical activity, transport to 25.7% (95%CI= 22.8-28.7) and leisure to 14.1% (95%CI= 12.2-16.0).

Work contributed to a significantly higher proportion of total physical activity for 30-44 year olds (63.8%, 95%CI= 60.8-66.8) compared to 18-29 year olds (53.1%, 95%CI= 49.2-57.0). There was no significant difference between the three age groups in terms of how much transport contributed to total physical activity.

The proportion leisure contributed to total physical activity decreased with age - leisure contributed to a significantly higher proportion of total physical activity for 18-29 year olds (23.8%, 95%CI= 20.2-27.3) compared to 30-44 year olds (12.0%, 95%CI= 9.8-14.3) and 45-69 year olds (5.1%, 95%CI= 3.2-7.0).

There was no statistically significant difference between men and women except for the proportion leisure contributed to total physical activity – for men, 17.6% (95%CI= 115.0-20.2) and for women, 10.9% (95%CI= 8.7-13.2) of total physical activity was from leisure.

Table 95. Composition of work, transport and leisure to total physical activity, both sexes combined

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
18-29	538	52.9	49.1-56.8	23.3	20.2-26.4	23.8	20.2-27.3
30-44	865	63.3	60.3-66.3	24.7	21.9-27.4	12.0	9.8-14.3
45-69	719	64.5	57.0-72.0	30.4	22.5-38.3	5.1	3.2-7.0
18-69	2122	60.2	57.5-62.8	25.7	22.8-28.7	14.1	12.2-16.0

Table 96 shows that 47.8% (95%CI= 43.5-52.1) overall did not engage in vigorous physical activity. Significantly higher proportion of women (57.6%, 95%CI= 53.2-62.0) than men (36.8%, 95%CI= 31.0-42.7) did not engage in vigorous physical activity. Significantly higher proportion of Solomon Islanders aged 45-69 (56.8%, 95%CI= 49.7-63.9) than those aged 18-29 (41.4%, 95%CI= 34.7-48.0) did not engage in vigorous physical activity. Among men, significantly more of those aged 45-69 did not engage in vigorous physical activity than those aged 18-29 – more than two-fold the proportion of men.

Table 96. Percentage who did not engage in vigorous physical activity

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
18-29	269	23.8	15.5-32.1	354	56.9	49.5-64.3	623	41.4	34.7-48.0
30-44	395	34.8	28.2-41.3	586	57.1	51.5-62.8	981	47.4	42.7-52.0
45-69	427	54.3	44.4-64.2	393	59.6	52.7-66.4	820	56.8	49.7-63.9
18-69	1091	36.8	31.0-42.7	1333	57.6	53.2-62.0	2424	47.8	43.5-52.1

Table 97 shows that on average, the mean number of minutes Solomon Islanders spent in sedentary activities each day was 155.2 minutes (95%CI= 143.4-167.0) and the median was 120.0.

There were no statistically significant differences between the three age groups and between men and women.

For men, the mean and median minutes spent in sedentary activities were 163.8 (95% CI= 150.1-177.5) and 120.0 respectively. For women, the mean and median minutes spent in sedentary activities were 147.5 (95%CI= 133.8-161.3) and 120.0. Please see table in Appendix 2 for details.

Table 97. Minutes spent in sedentary activities on average per day, both sexes combined

Minutes spent in sedentary activities on average per day					
Age group (years)	Both sexes				
	n	Mean minutes	95% CI	Median minutes	Inter-quartile range (P25-P75)
18-29	647	161.6	145.5-177.7	120.0	60.0-240.0
30-44	1014	143.6	129.8-157.3	120.0	60.0-180.0
45-69	845	165.5	145.0-186.0	120.0	60.0-270.0
18-69	2506	155.2	143.4-167.0	120.0	60.0-270.0

4.11. History of raised blood pressure

Table 98 shows that 61.9% (95%CI= 57.2-66.6) of men had never had their blood pressure measured by a doctor or health worker, 30.1% (95%CI= 25.8-34.4) had been measured but not diagnosed with raised blood pressure/hypertension, 2.9% (95%CI= 1.7-4.1) were diagnosed but not within the past 12 months and 5.0% (95%CI= 3.5-6.6) had been diagnosed within the past 12 months.

Significantly more men aged 18-29 (70.7%, 95%CI= 64.4-77.1) and 30-44 (64.2%, 95%CI= 57.3-71.0) have never had their blood pressure measured compared to older men aged 45-69 (48.9%, 95%CI= 39.3-58.4). Significantly more men aged 45-69 (9.3%, 95%CI= 6.1-12.4) were diagnosed with raised blood pressure within the past 12 months compared to younger men aged 18-29 (2.1%, 95%CI= 0.5-3.6) – four times more. There were no statistically significant differences between the three age groups for the other categories.

Table 98. Blood pressure measure and diagnosis status of men

Blood pressure measurement and diagnosis status									
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
18-29	280	70.7	64.4-77.1	25.7	20.2-31.1	1.5	0.1-2.9	2.1	0.5-3.6
30-44	405	64.2	57.3-71.0	28.1	21.7-34.5	3.3	1.2-5.4	4.4	1.7-7.2
45-69	433	48.9	39.3-58.4	37.9	27.7-48.1	4.0	1.9-6.1	9.3	6.1-12.4
18-69	1118	61.9	57.2-66.6	30.1	25.8-34.4	2.9	1.7-4.1	5.0	3.5-6.6

Table 99 shows that 55.8% (95%CI= 51.9-59.7) of women had never had their blood pressure measured, 32.1% (95%CI= 28.5-35.6) had ever been measured but not diagnosed with raised blood pressure/hypertension, 3.8% (95%CI= 2.8-4.9) had been diagnosed but not within the past 12 months, and 8.3% (95%CI= 6.9-9.6) were diagnosed within the past 12 months.

The proportion of women diagnosed with raised blood pressure within the past 12 months increased with age – 3.1% (95%CI= 1.3-4.9) of those aged 18-29, 8.1% (95%CI= 6.0-10.2) of those aged 30-44 and 15.9% (95%CI= 12.0-19.9) of those aged 45-69. Significantly fewer women aged 18-29 were diagnosed though not within the past 12 months than women aged 30-44 and 45-69; and fewer 18-29 year olds than 30-44 year olds were measured but not diagnosed.

Significantly more women aged 18-29 (70.5%, 95%CI= 65.5-75.4) were never measured compared to those aged 30-44 (48.5%, 95%CI= 42.8-54.2) and those aged 45-69 (48.6%, 95%CI= 40.9-56.2).

Table 99. Blood pressure measurement and diagnosis status of women

Blood pressure measurement and diagnosis status									
Age group (yrs)	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
18-29	367	70.5	66.5-74.7	25.7	20.6-30.8	0.8	0.0-1.5	3.1	1.3-4.9
30-44	608	48.5	42.8-54.2	39.0	33.6-44.3	4.4	2.4-6.5	8.1	6.0-10.2
45-69	412	48.6	40.9-56.2	28.3	22.8-33.8	7.2	4.2-10.1	15.9	12.0-19.9
18-69	1387	55.8	51.9-59.7	32.1	28.5-35.6	3.8	2.8-4.9	8.3	6.9-9.6

Table 100 shows that overall, 58.7% (95%CI= 55.8-61.6) had never had their blood pressure measured, 31.2% (95%CI= 28.5-33.8) had been measured but not diagnosed with raised blood pressure/hypertension, 3.4% (95%CI= 2.7-4.1) had been diagnosed but not within the past 12 months, and 6.7% (95%CI= 5.7-7.8) were diagnosed within the past 12 months.

More women than men were diagnosed within the past 12 months – 8.3% (95%CI= 6.9-9.9) among women and 5.0% (95%CI= 3.5-6.6) among men. Other than that, there were no statistically significant differences between men and women.

Table 100. Blood pressure measurement and diagnosis status, both sexes combined

Blood pressure measurement and diagnosis status									
Age group (yrs)	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
18-29	647	70.6	66.5-74.7	25.7	22.0-29.3	1.1	0.4-1.9	2.6	1.3-4.0
30-44	1013	55.3	50.8-59.9	34.2	29.9-38.5	3.9	2.6-5.3	6.5	4.9-8.1
45-69	845	48.7	43.3-54.2	33.3	28.0-38.7	5.5	3.7-7.4	12.4	9.5-15.4
18-69	2505	58.7	55.8-61.6	31.2	28.5-33.8	3.4	2.7-4.1	6.7	5.7-7.8

Table 101 shows that 19.3% (95%CI= 14.3-24.2) of Solomon Islanders diagnosed with raised blood pressure were currently taking drugs prescribed by a doctor or health worker. The number of respondents was too small to report by age groups.

Table 101. Percentage diagnosed with raised blood pressure and currently taking medication prescribed by doctor or health worker

Currently taking blood pressure medication prescribed by doctor or health worker among those diagnosed with raised blood pressure									
Age group (years)	Men			Women			Both sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
18-69	105	13.8	7.7-19.9	189	22.5	15.1-29.8	294	19.3	14.3-24.2

Table 102 shows that 18.8% (95%CI= 14.5-23.1) of Solomon Islanders previously diagnosed with raised blood pressure had seen a traditional healer.

The number of respondents was too small to report by age groups.

Table 102. Percentage previously diagnosed with raised blood pressure who had seen a traditional healer

Seen a traditional healer among those previously diagnosed with raised blood pressure									
Age group (years)	Men			Women			Both sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-69	105	19.0	11.1-27.0	189	18.7	13.3-24.0	294	18.8	14.5-23.1

Table 103 shows that 14.6% (95%CI= 10.8-18.3) of Solomon Islanders previously diagnosed with raised blood pressure were currently taking traditional medicine.

The number of respondents was too small to report by age groups

Table 103. Percentage previously diagnosed with raised blood pressure currently taking herbal or traditional remedy

Currently taking herbal or traditional remedy for high blood pressure among those previously diagnosed with raised blood pressure									
Age group (years)	Men			Women			Both sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-69	99	14.1	6.8-21.3	189	14.9	10.2-19.5	294	14.6	10.8-18.3

4.12 History of diabetes

Table 104 shows that 73.3% (95%CI= 68.0-78.6) of men had never had their blood sugar measured, 23.8% (95%CI= 18.8-28.7) were measured but not diagnosed with raised blood sugar or diabetes, 1.3% (95%CI= 0.7-2.0) were diagnosed but not within the past 12 months and 1.6% (95%CI= 0.8-2.4) were diagnosed within the past 12 months.

Significantly more men aged 18-29 have never had their blood sugar measured (86.2%, 95%CI= 80.7-91.6) compared to older men aged 45-69 (59.7%, 95%CI= 48.4-71.1). More men aged 45-69 than those aged 18-29 have had their blood sugar measured but not diagnosed. More men aged 30-44 and 45-69 than men aged 18-29 have been diagnosed though not within the past 12 months. Significantly more men aged 45-69 have been diagnosed within the past 12 months (3.7%, 95%CI= 1.6-5.7) than men aged 30-44 (0.8%, 95%CI= 0.0-2.1).

Table 104. Blood sugar measurement and diagnosis status of men

Blood sugar measurement and diagnosis status									
Age group (yrs)	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
18-29	280	86.2	80.7-91.6	12.6	7.6-17.5	0.4	0.0-1.3	0.8	0.0-2.1
30-44	405	72.4	65.1-79.6	25.3	18.1-32.5	1.6	0.3-2.9	0.7	0.0-1.4
45-69	433	59.7	48.4-71.1	34.6	23.6-45.7	2.0	0.6-3.3	3.7	1.6-5.7
18-69	1118	73.3	68.0-78.6	23.8	18.8-28.7	1.3	0.7-2.0	1.6	0.8-2.4

Table 105 shows that 74.3% (95%CI= 71.2-77.5) of women have never had their blood sugar measured, 21.9% (95%CI= 19.2-24.7) were measured but not diagnosed with raised blood sugar or diabetes, 1.7% (95%CI= 0.8-2.6) were diagnosed but not within the past 12 months and 2.1% (95%CI= 1.2-2.9) were diagnosed within the past 12 months.

Significantly more women aged 18-29 have never had their blood sugar measured (86.9%, 95%CI= 83.5-90.2) compared to women aged 30-44 (70.5%, 95%CI= 64.5-76.6) and 45-69 (63.3%, 95%CI= 57.4-69.2). More women aged 30-44 and 45-69 were measured but not diagnosed compared to women aged 18-29. Significantly more

women aged 30-44 (3.0%, 95%CI= 1.3-4.7) and 45-69 (3.3%, 95%CI= 1.7-5.0) were diagnosed within the past 12 months than those aged 18-29 (0.0%).

Table 105. Blood sugar measurement and diagnosis status of women

Blood sugar measurement and diagnosis status									
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
18-29	367	86.9	83.5-90.2	11.8	8.5-15.1	1.3	0.0-2.8	0.0	0.0-0.0
30-44	608	70.5	64.5-76.6	25.3	19.9-30.6	1.2	0.3-2.2	3.0	1.3-4.7
45-69	412	63.3	57.4-69.2	30.3	24.7-35.8	3.1	0.4-5.8	3.3	1.7-5.0
18-69	1387	74.3	71.2-77.5	21.9	19.2-24.7	1.7	0.8-2.6	2.1	1.2-2.9

Table 106 shows that overall, 73.8% (95%CI= 70.8-76.9) had never had their blood sugar measured, 22.8% (95%CI= 20.1-25.5) were measured but not diagnosed with raised blood sugar/diabetes, 1.5% (95%CI= 1.0-2.1) were diagnosed but not within the past 12 months and 1.8% (95%CI= 1.2-2.5) were diagnosed within the past 12 months.

The proportion of Solomon Islanders who never had their blood sugar measured decreased with age – 86.5% (95%CI= 83.0-90.1) of 18-29 year olds, 71.3% (95%CI= 66.7-76.0) of 30-44 year olds and 61.4% (95%CI= 55.6-67.3) of 45-69 year olds.

There was no statistically significant difference between men and women.

Table 106. Blood sugar measurement and diagnosis status in both sexes combined

Blood sugar measurement and diagnosis status									
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
18-29	647	86.5	83.0-90.1	12.2	8.9-15.4	0.9	0.0-1.8	0.4	0.0-1.0
30-44	1013	71.3	66.7-76.0	25.3	20.9-29.6	1.4	0.6-2.2	2.0	1.0-3.0
45-69	845	61.4	55.6-67.3	32.6	26.9-38.2	2.5	1.1-4.0	3.5	2.1-5.0
18-69	2505	73.8	70.8-76.9	22.8	20.1-25.5	1.5	1.0-2.1	1.8	1.2-2.5

Table 107 shows that 18.8% (95%CI= 8.3-29.3) of Solomon Islanders previously diagnosed with diabetes were taking drugs prescribed by a doctor or other health worker. The number of respondents was too small to report by gender or age groups.

Table 107. Percentage of those previously diagnosed with diabetes taking medication prescribed by a doctor or other health worker

Currently taking medication prescribed for diabetes among those previously diagnosed with diabetes									
Age group (years)	Men			Women			Both sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
18-69	40	-	-	54	-	-	94	18.8	8.3-29.3

Table 108 shows that 11.7% (95%CI= 3.7-19.8) of Solomon Islanders previously diagnosed with diabetes were currently taking insulin prescribed by a doctor or other health worker.

The number of respondents was too small to report by gender or age groups.

Table 108. Percentage previously diagnosed with diabetes currently taking insulin prescribed by a doctor or other health worker

Currently taking insulin prescribed for diabetes among those previously diagnosed with diabetes											
Age group (years)	Men				Women				Both sexes		
	n	% taking insulin	95% CI		n	% taking insulin	95% CI		n	% taking insulin	95% CI
18-69	40	-	-		54	-	-		94	11.7	3.7-19.8

Table 109 shows that 21.7% (95%CI= 12.9-29.2) of those previously diagnosed with diabetes had seen a traditional healer.

The number of respondents was too small to report by gender or age groups.

Table 109. Percentage of those previously diagnosed with diabetes who had seen a traditional healer

Seen a traditional healer for diabetes among those previously diagnosed with diabetes											
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-69	42	-	-		57	-	-		99	21.1	12.9-29.2

Table 110 shows that 11.5% (95%CI= 3.6-19.4) of those previously diagnosed with diabetes were currently taking herbal or traditional treatment.

The number of respondents was too small to report by gender or age groups.

Table 110. Percentage of those previously diagnosed with diabetes who were currently taking herbal or traditional treatment

Currently taking herbal or traditional treatment for diabetes among those previously diagnosed with diabetes											
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-69	42	-	-		57	-	-		99	11.5	3.6-19.4

4.13. History of raised total cholesterol

Table 111 shows that the majority of men have never had their cholesterol measured (98.0%, 95%CI= 97.1-99.0), 1.8% (95%CI= 0.8-2.7) had been measured but not diagnosed with raised cholesterol, 0.0% were diagnosed but not within the past 12 months and 0.2% (95%CI= 0.0-0.3) were diagnosed within the past 12 months.

Table 111. Total cholesterol measurement and diagnosis status of men

Total cholesterol measurement and diagnosis status									
Age group (yrs)	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
18-69	1118	98.0	97.1-99.0	1.8	0.8-2.7	0.0	0.0-0.1	0.2	0.0-0.3

Table 112 shows that majority (97.4%, 95%CI= 96.6-98.3) of women have never had their cholesterol measured, 2.1% (95%CI= 1.4-2.9) had been measured but not diagnosed with raised cholesterol, 0.3% (95%CI= 0.0-0.7) had been diagnosed but not within the past 12 months and 0.3% (95%CI= 0.0-0.6) were diagnosed within the past 12 months.

There was no statistically significant difference between the three age groups.

Table 112. Total cholesterol measurement and diagnosis status of women

Total cholesterol measurement and diagnosis status									
Age group (yrs)	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
18-69	1387	97.4	96.6-98.3	2.1	1.4-2.9	0.1	0.0-0.2	0.3	0.0-0.7

Table 113 shows that overall, 97.7% (95%CI= 97.1-98.3) of Solomon Islanders have never had their cholesterol measured, 2.0% (95%CI= 1.4-2.5) had been measured but not diagnosed with raised cholesterol, 0.1% (95%CI= 0.0-0.1) had been diagnosed but not within the past 12 months and 0.2% (95%CI= 0.0-0.4) were diagnosed within the past 12 months.

There were no significant differences between men and women and between the three age groups.

Table 113. Total cholesterol measurement and diagnosis status, both sexes combined

Total cholesterol measurement and diagnosis status									
Age group (yrs)	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
18-29	647	98.3	97.3-99.3	1.7	0.7-2.7	0.0	0.0-0.0	0.0	0.0-0.0
30-44	1013	97.8	96.8-98.8	1.8	0.8-2.7	0.2	0.0-0.4	0.3	0.0-0.7
45-69	845	96.9	95.6-98.2	2.7	1.5-3.8	0.0	0.0-0.0	0.5	0.1-0.9
18-69	2505	97.7	97.1-98.3	2.0	1.4-2.5	0.1	0.0-0.1	0.2	0.0-0.4

4.14. History of cardiovascular diseases

Table 114 shows that overall, 7.3% (95%CI= 5.5-9.1) reported having ever had a heart attack or chest pain from heart disease or a stroke – 6.2% (95%CI= 4.3-8.2) of men and 8.2% (95%CI= 5.8-10.7) of women.

There were no statistically significant differences between men and women and between the three age groups.

Table 114. Percentage who have ever had a heart attack or chest pain from heart disease or a stroke

Having ever had a heart attack or chest pain from heart disease or a stroke									
Age group (years)	Men				Women			Both sexes	
	n	% CVD history	95% CI		n	% CVD history	95% CI	n	% CVD history
18-29	280	5.8	2.5-9.1		367	7.4	4.2-10.5	647	6.6
30-44	405	6.3	3.6-9.1		609	8.5	6.2-10.7	1014	7.5
45-69	433	6.7	3.7-9.7		412	9.1	3.1-15.0	845	7.8
18-69	1118	6.2	4.3-8.2		1388	8.2	5.8-10.7	2506	7.3

Table 115 shows that overall, 1.2% (95%CI= 0.7-1.7) were currently taking aspirin regularly to prevent or treat heart disease.

Among women, no 18-29 year olds were taking aspirin to prevent or treat heart disease compared to 1.6% (95%CI= 0.6-2.6) of 30-44 year olds and 2.0 % (95%CI= 0.7-3.3) of 45-69 year olds.

Overall, there were no statistically significant differences between men and women and between the three age groups.

Table 115. Percentage currently taking aspirin regularly to prevent or treat heart disease

Currently taking aspirin regularly to prevent or treat heart disease									
Age group (years)	Men			Women			Both sexes		
	n	% taking aspirin	95% CI	n	% taking aspirin	95% CI	n	% taking aspirin	95% CI
18-29	280	1.7	0.0-3.4	367	0.0	0.0-0.0	647	0.8	0.0-1.6
30-44	405	0.6	0.0-1.2	609	1.6	0.6-2.6	1014	1.1	0.5-1.8
45-69	433	1.7	0.2-3.3	412	2.0	0.7-3.3	845	1.9	0.7-3.0
18-69	1118	1.3	0.5-2.0	1388	1.1	0.7-1.6	2506	1.2	0.7-1.7

Table 116 shows that overall, 0.2% (95%CI= 0.1-0.4) were currently taking statins regularly to prevent or treat heart disease. There were no statistically significant differences between men and women and between the three age groups.

Table 116. Percentage currently taking statins regularly to prevent or treat heart disease

Currently taking statins regularly to prevent or treat heart disease									
Age group (years)	Men			Women			Both sexes		
	n	% taking statins	95% CI	n	% taking statins	95% CI	n	% taking statins	95% CI
18-29	280	0.3	0.0-1.0	367	0.0	0.0-0.0	647	0.2	0.0-0.5
30-44	405	0.0	0.0-0.0	609	0.5	0.0-1.1	1014	0.3	0.0-0.6
45-69	433	0.2	0.0-0.6	412	0.5	0.0-1.1	845	0.3	0.0-0.7
18-69	1118	0.2	0.0-0.4	1388	0.3	0.0-0.6	2506	0.2	0.1-0.4

4.15. Lifestyle advice

In this section, survey respondents were asked whether they had been advised by a doctor or health worker to quit or not start on tobacco, to reduce salt in the diet, to eat at least five servings of fruit and/or vegetable, to reduce fat in the diet, to start or do more physical activity, and to maintain a healthy body weight or to lose weight.

Table 117 shows that overall, 25.3% (95%CI= 22.2-28.4) had been advised by a doctor or health worker to quit using tobacco – 27.5% (95%CI= 23.1-32.0) of men and 23.3% (95%CI= 19.6-26.9) of women.

There were no statistically significant differences between men and women and between the three age groups.

Table 117. Percentage advised by doctor or health worker to quit using tobacco or not to start

Advised by doctor or health worker to quit using tobacco or don't start									
Age group (years)	Men			Women			Both sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
18-29	280	27.5	20.1-34.9	367	25.7	20.6-30.8	647	26.5	21.7-31.4
30-44	405	30.6	23.2-38.0	609	22.8	18.1-27.4	1014	26.2	21.9-30.5
45-69	433	23.6	17.3-29.8	412	20.7	15.7-25.8	845	22.2	17.7-26.8
18-69	1118	27.5	23.1-32.0	1388	23.3	19.6-26.9	2506	25.3	22.2-28.4

Table 118 shows that overall, 24.9% (95%CI= 21.7-28.1) had been advised by a doctor or health worker to reduce salt in the diet – 23.6% (95%CI= 19.0-28.3) of men and 26.0% (95%CI= 22.3-29.7) of women.

There were no statistically significant differences between men and women and between the three age groups.

Table 118. Percentage advised by doctor or health worker to reduce salt in their diet

Advised by doctor or health worker to reduce salt in their diet									
Age group (years)	Men			Women			Both sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
18-29	280	20.4	14.3-26.5	367	24.4	18.6-30.2	647	22.5	18.1-26.9
30-44	405	25.8	17.5-34.1	609	25.6	20.9-30.4	1014	25.7	21.1-30.4
45-69	433	24.4	18.2-30.7	412	29.1	23.8-34.5	845	26.7	22.0-31.3
18-69	1118	23.6	19.0-28.3	1388	26.0	22.3-29.7	2506	24.9	21.7-28.1

Table 119 shows that overall, 32.5% (95%CI= 28.4-36.7) had been advised by a doctor or health worker to eat at least five servings of fruit and/or vegetables each day – 28.7% (95%CI= 23.5-33.8) of men and 36.0% (95%CI= 31.8-40.2) of women. There were no significant differences between men and women and between the three age groups.

Table 119. Percentage advised by doctor or health worker to eat at least five servings of fruit and/or vegetables each day

Advised by doctor or health worker to eat at least five servings of fruit and/or vegetables each day									
Age group (years)	Men			Women			Both sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
18-29	280	26.4	19.6-33.3	367	33.5	26.2-40.7	647	30.2	24.5-35.8
30-44	405	31.4	23.5-39.2	609	37.2	31.7-42.7	1014	34.6	29.7-39.6
45-69	433	27.7	20.5-34.9	412	37.3	31.2-43.5	845	32.3	26.7-37.9
18-69	1118	28.7	23.5-33.8	1388	36.0	31.8-40.2	2506	32.5	28.4-36.7

Table 120 shows that overall, 34.0% (95%CI= 29.8-38.3) had been advised by a doctor or health worker to reduce fat in the diet – 30.1% (95%CI= 24.5-35.7) of men and 37.5% (95%CI= 33.5-41.4) of women.

There were no significant differences between men and women and between the three age groups.

Table 120. Percentage advised by doctor or health worker to reduce fat in their diet

Advised by doctor or health worker to reduce fat in their diet									
Age group (years)	Men			Women			Both sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
18-29	280	27.5	20.1-35.0	367	32.1	25.1-39.0	647	29.9	24.3-35.6
30-44	405	31.4	23.4-39.3	609	40.3	34.9-45.7	1014	36.4	31.5-41.4
45-69	433	31.5	24.0-39.1	412	39.8	34.0-45.7	845	35.5	29.5-41.5
18-69	1118	30.1	24.5-35.7	1388	37.5	33.5-41.4	2506	34.0	29.8-38.3

Table 121 shows that overall, 35.7% (95%CI= 31.6-39.9) had been advised by a doctor or health worker to start or do more physical activity – 34.6% (95%CI= 28.7-40.5) of men and 36.7% (95%CI= 32.7-40.7) of women.

There were no statistically significant differences between men and women and between the three age groups.

Table 121. Percentage advised by doctor or health worker to start or do more physical activity

Advised by doctor or health worker to start or do more physical activity									
Age group (years)	Men			Women			Both sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
18-29	280	33.0	25.2-40.8	367	33.8	26.9-40.8	647	33.4	27.8-39.1
30-44	405	39.7	30.8-48.6	609	39.0	34.2-43.8	1014	39.3	33.9-44.7
45-69	433	29.8	22.9-36.7	412	36.6	30.0-43.3	845	33.0	27.3-38.8
18-69	1118	34.6	28.7-40.5	1388	36.7	32.7-40.7	2506	35.7	31.6-39.9

Table 122 shows that overall, 33.0% (95%CI= 28.9-37.2) had been advised by a doctor or health worker to maintain a healthy body weight or to lose weight.

More women than men were advised by the doctor or health worker to maintain a healthy body weight or to lose weight – 31.5% (95%CI= 25.7-37.3) of men and 34.4% (95%CI= 30.6-38.3) of women.

There was no significant difference between the three age groups.

Table 122. Percentage advised by doctor or health worker to maintain a healthy body weight or to lose weight

Advised by doctor or health worker to maintain a healthy body weight or to lose weight									
Age group (years)	Men			Women			Both sexes		
	n	% advised	95% CI	n	% advised	95% CI	n	% advised	95% CI
18-29	280	30.1	22.1-38.1	367	31.7	25.4-38.0	647	30.9	25.0-36.8
30-44	405	35.4	27.1-43.7	609	37.3	31.9-42.7	1014	36.5	31.0-41.9
45-69	433	28.0	21.7-34.4	412	32.9	27.1-38.6	845	30.3	25.2-35.4
18-69	1118	31.5	25.7-37.3	1388	34.4	30.6-38.3	2506	33.0	28.9-37.2

4.16. Cervical cancer screening

Table 123 shows that only 16.2% (95%CI= 12.2-20.1) of women had ever been screened for cervical cancer.

Table 123. Percentage of females ever tested for cervical cancer

Age group (years)	Women		
	n	% ever tested	95% CI
30-49	725	16.2	12.2-20.1

4.17. Mental health disorder

In this section, respondents were asked mental health disorder (K10) questions. The questions include how often they felt tired out for no good reason, nervous, hopeless, restless, depressed, sad or worthless.

Table 124 shows that 82.5% (95%CI= 78.3-86.87) of men were classified as well, 13.3% (95%CI= 9.8-16.8) were classified by score as having a mild mental disorder classified with severe mental disorder. There was no significant difference between the three age groups.

Table 124. Percentage of men in each mental health disorder category

Percentage in mental health disorder categories									
Age group (years)	Men								
	n	% likely to be well <20	95% CI	% Mild mental disorder 20-24	95% CI	% Moderate mental disorder 25-29	95% CI	% severe mental disorder ≥30	95% CI
18-29	280	84.7	79.2-90.1	13.3	7.7-18.8	1.8	0.4-3.1	0.3	0.0-0.8
30-44	405	80.9	72.6-89.2	13.5	7.0-20.1	5.4	0.0-11.3	0.2	0.0-0.7
45-69	432	82.1	76.9-87.2	13.0	8.7-17.3	3.5	1.8-5.2	1.4	0.0-2.9
18-69	1117	82.5	78.3-86.7	13.3	9.8-16.8	3.6	1.2-6.1	0.6	0.1-1.1

Table 125 shows that 79.9% (95%CI= 76.2-83.7) of women were classified as well, 13.4% (95%CI= 10.3-16.4) with mild mental disorder, 4.9% (95%CI= 3.4-6.5) with moderate mental disorder and 1.7% (95%CI= 0.9-2.6) with severe mental disorder. There was no significant difference between the three age groups.

Table 125. Percentage of women in each mental health disorder category

Percentage in mental health disorder categories									
Age group (years)	Women								
	n	% likely to be well <20	95% CI	% Mild mental disorder 20-24	95% CI	% Moderate mental disorder 25-29	95% CI	% severe mental disorder ≥30	95% CI
18-29	364	78.8	71.2-86.5	14.4	8.1-20.7	5.6	2.6-8.6	1.2	0.1-2.3
30-44	607	79.5	76.0-83.0	14.0	11.0-17.0	4.8	2.8-6.8	1.7	0.7-2.8
45-69	412	82.4	78.2-86.6	10.7	7.2-14.3	4.3	2.0-6.5	2.6	0.6-4.6
18-69	1383	79.9	76.2-83.7	13.4	10.3-16.4	4.9	3.4-6.5	1.7	0.9-2.6

Table 126 shows that overall, 81.1% (95%CI= 78.1-84.2) were classified as well, 13.3% (95%CI= 11.0-15.6) with a mild mental disorder, 4.3% (95%CI= 2.8-5.8) with a moderate mental disorder and 1.2% (95%CI= 0.6-1.7) classified with a severe mental disorder.

There were no statistically significant differences between men and women and between the three age groups.

Table 126. Percentage by mental health disorder categories, both sexes combined

Percentage in mental health disorder categories									
Age group (years)	Both sexes								
	n	% likely to be well <20	95% CI	% Mild mental disorder 20-24	95% CI	% Moderate mental disorder 25-29	95% CI	% severe mental disorder ≥30	95% CI
18-29	644	81.6	76.8-86.4	13.9	9.7-18.1	3.8	2.1-5.5	0.7	0.1-1.4
30-44	1012	80.1	75.8-84.4	13.8	10.4-17.1	5.1	2.2-7.9	1.1	0.4-1.7
45-69	844	82.2	78.5-86.0	11.9	8.8-15.0	3.9	2.5-5.2	2.0	0.8-3.2
18-69	2500	81.1	78.1-84.2	13.3	11.0-15.6	4.3	2.8-5.8	1.2	0.6-1.7

4.18. Oral health

Respondents were asked about the state of their teeth and gum, dentures, visits to the dentist, oral hygiene practices and problems they have because of the state of their teeth.

Table 127 shows that overall, most (89.1%, 95%CI= 86.6-91.5) had more than 20 natural teeth, 8.0% (95%CI= 6.0-10.1) had 10-19 natural teeth, 2.3% (95%CI= 1.5-3.0) had 1-9 natural teeth and 0.7% (95%CI= 0.3-1.1) had no natural teeth.

There was no statistically significant difference between men and women. For details on men and women, please see Appendix 2. There were, however, statistically significant differences between the three age groups. The proportion of Solomon Islanders with more than 20 natural teeth decreased with age – 97.2% (95%CI= 95.5-98.9) among those aged 18-29, 91.7% (95%CI= 88.2-95.1) among those aged 30-44 and 74.1% (95%CI= 68.7-79.6) among those aged 45-69. Correspondingly, the proportion of Solomon Islanders with fewer natural teeth (i.e. 0, 1-9 and 10-19) increased with age.

Table 127. Percentage with natural teeth, both sexes combined

Percentage 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
18-29	626	0.0	0.0-0.0	0.4	0.0-1.1	2.2	1.0-3.5	97.3	95.7-99.0
30-44	979	0.1	0.0-0.2	1.0	0.4-1.7	7.1	4.1-10.2	91.8	88.5-95.1
45-69	810	2.5	0.9-4.0	6.6	4.2-9.0	17.0	13.1-21.0	73.9	68.6-79.3
18-69	2415	0.7	0.3-1.1	2.3	1.5-3.0	8.0	6.0-10.1	89.1	86.6-91.5

Table 128 shows that 17.3% (95%CI= 14.5-20.2) of Solomon Islanders who have natural teeth self-reported that they had poor or very poor state of teeth.

There was no statistically significant difference between men and women. However, there were statistically significant differences between the three age groups. The proportion of Solomon Islanders who reported poor or very poor state of teeth increased with age – 1.6% (95%CI= 0.1-3.1) of those aged 18-29, 11.6% (95%CI= 9.2-14.0) of those aged 30-44 and 39.6% (95%CI= 33.5-45.6) of those aged 45-69 reported poor or very poor state of teeth.

Table 128. Percentage who reported poor or very poor state of teeth among those who had natural teeth

Percentage who reported poor or very poor state of teeth among those who had natural teeth									
Age group (years)	Men				Women			Both sexes	
	n	% reported poor or very poor state of teeth	95% CI		n	% reported poor or very poor state of teeth	95% CI	n	% reported poor or very poor state of teeth
18-29	165	1.5	0.0-3.7		254	1.7	0.0-3.3	419	1.6
30-44	280	6.5	3.7-9.4		470	14.9	11.3-18.5	750	11.6
45-69	370	35.7	23.8-47.6		361	43.8	37.0-50.6	731	39.6
18-69	815	15.8	10.0-21.6		1085	18.5	15.5-21.5	1900	17.3

Table 129 shows that 6.0% (95%CI= 4.9-7.0) of Solomon Islanders who have natural teeth self-reported that they had poor or very poor state of gums. There was no statistically significant difference between men and women. However, there were statistically significant differences between the three age groups.

Significantly more 45-69 year olds who had natural teeth reported poor or very poor state of gums (13.8%, 95%CI= 10.6-17.1) compared to those aged 30-44 (4.3%, 95%CI= 2.9-5.7) and 18-29 (1.8%, 95%CI= 0.5-3.1).

Table 129. Percentage who reported poor or very poor state of gums among those who had natural teeth

Percentage who have poor or very poor state of gums among those who had natural teeth									
Age group (years)	Men				Women			Both sexes	
	n	% reported poor or very poor state of gums	95% CI		n	% reported poor or very poor state of gums	95% CI	n	% reported poor or very poor state of gums
18-29	265	2.3	0.0-4.6		351	1.4	0.1-2.6	616	1.8
30-44	385	3.5	1.8-5.1		588	4.9	2.9-6.9	973	4.3
45-69	425	11.2	7.9-14.5		399	16.8	12.2-21.4	824	13.8
18-69	1075	5.4	4.1-6.7		1338	6.5	5.0-8.0	2413	6.0

Table 130 shows that overall, 4.2% (95%CI= 3.2-5.2) had removable dentures. There was no statistically significant difference between men and women though there is between the three age groups. Solomon Islanders aged 18-29 were less likely to have removable dentures (0.8%, 95%CI= 0.2-1.4) compared to those aged 30-44 (4.9%, 95%CI= 3.4-6.3) and 45-69 (7.4%, 95%CI= 5.0-9.9).

Among Solomon Islanders who had removable dentures, 53.9% (95%CI= 43.4-64.4) had an upper jaw denture and 37.1% (95%CI= 26.3-48.0) had a lower jaw denture. However, the number of respondents was too small to report any statistically significant differences between men and women and between the three age groups. For more details, please see Appendix 2.

Table 130. Percentage who had removable dentures

Percentage who had removable dentures											
Age group (years)	Men				Women				Both sexes		
	n	% who had removable dentures	95% CI		n	% who had removable dentures	95% CI		n	% who had removable dentures	95% CI
18-29	269	0.8	0.0-1.7		353	0.8	0.0-1.7		622	0.8	0.2-1.4
30-44	390	2.2	0.5-4.0		592	6.8	4.5-9.2		982	4.9	3.4-6.3
45-69	428	6.1	3.2-9.0		404	8.9	5.5-12.4		832	7.4	5.0-9.9
18-69	1087	2.9	1.9-3.9		1349	5.3	3.6-7.1		2436	4.2	3.2-5.2

Table 131 shows that overall, 23.0% (95%CI= 20.2-25.8) had experienced oral pain or discomfort during the past 12 months.

Overall, significantly fewer Solomon Islanders aged 18-29 experienced oral pain or discomfort during the past 12 months (16.1%, 95%CI= 12.4-19.7) than those aged 30-44 (26.1%, 95%CI= 22.2-30.0) and 45-69 (27.2%, 95%CI= 22.0-32.4).

There was no statistically significant difference between men and women overall though there were differences between the three age groups amongst men and women. Among men, two times more men aged 30-44 experienced oral pain or discomfort than those aged 18-29; and among women, significantly more women aged 45-69 experienced oral pain or discomfort than those aged 18-29.

Table 131. Percentage who had oral pain or discomfort during the past 12 months

Percentage who had oral pain or discomfort during the past 12 months											
Age group (years)	Men				Women				Both sexes		
	n	% had oral pain or discomfort	95% CI		n	% had oral pain or discomfort	95% CI		n	% had oral pain or discomfort	95% CI
18-29	280	13.0	8.9-17.2		368	18.8	13.2-24.4		648	16.1	12.4-19.7
30-44	405	25.5	17.5-33.5		609	26.6	23.2-30.0		1014	26.1	22.2-30.0
45-69	433	22.7	16.6-28.9		412	32.2	25.6-38.8		845	27.2	22.0-32.4
18-69	1118	20.6	16.5-24.7		1389	25.3	22.2-28.3		2507	23.0	20.3-25.8

Table 132 shows that overall, 8.3% (95%CI= 7.1-9.5) had seen a dentist during the past 12 months.

Significantly fewer Solomon Islanders aged 18-29 had seen a dentist during the past 12 months (5.0%, 95%CI= 3.4-6.7) than those aged 30-44 (9.7%, 95%CI= 7.8-11.4) and 45-69 (10.3%, 95%CI= 7.8-12.7).

There was no statistically significant difference between men and women.

Table 132. Percentage who had seen a dentist during the past 12 months

Percentage who had seen a dentist during the past 12 months											
Age group (years)	Men				Women				Both sexes		
	n	% hav- ing seen a dentist during the past 12 months	95% CI		n	% hav- ing seen a dentist during the past 12 months	95% CI		n	% hav- ing seen a dentist during the past 12 months	95% CI
18-29	280	3.8	1.2-6.4		368	6.1	3.7-8.5		648	5.0	3.4-6.7
30-44	405	7.6	5.2-10.0		609	11.3	8.7-13.8		1014	9.7	7.9-11.4
45-69	433	8.5	5.7-11.3		412	12.2	8.1-16.3		845	10.3	7.8-12.7
18-69	1118	6.6	5.1-8.2		1389	9.8	8.1-11.4		2507	8.3	7.1-9.5

Table 133 shows that more than half of Solomon Islanders (55.3%, 95%CI= 51.5-59.2) have never received dental care. Significantly more men (61.1%, 95%CI= 56.6-65.6) than women (50.2%, 95%CI= 45.6-54.8) have never received dental care. The proportion of Solomon Islanders who have never received dental care decreased with age – 67.0% (95%CI= 62.2-71.8) of 18-29 year olds, 53.0% (95%CI= 48.1-57.9) of 30-44 year olds and 44.0% (95%CI= 37.9-50.1) of 45-69 year olds.

Table 133. Percentage who had never received dental care

Percentage who had 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
18-29	280	71.2	65.8-76.7		368	63.3	56.4-70.1		648	67.0	62.2-71.8
30-44	405	60.9	53.0-68.8		609	46.9	40.9-52.8		1014	53.0	48.1-57.9
45-69	433	49.7	40.3-59.2		412	37.6	30.2-44.9		845	44.0	37.9-50.1
18-69	1118	61.1	56.6-65.6		1389	50.2	45.6-54.8		2507	55.3	51.5-59.2

Table 134 shows that majority 74.4% (95%CI= 69.8-78.9) of Solomon Islanders who had ever visited a dentist indicated that the main reason for their last visit was pain or trouble with the teeth or gum. The remaining 14.5% (95%CI= 10.6-18.4) were for follow-up treatment, 5.3% (95%CI= 3.6-7.1) for routine check-up, 3.7% (95%CI= 2.3-5.0) for other reason and 2.2% (95%CI= 1.2-3.2) for consultation or advice.

There were no statistically significant differences between men and women and between the three age groups.

Table 134. Main reason for last visit to the dentist among those who ever visited one

Main reason for last visit to the dentist among those who ever visited one											
Age group (yrs)	Both sexes										
	n	% Consultation/advice	95% CI	% Pain / trouble with teeth or gums	95% CI	% Follow-up treatment	95% CI	% Routine check-up treatment	95% CI	% Other	95% CI
18-29	215	1.0	0.0-2.5	75.2	67.1-83.3	16.7	8.7-24.6	4.2	0.8-7.5	2.9	0.4-5.5
30-44	487	2.7	1.0-4.3	74.9	69.2-80.6	13.5	9.3-17.7	5.9	3.3-8.4	3.1	1.6-4.6
45-69	483	2.4	0.9-3.8	73.1	67.4-78.7	14.1	9.9-18.3	5.5	3.0-7.9	5.0	2.3-7.7
18-69	1185	2.2	1.2-3.2	74.4	69.8-78.9	14.5	10.6-18.4	5.3	3.6-7.1	3.7	2.3-5.0

Table 135 shows that overall, 64.0% (95%CI= 60.3-67.6) of Solomon Islanders clean their teeth at least once daily. Significantly more men (69.1%, 95%CI= 60.3-67.6) than women (59.3%, 95%CI= 55.2-63.5) clean their teeth at least once daily.

Significantly fewer Solomon Islanders aged 18-29 (55.1%, 95%CI= 50.4-59.9) cleaned their teeth less than daily compared to those aged 30-44 (65.0%, 95%CI= 60.3-69.6) and 45-69 (73.7%, 95%CI= 68.2-79.3).

Table 135. Percentage who cleaned their teeth at least once a day

Percentage who cleaned their teeth at least once a day									
Age group (years)	Men			Women			Both sexes		
	n	% cleaned teeth at least daily	95% CI	n	% cleaned teeth at least daily	95% CI	n	% cleaned teeth at least daily	95% CI
18-29	280	60.3	53.0-67.6	368	50.6	44.4-56.7	648	55.1	50.4-59.9
30-44	405	69.8	63.2-76.4	609	61.2	55.3-67.1	1014	65.0	60.3-69.6
45-69	433	78.5	72.8-84.2	412	68.4	61.7-75.2	845	73.7	68.2-79.3
18-69	1118	69.1	64.7-73.6	1389	59.3	55.2-63.5	2507	64.0	60.3-67.6

Table 136 shows that overall, 12.3% (95%CI= 9.7-14.8) of Solomon Islanders cleaned their teeth at least twice a day. Significantly more Solomon Islanders aged 18-29 cleaned their teeth at least twice a day (15.9%, 95%CI= 11.9-20.0) compared to those aged 45-69 (8.2%, 95%CI= 4.6-11.7) – twice the proportion.

There was no statistically significant difference between men and women.

Table 136. Percentage who cleaned their teeth at twice a day

Percentage who cleaned their teeth twice a day									
Age group (years)	Men			Women			Both sexes		
	n	% cleaned teeth twice a day	95% CI	n	% cleaned teeth twice a day	95% CI	n	% cleaned teeth twice a day	95% CI
18-29	280	13.5	8.3-18.7	368	18.1	12.9-23.4	648	15.9	11.9-20.0
30-44	405	11.7	6.4-17.1	609	11.9	7.5-16.3	1014	11.8	8.4-15.2
45-69	433	4.9	2.4-7.5	412	11.7	6.0-17.5	845	8.2	4.6-11.7
18-69	1118	10.4	7.6-13.2	1389	13.9	10.7-17.2	2507	12.3	9.7-14.8

Table 137 shows that among those who cleaned their teeth, 61.2% use toothpaste (95%CI= 56.3-66.2). Significantly more women who cleaned their teeth use toothpaste (67.3%, 95%CI= 62.1-72.6) compared to men (53.1%, 95%CI= 47.2-59.0); and fewer 45-69 year olds who cleaned their teeth use toothpaste (53.3%, 95%CI= 45.7-60.9) than those aged 18-29 (67.9%, 95%CI= 61.7-74.2).

Table 137. Percentage who used toothpaste among those who cleaned their teeth

Percentage who used toothpaste among those who cleaned their teeth									
Age group (years)	Men			Women			Both sexes		
	n	% used toothpaste	95% CI	n	% used toothpaste	95% CI	n	% used toothpaste	95% CI
18-29	207	59.2	51.0-67.4	322	74.6	67.7-81.4	529	67.9	61.7-74.2
30-44	280	51.5	42.5-60.6	506	64.8	58.9-70.7	786	59.5	53.9-65.1
45-69	267	46.6	37.1-56.1	286	59.6	50.9-68.3	553	53.3	45.7-60.9
18-69	754	53.1	47.2-59.0	1114	67.3	62.1-72.6	1868	61.2	56.3-66.2

Table 138 shows that among those who used tooth paste when cleaning their teeth, half (55.7%, 95%CI= 50.6-60.8) used toothpaste containing fluoride – significantly more women (61.4%, 95%CI= 55.3-66.5) than men (48.3%, 95%CI= 42.3-54.3) did so; and more 18-29 year olds did so (63.0%, 95%CI= 55.9-70.1) than 45-69 year olds (45.6%, 95%CI= 38.7-52.4).

Table 138. Percentage who used toothpaste containing fluoride among those using toothpaste

Percentage who used toothpaste containing fluoride among those using toothpaste											
Age group (years)	Men				Women				Both sexes		
	n	% used toothpaste containing fluoride	95% CI		n	% used tooth- paste containing fluoride	95% CI		n	% used toothpaste containing fluoride	95% CI
18-29	202	55.2	47.0-63.5		304	69.2	61.2-77.2		506	63.0	55.9-70.1
30-44	271	46.3	37.1-55.4		484	60.4	54.1-66.6		755	54.7	48.9-60.5
45-69	255	41.1	32.6-49.7		268	49.9	40.7-59.0		523	45.6	38.7-52.4
18-69	728	48.3	42.3-54.3		1056	61.4	55.9-67.0		1784	55.7	50.6-60.8

Table 139 shows that among those who cleaned their teeth, the most common tool used was toothbrush (60.2%, 95%CI= 55.2-65.2) followed by fine sand (45.8%, 95%CI= 40.7-50.9) then wooden toothpicks (11.4%, 95%CI= 9.0-13.8), other (7.0%, 95%CI= 4.9-9.1), charcoal or miswak (4.4%, 95%CI= 3.1-5.7), thread or dental floss (2.4%, 95%CI= 1.4-3.3), plastic toothpicks (2.9%, 95%CI= 1.1-4.7) and coconut husks (2.3%, 95%CI= 1.1-3.4).

There were no statistically significant differences between the three age groups and between men and women except for the proportion who used toothbrush. Significantly more women used toothbrush to clean their teeth (65.7%, 95%CI= 60.3-71.1) than men (52.9%, 95%CI= 47.0-58.8).

Table 139. Percentage who used various tools to clean their teeth, both sexes combined

Percentage who used various tools to clean teeth									
Age group (years)	Both sexes								
	n	% Toothbrush	95% CI	n	% Wooden toothpicks	95% CI	n	% Plastic toothpicks	95% CI
18-29	529	65.7	59.4-71.9	529	11.8	8.3-15.4	529	2.3	0.3-4.3
30-44	786	59.0	53.5-64.5	786	11.8	8.1-15.5	786	3.9	1.2-6.5
45-69	553	53.2	45.8-60.6	553	9.8	6.6-13.0	553	1.9	0.0-3.9
18-69	1868	60.2	55.2-65.2	1868	11.4	9.0-13.8	1868	2.9	1.1-4.7

Percentage who used various tools to clean teeth (continued)									
Age group (years)	Both sexes								
	n	% Thread (dental floss)	95% CI	n	% Charcoal	95% CI	n	% Chew-stick/ miswak	95% CI
18-29	529	2.3	0.8-3.8	529	5.4	2.9-7.9	529	3.1	1.5-4.8
30-44	786	2.9	1.5-4.4	786	4.0	2.5-5.5	786	4.3	2.4-6.1
45-69	553	1.4	0.2-2.6	553	3.6	1.4-5.9	553	2.8	0.7-4.9
18-69	1868	2.4	1.4-3.3	1868	4.4	3.1-5.7	1868	3.6	2.4-4.7

Percentage who used various tools to clean teeth (continued)									
Age group (years)	Both sexes								
	n	%Other	95% CI	n	% Fine Sand	95% CI	n	% Coconut husk	95% CI
18-29	529	7.4	3.8-10.9	529	47.4	41.3-53.5	529	2.5	0.8-4.2
30-44	785	7.1	4.9-9.3	785	45.2	37.6-52.7	785	2.3	0.8-3.7
45-69	553	6.2	3.1-9.2	553	44.4	37.7-51.1	553	1.9	0.3-3.5
18-69	1867	7.0	4.9-9.1	1867	45.8	40.7-50.9	1867	2.3	1.1-3.4

Table 140 shows that overall, 12.6% (95%CI= 10.3-14.9) had experienced difficulty in chewing their food during the past 12 months because of the state of their teeth.

Significantly fewer younger Solomon Islanders aged 18-29 experienced difficulty in chewing their food (5.9%, 95%CI= 3.7-8.1) compared to 30-44 year olds (13.2%, 95%CI= 9.8-16.6) and 45-69 year olds (20.4%, 95%CI= 15.9-24.9). There was no statistically significant difference between men and women.

Table 140. Percentage who had experienced difficulty in chewing foods during the past 12 months

Percentage who had 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
18-29	280	7.2	3.7-10.7	368	4.8	2.5-7.1	648	5.9	3.7-8.1
30-44	405	11.5	4.9-18.1	608	14.5	11.7-17.3	1013	13.2	9.8-16.6
45-69	433	18.1	13.1-23.1	411	23.0	17.3-28.6	844	20.4	15.9-24.9
18-69	1118	12.0	8.8-15.1	1387	13.2	11.0-15.4	2505	12.6	10.3-14.9

Table 141 shows that overall, 7.7% (95%CI= 5.5-10.0) had experienced difficulty with speech or had trouble pronouncing words during the past 12 months as a result of the state of their teeth or mouth.

Significantly fewer Solomon Islanders aged 18-29 experienced such difficulties (2.1%, 95%CI= 1.1-3.1) compared to 30-44 year olds (8.2%, 95%CI= 4.4-12.1) and 45-69 year olds (14.3%, 95%CI= 9.8-18.8).

There was no statistically significant difference between men and women.

4.19. Physical measurements

4.19.1 Height and Weight

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 (metres²). 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

Table 141 shows that the mean height of men was 164.5 cm (95%CI= 163.7-165.2) and 155.4 cm (95%CI= 154.6-156.1) for women.

There was statistically significant difference in mean height between men and women but none between the three age groups.

Table 141 Mean height (cm)

Mean height (cm)						
Age group (years)	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
18-29	175	164.8	163.7-166.0	222	156.1	155.1-157.1
30-44	311	164.8	163.3-166.3	447	155.9	155.2-156.6
45-69	352	163.6	162.7-164.6	339	153.6	151.9-155.3
18-69	838	164.5	163.7-165.2	1008	155.4	154.6-156.1

Table 142 shows that the mean weight of men was 71.6 kg (95%CI= 70.1-73.2) and 66.1 kg (95%CI= 64.9-67.3) for women.

There was statistically significant difference in mean weight between men and women but none between the three age groups.

Table 142. Mean weight (kg)

Mean weight (kg)							
Age group (years)	Men				Women		
	n	Mean	95% CI		n	Mean	95% CI
18-29	175	69.0	66.3-71.8		222	62.7	61.1-64.3
30-44	311	72.7	71.0-74.4		447	68.6	66.6-70.6
45-69	352	72.8	70.5-75.0		339	65.5	63.7-67.4
18-69	838	71.6	70.1-73.2		1008	66.1	64.9-67.3

4.19.2 Body Mass Index and Weight Categories

Table 143 shows that the mean BMI overall was 26.9 kg/m² (95%CI= 26.5-27.2). There were statistically significant differences between men and women and between the three age groups. Women had a higher mean BMI (27.3, 95%CI= 26.8-27.8) than men (26.3, 95%CI= 25.9-26.8). Younger Solomon Islanders aged 18-29 years (25.5, 95%CI= 25.0-25.9) had significantly lower BMI than those aged 45-69 years (27.4, 95%CI= 26.9-27.9) and 30-44 years (27.5, 95%CI= 26.9-28.1).

Table 143. Mean BMI (kg/m²)

Mean BMI (kg/m ²)											
Age group (years)	Men				Women				Both sexes		
	n	Mean	95% CI		n	Mean	95% CI		n	Mean	95% CI
18-29	175	25.3	24.5-26.2		221	25.6	24.9-26.3		396	25.5	25.0-25.9
30-44	308	26.5	26.0-26.9		446	28.1	27.4-28.8		754	27.4	26.9-27.9
45-69	351	27.1	26.3-27.8		335	28.0	27.1-28.9		686	27.5	26.9-28.1
18-69	834	26.3	25.9-26.8		1002	27.3	26.8-27.8		1836	26.9	26.5-27.2

Table 144 shows that less than half of Solomon Islander men (41.7%, 95%CI= 36.3-47.2) were classified as having normal weight, followed by 39.1% (95%CI= 34.2-44.0) as overweight, 18.1% (95%CI= 15.0-21.3) as obese, and 1.1% (95%CI= 0.2-1.9) as underweight.

Significantly more Solomon Islander men aged 18-29 were classified as normal weight compared to those aged 30-44 (37.9%, 95%CI= 30.3-45.6) and 45-69 (35.3%, 95%CI= 27.7-42.8).

There were no statistically significant differences between the three age groups for the other classifications.

Table 144. Percentage of men in the specific BMI classifications

BMI classifications									
Age group (years)	Men								
	n	% Underweight (BMI <18.5)	95% CI	% Normal weight (BMI 18.5-24.9)	95% CI	% Overweight (BMI 25.0-29.9)	95% CI	% Obese (BMI ≥30.0)	95% CI
18-29	175	1.5	0.0-3.4	53.6	45.7-61.4	33.2	25.9-40.5	11.7	5.8-17.7
30-44	308	0.1	0.0-0.3	37.9	30.3-45.6	42.5	33.3-51.7	19.4	14.7-24.2
45-69	351	1.8	0.0-3.9	35.3	27.7-42.8	40.4	33.9-46.9	22.5	17.3-27.7
18-69	834	1.1	0.2-1.9	41.7	36.3-47.2	39.1	34.2-44.0	18.1	15.0-21.3

Table 145 shows that 36.0% (95%CI= 31.9-40.2) of Solomon Islander women were classified as normal weight, 34.3% (95%CI= 30.0-38.5) as overweight, 27.0% (95%CI= 23.2-30.9) as obese and 2.4% (95%CI= 1.2-3.5) as underweight.

Significantly more Solomon Islander women aged 18-29 were classified as normal weight compared to those aged 30-44 (32.7%, 95%CI= 27.6-34.9) and 45-69 (28.9%, 95%CI= 22.9-34.9). Correspondingly, significantly more women aged 30-44 (32.9%, 95%CI= 27.5-38.4) and 45-69 (29.0%, 95%CI= 23.6-34.4) were classified as obese than those aged 18-29 (16.5%, 95%CI= 9.8-23.1).

There were no statistically significant differences between the three age groups for the other classifications.

Table 145. Percentage of women in the specific BMI classifications

Age group (years)	BMI classifications								
	Women								
	n	% Under-weight (BMI <18.5)	95% CI	% Normal weight (BMI 18.5-24.9)	95% CI	% Overweight (BMI 25.0-29.9)	95% CI	% Obese (BMI ≥30.0)	95% CI
18-29	221	2.3	0.6-4.0	47.3	39.4-55.2	33.9	26.7-41.2	16.5	9.8-23.1
30-44	446	1.2	0.0-2.4	32.7	27.6-37.8	33.1	27.1-39.1	32.9	27.5-38.4
45-69	335	4.4	1.9-7.0	28.9	22.9-34.9	37.7	31.2-44.2	29.0	23.6-34.4
18-69	1002	2.4	1.2-3.5	36.0	31.9-40.2	34.6	30.3-38.8	27.0	23.2-30.9

Table 146 shows that overall, 38.7% (95%CI= 35.3-42.2) were classified as normal weight, 36.7% (95%CI= 33.6-39.8) as overweight, 22.8% (95%CI= 20.3-25.4) as obese and 1.8% (95%CI= 0.8-2.7) as underweight. Significantly more Solomon Islanders aged 18-29 were classified as normal weight (50.3%, 95%CI= 45.0-55.6) compared to those aged 30-44 (35.0%, 95%CI= 30.6-39.4) and 45-69 (32.2%, 95%CI= 26.9-37.4). Correspondingly, significantly more women aged 30-44 (27.0%, 95%CI= 22.6-31.4) and 45-69 (25.6%, 95%CI= 21.7-29.6) were classified as obese than those aged 18-29 years (14.2%, 95%CI= 10.5-17.9).

A significantly higher proportion of women than men were classified as obese – 27.0% (95%CI= 23.2-30.9) of women and 18.1% (95%CI= 15.0-21.3) of men. There were no statistically significant differences between men and women for the other BMI categories (compare tables 152 and 153).

Table 146. Percentage in the specific BMI classifications, both sexes combined

Age group (years)	BMI classifications								
	Both sexes								
	n	% Under-weight (BMI <18.5)	95% CI	% Normal weight (BMI 18.5-24.9)	95% CI	% Overweight (BMI 25.0-29.9)	95% CI	% Obese (BMI ≥30.0)	95% CI
18-29	396	1.9	0.7-3.1	50.3	45.0-55.6	33.6	28.9-38.3	14.2	10.5-17.9
30-44	754	0.7	0.0-1.5	35.0	30.6-39.4	37.2	31.4-43.1	27.0	22.6-31.4
45-69	686	3.1	1.6-4.6	32.2	26.9-37.4	39.1	34.4-43.8	25.6	21.7-29.6
18-69	1836	1.8	0.8-2.7	38.7	35.3-42.2	36.7	33.6-39.8	22.8	20.3-25.4

Table 147 shows that overall, 59.5% (95%CI= 55.7-63.3) were classified as overweight (BMI≥25).

Overweight prevalence was significantly higher among older Solomon Islanders aged 30-44 (64.3%, 95%CI= 59.7-68.8) and 45-69 (64.7%, 95%CI= 59.0-70.5) than those aged 18-29 years (47.8%, 95%CI= 42.2-53.5).

There was no significant difference between men and women.

Table 147. Percentage classified as overweight (BMI \geq 25)

Age group (years)	BMI \geq 25								
	Men			Women			Both sexes		
	n	% BMI \geq 25	95% CI	n	% BMI \geq 25	95% CI	n	% BMI \geq 25	95% CI
18-29	175	45.0	36.3-53.7	221	50.4	42.4-58.5	396	47.8	42.2-53.5
30-44	308	62.0	54.3-69.6	446	66.1	61.0-71.1	754	64.3	59.7-68.8
45-69	351	62.9	55.1-70.7	335	66.7	60.1-73.3	686	64.7	59.0-70.5
18-69	834	57.2	51.3-63.1	1002	61.6	57.2-66.0	1836	59.5	55.7-63.3

4.19.3 Waist and hip circumference

Waist circumference is a measure of central obesity and a measure of the risk of cardiovascular diseases. The WHO cut-off points for increased risk of NCDs are: waist circumference \geq 102cm for men and \geq 88cm for women; waist-hip ratio of \geq 0.90 for men and \geq 0.85 for women.

Table 148 shows that the mean waist circumference of men was 86.2 cm (95%CI= 84.7-87.7) and 86.4 cm (95%CI= 84.9-87.9) for women. There was no statistically significant difference in mean waist circumference between men and women.

Younger men aged 18-29 had a significantly lower mean waist circumference (81.4 cm, 95%CI= 79.3-83.4) than older men aged 30-44 (87.2 cm, 95%CI= 84.9-89.4) and 45-69 (89.5 cm, 95%CI= 87.4-91.5). Younger women aged 18-29 also had a significantly lower mean waist circumference (81.6 cm, 95%CI= 79.5-83.7) than older women aged 30-44 (88.2 cm, 95%CI= 86.4-89.9) and 45-69 (88.8 cm, 95%CI= 86.7-90.9).

Table 148. Mean waist circumference (cm)

Mean waist circumference (cm)						
Age group (years)	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
18-29	175	81.4	79.3-83.4	220	81.6	79.5-83.7
30-44	308	87.2	84.9-89.4	445	88.2	86.4-89.9
45-69	352	89.5	87.4-91.5	337	88.8	86.7-90.9
18-69	835	86.2	84.7-87.7	1002	86.4	84.9-87.9

Table 149 shows that the mean hip circumference of women was 98.1 cm (95%CI= 97.0-99.2) and 94.9 cm (95%CI= 93.6-96.3) for men. Women had significantly higher mean hip circumference than men.

Among men, those aged 45-69 had significantly higher mean hip circumference (96.2 cm, 95%CI= 94.4-98.0) than those aged 18-29 (92.6 cm, 95%CI= 90.8-94.4). Among women, those aged 30-44 had significantly higher mean hip circumference (99.5 cm, 95%CI= 97.8-101.1) than those aged 18-29 (95.9 cm, 95%CI= 94.5-97.3).

Table 149. Mean hip circumference (cm)

Hip circumference (cm)						
Age group (years)	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
18-29	175	92.6	90.8-94.4	220	95.9	94.5-97.3
30-44	308	95.7	93.3-98.1	445	99.5	97.8-101.1
45-69	352	96.2	94.4-98.0	337	98.4	96.6-100.2
18-69	835	94.9	93.6-96.3	1002	98.1	97.0-99.2

Table 150 shows that the mean waist-hip ratio of men and women was the same (0.9, 95%CI= 0.9-0.9), with no significant differences between men and women and between the three age groups.

Table 150. Mean waist-hip ratio

Mean waist / hip ratio							
Age group (years)	Men				Women		
	n	Mean	95% CI		n	Mean	95% CI
18-29	175	0.9	0.9-0.9		220	0.9	0.8-0.9
30-44	308	0.9	0.9-0.9		445	0.9	0.9-0.9
45-69	352	0.9	0.9-0.9		337	0.9	0.9-0.9
18-69	835	0.9	0.9-0.9		1002	0.9	0.9-0.9

4.19.4 Blood pressure

As part of the STEP 2 protocol, survey participants had their blood pressure measured. Respondents were also asked whether they have ever had their blood pressure measured by a doctor or other health worker, whether they have ever been told that they have high blood pressure, whether they have been told in the last 12 months, whether they were currently receiving any treatment for raised blood pressure, and whether they have sought treatment from a traditional healer.

The STEPS protocol considers those of having a raised blood pressure if they have:

- a mean systolic blood pressure (SBP) of ≥ 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 (DBP) of ≥ 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 respondents 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 151 shows that overall, the mean systolic blood pressure was 122.4mm Hg (95%CI= 121.0-123.9).

Solomon Islanders aged 45-69 had a significantly higher mean systolic blood pressure (132.6 mmHg, 95%CI= 129.9-135.3) than younger ones aged 18-29 (116.9 mmHg, 95%CI= 115.2-118.6) and 30-44 years (119.5 mmHg, 95%CI= 118.0-121.0).

There was no statistically significant difference between men and women.

Table 151. Mean systolic 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
18-29	175	120.1	118.0-122.1		237	114.3	112.1-116.4		412	116.9	115.2-118.6
30-44	311	120.4	118.5-122.4		463	118.8	116.5-121.0		774	119.5	118.0-121.0
45-69	356	130.8	127.5-134.1		342	134.5	131.0-138.0		698	132.6	129.9-135.3
18-69	842	123.6	122.0-125.3		1042	121.4	119.4-123.4		1884	122.4	121.0-123.9

Table 152 shows that overall, the mean diastolic blood pressure was 77.9 mmHg (95%CI= 76.7-79.0).

Solomon Islanders aged 45-69 had a significantly higher mean diastolic blood pressure (81.9 mmHg, 95%CI= 79.1-82.8) compared to younger ones aged 18-29 (75.1 mmHg, 95%CI= 73.7-76.5) and 30-44 years (77.8 mmHg, 95%CI= 76.6-79.0). There was no statistically significant difference between men and women.

Table 152. Mean diastolic blood pressure

Mean diastolic blood pressure (mmHg)									
Age group (years)	Men			Women			Both sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-29	175	74.1	72.4-75.8	237	76.0	74.4-77.6	412	75.1	73.7-76.5
30-44	311	77.3	75.8-78.8	463	78.2	76.6-79.8	774	77.8	76.6-79.0
45-69	356	79.1	77.3-80.9	342	82.9	80.5-85.3	698	80.9	79.1-82.8
18-69	842	76.9	75.7-78.1	1042	78.7	77.3-80.1	1884	77.9	76.7-79.0

Table 153 shows that overall, 18.6% (95%CI= 15.7-21.5), excluding those on medication, had raised blood pressure of SBP \geq 140 and/or DBP \geq 90 mmHg.

Significantly more Solomon Islanders aged 45-69 had raised blood pressure (33.5%, 95%CI= 28.2-38.7) compared to younger ones aged 18-29 (10.6%, 95%CI= 6.0-15.3) and 30-44 (14.4%, 95%CI= 10.8-18.0). There was no statistically significant difference between men and women.

Table 153. Percentage with raised blood pressure SBP \geq 140 and/or DBP \geq 90 mmHg, excluding those on medication

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
18-29	174	8.4	3.5-13.2	235	12.5	6.0-19.0	409	10.6	6.0-15.3
30-44	309	12.0	7.7-16.2	459	16.2	11.0-21.4	768	14.4	10.8-18.0
45-69	350	29.3	23.5-35.1	326	38.1	31.0-45.2	676	33.5	28.2-38.7
18-69	833	16.4	13.5-19.2	1020	20.5	16.7-24.3	1853	18.6	15.7-21.5

Table 154 shows that 19.6% (95%CI= 16.6-22.7) overall had raised blood pressure of SBP \geq 140 and/or DBP \geq 90 mmHg or were currently on medication for raised blood pressure.

Significantly more Solomon Islanders aged 45-69 (35.2%, 95%CI= 30.8-41.5) had raised blood pressure or were currently on medication compared to those aged 18-29 (11.1%, 95%CI= 6.5-15.8) and 30-44 (15.1%, 95%CI= 11.5-18.8).

There was no significant difference between men and women.

Table 154.. Percentage with raised blood pressure SBP \geq 140 and/or DBP \geq 90 mmHg or were currently on medication for 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
18-29	175	8.9	4.0-13.7	237	13.0	6.6-19.5	412	11.1	6.5-15.8
30-44	311	12.8	8.6-17.1	463	16.9	11.5-22.3	774	15.1	11.5-18.8
45-69	356	30.3	24.6-36.0	342	40.4	33.2-47.6	698	35.2	29.8-40.5
18-69	842	17.2	14.4-20.0	1042	21.7	17.6-25.8	1884	19.6	16.6-22.7

Table 155 shows that 5.9% (95%CI= 4.4-7.4) overall, excluding those on medication, had raised blood pressure of SBP \geq 160 and/or DBP \geq 100 mmHg.

The proportion of Solomon Islanders who had raised blood pressure increased with age – 0.9% (95%CI= 0.1-1.7) of those aged 18-29, 3.6% (95%CI= 2.1-5.1) of those aged 30-44 and 14.8% (95%CI= 11.0-18.6) of those aged 45-69. There was no statistically significant difference between men and women.

Table 155. Percentage with raised blood pressure SBP \geq 160 and/or DBP \geq 100 mmHg, excluding those on medication for raised blood pressure

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
18-29	174	0.8	0.0-1.9	235	1.0	0.0-2.1	409	0.9	0.1-1.7
30-44	309	2.6	0.7-4.5	459	4.4	1.9-6.8	768	3.6	2.1-5.1
45-69	350	10.7	6.7-14.8	326	19.3	13.4-25.2	676	14.8	11.0-18.6
18-69	833	4.6	3.2-6.1	1020	7.0	4.8-9.3	1853	5.9	4.4-7.4

Table 156 shows that 7.1% (95%CI= 5.4-8.8) overall had raised blood pressure SBP \geq 160 and/or DBP \geq 100 mmHg or were currently on medication for raised blood pressure.

The proportion of Solomon Islanders who had raised blood pressure or were currently on medication for raised blood pressure increased with age – 1.4% (95%CI= 0.4-2.5) among those aged 18-29, 4.5% (95%CI= 2.8-6.2) among those aged 30-44 and 17.0% (95%CI= 13.1-20.9) among those aged 45-69.

There was no statistically significant difference between men and women.

Table 156. Percentage with raised blood pressure SBP \geq 160 and/or DBP \geq 100 mmHg or currently on medication for raised blood pressure

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
18-29	175	1.3	0.0-2.8	237	1.5	0.0-3.1	412	1.4	0.4-2.5
30-44	311	3.6	1.4-5.7	463	5.2	2.5-7.9	774	4.5	2.8-6.2
45-69	356	12.0	8.0-16.0	342	22.3	16.4-28.3	698	17.0	13.1-20.9
18-69	842	5.6	4.0-7.2	1042	8.4	5.9-11.0	1884	7.1	5.4-8.8

Table 157 shows that among men who had raised blood pressure of SBP \geq 140 and/or DBP \geq 90 or were currently on medication, majority (94.2%, 95%CI= 90.3-98.1) were not on medication and had raised blood pressure of SBP \geq 140 and/or DBP \geq 90; 4.2% (95%CI= 0.7-7.6) were on medication and had SBP $<$ 140 and DBP $<$ 90; and 1.7% (95%CI= 0.0-3.8) were on medication and had raised blood pressure of SBP \geq 140 and/or DBP \geq 90.

There was no difference between the three age groups.

Table 157. Percentage of males with treated and/or controlled raised blood pressure

Males 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
18-29	15	6.1	0.0-18.3	0.0	0.0-0.0	93.9	81.7-100.0
30-44	50	4.3	0.0-12.5	3.4	0.0-10.2	92.3	81.9-100.0
45-69	114	3.6	0.0-7.2	1.2	0.0-2.8	95.2	91.4-99.1
18-69	179	4.2	0.7-7.6	1.7	0.0-3.8	94.2	90.3-98.1

Table 158 shows that among women who had raised blood pressure of SBP \geq 140 and/or DBP \geq 90 or were currently on medication, majority (93.1%, 95%CI= 90.0-96.3) were not on medication and had raised blood pressure of SBP \geq 140 and/or DBP \geq 90; 4.6% (95%CI= 1.8-7.4) were on medication and had raised blood pressure of SBP \geq 140 and/or DBP \geq 90; and 2.3% (95%CI= 0.6-4.0) were on medication and had SBP $<$ 140 and DBP $<$ 90.

There was no statistically significant difference between the three age groups.

Table 158. Percentage of females with treated and/or controlled raised blood pressure

Females 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≥140 and/or DBP≥90	95% CI	% Not on medication and SBP≥140 and/or DBP≥90	95% CI
18-29	22	1.9	0.0-5.7	2.4	0.0-7.4	95.7	89.3-100.0
30-44	80	1.2	0.0-3.2	3.8	0.0-8.9	95.0	90.0-100.0
45-69	139	3.2	0.4-6.1	6.0	1.2-10.8	90.8	85.3-96.2
18-69	241	2.3	0.6-4.0	4.6	1.8-7.4	93.1	90.0-96.3

Table 159 shows that among those who had raised blood pressure of SBP≥140 and/or DBP≥90 or were currently on medication, majority (93.6%, 95%CI= 91.4-95.7) were not on medication and had raised blood pressure of SBP≥140 and/or DBP≥90; 3.4% (95%CI= 1.5-5.3) were on medication and had raised blood pressure of SBP≥140 and/or DBP≥90; and 3.0% (95%CI= 1.4-4.7) were on medication and had SBP<140 and DBP<90.

There were no significant differences between men and women and between the three age groups.

Table 159. Percentage with treated and/or controlled raised blood pressure, both sexes combined

Percentage with treated and/or controlled raised blood pressure among those who had raised blood pressure or were currently on medication							
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
18-29	37	3.4	0.0-8.5	1.5	0.0-4.6	95.0	89.1-100.0
30-44	130	2.3	0.0-5.6	3.7	0.0-7.7	94.0	89.1-98.9
45-69	253	3.4	1.2-5.6	3.9	1.1-6.6	92.8	89.5-96.0
18-69	420	3.0	1.4-4.7	3.4	1.5-5.3	93.6	91.4-95.7

Biochemical measurements

4.20.1 Fasting blood glucose and diabetes

To measure fasting blood sugar levels, capillary whole blood was drawn using the finger prick method. Non-fasting participants were excluded for these measures in STEP 3. Estimates of elevated blood glucose prevalence were calculated based on the capillary whole blood glucose test results and by following the WHO guidelines for defining elevated fasting plasma blood glucose:

- Fasting capillary plasma equivalent value of glucose was ≥7.0 mmol/L (126 mg/dl) AND whether or not they have previously been told by a health worker that they have diabetes.

OR

- Normal capillary plasma equivalent value of glucose was <7.0 mmol/L AND were currently receiving anti-diabetes medication prescribed by a health worker.

Note that these calculated values do not reflect diabetes rates. A second raised fasting blood glucose result is required to confirm diagnosis. As such, the term elevated blood glucose is used in this report. 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 160 shows that the mean fasting plasma glucose overall was 6.0 mmol/L (95%CI= 5.9-6.2). Solomon Islanders aged 45-69 had a significantly higher mean fasting blood (plasma equivalent) glucose (6.5 mmol/L,

95%CI= 6.2-6.8) than younger ones aged 18-29 (5.7 mmol/L, 95%CI= 5.5-5.9) and 30-44 (6.0 mmol/L, 95%CI= 5.8-6.1). There was no statistically significant difference between men and women.

Table 160. Mean fasting blood (plasma equivalent) glucose (mmol/L)

Mean fasting plasma glucose (mmol/L)											
Age group (years)	Men				Women				Both sexes		
	n	Mean	95% CI		n	Mean	95% CI		n	Mean	95% CI
18-29	154	5.7	5.5-6.0		212	5.7	5.3-6.0		366	5.7	5.5-5.9
30-44	280	6.0	5.8-6.2		431	6.0	5.7-6.2		711	6.0	5.8-6.1
45-69	322	6.4	6.1-6.7		306	6.6	6.2-7.0		628	6.5	6.2-6.8
18-69	756	6.0	5.9-6.2		949	6.0	5.8-6.2		1705	6.0	5.9-6.2

Table 161 shows that overall, 20.1% (95%CI= 16.9-23.2) were categorized as having impaired fasting glycaemia – 19.9% (95%CI= 15.4-24.4) of men and 20.2% (95%CI= 17.2-23.1) of women.

There were no statistically significant differences between men and women and between the three age groups.

Table 161. Percentage categorized as having impaired fasting glycaemia (plasma equivalent)

Impaired Fasting Glycaemia*											
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	154	18.6	12.0-25.2		212	16.5	11.2-21.9		366	17.5	13.0-21.9
30-44	281	21.6	13.0-30.2		431	18.8	15.4-22.2		712	20.0	15.3-24.8
45-69	322	19.0	12.3-25.8		306	27.0	22.0-32.0		628	22.9	18.6-27.1
18-69	757	19.9	15.4-24.4		949	20.2	17.2-23.1		1706	20.1	16.9-23.2

*Impaired fasting glycaemia is defined as either plasma equivalent value of ≥ 6.1 mmol/L (110mg/dl) and < 7.0 mmol/L (126mg/dl).

Table 162 shows that overall, 14.3% (95%CI=11.7-16.9) had raised blood glucose (plasma equivalent) or were currently on medication for diabetes - 15.1% (95%CI=11.8-18.5) of men and 13.6% (95%CI=10.3-16.8) of women. There was no statistically significant difference between men and women.

Table 162. Percentage categorized as having raised blood (plasma equivalent) glucose or were currently on medication for diabetes

Medication for diabetes											
Raised blood glucose (plasma equivalent) or currently on medication for diabetes **											
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	154	8.4	4.0-12.8		212	7.8	4.1-11.6		366	8.1	5.2-10.9
30-44	281	15.0	9.6-20.4		431	13.3	9.3-17.3		712	14.0	10.4-17.6
45-69	322	21.4	16.3-26.5		306	20.9	14.6-27.3		628	21.2	17.0-25.4
18-69	757	15.1	11.8-18.5		949	13.6	10.3-16.8		1706	14.3	11.7-16.9

** Raised blood glucose is defined as plasma equivalent value of ≥7.0 mmol/L (126 mg/dl).

Table 163 shows that overall, 0.8% (95%CI= 0.4-1.2) were currently on medication for diabetes.

There were no statistically significant differences between men and women and between the three age groups.

Table 163. Percentage currently on medication for diabetes

Currently on medication for diabetes									
Age group (years)	Men			Women			Both sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	284	1.2	0.0-2.4	370	0.0	0.0-0.0	654	0.5	0.0-1.2
30-44	408	0.4	0.0-1.1	614	0.7	0.0-1.5	1022	0.6	0.0-1.1
45-69	435	1.6	0.4-2.8	414	1.5	0.2-2.7	849	1.5	0.7-2.3
18-69	1127	1.0	0.4-1.6	1398	0.6	0.0-1.2	2525	0.8	0.4-1.2

4.20.2 Total cholesterol

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

Table 164 shows that overall, the mean total cholesterol overall was 4.5 mmol/L (95%CI= 4.4-4.6).

Women had a significantly higher mean total cholesterol level (4.7 mmol/L, 95%CI= 4.6-4.8) than men (4.3 mmol/L, 95%CI= 4.2-4.4). Among women, those aged 45-69 had significantly higher mean total cholesterol (5.0 mmol/L, 95%CI= 4.9-5.2) than those aged 18-29 (4.4 mmol/L, 95%CI= 4.2-4.6) and 30-44 (4.6 mmol/L, 95%CI= 4.5-4.8). Overall, there was no statistically significant difference between the three age groups.

Table 164. Mean total cholesterol (mmol/L)

Mean total cholesterol (mmol/L)									
Age group (years)	Men			Women			Both sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-29	154	3.9	3.7-4.1	214	4.4	4.2-4.6	353	4.2	4.1-4.4
30-44	280	4.3	4.2-4.5	432	4.6	4.5-4.8	691	4.5	4.4-4.6
45-69	323	4.5	4.3-4.7	307	5.0	4.9-5.2	620	4.8	4.6-4.9
18-69	757	4.3	4.2-4.4	953	4.7	4.6-4.8	1664	4.5	4.4-4.6

Table 165 shows that overall, 30.4% (95%CI= 26.7-34.1) had total cholesterol of ≥ 5.0 mmol/L or ≥ 190 mg/dl or were currently on medication for raised cholesterol.

Significantly fewer Solomon Islanders aged 18-29 had total cholesterol of ≥ 5.0 mmol/L or ≥ 190 mg/dl or were currently on medication for raised cholesterol (19.5%, 95%CI= 14.2-24.7) than those aged 30-44 (33.4%, 95%CI= 27.8-39.1) and 45-69 (37.4%, 95%CI= 32.2-42.7).

There was no statistically significant difference between men and women.

Table 165. Percentage with total cholesterol ≥ 5.0 mmol/L or ≥ 190 mg/dl or who were currently on medication for raised cholesterol

Total cholesterol ≥ 5.0 mmol/L or ≥ 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
18-29	154	14.1	7.4-20.9	214	23.8	16.7-30.8	368	19.5	14.2-24.7
30-44	280	31.6	21.2-42.0	432	34.8	29.1-40.5	712	33.4	27.8-39.1
45-69	323	28.0	21.7-34.4	307	47.7	40.5-54.9	630	37.4	32.2-42.7
18-69	757	25.4	19.9-30.9	953	34.7	30.2-39.1	1710	30.4	26.7-34.1

Table 166 shows that overall, 7.7% (95%CI= 6.4-9.0) had total cholesterol ≥ 6.2 mmol/L or ≥ 240 mg/dl or were currently on medication for raised cholesterol.

Significantly more women had total cholesterol ≥ 6.2 mmol/L or ≥ 240 mg/dl or were currently on medication for raised cholesterol (9.8%, 95%CI= 7.6-11.9) than men (5.2%, 95%CI= 3.5-6.9). There was no statistically significant difference between the three age groups.

Table 166. Percentage with total cholesterol ≥ 6.2 mmol/L or ≥ 240 mg/dl or who were currently on medication for raised cholesterol

Total cholesterol ≥ 6.2 mmol/L or ≥ 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
18-29	154	4.4	0.6-8.2	214	5.7	0.8-10.6	368	5.1	2.3-7.9
30-44	280	4.2	1.8-6.7	432	10.1	7.0-13.2	712	7.6	5.5-9.7
45-69	323	7.2	3.9-10.6	307	14.2	8.6-19.8	630	10.6	7.0-14.1
18-69	757	5.2	3.5-6.9	953	9.8	7.6-11.9	1710	7.7	6.4-9.0

4.20.4 Urinary results for salt intake

The WHO recommendation is less than 5 grams of salt or 2 grams of sodium per person per day, regardless of whether it is through added salt, natural or processed foods. Dietary intake of sodium influences blood pressure levels and thus needs to be limited to reduce the risk of coronary heart disease and stroke.

Table 167 shows that the mean salt intake among those who did not fast was 9.7 g/day (95%CI= 9.4-9.9). Men had significantly higher mean salt intake (10.8g/day, 95%CI= 10.8-11.2) than women (8.6g/day, 95%CI= 8.2-8.9). There was no statistically significant difference between the three age groups.

Table 167. Mean salt intake (g/day) of those who did not fast

Mean salt intake (g/day) of those who did not fast									
Age group (years)	Men			Women			Both sexes		
	n	Mean	95%CI	n	Mean	95%CI	n	Mean	95% CI
18-29	44	10.2	9.6-10.8	48	8.4	7.7-9.1	92	9.3	8.9-9.8
30-44	62	11.2	10.5-11.8	87	8.8	8.3-9.2	149	9.8	9.3-10.2
45-69	84	11.1	10.7-11.6	71	8.4	7.8-8.9	155	9.9	9.5-10.3
18-69	190	10.8	10.4-11.2	206	8.6	8.2-8.9	396	9.7	9.4-9.9

Iron deficiency

Anaemia is a condition where there are insufficient red blood cells to meet the body's physiologic needs. Anaemia is defined as having haemoglobin levels of < 12.0 g/dL or < 120 g/L in females.

Table 168 shows that 48.9% (95%CI= 43.7-54.0) of childbearing age (CBA) women had anaemia defined as haemoglobin < 12.0 g/dL.

Table 168. Percentage of CBA women with anaemia – haemoglobin < 12.0 g/dL

Percentage of CBA women with haemoglobin < 12.0 g/dL			
Age group (years)	Women		
	n	%	95% CI
18-29	224	41.1	32.7-49.6
30-44	434	55.0	49.0-61.0
45-49	94	44.4	26.9-61.9
18-49	752	48.9	43.7-54.0

Anaemia is grouped into categories of severity, with different values for men, women and children at different ages. For non-pregnant CBA women mild anaemia is haemoglobin levels of 110 to 119 g/L (11.0-11.9 g/dL), moderate anaemia is 80 to 109 g/L (8.0-10.9 g/dL) and severe anaemia is < 80 g/L (8.0 g/dL) (WHO 2011).

Table 169 shows that 51.2% (95%CI= 46.1-56.3) of CBA women did not have anaemia, 3.7% (95%CI= 1.4-5.9) had mild anaemia, 34.9% (95%CI= 31.0-38.7) had moderate anaemia and 10.3% (95%CI= 6.6-14.0) had severe anaemia.

Significantly more 30-44 year olds have moderate anaemia (43.8%, 95%CI= 38.3-49.3) than those aged 18-29 (25.4%, 95%CI= 18.3-32.5) and 45-49 (22.3%, 95%CI= 10.6-34.1). There was no statistically significant difference between the three age groups in the other categories.

Table 169 Percentage of CBA women with specified severity of anaemia

Percentage of CBA women with specified severity of anaemia									
Age group (years)	Women								
	n	% Non-Anaemia	95% CI	% Mild	95% CI	% Moderate	95% CI	% Severe	95% CI
18-29	224	58.9	50.4-67.3	6.8	1.4-12.2	25.4	18.3-32.5	8.9	3.9-13.9
30-44	434	45.0	39.0-51.0	1.9	0.5-3.3	43.8	38.3-49.3	9.3	5.5-13.1
45-49	94	55.6	38.1-73.1	2.0	0.0-4.2	22.3	10.6-34.1	20.0	2.8-37.2
18-49	752	51.2	46.1-56.3	3.7	1.4-5.9	34.9	31.0-38.7	10.3	6.6-14.0

Table 170 shows that the mean haemoglobin level of CBA women was 11.5 g/dL (95%CI= 11.2-11.8).

Table 170. Mean haemoglobin level (g/dL) of CBA women

Mean haemoglobin (g/dL)			
Age group (years)	Women		
	n	g/dL	95% CI
18-29	224	11.7	11.3-12.1
30-44	434	11.4	11.1-11.6
45-49	94	11.3	10.3-12.4
18-49	752	11.5	11.2-11.8

4.1. Combined 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 ≥ 25 kg/m²)
- raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP).

Table 171 shows that 63.2% (95%CI= 58.4-68.1) of men had 1-2 risk factors, 34.8% (95%CI= 30.0-39.6) had 3-5 risk factors and only 1.9% (95%CI= 0.8-3.0) had no risk factors.

A significantly higher proportion of younger men aged 18-29 (75.0%, 95%CI= 66.1-83.8) had 1-2 risk factors compared to older men aged 45-69 (53.0%, 95%CI= 46.3-59.7). However, a significantly higher proportion of older men aged 45-69 (44.1%, 95%CI= 36.9-51.3) had 3-5 risk factors compared to younger men aged 18-29 (22.6%, 95%CI= 14.6-30.6).

Table 171. Percentage of males with 0, 1-2, or 3-5 of risk factors

Summary of combined risk factors							
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
18-29	170	2.4	0.0-4.8	75.0	66.1-83.8	22.6	14.6-30.6
30-44	300	0.7	0.0-1.8	62.6	55.1-70.1	36.6	29.2-44.1
45-69	344	2.9	0.8-5.0	53.0	46.3-59.7	44.1	36.9-51.3
18-69	814	1.9	0.8-3.0	63.2	58.4-68.1	34.8	30.0-39.6

Table 172 shows that 64.9% (95%CI= 61.3-68.4) of women had 1-2 risk factors, 31.6% (95%CI= 27.9-35.2) had 3-5 risk factors and 3.6% (95%CI= 2.3-4.8) had no risk factors.

A significantly higher proportion of younger women aged 30-44 (68.6%, 95%CI= 63.0-74.2) had 1-2 risk factors compared to older women aged 45-69 (56.9%, 95%CI= 49.9-63.9). However, a significantly higher proportion of older women aged 45-69 (41.2%, 95%CI= 34.4-48.0) had 3-5 risk factors compared to younger women aged 18-29 (26.8%, 95%CI= 17.9-35.7).

Table 172. Percentage of females with 0, 1-2, or 3-5 of risk factors

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
18-29	215	6.9	3.7-10.0	66.4	57.6-75.2	26.8	17.9-35.7
30-44	431	2.4	0.7-4.0	68.6	63.0-74.2	29.0	23.3-34.8
45-69	324	1.9	0.3-3.4	56.9	49.9-63.9	41.2	34.4-48.0
18-69	970	3.6	2.3-4.8	64.9	61.3-68.4	31.6	27.9-35.2

Table 173 shows that overall, 64.1% (95%CI= 60.9-67.3) had 1-2 risk factors, 33.1% (95%CI= 29.9-36.3) had 3-5 risk factors and 2.8% (95%CI= 1.9-3.7) had no risk factors.

A significantly higher proportion of Solomon Islanders aged 18-29 (70.4%, 95%CI= 63.9-77.0) had 1-2 risk factors compared to those aged 45-69 (54.9%, 95%CI= 50.4-59.3). However, a significantly higher proportion of Solomon Islanders aged 45-69 (42.7%, 95%CI= 38.3-47.2) had 3-5 risk factors compared to those aged 18-29 (24.8%, 95%CI= 18.6-31.0). There was no statistically significant difference between men and women.

Table 173. Percentage with 0, 1-2, or 3-5 of risk factors, both sexes combined

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
18-29	385	4.7	2.7-6.8	70.4	63.9-77.0	24.8	18.6-31.0
30-44	731	1.6	0.6-2.7	65.9	61.2-70.7	32.4	27.5-37.3
45-69	668	2.4	1.1-3.8	54.9	50.4-59.3	42.7	38.3-47.2
18-69	1784	2.8	1.9-3.7	64.1	60.9-67.3	33.1	29.9-36.3

4.1. Cardiovascular disease risk

The combination of the following risk factors from STEP 1, 2 and 3 allows the estimation of a 10-year risk of developing cardiovascular diseases (CVD) in those aged 40-69 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 174 shows that 9.4% (95%CI= 5.8-13.1) of those aged 40-69 years had a 10-year CVD risk \geq 30% or had existing CVD – 7.2% (95%CI= 4.1-10.3) of men and 11.6% (95%CI= 5.4-17.8) of women; and 9.2% (95%CI= 4.4-14.0) of those aged 40-54 and 9.9% (95%CI= 6.1-13.7) of those aged 55-69.

There were no statistically significant differences between men and women and between the two age groups.

Table 174. Percentage aged 40-69 with a 10-year CVD risk $\geq 30\%$ or with existing CVD

Percentage aged 40-69 with a 10-year CVD risk $\geq 30\%^*$ or with existing CVD											
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
40-54	244	5.8	2.5-9.0		270	12.2	4.4-20.1		514	9.2	4.4-14.0
55-69	135	10.0	4.2-15.9		125	9.8	4.3-15.2		260	9.9	6.1-13.7
40-69	379	7.2	4.1-10.3		395	11.6	5.4-17.8		774	9.4	5.8-13.1

*A 10-year CVD risk of $\geq 30\%$ 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)).

Table 175 shows that 11.4% (95%CI= 3.5-19.2) of eligible persons (defined as aged 40-69 years with a 10-year CVD risk** $\geq 30\%$, including those with existing CVD) had received drug therapy and counselling*** (including glycaemic control) to prevent heart attacks and strokes.

Table 175. Percentage of eligible persons receiving drug therapy and counselling to prevent heart attacks and strokes

strokes

Percentage of eligible persons receiving drug therapy and counselling to prevent heart attacks and strokes											
Age Group (years)	Men				Women				Both Sexes		
	n	Mean	95% CI		n	Mean	95% CI		n	Mean	95% CI
40-54	16	9.0	0.0-27.1		30	8.0	0.0-17.3		46	8.3	0.0-16.7
55-69	15	25.7	0.0-53.8		16	8.3	0.0-18.5		31	18.3	1.8-34.8
40-69	31	16.9	0.0-34.0		46	8.0	0.6-15.5		77	11.4	3.5-19.2

***Counselling is defined as receiving advice from a doctor or other health worker to quit using tobacco or not start, reduce salt in diet, eat at least five servings of fruit and/or vegetables per day, reduce fat in diet, start or do more physical activity, maintain a healthy body weight or lose weight.

5. DISCUSSION AND CONCLUSIONS

This section summarizes key findings on the noncommunicable disease risk factors in Solomon Islands, which will provide an indication of the potential disease burden from developing and dying from an NCD.

Almost all adults in Solomon Islands have several NCD risk factors – 64.1% had 1-2 risk factors and 33.1% had 3-5 risk factors. With 42.7% of those aged 45-69 and 24.8% of those aged 18-29 having 3-5 risk factors, Solomon Islands faces a risk of bearing a substantial disease burden from NCDs.

Behavioural risk factors

More than one third of the Solomon Island population (36.6%) were current smokers with 54.5% of men and 21.0% of women being current smokers. Tobacco control measures and cessation support could be targeted at these groups. There is also a need to prevent sale of tobacco to minors and to prevent early smoking initiation as initiation ages have gone from 19.8 years among those aged 30-44 to 16.7 years among those aged 18-29. Social norms need to be changed and regulations strengthened to create smoke-free environments as 65.0% reported being exposed to second-hand smoke in homes and 53.2% in workplaces.

Two thirds of the population (66.8%) also currently chew betel nut and nearly half of those who chew betel nut also smoke while chewing (49.2%). Chronic use increases the risk of cancer and can worsen existing health problems. There has been no improvement in the prevalence of betel nut chewing since the last STEPS survey. Political commitment and stronger measures will need to be undertaken to reduce local production, regulate sale and discourage use.

Although only 18.3% of Solomon Islanders were current drinkers, the proportion of men who were current drinkers was significantly higher than women (>5-fold). Overall, the mean number of drinking occasions was 3.8 in the past 30 days and the mean number of standard drinks per occasion was 8.3. Among current drinkers, 16.2% binge drank at least once in the past 30 days – men more so than women (29.1% compared to 4.8%) – and the mean number of times current drinkers consumed six or more drinks on a single occasion in the past 30 days was 2.4. Compared to the first STEPS survey, the prevalence of binge drinking has substantially declined. Additional studies may be needed to verify the results and determine the factors behind the reduction. Solomon Islanders who are current drinkers may have a tendency towards heavy drinking, which need particular attention as there are health and social consequences from harmful use of alcohol.

Furthermore, 13.1% of Solomon Islanders consumed unrecorded alcohol in the past 7 days. Solomon Islands has serious concerns regarding homebrew (or kwaso) and its contribution to social problems such as violence and domestic abuse. As such, there is a need to look into controlling homebrew, which is popular among low-income communities and youth.

Majority of the population did not meet the recommended servings of fruits/and vegetables intake per day - 86.8% of the population consumed less than five servings of fruits/and vegetables on average per day. The mean number of days fruit was consumed in a typical week was 2.7 days and 4.7 days for vegetables; and the mean number of servings of fruit and/or vegetables consumed on average per day was 2.9. Efforts to continue promoting the consumption of fresh fruits and vegetables are encouraged.

Nearly half of the population always or often added salt before and when eating, particularly among those aged 18-29, and also when cooking or preparing food at home; and 22.4% always or often consumed processed food high in salt. Majority (65.4%) thought they consumed just the right amount, 19.7% thought they consumed far too much or too much, and 14.9% thought they consumed too little or far too little. However, only 35.5% limited consumption of processed foods to control salt intake; 13.7% looked at salt or sodium content on food labels; and 15.8% bought low salt or sodium alternatives. Solomon Islands will need to raise awareness on how much salt people are eating and that most are actually eating too much even though majority think they are consuming just the right amount.

Consumption of sugary drinks is not that high in Solomon Islands – average consumption was 0.3 servings per day, and on average 1.3 teaspoons of sugar is added to each drink per day. Solomon Islands will need to raise awareness on the risks of consuming too much sugar and to regulate places where sugary drinks are sold and consumed (e.g. in and around schools).

Solomon Islanders are also relatively active with less than a fifth of the population (18.6%) not meeting the WHO recommendations on physical activity for health. More than half (55.7%) were engaged in high levels of physical activity, 17.6% in moderate levels and 26.7% in low levels. Compared to the first STEPS survey, there has been improvement in the proportion engaged in high levels of physical activity and a reduction in those engaged in low levels of physical activity. Women were also significantly less active than men. Programmes need to be designed that encourages and enables women to participate in physical activity.

Historical risk factors

Overall in Solomon Islands, most have never had their blood pressure, blood sugar or cholesterol measured (58.7%, 73.3% and 98.0%, respectively) and only 16.2% of women aged 30-49 have been tested for cervical cancer. Few (quarter to a third of the population) have also been given lifestyle advice from a doctor or health worker. Screening of high-risk individuals is not high and cervical cancer services are not being utilized. As such, a strong health system and community support may be needed to enhance early diagnosis.

Mental health

Mental health is also an important factor that affects behavioural risks and self-care. Although 82.2% were assessed as well according to responses to the questions, mental well-being needs to be promoted and adequate counselling services as well as campaigns to reduce stigma surrounding mental disorders need to be implemented. Health and social work professionals also need to pay attention to emerging trends that may stress specific population groups, and take prompt action to address them.

Oral health

The state of our teeth and gums can have an impact on nutritional intake/balance, how people perceive and feel about themselves and therefore affect their physical, mental, emotional and social well-being. As such, oral care practices are important. Overall, 23.0% had experienced oral pain or discomfort during the past 12 months; 8.3% had seen a dentist during the past 12 months; 55.3% had never received dental care, men less than women; and 74.4% cited pain or trouble with teeth or gums as the main reason for visiting a dentist. Visits to dentists have been more for treatment than as part of a regular check-up. There is a need to encourage regular visits and to ensure there are sufficient dental facilities to provide this service.

Solomon Islanders also have relatively good oral hygiene practices – 64.0% cleaned their teeth at least once daily and 12.3% cleaned it at least twice a day. Among those who clean their teeth, 60.0% use toothpaste; and 55.7% of those who use toothpaste when cleaning their teeth use toothpaste containing fluoride. It is said that toothpaste is widely available though not all are labelled in English, which makes it difficult to know if it is fluoridated. To improve oral care, there is a need to raise awareness about good practices and also control sales of food and drinks high in sugar content to prevent tooth decay and tooth loss.

Physical risk factors

The mean BMI of Solomon Islanders was 26.9 kg/m² with 59.5% of the population classified as overweight or obese. A higher proportion of women than men were obese and women aged 30-44 and 45-69 were more likely to be obese. Solomon Islands is doing relatively better than other Pacific Island countries where the prevalence of overweight and obesity can exceed 80%. Compared to the first survey, there also appears to be a reduction in the prevalence of overweight and obesity. Consideration will have to be made on appropriate strategies to further reduce overweight and obesity, particularly among women.

In Solomon Islands, 19.6% had raised blood pressure of SBP \geq 140 and/or DBP \geq 90 mmHg or were currently on medication; and 7.1% had raised blood pressure of SBP \geq 160 and/or DBP \geq 100 mmHg or were currently on medication. Among those with raised blood pressure or were currently on medication, 94.2% were not on medication and had raised blood pressure, 3.5% were on medication and had raised blood pressure, and 3.1% were on medication and had normal blood pressure. Expansion of the WHO Package of Essential NCD Interventions

tions (WHO PEN) protocol could help improve early diagnosis and adherence to treatment regimens.

Biochemical risk factors

Overweight and obesity also has implications on prevalence of diabetes – 20.1% of the population were categorized as having impaired fasting glycaemia (plasma equivalent value); 14.3% had raised blood glucose or were currently on medication for diabetes; and 0.8% were currently on medication for diabetes. Compared to the first STEPS survey, there has been no change in the prevalence of diabetes. However, there has been a slight increase in the proportion with raised cholesterol. Nearly a third of the population (30.4%) had total cholesterol of ≥ 5.0 mmol/L or ≥ 190 mg/dl or were currently on medication for raised cholesterol and 7.7% had total cholesterol ≥ 6.2 mmol/L or ≥ 240 mg/dl or were currently on medication for raised cholesterol. The mean salt intake (including those who fasted and those who did not) was 9.7 g/day with men having a higher mean than women.

6. RECOMMENDATIONS

The interventions to improve these indicators would have to be multisectoral and include: making healthier choices and fresh local produce affordable and accessible; promoting consumption of healthier foods and water; promoting healthy lifestyles through the healthy settings approach; and strengthening primary health care and NCD prevention and management through expansion of the WHO PEN protocols.

Anaemia appears to be an issue among women of childbearing age where prevalence was 49.2%; This could signal a public health problem and a need to strengthen iron supplementation programmes.

This report provides current information on the prevalence and magnitude of key NCDs and their modifiable risk factors. Broadly comparing this with data from the first survey allows Solomon Islands to see what has improved and what has worsened and to inform allocation of resources and modification of interventions. Repeating the NCD STEPS survey in the future will allow monitoring of progress towards achieving the 9 voluntary global targets, mapping of trends over time, and inform interventions and strategic modifications required to reduce NCDs in the population.

Data in this report will also be useful for identifying priorities and interventions for development of an updated National Strategic Health Plan and a National NCD Action Plan. In accordance to the objectives outlined in the global and regional action plans to reduce NCDs, the following strategies are recommended for Solomon Islands:

In accordance to the objectives outlined in the global and regional action plans to reduce NCDs, the following strategies are recommended for Solomon Islands:

Strengthen governance and leadership

- 1) Evaluate progress in implementation of the National NCD Action Plan 2010-2017 and National Health Strategic Plan 2016-2020 with all relevant stakeholders (e.g. ministries, civil society, and communities).
- 2) Develop a new multisectoral strategic health plan and strategic plan for NCDs. Involve stakeholders from different sectors throughout the process to ensure ownership and buy-in.
- 3) Work with other sectors to integrate NCD issues and approaches in other sectoral plans.
- 4) Elicit highest level of political commitment. For example, consider establishment of an appropriate multisectoral governance and/or implementation mechanism (e.g. foundations, task forces, committees or coalitions) for shared leadership, policy coherence and mutual accountability.
- 5) Secure adequate and increased resources for health promotion and NCDs.

Support quality surveillance and public health information system and practices

- 1) Establish an ongoing and robust NCD STEPS surveillance system. Repeat NCD STEPS surveys at 5- to 7-year intervals, preferably in 2020 and 2025.
- 2) Monitor trends and determinants of NCDs, and use data for action.
- 3) Strengthen and utilize other surveillance mechanisms and evaluation methods to measure effectiveness of strategies and interventions (e.g. school-based surveys, cross-sectional surveys).

Implement strategies to address NCD risk factors

- 1) Accelerate implementation of the WHO Framework Convention on Tobacco Control.
 - Increase excise tax through amendment of relevant legislation or regulations to make tobacco products less affordable.

- Strengthen enforcement of tobacco control legislation to create smoke-free indoor environments and reduce exposure to ETS.
 - Strengthen enforcement of tobacco control legislation to stop sale of single sticks and sale to minors.
 - Provide comprehensive cessation services, especially for men.
 - Target women and youth in mass education programmes and campaigns.
 - Discourage chewing betel nut while smoking.
 - Reduce local production of betel nut and its ingredients.
 - Consider other strategies such as a policy requiring MOH to hire only non-smokers and those who do not chew betel nut.
- 2) Advance the implementation of the WHO Global Strategy to Reduce Harmful Use of Alcohol.
- Increase excise tax to make alcohol less affordable;
 - control access to alcohol particularly for youth;
 - enforce restrictions on production and sale of illicit alcohol such as kwaso;
 - regulate availability of alcohol by strictly enforcing legislation and regulations providing for licences to sell;
 - conduct studies to assess drinking behaviour and motivations to drink in youth (building on last Global School-based Student Health Survey data).
- 3) Implement the WHO Global Strategy on Diet, Physical Activity and Health.
- 4) Develop guidelines or policy measures that engage relevant sectors, such as food producers and manufacturers, to:
- reduce level of sodium in prepared or processed food;
 - reduce free and added sugars in food and non-alcoholic beverages;
 - reduce portion size and energy density of foods;
 - increase availability and affordability of fruit and vegetables;
 - fortify foods with iron, folic acid and iodine.
- 5) Create health-enabling environments and settings (e.g. villages, workplaces, schools, markets).
- Introduce settings-based policies such as smoking ban in schools, workplaces, markets, villages and settlements.
 - Introduce settings-based policies to control sale of and use of betel nut.
 - Encourage establishment and improvement of local markets to promote the sale of local fresh produce.
 - Enhance marketing of fresh whole foods.
 - Introduce policy to regulate sale of sugary drinks sold in and around schools.
 - Raise awareness on the health risks of consuming too much sugar.
 - Introduce settings-based policies to promote physical activity.
 - Promote preventive services (e.g. cancer screening, health checks).

Establish and maintain coalitions and partnerships

- 1) Build coalitions and partnerships across sectors beyond the authority of the Ministry of Health such as

food importation, trade, tax, commercial investment and agriculture to address NCD risk factors.

- 2) Collaborate with media and civil society organizations including faith-based organizations to implement programmes and support advocacy and education.

Strengthen health systems

- 1) Expand implementation of the WHO package of essential NCD interventions (PEN) in primary care to prevent and control NCDs towards the attainment of universal health coverage.
 - establish clinical practice guidelines;
 - scale up early detection of major NCDs;
 - provide counselling and patient education (e.g. brief advice);
 - provide cancer screening;
 - provide access to drug therapy to control diabetes and hypertension;
 - ensure availability of basic equipment and tools;
 - strengthen referral systems.
- 2) Assess gaps in human resources and service delivery and develop a policy to fill the gaps and meet demand for services:
 - dental care: prevention, early detection, service provision;
 - mental health: early detection, service provision and community support;
 - use of outreach clinics to visit communities and bring services closer to them.
- 3) Implement programmes to reduce micronutrient deficiency:
 - Iron supplementation programme and deworming for pregnant women.
 - Vitamin A supplementation programme and deworming for children under five.
 - Food fortification programmes (iron, folate and iodine).

ANNEX

Annex 1	Solomon Islands STEPS Survey Questionnaire
Annex 2	The whole data book of the Solomon Islands STEPS Survey
Annex 3	Sample description



WHO STEPS Survey

Solomon Islands 2014

The WHO STEPwise approach to noncommunicable disease risk factor surveillance (STEPS)



World Health Organization
20 Avenue Appia, 1211 Geneva 27, Switzerland

For further information: www.who.int/chp/steps

WHO STEPS Instrument for Noncommunicable Disease Risk Factor Surveillance

Solomon Islands

Survey Information

Location and Date	Response	Code
Cluster/Centre/Village ID	<div style="border-bottom: 1px solid black; width: 100px; margin: 0 auto;"></div>	I1
Cluster/Centre/Village name		I2
Interviewer ID	<div style="border-bottom: 1px solid black; width: 100px; margin: 0 auto;"></div>	I3
Date of completion of the instrument	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border-bottom: 1px solid black; width: 40px; text-align: center;">dd</div> <div style="border-bottom: 1px solid black; width: 40px; text-align: center;">mm</div> <div style="border-bottom: 1px solid black; width: 80px; text-align: center;">year</div> </div>	I4

Consent, Interview Language and Name	Response	Code
Consent has been read and obtained	Yes 1	I5
	No 2 If NO, END	
Interview Language [Insert Language]	English 1	I6
	[Add others] 2	
	[Add others] 3	
	[Add others] 4	
Time of interview (24 hour clock)	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border-bottom: 1px solid black; width: 40px; text-align: center;">hrs</div> <div style="border-bottom: 1px solid black; width: 40px; text-align: center;">mins</div> </div>	I7
Family Surname		I8
First Name		I9
Contact phone number where possible		I10

Step 1 Demographic Information

CORE: Demographic Information				
Question	Response		Code	
Sex (Record Male / Female as observed)	Male	1	C1	
	Female	2		
What is your date of birth?	<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></div> <div></div> <div></div> </div> </div> <div>dd mm year</div> <div>If known, Go to C4</div>		C2	
Don't Know 77 77 7777				
How old are you?	Years	<div> <div></div> <div></div> </div>	C3	
In total, how many years have you spent at school and in full-time study (excluding pre-school)?	Years	<div> <div></div> <div></div> </div>	C4	
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		
	High school completed	5		
	College/University completed	6		
	Post graduate degree	7		
	[INSERT COUNTRY-SPECIFIC CATEGORIES]	Refused		88
What is your [insert relevant ethnic group / racial group / cultural subgroup / others] background?	Melanesian	1	C6	
	Polynesian	2		
	Micronesian	3		
	Chinese/Asian	4		
	Other	5		
	Refused	88		
What is your marital status?	Never married	1	C7	
	Currently married	2		
	Separated	3		
	Divorced	4		
	Widowed	5		
	Cohabiting	6		
	Refused	88		
Which of the following best describes your main work status over the past 12 months?	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		
	[INSERT COUNTRY-SPECIFIC CATEGORIES]	Refused		88
	(USE SHOWCARD)			

How many people older than 18 years, including yourself, live in your household?	Number of people <input type="text"/>	C9
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Step 1 Behavioural Measurements

CORE: Tobacco Use			
Now I am going to ask you some questions about tobacco use.			
Question	Response		Code
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	
Do you currently smoke tobacco products daily?	Yes	1	T2
	No	2	
How old were you when you first started smoking?	Age (years)		T3
	Don't know 77	<input type="text"/> If Known, go to T5a/T5aw	
Do you remember how long ago it was? (RECORD ONLY 1, NOT ALL 3) Don't know 77	In Years	<input type="text"/> If Known, go to T5a/T5aw	T4a
	OR in Months	<input type="text"/> If Known, go to T5a/T5aw	T4b
	OR in Weeks	<input type="text"/>	T4c
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	DAILY↓ WEEKLY↓		
	Manufactured cigarettes	<input type="text"/>	T5a/T5aw
	Hand-rolled cigarettes	<input type="text"/>	T5b/T5bw
	Pipes full of tobacco	<input type="text"/>	T5c/T5cw
	Home grown tobacco	<input type="text"/>	T5d/T5dw
	Other	<input type="text"/> If Other, go to T5other, else go to T6	T5f/T5fw
	Other (please specify):	<input type="text"/>	T5other/ T5otherw
During the past 12 months, have you tried to stop smoking?	Yes	1	T6
	No	2	
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 T12; if T2=No, go to T9	T7
	No	2 If T2=Yes, go to T12; if T2=No, go to T9	
	No visit during the past 12 months	3 If T2=Yes, go to T12; if T2=No, go to T9	

In the past, did you ever smoke any tobacco products? (USE SHOWCARD)	Yes	1	T8
	No	2 If No, go to T12	
In the past, did you ever smoke daily?	Yes	1 If T1=Yes, go to T12, else go to T12	T9
	No	2 If T1=Yes, go to T12, else go to T12	

Do you currently use any smokeless tobacco products such as [snuff, chewing tobacco, betel]? (USE SHOWCARD)	Yes	1	T12
	No	2 If No, go to T17	
Do you currently use smokeless tobacco products daily?	Yes	1	T13
	No	2 If No, go to T14aw	
<p>On average, how many times a day/week do you use</p> <p>(IF LESS THAN DAILY, RECORD WEEKLY)</p> <p>(RECORD FOR EACH TYPE, USE SHOWCARD)</p> <p>Don't Know 7777</p>	<p>DAILY↓ WEEKLY↓</p>		
	Snuff, by mouth	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>	T14a/ T14aw
	Snuff, by nose	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>	T14b/ T14bw
	Chewing tobacco	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>	T14c/ T14cw
	Other	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <p>If Other, go to T14other, if T13=No, go to T16, else go to T17</p>	T14e/ T14ew
	Other (please specify):	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> <p>If T13=No, go to T16, else go to T17</p>	T14other/ T14otherw
During the past 30 days, did someone smoke in your home?	Yes	1	T17
	No	2	
During the past 30 days, did someone smoke in closed areas in your workplace (in the building, in a work area or a specific office)?	Yes	1	T18
	No	2	
	Don't work in a closed area	3	
Have you noticed an increase in the price of cigarettes in the last year?	Yes	1	X1
	No	2	

Has the cigarette price increase affected your use of tobacco?	Yes, I have quit using tobacco 1 Yes, I am now using tobacco less 2 Yes, I switched from cigarettes to using home grown tobacco (such as savusavu) 3 Initially I reduced my use, but it was only temporary 4 No, price change has not affected my use of tobacco 5 I am not sure 6	X2
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Betel Nut Use (Section N)					
The next questions ask about the use of betel nut.					
N 1a	Do you currently chew betel nut ? (used in last 30 days)	Yes 1 No 2	o	X3	If No, go to A1a
N 1b	<u>If Yes.</u> Do you currently chew betel nuts daily?	Yes 1 No 2	o	X4	If No, go to A1a
N 2a	How old were you when you first started chewing betel nuts daily?	Age (years) Don't remember	D K	oo	X5 If Known, go to N3
N 2b	Do you remember how long ago it was?	In Years	Years <input type="text"/> <input type="text"/>	X6a	
		OR in Months	Months <input type="text"/> <input type="text"/>	X6b	
	(CODE DK FOR DON'T REMEMBER)	OR in Weeks	Weeks <input type="text"/> <input type="text"/>	X6c	
N 3	Do you usually smoke while chewing betel nut?	Yes 1 No 2	<input type="checkbox"/>	X9	

CORE: Alcohol Consumption			
The next questions ask about the consumption of alcohol.			
Question	Response		Code
Have you ever consumed any alcohol such as beer, wine, spirits or [add other local examples]? (USE SHOWCARD OR SHOW EXAMPLES)	Yes	1	A1
	No	2 If No, go to A16	
Have you consumed any alcohol within the past 12 months?	Yes	1 If Yes, go to A4	A2
	No	2	
Have you stopped drinking due to health reasons, such as a negative impact on your health or on the advice of your doctor or other health worker?	Yes	1 If Yes, go to A16	A3
	No	2 If No, go to A16	

During the past 12 months, how frequently have you had at least one standard alcoholic drink? (READ RESPONSES, USE SHOWCARD)	Daily	1	A4
	5-6 days per week	2	
	3-4 days per week	3	
	1-2 days per week	4	
	1-3 days per month	5	
	Less than once a month	6	
Have you consumed any alcohol within the past 30 days?	Yes	1	A5
	No	2 If No, go to A13	
During the past 30 days, on how many occasions did you have at least one standard alcoholic drink?	Number Don't know 77	<input type="text"/> <input type="text"/>	A6
During the past 30 days, when you drank alcohol, how many standard drinks on average did you have during one drinking occasion? (USE SHOWCARD)	Number Don't know 77	<input type="text"/> <input type="text"/>	A7
During the past 30 days, what was the largest number of standard 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"/>	A8
During the past 30 days, how many times did you have six or more standard drinks in a single drinking occasion?	Number of times Don't Know 77	<input type="text"/> <input type="text"/>	A9
During each of the past 7 days, how many standard drinks did you have each day? (USE SHOWCARD) Don't Know 77	Monday	<input type="text"/> <input type="text"/>	A10a
	Tuesday	<input type="text"/> <input type="text"/>	A10b
	Wednesday	<input type="text"/> <input type="text"/>	A10c
	Thursday	<input type="text"/> <input type="text"/>	A10d
	Friday	<input type="text"/> <input type="text"/>	A10e
	Saturday	<input type="text"/> <input type="text"/>	A10f
	Sunday	<input type="text"/> <input type="text"/>	A10g

CORE: Alcohol Consumption, continued

I have just asked you about your consumption of alcohol during the past 7 days. The questions were about alcohol in general, while the next questions refer to your consumption of homebrewed alcohol, alcohol brought over the border/from another country, any alcohol not intended for drinking or other untaxed alcohol. Please only think about these types of alcohol when answering the next questions.

Question	Response		Code
During the past 7 days, did you consume any homebrewed alcohol, kwaso, homebrew, any alcohol brought over the border/from another country, any alcohol not intended for drinking or other untaxed alcohol? (USE SHOWCARD)	Yes	1	A11
	No	2 If No, go to A13	

<p>On average, how many standard drinks of the following did you consume during the past 7 days?</p> <p>(USE SHOWCARD)</p> <p>Don't Know 77</p>	Homebrewed spirits, e.g. moonshine	<input type="text"/>	A12a
	Homebrewed beer or wine, e.g. beer, palm or fruit wine	<input type="text"/>	A12b
	Alcohol brought over the border/from another country	<input type="text"/>	A12c
	Alcohol not intended for drinking, e.g. alcohol-based medicines, perfumes, after shaves	<input type="text"/>	A12d
	Other untaxed alcohol in the country	<input type="text"/>	A12e

<p>During the past 12 months, how often have you found that you were not able to stop drinking once you had started?</p>	Daily or almost daily	1	A13
	Weekly	2	
	Monthly	3	
	Less than monthly	4	
	Never	5	
<p>During the past 12 months, how often have you failed to do what was normally expected from you because of drinking?</p>	Daily or almost daily	1	A14
	Weekly	2	
	Monthly	3	
	Less than monthly	4	
	Never	5	
<p>During the past 12 months, how often have you needed a first drink in the morning to get yourself going after a heavy drinking session?</p>	Daily or almost daily	1	A15
	Weekly	2	
	Monthly	3	
	Less than monthly	4	
	Never	5	
<p>During the past 12 months, have you had family problems or problems with your partner due to someone else's drinking?</p>	Yes, more than monthly	1	A16
	Yes, monthly	2	
	Yes, several times but less than monthly	3	
	Yes, once or twice	4	
	No	5	
Do you usually smoke during or after drinking?	Yes	1	X7
	No	2	

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
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In a typical week, on how many days do you eat fruit? (USE SHOWCARD)	Number of days Don't Know 77	<input type="text"/> If Zero days, go to D3	D1
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"/>	D2
In a typical week, on how many days do you eat vegetables? (USE SHOWCARD)	Number of days Don't Know 77	<input type="text"/> If Zero days, go to D5	D3
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
What prevents you from eating more fruits and vegetables	Cost Availability Prefer to sell it Don't like Time Other/ don't know		X23
Dietary salt			
With the next questions, we would like to learn more about salt in your diet. Dietary salt includes ordinary table salt, unrefined salt such as sea salt, iodized salt, salty stock cubes and powders, 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 [insert country specific examples], and questions on controlling your salt intake. Please answer the questions even if you consider yourself to eat a diet low in salt.			
How often do you add salt or a salty sauce such as soya sauce to your food right before you eat it or as you are eating it? (SELECT ONLY ONE) (USE SHOWCARD)	Always		D5
	Often		
	Sometimes		
	Rarely		
	Never		
	Don't know		
How often is salt, salty seasoning or a salty sauce added in cooking or preparing foods in your household?	Always		D6
	Often		
	Sometimes		
	Rarely		
	Never		
	Don't know		

<p>How often do you eat processed food high in salt? By processed food high in salt, I mean foods that have been altered from their natural state, such as packaged salty snacks, canned salty food including pickles and preserves, salty food prepared at a fast food restaurant, cheese, bacon and processed meat [add country specific examples].</p> <p>[INSERT EXAMPLES]</p> <p>(USE SHOWCARD)</p>	Always		D7
	Often		
	Sometimes		
	Rarely		
	Never		
	Don't know		
How much salt or salty sauce do you think you consume?	Far too much		D8
	Too much		
	Just the right amount		
	Too little		
	Far too little		
	Don't know		

Question	Response		Code
How important to you is lowering the salt in your diet?	Very important	1	D9
	Somewhat important	2	
	Not at all important	3	
	Don't know	77	
Do you think that too much salt or salty sauce in your diet could cause a health problem?	Yes	1	D10
	No	2	
	Don't know	77	
Do you do any of the following on a regular basis to control your salt intake? (RECORD FOR EACH)			
Limit consumption of processed foods	Yes	1	D11a
	No	2	D11b
Look at the salt or sodium content on food labels	Yes	1	
	No	2	D11c
Buy low salt/sodium alternatives	Yes	1	
	No	2	D11d
Use spices other than salt when cooking	Yes	1	
	No	2	D11e
Avoid eating foods prepared outside of a home	Yes	1	
	No	2	D11f
Do other things specifically to control your salt intake	Yes	1 If Yes, go to D11other	
	No	2	D11
Other (please specify)	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		other

The next questions ask about the oil or fat that is most often used for meal preparation in your household, and about meals that you eat outside a home.

What type of oil or fat is most often used for meal preparation in your household? (USE SHOWCARD) (SELECT ONLY ONE)	Vegetable oil	1	D12
	Lard	2	
	Butter	3	
	Margarine	4	
	Other	5 If Other, go to D12 other	
	Coconut oil	6	
	None used	7	
	Don't know	77	
		Other	<div style="border-bottom: 1px solid black; width: 100px; display: inline-block;"></div>
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	<div style="border-bottom: 1px solid black; width: 50px; display: inline-block;"></div>	D13
How often do you have a meal prepared with fresh coconut cream or milk.	Every day More than once a week Once a week Occasionally/sometimes Never Don't know		X10

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

Question	Response		Code
In a typical week, on how many days do you eat rice? (USE SHOWCARD)	Number of days Don't Know 77	<div style="border-bottom: 1px solid black; width: 50px; display: inline-block;"></div> If Zero days, go to	X11
How many servings of rice do you eat on one of those days?	Number of servings Don't Know 77	<div style="border-bottom: 1px solid black; width: 50px; display: inline-block;"></div>	X12
In a typical week, on how many days do you eat noodles?	Number of days Don't Know 77	<div style="border-bottom: 1px solid black; width: 50px; display: inline-block;"></div> If Zero days, go to	X13
How many servings of noodles do you eat on one of those days?	Number of servings Don't know 77	<div style="border-bottom: 1px solid black; width: 50px; display: inline-block;"></div>	X14
In a typical week, on how many days do you eat bread?	Number of days Don't Know 77	<div style="border-bottom: 1px solid black; width: 50px; display: inline-block;"></div> If Zero days, go to	X15
How many servings of bread do you eat on one of those days?	Number of servings Don't know 77	<div style="border-bottom: 1px solid black; width: 50px; display: inline-block;"></div>	X16
In a typical week, on how many days do you eat bakery products, such as cake, navy biscuits, ring cake, pancake, pasta?	Number of days Don't Know 77	<div style="border-bottom: 1px solid black; width: 50px; display: inline-block;"></div> If Zero days, go to	X17

How many servings of these do you eat on one of those days?	Number of servings Don't know 77	<input type="text"/>	X18
In the last week, on how many days did you have a drink containing sugar including fizzy drinks, juice drinks (excluding pure unsweetened fruit juice), cordials/drink mixes, and home made drinks with added sugar (use showcard)	Number of days Don't Know 77	<input type="text"/> If Zero days, go to	X19
On the days when you had a drink containing sugar, how many serves did you have (use showcard. One serve being one can of drink, one large glass)	Number of servings Don't know 77	<input type="text"/>	X20
In the last week, how often did you have a drink to which you added sugar, like milo, tea or coffee (use showcard). (If had more than one drink a day, please include this eg 10 times in last week)	Number of days Don't Know 77	<input type="text"/> If Zero days, go to	X21
How many teaspoons of sugar did you add, on average, to each of these drinks	Number of teaspoons Don't know 77	<input type="text"/>	X22

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. [Insert other examples if needed]. 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
Work			
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? [INSERT EXAMPLES] (USE SHOWCARD)	Yes	1	P1
	No	2 If No, go to P 4	
In a typical week, on how many days do you do vigorous-intensity activities as part of your work?	Number of days	<input type="text"/>	P2
How much time do you spend doing vigorous-intensity activities at work on a typical day?	Hours : minutes	<input type="text"/> : <input type="text"/> hrs mins	P3 (a-b)
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? [INSERT EXAMPLES] (USE SHOWCARD)	Yes	1	P4
	No	2 If No, go to P 7	
In a typical week, on how many days do you do moderate-intensity activities as part of your work?	Number of days	<input type="text"/>	P5

How much time do you spend doing moderate-intensity activities at work on a typical day?	Hours : minutes	<input type="text"/> : <input type="text"/> hrs mins	P6 (a-b)
Travel to and from places			
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. [Insert other examples if needed]			
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	
In a typical week, on how many days do you walk or bicycle for at least 10 minutes continuously to get to and from places?	Number of days	<input type="text"/>	P8
How much time do you spend walking or bicycling for travel on a typical day?	Hours : minutes	<input type="text"/> : <input type="text"/> 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), [Insert relevant terms].			
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?	Yes	1	P10
	No	2 If No, go to P 13	
[INSERT EXAMPLES] (USE SHOWCARD)			
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
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)
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?	Yes	1	P13
	No	2 If No, go to P16	
[INSERT EXAMPLES] (USE SHOWCARD)			
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
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)
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.

[INSERT EXAMPLES] (USE SHOWCARD)

How much time do you usually spend sitting or reclining on a typical day?	Hours : minutes	<div> <div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> </div> <div>hrs mins</div>	P16 (a-b)
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CORE: History of Raised Blood Pressure

Question	Response	Code
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	
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	
Have you been told in the past 12 months?	Yes 1	H2b
	No 2	
In the past two weeks, have you taken any drugs (medication) for raised blood pressure prescribed by a doctor or other health worker?	Yes 1	H3
	No 2	
Have you ever seen a traditional healer for raised blood pressure or hypertension?	Yes 1	H4
	No 2	
Are you currently taking any herbal or traditional remedy for your raised blood pressure?	Yes 1	H5
	No 2	

CORE: History of Diabetes

Have you ever had your blood sugar measured by a doctor or other health worker?	Yes 1	H6
	No 2 If No, go to H12	
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 H12	
Have you been told in the past 12 months?	Yes 1	H7b
	No 2	
In the past two weeks, have you taken any drugs (medication) for diabetes prescribed by a doctor or other health worker?	Yes 1	H8
	No 2	
Are you currently taking insulin for diabetes prescribed by a doctor or other health worker?	Yes 1	H9
	No 2	
Have you ever seen a traditional healer for diabetes or raised blood sugar?	Yes 1	H10
	No 2	
Are you currently taking any herbal or traditional remedy for your diabetes?	Yes 1	H11
	No 2	

CORE: History of Raised Total Cholesterol

Question	Response		Code
Have you ever had your cholesterol (fat levels in your blood) measured by a doctor or other health worker?	Yes	1	H12
	No	2 If No, go to H17	
Have you ever been told by a doctor or other health worker that you have raised cholesterol?	Yes	1	H13a
	No	2 If No, go to H17	
Have you been told in the past 12 months?	Yes	1	H13b
	No	2	
In the past two weeks, have you taken any oral treatment (medication) for raised total cholesterol prescribed by a doctor or other health worker?	Yes	1	H14
	No	2	
Have you ever seen a traditional healer for raised cholesterol?	Yes	1	H15
	No	2	
Are you currently taking any herbal or traditional remedy for your raised cholesterol?	Yes	1	H16
	No	2	

CORE: History of Cardiovascular Diseases			
Have you ever had a heart attack or chest pain from heart disease (angina) or a stroke (cerebrovascular accident or incident)?	Yes	1	H17
	No	2	
Are you currently taking aspirin regularly to prevent or treat heart disease?	Yes	1	H18
	No	2	
Are you currently taking statins (Lovastatin/Simvastatin/Atorvastatin or any other statin) regularly to prevent or treat heart disease?	Yes	1	H19
	No	2	

CORE: Lifestyle Advice			
During the past three years, has a doctor or other health worker advised you to do any of the following? (RECORD FOR EACH)			
Quit using tobacco or don't start	Yes	1	H20a
	No	2	
Reduce salt in your diet	Yes	1	H20b
	No	2	
Eat at least five servings of fruit and/or vegetables each day	Yes	1	H20c
	No	2	
Reduce fat in your diet	Yes	1	H20d
	No	2	
Start or do more physical activity	Yes	1	H20e
	No	2	

Maintain a healthy body weight or lose weight	Yes	1	If C1=1 go to M1	H20f
	No	2	If C1=1 go to M1	

CORE (for women only): Cervical Cancer Screening

The next question asks about cervical cancer prevention. Screening tests for cervical cancer prevention can be done in different ways, including Visual Inspection with Acetic Acid/vinegar (VIA), pap smear and Human Papillomavirus (HPV) test. VIA is an inspection of the surface of the uterine cervix after acetic acid (or vinegar) has been applied to it. For both pap smear and HPV test, a doctor or nurse uses a swab to wipe from inside your vagina, take a sample and send it to a laboratory. It is even possible that you were given the swab yourself and asked to swab the inside of your vagina. The laboratory checks for abnormal cell changes if a pap smear is done, and for the HP virus if an HPV test is done.

Question	Response		Code
Have you ever had a screening test for cervical cancer, using any of these methods described above?	Yes	1	CX1
	No	2	
	Don't know	77	

Mental Health

In the past 4 weeks, about how often did you feel tired out for no good reason?	None of the time 1 A little of the time 2 Some of the time 3 Most of the time 4 All of the time 5		X24
In the past 4 weeks, about how often did you feel nervous?	None of the time 1 A little of the time 2 Some of the time 3 Most of the time 4 All of the time 5		X25
In the past 4 weeks, about how often did you feel so nervous that nothing could calm you down?	None of the time 1 A little of the time 2 Some of the time 3 Most of the time 4 All of the time 5		X26
In the past 4 weeks, about how often did you feel hopeless?	None of the time 1 A little of the time 2 Some of the time 3 Most of the time 4 All of the time 5		X27
In the past 4 weeks, about how often did you feel restless or fidgety?	None of the time 1 A little of the time 2 Some of the time 3 Most of the time 4 All of the time 5		X28

In the past 4 weeks, about how often did you feel so restless you could not sit still?	None of the time 1 A little of the time 2 Some of the time 3 Most of the time 4 All of the time 5		X29
In the past 4 weeks, about how often did you feel depressed?	None of the time 1 A little of the time 2 Some of the time 3 Most of the time 4 All of the time 5		X30
In the past 4 weeks, about how often did you feel that everything was an effort?	None of the time 1 A little of the time 2 Some of the time 3 Most of the time 4 All of the time 5		X31
In the past 4 weeks, about how often did you feel so sad that nothing could cheer you up?	None of the time 1 A little of the time 2 Some of the time 3 Most of the time 4 All of the time 5		X32
In the past 4 weeks, about how often did you feel worthless?	None of the time 1 A little of the time 2 Some of the time 3 Most of the time 4 All of the time 5		X33

Oral Health

Oral Health			
The next questions ask about your oral health status and related behaviours.			
Question	Response		Code
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	

How many missing teeth do you have?	1		
	2		
	3		
	4		
	5		
	More than 5		
	Don't know		
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	
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	
Do you have any removable dentures/false teeth?	Yes	1	O4
	No	2 If No, go to O6	
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	
During the past 12 months, did your teeth or mouth cause any pain or discomfort?	Yes	1	O6
	No	2	

How long has it been since you last saw a dentist?	Less than 6 months 1 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	O7
What was the main reason for your last visit to the dentist?	Consultation / advice 1 Pain or trouble with teeth, gums or mouth 2 Treatment / Follow-up treatment 3 Routine check-up treatment 4 5 If Other, go to O8other Other	O8
	Other (please specify)	O8other
How often do you clean your teeth?	Never 1 If Never, go to O13a 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	O9
Question	Response	Code
Do you use toothpaste to clean your teeth?	Yes 1 No 2 If No, go to O12a	O10
Do you use toothpaste containing fluoride?	Yes 1 No 2 Don't know 77	O11
Do you use any of the following to clean your teeth? (RECORD FOR EACH)		
Toothbrush	Yes 1 No 2	O12a
Wooden toothpicks	Yes 1 No 2	O12b
Plastic toothpicks	Yes 1 No 2	O12c

Thread (dental floss)	Yes 1 No 2		O12d
Charcoal	Yes 1 No 2		O12e
Fine sand	Yes No		O12X1
Chewstick	Yes 1 No 2		O12f
Coconut husk	Yes No		O12X2
Other	Yes	1 If Yes, go to O12other	O12g
	No	2	
Other (please specify)	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		O12 other
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	

Step 2 Physical Measurements

CORE: Blood Pressure			
Question	Response		Code
Interviewer ID		<input type="text"/>	M1
Device ID for blood pressure		<input type="text"/>	M2
Cuff size used	Small	1	M3
	Medium	2	
	Large	3	
Reading 1	Systolic (mmHg)	<input type="text"/>	M4a
	Diastolic (mmHg)	<input type="text"/>	M4b
Reading 2	Systolic (mmHg)	<input type="text"/>	M5a
	Diastolic (mmHg)	<input type="text"/>	M5b
Reading 3	Systolic (mmHg)	<input type="text"/>	M6a
	Diastolic (mmHg)	<input type="text"/>	M6b
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	M7
	No	2	
CORE: Height and Weight			
For women: Are you pregnant?	Yes	1 If Yes, go to M 16	M8
	No	2	
Interviewer ID		<input type="text"/>	M9
Device IDs for height and weight	Height	<input type="text"/>	M10a
	Weight	<input type="text"/>	M10b
Height	in Centimetres (cm)	<input type="text"/>	M11
Weight If too large for scale 666.6	in Kilograms (kg)	<input type="text"/>	M12
CORE: Waist			
Device ID for waist		<input type="text"/>	M13
Waist circumference	in Centimetres (cm)	<input type="text"/>	M14
Hip circumference	in Centimeters (cm)	<input type="text"/>	M15

Step 3 Biochemical Measurements

CORE: Blood Glucose			
Question	Response		Code
During the past 12 hours have you had anything to eat or drink, other than water?	Yes	1	B1
	No	2	
Technician ID		_____	B2
Device ID		_____	B3
Time of day blood specimen taken (24 hour clock)	Hours : minutes	____ : ____ hrs mins	B4
Fasting blood glucose [CHOOSE ACCORDINGLY: MMOL/L OR MG/DL]	mmol/l	____ . ____	B5
	mg/dl	____ . ____	
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			
Device ID		_____	B7
Total cholesterol [CHOOSE ACCORDINGLY: MMOL/L OR MG/DL]	mmol/l	____ . ____	B8
	mg/dl	____ . ____	
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	
Blood creatinine & Hemoglobin			
Capillary creatinine (only for those who are providing urine samples)	μmol/L	_____	X34
Capillary Hemoglobin	mg/dl	____ . ____	X35a
Venous hemoglobin			X35b
CORE: Urinary sodium and creatinine			
Had you been fasting prior to the urine collection?	Yes	1	B10
	No	2	
Technician ID		_____	B11
Device ID		_____	B12
Time of day urine sample taken (24 hour clock)	Hours : minutes	____ : ____ hrs mins	B13
Urinary albumin (dipstix)	Mg/dl	_____	X36
Urinary sodium	mmol/l	____ . ____	B14
Urinary creatinine	mmol/l	____ . ____	B15

Appendix 2: Supplementary Tables

Demographic Information Results

Table 1. Percentage of respondents highest level of education achieved, by men

Age Group (years)	Highest level of education							
	Men							
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% High school completed	% College/ University completed	% Post graduate degree completed
18-29	283	3.5	13.4	26.9	34.6	9.5	12.0	0.0
30-44	407	4.7	15.5	37.6	21.6	7.1	13.0	0.5
45-69	433	8.8	19.4	42.5	16.6	3.2	8.8	0.7
18-69	1123	6.0	16.5	36.8	23.0	6.2	11.1	0.4

Table 2. Percentage of respondents highest level of education achieved, by women

Age Group (years)	Highest level of education							
	Women							
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% High school completed	% College/ University completed	% Post graduate degree completed
18-29	369	2.7	12.5	31.2	32.5	15.2	6.0	0.0
30-44	613	7.3	21.4	40.0	18.3	3.8	9.3	0.0
45-69	410	19.5	28.8	37.6	7.3	1.7	4.9	0.2
18-69	1392	9.7	21.2	36.9	18.8	6.2	7.1	0.1

Table 3. Percentage of respondents marital status, by men

Age Group (years)	Marital status						
	Men						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
18-29	283	66.1	28.3	0.7	0.4	0.7	3.9
30-44	408	9.3	83.8	2.0	0.5	0.7	3.7
45-69	435	4.1	85.3	1.6	0.7	6.0	2.3
18-69	1126	21.6	70.4	1.5	0.5	2.8	3.2

Table 4. Percentage of respondents marital status, by women

Age Group (years)	Marital status						
	Women						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
18-29	370	40.8	50.8	2.4	0.5	0.3	5.1
30-44	615	4.9	87.2	2.6	1.5	1.3	2.6
45-69	413	3.6	70.9	4.4	2.2	17.9	1.0
18-69	1398	14.0	72.7	3.1	1.4	5.9	2.8

Table 5. Percentage of respondents employment status, by men

Employment status					
Age Group (years)	Men				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
18-29	283	4.6	7.8	25.8	61.8
30-44	407	9.8	14.3	44.0	31.9
45-69	434	5.5	9.9	39.9	44.7
18-69	1124	6.9	10.9	37.8	44.4

Table 6. Percentage of respondents employment status, by women

Employment status					
Age Group (years)	Women				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
18-29	370	2.2	5.9	11.6	80.3
30-44	613	9.0	6.4	18.3	66.4
45-69	413	3.4	3.9	18.9	73.8
18-69	1396	5.5	5.5	16.7	72.3

Table 7. Percentage of respondents unpaid work and unemployed, by men

Unpaid work and unemployed							
Age Group (years)	Men						
	n	% Non-paid	% Student	% Home-maker	% Retired	Unemployed	
						% Able to work	% Not able to work
18-29	175	5.7	44.0	11.4	0.6	33.7	4.6
30-44	130	6.2	3.1	33.8	0.0	53.1	3.8
45-69	194	7.7	0.5	22.7	14.4	45.9	8.8
18-69	499	6.6	16.4	21.6	5.8	43.5	6.0

Table 8. Percentage of respondents unpaid work and unemployed, by women

Unpaid work and unemployed							
Age Group (years)	Women						
	n	% Non-paid	% Student	% Home-maker	% Retired	Unemployed	
						% Able to work	% Not able to work
18-29	297	3.0	24.2	41.1	0.0	26.9	4.7
30-44	407	3.2	1.0	66.1	0.5	25.6	3.7
45-69	305	2.6	0.3	62.3	6.9	20.0	7.9
18-69	1009	3.0	7.6	57.6	2.3	24.3	5.3

Tobacco Use

Table 9. Mean amount of tobacco used by daily smokers per day, by type, by men

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	n	Mean # of other cigars	95% CI
18-29	151	5.0	4.1-5.8	150	3.3	2.6-4.0	111	0.1	0.0-0.2	64	1.0	0.5-1.6
30-44	220	5.5	4.4-6.6	219	3.3	2.7-4.0	168	0.5	0.2-0.9	96	1.5	0.6-2.3
45-69	167	5.0	3.7-6.2	170	3.0	1.6-4.4	118	0.6	0.1-1.1	74	2.3	1.1-3.4
18-69	538	5.2	4.5-5.9	539	3.2	2.7-3.7	397	0.4	0.2-0.6	234	1.5	0.9-2.1

Mean amount of tobacco used by daily smokers by type			
Age Group (years)	Men		
	n	Mean # of other type of tobacco	95% CI
18-29	138	0.9	0.6-1.3
30-44	197	1.0	0.7-1.4
45-69	153	1.2	0.5-1.9
18-69	488	1.0	0.7-1.3

Table 10. Mean amount of tobacco used by daily smokers per day, by type, by women

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	n	Mean # of other cigars	95% CI
18-29	58	3.5	2.7-4.3	57	1.9	1.4-2.3	48	0.1	0.0-0.2	20	1.2	0.0-3.0
30-44	98	3.6	2.6-4.6	99	1.9	1.4-2.4	71	1.0	0.5-1.5	41	0.5	0.1-0.9
45-69	62	2.2	0.7-3.7	63	2.2	0.9-3.4	52	0.8	0.3-1.4	18	1.2	0.1-2.3
18-69	218	3.2	2.5-4.0	219	2.0	1.6-2.4	171	0.6	0.4-0.8	79	0.8	0.2-1.5

Mean amount of tobacco used by daily smokers by type			
Age Group (years)	Women		
	n	Mean # of other type of tobacco	95% CI
18-29	51	0.7	0.3-1.2
30-44	86	0.8	0.2-1.3
45-69	56	0.8	0.3-1.3
18-69	193	0.8	0.5-1.1

Table 11. Percentage of the respondents status using smokeless tobacco among all respondents, by men

Smokeless tobacco use							
Age Group (years)	Men						
	n	Current user				% Does not use smokeless tobacco	95% CI
		% Daily	95% CI	% Non-daily	95% CI		
18-29	282	0.4	0.0-0.9	3.3	1.0-5.6	96.3	93.9-98.7
30-44	406	4.5	0.0-10.4	2.1	0.2-4.0	93.4	87.3-99.5
45-69	435	0.3	0.0-0.6	0.7	0.0-1.5	99.0	98.1-99.9
18-69	1123	1.9	0.0-4.2	2.1	1.0-3.2	96.0	93.2-98.8

Table 11. Percentage of respondents status using smokeless tobacco among all respondents, by women

Smokeless tobacco use							
Age Group (years)	Women						
	n	Current user				% Does not use smokeless tobacco	95% CI
		% Daily	95% CI	% Non-daily	95% CI		
18-29	370	1.8	0.2-3.4	0.9	0.0-2.3	97.3	95.3-99.2
30-44	610	0.8	0.0-1.5	1.1	0.2-2.0	98.1	96.9-99.4
45-69	412	3.1	0.0-8.1	1.8	0.0-4.1	95.0	89.8-100.0
18-69	1392	1.7	0.3-3.0	1.2	0.4-2.1	97.1	95.4-98.9

Expanded Questions: Betel Nut

Table 11. Percentage of respondents who currently chew betel nut daily, by men

Frequency of those who currently chew betel nut daily					
Age Group (years)	Men				
	n	% currently chew daily	95% CI	% currently chew non-daily	95% CI
18-29	220	69.4	63.0-75.9	30.6	24.1-37.0
30-44	307	79.6	73.3-85.9	20.4	14.1-26.7
45-69	256	62.5	47.4-77.5	37.5	22.5-52.6
18-69	783	71.7	66.3-77.0	28.3	23.0-33.7

Table 12. Percentage of respondents who currently chew betel nut daily, by women

Frequency of those who currently chew daily							
Age Group (years)	Women						
	n	% currently chew daily	95% CI	% currently chew non-daily	95% CI		
18-29	251	70.2	63.7-76.6	29.8	23.4-36.3		
30-44	377	68.3	63.1-73.6	31.7	26.4-36.9		
45-69	205	68.9	59.7-78.0	31.1	22.0-40.3		
18-69	833	69.1	65.4-72.8	30.9	27.2-34.6		

Table 13. Mean Age of Initiation of chewing betel nut, by gender

Mean Age of Initiation of chewing betel nut									
Age group (years)	Men			Women			Both sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-29	147	14.1	13.2-14.9	158	14.8	14.3-15.4	305	14.5	14.0-14.9
30-44	234	17.0	15.9-18.0	240	18.5	17.6-19.3	474	17.7	17.0-18.4
45-69	165	21.9	19.7-24.1	128	21.1	19.2-23.0	293	21.6	20.0-23.1
18-69	546	17.1	16.3-17.8	526	17.6	17.0-18.2	1072	17.3	16.8-17.8

Table 14. Mean Age of Duration of chewing betel nut, by gender

Mean Age of Duration of chewing betel nut									
Age group (years)	Men			Women			Both sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-29	147	9.4	8.4-10.3	158	8.6	8.0-9.3	305	9.0	8.4-9.6
30-44	234	19.3	18.3-20.2	240	18.1	17.1-19.0	474	18.7	18.0-19.4
45-69	165	31.6	28.8-34.4	128	32.6	28.7-36.5	293	32.0	29.6-34.4
18-69	546	18.6	17.3-19.8	526	17.3	15.6-19.0	1072	17.9	16.8-19.1

Alcohol Consumption

Table 15. Mean number of drinking occasions in the past 30 days among current drinkers, by gender

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
18-29	96	4.4	2.5-6.3	26	-	-	122	3.9	2.4-5.4
30-44	145	3.5	2.4-4.5	30	-	-	175	3.8	2.6-4.9
45-69	73	3.5	1.9-5.2	14	-	-	87	3.9	2.1-5.7
18-69	314	3.8	2.9-4.7	70	-	-	384	3.8	3.1-4.6

Table 16. Mean number of standard drinks consumed on a drinking occasion among current drinkers, by gender

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
18-29	97	9.8	8.3-11.3	25	-	-	122	8.7	7.4-9.9
30-44	146	7.9	6.5-9.3	30	-	-	176	8.2	6.8-9.7
45-69	72	7.5	5.9-9.2	14	-	-	86	7.6	6.0-9.2
18-69	315	8.5	7.6-9.4	69	-	-	384	8.3	7.4-9.1

Table 17. Mean maximum number of standard drinks consumed on one occasion in the past 30 days among current drinkers, by gender

Mean maximum number of standard 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
18-29	97	12.6	11.1-14.0	25	-	-	122	11.3	9.9-12.7
30-44	146	15.0	8.9-21.1	30	-	-	176	14.5	9.2-19.9
45-69	72	9.9	7.6-12.2	14	-	-	86	10.7	7.6-13.8
18-69	315	13.0	10.2-15.9	69	-	-	384	12.5	10.2-14.9

Table 18. Mean number of times current drinkers consumed six or more drinks on a single occasion in the past 30 days

Mean number of times with six or more drinks during a single occasion in the past 30 days among current drinkers											
Age group (years)	Men				Women				Both sexes		
	n	Mean number of times	95% CI		n	Mean number of times	95% CI		n	Mean number of times	95% CI
18-29	94	2.7	2.0-3.3		26	-	-		120	2.3	1.8-2.9
30-44	143	2.5	2.0-3.0		26	-	-		169	2.4	1.9-2.8
45-69	72	3.0	1.2-4.8		13	-	-		85	2.8	1.0-4.5
18-69	309	2.7	2.1-3.2		65	-	-		374	2.4	2.0-2.9

Table 19. Percentage of former drinkers (those who did not drink during the past 12 months) who stopped drinking due to health reasons, by gender

Stopping drinking due to health reasons											
Age Group (years)	Men				Women				Both Sexes		
	n	% stopping due to health reasons	95% CI		n	% stopping due to health reasons	95% CI		n	% stopping due to health reasons	95% CI
18-29	17	18.9	0.0-40.8		28	31.6	13.0-50.3		45	24.3	9.9-38.6
30-44	60	16.9	6.1-27.8		40	18.4	2.2-34.7		100	18.2	8.7-27.7
45-69	61	30.3	18.4-42.1		22	9.0	0.0-19.6		83	24.1	14.6-33.7
18-69	138	21.4	13.4-29.4		90	21.2	11.8-30.7		228	21.3	15.3-27.4

Table 20. Frequency of alcohol consumption in the past 12 months among those respondents who have drank in the last 12 months, by men

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
18-29	157	0.0	0.0-0.0	1.8	0.0-4.5	23.7	14.9-32.5	18.1	11.2-24.9	56.4	47.1-65.7
30-44	196	0.3	0.0-1.0	2.5	0.0-5.7	19.9	13.6-26.2	19.3	8.3-30.3	58.0	46.7-69.3
45-69	118	0.7	0.0-2.1	0.7	0.0-2.0	12.2	3.9-20.6	14.3	5.1-23.6	72.1	58.3-85.8
18-69	471	0.3	0.0-0.7	1.8	0.1-3.6	19.7	14.9-24.5	17.7	11.5-24.0	60.5	53.3-67.7

Table 21. Frequency of alcohol consumption in the past 12 months among those respondents who have drank in the last 12 months, by men

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
18-29	47	0.6	0.0-1.9	1.4	0.0-4.4	21.5	0.5-42.4	9.0	0.3-17.7	67.5	49.0-86.0
30-44	65	0.0	0.0-0.0	1.3	0.0-3.3	5.7	0.3-11.1	18.7	8.5-28.8	74.3	62.9-85.7
45-69	26	0.0	0.0-0.0	12.5	2.3-22.6	5.5	0.0-13.8	10.0	0.0-25.0	72.0	57.8-86.1
18-69	138	0.3	0.0-0.8	3.2	0.5-5.8	12.7	1.5-23.8	13.0	6.4-19.6	70.9	59.1-82.8

Table 22. Percentage of respondents with different drinking levels - Not a current drinker among all respondents (<40g of pure alcohol on average per occasion among men and <20g of pure alcohol on average per occasion among women)

Not a current drinker among all respondents (<40g of pure alcohol on average per occasion among men and <20g of pure alcohol on average per occasion among women)											
Age Group (years)	Men				Women				Both Sexes		
	n	% Not a current drinker	95% CI		n	% Not a current drinker	95% CI		n	% Not a current drinker	95% CI
18-29	278	67.5			369	91.2	85.7-96.7		647	80.2	76.1-84.2
30-44	402	63.7			609	95.1	93.1-97.0		1011	81.4	77.6-85.3
45-69	434	75.5			413	95.9	93.2-98.6		847	85.2	78.5-91.9
18-69	1114	68.4			1391	94.0	91.8-96.1		2505	82.0	79.2-84.8

Table 23. Percentage of respondents with different drinking levels (High-end, intermediate, and lower-end level drinking among current (past 30 days) drinkers, by men

High-end, intermediate, and lower-end level drinking among current (past 30 days) drinkers							
Age Group (years)	Men						
	n	% high-end (≥60g)	95% CI	% intermediate (40-59.9g)	95% CI	% lower-end (<40g)	95% CI
18-29	96	6.2	0.0-12.3	2.7	0.0-8.1	91.1	83.1-99.2
30-44	145	3.3	0.5-6.0	1.4	0.0-3.0	95.3	92.2-98.5
45-69	72	2.5	0.0-6.1	0.6	0.0-1.8	96.9	93.0-100.0
18-69	313	4.1	1.4-6.8	1.7	0.0-3.6	94.3	90.8-97.7

Table 24. Percentage of respondents with different drinking levels (High-end, intermediate, and lower-end level drinking among current (past 30 days) drinkers, by women

High-end, intermediate, and lower-end level drinking among current (past 30 days) drinkers							
Age Group (years)	Women						
	n	% high-end (≥40g)	95% CI	% intermediate (20-39.9g)	95% CI	% lower-end (<20g)	95% CI
18-29	25	0.0	0.0-0.0	0.0	0.0-0.0	100.0	100.0-100.0
30-44	30	13.6	0.0-28.0	0.0	0.0-0.0	86.4	72.0-100.0
45-69	14	0.0	0.0-0.0	14.2	0.0-35.2	85.8	64.8-100.0
18-69	69	4.8	0.0-10.3	2.2	0.0-6.2	92.9	86.9-98.9

Table 25. Frequency of alcohol consumption in the past 7 days by current (past 30 days) drinkers, by men

Age Group (years)	Men										
	n	% Daily	95% CI	% 5-6 days	95% CI	% 3-4 days	95% CI	% 1-2 days	95% CI	% 0 days	95% CI
18-29	90	10.2	3.4-17.0	3.0	0.0-7.6	12.4	3.1-21.8	48.8	36.2-61.5	25.6	13.7-37.4
30-44	137	19.3	3.7-35.0	0.3	0.0-0.8	10.8	4.8-16.7	41.6	31.4-51.9	28.0	17.7-38.3
45-69	67	4.3	0.7-7.9	0.7	0.0-2.2	5.7	0.0-13.1	67.6	45.5-89.6	21.7	4.7-38.7
18-69	294	12.8	4.9-20.7	1.3	0.0-2.9	10.2	5.6-14.7	50.0	39.3-60.8	25.7	18.2-33.3

Table 26. Frequency of alcohol consumption in the past 7 days by current (past 30 days) drinkers, by women

Frequency of alcohol consumption in the past 7 days											
Age Group (years)	Women										
	n	% Daily	95% CI	% 5-6 days	95% CI	% 3-4 days	95% CI	% 1-2 days	95% CI	% 0 days	95% CI
18-29	24	0.0	0.0-0.0	0.0	0.0-0.0	1.1	0.0-3.3	44.0	17.5-70.5	55.0	29.0-80.9
30-44	26	13.1	0.0-28.2	0.0	0.0-0.0	1.4	0.0-4.4	51.6	34.1-69.1	33.9	18.5-49.2
45-69	13	0.0	0.0-0.0	7.5	0.0-22.8	0.0	0.0-0.0	48.4	17.2-79.6	44.1	13.6-74.5
18-69	63	4.4	0.0-9.5	1.1	0.0-3.4	1.0	0.0-2.6	47.2	31.4-63.0	46.3	32.0-60.7

Table 27. Mean number of times current drinkers consumed six or more drinks on a single occasion in the past 30 days, by gender

Mean number of times with six or more drinks during a single occasion in the past 30 days among current drinkers											
Age group (years)	Men				Women				Both sexes		
	n	Mean number of times	95% CI		n	Mean number of times	95% CI		n	Mean number of times	95% CI
18-29	94	2.7	2.0-3.3		26	-	-		120	2.3	1.8-2.9
30-44	143	2.5	2.0-3.0		26	-	-		169	2.4	1.9-2.8
45-69	72	3.0	1.2-4.8		13	-	-		85	2.8	1.0-4.5
18-69	309	2.7	2.1-3.2		65	-	-		374	2.4	2.0-2.9

Table 28. Mean number of standard drinks current drinkers consumed on average per day in the past 7 days, by gender

Mean number of standard drinks consumed on average per day in the past 7 days among current drinkers											
Age group (years)	Men				Women				Both sexes		
	n	Mean number	95% CI		n	Mean number	95% CI		n	Mean number	95% CI
18-29	90	5.2	2.0-8.4		24	-	-		114	4.0	1.8-6.3
30-44	137	10.1	2.4-17.8		26	-	-		163	9.7	2.9-16.4
45-69	67	2.5	1.2-3.9		13	-	-		80	2.3	1.2-3.4
18-69	294	6.7	2.8-10.6		63	-	-		357	6.0	2.8-9.2

Table 29. Percentage of current drinkers who consumed unrecorded alcohol in the past 7 days, by gender

Consumption of unrecorded alcohol											
Age group (years)	Men				Women				Both sexes		
	n	% consuming unrecorded alcohol	95% CI		n	% consuming unrecorded alcohol	95% CI		n	% consuming unrecorded alcohol	95% CI
18-29	97	23.2	13.7-32.6		26	-	-		123	24.0	14.6-33.3
30-44	145	7.3	3.0-11.5		30	-	-		175	6.5	3.0-10.1
45-69	73	5.6	0.9-10.2		13	-	-		86	7.0	0.7-13.2
18-69	315	12.3	8.0-16.5		69	-	-		384	13.1	8.6-17.6

Table 30. Frequency of not being able to stop drinking once started during the past 12 months among past 12 month drinkers, by men

Frequency of not being able to stop drinking once started during the past 12 months among past 12 month drinkers							
Age Group (years)	Men						
	n	% monthly or more frequently	95% CI	% less than monthly	95% CI	% never	95% CI
18-29	167	23.3	15.5-31.0	14.3	7.5-21.1	62.4	52.6-72.2
30-44	206	23.6	16.5-30.7	15.6	9.6-21.6	60.8	51.1-70.5
45-69	133	12.2	5.2-19.2	8.9	4.0-13.7	78.9	69.6-88.3
18-69	506	20.9	15.9-26.0	13.6	10.0-17.2	65.4	59.2-71.7

Table 31. Frequency of not being able to stop drinking once started during the past 12 months among past 12 month drinkers, by women

Frequency of not being able to stop drinking once started during the past 12 months among past 12 month drinkers							
Age Group (years)	Women						
	n	% monthly or more frequently	95% CI	% less than monthly	95% CI	% never	95% CI
18-29	53	5.1	0.0-10.2	12.5	0.0-32.9	82.4	62.1-100.0
30-44	69	14.6	4.8-24.5	3.2	0.0-6.9	82.1	72.0-92.2
45-69	32	1.2	0.0-3.6	1.4	0.0-4.4	97.4	93.4-100.0
18-69	154	8.1	3.2-13.0	7.1	0.0-17.1	84.8	74.7-94.8

Table 32. Frequency of failing to do what was normally expected from you because of drinking during the past 12 months among past 12 month drinkers, by men

Frequency of failing to do what was normally expected from you during the past 12 months among past 12 month drinkers							
Age Group (years)	Men						
	n	% monthly or more frequently	95% CI	% less than monthly	95% CI	% never	95% CI
18-29	167	25.8	17.1-34.5	18.2	11.0-25.5	55.9	46.2-65.7
30-44	206	25.0	13.8-36.1	12.9	7.9-17.9	62.1	51.2-73.1
45-69	133	9.2	2.9-15.5	14.1	6.7-21.5	76.6	66.1-87.2
18-69	506	21.8	15.7-27.9	15.2	10.9-19.5	63.0	56.1-69.9

Table 33. Frequency of failing to do what was normally expected from you because of drinking during the past 12 months among past 12 month drinkers, by women

Frequency of failing to do what was normally expected from you during the past 12 months among past 12 month drinkers							
Age Group (years)	Women						
	n	% monthly or more frequently	95% CI	% less than monthly	95% CI	% never	95% CI
18-29	53	7.0	0.0-14.6	2.1	0.0-4.7	90.9	83.7-98.1
30-44	69	10.8	3.4-18.2	8.5	0.0-20.3	80.7	68.6-92.8
45-69	32	2.9	0.0-8.5	1.4	0.0-4.4	95.7	89.3-100.0
18-69	154	7.8	3.1-12.4	4.4	0.0-9.3	87.8	81.7-93.9

Table 34. Frequency of needing a first drink in the morning to get going after a heavy drinking session during the past 12 months among past 12 month drinkers, by men

Frequency of needing a first drink in the morning to get going during the past 12 months among past 12 month drinkers							
Age Group (years)	Men						
	n	% monthly or more frequently	95% CI	% less than monthly	95% CI	% never	95% CI
18-29	167	15.5	9.6-21.5	8.0	3.1-12.8	76.5	69.8-83.2
30-44	206	11.6	6.6-16.6	5.4	2.2-8.7	83.0	76.9-89.0
45-69	133	10.1	3.5-16.7	7.9	2.2-13.6	82.0	72.8-91.3
18-69	506	12.8	9.4-16.1	6.9	4.2-9.7	80.3	75.8-84.7

Table 35. Frequency of needing a first drink in the morning to get going after a heavy drinking session during the past 12 months among past 12 month drinkers, by women

Frequency of needing a first drink in the morning to get going during the past 12 months among past 12 month drinkers							
Age Group (years)	Women						
	n	% monthly or more frequently	95% CI	% less than monthly	95% CI	% never	95% CI
18-29	53	4.6	0.0-9.5	15.4	0.0-35.2	80.0	60.2-99.8
30-44	69	12.4	3.2-21.6	1.7	0.0-4.1	85.8	75.5-96.2
45-69	32	6.1	0.0-14.6	17.3	0.3-34.3	76.6	60.3-93.0
18-69	154	7.8	2.7-13.0	10.5	0.7-20.3	81.7	71.2-92.1

Table 36. Frequency of having had problems with family or partner due to someone else's drinking in the past 12 months among all respondents, by men

Frequency of family/partner problems due to someone else's drinking during the past 12 months among all respondents							
Age Group (years)	Men						
	n	% monthly or more frequently	95% CI	% less than monthly	95% CI	% never	95% CI
18-29	280	5.1	2.3-7.9	14.3	10.1-18.5	80.6	75.8-85.4
30-44	405	9.8	3.8-15.9	11.9	8.1-15.7	78.2	71.8-84.6
45-69	435	3.4	1.5-5.2	14.0	1.5-26.6	82.6	70.1-95.1
18-69	1120	6.4	3.8-9.0	13.3	9.1-17.5	80.3	75.2-85.3

Table 37. Frequency of having had problems with family or partner due to someone else's drinking in the past 12 months among all respondents, by women

Frequency of family/partner problems due to someone else's drinking during the past 12 months among all respondents							
Age Group (years)	Women						
	n	% monthly or more frequently	95% CI	% less than monthly	95% CI	% never	95% CI
18-29	370	4.5	1.8-7.3	12.6	8.1-17.2	82.8	77.4-88.3
30-44	610	4.9	3.0-6.8	10.1	7.9-12.3	84.9	82.5-87.4
45-69	412	2.3	0.6-3.9	8.8	3.1-14.5	88.9	83.3-94.6
18-69	1392	4.2	2.7-5.6	10.7	8.6-12.8	85.2	82.6-87.7

Diet Consumption

Table 38. Mean number of servings of fruits on average per day, by gender

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
18-29	278	1.1	0.9-1.3	369	1.2	1.0-1.4	647	1.2	1.0-1.3
30-44	401	1.2	1.0-1.4	607	1.2	1.0-1.3	1008	1.2	1.0-1.3
45-69	426	1.2	1.1-1.4	411	1.0	0.8-1.1	837	1.1	1.0-1.2
18-69	1105	1.2	1.1-1.3	1387	1.1	1.0-1.3	2492	1.2	1.0-1.3

Table 39. Mean number of servings of vegetables on average per day, by gender

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
18-29	280	1.7	1.5-2.0	368	1.6	1.5-1.8	648	1.7	1.6-1.8
30-44	403	1.7	1.6-1.9	609	1.7	1.6-1.9	1012	1.7	1.6-1.9
45-69	430	2.0	1.7-2.3	412	1.9	1.7-2.0	842	1.9	1.7-2.2
18-69	1113	1.8	1.7-1.9	1389	1.7	1.6-1.8	2502	1.8	1.7-1.9

Table 40. Frequency of the number of servings of fruit and/or vegetable consumption on average per day, by men

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
280	13.2	8.8-17.6	44.0	37.6-50.4	32.4	25.3-39.6	10.3	5.9-14.8	280
404	13.5	7.1-19.8	44.3	36.9-51.7	30.4	24.6-36.1	11.9	8.3-15.4	404
431	11.4	7.3-15.6	37.8	29.4-46.2	36.4	24.5-48.2	14.4	9.7-19.0	431
1115	12.8	9.5-16.1	42.3	38.1-46.6	32.8	27.7-37.9	12.1	9.6-14.6	1115

Table 41. Frequency of the number of servings of fruit and/or vegetable consumption on average per day, by women

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
18-29	369	11.7	6.5-17.0	46.4	40.7-52.2	30.3	24.4-36.2	11.5	7.9-15.1
30-44	609	12.6	8.4-16.9	48.7	44.4-52.9	25.6	21.2-29.9	13.2	9.7-16.7
45-69	412	15.7	9.7-21.7	39.9	33.6-46.2	33.5	26.5-40.5	10.9	7.1-14.7
18-69	1390	13.0	10.0-16.0	45.9	42.7-49.1	29.0	25.4-32.5	12.1	9.7-14.5

Table 42. Percentage of those respondents to what prevents them from eating more fruit and/or vegetable consumption, by men

What prevents you from eating more fruits and vegetables									
Age Group (years)	Men								
	n	% Cost	95% CI	% Availability	95% CI	% Don't like	95% CI	%Time	95% CI
18-29	23	9.4	0.0-25.4	62.8	35.8-89.8	1.3	0.0-4.2	26.5	4.2-48.7
30-44	17	26.7	0.0-55.1	24.9	2.7-47.1	5.9	0.0-16.2	42.5	13.7-71.3
45-69	31	0.9	0.0-2.7	33.7	8.1-59.3	7.7	0.0-18.0	49.3	24.1-74.5
18-69	71	12.3	1.0-23.6	42.3	26.0-58.6	4.6	0.0-9.7	38.2	18.2-58.2

Age Group (years)			
	% Other	95% CI	
18-29	0.0	0.0-0.0	
30-44	0.0	0.0-0.0	
45-69	8.5	0.0-20.4	
18-69	2.5	0.0-6.3	

Table 43. Percentage of those respondents to what prevents them from eating more fruit and/or vegetable consumption, by women

What prevents you from eating more fruits and vegetables									
Age Group (years)	Women								
	n	% Cost	95% CI	% Availability	95% CI	% Prefer to sell it	95% CI	%Don't like	95% CI
18-29	26	12.8	0.0-31.2	48.4	25.3-71.5	3.0	0.0-9.4	9.8	0.0-20.6
30-44	47	21.5	7.0-36.0	40.7	24.6-56.9	0.0	0.0-0.0	0.8	0.0-2.5
45-69	32	11.2	0.0-23.4	59.0	38.4-79.7	1.4	0.0-4.1	0.0	0.0-0.0
18-69	105	16.4	6.2-26.5	47.3	34.9-59.6	1.3	0.0-3.5	3.7	0.0-7.6

Age Group (years)						
	% Time	95% CI	% Other	95% CI		
18-29	25.9	4.4-47.5	0.0	0.0-0.0		
30-44	33.6	14.7-52.6	3.3	0.0-8.1		
45-69	26.1	8.3-44.0	2.3	0.0-6.8		
18-69	29.4	14.7-44.2	2.0	0.0-4.3		

Table 44. Percentage of all respondents who think they consume far too much or too much salt, by gender

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
18-29	269	22.6	16.6-28.6	359	20.4	15.7-25.0	628	21.4	17.2-25.6
30-44	398	21.1	14.9-27.4	589	20.6	16.5-24.7	987	20.8	17.2-24.5
45-69	416	16.8	11.0-22.6	396	14.4	9.6-19.1	812	15.6	11.6-19.7
18-69	1083	20.4	16.8-23.9	1344	19.1	16.1-22.1	2427	19.7	17.1-22.3

Table 45. Percentage of all respondents who self-reported quantity of salt consumed , by men

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
18-29	269	2.1	0.4-3.8	20.5	14.5-26.6	67.0	60.5-73.5	10.2	5.9-14.4	0.2	0.0-0.7
30-44	398	3.7	1.2-6.3	17.4	11.2-23.7	62.1	53.4-70.7	16.1	9.4-22.8	0.7	0.1-1.3
45-69	416	3.3	1.2-5.3	13.5	8.8-18.3	66.9	59.3-74.5	13.4	9.5-17.3	2.8	1.2-4.5
18-69	1083	3.1	1.7-4.4	17.3	13.8-20.8	65.1	60.1-70.0	13.4	9.6-17.2	1.2	0.6-1.8

Table 46. Percentage of all respondents who self-reported quantity of salt consumed , by women

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
18-29	359	1.4	0.2-2.6	19.0	14.4-23.6	65.4	60.5-70.3	13.7	9.4-18.0	0.5	0.0-1.3
30-44	589	2.7	1.2-4.3	17.8	14.2-21.4	66.1	61.3-70.9	12.8	9.3-16.3	0.5	0.0-1.0
45-69	396	2.4	0.7-4.0	12.0	7.4-16.6	65.3	58.3-72.3	16.9	12.8-21.1	3.4	1.4-5.4
18-69	1344	2.2	1.3-3.2	16.9	14.0-19.7	65.7	62.0-69.4	14.1	11.6-16.5	1.2	0.6-1.8

Table 47. Percentage of respondents who think lowering salt in diet is very, somewhat or not at all important, by men

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
18-29	227	46.8	38.4-55.2	41.6	33.7-49.6	11.6	7.3-15.8
30-44	341	51.0	41.8-60.3	32.8	25.6-40.0	16.2	9.7-22.6
45-69	375	40.9	31.5-50.3	37.3	28.9-45.8	21.8	7.7-35.9
18-69	943	46.7	40.4-53.0	36.9	31.9-42.0	16.4	10.7-22.1

Table 48. Percentage of respondents who think lowering salt in diet is very, somewhat or not at all important, by women

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
18-29	321	46.3	38.1-54.5	41.5	33.9-49.2	12.2	8.4-15.9
30-44	540	49.7	44.8-54.6	36.9	32.4-41.5	13.4	9.6-17.2
45-69	367	50.1	42.7-57.6	34.3	27.5-41.1	15.6	9.2-21.9
18-69	1228	48.7	43.8-53.5	37.9	33.3-42.5	13.5	10.5-16.4

Table 49. Percentage of meals prepared with fresh coconut/cream milk, men

Meals prepared with fresh coconut cream or milk											
Age Group (years)	Men										
	n	% Every day	95% CI	% More than once a week	95% CI	% Once a week	95% CI	% Occasionally/sometimes	95% CI	% Never	95% CI
18-29	281	33.0	26.0-40.1	18.0	13.4-22.7	4.6	2.0-7.1	41.5	34.0-48.9	2.9	0.7-5.2
30-44	404	47.8	38.9-56.7	13.6	9.3-18.0	3.4	1.1-5.6	34.2	26.1-42.2	1.1	0.3-1.9
45-69	431	47.2	36.8-57.6	17.6	12.5-22.8	3.5	1.3-5.7	28.7	21.6-35.8	3.0	1.4-4.5
18-69	1116	42.7	36.2-49.2	16.2	13.1-19.4	3.8	2.3-5.3	35.0	29.7-40.4	2.2	1.3-3.1

Table 50. Percentage of meals prepared with fresh coconut/cream milk, women

Meals prepared with fresh coconut cream or milk											
Age Group (years)	Women										
	n	% Every day	95% CI	% More than once a week	95% CI	% Once a week	95% CI	% Occasionally/sometimes	95% CI	% Never	95% CI
18-29	369	32.7	25.4-40.0	17.0	12.2-21.9	4.5	1.7-7.3	44.4	36.8-51.9	1.4	0.0-2.9
30-44	610	37.0	31.9-42.2	17.2	13.2-21.3	4.5	2.8-6.2	40.0	35.6-44.5	1.2	0.5-2.0
45-69	410	39.9	31.8-48.0	16.6	11.9-21.4	6.1	3.8-8.5	34.2	27.3-41.1	3.2	1.1-5.3
18-69	1389	36.2	31.3-41.1	17.0	13.6-20.5	4.9	3.6-6.1	40.1	35.5-44.8	1.7	0.9-2.5

Physical Activity:

Table 51. Percentage of respondents classified as doing no work related physical activity, by gender

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
18-29	269	15.1	8.6-21.6	354	27.8	20.7-34.9	623	21.7	16.1-27.3
30-44	395	15.8	9.6-22.0	586	25.2	20.1-30.2	981	21.1	16.8-25.4
45-69	427	19.8	13.6-25.9	393	21.6	15.1-28.2	820	20.7	16.9-24.6
18-69	1091	16.7	12.8-20.6	1333	25.2	21.1-29.3	2424	21.2	17.8-24.6

Table 52. Percentage of respondents classified as doing no transport-related physical activity, gender

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
18-29	269	33.6	25.6-41.7	354	35.5	29.0-42.0	623	34.6	28.8-40.4
30-44	395	31.0	22.8-39.2	586	33.3	28.6-38.0	981	32.3	27.1-37.5
45-69	427	26.0	19.3-32.7	393	29.2	22.9-35.5	820	27.5	22.1-32.8
18-69	1091	30.4	25.1-35.7	1333	33.1	29.2-37.0	2424	31.8	28.0-35.7

Table 53. Percentage of respondents classified as doing no recreational-related physical activity, by gender

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
18-29	269	32.9	25.0-40.7	354	65.5	58.3-72.7	623	50.2	44.1-56.3
30-44	395	53.3	44.8-61.8	586	76.4	72.2-80.6	981	66.3	61.2-71.4
45-69	427	82.4	76.3-88.4	393	86.4	80.4-92.5	820	84.3	79.3-89.3
18-69	1091	55.0	49.8-60.3	1333	75.1	71.2-78.9	2424	65.6	61.9-69.4

Table 54. Median minutes of recreation-related physical activity on average per day, by gender

Median minutes of recreation-related physical activity on average per day									
Age group (years)	Men			Women			Both sexes		
	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)	n	Median minutes	Inter-quartile range (P25-P75)
18-29	269	42.9	0-111.4	354	0	0-12.9	623	0	0-51.4
30-44	395	0	0-51.4	586	0	0	981	0	0-17.1
45-69	427	0	0	393	0	0	820	0	0
18-69	1091	0	0-51.4	1333	0	0	2424	0	0-17.1

Table 55. Mean minutes spent in sedentary activities on a typical day, by men

Minutes spent in sedentary activities on average per day					
Age Group (years)	Men				
	n	Mean minutes	95% CI	Median minutes	Inter-quartile range (P25-P75)
18-29	280	162.2	141.9-182.5	120.0	60.0-240.0
30-44	405	149.5	129.7-169.3	120.0	60-180.0
45-69	433	184.7	159.8-209.7	150.0	60-300.0
18-69	1118	163.8	150.1-177.5	120.0	60.0-120.0

Table 56. Mean minutes spent in sedentary activities on a typical day, by women

Minutes spent in sedentary activities on average per day					
Age Group (years)	Women				
	n	Mean minutes	95% CI	Median minutes	Inter-quartile range (P25-P75)
18-29	367	161.1	139.1-183.0	120.0	60.0-240.0
30-44	609	139.0	124.4-153.6	120.0	60.0-180.0
45-69	412	144.1	122.9-165.4	120.0	55.0-240.0
18-69	1388	147.5	133.8-161.3	120.0	60.0-240.0

Blood Pressure and Diabetes History

Table 57. Raised blood pressure treatment results among those previously diagnosed with raised blood pressure, by gender

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
18-29	12	10.6	0.0-22.9		16	9.2	0.0-22.3		28	9.8	1.4-18.2
30-44	30	13.7	2.4-25.0		72	19.7	8.3-31.0		102	17.7	9.2-26.2
45-69	63	14.8	4.3-25.3		101	28.5	16.8-40.2		164	23.2	15.5-30.9
18-69	105	13.8	7.7-19.9		189	22.5	15.1-29.8		294	19.3	14.3-24.2

Oral Health

Table 58. Main reason for last visit to the dentist among those who ever visited a dentist, by men

Main reason for last visit to the dentist among those who ever visited a dentist											
Age Group (years)	Men										
	n	% Consultation/advice	95% CI	% Pain/trouble with teeth or gums	95% CI	% Follow-up treatment	95% CI	% Routine check-up treatment	95% CI	% Other	95% CI
18-29	79	1.0	0.0-2.9	76.4	65.3-87.4	10.3	2.3-18.3	7.0	0.0-14.4	5.4	0.0-10.9
30-44	158	3.6	0.2-7.1	71.9	61.8-82.1	14.5	7.1-21.9	6.8	2.1-11.4	3.1	0.7-5.6
45-69	219	1.8	0.0-3.7	69.9	62.0-77.8	15.1	9.9-20.4	5.6	2.3-9.0	7.5	2.6-12.4
18-69	456	2.3	0.6-4.0	72.3	65.9-78.6	13.7	9.0-18.4	6.4	3.4-9.4	5.3	2.9-7.7

Table 59. Main reason for last visit to the dentist among those who ever visited a dentist, by women

Main reason for last visit to the dentist among those who ever visited a dentist											
Age Group (years)	Women										
	n	% Consultation/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
18-29	136	1.1	0.0-3.2	74.4	64.6-84.1	21.1	11.1-31.1	2.2	0.0-4.4	1.3	0.0-3.2
30-44	329	2.1	0.5-3.7	76.6	70.3-82.8	12.9	8.8-17.0	5.4	2.0-8.7	3.1	1.1-5.1
45-69	264	2.8	0.7-4.9	75.9	69.1-82.7	13.2	8.0-18.4	5.4	1.7-9.0	2.8	0.6-4.9
18-69	729	2.1	0.7-3.4	75.8	70.8-80.9	15.0	10.7-19.2	4.6	2.3-6.8	2.6	1.4-3.7

Table 60. 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, by men

Percentage of respondents using various tools to clean teeth												
Age Group (years)	Men											
	n	% Tooth-brush	95% CI	n	% Wooden toothpicks	95% CI	n	% Plastic toothpicks	95% CI	n	% Thread (dental floss)	95% CI
18-29	207	57.2	49.2-65.2	207	8.1	4.8-11.3	207	1.5	0.0-3.3	207	0.9	0.0-2.1
30-44	280	53.0	44.0-61.9	280	14.2	7.4-21.0	280	5.7	0.0-11.6	280	2.8	0.4-5.2
45-69	267	46.2	37.1-55.3	267	10.0	5.3-14.6	267	2.2	0.0-4.8	267	0.9	0.0-1.8
18-69	754	52.9	47.0-58.8	754	11.0	7.6-14.3	754	3.3	0.5-6.2	754	1.6	0.6-2.7

Percentage of respondents using various tools to clean teeth									
Age Group (years)	Men								
	n	% Charcoal	95% CI	n	% Chewstick/miswak	95% CI	n	%Other	95% CI
18-29	207	6.7	1.6-11.8	207	3.8	0.7-6.8	207	7.1	2.9-11.2
30-44	280	4.8	1.7-7.9	280	5.1	2.0-8.2	280	6.3	2.6-10.0
45-69	267	3.9	1.3-6.5	267	3.1	0.6-5.6	267	6.4	3.3-9.4
18-69	754	5.3	2.9-7.6	754	4.1	2.3-6.0	754	6.6	3.8-9.5

Percentage of respondents using various tools to clean teeth						
Age Group (years)	Men					
	n	% Fine Sand	95% CI	n	% Coconut husk	95% CI
18-29	207	49.2	41.2-57.2	207	2.1	0.0-4.8
30-44	280	45.9	34.7-57.1	280	3.1	0.3-5.9
45-69	267	47.7	40.1-55.4	267	3.3	0.1-6.5
18-69	754	47.5	41.4-53.7	754	2.8	0.9-4.7

Table 61. 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, by men

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
18-29	322	72.1	64.8-79.4	322	14.7	9.1-20.3	322	2.9	0.0-5.9	322	3.3	0.8-5.9
30-44	506	63.1	56.9-69.2	506	10.2	6.7-13.6	506	2.7	1.0-4.4	506	3.0	1.3-4.7
45-69	286	59.8	51.4-68.2	286	9.7	5.2-14.1	286	1.7	0.0-3.8	286	1.9	0.0-4.1
18-69	1114	65.7	60.3-71.1	1114	11.7	8.6-14.8	1114	2.5	0.8-4.2	1114	2.9	1.5-4.3

Percentage of respondents using various tools to clean teeth									
Age Group (years)	Women								
	n	% Charcoal	95% CI	n	% Chewstick/miswak	95% CI	n	%Other	95% CI
18-29	322	4.4	2.1-6.7	322	2.7	0.6-4.8	322	7.6	3.5-11.7
30-44	506	3.4	1.8-5.0	506	3.7	1.7-5.8	505	7.7	5.2-10.2
45-69	286	3.4	0.5-6.4	286	2.5	0.3-4.7	286	6.0	1.9-10.2
18-69	1114	3.8	2.2-5.4	1114	3.1	1.8-4.4	1113	7.3	5.2-9.5

Percentage of respondents using various tools to clean teeth						
Age Group (years)	Women					
	n	% Fine Sand	95% CI	n	% Coconut husk	95% CI
18-29	322	46.0	38.7-53.4	322	2.8	0.4-5.1
30-44	505	44.7	37.5-51.8	505	1.7	0.2-3.2
45-69	286	41.2	32.6-49.9	286	0.6	0.0-1.5
18-69	1113	44.5	39.0-50.0	1113	1.9	0.8-3.0

Table 62. Percentage who had experienced difficulty with speech or had trouble pronouncing words during the past 12 months

Percentage who had difficulty with speech/trouble pronouncing words during the past 12 months											
Age group (years)	Men				Women				Both sexes		
	n	% Difficulty with speech/ pronouncing words	95% CI		n	% Difficulty with speech/ pronouncing words	95% CI		n	% Difficulty with speech/ pronouncing words	95% CI
18-29	280	2.3	0.7-3.8		368	1.9	0.6-3.2		648	2.1	1.1-3.1
30-44	405	11.4	3.9-18.9		608	5.7	3.6-7.9		1013	8.2	4.4-12.1
45-69	433	12.1	7.7-16.4		411	16.9	10.9-22.8		844	14.3	9.8-18.8
18-69	1118	8.6	5.2-11.9		1387	7.0	5.1-8.9		2505	7.7	5.5-10.0

Table 63. Percentage who felt tense because of problems with their teeth or mouth during the past 12 months

Percentage who felt tense because of problems with their teeth or mouth during the past 12 months											
Age group (years)	Men				Women				Both sexes		
	n	% felt tense because of problems with teeth or mouth	95% CI		n	% felt tense because of problems with teeth or mouth	95% CI		n	% felt tense because of problems with teeth or mouth	95% CI
18-29	280	5.0	1.9-8.1		368	4.8	1.6-8.1		648	4.9	2.9-7.0
30-44	405	12.8	5.0-20.7		608	7.7	5.1-10.3		1013	9.9	6.0-13.9
45-69	433	12.2	8.6-15.9		411	14.7	10.0-19.4		844	13.4	10.0-16.8
18-69	1118	10.1	6.5-13.6		1387	8.3	5.7-11.0		2505	9.2	7.0-11.3

Table 64. Percentage who were embarrassed because of the appearance of their teeth during the past 12 months

Percentage who was embarrassed because of the appearance of their teeth during the past 12 months											
Age group (years)	Men				Women				Both sexes		
	n	% Embar- rassed because of appearance of teeth	95% CI		n	% Embar- rassed because of appearance of teeth	95% CI		n	% Embar- rassed because of appearance of teeth	95% CI
18-29	280	4.8	2.2-7.4		368	4.6	1.8-7.4		648	4.7	2.8-6.6
30-44	405	12.7	5.1-20.3		608	8.5	5.5-11.6		1013	10.4	6.4-14.3
45-69	433	9.1	5.5-12.6		411	14.6	9.1-20.0		844	11.7	8.3-15.0
18-69	1118	9.0	5.7-12.4		1387	8.6	5.9-11.4		2505	8.8	6.6-11.0

Table 65. Percentage who avoided smiling because of their teeth during the past 12 months

Percentage who avoided smiling because of their teeth during the past 12 months											
Age group (years)	Men				Women				Both sexes		
	n	% Avoided smiling because of teeth	95% CI		n	% Avoid- ed smiling because of teeth	95% CI		n	% Avoided smiling because of teeth	95% CI
18-29	280	6.7	3.5-9.9		368	4.8	2.0-7.6		648	5.7	3.8-7.6
30-44	405	8.0	1.6-14.4		608	6.7	4.2-9.2		1013	7.3	4.0-10.5
45-69	433	7.7	4.7-10.7		411	10.9	6.6-15.2		844	9.2	6.5-11.9
18-69	1118	7.5	4.6-10.4		1387	7.0	4.7-9.3		2505	7.2	5.3-9.2

Table 66. Percentage who reported having often had interruptions in sleep because of their teeth during the past 12 months

Percentage who reported interruptions in sleep because of their teeth during the past 12 months											
Age group (years)	Men				Women				Both sexes		
	n	% Sleep often inter- rupted	95% CI		n	% Sleep often inter- rupted	95% CI		n	% Sleep often inter- rupted	95% CI
18-29	280	3.9	1.7-6.0		368	5.1	2.4-7.7		648	4.5	2.7-6.3
30-44	405	9.7	3.1-16.2		608	6.8	4.5-9.0		1013	8.0	4.9-11.1
45-69	433	9.8	6.1-13.5		411	11.5	7.0-15.9		844	10.6	7.3-13.8
18-69	1118	7.8	4.9-10.6		1387	7.3	5.2-9.4		2505	7.5	5.5-9.5

Table 67. Percentage who had days not at work because of their teeth or mouth during the past 12 months

Percentage with days not at work because of their 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
18-29	280	1.4	0.0-3.0		368	2.8	0.9-4.7		648	2.2	0.9-3.4
30-44	405	5.8	3.4-8.2		608	6.4	4.1-8.8		1013	6.2	4.2-8.1
45-69	433	7.3	3.9-10.7		411	8.2	4.8-11.6		844	7.7	5.0-10.4
18-69	1118	4.8	3.4-6.1		1387	5.6	3.9-7.4		2505	5.2	3.8-6.6

Table 68. Percentage who had difficulty doing usual activities because of their teeth during the past 12 months

Percentage who had difficulty doing usual activities because of their teeth during the past 12 months											
Age group (years)	Men				Women				Both sexes		
	n	% had difficul- ty doing usual activities	95% CI		n	% had difficul- ty doing usual activities	95% CI		n	% had difficul- ty doing usual activities	95% CI
18-29	280	3.2	1.1-5.3		368	3.9	1.6-6.3		648	3.6	1.9-5.3
30-44	405	5.8	3.2-8.5		608	7.2	4.9-9.5		1013	6.6	4.6-8.6
45-69	433	7.7	4.6-10.9		411	10.8	6.4-15.2		844	9.2	6.2-12.2
18-69	1118	5.5	3.9-7.1		1387	6.9	5.1-8.8		2505	6.3	4.7-7.8

Table 69. Percentage who had been less tolerant of spouse or people close to them because of their teeth during the past 12 months

Percentage who had been less tolerant of spouse or people close to them because of their teeth during the past 12 months											
Age group (years)	Men				Women				Both sexes		
	n	% had been less tolerant	95% CI		n	% had been less tolerant	95% CI		n	% had been less tolerant	95% CI
18-29	280	1.6	0.0-3.3		368	2.7	0.4-5.0		648	2.2	0.8-3.6
30-44	405	7.5	1.5-13.5		608	5.2	3.0-7.3		1013	6.2	3.3-9.1
45-69	433	4.8	2.3-7.3		412	7.0	3.6-10.5		845	5.9	3.6-8.1
18-69	1118	4.8	2.3-7.3		1388	4.8	3.1-6.4		2506	4.8	3.1-6.4

Table 70. Percentage who had reduced participation in social activities because of their teeth during the past 12 months

Percentage who had reduced participation in social activities during the past 12 months									
Age group (years)	Men			Women			Both sexes		
	n	% had reduced participation in social activities	95% CI	n	% had reduced participation in social activities	95% CI	n	% had reduced participation in social activities	95% CI
18-29	280	2.9	0.8-4.9	368	3.3	1.5-5.1	648	3.1	1.9-4.3
30-44	405	9.5	3.2-15.7	608	5.3	3.2-7.3	1013	7.1	4.1-10.1
45-69	433	6.3	4.0-8.7	412	7.8	4.4-11.1	845	7.0	4.8-9.3
18-69	1118	6.4	3.8-9.0	1388	5.2	3.6-6.8	2506	5.7	4.1-7.4

Table 71. Total cholesterol measurement and diagnosis status of men

Total cholesterol measurement and diagnosis status									
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
18-29	280	99.5	98.8-100.0	0.5	0.0-1.2	0.0	0.0-0.0	0.0	0.0-0.0
30-44	405	97.8	96.1-99.6	2.0	0.2-3.8	0.1	0.0-0.2	0.1	0.0-0.2
45-69	433	96.6	94.7-98.5	2.9	1.1-4.7	0.0	0.0-0.0	0.5	0.0-1.1
18-69	1118	98.0	97.1-99.0	1.8	0.8-2.7	0.0	0.0-0.1	0.2	0.0-0.3

Table 72. Total cholesterol measurement and diagnosis status of women

Total cholesterol measurement and diagnosis status									
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
18-29	367	97.2	95.5-99.0	2.8	1.0-4.5	0.0	0.0-0.0	0.0	0.0-0.0
30-44	608	97.7	96.6-98.9	1.5	0.6-2.4	0.2	0.0-0.6	0.5	0.0-1.1
45-69	412	97.2	95.5-98.9	2.4	0.7-4.0	0.0	0.0-0.0	0.4	0.0-0.9
18-69	1387	97.4	96.6-98.3	2.1	1.4-2.9	0.1	0.0-0.2	0.3	0.0-0.7

Table 73. Mean heart rate (beats per minute).

Mean heart rate (beats per minute)									
Age Group (years)	Men			Women			Both Sexes		
	n	mean	95% CI	n	mean	95% CI	n	mean	95% CI
18-29	175	68.6	66.7-70.4	237	76.7	74.7-78.7	412	73.0	71.5-74.5
30-44	311	67.9	65.3-70.5	463	73.6	72.5-74.7	774	71.2	69.8-72.5
45-69	356	68.4	66.9-69.9	342	70.3	68.6-72.0	698	69.3	68.1-70.5
18-69	842	68.3	66.9-69.6	1042	73.7	72.7-74.7	1884	71.2	70.3-72.1

Table 74. Mean fasting blood glucose results including those currently on medication for diabetes (non-fasting recipients excluded)

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
18-29	154	103.1	99.1-107.2	212	101.8	96.3-107.3	366	102.4	98.5-106.2
30-44	280	107.4	103.8-111.0	431	107.2	103.0-111.5	711	107.3	104.3-110.3
45-69	322	114.9	109.0-120.9	306	119.2	112.0-126.4	628	117.0	112.2-121.8
18-69	756	108.6	105.7-111.4	949	108.6	105.1-112.0	1705	108.6	105.9-111.2

Table 75. Mean total cholesterol among all respondents including those currently on medication for raised cholesterol

Mean total cholesterol (mg/dl)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-29	154	151.6	144.3-158.9	214	170.9	164.2-177.5	353	163.0	157.5-168.6
30-44	280	167.4	160.8-174.0	432	179.1	173.0-185.2	691	173.9	168.9-179.0
45-69	323	174.0	167.9-180.1	307	194.8	188.4-201.2	620	184.0	179.1-188.9
18-69	757	164.9	160.6-169.3	953	180.5	176.3-184.8	1664	173.6	170.2-177.0

Table 76. Percentage of eligible persons (defined as aged 40-69 years with a 10-year cardiovascular disease (CVD) risk* $\geq 30\%$, including those with existing CVD) receiving drug therapy and counseling** (including glycaemic control) to prevent heart attacks and strokes.

Percentage of eligible persons receiving drug therapy and counselling to prevent heart attacks and strokes									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
30-44	16	9.0	0.0-27.1	30	8.0	0.0-17.3	46	8.3	0.0-16.7
45-69	15	25.7	0.0-53.8	16	8.3	0.0-18.5	31	18.3	1.8-34.8
18-69	31	16.9	0.0-34.0	46	8.0	0.6-15.5	77	11.4	3.5-19.2

Appendix 3

Sample description

ID	Name of Province and EA Number	Name of the EAs (Enumeration Areas)	Number of household to be surveyed per EAs
6	10203 - Choiseul	Katupika	25
7	10204 - Choiseul	Katupika	25
28	10704 - Choiseul	Batava	25
29	10705 - Choiseul	Batava	25
30	10706 - Choiseul	Batava	25
50	11101 - Choiseul	Susuka	25
51	11102 - Choiseul	Susuka	25
52	11103 - Choiseul	Susuka	25
Total			200
85	20504 - Western	Central Ranongga	25
86	20505 - Western	Central Ranongga	25
108	20801 - Western	Bilua	25
109	20802 - Western	Bilua	25
140	21109 - Western	Gizo	25
141	21110 - Western	Gizo	25
148	21117 - Western	Gizo	25
149	21118 - Western	Gizo	25
150	21119 - Western	Gizo	25
165	21304 - Western	Vonavona	25
166	21305 - Western	Vonavona	25
167	21306 - Western	Vonavona	25
195	21701 - Western	Roviana Lagoon	25
196	21702 - Western	Roviana Lagoon	25
223	22101 - Western	Buini Tusu	25
224	22102 - Western	Buini Tusu	25
260	22507 - Western	Noro	25
261	22508 - Western	Noro	25
262	22509 - Western	Noro	25
263	22510 - Western	Noro	25
Total			500
295	30701 - Isabel	Koviloko	25
296	30702 - Isabel	Koviloko	25
315	31105 - Isabel	Sigana	25
316	31106 - Isabel	Sigana	25
334	31602 - Isabel	Samasodu	25
335	31603 - Isabel	Samasodu	25
336	31604 - Isabel	Samasodu	25
Total			175
355	40301 - Central	East Nggella	25

356	40302 - Central	East Nggella	25
363	40501 - Central	South West Nggella	25
364	40502 - Central	South West Nggella	25
365	40503 - Central	South West Nggella	25
366	40504 - Central	South West Nggella	25
391	41001 - Central	Pavuvu	25
392	41002 - Central	Pavuvu	25
393	41003 - Central	Pavuvu	25
394	41004 - Central	Pavuvu	25
Total			250
427	60109 - Guadalcanal	Tandai	25
428	60110 - Guadalcanal	Tandai	25
429	60111 - Guadalcanal	Tandai	25
430	60112 - Guadalcanal	Tandai	25
431	60122 - Guadalcanal	Tandai	25
432	60123 - Guadalcanal	Tandai	25
433	60124 - Guadalcanal	Tandai	25
458	60201 - Guadalcanal	Saghalu	25
459	60202 - Guadalcanal	Saghalu	25
460	60203 - Guadalcanal	Saghalu	25
461	60205 - Guadalcanal	Saghalu	25
462	60206 - Guadalcanal	Saghalu	25
463	60207 - Guadalcanal	Saghalu	25
499	60602 - Guadalcanal	Duidui	25
500	60603 - Guadalcanal	Duidui	25
590	61805 - Guadalcanal	East Tasimboko	25
591	61806 - Guadalcanal	East Tasimboko	25
593	61808 - Guadalcanal	East Tasimboko	25
594	61809 - Guadalcanal	East Tasimboko	25
635	62010 - Guadalcanal	Malango	25
636	62011 - Guadalcanal	Malango	25
637	62012 - Guadalcanal	Malango	25
638	62013 - Guadalcanal	Malango	25
639	62018 - Guadalcanal	Malango	25
640	62019 - Guadalcanal	Malango	25
641	62020 - Guadalcanal	Malango	25
651	62106 - Guadalcanal	West Ghaobata	25
652	62107 - Guadalcanal	West Ghaobata	25
653	62108 - Guadalcanal	West Ghaobata	25
654	62109 - Guadalcanal	West Ghaobata	25
Total			750
675	70101 - Malaita	Auki	25
676	70102 - Malaita	Auki	25
677	70103 - Malaita	Auki	25
678	70104 - Malaita	Auki	25
679	70111 - Malaita	Auki	25

680	70112 - Malaita	Auki	25
681	70113 - Malaita	Auki	25
694	70207 - Malaita	Aimela	25
695	70208 - Malaita	Aimela	25
696	70209 - Malaita	Aimela	25
697	70210 - Malaita	Aimela	25
698	70211 - Malaita	Aimela	25
699	70218 - Malaita	Aimela	25
700	70219 - Malaita	Aimela	25
701	70220 - Malaita	Aimela	25
730	70409 - Malaita	Fauabu	25
731	70410 - Malaita	Fauabu	25
732	70411 - Malaita	Fauabu	25
768	70709 - Malaita	Fo'ondo-Gwaiau	25
769	70710 - Malaita	Fo'ondo-Gwaiau	25
770	70711 - Malaita	Fo'ondo-Gwaiau	25
845	71408 - Malaita	Sububenu/Buriani(asi)	25
846	71409 - Malaita	Sububenu/Buriani(asi)	25
847	71410 - Malaita	Sububenu/Buriani(asi)	25
878	71707 - Malaita	Gulalafou	25
880	71709 - Malaita	Gulalafou	25
916	72104 - Malaita	Raroisu'u	25
917	72105 - Malaita	Raroisu'u	25
918	72106 - Malaita	Raroisu'u	25
992	72901 - Malaita	Keaimela/Radefasu	25
993	72902 - Malaita	Keaimela/Radefasu	25
994	72903 - Malaita	Keaimela/Radefasu	25
995	72904 - Malaita	Keaimela/Radefasu	25
996	72905 - Malaita	Keaimela/Radefasu	25
997	72906 - Malaita	Keaimela/Radefasu	25
998	72907 - Malaita	Keaimela/Radefasu	25
999	72908 - Malaita	Keaimela/Radefasu	25
Total			925
1030	80101 - Makira	North Ulawa	25
1031	80102 - Makira	North Ulawa	25
1032	80103 - Makira	North Ulawa	25
1056	80701 - Makira	Arosi North	25
1057	80702 - Makira	Arosi North	25
1075	81001 - Makira	Bauro Central	25
1076	81002 - Makira	Bauro Central	25
1077	81003 - Makira	Bauro Central	25
1109	81501 - Makira	Santa Ana	25
1110	81502 - Makira	Santa Ana	25
1111	81503 - Makira	Santa Ana	25
Total			275
1140	90501 - Temotu	Manuopo	25
1141	90502 - Temotu	Manuopo	25

1142	90503 - Temotu	Manuopo	25
1143	90601 - Temotu	Nenumpo	25
1144	90602 - Temotu	Nenumpo	25
1145	90603 - Temotu	Nenumpo	25
1171	91201 - Temotu	Nanggu-Lordhowe	25
1172	91202 - Temotu	Nanggu-Lordhowe	25
1173	91203 - Temotu	Nanggu-Lordhowe	25
1174	91204 - Temotu	Nanggu-Lordhowe	25
Total			250
1193	100101 - Honiara	Nggosi	25
1194	100102 - Honiara	Nggosi	25
1195	100103 - Honiara	Nggosi	25
1196	100125 - Honiara	Nggosi	25
1197	100126 - Honiara	Nggosi	25
1198	100127 - Honiara	Nggosi	25
1214	100122 - Honiara	Nggosi	25
1215	100123 - Honiara	Nggosi	25
1216	100124 - Honiara	Nggosi	25
1220	100201 - Honiara	Mbumburu	25
1221	100202 - Honiara	Mbumburu	25
1222	100203 - Honiara	Mbumburu	25
1234	100501 - Honiara	Vavaea	25
1235	100502 - Honiara	Vavaea	25
1236	100503 - Honiara	Vavaea	25
1237	100510 - Honiara	Vavaea	25
1238	100511 - Honiara	Vavaea	25
1239	100512 - Honiara	Vavaea	25
1240	100513 - Honiara	Vavaea	25
1241	100504 - Honiara	Vavaea	25
1262	100804 - Honiara	Kola'a (Kolaale)	25
1263	100805 - Honiara	Kola'a (Kolaale)	25
1264	100806 - Honiara	Kola'a (Kolaale)	25
1265	100822 - Honiara	Kola'a (Kolaale)	25
1266	100823 - Honiara	Kola'a (Kolaale)	25
1267	100901 - Honiara	Kukum	25
1268	100902 - Honiara	Kukum	25
1269	100903 - Honiara	Kukum	25
1287	100904 - Honiara	Kukum	25
1288	100905 - Honiara	Kukum	25
1291	101101 - Honiara	Vura	25
1292	101102 - Honiara	Vura	25
1293	101103 - Honiara	Vura	25
1317	101205 - Honiara	Panatina	25
1318	101206 - Honiara	Panatina	25
1319	101207 - Honiara	Panatina	25
1320	101208 - Honiara	Panatina	25

1321	101228 - Honiara	Panatina	25
1322	101229 - Honiara	Panatina	25
1323	101230 - Honiara	Panatina	25
Total	For Honiara		1000
Total Sample Size			4322

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