Nauru NCD Risk Factors STEPS REPORT 2015-2016

in collaboration with World Health Organization (WHO)

World Health Organization
Western Pacific Region

Nauru
NCD Risk Factors
STEPS REPORT
2015-2016

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Acknowledgements

This survey would not have been possible without the extensive support and hard work of many people. In particular we must acknowledge all the participants who kindly gave up their time to participate in this important survey.

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We would also like to acknowledge the technical support from the World Health Organization for the planning, preparation and reporting of this survey, in particular Dr Wendy Snowdon and Nola Vanualailai from the Division of Pacific Technical Support. The financial support of the Australian Aid programme for this survey is appreciated.

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BMI	Body Mass Index
BP	Blood Pressure
CBA	Childbearing Age [Women]
CI	Confidence Interval
CVD	Cardiovascular Diseases
DBP	Diastolic Blood Pressure
DM	Diabetes Mellitus
ETS	Environmental Tobacco Smoke
GDP	Gross Domestic Product
HDL	High-density Lipoprotein
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
SBP	Systolic Blood Pressure
WHO	World Health Organization

Foreword by Ministry of Health

Hon. Charmaine Scotty, MP
Minister of Health and Medical Services
Republic of Nauru

As Minister of Health and Medical Services I welcome this report of the Nauru 2016 STEPS survey. The findings of the survey present a view of the non-communicable diseases risk factors and burden in the nation. This is the first step towards positive and concrete action in our battle against non-communicable diseases.

An intertwined relationship exists between behaviour; the (social, economic and physical) environment in which we live and our health. Risks for non-communicable diseases exists across age and gender boundaries as highlighted in the report. I am troubled when I see the report highlight that nearly half of our population use tobacco; that greater than a quarter of our population use alcohol in harmful excess; that almost 40% of our population lack adequate physical activity and that over 70% of peoples living on Nauru face the challenge of obesity. Our nation continues to face the burden of non-communicable diseases.

Non-communicable diseases form a major public health concern with significant social and economic implications in terms of health care costs, lost productivity and premature death. Diabetes, obesity, respiratory diseases, cardiovascular diseases, and injuries continue to dominate the disease landscape. I appeal to all policymakers, stakeholders, public health professionals, and all concerned with the control of non-communicable diseases in Nauru to use this report as reference source for all action against non-communicable diseases. The very essential information provided in this report must inform policy targeted at halting and reversing the burden of non-communicable diseases.

The Government of Nauru is grateful to the World Health Organization for technical assistance for the completion of the survey and report. Wide stakeholder engagement, in-depth literature review and dedication from the technical working group that undertook the planning and implementation phases of the survey is very much appreciated. The hard work and determination of the STEPS field teams and individuals allowed this vital activity to run smoothly to completion. We owe each of them our sincere appreciation.

While the survey results demonstrate the great challenge that non-communicable diseases present to our nation it at the same time points the path for our nation's response. I call on all state institutions, development partners, communities and individuals to join together in the battle against non-communicable diseases and achieve our vision of a quality and healthy life for all peoples in our nation.

Hon. Charmaine Scotty, MP
Minister of Health and Medical Services
Republic of Nauru

Foreword by the World Health Organization

Dr. Corinne Capuano
Director, Pacific Technical Support
Representative, South Pacific, World Health Organization

The World Health Organization (WHO) is pleased to collaborate with the Nauru 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, Nauru's 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 Nauru's second STEPS survey, undertaken in 2015. Some of the key findings of this survey are:

- 46.3% of the population were current smokers, with younger men aged 18-29 more likely to be smokers than those aged 45-69;
- 27.7% of Nauruans had drunk alcohol in the last 30 days and 17.3% drank in the past 12 months, with men being more likely to be drinkers than women;
- 18.1% of Nauruans consumed kava in the past 12 months;
- 33.4% of Kava drinkers were likely to drink alcohol and 69.1% would smoke tobacco during or after drinking kava;
- 95.3% did not consume the recommended 5 minimum daily servings of fruits and vegetables;
- 53.8% of the population always or often added salt before eating or when eating, with younger Nauruans aged 18-29 being more likely to do so than those aged 30-44 and 45-69;
- 65.4% of the population always or often added salt when cooking or preparing food at home;
- On average, Nauruans consumed 4.1 servings of sugary drinks per day, plus 5.4 teaspoons of sugar added to other drinks per day;
- 39.8% of the population did not meet the WHO global recommendations on physical activity for health, women being more likely than men;
- 23.4% of the population had a mild mental disorder, 12.8% had a moderate mental disorder and 5.3% had a severe mental disorder;

- 70.2% of the population were obese, 19.8% were overweight and 0.1% were underweight, with women aged 30-44 more likely to be classified as obese than those aged 18-29, and men aged 18-29 more likely to be classified as obese than those aged 30-44;
- 25.3% had raised blood pressure of SBP ≥ 140 mmHg and/or DBP ≥ 90 mmHg or were currently on medication, particularly older adults;
- 9.8% had raised blood pressure of SBP ≥ 160 and/or DBP ≥ 100 mmHg or were currently on medication, particularly older adults;
- 17.1% of the population were categorized as having impaired fasting glycaemia;
- 19.6% of the population had total cholesterol of ≥ 5.0 mmol/l or ≥ 190 mg/dl or were currently on medication for raised cholesterol, particularly those aged 45-69 than those aged 18-29;
- 7.9% had total cholesterol ≥ 6.2 mmol/l or ≥ 240 mg/dl or were currently on medication for raised cholesterol; and
- 66.6% 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 reduction in smoking prevalence and an increase in the number of days and servings of fruits consumed. However, there are also some areas of concern such as increase in obesity prevalence and increase in proportion of adults with raised total cholesterol.

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

Executive Summary

Nauru conducted its first NCD STEPS survey in 2004 and the report was published in 2007. The first survey provided baseline assessment of the NCD risk factors and showed high levels of risk-taking behaviour and NCDs, and has contributed to the planning of interventions and NCD strategy. Planning for this second survey began in 2015, and data was collected from September, 2015 to April 2016. The Ministry of Health led the implementation of the survey with technical support from the World Health Organization.

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.
- 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.

A total of 1,386 individuals, 95.2% Nauruans and 4.8% of other ethnicity participated in the survey. The survey respondents included 53.0% women (n = 735) and 47.0% men (n = 652). Men and women had similar mean number of years of education (10.4 years and 10.7 years respectively), which suggests equal access to education in the participants in the sample. More than half (59.8%) have completed secondary school level of education, 31.4% have at least primary school education, 5.6% have college degrees, 0.5% have post-graduate degrees, and 2.7% have no formal schooling or less than primary school education. A quarter (24.8%) are in unpaid work or unemployed, whilst 38.5% are non-government employees, 34.0% are government employees and 2.7% are self-employed.

Nauru has three key documents that guide health sector strategies: (1) Noncommunicable Disease (NCD) Strategic Action Plan 2015-2020, (2) National Sustainable Development Strategy (NSDS) 2005-2025, and (3) Ministry of Health and Medical Service Strategic Plan 2010-2015. Nauru's NCD Strategic Action Plan seeks to achieve its health goals through strengthening health systems, primary health care, curative health and support services to improve nutrition and food security, increase physical activity, decrease tobacco use and harmful use of alcohol. The measures outlined include establishing a multisectoral coordination committee, developing policies, legislation and regulations, using taxes, strengthening enforcement of legislation, implementing settings-based programmes and strategic health communication activities, allocating areas for physical activity and recreation, and organizing community exercise programmes. There were also plans to strengthen the workforce, the health care service delivery infrastructure, and the monitoring and surveillance of NCDs.

Behavioural risk factors

Nearly half of the Nauruan population (46.3%) were current smokers – 47.4% of men and 45.3% of women – with no significant differences between men and women and between the three age groups. Among men, those aged 18-29 (53.9%) were more likely to be smokers than those aged 45-69 (35.1%). On average, Nauruans began smoking at the age of 16.4 years. More than half (59.6%) of current daily smokers were heavy users, smoking 15 or more cigarettes a day. A significantly higher proportion of current daily smokers aged 45-69 smoked more than 25 cigarettes a day (26.5%) compared to those aged 18-29 (11.6%) and 30-44 years (15.2%); and a higher proportion of male (20.4%) than female current daily smokers (11.5%) smoked more than 25 cigarettes a day. On average, current daily smokers smoked 16.3 manufactured cigarettes and 0.9 hand-rolled cigarettes daily. Nauruans aged 18-29 who were currently daily smokers smoked significantly fewer manufactured cigarettes (14.7 cigarettes) than those aged 45-69 (19.3 cigarettes); and there was no statistically significant differences between the three age groups in terms of the other tobacco products they used. More than half of the population (54.7%) have been exposed to second-hand smoke in homes and 27.4% in workplaces. In addition, currently, 1.3% of the population use e-cigarettes.

More than a quarter of Nauruans (27.7%) were current drinkers whilst most were non-current drinkers – 31.1%

were lifetime abstainers, 17.3% drank in the past 12 months though not currently, and 23.9% did not drink in the past 12 months. Younger Nauruans aged 18-29 (30.4%) and 30-44 years (32.4%) were more likely to be current drinkers than those aged 45-69 (16.6%). Significantly more men than women were drinkers – among men, 39.8% were current drinkers and 21.3% drank in the past 12 months; and among women, 16.4% were current drinkers and 13.6% drank in the past 12 months. Among current drinkers, the mean number of drinking occasions in the past 30 days was 5.5; the mean number of standard drinks per occasion was 13.7; and 11.6% drank at the high-end level, 8.1% at the intermediate level and 80.3% at the lower-end level. With regards to binge drinking, 24.1% did so at least once in the past 30 days – men were much more likely to binge drink than women (36.1% compared to 12.8%); and younger Nauruans aged 18-29 (26.3%) and 30-44 years (29.0%) were more likely to have binge drink compared to those aged 45-69 (13.4%).

Less than a fifth (18.1%) of Nauruans consumed kava in the past 12 months with no statistically significant differences between men and women and the three age groups. In the last 30 days, Nauruans consumed kava on 7.7 days and spent about an hour on average drinking kava in a session. One third of kava drinkers (33.4%) were likely to drink alcohol during or after drinking kava and 69.1% would smoke tobacco.

The majority (95.3%) of Nauruans consumed less than the recommended five servings of fruit and/or vegetables per day – 61.3% did not consume any fruit and/or vegetables; 27.2% consumed 1-2 servings on average per day; 6.7% consumed 3-4 servings; and 4.7% consumed 5 or more servings on average per day. The mean number of days fruit was consumed in a typical week was 1.8 days and 2.5 days for vegetables; and the mean number of servings of fruit and/or vegetables consumed on average per day was 1.2.

Slightly more than half (53.8%) of the population always or often added salt before eating or when eating, and 65.4% did so when cooking or preparing food at home. Younger Nauruans aged 18-29 were more likely to add salt before or when eating (60.4%) compared to those aged 30-44 years (49.9%) and 45-69 (47.5%); and younger men aged 18-29 were also more likely to do so (60.9%) than older men aged 45-69 (40.0%). In terms of consumption of processed food high in salt, 33.5% 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 an average 4.1 servings of sugary drinks per day; and on average 5.4 teaspoons of sugar added on to drinks per day. There were no significant differences between men and women and between the three age groups.

One in 10 Nauruans had been involved in a road traffic crash in the past 12 months. A significantly higher proportion of men than women had been involved in a road traffic crash in the past year (15.4% of men and 6.5% of women); and Nauruans aged 18-29 were more likely to have been involved (16.5%) than those aged 30-44 years (8.1%) and 45-69 (4.4%). A large proportion of Nauruans have driven a motorized vehicle after having alcoholic drinks (81.8%) – a significantly higher proportion of women than men have done so (90.7% of women and 72.3% of men); and a significantly higher proportion of Nauruans aged 45-69 have do so (91.1%) compared to those aged 18-29 (77.9%) and 30-44 years (80.0%).

About a quarter of Nauruans (26.9%) were found to not know where to get condoms with no statistically significant differences between men and women and between the three age groups. Among women, those aged 45-69 were more likely to not know (32.2%) than those aged 30-44 years (19.4%).

Overall, 39.8% of the population did not meet the WHO recommendations on physical activity for health – significantly more women (49.8%) than men (29.0%) did not meet the recommendations; and significantly higher proportion of Nauruans aged 45-69 (51.5%) did not meet the recommendations compared to those aged 30-44 years (35.4%). Among men, the proportion who did not meet the recommendations increased with age; whilst among women, a higher proportion of those aged 18-29 did not meet the recommendations compared to those aged 30-44 years. More Nauruans were engaged in low levels of physical activity (44.7%) compared to 36.9% in high levels of physical activity and 18.4% in moderate levels. Significantly more women (54.3%) than men (34.3%) were engaged in low levels of physical activity; and more men (48.9%) than women (25.9%) in high levels of physical activity. A lower proportion of Nauruans aged 45-69 engaged in high levels of physical activ-

ity (23.4%) than those aged 18-29 (43.6%) and 30-44 years (38.2%); and a higher proportion of Nauruans aged 30-44 years (21.9%) and 45-69 (21.8%) engaged in moderate levels of physical activity than those aged 18-29 (13.8%).

The mean minutes of total physical activity Nauruans engaged in on average per day was 147.9 minutes – men significantly more than women (194.8 minutes compared to 104.5 minutes); and Nauruans aged 45-69 had fewer physical activity minutes (95.8 minutes) than those aged 18-29 (160.8 minutes) and 30-44 years (169.4 minutes). Work-related physical activity contributed to 49.2% of total physical activity, transport to 26.5% and leisure to 24.3% overall; though there were statistically significant differences between men and women and between the three age groups. The mean number of minutes Nauruans spent in sedentary activities was 340.9, with no significant differences between men and women as well as between the three age groups. The most common barrier to being physically active was the lack of sidewalks (37.8%), along with 31.7% who indicated having no time, 24.9% who cited other issues, 3.2% who were not interested and 2.5% who said dogs were a barrier. A significantly higher proportion of women than men stated having no time as the main barrier to being physically active (38.1% of women and 24.8% of men).

Historical risk factors

The survey found that 33.4% of the population had never had their blood pressure measured, 45.4% had been measured but not diagnosed, 8.0% had been diagnosed but not within the past 12 months, and 13.2% were diagnosed within the past 12 months.

One third (35.0%) of the population had never had their blood sugar measured, 49.2% were measured but not diagnosed, 7.1% were diagnosed but not within the past 12 months and 8.7% were diagnosed within the past 12 months.

Overall, 78.7% of the population had never had their cholesterol measured, 13.1% had been measured but not diagnosed, 3.8% had been diagnosed but not within the past 12 months and 4.5% were diagnosed within the past 12 months.

In terms of receiving lifestyle advice from a doctor or health worker: (a) 28.8% of the population had been advised to quit using tobacco or not start; (b) 37.4% had been advised to reduce salt in the diet; (c) 47.1% had been advised to eat at least five servings of fruit and/or vegetables each day; (d) 42.7% had been advised to reduce fat in the diet; (e) 48.3% had been advised to do more physical activity; and (f) 47.4% had been advised to maintain a healthy body weight or to lose weight.

Among women aged 18-69, it was found that 53.0% had ever been tested for cervical cancer. Among women who had ever undergone a screening test for cervical cancer, 49.5% did so within the last year, 34.1% within the last two years and 16.4% more than two years ago. A significantly higher proportion of women aged 18-29 had been screened within the last two years (49.6%) than those aged 30-44 years (26.5%) and 45-69 (18.1%). It was also found that 35.3% of women indicated they had done self-breast examination to check for abnormalities, with a significantly higher proportion of those aged 45-69 having done so (45.4%) than those aged 18-29 (27.6%).

Mental health

With regards to the state of mental well-being, 58.5% of Nauruans were classified as well, 23.4% as having a mild mental disorder, 12.8% as having a moderate mental disorder and 5.3% as having a severe mental disorder (using K10 scores). There were no statistically significant differences between men and women and between the three age groups.

Oral health

Most Nauruans (69.8%) had been to a dentist for a check-up with no treatment required; 24.6% visited a dentist and had an extraction or tooth filled; and 5.6% had not visited a dentist in the last six months.

More than half (58.5%) of Nauruans described their teeth as being in a painful state, 7.2% as being decayed, 11.8% as having loose or mobile teeth, and 22.5% as having good teeth. The proportion of Nauruans who indicated that their teeth were in a painful state decreased with age – 66.7% among 18-29 year olds, 57.8% among 30-44 year olds and 45.0% among 45-69 year olds.

Physical risk factors

The mean body mass index (BMI) of Nauruans was 34.4 kg/m2 – those aged 18-29 had a lower mean BMI (32.3) than those aged 30-44 years (35.8) and 45-69 (35.7). There was no statistically significant difference between men and women.

According to the BMI risk categories, 0.1% were underweight, 9.8% were of normal weight, 19.8% were overweight, and 70.2% were obese. A significantly higher proportion of Nauruans aged 18-29 were classified as overweight (25.9%) than those aged 30-44 years (15.4%); and a higher proportion of those aged 30-44 years (77.9%) and 45-69 (77.1%) were classified as obese compared to those aged 18-29 (59.5%). There was no statistically significant difference between men and women.

The mean waist circumference of men was 105.2 cm and 103.0 cm for women. Younger men and women aged 18-29 had a significantly lower mean waist circumference than those aged 30-44 years and 45-69. In general, the mean hip circumference of men was 110.9 cm and 115.3 cm for women. Among women, those aged 45-69 (122.8 cm) had a higher mean hip circumference than those aged 18-29 (109.3 cm). The mean waist-hip ratio of men was 1.0 and 0.9 for women, whose difference was statistically significant. There was no statistically significant difference between the three age groups in relation to hip circumference and mean waist-hip ratio.

A quarter of the population (25.3%) had raised blood pressure SBP ≥ 140 and/or DBP ≥ 90 mmHg or was currently on medication for the condition, with no statistically significant difference between men and women.

One tenth of the population (9.8%) had raised blood pressure SBP ≥ 160 and/or DBP ≥ 100 mmHg or were currently on medication for raised blood pressure, with no statistically significant difference between men and women.

Overall, the mean systolic blood pressure (SBP) was 122.2 mmHg and the mean diastolic blood pressure (DBP) was 80.2 mmHg. The mean SBP and DBP increased with age. Men had significantly higher mean SBP than women (126.7 mmHg for men and 118.1 mmHg for women); and there was no statistically significant difference in DBP between men and women.

Among those who had raised blood pressure of SBP≥ 140 and/or DBP≥90 or were currently on medication, majority (90.6%) were not on medication and had raised blood pressure of SBP≥ 140 and/or DBP≥90; 3.6% were on medication and had raised blood pressure of SBP ≥ 140 and/or DBP ≥ 90; and 5.8% 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.

Biochemical risk factors

The mean fasting blood glucose (plasma equivalent) was 6.5mmol/L or 116.6 mg/dl, and older Nauruans aged 45-69 year olds had a significantly higher mean than those aged 18-29 and 30-44 year olds. The proportion of Nauruans 17.1% were categorized as having impaired fasting glycemia; 21.9% had raised blood glucose (plasma equivalent) or were currently on medication for diabetes and 6.1% were currently on medication for diabetes.

The mean total cholesterol was 3.8 mmol/l, with no statistically significant differences between men and women and between the three age groups. Overall, 19.6% had total cholesterol ≥ 5.0 mmol/l or were currently on medication for raised cholesterol and 7.9% had total cholesterol ≥ 6.2 mmol/l or ≥ 240 mg/dl or were currently on medication for raised cholesterol. A significantly higher proportion of Nauruans aged 45-69 had total cholesterol ≥ 5.0 mmol/l or was currently on medication for raised cholesterol (30.8%) than those aged 18-29 (12.0%).

Among women of child-bearing age, 35.2% had anaemia and the mean haemoglobin level was 13.0 g/dl.

Combined risk factors

In Nauru, 33.4% had 1-2 risk factors and 66.6% had 3-5 risk factors. A significantly higher proportion of Nauruans aged 18-29 (44.3%) had 1-2 risk factors compared to those aged 45-69 (18.4%); and a significantly higher proportion of those aged 45-69 (81.6%) had 3-5 risk factors compared to those aged 18-29 (55.7%). There was no significant difference between men and women.

Comparison of results with previous survey aged 18-64

Comparison of the two surveys (the first one in 2004 and the second one now in 2015) among adults aged 18-64 reveals some positive trends but also some negative ones. Only changes which are statistically significant are presented here.

- Reduction in prevalence of current smokers (53.1% → 46.6%).
- Reduction in prevalence of current daily smokers (50.0% → 40.9%)
- Decrease in the number of manufactured cigarettes smoked per day (19.6 →16.3)
- Reduction in prevalence of current drinkers (current and past 12 months drinkers) (46.2% →45.0%)
- Increase in the mean number of days fruit was consumed (0.9 →1.8)
- Increase in the mean number of fruit servings consumed per day (0.3 → 0.5)
- Increase in prevalence of obesity (63.6% → 70.5%)
- Increase in the prevalence of diabetes (14.9% → 21.7%)
- Increase in mean DBP (mmHg) including those currently on medication for the condition (77.4 mmHg → 80.0 mmHg).
- Decrease in mean total blood cholesterol (mmol/l) (4.5 mmol/l → 3.8 mmol/l)
- Decrease in proportion of adults with raised total cholesterol ≥ 5.0 mmol/l or who were currently on medication for raised cholesterol (37.0% → 19.6%)
- Increase in proportion of adults with raised total cholesterol ≥ 6.2 mmol/l or who were currently on medication for raised cholesterol (4.7% → 10.0%)

Conclusion

The data has provided current data on NCD risk factors in Nauru, and will enable monitoring of progress and evaluation of the impact of health promotion programmes and interventions. Since the first NCD STEPS survey, efforts need to be increased to reduce prevalence of tobacco use, prevent youth from initiating smoking, reduce harmful use of alcohol, reduce consumption of salt and sugar, and to continue to promote consumption of fruits and vegetables and physical activity.

Recommendations

A summary of priority actions for Nauru are outlined below:

Governance and leadership

1. Evaluate progress in implementation of the NCD Strategic Action Plan 2015-2020 with all relevant stakeholders.
2. Secure increased resources for health promotion and NCDs.

Surveillance

3. 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

4. Address tobacco use through increasing excise tax, amending tobacco act and regulations (i.e. ban sale of

single sticks and prohibit point of sale advertising), and providing cessation services.

5. Address harmful use of alcohol through increasing excise tax, controlling access to alcohol by youth, enforcing law against driving under the influence of alcohol, and regulating the license to sell.
6. Work with food producers and manufacturers to reduce level of salt or sodium, free and added sugars, portion size, energy density and pricing to encourage production and sale of healthier options that are affordable.
7. Create health-enabling environments and settings (e.g. villages, workplaces, schools, markets) to promote healthy living.

Establish and maintain coalitions and partnerships

8. Build coalitions and partnerships across sectors to address NCD risk factors that are beyond the authority of the Ministry of Health, such as food importation, trade, tax, commercial investment and agriculture. Collaborate with media, faith-based organizations and nongovernmental organizations to implement advocacy and education programmes.

Strengthen health systems

9. Promote universal health coverage as a means of preventing and controlling NCDs.
10. Enhance access to essential NCD interventions through expansion of the WHO Package of Essential Noncommunicable Disease Interventions.
11. Assess gaps in manpower and facilities and develop a plan or alternative strategies to fill the gaps and meet demand for services

1. INTRODUCTION

1.1. Background and rationale

Noncommunicable diseases are now the leading causes of morbidity and mortality in many countries including Nauru. 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 the WHO. [ii]

Nauru has three key documents that guide health sector strategies: (1) Noncommunicable Disease (NCD) Strategic Action Plan 2015-2020, (2) National Sustainable Development Strategy (NSDS) 2005-2025, and (3) Ministry of Health and Medical Service Strategic Plan 2010-2015. Nauru's NCD Strategic Action Plan seeks to improve nutrition and food security, increase physical activity, decrease tobacco use and harmful use of alcohol through strengthening health systems, primary health care, curative health and support services. The measures outlined include establishing a multisectoral coordination committee, developing policies, legislation and regulations, using taxes, strengthening enforcement of legislation, implementing settings-based programmes and strategic health communication activities, allocating areas for physical activity and recreation, and organizing community exercise programmes. There were also plans to strengthen the workforce, the health care service delivery infrastructure, and the monitoring and surveillance of NCDs.

For Nauru to achieve the overarching global target of 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 their risk factors, inform development of policies and programmes, and assess progress and effectiveness of strategies and interventions. Repeated surveys will enable Nauru to map trends and report on progress made in attaining the nine voluntary global targets.

1.2. The national context

1.1.1 Geography

Nauru is a single coral island located in the central Pacific, 60 kilometres south of the equator. It is part of the sub-region of Micronesia and its nearest neighbour is Kiribati. Nauru is a small island – 6 kilometres in length with a total land area of 21.1 square kilometres. [iii]

Nauru has two main seasons – wet from November to February and dry between March and October. [iv]

1.1.2 Population and culture

The population of Nauru was estimated to be 9976 in 2010, with about 35.6% below 15 years of age and 1.3% who are 65 years and above. [v] The total fertility rate was estimated at 2.9 in 2013 and its population growth rate is 1.8%. [vii] Life expectancy at birth is currently 52.5 years for men and 58.2 years for women. [viii]

Nauruan is the official language but English is widely spoken and used for most Government and commercial purposes. [ix]

1.1.3 Government

Nauru is governed by a President elected by the Parliament, who is both head of state and Government. The Parliament is elected by popular vote every three years.

Nauru experienced frequent changes of administration between 1989 and 2011. [xi]

1.2.4 Economy

Nauru is classified by the World Bank as a high income country. [xii] Nauru's per capita gross domestic product was US$7821 in 2014. [xiii] Government and state-owned enterprises dominate employment. [xiv]
Its major economic activity is phosphate mining though reserves are declining. [xv] In 2009, the top five industries contributing to GDP were mining and quarrying, commerce, public administration and services, transport and communication, and ownership of dwellings. [xvi]
Coconut, banana and papaya are the main fruit crops and small quantities of vegetables are also grown. However, most food and water in Nauru are imported from Australia and other countries such as China. [xvii]

1.2.5 Health infrastructure and health status

The Republic of Nauru Hospital offers a number of medical and surgical specialties including laboratory, radiological and pharmacy service. [xviii] According to 2011 estimates, the health worker to population ratio was 1:1000 for doctors, 1:162 for nurses and 1:10 000 for dentists. [xix]

NCDs are the leading cause of mortality, morbidity and disability in Nauru. The main NCDs are ischaemic heart disease, complications of hypertension, diabetes, kidney disease and lower respiratory infection. [xx]
The burden of NCDs is expected to rise with high and increasing prevalence of obesity, diabetes, raised blood pressure and raised cholesterol.

According to the 2013-2017 WHO Country Cooperation Strategy, the island is faced with several challenges: (1) shortage of health professionals, (2) inequity in social determinants, and (3) vulnerability due to isolation and limited transportation of goods and services. There are opportunities however to alleviate the situation: (1) clear evidence and data on disease prevalence, (2) Government's commitment to prevent and control NCDs, and (3) substantial support from development partners and regional agencies. [xxi]

1.3. Developing NCD STEPS in Nauru

Nauru conducted the first NCD STEPS survey in 2004 and included 2,272 respondents aged 15-64. This second NCD STEPS survey included 1,387 respondents aged 18-69. 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.

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:

2. OBJECTIVES

- 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.

Nauru's objectives were to:

- Describe the current levels of risk factors for chronic diseases in the Nauru population.
- Track the direction and magnitude of changes in risk factors since the first STEPS.
- Collect data which can be used for planning, evaluation and prediction of 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 and 2025, to the UN.

3. METHODOLOGY

3.1. Survey structure

The survey structure follows (Figure 1):

Step 1: A questionnaire-based (interview) survey on tobacco use, alcohol drinking, diet, physical activity, oral health, mental health and accidents.

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

Step 3: Biochemical measures of fasting blood glucose, total cholesterol, HDL and urine assessment of salt intake.

The second Nauru NCD STEPS Survey in 2015 used Version 3.1 of the questionnaire whilst Version 1.4 was used in the first survey in 2004. Similar to other NCD STEPS surveys conducted in the Pacific region, the Nauru 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.

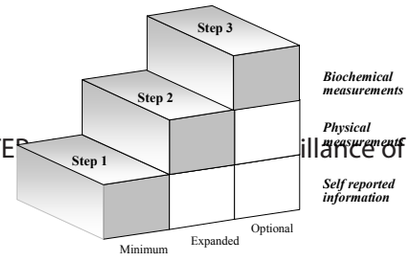

Figure 1. The WHO STEPS approach to surveillance of NCDs.

3.2. Survey sampling methodology

The second Nauru STEPS Survey was a population-based survey of 18-69 year olds. The decision was to use three age groups: 18-29, 30-44, 45-69 for men and women using the following corrections:

- Design Effect of 1.0
- 95% confidence interval; p value .05
- 76% response rate
- Baseline prevalence percentage indicator: 0.5
- FPC – 10%
- 6 age-sex groups (18-24 years, 25-44 years, 45-69 years)

As STEPS is intended to be nationally representative, a simple random sample of individuals was identified, based on the most recent census survey.

3.2.1. Sample size

A sample size of 1,860 was calculated, according to the WHO standard formula for STEPS to ensure national representativeness and the participants were randomly selected from the list of individuals obtained from the census aged 18-69. Overall, 1,386 individuals participated yielding a response rate of 74.5%.

3.3. Data collection process

In general, 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. Survey personnel conducted STEP 1 (questionnaire) at home if the participant was willing; if not, it will follow STEPS 2 and 3, which was done at the Public Health office.

3.3.1 Sequence of data collection and stations at the survey base

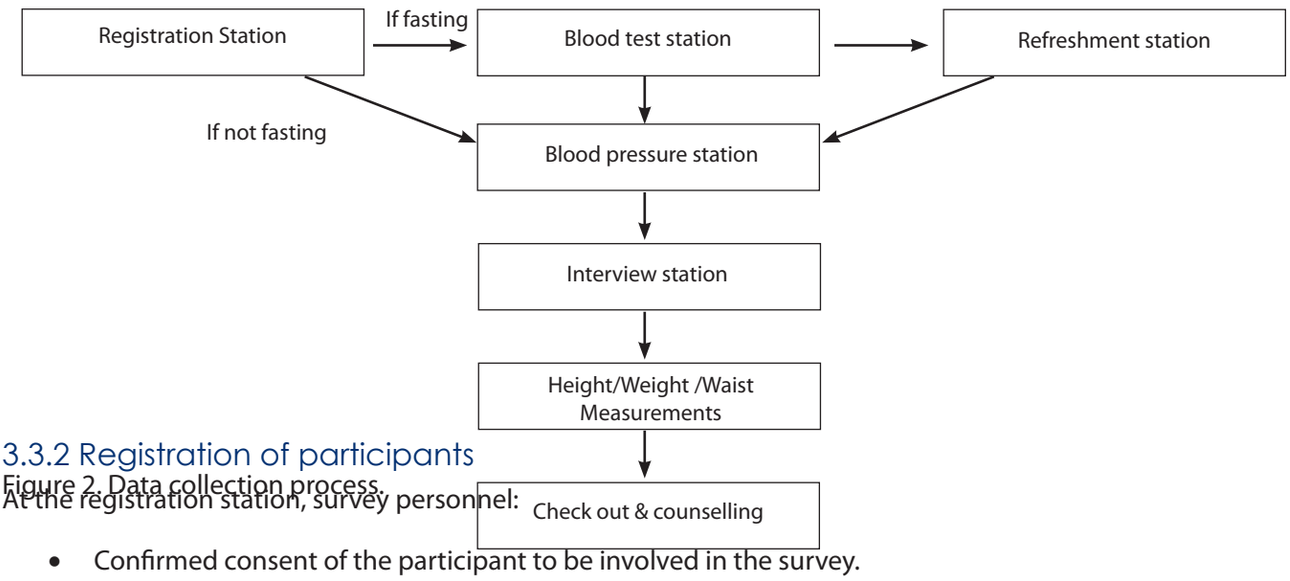

Figure 2. Data collection process.

3.3.2 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.

3.3.3 Step 1 - Behavioural risk factors interviews

All participants participated in a face-to-face interview in which questions were asked on smoking, alcohol, kava, fruit and vegetable consumption, salt, fat and sugar consumption, injury, reproductive health, physical

activity, history of chronic conditions and medications, cervical cancer screening, mental health and oral health. The questionnaire was administered through a personal digital assistant (PDA).

3.3.4 Step 2 - Physical measurements

Survey staff obtained physical measurements following the recommended STEPwise protocols. Height and weight were measured once using the Seca Stadiometer to the nearest whole centimetre and the Seca weighing scales to the nearest 0.1 kg, respectively. Participants were measured without shoes and wearing only light clothing.

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

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

3.3.5 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 were used to measure cholesterol and glucose in samples. All women of childbearing age (18-49 years old) had capillary blood samples drawn using the finger prick method to measure haemoglobin.

Spot urine sample to measure salt intake (sodium and creatinine) from a representative sub-sample of 720 participants was needed; however, 1000 were invited due to potentially high refusal rate. As this is the first salt intake assessment for Nauru, a sample of 200 staff from the Ministry of Health and all data collectors of the STEPS survey were asked to provide a 24-hour and spot urine sample before or after the main STEPS data collection to validate the spot measurement.

3.3.6 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 who were identified as being at high risk of developing, or with advanced chronic conditions were referred to the Hospital Health Services for a follow-up clinical examination.

3.4. Data management and analysis

3.4.1 Data entry

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

3.4.2 Data analysis

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.

4. RESULTS

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

4.1. Characteristics of the survey population

The survey respondents (1,387) were divided into three age groups: 18-29 years (537 participants), 30-44 (506 participants) and 45-69 (344 participants); and women made up slightly more than half of the respondents (53.0%).

The mean per capita annual income calculated based on 1,120 participants who responded to the survey question was AUD 5,890.

Table 1. Demographics of survey respondents

Age group and sex of respondents								
Age group (years)	Men			Women			Both sexes	
	n	%		n	%		n	%
18-29	271	50.5		266	49.5		537	38.7
30-44	229	45.3		276	54.5		505	36.5
45-69	151	43.9		193	56.1		344	24.8
18-69	651	47.0		735	53.0		1386	100.0

Table 2 shows that the survey respondents were primarily Nauruans (95.2%).

Table 2. Ethnicity of survey respondents

Ethnic group of respondents			
Age group (years)	Both sexes		
	n	% Nauruans	% Other ethnic group
18-29	537	96.8	3.2
30-44	505	96.0	4.0
45-69	344	91.6	8.4
18-69	1386	95.2	4.8

Table 3 shows that there were small differences between age groups and between men and women – 10.8 years of education among 18-29 year olds, 10.2 years among 30-44 year olds and 10.6 years among 45-69 year olds; and 10.4 years among men and 10.7 years among women.

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	268	10.5		264	11.1		532	10.8
30-44	229	10.2		274	10.3		503	10.2
45-69	151	10.5		192	10.6		343	10.6
18-69	648	10.4		730	10.7		1378	10.5

Table 4 shows that 59.8% have completed secondary school education, 31.4% have at least primary school level of education, 5.6% have college degrees, 0.5% have post-graduate degrees, 2.2% have less than primary school education and 0.5% have no formal schooling. For the highest level of education among men or women, please see appendix 2.

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

Highest level of education							
Age group (years)	Both sexes						
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Second-ary school completed	% College/ University completed	% Post graduate degree completed
18-29	537	0.4	3.4	35.0	58.5	2.6	0.2
30-44	505	0.6	2.6	32.7	56.4	7.5	0.2
45-69	344	0.6	0.0	23.8	66.9	7.3	1.5
18-69	1386	0.5	2.2	31.4	59.8	5.6	0.5

Table 5 shows that most respondents are currently married (53.2%), 27.1% have never married and 19.7% 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

Marital status							
Age group (years)	Both sexes						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
18-29	537	47.5	34.8	0.4	0.2	0	17.1
30-44	505	16.8	67.3	5.0	1.4	2.8	6.7
45-69	344	10.2	61.3	3.8	3.8	18.0	2.9
18-69	1386	27.1	53.2	2.9	1.5	5.5	9.8

Table 6 shows that 38.5% are non-government employees, 34.0% are government employees, 2.7% are self-employed and 24.8% are in unpaid work (non-paid, studying, conducting home duties, retired) or unemployed.

A greater proportion of women than men were in unpaid work (33.3% of women vs. 15.2% of men). Women tend to be working for the government (34.6% of women are government employees and 29.7% are non-government employees); whilst men tend to be non-government employees (48.4% of men are non-government employees and 33.3% are government employees). Also, a higher proportion of men were self-employed (3.1% of men and 2.4% of women). For employment status by sex, please see tables in appendix 2.

Table 6. Employment status, both sexes combined

Employment status					
Age group (years)	Both sexes				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
18-29	537	33.7	40.4	1.7	24.2
30-44	505	36.0	43.4	3.4	17.2
45-69	344	31.4	28.2	3.5	36.9
18-69	1386	34.0	38.5	2.7	24.8

Table 7 shows that among those engaged in unpaid work, majority were unemployed but able to work (60.5%), 12.8% were unemployed and not able to work, and 14.8% were home-makers, 8.7% were retired, 2.0% were students and 1.2% were not paid.

Among women who were unpaid and unemployed, most were unemployed but able to work (58.0%), 19.6% were home-makers, 13.1% were unemployed and not able to work and the rest were either students or retirees. Among men, most were unemployed but able to work (66.7%), 12.1% were unemployed but not able to work, 12.1% were retired 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 unemployment							
Age group (years)	Both sexes						
	n	% Non-paid	% Student	% Home-maker	% Retired	Unemployed	
						% Able to work	% Not able to work
18-29	130	0.8	4.6	12.3	0	76.2	6.2
30-44	87	0	1.1	20.7	0	71.3	6.9
45-69	127	2.4	0.0	13.4	23.6	37.0	23.6
18-69	344	1.2	2.0	14.8	8.7	60.5	12.8

4.2. Tobacco use

This section elaborates on tobacco consumption status, levels and patterns in Nauru. 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 nearly half of the Nauruan population (46.3%, 95% CI = 43.2-49.5) were current smokers – 47.4% (95% CI = 42.1-52.8) of men and 45.3% (95% CI = 41.6-49.0) of women.

Among men, significantly more men aged 18-29 were current smokers (53.9%, 95% CI = 47.1-60.6) compared to those aged 45-69 (35.1%, 95% CI = 27.4-42.8).

In general, there were no statistically significant differences in smoking prevalence between men and women and 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	271	53.9	47.1-60.6		266	42.9	34.7-51.1		537	48.2	41.6-54.8
30-44	229	47.6	39.8-55.4		276	50.0	43.9-56.1		505	48.8	43.3-54.2
45-69	151	35.1	27.4-42.8		193	43.5	33.2-53.8		344	39.7	32.5-46.9
18-69	651	47.4	42.1-52.8		735	45.3	41.6-49.0		1386	46.3	43.2-49.5

Table 9 shows that most men (52.6%, 95% CI = 47.2-57.9) did not smoke any tobacco products, 42.4% (95% CI = 37.8-47.0) were current daily smokers and 5.1% (95% CI = 3.2-7.0) were current non-daily smokers.

Significantly more men aged 18-29 were current daily smokers (49.1%, 95% CI = 42.1-56.1) compared to those aged 45-69 (31.1%, 95% CI = 23.9-38.4). Similarly, significantly more men aged 45-69 were non-smokers (64.9%, 95% CI = 57.2-72.6) compared to those aged 18-29 (46.1%, 95% CI = 39.4-52.9).

Table 9. Smoking status among men

Smoking status							
Age group (years)	Men						
	n	Current smoker				% Does not smoke	95% CI
		% Daily	95% CI	% Non-daily	95% CI		
18-29	271	49.1	42.1-56.1	4.8	2.4-7.2	46.1	39.4-52.9
30-44	229	41.5	36.0-47.0	6.1	2.2-10.1	52.4	44.6-60.2
45-69	151	31.1	23.9-38.4	4.0	0.6-7.3	64.9	57.2-72.6
18-69	651	42.4	37.8-47.0	5.1	3.2-7.0	52.6	47.2-57.9

Table 10 shows that the majority of women were non-smokers – 54.7% (95% CI = 51.0-58.4) did not smoke, 39.1% (95% CI = 36.0-42.2) current daily smokers and 6.2% (95% CI = 4.4-8.0) were current non-daily smokers.

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

Table 10. Smoking status among women

Smoking status							
Age group (years)	Women						
	n	Current smoker				% Does not smoke	95% CI
		% Daily	95% CI	% Non-daily	95% CI		
18-29	266	35.3	28.8-41.9	7.5	4.1-10.9	57.1	48.9-65.3
30-44	276	45.3	38.9-51.7	4.7	1.6-7.9	50.0	43.9-56.1
45-69	193	37.8	29.5-46.1	5.7	1.4-10.0	56.5	46.2-66.8
18-69	735	39.1	36.0-42.2	6.2	4.4-8.0	54.7	51.0-58.4

Table 11 shows that more than half overall indicated that they were non-smokers – 53.7% (95% CI = 50.5-56.8) did not smoke, 40.7% (95% CI = 38.1-43.3) were current daily smokers and 5.6% (95% CI = 4.0-7.2) were current non-daily smokers. There was no statistically significant difference between the three age groups.

Table 11. Smoking status, both sexes combined

Smoking status							
Age group (years)	Both sexes						
	n	Current smoker				% Does not smoke	95% CI
		% Daily	95% CI	% Non-daily	95% CI		
18-29	537	42.0	36.2-47.7	6.2	3.5-8.9	51.8	45.2-58.4
30-44	505	43.3	38.7-48.0	5.4	2.6-8.3	51.2	45.8-56.7
45-69	344	34.8	28.6-41.0	4.9	2.3-7.5	60.3	53.1-67.5
18-69	1386	40.7	38.1-43.3	5.6	4.0-7.2	53.7	50.5-56.8

Table 12 shows that among current smokers, 87.8% (95% CI = 84.7-90.9) smoke daily – 89.3% (95% CI = 85.7-92.9) of men and 86.4% (95% CI = 82.9-89.9) of women. There was no statistically significant difference between men and women and between the three age groups.

Table 12. Percentage of current smokers who smoke daily

Daily smokers among current 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	146	91.1	86.5-95.7		114	82.5	76.2-88.7		260	87.1	82.1-92.2
30-44	109	87.2	80.2-94.1		138	90.6	84.4-96.8		247	88.9	83.5-94.2
45-69	53	88.7	79.6-97.8		84	86.9	78.6-95.2		137	87.6	81.8-93.4
18-69	308	89.3	85.7-92.9		336	86.4	82.9-89.9		644	87.8	84.7-90.9

Table 13 shows that the mean age of initiating smoking among current daily smokers was 16.4 (95% CI = 15.9-16.8) years. There were no statistically significant differences between men and women and between the three age groups.

Table 13. Mean age started smoking among current daily smokers

Daily smokers among current 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	131	16.1	15.5-16.7		91	15.6	14.7-16.4		222	15.8	15.3-16.4
30-44	91	17.8	16.6-19.0		121	15.8	14.8-16.7		212	16.7	15.9-17.6
45-69	45	17.1	15.8-18.4		71	16.7	15.0-18.4		116	16.9	15.7-18.0
18-69	267	16.8	16.2-17.4		283	15.9	15.3-16.6		550	16.4	15.9-16.8

Table 14 shows that the mean duration of smoking among current daily smokers was 17.8 years – 15.9 years (95% CI = 14.4-17.5) for men and 19.8 years (95% CI = 17.5-22.1) for women; 8.0 years (95% CI = 7.3-8.7) for those aged 18-29, 19.1 years (95% CI = 18.1-20.1) for those aged 30-44 years and 36.8 years (95% CI = 35.6-38.1) for those aged 45-69 years.

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	131	7.8	7.0-8.6		91	8.2	7.0-9.4		222	8.0	7.3-8.7
30-44	91	18.3	16.9-19.7		121	20.0	18.9-21.0		212	19.1	18.1-20.1
45-69	45	35.8	33.7-38.0		71	37.5	35.4-39.7		116	36.8	35.6-38.1
18-69	267	15.9	14.4-17.5		283	19.8	17.5-22.1		550	17.8	16.2-19.5

Table 15 shows that majority (96.0%, 95% CI = 93.5-98.5) of current daily smokers smoked manufactured cigarettes – 95.6% (95% CI = 93.1-98.1) of male current daily smokers and 96.4% (95% CI = 92.6-100.0) of female current daily smokers. There were no statistically significant differences between men and women and between the three age groups.

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	132	97.0	93.4-100.0		92	95.7	88.9-100.0		224	96.4	92.4-100.0
30-44	94	93.6	88.2-99.0		121	97.5	94.6-100.0		215	95.6	92.7-98.5
45-69	46	95.7	89.6-100.0		73	95.9	90.2-100.0		119	95.8	90.8-100.0
18-69	272	95.6	93.1-98.1		286	96.4	92.6-100.0		558	96.0	93.5-98.5

Table 16 shows that the mean amount of tobacco used by current daily smokers were: 16.3 (95% CI = 15.1-17.4) manufactured cigarettes, 0.9 (95% CI = 0.5-1.3) hand-rolled cigarettes, 0.1 (95% CI = 0.0-0.3) piped tobacco, 0.1 (95% CI = 0.0-0.3) of cigarettes, cheroots and cigarillos, 0.1 (95% CI = 0.0-0.3) of shisha, and 1.2 (95% CI = 0.2-2.2) of other types of tobacco.

Overall, Nauruans aged 18-29 who were currently daily smokers used significantly fewer manufactured cigarettes (14.7, 95% CI = 13.4-16.0) than those aged 45-69 (19.3, 95% CI = 17.1-21.5).

There were no statistically significant difference between men and women. 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 grp (yrs)	Both sexes											
	n	Mean # of manufactured cig.	95% CI	n	Mean #of hand-rolled cig.	95% CI	n	Mean # of pipes of tob.	95% CI	n	Mean # of cigs, che-roots, cigari-llos	95% CI
18-29	221	14.7	13.4-16.0	226	0.6	0.0-1.3	227	0.0	0.0-0.1	227	0.0	-
30-44	214	16.4	15.0-17.9	217	0.9	0.3-1.4	220	0.4	0.0-0.9	220	0.3	0.0-0.8
45-69	118	19.3	17.1-21.5	120	1.5	0.6-2.5	120	0.0	-	120	0.0	-
18-69	553	16.3	15.1-17.4	563	0.9	0.5-1.3	567	0.1	0.0-0.3	567	0.1	0.0-0.3

Age grp (yrs)	Both sexes					
	n	Mean # of shisha	95% CI	n	Mean # of oth-ers	95% CI
18-29	227	0.1	0.0-0.1	93	0.8	0.0-1.8
30-44	220	0.3	0.0-0.8	124	1.5	0.2-2.7
45-69	120	0.0	-	72	1.3	0.0-3.3
18-69	567	0.1	0.0-0.3	289	1.2	0.2-2.2

Table 17 shows that 43.6% (95% CI = 38.1-49.2) of daily smokers were heavy smokers smoking 15-24 cigarettes each day, and 16.0% (95% = 13.6-18.4) were very heavy smokers smoking more than 25 cigarettes each day. Of the daily smokers, 17.5% (95% CI = 13.3-21.7) smoked 10-14 cigarettes, 13.7% (95% CI = 10.2-17.2) smoked 5-9 cigarettes and 9.1% (95% CI = 5.3-12.9) smoked less than 5 cigarettes a day.

Significantly more daily smokers aged 45-69 year olds were very heavy smokers – 26.5% (95% CI = 21.2-31.9) smoked more than 25 cigarettes a day – than those aged 18-29 years (11.6%, 8.0-15.3) and 30-44 years (15.2%, 95% CI = 10.7-19.8). There was no statistically significant difference between the three age groups for other categories of smokers.

Male and female daily smokers smoked substantial quantities of manufactured or hand-rolled cigarettes a day where nearly 6 in 10 smoked more than 15 cigarettes a day. Significantly more male than female daily smokers were very heavy smokers – 20.4% of men (95% CI = 16.1-24.7) and 11.5% of women (95% CI = 7.8-15.2) smoked more than 25 cigarettes a day. For more details on the quantity smoked by men and women, please see Appendix 2.

Table 17. Percentage of daily smokers smoking the given quantities of manufactured or hand-rolled cigarettes each day

Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day											
Age grp (yrs)	Both sexes										
	n	% < 5 cigs.	95% CI	% 5-9 cigs.	95% CI	% 10-14 cigs.	95% CI	% 15-24 cigs.	95% CI	% ≥ 25 cigs.	95% CI
18-29	212	11.3	6.2-16.4	16.1	10.5-21.8	19.4	12.9-25.8	41.5	34.3-48.8	11.6	8.0-15.3
30-44	205	7.1	4.0-10.1	12.6	8.2-17.0	18.5	14.4-22.7	46.6	39.4-53.8	15.2	10.7-19.8
45-69	114	8.0	2.1-13.9	10.5	3.9-17.1	12.1	7.2-16.9	42.9	30.0-55.9	26.5	21.2-31.9
18-69	531	9.1	5.3-12.9	13.7	10.2-17.2	17.5	13.3-21.7	43.6	38.1-49.2	16.0	13.6-18.4

Table 18 shows that overall, 15.6% of the population (95% CI = 13.3-17.8) were ex-daily smokers. Significantly more women than men were ex-daily smokers – 18.9% (95% CI = 16.2-21.5) of women and 12.0% (95% CI = 9.0-15.0) of men.

There were statistically significant differences across the three age groups where the proportion who were ex-daily smokers increased with age – 9.6% of Nauruans aged 18-29 (95% CI = 6.8-12.4), 15.4% of those aged 30-44 years (95% CI = 12.5-18.3), and 26.3% of those aged 45-69 years (95% CI = 20.3-32.3).

Table 18. 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	271	6.6	3.5-9.7	266	12.4	8.3-16.5	537	9.6	6.8-12.4	
30-44	229	13.1	8.9-17.3	276	17.8	12.5-23.0	505	15.4	12.5-18.3	
45-69	151	20.5	15.3-25.8	193	31.1	23.1-39.1	344	26.3	20.3-32.3	
18-69	651	12.0	9.0-15.0	735	18.9	16.2-21.5	1386	15.6	13.3-17.8	

Table 19 shows that overall, 0.1% (95% CI = 0.0-0.2) were current users of smokeless tobacco (e.g. snuff, chewing tobacco or betel) – 0.2% (95% CI = 0.0-0.5) of men and a negligible number of women.

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

Table 19. Percentage of 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	271	0.4	0.0-1.1	-	-	-	537	0.2	0.0-0.5
30-44	229	0.0	0.0-0.0	-	-	-	505	0.0	0.0-0.0
45-69	150	0.0	0.0-0.0	-	-	-	343	0.0	0.0-0.0
18-69	650	0.2	0.0-0.5	-	-	-	1385	0.1	0.0-0.2

Table 20 shows that most Nauruans (99.9%) do not use smokeless tobacco, and 0.1% (95% CI = **0.0-0.2) of cur**rent users were daily users.

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

Table 20. 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	537	0.2	0.0-0.5	-	-	99.8	-
30-44	505	0.0	0.0-0.0	-	-	100.0	-
45-69	343	0.0	0.0-0.0	-	-	100.0	-
18-69	1385	0.1	0.0-0.2	-	-	99.9	-

Table 21 shows that 1.1% (95% CI = 0.5-1.8) were ex-daily users of smokeless tobacco – 1.5% (95% CI = 0.6-2.5) of men and 0.8% (95% CI = 0.0-1.5) of women.

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

Table 21. Percentage of ex-daily users of smokeless tobacco

Ex-daily smokeless tobacco users										
Age group (years)	Men				Women				Both sexes	
	n	% Ex-daily users	95% CI		n	% Ex-daily users	95% CI		n	% Ex-daily users	95% CI
18-29	271	1.1	0.0-2.5		266	0.4	0.0-1.2		537	0.7	0.0-1.7
30-44	229	1.7	0.0-3.6		276	1.1	0.0-2.3		505	1.4	0.2-2.6
45-69	150	2.0	0.0-4.7		193	1.0	0.0-2.6		343	1.5	0.1-2.9
18-69	650	1.5	0.6-2.5		735	0.8	0.0-1.5		1385	1.1	0.5-1.8

Table 22 shows that nearly half of the population (46.4%, 95% CI = **43.2-49.7) were current tobacco users (smok**ing and smokeless) – 47.7% (95% CI = 42.2-53.1) of men and 45.3% (95% CI = 41.6-49.0) of women.

Among men, significantly more aged 18-29 (54.2%, 95% CI = 47.2-61.3) were current tobacco users than those aged 45-69 (35.3%, 95% CI = 27.9-42.8).

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

Table 22. 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	54.2	47.2-61.3		266	42.9	34.7-51.1		537	48.3	41.5-55.2
30-44	229	47.6	39.8-55.4		276	50.0	43.9-56.1		505	48.8	43.3-54.2
45-69	150	35.3	27.9-42.8		193	43.5	33.2-53.8		343	39.8	32.7-46.9
18-69	650	47.7	42.2-53.1		735	45.3	41.6-49.0		1385	46.4	43.2-49.7

Table 23 shows that 40.8% (95% CI = 38.1-43.5) of the population were daily tobacco users – 42.6% (95% CI = 38.0-47.2) of men and 39.1% (95% CI = 36.0-42.2) of women.

Among men, significantly more aged 18-29 were daily tobacco users (49.4%, 95% CI = 42.3-56.6) than those aged 45-69 (31.3%, 95% CI = 24.2-38.4).

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

Table 23. 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	49.4	42.3-56.6		266	35.3	28.8-41.9		537	42.1	36.2-48.1
30-44	229	41.5	36.0-47.0		276	45.3	38.9-51.7		505	43.3	38.7-48.0
45-69	150	31.3	24.2-38.4		193	37.8	29.5-46.1		343	34.9	28.8-41.0
18-69	650	42.6	38.0-47.2		735	39.1	36.0-42.2		1385	40.8	38.1-43.5

Table 24 shows that there are high rates of exposure to environmental tobacco smoke (ETS). More than half overall (54.7%, 95% CI = 49.6-59.8) have been exposed to ETS in homes in the past 7 days – 53.4% (95% CI = 46.7-60.1) of men and 55.9% (95% CI = 50.6-61.1) of women.

Among men, significantly more men aged 30-44 years (59.8%, 95% CI = 52.3-67.4) were exposed to ETS in the past 7 days than those aged 45-69 years (44.0%, 36.2-51.8%). There were no statistically significant differences between men and women and between the three age groups overall.

Table 24. Percentage who reported exposure to environmental tobacco smoke in homes in the past 7 days

Exposed to ETS in home on 1 or more of the past 7 days										
Age group (years)	Men				Women				Both sexes	
	n	% Exposed	95% CI		n	% Exposed	95% CI		n	% Exposed	95% CI
18-29	271	53.1	44.8-61.5		266	58.6	51.7-65.6		537	56.0	49.5-62.4
30-44	229	59.8	52.3-67.4		276	50.4	43.6-57.1		505	55.2	50.0-60.3
45-69	150	44.0	36.2-51.8		193	58.0	52.5-63.6		343	51.7	46.6-56.8
18-69	650	53.4	46.7-60.1		735	55.9	50.6-61.1		1385	54.7	49.6-59.8

Table 25 shows that 27.4% (95% CI = 21.8-33.1) overall reported exposure to ETS in the workplace in the past 7 days – 32.0% (95% CI = 26.3-37.8) of men and 23.0% (95% CI = 15.9-30.1) of women. There were no statistically significant differences between men and women and between the three age groups.

Table 25. 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	212	30.2	23.4-37.0		208	25.0	15.1-34.9		420	27.5	20.6-34.4
30-44	192	33.3	22.8-43.8		212	23.1	15.0-31.2		404	28.6	21.8-35.3
45-69	117	33.3	22.3-44.4		153	19.6	10.8-28.4		270	25.7	18.3-33.2
18-69	521	32.0	26.3-37.8		573	23.0	15.9-30.1		1094	27.4	21.8-33.1

Table 26 shows that 1.3% (95% CI = 0.6-1.9) of the population currently use e-cigarettes – 1.7% (95% CI = 0.6-2.8) of men and 0.8% (95% CI = 0.1-1.6) of women.

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

Table 26. Percentage of current e-cigarette users

Current e-cigarette 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	3.0	0.5-5.4		266	1.1	0.0-2.4		537	2.0	0.8-3.2
30-44	229	0.9	0.0-2.1		276	0.7	0.0-1.8		505	0.8	0.0-1.6
45-69	150	0.7	0.0-2.1		193	0.5	0.0-1.6		343	0.6	0.0-1.4
18-69	650	1.7	0.6-2.8		736	0.8	0.1-1.6		1386	1.3	0.6-1.9

The number of respondents using e-cigarettes was low and therefore it's not possible to report their frequency of use.

4.3. 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 27 shows that majority of men were non-current drinkers – 20.7% (95% CI = 17.9-23.5) of Nauruan men have never consumed alcohol, 21.3% (95% CI = 18.7-23.8) had consumed alcohol in the past 12 months though not currently, and 18.2% (95% CI = 16.1-20.3) had abstained from alcohol in the past 12 months. Slightly more than a third of men (39.8%, 95% CI = 35.5-44.1) were current drinkers.

Younger men aged 18-29 (42.1%, 95% CI = 35.5-48.7) and 30-44 years (45.4%, 95% CI = 37.2-53.6) were significantly more likely than older men aged 45-69 to be current drinkers (26.7%, 95% CI = 20.6-32.7). Older men aged 45-69 were significantly more likely to not have consumed alcohol in the past 12 months (27.3%, 95% CI = 22.2-32.5) than men aged 18-29 (15.1%, 95% CI = 12.2-18.1) and 30-44 years (16.2%, 95% CI = 12.5-19.8).

Table 27. 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	271	42.1	35.5-48.7	24.4	18.9-29.8	15.1	12.2-18.1	18.5	14.1-22.8
30-44	229	45.4	37.2-53.6	19.2	14.4-24.1	16.2	12.5-19.8	19.2	14.0-24.4
45-69	150	26.7	20.6-32.7	18.7	13.4-24.0	27.3	22.2-32.5	27.3	18.1-36.6
18-69	650	39.8	35.5-44.1	21.3	18.7-23.8	18.2	16.1-20.3	20.7	17.9-23.5

Table 28 shows that majority of women were not current drinkers – 40.8% (95% CI = 32.9-48.7) have never consumed alcohol, 29.2% (95% CI = 23.7-34.7) had abstained from alcohol in the past 12 months and 13.6% (95% CI = 10.8-16.4) had consumed alcohol in the past 12 months though not currently. Less than one-fifth of Nauruan women (16.4%, 95% CI = 13.2-19.6) were current drinkers.

Younger women aged 18-29 (19.5%, 95% CI = 14.9-24.2) and 30-44 years (18.8%, 95% CI = 13.6-24.1) were significantly more likely than older women aged 45-69 to be current drinkers (8.3%, 95% CI = 4.3-12.3). There was no statistically significant difference between the three age groups otherwise.

Table 28. 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	266	19.5	14.9-24.2	15.0	10.3-19.7	25.2	19.3-31.0	40.2	32.2-48.2
30-44	276	18.8	13.6-24.1	15.6	10.7-20.4	27.5	20.1-35.0	38.0	29.6-46.4
45-69	193	8.3	4.3-12.3	8.8	3.3-14.3	37.8	27.7-47.9	45.1	32.5-57.7
18-69	735	16.4	13.2-19.6	13.6	10.8-16.4	29.2	23.7-34.7	40.8	32.9-48.7

Table 29 shows that 31.1% (95% CI = 25.9-36.2) overall were lifetime abstainers, 27.7% (95% CI = 24.9-30.6) were current drinkers, 17.3% (95% CI = 15.9-18.8) drank in the past 12 months though not currently, and 23.9% (95% CI = 21.0-26.7) abstained from alcohol in the past 12 months.

Younger people aged 18-29 (30.4%, 95% CI = 26.1-34.7) and 30-44 years (32.4%, 95% CI = 27.4-37.5) were more likely to be current drinkers than those aged 45-69 (16.6%, 95% CI = 13.2-20.0). Older Nauruans aged 45-69 (33.1%, 95% CI = 26.7-39.5) were more likely to have abstained from alcohol in the past 12 months than those aged 18-29 (20.3%, 95% CI = 17.5-23.2) and 30-44 years (21.7%, 95% CI = 17.9-25.5).

A significantly higher proportion of women than men abstained from alcohol (both lifetime and past 12 months). Correspondingly, a significantly higher proportion of men than women were alcohol drinkers (i.e. current and past 12 months). (Compare Tables 30 and 31.)

Table 29. 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	537	30.4	26.1-34.7	19.5	16.2-22.8	20.3	17.5-23.2	29.7	24.3-35.2
30-44	505	32.4	27.4-37.5	17.4	14.4-20.5	21.7	17.9-25.5	28.4	23.4-33.4
45-69	343	16.6	13.2-20.0	13.3	8.7-17.8	33.1	26.7-39.5	37.1	27.8-46.3
18-69	1385	27.7	24.9-30.6	17.3	15.9-18.8	23.9	21.0-26.7	31.1	25.9-36.2

Table 30 shows that majority of those who consumed alcohol in the past 12 months drank infrequently – 42.8% drank less than once a month (95% CI = 38.2-47.4) and 24.3% (95% CI = 20.3-28.2) drank 1-3 days per month. A small percentage drank daily or weekly – 7.1% (95% CI = 4.3-9.9) drank 1-4 days per week, 2.9% (95% CI = 1.5-4.3) drank 5-6 days per week and 1.3% (95% CI = 0.3-2.3) drank daily.

There was no significant difference between the three age groups and between men and women in terms of the frequency of alcohol consumption. For details on the frequency of alcohol consumption for men and women, please see Appendix 2.

Table 30. 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/ week	95% CI	% 1-4 days/ week	95% CI	% 1-3 days/ mth	95% CI	% < once/ mth	95% CI
18-29	107	0.4	0.0-1.2	2.9	1.3-4.4	6.7	3.1-10.2	28.2	20.5-35.8	39.9	31.6-48.2
30-44	116	0.9	0.0-2.7	2.1	0.4-3.7	9.0	2.5-15.4	19.0	12.6-25.4	47.7	41.5-53.9
45-69	41	5.0	0.0-10.2	5.0	1.0-9.1	4.0	0.4-7.6	24.9	16.2-33.5	40.2	30.2-50.1
18-69	264	1.3	0.3-2.3	2.9	1.5-4.3	7.1	4.3-9.9	24.3	20.3-28.2	42.8	38.2-47.4

Table 31 shows that the mean number of drinking occasions among current drinkers was 5.5 times (95% CI = 3.7-7.3) in the past 30 days. There were no statistically significant differences between the three age groups and between men and women.

Table 31. 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
18-29	112	5.0	3.4-6.7		51	5.4	0.3-10.4		163	5.2	2.4-7.9
30-44	103	6.0	4.4-7.6		52	3.8	2.6-5.0		155	5.4	4.4-6.4
45-69	39	6.3	3.0-9.6		16	8.6	1.5-15.8		55	7.0	3.2-10.7
18-69	254	5.6	4.0-7.3		119	5.2	2.8-7.7		373	5.5	3.7-7.3

Table 32 shows that the mean number of standard drinks current drinkers consumed at each occasion was 13.7 (95% CI = 12.4-15.1) – 14.6 (95% CI = 13.2-15.9) for men and 11.7 (95% CI = 9.3-14.2) for women.

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

Table 32. 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
18-29	100	16.4	13.9-18.9		47	13.4	8.7-18.2		147	15.4	13.0-17.8
30-44	102	13.6	10.7-16.6		48	10.9	8.8-12.9		150	12.9	10.7-15.0
45-69	38	12.1	9.2-15.1		16	8.0	3.1-12.9		54	11.0	8.3-13.7
18-69	240	14.6	13.2-15.9		111	11.7	9.3-14.2		351	13.7	12.4-15.1

Table 33 shows that overall, a small percentage of the population drank at the high-end level (3.0%, 95% CI = 1.7-4.4) – 4.3% (95% CI = 2.8-5.8) of men and 1.9% (95% CI = 0.4-3.3) of women.

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

Table 33. Percentage who drank at the high-end level (≥ 60g of pure alcohol on average per occasion among men and ≥ 40g of pure alcohol on average per occasion among women)

Percentage who drank at high-end level (≥ 60g of pure alcohol on average per occasion among men and ≥ 40g of pure alcohol on average per occasion among women)										
Age group (years)	Men				Women				Both sexes		
	n	% ≥ 60g	95% CI		n	% ≥ 40g	95% CI		n	% high-end level	95% CI
18-29	257	5.1	2.5-7.6		260	2.7	0.0-5.7		517	3.8	1.4-6.2
30-44	226	4.4	2.8-6.0		272	1.5	0.0-2.9		498	3.0	2.0-3.9
45-69	148	2.7	0.3-5.1		193	1.0	0.0-2.4		341	1.8	0.2-3.4
18-69	631	4.3	2.8-5.8		725	1.9	0.4-3.3		1356	3.0	1.7-4.4

Table 34 shows that overall, a small percentage of the population drank at the intermediate level (2.1%, 95% CI = 1.3-3.0) – 3.2% (95% CI = 1.9-4.5) of men and 1.1% (95% CI = 0.3-2.0) of women.

Nauruans aged 30-44 years were more likely to drink at the intermediate level (3.7%, 95% CI = 1.7-5.8) than those aged 45-69 (0.6%, 95% CI = 0.0-1.5).

There was no statistically significant difference between men and women.

Table 34. Percentage who drank 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 who drank 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	257	2.7	1.1-4.4		260	0.8	0.0-1.9		517	1.7	0.8-2.6
30-44	226	4.9	2.0-7.7		272	2.6	0.5-4.7		498	3.7	1.7-5.8
45-69	148	1.4	0.0-3.3		193	0.0	0.0-0.0		341	0.6	0.0-1.5
18-69	631	3.2	1.9-4.5		725	1.1	0.3-2.0		1356	2.1	1.3-3.0

Table 35 shows that overall, 21.0% (95% CI = 19.0-23.0) of the population drank at the lower-end level. Significantly more men (30.5%, 95% CI = 26.6-34.4) than women (12.2%, 95% CI = 10.1-14.3) consumed alcohol at the lower-end level. Significantly more Nauruans aged 18-29 (22.3%, 95% CI = 18.3-26.2) and 30-44 years (24.7%, 95% CI = 19.5-30.0) drank alcohol at the lower-end level than those aged 45-69 (13.7%, 95% CI = 10.3-17.0).

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

Table 35. Percentage who drank at the lower-end level (< 40g of pure alcohol on average per occasion among men and < 20g of pure alcohol on average per occasion among women)

Percentage who drank at lower-end level (< 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	% < 40g	95% CI		n	% < 20g	95% CI		n	% lower-end level	95% CI
18-29	257	31.1	25.0-37.2		260	14.2	9.5-18.9		517	22.3	18.3-26.2
30-44	226	35.4	26.9-43.9		272	13.6	9.3-17.9		498	24.7	19.5-30.0
45-69	148	21.6	15.0-28.2		193	7.3	4.1-10.4		341	13.7	10.3-17.0
18-69	631	30.5	26.6-34.4		725	12.2	10.1-14.3		1356	21.0	19.0-23.0

Table 36 shows that among current drinkers, 80.3%, (95% CI = 76.7-83.8) engaged in lower-end level of drinking, 11.6% (95% CI = 7.0-16.2) in high-end level and 8.1% (95% CI = 5.0-11.2) in intermediate level of drinking.

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

For details on drinking levels of male and female current drinkers, please see Appendix 2.

Table 36. 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	146	13.7	4.9-22.6	6.1	3.0-9.2	80.1	72.7-87.6
30-44	149	9.5	7.0-12.0	11.9	4.8-19.0	78.6	70.3-86.9
45-69	54	-	-	-	-	-	-
18-69	349	11.6	7.0-16.2	8.1	5.0-11.2	80.3	76.7-83.8

Table 37 shows that the mean maximum number of standard drinks current drinkers consumed on one occasion in the past 30 days was 16.8 (95% CI = 15.5-18.1) – 17.8 (95% CI = 16.5-19.1) for men and 14.5 (95% CI = 11.2-17.7) for women.

There was no statistically significant difference between men and women.

Table 37. 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	95% CI
18-29	100	20.6	17.2-24.0		45	17.3	12.2-22.4		145	19.5	16.7-22.3
30-44	102	16.5	13.9-19.2		48	11.7	8.9-14.5		150	15.2	13.0-17.4
45-69	36	-	-		16	-	-		52	-	-
18-69	238	17.8	16.5-19.1		109	14.5	11.2-17.7		347	16.8	15.5-18.1

Table 38 shows that 24.1% (95% CI = 21.2-26.9) 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 (36.1%, 95% CI = 31.5-40.7) than women (12.8%, 95% CI = 10.4-15.2).

Nauruans aged 18-29 (26.3%, 95% CI = 22.4-30.2) and 30-44 years (29.0%, 95% CI = 23.1-34.8) were significantly more likely to have binge drink at least once in the past 30 days compared to those aged 45-69 (13.4%, 95% CI = 10.2-16.5).

Table 38. 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	95% CI
18-29	271	38.7	32.7-44.8		266	14.7	10.6-18.7		537	26.3	22.4-30.2
30-44	229	41.5	32.1-50.9		276	15.9	10.5-21.4		505	29.0	23.1-34.8
45-69	150	22.7	16.3-29.0		193	5.7	2.4-9.0		343	13.4	10.2-16.5
18-69	650	36.1	31.5-40.7		735	12.8	10.4-15.2		1385	24.1	21.2-26.9

Table 39 shows that the mean number of times current drinkers consumed six or more drinks on a single occasion in the past 30 days was 4.2 (95% CI = 3.5-4.9) – 4.7 times (95% CI = 3.7-5.7) for men and 3.0 times (95% CI = 2.3-3.8) for women.

There was no statistically significant difference between men and women.

Table 39. 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	237	4.7	3.7-5.7		104	3.0	2.3-3.8		341	4.2	3.5-4.9

Table 40 shows that in the past 7 days, 34.8% (95% CI = 28.1-41.5) of current drinkers did not drink, 44.6% (95% CI = 39.9-49.3) drank 1-2 days, 11.4% (95% CI = 7.1-15.6) drank 3-4 days, 3.3% (95% CI = 1.0-5.6) drank 5-6 days, and 5.9% (95% CI = 2.5-9.3) drank daily.

A significantly higher proportion of male current drinkers drank 3-4 days a week (14.1%, 95% CI = 8.5-19.7) than female current drinkers (5.1%, 95% CI = 2.1-8.2). For details on the frequency of alcohol consumptions among male and female current drinkers in the past 7 days, please see Appendix 2.

Table 40. 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	157	4.5	0.0-10.0	3.8	0.3-7.4	11.1	5.6-16.7	44.7	36.7-52.7	35.8	28.0-43.7
30-44	152	3.5	0.6-6.4	2.5	0.5-4.6	11.0	5.7-16.2	51.3	41.0-61.5	31.7	21.8-41.6
45-69	54	-	-	-	-	-	-	-	-	-	-
18-69	363	5.9	2.5-9.3	3.3	1.0-5.6	11.4	7.1-15.6	44.6	39.9-49.3	34.8	28.1-41.5

Table 41 shows that current drinkers consumed on average 4.3 (95% CI = 2.6-6.9 =0) standard drinks per day in the past 7 days. There were no statistically significant differences between men and women and between the age groups.

Table 41. 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	249	4.6	3.1-6.0		114	3.7	0.9-6.4		363	4.3	2.6-6.0

Table 42 shows that very few (1.1%, 95% CI = 0.2-2.1) 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.

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

Table 42. Percentage of current drinkers who consumed unrecorded alcohol in the past 7 days

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
18-69	256	1.2	0.0-2.5		119	1.0	0.0-2.9		375	1.1	0.2-2.1

Table 43 shows that 21.6% (95% CI = 17.1-26.2) of those who had drunk in the past twelve months had experienced being unable to stop drinking monthly or more frequently and 20.1% (95% CI = 16.2-24.1) experienced it less than monthly. More than half (58.2%, 95% CI = 55.6-60.9) have never experienced being unable to stop drinking.

There were no statistically significant differences between the three age groups and between men and women. For more details on male and female past 12 month drinkers, please see Appendix 2.

Table 43. Percentage of drinkers (last 12 months) who were not able to stop drinking once started during the past year, both sexes combined

Percentage and regularity of drinkers 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	272	25.2	18.4-31.9	18.1	14.0-22.2	56.7	51.2-62.2
30-44	243	17.9	11.9-23.8	20.8	15.0-26.6	61.3	53.2-69.5
45-69	101	19.9	9.6-30.3	24.7	12.5-36.8	55.4	43.2-67.6
18-69	616	21.6	17.1-26.2	20.1	16.2-24.1	58.2	55.6-60.9

Table 44 shows that 20.0% (95% CI = 15.3-24.6) reported failing to do what was normally expected from them because of drinking monthly or more frequently; and 26.7% (95% CI = 23.0-30.5) reported failing to do so less than monthly.

Significantly more men than women reported failing to do what was normally expected from them monthly or more frequently – 23.8% (95% CI = 19.0-28.6) of men compared to 12.7% (95% CI = 7.0-18.3) of women. For details please see Appendix 2.

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

Table 44. Percentage 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

Percentage frequently failing to do what was normally expected from you 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	272	24.7	17.0-32.5	28.0	21.9-34.2	47.3	39.5-55.0
30-44	243	15.1	9.1-21.1	27.7	19.1-36.3	57.2	48.8-65.6
45-69	101	17.1	8.3-25.9	20.8	10.4-31.2	62.1	51.8-72.4
18-69	616	20.0	15.3-24.6	26.7	23.0-30.5	53.3	48.6-57.9

Table 45 shows that majority (78.0%, 95% CI = 74.8-81.2) of past 12 month drinkers did not need a first drink in the morning to get going. However, 11.5% (95% CI = 8.4-14.7) needed it monthly or more frequently and 10.4% (95% CI = 8.2-12.7) needed it less than monthly.

Men were three times more likely to experience needing a first drink in the morning to get going monthly or more frequently than women – 15.1% (95% CI = 11.1-19.2) of men and 4.6% (95% CI = 0.9-8.4) of women. 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 45. Percentage of past 12 month drinkers needing a first drink in the morning to get going during the past 12 months, both sexes combined

Percentage of past 12 month drinkers needing a first drink in the morning to get going during the past 12 months							
	Both sexes						
	n	% monthly or more frequently	95% CI	% less than monthly	95% CI	% never	95% CI
18-29	272	12.3	8.1-16.5	9.5	6.0-13.1	78.2	72.4-84.0
30-44	243	9.0	4.1-14.0	11.9	8.9-14.8	79.1	74.5-83.7
45-69	101	15.1	6.1-24.0	9.9	5.0-14.7	75.1	67.4-82.8
18-69	616	11.5	8.4-14.7	10.4	8.2-12.7	78.0	74.8-81.2

Table 46 shows that 19.5% (95% CI = 10.9-28.1) of former drinkers stopped drinking due to health reasons, with no statistically significant difference between the three age groups and between men and women.

Table 46. 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	95% CI
18-69	119	21.6	13.3-29.9		216	18.2	8.8-27.7		335	19.5	10.9-28.1

Table 47 shows that overall, the majority (72.9%, 95% CI = 68.6-77.1) of the population never had family or partner problems due to someone else's drinking during the past 12 months. However, 23.5% (95% CI = 19.9-27.2) had such problems less than monthly and 3.6% (95% CI = 2.7-4.5) had them monthly or more frequently.

There were no statistically significant differences between the three age groups and between men and women. For more details on frequency of family or partner problems due to someone else's drinking experienced by men and women, please see Appendix 2.

Table 47. Percentage and regularity of family/partner problems due to someone else's drinking during the past 12 months, both sexes combined

Percentage and regularity 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	537	3.3	1.8-4.8	25.9	21.1-30.8	70.8	65.2-76.3
30-44	505	4.0	2.4-5.6	25.0	22.1-28.0	71.0	67.8-74.2
45-69	343	3.5	1.7-5.4	17.2	11.7-22.7	79.2	72.9-85.5
18-69	1385	3.6	2.7-4.5	23.5	19.9-27.2	72.9	68.6-77.1

4.4. Kava consumption

This section also aims to give insights into whether there is any relationship between kava consumption and alcohol and tobacco use.

Table 48 shows that 18.1% (95% CI = 13.2-22.9) overall have ever tried or drunk kava in the past 12 months. There were no statistically significant differences between the three age groups and between men and women.

Table 48. Percentage who consumed kava in the past 12 months

Percentage who consumed kava in the past 12 months										
Age group (years)	Men				Women				Both sexes		
	n	% Kava drinkers	95% CI		n	% Kava drinkers	95% CI		n	% Kava drinkers	95% CI
18-29	271	19.6	15.5-23.6		266	12.8	7.6-17.9		537	16.0	12.0-20.1
30-44	229	25.3	16.6-34.0		276	17.4	12.5-22.3		505	21.4	15.5-27.3
45-69	150	20.0	12.9-27.1		193	14.5	5.1-23.9		343	17.0	9.5-24.4
18-69	650	21.7	16.9-26.4		735	14.7	9.2-20.2		1385	18.1	13.2-22.9

Table 49 shows that in the last 30 days, Nauruans consumed kava on 7.7 days (95% CI = 5.4-9.9) – 8.9 days (95% CI = 6.0-11.9) among men and 5.8 days (95% CI = 3.5-8.1) among women.

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

Table 49. Mean number of days kava was consumed in the last 30 days.

Mean number of days kava was consumed in last 30 days										
Age group (years)	Men				Women				Both sexes		
	n	Mean days	95% CI		n	Mean days	95% CI		n	Mean days	95% CI
18-29	52	7.6	4.1-11.0		33	5.7	1.6-9.8		85	6.8	3.7-9.9
30-44	57	8.6	5.3-11.8		48	4.6	2.2-7.0		105	7.0	4.8-9.2
45-69	30	12.2	5.7-18.7		25	8.0	2.7-13.3		55	10.4	6.3-14.4
18-69	139	8.9	6.0-11.9		106	5.8	3.5-8.1		245	7.7	5.4-9.9

Table 50 shows that Nauruans spent about 1.0 hour (95% CI = 0.8-1.3) drinking kava in a session – 1.2 hours (95% CI = 1.0-1.5) among men and 0.8 hours (95% CI = 0.5-1.1) among women.

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

Table 50. Mean number of hours spent drinking kava in a session

Mean number of hours spent drinking kava in a session										
Age group (years)	Men				Women				Both sexes	
	n	Mean number of hours	95% CI		n	Mean number of hours	95% CI		n	Mean number of hours	95% CI
18-29	271	1.2	0.9-1.4		266	0.8	0.4-1.2		537	1.0	0.7-1.3
30-44	229	1.5	1.0-1.9		276	0.9	0.6-1.2		505	1.2	0.9-1.5
45-69	151	1.0	0.6-1.5		193	0.7	0.3-1.2		344	0.9	0.5-1.3
18-69	651	1.2	1.0-1.5		735	0.8	0.5-1.1		1386	1.0	0.8-1.3

Table 51 shows that one third (33.4%, 95% CI = 26.5-40.2) of kava drinkers reported usually drinking alcohol during or after drinking kava.

There were no statistically significant differences between men and women and between the three age groups, please see Appendix 2.

Table 51. Percentage who usually drank alcohol during or after drinking kava, both sexes combined

Respondents who usually drank alcohol during/after drinking kava										
Age group (years)	Men				Women				Both sexes	
	n	% alcohol consumption during/after kava session	95% CI		n	% alcohol consumption during/after kava session	95% CI		n	% alcohol consumption during/after kava session	95% CI
18-69	141	38.3	28.9-47.8		110	26.5	19.2-33.8		251	33.4	26.5-40.2

Table 52 shows that 69.1% (95% CI = 63.7-74.5) of kava drinkers reported usually smoking tobacco during or after drinking kava.

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

Table 52. Percentage who usually smoked tobacco during or after drinking kava, both sexes combined

Respondents usually smoking tobacco during/after drinking kava										
Age group (years)	Men				Women				Both sexes	
	n	% smoking during/after kava session	95% CI		n	% smoking during/after kava session	95% CI		n	% smoking during/after kava session	95% CI
18-69	141	70.4	63.0-77.7		110	67.3	58.7-76.0		251	69.1	63.7-74.5

Table 53 shows that 61.7% (95% CI = 53.4-70.0) of kava drinkers would usually eat during and/or after drinking kava.

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

Table 53. Percentage who usually consumed food during or after drinking kava, both sexes combined

Respondents usually consumed food during/after drinking kava										
Age group (years)	Men				Women				Both sexes	
	n	% Consumed food during/ after kava session	95% CI		n	% Consumed food during/ after kava session	95% CI		n	% Consumed food during/ after kava session	95% CI
18-69	141	62.4	54.4-70.4		110	60.7	50.3-71.0		251	61.7	53.4-70.0

Table 54 shows that 82.0% (95% CI = 73.6-90.4) consumed other types of food and drinks whilst 5.7% (95% CI = 1.2-10.2) consumed soft drinks, 5.8% (95% CI = 1.5-10.1) consumed sweets and 6.5% (95% CI = 2.9-10.0) consumed salted snacks.

Table 54. Percentage who consumed the given types of food and drinks during or after drinking kava, both sexes combined

Percentage who consumed given food and drinks during/after drinking kava									
Age group (years)	Both sexes								
	n	% Soft drinks	95% CI	% Sweets	95% CI	% Salted Snacks	95% CI	% Others	95% CI
18-69	154	5.7	1.2-10.2	5.8	1.5-10.1	6.5	2.9-10.0	82.0	73.6-90.4

4.5. 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.

Table 55 shows that the mean number of days fruit was consumed in a typical week was 1.8 days (95% CI = 1.7-1.9).

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

Table 55. 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	269	1.9	1.7-2.1		262	1.7	1.3-2.0		531	1.8	1.6-2.0
30-44	226	1.8	1.6-2.0		275	2.0	1.8-2.2		501	1.9	1.7-2.1
45-69	146	1.8	1.3-2.4		189	1.7	1.4-2.1		335	1.8	1.4-2.2
18-69	641	1.8	1.7-2.0		726	1.8	1.6-1.9		1367	1.8	1.7-1.9

Table 56 shows that the mean number of days vegetables were consumed in a typical week was 2.5 days (95% CI = 2.3-2.7).

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

Table 56. Mean number of days vegetables were consumed in a typical week

Mean number of days vegetables consumed in a typical week										
Age group (years)	Men				Women				Both sexes	
	n	Mean number of days	95% CI		n	Mean-number of days	95% CI		n	Mean number of days	95% CI
18-29	267	2.4	2.0-2.7		260	2.3	2.0-2.7		527	2.4	2.1-2.6
30-44	226	2.5	2.0-3.1		274	2.9	2.5-3.4		500	2.7	2.3-3.2
45-69	146	2.4	1.9-2.9		188	2.4	2.1-2.8		334	2.4	2.1-2.7
18-69	639	2.4	2.1-2.8		722	2.5	2.3-2.8		1361	2.5	2.3-2.7

Table 57 shows that the mean number of servings of fruit and/or vegetables consumed on average per day was 1.2 (95% CI = 1.1-1.4). 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.

Table 57. 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	267	1.2	1.0-1.5		261	1.1	0.8-1.4		528	1.1	0.9-1.4
30-44	226	1.3	1.0-1.6		275	1.5	1.2-1.9		501	1.4	1.2-1.7
45-69	147	1.2	0.8-1.6		190	1.1	0.8-1.3		337	1.1	0.9-1.4
18-69	640	1.2	1.1-1.4		726	1.2	1.0-1.4		1366	1.2	1.1-1.4

Table 58 shows that overall, 61.3% (95% CI = 57.7-65.0) did not consume any fruit and/or vegetables; 27.2% (95% CI = 23.3-31.2) consumed 1-2 servings; 6.7% (95% CI = 4.8-8.6) consumed 3-4 servings; and 4.7% (95% CI = 3.3-6.1) 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 58. Percentage who consumed the specified number of servings of fruit and/or vegetables on average per day, both sexes combined

Percentage having given numbers 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	528	63.7	59.9-67.4	25.4	20.7-30.1	6.6	3.0-10.3	4.3	2.0-6.7
30-44	501	57.4	51.0-63.8	30.6	25.7-35.5	6.1	3.8-8.5	5.9	3.5-8.2
45-69	337	62.6	55.6-69.6	25.8	21.8-29.8	7.7	4.5-10.9	3.9	1.2-6.7
18-69	1366	61.3	57.7-65.0	27.2	23.3-31.2	6.7	4.8-8.6	4.7	3.3-6.1

Table 59 shows that overall, 95.3% (95% CI = 93.9-96.7) 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 59. 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	267	94.8	91.8-97.7		261	96.6	94.3-98.8		528	95.7	93.3-98.0
30-44	226	95.1	92.4-97.9		275	93.1	89.4-96.8		501	94.1	91.8-96.5
45-69	147	93.9	89.5-98.3		190	97.9	95.7-100.0		337	96.1	93.3-98.8
18-69	640	94.7	92.9-96.5		726	95.8	94.3-97.3		1366	95.3	93.9-96.7

4.6. Dietary salt

WHO recommends less than 5 g of salt (approximately 1 teaspoon) 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 60 shows that overall, 53.8% (95% CI = 50.2-57.4) of the population always or often added salt before eating or when eating – 51.7% (95% CI = 47.6-55.8) of men and 55.8% (95% CI = 50.8-60.7) of women.

Nauruans aged 18-29 (60.4%, 95% CI = 56.1-64.7) were more likely to add salt always or often before or when eating compared to those aged 30-44 years (49.9%, 95% CI = 44.6-55.2) and those aged 45-69 (47.5%, 95% CI = 42.7-52.3). Younger men aged 18-29 were also more likely to add salt always or often before eating or when eating (60.9%, 95% CI = 55.0-66.7) compared to older men aged 45-69 (40.0%, 95% CI = 34.8-45.2).
There was no statistically significant difference between men and women.

Table 60. Percentage who added salt always or often before eating or when eating

Added 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	271	60.9	55.0-66.7		265	60.0	54.6-65.4		536	60.4	56.1-64.7
30-44	229	48.0	40.6-55.5		276	51.8	45.4-58.2		505	49.9	44.6-55.2
45-69	150	40.0	34.8-45.2		192	53.6	45.3-62.0		342	47.5	42.7-52.3
18-69	650	51.7	47.6-55.8		733	55.8	50.8-60.7		1383	53.8	50.2-57.4

Table 61 shows that overall, 65.4% (95% CI = 60.5-70.3) 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 61. Percentage who added salt always or often when cooking or preparing food at home

Added 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	259	66.8	61.8-71.8		262	71.8	63.6-80.0		521	69.4	63.9-74.9
30-44	226	60.6	53.3-68.0		273	61.9	53.2-70.6		499	61.2	55.2-67.3
45-69	147	61.9	54.3-69.5		193	65.8	57.1-74.5		340	64.1	57.0-71.1
18-69	632	63.5	60.5-66.4		728	67.1	60.1-74.2		1360	65.4	60.5-70.3

Table 62 shows that overall, 33.5% (95% CI = 30.2-36.8) always or often consumed processed food high in salt – 33.7% (95% CI = 29.5-38.0) of men and 33.2% (95% CI = 28.4-38.1) of women.

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

Table 62. Percentage who always or often consumed processed food high in salt

Always or often consumed processed food high in salt										
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	271	36.2	29.1-43.2		266	40.6	34.4-46.8		537	38.5	33.0-43.9
30-44	229	34.5	26.0-43.0		276	30.4	25.2-35.6		505	32.5	28.3-36.8
45-69	150	28.0	18.1-37.9		193	24.4	16.9-31.8		343	26.0	18.4-33.6
18-69	650	33.7	29.5-38.0		735	33.2	28.4-38.1		1385	33.5	30.2-36.8

Table 63 shows that overall, 34.9% (95% CI = 30.6-39.2) thought that they consumed far too much or too much salt – 33.1% (95% CI = 28.3-38.0) among men and 36.6% (95% CI = 31.6-41.6) among women.

A significantly higher proportion of Nauruans aged 18-29 thought that they consumed far too much or too much salt (40.4%, 95% CI = 34.2-46.7) compared to those aged 45-69 (26.8%, 95% CI = 20.0-33.7).

There were no statistically significant differences between men and women.

Table 63. Percentage who thought they consumed far too much or too much salt

Thought they consumed 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	258	40.3	32.2-48.5		254	40.6	32.0-49.1		512	40.4	34.2-46.7
30-44	218	31.2	25.5-36.9		267	36.7	31.3-42.1		485	33.9	29.4-38.4
45-69	145	22.8	13.9-31.6		193	30.1	22.9-37.2		338	26.8	20.0-33.7
18-69	621	33.1	28.3-38.0		714	36.6	31.6-41.6		1335	34.9	30.6-39.2

Table 64 shows that overall, 13.6% (95% CI = 10.5-16.7) reported that they consumed far too much salt and 21.3% (95% CI = 18.9-23.8) reported that they consumed too much salt. About half (51.1%, 95% CI = 46.6-55.7) reported that they consumed just the right amount of salt, 9.3% (95% CI = 7.2-11.4) that they consumed too little and 4.6% (95% CI = 3.2-6.1) consumed far too little.

Nauruans aged 45-69 were more likely to report consuming far too little salt (12.7%, 95% CI = 9.7-15.7) compared to those aged 18-29 (6.2%, 95% CI = 4.3-8.1).

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 64. 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 amount	95% CI	% Too little	95% CI	% Far too little	95% CI
18-29	512	16.6	10.8-22.5	23.8	20.8-26.8	50.0	43.2-56.8	6.2	4.3-8.1	3.3	2.0-4.7
30-44	485	12.4	9.6-15.2	21.5	17.3-25.7	50.7	45.3-56.0	10.7	6.8-14.6	4.7	2.4-7.0
45-69	338	10.0	5.8-14.2	16.8	10.6-23.0	53.7	47.3-60.0	12.7	9.7-15.7	6.8	3.4-10.2
18-69	1335	13.6	10.5-16.7	21.3	18.9-23.8	51.1	46.6-55.7	9.3	7.2-11.4	4.6	3.2-6.1

Table 65 shows that overall, 72.7% (95% CI = 68.7-76.6) stated that lowering salt in diet was very important, 14.9% (95% CI = 12.7-17.1) as somewhat important and 12.4% (95% CI = 9.5-15.4) 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 65. Percentage who stated the different importance of lowering salt in diet, both sexes combined

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	461	71.5	66.6-76.5	15.2	12.7-17.8	13.2	8.2-18.3
30-44	463	70.3	64.4-76.1	16.9	11.8-21.9	12.9	9.6-16.1
45-69	323	77.7	73.1-82.4	11.8	7.3-16.3	10.5	7.0-13.9
18-69	1247	72.7	68.7-76.6	14.9	12.7-17.1	12.4	9.5-15.4

Table 66 shows that overall, 82.5% (95% CI = 79.2-85.7) thought that consuming too much salt could cause serious health problems.

Women were significantly more likely than men to think consuming too much salt could cause serious health problems – 78.6% (95% CI = 74.0-83.1) of men and 86.1% (95% CI = 83.4-88.8) of women.

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

Table 66. Percentage who thought that consuming too much salt could cause serious health problems

Thought 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	271	77.1	68.8-85.4		266	85.7	81.4-90.1		537	81.6	76.8-86.3
30-44	228	79.4	73.7-85.1		276	88.0	84.6-91.5		504	83.6	79.4-87.9
45-69	150	80.0	75.1-84.9		193	84.5	78.4-90.5		343	82.4	78.4-86.5
18-69	649	78.6	74.0-83.1		735	86.1	83.4-88.8		1384	82.5	79.2-85.7

Table 67 shows that overall, 53.1% (95% CI = 48.1-58.2) limited consumption of processed foods to control salt intake – 51.8% (95% CI = 47.9-55.7) among men and 54.4% (95% CI = 46.8-62.0) among women.

Nauruans aged 45-69 were more likely to limit consumption of processed foods to control salt intake (60.4%, 95% CI = 54.0-66.7) compared to those aged 18-29 (46.5%, 95% CI = 40.2-52.8). Among men, those aged 45-69 (61.3%, 95% CI = 52.2-70.4) were more likely than those aged 18-29 (43.5%, 95% CI = 35.8-51.2) to limit con-

sumption of processed foods to control salt intake. There were no statistically significant differences between men and women.

Table 67. Percentage who limited consumption of processed foods to control salt intake

Limit consumption of processed foods										
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	271	43.5	35.8-51.2		266	49.2	40.6-57.9		537	46.5	40.2-52.8
30-44	228	55.7	45.6-65.9		276	57.2	49.8-64.7		504	56.5	48.8-64.1
45-69	150	61.3	52.2-70.4		193	59.6	50.6-68.6		343	60.4	54.0-66.7
18-69	649	51.8	47.9-55.7		735	54.4	46.8-62.0		1384	53.1	48.1-58.2

Table 68 shows that overall, 20.9% (95% CI = 17.5-24.4) looked at the salt or sodium content on food labels – 21.2% (95% CI = 17.3-25.1) of men and 20.7% (95% CI = 16.7-24.7) of women.

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

Table 68. 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	271	17.3	11.8-22.9		266	18.0	13.6-22.5		537	17.7	13.4-22.1
30-44	228	23.7	19.4-28.0		276	21.4	17.7-25.0		504	22.6	19.6-25.5
45-69	150	24.7	15.9-33.4		193	24.4	17.5-31.2		343	24.5	18.9-30.1
18-69	649	21.2	17.3-25.1		735	20.7	16.7-24.7		1384	20.9	17.5-24.4

Table 69 shows that overall, 24.4% (95% CI = 21.8-27.0) bought low salt or sodium alternatives – 24.1% (95% CI = 20.1-28.2) of men and 24.6% (95% CI = 22.0-27.3) of women.

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

Table 69. Percentage 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	271	19.2	13.9-24.5		266	23.3	18.5-28.2		537	21.3	17.1-25.5
30-44	228	30.3	22.4-38.1		276	22.5	17.8-27.1		504	26.4	22.0-30.9
45-69	150	24.0	16.6-31.4		193	29.5	21.8-37.3		343	27.0	20.9-33.2
18-69	649	24.1	20.1-28.2		735	24.6	22.0-27.3		1384	24.4	21.8-27.0

Table 70 shows that overall, 43.2% (95% CI = 40.7-45.7) used spices other than salt when cooking – 43.7% (95% CI = 40.0-47.4) of men and 42.7% (95% CI = 39.5-45.8) of women.

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

Table 70. Percentage who used spices other than salt when cooking

Used spices other than salt when cooking										
Age group (years)	Men				Women				Both sexes	
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	271	39.9	33.3-46.4		266	36.8	30.2-43.4		537	38.3	33.7-42.9
30-44	228	46.5	39.5-53.5		276	47.8	42.0-53.7		504	47.1	42.1-52.2
45-69	150	46.7	38.0-55.3		193	46.1	39.7-52.6		343	46.4	41.1-51.6
18-69	649	43.7	40.0-47.4		735	42.7	39.5-45.8		1384	43.2	40.7-45.7

Table 71 shows that overall, 42.3% (95% CI = 39.4-45.1) avoided eating foods prepared outside a home – 41.8% (95% CI = 37.6-46.0) of men and 42.7% (95% CI = 40.0-45.3) of women.

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

Table 71 Percentage who avoided eating foods prepared outside a home

Avoided 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	271	36.2	29.4-42.9		266	39.9	33.8-45.9		537	38.1	33.2-43.0
30-44	228	46.9	38.9-55.0		276	44.6	38.8-50.4		504	45.8	39.2-52.3
45-69	150	44.7	36.2-53.2		193	45.1	38.5-51.7		343	44.9	39.4-50.4
18-69	649	41.8	37.6-46.0		735	42.7	40.0-45.3		1384	42.3	39.4-45.1

Table 72 shows that overall, 35.9% (95% CI = 30.7-41.1) have done other things specifically to control salt intake – 37.8% (95% CI = 32.2-43.3) of men and 34.2% (95% CI = 28.6-39.7) of women.

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

Table 72. Percentage who have done other things specifically to control salt intake

Did 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	271	37.3	28.0-46.5		266	29.7	23.4-36.0		537	33.3	26.5-40.2
30-44	228	39.0	32.0-46.1		276	37.7	28.8-46.6		504	38.4	30.8-45.9
45-69	150	36.7	28.2-45.1		193	37.3	29.7-44.9		343	37.0	30.2-43.9
18-69	649	37.8	32.2-43.3		735	34.2	28.6-39.7		1384	35.9	30.7-41.1

Table 73 shows that on average, Nauruans ate 3.3 (95% CI = 3.0-3.5) meals outside a home – 3.7 (95% CI = 3.4-4.0) among men and 2.9 (95% CI = 2.5-3.2) among women. Younger Nauruans aged 18-29 ate more meals outside a home (3.6, 95% CI = 3.2-4.0) than those aged 45-69 (2.5, 95% CI = 2.1-2.9). There was no statistically significant difference between men and women.

Table 73. Mean number of meals eaten outside a home

Mean number of meals eaten outside a home										
Age group (years)	Men				Women				Both sexes		
	n	Mean	95% CI		n	Mean	95% CI		n	Mean	95% CI
18-29	269	4.0	3.4-4.5		264	3.2	2.7-3.7		533	3.6	3.2-4.0
30-44	227	3.8	3.2-4.4		273	3.0	2.5-3.5		500	3.4	3.0-3.9
45-69	147	2.9	2.4-3.5		190	2.2	1.6-2.7		337	2.5	2.1-2.9
18-69	643	3.7	3.4-4.0		727	2.9	2.5-3.2		1370	3.3	3.0-3.5

4.7. Dietary fat

WHO recommends reducing total fat intake to prevent unhealthy weight gain. Fat intake can be reduced by removing fatty part of the meat, using vegetable oil, boiling, steaming or baking, avoiding eating processed food with trans-fat, and limiting consumption of food with high amounts of saturated fats. Respondents were asked what type of oil or fat they used for preparing meals.

Table 74 shows that majority of the households surveyed (88.3%, 95% CI = 85.3-91.4) used vegetable oil, 0.2% (95% CI = 0.0-0.4) used lard, 1.8% (95% CI = 0.8-2.8) used butter, 0.9% (95% CI = 0.4-1.5) used margarine, and 5.0% (95% CI = 2.9-7.1) used none.

Table 74. 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
40	88.3	85.3-91.4	0.2	0.0-0.4	1.8	0.8-2.8	0.9	0.4-1.5

Type of oil or fat most often used for meal preparation in household (continued)				
n (house-holds)	% none in particular	95% CI	% None used	95% CI
40	-	-	5.0	2.9-7.1

4.8. Sugar consumption

WHO recommends reducing sugar intake to prevent unhealthy weight gain and risk of dental caries. Sugar intake can be reduced by limiting consumption of food and drinks containing high amounts of sugar, and eating fresh fruits and vegetables as snacks. 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 75 shows that Nauruans consumed a mean of 4.1 servings (95% CI = 3.6-4.6) of sugary drinks per day. There were no statistically significant differences between men and women and between the three age groups.

Table 75. Mean number of servings of sugary drinks consumed per 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	257	4.4	3.7-5.0		251	4.4	3.2-5.7		508	4.4	3.7-5.1
30-44	220	3.3	2.7-4.0		260	4.3	3.4-5.1		480	3.8	3.3-4.3
45-69	145	4.0	2.8-5.2		184	4.1	3.2-5.1		329	4.1	3.2-4.9
18-69	622	3.9	3.4-4.4		695	4.3	3.4-5.2		1317	4.1	3.6-4.6

Table 76 shows that Nauruans added 5.4 teaspoons (95% CI = 5.4) of sugar on average to sugary drinks (milo, tea or coffee – 6.2 teaspoons (95% CI = 2.5-4.4) among men and 4.6 teaspoons (95% CI = 1.6-7.7) among women. There were no statistically significant differences between men and women and between the three age groups.

Table 76. Mean number of teaspoons of sugar added to drinks per day

Mean number of teaspoons of sugar added to a 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	224	4.2	1.3-7.1		232	6.0	2.5-9.4		456	5.1	2.0-8.3
30-44	196	4.7	1.3-8.2		243	6.9	1.8-12.1		439	5.8	1.6-10.1
45-69	129	5.3	2.2-8.5		164	5.5	1.5-9.5		293	5.4	1.9-8.9
18-69	549	4.6	1.6-7.7		639	6.2	2.2-10.2		1188	5.4	1.9-9.0

4.9. Injury

Table 77 shows that overall, 10.8% (95% CI = 9.5-12.1) had been involved in a road traffic crash in the past 12 months. A significantly higher proportion of men than women had been involved in a road traffic crash in the past 12 months – 15.4% (95% CI = 13.6-17.3) among men and 6.5% (95% CI = 4.4-8.5) among women. Nauruans aged 18-29 were more likely to have been involved in a road traffic crash in the past 12 months (16.5%, 95% CI = 13.4-19.5) than those aged 30-44 years (8.1%, 95% CI = 5.5-10.7) and 45-69 (4.4%, 95% CI = 2.1-6.7).

Table 77. Percentage who had been involved in a road traffic crash in the past 12 months

Had been involved in a road traffic crash in the past 12 months										
Age group (years)	Men				Women				Both sexes		
	n	% Involved in road traffic crash	95% CI		n	% Involved in road traffic crash	95% CI		n	% Involved in road traffic crash	95% CI
18-29	271	24.0	19.6-28.4		265	9.4	5.4-13.5		536	16.5	13.4-19.5
30-44	228	11.4	7.1-15.7		276	4.7	2.1-7.3		504	8.1	5.5-10.7
45-69	149	5.4	1.0-9.8		193	3.6	0.6-6.7		342	4.4	2.1-6.7
18-69	648	15.4	13.6-17.3		734	6.5	4.4-8.5		1382	10.8	9.5-12.1

Table 78 shows that among those who had been involved in a road traffic crash in the past 12 months, 48.9% (95% CI = 39.0-58.7) were seriously injured requiring medical attention – 51.0% (95% CI = 38.9-63.2) among men and 43.9% (95% CI = 27.3-60.6) among women.

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

Table 78. Percentage who were seriously injured as a result of the road traffic crash among those involved

Were seriously injured as a result of the road traffic crash among those involved										
Age group (years)	Men				Women				Both sexes	
	n	% Seriously injured	95% CI		n	% Seriously injured	95% CI		n	% Seriously injured	95% CI
18-69	98	51.0	38.9-63.2		44	43.9	27.3-60.6		142	48.9	39.0-58.7

Table 79 shows that overall, 81.8% (95% CI = 79.1-84.4) drove a motorized vehicle after having alcoholic drinks.

A significantly higher proportion of women drove under the effects of alcohol than men – 90.7% (95% CI = 88.7-92.6) of women and 72.3% (95% CI = 68.1-76.5) of men; and a significantly higher proportion of Nauruans aged 45-69 drove under the effects of alcohol (91.1%, 95% CI = 88.8-93.3) than those aged 18-29 (77.9%, 95% CI = 73.3-82.5) and 30-44 years (80.0%, 95% CI = 74.9-85.0).

Table 79. Percentage who drove a motorized vehicle under the effects of alcohol

Drove a motorized vehicle under the effects of alcohol										
Age group (years)	Men				Women				Both sexes	
	n	% Drove after drinking	95% CI		n	% Drove after drinking	95% CI		n	% Drove after drinking	95% CI
18-29	271	66.8	61.0-72.6		265	88.3	84.6-92.0		536	77.9	73.3-82.5
30-44	228	71.5	63.9-79.1		276	88.8	84.5-93.0		504	80.0	74.9-85.0
45-69	150	84.0	78.7-89.3		193	96.9	94.2-99.6		343	91.1	88.8-93.3
18-69	649	72.3	68.1-76.5		734	90.7	88.7-92.6		1383	81.8	79.1-84.4

4.10. Reproductive health

Table 80 shows that slightly more than a quarter of Nauruans (26.9%, 95% CI = 23.3-30.4) did not know where to get condoms from – 28.0% (95% CI = 22.3-33.6) of men and 25.9% (95% CI = 22.4-29.4) of women.

Among women, those aged 45-69 were more likely to not know where to get condoms from (32.2%, 95% CI = 24.3-40.1) than those aged 30-44 years (19.4%, 95% CI = 15.4-23.3).

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

Table 80. Percentage who did not know where to get condoms from

Not knowing where to get condoms from										
Age group (years)	Men				Women				Both sexes	
	n	% Not knowing	95% CI		n	% Not knowing	95% CI		n	% Not knowing	95% CI
18-29	239	29.3	21.6-37.0		248	27.0	20.7-33.3		487	28.1	23.3-32.9
30-44	204	26.5	19.2-33.7		253	19.4	15.4-23.3		457	22.9	19.1-26.8
45-69	126	27.8	18.8-36.8		174	32.2	24.3-40.1		300	30.3	24.0-36.5
18-69	569	28.0	22.3-33.6		675	25.9	22.4-29.4		1244	26.9	23.3-30.4

4.11. 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; and

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	▪ Moderate MET value = 4.0 ▪ Vigorous MET value = 8.0
Transport	▪ Cycling and walking MET value = 4.0
Recreation	▪ 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
A person who meets the following criteria: ▪ Vigorous-intensity activity on at least 3 days achieving a minimum of at least 1,500 MET-minutes/week OR ▪ 7 or more days of any combination of walking, moderate- or vigorous-intensity activities achieving a minimum of at least 3,000 MET-minutes per week	A person who does not meet the criteria for the "high" category but meets the following: ▪ 3 or more days of vigorous-intensity activity of at least 20 minutes per day OR ▪ 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day OR ▪ 5 or more days of any combination of walking, moderate- or vigorous-intensity activities achieving a minimum of at least 600 MET-minutes per week.	A person who does not meet any of the abovementioned criteria.

Table 81 shows that overall, 39.8% (95% CI = 34.8-44.9) of Nauruans did not meet the WHO recommendations on physical activity for health. A significantly higher proportion of women (49.8%, 95% CI = 44.3-55.4) than men (29.0%, 95% CI = 22.6-35.3) did not meet the recommendations.

A significantly higher proportion of Nauruans aged 45-69 (51.5%, 95% CI = 41.3-61.6) did not meet the WHO recommendations on physical activity for health than those aged 30-44 (35.4%, 95% CI = 30.6-40.1).

Among men, the proportion who did not meet the recommendations increased with age – 15.8% (95% CI = 8.7-22.9) among 18-29 year olds, 31.2% (95% CI = 25.2-37.3) among 30-44 year olds and 50.3% (95% CI = 37.8-62.9) among 45-69 year olds. Among women, a higher proportion of those aged 18-29 did not meet the recommendations (55.5%, 95% CI = 49.7-61.3) compared to those aged 30-44 (39.8%, 95% CI = 34.1-45.5).

Table 81. 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	260	15.8	8.7-22.9		263	55.5	49.7-61.3		523	36.7	31.5-41.8
30-44	221	31.2	25.2-37.3		264	39.8	34.1-45.5		485	35.4	30.6-40.1
45-69	145	50.3	37.8-62.9		189	52.4	40.4-64.3		334	51.5	41.3-61.6
18-69	626	29.0	22.6-35.3		716	49.8	44.3-55.4		1342	39.8	34.8-44.9

Table 82 shows that on average, Nauruans engaged in 147.9 minutes of total physical activity per day (95% CI = 123.5-172.3).

Men engaged in significantly more physical activity on average per day (194.8 minutes, 95% CI = 157.2-232.4) than women (104.5 minutes, 95% CI = 86.8-122.2).

Nauruans aged 45-69 engaged in significantly fewer minutes of total physical activity per day (95.8 minutes, 95% CI = 72.9-118.7) than those aged 18-29 (160.8 minutes, 95% CI = 130.7-190.9) and 30-44 (169.4 minutes, 95% CI = 137.0-201.7).

Table 82. 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	260	239.2	193.1-285.3		263	90.0	64.7-115.4		523	160.8	130.7-190.9
30-44	221	206.4	155.2-257.6		264	130.4	101.8-159.0		485	169.4	137.0-201.7
45-69	145	93.2	59.1-127.2		189	98.0	72.8-123.1		334	95.8	72.9-118.7
18-69	626	194.8	157.2-232.4		716	104.5	86.8-122.2		1342	147.9	123.5-172.3

Table 83 shows that the median minutes of total physical activity Nauruans engaged in per day was 51.4 minutes. The median minutes for men was nearly five times more than women (98.6 compared to 20.0 minutes). Those aged 18-29 engaged in the most amount of physical activity in terms of duration followed by the 30-44 year olds then 45-69 year olds.

Table 83. 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-quartile range (P25-P75)		n	Median minutes	Inter-quartile range (P25-P75)
18-29	260	154.3	51.4-377.1		263	12.9	0-107.1		523	68.6	1.4-220.7
30-44	221	90.0	8.6-317.1		264	47.1	0-191.4		485	64.3	2.9-244.3
45-69	145	17.1	17.1-98.6		189	17.1	0-120.0		334	17.1	0-110.7
18-69	626	98.6	8.6-300.0		716	20.0	0-131.4		1342	51.4	0-210.0

Table 84 shows that on average, Nauruans engaged in 96.5 minutes of work-related physical activity per day (95% CI = 78.3-114.7).

Men engaged in more work-related physical activity (125.3 minutes, 95% CI = 99.3-151.3) compared to women (69.8 minutes, 95% CI = 56.5-83.1). Among men, those aged 45-69 engaged in significantly fewer minutes of work-related physical activity (66.4 minutes, 95% CI: 41.2-91.6) than those aged 18-29 (139.0 minutes, 95% CI = 108.1-170.0). Among women, there was no statistically significant difference between the three age groups.

Nauruans aged 30-44 engaged in more work-related physical activity on average per day (120.0 minutes, 95% CI = 93.0-147.0) than those aged 45-69 (67.2 minutes, 95% CI = 51.4-83.1).

Table 84. 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	260	139.0	108.1-170.0		263	55.1	36.8-73.4		523	94.9	73.2-116.7
30-44	221	146.6	108.1-185.1		264	92.0	69.9-114.2		485	120.0	93.0-147.0
45-69	145	66.4	41.2-91.6		189	67.9	51.2-84.6		334	67.2	51.4-83.1
18-69	626	125.3	99.3-151.3		716	69.8	56.5-83.1		1342	96.5	78.3-114.7

Table 85 shows that on average, Nauruans engaged in 22.3 minutes of transport-related physical activity per day (95% CI = 17.4-27.2) – 26.7 minutes (95% CI = 18.5-34.8) among men and 18.2 minutes (95% CI = 14.4-22.0) among women.

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

Table 85. 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	260	32.6	20.2-45.1		263	15.0	8.2-21.8		523	23.4	17.1-29.7
30-44	221	26.6	16.5-36.7		264	22.5	12.9-32.2		485	24.6	18.0-31.3
45-69	145	15.5	5.0-26.0		189	18.4	9.2-27.6		334	17.1	9.8-24.5
18-69	626	26.7	18.5-34.8		716	18.2	14.4-22.0		1342	22.3	17.4-27.2

Table 86 shows that on average, Nauruans engaged in 29.2 minutes of recreation-related physical activity per day (95% CI = 25.3-33.1).

Men engaged in significantly more recreation-related physical activity (42.8 minutes, 95% CI = 36.8-48.8) than women (16.5 minutes, 95% CI = 11.0-22.1).

The mean minutes of recreation-related physical activity decreased with age – 42.5 minutes (95% CI = 36.0-49.0) among 18-29 year olds, 24.8 minutes (95% CI = 19.8-29.8) among 30-44 year olds and 11.5 minutes (95% CI = 5.8-17.1) among 45-69 year olds. This was also the case among men; however, among women, there was no statistically significant difference between the three age groups.

Table 87. 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	260	67.5	59.1-76.0		263	19.9	11.0-28.8		523	42.5	36.0-49.0
30-44	221	33.2	23.4-43.1		264	15.8	10.3-21.4		485	24.8	19.8-29.8
45-69	145	11.3	4.8-17.7		189	11.6	3.4-19.9		334	11.5	5.8-17.1
18-69	626	42.8	36.8-48.8		716	16.5	11.0-22.1		1342	29.2	25.3-33.1

Table 88 shows that the median minutes of work-related physical activity Nauruans engaged in on average per day was 0. The median minutes for men was 8.6 minutes; 0 minutes for women; and 14.3 minutes for those

aged 30-44.

Table 88. 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-quartile range (P25-P75)		n	Median minutes	Inter-quartile range (P25-P75)		n	Median minutes	Inter-quartile range (P25-P75)
18-29	260	17.1	0-240.0		263	0.0	0-42.9		523	0.0	0.0-120.0
30-44	221	25.7	0-205.7		264	4.3	0-128.6		485	14.3	0.0-180.0
45-69	145	0	0-40.0		189	0.0	0-60.0		334	0.0	0.0-42.9
18-69	626	8.6	0-205.7		716	0.0	0.0-60.0		1342	0.0	0.0-120.0

Table 89 shows that the median minutes of transport-related physical activity Nauruans engaged in was 0 minutes.

Table 89. 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	260	0	0-21.4		263	0	0-8.6		523	0	0.0-12.9
30-44	221	0	0.0-20.0		264	0	0.0-10.7		485	0	0.0-14.3
45-69	145	0	0.0-8.6		189	0	0.0-7		334	0	0.0-10.3
18-69	626	0	0.0-17.1		716	0	0.0-10.0		1342	0	0.0-12.9

Table 90 shows that the median minutes of recreation-related physical activity Nauruans engaged in was 0 minutes. The median for men aged 18-29 was 38.6 minutes.

Table 90. Median minutes of recreation-related physical activity on average per day

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	260	38.6	0.0-102.9		263	0.0	0.0-5.6		523	0.0	0.0-60.0
30-44	221	0.0	0.0-38.6		264	0.0	0.0-6.4		485	0.0	0.0-17.1
45-69	145	0.0	0.0-0.0		189	0.0	0.0-0.0		334	0.0	0.0-462.9
18-69	626	0.0	0.0-64.3		716	0.0	0.0-4.3		1342	0.0	0.0-720.0

Table 91 shows that overall, 56.3% (95% CI = 49.7-62.9) were classified as having no work-related physical activity.

A significantly lower proportion of Nauruans aged 30-44 (43.8%, 95% CI = 38.2-49.3) than those aged 18-29 (56.3%, 95% CI = 49.7-62.9) and 45-69 (57.8%, 95% CI = 50.3-65.3) were classified as having no work-related physical activity.

Among men, a higher proportion of those aged 45-69 were classified as having no work-related physical activity (59.3%, 95% CI = 50.2-68.5) compared to those aged 30-44 (38.9%, 95% CI = 32.4-45.5). Among women, a higher proportion of those aged 18-29 were classified as having no work-related physical activity (66.2%, 95% CI = 57.0-75.3) than those aged 30-44 (48.9%, 95% CI = 42.0-55.7).

There was no statistically significant difference between men and women.

Table 91. Percentage classified as having no work-related physical activity

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	260	45.4	36.7-54.1		263	66.2	57.0-75.3		523	56.3	49.7-62.9
30-44	221	38.9	32.4-45.5		264	48.9	42.0-55.7		485	43.8	38.2-49.3
45-69	145	59.3	50.2-68.5		189	56.6	47.3-66.0		334	57.8	50.3-65.3
18-69	626	46.3	38.9-53.6		716	58.4	51.8-64.9		523	56.3	49.7-62.9

Table 92 shows that 55.8% (95% CI = 49.6-62.1) overall were classified as having no transport-related physical activity – 53.8% (95% CI = 47.6-60.0) of men and 57.7% (95% CI = 50.6-64.9) of women.

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

Table 92. Percentage classified as having no transport-related physical activity

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	260	52.7	45.4-60.0		263	61.6	51.7-71.5		523	57.4	50.3-64.5
30-44	221	50.2	41.5-59.0		264	57.2	51.6-62.8		485	53.6	48.0-59.2
45-69	145	61.4	51.2-71.5		189	51.9	40.4-63.3		334	56.1	45.6-66.7
18-69	626	53.8	47.6-60.0		716	57.7	50.6-64.9		1342	55.8	49.6-62.1

Table 93 shows that 64.4% (95% CI = 61.4-67.3) overall were classified as having no recreation-related physical activity.

Significantly higher proportion of women (73.3%, 95% CI = 69.9-76.8) than men (54.6%, 95% CI = 50.3-59.0) were classified as having no recreation-related physical activity.

There was a statistically significant difference between the three age groups. The proportion of Nauruans having no recreation-related physical activity increased with age – 53.5% (95% CI = 49.3-57.7) of 18-29 year olds, 66.9% (95% CI = 62.4-71.5) of 30-44 year olds and 80.2% (95% CI = 74.5-85.8) of 45-69 year olds.

Table 93. Percentage classified as having no recreation-related physical activity

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	260	37.3	33.2-41.4		263	68.1	62.5-73.6		523	53.5	49.3-57.7
30-44	221	61.1	53.1-69.0		264	73.1	68.3-77.9		485	66.9	62.4-71.5
45-69	145	77.2	66.2-88.3		189	82.5	77.4-87.7		334	80.2	74.5-85.8
18-69	626	54.6	50.3-59.0		716	73.3	69.9-76.8		1342	64.4	61.4-67.3

Table 94 shows that for men, work contributed 48.7% (95% CI = 44.8-52.6) to total physical activity, transport to 22.4% (95% CI = 19.5-25.4) and leisure to 28.9% (95% CI = 25.2-32.5).

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 (58.0%, 95% CI = 52.4-63.6) compared to 18-29 year olds (41.2%, 95% CI = 36.9-45.4). Leisure contributed to a significantly higher proportion of total physical activity for 18-29 year olds (39.8%, 95% CI = 34.4-45.1) compared to both 30-44 year olds (19.8%, 95% CI = 14.6-24.9) and 45-69 year olds (18.1%, 95% CI = 10.2-26.0). There was no statistically significant difference between the three age groups in terms of the proportion transport contributed to total physical activity.

Table 94. 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	231	41.2	36.9-45.4	19.1	15.2-23.0	39.8	34.4-45.1
30-44	179	58.0	52.4-63.6	22.2	19.5-24.9	19.8	14.6-24.9
45-69	90	50.1	44.0-56.3	31.8	22.9-40.7	18.1	10.2-26.0
18-69	500	48.7	44.8-52.6	22.4	19.5-25.4	28.9	25.2-32.5

Table 95 shows that for women, work contributed 49.7% (95% CI = 44.2-55.1) to total physical activity, transport to 30.9% (95% CI = 27.3-34.6) and leisure to 19.4% (95% CI = 14.8-24.0).

Work contributed to a significantly higher proportion of total physical activity for 30-44 year olds (59.1%, 95% CI = 53.3-64.8) than 18-29 year olds (41.2%, 95% CI = 33.2-49.2) and 45-69 year olds (51.1%, 95% CI = 44.0-58.1). Transport contributed to a significantly higher proportion of total physical activity for 45-69 year olds (37.4%, 95% CI = 32.5-42.2) than 30-44 year olds (25.6%, 95% CI = 21.6-29.6). Leisure contributed to a significantly higher proportion of total physical activity for 18-29 year olds (27.9%, 95% CI = 21.9-33.8) than for 30-44 year olds (15.3%, 95% CI = 11.6-19.0) and 45-69 year olds (11.6%, 95% CI = 5.0-18.2).

Table 95 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	168	41.2	33.2-49.2	31.0	24.5-37.4	27.9	21.9-33.8
30-44	191	59.1	53.3-64.8	25.6	21.6-29.6	15.3	11.6-19.0
45-69	135	51.1	44.0-58.1	37.4	32.5-42.2	11.6	5.0-18.2
18-69	494	49.7	44.2-55.1	30.9	27.3-34.6	19.4	14.8-24.0

Table 96 shows that for Nauruans, work contributed 49.2% (95% CI = 45.4-53.0) to total physical activity, transport to 26.5% (95% CI = 23.4-29.5) and leisure to 24.3% (95% CI = 21.1-27.6).

Work contributed to a significantly higher proportion of total physical activity for 30-44 year olds (58.5%, 95% CI = 53.5-63.5) and 45-69 year olds (50.7%, 95% CI = 45.9-55.5) compared to 18-29 year olds (41.2%, 95% CI = 36.6-45.7). Transport contributed to a significantly higher proportion of total physical activity for 45-69 year olds (35.0%, 95% CI = 30.1-39.9) than 18-29 year olds (24.3%, 95% CI = 19.9-28.8) and 30-44 year olds (23.8%, 95% CI = 21.2-26.4). Leisure contributed to a significantly higher proportion of total physical activity for 18-29 year olds (34.5%, 95% CI = 30.4-38.5) than for 30-44 year olds (17.7%, 95% CI = 13.6-21.8) and 45-69 year olds (14.3%,

95% CI = 8.8-19.8).

There were statistically significant differences between men and women in terms of the proportion transport and leisure contributed to total physical activity. Transport contributed to a higher proportion of total physical activity for women than men; and leisure contributed to a higher proportion of total physical activity for men than women. (Compare Tables 101 and 102.)

Table 96. 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	399	41.2	36.6-45.7	24.3	19.9-28.8	34.5	30.4-38.5
30-44	370	58.5	53.5-63.5	23.8	21.2-26.4	17.7	13.6-21.8
45-69	225	50.7	45.9-55.5	35.0	30.1-39.9	14.3	8.8-19.8
18-69	994	49.2	45.4-53.0	26.5	23.4-29.5	24.3	21.1-27.6

Table 97 shows that overall, 71.7% (95% CI = 66.3-77.0) did not engage in vigorous physical activity.

Significantly higher proportion of women (85.6%, 95% CI = 79.1-92.0) than men (56.6%, 95% CI = 50.7-62.6) did not engage in vigorous physical activity.

Significantly higher proportion of Nauruans aged 45-69 did not engage in vigorous physical activity (84.9%, 95% CI = 77.7-92.0) compared to those aged 18-29 (66.9%, 95% CI = 60.8-73.0) and 30-44 (68.2%, 95% CI = 62.5-73.8). Among men, significantly more of those aged 45-69 did not engage in vigorous physical activity than those aged 18-29 and 30-44. Among women, there was no statistically significant difference between the three age groups.

Table 97. 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	260	45.0	38.2-51.8		263	86.7	78.6-94.8		523	66.9	60.8-73.0
30-44	221	57.0	51.0-63.0		264	79.9	72.7-87.2		485	68.2	62.5-73.8
45-69	145	77.9	67.9-88.0		189	90.5	82.7-98.3		334	84.9	77.7-92.0
18-69	626	56.6	50.7-62.6		716	85.6	79.1-92.0		1342	71.7	66.3-77.0

Table 98 shows that on average, the mean number of minutes Nauruans spent in sedentary activities each day was 340.9 minutes (95% CI = 312.9-368.9) and the median was 300.0.

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

For mean and median minutes spent in sedentary activities among men and women, please see table in Appendix 2.

Table 98. 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	537	335.3	299.8-370.7	300.0	150.0-480.0
30-44	503	328.0	302.8-353.1	300.0	150.0-480.0
45-69	343	368.6	329.1-408.1	300.0	150.0-480.0
18-69	1383	340.9	312.9-368.9	300.0	150.0-480.0

Table 99 shows that the most common barrier to being physically active was the lack of sidewalks where 37.8% (95% CI = 34.9-40.7) overall stated this as a reason. This is followed by 31.7% (95% CI = 29.0-34.4) who indicated having no time, 24.9% (95% CI = 22.2-27.6) who cited other issues, 3.2% (95% CI = 2.0-4.4) who were not interested, and 2.5% (95% CI = 0.8-4.1) who said dogs was a barrier.

The main barrier cited by men was the lack of sidewalks (39.9%, 95% CI = 35.5-44.2) whilst women cited the lack of time (38.1%, 95% CI = 35.1-41.2). A significantly higher proportion of women than men stated having no time as the main barrier to being physically active – 38.1% (95% CI = 35.1-41.2) of women and 24.8% of men (95% CI = 19.5-30.1). Significantly higher proportion of men cited other issues as the main barrier – 29.9% (95% CI = 24.5-35.3) of men and 20.1% (95% CI = 17.8-22.5) of women. For details on the main barriers to being physically active among men and women, please see Appendix 2.

Table 99. Percentage reporting given main barriers to being physically active, both sexes combined

Main barriers to being physically active											
Age group (years)	Both sexes										
	n	% Not interested	95% CI	% No time	95% CI	% lack of side walks	95% CI	% Dogs	95% CI	% Other issues	95% CI
18-29	537	2.9	1.2-4.5	32.7	28.3-37.0	37.7	33.2-42.3	2.7	1.1-4.4	24.0	19.6-28.5
30-44	502	3.0	2.0-4.0	28.1	24.4-31.8	46.4	41.2-51.7	2.9	0.6-5.2	19.5	15.5-23.6
45-69	343	4.0	1.6-6.5	34.8	29.2-40.4	26.0	19.3-32.7	1.4	0.1-2.8	33.7	27.8-39.5
18-69	1382	3.2	2.0-4.4	31.7	29.0-34.4	37.8	34.9-40.7	2.5	0.8-4.1	24.9	22.2-27.6

4.12. History of raised blood pressure

Participants were asked whether they had ever had their blood pressure measured. If they had, they were then asked follow-up questions of whether they had been diagnosed with raised blood pressure or hypertension, when that diagnosis was given, and their methods to manage/treat the condition.

Table 100 shows that 34.2% (95% CI = 28.2-40.3) of men had never had their blood pressure measured by a doctor or health worker, 43.1% (95% CI = 38.2-47.9) had been measured but not diagnosed, 8.4% (95% CI = 6.5-10.4) were diagnosed but not within the past 12 months and 14.2% (95% CI = 10.8-17.7) had been diagnosed within the past 12 months.

A significantly higher proportion of men aged 18-29 (45.4%, 95% CI = **36.8-54.0) had never had their blood pres**sure measured compared to older men aged 30-44 (29.8%, 95% CI = 24.2-35.4) and 45-69 (20.0%, 95% CI = 11.1-28.9). Significantly higher proportion of men aged 45-69 (22.0%, 95% CI = 14.7-29.3) were diagnosed within the past 12 months compared to younger men aged 18-29 (10.0%, 95% CI = 7.4-12.5) – two times more. There were no statistically significant differences between the three age groups for the other categories.

Table 100. Blood pressure measure and diagnosis status of men

Blood pressure measurement and diagnosis									
Age group (years)	Men								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
18-29	271	45.4	36.8-54.0	38.7	32.0-45.5	5.9	2.4-9.4	10.0	7.4-12.5
30-44	228	29.8	24.2-35.4	46.1	39.4-52.7	9.6	6.3-13.0	14.5	6.6-22.4
45-69	150	20.0	11.1-28.9	46.7	37.7-55.6	11.3	5.9-16.7	22.0	14.7-29.3
18-69	649	34.2	28.2-40.3	43.1	38.2-47.9	8.4	6.5-10.4	14.2	10.8-17.7

Table 101 shows that 33.4% (95% CI = 29.0-37.8) of women had never had their blood pressure measured, 45.4% (95% CI = 42.1-48.7) had ever been measured but not diagnosed, 8.0% (95% CI = 6.2-9.7) had been diagnosed but not within the past 12 months, and 13.2% (95% CI = 11.0-15.5) were diagnosed within the past 12 months.

A significantly higher proportion of women aged 18-29 (43.6%, 95% CI = 35.8-51.5) had never had their blood pressure measured compared to older women aged 30-44 (25.1%, 95% CI = 21.0-29.2) and 45-69 (23.3%, 95% CI = 15.9-30.7). A significantly higher proportion of women aged 30-44 were measured but not diagnosed (53.1%, 95% CI = 48.9-57.3) compared to those aged 45-69 (42.0%, 95% CI = 36.6-47.3). Significantly more women aged 30-44 (13.5%, 95% CI = 9.6-17.3) and 45-69 (23.8%, 95% CI = 17.1-30.6) were diagnosed within the past 12 months compared to younger women aged 18-29 (4.5%, 95% CI = 0.9-8.1).

Table 101. Blood pressure measurement and diagnosis status of women

Blood pressure measurement and diagnosis									
Age group (years)	Women								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
18-29	266	43.6	35.8-51.5	47.0	38.5-55.5	4.9	2.2-7.5	4.5	0.9-8.1
30-44	275	25.1	21.0-29.2	53.1	48.9-57.3	8.4	4.8-11.9	13.5	9.6-17.3
45-69	193	23.3	15.9-30.7	42.0	36.6-47.3	10.9	6.0-15.7	23.8	17.1-30.6
18-69	734	32.6	27.3-37.8	47.6	43.4-51.9	7.5	5.1-9.9	12.3	9.5-15.1

Table 102 shows that overall, 33.4% (95% CI = 29.0-37.8) had never had their blood pressure measured, 45.4% (95% CI = 42.1-48.7) had been measured but not diagnosed, 8.0% (95% CI = 6.2-9.7) had been diagnosed but not within the past 12 months, and 13.2% (95% CI = 11.0-15.5) were diagnosed within the past 12 months.

A significantly higher proportion of Nauruans aged 18-29 years were never measured (44.5%, 95% CI = 38.0-50.9) compared to those aged 30-44 (27.5%, 95% CI = 24.0-31.1) and 45-69 (21.8%, 95% CI = 16.1-27.5). A significantly lower proportion of Nauruans aged 18-29 years were diagnosed but not within the past 12 months (5.4%, 95% CI = 3.6-7.2) than those aged 45-69 (11.1%, 95% CI = 7.5-14.6). Significantly more Nauruans aged 45-69 were diagnosed within the past 12 months (23.0%, 95% CI = 17.4-28.6) than those aged 18-29 (7.1%, 95% CI = 4.7-9.6) – three times more.

There was no statistically significant difference between men and women.

Table 102. Blood pressure measurement and diagnosis status, both sexes combined

Blood pressure measurement and diagnosis									
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	537	44.5	38.0-50.9	43.0	37.6-48.5	5.4	3.6-7.2	7.1	4.7-9.6
30-44	503	27.5	24.0-31.1	49.5	45.5-53.5	9.0	6.4-11.7	14.0	9.4-18.6
45-69	343	21.8	16.1-27.5	44.1	38.0-50.1	11.1	7.5-14.6	23.0	17.4-28.6
18-69	1383	33.4	29.0-37.8	45.4	42.1-48.7	8.0	6.2-9.7	13.2	11.0-15.5

Table 103 shows that 25.3% (95% CI = 20.1-30.5) of Nauruans diagnosed with raised blood pressure were currently taking drugs prescribed by a doctor or health worker.

A significantly higher proportion of those aged 45-69 were taking drugs for raised blood pressure (49.5%, 95% CI = 39.3-59.7) than those aged 18-29 (9.1%, 95% CI = 1.5-16.6) and 30-44 (10.7%, 95% CI = 2.9-18.4) – five times more. There was no statistically significant difference between men and women.

Table 103. Percentage diagnosed with raised blood pressure currently taking drugs prescribed by doctor or health worker

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	43	-	-		25	-	-		68	9.1	1.5-16.6
30-44	55	-	-		60	-	-		115	10.7	2.9-18.4
45-69	50	-	-		67	-	-		117	49.5	39.3-59.7
18-69	148	19.3	11.8-26.8		152	31.9	25.9-37.8		300	25.3	20.1-30.5

Table 104 shows that 2.9% (95% CI = 1.1-4.8) of Nauruans previously diagnosed with raised blood pressure had seen a traditional healer. There were no statistically significant differences between men and women and between the three age groups.

Table 104. Percentage previously diagnosed with raised blood pressure who had seen a traditional healer

Seen a traditional healer among those previously diagnosed										
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	43	-	-		25	-	-		68	1.4	0.0-4.4
30-44	55	-	-		60	-	-		115	2.5	0.0-5.4
45-69	50	-	-		67	-	-		117	4.3	1.2-7.3
18-69	148	2.7	0.7-4.6		152	3.2	0.0-6.3		300	2.9	1.1-4.8

Table 105 shows that 5.7% (95% CI = 2.9-8.5) of Nauruans previously diagnosed with raised blood pressure were currently taking traditional medicine.

There was no statistically significant difference between men and women, please see table in Appendix 2.

Table

105. 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										
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-69	148	6.0	2.7-9.3		152	5.4	1.7-9.0		300	5.7	2.9-8.5

4.13. History of diabetes

4.14.

Participants were asked whether they had ever had their blood sugar measured. If they had, they were then asked follow-up questions of whether they had been diagnosed with raised blood sugar or diabetes, when that diagnosis was given, and their methods to manage/treat the condition.

Table 106 shows that 37.8% (95% CI = 34.0-41.7) of men had never had their blood sugar measured, 49.9% (95% CI = 46.4-53.3) were measured but not diagnosed, 5.3% (95% CI = 3.2-7.4) were diagnosed but not within the past 12 months and 7.0% (95% CI = 4.7-9.2) were diagnosed within the past 12 months.

The proportion of men who had never had their blood sugar measured decreased with age – 49.4% (95% CI = 43.7-55.2) among 18-29 year olds, 34.6% (95% CI = 29.0-40.3) among 30-44 year olds and 20.7% (95% CI = 14.5-26.8) among 45-69 year olds. A significantly lower proportion of men aged 18-29 had been diagnosed with raised blood sugar but not within the past 12 months (1.8%, 95% CI = 0.0-3.9) compared to those aged 30-44 (7.0%, 95% CI = 4.4-9.6) and 45-69 (9.3%, 95% CI = 4.4-14.2). A significantly higher proportion of men aged 45-69 was diagnosed within the past 12 months (16.0%, 95% CI = 9.9-22.1) than those aged 18-29 (2.2%, 95% CI = 0.4-4.0).

Table 106. Blood sugar measurement and diagnosis status of men

Blood sugar measurement and diagnosis									
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	271	49.4	43.7-55.2	46.5	40.8-52.2	1.8	0.0-3.9	2.2	0.4-4.0
30-44	228	34.6	29.0-40.3	51.3	45.4-57.2	7.0	4.4-9.6	7.0	3.6-10.5
45-69	150	20.7	14.5-26.8	54.0	46.8-61.2	9.3	4.4-14.2	16.0	9.9-22.1
18-69	649	37.8	34.0-41.7	49.9	46.4-53.3	5.3	3.2-7.4	7.0	4.7-9.2

Table 107 shows that 32.5% (95% CI = 27.4-37.6) of women had never had their blood sugar measured, 48.6% (95% CI = 43.8-53.4) were measured but not diagnosed, 8.7% (95% CI = 6.2-11.2) were diagnosed but not within the past 12 months and 10.3% (95% CI = 9.0-11.5) were diagnosed within the past 12 months.

A significantly higher proportion of women aged 18-29 had never had their blood sugar measured (43.6%, 95% CI = 34.7-52.5) compared to women aged 30-44 (25.1%, 95% CI = 19.5-30.7) and 45-69 (22.8%, 95% CI = 16.5-29.1). More women aged 30-44 (12.4%, 95% CI = 8.3-16.4) and 45-69 (18.7%, 95% CI = 12.1-25.2) were diagnosed within the past 12 months compared to women aged 18-29 (3.8%, 95% CI = 2.0-5.6)

Table 107 Blood sugar measurement and diagnosis status of women

Blood sugar measurement and diagnosis									
Age group (years)	Women								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
18-29	266	43.6	34.7-52.5	45.5	38.0-52.9	7.1	3.5-10.8	3.8	2.0-5.6
30-44	275	25.1	19.5-30.7	55.3	49.2-61.4	7.3	3.8-10.7	12.4	8.3-16.4
45-69	193	22.8	16.5-29.1	45.6	36.2-55.0	13.0	7.6-18.3	18.7	12.1-25.2
18-69	734	32.5	27.4-37.6	48.6	43.8-53.4	8.7	6.2-11.2	10.3	9.0-11.5

Table 108 shows that overall, 35.0% (95% CI = 31.1-38.9) had never had their blood sugar measured, 49.2% (95% CI = 45.3-53.1) were measured but not diagnosed, 7.1% (95% CI = 5.2-8.9) were diagnosed but not within the past 12 months and 8.7% (95% CI = 7.3-10.1) were diagnosed within the past 12 months.

The proportion of Nauruans who never had their blood sugar measured decreased with age – 46.4% (95% CI = 40.2-52.6) of 18-29 year olds, 30.0% (95% CI = 25.5-34.4) of 30-44 year olds and 21.8% (95% CI = 18.3-25.4) of 45-69 year olds. Significantly more Nauruans aged 45-69 were diagnosed but not within the past 12 months (11.3%, 95% CI = 6.7-15.9) compared to those aged 18-29 (4.6%, 95% CI = 2.9-6.3). The proportion of Nauruans who were diagnosed within the past 12 months increased with age – 3.0% (95% CI = 2.0-4.0) of 18-29 year olds, 9.6% (95% CI = 7.7-11.6) of 30-44 year olds and 17.5% (95% CI = 11.9-23.0) of 45-69 year olds.

There was no statistically significant difference between men and women.

Table 108. Blood sugar measurement and diagnosis status in both sexes combined

Blood sugar measurement and diagnosis									
Age group (years)	Both sexes								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
18-29	537	46.4	40.2-52.6	46.0	40.1-51.8	4.6	2.9-6.3	3.0	2.0-4.0
30-44	503	30.0	25.5-34.4	53.3	48.2-58.3	7.1	5.2-9.1	9.6	7.7-11.6
45-69	343	21.8	18.3-25.4	49.4	42.5-56.3	11.3	6.7-15.9	17.5	11.9-23.0
18-69	1383	35.0	31.1-38.9	49.2	45.3-53.1	7.1	5.2-8.9	8.7	7.3-10.1

Table 109 shows that of those previously diagnosed with raised blood sugar, 52.9% (95% CI = 46.4-59.5) attended all scheduled clinic appointments.

The number of respondents was too small to report on any statistically significant differences between men and women and between the three age groups, please see table in Appendix 2.

Table 109. Percentage of those previously diagnosed with raised blood sugar who attended all clinic appointments

Percentage who attended all clinic appointments										
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-69	66	-	-		114	55.9	46.1-65.7		180	52.9	46.4-59.5

Table 110 shows that 35.1% (95% CI = 27.5-42.8) of Nauruans previously diagnosed with diabetes were taking drugs prescribed by a doctor or other health worker.

The number of respondents was too small to report on any statistically significant differences between men and women and between the three age groups.

Table 110. Percentage of those previously diagnosed with diabetes taking drugs prescribed by a doctor or other health worker

Currently taking drugs prescribed for diabetes among those previously diagnosed										
Age group (years)	Men				Women				Both sexes		
	n	% taking meds	95% CI		n	% taking meds	95% CI		n	% taking meds	95% CI
18-69	81	-	-		144	32.7	24.7-40.7		225	35.1	27.5-42.8

Table 111 shows that 11.0% (95% CI = 5.6-16.3) of Nauruans 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 on any statistically significant differences between men and women and between the three age groups.

Table 111. Percentage of those 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										
Age group (years)	Men				Women				Both sexes		
	n	% taking insulin	95% CI		n	% taking insulin	95% CI		n	% taking insulin	95% CI
18-69	81	-	-		144	9.5	3.1-15.9		225	11.0	5.6-16.3

Table 112 shows that 3.9% (95% CI = 0.8-7.1) of those previously diagnosed with diabetes had seen a traditional healer. The number of respondents was too small to report on any statistically significant differences between men and women and between the three age groups.

Table 112. Percentage of those previously diagnosed with diabetes who had seen a traditional healer

Seen a traditional healer for diabetes among those previously diagnosed										
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-69	81				144	4.8	1.8-7.8		225	3.9	0.8-7.1

Table 113 shows that 3.9% (95% CI = 0.8-7.1) of those previously diagnosed with diabetes were currently taking herbal or traditional treatment.

The number of respondents was too small to report on any statistically significant differences between men and women and between the three age groups.

Table 113. 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										
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-69	81	-	-		144	4.0	1.1-6.9		225	3.9	0.8-7.1

4.15. History of raised total cholesterol

Table 114 shows that the majority of men had never had their cholesterol measured (78.4%, 95% CI = 73.8-83.1), 12.7% (95% CI = 10.7-14.7) had been measured but not diagnosed with raised cholesterol, 3.7% (95% CI = 2.0-5.4) were diagnosed but not within the past 12 months and 5.2% (95% CI = 2.4-7.9) were diagnosed within the past 12 months.

A significantly higher proportion of men aged 18-29 had never had their cholesterol measured (86.7%, 95% CI = 82.1-91.3) compared to those aged 45-69 (64.7%, 95% CI = 54.5-74.9). Significantly more men aged 45-69 had been diagnosed within the past 12 months (12.0%, 95% CI = 5.0-19.0) than those aged 18-29 (2.6%, 95% CI = 0.7-4.5). There were no statistically significant differences between the three age groups in other instances.

Table 114. Total cholesterol measurement and diagnosis status of men

Total cholesterol measurement and diagnosis									
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	271	86.7	82.1-91.3	9.2	6.1-12.3	1.5	0.1-2.8	2.6	0.7-4.5
30-44	228	77.2	70.3-84.1	14.5	9.1-19.8	4.4	2.5-6.3	3.9	0.6-7.3
45-69	150	64.7	54.5-74.9	16.7	9.8-23.6	6.7	2.6-10.8	12.0	5.0-19.0
18-69	649	78.4	73.8-83.1	12.7	10.7-14.7	3.7	2.0-5.4	5.2	2.4-7.9

Table 115 shows that majority (79.0%, 95% CI = 76.0-81.9) of women had never had their cholesterol measured, 13.4% (95% CI = 11.2-15.6) had been measured but not diagnosed, 3.9% (95% CI = 2.5-5.2) had been diagnosed but not within the past 12 months and 3.8% (95% CI = 2.3-5.2) were diagnosed within the past 12 months.

A significantly higher proportion of women aged 18-29 had never had their cholesterol measured (87.6%, 95% CI = 85.4-89.8) than those aged 45-69 (69.9%, 95% CI = 63.2-76.7). Significantly fewer women aged 18-29 had been diagnosed but not within the past 12 months (0.8%, 95% CI = 0.0-1.8) than those aged 30-44 years (6.2%, 95% CI = 2.4-10.0) and 45-69 (6.2%, 95% CI = 3.2-9.3). Significantly more women aged 30-44 years (4.7%, 95% CI = 1.9-7.5) and 45-69 (8.3%, 95% CI = 2.8-13.8) had been diagnosed within the past 12 months than those aged 18-29 (0.4%, 95% CI = 0.0-1.1).

Table 115. Total cholesterol measurement and diagnosis status of women

Total cholesterol measurement and diagnosis									
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	266	87.6	85.4-89.8	11.3	9.4-13.2	0.8	0.0-1.8	0.4	0.0-1.1
30-44	275	74.5	67.3-81.8	14.5	9.3-19.8	6.2	2.4-10.0	4.7	1.9-7.5
45-69	193	69.9	63.2-76.7	15.5	9.8-21.3	6.2	3.2-9.3	8.3	2.8-13.8
18-69	734	79.0	76.0-81.9	13.4	11.2-15.6	3.9	2.5-5.2	3.8	2.3-5.2

Table 116 shows that overall, 78.7% (95% CI = 75.8-81.7) of Nauruans had never had their cholesterol measured, 13.1% (95% CI = 11.7-14.4) had been measured but not diagnosed with raised cholesterol, 3.8% (95% CI = 2.5-5.0) had been diagnosed but not within the past 12 months and 4.5% (95% CI = 2.8-6.1) were diagnosed within the past 12 months.

A significantly higher proportion of Nauruans aged 18-29 years had never had their cholesterol measured (87.2%, 95% CI = 84.7-89.6) compared to those aged 30-44 years (75.9%, 95% CI = 71.9-79.9) and 45-69 (67.6%, 95% CI = 60.1-75.0). Significantly fewer 18-29 year olds had been diagnosed but not within the past 12 months (1.1%, 95% CI = 0.1-2.1) compared to those aged 30-44 years (5.3%, 95% CI = 3.5-7.0) and 45-69 (6.4%, 95% CI = 4.1-8.8). A significantly higher proportion of 45-69 year olds (10.0%, 95% CI = 6.0-14.0) had been diagnosed within the past 12 months than those aged 18-29 (1.4%, 95% CI = 0.4-2.5).

There was no significant difference between men and women.

Table 116. Total cholesterol measurement and diagnosis status, both sexes combined

Total cholesterol measurement and diagnosis									
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	537	87.2	84.7-89.6	10.3	8.7-11.9	1.1	0.1-2.1	1.4	0.4-2.5
30-44	503	75.9	71.9-79.9	14.5	11.1-17.9	5.3	3.5-7.0	4.3	2.2-6.5
45-69	343	67.6	60.1-75.0	16.1	11.2-20.9	6.4	4.1-8.8	10.0	6.0-14.0
18-69	1383	78.7	75.8-81.7	13.1	11.7-14.4	3.8	2.5-5.0	4.5	2.8-6.1

Table 117 shows that of those previously diagnosed with raised total cholesterol, 18.0% were currently taking drugs prescribed by a doctor or other health worker.

The number of respondents was too small to report on any statistically significant differences between men and women and between the three age groups.

Table 117. Percentage of those previously diagnosed with raised total cholesterol taking drugs prescribed by a doctor or other health worker

Currently taking drugs prescribed for raised cholesterol among those previously diagnosed										
Age group (years)	Men				Women				Both sexes		
	n	% taking meds	95% CI		n	% taking meds	95% CI		n	% taking meds	95% CI
18-69	58	-	-		61	-	-		119	18.0	11.0-25.1

Table 118 shows that 0.9% (95% CI = 0.0-2.8) of those previously diagnosed with raised total cholesterol had seen a traditional healer. The number of respondents was too small to report on any statistically significant differences between men and women and between the three age groups.

Table 118. Percentage of those previously diagnosed with raised total cholesterol who had seen a traditional healer

Seen a traditional healer for raised cholesterol among those previously diagnosed										
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-69	58	-	-		61	-	-		119	0.9	0.0-2.8

Table 119 shows that 5.3% (95% CI = 2.3-8.2) of those previously diagnosed with raised total cholesterol were currently taking herbal or traditional treatment. The number of respondents was too small to report on any statistically significant differences between men and women and between the three age groups.

Table 119. Percentage of those previously diagnosed with raised total cholesterol who were currently taking herbal or traditional treatment

Currently taking herbal or traditional treatment for raised cholesterol among those previously diagnosed										
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-69	58	5.2	0.7-9.7		61	5.4	0.4-10.3		119	5.3	2.3-8.2

4.16. History of cardiovascular diseases

Table 120 shows that overall, 20.1% (95% CI = 15.7-24.6) reported having ever had a heart attack or chest pain from heart disease or a stroke.

A significantly higher proportion of Nauruans aged 45-69 have ever had a heart attack or chest pain from heart disease or a stroke (27.1%, 95% CI = 23.0-31.2) than those aged 18-29 (16.3%, 95% CI = 10.5-22.1). There was no statistically significant difference between men and women.

Table 120. Percentage who have ever had a heart attack or chest pain from heart disease or had a stroke

Having ever had a heart attack or chest pain from heart disease or had a stroke										
Age group (years)	Men				Women				Both sexes		
	n	% CVD history	95% CI		n	% CVD history	95% CI		n	% CVD history	95% CI
18-29	271	14.0	10.0-18.1		275	26.2	20.2-32.2		537	16.3	10.5-22.1
30-44	228	14.0	7.1-20.9		193	28.5	21.2-35.8		503	20.0	14.2-25.7
45-69	150	25.3	17.9-32.8		734	23.4	18.0-28.9		343	27.1	23.0-31.2
18-69	649	16.6	12.2-20.9		275	26.2	20.2-32.2		1383	20.1	15.7-24.6

Table 121 shows that 30.6% (95% CI = **23.1-38.1) of cardiovascular patients reported attended all clinic appoint**ments. The number of respondents was too small to report on any statistically significant differences between men and women and between the three age groups.

Table 121. Percentage of cardiovascular patients who attended all clinic appointments

Percentage who attended all clinic appointments										
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-69	88	-	-		139	32.2	22.3-42.1		227	30.6	23.1-38.1

Table 122 shows that overall, 5.1% (95% CI = 3.6-6.5) of all respondents were currently taking aspirin regularly to prevent or treat heart disease. There was no statistically significant difference between men and women. A significantly higher proportion Nauruans aged 45-69 were currently taking aspirin to prevent or treat heart disease (14.9%, 95% CI = 10.5-19.4) compared to those aged 18-29 (1.1%, 95% CI = 0.3-1.9) and 30-44 years (2.9%, 95% CI = 1.7-4.2). Among men and women, there were also similar statistically significant differences between the three age groups.

Table 122. Percentage of respondents 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	271	0.7	0.0-1.8		266	1.5	0.1-2.9		537	1.1	0.3-1.9
30-44	228	2.6	0.0-5.2		275	3.3	1.3-5.3		503	2.9	1.7-4.2
45-69	150	17.3	10.9-23.8		193	13.0	8.0-17.9		343	14.9	10.5-19.4
18-69	649	5.1	2.8-7.5		734	5.0	3.4-6.6		1383	5.1	3.6-6.5

Table 123 shows that overall, 2.2% (95% CI = 1.2-3.1) of all respondents were currently taking statins regularly to prevent or treat heart disease. There was no statistically significant difference between men and women.

A significantly higher proportion of Nauruans aged 45-69 were currently taking statins regularly to prevent or treat heart disease (7.0%, 95% CI = 3.7-10.3) compared to those aged 18-29 (0.4%, 95% CI = 0.0-0.9) and 30-44 years (1.0%, 95% CI = 0.1-1.9).

Table 123. Percentage of respondents 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	271	0.0	0.0-0.0		266	0.8	0.0-1.8		537	0.4	0.0-0.9
30-44	228	0.9	0.0-2.0		275	1.1	0.0-2.7		503	1.0	0.1-1.9
45-69	150	7.3	3.7-10.9		193	6.7	3.0-10.5		343	7.0	3.7-10.3
18-69	649	2.0	1.2-2.8		734	2.4	1.1-3.7		1383	2.2	1.2-3.1

4.17. 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 124 shows that overall, 28.8% (95% CI = 26.0-31.7) had been advised by a doctor or health worker to quit using tobacco or not start – 24.4% (95% CI = 20.0-28.9) of men and 32.9% (95% CI = 28.4-37.5) of women.

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

Table 124. Percentage advised by doctor or health worker to quit using tobacco or not 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	271	21.0	14.0-28.1		266	27.8	22.6-33.0		537	24.5	20.4-28.7
30-44	228	26.3	20.3-32.3		275	38.9	31.8-46.0		503	32.5	28.7-36.3
45-69	150	28.0	21.9-34.1		193	34.2	25.9-42.5		343	31.4	26.7-36.1
18-69	649	24.4	20.0-28.9		734	32.9	28.4-37.5		1383	28.8	26.0-31.7

Table 125 shows that overall, 37.4% (95% CI = 33.6-41.3) had been advised by a doctor or health worker to reduce salt in the diet. There were no statistically significant differences between men and women.

A significantly higher proportion of Nauruans aged 45-69 years had been advised by a doctor or health worker to reduce salt in the diet (47.5%, 95% CI = 43.6-51.4) compared to those aged 18-29 (30.4%, 95% CI = 24.6-36.2) and 30-44 years (39.2%, 95% CI = 33.5-44.9). Among men and women, there were similar statistically significant differences between the three age groups.

Table 125. Percentage advised by doctor or health worker to reduce salt in the diet

Advised by doctor or health worker to reduce salt in the diet										
Age group (years)	Men				Women				Both sexes	
	n	% advised	95% CI		n	% advised	95% CI		n	% advised	95% CI
18-29	271	28.4	20.6-36.2		266	32.3	25.1-39.6		537	30.4	24.6-36.2
30-44	228	37.7	29.6-45.8		275	40.7	35.0-46.5		503	39.2	33.5-44.9
45-69	150	46.0	39.9-52.1		193	48.7	43.6-53.8		343	47.5	43.6-51.4
18-69	649	35.6	31.4-39.9		734	39.2	34.6-43.8		1383	37.4	33.6-41.3

Table 126 shows that overall, 47.1% (95% CI = 44.0-50.2) had been advised by a doctor or health worker to eat at least five servings of fruit and/or vegetables each day. A significantly higher proportion of women than men had been advised by a doctor or health worker to eat at least five servings of fruit and/or vegetables each day – 42.9% (95% CI = 39.0-46.7) of men and 51.0% (95% CI = 47.5-54.6) of women.

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

Table 126. 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	271	35.8	28.1-43.5		266	47.7	42.7-52.7		537	42.0	37.3-46.6
30-44	228	46.1	39.9-52.2		275	55.6	47.9-63.4		503	50.7	46.0-55.5
45-69	150	51.3	42.6-60.1		193	50.8	45.8-55.7		343	51.0	46.2-55.9
18-69	649	42.9	39.0-46.7		734	51.0	47.5-54.6		1383	47.1	44.0-50.2

Table 127 shows that overall, 42.7% (95% CI = **39.7-45.8) had been advised by a doctor or health worker to re**duce fat in the diet. There was no significant difference between men and women.

A significantly higher proportion of Nauruans aged 30-44 years (51.5%, 95% CI = 47.3-55.6) and 45-69 (49.0%, 95% CI = 43.1-54.8) were advised by a doctor or health worker to reduce fat in the diet compared to those aged 18-29 (32.5%, 95% CI = 27.4-37.6). Among men, a significantly higher proportion of those aged 30-44 years were advised to reduce fat in the diet (47.8%, 95% CI = 42.1-53.5) than those aged 18-29 (30.3%, 95% CI = 22.2-38.3). Among women, significantly higher proportions of those aged 30-44 years (55.3%, 95% CI = 49.2-61.4) and 45-69 (49.7%, 95% CI = 44.6-54.9) were advised to reduce fat in the diet than those aged 18-29 (34.6%, 95% CI = 28.8-40.4).

Table 127. Percentage advised by doctor or health worker to reduce fat in the diet

Advised by doctor or health worker to reduce fat in the diet										
Age group (years)	Men				Women				Both sexes	
	n	% advised	95% CI		n	% advised	95% CI		n	% advised	95% CI
18-29	271	30.3	22.2-38.3		266	34.6	28.8-40.4		537	32.5	27.4-37.6
30-44	228	47.8	42.1-53.5		275	55.3	49.2-61.4		503	51.5	47.3-55.6
45-69	150	48.0	38.0-58.0		193	49.7	44.6-54.9		343	49.0	43.1-54.8
18-69	649	40.4	36.1-44.6		734	45.0	42.2-47.7		1383	42.7	39.7-45.8

Table 128 shows that overall, 48.3% (95% CI = 45.5-51.1) had been advised by a doctor or health worker to start or do more physical activity. A significantly higher proportion of women than men were advised by a doctor or health worker to start or to do more physical activity – 44.8% (95% CI = 40.8-48.9) of men and 51.6% (95% CI = 49.3-53.9) of women.

A significantly higher proportion of Nauruans aged 30-44 years (55.1%, 95% CI = 50.2-60.0) and 45-69 (55.4%, 95% CI = 48.2-62.6) were advised by a doctor or health worker to start or to do more physical activity compared to those aged 18-29 (39.1%, 95% CI = 34.7-43.4). Among men, a significantly higher proportion of those aged 30-44 years and 45-69 years were advised to start or to do more physical activity than those aged 18-29. Among women, a significantly higher proportion of 30-44 year olds were advised to do so than 18-29 year olds.

Table 128. 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	271	35.4	28.6-42.2		266	42.5	35.9-49.1		537	39.1	34.7-43.4
30-44	228	48.7	43.2-54.1		275	61.8	54.4-69.2		503	55.1	50.2-60.0
45-69	150	56.7	48.1-65.2		193	54.4	46.8-62.0		343	55.4	48.2-62.6
18-69	649	44.8	40.8-48.9		734	51.6	49.3-53.9		1383	48.3	45.5-51.1

Table 129 shows that overall, 47.4% (95% CI = **44.4-50.4) had been advised by a doctor or health worker to main**tain a healthy body weight or to lose weight. There was no statistically significant difference between men and women.

A significantly higher proportion of Nauruans aged 30-44 years (53.2%, 95% CI = 47.4-59.0) and 45-69 (53.1%, 95% CI = 47.5-58.7) were advised by a doctor or health worker to maintain a healthy body weight or to lose weight compared to those aged 18-29 (39.7%, 95% CI = 34.4-45.0).

Table 129. 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	271	39.1	31.5-46.8		266	40.2	31.9-48.6		537	39.7	34.4-45.0
30-44	228	50.9	44.2-57.5		275	55.6	48.3-63.0		503	53.2	47.4-59.0
45-69	150	56.0	45.7-66.3		193	50.8	45.0-56.6		343	53.1	47.5-58.7
18-69	649	47.0	42.4-51.6		734	47.8	44.1-51.4		1383	47.4	44.4-50.4

4.18. Cervical and breast cancer screening

Table 130 shows that 59.5% (95% CI = 53.2-65.8 of women aged 30-49 years who had ever been tested for cervical cancer. There was no statistically significant difference between the three age groups.

Table 130. Percentage of females ever tested for cervical cancer

Age group (years)	Women		
	n	% ever tested	95% CI
30-44	272	59.6	51.6-67.6
45-49	49	59.2	42.4-76.0
30-49	321	59.5	53.2-65.8

Table 131 shows that among women who ever had a screening test for cervical cancer, 49.5% (95% CI = 44.7-54.2) did so within the last year, 34.1% (95% CI = 28.8-39.4) within the last two years and 16.4% (95% CI = 11.8-21.1) longer than two years.

Table 131. Time of last screening for cervical cancer among women who were ever tested for cervical cancer

Time of last screening for cervical cancer							
Age group (years)	Women						
	n	% within last year	95% CI	% within last 2 years	95% CI	% longer than two years	95% CI
18-29	123	32.5	20.3-44.8	49.6	42.6-56.6	17.9	6.7-29.0
30-44	151	53.6	44.8-62.5	26.5	17.5-35.5	19.9	12.3-27.5
45-69	83	-	-	-	-	-	-
18-69	357	49.5	44.7-54.2	34.1	28.8-39.4	16.4	11.8-21.1

Table 132 shows that 35.3% (95% CI = 29.5-41.1) of women had undertaken self-breast examination to check for abnormalities. A significantly higher proportion of those aged 45-69 (45.4%, 95% CI = 37.3-53.5) had done a self-breast examination compared to those aged 18-29 (27.6%, 95% CI = 20.4-34.7).

Table 132. Percentage who had performed self-breast examination to check for abnormalities

Age group (years)	Women		
	n	% self-breast examination	95% CI
18-29	254	27.6	20.4-34.7
30-44	258	37.6	31.1-44.1
45-69	185	45.4	37.3-53.5
18-69	697	35.3	29.5-41.1

Table 133 shows that 63.7% (95% CI = 55.7-71.6) of women who have had self-breast examination did so every month. However, the number of respondents was too small to report on any statistically significant difference between the three age groups.

Table 133. Percentage who did self-breast examination every month among women who had performed self-breast examination

Age group (years)	Women		
	n	% Did self-breast examination every month	95% CI
18-69	142	63.7	55.7-71.6

4.19. 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 134 shows that 61.8% (95% CI = 56.1-67.6) of men were classified as well, 24.0% (95% CI = 19.6-28.3) were classified with mild mental disorder, 10.5% (95% CI = 7.6-13.4) were classified with moderate mental disorder and 3.7% (95% CI = 2.3-5.1) with severe mental disorder.

There was no significant difference between the three age groups.

Table 134. Percentage of men in each mental health disorder category

Age group (years)	Percentage of mental health disorder								
	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	270	60.7	54.7-66.8	24.1	19.8-28.4	11.1	7.0-15.2	4.1	1.2-6.9
30-44	228	56.6	47.7-65.5	27.6	19.3-36.0	11.8	6.5-17.2	3.9	1.3-6.6
45-69	150	72.0	65.3-78.7	18.0	12.5-23.5	7.3	4.2-10.5	2.7	0.2-5.1
18-69	648	61.8	56.1-67.6	24.0	19.6-28.3	10.5	7.6-13.4	3.7	2.3-5.1

Table 135 shows that 55.3% (95% CI = 47.7-63.0) of women were classified as well, 22.9% (95% CI = 19.1-26.7) with mild mental disorder, 15.0% (95% CI = 11.2-18.8) with moderate mental disorder and 6.8% (95% CI = 3.7-9.9) classified as having severe mental disorder.

There was no significant difference between the three age groups

Table 135. Percentage of women in each mental health disorder category

Age group (years)	Percentage of mental health disorder								
	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	266	54.9	43.8-65.9	23.3	17.3-29.3	14.7	9.8-19.5	7.1	3.0-11.3
30-44	275	51.6	46.9-56.4	24.0	19.4-28.6	17.1	12.7-21.5	7.3	3.6-11.0
45-69	193	60.6	49.0-72.2	20.7	13.6-27.9	13.0	6.3-19.6	5.7	2.6-8.8

18-69	734	55.3	47.7-63.0	22.9	19.1-26.7	15.0	11.2-18.8	6.8	3.7-9.9

Table 136 shows that overall, 58.5% (95% CI = 52.1-64.8) were classified as well, 23.4% (95% CI = 20.8-26.0) with a mild mental disorder, 12.8% (95% CI = 10.3-15.4) with a moderate mental disorder and 5.3% (95% CI = 3.2-7.4) with a severe mental disorder.

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

Table 136. Prevalence of mental health disorders, both sexes combined

Percentage of mental health disorder									
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	536	57.7	50.1-65.3	23.7	20.0-27.3	13.0	9.2-16.7	5.7	2.5-8.8
30-44	503	54.2	49.5-58.8	25.9	22.0-29.7	14.4	11.6-17.2	5.6	3.4-7.8
45-69	343	65.8	57.8-73.7	19.5	15.3-23.7	10.4	6.9-14.0	4.3	2.1-6.5
18-69	1382	58.5	52.1-64.8	23.4	20.8-26.0	12.8	10.3-15.4	5.3	3.2-7.4

4.20. Oral health

Respondents were asked about visits to the dentist and state of their teeth and gum.

Table 137 shows that 71.5% (95% CI = 69.1-73.9) of Nauruan men had been to a dentist for a check-up with no treatment in the last six months; 22.7% (95% CI = 20.2-25.1) visited a dentist and had an extraction or tooth filled; and 5.8% (95% CI = 3.4-8.2) had not visited a dentist in the last six months.

A significantly higher proportion of Nauruan men aged 18-29 had visited the dentist but received no treatment in the last six months (81.6%, 95% CI = 78.2-84.9) compared to those aged 30-44 years (68.0%, 95% CI = 61.7-74.3) and 45-69 (58.0%, 95% CI = 50.2-65.8). A significantly higher proportion of Nauruan men aged 30-44 years (25.9%, 95% CI = 19.7-32.1) and 45-69 (33.3%, 95% CI = 24.4-42.3) had visited the dentist and had either an extraction or tooth filled in the last six months than those aged 18-29 (14.4%, 95% CI = 10.6-18.2).

There was no statistically significant difference between the three age groups in terms of the proportion who had not been to the dentist in the last six months.

Table 137. Percentage of men who had been to a dentist in the last six months

Visit the dentist for check-up or treatment in the last six months							
Age group (years)	Men						
	n	% Yes, check-up, no treatment	95% CI	% Yes, extraction or filling of tooth	95% CI	% No, not been in the last six months	95% CI
18-29	271	81.6	78.2-84.9	14.4	10.6-18.2	4.1	2.0-6.2
30-44	228	68.0	61.7-74.3	25.9	19.7-32.1	6.1	2.9-9.4
45-69	150	58.0	50.2-65.8	33.3	24.4-42.3	8.7	2.8-14.6
18-69	649	71.5	69.1-73.9	22.7	20.2-25.1	5.8	3.4-8.2

Table 138 shows that 68.1% (95% CI = 62.8-73.4) of Nauruan women had been to a dentist for a check-up with no treatment; 26.4% (95% CI = 21.4-31.4) visited a dentist and had an extraction or tooth filled; and 5.5% (95% CI = 3.7-7.2) had not visited a dentist in the last six months.

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

Table 138. Percentage of women who had been to a dentist in the last six months

Visit the dentist for check-up or treatment in the last six months							
Age group (years)	Women						
	n	% Yes, check-up, no treatment	95% CI	% Yes, Extraction or filling of tooth	95% CI	% No, not been in the last six months	95% CI
18-29	266	71.1	63.8-78.3	24.1	17.9-30.2	4.9	2.3-7.4
30-44	275	67.6	61.9-73.4	28.0	22.2-33.8	4.4	2.1-6.6
45-69	193	63.7	54.4-73.1	28.5	17.6-39.3	7.8	3.8-11.7
18-69	734	68.1	62.8-73.4	26.4	21.4-31.4	5.5	3.7-7.2

Table 139 shows that 69.8% (95% CI = 66.4-73.1) of Nauruans had been to a dentist for a check-up with no treatment; 24.6% (95% CI = 21.8-27.5) visited a dentist and had an extraction or tooth filled; and 5.6% (95% CI = 4.1-7.2) had not visited a dentist in the last six months.

A significantly higher proportion of Nauruans aged 18-29 had visited the dentist but received no treatment in the last six months (76.1%, 95% CI = 71.8-80.4) compared to those aged 45-69 (61.1%, 95% CI = 54.5-67.8). A significantly higher proportion of Nauruans aged 45-69 (30.7%, 95% CI = 24.7-36.7) had visited the dentist and had either an extraction or tooth filled in the last six months than those aged 18-29 (19.4%, 95% CI = 15.6-23.2).

There was no statistically significant difference between the three age groups in terms of the proportion who had not been to the dentist in the last six months. There was also no statistically significant difference between men and women.

Table 139. Percentage who had been to a dentist in the last six months, both sexes combined

Visit the dentist for check-up or treatment in the last six months							
Age group (years)	Both sexes						
	n	% Yes, check-up, no treatment	95% CI	% Yes, Extraction or filling of tooth	95% CI	% No, not been in the last six months	95% CI
18-29	537	76.1	71.8-80.4	19.4	15.6-23.2	4.5	2.6-6.3
30-44	503	67.8	62.5-73.1	26.9	22.3-31.5	5.3	3.0-7.5
45-69	343	61.1	54.5-67.8	30.7	24.7-36.7	8.2	5.1-11.2
18-69	1383	69.8	66.4-73.1	24.6	21.8-27.5	5.6	4.1-7.2

Table 140 shows that more than half of men (63.3%, 95% CI = 57.9-68.8) described their teeth as being in a painful state, 6.9% (95% CI = 4.5-9.2) as being decayed, 11.2% (95% CI = 8.6-13.8) as having loose or mobile teeth, and only 18.6% (95% CI = 14.2-23.0) as having good teeth.

A significantly higher proportion of men aged 18-29 years described their teeth as being in a painful state (71.2%, 95% CI = 64.5-78.0) compared to those aged 45-69 years (49.3%, 95% CI = 40.7-58.0). A significantly higher proportion of men aged 45-69 years described their teeth as being in decay (16.7%, 95% CI = 10.8-22.5) compared to those aged 18-29 years (5.5%, 95% CI = 2.4-8.7) and 30-44 years (2.2%, 95% CI = 0.2-4.2).

Table 140. Percentage of men who described the state of their teeth

Described state of their teeth									
Age group (years)	Men								
	n	% Good	95% CI	% Painful	95% CI	% Decayed	95% CI	Loose/ mobile teeth	95% CI
18-29	271	15.1	10.4-19.9	71.2	64.5-78.0	5.5	2.4-8.7	8.1	4.5-11.8
30-44	228	23.2	15.6-30.9	62.7	55.3-70.2	2.2	0.2-4.2	11.8	6.2-17.5
45-69	150	18.0	9.1-26.9	49.3	40.7-58.0	16.7	10.8-22.5	16.0	9.9-22.1
18-69	649	18.6	14.2-23.0	63.3	57.9-68.8	6.9	4.5-9.2	11.2	8.6-13.8

Table 141 shows that more than half of women (54.0%, 95% CI = 49.9-58.1) described their teeth as being in a painful state, 7.6% (95% CI = 5.1-10.1) as being decayed, 12.3% (95% CI = 8.6-16.0) as having loose or mobile teeth, and only 26.1% (95% CI = 24.1-28.1) as having good teeth.

A significantly higher proportion of women aged 45-69 described their teeth as being in a good state (30.6%, 95% CI = 27.1-34.1) compared to those aged 18-29 (21.8%, 95% CI = 17.5-26.1). A significantly higher proportion of women aged 18-29 described their teeth as being in a painful state (62.4%, 95% CI = 55.8-69.0) compared to those aged 45-69 (41.5%, 95% CI = 34.1-48.8). The proportion of women who indicated that their teeth were decayed increased with age – 0.8% (95% CI = 0.0-2.4) among 18-29 year olds, 6.2% (95% CI = 4.2-8.2) among 30-44 year olds and 20.7% (95% CI = 13.4-28.0) among 45-69 year olds.

Table 141. Percentage of women who described the state of their teeth

Described state of their teeth									
Age group (years)	Women								
	n	% Good	95% CI	% Painful	95% CI	% Decayed	95% CI	Loose/ mobile teeth	95% CI
18-29	266	21.8	17.5-26.1	62.4	55.8-69.0	0.8	0.0-2.4	15.0	8.9-21.2
30-44	275	28.4	22.8-33.9	52.7	45.9-59.5	6.2	4.2-8.2	12.7	7.8-17.7
45-69	193	30.6	27.1-34.1	41.5	34.1-48.8	20.7	13.4-28.0	7.3	2.7-11.8
18-69	734	26.1	24.1-28.1	54.0	49.9-58.1	7.6	5.1-10.1	12.3	8.6-16.0

Table 142 shows that overall, more than half (58.5%, 95% CI = 55.7-61.4) described their teeth as being in a painful state, 7.2% (95% CI = 5.6-8.8) as being decayed, 11.8% (95% CI = 9.1-14.5) as having loose or mobile teeth, and only 22.5% (95% CI = 20.0-25.0) as having good teeth.

The proportion of Nauruans who indicated that their teeth were in a painful state decreased with age – 66.7% (95% CI = 63.3-70.1) among 18-29 year olds, 57.8% (95% CI = 54.1-61.6) among 30-44 year olds and 45.0% (95% CI = 39.6-50.4) among 45-69 year olds. A significantly higher proportion of 45-69 year olds described their teeth as being decayed (18.9%, 95% CI = 14.8-22.9) compared to those aged 18-29 (3.1%, 95% CI = 1.0-5.1) and 30-44 years (4.1%, 95% CI = 3.0-5.3).

A significantly higher proportion of women than men described their teeth as being in a good state – 26.1% (95% CI = 24.1-28.1) of women and 18.6% (95% CI = 14.2-23.0) of men. (Compare Tables 148 and 149.)

Table 142. Percentage who described the state of their teeth, both sexes combined

Described state of their teeth									
Age group (years)	Both sexes								
	n	% Good	95% CI	% Painful	95% CI	% Decayed	95% CI	Loose/ mobile teeth	95% CI
18-29	537	18.6	15.3-21.9	66.7	63.3-70.1	3.1	1.0-5.1	11.7	7.8-15.6
30-44	503	25.8	20.5-31.0	57.8	54.1-61.6	4.1	3.0-5.3	12.3	8.3-16.3
45-69	343	24.9	19.4-30.4	45.0	39.6-50.4	18.9	14.8-22.9	11.2	7.1-15.3
18-69	1383	22.5	20.0-25.0	58.5	55.7-61.4	7.2	5.6-8.8	11.8	9.1-14.5

Table 143 shows that majority of men (80.2%, 95% CI = 77.2-83.1) described their gum as being in a good state, 9.4% (95% CI = 7.5-11.2) as bleeding and/or painful, 5.7% (95% CI = 4.2-7.2) as being swollen, and 4.8% (95% CI = 2.9-6.7) who were not sure or had other responses.

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

Table 143. Percentage of men who described the state of their gum

Described state of their gums									
Age group (years)	Men								
	n	% Good	95% CI	% Bleeding and/ or Painful	95% CI	% Swollen	95% CI	Not sure or other	95% CI
18-29	271	83.0	76.8-89.2	7.4	4.6-10.2	4.1	2.1-6.0	5.5	2.0-9.1
30-44	228	78.5	73.7-83.3	10.5	6.3-14.8	7.0	3.5-10.5	3.9	0.5-7.4
45-69	150	77.3	71.7-83.0	11.3	7.6-15.1	6.7	2.8-10.5	4.7	0.5-8.8
18-69	649	80.2	77.2-83.1	9.4	7.5-11.2	5.7	4.2-7.2	4.8	2.9-6.7

Table 144 shows that majority of women (82.1%, 95% CI = 79.9-84.2) described their gum as being in a good state, 9.0% (95% CI = 6.4-11.6) as bleeding and/or painful, 6.7% (95% CI = 4.5-8.9) as being swollen, and 2.2% (95% CI = 1.2-3.3) who were not sure or had other responses.

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

Table 144. Percentage of women who described the state of their gum

Described state of their gums									
Age group (years)	Women								
	n	% Good	95% CI	% Bleeding and/ or Painful	95% CI	% Swollen	95% CI	Not sure or other	95% CI
18-29	266	81.6	78.3-84.8	9.0	4.7-13.3	6.8	4.1-9.4	2.6	0.5-4.7
30-44	275	80.4	76.3-84.5	10.9	6.9-14.9	6.9	3.4-10.4	1.8	0.0-3.8
45-69	193	85.0	80.6-89.4	6.7	3.2-10.2	6.2	3.2-9.2	2.1	0.0-4.5
18-69	734	82.1	79.9-84.2	9.0	6.4-11.6	6.7	4.5-8.9	2.2	1.2-3.3

Table 145 shows that majority of Nauruans (81.1%, 95% CI = 79.2-83.1) described their gum as being in a good state, 9.2% (95% CI = 7.7-10.7) as bleeding and/or painful, 6.2% (95% CI = 5.0-7.3) as being swollen, and 3.5% (95% CI = 2.5-4.5) who were not sure or had other responses.

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

Table 145. Percentage who described the state of their gum

Described state of their gums									
Age group (years)	Both sexes								
	n	% Good	95% CI	% Bleeding and/ or Painful	95% CI	% Swollen	95% CI	Not sure or other	95% CI
18-29	537	82.3	78.9-85.7	8.2	5.6-10.8	5.5	4.0-6.9	4.0	2.4-5.6
30-44	503	79.4	76.0-82.8	10.7	8.3-13.1	7.0	4.1-9.8	2.9	0.8-5.1
45-69	343	81.5	78.5-84.6	8.8	6.5-11.1	6.4	4.4-8.5	3.2	1.1-5.4
18-69	1383	81.1	79.2-83.1	9.2	7.7-10.7	6.2	5.0-7.3	3.5	2.5-4.5

4.21. Physical measurements

4.20.1 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 146 shows that the mean height of men was 168.7 cm (95% CI = 168.1-169.2) and 157.3 cm (95% CI = 156.3-158.3) for women.

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

Table 146. Mean height (cm)

Mean height (cm)							
Age group (years)	Men				Women		
	n	Mean	95% CI		n	Mean	95% CI
18-29	200	168.7	167.6-169.8		187	157.5	156.9-158.1
30-44	188	168.2	167.1-169.4		203	157.1	155.7-158.5
45-69	121	169.3	168.0-170.6		158	157.2	155.5-158.9
18-69	509	168.7	168.1-169.2		548	157.3	156.3-158.3

Table 147 shows that the mean weight of men was 99.7 kg (95% CI = 96.5-102.9) and 89.5 kg (95% CI = 86.0-93.0) for women. There was statistically significant difference in mean weight between men and women but none between the three age groups.

Table 147. Mean weight (kg)

Mean weight (kg)							
Age group (years)	Men				Women		
	n	Mean	95% CI		n	Mean	95% CI
18-29	202	96.4	90.8-101.9		187	84.1	77.6-90.6
30-44	188	100.8	98.1-103.4		203	95.1	90.0-100.2
45-69	121	103.7	97.0-110.5		158	91.0	87.0-95.0
18-69	511	99.7	96.5-102.9		548	89.5	86.0-93.0

4.20.2 Body Mass Index and Weight Categories

Table 147 shows that the mean BMI overall was 34.4 kg/m2 (95% CI = 33.6-35.2).

Younger Nauruans aged 18-29 had significantly lower BMI (32.3, 95% CI = 31.1-33.5) than those aged 30-44 years (35.8, 95% CI = **35.0-36.7) and 45-69 (35.7, 95% CI = 34.9-36.5). There were statistically significant differenc**es between the three age groups among men and women; but there was no statistically significant difference between men and women.

Table 148. 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	197	32.6	31.8-33.5		184	32.1	30.1-34.0		381	32.3	31.1-33.5
30-44	186	35.0	34.1-36.0		195	36.8	35.6-38.0		381	35.8	35.0-36.7
45-69	120	35.4	34.3-36.5		154	36.0	35.0-37.0		274	35.7	34.9-36.5
18-69	503	34.1	33.4-34.9		533	34.6	33.5-35.7		1036	34.4	33.6-35.2

Table 149 shows that majority of Nauruan men were classified as being obese (71.0%, 95% CI = 67.2-74.8), followed by 20.4% (95% CI = 16.8-24.0) as overweight and 8.6% (95% CI = 4.5-12.6) as having normal weight.

A significantly higher proportion of Nauruan men aged 30-44 years (75.8%, 95% CI = 70.1-81.5) and 45-69 (79.2%, 95% CI = 69.7-88.6) were classified as obese compared to those aged 18-29 (61.9%, 95% CI = 54.6-69.3).

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

Table 149. Percentage of men in the specific BMI classifications

BMI classifications									
Age group (years)	Men								
	n	% Underweight < 18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% Overweight 25.0-29.9	95% CI	% Obese ≥ 30.0	95% CI
18-29	197	-	-	11.2	5.6-16.7	26.9	20.2-33.6	61.9	54.6-69.3
30-44	186	-	-	7.5	3.5-11.5	16.7	10.9-22.5	75.8	70.1-81.5
45-69	120	-	-	5.8	1.2-10.5	15.0	6.8-23.2	79.2	69.7-88.6
18-69	503	-	-	8.6	4.5-12.6	20.4	16.8-24.0	71.0	67.2-74.8

Table 150 shows that 69.4% (95% CI = 65.1-73.8) of Nauruan women were classified as obese, 19.3% (95% CI = 15.4-23.1) as overweight, 11.1% (95% CI = 8.4-13.8) as having normal weight and 0.2% (95% CI = 0.0-0.7) as underweight.

A significantly higher proportion of Nauruan women aged 18-29 were classified as having normal weight

(17.4%, 95% CI =11.4-23.4) compared to those aged 30-44 years (5.6%, 95% CI = 2.4-8.9). A significantly higher proportion of women aged 30-44 years (80.5%, 95% CI = 75.2-85.8) and 45-69 (75.3%, 95% CI = 70.0-80.7) were classified as obese than those aged 18-29 (57.1%, 95% CI = 48.9-65.2).

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

Table 150. Percentage of women in the specific BMI classifications

BMI classifications									
Age group (years)	Women								
	n	% Under-weight < 18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% Over-weight 25.0-29.9	95% CI	% Obese ≥ 30.0	95% CI
18-29	184	0.5	0.0-1.7	17.4	11.4-23.4	25.0	17.1-32.9	57.1	48.9-65.2
30-44	195	0.0	0.0-0.0	5.6	2.4-8.9	13.8	9.2-18.5	80.5	75.2-85.8
45-69	154	0.0	0.0-0.0	7.8	4.1-11.5	16.9	11.4-22.3	75.3	70.0-80.7
18-69	533	0.2	0.0-0.7	11.1	8.4-13.8	19.3	15.4-23.1	69.4	65.1-73.8

Table 151 shows that overall, 70.2% (95% CI = 67.2-73.3) were classified as obese, 19.8% (95% CI = 17.8-21.9) as overweight, 9.8% (95% CI = 6.6-13.1) as having normal weight and 0.1% (95% CI = 0.0-0.3) as underweight.

Significantly more Nauruans aged 18-29 were classified as overweight (25.9%, 95% CI = 22.4-29.5) compared to those aged 30-44 years (15.4%, 95% CI = 11.8-19.0) and 45-69 (16.0%, 95% CI = 13.0-19.1). Significantly more Nauruans aged 30-44 years (77.9%, 95% CI = 74.4-81.5) and 45-69 (77.1%, 95% CI = 73.6-80.5) were classified as obese than those aged 18-29 (59.5%, 95% CI = 53.6-65.3).

There was no statistically significant difference between men and women.

Table 151. Percentage in the specific BMI classifications, both sexes combined

BMI classifications									
Age group (years)	Both sexes								
	n	% Under-weight < 18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% Over-weight 25.0-29.9	95% CI	% Obese ≥ 30.0	95% CI
18-29	381	0.3	0.0-0.9	14.3	8.9-19.8	25.9	22.4-29.5	59.5	53.6-65.3
30-44	381	0.0	0.0-0.0	6.7	4.0-9.4	15.4	11.8-19.0	77.9	74.4-81.5
45-69	274	0.0	0.0-0.0	6.9	3.9-9.9	16.0	13.0-19.1	77.1	73.6-80.5
18-69	1036	0.1	0.0-0.3	9.8	6.6-13.1	19.8	17.8-21.9	70.2	67.2-73.3

Table 152 shows that overall, 90.1% (95% CI = 86.9-93.2) were classified as overweight (BMI≥25).

Among women, significantly more 30-44 year olds (94.4%, 95% CI = 91.1-97.6) and 45-69 year olds (92.2%, 95% CI = 88.5-95.9) were overweight than those aged 18-29 (82.1%, 95% CI = 76.1-88.0).

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

Table 152. Percentage classified as overweight (BMI ≥ 25)

BMI ≥ 25										
Age group (years)	Men				Women				Both sexes		
	n	% BMI ≥ 25	95% CI		n	% BMI ≥ 25	95% CI		n	% BMI ≥ 25	95% CI
18-29	197	88.8	83.3-94.4		184	82.1	76.1-88.0		381	85.4	80.1-90.7
30-44	186	92.5	88.5-96.5		195	94.4	91.1-97.6		381	93.3	90.6-96.0
45-69	120	94.2	89.5-98.8		154	92.2	88.5-95.9		274	93.1	90.1-96.1
18-69	503	91.4	87.4-95.5		533	88.7	86.0-91.4		1036	90.1	86.9-93.2

4.20.3 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 ≥ 102cm for men and ≥ 88cm for women; waist-hip ratio of ≥ 0.90 for men and ≥ 0.85 for women.

Table 153 shows that the mean waist circumference of men was 105.2 cm (95% CI = 103.1-107.3) and 103.0 cm (95% CI = 100.7-105.2) 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 (98.6 cm, 95% CI = 95.3-101.9) than older men aged 30-44 years (107.0 cm, 95% CI = 104.5-109.6) and 45-69 (113.9 cm, 95% CI = 109.4-118.4). Younger women aged 18-29 also had a significantly lower mean waist circumference (95.9 cm, 95% CI = 91.3-100.5) than older women aged 30-44 years (105.5 cm, 95% CI = 103.6-107.4) and 45-69 (110.2 cm, 95% CI = 105.2-115.1).

Table 153. Mean waist circumference (cm)

Mean waist circumference (cm)							
Age group (years)	Men				Women		
	n	Mean	95% CI		n	Mean	95% CI
18-29	199	98.6	95.3-101.9		180	95.9	91.3-100.5
30-44	187	107.0	104.5-109.6		201	105.5	103.6-107.4
45-69	116	113.9	109.4-118.4		153	110.2	105.2-115.1
18-69	502	105.2	103.1-107.3		534	103.0	100.7-105.2

Table 154 shows that the mean hip circumference of men was 110.9 cm (95% CI = 107.2-114.7) and 115.3 cm (95% CI = 112.4-118.1) for women. There was no statistically significant difference between men and women.

Among women, those aged 45-69 had significantly higher mean hip circumference (115.3 cm, 95% CI = 112.4-118.1) than those aged 18-29 (109.3 cm, 95% CI = 103.2-115.4).

Table 154. Mean hip circumference (cm)

Hip circumference (cm)							
Age group (years)	Men				Women		
	n	Mean	95% CI		n	Mean	95% CI
18-29	199	106.8	102.0-111.6		180	109.3	103.2-115.4
30-44	187	112.9	106.8-119.0		201	116.3	113.3-119.2
45-69	116	115.1	111.1-119.1		152	122.8	117.7-127.9
18-69	502	110.9	107.2-114.7		533	115.3	112.4-118.1

Table 155 shows that the mean waist-hip ratio of men was 1.0 (95% CI = 1.0-1.0) and 0.9 for women (95% CI = 0.9-0.9). There was statistically significant difference between men and women, and none between the three age groups.

Table 155. Mean waist-hip ratio

Mean waist / hip ratio						
Age group (years)	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
18-29	199	0.9	0.9-1.0	180	0.9	0.9-0.9
30-44	187	1.0	0.9-1.0	201	0.9	0.9-0.9
45-69	116	1.0	1.0-1.0	152	0.9	0.9-0.9
18-69	502	1.0	1.0-1.0	533	0.9	0.9-0.9

4.20.4 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 156 shows that overall, the mean systolic blood pressure was 122.2 mm Hg (95% CI = 121.2-123.3). Men had significantly higher mean systolic blood pressure than women – 126.7 mmHg (95% CI = 125.3-128.0) for men and 118.1 mmHg (95% CI = 116.8-119.4) for women.

The mean systolic blood pressure increased with age – 116.6 mmHg (95% CI = 115.1-118.2) among 18-29 year olds, 121.5 mmHg (95% CI = 119.7-123.4) among 30-44 year olds and 132.1 mmHg (95% CI = 129.6-134.5) among 45-69 year olds. Among men, the mean systolic blood pressure of 45-69 year olds (131.4 mmHg, 95% CI = 128.9-133.9) was significantly higher than that of 18-29 year olds (123.4 mmHg, 95% CI = 121.3-125.5). Among women, the mean systolic blood pressure increased with age – 110.6 mmHg (95% CI = 108.9-112.3) among 18-29 year olds, 115.3 mmHg (95% CI = 112.6-118.0) among 30-44 year olds and 132.6 mmHg (95% CI = 129.5-135.6) among 45-69 year olds.

Table 156. 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	201	123.4	121.3-125.5		203	110.6	108.9-112.3		404	116.6	115.1-118.2
30-44	188	127.3	124.5-130.0		217	115.3	112.6-118.0		405	121.5	119.7-123.4
45-69	123	131.4	128.9-133.9		163	132.6	129.5-135.6		286	132.1	129.6-134.5
18-69	512	126.7	125.3-128.0		583	118.1	116.8-119.4		1095	122.2	121.2-123.3

Table 157 shows that overall, the mean diastolic blood pressure was 80.2 mmHg (95% CI = 78.8-81.5). There was no statistically significant difference between men and women.

The mean diastolic blood pressure increased with age – 76.4 mmHg (95% CI = 74.9-77.8) for 18-29 year olds, 81.6 mmHg (95% CI = 79.8-83.3) for 30-44 year olds and 84.5 mmHg (95% CI = 82.6-86.4) among 45-69 year olds.

Among men, the mean diastolic blood pressure of those aged 30-44 years (83.7 mmHg, 95% CI = 81.9-85.4) and 45-69 (83.3 mmHg, 95% CI = 81.4-85.2) were significantly higher than those aged 18-29 (77.5 mmHg, 95% CI = 76.0-79.0). Among women, the mean diastolic blood pressure of those aged 45-69 (85.5 mmHg, 95% CI = 82.8-88.2) was significantly higher than that of those aged 18-29 (75.3 mmHg, 95% CI = 73.5-77.2) and 30-44 years (79.3 mmHg, 95% CI = 77.1-81.5).

Table 157. 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	201	77.5	76.0-79.0		203	75.3	73.5-77.2		404	76.4	74.9-77.8
30-44	188	83.7	81.9-85.4		217	79.3	77.1-81.5		405	81.6	79.8-83.3
45-69	123	83.3	81.4-85.2		163	85.5	82.8-88.2		286	84.5	82.6-86.4
18-69	512	81.1	80.0-82.2		583	79.3	77.6-81.1		1095	80.2	78.8-81.5

Table 158 shows that overall, 23.5% (95% CI = 21.0-25.9), excluding those on medication, had raised blood pressure SBP ≥ 140 and/or DBP ≥ 90 mmHg. There was no statistically significant difference between men and women.

The proportion of Nauruans with raised blood pressure SBP ≥ 140 and/or DBP ≥ 90 mmHg, excluding those on medication, increased with age – 10.0% (95% CI = 6.7-13.3) of 18-29 year olds, 24.5% (95% CI = 20.1-29.0) of 30-44 year olds and 45.1% (95% CI = 39.1-51.0) of 45-69 year olds.

Among men, a significantly higher proportion of those aged 30-44 years (30.6%, 95% CI = 23.2-38.1) and 45-69 (42.6%, 95% CI = 33.8-51.4) had raised blood pressure SBP ≥ 140 and/or DBP ≥ 90 than those aged 18-29 (13.9%, 95% CI = 9.3-18.6). Among women, the proportion of those with raised blood pressure SBP ≥ 140 and/or DBP ≥ 90 increased with age – 6.4% (95% CI = 3.3-9.5) of 18-29 year olds, 17.8% (95% CI = 11.7-23.9) of 30-44 year olds and 47.0% (95% CI = 40.1-53.9) of 45-69 year olds.

Table 158. Percentage with raised blood pressure SBP ≥ 140 and/or DBP ≥ 90 mmHg, excluding those on medication

SBP ≥ 140 and/or DBP ≥ 90 mmHg, excluding those on medication for raised blood pressure										
Age group (years)	Men				Women				Both sexes	
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	201	13.9	9.3-18.6		202	6.4	3.3-9.5		403	10.0	6.7-13.3
30-44	186	30.6	23.2-38.1		213	17.8	11.7-23.9		399	24.5	20.1-29.0
45-69	115	42.6	33.8-51.4		151	47.0	40.1-53.9		266	45.1	39.1-51.0
18-69	502	26.5	23.3-29.7		566	20.6	17.3-23.9		1068	23.5	21.0-25.9

Table 159 shows that 25.3% (95% CI = 23.0-27.5) overall had raised blood pressure SBP ≥ 140 and/or DBP ≥ 90 mmHg or were currently on medication for raised blood pressure. There was no significant difference between men and women.

The proportion of Nauruans with raised blood pressure SBP ≥ 140 and/or DBP ≥ 90 mmHg or were currently on medication for raised blood pressure increased with age – 10.2% (95% CI = 6.9-13.6) of 18-29 year olds, 25.6% (95% CI = 21.1-30.1) of 30-44 year olds and 48.9% (95% CI = 42.6-55.1) of 45-69 year olds.

Among men, a significantly higher proportion of 45-69 year olds (46.3%, 95% CI = 36.9-55.8) had raised blood pressure SBP ≥ 140 and/or DBP ≥ 90 mmHg or were currently on medication for raised blood pressure than those aged 18-29 (13.9%, 95% CI = 9.3-18.6). Among women, the proportion of those with raised blood pressure SBP ≥ 140 and/or DBP ≥ 90 mmHg or were currently on medication for raised blood pressure increased with age – 6.9% (95% CI = 3.3-10.5) of 18-29 year olds, 19.4% (95% CI = 13.4-25.3) of 30-44 year olds and 50.9% (95% CI = 43.6-58.3) of 45-69 year olds.

Table 159. Percentage with raised blood pressure SBP ≥ 140 and/or DBP ≥ 90 mmHg or were currently on medication for raised blood pressure

SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised blood pressure										
Age group (years)	Men				Women				Both sexes	
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	201	13.9	9.3-18.6		203	6.9	3.3-10.5		404	10.2	6.9-13.6
30-44	188	31.4	24.3-38.5		217	19.4	13.4-25.3		405	25.6	21.1-30.1
45-69	123	46.3	36.9-55.8		163	50.9	43.6-58.3		286	48.9	42.6-55.1
18-69	512	27.9	25.0-30.7		583	22.8	19.6-26.1		1095	25.3	23.0-27.5

Table 160 shows that 7.6% (95% CI = 5.9-9.3) overall, excluding those on medication, had raised blood pressure SBP ≥ 160 and/or DBP ≥ 100 mmHg. There was no statistically significant difference between men and women.

The proportion of Nauruans with raised blood pressure SBP ≥ 160 and/or DBP ≥ 100 mmHg, excluding those on medication, increased with age – 1.7% (95% CI = 0.5-2.9) of 18-29 year olds, 8.0% (95% CI = 5.5-10.4) of 30-44 year olds and 17.2% (95% CI = 11.1-23.2) of 45-69 year olds.

Among men, a significantly higher proportion of 30-44 year olds (9.7%, 95% CI = 6.4-12.9) and 45-69 year olds (12.2%, 95% CI = 5.6-18.7) had raised blood pressure SBP ≥ 160 and/or DBP ≥ 100 mmHg than those aged 18-29 (2.0%, 95% CI = 0.0-4.3). Among women, excluding those on medication for raised blood pressure, a significantly higher proportion of 45-69 year olds had raised blood pressure SBP ≥ 140 and/or DBP ≥ 90 mmHg (21.2%, 95% CI = 13.0-29.4) than those aged 18-29 (1.5%, 95% CI = 0.0-3.4) and 30-44 years (6.1%, 95% CI = 1.6-10.6).

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

SBP ≥ 160 and/or DBP ≥ 100 mmHg, excluding those on medication for raised blood pressure										
Age group (years)	Men				Women				Both sexes	
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	201	2.0	0.0-4.3		202	1.5	0.0-3.4		403	1.7	0.5-2.9
30-44	186	9.7	6.4-12.9		213	6.1	1.6-10.6		399	8.0	5.5-10.4
45-69	115	12.2	5.6-18.7		151	21.2	13.0-29.4		266	17.2	11.1-23.2
18-69	502	7.1	5.0-9.2		566	8.1	5.8-10.3		1068	7.6	5.9-9.3

Table 161 shows that 9.8% (95% CI = 8.1-11.4) overall had raised blood pressure SBP ≥ 160 and/or DBP ≥ 100 mmHg or were currently on medication for raised blood pressure.

The proportion of Nauruans who had raised blood pressure SBP ≥ 160 and/or DBP ≥ 100 mmHg or were currently on medication for raised blood pressure increased with age – 2.0% (95% CI = 0.9-3.0) among those aged 18-29, 9.3% (95% CI = 6.9-11.7) among those aged 30-44 years and 23.0% (95% CI = 16.4-29.5) among those aged 45-69.

Among men, a significantly higher proportion of those aged 30-44 years (10.6%, 95% CI = 6.9-14.4) and 45-69 (17.9%, 95% CI = 11.2-24.6) had raised blood pressure or were currently on medication for raised blood pressure than those aged 18-29 (2.0%, 95% CI = 0.0-4.3). Among women, a significantly higher proportion of those aged 45-69 had raised blood pressure or were currently on medication for raised blood pressure (27.0%, 95% CI = 17.2-36.8) compared to those aged 18-29 (2.0%, 95% CI = 0.1-3.8).

There was no statistically significant difference between men and women.

Table 161. Percentage with raised blood pressure SBP ≥ 160 and/or DBP ≥ 100 mmHg or currently on medication for raised blood pressure

SBP ≥ 160 and/or DBP ≥ 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	201	2.0	0.0-4.3		203	2.0	0.1-3.8		404	2.0	0.9-3.0
30-44	188	10.6	6.9-14.4		217	7.8	3.2-12.4		405	9.3	6.9-11.7
45-69	123	17.9	11.2-24.6		163	27.0	17.2-36.8		286	23.0	16.4-29.5
18-69	512	8.9	6.8-10.9		583	10.6	8.4-12.9		1095	9.8	8.1-11.4

Table 162 shows that among men who had raised blood pressure SBP≥ 140 and/or DBP≥90 or were currently on medication, majority (93.1%, 95% CI = 87.1-99.2) were not on medication and had raised blood pressure SBP≥ 140 and/or DBP≥90; 4.1% (95% CI = 0.5-7.7) were on medication and had raised blood pressure SBP≥ 140 and/or DBP≥90; and 2.8% (95% CI = 0.0-6.2) were on medication and had SBP < 140 and DBP < 90.

There was no difference between the three age groups.

Table 162. Percentage of men with treated and/or controlled raised blood pressure

Men 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 ≥ 140 and/or DBP ≥ 90	95% CI	% Not on medication and SBP ≥ 140 and/or DBP ≥ 90	95% CI
18-29	28	0.0	0.0-0.0	0.0	0.0-0.0	100.0	100.0-100.0
30-44	58	1.7	0.0-5.6	1.7	0.0-5.6	96.6	91.1-100.0
45-69	57	5.3	0.0-12.7	8.8	1.9-15.6	86.0	73.6-98.3
18-69	143	2.8	0.0-6.2	4.1	0.5-7.7	93.1	87.1-99.2

Table 163 shows that among women who had raised blood pressure SBP≥ 140 and/or DBP≥90 or were currently on medication, majority (87.7%, 95% CI = **79.7-95.7) were not on medication and had raised blood pres**sure SBP≥ 140 and/or DBP≥90; 3.0% (95% CI = 0.2-5.7) were on medication and had raised blood pressure of SBP≥ 140 and/or DBP≥90; and 9.4% (95% CI: = 3.2-15.5) were on medication and had SBP < 140 and DBP < 90.

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

Table 163. Percentage of women with treated and/or controlled raised blood pressure

Women 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	14	7.1	0.0-19.7	0.0	0.0-0.0	92.9	80.4-100.0
30-44	41	9.8	0.4-19.1	0.0	0.0-0.0	90.2	80.9-99.6
45-69	83	9.6	1.7-17.6	4.8	0.6-9.1	85.5	74.9-96.2
18-69	138	9.4	3.2-15.5	3.0	0.2-5.7	87.7	79.7-95.7

Table 164 shows that among those who had raised blood pressure of SBP ≥ 140 and/or DBP ≥ 90 or were currently on medication, the majority (90.6%, 95% CI: = 85.3-95.8) were not on medication and had raised blood pressure of SBP≥ 140 and/or DBP ≥ 90; 3.6% (95% CI: = **1.6-5.6) were on medication and had raised blood pres**sure of SBP ≥ 140 and/or DBP ≥ 90; and 5.8% (95% CI: = 2.3-9.4) 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 164. Percentage with treated and/or controlled raised blood pressure, both sexes combined

Percentage with treated and/or controlled raised blood pressure							
Age group (years)	Both sexes						
	n	% On medication and SBP < 140 and DBP < 90	95% CI	% On medication and SBP ≥ 140 and/or-DBP ≥ 90	95% CI	% Not on medication and SBP ≥ 140 and/ orDBP ≥ 90	95% CI
18-29	42	2.5	0.0-7.5	0.0	0.0-0.0	97.5	92.5-100.0
30-44	99	4.6	0.7-8.5	1.1	0.0-3.5	94.3	90.1-98.5
45-69	140	7.8	2.7-12.9	6.5	2.8-10.2	85.7	77.4-94.1
18-69	281	5.8	2.3-9.4	3.6	1.6-5.6	90.6	85.3-95.8

4.22. Biochemical measurements

4.19.1 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 and 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 165 shows that the mean fasting plasma glucose overall was 6.5 mmol/l.

Older Nauruans aged 45-69 had a significantly higher mean fasting plasma glucose (7.9 mmol/l, 95% CI = 6.1-6.8) than younger ones aged 18-29 (5.5 mmol/l, 95% CI = 5.1-5.9).

There was no statistically significant difference between men and women.

Table 165. Mean fasting plasma 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	193	5.3	4.9-5.8		197	5.7	5.3-6.1		390	5.5	5.1-5.9
30-44	182	6.6	6.0-7.2		210	6.5	5.8-7.1		392	6.5	6.1-7.0
45-69	118	7.6	7.1-8.1		157	8.2	7.6-8.8		275	7.9	7.5-8.4
18-69	493	6.3	5.9-6.8		564	6.6	6.3-6.9		1057	6.5	6.1-6.8

Table 166 shows that overall, 17.1% (95% CI = 10.9-23.2) were categorized as having impaired fasting glycaemia – 17.6% (95% CI = 11.0-24.3) of men and 16.5% (95% CI = 10.3-22.7) of women; and 16.1% (95% CI = 8.9-23.3) of Nauruans aged 18-29 years and 21.0% (95% CI = 15.7-26.4) of those aged 45-69 years.

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

Table 166. Percentage categorized as having impaired fasting glycaemia

Percentage categorized as having impaired fasting glycaemia*										
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	193	17.6	10.1-25.1		197	14.7	7.0-22.4		390	16.1	8.9-23.3
30-44	182	17.0	7.6-26.5		210	13.3	5.4-21.3		392	15.3	6.9-23.7
45-69	118	18.6	11.7-25.6		157	22.9	16.7-29.2		275	21.0	15.7-26.4
18-69	493	17.6	11.0-24.3		564	16.5	10.3-22.7		1057	17.1	10.9-23.2
*Impaired fasting glycaemia is defined as either plasma venous value: ≥ 6.1mmol/l (110mg/dl) and < 7.0mmol/l (126mg/dl)											

Table 167 shows that overall, 21.9% (95% CI = **19.0-24.8) had raised blood glucose or were currently on medication** for diabetes.

A significantly higher proportion of older Nauruans aged 45-69 (41.3%, 95% CI = 34.5-48.2) had raised blood glucose or were currently on medication compared to younger ones aged 18-29 (8.8%, 95% CI = 5.712.0).

There was no statistically significant difference between men and women.

Table 167. Percentage categorized as having raised blood glucose or were currently on medication for diabetes

Raised blood glucose or currently on medication for diabetes**										
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
18-29	193	6.7	3.7-9.8		197	10.7	5.8-15.5		390	8.8	5.7-12.0
30-44	182	23.6	17.9-29.3		210	22.9	17.3-28.4		392	23.3	19.4-27.2
45-69	118	35.6	27.6-43.6		157	45.9	37.1-54.6		275	41.3	34.5-48.2
18-69	493	19.7	15.6-23.7		564	24.1	20.8-27.3		1057	21.9	19.0-24.8
** Raised blood glucose is defined as plasma venous value: ≥ 7.0 mmol/l (126 mg/dl)										

Table 168 shows that overall, 6.1% (95% CI = 4.4-7.9) were currently on medication for diabetes.

A significantly higher proportion of Nauruans aged 45-69 (17.1%, 95% CI = **12.9-21.3) were on medication com**pared to those aged 18-29 (0.6%, 95% CI = 0.0-1.3).

There was no statistically significant difference between men and women.

Table 168. 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	271	0.7	0.0-1.8		266	0.4	0.0-1.1		537	0.6	0.0-1.3
30-44	229	3.9	1.9-6.0		276	6.9	2.8-11.0		505	5.4	3.4-7.3
45-69	151	15.2	10.1-20.3		193	18.7	13.2-24.1		344	17.1	12.9-21.3
18-69	651	5.1	3.2-7.1		735	7.1	4.8-9.5		1386	6.1	4.4-7.9

4.21.1 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 169 shows that overall, the mean total cholesterol overall was 3.8 mmol/l (95% CI = 3.5-4.1).

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

Table 169. 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	193	3.4	3.2-3.7		197	3.6	3.4-3.9		390	3.6	3.3-3.8
30-44	182	4.1	3.4-4.7		211	3.9	3.6-4.2		393	4.0	3.5-4.4
45-69	118	4.0	3.4-4.6		157	4.3	4.1-4.5		275	4.2	3.9-4.4
18-69	493	3.8	3.3-4.2		565	3.9	3.7-4.1		1058	3.8	3.5-4.1

Table 170 shows that overall, 19.6% (95% CI = 12.1-27.0) had total cholesterol of ≥ 5.0 mmol/l or ≥ 190 mg/dl or were currently on medication for raised cholesterol.

A significantly higher proportion of Nauruans aged 45-69 years had total cholesterol of ≥ 5.0 mmol/l or ≥ 190 mg/dl or were currently on medication for raised cholesterol (30.8%, 95% CI = 22.5-39.1) than those aged 18-29 (12.0%, 95% CI = 5.6-18.4).

Among women, a significantly higher proportion of 45-69 year olds had total cholesterol of ≥ 5.0 mmol/l or ≥ 190 mg/dl or were currently on medication for raised cholesterol (33.8%, 95% CI = 23.8-43.7) than those aged 18-29 (11.2%, 95% CI = 5.3-17.0). There was no statistically significant difference between men and women.

Table 170. 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	193	13.0	4.3-21.6		197	11.2	5.3-17.0		390	12.0	5.6-18.4
30-44	182	22.0	6.8-37.1		211	18.5	10.9-26.1		393	20.3	9.7-30.9
45-69	118	27.1	11.0-43.3		157	33.8	23.8-43.7		275	30.8	22.5-39.1
18-69	493	19.6	8.2-30.9		565	19.6	14.2-25.0		1058	19.6	12.1-27.0

Table 171 shows that overall, 7.9% (95% CI = 2.8-12.9) had total cholesterol ≥ 6.2 mmol/l or ≥ 240 mg/dl or were currently on medication for raised cholesterol.

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

Table 171. 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	193	3.6	0.0-7.5		197	3.0	0.0-6.4		390	3.3	0.3-6.4
30-44	182	11.5	1.0-22.0		211	7.6	3.5-11.7		393	9.6	2.5-16.8
45-69	118	14.4	3.2-25.6		157	11.5	4.0-18.9		275	12.8	4.6-21.0
18-69	493	9.0	1.9-16.2		565	6.8	3.0-10.5		1058	7.9	2.8-12.9

4.21.3 Haemoglobin

Table 172 shows that 35.2% (95% CI = 25.7-44.6) of women of child-bearing age had anaemia. There was no statistically significant difference between the age groups.

Table 172. Percentage of women of child-bearing age (CBA) with anaemia

Percentage of women (CBA) with anaemia			
Age group (years)	Women		
	n	% Anaemia	95% CI
18-29	148	41.9	31.5-52.2
30-44	155	26.5	16.1-36.8
45-49	61	-	-
18-49	364	35.2	25.7-44.6

Table 173 shows that the mean haemoglobin level of women of child-bearing age was 13.0 g/dl (95% CI = 12.5-13.6). There was no statistically significant difference between the age groups.

Table 173. Mean haemoglobin (g/dl) of CBA women

Mean Haemoglobin (g/dl)			
Age group (years)	Women		
	n	Mean	95% CI
18-29	148	13.0	12.1-13.9
30-44	155	13.2	12.7-13.6
45-49	61	-	-
18-49	364	13.0	12.5-13.6

4.23. 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 174 shows that 35.9% (95% CI = 32.9-38.9) of men had 1-2 risk factors and 64.1% (95% CI = 61.1-67.1) had

3-5 risk factors.

A significantly higher proportion of older men aged 45-69 (79.8%, 95% CI = 71.4-88.2) had 3-5 risk factors compared to younger men aged 18-29 (51.6%, 95% CI = 44.0-59.3). However, twice the proportion of younger men aged 18-29 (48.4%, 95% CI = 40.7-56.0) had 1-2 risk factors compared to older men aged 45-69 (20.2%, 95% CI = 11.8-28.6).

Table 174. Percentage of men with 0, 1-2, or 3-5 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	184	-	-	48.4	40.7-56.0	51.6	44.0-59.3
30-44	176	-	-	32.4	24.5-40.3	67.6	59.7-75.5
45-69	114	-	-	20.2	11.8-28.6	79.8	71.4-88.2
18-69	474	-	-	35.9	32.9-38.9	64.1	61.1-67.1

Table 175 shows that 31.0% (95% CI = 27.1-35.0) of women had 1-2 risk factors and 69.0% (95% CI = 65.0-72.9) had 3-5 risk factors.

A significantly higher proportion of younger women aged 18-29 years (40.4%, 95% CI = 33.4-47.5) had 1-2 risk factors compared to older women aged 45-69 years (17.0%, 95% CI = 11.8-22.2). However, a significantly higher proportion of older women aged 45-69 (83.0%, 95% CI = 77.8-88.2) had 3-5 risk factors compared to younger women aged 18-29 years (59.6%, 95% CI = 52.5-66.6).

Table 175. Percentage of women 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	178	-	-	40.4	33.4-47.5	59.6	52.5-66.6
30-44	183	-	-	31.1	25.9-36.4	68.9	63.6-74.1
45-69	147	-	-	17.0	11.8-22.2	83.0	77.8-88.2
18-69	508	-	-	31.0	27.1-35.0	69.0	65.0-72.9

Table 176 shows that overall, 33.4% (95% CI = 31.3-35.5) had 1-2 risk factors and 66.6% (95% CI = 64.5-68.7) had 3-5 risk factors.

A significantly higher proportion of Nauruans aged 18-29 years (44.3%, 95% CI = 38.7-49.9) had 1-2 risk factors compared to those aged 45-69 years (18.4%, 95% CI = 12.9-23.9); and a significantly higher proportion of Nauruans aged 45-69 years (81.6%, 95% CI = 76.1-87.1) had 3-5 risk factors compared to those aged 18-29 years(55.7%, 95% CI = 50.1-61.3).

There was no statistically significant difference between men and women.

Table 176. 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	362	-	-	44.3	38.7-49.9	55.7	50.1-61.3
30-44	359	-	-	31.8	27.2-36.5	68.2	63.5-72.8
45-69	261	-	-	18.4	12.9-23.9	81.6	76.1-87.1
18-69	982	-	-	33.4	31.3-35.5	66.6	64.5-68.7

Table 177 shows that overall, 24.9% (95% CI = 19.1-30.6) had 10-year CVD risk ≥ 30%.

A significantly higher proportion of Nauruans men aged 55-69 years (31.1%, 95% CI = 19.7-42.5) had 10-year CVD risk ≥ 30% compared to those aged 40-54 years (17.7%, 95% CI = 11.0-24.3).

There was no statistically significant difference between men and women.

Table 177. Percentage with a 10-year CVD risk ≥ 30% or with existing CVD

Percentage of respondents with a 10-year CVD risk ≥ 30% or with existing CVD										
Age group (years)	Men				Women				Both sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
40-54	113	17.7	11.0-24.3		130	28.6	15.8-41.5		243	23.2	15.5-31.0
55-69	45	31.1	19.7-42.5		68	26.5	17.1-35.8		113	28.4	20.9-35.9
40-69	158	21.5	14.7-28.2		198	27.9	18.8-36.9		356	24.9	19.1-30.6

4. DISCUSSION AND CONCLUSIONS

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

Almost all adults in Nauru have several NCD risk factors – 33.4% had 1-2 risk factors and 66.6% had 3-5 risk factors. With 81.6% of those aged 45-69 and 55.7% of those aged 18-29 having 3-5 risk factors, Nauru faces a risk of bearing a substantial disease burden from NCDs.

Behavioural risk factors

Nearly half of the Nauruan population (46.3%) were current smokers with 47.4% of men and 45.3% of women being current smokers. Among men, those aged 18-29 were more likely to be smokers than those aged 45-69. Nearly 60% of current daily smokers were heavy users, smoking 15 or more cigarettes a day. A higher proportion of current daily smokers aged 45-69 than those aged 18-29 and a higher proportion of men than women smoked more than 25 cigarettes a day. Tobacco control measures and cessation support need to be considered to target these population groups. There is also a need to prevent sale of tobacco to minors and to prevent early smoking initiation as the mean initiation age of 16.4 years is lower than some Pacific Island countries. As there are indications of Nauruans using e-cigarettes, political commitment and measures will need to be undertaken to regulate sale and discourage use. Furthermore, with 69.1% of kava drinkers being likely to smoke tobacco during or after drinking kava, there is a need to change social norms around this practice.

More than a quarter of Nauruans (27.7%) were current drinkers, with younger Nauruans aged 18-29 years and 30-44 years being more likely to drink than those aged 45-69. Significantly more men than women were also drinkers. The mean number of drinking occasions was 5.5 in the past 30 days and the mean number of standard drinks per occasion was 13.7. Among current drinkers, 24.1% binge drank at least once in the past 30 days – men more so than women (36.1% compared to 12.8%); and younger Nauruans aged 18-29 (26.3%) and 30-44 years (29.0%) being more likely than those aged 45-69 (13.4%). It was also found that 81.8% of Nauruans have driven a motorized vehicle after having alcoholic drinks, more so among women (90.7%) than men (72.3%); and more so among Nauruans aged 45-69 (91.1%) than those aged 18-29 (77.9%) and 30-44 years (80.0%). This highlights a need to raise awareness of the harmful use of alcohol and to reduce it.

Compared to other Pacific Islands countries, Nauru's consumption of fruits and vegetables is very low – 61.3% did not consume any fruit and/or vegetables; 27.2% consumed 1-2 servings on average per day, 6.7% consumed 3-4 servings, and 4.7% consumed 5 or more servings. The mean number of days fruit was consumed in a typical week was 1.8 days and 2.5 days for vegetables; and the mean number of servings of fruit and/or vegetables consumed on average per day was 1.2. Efforts to promote the availability and consumption of fresh fruits and vegetables need to be scaled up.

Slightly more than half of the population always or often added salt before and when eating, particularly among those aged 18-29; 65.4% did so when cooking or preparing food at home; and 33.5% always or often consumed processed food high in salt. Overall, 13.6% reported that they consumed far too much salt, 21.3% that they consumed too much salt, 51.1% that they consumed just the right amount, 9.3% that they consumed too little and 4.6% that they consumed far too little. The majority understood the importance of lowering salt in the diet and that consuming too much could lead to health problems. Half of the population (53.1%) limited consumption of processed foods to control salt intake; 20.9% looked at salt or sodium content on food labels; and 24.4% bought low salt or sodium alternatives. Nauru 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.

Sugary drinks were consumed on an average 4.1 servings of sugary drinks per day; and on average 5.4 teaspoons of sugar added on to drinks per day. There were no significant differences between men and women and between the three age groups. With high obesity rates, Nauru will need to raise awareness on the risks of

consuming too much sugar and to look at other measures to reduce consumption, such as further taxation changes and controls on sales and use (e.g. in and around schools).

Nauruans are also relatively inactive with 39.8% not meeting the WHO recommendations on physical activity for health, especially women and Nauruans aged 45-69. Nearly half (44.7%) were engaged in low levels of physical activity, 18.4% in moderate levels and 36.9% in high levels. Programmes need to be designed that encourages and enables women and older persons to participate in physical activity in a safe manner.

Historical risk factors

Overall in Nauru, many have had their blood pressure and blood sugar measured though most have never had their cholesterol measured. Approximately one third had never had their blood pressure and blood sugar measured, and 78.7% had never had their cholesterol measured. Half of women aged 18-69 had ever been tested for cervical cancer and 35.3% have done a self-breast examination. Nearly half have been advised to reduce fat in the diet, to eat more fruit and vegetables and to do more physical activity, and 28.8% had been advised to quit using tobacco. Screening of high-risk individuals can be further improved, and a strong health system and community support would be needed to enhance early diagnosis.

Mental health

Mental health is also an important factor that affects behavioural risks and self-care. As only slightly more than half (58.5%) 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 of how people perceive and feel about themselves and affect their physical, mental, emotional and social well-being. As such, oral care practices are important. Overall, most have been to a dentist – 69.8% had been with no treatment required and 24.6% had been and needed an extraction or tooth filled. Although majority had not required any treatment when they visited the dentist, 58.5% of Nauruans had described their teeth as being in a painful state, 7.2% as being decayed and 11.8% as having loose or mobile teeth. It would be good to encourage regular visits, ensure there are sufficient dental facilities to provide this service, and control sales of food and drinks high in sugar content to prevent tooth decay and tooth loss.

Physical risk factors

The mean BMI of Nauruans was 34.4 kg/m2 with 90% of the population classified as overweight or obese, with a higher proportion of Nauruans aged 30-44 years and 45-69 being classified as obese. Compared to the first survey, there appears to be an increase in the prevalence of obesity. Therefore, consideration will have to be made on appropriate strategies to reduce overweight and obesity.

In Nauru, 25.3% had raised blood pressure of SBP ≥ 140 and/or DBP ≥ 90 mmHg or were currently on medication; and 9.8% had raised blood pressure of SBP ≥ 160 and/or DBP ≥ 100 mmHg or were currently on medication. Among those with raised blood pressure or were currently on medication, 90.6% were not on medication and had raised blood pressure, 3.6% were on medication and had raised blood pressure, and 5.8% were on medication and had normal blood pressure. Expansion of the WHO Package of Essential NCD Interventions (WHO PEN) protocol could help improve early diagnosis and adherence to treatment regimen.

Biochemical risk factors

The mean fasting blood glucose (plasma equivalent) was 6.5mmol/L or 116.6 mg/dl, and older Nauruans aged 45-69 year olds had a significantly higher mean than those aged 18-29 and 30-44 year olds. The proportion of Nauruans 17.1% were categorized as having impaired fasting glycemia; 21.9% had raised blood glucose (plasma equivalent) or were currently on medication for diabetes and 6.1% were currently on medication for diabetes.

Overall, 19.6% of Nauruans had total cholesterol of ≥ 5.0 mmol/l or ≥ 190 mg/dl or were currently on medication for raised cholesterol and 7.9% had total cholesterol ≥ 6.2 mmol/l or ≥ 240 mg/dl or were currently on medication for raised cholesterol. Nauru should make healthier choices and fresh local produce more affordable and accessible; promote consumption of healthier foods and water; promote healthy lifestyles through the healthy settings approach; and strengthen primary health care and NCD prevention and management through expansion of the WHO PEN protocols.

Separately, anaemia appears to be an issue among women of childbearing age where prevalence was 35.2%. Which is indicative of poor diets overall. Efforts to ensure iron supplementation during pregnancy will be critical along with wider efforts to improve dietary quality.

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 Nauru 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.

5. RECOMMENDATIONS

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

Strengthen governance and leadership

1) Evaluate progress in implementation of the Noncommunicable Disease Strategic Action Plan 2015-2020 with all relevant stakeholders (e.g. ministries, civil society, communities).
2) Develop new multisectoral strategic health plan. 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) Secure adequate and increase 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 survey at 5- to 7-year intervals, preferably in 2020 and 2025.
2) Monitor trends and determinants of NCDs, and use data for action.
3) Utilize and strengthen 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 to make tobacco products less affordable.
   - Strengthen enforcement of smoke-free law, particularly workplaces, to create smoke-free indoor environments and reduce exposure to ETS.
   - Strengthen enforcement of tobacco control regulations to stop sale to minors.
   - Amend tobacco control act and regulations to prohibit sale of single sticks and point-of-sale advertising.
   - Amend tobacco control regulations to include graphic health warnings.
   - Provide comprehensive cessation services.
   - Target women and youth in mass education programmes and campaigns.
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.
   - Strengthen enforcement of law against driving under the influence of alcohol.
   - Regulate availability of alcohol by enforcing bylaw that requires license to sell, limit number of licenses given and control who is issued the license to sell.
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 salt or 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.

5) Create health-enabling environments and settings (e.g. villages, workplaces, schools, markets).
   - Encourage establishment of local markets and sale of local fresh produce.
   - Enhance marketing of healthier 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 to address NCD risk factors that are beyond the authority of the Ministry of Health, such as food importation, trade, tax, commercial investment and agriculture.
2) Collaborate with media organizations, faith-based organizations and nongovernmental organizations to implement programmes and support advocacy and education.

Strengthen health systems

1) Promote universal health coverage as a means of preventing and controlling NCDs.
2) Enhance access to essential NCD interventions through expansion of the WHO Package of Essential Noncommunicable Disease Interventions:
   - establish clinical practice guidelines;
   - scale up early detection;
   - provide counselling and patient education (e.g. brief advice);
   - provide cancer screening;
   - provide access to drug therapy to control diabetes, hypertension and myocardial infarction;
   - ensure availability of basic equipment and tools;
   - strengthen referral systems.

3) Assess gaps in manpower and facilities and develop a plan or alternative strategies 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 mobile clinics to visit communities and bring services closer to them.

ANNEX

Annex 1 Nauru STEPS Survey Questionnaire

Annex 2 The Supplementary Tables - Nauru STEPS Data Book

6. REFERENCES

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[xx] Nauru Noncommunicable Disease Strategic Action Plan 2015-2020.

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WHO STEPS Q-by-Q Guide
for Noncommunicable Disease Risk Factor Surveillance

Nauru 2015

Survey Information

Location and Date	Response	Code
Cluster/Centre/Village ID Enter Cluster, Centre or Village ID from list provided.	⌊_⌊_⌊_⌊_⌊_⌊_⌋	
Cluster/Centre/Village name Enter Cluster, Centre or Village name as appropriate.		
Interviewer ID Enter interviewer's identification.	⌊_⌊_⌊_⌋	
Date of completion of the instrument Enter date when instrument actually completed.	⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌊_⌊_⌋ dd mm year	

Consent, Interview Language and Name	Response		Code
Consent has been read and obtained Select relevant response.	Yes	1	I5
	No	2 If NO, END	
Interview Language [Insert Language] Select relevant response.	English	1	I6
	Nauruan	2	
	Both (English & Nauruan	3	
Time of interview (24 hour clock) Enter time interview started.	⌊_⌊_⌋ : ⌊_⌊_⌋ hrs mins		I7
Family Surname Enter family surname (reassure the participant on the confidential nature of			I8
First Name Enter first name of respondent (reassure the participant on the confidential nature of this information and that this is only needed for follow up).			I9
Other Name Enter any other name that you are known of – If none please enter "None"			I9b
Additional Information that may be helpful			

Contact phone number where possible Enter phone number (reassure the participant on the confidential nature of this information and that this is only needed for follow up).		I10

Step 1 Demographic Information

CORE: Demographic Information

Question	Response		Code
Sex (Record Male / Female as observed) Select Male / Female as observed.	Male	1	C1
	Female	2	
What is your date of birth? Don't Know 77 77 7777 Enter date of birth of participant. If unknown, select "don't know".	⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌊_⌊_⌋ If known, Go to C4 dd mm year		C2
How old are you? If the age is unknown, help participant estimate their age by interviewing them about their recollection of widely known major events.	Years	⌊_⌊_⌋	C3
In total, how many years have you spent at school and in full-time study (excluding pre-school)? Enter total number of years of education (excluding pre-school and kindergarten).	Years	⌊_⌊_⌋	C4

EXPANDED: Demographic Information

What is the highest level of education you have completed? [INSERT COUNTRY-SPECIFIC CATEGORIES] If a person attended a few months of the first year of secondary school but did not complete the year, select "primary school completed". If a person only attended a few years of primary school, select "less than primary school". Select appropriate response.	No formal schooling	1	C5
	Less than primary school	2	
	Primary school completed	3	
	Secondary school completed	4	
	College/University completed	6	
	Post graduate degree	7	
	Refused	88	
What is your relevant ethnic group / racial group / cultural subgroup / others] background? Select the relevant ethnic/cultural group to which the participant belongs.	Nauruans	1	C6
	Others	2	
	Refused	88	

What is your marital status? Select the appropriate response.	Never married	1	C7
	Currently married	2	
	Separated	3	
	Divorced	4	
	Widowed	5	
	Cohabitating/De-facto	6	
	Refused	88	
Which of the following best describes your main work status over the past 12 months? [INSERT COUNTRY-SPECIFIC CATEGORIES] (USE SHOWCARD) The purpose of this question is to help answer other questions such as whether people in different kinds of occupations may be confronted with different risk factors. Select appropriate response.	Government employee	1	C8
	Non-government employee	2	
	Self-employed	3	
	Non-paid/volunteer	4	
	Student	5	
	Homemaker	6	
	Retired	7	
	Unemployed (able to work)	8	
	Unemployed (unable to	9	
	Refused	88	
How many people older than 18 years, including yourself, live in your household? Enter the total number of people living in the household who are 18 years or older.	Number of people	⌊_⌋⌊_⌋	C9

EXPANDED: Demographic Information, Continued

Question	Response			Code
Taking the past year, can you tell me what the average earnings of the household have been? (RECORD ONLY ONE, NOT ALL 3) Enter the average earnings of the household by week, month, or year. If refused to answer, skip to C11.	Per week	⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋	Go to T1	C10a
	OR per month	⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋	Go to T1	C10b
	OR per year	⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋	Go to T1	C10c
	Refused	88		C10d
If you don't know the amount, can you give an estimate of the annual household income if I read some options to you? Is it [INSERT QUINTILE VALUES IN LOCAL CURRENCY] (READ OPTIONS) Select the appropriate quintile value for the annual household income.	□ Quintile 10,000	1		C11
	More than 10,001, □ Q 20,000	2		
	More than Q 20,001, □ Q 30,000	3		
	More than Q 30,001□ Q 50,000	4		
	More than Q 50,001	5		
	Don't Know	77		
	Refused	88		

Step 1 Behavioural Measurements

CORE: Tobacco Use

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

Question	Response		Code
Do you currently smoke any tobacco products, such as cigarettes, cigars or pipes? (USE SHOWCARD) Ask the participant to think of any tobacco products he/she is smoking currently.	Yes	1	T1
	No	2 If No, go to T8	
Do you currently smoke tobacco products daily? This question is only for current smokers of tobacco products.	Yes	1	T2
	No	2	
How old were you when you first started smoking? For current smokers only. Ask the participant to think of the time when he/she started to smoke any tobacco products.	Age (years)		T3
	Don't know 77	⌊_⌋⌊_⌋ If Known, go to T5a/T5aw	
Do you remember how long ago it was? (RECORD ONLY 1, NOT ALL 3) Don't know 77 If the participant doesn't remember his/her age when started smoking, then record the time in years, months or weeks as appropriate.	In Years	⌊_⌋⌊_⌋ If Known, go to T5a/T5aw	T4a
	OR in Months	⌊_⌋⌊_⌋ If Known, go to T5a/T5aw	T4b
	OR in Weeks	⌊_⌋⌊_⌋	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 For current smokers only. Specify zero if no products were used in each category instead of leaving categories blank. Record daily consumption for daily smokers. If products are smoked less than daily by daily smokers, enter weekly consumption. Also enter weekly consumption for current, non-daily smokers.		DAILY↓ WEEKLY↓	
	Manufactured cigarettes	⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T5a/T5aw
	Hand-rolled cigarettes	⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T5b/T5bw
	Pipes full of tobacco	⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T5c/T5cw
	Cigars, cheroots, cigarillos	⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T5d/T5dw
	Number of Shisha sessions	⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T5e/T5ew
	Other	⌊_⌋⌊_⌋⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ If Other, go to T5other, else go to T6	T5f/T5fw
	Other (please specify):	⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋⌊_⌋	T5other/ T5otherw

During the last six months have you purchased a roll/ single stick cigarette?		Yes No Don't know	X1
During the past 12 months, have you tried to stop smoking? For current smokers only. Ask the participant to think of any quit attempt during the past 12 months.	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? For current smokers only. Ask the participant to think of visits to a doctor or other health worker during the past 12 months. If no visit, select "no visit during the past 12 months".	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) Ask the participant to think of the time when he/she may have been smoking tobacco products.	Yes	1	T8
	No	2 If No, go to T12	
In the past, did you ever smoke daily? Ask the participant to think of the time when he/she may have been smoking tobacco products on a daily basis.	Yes	1 If T1=Yes, go to T12, else go to T10	T9
	No	2 If T1=Yes, go to T12, else go to T10	

EXPANDED: Tobacco Use			
Question	Response		Code
How old were you when you stopped smoking? Ask the participant to think of the time when he/she stopped smoking tobacco products.	Age (years)		T10
	Don't Know 77	⌊_⌋⌊_⌋ If Known, go to T12	
How long ago did you stop smoking? (RECORD ONLY 1, NOT ALL 3) Don't Know 77 If the participant doesn't remember his/her age when they stopped smoking, then record the time in weeks, months or years as appropriate.	Years ago	⌊_⌋⌊_⌋ If Known, go to T12	T11a
	OR Months ago	⌊_⌋⌊_⌋ If Known, go to T12	T11b
	OR Weeks ago	⌊_⌋⌊_⌋	T11c
Did you stop smoking for health reasons	Yes 1 No 2		X2

Do you currently use any smokeless tobacco products such as [snuff, chewing tobacco, betel]? *(USE SHOWCARD)*		Yes 1 No 2 If No, go to T15	T12
Do you currently use smokeless tobacco products daily?		DAILY WEEKLY	
On average, how many times a day/week do you use …. (IF LESS THAN DAILY, RECORD WEEKLY) (RECORD FOR EACH TYPE, USE SHOWCARD) Don't Know 7777	Snuff, by mouth	⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋	T14a/T14aw
	Snuff, by nose	⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋	T14b/T14bw
	Chewing tobacco	⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋	T14c/T14cw
	Betel, quid	⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋	T14d/T14dw
	Other	⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋ If Other, go to T14other, if T13=No, go to T16, else go to T17	T14e/T14ew
	Other (please specify):	⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋ IF T13=No, go to T16, else go to T17	T14other/14othew
In the **past**, did you **ever use** smokeless tobacco products such as [snuff, chewing tobacco, or betel]?	Yes No	1 2 If No, go to T17	T15
In the **past**, did you **ever use** smokeless tobacco products such as [snuff, chewing tobacco, or betel] **daily**?	Yes No	1 2	T16
During the past 30 days, did someone smoke in your home? Record the number of days. The participant should only think about other people, not about him-/herself. Smokers should exclude themselves. The question is asking about inside the participant's home. This only includes fully enclosed areas of the home.	Yes No	1 2	T17

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)? Record the number of days. For those not working in a closed area, record "don't work in a closed area". Ask the participant to think of seeing somebody smoke or smelling the smoke in indoor areas at work during the past 30 days.	Yes	1	T18
	No	2	
	Don't work in a closed area	3	
Do you currently use e-cigarettes	Yes No	1 2 If No, go to A1	X3
If yes, how often do you use e-cigarette	Once a day More than once a day Every week but not daily Occasionally	1 2 3 4	X4

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) Ask the participant to think of any drinks that contain alcohol, with the exception of alcohol-based medication that is taken due to health reasons.	Yes	1	A1
	No	2 If No, go to A16	
Have you consumed any alcohol within the past 12 months? Ask the participant to think of any drinks that contain alcohol, with the exception of alcohol-based medication that is taken due to health reasons.	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? This question is for those participants that did not drink during the past 12 months, but that have drunk in their lifetime.	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) For those that have consumed alcohol in the past 12 months. A "standard drink" is the amount of ethanol contained in standard glasses of beer, wine, fortified wine such as sherry, and spirits. Depending on the country, these amounts will vary between 8 and 13 grams of ethanol. See 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? Select the appropriate response.	Yes No	1 2 If No, go to A13	A5
During the past 30 days, on how many occasions did you have at least one standard alcoholic drink? Ask the participant to think of the past 30 days only. Record the number of occasions. Note that there can be more than one occasion in which alcohol is consumed in a given day.	Number Don't know 77	⌊_⌋⌊_⌋	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) Help the participant to average out the total number of drinks by using the showcard that shows standard alcoholic drinks.	Number Don't know 77	⌊_⌋⌊_⌋	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? Ask the participant to think of the past 30 days only. This question is about the largest number of drinks that the participant had on one single occasion.	Largest number Don't Know 77	⌊_⌋⌊_⌋	A8
During the past 30 days, how many times did you have six or more standard drinks in a single drinking occasion? Ask the participant to think of the past 30 days only, and to report the number of occasions when he/she had six or more standard drinks.	Number of times Don't Know 77	⌊_⌋⌊_⌋	A9
During each of the past 7 days, how many standard drinks did you have each day? (USE SHOWCARD) Don't Know 77 Ask the participant to think of each of the past 7 days. Use the showcard that shows standard alcoholic drinks to help the participant report the number of standard drinks for each of the past 7 days. Record for each day the number of standard drinks. If no drinks record 0.	Monday	⌊_⌋⌊_⌋	A10a
	Tuesday	⌊_⌋⌊_⌋	A10b
	Wednesday	⌊_⌋⌊_⌋	A10c
	Thursday	⌊_⌋⌊_⌋	A10d
	Friday	⌊_⌋⌊_⌋	A10e
	Saturday	⌊_⌋⌊_⌋	A10f
	Sunday	⌊_⌋⌊_⌋	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.

During the past 7 days, did you consume any homebrewed alcohol, any alcohol brought over the border/from another country, any alcohol not intended for drinking or other untaxed alcohol? [AMEND ACCORDING TO LOCAL CONTEXT] (USE SHOWCARD) Ask the participant to only think of homebrewed alcohol, any alcohol brought over the border/from another country, any alcohol not intended for drinking or other untaxed alcohol.	Yes	1	A11
	No	2 If No, go to A13	
On average, how many standard drinks of the following did you consume during the past 7 days? [INSERT COUNTRY-SPECIFIC EXAMPLES] (USE SHOWCARD) Don't Know 77 Ask the participant to think of the past 7 days. Use the showcard that specifies what standard drinks are for each type of alcohol. Alcohol not intended for drinking should be treated like spirits. Record for each type of alcohol the number of standard drinks. If no drinks record 0.	Homebrewed spirits, e.g. moonshine	⌊_⌋⌊_⌋	A12a
	Homebrewed beer or wine, e.g. beer, palm or fruit wine	⌊_⌋⌊_⌋	A12b
	Alcohol brought over the border/from another country	⌊_⌋⌊_⌋	A12c
	Alcohol not intended for drinking, e.g. alcohol-based medicines, perfumes, after shaves	⌊_⌋⌊_⌋	A12d
	Other untaxed alcohol in the country	⌊_⌋⌊_⌋	A12e

EXPANDED: Alcohol Consumption

During the past 12 months, how often have you found that you were not able to stop drinking once you had started? Ask the participant to think of the past 12 months. Read out all the answer options.	Daily or almost daily	1	A13
	Weekly	2	
	Monthly	3	
	Less than monthly	4	
	Never	5	
During the past 12 months, how often have you failed to do what was normally expected from you because of drinking? Ask the participant to think of the past 12 months. Read out all the answer options.	Daily or almost daily	1	A14
	Weekly	2	
	Monthly	3	
	Less than monthly	4	
	Never	5	

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? Ask the participant to think of the past 12 months. Read out all the answer options.	Daily or almost daily	1	A15
	Weekly	2	
	Monthly	3	
	Less than monthly	4	
	Never	5	
During the past 12 months, have you had family problems or problems with your partner due to someone else's drinking? Ask the participant to think of the past 12 months. Read out all the answer options. The participant should not think of his/her own drinking, but of someone else's drinking.	Yes, more than monthly	1	A16
	Yes, monthly	2	
	Yes, several times but less than monthly	3	
	Yes, once or twice	4	
	No	5	

Kava use

Now I am going to ask you some questions about kava or yagona

Question	Response		Code
Have you ever tried or drunk kava or yagona in the past 12 months?	Yes	1	X5
	No	2 If No, skip the rest of this section D1	
During the past 30 days on how many days did you drink kava or yagona	Number of days		X6
How long do you usually spend drinking kava in a session?	Number of hours		X7
Do you usually drink alcohol during or after drinking kava or yagona?	Yes	1	X8
	No	2	
Do you usually smoke during or after drinking kava or yagona?	Yes	1	X9
	No	2	
Do you usually eat during or after drinking kava or yagona	Yes	1	X10
	No	2 if No skip next questions to D1	
If yes, what type of food and drink?	Soft drinks	1	X11
	Sweets	2	
	Salted snacks	3	
	Other	4	

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
In a typical week, on how many days do you eat fruit? (USE SHOWCARD) Ask the participant to think of any fruit on the showcard. A typical week means a "normal" week when the diet is not affected by cultural, religious, or other events. Ask the participant to not report an average over a period.	Number of days Don't Know 77	⌊_⌊_⌋ If Zero days, go to D3	D1
How many servings of fruit do you eat on one of those days? (USE SHOWCARD) Ask the participant to think of one day he/she can recall easily. Refer to the showcard for serving sizes.	Number of servings Don't Know 77	⌊_⌊_⌋	D2
In a typical week, on how many days do you eat vegetables? (USE SHOWCARD) Ask the participant to think of any fruit on the showcard. A typical week means a "normal" week when the diet is not affected by cultural, religious, or other events. Ask the participant to not report an average over a period.	Number of days Don't Know 77	⌊_⌊_⌋ If Zero days, go to D5	D3
How many servings of vegetables do you eat on one of those days? (USE SHOWCARD) Ask the participant to think of one day he/she can recall easily. Refer to the showcard for serving sizes.	Number of servings Don't know 77	⌊_⌊_⌋	D4

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.

Read this opening statement out loud. Don't forget to use the showcard which will help the respondent when answering to the questions.

How often do you add salt, oxo 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) Read out all the answer options. Use the showcard that shows salt and salty sauces.	Always	1	D5
	Often	2	
	Sometimes	3	
	Rarely	4	
	Never	5	
	Don't know	77	

How often is salt, oxo, salty seasoning or a salty sauce added in cooking or preparing foods in your household? Read out all the answer options. Select the appropriate response.	Always	1	D6
	Often	2	
	Sometimes	3	
	Rarely	4	
	Never	5	
	Don't know	77	
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]. [INSERT EXAMPLES] (USE SHOWCARD) Read out all the answer options. Use the showcard that shows processed food high in salt.	Always	1	D7
	Often	2	
	Sometimes	3	
	Rarely	4	
	Never	5	
	Don't know	77	
How much salt or salty sauce do you think you consume? Read out all the answer options and select the appropriate response.	Far too much	1	D8
	Too much	2	
	Just the right amount	3	
	Too little	4	
	Far too little	5	
	Don't know	77	

EXPANDED: Diet

Question	Response		Code
How important to you is lowering the salt in your diet? Select the appropriate response.	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? Select the appropriate response.	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) Select the appropriate response for each option. Ask the participant to only consider actions that he/she undertakes specifically to control salt intake, and not for any other purpose.			
Limit consumption of processed foods	Yes	1	D11a
	No	2	
Look at the salt or sodium content on food labels	Yes	1	D11b
	No	2	
Buy low salt/sodium alternatives	Yes	1	D11c
	No	2	
Use spices other than salt when cooking	Yes	1	D11d
	No	2	
Avoid eating foods prepared outside of a home	Yes	1	D11e
	No	2	
Do other things specifically to control your salt intake	Yes	1 If Yes, go to D11other	D11f
	No	2	
Other (please specify)	_____		D11other

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 or suet	2	
	Butter or ghee	3	
	Margarine	4	
	Other	5 If Other, go to D12other	
	None in particular	6	
	None used	7	
	Don't know	77	
Select the appropriate response.	Other	⌊_⌊_⌊_⌊_⌊_⌊_⌊_⌊_⌊_⌊	D12other
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. Record the number of meals. Ask the participant to think of meals that were not prepared at a home, including his/her own home, the home of other family members or friends.	Number Don't know 77	⌊_⌊_⌊	D13

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 such as ice coffee, ice tea (use showcard)	Number of days Don't Know 77	⌊_⌊_⌊ If Zero days, go to X14	X12
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	⌊_⌊_⌊	X13
In a typical day, 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 a day)	Number of times Don't Know 77	⌊_⌊_⌊ If Zero days, go to V3	X14
How many teaspoons of sugar did you add, on average, to each of these drinks	Number of teaspoons Don't know 77	⌊_⌊_⌊	X15

CORE: Injury

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

Question	Response	Code
In the past 12 months, have you been involved in a road traffic crash as a driver, passenger, pedestrian, or cyclist?	Yes (as driver) 1 Yes (as passenger) 2 Yes (as pedestrian) 3 Yes (as a cyclist) 4 No 5 If No, go to X16 Don't know 77 If don't know, go to X16 Refused 88 If Refused, go to X16	V3
Did you have any injuries in this road traffic crash which required medical attention?	Yes 1 No 2 Don't know 77 Refused 88	V4

In the past 30 days have you driven a vehicle after you have consumed alcohol	Yes 1 No 2 Don't know 77 Refused 88	X16

CORE: Reproductive Health

Next question is related to reproductive health

Do you know where you could get condoms from?	Yes 1 No 2 Don't know 77 Refused 88	X17

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.

Read this opening statement out loud. It should not be omitted. The respondent will have to think first about the time he/she spends doing work (paid or unpaid work, household chores, harvesting food, fishing or hunting for food, seeking employment [Insert other examples if needed]), then about the time he/she travels from place to place, and finally about the time spent in vigorous as well as moderate physical activity during leisure time.

Remind the respondent when he/she answers the following questions that '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. Don't forget to use the showcard which will help the respondent when answering to the questions.

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) Ask the participant to think about vigorous-intensity activities at work only. Activities are regarded as vigorous intensity if they cause large increases in breathing and/or heart rate.	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? "Typical week" means a week when the participant is engaged in his/her usual activities. Valid responses range from 1-7.	Number of days	⌊__⌋	P2
How much time do you spend doing vigorous-intensity activities at work on a typical day? Ask the participant to think of a typical day he/she can recall easily in which he/she engaged in vigorous-intensity activities at work. The participant should only consider those activities undertaken continuously for 10 minutes or more. Probe very high responses (over 4 hrs) to verify.	Hours : minutes	⌊__⌋ : ⌊__⌋ 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) Ask the participant to think about moderate-intensity activities at work only. Activities are regarded as moderate intensity if they cause small increases in breathing and/or heart rate.	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? "Typical week" means a week when the participant is engaged in his/her usual activities. Valid responses range from 1-7.	Number of days	⌊__⌋	P5
How much time do you spend doing moderate-intensity activities at work on a typical day? Ask the participant to think of a typical day he/she can recall easily in which he/she engaged in moderate-intensity activities at work. The participant should only consider those activities undertaken continuously for 10 minutes or more. Probe very high responses (over 4 hrs) to verify.	Hours : minutes	⌊__⌋⌊__⌋ : ⌊__⌋⌊__⌋ 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] The introductory statement to the following questions on transport-related physical activity is very important. It asks and helps the participant to now think about how they travel around getting from place-to-place. This statement should not be omitted.			
Do you walk or use a bicycle (pedal cycle) for at least 10 minutes continuously to get to and from places? Select the appropriate response.	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? "Typical week" means a week when the participant is engaged in his/her usual activities. Valid responses range from 1-7.	Number of days	⌊__⌋	P8

CORE: Physical Activity, Continued			
Question	Response		Code
How much time do you spend walking or bicycling for travel on a typical day? Ask the participant to think of a typical day he/she can recall easily in which he/she engaged in transport-related activities. The participant should only consider those activities undertaken continuously for 10 minutes or more. Probe very high responses (over 4 hrs) to verify.	Hours : minutes	⌊_⌊_⌋ : ⌊_⌊_⌋ hrs mins	P9 (a-b)
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]. This introductory statement directs the participant to think about recreational activities. This can also be called discretionary or leisure time. It includes sports and exercise but is not limited to participation in competitions. Activities reported should be done regularly and not just occasionally. It is important to focus on only recreational activities and not to include any activities already mentioned. This statement should not be omitted.			
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? [INSERT EXAMPLES] (USE SHOWCARD) Ask the participant to think about recreational vigorous-intensity activities only. Activities are regarded as vigorous intensity if they cause large increases in breathing and/or heart rate.	Yes	1	P10
	No	2 If No, go to P 13	
In a typical week, on how many days do you do vigorous-intensity sports, fitness or recreational (leisure) activities? "Typical week" means a week when the participant is engaged in his/her usual activities. Valid responses range from 1-7.	Number of days	⌊_⌋	P11
How much time do you spend doing vigorous-intensity sports, fitness or recreational activities on a typical day? Ask the participant to think of a typical day he/she can recall easily in which he/she engaged in recreational vigorous-intensity activities. The participant should only consider those activities undertaken continuously for 10 minutes or more. Probe very high responses (over 4 hrs) to verify.	Hours : minutes	⌊_⌊_⌋ : ⌊_⌊_⌋ 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? [INSERT EXAMPLES] (USE SHOWCARD) Ask the participant to think about recreational moderate-intensity activities only. Activities are regarded as moderate intensity if they cause small increases in breathing and/or heart rate.	Yes	1	P13
	No	2 If No, go to P16	

In a typical week, on how many days do you do moderate-intensity sports, fitness or recreational (leisure) activities? "Typical week" means a week when the participant is engaged in his/her usual activities. Valid responses range from 1-7.	Number of days	⌊__⌋	P14
How much time do you spend doing moderate-intensity sports, fitness or recreational (leisure) activities on a typical day? Ask the participant to think of a typical day he/she can recall easily in which he/she engaged in recreational moderate-intensity activities. The participant should only consider those activities undertaken continuously for 10 minutes or more. Probe very high responses (over 4 hrs) to verify.	Hours : minutes	⌊__⌋⌊__⌋ : ⌊__⌋⌊__⌋ hrs mins	P15 (a-b)
What are the main barriers to you being more physically active?	I am not interested I do not have time Lack of sidewalks Dogs Other safety issues including accidents Other	1 2 3 4 5 6	X18

EXPANDED: Physical Activity

Sedentary behaviour

The following question is about sitting or reclining at work, at home, getting to and from places, or with friends including time spent sitting at a desk, sitting with friends, traveling in car, bus, train, reading, playing cards or watching television, but do not include time spent sleeping.

[INSERT EXAMPLES] (USE SHOWCARD)

How much time do you usually spend sitting or reclining on a typical day? Ask the participant to consider total time spent sitting at work, in an office, reading, watching television, using a computer, doing hand craft like knitting, resting etc. The participant should not include time spent sleeping.	Hours : minutes	⌊__⌋⌊__⌋ : ⌊__⌋⌊__⌋ hrs mins	P16 (a-b)

CORE: History of Raised Blood Pressure

Question	Response		Code
Have you ever had your blood pressure measured by a doctor or other health worker? Ask the participant to only consider measurements done 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? Select the appropriate response.	Yes	1	H2a
	No	2 If No, go to H6	

Have you been told in the past 12 months? Only for those that have previously been diagnosed with raised blood pressure.	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? Ask the participant to only consider drugs 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? Select the appropriate response.	Yes	1	H4
	No	2	
Are you currently taking any herbal or traditional remedy for your raised blood pressure? Select the appropriate response.	Yes	1	H5
	No	2	

CORE: History of Diabetes

Question	Response		Code
Have you ever had your blood sugar measured by a doctor or other health worker? Ask the participant to only consider measurements done 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? Select the appropriate response.	Yes	1	H7a
	No	2 If No, go to H12	
Since your diagnosis, have you attended all scheduled clinic appointments	Yes	1	X19
	No	2	
	Have not scheduled any appointments	3	
Have you been told in the past 12 months? Only for those that have previously been diagnosed with diabetes.	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? Ask the participant to only consider drugs 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? Ask the participant to only consider insulin that was 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? Select the appropriate response.	Yes	1	H10
	No	2	
Are you currently taking any herbal, natural or traditional remedy for your diabetes? Select the appropriate response.	Yes	1	H11
	No	2	

CORE: History of Raised Total Cholesterol

Questions	Response		Code
Have you ever had your cholesterol (fat levels in your blood) measured by a doctor or other health worker? Ask the participant to only consider measurements done 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? Select the appropriate response.	Yes	1	H13a
	No	2 If No, go to H17	
Since your diagnosis, have you attended all scheduled clinic appointments	Yes	1	X20
	No	2	
	Have not scheduled any appointments	3	
Have you been told in the past 12 months? Only for those that have previously been diagnosed with raised total cholesterol.	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? Ask the participant to only consider drugs 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? Select the appropriate response.	Yes	1	H15
	No	2	
Are you currently taking any herbal, natural or traditional remedy for your raised cholesterol? Select the appropriate response.	Yes	1	H16
	No	2	

CORE: History of Cardiovascular Diseases

Question	Response		Code
Have you ever had a heart attack or chest pain from heart disease (angina) or a stroke (cerebrovascular accident or incident) or been diagnosed with angina? Select the appropriate response.	Yes	1	H17
	No	2 If No, go to H18	

Since your diagnosis, have you attended all scheduled clinic appointments	Yes No Have not scheduled any appointments	1 2 3	X21
Are you currently taking aspirin regularly to prevent or treat heart disease? "Regularly" means on a daily or almost daily basis.	Yes No	1 2	H18
Are you currently taking statins (Lovastatin/Simvastatin/ Atorvastatin or any other statin) regularly to prevent or treat heart disease? "Regularly" means on a daily or almost daily basis.	Yes No	1 2	H19

CORE: Lifestyle Advice

Questions	Response		Code
During the past three years, has a doctor or other health worker advised you to do any of the following? (RECORD FOR EACH) Select the appropriate response. Ask the participant to only consider advice from a doctor or other health worker.			
Quit using tobacco or don't start	Yes No	1 2	H20a
Reduce salt in your diet	Yes No	1 2	H20b
Eat at least five servings of fruit and/or vegetables each day	Yes No	1 2	H20c
Reduce fat in your diet	Yes No	1 2	H20d
Start or do more physical activity	Yes No	1 2	H20e
Maintain a healthy body weight or lose weight	Yes No	1 If C1=1 go to X25 2 If C1=1 go to X25	H20f

CORE (for women only): Cervical Cancer Screening

The next question asks about cervical cancer prevention. Screening tests for cervical cancer prevention can be done through pap smear. 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..

Read this opening statement out loud. It should not be omitted.

Question	Response		Code
Have you ever had a screening test for cervical cancer – Pap Smear, using any of these methods described above? Select the appropriate response.	Yes	1	CX1
	No	2 If No, then go to X23	
	Don't know	77	

If yes, when was the last time you had this done	Within last year Within last two years Longer than two years Can't remember	1 2 3 4	X22
Do you know how to do self-breast examination to check for lumps or other abnormalities	Yes No Unsure	1 2 If No, go to X25 3 If Unsure, go to X25	X23
Do you do self-breast examination every month?	Yes No Sometimes Unsure	1 2 3 4	X24
Oral Health			
Have you in the last six months been to a dentist for any check-up or treatment	Yes, check-up, no treatment need, Yes, extraction or filling of tooth No, not been in last six months	1 2 3	X25
How would you describe the state of your teeth	Good Painful Decayed Loose/mobile teeth Not sure/other	1 2 3 4	X26
How would you describe the state of your gums	Good Bleeding and/or painful Swollen Not sure/other	1 2 3 4	X27

MENTAL HEALTH

Please read out all the answer options for each question.
Note the response that is selected:
1. None of the time /2. A little of the time /3. Some of the time /4. Most of the time /5. All of the time

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	X28
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	X29
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	X30
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	X31
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	X32
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	X33

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	X34
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	X35
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	X36
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	X37

Step 2 Physical Measurements

CORE: Blood Pressure

Interviewer ID Record interviewer ID (in most cases interviewer would be the same as for behavioural measurements).		⌊_⌊_⌊_⌋	M1
Device ID for blood pressure Record device ID.		⌊_⌊_⌋	M2
Cuff size used Select cuff size used.	Universal	1	M3
	Extra large	2	
	Refused to be measured	3	
Reading 1 Record first measurement after the participant has rested for 15 minutes. Wait 3 minutes before taking second measurement.	Systolic (mmHg)	⌊_⌊_⌊_⌋	M4a
	Diastolic (mmHg)	⌊_⌊_⌊_⌋	M4b

Reading 2 Record second measurement. Ask the participant to rest for another 3 minutes before taking the third measurement.	Systolic (mmHg)	⌊_⌊_⌊_⌋	M5a
	Diastolic (mmHg)	⌊_⌊_⌊_⌋	M5b
Reading 3 Record third measurement.	Systolic (mmHg)	⌊_⌊_⌊_⌋	M6a
	Diastolic (mmHg)	⌊_⌊_⌊_⌋	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? Select appropriate response.	Yes	1	M7
	No	2 If C1=2 (male), go M9	

CORE: Height and Weight

Question	Response		Code
For women: Are you pregnant? Pregnant women skip over height, weight, waist and hip measurements.	Yes	1 If Yes, go to M16	M8
	No	2	
Interviewer ID Record interviewer ID (in most cases interviewer would be the same as for behavioural and blood pressure measurements).		⌊_⌊_⌊_⌋	M9
Device IDs for height and weight Record device IDs.	Height	⌊_⌊_⌋	M10a
	Weight	⌊_⌊_⌋	M10b
Height Record participant's height in cm with one decimal point.	in Centimetres (cm)	⌊_⌊_⌊_⌋.⌊_⌋	M11
Weight If too large for scale 666.6 Record participant's weight in kg with one decimal point.	in Kilograms (kg)	⌊_⌊_⌊_⌋.⌊_⌋	M12

CORE: Waist

Device ID for waist Record device ID.		⌊_⌊_⌋	M13
Waist circumference Record participant's waist circumference in centimetres with one decimal point.	in Centimetres (cm)	⌊_⌊_⌊_⌋.⌊_⌋	M14

EXPANDED: Hip Circumference and Heart Rate

Hip circumference Record participant's hip circumference in centimetres with one decimal point.	in Centimeters (cm)	⌊_⌊_⌊_⌋.⌊_⌋	M15
Heart Rate Record the three heart rate readings.			
Reading 1	Beats per minute	⌊_⌊_⌊_⌋	M16a
Reading 2	Beats per minute	⌊_⌊_⌊_⌋	M16b
Reading 3	Beats per minute	⌊_⌊_⌊_⌋	M16c

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? It is essential that the participant has fasted.	Yes	1 If Yes, go to B10	B1
	No	2	
Technician ID Record ID of the person taking the measurement.		⌊_⌊_⌊_⌋	B2
Device ID Record device ID.		⌊_⌊_⌋	B3
Time of day blood specimen taken (24 hour clock) Enter time measurement started.	Hours : minutes	⌊_⌊_⌋ : ⌊_⌊_⌋ hrs mins	B4
Fasting blood glucose [CHOOSE ACCORDINGLY: MMOL/L] Double check that the participant has fasted.	mmol/l ⌊_⌊_⌋ . ⌊_⌊_⌋		B5
Today, have you taken insulin or other drugs (medication) that have been prescribed by a doctor or other health worker for raised blood glucose? Select appropriate response.	Yes	1	B6
	No	2	

CORE: Blood Lipids

Device ID Record device ID.		⌊_⌊_⌋	B7
Total cholesterol [CHOOSE ACCORDINGLY: MMOL/L]	mmol/l	⌊_⌊_⌋ . ⌊_⌊_⌋	B8
During the past two weeks, have you been treated for raised cholesterol with drugs (medication) prescribed by a doctor or other health worker? Select appropriate response.	Yes	1	B9
	No	2	
HDL Cholesterol [CHOOSE ACCORDINGLY: MMOL/L] Record value for HDL cholesterol.		mmol/l ⌊_⌊_⌋ . ⌊_⌊_⌋	B17

EXPANDED: Hemoglobin for women of CBA

Hemoglobin [CHOOSE ACCORDINGLY: MMOL/L] Only women of child bearing age will take part in this measurement.	mmol/l ⌊_⌊_⌋ . ⌊_⌊_⌋		B18

CORE: Urinary sodium and creatinine

Had you been fasting prior to the urine collection? It is essential that the participant did not fast prior to urine collection.	Yes	1	B10
	No	2	
Technician ID Record technician ID. (Not on the PDA)		⌊_⌊_⌊_⌋ Not on PDA	B11

Device ID Record device ID. (Not on the PDA)		⌊_⌊_⌊_⌋ Not on PDA	B12
Time of day urine sample taken (24 hour clock) Record time of day urine sample taken as reported by the participant.	Hours : minutes	⌊_⌊_⌋ : ⌊_⌊_⌋ hrs mins	B13
Urinary sodium Record value for urinary sodium. (Note that this question will not show on the PDA)	mmol/l	⌊_⌊_⌊_⌋ . ⌊_⌋ Not on PDA	B14
Urinary creatinine Record value for urinary creatinine. (Note that this question will not show on the PDA)	mmol/l	⌊_⌊_⌋ . ⌊_⌊_⌋ Not on PDA	B15

Appendix 2: Supplementary Data Book Tables

1.0 Characteristics of the survey population:

Table 1. Highest level of education attained, by men

Highest level of education								
Age Group (years)	Men							
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% College/ University completed	% Post graduate degree	
18-29	271	0.7	4.1	40.6	52.4	2.2	0	
30-44	229	0.4	4.4	30.6	57.6	7.0	0	
45-69	151	0.0	0.0	26.7	67.3	6.0	0.7	
18-69	651	0.5	3.2	33.8	57.7	4.8	0.2	

Table 2. Highest level of education attained, by women

Highest level of education								
Age Group (years)	Women							
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% College/ University completed	% Post graduate degree	
18-29	266	0	2.6	29.3	64.7	3.0	0.4	
30-44	276	0.7	1.1	34.4	55.4	8.0	0.4	
45-69	193	1.0	0.0	21.8	66.8	8.3	2.1	
18-69	735	0.5	1.4	29.3	61.8	6.3	0.8	

Table 3. Marital status, by men

Marital status							
Age Group (years)	Men						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
18-29	271	52.0	33.6	0.4	0.0	0	14.0
30-44	229	18.3	69.0	4.8	1.7	1.7	4.4
45-69	151	6.0	72.8	1.3	6.0	9.9	4.0
18-69	651	29.5	55.1	2.2	2.0	2.9	8.3

Table 4. Marital status, by women

Marital status							
Age Group (years)	Women						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
18-29	266	42.9	36.1	0.4	0.4	0.0	20.3
30-44	276	15.6	65.9	5.1	1.1	3.6	8.7
45-69	193	13.5	52.3	5.7	2.1	24.4	2.1
18-69	735	24.9	51.6	3.5	1.1	7.8	11.2

Table 5. Marital status, by men

Employment status					
Age Group (years)	Men				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
18-29	271	33.6	51.3	1.8	13.3
30-44	229	35.4	53.3	3.5	7.9
45-69	151	29.8	35.8	4.6	29.8
18-69	651	33.3	48.4	3.1	15.2

Table 6. Marital status, by women

Employment status					
Age Group (years)	Women				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
18-29	266	33.8	29.3	1.5	35.3
30-44	276	36.6	35.1	3.3	25.0
45-69	193	32.6	22.3	2.6	42.5
18-69	735	34.6	29.7	2.4	33.3

Table 7. Unpaid work and unemployment, 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	36	2.8	5.6	0	0	80.6	11.1
30-44	18	0	0	5.6	0	88.9	5.6
45-69	45	6.7	0	4.4	26.7	46.7	15.6
18-69	99	4.0	2.0	3.0	12.1	66.7	12.1

Table 8. Unpaid work and unemployment, 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	94	-	4.3	17.0	0	74.5	4.3
30-44	69	-	1.4	24.6	0	66.7	7.2
45-69	82	-	0	18.3	22.0	31.7	28.0
18-69	245	-	2.0	19.6	7.3	58.0	13.1

2.0 Tobacco

Table 9. Mean amount of tobacco used by current daily smokers by type and age, by men

Mean amount of tobacco used by daily smokers by type												
Age Group (years)	Men											
	n	Mean # of manu-factured cig.	95% CI	n	Mean #of hand-rolled cig.	95% CI	n	Mean # of pipes of tobacco	95% CI	n	Mean # roots, cigarilos	95% CI
18-29	130	16.2	14.2-18.2	132	0.2	0.1-0.4	133	0.0	0.0-0.1	133	0.0	
30-44	94	17.2	14.7-19.8	93	1.0	0.1-1.8	95	0.7	0.0-2.0	95	0.5	0.0-1.7
45-69	46	20.7	16.9-24.5	47	2.7	0.3-5.2	47	0.0	0	47	0.0	
18-69	270	17.3	15.5-19.1	272	0.9	0.5-1.3	275	0.3	0.0-0.7	275	0.2	0.0-0.6

Mean amount of tobacco used by daily smokers by type												
Age Group (years)	Men											
	n	Mean # of Shisha.	95% CI	n	Mean # Others	95% CI						
18-29	133	0.0	-	131	1.1	0.0-2.2						
30-44	95	0.5	0.0-1.6	94	1.7	0.4-3.1						
45-69	47	0.0	-	47	1.2	0.0-3.3						
18-69	275	0.2	0.0-0.6	272	1.3	0.5-2.2						

Table 10. Mean amount of tobacco used by current daily smokers by type and age, by women

Mean amount of tobacco used by daily smokers by type												
Age Group (years)	Women											
	n	Mean # of manu-factured cig.	95% CI	n	Mean #of hand-rolled cig.	95% CI	n	Mean # of pipes of tobacco	95% CI	n	Mean #Cigs, cheroots, cigarilos	95% CI
18-29	91	12.8	11.9-13.7	94	1.1	0.0-2.6	94	0.0	-	94	0.0	-
30-44	120	15.6	13.7-17.6	124	0.7	0.0-1.7	125	0.0	-	125	0.0	-
45-69	72	18.4	15.3-21.5	73	0.7	0.0-1.5	73	0.0	-	73	0.0	-
18-69	283	15.2	14.2-16.3	291	0.9	0.2-1.6	292	0.0	-	292	0.0	-

Mean amount of tobacco used by daily smokers by type												
Age Group (years))	Women											
	n	Mean # of Shisha.	95% CI	n	Mean # Others	95% CI						
18-29	94	0.1	0.0-0.3	93	0.8	0.0-1.8						
30-44	125	0.0	-	124	1.5	0.2-2.7						
45-69	73	0.0	-	72	1.3	0.0-3.3						
18-69	292	0.0	0.0-0.1	289	1.2	0.2-2.2						

Table 12. Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day, by men

Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day											
Age Group (years)	Men										
	n	% <5 cigs.	95% CI	% 5-9 cigs.	95% CI	% 10-14 cigs.	95% CI	% 15-24 cigs.	95% CI	% ≥ 25 cigs.	95% CI
18-29	127	11.0	5.4-16.7	14.2	7.2-21.2	18.9	11.5-26.3	40.9	32.7-49.1	15.0	11.1-18.9
30-44	87	4.6	0.0-9.2	11.5	3.6-19.3	18.4	12.5-24.3	44.8	34.8-54.9	20.7	13.2-28.2
45-69	44	11.4	3.0-19.7	9.1	0.0-18.7	2.3	0.0-7.1	40.9	21.5-60.3	36.4	23.2-49.5
18-29	258	8.9	4.7-13.2	12.4	6.3-18.6	16.0	11.1-20.9	42.2	34.1-50.4	20.4	16.1-24.7

Table 13. Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day, by women

Percentage of daily smokers smoking given quantities of manufactured or hand-rolled cigarettes per day											
Age Group (years)	Women										
	n	% <5 cigs.	95% CI	% 5-9 cigs.	95% CI	% 10-14 cigs.	95% CI	% 15-24 cigs.	95% CI	% ≥ 25 cigs.	95% CI
18-29	85	11.8	5.0-18.5	18.8	11.7-25.9	20.0	10.6-29.4	42.4	34.1-50.6	7.1	0.9-13.3
30-44	118	9.3	5.8-12.9	13.6	4.9-22.2	18.6	13.1-24.2	48.3	39.0-57.7	10.2	4.3-16.1
45-69	70	5.7	0.0-11.6	11.4	1.0-21.8	18.6	11.4-25.7	44.3	28.1-60.5	20.0	11.4-28.6
18-69	273	9.3	5.4-13.3	15.0	9.4-20.6	19.1	13.8-24.5	45.0	39.0-51.0	11.5	7.8-15.2

Table 14. Mean years since cessation

Mean years since cessation									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean years	95% CI	n	Mean years	95% CI	n	Mean years	95% CI
18-29	24	2.6	0.0-7.8	39	2.6	-	63	2.6	-
30-44	32	6.5	4.0-9.0	50	8.4	-	82	7.5	-
45-69	32	20.9	16.2-25.5	55	15.4	-	87	17.5	-
18-69	88	10.5	7.7-13.4	144	9.1	-	233	9.7	-

Table 15. Percentage of respondents who use smokeless tobacco, 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	271	0.4	0.0-1.1	-	-	99.3	99.5-100.0
30-44	229	0.0	0.0-0.0	-	-	100.0	99.1-100.0
45-69	150	0.0	0.0-0.0	-	-	100.0	99.6-100.0
18-69	650	0.2	0.0-0.5	-	-	99.8	98.4-100.0

Table 16. Percentage of respondents who use smokeless tobacco, 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	266	-		-		100	
30-44	276	-		-		100	
45-69	193	-		-		100	
18-69	735	-		-		100	

3.0 Alcohol Consumption

Table 17. Percentage of those who stopping drinking due to health reasons, both sexes combined

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	41	12.2	0.5-23.9	67	23.9	9.3-38.5	108	19.7	8.6-30.8
30-44	37	13.5	1.7-25.4	76	13.2	4.8-21.5	113	13.3	5.9-20.6
45-69	41	39.0	18.8-59.2	73	16.4	7.0-25.9	114	24.9	13.8-35.9
18-69	119	21.6	13.3-29.9	216	18.2	8.8-27.7	335	19.5	10.9-28.1

Table 18. Percentage of current drinkers with different drinking levels, 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	100	13.0	6.6-19.4	7.0	2.9-11.1	80.0	75.7-84.3
30-44	101	9.9	7.1-12.7	10.9	3.6-18.2	79.2	71.1-87.4
45-69	38	10.5	0.4-20.6	5.3	0.0-12.6	84.2	70.8-97.6
18-69	239	11.3	7.8-14.8	8.4	5.0-11.8	80.3	76.9-83.8

Table 19. Percentage of current drinkers with different drinking levels, 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	46	15.2	0.0-32.6	4.3	0.0-10.9	80.4	63.8-97.1
30-44	48	8.3	0.5-16.2	14.6	4.0-25.2	77.1	63.3-90.9
45-69	16	12.5	0.0-25.2	0.0	0.0-0.0	87.5	74.8-100.0
18-69	110	12.3	3.4-21.3	7.5	2.2-12.7	80.2	73.1-87.3

Table 20. Mean number of times current drinkers consumed six or more drinks on a single occasion in the past 30 days, among current drinkers, 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	102	3.7	2.8-4.6	41	2.6	1.7-3.4	143	3.4	2.6-4.1
30-44	98	5.1	3.9-6.2	48	4.2	3.1-5.3	146	4.8	4.2-5.5
45-69	37	6.6	3.5-9.7	15	1.5	0.8-2.1	52	5.2	2.8-7.5
18-69	237	4.7	3.7-5.7	104	3.0	2.3-3.8	341	4.2	3.5-4.9

Table 21. Frequency of alcohol consumption among current drinkers in the past 7 days, by men

Frequency of alcohol consumption in the past 7 days											
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	109	3.7	0.0-7.7	3.7	0.0-7.8	16.5	8.2-24.9	43.1	34.6-51.6	33.0	24.5-41.6
30-44	102	4.9	0.7-9.1	2.0	0.0-4.7	9.8	2.3-17.3	54.9	42.4-67.4	28.4	17.4-39.5
45-69	38	18.4	6.0-30.9	2.6	0.0-8.2	18.4	6.0-30.9	31.6	10.7-52.5	28.9	14.3-43.6
18-69	249	6.4	3.1-9.6	2.8	0.0-5.6	14.1	8.5-19.7	46.2	39.5-52.9	30.6	23.1-38.0

Table 23. Frequency of alcohol consumption among current drinkers in the past 7 days, 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	48	6.3	0.0-18.3	4.2	0.0-10.1	0.0	0.0-0.0	47.9	32.3-63.6	41.7	24.3-59.1
30-44	50	0.0	0.0-0.0	4.0	0.0-9.7	14.0	7.7-20.3	42.0	34.3-49.7	40.0	25.7-54.3
45-69	16	12.5	0.0-25.2	6.3	0.0-19.4	0.0	0.0-0.0	12.5	0.0-30.0	68.8	46.4-91.1
18-69	114	4.8	0.0-10.6	4.4	0.9-7.9	5.1	2.1-8.2	40.9	32.7-49.1	44.7	31.7-57.8

Table 24. Mean number of standard drinks current drinkers consumed on average per day in the past 7 days among current drinkers, 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	109	4.8	2.7-6.8	48	4.3	0.0-9.8	157	4.6	1.9-7.3
30-44	102	3.8	2.3-5.3	50	1.6	0.9-2.2	152	3.2	2.1-4.2
45-69	38	6.2	2.9-9.5	16	7.0	1.1-13.0	54	6.5	4.0-8.9
18-69	249	4.6	3.1-6.0	114	3.7	0.9-6.4	363	4.3	2.6-6.0

Table 25. 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	113	1.8	0.0-4.2	52	1.9	0.0-5.5	165	1.8	0.0-3.7
30-44	103	0.0	0.0-0.0	52	0.0	0.0-0.0	155	0.0	0.0-0.0
45-69	40	2.5	0.0-7.9	15	0.0	0.0-0.0	55	1.8	0.0-5.9
18-69	256	1.2	0.0-2.5	119	1.0	0.0-2.9	375	1.1	0.2-2.1

Table 26. Percentage of drinkers (last 12 months) who were not able to stop drinking once started during the past year, 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	180	28.9	21.2-36.6	16.1	11.4-20.9	55.0	46.7-63.3
30-44	148	18.9	10.4-27.5	19.6	13.1-26.1	61.5	52.7-70.3
45-69	68	23.5	9.7-37.4	22.1	11.4-32.7	54.4	42.1-66.7
18-69	396	24.3	18.5-30.1	18.4	14.9-21.9	57.3	53.5-61.1

Table 27. Percentage of drinkers (last 12 months) who were not able to stop drinking once started during the past year, 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	92	18.5	9.1-27.9	21.7	14.6-28.9	59.8	50.1-69.5
30-44	95	15.8	8.9-22.7	23.2	13.0-33.3	61.1	48.2-73.9
45-69	33	12.1	1.7-22.5	30.3	9.3-51.3	57.6	31.7-83.4
18-69	220	16.6	11.0-22.2	23.5	17.4-29.6	59.9	54.3-65.5

Table 28. Percentage of past 12 month drinkers failing to do what was normally expected from them because of drinking during the past 12 months, 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	180	29.4	20.9-37.9	26.7	18.7-34.6	43.9	35.9-51.9
30-44	148	16.9	8.7-25.1	28.4	19.3-37.5	54.7	45.9-63.6
45-69	68	23.5	9.2-37.9	20.6	9.2-32.0	55.9	43.5-68.2
18-69	396	23.8	19.0-28.6	26.3	22.2-30.4	49.9	45.5-54.3

Table 29. Percentage of past 12 month drinkers failing to do what was normally expected from them because of drinking during the past 12 months, 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	92	16.3	5.9-26.7	30.4	22.8-38.1	53.3	42.0-64.6
30-44	95	11.6	6.5-16.6	26.3	15.1-37.5	62.1	51.9-72.3
45-69	33	3.0	0.0-9.1	21.2	2.0-40.4	75.8	51.9-99.7
18-69	220	12.7	7.0-18.3	27.6	21.9-33.3	59.7	52.0-67.4

Table 30. Percentage of past 12 month drinkers needing a first drink in the morning to get going during the past 12 months, 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	180	16.1	10.1-22.2	10.0	5.6-14.4	73.9	66.3-81.4
30-44	148	11.5	4.7-18.3	11.5	5.3-17.7	77.0	69.8-84.3
45-69	68	20.6	8.3-32.8	8.8	3.3-14.3	70.6	59.6-81.6
18-69	396	15.1	11.1-19.2	10.4	7.4-13.4	74.5	70.7-78.3

Table 31. Percentage of past 12 month drinkers needing a first drink in the morning to get going during the past 12 months, 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	92	5.4	0.0-11.9	8.7	3.8-13.6	85.9	77.9-93.9
30-44	95	4.2	0.4-8.0	12.6	5.3-20.0	83.2	74.5-91.9
45-69	33	3.0	0.0-9.1	12.1	2.3-22.0	84.8	71.9-97.8
18-69	220	4.6	0.9-8.4	10.6	6.5-14.7	84.7	77.9-91.6

Table 32. Percentage and regularity of family/partner problems due to someone else's drinking during the past 12 months, 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	271	4.4	1.9-6.9	28.8	23.0-34.6	66.8	60.3-73.3
30-44	229	2.6	0.9-4.3	25.8	19.7-31.8	71.6	64.7-78.5
45-69	150	5.3	1.5-9.1	18.0	12.2-23.8	76.7	68.7-84.6
18-69	650	4.0	2.2-5.8	25.3	21.8-28.8	70.7	66.0-75.4

Table 33. Percentage and regularity of family/partner problems due to someone else's drinking during the past 12 months, 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	266	2.3	0.5-4.0	23.3	16.8-29.8	74.4	67.6-81.3
30-44	276	5.4	2.3-8.6	24.3	20.3-28.3	70.3	65.2-75.4
45-69	193	2.1	0.0-4.4	16.6	9.2-24.0	81.3	73.8-88.8
18-69	735	3.2	2.0-4.4	21.9	17.5-26.3	74.9	70.1-79.7

4.0 Expanded Questions: KAVA

Table 34 Percentage of respondents drinking alcohol during/after drinking Kava, both sexes combined

Percentage of respondents drinking alcohol during/after drinking Kava									
Age Group (years)	Men			Women			Both Sexes		
	n	% alcohol consumption during/after kava session	95% CI	n	% alcohol consumption during/after kava session	95% CI	n	% alcohol consumption during/after kava session	95% CI
18-29	53	37.7	20.6-54.9	34	29.4	8.7-50.1	87	34.3	20.9-47.7
30-44	58	41.4	30.1-52.7	48	27.1	14.6-39.5	106	35.7	27.3-44.1
45-69	30	33.3	13.9-52.8	28	21.4	2.6-40.2	58	27.8	16.7-38.8
18-69	141	38.3	28.9-47.8	110	26.5	19.2-33.8	251	33.4	26.5-40.2

Table 35. Percentage of food and drinks consumed during/after drinking kava by both sexes

Percentage of food and drinks consumed during/after drinking kava									
Age Group (years)	Both Sexes								
	n	% Soft drinks	95% CI	% Sweets	95% CI	% Salted Snacks	95% CI	% Others	95% CI
18-29	56	7.1	1.0-13.1	7.4	2.9-11.8	1.7	0.0-5.3	83.9	74.5-93.2
30-44	60	8.0	0.0-20.9	8.0	0.0-16.6	5.5	0.0-11.0	78.5	62.4-94.5
45-69	38	0.0	0.0-0.0	0.0	0.0-0.0	15.8	3.5-28.1	84.2	71.9-96.5
18-69	154	5.7	1.2-10.2	5.8	1.5-10.1	6.5	2.9-10.0	82.0	73.6-90.4

Fruit and Vegetable Consumption

Table 36. Mean number of servings of fruit 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	265	0.6	0.5-0.7	256	0.5	0.3-0.6	521	0.5	0.4-0.6
30-44	224	0.6	0.5-0.7	272	0.6	0.4-0.8	496	0.6	0.5-0.7
45-69	145	0.5	0.3-0.7	187	0.4	0.3-0.5	332	0.5	0.3-0.6
18-69	634	0.6	0.5-0.7	715	0.5	0.4-0.6	1349	0.5	0.5-0.6

Table 37. 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	261	0.6	0.5-0.8	254	0.6	0.4-0.8	515	0.6	0.5-0.8
30-44	223	0.7	0.5-1.0	270	1.0	0.7-1.2	493	0.8	0.6-1.1
45-69	145	0.7	0.4-1.0	187	0.6	0.5-0.8	332	0.7	0.5-0.8
18-69	629	0.7	0.6-0.8	711	0.7	0.6-0.9	1340	0.7	0.6-0.8

Table 37. Percentage of the number servings of fruit and/or vegetables 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
18-29	267	62.9	57.5-68.4	25.5	19.4-31.5	6.4	3.5-9.3	5.2	2.3-8.2
30-44	226	61.9	55.4-68.5	27.4	21.3-33.6	5.8	2.9-8.6	4.9	2.1-7.6
45-69	147	62.6	52.9-72.3	25.9	18.4-33.3	5.4	1.2-9.7	6.1	1.7-10.5
18-69	640	62.5	58.4-66.6	26.2	21.9-30.6	5.9	3.9-7.9	5.3	3.5-7.1

Table 38. Percentage of the number servings of fruit and/or vegetables 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	261	64.4	58.0-70.7	25.3	18.8-31.8	6.9	1.3-12.5	3.4	1.2-5.7
30-44	275	52.7	43.0-62.4	33.8	25.9-41.7	6.5	3.4-9.7	6.9	3.2-10.6
45-69	190	62.6	55.4-69.9	25.8	21.4-30.2	9.5	5.1-13.9	2.1	0.0-4.3
18-69	726	60.2	54.7-65.7	28.1	23.0-33.3	7.4	4.6-10.3	4.2	2.7-5.7

5.0 Dietary salt

Table 39. Percentage who self-reported how much salt they 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	258	15.9	10.0-21.8	24.4	18.3-30.6	50.0	41.8-58.2	6.6	4.0-9.2	3.1	0.2-6.0
30-44	218	12.4	9.9-14.8	18.8	13.8-23.8	53.7	46.7-60.7	10.6	5.7-15.4	4.6	1.8-7.4
45-69	145	8.3	2.3-14.2	14.5	7.8-21.2	57.9	47.2-68.7	12.4	8.8-16.0	6.9	1.5-12.3
18-69	621	12.9	9.6-16.3	20.2	16.8-23.6	53.1	48.5-57.7	9.3	7.2-11.4	4.5	2.3-6.7

Table 40. Percentage who self-reported how much salt they 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	254	17.3	10.4-24.2	23.2	17.9-28.5	50.0	41.7-58.3	5.9	3.3-8.5	3.5	1.4-5.7
30-44	267	12.4	8.5-16.2	24.3	19.2-29.5	47.6	40.9-54.2	10.9	6.9-14.9	4.9	1.9-7.8
45-69	193	11.4	6.0-16.8	18.7	11.3-26.0	50.3	44.3-56.2	13.0	7.5-18.4	6.7	2.9-10.6
18-69	714	14.2	10.6-17.8	22.4	19.3-25.4	49.3	43.8-54.8	9.3	6.5-12.1	4.8	3.3-6.3

Table 41. Percentage of those who stated the different importance of lowering salt in diet, 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	218	72.9	67.3-78.6	14.2	9.9-18.5	12.8	7.2-18.5
30-44	206	68.9	60.0-77.8	20.9	13.9-27.9	10.2	5.5-14.9
45-69	146	78.8	72.9-84.6	13.7	7.6-19.8	7.5	3.1-12.0
18-69	570	73.0	67.6-78.3	16.5	13.5-19.5	10.6	7.2-13.9

Table 42. Percentage of those who stated the different importance of lowering salt in diet, 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	243	70.4	62.5-78.3	16.0	10.4-21.7	13.6	7.7-19.5
30-44	257	71.6	65.4-77.8	12.8	8.5-17.1	15.6	11.2-19.9
45-69	177	76.8	70.6-83.0	10.2	5.5-14.9	13.0	8.3-17.7
18-69	677	72.4	67.1-77.7	13.5	10.4-16.6	14.1	9.9-18.2

6.0 Physical Activity

Table 43. Percentage of respondent's level of total physical activity, by men

Level of total physical activity							
Age Group (years)	Men						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
18-29	260	21.9	14.5-29.4	11.9	8.4-15.4	66.2	59.0-73.3
30-44	221	35.7	28.5-43.0	20.4	15.0-25.7	43.9	33.8-54.0
45-69	145	55.2	42.8-67.5	20.7	14.6-26.8	24.1	14.4-33.9
18-69	626	34.3	27.7-40.9	16.9	14.7-19.0	48.9	41.8-55.9

Table 44. Percentage of respondent's level of total physical activity, by women

Level of total physical activity							
Age Group (years)	Women						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
18-29	263	61.2	55.3-67.1	15.6	12.4-18.7	23.2	17.5-28.9
30-44	264	44.3	39.0-49.6	23.5	17.7-29.3	32.2	25.7-38.7
45-69	189	54.5	41.9-67.1	22.8	16.2-29.3	22.8	14.6-30.9
18-69	716	54.3	48.9-59.6	19.9	16.4-23.4	25.9	21.7-30.0

Table 45. Percentage of respondent's level of total physical activity, by both sexes

Level of total physical activity							
Age Group (years)	Both Sexes						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
18-29	523	42.6	37.5-47.6	13.8	11.3-16.4	43.6	37.8-49.4
30-44	485	39.9	35.1-44.8	21.9	18.3-25.5	38.2	31.6-44.7
45-69	334	54.8	44.1-65.5	21.8	16.7-27.0	23.4	16.2-30.6
18-69	1342	44.7	39.5-49.8	18.4	16.4-20.4	36.9	31.6-42.3

Table 46. Mean minutes spent in sedentary activities on average per 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	271	323.9	282.9-365.0	300.0	120.0-480.0
30-44	228	348.9	301.7-396.1	300.0	120.0-480.0
45-69	150	377.3	340.1-414.4	360.0	180.0-600.0
18-69	649	344.6	312.2-377.0	300.0	120.0-480.0

Table 47. Mean minutes spent in sedentary activities on average per 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	266	345.8	296.0-395.6	300.0	180.0-480.0
30-44	275	306.2	288.7-323.6	300.0	120.0-480.0
45-69	193	361.5	307.1-415.9	300.0	120.0-480.0
18-69	734	337.4	306.2-368.6	300.0	120.0-480.0

Table 48. Percentage who stated that these are the main barriers for being physically active, by men

Main barriers for being physically active											
Age Group (years)	Men										
	n	% Not interested	95% CI	% No time	95% CI	% lack of sidewalks	95% CI	% Dogs	95% CI	% Others issues	95% CI
18-29	271	1.5	0.1-2.8	22.5	15.2-29.8	39.9	32.1-47.6	4.1	0.2-7.9	32.1	23.4-40.8
30-44	227	3.1	0.7-5.5	25.1	17.7-32.6	46.7	40.1-53.3	4.0	0.7-7.2	21.1	15.3-27.0
45-69	150	2.0	0.0-4.1	28.7	21.2-36.2	29.3	20.7-38.0	0.7	0.0-2.0	39.3	33.6-45.1
18-69	648	2.2	1.2-3.1	24.8	19.5-30.1	39.9	35.5-44.2	3.3	0.4-6.2	29.9	24.5-35.3

Table 49. Percentage who stated that these are the main barriers for being physically active, by women

Main barriers for being physically active											
Age Group (years)	Women										
	n	% Not interested	95% CI	% No time	95% CI	% lack of sidewalks	95% CI	% Dogs	95% CI	% Others issues	95% CI
18-29	266	4.1	1.6-6.7	42.1	36.2-48.0	35.7	31.0-40.4	1.5	0.0-3.1	16.5	12.3-20.8
30-44	275	2.9	0.5-5.4	31.3	28.3-34.3	46.2	39.7-52.7	1.8	0.0-3.8	17.8	13.6-22.0
45-69	193	5.7	1.6-9.8	39.9	32.4-47.4	23.3	14.1-32.5	2.1	0.2-3.9	29.0	19.8-38.2
18-69	734	4.2	1.9-6.4	38.1	35.1-41.2	35.8	32.9-38.7	1.7	0.7-2.8	20.1	17.8-22.5

7.0 Blood Pressure and Diabetes History

Table 50. Percentage of those who 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									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	43	-	-	25	-	-	68	-	-
30-44	55	-	-	60	-	-	115	2.9	0.5-5.4
45-69	50	-	-	67	-	-	117	12.0	5.9-18.1
18-69	148	6.0	2.7-9.3	152	5.4	1.7-9.0	300	5.7	2.9-8.5

Table 51. Percentage of those previously diagnosed with raised blood sugar who attended all clinic appointments

Attended all schedules appointment									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	9	-	-	22	-	-	31	-	-
30-44	28	--	-	39	-	-	67	-	-
45-69	29	-	-	53	-	-	82	-	-
18-69	66	-	-	114	55.9	46.1-65.7	180	52.9	46.4-59.5

Table 52. Percentage of those previously diagnosed with diabetes taking insulin prescribed by a doctor or other health worker, among those previously diagnosed by gender

Currently taking insulin prescribed for diabetes among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% taking insulin	95% CI	n	% taking insulin	95% CI	n	% taking insulin	95% CI
18-29	11	-	-	29	-	-	40	-	-
30-44	32	-	-	54	-	-	86	-	-
45-69	38	-	-	61	-	-	99	-	-
18-69	81	-	-	144	9.5	3.1-15.9	225	11.0	5.6-16.3

Table 53. Percentage of those previously diagnosed with diabetes currently taking oral drugs prescribed for diabetes among those previously diagnosed, by gender

Currently taking oral drugs prescribed for diabetes among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
18-29	11	-	-	29	-	-	40	-	-
30-44	32	-	-	54	-	-	86	-	-
45-69	38	-	-	61	-	-	99	-	-
18-69	81	-	-	144	32.7	24.7-40.7	225	35.1	27.5-42.8

Table 54. Percentage of those previously diagnosed with diabetes who had seen a traditional healer, by gender

Seen a traditional healer for diabetes among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	11	-	-	29	-	-	40	-	-
30-44	32	-	-	54	-	-	86	-	-
45-69	38	-	-	61	-	-	99	-	-
18-69	81	-	-	144	4.8	1.8-7.8	225	3.9	0.8-7.1

Table 55. Percentage of those previously diagnosed with diabetes who were currently taking herbal or traditional treatment, by gender

Currently taking herbal or traditional treatment for diabetes among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	11	-	-	29	-	-	40	-	-
30-44	32	-	-	54	-	-	86	-	-
45-69	38	-	-	61	-	-	99	-	-
18-69	81	-	-	144	4.0	1.1-6.9	225	5.3	2.4-8.1

8.0 History of Raised Total Cholesterol

Table 56. Percentage of those previously diagnosed with raised total cholesterol who attended all clinic appointments, by gender

Attended all schedules appointment									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-29	6	-	-	2	-	-	8	-	-
30-44	12	-	-	23	-	-	35	-	-
45-69	24	-	-	21	-	-	45	-	-
18-69	42	-	-	46	-	-	88	-	-

9.0 Cervical Cancer Screening

Table 57. Percentage of female respondents aged 18-69 who have ever had a screening test for cervical cancer among all female respondents aged 18-69 years

Age Group (years)	Women		
	n	% ever tested	95% CI
18-29	263	49.0	42.6-55.5
30-44	272	59.6	51.6-67.5
45-69	192	51.6	43.9-59.2
18-69	727	53.0	49.4-56.6

10.0 Mental Health K10 (Mental health disorder)

Table 58. Percentage of respondents with mental health disorder, by men

Percentage of mental health disorder									
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	270	60.7	54.7-66.8	24.1	19.8-28.4	11.1	7.0-15.2	4.1	1.2-6.9
30-44	228	56.6	47.7-65.5	27.6	19.3-36.0	11.8	6.5-17.2	3.9	1.3-6.6
45-69	150	72.0	65.3-78.7	18.0	12.5-23.5	7.3	4.2-10.5	2.7	0.2-5.1
18-69	648	61.8	56.1-67.6	24.0	19.6-28.3	10.5	7.6-13.4	3.7	2.3-5.1

Table 59. Percentage of respondents with mental health disorder, by women

Percentage of mental health disorder									
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	266	54.9	43.8-65.9	23.3	17.3-29.3	14.7	9.8-19.5	7.1	3.0-11.3
30-44	275	51.6	46.9-56.4	24.0	19.4-28.6	17.1	12.7-21.5	7.3	3.6-11.0
45-69	193	60.6	49.0-72.2	20.7	13.6-27.9	13.0	6.3-19.6	5.7	2.6-8.8
18-69	734	55.3	47.7-63.0	22.9	19.1-26.7	15.0	11.2-18.8	6.8	3.7-9.9

Table 60. Percentage of respondents with mental health disorder, by both sexes

Percentage of mental health disorder									
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	536	57.7	50.1-65.3	23.7	20.0-27.3	13.0	9.2-16.7	5.7	2.5-8.8
30-44	503	54.2	49.5-58.8	25.9	22.0-29.7	14.4	11.6-17.2	5.6	3.4-7.8
45-69	343	65.8	57.8-73.7	19.5	15.3-23.7	10.4	6.9-14.0	4.3	2.1-6.5
18-69	1382	58.5	52.1-64.8	23.4	20.8-26.0	12.8	10.3-15.4	5.3	3.2-7.4

11.0 Physical Measurements

Table 61. Mean heart rate, by gender

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	201	66.8	65.4-68.2	204	74.1	72.2-76.1	405	70.6	69.3-72.0
30-44	188	69.5	68.3-70.7	217	72.3	70.9-73.8	405	70.8	69.9-71.8
45-69	123	70.7	69.4-72.0	163	70.4	68.6-72.1	286	70.5	69.3-71.7
18-69	512	68.7	67.7-69.6	584	72.5	71.2-73.9	1096	70.7	69.6-71.7

12.0 Biochemical Measurements

Table 62. Mean fasting plasma glucose (mg/dl), by gender

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	193	95.8	87.6-104.1	197	102.5	94.6-110.3	390	99.3	92.3-106.4
30-44	182	118.7	107.8-129.6	210	116.7	105.0-128.5	392	117.7	109.2-126.3
45-69	118	136.9	128.7-145.1	157	147.7	137.6-157.8	275	142.9	135.3-150.5
18-69	493	113.8	105.5-122.1	564	119.2	113.7-124.8	1057	116.6	110.5-122.7

Table 63. Mean total cholesterol (mg/dl), by gender

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	193	133.2	121.8-144.6	197	141.0	131.9-150.1	390	137.3	128.6-146.1
30-44	182	156.6	131.7-181.5	211	150.3	138.4-162.3	393	153.6	135.8-171.4
45-69	118	153.2	130.1-176.4	157	166.3	158.5-174.0	275	160.5	149.1-171.9
18-69	493	146.5	129.2-163.8	565	150.8	142.8-158.7	1058	148.7	137.0-160.4

Table 64. Mean HDL (mmol/L), by gender

Mean HDL (mmol/L)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-29	193	0.7	0.6-0.7	197	0.9	0.8-0.9	390	0.8	0.7-0.8
30-44	183	0.7	0.6-0.7	211	0.9	0.8-1.0	394	0.8	0.7-0.8
45-69	118	0.8	0.7-0.8	157	0.9	0.8-1.0	275	0.8	0.8-0.9
18-69	494	0.7	0.6-0.7	565	0.9	0.8-0.9	1059	0.8	0.7-0.8

Table 65. Percentage of eligible persons receiving drug therapy and counseling to prevent heart attacks and strokes, by gender

**Percentage of eligible persons receiving drug therapy and counseling to prevent heart attacks and strokes									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
40-54	20	34.7	4.6-64.9	37	16.6	8.2-25.0	57	23.4	9.3-37.6
55-69	14	28.6	7.1-50.1	18	50.0	28.4-71.6	32	40.3	22.4-58.2
40-69	34	32.2	16.2-48.2	55	27.9	15.2-40.5	89	29.6	18.4-40.8

**Counseling 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.