



Fiji

NCD Risk Factors STEPS REPORT 2011

MINISTRY *of* HEALTH &
MEDICAL SERVICES

Shaping Fiji's Health



World Health
Organization

Western Pacific Region

Fiji

NCD Risk Factors

STEPS REPORT

2011

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FOREWORD



The WHO STEPS SURVEY 2011 is another example of research collaboration between World Health Organization (WHO) and the Ministry of Health and Medical Services (MoHMS) of Fiji.

Fiji continues to acknowledge this partnership as it creates evidence to inform strategic interventions to Fiji's NCD Crisis.

Fiji is now able to compare STEPS 2002 and STEPS 2011. All risk factors, except Tobacco have shown an increase in prevalence. STEPS 2011 has also enable Fiji to analyze the combined risk factors of her population – 2.7% were found to be of low risk, 63.4% moderate and 34% high risk. One in three Fijian women was found to be anemic.

Lifestyle or Behavioral risk factor interventions remain key to Fiji's fight against NCD, and Tobacco success offers hope in terms of lessons learnt through advocacy and legislation.

An accelerated establishment of Wellness Fiji and PEN Fiji are now needed more than ever in Fiji's Primary Health Care System to address population lifestyle or behavioral challenges. MoHMS will continue to collaborate with WHO for technical support as we monitor and evaluate our NCD crisis response through surveillance



Hon. Mr. Jone Usamate
Minister for Health and Medical Services
Ministry of Health
Fiji

FOREWORD



WHO is pleased to collaborate with the Ministry of Health in undertaking and reporting on this second STEPS survey in Fiji.

The second Global status report on noncommunicable diseases (2014) from WHO, released in January 2015, has again highlighted the considerable human, social and economic consequences of NCDs worldwide. The Pacific Islands are no exception to this global phenomenon, where NCDs are the leading causes of premature mortality. To combat the NCD crisis, in 2013, the World Health Assembly adopted a comprehensive global monitoring framework with nine targets and 25 indicators. Six of these nine targets are assessed primarily through population-based risk factor surveys, including WHO's STEPwise approach to Surveillance of NCD Risk Factors (STEPS).

Fiji was the first Pacific Island country to undertake a STEPS survey in 2002, and that survey found a considerable problem of NCDs and their risk factors, across the nation. The findings of the 2002 survey have been widely used to inform practice, highlight the need for action and to guide strategic planning.

This report summarizes the findings of Fiji's second STEPS survey, undertaken in 2011. Some of the key findings of this survey are:

- 16.6% of the population are daily smokers, with women more likely to smoke than men;
- 15.7% had drunk alcohol in the last 30 days, with younger adults and men most likely to have consumed alcohol;
- 85% did not consume the recommended 5 minimum daily servings of fruits and vegetables;
- 57.5% had high physical activity levels, with lower levels of activity in women;
- Around one third were obese;
- 31% had raised blood pressure;
- 29.6% had raised fasting blood glucose;
- 3.0% were defined as having a 30% or more risk of cardiovascular disease in the next ten years.

The report also highlights the changes that have occurred since the 2002 survey. Comparisons indicate that the prevalence of raised blood glucose and raised blood pressure have increased significantly, along with obesity levels. The rates of smoking have not increased.

These results clearly show that NCDs are a growing problem in Fiji, and emphasise the need for increased focus on both prevention and management. The growing burden of NCDs will put further strain on health services. Regular surveillance of NCDs is critical to monitor the trends and to guide the interventions.

WHO will continue supporting the Fiji Government to take urgent actions to prevent and control NCDs by strengthening health systems and working with health and non-health sectors as well as all relevant partners.

Dr. Liu Yunguo
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EXECUTIVE SUMMARY

The second STEPS survey in Fiji was undertaken in 2011 by the Ministry of Health with the support of WHO. It was a nationwide cross-sectional assessment of adults aged 25-64 years, using the WHO NCD STEPS Surveillance methodology and instruments. The objectives of this survey were:

- To investigate and document the prevalence of key NCDs amongst the target population, and any trends since the first STEPS survey.
- To determine the prevalence of and better understand the major modifiable risk factors for common NCDs. These include physical inactivity, poor diet, obesity, high blood cholesterol and lipids, tobacco, alcohol and kava abuse.
- To study and compare NCD and its risk factors across different strata of age, gender and ethnicity.

The targeted sample size was 4850, however valid data was obtained from 2586 participants giving a survey response rate of 53.3%.

The overall prevalence of tobacco use in the 2011 survey for the 25-64 year old population was 30.8%, with 16.6% smoking daily. Men in all age groups had significantly higher smoking rates than the women in the same age groups. In the 2002 survey the rate of daily smoking was 17.5%. This suggests a slight decrease in rates, although it is not statistically significant.

More than one third of the adults (41.7%) indicated that they had never consumed alcohol. One quarter (27.7%) had not had an alcoholic drink in the in the past 12 months. Only 15.7% reported being a current drinker meaning they had consumed alcohol in the last 30 days. The younger age group (25-34 years) was most likely to have consumed alcohol in the last 30 days. Men were significantly more likely to be current drinkers than women (26.1% versus 5.4% respectively). Overall alcohol consumption behavior does not appear to have improved between the two surveys.

Reported consumption of kava in this 2011 survey was high with 59.0% indicating they had consumed kava in the last 30 days. The consumption pattern is similar to the 2002 results with the men (78.7%) having a significantly higher proportion compared to the women (38.3%).

Consumption of fruits and vegetables (mean servings a day) were generally low with a mean of 1.2 servings of fruit on days when fruit was consumed, and 1.9 servings of vegetables. This meant that overall 85% of the population did not meet the recommended 5+ serves of fruits and vegetables a day. Indo-Fijians generally consumed more fruits and vegetables than iTaukei, with minimal differences by age or gender.

Just over half the population were deemed to be in the 'high activity' group for weekly physical activity (57.5%). Across the domains of leisure, work and transport men were consistently more physically active than women, and overall only 42.8% of women were classified as 'high activity'. Physical activity levels declined with age, and iTaukei were significantly more active than Indo-Fijians.

Average BMI in this survey was 27.9 with BMI in females significantly greater than that in males (29.3 versus 26.5). Mean BMI also tended to increase with age. This pattern is similar to that found in 2002. There was only a small problem of underweight (3.2%) but significant overweight and obesity problems; 34.9 being overweight and 32.0% being obese. Significantly more women were obese (42.0%) than men (22.4%). iTaukei were significantly more likely to be obese than Indo-Fijians.

There has been a major increase in levels of overweight and obesity in Fiji.

Overall, 31.0% in this survey had been diagnosed with hypertension or had blood pressure greater than the defined cut-offs for hypertension. Men were slightly more likely to be hypertensive than women, although this was not significant, however rates of hypertension increased markedly with age as would be expected. There was also little difference in the rates between ethnicities. The 2002 survey (including 15-24 year olds) found that 19.1% of the population were hypertensive. There appears to be a large and worrying increase in levels of hypertension.

The mean fasting blood glucose level in 2002 study was 6.1mmol/l, with levels increasing with age, and higher in Indo-Fijians compared to iTaukei (6.4mmol/l and 6.1mmol/l respectively). Raised fasting blood glucose a likely indicator of diabetes was found in 29.6% of the population. The 2002 survey found that 16% of the population (including 15-24 year olds) were diabetic, with increasing levels with age, minimal difference by gender but more diabetes in Indo-Fijians (21.2%) than iTaukei (11.5%). These findings are therefore consistent with the 2011 survey, with a significant worsening of the prevalence of high fasting blood glucose (greater than 6.1mmol/l, previously referred to as diabetes but not confirmed without additional testing).

Analysis of the combined risk factors of smoking, overweight, raised blood pressure, insufficient fruit and vegetable intake and insufficient physical activity were undertaken to assess the overall risk status of the population for NCDs. Overall, only 2.7% were assessed as low risk, 63.4% were assessed to be moderate risk with 1-2 risk factors, and 34.0% high risk with 3-5 risk factors. This places most of the population at risk of developing NCDs, with over a third at high risk.

In conclusion, this second STEPS survey in Fiji has revealed some highly relevant data on trends and the extent of the NCD problems. With the majority of the adult at high risk of developing NCDs and growing problems of high blood glucose and hypertension the outlook for Fiji is dire.

As indicated in the WHO's Global Action Plan on NCDs, a multi-sectoral approach is the only effective way to tackle NCDs. NCDs are both an individual, community and whole of society responsibility and involvement of all stakeholders is essential.

Abbreviations

BMI	Body Mass Index
BP	Blood Pressure
CHD	Coronary Heart Disease
CI	Confidence Interval
CVD	Cardiovascular Disease
DBP	Diastolic Blood Pressure
DM	Diabetes Mellitus
FBS	Fasting Blood Sugar
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 values)
MoH	Ministry of Health
NCD	Noncommunicable disease
PICs	Pacific island countries and areas
SBP	Systolic Blood Pressure
WHO	World Health Organization

1. INTRODUCTION

1.1 Background and Rationale

Non-communicable or chronic diseases are the main cause of death and disability globally, and rates are increasing, particularly in lower income countries [1]. In the Pacific Islands, recent decades have seen NCDs take the lead as causes of death, and are placing substantial strains on health care services and economic developments[2].

Monitoring the NCD situation in countries is critical to inform program and policy development and review progress. Utilizing consistent methodology globally allows countries to compare their progress and issues regionally and internationally.

A risk factor refers to any attribute, characteristic or exposure of an individual, which increases the likelihood of developing a non-communicable disease [3]. The WHO STEPwise approach to risk factor surveillance (NCD STEPS) has been utilized globally, and within the Pacific Islands for more than a decade. Since that time methods have been further refined, along with the development of potential add-on modules in areas such as salt and mental health..

1.2 The National Context

1.2.1 Geography

Fiji is a relatively small low income country in the South Pacific[4], it is made up of approximately 330 islands of which, one third are inhabited. There are two major islands Viti Levu and Vanua Levu. Fiji's total land area is 18,333 square kilometers [3].

1.2.2 Population and Living Environment

Fiji has the largest population of all the South Pacific island countries, with a population of around 854,000: 433,000 males and 421 000 females in 2007[5]. The population is relatively young with around 29% under the age of 14 years, with further 12% aged between 15 and 24 years[6]. The two major ethnic groups are Indigenous Fijians (51%), termed iTaukei and 44% Indo-Fijians (Fijians of Indian descent).

Life expectancy is 68 years for males and 72 years for females[7], which is around 10 years less than the highest level found in the region [8]. A recent study suggests that life expectancy is static [9], with no gains since the late 1980s, likely due to premature deaths from NCDs [10]. Communicable diseases are also an ongoing problem with outbreaks of typhoid and dengue occurring relatively frequently.

Urbanisation has been a growing trend in Fiji, and around half the population now lives in urban areas[11]. This has affected the need for urban infrastructure for health and also has had considerable impacts on the health profile of rural dwellers.

1.2.3 Noncommunicable Disease, Health Status and Health Infrastructure

The burden of NCDs continues to be a challenge for health. Although there has been a decline in the admission rate for diabetes and its complications, hypertension and cardiovascular disease, there has been a 40% increase in the mortality rate from cardiovascular disease[12]. The Global Burden of Disease study [16] in Fiji indicated that the main contributors to the burden of years of life lost (YLLs) due to premature death were ischemic heart disease, diabetes mellitus, and cerebrovascular disease in 2010. "The three risk factors that account for the most disease burden in Fiji are high body-mass index, dietary risks, and high fasting plasma glucose" (GBD factsheet). In a 2002 study carried out by the World Bank and the Secretariat of the Pacific Community (SPC), it was revealed that 38.8% of all treatment costs could be attributed to NCD [13]. This is likely to have increased considerably since, as the burden of NCDs has increased.

The Ministry of Health Strategic plan for 2011-2015 includes targets that by 2015 they should have reduced the prevalence of diabetes by 14%, reduced the prevalence of adult/children obesity by 6.2%, improved the rate of moderate physical activity in the population by 5% and improved the rate of consumption of fruits and vegetables by 5%[14]. Their proposed Strategic Plan for 2015-2019 sets similarly ambitious targets in line with the WHO's Global Action for NCDs targets and indicators.

Life expectancy in Fiji appears to have been stagnant since the early 1990s due to chronic diseases [15].

1.3 Developing WHO STEPS Survey in Fiji

In 2002, Fiji undertook its first STEPS survey for NCDs, this was also the first such survey in the Pacific Islands.

This second STEPS survey was planned early in 2010 by the Ministry of Health's Wellness Unit and Fiji Bureau of Statistics and supported by the WHO. Building on the experiences in the first survey, the Ministry sought the support of local communities in ensuring the process went to plan. Extensive training was conducted for all those involved in the data collection, including those who undertook the sampling process. Data collection in each Division started consecutively, although there were some extensive delays due to severe flooding associated with a cyclone which struck Fiji late in 2011, meaning the data collection was not completed in some areas until 2011.

Data entry was conducted by the Pacific Research Centre for the Prevention of Obesity and NCDs (C-POND) at Fiji National University early in 2012, following training from WHO. Data cleaning was undertaken by the WHO office in Fiji, and data analysis by a WHO Consultant. A data analysis workshop was also held in 2013 to consolidate the analysis and interpretation.

2. OBJECTIVES

The overall aim of the second Fiji NCD STEPS survey is to monitor progress and changes in risk factor and disease prevalence, since the first STEPS survey in 2002.

For surveillance purposes the survey aims to assist with:-

- Defining the magnitude of trends of the NCD risk factors
- Planning and evaluation of health promotion activities to reduce prevalence of NCD risk factors
- Predicting likely future demands for health services

The main specific objectives of the Fiji NCD STEPS survey are:

- To investigate and document the prevalence of key NCDs amongst the target population, and any trends since the first STEPS survey.
- To determine the prevalence of and better understand the major modifiable risk factors for common NCDs. These include, physical inactivity, poor diet, obesity, high blood glucose, tobacco, alcohol and kava abuse.
- To study and compare NCD and its risk factors across different strata of age, gender and ethnicity.

3. METHODOLOGY

The implementation of Fiji STEPS involved months of planning, a week-long training activity, and a pilot survey. It was accomplished through the formation of MoH survey teams comprised of various staff including a Team Leader, field officers, doctors, medical assistants, nurse practitioners, laboratory technicians and administrative staff. The survey was conducted from February to May 2011.

3.1 Survey Structure

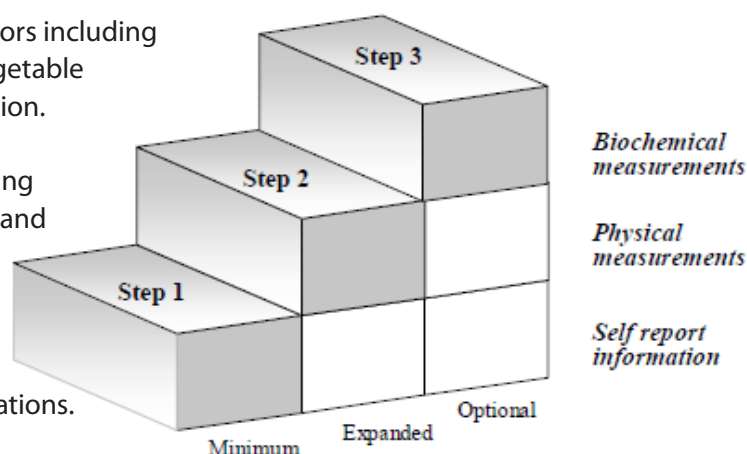
Figure 1 The WHO STEPwise approach to surveillance of NCDs

The 2011-Fiji STEPS survey was designed as a population-based cross-sectional survey of 25 to 64 year olds and involved the collection of data across 3 "steps" as follows:

STEP1 Interview data on selected health risk behaviors including tobacco smoking, alcohol consumption, fruit and vegetable consumption, physical inactivity, and kava consumption.

STEP 2 Physiological measures of health risks including blood pressure, height, weight, waist circumference, and hip circumference.

STEP 3 Biochemical measures of health risks including fasting blood glucose and hemoglobin only. Blood lipids were not done due to budget limitations.



3.2 Survey Sampling Methodology

A multi-stage cluster sampling methodology was used with primary sampling units being the enumeration areas (EA) or clusters. The secondary units were the households from which eligible participants were selected (three stages).

First Stage:

Fiji's entire population is divided administratively into 4 main divisions and further subdivided into 14 provinces plus the self-governing island of Rotuma. All main divisions were included in the survey excluding Rotuma due to its remote location. Each province is divided into tikinas (administrative units) and further subdivided into enumeration areas (EA) by the Fiji Bureau of Statistics (FBOS). Fiji has a total of 86 tikinas and 1602 EAs.

After excluding Rotuma, 42 tikinas were selected proportional to the size of each province's population. This represented >95% of Fiji's population.

The first stage of the sampling process involved the selection of EAs proportional to the size of each Tikina.

Second Stage:

The second stage of the sampling process involved the selection of 50 households from the selected EAs through simple random selection. .

Third Stage:

Within each household, the selection of one eligible participant (aged 25 -64 years) for STEPS 1 and 2 was performed using the KISH method. Random selection was conducted after all eligible members (males and females) in each household were listed in descending order of age starting with males and then females.

For each EA, data was also collected regarding the total number of households approached, the number of those who refused to participate, and the number of those in STEP 1 who also participated in STEP 2 and STEP 3. This data was used to calculate sampling weights for data analysis.

3.2.1 Survey Sampling Methodology

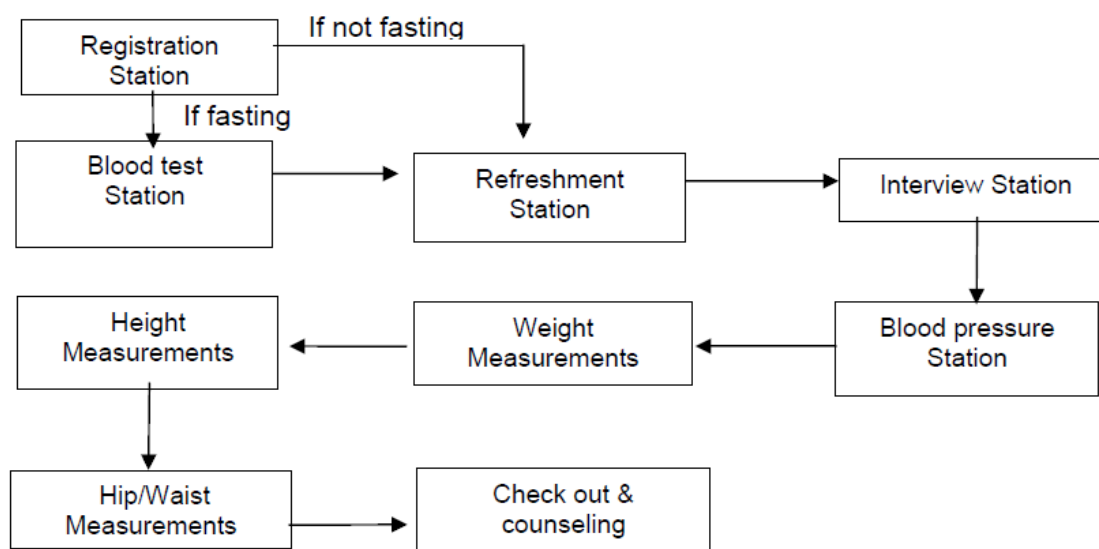
Table A: Fiji NCD STEPS Survey: Province and Household Samples

PROVINCE	TOTAL TIKINAS IN EACH PROVINCE	CLUSTERS or EAS	TIKINAS INCLUDED IN SAMPLING FRAME	EA SELECTED FROM TIKINAS	HOUSEHOLDS SELECTED FROM EAS
1. Ra	4	54	3	4	202
2. Ba	8	453	6	28	1412
3. Nadroga/Navosa	8	109	6	7	353
4. Macuata	5	137	3	8	403
5. Bua	3	28	2	2	100
6. Cakaudrove	8	89	5	5	252
7. Kadavu	4	20	1	1	50
8. Lau	14	26	2	1	50
9. Lomaiviti	6	34	2	2	101
10. Naitasiri	5	278	3	18	908
11. Rewa	4	234	2	12	605
12. Serua	2	32	2	2	101
13. Namosi	3	11	1	1	50
14. Tailevu	5	90	4	6	303
Subtotal for Provinces	79	1595	42	97	4890
ROTUMA Island	7	7			0 (Not included)
TOTAL	86	1602			

3.3 Sample Size

The initial sample size was determined by the Fiji Bureau of Statistics (FBOS) based on the 2007 Fiji Census. The intended total target sample size was 4850 adults (age group 25-64 years) after adjusting for design effect and non-response. A total of 2586 participants took part in the survey.

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



3.4 Data Collection Procedures

Survey personnel obtained informed consent from survey participants and gave fasting instructions for STEP 3 and made appointment times for those who consented to participate in the survey. All study provinces and selected wards/villages followed the same procedure for selecting eligible participants.

3.4.1 STEP 1- Behavioral Risk Factors

Data for behavioral risk factors was collected using a face-to-face structured interview with questions on selected health risk behaviors including tobacco smoking, alcohol consumption, physical inactivity, and kava consumption. The questions were mainly derived from the WHO STEP wise Approach to NCD Risk Factor Surveillance generic questionnaire. There were some adaptations and additions to the questions including kava and questions about NCD conditions and treatment. The questionnaire is in the appendix 1.

While the interview form was in English, the actual interview was conducted in either English, Fijian or Hindi depending upon the wishes of the participant. Interviews in Fijian or Hindi followed a standardized script translated from the original English version. All interviews followed a standardized informed consent process and was conducted in a private setting as individually arranged by one of approximately 40 interviewers, all of whom were Fiji MoH personnel specifically trained in the NCD-STEPS methodology. The MoH interviewer also made arrangements with the participants to come to a central site for STEPS 2 and 3 (on the following day), and in the case of those participating in STEP 3, the interviewer also provided the participant with fasting instructions.

3.4.2 STEP 2 and 3 - Behavioral Risk Factors

Selected nursing stations and hospitals were used as a temporary survey base for STEPS 2 and 3 where stations were set up for registration, physical measurements, biochemical measurements and checkout. Approximately 50 participants attended the STEP 2 and 3 stations each day.

STEP 2 Physical Measurements

Targeted physiological measures of health risks for NCDs were collected including blood pressure, height, weight, waist circumference, and hip circumference. Selected MoH personnel were trained in conducting these measurements through the use of specific protocols with quality control monitored through the use of periodically conducted performance checklists for each measurement.

Blood pressure (BP) was measured with the Omron HRM 907 BP monitor. BP was measured twice and if the difference between the first and second readings was 10mm Hg or more than a third reading was taken. For those with two readings, the mean value of the two readings was used in the analysis. For those with three readings, the mean value of the second and third readings was used in the analysis.

Height was measured twice with a body meter to the nearest 0.1cm and the mean of these two measurements was used in the analysis. Weight was measured once to the nearest 0.1kg with the Heine Portable Professional Adult Scale, which was checked for accuracy against standard weights at the beginning and end of each day. Waist and hip circumference were measured twice to the nearest 0.1cm with the Figure Finder constant tension tape. If there was a difference between the first and second readings of 2cm or more, then a third reading was taken. For those with two readings, the mean value of the two readings was used in the analysis. For those with three readings, the mean value of the closest two readings was used in the analysis. Neither waist nor hip circumference was measured in female participants who were pregnant.

Step 3 – Biochemical Measurements

The only included biochemical measure of health risks for NCDs was fasting blood glucose. MoH laboratory personnel were trained in conducting these measurements through the use of specific protocols with monitored quality control. A venous blood sample was collected and prior to spinning the venous sample down to obtain a serum sample, a drop of whole blood was applied to a glucose test strip and measured in a hand-held glucometer.

3.5 Data Management and Analyses

3.5.1 Data Entry

Data for all three STEPS were hand-entered onto coded forms with unique computer-generated identification numbers. Data was then double-entered into Epi-data, with checking for consistency. Checks included identifying, investigating, and resolving as necessary, various issues related to duplicate records, data values outside of preset ranges, and inconsistencies between answers to different but related questions.

3.5.2 Data Weighting and Analysis

Due to the complex multi-stage cluster sampling methodology used in Fiji-STEPs, it was necessary to apply sampling weights to accommodate weighted data analysis (Appendix 2).

This formula includes three factors related to the probability of selecting the study population using the Fiji-STEPs multi-stage sampling methodology, one factor to accomplish a post-stratification adjustment related to the sample's distribution of ethnic/gender/age groups relative to the total Fiji population aged 15 to 64 years, and one factor related to the STEP 2 response rate.

4. RESULTS

4.1 Demographic Profile

The survey collected information on demographic indicators such as gender, age, education, ethnicity, marital status and occupation of the survey participants.

The targeted sample size was 4850; however usable data was obtained from 2586 participants, giving an overall survey response rate of 53.3%. The detailed breakdown of the response rates by age and gender is presented in Table 1 and also in appendix 8.1.

Table 1 STEPS Survey Response Rates by Age and Gender

	Survey Response Rates							
Age Group (years)	Men			Women			Both Sexes	
	n	%		n	%		n	%
25-34	272	44.5		339	55.5		611	23.6
35-44	284	39.7		431	60.3		715	27.6
45-54	339	45.3		409	54.7		748	28.9
55-64	238	46.5		274	53.5		512	19.8
25-64	1133	43.8		1453	56.2		2586	100

4.2 Distribution of the sample

Of the 2586 survey participants, 1133 (43.8%) were males and 1453 (56.2%) females (Table 2). iTaukei's made up 54.7% of the surveyed population with Indo-Fijians at 42.5% and Fijians of other origins making up the remaining 2.8%. The highest proportion of those surveyed were between the age of 35 – 54 years old (56.5%). (The term Indo-Fijians will be used throughout this report to denote Fijians of Indian descent). (Additional detailed data in Appendix 8.2)

Table 2 Demographic Profile of the Surveyed Population

Demographic Characteristic	Study Sample	
	Number (n)	Weighted Proportion (%)
GENDER		
Male	1133	43.8
Female	1453	56.2
Total	2586	
ETHNICITY		
ITaukei	1396	54.7
Indo-Fijians	1085	42.5
Other	70	2.8
Total	2551	
AGE GROUP (years)		
25-34	611	23.6
35-44	715	27.6
45-54	748	28.9
55-64	512	19.9
Total (25-64)	2586	

4.3 Level of Education

The average number of years spent in school by the survey participants was 10.2 years (Table 3). The mean number of years spent in school decreased from 11.7 to 8.3 as the age increased from 25 to 64 years old. There was little difference between the males (10.3) and females (10.1) or between the two ethnic groups, iTaukei (10.5) and Indo-Fijian (9.8) respectively.

The population surveyed were found to be well-educated with approximately half having completed primary (44.3%), secondary (32.9%) and tertiary education (10.7%). The majority of the younger age-group 25-34 had completed secondary and tertiary schools while in the older age category (45 – 64) most had only completed primary school (Table 4).

Table 3 Mean years spent in school by gender, age and ethnicity

Mean number of years of education						
Age Group (years)	Men		Women		Both Sexes	
	n	Mean (yrs)	n	Mean (yrs)	n	Mean (yrs)
25-34	256	11.9	311	11.6	567	11.7
35-44	263	10.5	403	10.7	666	10.7
45-54	304	9.8	371	9.7	675	9.7
55-64	217	8.8	239	7.8	456	8.3
25-64	1040	10.3	1324	10.1	2364	10.2
Ethnicity						
ITaukei	577	10.5	711	10.4	1288	10.5
Indo-Fijian	427	9.9	581	9.8	1008	9.8
Total	1040		1324		2296	

Table 4 Highest level of education by age-group and ethnicity

Highest level of education							
Age Group (years)	Both Sexes						
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% College/ University completed	% Post graduate degree completed
25-34	596	0.3	3.4	31.5	43.6	21.0	0.2
35-44	703	0.4	7.5	41.5	40.4	9.2	0.9
45-54	737	2.4	10.9	49.4	30.4	6.8	0.1
55-64	506	4.0	22.5	55.5	13.4	4.2	0.4
25-64	2542	1.7	10.5	44.3	32.9	10.3	0.4
Ethnicity							
ITaukei	1393	0.8	7	46.1	35.4	10.5	0.2
Indo-Fijian	1079	3.0	14.9	42.8	29.0	9.6	0.6

Prevalence of Common Modifiable Risk Factors for NCD

4.4 Tobacco Use

To assess tobacco use, survey participants were asked if they currently smoked any tobacco products (cigarettes, cigars or pipes); and if they currently smoke daily. Additionally they were asked questions about previous smoking, the age of initiation of smoking, duration of smoking, the quantity of tobacco smoked daily and types of tobacco products. (Additional detailed data in Appendix 3, Tables 3.0-3.22)

4.4.1 Current Smoking

The prevalence of current tobacco smoking was 30.8% (95% CI, 27.4 – 34.1) with significantly more smoking in males 47.0% (95% CI, 43.1-51.0) compared to the females 14.3% (95% CI, 1.4-17.2) (Table 5).

Men in all age groups had significantly higher smoking rates than the women in the same age groups. The highest proportion of current smokers was seen in the younger adults (25-34 year) both among men and women. There was a significant difference between the 25-34 year and 55-64 year age groups in both genders.

Table 5 Percentage of Current Smokers by gender and age group

Current Smokers									
Age Group (years)	Men			Women			Both Sexes		
	n	% Current smoker	95% CI	n	% Current smoker	95% CI	n	% Current smoker	95% CI
25-34	267	50.7	44.4-57.1	330	19.1	13.7-24.5	597	35.1	30.0-40.1
35-44	278	48.3	41.9-54.8	425	15.6	11.2-19.9	703	31.6	27.3-35.8
45-54	332	48.1	40.7-55.5	399	10.5	6.8-14.2	731	30.0	24.6-35.4
55-64	234	35.6	29.3-41.9	270	8.3	4.7-11.9	504	22.1	18.2-26.0
25-64	1111	47.0	43.1-51.0	1424	14.3	11.4-17.2	2535	30.8	27.4-34.1

In terms of ethnic groups, significantly more iTaukei were current smokers 37.6% (95% CI, 33.5-41.8) as compared to the Indo-Fijians 20.3% (95% CI, 18.0-22.6). (Table 6) This pattern was also found for both men and women. Among women, significant differences existed between the iTaukei women 22.9% (95% CI, 19.2-26.6) compared to the Indo-Fijian women 2.1% (95% CI, 0.5-3.7) .

Table 6 Percentage of Current Smokers by Ethnic Groups

Current Smokers									
Ethnicity	Men				Women			Both Sexes	
	n	% Current smoker	95% CI		n	% Current smoker	95% CI	n	% Current smoker
iTaukei	614	51.7	46.7-56.7		765	22.9	19.2-26.6	1379	37.6
Indo-Fijian	456	39.7	35.6-43.8		623	2.1	0.5-3.7	1079	20.3

4.4.2 Smoking Status

In terms of the smoking status of the surveyed population, 16.6% (95% CI, 13.7-19.5) smoked daily; 14.1% (95% CI, 11.9-16.3) were non-daily smokers (Table 7). Significantly higher proportions of males were daily smokers 27.1% (95% CI, 22.9-31.3) as compared to women 6.0% (95% CI, 4.4-7.6). There were no significant differences in frequency of smoking between age groups.

Table 7 Smoking status of all survey participants by gender (25-64 years old)

Smoking status									
	n	Current smoker				Non-smokers			
		% Daily	95% CI	% Non-daily	95% CI	% Former smoker	95% CI	% Never smoker	95% CI
Men	1111	27.1	22.9-31.3	19.9	16.8-22.9	27.1	24.2-30.1	25.9	22.3-29.4
Women	1424	6.0	4.4-7.6	8.3	6.2-10.4	19.3	16.3-22.3	66.4	61.6-71.2
Total	2535	16.6	13.7-19.5	14.1	11.9-16.3	23.2	21.0-25.5	46.0	42.0-50.0

4.4.3 Frequency of Smoking

Amongst the current smokers, 54.1% (95% CI, 47.8-60.4) reported they smoked daily with significant differences seen between genders. More than half of men who smoked, were daily smokers 57.7% (95% CI, 51.3-64.1) whereas in women smokers, less than half were daily smokers 41.9% (95% CI, 33.7-50.0). There was no significant difference in the age groups and ethnic groups (Table 8 & 9).

Table 8 Current daily smokers among current smokers by age and gender

Current daily smokers among smokers									
Age Group (years)	Men			Women			Both Sexes		
	n	% Daily smokers	95% CI	n	% Daily smokers	95% CI	n	% Daily smokers	95% CI
25-34	135	49.2	39.7-58.7	60	40.8	28.1-53.4	195	46.9	37.8-56.1
35-44	135	58.9	49.8-67.9	64	41.8	27.4-56.2	199	54.6	46.6-62.5
45-54	154	65.3	55.2-75.3	39	35.4	16.9-53.9	193	60.3	50.8-69.7
55-64	86	62.3	53.4-71.3	19	59.6	38.5-80.7	105	61.8	53.8-69.9
25-64	510	57.7	51.3-64.1	182	41.9	33.7-50.0	692	54.1	47.8-60.4

Table 9 Current daily smokers among current smokers by ethnic group

Current daily smokers among smokers									
Ethnicity	Men			Women			Both Sexes		
	n	% Daily smokers	95% CI	n	% Daily smokers	95% CI	N	% Daily smokers	95% CI
iTaukei	304	53.8	44.2-63.4	160	40.8	32.2-49.3	464	49.9	41.4-58.5
Indo-Fijians	189	66.5	58.7-74.2	14	52.8	21.5-84.1	203	65.8	58.3-73.2

4.4.4 Initiation of Smoking

Among current daily smokers, the mean age of initiation was 20.7 years (95% CI, 20.1-21.3), which significantly differed by gender. The mean age of initiation was 2 years earlier among the male population with a mean of 20.2 years (95% CI, 19.7-20.8), as compared to the female 22.7 years (95% CI, 21.1-24.4) (Table 10).

Table 10 Mean age started smoking by gender and age group

Mean age started smoking									
Age group (years)	Men			Women			Both Sexes		
	n	% Daily smokers	95% CI	n	% Daily smokers	95% CI	N	% Daily smokers	95% CI
25-64	288	20.2	19.7-20.8	73	22.7	21.1-24.4	361	20.7	20.1-21.3
Ethnicity									
iTaukei	154	20.0	19.2-20.8	60	21.8	20.2-23.4	214	20.4	19.7-21.1
Indo-Fijians	124	20.9	20.0-21.7	9	29.4	25.2-33.6	133	21.3	20.4-22.1

The average duration of smoking among the current daily smokers was 20.9 years (95% CI 19.7 – 22.0) with significant difference between males 21.7 years (95% CI, 20.4-23.1) and females 17.0 years (95% CI, 14.6-19.5). There were also statistical differences between age groups with the average years of daily smoking increasing with age for both genders. Table 11

Table 11 Mean duration smoking among by gender and age group

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
25-34	66	10.9	9.7-12.1	23	10.1	7.9-12.4	89	10.7	9.6-11.8
35-44	75	19.1	17.9-20.2	26	16.0	12.8-19.2	101	18.5	17.2-19.7
45-54	97	28.0	26.4-29.7	13	27.2	24.5-30.0	110	28.0	26.5-29.5
55-64	50	37.5	35.7-39.2	11	29.3	23.3-35.4	61	35.9	33.8-38.1
25-64	288	21.7	20.4-23.1	73	17.0	14.6-19.5		20.9	19.7-22.0

4.4.5 Manufactured Cigarette Smokers

Among the current daily smokers, 78.3% (95% CI, 73.2-83.3) smoked manufactured cigarettes. There was no difference in the proportion by gender, age group (Table 12) and ethnicity.

Table 12 Percentage of current daily smokers who smoke manufactured cigarettes

Age Group (years)	Manufactured cigarette smokers among daily smokers								
	Men			Women			Both Sexes		
	n	% Manufact-ured cigarette	95% CI	n	% Manufact-ured cigarette	95% CI	n	% Manufact-ured duration	95% CI
25-34	66	79.6	69.8-89.4	23	85.4	71.4-99.5	89	80.9	72.2-89.7
35-44	79	86.4	76.9-96.0	26	77.6	58.6-96.7	105	84.7	76.3-93.1
45-54	98	75.4	66.7-84.1	13	58.5	33.4-83.5	111	73.7	65.2-82.3
55-64	52	63.3	47.1-79.5	11	82.3	60.1-100.	63	66.7	52.1-81.3
25-64	295	78.2	72.7-83.7	73	78.5	69.0-88.1		78.3	73.2-83.3

The mean number of manufactured cigarette smoked per day was 6.9 (95% CI, 6.1-7.8) among current daily smokers. Men smoked an average of 7.2 cigarettes (95% CI 6.3-8.2) daily and women 5.6 (95% CI, 3.5-7.7) a day. There was no significant difference in the number of cigarettes smoked daily between genders and age group (Appendix 3, Table 3.5- 3.13).

4.4.6 Exposure to second-hand smoke in home and workplace

Exposure to second-hand smoke at home and work was reported by 60.2% (95% CI, 52.9-67.6) and 47.6% (95% CI, 38.6-56.6) respondents respectively. More respondents were exposed in their homes than in the workplaces. However this difference was not significant. In regards to gender, 62.2% (85% CI, 54.3-70.1) of women and 58.5% (95% CI, 50.5-66.4) of men were exposed to smoking at home. At the workplace, more men 53.6% (95% CI, 44.1-63.1) reported exposure to second-hand smoke as compare to women 39.7% (95% CI, 30.0-49.3) women (Table 13).

Table 13 Exposure to second hand smoke in home and work

Exposed to second-hand smoke 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
Home	645	58.5	50.5-66.4	737	62.2	54.3-70.1	1382	60.2	52.9-67.6
Work	605	53.6	44.1-63.2	589	39.7	30.0-49.3	1194	47.6	38.6-56.6

4.5 Alcohol Consumption

This section describes patterns of alcohol consumption among the Fiji adults. To assess patterns and prevalence of alcohol consumption, survey participants were asked about frequency and quantity of alcohol consumed. Those who had consumed at least one alcoholic drink in the past 30 days were classified as current drinkers. (Additional detailed data in Appendix 3, Tables 4.0-4.23)

4.5.1 Alcohol Consumption Status

Of all the survey respondents, 41.7% (95%CI, 38.6-44.8) were lifetime abstainers, with similarly large differences between males and females.

Of all the survey respondents, 14.8% (95%CI, 13.0-16.6) reported drinking in the past 12 months but not in the last month. , and 15.7% (95% CI, 13.6-17.9) reported alcohol use in the past 30 days. There was a difference between men 19.4% (95%CI, 16.9-22.0) and women 10.3% (95%CI, 8.3-12.3) regarding drinking in the last 12 months. Similarly, 26.1% (95% CI, 22.5-29.7) of men versus 5.4% women (95% CI, 4.0-6.9) were current alcohol drinkers. (Table 14)

The highest proportion of current drinkers was in the 25-34 yrs. age group. Thereafter, the proportion of those who drank in the past 12 months decreased with increasing age, more significantly in women from 13.7% down to 3.6% at the age of 55-64. (Appendix 3, Tables 4.0-4.3)

Table 14 Alcohol consumption status by gender and age group

	n	% Current drinker (past 30 days)	Alcohol consumption status					% Lifetime abstainer	95% CI
			95% CI	% Drank in past 12 months, not current	95% CI	% Past 12 months abstainer	95% CI		
Men	1097	26.1	22.5-29.7	19.4	16.9-22.0	32.8	28.6-37.0	21.7	18.2-25.1
Women	1429	5.4	4.0-6.9	10.3	8.3-12.3	22.7	19.4-25.9	61.6	57.3-66.0
Total	2526	15.7	13.6-17.9	14.8	13.0-16.6	27.7	24.9-30.5	41.7	38.6-44.8

When comparing between the two main ethnic groups, alcohol consumption patterns were markedly different. The Indo-Fijians had a higher proportion of lifetime abstainers 48.0% (95%CI, 43.6-52.4) compared to iTaukei 37.6% (95%CI, 33.9-41.3), but fewer short-term abstainers (last 12 months) compared to iTaukei. More Indo-Fijians were current drinkers. (Table 15)

Table 15 Alcohol consumption status by ethnic group (for both sexes)

Ethnicity	Alcohol consumption status								
	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
iTaukei	1380	12.5	9.8-15.2	14.2	11.8-16.6	35.7	32.3-39.2	37.6	33.9-41.3
Indo-Fijian	1069	19.6	16.3-22.8	16.3	13.9-18.8	16.1	13.5-18.7	48.0	43.6-52.4

4.5.2 Frequency of Alcohol Consumption

In terms of the frequency of alcohol use by the respondents who reported drinking in the past 12 months, 59.6% (95%CI, 55.0-64.1) drank occasionally (less than one per month), 26.7% (95%CI, 23.1-30.2) drank alcohol for 1-3 days a month, 10.7% (95%CI, 8.1-13.3) drank 1- 4 days a week, 1.9% (95% CI, 0.8-3.0) drank 5-6 days a week and 1.2% (95% CI, 0.4-0.2) reported daily consumption of alcohol. (Table 16, Appendix 3 – Tables 4.4-4.6)

Analysis by gender demonstrates more frequent alcohol consumption during a week/month in men compared to women. Indo-Fijian men reported the highest number of drinking occasions in the last 30 days mean 4.9 (95%CI, 3.8-6.0).

Table 16 Frequency of alcohol intake among those who have drunk alcohol in the last 12 months

	n	Frequency of alcohol consumption in the past 12 months								% < once a month	95% CI
		% Daily	95% CI	% 5-6 days p. week	95% CI	% 1-4 days p. week	95% CI	% 1-3 days p. month	95% CI		
Men	476	---	---	---	---	13.2	9.8-16.6	29.9	25.5-34.3	53.6	47.7-59.5
Women	207	0.5	0.0-1.5	1.7	0.0-4.1	3.3	0.8-5.8	---	---	77.5	70.9-84.1
Total	683	1.2	0.4-2.0	---	---	10.7	8.1-13.3	26.7	23.1-30.2	59.6	55.0-64.1

--- n<50 - less than 50 respondents

4.5.3 Binge Drinking

Binge drinking among current drinkers was defined as consumption of 5 or more drinks for men and 4 or more drinks for women on any day in the week preceding the survey. Among current drinkers, binge drinking in the past month was significantly more common among the men 17.3% (95% CI, 14.3-20.3) than the women (where n is too small to report). (Table 17)

In terms of ethnic distribution, binge drinking was 1.5 more common amongst the Indo-Fijian men drinkers 21.7 (95%CI, 17.1-26.3) compared to the ITaukei men 13.9% (95%CI, 10.6-16.9). (Table 18)

Table 17 Five/four or more drinks on a single occasion at least once during the past 30 days among men by age groups

Five/four or more drinks on a single occasion at least once during the past 30 days among total population			
Age Group (years)	Men		
	n	% ≥ 5 drinks	95% CI
25-34	266	28.1	22.1-34.0
35-44	272	15.4	10.7-20.0
45-54	326	11.4	7.2-15.7
55-64	231	9.1	4.6-13.5
25-64	1095	17.3	14.3-20.3

Table 18 Five/four or more drinks on a single occasion at least once during the past 30 days among men by ethnicity

Five/four or more drinks on a single occasion at least once during the past 30 days among total population			
Ethnicity	Men		
	n	% ≥ 5 drinks	95% CI
I-Taukei	610	13.8	10.6-16.9
Indo-Fijian	446	21.7	17.1-26.3

4.6 Kava Consumption

The overall prevalence of kava drinking in the last 30 days was 59.0% (95%CI, 55.1-62.8) (Table 19). More men than women in all age groups drank kava in the past 30 days. Twice as much men reported consuming kava 78.7% (95% CI, 75.4 -82.0) compared to women 38.8% (95% CI, 33.7-43.9).

Amongst the men, similar proportions in each age group drank kava. Amongst the women, more women in the younger age group drank kava compared to the older, and while the prevalence decreased with increasing age, the differences were not significant.

Table 19 Kava or Yaqona consumption status for both sexes over the past 30 days by age group

Consumed Kava or Yaqona in the past 30 days									
Age Group (years)	Men			Women			Both Sexes		
	n	% Consumed Kava or Yaqona (past 30 days)	95% CI	n	% Consumed Kava or Yaqona (past 30 days)	95% CI	n	% Consumed Kava or Yaqona (past 30 days)	95% CI
25-34	271	78.7	73.2-84.3	331	45.5	37.9-53.1	602	62.4	56.5-68.2
35-44	279	79.0	73.6-84.4	426	38.5	31.6-45.4	705	58.3	53.6-62.9
45-54	333	81.4	77.3-85.6	401	35.6	29.3-42.0	734	59.5	54.4-64.5
55-64	236	73.8	67.3-80.3	272	31.0	24.2-37.8	508	52.6	47.1-58.2
25-64	1119	78.7	75.4-82.0	1430	38.8	33.7-43.9	2549	59.0	55.1-62.8

Overall, iTaukei's 69.2% (95%CI, 65.3-73.1) were more likely to consume kava in the last 30 days compared to the Indo-Fijians 43.5% (95% CI, 39.8-47.2). A closer analysis shows that amongst the women, iTaukei were 3.5 times more likely to have consumed kava in the last 30 days, compared to Indo-Fijians. Both these findings are significant. (Table 20).

Table 20 Kava or Yaqona consumption status for both sexes over the past 30 days by ethnic groups

Consumed Kava or Yaqona in the past 30 days											
Age Group (years)	Men				Women				Both Sexes		
	n	% Consumed Kava or Yaqonga (past 30 days)	95% CI		n	% Consumed Kava or Yaqonga (past 30 days)	95% CI		n	% Consumed Kava or Yaqonga (past 30 days)	95% CI
i-Taukei	620	82.2	78.1-86.3		769	55.5	50.3-60.8		1389	69.2	65.3-73.1
Indo-Fijian	457	73.2	68.2-78.3		625	15.6	12.4-18.8		1082	43.5	39.8-47.2

4.7 Intake of Fruit and Vegetables

To assess dietary behaviors, survey participants were asked on how many days in a typical week did they consumed fruit and vegetables, and how many servings of each they consumed on one of those days. Flash cards with pictures of fruits, vegetables and definitions of serving sizes were shown to the survey participants to help with answering the questions.(Additional detailed data in Appendix 3, Tables 5.0-5.12)

4.7.1 Fruit Consumption: mean number of days per week & daily servings

For fruit consumption, the mean number of days on which fruit was consumed in a typical week was 3.9 days (95% CI, 3.7-4.1), with women reporting marginally higher frequency (4.0 days) than men (3.8 days) . (Table 21)

Table 21 Mean number of days fruit was consumed in a typical week by gender and age group

	Mean number of days fruit consumed in atypical 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
25-34	253	3.9	3.6-4.3		321	4.1	3.8-4.4		574	4.0	3.7-4.3
35-44	261	3.7	3.4-4.1		412	4.0	3.8-4.3		673	3.9	3.6-4.1
45-54	321	3.8	3.4-4.2		390	4.0	3.7-4.3		711	3.9	3.6-4.2
55-64	230	3.9	3.5-4.3		261	3.8	3.5-4.2		491	3.9	3.6-4.2
25-64	1065	3.8	3.6-4.1		1384	4.0	3.8-4.2		2449	3.9	3.7-4.1

There were also differences between the two ethnic groups with Indo-Fijians consuming fruits on 4.4 days (95%CI, 4.2-4.6) while the iTaukei consumed on an average of 3.6 days (95% CI, 3.3-3.8).

Overall, the survey participants reported consuming an average of 1.2 (95% CI, 1.1-1.2) daily servings of fruit. This was relatively consistent across all age group and genders. Table 22

Table 22 Mean number of servings of fruits consumed on a day when fruits were eaten

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
25-34	247	1.2	1.0-1.4	319	1.2	1.0-1.4	566	1.2	1.1-1.4
35-44	258	1.2	1.0-1.4	409	1.1	1.0-1.3	667	1.2	1.0-1.3
45-54	313	1.1	0.9-1.3	384	1.1	1.0-1.2	697	1.1	1.0-1.2
55-64	221	1.2	1.0-1.4	257	1.1	0.9-1.3	478	1.1	1.0-1.3
25-64	1039	1.2	1.1-1.3	1369	1.1	1.1-1.2	2408	1.2	1.1-1.2

4.7.2 Vegetables Consumption: mean number of days per week & daily servings

The mean number of days in week when vegetables were consumed was 5.6 days (95% CI, 5.4-5.7) with no significant differences noted between the gender, age groups and ethnicity (Table 23).

The overall average number of servings of vegetables was 1.9 ± 0.1 servings daily. There were no differences in the age groups and between genders (Table 25)

Table 23 Mean number of days in a week vegetables consumed in a typical, by gender and age group

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
25-34	265	5.5	5.2-5.7	327	5.4	5.1-5.7	592	5.4	5.2-5.6
35-44	273	5.6	5.3-5.8	424	5.7	5.5-6.0	697	5.7	5.5-5.8
45-54	329	5.5	5.3-5.8	399	5.7	5.5-5.9	728	5.6	5.4-5.8
55-64	231	5.6	5.3-6.0	273	5.7	5.5-6.0	504	5.7	5.4-5.9
25-64	1098	5.5	5.4-5.7	1423	5.6	5.4-5.8	2521	5.6	5.4-5.7

Table 24 Mean number of servings of vegetables consumed on a day when vegetables were eaten

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
25-34	262	1.8	1.6-1.9		324	1.7	1.6-1.9		586	1.8	1.6-1.9
35-44	269	2.0	1.7-2.3		420	2.0	1.7-2.2		689	2.0	1.8-2.2
45-54	320	1.9	1.7-2.1		393	2.1	1.9-2.3		713	2.0	1.8-2.1
55-64	227	1.9	1.7-2.1		273	2.0	1.7-2.2		500	1.9	1.8-2.1
25-64	1078	1.9	1.8-2.0		1410	1.9	1.8-2.1		2488	1.9	1.8-2.0

4.7.3 Combined Fruit and Vegetables Consumption: mean number of days per week & daily servings

The average consumption of fruits and vegetables was 3.0 (95% CI, 2.8-3.2) servings a day. This was relatively consistent across all age groups and the genders (Table 25)

Table 25 Mean number of combined servings of fruit and vegetables consumed per average 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
25-34	266	2.9	2.6-3.2	330	2.9	2.6-3.2	596	2.9	2.7-3.1
35-44	274	3.1	2.7-3.5	424	3.0	2.7-3.3	698	3.1	2.8-3.3
45-54	325	2.9	2.7-3.2	398	3.1	2.8-3.3	723	3.0	2.8-3.2
55-64	230	3.0	2.7-3.3	273	3.0	2.7-3.3	503	3.0	2.8-3.3
25-64	1095	3.0	2.8-3.2	1425	3.0	2.8-3.2	2520	3.0	2.8-3.1

More than four fifths 85.0% (95% CI, 82.6-87) of the participants surveyed consumed less than five combined servings of fruit and vegetables on an average day, with no significant difference by gender, age and ethnicity. (Table 26)

Table 26 Percentage who consumed less than five combined servings of fruit and vegetables per average 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
25-34	266	83.3	78.6-88.1	330	86.6	81.6-91.5	596	84.9	81.4-88.5
35-44	274	83.2	78.0-88.3	424	85.7	81.9-89.6	698	84.5	81.1-87.9
45-54	325	87.9	83.4-92.4	398	85.8	81.7-89.8	723	86.9	83.5-90.3
55-64	230	79.8	73.9-85.7	273	86.8	81.7-91.9	503	83.3	79.1-87.6
25-64	1095	83.9	80.9-86.9	1425	86.2	83.5-88.8	2520	85.0	82.6-87.5

4.8 Physical Activity

Survey participants were asked how often (frequency) and how long (duration) did they engage in three domains of physical activity (work-related, transport-related and leisure-related) in a typical week;

To account for the different levels of energy expenditure required for the activities (i.e. low, moderate or high), the daily duration of activity was converted into MET minutes per day. The term MET (metabolic equivalent) is used as an indication of the intensity of physical activity. A MET is the ratio of the associated metabolic rate for a specific activity divided by the resting metabolic rate. The energy cost of sitting is equivalent to a resting metabolic rate of 1 MET. In this report, as in all STEPS Reports, the following MET values were allocated to the three physical activity domains:

Moderate physical activity (work and leisure domain)	= 4.0 METS
High physical activity (work and leisure domain)	= 8.0 METS
Travel related walking/cycling	= 4.0 METS

The following levels of activity in terms of METminutes were defined as:

Low activity:	<600 METminutes per week
Moderate activity:	600-1500 METminutes per week
High activity:	>1500 METminutes per week

(Additional detailed data in Appendix 3, Tables 6.0-6.29)

4.8.1 Levels of Total Physical Activity

According to the survey results, the prevalence of people engaged in high levels of physical activity was just over half of the sample population 57.5% (95% CI, 53.9-61.2) with significantly more men 72.4% (95%CI, 68.3-76.4) engaged in

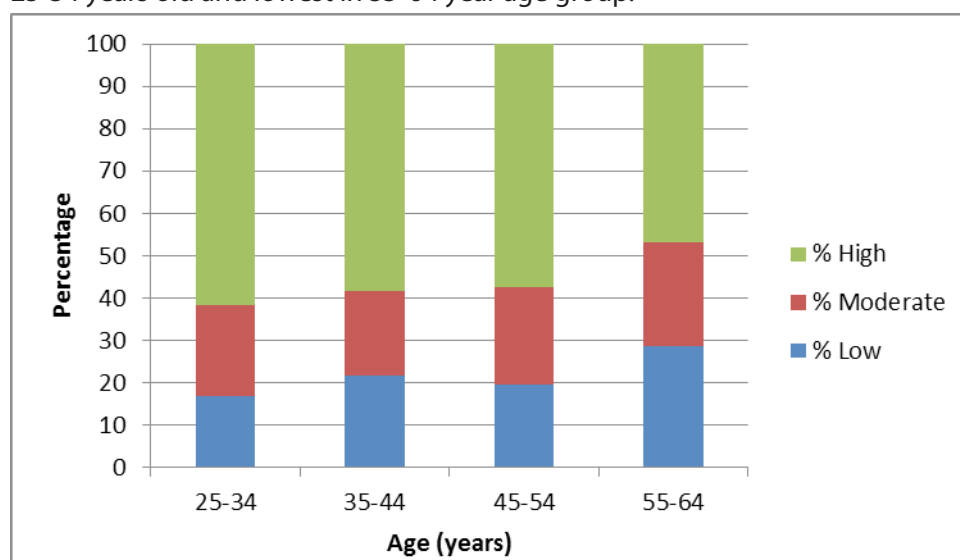
such activities than women 42.8% (95%CI, 39.2-46.4) (Table 27)

Table 27 Categories of total physical activity among by gender for the 25-64 year old group

Categories level of total physical activity							
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
Men	1037	12.8	10.2-15.4	14.9	12.2-17.6	72.4	68.3-76.4
Women	1356	28.7	24.8-32.7	28.4	25.3-31.6	42.8	39.2-46.4
Total	2393	20.8	18.1-23.4	21.7	19.3-24.1	57.5	53.9-61.2

Significantly higher proportions of men were engaged in moderate 14.9% (95% CI, 12.2-17.6) to high levels 72.4% (95% CI, 68.3-76.4) of physical activity whereas more women were engaged in low 28.7% (95% CI, 24.8-32.7) to moderate 28.4% (95% CI, 25.3-31.6) levels. The overall prevalence of low levels of physical activity was 20.8% (95% CI, 18.1-23.4) with significantly more women 28.7% (95% CI, 24.8-32.7) than men 12.8% (95% CI, 10.2-15.4) in this category. (Table 27)

In terms of age differences, 25-34 year old men actively engaged in high level physical activities 76.3% (95% CI, 70.4-82.2) decreasing with age and reaching the lowest rate in 55-64 year olds 60.2% (95% CI, 54.4-66.0)). A similar pattern is seen with women. The findings of the survey demonstrated that in both genders physical activity was highest in the 25-34 years old and lowest in 55-64 year age group.



Overall, the iTaukei population had higher proportions of high physical activity 62.4% (95%CI 57.8-67.0) compared to Indo-Fijians 50.2% (95% CI, 45.9-54.5).

4.8.2 Mean minutes of Total Physical Activity on average per day

In the surveyed population, the average duration of time spent daily on physical activity was 191.5 minutes (95%CI, 173.8-209.2). The men on average, spent twice as much time (254.3 minutes) on physical activity, compared to women (129.4 minutes) (Table 28).

Table 28 Mean minutes of total physical activity on average per day by gender and age group

Age Group (years)	Mean minutes of total physical activity on average per day								
	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	n	Mean minutes	95% CI	n	Mean minutes	95% CI
25-34	240	303.9	258.5-349.3	311	148.8	122.9-174.8	551	225.0	190.6-259.3
35-44	266	247.3	215.7-278.9	402	132.8	115.5-150.2	668	188.8	169.2-208.5
45-54	314	251.3	221.1-281.4	379	122.3	108.3-136.3	693	189.3	169.1-209.5
55-64	217	177.4	156.3-198.5	264	96.8	80.1-113.5	481	136.4	122.7-150.0
25-64	1037	254.3	230.9-277.6	1356	129.4	117.4-141.4	2393	191.5	173.8-209.2

Additionally men engaged in more work-related physical activity than women (83.3 or 1.3 hours), spending up to an average of 171.3 minutes (close to 3 hours). The observed difference is statistically significant (Table 29). The amount of physically activity decreased with increasing age, across all aspects of physical activity area (Table 29-31), and women consistently spent less time being physically active compared to men. Overall around half the participants indicated that they had no recreation-related physical activity. Slightly more than half of the physical activity accrued was from work-related physical activity, and a quarter from transport related physical activity.

Table 29 Mean minutes of work-related physical activity by gender and age group

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
25-34	240	197.7	169.3-226.2	311	92.3	75.2-109.4	551	144.1
35-44	266	159.1	135.7-182.5	402	84.0	70.5-97.5	668	120.7
45-54	314	177.8	152.9-202.6	379	83.1	71.9-94.3	693	132.3
55-64	217	132.2	111.5-152.9	264	65.1	51.5-78.6	481	98.0
25-64	1037	171.3	154.9-187.7	1356	83.3	73.8-92.7	2393	127.1

Table 30 Level of transport-related physical activity (mean MET minutes per day) by gender and age group

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
25-34	240	45.1	28.3-61.9	311	30.8	19.6-42.0	551	37.8
35-44	266	49.8	38.9-60.7	402	32.8	25.5-40.2	668	41.1
45-54	314	47.4	36.7-58.1	379	26.8	21.9-31.7	693	37.5
55-64	217	30.8	25.0-36.6	264	21.6	16.4-26.7	481	26.1
25-64	1037	44.8	36.6-52.9	1356	28.9	24.3-33.6	2393	36.8

Table 31 Level of recreation-related physical activity (mean MET minutes per day) by gender and age group

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
25-34	240	61.1	48.3-73.8	311	25.7	17.0-34.4	551	43.1
35-44	266	38.4	30.6-46.2	402	16.0	11.8-20.2	668	27.0
45-54	314	26.1	18.3-33.9	379	12.4	9.0-15.7	693	19.5
55-64	217	14.4	9.7-19.0	264	10.2	4.8-15.5	481	12.2
25-64	1037	38.2	32.8-43.6	1356	17.2	13.8-20.5	2393	27.6

Around one third of men 32.5% (95%CI, 27.6-37.4) undertook no vigorous activity, but this was found in more than twice as many of the female participants 72.7% (95%CI, 68.6-76.8). Women however had less sedentary time than men mean of 143.7 minutes (95%CI, 133.2-154.1) and 166.3minutes (95%CI, 155.8-176.8) respectively.

Prevalence of Intermediate Risk Factors for NCD

4.9 Overweight and Obesity

The height and weight of each participant was measured following the standardized STEPS protocol. The body mass index (BMI) of each participant was computed by dividing the weight (kilograms) by the square of the height (metres²). BMI risk categories are defined as follows:

Underweight	BMI < 18.5	Normal weight	$18.5 \leq \text{BMI} \leq 24.9$
Overweight	BMI ≥ 25.0	Obese	BMI ≥ 30.0

(Additional detailed data in Appendix 3, Tables 8.0-8.12)

4.9.1 Height and Weight

In this survey the men were significantly taller (173.4 cm) and heavier (80.5 kg) than women (161.3 cm and 76.7 kg). In both genders, younger people were taller than older people. There were no overall trends in mean weight by age. (Tables 32 and 33)

Table 32 Mean height (cm) by gender and age group

Age Group (years)	Mean height (cm)					
	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
25-34	271	174.3	173.3-175.4	336	161.8	160.9-162.7
35-44	283	174.5	173.5-175.5	426	162.2	161.3-163.2
45-54	338	173.1	172.0-174.2	405	161.2	160.4-162.1
55-64	234	170.4	169.1-171.8	273	158.4	157.0-159.8
25-64	1126	173.4	172.8-174.1	1440	161.3	160.6-161.9

Table 33 Mean weight (kg) by gender and age group

Age Group (years)	Mean weight (kg)					
	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
25-34	270	80.5	77.4-83.7	324	73.6	71.1-76.1
35-44	281	80.7	78.4-82.9	424	79.1	76.9-81.3
45-54	338	81.6	79.4-83.7	404	78.4	75.9-80.9
55-64	234	78.6	76.5-80.7	272	75.9	73.4-78.5
25-64	1123	80.5	78.7-82.3	1424	76.7	75.2-78.3

4.9.2 Body Mass Index (BMI) Categories

The overall mean BMI in this survey was 27.9 kg/m². Women had a significantly higher mean BMI 29.3 kg/m² (95% CI, 28.8-29.7) than men 26.5 kg/m² (95% CI, 26.1- 27.0). Overall mean BMI increased with age, although in men this was not significant (Table 34).

Table 34 Mean body mass index (kg/m²) by gender and age group

Age Group (years)	Mean BMI (kg/m ²)								
	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	N	Mean	95% CI
25-34	268	26.1	25.2-27.0	318	27.9	27.2-28.7	586	27.0	26.3-27.6
35-44	281	26.4	25.8-27.1	419	29.7	29.0-30.4	700	28.1	27.6-28.6
45-54	336	26.9	26.3-27.5	401	29.8	29.1-30.6	737	28.3	27.8-28.9
55-64	232	27.0	26.4-27.6	271	30.2	29.5-30.9	503	28.6	28.1-29.1
25-64	1117	26.5	26.1-27.0	1409	29.3	28.8-29.7	2526	27.9	27.5-28.3

The surveyed population were categorized into the three BMI classifications – underweight, normal, overweight and obese.

The combined BMI classification of males and females showed that 32.0% (95% CI, 29.1-34.9) were obese; 34.9% (95% CI, 32.3-37.4) overweight; 29.9% (95% CI, \pm 2.5) normal weight and 3.2% (95% CI, 2.1-4.3) underweight (Table 35, Figure 4). Amongst the men, 36.5% (95% CI, \pm 32.8-40.1) normal, 37% (95% CI, \pm 3.5) were overweight and 22.4% (95% CI, 18.8-25.9) obese. For the women 23.1% (95% CI, 20.2-26.1) were normal weight, 32.6% (95% CI, 29.8-35.5) overweight and 42.0% (95% CI, 38.5-45.6) were obese.

There were significantly more normal weight men, than women and significantly more obese women than men. There were also large differences by ethnicity, with significantly more obese iTaukei than Indo-Fijians (Figure 5), significantly more underweight Indo-Fijians and significantly less normal weight iTaukei.

Table 35 BMI Classifications among men, women and combined by age group

BMI classifications									
Ethnicity	Both Sexes								
	n	% Under-weight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% Overweight 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
Men	1117	4.1	2.3-6.0	36.5	32.8-40.1	37.0	33.5-40.5	22.4	18.8-25.9
Women	1409	2.2	1.4-3.0	23.1	20.2-26.1	32.6	29.8-35.5	42.0	38.5-45.6
Total	2526	3.2	2.1-4.3	29.9	27.4-32.4	34.9	32.3-37.4	32.0	29.1-34.9

Figure 4 Weight classification by gender

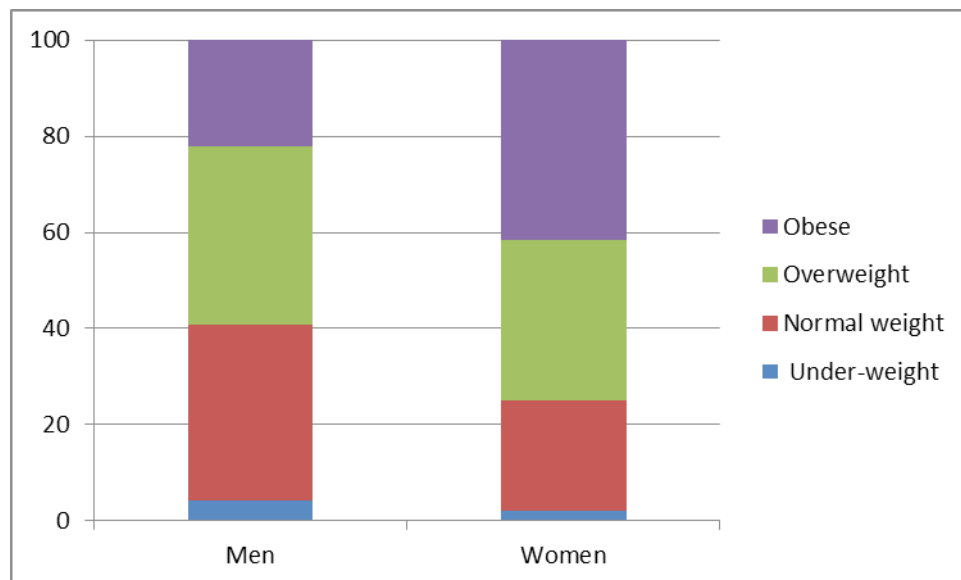
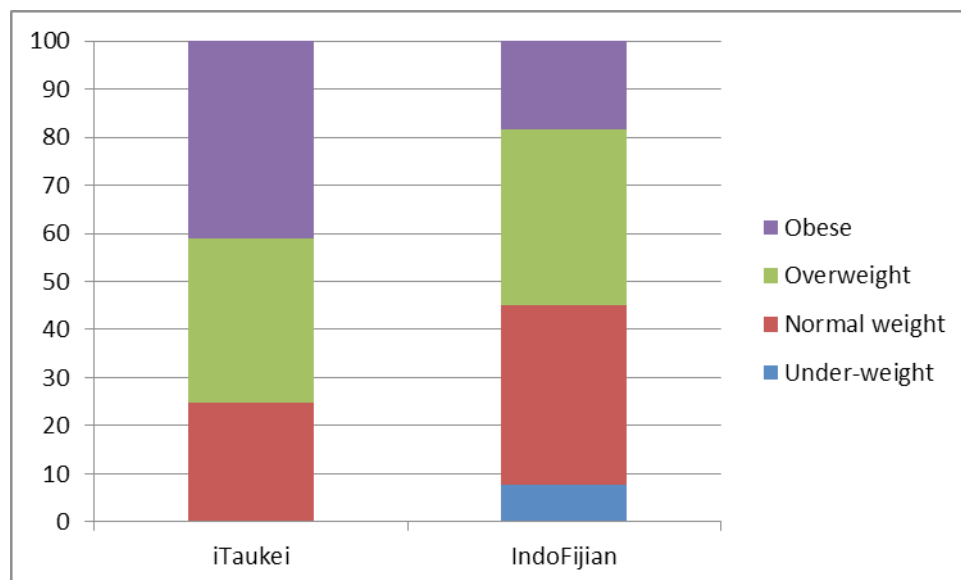


Figure 5 Weight classification by ethnicity



4.9.3 Waist Circumference

Waist circumference was used as a measure of central obesity and of the risk of cardiovascular disease. A measurement equal to or greater than 90cm in men and 80cm in women is an indicator of central obesity.

In this surveyed population, the overall mean waist circumference indicates that both gender groups are centrally obese: with the women having a higher mean waist circumference 93.1 cm (95%CI, 92.0-94.3) than men 90.1 cm (95% CI, 88.4-91.8). However, on close examination, the mean waist circumference in women in all age groups was over

80cm, whereas in men only the 45-64 years old group had a mean waist circumference greater than 90cm. (See Table 36)

Overall in both genders, mean waist circumference increased with age.

Table 36 Mean waist circumference (cm) by gender and age group

Age Group (years)	Waist circumference (cm)					
	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
25-34	266	87.3	85.0-89.5	319	89.2	87.1-91.3
35-44	281	88.2	85.4-91.0	422	94.0	92.4-95.5
45-54	336	93.3	91.4-95.2	402	94.7	93.0-96.4
55-64	235	93.7	91.3-96.0	272	96.8	94.6-99.0
25-64	1118	90.1	88.4-91.8	1415	93.1	92.0-94.3

A close examination of the ethnic groups shows a significant difference between the iTaukei women 96.5cm (95%CI, 95.0-98.1) and the Indo-Fijian women 88.7cm (95%CI, 87.2-90.1). There was no difference between the ethnicities in the men.

The waist/hip ratio was 0.9 with no difference between gender, ethnicity and age group.

4.10 Hypertension

In the STEPS protocol, the presence of hypertension is defined as individuals with:

- a mean systolic pressure of ≥ 140 mmHg, whether or not they had previously been told by a health worker that they had high blood pressure, OR
- a mean diastolic pressure of ≥ 90 mmHg, whether or not they had previously been told by a health worker that they had high blood pressure, OR
- normal mean systolic and diastolic pressures (i.e. normotensive) AND who were currently receiving anti-hypertensive medication, whether or not they had previously been told by a health worker that they had high blood pressure. (Additional detailed data in Appendix 3, Tables 7.0-7.32)

The distribution of mean systolic blood pressure (SBP) and diastolic blood pressure (DBP) by gender is summarized in Table 37.

Men had a higher mean systolic blood pressure (131.6 mmHg) than women (128.6 mmHg). However, there was no difference in the diastolic pressure between the genders.

Table 37 Mean systolic and diastolic blood pressure (mmHg) by gender

	Mean systolic blood pressure (mmHg)								
	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
Systolic BP	1116	131.6	130.3-132.8	1432	128.6	127.2-129.9	2548	130.1	129.1-131.0
Diastolic BP	1115	80.3	79.3-81.4	1431	79.9	79.1-80.8	2546	80.1	79.4-80.9

4.10.1 Raised Blood Pressure

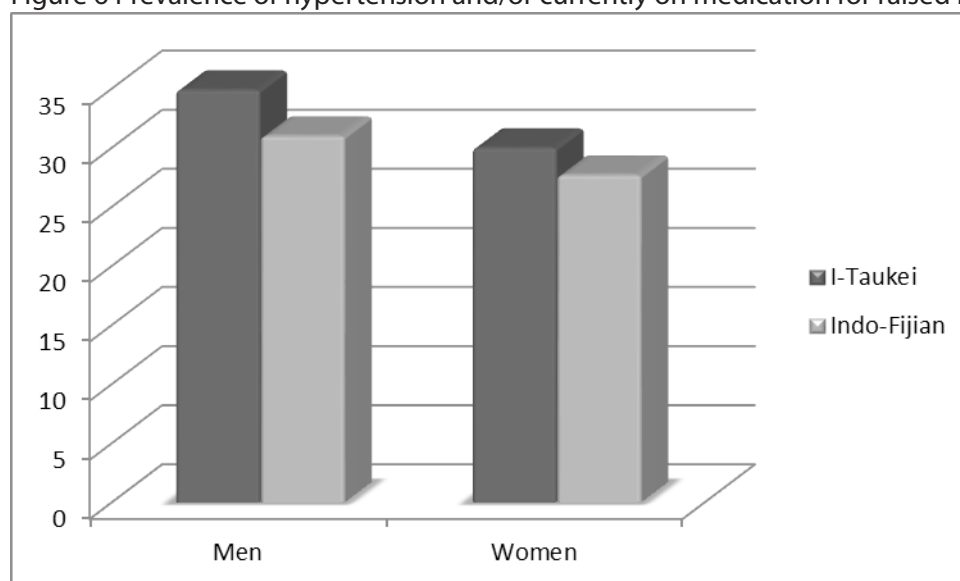
The prevalence of raised blood pressure was 31.0% (95%CI, 28.9-33.2) in this surveyed population, 33.3% (95%CI, 30.1-36.4) in men and 28.8% (95%CI, 26.2-31.1) in women. The prevalence of raised blood pressure increased with age in both men and women. As compared to the younger age group of 25-34, the male prevalence of raised blood pressure triples in the older males (17.9% to 54.0%) while it increased tenfold in females (6.0% to 62.1%). (See Table 38)

Table 38 SBP \geq 140 and/or DBP \geq 90 mmHg or currently on medication for raised blood pressure by age and gender

SBP \geq 140 and/or DBP \geq 90 mmHg or currently on medication for raised blood pressure									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	269	17.9	13.0-22.9	331	6.0	3.4-8.7	600	12.1	9.2-14.9
35-44	277	32.3	26.5-38.1	427	23.6	19.8-27.4	704	27.8	24.5-31.2
45-54	334	40.1	35.4-44.8	402	42.5	37.6-47.4	736	41.3	38.0-44.5
55-64	236	54.0	47.6-60.5	272	62.1	55.9-68.4	508	58.0	53.5-62.6
25-64	1116	33.2	30.1-36.4	1432	28.8	26.2-31.3	2548	31.0	28.9-33.2

There were no significant difference in the prevalence of hypertension by ethnicity however, although rates were slightly higher in ITaukei (Figure 6).

Figure 6 Prevalence of hypertension and/or currently on medication for raised blood pressure



4.10.2 Treated and/or Controlled Raised Blood Pressure

Out of those defined as having hypertension, 79% (95%CI, 76.0-82.0) were not on anti-hypertensive medication; 17.3% (95%CI, 14.5-20.0) were on anti-hypertensive medication but still had high blood pressure or did not monitor it, and only 3.8% (95%CI, 2.6-5.0) were successfully controlled (their blood pressure was below the cutoff values, but they had been diagnosed as hypertensive previously) (See Table 39).

Table 39 Treated and/or controlled raised blood pressure by gender

Respondents with treated and/or controlled raised blood pressure							
Age Group (years)	Both Sexes						
	n	% On medication and SBP<140 and DBP<90	95% CI	% On medication and SBP \geq 140 and/or DBP \geq 90	95% CI	% Not on medication and SBP \geq 140 and/or DBP \geq 90	95% CI
25-34	70	2.0	0.0-4.8	3.8	0.0-8.7	94.2	88.8-99.6
35-44	184	1.4	0.0-2.8	9.6	4.8-14.4	89.0	83.9-94.1
45-54	289	3.4	1.3-5.6	19.5	14.5-24.5	77.1	72.2-81.9
55-64	279	7.0	4.0-10.0	27.1	21.6-32.7	65.8	60.3-71.4
25-64	822	3.8	2.6-5.0	17.3	14.5-20.0	79.0	76.0-82.0

Analysis by ethnic groups showed that 86.0% (95%CI, 82.7-89.3) of the iTaukei have raised blood pressure and are not on any anti-hypertensive drugs compared to 68.3% (95% CI, 63.2-73.5) Indo-Fijians. (Table 40)

For those who were on medication but still had raised blood pressure; there were 2 times more Indo-Fijians 24.6% (95%CI, 19.6-29.6) than iTaukei 12.2% (95%CI, 9.4-15.0). These differences in the ethnic groups were significant.

Table 40 Treated and/or controlled raised blood pressure by ethnicity

Respondents with treated and/or controlled raised blood pressure							
Ethnicity	Both Sexes						
	n	% On medication and SBP<140 and DBP<90	95% CI	% On medication and SBP≥140 and/orDBP≥90	95% CI	% Not on medication and SBP≥140 and/orDBP≥90	95% CI
I-Taukei	467	1.8	0.4-3.1	12.2	9.4-15.0	86.0	82.7-89.3
Indo-Fijian	333	7.1	4.6-9.5	24.6	19.6-29.6	68.3	63.2-73.5

Additionally of those already diagnosed with hypertension, over 70% had received lifestyle advice to reduce salt intake or to increase physical activity and more than 60% to lose weight. Use of herbal medicines in those already diagnosed was higher in iTaukei 25.1% (95%CI,19.7-30.6) than Indo-Fijians 6.8% (95%CI, 3.0-10.6).

4.11 Diabetes and raised fasting glucose

To assess the health status of the surveyed population, the participants were asked questions relating to recent measurements of blood sugar, and treatment for diabetes.

Estimates of raised fasting glucose prevalence were computed based on the capillary whole blood glucose test results and by following the WHO guidelines for defining and classifying diabetes mellitus.

- Fasting capillary whole blood value of glucose greater than or equal to 6.1 mmol/L (≥110 mg/dl) whether or not they had previously been told by a health worker that they had diabetes, OR
- Normal capillary whole blood value of glucose less than 6.1 mmol/L (<110 mg/dl) AND who were currently receiving anti-diabetes medication prescribed by a health worker.

It should be noted that while the prevalence of diabetes is likely to be similar to the prevalence of those with raised fasting blood glucose (≥6.1mmol/l), they should not be termed as diabetes with further tests, except for those previously diagnosed.

(Additional detailed data in Appendix 3, Tables 7.34-7.53)

4.11.1 Mean Fasting Blood Glucose

The mean fasting blood glucose was 6.1mmol/L (95%CI, 6.0-6.2) in the study population. Women reported marginally higher mean fasting glucose level (6.3mmol/L) than men (6.1mmol/L) however the difference was not statistically significant. For both men and women, mean fasting blood glucose levels increased with age (Table 41).

Table 41 Mean fasting blood glucose (mmol/L) by gender and age group

Mean fasting blood glucose (mmol/L)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	N	Mean	95% CI	n	Mean	95% CI
25-34	246	5.6	5.4-5.8	313	5.6	5.4-5.7	559	5.6	5.4-5.7
35-44	251	6.0	5.7-6.3	408	6.2	5.9-6.4	659	6.1	5.9-6.3
45-54	301	6.4	6.1-6.6	374	6.9	6.6-7.3	675	6.7	6.4-6.9
55-64	218	6.7	6.4-7.0	260	7.0	6.6-7.3	478	6.8	6.6-7.1
25-64	1016	6.1	6.0-6.2	1355	6.3	6.1-6.4	2371	6.2	6.1-6.3

4.11.2 Raised Fasting Blood Glucose

The overall prevalence of raised fasting blood glucose was 28.5% (95%CI, 24.5-32.5). The prevalence increased markedly with age, ranging from 15.0% among 25-34 years old to 52.1% among those aged 55-64 years; giving a two and half-fold increase by the age of 55-64. There were no significant differences in the prevalence between men and women as well as between the ethnic groups.

Table 42 Prevalence of diabetes or raised fasting blood glucose by gender and age group

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
25-34	246	15.5	9.0-21.9	313	14.5	9.4-19.5	559	15.0	10.9-19.1
35-44	251	23.8	18.0-29.6	408	24.5	19.2-29.9	659	24.2	19.9-28.4
45-54	303	37.2	31.2-43.1	376	42.5	36.3-48.8	679	39.8	35.5-44.1
55-64	220	48.7	41.1-56.2	261	55.5	48.8-62.1	481	52.1	46.5-57.7
25-64	1020	28.5	24.5-32.5	1358	30.6	27.4-33.9	2378	29.6	26.6-32.6

** Capillary whole blood value: ≥ 6.1 mmol/L (110 mg/dl)

Of those diagnosed with diabetes, 75.4% (95%CI, 69.4-81.3) had been advised to follow a special diet and 67.9% to lose weight (95%CI, 61.7-74.1). Use of traditional healers was higher in iTaukei 28.6% (95%CI, 19.5-37.6) compared to Indo-Fijians 6.2% (95%CI, 1.9-10.6).

4.12 Haemoglobin

The mean haemoglobin in this survey population was 13.5 g/dl (95%CI, 13.4-13.6). In both groups, men and women of the two ethnic groups had haemoglobin levels within the normal range. There were no significant differences between the ethnic groups within the gender groups.(Table 43)

Table 43 Mean Haemoglobin (g/dl)

Mean Haemoglobin (g/dl)									
Ethnicity	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
iTaukei	613	14.5	14.3-14.7	764	12.9	12.7-13.0	1377	13.7	13.5-13.9
Indo-Fijian	451	14.4	14.2-14.6	618	12.2	12.0-12.3	1069	13.3	13.1-13.4

One in every third woman surveyed was anaemic, 29.0% (95% CI, 25.4-31.6). This is twice the proportion seen among the men, 14.8% (95% CI, 12.2 – 17.0). The difference between the gender groups is significant. (Table 44)

Table 44 Percentage of anaemia

Percentage of anaemic respondents							
Age Group (years)	Men (Hemoglobin < 13.0 g/dl)			Women (Hemoglobin <12.0g/dl)			
	n	% anaemic	95% CI	n	% anaemic	95% CI	
25-64	1117	14.6	12.2-17.0	1432	28.5	25.4-31.6	

4.13 Combined Risk Factors

To give an indication of overall risk of NCDs, the five key risk factors were combined and are presented in Tables 38, 39 and 40 in two age groups, 25-44 and 45-64.

- Current daily smokers
- Overweight (BMI ≥ 25 kg/m²),
- Raised blood pressure (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication),
- Consumed less than five combined servings of fruit and vegetables per day, and
- Low level of activity (< 600 METminutes per week)

These five risk factors were summed to indicate the overall risk for NCDs as follows:

- Low Risk: 0 of 5 risk factors
- Moderate Risk: 1 - 2 of 5 risk factors
- High Risk: 3 or more of 5 risk factors

Just over one third of the men surveyed were classified as High risk (34.0%, 95%CI 30.0-37.9) and about two-thirds had Moderate Risk (63.4%, 95%CI 59.7-67.0). Very few (2.7%) were defined as low risk (Table 45).

Table 45 Percentage of NCD risk categories among men by age group

Summary of Combined Risk Factors							
Age Group (years)	Men						
	n	% Low Risk	95% CI	% Moderate Risk	95% CI	% High Risk	95% CI
25-44	485	3.9	1.9-6.0	68.1	63.1-73.1	28.0	22.7-33.4
45-64	510	1.0	0.1-1.8	56.8	52.5-61.1	42.2	38.0-46.5
25-64	995	2.7	1.4-4.0	63.4	59.7-67.0	34.0	30.0-37.9

For the women, similar risk patterns were seen with around a third 37.6% (95% CI, 33.9-41.3) defined as high risk, and 60.6% (95% CI, 56.9-64.3) at Moderate Risk (Table 46).

Table 46 Percentage of NCD risk categories among women by age group

Summary of Combined Risk Factors							
Age Group (years)	Women						
	n	% Low Risk	95% CI	% Moderate Risk	95% CI	% High Risk	95% CI
25-44	671	2.1	0.9-3.3	69.6	64.5-74.6	28.3	23.2-33.3
45-64	623	1.3	0.3-2.3	47.6	43.5-51.7	51.1	46.9-55.3
25-64	1294	1.8	1.0-2.7	60.6	56.9-64.3	37.6	33.9-41.3

When examining both genders, the highest level of risk was in the older age group.

Figure 8 Prevalence of NCD risk categories by age group in the population

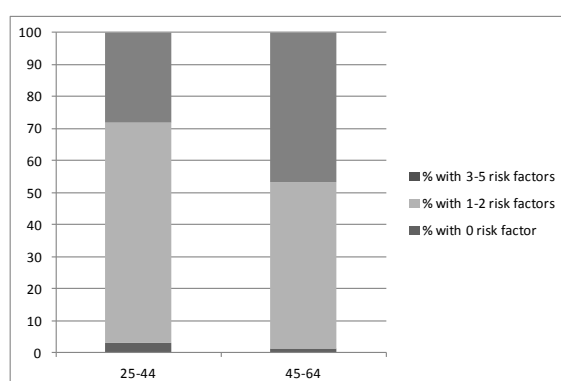


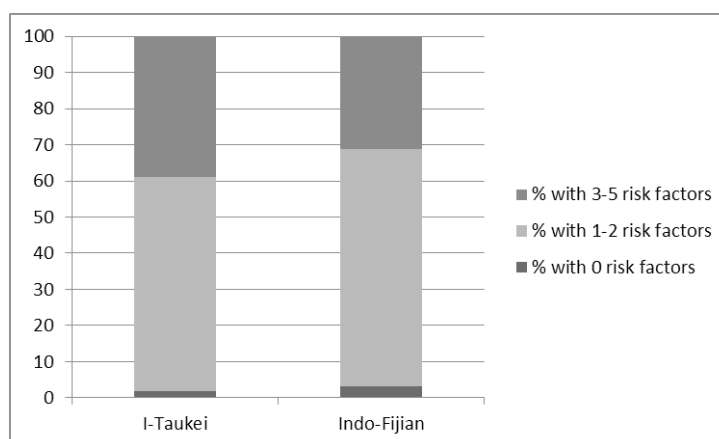
Table 47 Percentage of NCD risk categories among both genders and age group

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
25-44	1122	3.0	1.8-4.3	68.8	65.0-72.7	28.1	24.0-32.2
45-64	1103	1.2	0.5-1.9	52.3	48.9-55.6	46.5	43.2-49.8
25-64	2225	2.3	1.4-3.1	62.0	59.1-64.8	35.8	32.8-38.8

Overall, just over a third (35.8%, 95%CI 32.8-38.8) of the Fiji sample was categorized to be at High Risk of NCDs.

The majority of the surveyed population have moderate risk (62.0%, 95%CI 59.1-64.8). (See Table 45 and Figure 8). Slightly more of the iTaukei were in the high risk category than IndoFijians (Figure 9).

Figure 9 Risk category prevalence by ethnicity



4.14 Cardiovascular disease risk (CVD Risk)

Percentage of a 10-year CVD Risk from respondents aged 40-69 years.

To give an indication of the 10-year CVD Risk $\geq 30\%$ or with existing CVD of NCDs the three key risk factors were combined from STEP1, 2 and 3 and are presented in the Table 48 in two age groups 40-54 and 55-69.

- Current smoker
- Raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or current on medication for raised BP)
- Raised Blood Glucose (capillary whole blood value: ≥ 6.1 mmol/L (110 mg/dl or currently on medication for raised diabetes)

Analysis of the CVD risk factors of the current smokers, raised blood pressure and raised blood glucose were utilised to assess the CVD risk status of the population for NCDs using the WHO/ISH CVD risk charts. Due to the absence of blood cholesterol in this survey, the results from the previous survey were used in the calculations.

The CVD risk increased by age, as would be expected, and there was no significant difference by gender (Table 48). There was no significant difference in risk by ethnicity (Table 49), although iTaukei women were more at risk of CVD than Indo-Fijian women 18.6% (95% CI, 15.5-21.8) and 12.0 (95% CI, 8.9-15.1).

Table 48 Percentage of CVD risk categories among both genders and age group

Summary of Combined Risk Factors for CVD									
Age Group (years)	Men			Women			Both Sexes		
	n	30% or more risk	95% CI	n	30% or more risk	95% CI	n	30% or more risk	95% CI
40-54	446	1.6	0.5-2.7	603	2.4	1.3-3.5	1049	2.0	1.2-2.8
55-69	220	9.7	5.6-13.8	262	9.0	5.4-12.5	482	9.3	6.7-11.9
40-69	666	3.9	2.4-5.3	865	4.3	2.9-5.6	1531	4.1	3.0-5.1

Table 49 Percentage of CVD risk categories among both ethnicity and genders

Summary of Combined Risk Factors for CVD									
Ethnicity	Men			Women			Both Sexes		
	n	30% or more risk	95% CI	n	30% or more risk	95% CI	n	30% or more risk	95% CI
iTaukei	353	4.2	2.3-6.2	464	5.3	3.1-7.4	817	4.8	3.4-6.2
Indo-Fijian	285	3.1	1.1-5.2	380	2.9	1.1-4.8	665	3.0	1.6-4.5

5. DISCUSSIONS

The overall aim of this NCD STEPS survey was to monitor progress and changes in risk factor and disease prevalence since the first STEPS survey in 2002. A summary of key findings from the survey will be discussed and compared against 2002 results where possible to examine the trend in prevalence of common modifiable and intermediate risk factors for NCD between the 2002 survey and this (2011) survey. A number of questions were not comparable across surveys, and the age ranges included in the two surveys were also different, as the 2002 included 15-24 year olds. Some of the 2002 data has been reanalysed excluding this age group (and with some reweighting for population demographic changes) and the comparisons are discussed below.

Trend in prevalence of common modifiable risk factors for NCD

Tobacco Use

The overall prevalence of tobacco use in the 2011 survey for the 25-64 year old population was 30.5%. Men in all age groups had significantly higher smoking rates than the women in the same age groups. The difference in prevalence was highest in the 45-54 and 55-64 age groups, with men more than four times more likely to indicate they were a current smoker compared to women in the same age group. This pattern is consistent with what was seen in 2002.

The percentage of adults who smoked tobacco daily was 16.6% (95%CI, 13.7-19.5) in the 2011 survey. In the 2002 survey, this rate was 17.5% (95%CI 14.3-20.7) in 25-64 year olds. This suggests a slight decrease in rates, although it is not statistically significant.

In terms of the age of initiation, there was non-significant difference seen between the two surveys, with a slight decrease of 1.5 years. The differences between genders and ages were maintained across the surveys, with women starting smoking later and the age of initiation increasing with age. The 2011 survey found that men start smoking significantly younger 20.2 years old (95% CI, 19.7-20.8) than women 22.7 years old (95%CI, 21.1-24.2). Manufactured cigarettes remains the most commonly used type of tobacco, with an average of 6.9 cigarettes smoked daily in the 2011 survey, although the 2002 survey found a mean of 8.3 cigarettes smoked daily, the difference is not significant.

These findings suggest that there has been no increase in smoking rates in Fiji, and the data is trending towards declines. The size of the changes seen are quite small, and hence no statistical significance could be found, but it is highly likely that rates have not increased in the last 10 years and smoking levels may have declined.

The level of exposure to second-hand smoke found in this survey (not assessed in 2002) is however of concern with exposure reported by around 60.2% of participants in their homes and 47.6% in the workplaces. Since the 2002 survey, extensive efforts have been made in Fiji to reduce the consumption of tobacco through increased taxation, controls and sales and smoke-free areas (through the Tobacco Control Decree of 2010). This second STEPS shows no increase in rates of smoking and suggests a slight decline. Further efforts are needed to work towards a smoke free Fiji.

Alcohol Consumption

This survey found that the percentage who drank alcohol in the past 12 months was 14.8%, with 41.7% indicating they were lifetime abstainers and 27.7% that they had abstained for the last 12 months. Only 15.7% reported they had consumed alcohol in the last 30 days. The age group most likely to have consumed alcohol in the last 30 days was 25-34 year olds. The pattern was similar in the 2002 survey, with those most likely to have consumed alcohol in the past 12 months being 24-34 year olds.

Men were significantly more likely to be current drinkers (consumed alcohol in the last 30 days) than women (26.1% versus 5.4% respectively).

Slightly different indicators of risk associated with alcohol consumption were used in 2011 compared to 2002. The question about consuming alcohol in the past 30 days was a new inclusion in the 2011 survey which was not asked in 2002. The comparison therefore between the 2002 and 2011 surveys was limited to the question on "consumption in the past 12 months" and "binge drinking". In the 2002 sample around 23.8% of the whole sample (including 15-24 years old) were classified as current alcohol consumers, while in this 2011 survey, 30.8% were current drinkers. This suggests that there has been an increase in the prevalence of alcohol use in Fiji.

For alcohol consumption, the issue of concern is binge drinking. The question asked was slightly different in the two surveys. In 2002, the women or men were asked how many times they had 4 (5 for men) or more alcoholic drinks “in a single day” in the past 12 months as opposed to “in a single drinking occasion” during the past 30 days in 2011. This makes the comparison of the two surveys problematic. Although the prevalence of binge drinking is incomparable, the patterns are similar where a higher proportion was seen for males as compared to females and highest in the 25-34 year age group regardless of gender or ethnicity. The only change in pattern seen in 2011 is where the male Indo-Fijians 21.7% (95% CI, 17.1-26.) are now reportedly binge drinking more than the iTaukei 13.9% (95 CI, 10.6-16.9). This is a reversal of the trend seen in 2002.

Therefore overall alcohol consumption behavior does not appear to have improved between the two surveys. This latest survey indicates that young men are most likely to binge drink, with a possible growing problem in IndoFijian men (although further research will be needed to confirm this). With around one fifth of men reporting that they had an occasion of binge drinking at least once during the past month, further action is needed to tackle the problem.

Since the 2002 STEPS survey, increasing levels of taxes have been applied to alcoholic beverages, alongside educational initiatives regarding the dangers of alcohol. Clearly additional actions are urgently required to control problems of alcohol abuse, especially in young men.

Kava Consumption

Reported consumption of kava in this 2011 survey was high with 59.0% indicating they had consumed kava in the last 30 days. The consumption pattern is similar to the 2002 results with the men 78.7% (95% CI, 75.4-82.0) having a significantly higher proportion compared to the women 38.3% (95% CI, 33.7-43.9). While there was no overall pattern by age in the men, the use of kava was less common in older women. iTaukei were more likely to have consumed kava in the past 30 days compared to IndoFijians (69.2% versus 43.5%).

In assessing the trend of kava consumption between 2002 and 2011 – it needs to be noted that the question asked was slightly different preventing a valid comparison. In 2002, the question was “have they ever tried or drunk yaqona”. This yielded a prevalence of 79.6% (95% CI, 75.3-85.9) of the population surveyed between the 15-64 years old. In 2011, the question was more restricted to “have they drunk yaqona in the past 30 days” amongst the 25-64 years old.

There have been few efforts to target kava use in the community, although some communities and organisations have banned or limited its use in workplace, communities or settings. The impact of this is unclear. Concerns have been raised regarding associations between kava use and other NCD-related behaviours (smoking, alcohol abuse and poor diets) and further investigation of this is warranted.

Fruit and Vegetable Consumption

This survey showed that vegetables were consumed on more days in a week 5.6 days (95% CI, 5.4-5.7) than fruits 3.9 days (95% CI, 3.7-4.1). Consumption of fruits and vegetables (mean servings a day) were generally low with a mean of 1.2 servings of fruit on days when fruit was consumed, and 1.9 vegetables. This meant that overall 85% of the population did not meet the recommended 5+ servings of fruits and vegetables a day. Indo-Fijians generally consumed more fruits and vegetables than iTaukei, with minimal differences by age or gender.

Due to the slight difference in the way questions were asked in the two surveys, direct comparison could not be made making it impossible to assess trends.

Despite extensive efforts to promote local fruits and vegetables and their intake through home gardening, school and hospital gardens, support for farmers and educational initiatives, intake is extremely low. Both frequency of intake and servings in a day are insufficient and additional interventions will be needed to achieve impact.

Physical Activity

The 2011 survey found that just over half the population were deemed to be in the ‘high activity’ group for weekly physical activity (57.5%). Across the domains of leisure, work and transport men were consistently more physically active than women, and overall only 42.7% of women were classified as doing ‘high activity’. Physical activity levels declined with age, and iTaukei were significantly more active than Indo-Fijians.

The classifications of physical activity and questions in the 2002 survey were slightly different and the findings are therefore not comparable. The earlier STEPS survey found a significant problem of insufficient physical activity, with declining levels by age.

More efforts to increase physical activity levels, especially in women and as people age will be needed. More understanding of the causes of these low levels will be needed in order to effectively drive intervention strategies.

Prevalence of intermediate risk factors for NCD

Overweight and Obesity

The 2011 survey found that average BMI was 27.9 with BMI in females significantly greater than that in males (29.3 versus 26.5). Mean BMI also tended to increase with age. This pattern is similar to that found in 2002. The mean BMI in the 2002 survey was 26.7 in females and 24.2 in males (for the 15-64 year age group). A reweighted analysis of the 2002 sample (excluding 15-24 year olds) indicated a mean BMI of 26.8. Overall the trend appears to be an increase in mean BMI.

Using the BMI classification system, the 2011 survey found a small problem of underweight 3.2% (95%CI, 2.1-4.4) but significant overweight and obesity problems; 34.9% (95%CI, 32.3-37.4) of the adults were overweight and 32.0% (95%CI, 29.1-34.9) were obese. Significantly more women were obese (42.0%) than men (22.4%). This is similar to the pattern seen in 2002 where obesity prevalence was more than twice as common in women compared to men. In regard to ethnicity, the findings of the 2011 survey were also consistent with the 2002 survey which found that iTaukei were significantly more likely to be obese than Indo-Fijians.

Mean waist circumference showed similar patterns in the 2011 survey, with the mean waist circumference in women 93.1 cm (recommended level is less than 80 cm in women) and 90.1cm in men (recommended maximum is 90cm in men). These indicate significant problems of central obesity, particularly in women.

Overall the 2011 survey found that 66.9% of the population were overweight or obese. In 2002 (including 15-24 year olds) the level was around 47.6%. The re-weighted 2002 dataset excluding 15-24 year olds gave a prevalence of overweight and obesity of 58.5%. There has therefore been a major increase in levels of overweight and obesity in Fiji. While patterns are similar across population sub-groups, women, older adults and the iTaukei populations have the worst rates. Further efforts to prevent and treat overweight and obesity will be needed to tackle these growing problems.

Hypertension

Levels of hypertension were assessed through blood pressure measurement as part of the STEP 2 component. The 2011 survey found that 31.0% of the population had been diagnosed with hypertension or had blood pressure greater than the defined cut-offs for hypertension. Men were slightly more likely to be hypertensive than women, although this was not significant, however rates of raised blood pressure increased markedly with age as would be expected. There was also little difference in the rates between ethnicities.

Out of those previously diagnosed with hypertension, only 3.8% had blood pressure readings within the recommended range according to the STEPS data. This indicates that their blood pressure was not being well controlled, despite their diagnosis. While rates of hypertension did not vary significantly by ethnicity, iTaukei were twice as likely to be poorly controlled while on medication, and also less likely to be using medication for their hypertension.

The 2002 survey (including 15-24 year olds) found that 19.1% (95%CI 17.2-21.0) of the population had raised blood pressure. The re-weighted data from 2002 (excluding 15-24 year olds) indicated that 24.2% were hypertensive. Overall therefore, there appears to be a large and worrying increase in levels of hypertension. Also of concern, is the continuing issue of poor control of blood pressure in those diagnosed, along with high rates of new hypertensive cases being found during the STEPS survey.

This data emphasizes the need for ongoing community screening to pick up hypertension early, increased efforts to improve blood pressure levels in those diagnosed with the problem, along with efforts to prevent hypertension. These include emphasis on salt intake, reducing overweight and increasing physical activity levels.

Diabetes and high blood glucose levels

The mean fasting blood glucose level in 2002 study was 6.2mmol/l (95%CI 6.1-6.3), with levels increasing with age, and higher in Indo-Fijians compared to iTaukei (6.4mmol/l and 6.1mmol/l respectively).

Raised fasting blood glucose a likely indicator of diabetes was found in 29.6% of the population. The prevalence in women was 30.6% and men 28.5%. Rates increased considerably with age, and Indo-Fijians were more affected.

The 2002 survey found that 16% of the population (including 15-24 year olds) was diabetic, with increasing levels with age, minimal difference by gender but more diabetes in Indo-Fijians (21.2%) than iTaukei (11.5%). These findings are therefore consistent with the 2011 survey, with a significant worsening of the prevalence of high fasting blood glucose (greater than 6.1mmol/l, previously referred to as diabetes but not confirmed without additional testing). A reweighting of the 2002 sample (excluding 15-24 year olds) indicated a prevalence of 19.6%.

The increasing problem of high fasting blood glucose in such a short period of time between STEPS surveys is alarming, and suggests that prevention activities need to be considerably increased, although greater emphasis is likely also needed on increasing evaluation to ensure that interventions are effective in tackling the underlying causes of the worrying trend.

Anemia and Haemoglobin levels

In the 2002 STEPS Survey, haemoglobin was not included as it was not part of the standard questionnaire. However, for the 2011 STEPS survey the Minister of Health requested that haemoglobin be examined in light of the burden of anemia established during the 2004 National Nutritional Survey (40.3%).

In 2005, the iron fortification of flour project was implemented with an impact assessment study undertaken in 2010. The report of the impact study showed that anaemia among child-bearing-aged women before the flour fortification was 40.3% and had significantly dropped from 40.3 to 27.6%.

This STEPS survey, done a year after the impact study shows similar results. A third of the women surveyed were anaemic 28.5% (95% CI 25.4 – 31.6). This is twice the proportion seen among the men. The difference between the gender groups is significant.

Combined Risk Factors for NCD

Analysis of the combined risk factors of smoking, overweight, raised blood pressure, insufficient fruit and vegetable intake and insufficient physical activity were undertaken to assess the overall risk status of the population for NCDs.

Overall, only 2.3% were assessed as low risk, 62.0% were assessed to have a moderate risk with 1-2 risk factors, and 35.8% high risk with 3-5 risk factors. Risk increased with age as would be expected, with slightly more iTaukei defined as high risk for NCDs. This places most of the population at risk of developing NCDs, with over a third at high risk. Preventing the developing of NCDs and preventing premature mortality in those at high risk is vital.

Limitations: The difficulties with comparing the 2002 and 2011 surveys have been highlighted earlier, however despite these it has still been possible to demonstrate some worsening of the NCD situation in Fiji. The lower response rate in this survey compared to the 2002 survey was related to different participant selection methods, and the approach taken in this survey is more robust, although the sample size is smaller. The low response rate for this STEPS survey is a significant limitation, and indicates that caution should be used in interpreting possible changes between the two surveys.

It was unfortunate that cholesterol measurements were not possible in this survey due to financial limitations.

This survey indicates substantial problems of unhealthy lifestyles in Fiji. The survey found that 30.8% of the adult populations (25-64 years old) were current daily smokers, while 85.0% consumed less than 5 servings of fruits and vegetables a day, 20.8% had low levels of physical activity, and 17.3% of men consumed more than 5 units of alcohol in a day in the last month. Additionally 66.9% were overweight or obese, 31.0% have hypertension and 31.0% had raised blood glucose levels (or had been diagnosed with diabetes). The summary of combined NCD risk factors demonstrates that overall, 35.8% Fiji adults have three or more common modifiable NCD risk factors. Of this 46.5% were above 45 years of age.

The trends since the first STEPS survey in Fiji in 2002, are of considerable concern. Some small improvement could be seen in the use of tobacco, although changes were too small to reach statistical significance and further monitoring of this will be needed. Generally however the available data indicate a worsening of the NCD situation in Fiji, with increasing problems of unhealthy lifestyle behaviors and increasing rates of overweight, hypertension and high blood glucose.

6. RECOMMENDATIONS

This 2011 STEPS survey has highlighted an alarming worsening of the NCD situation in Fiji. Fiji is in the grip of an NCD crisis, along with the rest of the Pacific Island region and a considerable intensification of efforts to tackle NCDs is vital. The small improvements which are likely to have occurred in the area of tobacco use are positive, and indicate that the combination of approaches employed have been making an impact, in line with that seen elsewhere. However despite efforts to tackle other lifestyle behaviours through a combination of approaches (as outlined in the NCD Strategic Plan 2010-2014), the situation is worsening.

As indicated in the WHO's Global Action Plan on NCDs, a multi-sectoral approach is the only effective way to tackle NCDs. NCDs are both an individual, community and whole of society responsibility and involvement of all stakeholders is essential.

Some recommendations are made below, in line with the proposed NCD Strategic Plan (2015-2019)

Whole of society approach: Stronger commitment from all government and non-government sectors, including the private sector is needed.

- A decree or similar recognizing the scale of the NCD crisis and mandating more cross-government action should be developed. This should require a high-level committee to monitor NCD progress and activities.
- Civil society actions on NCDs are critical and further actions by them in the areas of prevention and treatment should be encouraged.
- Private sector must recognize their potential role in NCDs and should not only support their employees to improve their health but also adopt relevant practices to ensure their company's actions are supportive of healthy lifestyles.
- Communities across Fiji should review the scope they have to play an active role in NCD prevention and treatment.

Creating health promoting environments: Environments should be supportive of healthy lifestyles; ongoing exposure to secondhand smoke, promotion of alcohol and unhealthy foods and drinks and other issues should be tackled.

- Expansion and strengthening of existing legislation to control tobacco use and enforce smoke free legislation is needed, to build on the limited progress to-date. Similar approaches are needed for alcohol and unhealthy diets.
- The developing of a more conducive physical activity environment across Fiji will also be critical.

Increasing individual responsibility and empowerment: Individuals and their families will need to take more ownership of their own health.

- Efforts to ensure health literacy and understanding of healthy lifestyles by all members of society are critical. Educational programmes targeting all age groups will be needed.
- Families and communities will need to support individuals in their adoption of healthier lifestyles.

Surveillance: This STEPS survey has highlighted the need for careful monitoring of progress of NCDs, to enable better targeting of activities.

- The STEPS survey should be repeated again in Fiji in 2019 and 2025.
- The findings of this STEPS report should be widely disseminated.
- Further analysis of this STEPS survey are also relevant.

Appendix Three: Additional Results Tables

1. Sampling and Response

Table 1.0 Ethnic group and age of respondents

National STEPS Survey Questionnaire for Chronic Disease (NCDs) Risk Factors

Fiji 2010/11



Survey Information

Location and Date		Response	Code
1	Village ID	_____	I1
2	Village name	_____	I2
3	Interviewer ID	_____	I3
4	Date of completion of the questionnaire	_____ dd mm year	I4

Participant Id Number			
Consent, Interview Language and Name		Response	Code
5	Consent has been read and obtained	Yes 1 No 2 If NO, END	I5
6	Interview Language	English 1 Fijian 2 Hindi 3	I6
7	Time of interview (24 hour clock)	_____: _____ hrs mins	I7
8	Family Surname	_____	I8
9	First Name	_____	I9
10	Contact phone number where possible	_____	I10

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

Demographic Information

Demographic Information			
Question	Response	Code	
11	Sex (Record Male / Female as observed)	Male 1 Female 2	C1
12	What is your date of birth? Don't Know 77 77 7777	If known, Go to C4 dd mm year	C2
13	How old are you?	Years	C3
14	In total, how many years have you spent at school or in full-time study (excluding pre-school)?	Years	C4
15	What is the highest level of education you have completed?	No formal schooling 1 Less than primary school 2 Primary school completed 3 Secondary school completed 4 College/University completed 5 Post graduate degree 6 Refused 88	C5
16	What is your ethnic background?	Fijian 1 Indian 2 Other 3 Refused 88	C6
17	What is your marital status?	Never married 1 Currently married 2 Separated 3 Divorced 4 Widowed 5 Cohabiting 6 Refused 88	C7
18	Which of the following best describes your main work status over the past 12 months? (USE SHOWCARD)	Government employee 1 Non-government employee 2 Self-employed 3 Non-paid 4 Student 5 Homemaker 6 Retired 7 Unemployed (able to work) 8 Unemployed (unable to work) 9 Refused 88	C8
19	How many people older than 18 years, including yourself, live in your household?	Number of people	C9

Demographic Information, Continued			
Question		Response	Code
20	Taking the past year, can you tell me what the average earnings of the household have been? (RECORD ONLY ONE, NOT ALL 3)	Per week <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Go to T1	C10a
		OR per month <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Go to T1	C10b
		OR per year <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Go to T1	C10c
		Refused 88	C10d
21	If you don't know the amount, can you give an estimate of the annual household income if I read some options to you? Is it (READ OPTIONS)	£ Quintile (Q) 1 1 More than Q 1, £ Q 2 2 More than Q 2, £ Q 3 3 More than Q 3, £ Q 4 4 More than Q 4 5 Don't Know 77 Refused 88	C11

Step 1 Behavioural Measurements

Tobacco Use			
Now I am going to ask you some questions about various health behaviours. This includes things like smoking, drinking alcohol, eating fruits and vegetables and physical activity. Let's start with tobacco.			
Question	Response	Code	
22	Have you ever smoked tobacco products?	Yes 1 No 2	T1a
23	Do you currently smoke any tobacco products, such as cigarettes, cigars or pipes? (USE SHOWCARD)	Yes 1 No 2 If No, go to T6	T1
24	Do you currently smoke tobacco products daily?	Yes 1 No 2 If No, go to T6	T2
25	How old were you when you first started smoking daily?	Age (years) Don't know 77 If Known, go to T5a	T3
26	Do you remember how long ago it was?	In Years If Known, go to T5a	T4a
	(RECORD ONLY 1, NOT ALL 3)	OR in Months If Known, go to T5a	T4b
	Don't know 77	OR in Weeks	T4c
27	On average, how many of the following do you smoke each day?	Manufactured cigarettes	T5a
		Hand-rolled cigarettes	T5b
		Pipes full of tobacco	T5c
		Cigars, cheroots, cigarillos	T5d
	(RECORD FOR EACH TYPE, USE SHOWCARD)	Other T5other, If Other, go to else go to T9	T5e
	Don't Know 77	Other (please specify): Go to T9	T5other
28	In the past, did you ever smoke daily?	Yes 1 No 2 If No, go to T9	T6
29	How old were you when you stopped smoking daily?	Age (years) Don't Know 77 If Known, go to T9	T7
30	How long ago did you stop smoking daily?	Years ago If Known, go to T9	T8a
	(RECORD ONLY 1, NOT ALL 3)	OR Months ago If Known, go to T9	T8b
	Don't Know 77	OR Weeks ago	T8c
31	During the past 7 days, on how many days did someone in your home smoke when you were present?	Number of days Don't know 77	T9
32	During the past 7 days, on how many days did someone smoke in closed areas in your workplace (in the building, in a work area or a specific office) when you were present?	Number of days Don't know or don't work in a closed area 77	T10

[illegible]

Question		Response	Code
33	Have you ever consumed an alcoholic drink such as beer, wine, spirits or fermented cider? (USE SHOWCARD OR SHOW EXAMPLES)	Yes 1 No 2 If No, go to X1	A1a
34	Have you consumed an alcoholic drink within the past 12 months?	Yes 1 No 2 If No, go to X1	A1b
35	During the past 12 months, how frequently have you had at least one alcoholic drink? (READ RESPONSES, USE SHOWCARD)	Daily 1 5-6 days per week 2 1-4 days per week 3 1-3 days per month 4 Less than once a month 5	A2
36	Have you consumed an alcoholic drink within the past 30 days?	Yes 1 No 2 If No, go to X1	A3
37	During the past 30 days, on how many occasions did you have at least one alcoholic drink?	Number Don't know 77 <input type="text"/>	A4
38	During the past 30 days, when you drank alcohol, on average, how many standard alcoholic drinks did you have during one drinking occasion? (USE SHOWCARD)	Number Don't know 77 <input type="text"/>	A5
39	During the past 30 days, what was the largest number of standard alcoholic drinks you had on a single occasion, counting all types of alcoholic drinks together?	Largest number Don't Know 77 <input type="text"/>	A6
40	During the past 30 days, how many times did you have for men: five or more for women: four or more standard alcoholic drinks in a single drinking occasion?	Number of times Don't Know 77 <input type="text"/>	A7
41	During each of the past 7 days, how many standard alcoholic drinks did you have each day? (USE SHOWCARD) Don't Know 77	Monday <input type="text"/>	A8a
		Tuesday <input type="text"/>	A8b
		Wednesday <input type="text"/>	A8c
		Thursday <input type="text"/>	A8d
		Friday <input type="text"/>	A8e
		Saturday <input type="text"/>	A8f
		Sunday <input type="text"/>	A8g

Kava

Question		Response	Code
42	Have you consumed kava or yaqona in the past 30 days?	Yes 1 No 2 If No, go to D1	X1
43	During the past 30 days, during how many occasions did you drink kava?	Number of days Don't Know 77 <input type="text"/>	X2
44	On each occasion that you drank kava, how many bowls did you consume?	Number of bowls Don't Know 77 <input type="text"/>	X3

Diet	
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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
45	In a typical week, on how many days do you eat fruit? (USE SHOWCARD)	Number of days <input type="text"/> <input type="text"/> <input type="text"/> If Zero days, go Don't Know 77 to D3	D1
46	How many servings of fruit do you eat on one of those days? (USE SHOWCARD)	Number of servings <input type="text"/> <input type="text"/> <input type="text"/> Don't Know 77	D2
47	In a typical week, on how many days do you eat vegetables? (USE SHOWCARD)	Number of days <input type="text"/> <input type="text"/> <input type="text"/> If Zero days, go Don't Know 77 to D5	D3
48	How many servings of vegetables do you eat on one of those days? (USE SHOWCARD)	Number of servings <input type="text"/> <input type="text"/> <input type="text"/> Don't know 77	D4
49	What type of oil or fat is most often used for meal preparation in your household? (USE SHOWCARD) (SELECT ONLY ONE)	Vegetable oil 1 Lard or suet 2 Butter or ghee 3 Margarine 4 Other 5 If Other, go to D5 other None in particular 6 None used 7 Don't know 77	D5
		Other <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	D5other
50	On average, how many meals per week do you eat that were not prepared at a home? By meal, I mean breakfast, lunch and dinner.	Number <input type="text"/> <input type="text"/> <input type="text"/> Don't know 77	D6
51	On average how long does it take to consume 500g of salt? (USE SHOWCARD)	Number of days <input type="text"/> <input type="text"/> <input type="text"/> If Zero days, go Don't Know 77 to P1	X4

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

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

[illegible]

Does your work involve vigorous-intensity	Yes, 1	
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52	activity that causes large increases in breathing or heart rate like [carrying or lifting heavy loads, digging or construction work] for at least 10 minutes continuously? (USE SHOWCARD)	Yes 1 No 2 If No, go to P 4	P1
53	In a typical week, on how many days do you do vigorous-intensity activities as part of your work?	Number of days <u> </u>	P2
54	How much time do you spend doing vigorous-intensity activities at work on a typical day?	Hours : minutes <u> </u> : <u> </u> hrs mins	P3 (a-b)
55	Does your work involve moderate-intensity activity, that causes small increases in breathing or heart rate such as brisk walking [or carrying light loads] for at least 10 minutes continuously? (USE SHOWCARD)	Yes 1 No 2 If No, go to P 7	P4
56	In a typical week, on how many days do you do moderate-intensity activities as part of your work?	Number of days <u> </u>	P5
57	How much time do you spend doing moderate-intensity activities at work on a typical day?	Hours : minutes <u> </u> : <u> </u> hrs mins	P6 (a-b)

The next questions exclude the physical activities at work that you have already mentioned

Now I would like to ask you about the usual way you travel to and from places. For example to work, for shopping, to market, to place of worship.

58	Do you walk or use a bicycle (pedal cycle) for at least 10 minutes continuously to get to and from places?	<div>Yes 1</div> <div>No 2 If No, go to P 10</div>	P7
59	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?	<div>Number of days</div> <div><input type="text"/></div>	P8
60	How much time do you spend walking or bicycling for travel on a typical day?	<div>Hours : minutes <input type="text"/> : <input type="text"/></div> <div>hrs mins</div>	P9 (a-b)

Question	Response	Code
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[illegible]

61	Do you do any vigorous-intensity sports, fitness or recreational (leisure) activities that cause large increases in breathing or heart rate like [running or football] for at least 10 minutes continuously? (USE SHOWCARD)	Yes 1 No 2 If No, go to P 13	P10
62	In a typical week, on how many days do you do vigorous-intensity sports, fitness or recreational (leisure) activities?	Number of days <u> </u>	P11
63	How much time do you spend doing vigorous-intensity sports, fitness or recreational activities on a typical day?	Hours : minutes <u> </u> : <u> </u> hrs mins	P12 (a-b)
64	Do you do any moderate-intensity sports, fitness or recreational (leisure) activities that cause a small increase in breathing or heart rate such as brisk walking, [cycling, swimming, volleyball] for at least 10 minutes continuously? (USE SHOWCARD)	Yes 1 No 2 If No, go to P16	P13
65	In a typical week, on how many days do you do moderate-intensity sports, fitness or recreational (leisure) activities?	Number of days <u> </u>	P14
66	How much time do you spend doing moderate-intensity sports, fitness or recreational (leisure) activities on a typical day?	Hours : minutes <u> </u> : <u> </u> hrs mins	P15 (a-b)

[illegible]

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67	How much time do you usually spend sitting or reclining on a typical day?	Hours : minutes	<div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div> </div> <div> <div>hrs</div> <div>mins</div> </div>	P16 (a-b)
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Question		Response	Code
68	Have you ever had your blood pressure measured by a doctor or other health worker?	Yes 1	H1
		No 2 If No, go to H6	
69	Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension?	Yes 1	H2a
		No 2 If No, go to H6	
70	Have you been told in the past 12 months?	Yes 1	H2b
		No 2	
71	Are you currently receiving any of the following treatments/advice for high blood pressure prescribed by a doctor or other health worker?		
	Drugs (medication) that you have taken in the past two weeks	Yes 1	H3a
		No 2	
	Advice to reduce salt intake	Yes 1	H3b
		No 2	
	Advice or treatment to lose weight	Yes 1	H3c
No 2			
Advice or treatment to stop smoking	Yes 1	H3d	
	No 2		
Advice to start or do more exercise	Yes 1	H3e	
	No 2		
72	Have you ever seen a traditional healer for raised blood pressure or hypertension?	Yes 1	H4
		No 2	
73	Are you currently taking any herbal or traditional remedy for your raised blood pressure?	Yes 1	H5
		No 2	

History of Diabetes

Question		Response	Code
74	Have you ever had your blood sugar measured by a doctor or other health worker?	Yes 1 No 2 If No, go to M1	H6
75	Have you ever been told by a doctor or other health worker that you have raised blood sugar or diabetes?	Yes 1 No 2 If No, go to M1	H7a
76	Have you been told in the past 12 months?	Yes 1 No 2	H7b
77	Are you currently receiving any of the following treatments/advice for diabetes prescribed by a doctor or other health worker?		
	Insulin	Yes 1 No 2	H8a
	Drugs (medication) that you have taken in the past two weeks	Yes 1 No 2	H8b
	Special prescribed diet	Yes 1 No 2	H8c
	Advice or treatment to lose weight	Yes 1 No 2	H8d
	Advice or treatment to stop smoking	Yes 1 No 2	H8e
	Advice to start or do more exercise	Yes 1 No 2	H8f
78	Have you ever seen a traditional healer for diabetes or raised blood sugar?	Yes 1 No 2	H9
79	Are you currently taking any herbal or traditional remedy for your diabetes?	Yes 1 No 2	H10

Step 2 Physical Measurements

Height and Weight			
Question		Response	Code
80	Interviewer ID	_____	M1
81	Device IDs for height and weight	Height _____	M2a
		Weight _____	M2b
82	Height	in Centimetres (cm) _____	M3
83	Weight If too large for scale 666.6	in Kilograms (kg) _____	M4
84	For women: Are you pregnant?	Yes 1 If Yes, go to M 8 No 2	M5
Waist			
85	Device ID for waist	_____	M6
86	Waist circumference	in Centimetres (cm) _____	M7
Blood Pressure			
87	Interviewer ID	_____	M8
88	Device ID for blood pressure	_____	M9
89	Cuff size used		M10
90	Reading 1	Systolic (mmHg) _____	M11a
		Diastolic (mmHg) _____	M11b
91	Reading 2	Systolic (mmHg) _____	M12a
		Diastolic (mmHg) _____	M12b
92	Reading 3	Systolic (mmHg) _____	M13a
		Diastolic (mmHg) _____	M13b
93	During the past two weeks, have you been treated for raised blood pressure with drugs (medication) prescribed by a doctor or other health worker?	Yes 1 No 2	M14
94	Hip circumference	in Centimeters (cm) _____	M15
95	Heart Rate		
	Reading 1	Beats per minute _____	M16a
	Reading 2	Beats per minute _____	M16b
	Reading 3	Beats per minute _____	M16c

Step 3 Biochemical Measurements

Blood Glucose			
Question		Response	Code
96	During the past 12 hours have you had anything to eat or drink, other than water?	Yes 1 No 2	B1
97	Technician ID	_____	B2
98	Device ID	_____	B3
99	Time of day blood specimen taken (24 hour clock)	Hours : minutes _____ hrs mins	B4
100	Fasting blood glucose	mmol/l _____	B5
101	Today, have you taken insulin or other drugs (medication) that have been prescribed by a doctor or other health worker for raised blood glucose?	Yes 1 No 2	B6
Blood Lipids			
102	Device ID	_____	B7
103	Total cholesterol	mmol/l _____	B8
104	During the past two weeks, have you been treated for raised cholesterol with drugs (medication) prescribed by a doctor or other health worker?	Yes 1 No 2	B9
105	Triglycerides	mmol/l _____	B10
Haemoglobin			
106	Haemoglobin	g/Dl _____	X5

Ethnic group of respondents				
Age group (years)	n	% I-Taukei	% Indo-Fijian	% Other
25-34	599	55.6	42.2	2.2
35-44	708	56.5	40.0	3.5
45-54	736	52.0	45.7	2.3
55-64	508	55.1	41.9	3.0
25-64	2551	54.7	42.5	2.7

2. Demographic Information

Table 2.0 Highest level of education achieved by the survey respondents

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 completed
25-34	267	0.4	3	30.3	42.7	23.2	0.4
35-44	275	1.1	12	38.9	35.6	10.9	1.5
45-54	333	0.9	12	45.9	31.8	9.3	0
55-64	235	1.7	18.7	57	16.6	5.1	0.9
25-64	1110	1.0	11.3	42.3	32.7	12.1	0.6
	Women						
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% College/ University completed	% Post graduate degree completed
25-34	329	0.3	3.6	32.5	44.4	19.1	0.0
35-44	428	0.0	4.7	43.2	43.5	8.2	0.5
45-54	404	3.7	9.9	52.2	29.2	4.7	0.2
55-64	271	5.9	25.8	54.2	10.7	3.3	0.0
25-64	1432	2.2	9.9	45.2	33.7	8.7	0.3

Table 2.1 Highest level of education by ethnicity: Males and Females

Highest level of education							
Ethnicity	Men						
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% College/ University completed	% Post graduate degree completed
ITaukei	619	0.6	7.9	42.6	36.3	12.3	0.2
Indo-Fijian	454	1.5	15.9	43.6	26	11.7	1.3
	Women						
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% College/ University completed	% Post graduate degree completed
ITaukei	774	0.9	6.3	48.8	34.6	9.0	0.3
Indo-Fijian	625	4.0	14.2	42.2	31.2	8.2	0.2

Table 2.2 Highest level of education by gender (Both Sexes): ethnicity

Highest level of education							
Age Group (years)	Both Sexes						
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% College/ University completed	% Post graduate degree completed
25-34	596	0.3	3.4	31.5	43.6	21.0	0.2
35-44	703	0.4	7.5	41.5	40.4	9.2	0.9
45-54	737	2.4	10.9	49.4	30.4	6.8	0.1
55-64	506	4.0	22.5	55.5	13.4	4.2	0.4
25-64	2542	1.7	10.5	44.0	33.2	10.2	0.4
Ethnicity							
ITaukei	1393	0.8	7	46.1	35.4	10.5	0.2
Indo-Fijian	1079	3.0	14.9	42.8	29.0	9.6	0.6

Table 2.3 Percentage of marital status by gender: Male

Marital status							
Age Group (years)	Men						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
25-34	267	28.5	67.8	0.7	1.1	0.0	1.9
35-44	279	11.8	85.3	1.1	1.4	0.0	0.4
45-54	332	3.3	90.1	1.2	2.1	2.7	0.6
55-64	235	3.8	88.5	0.9	0.9	5.5	0.4
25-64	1113	11.6	83.2	1.0	1.4	2.0	0.8

Table 2.4 Percentage of marital status by gender: Female

Marital status							
Age Group (years)	Women						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
25-34	331	11.8	83.4	0.9	0.9	1.2	1.8
35-44	428	6.8	86.0	2.6	1.4	3.0	0.2
45-54	404	5.0	79.5	1.7	3.2	10.6	0.0
55-64	272	3.3	66.2	0.7	2.9	26.1	0.7
25-64	1435	6.8	79.8	1.6	2.1	9.1	0.6

Table 2.5 Percentage of marital status: Both sexes

Marital status							
Age Group (years)	Both Sexes						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
25-34	598	19.2	76.4	0.8	1.0	0.7	1.8
35-44	707	8.8	85.7	2.0	1.4	1.8	0.3
45-54	736	4.2	84.2	1.5	2.7	7.1	0.3
55-64	507	3.6	76.5	0.8	2	16.6	0.6
25-64	2548	8.9	81.3	1.3	1.8	6.0	0.7

Table 2.6 Percentage of marital status by ethnicity

Marital status							
Ethnicity	Both Sexes						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
ITaukei	1392	12.3	77.9	1.7	1.7	5.2	1.2
Indo-Fijian	1082	4.4	85.8	0.8	1.8	7	0.1

Table 2.7 Percentage of employment status by gender: Male

Employment status						
Age Group (years)	Men					
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid	
25-34	269	18.6	34.2	24.9	22.3	
35-44	279	17.2	26.9	31.2	24.7	
45-54	332	16.6	20.2	39.2	24.1	
55-64	235	2.6	14.0	34.5	48.9	
25-64	1115	14.3	23.9	32.7	29.1	

Table 2.8 Percentage of employment status of male by ethnicity

Employment status					
Ethnicity	Men				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
ITaukei	620	18.9	15.2	27.9	38.1
Indo-Fijian	1076	8.1	35.3	39.9	16.7

Table 2.9 Percentage of employment status of gender: Female

Employment status					
Age Group (years)	Women				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
25-34	332	8.1	12.7	6.0	73.2
35-44	427	4.2	11.5	11.5	72.8
45-54	403	2.2	7.4	13.9	76.4
55-64	272	0.4	3.3	6.3	90.1
25-64	1434	55	130	142	1107

Table 2.10 Percentage of employment status of female by ethnicity

Employment status					
Ethnicity	Women				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
ITaukei	773	5	8.8	9.4	76.7
Indo-Fijian	626	2.2	9.6	10.5	77.6

Table 2.11 Percentage of employment status by gender

Employment status					
Age Group (years)	Both Sexes				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
25-34	601	12.8	22.3	14.5	50.4
35-44	706	9.3	17.6	19.3	53.8
45-54	735	8.7	13.2	25.3	52.8
55-64	507	1.4	8.3	19.3	71.0
25-64	2549	8.4	15.6	19.9	56.1

Table 2.12 Percentage of employment status of both sexes by ethnicity

Employment status					
Ethnicity	Both Sexes				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
ITaukei	1391	11.2	11.6	17.7	59.5
Indo-Fijian	1082	4.7	20.4	22.9	51.9

Table 2.13 Percentage of unemployment by gender: Male

Unpaid work and unemployed							
Age Group (years)	Men						
	n	% Non-paid	% Student	% Home-maker	% Retired	Unemployed	
						% Able to work	% Not able to work
25-34	60	1.7	3.3	11.7	0.0	81.7	1.7
35-44	69	0.0	1.4	2.9	0.0	81.2	14.5
45-54	80	2.5	1.3	6.3	6.3	66.3	17.5
55-64	115	0.9	0.0	7.8	44.3	40.9	6.1
25-64	324	1.2	1.2	7.1	17.3	63.3	9.9

Table 2.14 Percentage of unemployment by gender: Female

Unpaid work and unemployed							
Age Group (years)	Women						
	n	% Non-paid	% Student	% Home-maker	% Retired	Unemployed	
						% Able to work	% Not able to work
25-34	243	0.8	0.8	56.8	0.4	39.9	1.2
35-44	311	0.6	0.6	62.1	0.0	35.7	1.0
45-54	308	1.0	0.0	57.5	0.6	37	3.9
55-64	245	0.0	0.0	43.3	11	34.7	11.0
25-64	1107	0.6	0.4	55.5	2.7	36.8	4.1

Table 2.15 Percentage of unemployment by gender

Unpaid work and unemployed							
Age Group (years)	Both Sexes						
	n	% Non-paid	% Student	% Home-maker	% Retired	Unemployed	
						% Able to work	% Not able to work
25-34	303	1.0	1.3	47.9	0.3	48.2	1.3
35-44	380	0.5	0.8	51.3	0.0	43.9	3.4
45-54	388	1.3	0.3	46.9	1.8	43	6.7
55-64	360	0.3	0.0	31.9	21.7	36.7	9.4
25-64	1431	0.8	0.6	44.5	6.0	42.8	5.4

3. Tobacco Use

Table 3.0 Current smoking status: Ethnicity

Percentage of current smokers											
Ethnicity	Men				Women				Both Sexes		
	n	% Current smoker	95% CI		n	% Current smoker	95% CI		n	% Current smoker	95% CI
ITaukei	614	51.6	46.7-56.6		765	22.9	19.2-26.6		1381	37.6	33.4-41.7
Indo-Fijian	456	39.7	35.6-43.8		623	2.1	0.5-3.7		1079	20.3	18.0-22.6

Table 3.1 Current daily smokers among smokers: Ethnicity

Current daily smokers among smokers									
Ethnicity	Men			Women			Both Sexes		
	n	% Daily smokers	95% CI	n	% Daily smokers	95% CI	n	% Daily smokers	95% CI
ITaukei	304	53.8	44.2-63.4	160	40.8	32.2-49.3	464	49.9	41.4-58.5
Indo-Fijians	189	66.5	58.7-74.2	14	52.8	21.5-84.1	203	65.8	58.3-73.2

Table 3.2 Mean smoking age

Mean age started smoking									
Ethnicity	Men			Women			Both Sexes		
	n	Mean age	95% CI	n	Mean age	95% CI	n	Mean age	95% CI
ITaukei	154	20.0	19.2-20.7	60	21.8	20.2-23.4	214	20.4	19.7-21.1
Indo-Fijians	124	20.9	20.0-21.7	9	29.4	25.2-33.6	133	21.3	20.4-22.1

Table 3.3 Mean smoking duration

Mean duration of smoking									
Ethnicity	Men			Women			Both Sexes		
	n	Mean duration	95% CI	n	Mean duration	95% CI	n	Mean duration	95% CI
ITaukei	154	20.7	18.6-22.8	60	17.3	14.6-20.0	214	19.9	18.2-21.5
Indo-Fijians	124	23.2	21.2-25.2	9	14.7	9.1-20.3	133	22.9	21.0-24.8

Table 3.4 Percentage smoking manufactured cigarette, for daily smokers: Ethnicity

Manufactured cigarette smokers among daily smokers									
Ethnicity	Men			Women			Both Sexes		
	n	% Manufactured cigarette smoker	95% CI	n	% Manufactured cigarette smoker	95% CI	n	% Manufactured cigarette smoker	95% CI
ITaukei	158	78.4	71.4-85.4	60	78.8	68.4-89.1	218	78.5	72.8-84.2
Indo-Fijian	127	78.4	70.1-86.8	9	62.2	26.7-97.7	136	77.7	69.7-85.8

Table 3.5 Consumption of smoking various types of tobacco, for daily male smokers

Mean amount of tobacco used by daily smokers by type									
Age Group (years)					Men				
	Mean # of manufactured cig.		95% CI	Mean # of hand- rolled cig.		95% CI	Mean # of pipes of tobacco		95% CI
n				n					
25-34	53	7.0	5.9-8.1	22	4.8	2.4-7.2	5	0.0	-
35-44	68	8.4	6.6-10.2	18	5.8	4.0-7.5	2	0.0	-
45-54	75	6.0	4.7-7.2	26	6.5	3.9-9.2	6	0.0	-
55-64	36	7.9	5.0-10.8	16	7.6	3.5-11.7	1	0.0	-
25-64	232	7.2	6.3-8.2	82	5.9	4.7-7.1	14	0.0	-

Table 3.6 Consumption of smoking other type of tobacco, for daily male smokers

Mean amount of tobacco used by daily smokers by type			
Age Group (years)	Men		
	n	Mean # of other type of tobacco	95% CI
25-34	5	0.0	-
35-44	5	2.1	0.0-4.8
45-54	11	1.5	0.1-2.9
55-64	3	13.2	1.1-25.2
25-64	24	2.6	0.0-5.2

Table 3.7 Consumption of smoking various type of tobacco, for daily male smokers: Ethnicity

Mean amount of tobacco used by daily smokers by type									
Ethnicity	Men								
	n	Mean # of manufactured cig.	9% CI	n	Mean # of hand-rolled cig.	95% CI	n	Mean # of pipes of tobacco	95% CI
ITaukei	124	6.9	5.5-8.3	51	5.8	4.6-7.1	9	0.0	-
Indo-Fijian	100	7.7	6.8-8.6	29	5.1	3.4-6.8	5	0.0	-

Table 3.8 Consumption of smoking other type of tobacco, for daily male smokers: Ethnicity

Mean amount of tobacco used by daily smokers by type			
Ethnicity	Men		
	n	Mean # of other type of tobacco	95% CI
ITaukei	16	2.1	0.0-4.8
Indo-Fijian	8	4.0	0.0-9.2

Table 3.9 Consumption of smoking various type of tobacco, for daily female smokers

Mean amount of tobacco used by daily smokers by type									
Age Group (years)	Women								
	n	Mean # of manufactured cig.	95% CI	n	Mean # of hand-rolled cig.	95% CI	N	Mean # of pipes of tobacco	95% CI
25-34	19	5.1	1.9-8.2	5	5.6	0.6-10.5	1	0.0	-
35-44	21	5.9	2.7-9.1	8	3.8	2.1-5.5	3	0.0	-
45-54	9	7.8	2.3-13.2	5	6.5	3.4-9.7	2	0.0	-
55-64	9	4.8	2.1-7.5	4	5.6	1.4-9.8	1	0.0	-
25-64	58	5.6	3.5-7.7	22	5.2	3.7-6.6	7	0.0	-

Table 3.10 Consumption of smoking other type of tobacco, for daily female smokers

Mean amount of tobacco used by daily smokers by type			
Age Group (years)	Women		
	n	Mean # of other type of tobacco	95% CI
25-34	1	0.0	-
35-44	5	1.2	0.0-3.0
45-54	2	0.0	-
55-64	2	0.3	0.0-1.1
25-64	10	0.6	0.0-1.7

Table 3.11 Consumption of smoking various type of tobacco, for daily female smokers: Ethnicity

Mean amount of tobacco used by daily smokers by type									
Ethnicity	Women								
	n	Mean # of manufactured cig.	95% CI	n	Mean # of hand-rolled cig.	95% CI	N	Mean # of pipes of tobacco	95% CI
ITaukei	49	5.6	3.3-7.9	18	5.0	3.5-6.5	7	-	-
Indo-Fijian	5	9.7	3.9-15.5	4	6.6	3.3-9.8	-	-	-

Table 3.12 Consumption of smoking other type of tobacco, for daily female smokers: Ethnicity

Mean amount of tobacco used by daily smokers by type			
Ethnicity	Women		
	n	Mean # of other type of tobacco	95% CI
ITaukei	10	0.6	0.0-1.7
Indo-Fijian	-	-	-

Table 3.13 Consumption of smoking various type of tobacco, for daily smokers of both sexes

Mean amount of tobacco used by daily smokers by type									
Age Group (years)	Both Sexes								
	n	Mean # of manufactured cig.	95% CI	n	Mean # of hand-rolled cig.	95% CI	N	Mean # of pipes of tobacco	95% CI
25-34	72	6.5	5.4-7.6	27	4.9	2.7-7.1	6	-	-
35-44	89	8.0	6.3-9.6	26	5.3	3.9-6.8	5	-	-
45-54	84	6.1	4.9-7.4	31	6.5	4.3-8.8	8	-	-
55-64	45	7.2	4.8-9.6	20	7.3	4.2-10.3	2	-	-
25-64	290	6.9	6.1-7.8	104	5.8	4.7-6.8	21	-	-

Table 3.14 Consumption of smoking other type of tobacco, for daily smokers of both sexes

Mean amount of tobacco used by daily smokers by type			
Age Group (years)	Both Sexes		
	n	Mean # of other type of tobacco	95% CI
25-34	6	-	-
35-44	10	1.8	0.3-3.3
45-54	13	1.4	0.2-2.6
55-64	5	9.4	0.0-19.2
25-64	34	2.2	0.3-4.2

Table 3.15 Consumption of smoking various type of tobacco, for daily smokers of both sexes: Ethnicity

Mean amount of tobacco used by daily smokers by type									
Ethnicity	Both Sexes								
	n	Mean # of manufactured cig.	95% CI	n	Mean # of hand-rolled cig.	95% CI	n	Mean # of pipes of tobacco	95% CI
ITaukei	173	6.6	5.4-7.8	69	5.7	4.7-6.6	16	0.0	-
Indo-Fijian	105	7.7	6.9-8.6	33	5.2	3.7-6.8	5	0.0	-

Table 3.16 Consumption of smoking other type of tobacco, for daily smokers of both sexes: Ethnicity

Mean amount of tobacco used by daily smokers by type			
Ethnicity	Both Sexes		
	n	Mean # of other type of tobacco	95% CI
ITaukei	26	1.7	0.0-3.6
Indo-Fijian	8	4.0	0.0-9.1

Table 3.17 Percentage of ex daily smokers among all respondents

Ex-daily smokers among all respondents									
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
25-34	226	20.6	14.6-26.5	315	7.4	3.9-10.9	541	13.7	10.0-17.3
35-44	236	20.4	15.2-25.5	410	8.4	5.4-11.3	646	13.9	10.9-16.8
45-54	276	24.2	17.8-30.6	388	4.4	2.1-6.8	664	13.8	10.5-17.1
55-64	200	37.7	31.3-44.0	261	5.4	1.9-8.8	461	20.8	17.1-24.4
25-64	938	24.1	21.1-27.2	1374	6.6	4.8-8.5	2312	14.9	12.9-16.9

Table 3.18 Percentage of ex daily smokers among all respondents: 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
25-34	8	9.5	8.3-10.6	4	9.6	7.5-11.7	12	9.5	8.2-10.8
35-44	28	12.9	11.6-14.3	14	14.2	11.3-17.2	42	13.3	12.0-14.7
45-54	42	17.1	15.0-19.2	10	19.5	14.4-24.6	52	17.5	15.5-19.5
55-64	43	22.4	19.0-25.8	11	21.3	16.0-26.7	54	22.2	19.3-25.1
25-64	121	16.7	15.1-18.3	39	16.5	14.0-19.0	160	16.6	15.2-18.1

Table 3.19 Percentage of exposure to second-hand smoke in home in past 7 days

Exposed to second-hand smoke in home on 1 or more of the past 7 days											
Age Group (years)	Men				Women				Both Sexes		
	n	% Exposed	95% CI		n	% Exposed	95% CI		n	% Exposed	95% CI
25-34	175	61.9	51.8-71.9		187	67.7	58.3-77.0		362	64.5	56.1-72.9
35-44	146	54.5	43.6-65.4		214	61.8	51.8-71.8		360	58.2	49.3-67.1
45-54	196	60.5	50.3-70.7		211	55.9	46.3-65.5		407	58.4	50.3-66.5
55-64	128	53.3	40.3-66.3		125	60.9	49.0-72.9		253	56.9	46.1-67.7
25-64	645	58.5	50.5-66.4		737	62.2	54.3-70.1		1382	60.2	52.9-67.6

Table 3.20 Percentage of exposure to second-hand smoke in home in past 7 days: Ethnicity

Exposed to second-hand smoke in home on 1 or more of the past 7 days											
Ethnicity	Men				Women				Both Sexes		
	n	% Exposed	95% CI		n	% Exposed	95% CI		n	% Exposed	95% CI
ITaukei	381	65.5	56.3-74.7		434	66.8	58.3-75.2		815	66.1	58.1-74.2
Indo-Fijian	242	45.0	35.5-54.6		281	56.5	45.3-67.7		523	50.5	41.1-60.0

Table 3.21 Percentage of exposure to second-hand smoke in the workplace in past 7 days: Gender

Exposed to second-hand smoke in the workplace on 1 or more of the past 7 days											
Age Group (years)	Men				Women				Both Sexes		
	n	% Exposed	95% CI		n	% Exposed	95% CI		n	% Exposed	95% CI
25-34	168	61.7	50.5-72.9		146	38.0	26.5-49.4		314	52.0	41.4-62.7
35-44	146	55.3	43.2-67.4		174	43.9	31.8-56.0		320	50.0	39.9-60.1
45-54	180	45.9	33.6-58.1		169	39.3	27.9-50.8		349	43.1	33.1-53.1
55-64	111	43.2	32.6-53.8		100	35.5	23.6-47.4		211	39.7	30.2-49.2
25-64	605	53.6	44.1-63.2		589	39.7	30.0-49.3		1194	47.6	38.6-56.6

Table 3.22 Percentage of exposure to second-hand smoke in the workplace in past 7 days: Ethnicity

Exposed to second-hand smoke in the workplace on 1 or more of the past 7 days											
Ethnicity	Men				Women				Both Sexes		
	n	% Exposed	95% CI		n	% Exposed	95% CI		n	% Exposed	95% CI
ITaukei	339	52.7	39.7-65.7		347	43.4	32.8-54.1		686	48.6	37.4-59.8
Indo-Fijian	247	55.3	44.6-66.0		225	34.1	21.2-46.9		472	46.5	36.2-56.7

4. Alcohol and Kava Consumption

Table 4.0 Alcohol consumption status among: Male

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
25-34	267	41.2	34.7-47.7	22.4	16.4-28.4	19.8	13.9-25.7	16.6	11.7-21.6
35-44	272	22.6	16.9-28.4	23.1	18.8-27.4	32.9	27.4-38.4	21.4	15.7-27.1
45-54	327	18.4	13.4-23.4	16.0	12.1-19.9	39.6	32.5-46.7	26.0	21.3-30.8
55-64	231	14.4	9.1-19.7	12.9	8.4-17.4	47.6	39.1-56.1	25.1	17.4-32.8
25-64	1097	26.1	22.5-29.7	19.4	16.9-22.0	32.8	28.6-37.0	21.7	18.2-25.1

Table 4.1 Alcohol consumption status among: Female

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
25-34	332	6.3	3.5-9.1	13.7	9.5-17.9	28.9	23.2-34.5	51.2	44.9-57.4
35-44	427	6.2	3.6-8.9	11.9	8.1-15.7	21.3	17.1-25.6	60.5	54.5-66.6
45-54	399	4.7	2.5-6.9	8.3	5.4-11.1	21.1	15.9-26.2	66.0	59.7-72.3
55-64	271	3.3	1.2-5.5	3.6	1.3-5.9	15.2	10.4-20.0	77.9	72.0-83.8
25-64	1429	5.4	4.0-6.9	10.3	8.3-12.3	22.7	19.4-25.9	61.6	57.3-66.0

Table 4.2 Alcohol consumption status among: Both Sexes

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
25-34	599	23.8	19.7-27.8	18.0	14.1-22.0	24.3	20.0-28.6	33.9	29.4-38.3
35-44	699	14.1	10.9-17.3	17.3	14.7-19.8	26.9	23.2-30.6	41.8	37.1-46.4
45-54	726	11.8	8.7-14.9	12.3	9.7-14.8	30.6	26.0-35.3	45.3	40.5-50.2
55-64	502	8.9	5.9-11.8	8.2	5.6-10.8	31.4	26.5-36.3	51.5	46.3-56.7
25-64	2526	15.7	13.6-17.9	14.8	13.0-16.6	27.7	24.9-30.5	41.7	38.6-44.8

Table 4.3 Frequency of alcohol consumption in the past 12 months: Male

Frequency of alcohol consumption in the past 12 months											
Age Group (years)	Men										
	n	% Daily	95% CI	% 5-6 days p. week	95% CI	% 1-4 days p. week	95% CI	% 1-3 days p. month	95% CI	% < once a month	95% CI
25-34	165	0.0	0.0-0.0	1.6	0.0-3.9	13.8	8.6-19.1	32.0	24.9-39.1	52.6	43.6-61.6
35-44	131	2.7	0.0-5.5	2.4	0.0-5.1	12.0	6.0-17.9	30.4	22.3-38.5	52.5	42.7-62.3
45-54	113	0.6	0.0-1.8	2.1	0.0-4.8	14.2	6.6-21.9	26.3	16.9-35.8	56.7	45.0-68.3
55-64	67	5.4	0.0-11.4	1.9	0.0-4.7	11.6	4.4-18.8	26.0	14.9-37.1	55.1	43.6-66.6
25-64	476	1.4	0.3-2.5	1.9	0.6-3.3	13.2	9.8-16.6	29.9	25.5-34.3	53.6	47.7-59.5

Table 4.4 Frequency of alcohol consumption in the past 12 months: Female

Frequency of alcohol consumption in the past 12 months											
Age Group (years)	Women										
	n	% Daily	95% CI	% 5-6 days p. week	95% CI	% 1-4 days p. week	95% CI	% 1-3 days p. month	95% CI	% < once a month	95% CI
25-34	62	0.0	0.0-0.0	3.3	0.0-8.8	3.2	0.0-7.5	21.6	11.0-32.2	71.9	57.5-86.3
35-44	74	0.0	0.0-0.0	0.0	0.0-0.0	3.4	0.0-7.6	16.3	6.8-25.7	80.3	70.2-90.3
45-54	52	0.0	0.0-0.0	2.0	0.0-6.0	2.0	0.0-5.9	11.8	0.2-23.5	84.2	71.6-96.8
55-64	19	7.2	0.0-21.1	0.0	0.0-0.0	7.5	0.0-22.0	8.9	0.0-20.3	76.4	56.1-96.8
25-64	207	0.5	0.0-1.5	1.7	0.0-4.1	3.3	0.8-5.8	17.0	11.8-22.1	77.5	70.9-84.1

Table 4.5 Frequency of alcohol consumption in the past 12 months: Both Sexes

Frequency of alcohol consumption in the past 12 months											
Age Group (years)	Both Sexes										
	n	% Daily	95% CI	% 5-6 days p. week	95% CI	% 1-4 days p. week	95% CI	% 1-3 days p. month	95% CI	% < once a month	95% CI
25-34	227	0.0	0.0-0.0	2.0	0.0-4.1	11.3	7.3-15.4	29.6	23.8-35.4	57.1	49.4-64.7
35-44	205	1.9	0.0-3.9	1.7	0.0-3.6	9.5	5.1-13.9	26.3	19.6-33.1	60.6	53.1-68.0
45-54	165	0.5	0.0-1.3	2.1	0.0-4.3	11.1	5.3-16.8	22.6	14.5-30.7	63.8	54.6-73.0
55-64	86	5.8	0.2-11.3	1.5	0.0-3.8	10.8	4.5-17.1	22.7	13.1-32.4	59.2	49.2-69.2
25-64	683	1.2	0.4-2.0	1.9	0.8-3.0	10.7	8.1-13.3	26.7	23.1-30.2	59.6	55.0-64.1

Table 4.6 Percentage of alcohol consumption status of all respondents: Ethnicity

Alcohol consumption status									
Ethnicity	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
ITaukei	1380	12.5	9.8-15.2	14.2	11.8-16.6	35.7	32.3-39.2	37.6	33.9-41.3
Indo-Fijian	1069	19.6	16.3-22.8	16.3	13.9-18.8	16.1	13.5-18.7	48.0	43.6-52.4

Table 4.7 Frequency of alcohol consumption in the past 12 months among those respondents who have drunk in the last 12 months: Ethnicity

Frequency of alcohol consumption in the past 12 months											
Ethnicity	Both Sexes										
	n	% Daily	95% CI	% 5-6 days p. week	95% CI	% 1-4 days p. week	95% CI	% 1-3 days p. month	95% CI	% < once a month	95% CI
ITaukei	312	0.3	0.0-0.8	0.7	0.0-1.8	8.9	5.0-12.7	26.7	22.0-31.4	63.5	57.2-69.8
Indo-Fijian	345	2.2	0.7-3.8	3.4	1.3-5.4	13.5	9.6-17.5	24.5	19.2-29.7	56.4	50.6-62.1

Table 4.8 Drinking occasions in the past 30 days

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		
25-34	105	2.8	2.0-3.6	20	1.7	1.2-2.1	125	2.7	2.0-3.4		
35-44	66	4.4	2.6-6.2	26	1.4	1.1-1.8	92	3.8	2.3-5.2		
45-54	61	3.5	2.6-4.4	17	3.0	0.0-6.2	78	3.4	2.4-4.4		
55-64	35	6.4	3.5-9.2	9	3.3	1.2-5.3	44	5.8	3.4-8.1		
25-64	267	3.6	2.9-4.3	72	2.0	1.3-2.8	339	3.4	2.7-4.0		

Table 4.9 Drinking occasions in the past 30 days: Ethnicity

Mean number of drinking occasions in the past 30 days among current (past 30 days) drinkers											
Ethnicity	Men			Women			Both Sexes				
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI		
ITaukei	108	2.3	1.7-2.9	29	1.7	1.4-2.0	137	2.2	1.7-2.7		
Indo-Fijian	145	4.9	3.8-6.0	38	2.3	0.8-3.9	183	4.5	3.4-5.5		

Table 4.10 Standard drinks per drinking day: Gender

Mean number of standard drinks per drinking occasion among current (past 30 days) drinkers											
Age Group (years)	Men			Women			Both Sexes				
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI		
25-34	79	7.8	5.9-9.8	18	5.1	1.5-8.8	97	7.4	5.6-9.2		
35-44	54	7.2	4.9-9.4	21	3.4	2.1-4.7	75	6.3	4.4-8.2		
45-54	54	5.0	3.8-6.3	15	3.7	0.9-6.4	69	4.8	3.6-5.9		
55-64	34	5.1	3.2-7.0	9	2.7	0.0-5.9	43	4.7	3.0-6.4		
25-64	221	6.9	5.6-8.1	63	4.0	2.2-5.9	284	6.3	5.3-7.4		

Table 4.11 Standard drinks per drinking day: Ethnicity

Mean number of standard drinks per drinking occasion among current (past 30 days) drinkers											
Ethnicity	Men			Women			Both Sexes				
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI		
ITaukei	77	7.4	5.1-9.7	21	6.5	2.6-10.4	98	7.2	5.2-9.3		
Indo-Fijian	136	6.4	5.0-7.8	37	2.0	1.2-2.8	173	5.7	4.4-6.9		

Table 4.12 Average volume category III drinking* among all respondents: Gender

Category III drinking among all respondents											
Age Group (years)	Men				Women				Both Sexes		
	n	% Category III	95% CI		n	% Category III	95% CI		N	% Category III	95% CI
25-34	237	0.2	0.0-0.5		327	-	-		564	0.1	0.0-0.3
35-44	257	0.0	0.0-0.0		420	-	-		677	0.0	0.0-0.0
45-54	318	0.0	0.0-0.0		396	-	-		714	0.0	0.0-0.0
55-64	229	0.0	0.0-0.0		271	-	-		500	0.0	0.0-0.0
25-64	1041	0.1	0.0-0.2		1414	-	-		2455	0.0	0.0-0.1

Category III drinking refers to drinking ≥ 60 g of pure alcohol on average per day for men and ≥ 40 g for women.

Table 4.13 Average volume category III drinking among all respondents: Ethnicity

Category III drinking among all respondents											
Ethnicity	Men				Women				Both Sexes		
	n	% Category III	95% CI		n	% Category III	95% CI		n	% Category III	95% CI
ITaukei	574	0.0	0.0-0.0		756	-	-		1330	0.0	0.0-0.0
Indo-Fijian	433	0.1	0.0-0.4		621	-	-		1054	0.1	0.0-0.2

Category III drinking refers to drinking ≥ 60 g of pure alcohol on average per day for men and ≥ 40 g for women.

Table 4.14 Average volume category II drinking * among all respondents: Gender

Category II drinking among all respondents											
Age Group (years)	Men				Women				Both Sexes		
	n	% Category II	95% CI		n	% Category II	95% CI		n	% Category II	95% CI
25-34	237	1.4	0.0-3.1		327	0.0	0.0-0.0		564	0.7	0.0-1.5
35-44	257	1.1	0.0-2.3		420	0.0	0.0-0.0		677	0.5	0.0-1.1
45-54	318	0.3	0.0-1.0		396	0.3	0.0-0.8		714	0.3	0.0-0.7
55-64	229	0.6	0.0-1.6		271	0.0	0.0-0.0		500	0.3	0.0-0.8
25-64	1041	0.9	0.3-1.5		1414	0.1	0.0-0.2		2455	0.5	0.2-0.8

Category II drinking refers to drinking 40-59.9g of pure alcohol on average per day for men and 20-39.9 g for women

Table 4.15 Average volume category II drinking among all respondents: Ethnicity

Category II drinking among all respondents											
Ethnicity	Men				Women				Both Sexes		
	n	% Category II	95% CI		n	% Category II	95% CI		n	% Category II	95% CI
ITaukei	574	0.5	0.0-1.3		756	0.0	0.0-0.0		1330	0.3	0.0-0.6
Indo-Fijian	433	1.3	0.3-2.3		621	0.1	0.0-0.4		1054	0.7	0.2-1.2

Category II drinking refers to drinking 40-59.9g of pure alcohol on average per day for men and 20-39.9 g for women

Table 4.16 Average volume drinking categories among current (past 30 days) drinkers: Male

Category I, II and III drinking among current (past 30 days) drinkers							
Age Group (years)	Men						
	n	% Category III	95% CI	% Category II	95% CI	% Category I	95% CI
25-34	78	0.5	0.0-1.6	4.0	0.0-9.0	95.4	90.3-100.0
35-44	54	0.0	0.0-0.0	5.8	0.1-11.5	94.2	88.5-99.9
45-54	54	0.0	0.0-0.0	2.0	0.0-6.0	98.0	94.0-100.0
55-64	34	0.0	0.0-0.0	4.1	0.0-12.1	95.9	87.9-100.0
25-64	220	0.2	0.0-0.7	4.1	1.2-7.0	95.7	92.7-98.6

Category II drinking refers to drinking 40-59.9g of pure alcohol on average per day for men and 20-39.9 g for women. Category III drinking refers to drinking ≥ 60 g of pure alcohol on average per day for men and ≥ 40 g for women. Category I is defined as drinking < 40 g of pure alcohol on average per day for men and < 20 for women. A standard drink contains approximately 10g of pure alcohol.

Table 4.17 Average volume drinking categories among current (past 30 days) male drinkers: Ethnicity

Category I, II and III drinking among current (past 30 days) drinkers							
Ethnicity	Men						
	n	% Category III	95% CI	% Category II	95% CI	% Category I	95% CI
ITaukei	76	0.0	0.0-0.0	3.6	0.0-9.1	96.4	90.9-100.0
Indo-Fijian	136	0.4	0.0-1.2	3.9	0.7-7.1	95.7	92.4-98.9

Table 4.18 Average volume drinking categories among current (past 30 days) female drinkers

Category I, II and III drinking among current (past 30 days) drinkers							
Age Group (years)	Women						
	n	% Category III	95% CI	% Category II	95% CI	% Category I	95% CI
25-34	17	-	-	0.0	0.0-0.0	100.0	100.0-100.0
35-44	21	-	-	0.0	0.0-0.0	100.0	100.0-100.0
45-54	15	-	-	6.3	0.0-19.0	93.7	81.0-100.0
55-64	9	-	-	0.0	0.0-0.0	100.0	100.0-100.0
25-64	62	-	-	0.0	0.0-0.0	100.0	100.0-100.0

Table 4.19 Average volume drinking categories among current (past 30 days) female drinkers: Ethnicity

Category I, II and III drinking among current (past 30 days) drinkers							
Ethnicity	Women						
	n	% Category III	95% CI	% Category II	95% CI	% Category I	95% CI
ITaukei	20	-	-	0.0	0.0-0.0	100.0	100.0-100.0
Indo-Fijian	37	-	-	2.5	0.0-7.6	97.5	92.4-100.0

Table 4.20 Largest number of drinks in the past 30 days: Gender

Mean maximum number of drinks consumed on one occasion in the past 30 days											
Age Group (years)	Men				Women				Both Sexes		
	N	Mean maximum number	95% CI		n	Mean maximum number	95% CI		n	Mean maximum number	95% CI
25-34	76	10.2	7.8-12.6		15	6.0	1.7-10.3		91	9.6	7.5-11.7
35-44	52	9.1	6.2-12.0		19	3.9	2.3-5.5		71	7.9	5.4-10.4
45-54	51	7.2	5.3-9.0		15	3.7	0.9-6.4		66	6.5	4.8-8.1
55-64	31	8.0	5.1-10.8		9	2.4	0.2-4.6		40	6.8	4.4-9.2
25-64	210	9.1	7.7-10.6		58	4.4	2.4-6.4		268	8.3	7.1-9.5

Table 4.21 Largest number of drinks in the past 30 days: Ethnicity

Mean maximum number of drinks consumed on one occasion in the past 30 days											
Ethnicity	Men				Women				Both Sexes		
	n	Mean maximum number	95% CI		n	Mean maximum number	95% CI		n	Mean maximum number	95% CI
ITaukei	73	9.2	6.4-12.1		20	6.8	2.5-11.0		93	8.8	6.4-11.2
Indo-Fijian	128	9.1	7.5-10.6		33	2.2	1.4-3.1		161	8.0	6.6-9.4

Table 4.22 Five/four or more drinks on a single occasion: Gender

Five/four or more drinks on a single occasion at least once during the past 30 days among total population							
Age Group (years)	Men				Women		
	n	% ≥ 5 drinks	95% CI		n	% ≥ 4drinks	95% CI
25-34	266	28.1	22.1-34.0		332	3.4	1.5-5.4
35-44	272	15.4	10.7-20.0		427	3.3	1.5-5.1
45-54	326	11.4	7.2-15.7		399	1.4	0.1-2.6
55-64	231	9.1	4.6-13.5		271	1.7	0.1-3.3
25-64	1095	17.3	14.3-20.3		1429	2.6	1.6-3.6

Table 4.23 Five/four or more drinks on a single occasion: Ethnicity

Five/four or more drinks on a single occasion at least once during the past 30 days among total population							
Ethnicity	Men				Women		
	n	% ≥ 5 drinks	95% CI		n	% ≥ 4drinks	95% CI
ITaukei	610	13.8	10.6-16.9		20	3.2	0.7-5.7
Indo-Fijian	446	21.7	17.1-26.3		23	1.5	0.8-2.1

Table 4.24 Five/four or more drinks on a single occasion: Gender

Mean number of times with five/four or more drinks during a single occasion in the past 30 days among current drinkers							
Age Group (years)	Men				Women		
	n	Mean number of times	95% CI		n	Mean number of times	95% CI
25-34	77	3.0	1.9-4.0		13	4.2	0.8-7.7
35-44	54	2.4	1.8-3.1		17	1.4	0.9-1.8
45-54	47	2.1	1.5-2.7		10	0.8	0.2-1.4
55-64	28	2.1	1.2-3.0		6	1.8	0.2-3.4
25-64	206	2.6	2.0-3.1		46	2.3	1.0-3.6

Table 4.25 Five/four or more drinks on a single occasion: Ethnicity

Mean number of times with five/four or more drinks during a single occasion in the past 30 days among current drinkers							
Ethnicity	Men				Women		
	n	Mean number of times	95% CI		n	Mean number of times	95% CI
ITaukei	80	2.9	1.8-4.0		20	3.2	0.7-5.7
Indo-Fijian	114	2.4	1.9-2.9		23	1.5	0.8-2.1

Table 4.26 Frequency and quantity of drinks consumed in the past 7 days: Both sexes

Frequency and quantity of drinks consumed in the past 7 days			
Age Group (years)	Both Sexes		
	n	% Drank on 4+ days	95% CI
25-34	70	3.5	0.0-8.4
35-44	61	6.5	0.0-13.0
45-54	61	6.0	0.8-11.1
55-64	30	32.3	12.9-51.8
25-64	222	7.5	3.6-11.5

Table 4.27 Frequency and quantity of drinks consumed in the past 7 days by male: Ethnicity

Frequency and quantity of drinks consumed in the past 7 days							
Ethnicity	Men						
	n	% Drank on 4+ days	95% CI	% 5+ drinks on any day	95% CI	% 20+ drinks in 7 days	95% CI
ITaukei	66	1.2	0.0-3.4	40.5	27.3-53.8	5.2	0.0-10.9
Indo-Fijian	106	13.1	6.3-19.9	31.7	22.5-40.8	6.9	2.0-11.8

Table 4.28 Frequency and quantity of drinks consumed in the past 7 days by female: Ethnicity

Frequency and quantity of drinks consumed in the past 7 days							
Ethnicity	Women						
	n	% Drank on 4+ days	95% CI	% 4+ drinks on any day	95% CI	% 15+ drinks in 7 days	95% CI
ITaukei	16	0.0	0.0-0.0	42.9	16.5-69.3	21.8	0.0-44.3
Indo-Fijian	26	11.9	0.0-26.2	10.3	0.0-22.5	4.0	0.0-12.4

Table 4.29 Frequency and quantity of drinks consumed in the past 7 days by Both Sexes: Ethnicity

Frequency and quantity of drinks consumed in the past 7 days			
Ethnicity	Both Sexes		
	n	% Drank on 4+ days	95% CI
ITaukei	82	1.0	0.0-3.0
Indo-Fijian	132	13.0	6.7-19.3

5. Fruit and Vegetable Consumption

Table 5.0 Mean number of days of fruit consumed in a typical week: Ethnicity

Mean number of days fruit consumed in a typical week											
Ethnicity	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
ITaukei	584	3.5	3.1-3.8		734	3.7	3.4-3.9		1318	3.6	3.3-3.8
Indo-Fijian	444	4.3	4.1-4.6		615	4.5	4.3-4.7		1059	4.4	4.2-4.6

Table 5.1 Mean number of days of vegetables consumed in a typical week: Ethnicity

Mean number of days vegetables consumed in a typical week											
Ethnicity	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
ITaukei	605	5.3	5.1-5.6		768	5.3	5.0-5.6		1373	5.3	5.1-5.5
Indo-Fijian	455	5.8	5.6-6.0		619	6.0	5.9-6.2		1074	5.9	5.8-6.1

Table 5.2 Mean number of servings of fruit on average per day: Ethnicity

Mean number of servings of fruit on average per day									
Ethnicity	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
ITaukei	568	1.1	1.0-1.3	726	1.1	1.0-1.2	1294	1.1	1.0-1.2
Indo-Fijian	434	1.2	1.1-1.3	608	1.2	1.1-1.3	1042	1.2	1.1-1.3

Table 5.3 Mean number of servings of vegetables on average per day: Ethnicity

Mean number of servings of vegetables on average per day									
Ethnicity	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
ITaukei	588	1.9	1.7-2.0	758	1.8	1.6-2.0	1346	1.8	1.7-2.0
Indo-Fijian	452	2.0	1.8-2.1	616	2.1	1.9-2.3	1068	2.0	1.9-2.2

Table 5.4 Mean number of servings of fruits/vegetables on average per day: Ethnicity

Mean number of servings of fruit and/or vegetables on average per day									
Ethnicity	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
ITaukei	600	2.9	2.6-3.2	766	2.8	2.6-3.1	1366	2.9	2.6-3.1
Indo-Fijian	455	3.1	2.9-3.3	623	3.3	3.0-3.5	1078	3.2	3.0-3.4

Table 5.5 Frequency of fruit and/or vegetable consumption on average per day: Male

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
25-34	259	13.9	8.7-19.1	45.0	38.0-52.1	24.9	18.1-31.8	16.1	11.4-20.8
35-44	262	9.7	5.3-14.1	46.7	40.8-52.5	26.9	20.8-33.0	16.7	11.5-21.9
45-54	315	6.0	2.6-9.4	50.2	43.1-57.4	31.3	25.1-37.5	12.5	7.9-17.1
55-64	220	9.0	5.1-12.8	50.7	43.1-58.2	20.6	14.5-26.7	19.8	14.1-25.4
25-64	1056	10.0	7.1-12.9	47.7	43.9-51.4	26.4	23.0-29.8	15.9	12.9-18.9

Table 5.6 Frequency of fruit and/or vegetable consumption on average per day: Female

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
25-34	322	11.3	6.9-15.7	45.1	38.8-51.3	29.7	24.1-35.4	13.9	8.9-19.0
35-44	411	8.7	5.5-11.9	47.5	41.0-54.0	29.6	23.7-35.4	14.2	10.4-18.1
45-54	389	9.0	5.3-12.6	44.7	38.2-51.2	32.0	26.3-37.8	14.3	10.1-18.4
55-64	268	7.9	4.3-11.6	47.2	39.5-54.8	31.7	24.4-39.0	13.2	8.1-18.3
25-64	1390	9.4	6.7-12.2	46.0	42.1-50.0	30.6	26.9-34.2	14.0	11.3-16.7

Table 5.7 Frequency of fruit and/or vegetable consumption on average per day: Both sexes

Number of servings of fruit and/or vegetables on average per day									
Age Group (years)	Both Sexes								
	N	% no fruit and/or vegetables	95% CI	% 1-2 servings	95% CI	% 3-4 servings	95% CI	% ≥5 servings	95% CI
25-34	581	12.6	8.6-16.6	45.0	40.1-50.0	27.3	22.2-32.4	15.0	11.5-18.6
35-44	673	9.2	6.2-12.1	47.1	42.4-51.8	28.3	24.1-32.4	15.4	12.0-18.8
45-54	704	7.5	4.6-10.3	47.5	42.4-52.6	31.7	27.2-36.1	13.4	9.9-16.8
55-64	488	8.4	5.7-11.2	48.9	43.3-54.4	26.2	21.3-31.2	16.4	12.3-20.6
25-64	2446	9.7	7.2-12.2	46.8	43.8-49.8	28.5	25.7-31.2	15.0	12.5-17.4

Table 5.8 Frequency of fruit and/or vegetable consumption on average per day: Both sexes: Ethnicity

Number of servings of fruit and/or vegetables on average per day									
Ethnicity	Both Sexes								
	N	% no fruit and/or vegetables	95% CI	% 1-2 servings	95% CI	% 3-4 servings	95% CI	% ≥5 servings	95% CI
ITaukei	1368	12.9	9.3-16.5	49.8	45.8-53.7	23.0	19.7-26.4	14.3	11.0-17.7
Indo-Fijian	1078	5.1	3.5-6.8	42.7	38.7-46.6	36.4	32.8-39.9	15.8	12.9-18.7

Table 5.9 Frequency of less than five servings fruit and/or vegetable on average per day: Both sexes: Ethnicity

Less than five servings of fruit and/or vegetables on average per day											
Ethnicity	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
ITaukei	600	84.1	80.0-88.2		766	87.4	83.8-91.1		1366	85.7	82.3-89.1
Indo-Fijian	455	84.0	80.3-87.7		623	84.3	80.7-88.0		1078	84.2	81.3-87.1

Table 5.10 Percentage of type of oil or fat most often used for meal preparation in households

Type of oil or fat most often used for meal preparation in household								
n (households)	% Vegetable oil	95% CI	% Lard	95% CI	% Butter	95% CI	% Margarine	95% CI
2456	90.8	87.7-93.9	1.5	0.5-2.4	0.6	0.1-1.1	0.5	0.2-0.8

Table 5.11 Percentage of other type of oil or fat most often used for meal preparation in households

Type of oil or fat most often used for meal preparation in household						
n (households)	% none in particular	95% CI	% None used	95% CI	% Other	95% CI
2456	6.1	3.2-9.1	0.4	0.01-0.7	0.2	0.03-0.3

Table 5.12 Percentage of type of oil or fat most often used for meal preparation in households: Ethnicity

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
I-Taukei	1379	89.2	85.2-93.2	2.3	0.8-3.8	0.8	0.07-1.5	0.6	0.2-1.0
Indo-Fijian	1077	93.1	88.9-97.3	0.2	0.08-0.4	0.3	-0.1-0.7	0.4	-0.2-0.9

Table 5.13 Percentage of other type of oil or fat most often used for meal preparation in households: Ethnicity

Type of oil or fat most often used for meal preparation in household								
n (households)	% none in particular	95% CI	% None used	95% CI	% Other	95% CI	% none in particular	95% CI
I-Taukei	6.2	2.4-9.9	0.6	0.02-1.2	0.3	0.05-0.6	6.2	2.4-9.9
Indo-Fijian	6.1	1.9-10.2	-	-	-	-	6.1	1.9-10.2

6.0 Physical Activity

Table 6.0 Percentage of level of total physical activity: Male: Ethnicity

Level of total physical activity							
Ethnicity	Men						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
ITaukei	565	7.7	5.1-10.3	10.9	8.1-13.6	81.5	77.3-85.6
Indo-Fijian	437	20.1	15.9-24.3	21.1	16.9-25.4	58.8	53.5-64.1

Table 6.1 Percentage of level of total physical activity: Female: Ethnicity

Level of total physical activity							
Ethnicity	Women						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
ITaukei	729	26.7	22.1-31.2	30.2	26.0-34.3	43.2	38.7-47.7
Indo-Fijian	593	31.6	26.4-36.8	26.3	22.5-30.2	42.0	37.2-46.9

Table 6.2 Percentage of level of total physical activity: Both sexes: Ethnicity

Level of total physical activity							
Ethnicity	Both Sexes						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
ITaukei	1294	17.1	14.1-20.1	20.5	17.4-23.6	62.4	57.8-67.0
Indo-Fijian	1030	26.0	22.6-29.4	23.8	20.8-26.8	50.2	45.9-54.5

Table 6.3 Mean minutes of total physical activity on average per day: Ethnicity

Mean minutes of total physical activity on average per day											
Ethnicity	Men				Women				Both Sexes		
	n	Mean minutes	95% CI		n	Mean minutes	95% CI		n	Mean minutes	95% CI
ITaukei	565	286.5	256.2-316.8		729	137.0	123.5-150.6		1294	211.9	187.2-236.7
Indo-Fijian	437	209.9	186.5-233.3		593	119.9	102.1-137.7		1030	163.8	147.5-180.2

Table 6.4 Median minutes of total physical activity on average per day: Gender

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)
25-34	240	257.1	82.9-428.6		311	98.6	28.6-200.0		551	154.3	51.4-325.7
35-44	266	214.3	62.1-379.3		402	81.4	30.0-188.6		668	128.6	38.6-293.6
45-54	314	197.1	68.6-377.1		379	77.1	30.0-177.1		693	124.3	42.9-274.3
55-64	217	141.4	57.9-257.1		264	55.7	12.9-124.3		481	94.3	22.9-188.6
25-64	1037	205.7	68.6-379.3		1356	79.3	25.7-182.1		2393	125.7	42.9-285.0

Table 6.5 Median minutes of total physical activity on average per day: Ethnicity

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)
iTaukei	565	240.0	117.1-394.3		729	90.0	34.3-188.6		1294	154.3	60.0-304.3
Indo-Fijian	437	140.0	40.0-360.0		593	65.7	17.1-180.0		1030	91.4	25.7-245.7

Table 6.6 Mean minutes spent in work-related physical activity on average per day: Ethnicity

Mean minutes of work-related physical activity on average per day											
Ethnicity	Men				Women				Both Sexes		
	n	Mean minutes	95% CI		n	Mean minutes	95% CI		N	Mean minutes	95% CI
ITaukei	565	184.4	162.3-206.1		729	83.6	72.3-94.8		1294	134.1	117.2-150.9
Indo-Fijian	437	156.4	136.2-176.5		593	83.7	70.5-97.0		1030	119.2	105.9-132.5

Table 6.7 Mean minutes spent in transport-related physical activity on average per day: Ethnicity

Mean minutes of transport-related physical activity on average per day											
Ethnicity	Men				Women				Both Sexes		
	n	Mean minutes	95% CI		n	Mean minutes	95% CI		N	Mean minutes	95% CI
ITaukei	565	51.3	39.2-63.4		729	31.1	24.9-37.3		1294	41.2	32.6-49.9
Indo-Fijian	437	34.3	28.1-40.5		593	25.9	19.6-32.2		1030	30.0	25.1-34.9

Table 6.8 Mean minutes spent in recreation-related physical activity on average per day: Ethnicity

Mean minutes of recreation-related physical activity on average per day											
Ethnicity	Men				Women				Both Sexes		
	n	Mean minutes	95% CI		n	Mean minutes	95% CI		n	Mean minutes	95% CI
ITaukei	565	50.8	43.5-58.1		729	22.3	17.0-27.7		1294	36.6	31.6-41.6
Indo-Fijian	437	19.2	15.3-23.0		593	10.3	8.1-12.5		1030	14.6	11.9-17.3

Table 6.9 Median minutes of work-related physical activity on average per day: Gender

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)
25-34	240	154.4.3	25.7-321.4		311	42.9	0.0-128.6		551	68.6	8.6-240.0
35-44	266	94.3	17.1-274.3		402	34.3	0.0-120.0		668	55.7	4.3-180
45-54	314	128.6	25.7-291.4		379	42.9	8.6-111.4		693	68.6	17.1-205.7
55-64	217	85.7	15.0-205.7		264	25.7	0.0-85.7		481	51.4	0.0-137.1
25-64	1037	111.4	21.4-282.9		1356	34.3	0.0-120.0		2393	60.0	8.6-197.1

Table 6.10 Median minutes of work-related physical activity on average per day: Ethnicity

Median minutes of work-related physical activity on average per day											
Ethnicity	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)
I-Taukei	565	137.1	45.7-291.7		729	42.9	111.4		1295	77.1	188.6
Indo-Fijian	437	62.9	0.0-300.0		593	30.0	120.0		1030	38.6	180.0

Table 6.11 Median minutes of transport-related physical activity on average per day: Gender

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)
25-34	240	21.4	2.9-40.0		311	8.6	.0-25.7		551	12.9	0.0-30.0
35-44	266	25.7	5.7-51.3		402	12.9	0.0-42.9		668	17.1	2.1-43.6
45-54	314	25.7	5.7-51.3		379	10.0	0.0-30.0		693	17.1	1.4-41.4
55-64	217	12.9	0.0-42.9		264	8.6	0.0-25.7		481	8.6	0.0-34.3
25-64	1037	21.4	4.3-51.4		1356	8.6	0.0-30.0		2393	15.0	0.0-40.0

Table 6.12 Median minutes of transport-related physical activity on average per day: Ethnicity

Median minutes of transport-related physical activity on average per day											
Ethnicity	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)
I-Taukei	565	25.7	42.9		729	12.9	32.9		1294	20.0	40.7
Indo-Fijian	437	12.9	34.3		593	5.7	22.9		1030	8.6	30.0

Table 6.13 Median minutes of recreation-related physical activity on average per day: Gender

Median minutes of recreation-related physical activity on average per day											
Age Group (years)	Men				Women				Both Sexes		
	n	Median minutes	Inter-quartile range (P25-P75)		n	Median minutes	Inter-quartile range (P25-P75)		n	Median minutes	Inter-quartile range (P25-P75)
25-34	240	34.3	8.6-85.7		311	0	0.0-28.6		551	17.1	0.0-51.4
35-44	266	17.1	0.0-51.4		402	0	0.0-17.1		668	4.3	0.0-34.3
45-54	314	2.1	0.0-30.0		379	0	0.0-8.6		693	0	0.0-17.1
55-64	217	0.0	0.0-8.6		264	0	0.0-0.0		481	0	0.0-4.2
25-64	1037	12.9	0.0-51.4		1356	0	0.0-17.1		2393	0	0.0-30.0

Table 6.14 Median minutes of recreation-related physical activity on average per day: Ethnicity

Median minutes of recreation-related physical activity on average per day											
Ethnicity	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)
I-Taukei	565	25.7	68.6		729	0.0	21.4		1294	8.6	48.6
Indo-Fijian	437	0.0	21.4		593	0.0	10.0		1030	0.0	17.1

Table 6.15 Percentage of respondents classified as doing no work- related physical activity: Gender

No work-related physical activity											
Age Group (years)	Men				Women				Both Sexes		
	n	% no activity at work	95% CI		n	% no activity at work	95% CI		n	% no activity at work	95% CI
25-34	240	15.0	9.7-20.2		311	27.6	19.9-35.2		551	21.4	16.6-26.1
35-44	266	20.6	14.0-27.2		402	27.1	20.7-33.4		668	23.9	19.0-28.8
45-54	314	14.8	10.2-19.3		379	22.1	16.8-27.5		693	18.3	14.4-22.2
55-64	217	21.7	15.1-28.4		264	34.2	27.8-40.5		481	28.1	23.3-32.8
25-64	1037	17.6	14.0-21.1		1356	27.2	22.7-31.7		2393	22.4	19.1-25.7

Table 6.16 Percentage of respondents classified as doing no transport- related physical activity: Gender

No transport-related physical activity											
Age Group (years)	Men				Women				Both Sexes		
	n	% no activity for transport	95% CI		n	% no activity for transport	95% CI		n	% no activity for transport	95% CI
25-34	240	23.0	15.6-30.3		311	33.8	27.0-40.6		551	28.5	23.1-33.8
35-44	266	19.9	13.8-25.9		402	28.3	22.2-34.3		668	24.2	19.9-28.4
45-54	314	18.4	12.8-24.0		379	30.7	25.7-35.7		693	24.3	20.2-28.4
55-64	217	27.3	20.9-33.6		264	36.7	30.0-43.4		481	32.1	26.8-37.3
25-64	1037	21.6	17.2-25.9		1356	31.9	28.0-35.8		2393	26.8	23.3-30.3

Table 6.17 Percentage of respondents classified as doing no recreation- related physical activity: Gender

No recreation-related physical activity											
Age Group (years)	Men				Women				Both Sexes		
	n	% no activity at recreation	95% CI		n	% no activity at recreation	95% CI		n	% no activity at recreation	95% CI
25-34	240	20.1	14.1-26.1		311	54.0	47.0-61.1		551	37.4	31.4-43.3
35-44	266	37.6	31.4-43.9		402	59.4	52.0-66.7		668	48.7	42.9-54.6
45-54	314	49.8	42.8-56.8		379	65.1	58.8-71.3		693	57.1	52.2-62.1
55-64	217	71.6	65.6-77.5		264	76.7	70.3-83.1		481	74.2	69.4-79.0
25-64	1037	40.9	37.1-44.7		1356	61.9	57.5-66.3		2393	51.5	47.7-55.2

Table 6.18 Percentage of work, transport and recreational activity contributing to total activity: Male

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
25-34	235	55.5	50.9-60.1	19.1	15.7-22.4	25.5	21.3-29.6
35-44	255	53.3	48.6-57.9	27.8	24.3-31.3	18.9	15.2-22.6
45-54	306	60.7	56.0-65.3	26.6	22.9-30.3	12.7	9.8-15.7
55-64	198	63.5	57.9-69.1	27.5	22.3-32.6	9.0	6.4-11.7
25-64	994	57.4	54.5-60.4	24.8	22.6-26.9	17.8	15.6-20.0

Table 6.19 Percentage of work, transport and recreational activity contributing to total activity by male: Ethnicity

Composition of total physical activity							
Ethnicity	Men						
	n	% Activity from work	95% CI	% Activity for transport	95% CI	% Activity during leisure time	95% CI
ITaukei	553	58.1	54.5-61.7	22.4	20.1-24.7	19.5	16.6-22.5
Indo-Fijian	407	57.1	52.7-61.4	27.9	24.0-31.9	15.0	12.0-17.9

Table 6.20 Percentage of work, transport and recreational activity contributing to total activity: Female

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
25-34	291	54.7	48.9-60.5	26.8	22.2-31.4	18.5	14.5-22.5
35-44	383	52.9	47.7-58.0	33.2	27.2-39.2	14.0	10.5-17.4
45-54	344	60.5	56.3-64.6	29.7	25.7-33.8	9.8	7.8-11.7
55-64	224	55.3	50.0-60.6	35.3	30.1-40.6	9.4	6.4-12.4
25-64	1242	55.6	52.4-58.8	30.7	27.6-33.8	13.7	11.8-15.6

Table 6.21 Percentage of work, transport and recreational activity contributing to total activity by female: Ethnicity

Composition of total physical activity							
Ethnicity	Women						
	n	% Activity from work	95% CI	% Activity for transport	95% CI	% Activity during leisure time	95% CI
ITaukei	692	55.6	51.5-59.6	29.4	25.7-33.1	15.0	12.3-17.8
Indo-Fijian	516	56.9	52.6-61.1	31.5	27.7-35.3	11.6	9.2-14.1

Table 6.22 Percentage of work, transport and recreational activity contributing to total activity: Both sexes

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
25-34	526	55.1	51.3-58.9	22.9	19.9-25.8	22.0	18.9-25.1
35-44	638	53.1	49.0-57.1	30.5	26.5-34.6	16.4	13.6-19.1
45-54	650	60.6	57.4-63.7	28.1	25.4-30.7	11.4	9.5-13.2
55-64	422	59.4	55.5-63.3	31.3	27.5-35.2	9.2	7.1-11.3
25-64	2236	56.5	54.1-59.0	27.7	25.4-29.9	15.8	14.2-17.4

Table 6.23 Percentage of work, transport and recreational activity contributing to total activity by both sexes: Ethnicity

Composition of total physical activity							
Ethnicity	Both Sexes						
	n	% Activity from work	95% CI	% Activity for transport	95% CI	% Activity during leisure time	95% CI
ITaukei	1245	56.8	53.9-59.8	25.9	23.3-28.4	17.3	15.1-19.5
Indo-Fijian	923	57.0	53.4-60.5	29.7	26.4-33.0	13.3	11.2-15.5

Table 6.24 Percentage of respondents not engaging in vigorous physical activity: Gender

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
25-34	240	20.2	14.3-26.0		311	75.6	69.6-81.7	551	48.4
35-44	266	33.9	25.9-41.8		402	67.6	61.9-73.2	668	51.1
45-54	314	33.3	26.5-40.1		379	72.1	66.0-78.2	693	51.9
55-64	217	52.1	43.6-60.6		264	77.2	70.9-83.5	481	64.9
25-64	1037	32.5	27.6-37.4		1356	72.7	68.6-76.8	2393	52.7

Table 6.25 Minutes spent in sedentary activities on a typical day: Male

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)
25-34	162	159.8	144.1-175.6	120	120-180
35-44	170	163.1	142.4-183.9	120	90-225
45-54	211	175.0	154.5-195.6	120	90-240
55-64	138	170.4	146.4-194.3	120	60-210
25-64	681	166.3	155.8-176.8	120	90-210

Table 6.26 Minutes spent in sedentary activities on a typical day by male: Ethnicity

Minutes spent in sedentary activities on average per day					
Ethnicity	Men				
	n	Mean minutes	95% CI	Median minutes	Inter-quartile range (P25-P75)
ITaukei	343	155.7	142.8-168.1	120	90-180
Indo-Fijian	316	177.6	162.5-192.6	150	90-240

Table 6.27 Minutes spent in sedentary activities on a typical day: Female

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)
25-34	213	147.2	127.9-166.4	120	60-180
35-44	247	127.2	113.9-140.6	120	60-180
45-54	245	154.1	135.6-172.5	120	60-180
55-64	157	148.5	128.3-168.8	120	60-180
25-64	862	143.7	133.2-154.1	120	60-180

Table 6.28 Minutes spent in sedentary activities on a typical day by female: Ethnicity

Minutes spent in sedentary activities on average per day					
Ethnicity	Women				
	n	Mean minutes	95% CI	Median minutes	Inter-quartile range (P25-P75)
ITaukei	450	138.0	124.8-151.1	120	60-180
Indo-Fijian	390	152.2	138.4-166.0	120	60-180

Table 6.29 Minutes spent in sedentary activities on a typical day: Both sexes

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)
25-34	375	153.4	140.4-166.4	120	90-180
35-44	417	145.6	132.2-159.1	120	60-180
45-54	456	165.0	151.3-178.7	120	90-180
55-64	295	159.7	142.5-176.9	120	60-180
25-64	1543	155.2	146.8-163.5	120	60-180

Table 6.30 Minutes spent in sedentary activities on a typical day by both sexes: Ethnicity

Minutes spent in sedentary activities on average per day					
Ethnicity	Both Sexes				
	n	Mean minutes	95% CI	Median minutes	Inter-quartile range (P25-P75)
I-Taukei	793	146.8	137.0-156.6	60	60-120
Indo-Fijian	706	165.1	153.9-176.4	90	90-120

7. Blood Pressure and Diabetes

Table 7.0 Percentage of blood pressure measurement and diagnosis: Male

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
25-34	266	36.7	29.5-43.9	55.4	47.1-63.7	4.2	1.4-6.9	3.7	1.3-6.2
35-44	268	26.4	21.2-31.5	62.7	57.4-68.1	5.2	2.5-8.0	5.7	3.0-8.4
45-54	322	17.2	10.7-23.7	59.7	53.4-65.9	5.4	3.2-7.6	17.7	12.6-22.9
55-64	231	7.6	4.6-10.7	59.4	52.6-66.3	7.0	3.1-10.9	25.9	20.1-31.7
25-64	1087	24.3	21.3-27.4	59.1	55.7-62.6	5.2	3.8-6.6	11.3	9.0-13.7

Table 7.1 Percentage of blood pressure measurement and diagnosis among males: Ethnicity

Blood pressure measurement and diagnosis									
Ethnicity	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
ITaukei	603	24.0	20.2-27.8	58.2	53.7-62.7	6.6	4.6-8.6	11.2	8.0-14.4
Indo-Fijian	443	25.0	20.7-29.4	61.2	56.5-65.9	2.3	0.8-3.8	11.5	8.0-15.0

Table 7.2 Percentage of blood pressure measurement and diagnosis among females

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
25-34	329	24.3	19.0-29.7	69.4	63.7-75.1	2.6	1.1-4.1	3.7	1.6-5.8
35-44	421	12.5	7.9-17.0	70.8	65.5-76.0	6.5	4.0-9.0	10.2	7.0-13.5
45-54	390	9.7	6.0-13.3	60.5	55.4-65.6	6.3	3.8-8.8	23.5	18.4-28.6
55-64	263	9.4	5.1-13.6	40.6	34.5-46.6	8.3	4.8-11.8	41.8	35.5-48.0
25-64	1403	15.1	12.2-17.9	63.2	59.8-66.6	5.5	4.3-6.6	16.2	14.3-18.1

Table 7.3 Percentage of blood pressure measurement and diagnosis among Females: Ethnicity

Blood pressure measurement and diagnosis									
Ethnicity	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
ITaukei	756	14.2	9.9-18.5	62.8	57.8-67.8	6.8	5.1-8.4	16.2	13.6-18.9
Indo-Fijian	612	16.1	12.6-19.7	64.0	59.0-68.9	3.7	2.2-5.1	16.2	13.2-19.2

Table 7.4 Percentage of blood pressure measurement and diagnosis among both sexes

Blood pressure measurement and diagnosis									
Age Group (years)	Both sexes								
	N	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
25-34	595	30.6	25.8-35.4	62.3	56.9-67.8	3.4	1.7-5.0	3.7	2.0-5.4
35-44	689	19.2	15.8-22.6	66.9	63.2-70.6	5.9	4.0-7.8	8.1	6.0-10.1
45-54	712	13.6	9.9-17.2	60.1	56.2-63.9	5.8	4.2-7.5	20.5	16.8-24.3
55-64	494	8.5	5.9-11.1	50.2	45.4-55.0	7.7	5.0-10.3	33.7	29.6-37.8
25-64	2490	19.7	17.4-22.0	61.2	58.5-63.8	5.4	4.5-6.3	13.8	12.2-15.3

Table 7.5 Percentage of blood pressure measurement and diagnosis among both sexes: Ethnicity

Blood pressure measurement and diagnosis									
Ethnicity	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
ITaukei	1359	19.2	16.0-22.4	60.4	56.7-64.1	6.7	5.5-7.9	13.7	11.5-15.8
Indo-Fijian	1055	20.4	17.6-23.3	62.6	59.3-66.0	3.0	1.9-4.1	13.9	11.6-16.3

Table 7.6 Percentage of blood pressure treatment among those diagnosed by gender

Currently taking blood pressure drugs prescribed by doctor or health worker among those diagnosed											
Age Group (years)	Men				Women				Both Sexes		
	n	% taking meds	95% CI		n	% taking meds	95% CI		n	% taking meds	95% CI
25-34	16	13.1	0.0-28.3		22	15.5	2.6-28.3		38	14.2	4.1-24.3
35-44	31	29.1	8.4-49.8		71	29.4	17.9-40.8		102	29.3	18.7-39.8
45-54	73	46.0	33.5-58.5		114	50.2	38.2-62.2		187	48.3	38.3-58.3
55-64	72	50.5	39.5-61.4		132	64.6	56.0-73.3		204	58.9	51.8-66.0
25-64	192	39.9	30.7-49.1		339	47.5	41.0-53.9		531	44.2	38.3-50.2

Table 7.7 Percentage of blood pressure treatment among those diagnosed by ethnicity

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
ITaukei	110	28.3	13.4-43.3		194	35.2	28.4-41.9		304	32.1	24.0-40.2
Indo-Fijian	69	64.6	53.9-75.3		137	67.3	57.7-76.9		206	66.3	59.6-72.9

Table 7.8 Percentage of respondents with raised blood pressure excluding those on medication by gender

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
25-34	267	17.2	12.5-22.0	328	5.6	3.0-8.2	595	11.5	8.8-14.2
35-44	268	30.1	24.3-35.9	413	21.0	17.4-24.7	681	25.5	22.3-28.6
45-54	310	35.7	30.9-40.6	352	35.2	30.5-40.0	662	35.5	32.4-38.7
55-64	212	48.7	41.8-55.7	198	48.3	41.0-55.6	410	48.5	43.4-53.7
25-64	1057	30.1	27.1-33.1	1291	22.6	20.3-24.8	2348	26.4	24.5-28.4

Table 7.9 Percentage of respondents with raised blood pressure excluding those on medication by ethnicity

SBP ≥140 and/or DBP ≥ 90 mmHg, excluding those on medication for raised blood pressure									
Ethnicity	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
ITaukei	599	33.1	28.6-37.5	713	25.4	22.4-28.5	1312	29.4	26.7-32.2
Indo-Fijian	418	25.6	20.9-30.4	547	19.4	16.1-22.6	965	22.5	19.4-25.5

Table 7.10 Percentage of respondents with raised blood pressure currently on medication by ethnicity

SBP ≥140 and/or DBP ≥ 90 mmHg or currently on medication for raised blood pressure									
Ethnicity	Men			Women			Both Sexes		
	N	%	95% CI	n	%	95% CI	n	%	95% CI
ITaukei	617	34.9	30.4-39.4	770	30.0	26.8-33.2	1387	32.5	29.6-35.5
Indo-Fijian	457	31.0	25.5-36.5	626	27.7	23.9-31.5	1083	29.3	25.8-32.8

Table 7.11 Percentage of respondents excluding those on medication for raised blood pressure by gender

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
25-34	267	2.9	0.9-4.8	328	1.2	0.0-2.3	595	2.0	0.9-3.2
35-44	268	6.0	3.2-8.9	413	6.7	4.3-9.2	681	6.4	4.7-8.1
45-54	310	8.8	5.5-12.2	352	15.9	11.6-20.1	662	12.1	9.4-14.8
55-64	212	21.0	15.3-26.8	198	22.2	16.2-28.2	410	21.6	17.1-26.0
25-64	1057	7.9	6.3-9.6	1291	8.9	7.2-10.6	2348	8.4	7.2-9.6

Table 7.12 Percentage of respondents excluding those on medication for raised blood pressure by ethnicity

SBP ≥160 and/or DBP ≥ 100 mmHg, excluding those on medication for raised blood pressure									
Ethnicity	Men			Women			Both Sexes		
	N	%	95% CI	n	%	95% CI	n	%	95% CI
ITaukei	599	9.2	6.6-11.8	714	9.9	7.8-12.0	1312	9.5	7.8-11.2
Indo-Fijian	418	5.5	3.1-7.8	547	7.9	5.6-10.2	965	6.7	5.0-8.4

Table 7.13 Percentage of respondents excluding those on medication for raised blood pressure by gender

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
25-34	269	3.7	1.2-6.1		331	1.6	0.3-2.9		600	2.6	1.3-4.0
35-44	277	8.9	5.5-12.4		427	9.8	6.6-12.9		704	9.4	7.1-11.6
45-54	334	15.0	11.1-19.0		402	25.3	20.3-30.2		736	20.0	16.6-23.3
55-64	236	29.3	23.3-35.2		272	43.0	36.8-49.3		508	36.0	31.2-40.9
25-64	1116	12.1	10.0-14.2		1432	16.2	14.0-18.4		2548	14.1	12.4-15.8

Table 7.14 Percentage of respondents with raised blood pressure currently on medication by ethnicity

SBP ≥160 and/or DBP ≥ 100 mmHg or currently on medication for raised blood pressure											
Ethnicity	Men				Women				Both Sexes		
	N	%	95% CI		n	%	95% CI		n	%	95% CI
ITaukei	617	11.7	8.5-14.8		770	15.4	12.8-18.1		1388	13.5	11.3-15.7
Indo-Fijian	457	12.3	8.6-16.1		626	17.4	14.3-20.4		1083	14.9	12.6-17.3

Table 7.15 Percentage of respondents with treated and/or controlled of raised blood pressure: Male

Respondents with treated and/or controlled raised blood pressure							
Age Group (years)	Men						
	n	% On medication and SBP<140 and DBP<90	95% CI	% On medication and SBP≥140 and/orDBP≥90	95% CI	% Not on medication and SBP≥140 and/orDBP≥90	95% CI
25-34	47	2.0	0.0-5.7	3.1	0.0-9.1	94.9	88.2-100.0
35-44	87	1.2	0.0-2.9	7.3	0.7-13.9	91.5	84.5-98.6
45-54	124	4.3	0.8-7.9	13.9	6.8-21.1	81.8	74.6-88.9
55-64	118	3.1	0.0-6.7	17.7	10.4-24.9	79.2	71.6-86.8
25-64	376	2.8	1.2-4.4	11.3	7.9-14.7	85.9	82.1-89.8

Table 7.16 Percentage of respondents with treated and/or controlled of raised blood pressure by ethnicity: Male

Respondents with treated and/or controlled raised blood pressure							
Ethnicity	Men						
	n	% On medication and SBP<140 and DBP<90	95% CI	% On medication and SBP≥140 and/orDBP≥90	95% CI	% Not on medication and SBP≥140 and/orDBP≥90	95% CI
ITaukei	217	1.0	0.0-2.4	6.8	3.2-10.4	92.2	87.6-96.7
Indo-Fijian	144	6.0	2.1-9.9	18.6	11.9-25.4	75.4	68.0-82.8

Table 7.17 Percentage of respondents with treated and/or controlled of raised blood pressure: Female

Respondents with treated and/or controlled raised blood pressure							
Age Group (years)	Women						
	n	% On medication and SBP<140 and DBP<90	95% CI	% On medication and SBP≥140 and/orDBP≥90	95% CI	% Not on medication and SBP≥140 and/orDBP≥90	95% CI
25-34	23	2.0	0.0-5.6	5.8	0.0-14.4	92.3	83.3-100.0
35-44	97	1.7	0.0-4.2	12.5	5.5-19.5	85.8	78.4-93.1
45-54	165	2.5	0.2-4.8	25.2	18.7-31.8	72.3	65.4-79.1
55-64	161	10.4	5.9-15.0	35.5	28.1-42.9	54.1	47.2-60.9
25-64	446	5.0	2.8-7.1	24.2	20.4-28.1	70.8	66.5-75.1

Table 7.18 Percentage of respondents with treated and/or controlled of raised blood pressure by ethnicity: Female

Respondents with treated and/or controlled raised blood pressure							
Ethnicity	Women						
	n	% On medication and SBP<140 and DBP<90	95% CI	% On medication and SBP≥140 and/orDBP≥90	95% CI	% Not on medication and SBP≥140 and/orDBP≥90	95% CI
ITaukei	249	2.7	0.2-5.2	18.8	14.4-23.1	78.6	73.4-83.7
Indo-Fijian	189	8.2	4.2-12.1	30.9	24.0-37.7	61.0	54.4-67.6

Table 7.19 Percentage of respondents with treated and/or controlled of raised blood pressure: Both sexes

Respondents with treated and/or controlled raised blood pressure							
Age Group (years)	Both Sexes						
	n	% On medication and SBP<140 and DBP<90	95% CI	% On medication and SBP≥140 and/orDBP≥90	95% CI	% Not on medication and SBP≥140 and/orDBP≥90	95% CI
25-34	70	2.0	0.0-4.8	3.8	0.0-8.7	94.2	88.8-99.6
35-44	184	1.4	0.0-2.8	9.6	4.8-14.4	89.0	83.9-94.1
45-54	289	3.4	1.3-5.6	19.5	14.5-24.5	77.1	72.2-81.9
55-64	279	7.0	4.0-10.0	27.1	21.6-32.7	65.8	60.3-71.4
25-64	822	3.8	2.6-5.0	17.3	14.5-20.0	79.0	76.0-82.0

Table 7.20 Percentage of respondents with treated and/or controlled of raised blood pressure by ethnicity: Both sexes

Respondents with treated and/or controlled raised blood pressure							
Ethnicity	Both Sexes						
	n	% On medication and SBP<140 and DBP<90	95% CI	% On medication and SBP≥140 and/orDBP≥90	95% CI	% Not on medication and SBP≥140 and/orDBP≥90	95% CI
ITaukei	467	1.8	0.4-3.1	12.2	9.4-15.0	86.0	82.7-89.3
Indo-Fijian	333	7.1	4.6-9.5	24.6	19.6-29.6	68.3	63.2-73.5

Table 7.21 Percentage of blood pressure lifestyle advice among those previously diagnosed: to reduce salt intake by gender

Advised by doctor or health worker to reduce salt intake among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	N	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	18	32.2	6.1-58.3	23	46.6	24.5-68.8	41	38.9	20.6-57.2
35-44	31	66.0	47.7-84.2	70	62.6	50.8-74.4	101	63.9	52.7-75.0
45-54	73	78.5	68.9-88.1	115	79.0	70.0-88.1	188	78.8	72.0-85.6
55-64	71	79.9	70.0-89.8	134	83.0	76.4-89.5	205	81.7	76.2-87.2
25-64	193	70.1	62.9-77.3	342	73.7	68.7-78.7	535	72.2	67.5-76.8

Table 7.22 Percentage of blood pressure lifestyle advice among those previously diagnosed: to reduce salt intake by ethnicity

Advised by doctor or health worker to reduce salt intake among those previously diagnosed									
Ethnicity	Men			Women			Both Sexes		
	N	%	95% CI	n	%	95% CI	n	%	95% CI
ITaukei	109	68.5	60.2-76.7	196	71.3	64.7-77.9	305	70.0	64.3-75.7
Indo-Fijian	71	75.2	63.1-87.2	138	78.7	70.6-86.7	209	77.3	70.4-84.2

Table 7.23 Percentage of blood pressure lifestyle advice among those previously diagnosed: to lose weight by gender

Advised by doctor or health worker to lose weight among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	18	43.4	21.2-65.6	23	39.2	17.0-61.5	41	41.5	25.3-57.7
35-44	31	54.8	38.0-71.6	70	56.3	42.1-70.4	101	55.7	44.0-67.5
45-54	72	69.0	58.4-79.6	115	63.5	52.8-74.1	187	65.9	58.0-73.9
55-64	71	63.9	53.1-74.8	134	66.1	57.0-75.3	205	65.3	58.6-71.9
25-64	192	61.1	54.2-67.9	342	60.6	54.3-66.8	534	60.8	55.8-65.7

Table 7.24 Percentage of blood pressure lifestyle advice among those previously diagnosed: to lose weight by ethnicity

Advised by doctor or health worker to lose weight among those previously diagnosed									
Ethnicity	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
ITaukei	108	61.6	52.9-70.2	196	60.0	52.4-67.6	304	60.7	54.3-67.0
Indo-Fijian	71	61.1	49.6-72.6	138	61.6	52.1-71.1	209	61.4	54.3-68.5

Table 7.25 Percentage of blood pressure lifestyle advice among those previously diagnosed: to stop smoking by gender

Advised by doctor or health worker to stop smoking among those previously diagnosed											
Age Group (years)	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
25-34	18	55.1	29.9-80.3		23	43.1	20.9-65.4		41	49.6	33.5-65.6
35-44	31	66.9	48.2-85.5		68	43.8	30.9-56.7		99	52.7	40.9-64.4
45-54	72	62.6	52.3-72.9		107	48.5	38.2-58.8		179	55.1	47.7-62.5
55-64	68	53.5	40.8-66.2		127	42.3	32.9-51.8		195	46.8	38.9-54.7
25-64	189	59.5	51.5-67.5		325	44.7	38.8-50.6		514	51.1	45.9-56.4

Table 7.26 Percentage of blood pressure lifestyle advice among those previously diagnosed: to stop smoking by ethnicity

Advised by doctor or health worker to stop smoking among those previously diagnosed											
Ethnicity	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
ITaukei	106	62.8	53.4-72.2		190	45.1	37.6-52.7		296	52.9	46.4-59.4
Indo-Fijian	71	56.6	41.8-71.3		127	42.9	32.8-52.9		198	48.5	40.0-56.9

Table 7.27 Percentage of blood pressure lifestyle advice among those previously diagnosed: to do more exercise by gender

Advised by doctor or health worker to start or do more exercise among those previously diagnosed											
Age Group (years)	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
25-34	18	55.6	30.4-80.8		23	46.7	24.6-68.9		41	51.5	35.5-67.5
35-44	31	76.5	59.1-93.8		69	67.2	56.9-77.6		100	70.8	61.5-80.1
45-54	73	78.4	69.8-87.0		115	74.8	64.9-84.7		188	76.5	69.7-83.2
55-64	71	69.2	58.8-79.6		133	72.9	63.6-82.2		204	71.4	64.0-78.8
25-64	193	71.9	65.3-78.5		340	69.8	64.2-75.5		533	70.7	66.4-75.1

Table 7.28 Percentage of blood pressure lifestyle advice among those previously diagnosed: to do more exercise by ethnicity

Advised by doctor or health worker to start or do more exercise among those previously diagnosed											
Ethnicity	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
ITaukei	109	75.6	67.0-84.2		194	67.5	60.1-75.0		303	71.1	65.1-77.1
Indo-Fijian	71	69.9	56.5-83.2		138	74.2	65.7-82.7		209	72.5	65.5-79.6

Table 7.29 Percentage of blood pressure advice by a traditional healer by gender

Seen a traditional healer among those previously diagnosed											
Age Group (years)	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
25-34	18	23.2	1.1-45.3		23	3.6	0.0-10.7		41	14.1	1.4-26.8
35-44	31	15.5	1.2-29.9		71	12.4	3.7-21.1		102	13.6	6.1-21.0
45-54	72	19.6	9.3-30.0		114	23.1	13.5-32.7		186	21.5	14.9-28.1
55-64	71	27.7	17.0-38.5		132	25.2	16.6-33.7		203	26.2	19.3-33.1
25-64	192	22.0	15.5-28.4		340	19.5	13.8-25.2		532	20.6	16.0-25.1

Table 7.30 Percentage of blood pressure advice by a traditional healer by ethnicity

Seen a traditional healer among those previously diagnosed											
Ethnicity	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
ITaukei	108	27.7	18.1-37.3		195	26.3	17.8-34.9		303	26.9	20.1-33.8
Indo-Fijian	71	11.7	4.2-19.2		137	9.1	2.6-15.5		208	10.1	5.4-14.8

Table 7.31 Percentage of currently taking herbal/traditional remedy for blood pressure by gender

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
25-34	18	11.2	0.0-26.1		23	3.6	0.0-10.7		41	7.7	0.0-16.3
35-44	31	11.8	0.0-25.3		70	9.8	2.6-17.0		101	10.6	3.8-17.3
45-54	73	17.8	9.3-26.4		114	19.5	12.1-27.0		187	18.7	13.4-24.0
55-64	70	24.7	14.1-35.3		132	24.8	16.6-32.9		202	24.8	17.9-31.6
25-64	192	18.0	12.6-23.3		339	17.7	13.0-22.3		531	17.8	14.1-21.5

Table 7.32 Percentage of currently taking herbal/traditional remedy for blood pressure by ethnicity

Currently taking herbal or traditional remedy for high blood pressure among those previously diagnosed									
Ethnicity	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
ITaukei	109	22.8	14.9-30.8	194	27.0	19.9-34.0	303	25.1	19.7-30.6
Indo-Fijian	70	10.5	3.7-17.4	137	4.4	0.5-8.3	207	6.8	3.0-10.6

Table 7.33 Percentage of blood sugar measurement and diagnosis by gender: Male

Blood sugar measurement and diagnosis									
Age Group (years)	Men								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
25-34	268	47.7	40.4-55.0	50.8	43.6-58.0	1.2	0.0-3.0	0.3	0.0-0.7
35-44	273	32.1	25.3-38.8	62.1	55.6-68.6	1.7	0.2-3.1	4.2	2.0-6.4
45-54	324	22.7	15.9-29.5	64.9	57.6-72.2	2.0	0.5-3.5	10.4	7.3-13.6
55-64	229	15.5	10.7-20.3	60.8	53.5-68.0	3.8	1.3-6.4	19.9	14.3-25.4
25-64	1094	32.1	28.2-35.9	59.0	55.3-62.7	2.0	1.0-2.9	7.0	5.6-8.3

Table 7.34 Percentage of blood sugar measurement and diagnosis by ethnicity: Male

Blood sugar measurement and diagnosis									
Ethnicity	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
ITaukei	605	34.3	28.9-39.6	58.1	52.8-63.5	1.7	0.5-2.9	5.9	4.4-7.4
Indo-Fijian	448	28.5	23.0-34.1	60.2	55.5-65.0	2.4	0.8-4.0	8.8	6.3-11.3

Table 7.35 Percentage of blood sugar measurement and diagnosis by gender: Female

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
25-34	325	35.8	30.1-41.6	60.8	55.1-66.5	1.1	0.0-2.4	2.2	0.5-3.9
35-44	418	22.4	17.5-27.3	70.5	65.6-75.3	2.0	0.6-3.4	5.2	2.8-7.5
45-54	394	17.4	12.6-22.1	70.1	64.4-75.9	1.1	0.0-2.5	11.4	8.2-14.6
55-64	260	14.4	9.2-19.7	62.3	55.5-69.1	3.9	1.1-6.7	19.4	13.9-24.8
25-64	1397	24.2	21.1-27.2	66.1	62.8-69.4	1.8	1.0-2.5	7.9	6.3-9.5

Table 7.36 Percentage of blood sugar measurement and diagnosis by ethnicity: Female

Blood sugar measurement and diagnosis									
Ethnicity	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
ITaukei	750	23.0	18.7-27.4	69.1	64.5-73.6	2.2	1.1-3.3	5.7	3.9-7.5
Indo-Fijian	614	26.0	22.0-30.1	61.8	57.1-66.6	1.4	0.4-2.3	10.8	7.6-13.9

Table 7.37 Percentage of blood sugar measurement and diagnosis by gender: Both sexes

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
25-34	593	41.9	37.2-46.6	55.7	51.2-60.2	1.2	0.1-2.3	1.2	0.4-2.1
35-44	691	27.1	23.3-30.9	66.4	62.4-70.3	1.8	0.8-2.9	4.7	3.1-6.3
45-54	718	20.1	15.9-24.3	67.4	62.7-72.2	1.6	0.6-2.6	10.9	8.7-13.1
55-64	489	15.0	11.2-18.8	61.5	56.3-66.8	3.9	1.8-5.9	19.6	15.6-23.6
25-64	2491	28.1	25.7-30.6	62.5	60.0-65.1	1.9	1.3-2.5	7.4	6.3-8.5

Table 7.38 Percentage of blood sugar measurement and diagnosis by ethnicity: Both sexes

Blood sugar measurement and diagnosis									
Ethnicity	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
ITaukei	1355	28.8	25.2-32.5	63.4	59.6-67.3	2.0	1.1-2.8	5.8	4.7-6.9
Indo-Fijian	1062	27.2	24.0-30.5	61.1	57.8-64.3	1.9	0.9-2.9	9.8	7.6-12.0

Table 7.39 Percentage of diabetes treatment among those diagnosed by gender: taking insulin

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
25-34	5	0.0	0.0-0.0		11	13.4	0.0-38.1		16	9.1	0.0-26.5
35-44	16	13.7	0.0-32.2		29	0.0	0.0-0.0		45	5.6	0.0-13.5
45-54	35	11.0	0.1-21.9		42	14.2	2.3-26.0		77	12.5	4.6-20.4
55-64	45	8.7	0.7-16.6		59	9.0	0.9-17.0		104	8.8	2.7-14.9
25-64	101	9.9	3.3-16.5		141	8.8	3.3-14.3		242	9.3	4.7-13.9

Table 7.40 Percentage of diabetes treatment among those diagnosed by ethnicity: taking insulin

Currently taking insulin prescribed for diabetes among those previously diagnosed											
Ethnicity	Men				Women				Both Sexes		
	n	% taking insulin	95% CI		n	% taking insulin	95% CI		n	% taking insulin	95% CI
ITaukei	46	1.8	0.0-5.4		59	3.5	0.0-8.4		105	2.7	0.0-5.6
Indo-Fijian	51	17.0	5.4-28.7		77	14.5	4.8-24.2		128	15.6	7.4-23.9

Table 7.41 Percentage of diabetes treatment among those diagnosed by gender: taking oral drugs

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
25-34	5	38.6	0.0-94.2		11	23.1	0.0-49.7		16	28.0	3.2-52.9
35-44	18	30.1	6.5-53.7		31	32.2	18.9-45.4		49	31.3	18.5-44.1
45-54	41	48.3	31.9-64.8		48	72.7	58.2-87.1		89	59.7	47.8-71.6
55-64	50	68.1	55.3-81.0		66	68.5	56.6-80.4		116	68.3	59.0-77.6
25-64	114	52.3	41.8-62.8		156	56.8	47.1-66.5		270	54.6	47.1-62.2

Table 7.42 Percentage of diabetes treatment among those diagnosed by ethnicity: taking oral drugs

Currently taking oral drugs prescribed for diabetes among those previously diagnosed											
Ethnicity	Men				Women				Both Sexes		
	n	% taking meds	95% CI		n	% taking meds	95% CI		n	% taking meds	95% CI
ITaukei	50	31.2	18.9-43.6		65	43.7	30.5-57.0		115	37.7	28.1-47.3
Indo-Fijian	60	70.7	57.2-84.3		86	70.8	58.4-83.2		146	70.8	61.3-80.2

Table 7.43 Percentage of diabetes treatment among those diagnosed by gender: taking special prescribed diet

Advised by doctor or health worker to have special prescribed diet among those previously diagnosed											
Age Group (years)	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
25-34	5	68.6	32.5-100.0		11	68.7	38.0-99.5		16	68.7	44.9-92.5
35-44	17	60.5	35.1-85.8		32	63.1	45.5-80.7		49	62.0	46.4-77.6
45-54	41	71.9	58.0-85.8		49	89.4	81.3-97.6		90	80.2	72.5-88.0
55-64	51	79.0	66.9-91.2		67	80.0	69.8-90.2		118	79.5	71.1-88.0
25-64	114	72.6	64.2-81.0		159	77.8	70.3-85.2		273	75.4	69.4-81.3

Table 7.44 Percentage of diabetes treatment among those diagnosed by ethnicity: taking special prescribed diet

Advised by doctor or health worker to have special prescribed diet among those previously diagnosed											
Ethnicity	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
ITaukei	51	65.2	51.4-79.0		66	69.0	57.3-80.8		117	67.2	57.4-77.0
Indo-Fijian	59	80.1	69.3-90.9		88	84.3	76.2-92.4		147	82.4	76.3-88.4

Table 7.45 Percentage of diabetes lifestyle advice by gender to lose weight

Advised by doctor or health worker to lose weight among those previously diagnosed											
Age Group (years)	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
25-34	5	68.6	32.5-100.0		11	43.4	10.6-76.3		16	51.5	26.8-76.2
35-44	17	70.6	46.5-94.7		31	67.9	49.1-86.8		48	69.0	54.8-83.3
45-54	41	60.6	43.3-78.0		49	83.4	72.9-93.8		90	71.4	61.3-81.6
55-64	50	60.9	47.0-74.8		65	74.2	60.6-87.8		115	67.8	57.9-77.7
25-64	113	63.0	53.2-72.7		156	72.3	63.1-81.4		269	67.9	61.7-74.1

Table 7.46 Percentage of diabetes lifestyle advice by ethnicity to lose weight

Advised by doctor or health worker to lose weight among those previously diagnosed											
Ethnicity	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
ITaukei	51	65.1	50.9-79.3		64	75.7	60.2-91.1		115	70.5	59.8-81.1
Indo-Fijian	58	60.7	46.0-75.4		87	67.3	55.5-79.1		145	64.3	55.8-72.9

Table 7.47 Percentage of diabetes lifestyle advice by gender to stop smoking

Advised by doctor or health worker to stop smoking among those previously diagnosed											
Age Group (years)	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
25-34	5	20.9	0.0-45.0		11	13.4	0.0-38.1		16	15.8	0.0-34.6
35-44	17	58.7	32.8-84.6		31	58.6	38.7-78.5		48	58.6	43.1-74.1
45-54	40	68.0	54.7-81.3		44	59.2	45.2-73.1		84	64.0	54.9-73.0
55-64	51	58.5	44.6-72.3		64	55.2	40.6-69.8		115	56.8	47.3-66.4
25-64	113	59.8	51.1-68.6		150	52.5	43.5-61.4		263	56.0	50.0-62.0

Table 7.48 Percentage of diabetes lifestyle advice by ethnicity to stop smoking

Advised by doctor or health worker to stop smoking among those previously diagnosed											
Ethnicity	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
ITaukei	50	60.8	48.8-72.7		64	59.9	46.6-73.2		114	60.3	51.9-68.8
Indo-Fijian	59	58.2	45.2-71.1		81	45.2	32.0-58.5		140	51.4	42.2-60.7

Table 7.49 Percentage of diabetes lifestyle advice by gender to do more exercise

Advised by doctor or health worker to start or do more exercise among those previously diagnosed											
Age Group (years)	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
25-34	5	100.0	100.0-100.0		11	54.1	21.5-86.6		16	68.8	43.2-94.4
35-44	17	79.9	60.0-99.8		32	83.1	68.0-98.1		49	81.8	69.9-93.7
45-54	41	76.0	61.7-90.4		49	95.7	90.3-100.0		90	85.4	77.4-93.3
55-64	50	72.0	59.3-84.6		68	84.7	75.4-94.0		118	78.7	70.8-86.6
25-64	113	76.4	68.2-84.6		160	84.4	77.8-90.9		273	80.7	75.5-85.9

Table 7.50 Percentage of diabetes lifestyle advice by ethnicity to do more exercise

Advised by doctor or health worker to start or do more exercise among those previously diagnosed											
Age Group (years)	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
ITaukei	50	77.6	65.6-89.6		67	84.1	74.1-94.0		117	81.0	73.6-88.5
Indo-Fijian	59	75.5	63.0-88.0		88	83.5	73.6-93.5		147	79.8	72.5-87.1

Table 7.51 Percentage seen a traditional healer for diabetes 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
25-34	5	40.5	6.6-74.4		11	0.0	0.0-0.0		16	13.0	0.0-30.7
35-44	17	5.3	0.0-15.9		32	9.8	0.0-21.1		49	8.0	0.2-15.8
45-54	40	25.2	10.7-39.6		48	23.8	11.1-36.6		88	24.5	14.8-34.3
55-64	51	18.7	6.2-31.2		67	22.8	11.1-34.5		118	20.8	11.5-30.1
25-64	113	19.9	11.6-28.2		158	17.8	10.6-25.0		271	18.8	12.8-24.7

Table 7.52 Percentage seen a traditional healer for diabetes by ethnicity

Seen a traditional healer for diabetes among those previously diagnosed											
Ethnicity	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
ITaukei	51	25.8	13.2-38.4		65	31.1	19.9-42.4		116	28.6	19.5-37.6
Indo-Fijian	58	11.3	3.1-19.6		88	2.0	0.0-4.7		146	6.2	1.9-10.6

Table 7.53 Percentage currently taking herbal/traditional treatment for diabetes 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
25-34	5	59.7	31.4-88.1		11	0.0	0.0-0.0		16	19.1	0.0-41.0
35-44	17	5.3	0.0-15.9		32	13.6	0.0-27.2		49	10.2	1.2-19.2
45-54	40	14.6	3.2-26.0		48	24.9	11.8-38.1		88	19.5	11.0-28.0
55-64	51	14.7	3.3-26.1		64	17.0	6.9-27.0		115	15.8	7.8-23.9
25-64	113	15.5	7.8-23.2		155	16.7	9.5-23.8		268	16.1	10.1-22.1

Table 7.54 Percentage currently taking herbal/traditional treatment for diabetes by ethnicity

Currently taking herbal or traditional treatment for diabetes among those previously diagnosed											
Ethnicity	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
ITaukei	51	14.3	3.9-24.7		63	32.4	18.1-46.7		114	23.5	13.1-33.9
Indo-Fijian	58	14.1	3.6-24.6		87	2.4	0.0-5.3		145	7.8	2.7-12.8

8. Physical Measurements

Table 8.0 Height (cm) by ethnicity: Males and Females

Mean height (cm)							
Ethnicity	Men				Women		
	n	Mean	95% CI		n	Mean	95% CI
ITaukei	617	175.2	174.2-176.1		767	164.6	164.0-165.1
Indo-Fijian	455	170.9	170.0-171.7		623	156.7	156.1-157.3

Table 8.1 Weight (kg) by ethnicity: Males and Females

Mean weight (kg)							
Ethnicity	Men				Women		
	n	Mean	95% CI		n	Mean	95% CI
ITaukei	616	86.1	84.0-88.2		753	83.7	82.2-85.3
Indo-Fijian	455	71.6	69.7-73.6		620	67.0	65.6-68.5

Table 8.2 Body mass index (kg/m²) by ethnicity: Males and Females

Mean BMI (kg/m²)											
Ethnicity	Men				Women				Both Sexes		
	n	Mean	95% CI		n	Mean	95% CI		n	Mean	95% CI
ITaukei	613	27.9	27.3-28.4		744	30.8	30.3-31.3		1357	29.3	28.8-29.7
Indo-Fijian	452	24.4	23.8-25.0		615	27.2	26.6-27.8		1067	25.8	25.4-26.3

Table 8.3 Body mass index (kg/m²) by ethnicity: Males

BMI classifications									
Ethnicity	Men								
	n	% Under-weight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% BMI 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
ITaukei	613	0.0	0.0-0.0	32.4	27.5-37.3	37.5	32.4-42.5	30.1	24.9-35.2
Indo-Fijian	452	10.8	6.5-15.0	43.2	38.5-47.9	36.0	31.4-40.7	10.0	6.8-13.3

Table 8.4 Body mass index (kg/m²) by ethnicity: Females

BMI classifications									
Ethnicity	Women								
	n	% Under-weight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% BMI 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
ITaukei	744	0.1	0.0-0.4	16.4	13.1-19.6	30.4	26.3-34.5	53.1	48.7-57.5
Indo-Fijian	615	5.0	3.3-6.7	31.6	27.2-36.0	37.2	33.0-41.4	26.2	22.0-30.5

Table 8.5 Body mass index (kg/m2) by ethnicity: Both sexes

BMI classifications									
Ethnicity	Both Sexes								
	n	% Under-weight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% BMI 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
ITaukei	1357	0.1	0.0-0.2	24.7	21.4-28.0	34.1	30.5-37.8	41.1	36.8-45.4
Indo-Fijian	1067	7.8	5.5-10.1	37.2	33.9-40.5	36.6	32.9-40.4	18.4	15.4-21.3

Table 8.6 Percentage of respondents being classified as overweight (BMI≥25) by gender

BMI≥25											
Age Group (years)	Men				Women				Both Sexes		
	n	% BMI≥25	95% CI		n	% BMI≥25	95% CI		n	% BMI≥25	95% CI
25-34	268	52.9	45.1-60.6		318	64.1	57.5-70.7		586	58.3	53.2-63.4
35-44	281	58.9	52.6-65.2		419	78.2	73.9-82.5		700	68.7	64.5-72.8
45-54	336	64.1	58.4-69.8		401	79.5	75.0-84.1		737	71.5	67.6-75.4
55-64	232	65.5	58.9-72.1		271	80.9	75.6-86.2		503	73.1	68.7-77.5
25-64	1117	59.4	55.4-63.4		1409	74.7	71.5-77.8		2526	66.9	64.0-69.8

Table 8.7 Percentage of respondents being classified as overweight (BMI≥25) by ethnicity

BMI≥25											
Ethnicity	Men				Women				Both Sexes		
	n	% BMI≥25	95% CI		n	% BMI≥25	95% CI		n	% BMI≥25	95% CI
ITaukei	613	67.6	62.7-72.5		745	83.5	80.3-86.7		1359	75.2	72.0-78.5
Indo-Fijian	452	46.1	40.6-51.5		615	63.4	58.7-68.2		1067	55.0	50.9-59.0

Table 8.8 Waist circumference (cm) by ethnicity: Males and Females (excluding pregnant women)

Waist circumference (cm)							
Ethnicity	Men				Women		
	n	Mean	95% CI		n	Mean	95% CI
ITaukei	617	91.4	89.2-93.6		752	96.6	95.0-98.1
Indo-Fijian	448	88.0	86.0-90.1		615	88.7	87.2-90.1

Table 8.9 Hip Circumference (cm): Males and Females

Hip circumference (cm)							
Age Group (years)	Men				Women		
	n	Mean	95% CI		n	Mean	95% CI
25-34	262	100.0	98.1-101.9		317	102.7	101.0-104.4
35-44	265	99.5	97.9-101.0		419	106.6	104.9-108.2
45-54	326	102.0	100.7-103.4		396	106.9	105.1-108.7
55-64	230	101.6	100.5-102.7		270	107.2	105.5-108.9
25-64	1083	100.6	99.6-101.6		1402	105.6	104.6-106.6

Table 8.10 Hip Circumference (cm) by ethnicity: Males and Females

Hip circumference (cm)							
Ethnicity	Men				Women		
	n	Mean	95% CI		n	Mean	95% CI
ITaukei	595	102.0	100.6-103.4		744	108.3	106.9-109.6
Indo-Fijian	437	98.4	97.0-99.8		609	101.9	100.5-103.2

Table 8.11 Waist/hip ratio: Males and females

Mean waist / hip ratio							
Age Group (years)	Men				Women		
	n	Mean	95% CI		n	Mean	95% CI
25-34	250	0.9	0.9-0.9		302	0.9	0.9-0.9
35-44	249	0.9	0.9-0.9		404	0.9	0.9-0.9
45-54	310	0.9	0.9-0.9		381	0.9	0.9-0.9
55-64	215	0.9	0.9-1.0		262	0.9	0.9-0.9
25-64	1024	0.9	0.9-0.9		1349	0.9	0.9-0.9

Table 8.12 Waist/hip ratio by ethnicity: Males and females

Mean waist / hip ratio							
Ethnicity	Men				Women		
	n	Mean	95% CI		n	Mean	95% CI
ITaukei	595	0.9	0.9-0.9		741	0.9	0.9-0.9
Indo-Fijian	429	0.9	0.9-0.9		608	0.9	0.9-0.9

Table 8.13 Mean heart rate (beats per minute)

Mean heart rate (beats per minute)											
Age Group (years)	Men				Women				Both Sexes		
	n	mean	95% CI		n	mean	95% CI		n	mean	95% CI
25-34	269	70.2	68.1-72.2		331	78.2	76.6-79.9		600	74.1	72.6-75.6
35-44	278	70.2	68.3-72.2		427	77.1	75.6-78.7		705	73.8	72.4-75.1
45-54	334	70.7	69.1-72.2		401	76.8	75.5-78.0		735	73.6	72.3-74.8
55-64	236	70.4	68.6-72.3		272	75.2	73.5-76.8		508	72.8	71.5-74.1
25-64	1117	70.4	69.0-71.7		1431	77.1	76.1-78.0		2548	73.7	72.6-74.8

Table 8.14 Mean heart rate (beats per minute) by ethnicity

Mean heart rate (beats per minute)											
Ethnicity	Men				Women				Both Sexes		
	n	mean	95% CI		n	mean	95% CI		n	mean	95% CI
ITaukei	618	67.7	66.1-69.3		770	75.0	73.8-76.2		1389	71.3	69.9-72.6
Indo-Fijian	457	74.3	73.0-75.5		626	79.9	79.0-80.9		1083	77.2	76.3-78.1

9. Biochemical Measurements

Table 9.0 Fasting blood glucose (mmol/L) by gender and ethnicity

Mean fasting blood glucose (mmol/L)											
Ethnicity	Men				Women				Both Sexes		
	n	Mean	95% CI		n	Mean	95% CI		n	Mean	95% CI
ITaukei	557	5.9	5.8-6.1		729	6.2	6.0-6.3		1286	6.1	5.9-6.2
Indo-Fijian	420	6.3	6.1-6.5		593	6.5	6.2-6.7		1013	6.4	6.2-6.6

Table 9.1 Fasting blood 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
25-34	246	100.7	97.5-103.9		313	100.3	97.4-103.1		559	100.5	98.3-102.7
35-44	251	110.1	104.0-116.2		408	110.5	105.8-115.2		659	110.3	106.4-114.3
45-54	301	114.5	110.5-118.5		374	125.2	118.5-131.9		675	119.8	115.9-123.6
55-64	218	121.6	116.2-126.9		260	126.8	120.0-133.6		478	124.2	119.7-128.7
25-64	1016	110.1	107.7-112.4		1355	113.4	110.7-116.1		2371	111.8	109.7-113.8

Table 9.2 Fasting blood glucose (mg/dl) by ethnicity

Mean fasting blood glucose (mg/dl)											
Ethnicity	Men				Women				Both Sexes		
	n	Mean	95% CI		n	Mean	95% CI		n	Mean	95% CI
ITaukei	557	107.1	104.6-109.6		729	111.0	108.0-114.0		1286	109.1	107.1-111.0
Indo-Fijian	420	112.9	109.2-116.7		593	116.3	111.7-121.0		1013	114.7	111.3-118.2

Table 9.3 Impaired fasting glycaemia by gender

Impaired Fasting Glycaemia*											
Age Group (years)	Men				Women				Both Sexes		
	n	%	95% CI		n	%	95% CI		n	%	95% CI
25-34	246	24.0	18.8-29.2		313	22.0	17.1-26.8		559	23.0	19.0-26.9
35-44	251	30.0	23.1-36.9		408	24.4	19.8-28.9		659	27.0	23.2-30.9
45-54	303	24.6	18.6-30.6		376	22.3	17.9-26.7		679	23.5	19.8-27.2
55-64	220	22.4	16.5-28.2		261	18.8	14.3-23.2		481	20.6	17.0-24.1
25-64	1020	25.5	22.0-29.0		1358	22.2	19.6-24.8		2378	23.9	21.7-26.1

* Impaired fasting glycaemia is defined as either

- plasma venous value: ≥ 6.1 mmol/L (110mg/dl) and < 7.0 mmol/L (126mg/dl)
- capillary whole blood value: ≥ 5.6 mmol/L (100mg/dl) and < 6.1 mmol/L (110mg/dl)

Table 9.4 Impaired fasting glycaemia by ethnicity

Impaired Fasting Glycaemia*									
Ethnicity	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
ITaukei	557	27.1	22.4-31.9	732	23.4	19.7-27.1	1289	25.3	22.1-28.4
Indo-Fijian	424	23.0	17.8-28.2	593	20.4	16.6-24.2	1017	21.7	18.5-24.9

* Impaired fasting glycaemia is defined as either

- plasma venous value: ≥ 6.1 mmol/L (110 mg/dl) and < 7.0 mmol/L (126 mg/dl)
- capillary whole blood value: ≥ 5.6 mmol/L (100 mg/dl) and < 6.1 mmol/L (110 mg/dl)

Table 9.5 Raised blood glucose or currently on medication for diabetes by ethnicity

Raised blood glucose or currently on medication for diabetes **									
Ethnicity	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
ITaukei	557	9.2	7.2-11.3	732	13.2	10.8-15.6	1289	11.2	9.7-12.8
Indo-Fijian	424	19.2	15.3-23.1	593	18.2	15.0-21.4	1017	18.7	16.0-21.4

** Capillary whole blood value: ≥ 6.1 mmol/L (110 mg/dl)

Table 9.6 Currently on medication for diabetes by gender

Currently on medication for diabetes									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
25-34	272	1.3	0.0-2.8	339	8.6	3.6-13.6	611	1.3	0.3-2.2
35-44	284	2.1	0.4-3.7	431	9.8	5.5-14.1	715	2.4	1.3-3.5
45-54	339	7.0	4.1-9.9	409	12.2	6.4-18.0	748	8.0	5.8-10.2
55-64	238	15.4	10.7-20.2	274	8.4	3.7-13.0	512	16.1	12.4-19.8
25-64	1133	5.2	3.8-6.6	1453	9.8	5.7-13.8	2586	5.6	4.6-6.6

Table 9.7 Currently on medication for diabetes by ethnicity

Currently on medication for diabetes									
Ethnicity	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
ITaukei	621	2.5	1.5-3.6	776	3.8	2.4-5.2	1398	3.1	2.4-3.9
Indo-Fijian	458	9.5	6.6-12.3	627	9.2	6.4-11.9	1085	9.3	7.3-11.3

Table 9.8 Mean Haemoglobin (g/dl) by gender

Mean Haemoglobin g/dl									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
25-34	272	14.8	14.6-15.1	336	12.6	12.4-12.8	608	13.7	13.6-13.9
35-44	278	14.4	14.2-14.6	424	12.5	12.3-12.7	702	13.4	13.3-13.6
45-54	332	14.3	14.1-14.4	402	12.4	12.2-12.7	734	13.4	13.1-13.6
55-64	235	14.0	13.8-14.2	270	12.9	12.6-13.1	505	13.5	13.3-13.6
25-64	1117	14.4	14.3-14.6	1432	12.6	12.5-12.7	2549	13.5	13.4-13.6

Table 9.9 Mean Haemoglobin (g/Dl) by ethnicity

Ethnicity	Mean Haemoglobin (g/Dl)								
	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
ITaukei	613	14.5	14.3-14.7	764	12.9	12.7-13.0	1377	13.7	13.5-13.9
Indo-Fijian	451	14.4	14.2-14.6	618	12.2	12.0-12.3	1069	13.3	13.1-13.4

Appendix Four: Reference list

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