Republic of Trinidad and Tobago
MINISTRY OF HEALTH

TRINIDAD AND TOBAGO
CHRONIC NON-COMMUNICABLE DISEASE
RISK FACTOR SURVEY
[Pan American STEPS]

Final Report - 2012

Pan American Health Organization
Regional Office of the
World Health Organization

STEPS

CONTENTS

ACKNOWLEDGEMENTS

The Ministry of Health would like to take this opportunity to thank all its internal divisions, and key external partners who collaborated in this effort from the very inception:

- Ministry of Health
    - Office of the Permanent Secretary
    - Office of the Chief Medical Officer
    - Health Programme & Technical Support Services
    - Health Promotion & Health Division
    - Directorate of Finance
    - Directorate of Human Resources
    - National Surveillance Unit
    - ICT Division

- Pan American Health Organization (PAHO)
- Caribbean Epidemiology Centre (CAREC)
- Central Statistical Office (CSO)
- University Of the West Indies, Medical Sciences (UWI)
- Offices of the County Medical Officers of Health
- The Tobago House of Assembly
- Office of the County Medical Officer of Health, Tobago
- Diabetes Association of Trinidad and Tobago
- Caribbean Food & Nutrition Institute
- Interviewers who conducted the Survey
- Citizens of Trinidad and Tobago who participated in the Survey

ABBREVIATIONS

CNCD .... *Chronic Non Communicable Disease*

NCD .... *Non – Communicable Disease*

MOH .... *Ministry of Health*

PAHO .... *Pan American Health Organization*

CAREC .... *Caribbean Epidemiology Centre*

WHO .... *World Health Organization*

CSO .... *Central Statistical Office*

UWI .... *University of the West Indies*

CFNI .... *Caribbean Food and Nutrition Institute*

BMI .... *Body Mass Index*

TRT .... *Trinidad and Tobago*

EDS .... *Enumeration Districts*

CI .... *Confidence Intervals*

CBO .... *Community Based Organization*

NGO .... *Non-Governmental Organization*

CDAP .... *Chronic Disease Assistance Programme*

COPD .... *Chronic Obstruction Pulmonary Disease*

MET .... *Metabolic Equivalent Time*

PPS .... *Proportionate Population Sampling*

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Message from the
MINISTER OF HEALTH

I am pleased to present the Final Report for the "Pan American STEPS Chronic Non Communicable Disease Risk Factor Survey in Trinidad and Tobago".

Chronic Non Communicable Diseases (CNCDs) have become a significant threat to the health and wellbeing of the people of Trinidad and Tobago, and has created new challenges for the public health system's already stretched public health and curative services.

An increasing number of citizens are developing CNCDs such as diabetes, cardiovascular diseases and cancer. We have attributed this upward trend, primarily to today's modern lifestyle, which involves limited physical activity and an abundance of nutritionally inferior, processed foods.

In response to the World Health Organization (WHO) resolution on an integrated approach to the prevention, control and management of chronic diseases, the Ministry of Health in collaboration with PAHO/WHO, the Caribbean Epidemiology Centre (CAREC), the University of the West Indies (UWI) and the Central Statistical Office (CSO) conducted a nationwide survey of the risk factors for developing Chronic Non Communicable Diseases.

The results of this survey contained within this report show the intertwined relationship between behaviour, the social, economic and physical environment in which we live, and our physical health. The report highlights that the risk of illnesses crosses age and gender boundaries. Our efforts to improve the health of this nation, therefore, need to adopt a holistic approach, which covers all ages and communities.

I extend my gratitude to those who contributed to this survey.

Dr. Fuad Khan
MINISTER OF HEALTH

Message from the
PERMANENT SECRETARY

During the fiscal 2011-2012, the Ministry of Health continued the implementation of key aspects of our Action Plan for the Prevention and Control of Chronic Non-Communicable Diseases in relation to infrastructure, health financing, human resource development, health promotion, disease prevention and research. The Ministry emphasised the promotion of healthy lifestyles in our society with the aim of improving the health status and reducing preventable illness and disability in the population. These measures would contribute to reduced absenteeism due to sick days, increased productivity within the workforce and reduced pressure on health services to treat illnesses that are largely preventable.

Beyond the health impacts, the socioeconomic impact of chronic diseases at the household and national economic levels has been significant. Prevention measures which focus on reducing chronic disease risk factors have been shown to reduce the social and economic cost of treating chronic diseases, and provide the opportunity for re-aligning the use of scarce resources to the demands placed on the health sector.

The Ministry of Health remains committed to the full development of all aspects of public health, inclusive of health promotion, disease prevention, public health surveillance and ultimately improving the population's experience with regard to health care services.

.....Antonia....Popplewell....

Antonia Popplewell
PERMANENT SECRETARY

Message from the
CHIEF MEDICAL OFFICER

Chronic non-communicable diseases (CNCDs) have become significant causes of morbidity and mortality worldwide. The World Health Organisation has projected that by 2015, NCDs will account for over 70% of all deaths globally, with 80% of these deaths occurring in developing countries. Trinidad and Tobago has one of the highest prevalence rates as well as morbidity and mortality rates for CNCDs (heart disease, stroke, diabetes, cancer) in the Caribbean, and these rates have been steadily increasing over time.

Evidence suggests that CNCDs are life-course related, and exacerbated by common risk factors, including unhealthy eating habits, smoking/tobacco use, excessive alcohol consumption and physical inactivity, all of which are described as modifiable risk factors. When associated with other risk factors such as raised blood pressure, glucose and lipids, the outcomes are heart disease, diabetes, stroke, cancers and Chronic Obstructive Pulmonary Disease (COPD). These risk factors have synergistic effects and related aetiology. Thus, interventions aimed at controlling even one risk factor bring about beneficial effects to others.

I am confident that the scientific data provided by this survey will assist the Ministry of Health and other related stake-holders from governmental and non-governmental organizations in addressing the escalating issue of CNCDs.

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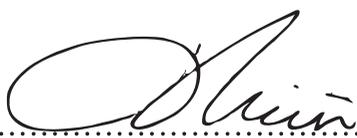
Dr. Akenath Misir
CHIEF MEDICAL OFFICER (AG.)

The growing burden of Chronic Non-communicable Diseases (CNCDs) represents a major challenge to health development worldwide. These diseases are the cause of a large proportion of the diseases, disability and death burden globally. CNCD rates are increasing rapidly and will have significant social, economic, and health consequences if we do not reverse the trend.

Over the past decade, CNCDs have been the major cause of morbidity and mortality in Trinidad and Tobago. The four leading causes of death are heart diseases, cancers, diabetes, and cardiovascular diseases.

The Pan American Chronic Non Communicable Risk Factor Survey is a milestone for the Ministry of Health, in our endeavour to address the epidemic of NCDs. This report provides critical and up-to-date data on the risk factors for CNCDs. The scientific data obtained through the survey will help to improve health planning and services for citizens today and in future.

I wish to express my gratitude to my staff, all members of the Risk Factor Survey Team and other key stakeholders involved in this project. Finally, I would like to acknowledge the critical support provided by the Chief Medical Officer.

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Dr. Kumar Sundaraneedi

MEDICAL DIRECTOR

HEALTH PROGRAMMES AND TECHNICAL SUPPORT SERVICES

Message from the
ADVISER, Family Health And Disease Management, PAHO/WHO

The report presented by the Ministry of Health on the Pan American STEPS on Non-communicable Diseases and Risk Factors survey using standardized method brings forward the formulation of an immediate action to address the national health challenges. Generated through the STEP survey, the Ministry of Health and its leadership have now abundant evidence on the behavioral and other risk factors that drive the burden of Non Communicable Diseases and their prevalence in Trinidad and Tobago.

The Ministry of Health will also be able to share the findings of the survey with all stakeholders not only to appreciate the magnitude of the problem but to mobilize the support, contribution and partnership needed to expand and scale up interventions for prevention and control of NCDs. Now, based on these findings policy-makers and implementing partners need to select set of evidence based 'best-buy' interventions that extend beyond cost effectiveness or economic efficiency. After all chronic diseases are no longer just public health problem.

PAHO/WHO congratulates the Ministry of Health, its technical programs and the leadership for producing this outstanding survey report as part of its NCD surveillance strategy to monitor within country trends, but also for making the data available for between-country comparisons to track the effort on curbing the toll of NCDs in the society.

We hope that Trinidad and Tobago will be able to reverse the epidemic of NCDs with the continued high level commitment and critical evidence based actions.

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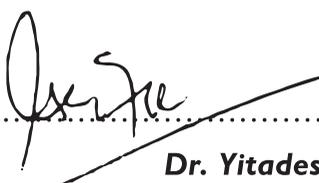
Dr. Yitades Gebre
ADVISER,
FAMILY HEALTH AND DISEASE MANAGEMENT
PAHO/WHO

EXECUTIVE SUMMARY

One of the biggest challenges for the increase in non-communicable diseases is unhealthy lifestyles. The nutritional habits of the population of the Americas, including the Caribbean are changing: increasingly, people are consuming fewer fruits, vegetables, legumes, whole grains, and cereals, and substituting more processed foods, milk, refined cereals, meats, and sugar. Poor nutrition is further complicated by deficiencies of micronutrients: iodine, vitamin A, iron, zinc, and folic acid. At the same time, 30-60% of the population do not achieve the minimum recommended levels of physical activity. The occupational shift from manual labour and agriculture to a highly technological service sector in most of the region means that physical activity is generally on the decline. This is further aggravated by increased urbanization, motorized transportation, and the introduction of labour-saving devices and computers in the home. This coupling of poor diets and sedentary lifestyles is leading to an epidemic of non-communicable diseases among adults.

According to WHO, of the 6.2 million deaths estimated to have occurred in the Americas in 2005, more than three quarters were related to chronic diseases, and over the next 10 years, 53 million people will die from a chronic disease. Nearly two-thirds of premature deaths and one-third of the total disease burden of adults can be associated with conditions or behaviour which began at a very young age. Again, these conditions or behaviours, many of them interrelated, and which include smoking, heavy alcohol consumption, sedentary lifestyles, and poor nutrition, if not reversed, will impact negatively on health in the future, and its demand on the health services will be overwhelming.

The Caribbean region is now a hot-house for diabetes and cardiovascular diseases having undergone epidemiologic transition from acute infectious diseases as the major cause of morbidity and mortality to the chronic non-communicable diseases, fomented by increasing levels of obesity in the population. Chronic non-communicable
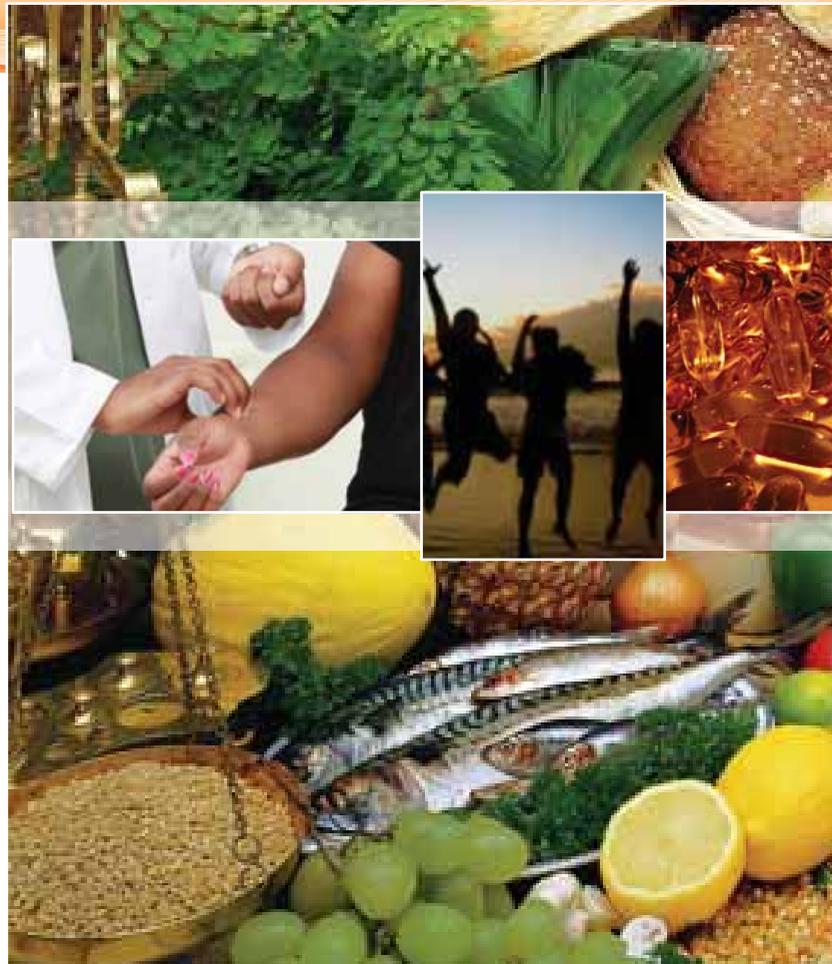
diseases (NCDs), including heart disease, stroke, diabetes, cancers and chronic respiratory diseases together account for greater than half of the mortality in the region, as well as considerable morbidity. The end result comes at tremendous social and economic cost to the nation.

This epidemiological transition from communicable to non-communicable diseases is driven by aging of populations, urbanization, and to significant changes in lifestyle and dietary patterns over the last few decades. These social and demographic changes have contributed to increasing prevalence of common modifiable risk factors for NCDs including, hypertension, hypercholesterolemia, obesity, as well as behavioral factors such as tobacco use, alcohol abuse, unhealthy diets and physical inactivity.

There is a high prevalence of all these risk factors in Trinidad and Tobago. As a result, Trinidad and Tobago has the highest prevalence, and considerably high morbidity and

- To collect data which would inform health policies, programmes and health promotion strategies.

- To predict likely future demands for health services.

The planning and implementation of the survey was a collaborative initiative between the Ministry of Health (MOH), Pan American Health Organization (PAHO), Caribbean Epidemiology Centre (CAREC), Central Statistical Office (CSO), The University of The West Indies (UWI) and other key stakeholders. Data collection for all three phases of STEPS survey was carried out from May to October 2011 in both islands.

Data collection moved along a sequential three-step process as follows:

STEP 1: Interview-based questionnaire on selected major health risk behaviours including smoking, alcohol consumption, fruit and vegetable consumption, and physical activity. Additional issues deemed to be of importance, included history of high blood pressure, diabetes, self-rated general well-being, perceived susceptibility to diabetes and psychosocial and environmental factors related to health behaviours.

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

STEP 3: Biochemical measures of health risks including fasting blood glucose and blood lipids.

Scope:
Trinidad and Tobago implemented the PANAM STEPS v2.1, Core and Expanded Steps 1-(behavioral questionnaire); 2-(physical measurements); and 3-(biochemical measurements). Following the determination of the study population, i.e. 3,020 non-institutionalized citizens, between 15-64 years; they were invited to participate in the survey. Data collection was done over an eight weeks period during May - October 2011.

mortality rates for chronic non-communicable diseases in the Caribbean, and these rates have been steadily increasing over time. As such, NCDs account for over 60% of premature loss of life (death before 70 years) in Trinidad and Tobago. A key element to controlling the global epidemic of NCDs is primary prevention, which focuses on reducing these modifiable risk factors. The STEPwise Non-communicable Diseases Prevalence and Risk Factor Survey (STEPS) is part of a global endeavour to identify, and address major NCD risk factors in developing countries. The STEPS survey was a nation-wide representative survey of Trinidadians and Tobagonians between 15 to 64 years of age, and had the following objectives:

- To describe the current levels of risk factors for chronic diseases in this population, and to establish baseline data that would allow tracking the direction and magnitude of trends of risk factors over time, and at the same time allowing for comparison among countries.

A representative sample, of 3020 participants aged between 15 and 64 years from across Trinidad and Tobago was selected to participate in the survey, of which a total response rate of 90.2 %. (2724 participants). Of the 2,724 respondents in the survey 1114 were males (40.9 %) and 1610 were females (59.1 %).

Tobacco Use

- *The overall prevalence of current smoking was 21.1 %. The proportion was higher for males (33.5 %) than females (9.4 %).*

- *Among all respondents, 85.6 % were daily smokers: 86.9 % of males and 81.5 % of females.*

- *The mean age at which daily smoking started was 17.4 years.*

- *Among current smokers, the average number of manufactured cigarettes smoked per day was very high (11.5); the mean number of manufactured cigarettes smoked by men was 12.2 and for women it was 9.1.*

Alcohol Consumption

- *The overall prevalence of current drinkers was 40.4 %: 50.6 % of males and 30.9 % of females.*

- *Among current drinkers, the average number of standard drinks consumed on a drinking occasion was 4.1: men drank an average of 5 standard drinks; women drank 3 standard drinks on average.*

- *Among current drinkers, 33.9 % of males binge drink (5 or more drinks); 16.8 % of females binge drink (4 or more drinks) on any day of the week preceding the survey.*

Fruits and Vegetables Consumption

- *The prevalence of those who reported eating less than 5 servings of fruit and vegetables per day was 91.0 %: 92.8 % of males and 89.3 % of females.*

Physical Activity

Respondents were asked to report on the frequency and duration of physical activity as part of their work, travel and recreation time. The weekly duration of activity is reported below in MET-mins, which is a standard unit that adjusts for the higher metabolic intensity of vigorous compared with moderate activity:

- *The median total time in physical activity was 42.9 metmin/day. This was highest among 25-34 year olds (60 metmin/day) and lowest among 55-64 year olds (12.9 metmin/day), and higher among males than females (102.8 metmin/wk vs 14.3 metmin/wk).*

- *The amount of activity spent in work-, travel-, and recreation- related physical activity on average per day, as reported by the whole sample, was higher for work-related physical activity (40.5 %).*

- *16.7 % males and 19.2% females reported physical activity of moderate intensity.*

- *Both males and females reported a median of 0 metmin/wk of recreational physical activity.*

The prevalence of work- related physical inactivity shows an increasing trend from 25-34 (57.6 %) to 74.8 % among 55-64 years old. The females reported a slightly higher prevalence than males (70.7 % vs 55.5 %).

Overweight and Obesity

Body mass index (BMI) was computed as the weight in kilograms divided by the square of height in metres, and BMI was categorized as follows: underweight and normal weight (BMI: <25.0 kg/m2), overweight (BMI: 25.0 to <30.0 kg/m2), and obese (BMI: >30.0 kg/m2).

- *Overall mean BMI for women was 27.4 kg/m2 and 25.6 kg/m2 for men.*

- *55.7 % of the population was overweight or obese (BMI ≥ 25). The proportion of overweight/obese women was 59.0 % and overweight/ obese male was 52.3%.*

- *25.7 % of all respondents were obese, with higher females (31.7 %) than males (19.4 %) classified in this high-risk category. For both genders, there was a marked increase in the proportion of obesity after age 24 years.*

High Blood Pressure

- *26.3 % of those surveyed had raised blood pressure (SBP ≥ 140 or DBP ≥ 90 or currently on antihypertensive medication).The proportion was significantly higher for males (29.8%) than females (23.1%).*

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Cholesterol

- *Mean cholesterol (mmol/L) for males and females was similar 5.2 and 5.0 respectively.*

- *The overall prevalence of elevated cholesterol (≥ 6.2 mmol/L) was higher for males (28.3 %) than females (18.9%).*

Overweight and Obesity

There were 630 participants, aged 15-64 years, who provided consent for biochemical measurements:

- *The all-ages (15-64 years) prevalence of diabetes at the time of the survey, defined as a blood sugar measured by a doctor or other health worker was found to be 5.1 %. Of these 14.5 % are taking insulin therapy and 74.3% are on oral medications.*

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- *Mean fasting blood glucose among the survey respondents who consented for biochemical measurements was 5.2 mmol/L. It was similar for males and females being 5.1 and 5.3 mmol/L respectively.*

- *Percentage with raised fasting blood glucose, defined as capillary whole blood value ≥ 6.1 mmol/L or currently on medication for raised blood glucose was 20.5%; slightly higher in females (21.2 mmol/L) than males (19.8 mmol/L).*

Raised Risk for NCDs

WHO recently added a comprehensive assessment on STEPS NCD risk factors, referred to as 'raised risk.' Five common and critical risk factors for NCDs were selected: current daily smokers, overweight or obesity (BMI>25.0kg/m2), raised blood pressure (SBP≥ 140 and/or DBP≥ 90 mmHg or currently on medication for raised blood pressure), consuming less than 5 servings of fruits and vegetables per day and low level of physical activity (<600 METminutes per week).

- *Approximately 1.0 % of the surveyed population were low risk to NCDs (ie. none of the 5 risk factors), compared with 65.0 % of those aged 45-64 years who had raised risk (ie. at least 3 of the 5 risk factors): 63.1 % of men and 67.0 % of women in the same age group.*

- *By 25-44 years the prevalence of raised risk was 38.3 % in men and 44.3 % in women.*

- *The overall prevalence of raised risk aged 25 to 64 years was 51.0 %.*

RISK FACTOR
SURVEY TEAM

Survey Coordinator:

Dr. Kumar Sundaraneedi
Medical Director,
Health Programmes and TechnicaL Support Services

Field Manager:

Mr. Karmesh L.D. Sharma
Non-Medical Epidemiologist,
MOH

Committee Members:

A. Ministry of Health:
    Dr Anton Cumberbatch, Chief Medical Officer
    Dr. Akenath Misir - Ag. Chief Medical Officer
    Ms. Yvonne Lewis - Director, Health Education
    Dr. Avery Hinds, Director, National Surveillance Unit
    Dr. B.K. Guria - UNV Medical Doctor, Health Programmes

B. EWMSC/ UWI:
    Prof. Surujpal Teelucksingh - Prof. of Internal Medicine

C. PAHO/WHO:
    Dr. Yitades Gebre- Advisor

D. CSO:
    Mr. Dave Clement - Director
    Mr. Adhar Beepath

E. CAREC:
    Dr. Glennis Andall
    Ms. Sarah Quesnel

INTRODUCTION

CURRENT SITUATION

Globally, including in the Caribbean, the epidemiologic and demographic transition has resulted in a shift in morbidity and mortality away from Communicable disease to a predominance of Chronic Non-Communicable diseases (CNCDs). These are heart disease, stroke, diabetes, cancers and certain respiratory diseases.

This epidemiological transition from communicable to non-communicable diseases is due to aging of the populations and to the significant changes in lifestyle and dietary pattern over the last decades. These changes have contributed to increasing the common modifiable risk factors for CNCDs. The risk factors are biological (high blood pressure, high cholesterol), and behavioral (tobacco use, alcohol abuse, unhealthy diets and physical inactivity).

The disease burden from CNCDs continues to increase rapidly and has significant social, economic and health consequences. Thus the importance of monitoring the epidemic over time, as well as the impact of policies and programs on the change in prevalence of the common risk factors for these diseases.

In 2002, approximately 60 % of all deaths and 47% of the global burden of disease was due to coronary heart disease, type 2 diabetes mellitus, stroke and cancers. If this trend continues, it is predicted that by the year 2020 these diseases will account for 73% of global deaths and 60% of global burden of diseases. In the Caribbean, the four leading causes of deaths (51%) in 2000 were all CNCDs.

TRINIDAD AND TOBAGO

Trinidad and Tobago (TRT) is a twin island, middle-income country in the Caribbean. The population is 1.3 million with 30% under 15 years of age, 64% between 15-65 years of age and 6% over 65 years of age. The urban population is 75% and rural 25%. Infant mortality rate (2008) is estimated at 17/1,000 live births. Life expectancy at birth (2002) is 73 years for females and 67 years for males. Average monthly household income for Trinidad and Tobago is TT $ 3,850.15= US$ 609.20.

PREVIOUS RISK FACTOR SURVEY

A pilot study for a Caribbean Behavioural Risk Factor Survey was carried out in 2004 by the Caribbean Epidemiological Center, Pan American Health Organization and the World Health Organization (CAREC/PAHO/WHO), based on the National Epidemiologists 2003 agreed minimum dataset. Among the respondents 16.2% had been told by their doctor or nurse that they had diabetes. More than half of the respondents never had their cholesterol tested (58.1%). One third of the sample reported smoking at least 100 cigarettes in their lifetime, with more men (40.3%) than women (16.3%).

The Trinidad and Tobago National Health Survey 1996, revealed that among cohort of 6,342 males and females aged 15 years and over (96% response), the prevalence of self reported Diabetes was 9.6% in males and 12.6% in females in respondents 35 years and over. The prevalence of hypertension was 18.2% for males and 28.1% for females in the 35 and over population.

Trinidad and Tobago has one of the highest prevalence, morbidity and mortality rates for chronic non-communicable diseases (heart disease, stroke, diabetes, cancer) in the Caribbean, and these rates have been steadily increasing over time. In Trinidad and Tobago, non-communicable diseases account for over 60% of premature loss of life (death before 70 years).

Age adjusted death rates/100,000 population - 2000 (PAHO / Alleyne)
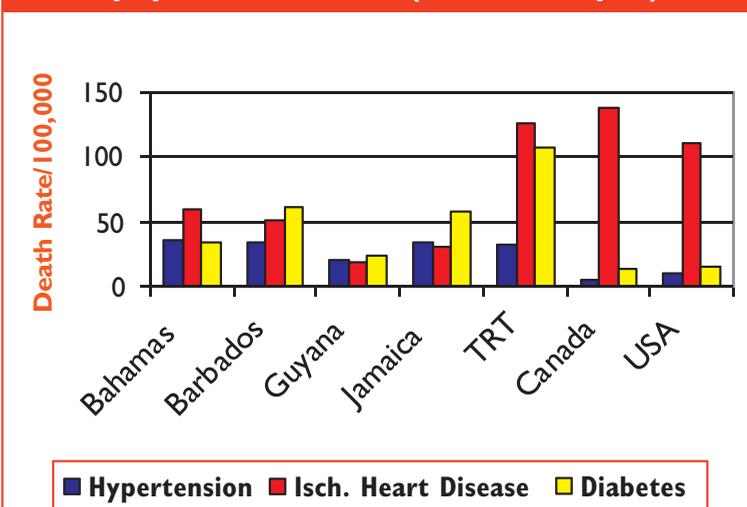
The prevalence of diabetes in Trinidad and Tobago is one of the highest of all the countries in the region of the Americas (PAHO). This is likely due, in part, to the high carbohydrate intake, urbanization and low levels of physical activity. According to the Population and Vital Statistics Reports from the Central Statistical Office (C.S.O.), the deaths due to CNCDs, as a percentage of total deaths in Trinidad and Tobago are shown below:

Leading Causes of Death Trinidad and Tobago, 1998 - 2003 from CSO
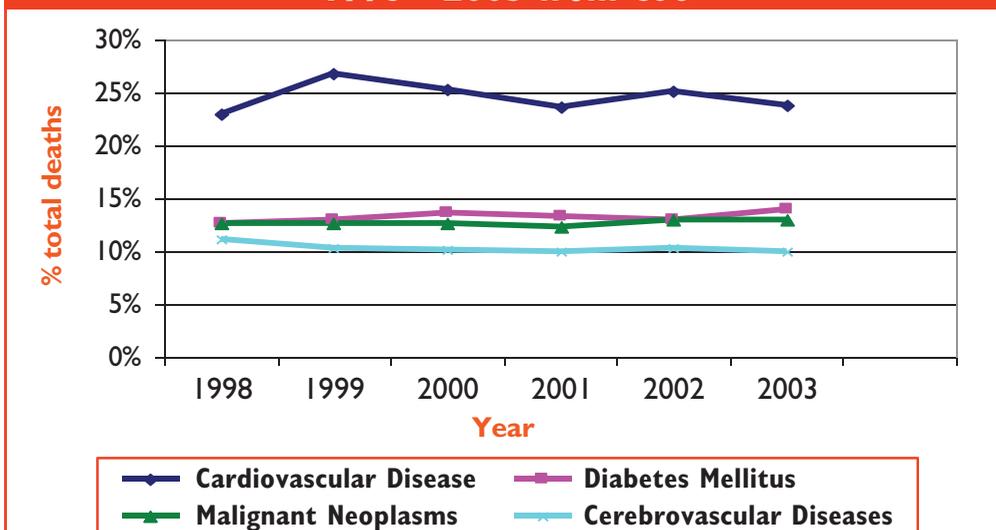
RISK FACTORS

Non-communicable diseases share common risk factors, including modifiable biological risk factors such as high blood pressure, high cholesterol, and behavioral risks such as unhealthy diets and obesity, tobacco use, alcohol abuse and physical inactivity. At least 80% of all heart disease, stroke and diabetes are preventable, as are 40% of all cancers. The key to controlling the global epidemics of chronic diseases is primary prevention, which focuses on reducing the common the global epidemics of chronic diseases is primary prevention, which focuses on reducing the common risk factors, and health education on comprehensive population-based programmes. There is high prevalence of CNCD risk factors in Trinidad and Tobago. As follows:

Tobacco: *Smoking rates in Trinidad and Tobago among adult men is 30% and adult women 5%. Among 13 – 15 year olds in school, 17% boys and 10% girls currently use tobacco.*

Alcohol Abuse: *World Health Organization (WHO) estimates that 70% males and 30% females drink alcohol, while 14% males and 1% females are "problem drinkers."*

Diet and Obesity: *WHO estimates for Trinidad & Tobago (2005) are that 45% of women and 15% of men are obese (BMI ≥ 30). These rates are more than double what they were in the 1980s, and the rate of increase continues unabated. This obesity is related to low fruit and vegetable consumption, and high salt, fat and sugar intake. In the Caribbean, consumption of fats is 60% more than recommended, sugar is used over than twice the recommended value, and fruits only consumption is 60% of what it should be.*

Physical Activity: *In Trinidad and Tobago, 55% of females and 47% of males are sedentary, while 55% of urban and 45% of the rural population are sedentary.*

Hypertension and Hypercholesterolemia: *The National Health Survey conducted during 1994-1995 reveals that the prevalence of hypertension was 18.2% for males and 28.1% for females. The pilot 'Behavioural Risk Factor Survey of 2004' conducted in Trinidad, revealed that more than half of the respondents had never had their cholesterol tested (58.1%).*

INFRASTRUCTURE AND CAPACITY

Trinidad and Tobago has a Central Statistical Office (CSO) which carries out periodic labor force surveys and population census. They have an experienced cadre of available freelance interviewers which was mobilized to do this survey. CAREC/PAHO/UWI/CSO provided some technical inputs, including training for this project. The team from Ministry of Health mobilized human and financial resources, provided overall guidance, and collated and analyzed the data, including the production of the final report.

RATIONALE

The STEPS NCD risk factor survey is urgently needed because:

- *The disease burden from CNCDs continues to increase rapidly and has significant social, economic and health consequences.*

- *Common, preventable risk factors underlie most chronic diseases, and are a leading cause of the death and disability.*

- *It is estimated that by 2020, Chronic Non- communicable diseases will be responsible for 60% deaths globally and 47% of global burden of disease.*

- *At least 80% of all heart disease, stroke and diabetes are preventable, as are 40% of all cancers.*

- *The risk factors can be modified through effective intervention programs.*

The key to controlling the global epidemics of chronic diseases is primary prevention focusing on reducing the common risk factors, and based on the comprehensive population-wide programmes, thus the importance of monitoring the epidemic and over time, as well as being able to monitor the impact of policies and programs on the change in prevalence of the common risk factors for these diseases.

WHO/PAHO/CAREC/UWI/CSO supported the implementation of the STEPwise approach (STEPS) to the surveillance of chronic diseases risk factor, and non-communicabledisease-specific morbidity and mortality.

GOALS AND OBJECTIVES

This risk factor survey was carried out with goals and objectives to develop and strengthen the country's capacity to better monitor non-communicable diseases and their risk factors though consistent data collection

GOAL

1. To describe the current levels of risk factors for chronic diseases in this population, and track the direction and magnitude of trends over time.

2. To collect data on which to plan and evaluate health promotion strategies.

3. To predict likely future demands for health services.

4. To provide a database that is regionally and internationally comparable.

OBJECTIVES

- To develop standardized tools to enable comparisons over time and across countries.

- To generate empirical data on risk factors for CNCDs.

- To help health services plan, monitor and evaluate public health policies, priorities and programs, including population-wide interventions.

- To make informed projections about future caseloads of chronic diseases.

- To facilitate advocacy for the introduction of policies in other government and social development programmes, as well as in the private sector and civil society, regarding the prevention of NCDs.

SCOPE

In 2005, the World Health Organization recommended the STEPwise approach (STEPS) to the survey of chronic diseases risk factors and chronic disease specific morbidity and mortality, using the STEPS Instrument or 'steps' of risk factor assessment. STEPS is a household survey which uses a sequential process of gathering information.

PAHO using the STEPS prototype, and with subsequent global consultations produced the PANAM STEPS version 2.1, which was used for this survey.

OVERVIEW OF SCOPE

- **Step 1:** Core and expanded questions: Demographic and behavioral information will be collected using a prescribed questionnaire form.

- **Step 2:** Core and expanded physical measurements: Physical measurements - height, weight, waist and hip circumference, pulse and blood pressure.

- **Step 3:** Core and expanded biochemical measurements: Total Cholesterol, Triglyceride, HDL and Glucose.

- Optional modules: Screening for cancers of the breast, cervix, prostate, colon.

- Addition and/or deletion of questions in the expanded section as agreed by the Risk Factor Survey Steering Committee.

It was planned to offer Step 3 to a 50% simple random sub-sample of the participants. A 50% non-response rate was expected, resulting in a 25% collection of samples.

ETHICS COMMITTEE APPROVAL

This proposal was approved by the Ethics Committee of the Ministry of Health.

METHODOLOGY

POPULATION SAMPLE SIZE AND GEOGRAPHIC COVERAGE

STUDY POPULATION

The Central Statistical Office (CSO) in collaboration with technical support from CAREC calculated the survey sample size, and selected the sample based on STEPS procedures. The study population comprises of 15-64 years age group, from total non-institutionalized population. The sex and age strata are based on the 2000 census.

There are 10 strata of five 10-year age groups in each of the 2 sexes. The sample size allows for accurate reporting of the survey results for each of these strata. The total sample size estimated (obtained by summing across the age/sex strata) is adjusted for the design effect and for the expected non-response rate.

A target sample size of 3,020 individuals was used for STEPS survey.

INCLUSION CRITERIA

1. Aged between 15 and 64 years on December 31st 2010, with birth years between 1946 and 1995.

EXCLUSION CRITERIA

1. Bedridden
2. Chronic Disability
3. Visible Pregnancy

ASSUMPTIONS

1. Level of Confidence (Z) = 1.96 (95% confidence interval)

2. Margin of Error (E) = 0.05

3. Prevalence of risk factors at 12%. (National Health Survey, 1995)

While there were concerns that using 12% population prevalence will result in the survey with large confidence intervals, the Risk Factor Committee has agreed to use 12% prevalence for diabetes to calculate the sample size for the survey because:

- 12% prevalence for diabetes has been used as an official figure for the country, and has been utilized in calculation for other programmes such as the CDAP programme and PAHO.

- This figure has been approved by the Chief Medical Officer, to be used in calculating the sample size.

4. Design effect 1.5. The first stage of sampling involves random selection of EDs using PPS. Households are then selected from within these chosen EDs only. Therefore, EDs act as clusters making a design effect of 1.5 necessary.

5. Projected non-response rate of 15% for questionnaire and physical measurements (Steps 1 & 2), and 50% for biochemical measurements (Step 3).

Therefore, the sample size calculated for this survey is 3020 (appendix 1 for detailed calculations). A single sample size calculation was performed for the country (T&T). The final sample was proportionately divided between Trinidad and Tobago. Further, to ensure that a representative sample was obtained for Tobago and to allow for accurate prevalence estimatesfor Tobago, the calculation was repeated for Tobago using 1 stratum. This newly calculated sample size for Tobago was added to the previous sample size calculated for Trinidad in order to arrive at the final sample size required for the survey.

SURVEY LIMITATION

1. Use of baseline prevalence as 12%:

      ● While prevalence data for other risk factors is available, which if used, would have produced a more conservative sample size. The 12% prevalence rate for diabetics was selected for inclusion in the sample size calculations as this is considered to be an official prevalence rate for the country, and has been approved by the Chief Medical Officer, Ministry of Health.

2. Response rate

      ● The field component of the survey was conducted a few weeks after the national census and hence it was expected that the response rate may be negatively affected.

SAMPLE DESIGN AND SAMPLE SIZE

The Sample Frame used for the STEPS survey is the CSO's Enumeration District (ED) listing for Trinidad and Tobago. The sampling design is stratified with randomized cluster sampling at the first stage, systematic random selection of households at the second stage, and random selection of individuals from the household at the third stage.

Stage 1: 400 EDs (or clusters) randomly selected from 2,349 EDs using probability proportional to size sampling.

Stage 2: The same number of households systematically selected from each ED (14 – 15 /ED in Trinidad and 37 – 38 /ED in Tobago. The selection of households was made from each selected enumeration district (ED). A starting point was determined randomly, and thereafter, every nth household was selected depending on the number of households within the ED.

Stage 3: Individuals randomly selected using Kish. The Kish method or randomized sampling was used to select one individual from each household to be interviewed. There was no replacement. If selected participant did not

agree to participate, this was treated as a non-response. The person selected for interview must be at least 15 years on the last birthday but not older than 64 years old. Exclusion from the study was acceptable only if persons (within the age criterion) are bedridden, have chronic disabilities and/or pregnant.

Data collection, for all three phases, was done over a period of four months. Interviewers met participants at home in the evenings and on weekends. The data was collected by trained interviewers in a face-to-face setting using hand held computers. Informed consent was obtained for participation in the survey. If the selected participant was a minor, a parent/ guardian had to sign the consent form in addition to the minor participant. Interviewers were trained during March- April 2011 and collection of data commenced thereafter. All interviewers were trained at the same venue and time to ensure standardization of data collected. Information was collected and entered using handheld PDA HP iPAQ Classic with running windows Mobile 6.0 Classic. The collection of blood samples was done by appointment at their homes, or at a pre-determined venue such as the nearest health center/ community centre. Blood samples were done on mornings after participants were requested to fast overnight. Additionally all participants were given related literature, shown pictograms, offered consent forms as required and were given on the spot result where

RESULTS
Demographic Information

AGE GROUP BY SEX

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

Instrument Question:

- *Sex*
- *What is your date of birth?*

Of the 2724 respondents in the survey, 40.9% (1114) were males and 59.1% (1610) were females. The largest age group of males interviewed was the 25-34 with 8.9% (243), whilst the largest for the females, was the 45-54 age-group with 13.2% (360).

Table 1 shows the age-groups and gender of the participants. The highest proportion was for the age group 25-34 years (21.8%) followed by those age 45-54 years (21.0%), then those of the age group 35-44 years (19.7%). The age group 15-24 years constitute 18.4% of the participants while the eldest age group 55-64 years had a proportion of 19.2%. Women outnumbered men, with a ratio of 1.5 to 1.

Generally there was a small range in the proportion of participants in each age group, ranging From 18.4% in the 15 – 24 group to 21.8% in the 25 – 34 group.

Table 1						
Age group and sex of respondents						
Age Group (years)	**Men**		**Women**		**Both Sexes**	
	n	%	n	%	n	%
15-24	232	8.5	268	9.8	500	18.4
25-34	243	8.9	351	12.9	594	21.8
35-44	237	8.7	300	11.0	537	19.7
45-54	211	7.7	360	13.2	571	21.0
55-64	191	7.0	331	12.2	522	19.2
15-64	**1114**	**40.9**	**1610**	**59.1**	**2724**	**100.0**

Analysis Information:

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

EDUCATION

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

Instrument Question:

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

Education: *To ascertain educational levels, all respondents were asked the total number of years spent at school or in fulltime study (excluding pre-school years). Note that all numbers (e.g.notations N and n) in the following Tables and for the rest of Section 4 of the report are presented as weighted values, rounded to whole numbers. There was marginal difference between the mean.*

Table 2 shows, that the mean number of years spent at school was 11.0. There is no significant difference between the number of years spent in school by males (11.1) and females (11.0). As expected, the mean number of years spent in school decreased from 11.9 to 9.2 as the age group increased from the youngest to the oldest.

Table 2						
Mean number of years of education						
Age Group (years)	**Men**		**Women**		**Both Sexes**	
	n	Mean	n	Mean	n	Mean
15-24	231	11.8	268	12.0	499	11.9
25-34	243	11.5	350	12.1	593	11.9
35-44	237	11.6	300	11.6	537	11.6
45-54	210	10.7	359	10.3	569	10.5
55-64	190	9.4	330	9.2	520	9.2
15-64	1111	**11.1**	1607	11.0	2718	11.0

Analysis Information:

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

Both men (11.1) and women (11.0) reported approximately the same mean years of education, averaging (11.05) for both sexes. The mean years of education decreases as the age group increases.

HIGHEST LEVEL OF EDUCATION

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

Instrument Question:

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

Tables 3,4,5 show that for all the surveyed levels of education, Secondary school 'completed' had the largest percent with males 40.3% and females with 46.6%. The survey shows that more males completed the Primary school level with 34.4% than females with 31.3%.

At the College/University and Post Graduate degree levels, males lead with 1.0% and 12.5% with females lower at 0.9% and 9.5% respectively. Of all surveyed 1.2% had no formal schooling and 2.7% had less than Primary school level training.

Table 3

Highest level of education								
				Men				
Age Group (years)	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% High school completed	% College/ University completed	% Post graduate degree completed
15-24	219	0.5	0.9	32.0	50.2	8.2	1.4	6.8
25-34	227	2.2	0.4	22.0	46.3	12.3	0.4	16.3
35-44	215	0.9	0.9	25.6	44.7	11.6	0.5	15.8
45-54	192	0.5	2.6	46.4	30.2	4.7	2.6	13.0
55-64	181	3.3	6.6	50.8	26.5	2.8	0.0	9.9
15-64	**1034**	**1.5**	**2.1**	**34.4**	**40.3**	**8.2**	**1.0**	**12.5**

Table 4

Highest level of education								
				Women				
Age Group (years)	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% High school completed	% College/ University completed	% Post graduate degree completed
15-24	251	0.0	0.0	20.3	66.1	6.0	0.8	6.8
25-34	308	0.6	1.0	15.3	57.5	12.7	1.9	11.0
35-44	264	0.8	1.1	22.0	51.9	12.9	0.8	10.6
45-54	329	1.5	5.5	41.0	38.0	4.6	0.9	8.5
55-64	308	2.3	6.8	53.9	24.7	1.9	0.0	10.4
15-64	**1460**	**1.1**	**3.1**	**31.3**	**46.6**	**7.5**	**0.9**	**9.5**

Table 5

Age Group (years)	Highest level of education						
	Both Sexes						
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% High school completed	% College/ University completed	% Post graduate degree completed
15-24	470	0.2	0.4	25.7	58.7	7.0	1.1	6.8
25-34	535	1.3	0.7	18.1	52.7	12.5	1.3	13.3
35-44	479	0.8	1.0	23.6	48.6	12.3	0.6	12.9
45-54	521	1.2	4.4	43.0	35.1	4.6	1.5	10.2
55-64	489	2.7	6.7	52.8	25.4	2.2	0.0	10.2
15-64	**2494**	**1.2**	**2.7**	**32.6**	**44.0**	**7.8**	**0.9**	**10.7**

Analysis Information:

- *Questions used: C5*

- *Epi Info program name: Ceduhigh (unweighted)*

ETHNICITY

Description: *Summary results for the ethnicity of the respondents.*

Instrument Question:

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

Regarding ethnicity Table 6, respondents of East Indian descent made up 39.9% of the surveyed population followed by African descent at 35.6% and Mixed at 23.0%. White, Chinese and Others followed with 1.2%, 0.1% and 0.2% respectively.

Table 6

Age Group (years)	Ethnic group of respondents						
	Both Sexes						
	n	% African descent	% East Indian descent	% Mixed	% White	% Chinese	% Other
15-24	495	36.2	35.4	27.1	1.4	0.0	0.0
25-34	594	41.6	30.6	26.9	0.2	0.3	0.3
35-44	536	34.7	45.0	19.2	0.9	0.0	0.2
45-54	563	34.5	43.7	19.9	1.8	0.0	0.2
55-64	522	30.7	45.6	21.8	1.7	0.0	0.2
15-64	**2710**	**35.6**	**39.9**	**23.0**	**1.2**	**0.1**	**0.2**

Analysis Information:

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

MARITAL STATUS

Description: *Marital status of survey respondents.*

Instrument Question:

- *What is your marital status?*

Tables 7,8,9 show that of the male respondents surveyed, 34.9% are currently married and 47.3% reported 'never mar-ried,' while the females respondents reported 37.5% 'currently married' and 39.1% 'never married.' Those who reported separated, divorced, widowed and cohabiting are 3.6%, 3.9%, 3.9% and 9.7% respectively.

Table 7

Age Group (years)	Marital status						
	Men						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
15-24	231	95.2	3.5	0.0	0.0	0.0	1.3
25-34	243	60.9	21.0	0.0	1.6	0.0	16.5
35-44	236	30.1	41.5	5.9	6.8	0.0	15.7
45-54	203	27.1	53.7	3.0	4.9	2.0	9.4
55-64	191	14.7	62.3	5.2	8.4	4.7	4.7
15-64	**1104**	**47.3**	**34.9**	**2.7**	**4.2**	**1.2**	**9.8**

Table 8

Age Group (years)	Marital status						
	Women						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
15-24	263	88.2	5.3	0.0	0.0	0.4	6.1
25-34	350	45.1	33.4	3.1	2.3	0.3	15.7
35-44	299	31.1	46.5	7.7	2.7	1.3	10.7
45-54	359	22.8	49.0	5.0	7.5	7.0	8.6
55-64	331	18.7	46.8	4.5	5.1	18.4	6.3
15-64	**1602**	**39.1**	**37.5**	**4.2**	**3.7**	**5.7**	**9.7**

Table 9

Age Group (years)	Marital status						
	Both Sexes						
	n	% Never married	% Currently married	% Separated	% Divorced	% Widowed	% Cohabiting
15-24	494	91.5	4.5	0.0	0.0	0.2	3.8
25-34	593	51.6	28.3	1.9	2.0	0.2	16.0
35-44	535	30.7	44.3	6.9	4.5	0.7	12.9
45-54	562	24.4	50.7	4.3	6.6	5.2	8.9
55-64	522	17.2	52.5	4.8	6.3	13.4	5.7
15-64	**2706**	**42.5**	**36.4**	**3.6**	**3.9**	**3.9**	**9.7**

Analysis Information:

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

EMPLOYMENT STATUS

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

Instrument Question:

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

The survey reported that Tables 10,11,12 shows that the leading form of Employment for males is Non-government employee with 29.6% followed by Self-employed with 24.4% and Government employed with 18.0%. Male respondents reporting an 'Unpaid status' was 28.1%. Whilst for females, the leading form of employment is also Non-government employee with 18.5% followed by Government with 14.2% and Self-employed with 11.8%. Unpaid status for females was 55.4%.

Table 10

Age Group (years)	Employment status				
	Men				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
15-24	231	6.9	29.4	9.1	54.5
25-34	243	26.7	38.7	22.6	11.9
35-44	237	18.1	35.9	37.6	8.4
45-54	211	25.6	26.1	33.2	15.2
55-64	190	11.6	14.2	18.9	55.3
15-64	**1112**	**18.0**	**29.6**	**24.4**	**28.1**

Table 11

Employment status					
	Women				
Age Group (years)	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
15-24	268	7.8	9.3	3.7	79.1
25-34	351	20.8	29.6	10.0	39.6
35-44	300	16.7	28.7	20.7	34.0
45-54	359	17.0	15.6	15.0	52.4
55-64	331	7.3	8.2	8.8	75.8
15-64	**1609**	**14.2**	**18.5**	**11.8**	**55.4**

Table 12

Employment status					
	Both Sexes				
Age Group (years)	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
15-24	499	7.4	18.6	6.2	67.7
25-34	594	23.2	33.3	15.2	28.3
35-44	537	17.3	31.8	28.1	22.7
45-54	570	20.2	19.5	21.8	38.6
55-64	521	8.8	10.4	12.5	68.3
15-64	**2721**	**15.8**	**23.0**	**16.9**	**44.2**

Analysis Information:

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

UNPAID WORK AND UNEMPLOYED

Description: *Proportion of respondents in unpaid work.*

Instrument Question:

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

Tables 13,14,15 show the distribution of participants engaged in unpaid work by type of work and age groups. For the males surveyed, 32.4% are unemployed, 27.2% are retired, 31.1% are students and the non-paid category is 1.6% while 6.7% males are unable to work. For females, the leading category is that of home-maker with 58.7%, followed by students at 17.8% and unemployed at 14.9%. Retired females are 5.9% and non-paid is 0.6% while 2.0% are unable to work.

Table 13

Unpaid work and unemployed

Men

Age Group (years)	n	% Non-paid	% Student	% Home-maker	% Retired	Unemployed	
						% Able to work	% Not able to work
15-24	126	0.0	73.0	0.0	0.0	26.2	0.8
25-34	29	0.0	17.2	0.0	0.0	75.9	6.9
35-44	20	20.0	0.0	5.0	15.0	50.0	10.0
45-54	32	3.1	0.0	0.0	21.9	43.8	31.3
55-64	105	0.0	0.0	1.9	71.4	21.0	5.7
15-64	**312**	**1.6**	**31.1**	**1.0**	**27.2**	**32.4**	**6.7**

Table 14

Unpaid work and unemployed

Women

Age Group (years)	n	% Non-paid	% Student	% Home-maker	% Retired	Unemployed	
						% Able to work	% Not able to work
15-24	212	1.4	67.9	10.4	0.0	19.3	0.9
25-34	139	0.7	9.4	64.7	0.0	23.0	2.2
35-44	102	0.0	2.0	79.4	1.0	17.6	0.0
45-54	188	0.5	0.0	81.9	3.2	11.7	2.7
55-64	251	0.0	0.0	70.5	18.3	8.0	3.2
15-64	**892**	**0.6**	**17.8**	**58.7**	**5.9**	**14.9**	**2.0**

Table 15

Unpaid work and unemployed

Both Sexes

Age Group (years)	n	% Non-paid	% Student	% Home-maker	% Retired	Unemployed	
						% Able to work	% Not able to work
15-24	338	0.9	69.8	6.5	0.0	21.9	0.9
25-34	168	0.6	10.7	53.6	0.0	32.1	3.0
35-44	122	3.3	1.6	67.2	3.3	23.0	1.6
45-54	220	0.9	0.0	70.0	5.9	16.4	6.8
55-64	356	0.0	0.0	50.3	34.0	11.8	3.9
15-64	**1204**	**0.8**	**21.3**	**43.8**	**11.5**	**19.4**	**3.2**

Analysis Information:

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

PER CAPITA ANNUAL INCOME

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

Instrument Question:

- *How many people older than 18 years, including yourself, live in your household?*

- *Taking the past year, can you tell me what the average earning of the household has been?*

Mean annual per capita income	
n	Mean
1674	41873.4047

Analysis Information:

- *Questions used: C9, C10a-d*

- *Epi Info program name: Cmeanincome (unweighted)*

ESTIMATED HOUSEHOLD EARNINGS

Description: *Summary of participant household earnings by quintile.*

Instrument Question:

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

Approximately one quarter (27.0%), Table 16, of respondents reported, an estimated annual household earnings of more than $10,000, followed by 22.4% with $3,000-$4,999 and 22.1% with $1,000-$2,999 income. The lowest proportion of respondents (2.5%) reported less than $1,000 income.

Table 16						
	Estimated household earnings					
n	% <$1000	% $1000 - $2999	% $3000-$4999	% $5000-$6999	% $7000 - $9999	% >$10000
238	2.50%	22.10%	22.40%	16.60%	9.50%	27.00%

Analysis Information:

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

Tobacco Use

CURRENT SMOKING

Description: *Current smokers among all respondents.*

Instrument Question:

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

Current Daily Smoking

In order to assess the prevalence of smoking habits in Trinidad and Tobago, respondents were asked their current and past status of smoking.

Table 17 shows respondents distributed according to smoking status. The proportion of current smoking among men (33.5%) was approximately four folds that of women (9.4%). Men had a higher proportion of smoking than women in all age groups, with an average of 21.1% of current smokers among all participants. Regarding age specific smoking rate of both sexes, table (17), the highest rate was reported among 25-34 years old (27.4%), followed by 45-54 years old (23.0%) and the 35-44 year old reporting 19.9%. Current smokers among men increased with age, whilst it decreased with female respondents.

Table 17											
Percentage of current smokers											
	Men				**Women**				**Both Sexes**		
Age Group (years)	n	% Current smoker	95% CI		n	% Current smoker	95% CI		n	% Current smoker	95% CI
15-24	232	22.9	16.5-29.4		268	8.9	5.0-12.8		500	15.6	11.9-19.3
25-34	243	43.2	35.8-50.6		351	14.3	10.0-18.6		594	27.4	23.1-31.8
35-44	237	33.4	26.4-40.4		300	7.3	4.0-10.5		537	19.9	15.8-24.1
45-54	211	36.8	27.7-46.0		360	7.9	4.7-11.0		571	23.0	18.0-28.0
55-64	190	34.8	26.5-43.0		331	6.2	3.1-9.4		521	20.4	15.7-25.2
15-64	**1113**	**33.5**	**29.8-37.3**		**1610**	**9.4**	**7.6-11.2**		**2723**	**21.1**	**19.0-23.2**

Analysis Information:

- *Questions used: T*
- *Epi Info program name: Tsmokestatus (unweighted); TsmokestatusWT (weighted)*

SMOKING STATUS

Description: *Smoking status of all respondents.*

Instrument Question:

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

- *Do you currently smoke tobacco products daily?*

The overall prevalence of daily smoking was 18.0% (Tables 18,19,20), with men reporting over twice (29.1%), when compared with women 7.7%.

Table 18

Age Group (years)	n	Smoking status					
		Men					
		Current smoker				% Does not smoke	95% CI
		% Daily	95% CI	% Non-daily	95% CI		
15-24	232	17.9	12.0-23.8	5.0	1.9-8.2	77.1	70.6-83.5
25-34	243	38.6	31.3-45.9	4.6	1.6-7.6	56.8	49.4-64.2
35-44	237	31.1	24.1-38.1	2.3	0.2-4.4	66.6	59.6-73.6
45-54	211	33.3	24.8-41.9	3.5	0.0-7.4	63.2	54.0-72.3
55-64	190	26.7	19.5-33.9	8.1	1.9-14.2	65.2	57.0-73.5
15-64	**1113**	**29.1**	**25.7-32.5**	**4.4**	**2.9-5.9**	**66.5**	**62.7-70.2**

Table 19

Age Group (years)	n	Smoking status					
		Women					
		Current smoker				% Does not smoke	95% CI
		% Daily	95% CI	% Non-daily	95% CI		
15-24	268	6.7	3.3-10.1	2.2	0.3-4.1	91.1	87.2-95.0
25-34	351	12.7	8.5-16.8	1.6	0.5-2.8	85.7	81.4-90.0
35-44	300	6.6	3.5-9.8	0.6	0.0-1.4	92.7	89.5-96.0
45-54	360	5.4	2.7-8.1	2.4	0.7-4.1	92.1	89.0-95.3
55-64	331	4.4	1.8-7.1	1.8	0.0-3.6	93.8	90.6-96.9
15-64	**1610**	**7.7**	**6.0-9.3**	**1.7**	**1.0-2.4**	**90.6**	**88.8-92.4**

Table 20

Age Group (years)	Smoking status						
	Both Sexes						
		Current smoker				% Does not smoke	95% CI
	n	% Daily	95% CI	% Non-daily	95% CI		
15-24	500	12.0	8.7-15.4	3.6	1.7-5.4	84.4	80.7-88.2
25-34	594	24.5	20.3-28.7	3.0	1.5-4.5	72.6	68.2-76.9
35-44	537	18.5	14.4-22.6	1.4	0.3-2.5	80.1	75.9-84.2
45-54	571	20.0	15.3-24.7	3.0	0.8-5.2	77.0	72.0-82.0
55-64	521	15.5	11.6-19.4	4.9	1.6-8.2	79.6	74.8-84.3
15-64	**2723**	**18.0**	**16.1-20.0**	**3.0**	**2.2-3.9**	**78.9**	**76.8-81.0**

Analysis Information:

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

FREQUENCY OF SMOKING

Description: *Percentage of current daily smokers among smokers.*

Instrument Question:

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

Table 21 shows percentage of current daily smokers among all smokers. The majority (85.6%) were daily smokers with a higher proportions among men (86.9%) when compared to women (81.5%). Although the lowest rates of daily smoking were among the youngest age groups (78.0% for males and 75.3% for women). No clear pattern could be demonstrated by age for either men or women. The highest rate of current daily smokers was reported by the 35 – 44 age group (93.2% for men and 91.2% for women).

Table 21

Age Group (years)	Current daily smokers among smokers								
	Men			**Women**			**Both Sexes**		
	N	% Daily smokers	95% CI	n	% Daily smokers	95% CI	n	% Daily smokers	95% CI
15-24	57	78.0	65.4-90.6	25	75.3	56.9-93.7	82	77.2	66.9-87.5
25-34	101	89.4	82.6-96.2	52	88.5	80.4-96.6	153	89.2	83.8-94.5
35-44	76	93.2	86.9-99.4	24	91.2	80.6-100.0	100	92.8	87.3-98.2
45-54	75	90.5	80.5-100.0	30	69.0	50.3-87.6	105	87.0	78.1-95.9
55-64	66	76.8	61.3-92.3	17	71.4	46.4-96.5	83	76.0	62.1-89.9
15-64	**375**	**86.9**	**82.7-91.0**	**148**	**81.5**	**74.5-88.5**	**523**	**85.6**	**82.0-89.3**

Analysis Information:

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

INITIATION OF SMOKING

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

Instrument Question:

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

Table 22 shows average age of **'start smoking,'** *in years of smoking, among current daily smokers. The overall mean age at first smoking among current daily smokers was 17.4 years. Men started smoking at an earlier age (17.0 years) than women (19.1 years)*

Table 22

	Mean age started smoking								
Age Group (years)	Men			Women			Both Sexes		
	N	Mean age	95% CI	n	Mean age	95% CI	n	Mean age	95% CI
15-24	42	15.4	14.7-16.1	18	17.1	16.2-18.1	60	15.9	15.4-16.5
25-34	85	16.2	15.4-17.1	42	18.8	17.3-20.2	127	16.9	16.2-17.7
35-44	69	17.6	16.4-18.7	20	20.9	16.3-25.5	89	18.2	16.9-19.5
45-54	68	16.9	15.9-18.0	17	18.4	15.0-21.9	85	17.1	16.1-18.1
55-64	54	20.3	14.1-26.5	12	24.7	17.7-31.7	66	20.9	15.6-26.3
15-64	**318**	**17.0**	**16.2-17.8**	**109**	**19.1**	**17.8-20.4**	**427**	**17.4**	**16.7-18.2**

Table 23 shows the mean duration of smoking, the overall mean duration was 19.3 years. However the mean smoking duration was higher in men (20.8 years) than for women (13.8 years). The data suggests that those who initiated smoking at an early age maintained this practice throughout the age groups.

Table 23

	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
15-24	42	5.0	4.1-6.0	18	3.9	2.7-5.2	60	4.7	4.0-5.5
25-34	85	12.7	11.8-13.5	42	10.5	9.4-11.6	127	12.0	11.3-12.7
35-44	69	21.9	20.4-23.4	20	18.1	12.9-23.4	89	21.2	19.6-22.8
45-54	68	32.5	31.3-33.7	17	30.9	27.3-34.5	85	32.3	31.2-33.5
55-64	54	39.0	32.6-45.3	12	34.1	26.3-41.9	66	38.3	32.8-43.8
15-64	318	20.8	19.2-22.4	109	13.8	11.6-16.0	427	19.3	17.9-20.7

Analysis Information:

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

MANUFACTURED CIGARETTE SMOKERS

Description: *Percentage of smokers who use manufactured cigarettes among daily smokers.*

Instrument Question:

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

Table 24 shows percentage of smokers using manufactured cigarettes among daily smokers. The proportion who smoked manufactured cigarettes was 95.6% of all respondents, with both men and women tending to use manufactured cigarettes (95.4% compared with 96.5% respectively). Manufactured cigarettes were commonly used with the same pattern of consumption among all age groups for both men and women.

Table 24

	Manufactured cigarette smokers among daily smokers								
	Men			**Women**			**Both Sexes**		
Age Group (years)	N	% Manu-factured cigarette smoker	95% CI	n	% Manu-factured cigarette smoker	95% CI	n	% Manu-factured cigarette smoker	95% CI
15-24	44	94.7	88.5-100.0	19	97.3	91.9-100.0	63	95.4	90.8-100.0
25-34	89	93.2	87.4-98.9	44	92.7	84.0-100.0	133	93.0	88.2-97.9
35-44	70	96.7	92.7-100.0	21	100.0	100.0-100.0	91	97.3	94.1-100.0
45-54	70	96.3	91.2-100.0	20	100.0	100.0-100.0	90	96.8	92.3-100.0
55-64	55	98.1	95.5-100.0	13	100.0	100.0-100.0	68	98.4	96.2-100.0
15-64	**328**	**95.4**	**93.0-97.9**	**117**	**96.5**	**92.7-100.0**	**445**	**95.6**	**93.6-97.7**

Analysis Information:

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

AMOUNT OF TOBACCO USED AMONG SMOKERS BY TYPE

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

Instrument Question:
- *On average, how many of the following do you smoke each day?*

Percentage Of Smokers Using Manufactured Cigarettes (Among Daily Smokers)

Tables 25,26,27 show mean amount of tobacco used by daily smokers and by type. The overall mean number of manufactured cigarettes used by the daily smokers was 11.5 cigarettes per day being slightly higher among men (12.2) than among women (9.1). However, there was a fluctuating trend within a small range of the mean number of manufactured cigarettes used, as the age increases.

Men tended to smoke hand rolled cigarettes more than women (0.5 compared with 0.2 cigarettes per day). Rolled cigarettes were mainly smoked by men in the age group (55-64) year, as compared to the youngest age groups among women. Smoking tobacco with pipes was again reported as highest among men in the 55-64 age-group (1.9%), but only reported in the two youngest age groups among women (0.3%). The highest proportion reported manufactured cigarettes (11.5), whilst all other forms of using tobacco added to 1.1.

Table 25

Mean amount of tobacco used by daily smokers by type												
Men												
Age Group (years)	n	Mean # of manu-factured cig.	95% CI	n	Mean #of hand-rolled cig.	95% CI	n	Mean # of pipes of tobacco	95% CI	n	Mean # of other type of tobacco	95% CI
15-24	42	9.3	7.4-11.3	42	0.3	0.0-0.5	42	0.0	0.0-0.0	42	0.0	0.0-0.0
25-34	83	12.0	10.0-13.9	88	0.4	0.0-0.9	88	0.0	0.0-0.0	88	0.0	0.0-0.0
35-44	68	13.3	11.4-15.2	69	0.4	0.1-0.8	69	0.0	0.0-0.0	69	0.6	0.0-1.2
45-54	69	12.4	10.9-13.9	69	0.3	0.0-0.5	70	0.1	0.0-0.3	68	0.5	0.0-1.2
55-64	53	14.5	11.2-17.9	53	1.9	0.0-5.6	54	1.9	0.0-5.5	53	1.2	0.0-3.4
15-64	**315**	**12.2**	**11.3-13.1**	**321**	**0.5**	**0.1-0.9**	**323**	**0.2**	**0.0-0.6**	**320**	**0.4**	**0.1-0.7**

Table 26

Mean amount of tobacco used by daily smokers by type

Women

Age Group (years)	n	Mean # of manu-factured cig.	95% CI	n	Mean #of hand-rolled cig.	95% CI	n	Mean # of pipes of tobacco	95% CI	n	Mean # of other type of tobacco	95% CI
15-24	18	7.7	4.8-10.6	19	0.3	0.0-0.7	19	0.3	0.0-0.7	19	0.0	0.0-0.0
25-34	41	8.6	6.3-10.9	42	0.3	0.0-0.8	42	0.3	0.0-0.8	42	1.3	0.0-0.0
35-44	21	12.2	8.3-16.0	21	0.0	0.0-0.1	21	0.0	0.0-0.1	21	0.2	0.0-0.7
45-54	20	8.5	5.8-11.3	20	0.0	0.0-0.0	20	0.0	0.0-0.0	20	0.5	0.0-1.5
55-64	13	9.7	6.3-13.1	13	0.0	0.0-0.0	13	0.0	0.0-0.0	13	0.0	0.0-0.0
15-64	**113**	**9.1**	**7.7-10.5**	**115**	**0.2**	**0.0-0.4**	**115**	**0.2**	**0.0-0.4**	**115**	**0.6**	**0.0-0.0**

Table 27

Mean amount of tobacco used by daily smokers by type

Both Sexes

Age Group (years)	n	Mean # of manu-factured cig.	95% CI	n	Mean #of hand-rolled cig.	95% CI	n	Mean # of pipes of tobacco	95% CI	n	Mean # of other type of tobacco	95% CI
15-24	60	8.9	7.3-10.5	61	0.3	0.1-0.5	61	0.0	0.0-0.0	61	0.0	0.0-0.0
25-34	124	11.0	9.4-12.6	130	0.4	0.1-0.7	130	0.0	0.0-0.0	130	0.4	0.0-1.0
35-44	89	13.1	11.4-14.8	90	0.3	0.1-0.6	90	0.0	0.0-0.0	90	0.5	0.0-1.0
45-54	89	11.9	10.6-13.2	89	0.2	0.0-0.5	90	0.1	0.0-0.2	88	0.5	0.0-1.1
55-64	66	13.8	11.0-16.7	66	1.6	0.0-4.8	67	1.6	0.0-4.7	66	1.1	0.0-2.9
15-64	**428**	**11.5**	**10.7-12.3**	**436**	**0.5**	**0.1-0.8**	**438**	**0.2**	**0.0-0.5**	**435**	**0.4**	**0.1-0.7**

Analysis Information:

- *Questions used: T1, T2, T5a-other*
- *Epi Info program name: Tsmoketype (unweighted); TsmoketypeWT (weighted)*
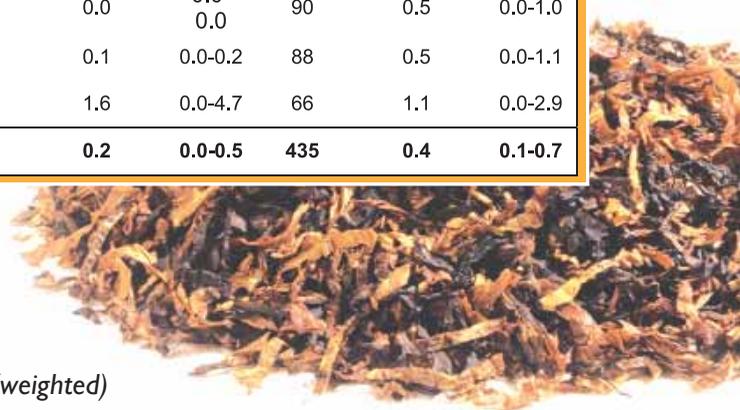
PERCENTAGE OF EX DAILY SMOKERS IN THE POPULATION

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

Instrument Question:

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

Tables 28, 29 show percentage of ex-daily smokers and the mean duration in years since they quit 'daily smoking.' The overall proportion of ex-daily smokers was 6.7%. A higher proportion of men (10.1%) were observed in comparison with women (3.5%). The percentage of 'ex-daily smokers' increased considerably with increasing age, with men reporting 3.9% in the youngest age group to 25.1% in the oldest. Women ranged from 1.7% to 5.3% from the youngest to the oldest.

Concerning the duration since quitting daily smoking, it was found that the overall mean duration was 20.0 years with gender difference (19.8 years for men and 20.4 years for women). An increasing trend in the mean duration of quitting daily smoking was noticed as the age advances for both male and female.

Table 28

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
15-24	232	3.9	1.5-6.3	268	1.7	0.2-3.1	500	2.7	1.3-4.2
25-34	243	7.7	4.3-11.1	351	4.5	1.9-7.0	594	5.9	3.9-7.9
35-44	237	6.6	3.0-10.3	300	3.7	1.3-6.2	537	5.2	2.9-7.4
45-54	211	16.2	1.6-30.8	360	3.7	1.4-5.9	571	10.2	2.0-18.4
55-64	190	25.1	16.9-33.3	331	5.3	2.5-8.1	521	15.2	10.7-19.7
15-64	**1113**	**10.1**	**6.7-13.6**	**1610**	**3.5**	**2.4-4.6**	**2723**	**6.7**	**4.9-8.5**

Table 29

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	10.1	8.7-11.4	5	10.5	9.2-11.8	13	10.3	9.3-11.2
35-44	8	13.3	10.6-15.9	6	18.9	16.2-21.6	14	16.0	13.3-18.6
45-54	15	21.4	15.8-27.0	9	25.8	23.8-27.8	24	22.7	18.7-26.8
55-64	27	24.2	20.2-28.1	12	27.0	19.3-34.6	39	24.7	21.3-28.1
25-64	**58**	**19.8**	**17.3-22.4**	**32**	**20.4**	**16.8-24.0**	**90**	**20.0**	**17.9-22.1**

Analysis Information:

- *Questions used: T2, T6, T7, T8a-c*
- *Epi Info program name: Tsmokeexdaily (unweighted); TsmokeexdailyWT (weighted)*

CURRENT USERS OF SMOKELESS TOBACCO

Description: *Percentage of current users of smokeless tobacco among all respondents.*

Instrument Question:

- *Do you currently use any smokeless tobacco such as snuff, chewing tobacco, betel?*

Table 30 shows the distribution of the respondents according to current users of 'smokeless tobacco' status. The total proportion of current users of smokeless tobacco was 0.4%, with men (0.5%) whilst that of women (0.3%). The highest percentage in men 1.4% was in the 45-54 age-group, and in women was 0.8% in the 35-44 age group.

Table 30

		Current users of smokeless tobacco							
	Men			**Women**			**Both Sexes**		
Age Group (years)	N	% Current users	95% CI	n	% Current users	95% CI	n	% Current users	95% CI
15-24	232	0.5	0.0-1.4	268	0.4	0.0-1.1	500	0.4	0.0-1.0
25-34	243	0.0	0.0-0.0	351	0.0	0.0-0.0	594	0.0	0.0-0.0
35-44	237	0.2	0.0-0.6	300	0.8	0.0-1.7	537	0.5	0.0-1.0
45-54	211	1.4	0.0-3.5	360	0.0	0.0-0.0	571	0.7	0.0-1.8
55-64	190	0.0	0.0-0.0	331	0.0	0.0-0.0	521	0.0	0.0-0.0
15-64	**1113**	**0.5**	**0.0-0.9**	**1610**	**0.3**	**0.0-0.5**	**2723**	**0.4**	**0.1-0.6**

Analysis Information:

- *Questions used: T9, T10*
- *Epi Info program name: Tsmokelessstatus (unweighted); TsmokelessstatusWT (weighted)*

SMOKELESS TOBACCO USE

Description: *Status of using smokeless tobacco among all respondents.*

Instrument Question:

- *Do you currently use any smokeless tobacco such as [snuff, chewing tobacco, betel]?*
- *Do you currently use smokeless tobacco products daily?*

Tables 31,32,33 show that the majority (99.6%) do not use smokeless tobacco, whilst 0.4%, males (0.1%) and females (0.3%) used smokeless tobacco in the past among the ex-daily users of smokeless tobacco.

Table 31

Smokeless tobacco use							
	Men						
Age Group (years)			**Current user**			**% Does not use smokeless tobacco**	**95% CI**
	n	% Daily	95% CI	% Non-daily	95% CI		
15-24	232	0	0-0	0.5	0.0-1.4	99.5	98.6-100.0
25-34	243	0	0-0	0.0	0.0-0.0	100.0	100.0-100.0
35-44	237	0	0-0	0.2	0.0-0.6	99.8	99.4-100.0
45-54	211	0	0-0	1.4	0.0-3.5	98.6	96.5-100.0
55-64	190	0	0-0	0.0	0.0-0.0	100.0	100.0-100.0
15-64	**1113**	0	0-0	**0.5**	**0.0-0.9**	**99.5**	**99.1-100.0**

Table 32

Smokeless tobacco use							
	Women						
Age Group (years)			**Current user**			**% Does not use smokeless tobacco**	**95% CI**
	n	% Daily	95% CI	% Non-daily	95% CI		
15-24	268	0.4	0.0-1.1	0.0	0.0-0.0	99.6	98.9-100.0
25-34	351	0.0	0.0-0.0	0.0	0.0-0.0	100.0	100.0-100.0
35-44	300	0.5	0.0-1.2	0.3	0.0-0.9	99.2	98.3-100.0
45-54	360	0.0	0.0-0.0	0.0	0.0-0.0	100.0	100.0-100.0
55-64	331	0.0	0.0-0.0	0.0	0.0-0.0	100.0	100.0-100.0
15-64	**1610**	**0.2**	**0.0-0.4**	**0.1**	**0.0-0.2**	**99.7**	**99.5-100.0**

Table 33

Smokeless tobacco use							
	Both Sexes						
Age Group (years)			**Current user**			**% Does not use smokeless tobacco**	**95% CI**
	n	% Daily	95% CI	% Non-daily	95% CI		
15-24	500	0.2	0.0-0.6	0.2	0.0-0.7	99.6	99.0-100.0
25-34	594	0.0	0.0-0.0	0.0	0.0-0.0	100.0	100.0-100.0
35-44	537	0.2	0.0-0.6	0.3	0.0-0.6	99.5	99.0-100.0
45-54	571	0.0	0.0-0.0	0.7	0.0-1.8	99.3	98.2-100.0
55-64	521	0.0	0.0-0.0	0.0	0.0-0.0	100.0	100.0-100.0
15-64	**2723**	**0.1**	**0.0-0.2**	**0.3**	**0.0-0.5**	**99.6**	**99.4-99.9**

Analysis Information:

- *Questions used: T9, T10*

- *Epi Info program name: Tsmokelessstatus (unweighted); TsmokelessstatusWT (weighted)*

PERCENTAGE OF EX DAILY USERS OF SMOKELESS TOBACCO IN THE POPULATION

Description: *Percentage of ex-daily users of smokeless tobacco among all respondents.*

Instrument Question:

- *In the past, did you ever use smokeless tobacco such as snuff, chewing tobacco, betel daily?*

Table 34 shows that an average of 0.4%, same for males and females, used smokeless tobacco in the past.

Table 34

		Ex-daily smokeless tobacco users							
	Men			**Women**			**Both Sexes**		
Age Group (years)	n	% Ex daily users	95% CI	n	% Ex daily users	95% CI	n	% Ex daily users	95% CI
15-24	232	0.0	0.0-0.0	267	0.6	0.0-1.4	499	0.3	0.0-0.7
25-34	243	0.5	0.0-1.3	351	0.0	0.0-0.0	594	0.2	0.0-0.6
35-44	237	1.0	0.0-2.4	300	1.0	0.0-2.3	537	1.0	0.1-1.9
45-54	211	0.2	0.0-0.6	360	0.0	0.0-0.0	571	0.1	0.0-0.3
55-64	190	0.7	0.0-2.2	331	0.1	0.0-0.4	521	0.4	0.0-1.2
25-64	**1113**	**0.4**	**0.1-0.8**	**1609**	**0.4**	**0.0-0.7**	**2722**	**0.4**	**0.2-0.7**

Analysis Information:

- *Questions used: T9, T10, T12*
- *Epi Info program name: Tsmokelessexdaily (unweighted); TsmokelessexdailyWT (weighted)*

CURRENT TOBACCO USERS

Description: *Percentage of daily and current (daily plus non-daily) tobacco users, includes smoking and smokeless, among all respondents.*

Instrument Question:

- *Do you currently smoke tobacco products daily?*
- *Do you currently use smokeless tobacco products daily?*

Table 35 shows the percentage of daily and current (daily plus non-daily) tobacco users averaged 18.1%. The proportion of daily tobacco users among men (29.1%) was over three folds than that reported for women (7.8%).

Regarding age groups, for both sexes, among all daily tobacco users it is noticed that the highest rate was among 25-34 years old (24.5%) followed by 45-54 years old (20.0%). There was a fluctuating trend with the proportion of 'daily smoking' among the age groups.

Table 35

	Daily tobacco users								
	Men			**Women**			**Both Sexes**		
Age Group (years)	n	% Daily users	95% CI	n	% Daily users	95% CI	n	% Daily users	95% CI
15-24	232	17.9	12.0-23.8	268	7.1	3.6-10.5	500	12.2	8.9-15.6
25-34	243	38.6	31.3-45.9	351	12.7	8.5-16.8	594	24.5	20.3-28.7
35-44	237	31.1	24.1-38.1	300	6.6	3.5-9.8	537	18.5	14.4-22.6
45-54	211	33.3	24.8-41.9	360	5.4	2.7-8.1	571	20.0	15.3-24.7
55-64	190	26.7	19.5-33.9	331	4.4	1.8-7.1	521	15.5	11.6-19.4
25-64	**1113**	**29.1**	**25.7-32.5**	**1610**	**7.8**	**6.1-9.4**	**2723**	**18.1**	**16.2-20.0**

Table 36 shows the percentage of current daily tobacco users. The overall proportion of current tobacco users was (21.2%), with men reporting 33.5%, approximately three and a half folds than that for women (9.6%).

Regarding age specific current tobacco users rate, it is reported that the highest rate was among 25-34 years old (27.4%) followed by 45-54 years old (23.0%). The highest proportion of men was reported among the 25 – 34 year age group, followed by the 45-54 year group. For women the highest proportion was reported among the 25-34 year old age group, followed by the 15 - 24 age group.

Table 36

	Current tobacco users								
	Men			**Women**			**Both Sexes**		
Age Group (years)	n	% Current users	95% CI	n	% Current users	95% CI	n	% Current users	95% CI
15-24	232	22.9	16.5-29.4	268	9.3	5.4-13.2	500	15.8	12.0-19.5
25-34	243	43.2	35.8-50.6	351	14.3	10.0-18.6	594	27.4	23.1-31.8
35-44	237	33.4	26.4-40.4	300	7.6	4.3-10.9	537	20.1	15.9-24.3
45-54	211	36.8	27.7-46.0	360	7.9	4.7-11.0	571	23.0	18.0-28.0
55-64	190	34.8	26.5-43.0	331	6.2	3.1-9.4	521	20.4	15.7-25.2
15-64	**1113**	**33.5**	**29.8-37.3**	**1610**	**9.6**	**7.8-11.3**	**2723**	**21.2**	**19.0-23.3**

Analysis Information:

- Questions used: T1, T2, T9, T10
- Epi Info program name: Tdailyuser (unweighted); TdailyuserWT (weighted)

EXPOSURE TO ETS IN HOME IN PAST 7 DAYS

Description: *Percentage of daily and current (daily plus non-daily) tobacco users, includes smoking and smokeless, among all respondents.*

Instrument Question:

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

Table 37 shows percentage of respondents exposed to environmental tobacco smoke in the home one or more days in the past 7 days. The results showed that generally the proportion of respondents exposed to ETS at 'home' was 17.8%. The proportion of exposure among women (20.1%) was higher than men (15.3%). However, men had a higher proportion of exposure than women in the 15-24 and 25-34 year age groups, (20.4% vs 17.2%) and (25.3% vs 23.1%) respectively.

Table 37

Exposed to ETS in home on 1 or more of the past 7 days								
Age Group (years)	Men			Women			Both Sexes		
	N	% Exposed	95% CI	n	% Exposed	95% CI	n	% Exposed	95% CI
15-24	231	20.4	14.4-26.4	259	17.2	11.8-22.6	490	18.7	14.6-22.9
25-34	241	25.3	17.9-32.7	350	23.1	17.4-28.7	591	24.1	19.4-28.8
35-44	233	8.5	4.6-12.5	299	19.9	14.3-25.5	532	14.4	10.9-17.9
45-54	200	8.5	4.1-12.9	358	20.2	15.1-25.3	558	14.2	10.6-17.8
55-64	187	8.0	3.9-12.1	329	20.5	14.8-26.2	516	14.3	10.7-18.0
15-64	**1092**	**15.3**	**12.4-18.2**	**1595**	**20.1**	**17.2-23.0**	**2687**	**17.8**	**15.6-19.9**

Analysis Information:

- *Questions used: T13*
- *Epi Info program name: Tetshome (unweighted); TetshomeWT (weighted)*

EXPOSURE TO ETS IN THE WORKPLACE IN PAST 7 DAYS

Description: *Percentage of respondents exposed to environmental tobacco smoke in the workplace on one or more days in the past 7 days.*

Instrument Question:

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

Table 38 shows percentage of respondents exposed to environmental tobacco smoke in the workplace on one or more of the past 7 days. The results showed that overall the proportion of respondents exposed to ETS in the work place was 16.7%, with men reporting a higher proportion (21.2%) when compared to women with (12.6%). Both sexes reported the highest proportion in the 25-34 age-group.

Table 38

Age Group (years)	Men			Women			Both Sexes		
	Exposed to ETS in the workplace on 1 or more of the past 7 days								
	N	% Exposed	95% CI	n	% Exposed	95% CI	n	% Exposed	95% CI
15-24	213	23.9	17.2-30.6	233	8.4	4.8-12.1	446	16.0	12.0-19.9
25-34	205	25.6	18.0-33.2	329	20.2	14.3-26.0	534	22.5	17.4-27.6
35-44	225	23.7	17.0-30.5	284	13.4	8.0-18.7	509	18.4	14.0-22.8
45-54	183	11.5	5.8-17.2	337	11.0	6.9-15.0	520	11.2	7.7-14.8
55-64	166	17.9	10.2-25.7	296	6.2	3.1-9.3	462	12.0	7.7-16.2
15-64	**992**	**21.2**	**17.6-24.7**	**1479**	**12.6**	**10.2-14.9**	**2471**	**16.7**	**14.3-19.0**

Analysis Information:

- *Questions used: T14*

- *Epi Info program name: Tetswork (unweighted); TetsworkWT (weighted)*

Alcohol Consumption

ALCOHOL CONSUMPTION STATUS

Description: *Alcohol consumption status of all respondents.*

Instrument Question:

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

Prevalence Of Alcohol Consumption

Table 39

	Alcohol consumption status								
	Men								
Age Group (years)	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
15-24	231	42.0	34.6-49.4	17.5	11.8-23.2	10.4	5.7-15.0	30.1	22.6-37.7
25-34	243	60.2	53.1-67.3	18.7	13.1-24.2	4.5	2.0-7.0	16.6	10.6-22.6
35-44	235	54.3	46.9-61.7	10.7	6.0-15.5	13.2	8.1-18.4	21.7	15.3-28.1
45-54	201	50.3	38.1-62.6	9.6	4.9-14.3	12.6	6.8-18.4	27.6	13.4-41.8
55-64	189	46.3	37.7-54.9	16.3	9.0-23.7	23.2	15.7-30.6	14.2	8.3-20.1
15-64	**1099**	**50.6**	**46.5-54.7**	**14.7**	**12.1-17.2**	**11.6**	**9.3-13.9**	**23.1**	**18.5-27.8**

Table 40

	Alcohol consumption status								
	Women								
Age Group (years)	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
15-24	262	26.8	20.3-33.3	22.5	16.5-28.5	9.9	5.8-14.0	40.8	33.4-48.1
25-34	351	41.8	35.2-48.4	21.1	16.0-26.2	12.4	8.4-16.3	24.7	17.9-31.6
35-44	299	30.4	24.6-36.2	15.9	11.3-20.6	16.4	11.2-21.6	37.3	30.5-44.0
45-54	360	27.5	21.6-33.3	15.3	10.8-19.8	17.5	12.1-22.8	39.8	33.7-45.9
55-64	330	22.9	17.7-28.0	13.5	9.0-18.0	23.8	18.1-29.6	39.8	33.0-46.6
15-64	**1602**	**30.9**	**27.8-34.0**	**18.6**	**15.9-21.2**	**14.7**	**12.3-17.1**	**35.9**	**32.0-39.8**

Table 41

	Alcohol consumption status								
	Both Sexes								
Age Group (years)	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
15-24	493	34.1	29.1-39.1	20.1	15.8-24.4	10.1	7.0-13.2	35.7	30.0-41.4
25-34	594	50.2	45.1-55.3	20.0	16.4-23.6	8.8	6.2-11.4	21.0	16.4-25.7
35-44	534	42.0	37.1-46.9	13.4	10.0-16.8	14.9	11.2-18.6	29.7	24.6-34.8
45-54	561	39.2	32.4-46.0	12.4	9.0-15.7	14.9	10.7-19.2	33.5	25.5-41.5
55-64	519	34.5	29.3-39.8	14.9	10.6-19.3	23.5	18.6-28.4	27.1	21.9-32.3
15-64	**2701**	**40.4**	**37.6-43.2**	**16.7**	**14.8-18.6**	**13.2**	**11.3-15.0**	**29.7**	**26.2-33.3**

Analysis Information:

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

FREQUENCY OF ALCOHOL CONSUMPTION

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

Instrument Question:

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

Frequency Of Alcohol Consumption In The Past 12 Months

Tables 42,43,44 show the frequency of alcohol consumption in the last year. Approximately 2.0 % of the respondents consumed alcohol daily in the last year (3.3% of men and 0.2% of women, over sixteen times more men than women). Regarding alcohol consumption, 30.3% consumed alcohol 1-3 days per month (33.3% for men and 26.6% for women), followed by 18.5% who consumed alcohol 1-4 days per week (25.2% for men and 10.0% for women), and 2.2% consuming 5-6 days per week (2.9% for men and 1.3% for women). Overall about 47.1% of the drinkers consumed alcohol less than once a month (35.3% for men and 61.8% for women).

Table 42

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
15-24	141	0.0	0.0-0.0	0.6	0.0-1.5	18.3	10.6-26.0	33.9	25.1-42.8	47.2	37.7-56.7
25-34	186	5.8	1.7-10.0	2.5	0.0-5.0	27.4	19.8-35.0	32.5	23.7-41.3	31.8	23.6-39.9
35-44	152	3.2	0.2-6.2	3.2	0.0-6.4	27.0	19.4-34.7	34.3	25.4-43.2	32.2	23.4-40.9
45-54	124	2.5	0.1-4.8	7.3	0.0-16.7	28.1	18.1-38.0	33.0	22.3-43.7	29.2	20.6-37.8
55-64	117	6.4	1.7-11.1	0.8	0.0-1.9	27.4	17.4-37.5	32.4	21.5-43.4	33.0	23.1-42.8
15-64	**720**	**3.3**	**1.9-4.8**	**2.9**	**0.8-4.9**	**25.2**	**21.2-29.3**	**33.3**	**29.0-37.6**	**35.3**	**31.1-39.4**

Table 43

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
15-24	129	0.0	0.0-0.0	1.6	0.0-4.0	11.1	3.7-18.4	17.4	10.4-24.5	70.0	60.7-79.2
25-34	208	0.2	0.0-0.6	1.9	0.2-3.6	9.6	5.0-14.2	30.8	23.8-37.8	57.5	50.0-65.0
35-44	138	0.0	0.0-0.0	1.4	0.0-4.3	11.6	6.1-17.0	32.6	23.4-41.9	54.4	44.7-64.0
45-54	152	1.0	0.0-2.1	0.3	0.0-1.0	8.4	3.4-13.3	25.7	17.2-34.2	64.6	55.3-74.0
55-64	116	0.0	0.0-0.0	0.0	0.0-0.0	7.3	1.7-12.9	28.7	18.9-38.5	64.0	53.5-74.4
15-64	**743**	**0.2**	**0.0-0.4**	**1.3**	**0.3-2.3**	**10.0**	**7.3-12.7**	**26.6**	**22.8-30.5**	**61.8**	**57.2-66.4**

Table 44

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
15-24	270	0.0	0.0-0.0	1.1	0.0-2.3	14.9	9.5-20.2	26.2	20.4-31.9	57.9	51.3-64.5
25-34	394	3.1	0.9-5.3	2.2	0.7-3.7	18.7	14.4-23.1	31.7	26.0-37.4	44.3	38.2-50.3
35-44	290	1.9	0.1-3.6	2.5	0.3-4.7	20.5	15.6-25.4	33.6	27.0-40.3	41.5	34.5-48.5
45-54	276	1.9	0.4-3.3	4.5	0.0-10.4	20.2	14.1-26.2	30.1	22.8-37.3	43.4	36.2-50.6
55-64	233	4.0	1.1-6.9	0.5	0.0-1.2	20.0	13.3-26.7	31.0	23.6-38.5	44.5	36.9-52.0
15-64	**1463**	**2.0**	**1.2-2.7**	**2.2**	**1.0-3.4**	**18.5**	**15.9-21.1**	**30.3**	**27.4-33.3**	**47.1**	**43.6-50.5**

DRINKING OCCASIONS IN THE PAST 30 DAYS

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

Instrument Question:

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

Frequency Of Alcohol Consumption In The Past 12 Months

Table 45 shows mean number of occasions with at least one drink in the past 30 days among current drinkers. The overall mean number of drinking occasions with at least one drink in the past 30 days was 3.9 with men reporting almost twice the mean number of drinking occasions (4.7) when compared to women (2.7). The mean number of drinks for men increased as the age group increases, whilst it generally decreased for women.

Table 45											
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
15-24	96	3.7	2.8-4.6		66	3.0	2.1-4.0		162	3.4	2.8-4.1
25-34	135	4.8	3.9-5.7		136	2.7	2.3-3.2		271	3.8	3.3-4.3
35-44	127	4.2	3.4-5.1		94	2.6	2.0-3.1		221	3.6	3.1-4.2
45-54	101	5.1	3.9-6.3		93	2.7	2.1-3.2		194	4.3	3.5-5.1
55-64	92	7.0	5.2-8.7		72	2.1	1.6-2.6		164	5.4	4.1-6.6
15-64	**551**	**4.7**	**4.2-5.2**		**461**	**2.7**	**2.4-3.0**		**1012**	**3.9**	**3.6-4.2**

Analysis Information:

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

STANDARD DRINKS PER DRINKING DAY

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

Instrument Question:

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

Table 46 shows mean number of standard drinks per drinking occasion among current (past 30 days) drinkers. The overall mean number of drinks was 4.1, with men having a higher mean number of drinks (5.0) than women (3.0). The pattern of consumption of standard drinks fluctuated among the different age groups for both sexes.

Table 46

Age Group (years)	Men				Women				Both Sexes		
	n	Mean	95% CI		n	Mean	95% CI		n	Mean	95% CI
15-24	94	5.0	4.0-5.9		69	3.2	2.6-3.9		163	4.2	3.6-4.9
25-34	134	4.5	3.9-5.2		136	3.0	2.6-3.5		270	3.8	3.4-4.2
35-44	124	4.6	3.6-5.6		97	2.8	2.4-3.2		221	3.9	3.3-4.6
45-54	102	6.6	4.5-8.8		93	3.1	2.5-3.7		195	5.4	3.9-7.0
55-64	92	3.6	2.9-4.4		72	2.0	1.7-2.3		164	3.1	2.6-3.6
15-64	**546**	**5.0**	**4.3-5.6**		**467**	**3.0**	**2.7-3.2**		**1013**	**4.1**	**3.7-4.6**

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

Analysis Information:

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

AVERAGE VOLUME DRINKING CATEGORIES AMONG ALL RESPONDENTS

Description: *Percentage of respondents engaging in category II and category III drinking.*

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

Instrument Question:

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

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

Table 47 shows that overall 0.7% of respondents (1.3% for men and 0.2% for women) had at least one alcoholic drink of Category III which is defined as drinking ≥60g of pure alcohol on average per day for men and ≥40 g for women.

Table 47

Category III drinking among all respondents										
	Men				Women				Both Sexes	
Age Group (years)	n	% Category III	95% CI		n	% Category III	95% CI		n	% Category III	95% CI
15-24	223	1.6	0.0-3.2		259	0.6	0.0-1.7		482	1.1	0.1-2.0
25-34	226	1.0	0.0-2.0		348	0.1	0.0-0.4		574	0.5	0.1-1.0
35-44	230	1.3	0.0-2.7		296	0.0	0.0-0.0		526	0.6	0.0-1.3
45-54	200	2.1	0.0-4.5		357	0.1	0.0-0.4		557	1.2	0.0-2.4
55-64	187	0.0	0.0-0.0		329	0.0	0.0-0.0		516	0.0	0.0-0.0
15-64	**1066**	**1.3**	**0.6-2.0**		**1589**	**0.2**	**0.0-0.5**		**2655**	**0.7**	**0.4-1.1**

Table 48 shows that half percent (0.5%) of respondents (0.6% for men and 0.4% for women) had at least one alcoholic drink of category II, which is defined as drinking 40-59.9g of pure alcohol on average per day for men and 20-39.9g for women. Generally this pattern of consumption fluctuated across the age groups.

Table 48

Category II drinking among all respondents										
	Men				Women				Both Sexes	
Age Group (years)	n	% Category II	95% CI		N	% Category II	95% CI		n	% Category II	95% CI
15-24	223	1.2	0.0-2.9		259	0.6	0.0-1.4		482	0.9	0.0-1.8
25-34	226	1.2	0.0-3.2		348	0.5	0.0-1.2		574	0.8	0.0-1.8
35-44	230	0.0	0.0-0.0		296	0.0	0.0-0.0		526	0.0	0.0-0.0
45-54	200	0.0	0.0-0.0		357	0.5	0.0-1.6		557	0.3	0.0-0.8
55-64	187	0.5	0.0-1.5		329	0.3	0.0-0.7		516	0.4	0.0-0.9
15-64	**1066**	**0.6**	**0.0-1.3**		**1589**	**0.4**	**0.1-0.7**		**2655**	**0.5**	**0.1-0.9**

Analysis Information:

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

AVERAGE VOLUME DRINKING CATEGORIES AMONG CURRENT (PAST 30 DAYS) DRINKERS

Description: *Percentage of current (last 30 days) drinker engaging in category I, category II and category III drinking.*

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

Instrument Question:

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

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

Tables 49 & 50 show that generally 96.0% of respondents are category I drinkers which is defined as drinking <40g of pure alcohol on average per day for men and <20g for women. However, in category III, males lead with 2.7%, four-fold times when compared to females with 0.7%. Both male and female reported 1.3% consumption in category II, which is defined as drinking 40-59.9g of pure alcohol on average per day for men and 20-39.9g for women.

Table 49

Age Group (years)	Category I, II and III drinking among current (past 30 days) drinkers						
	Men						
	n	% Category III	95% CI	% Category II	95% CI	% Category I	95% CI
15-24	93	3.8	0.0-7.7	2.9	0.0-7.1	93.2	87.6-98.8
25-34	130	1.7	0.0-3.4	2.2	0.0-5.5	96.1	92.4-99.8
35-44	124	2.4	0.0-5.1	0.0	0.0-0.0	97.6	94.9-100.0
45-54	101	4.3	0.0-8.9	0.0	0.0-0.0	95.7	91.1-100.0
55-64	91	0.0	0.0-0.0	1.1	0.0-3.2	98.9	96.8-100.0
15-64	**539**	**2.7**	**1.2-4.1**	**1.3**	**0.0-2.6**	**96.0**	**94.1-98.0**

Table 50

Age Group (years)	Category I, II and III drinking among current (past 30 days) drinkers						
	Women						
	n	% Category III	95% CI	% Category II	95% CI	% Category I	95% CI
15-24	66	2.2	0.0-6.4	2.2	0.0-5.5	95.6	90.4-100.0
25-34	136	0.3	0.0-0.9	1.3	0.0-2.8	98.4	96.8-100.0
35-44	94	0.0	0.0-0.0	0.0	0.0-0.0	100.0	100.0-100.0
45-54	92	0.5	0.0-1.5	2.0	0.0-5.9	97.5	93.5-100.0
55-64	72	0.0	0.0-0.0	1.3	0.0-3.1	98.7	96.9-100.0
15-64	**460**	**0.7**	**0.0-1.7**	**1.3**	**0.2-2.4**	**98.0**	**96.5-99.4**

Analysis Information:

- *Questions used: A1a, A1b, A3, A4, A5*

- *Epi Info program name: Acategories (unweighted); AcategoriesWT (weighted)*

LARGEST NUMBER OF DRINKS IN THE PAST 30 DAYS

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

Instrument Question:

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

3.5.1 Quantity Of Alcohol Consumption

Table 51 shows the mean maximum number of drinks consumed on a single occasion averaged 5.3 for both sexes, with 6.5 for men, being almost twice that for women at 3.6. This pattern decreases from the youngest age group for women (4.1 to 2.3) but fluctuates for men. Respondents in the young age groups, for both male and female, reported higher consumption of alcohol when compared to their older counterparts.

Table 51

	Mean maximum number of drinks consumed on one occasion in the past 30 days									
	Men				Women				Both Sexes		
Age Group (years)	N	Mean maximum number	95% CI		n	Mean maximum number	95% CI		n	Mean maximum number	95% CI
15-24	96	6.7	5.2-8.1		68	4.1	3.3-4.9		164	5.6	4.6-6.5
25-34	134	6.1	5.2-7.0		135	3.3	2.8-3.8		269	4.8	4.2-5.3
35-44	125	6.7	5.2-8.2		95	3.8	2.9-4.6		220	5.6	4.6-6.6
45-54	101	7.7	5.7-9.6		92	3.6	2.8-4.5		193	6.3	4.8-7.8
55-64	90	4.6	3.9-5.4		72	2.3	1.9-2.7		162	3.8	3.3-4.4
15-64	**546**	**6.5**	**5.8-7.2**		**462**	**3.6**	**3.2-3.9**		**1008**	**5.3**	**4.8-5.8**

Analysis Information:

- *Questions used: A1a, A1b, A3, A6*

- *Epi Info program name: Alargestnum (unweighted); AlargestnumWT (weighted)*

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

Instrument Question:

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

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

Table 52 shows percentage of men who had had five or more/women who had four or more drinks on any day in the past 30 days during a single occasion. One third (33.(%) of men consumed five or more drinks, and 16.8% of women had four or more drinks on any day in the past 30 days during a single occasion were 33.9 % for men and 16.8% for women.

Table 52						
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
15-24	231	27.9	21.3-34.4	262	16.7	11.4-22.1
25-34	243	40.1	32.5-47.6	351	21.5	16.3-26.6
35-44	235	34.7	27.8-41.6	299	15.7	11.1-20.3
45-54	201	38.4	27.2-49.7	360	14.9	9.9-19.9
55-64	189	27.1	19.9-34.4	330	11.6	7.4-15.9
15-64	**1099**	**33.9**	**30.2-37.6**	**1602**	**16.8**	**14.2-19.4**

Analysis Information:

- *Questions used: A1a, A1b, A3, A7*

- *Epi Info program name: Aepisodicmen and Aepisodicwomen (unweighted); AepisodicmenWT and AepisodicwomenWT (weighted)*

FIVE/FOUR OR MORE DRINKS ON A SINGLE OCCASION

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

Instrument Question:

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

Table 53 shows the mean number of times in the past 30 days in which males consumed 5 or more drinks during a single occasion and females 4 or more drinks. Regarding the number of times, men reported approximately twice as much as women (2.5 vs 1.3).

Table 53							
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
15-24	99	2.1	1.4-2.8		67	1.4	1.0-1.9
25-34	140	2.7	2.0-3.4		138	1.4	1.0-1.9
35-44	125	2.7	2.0-3.4		96	1.4	0.9-1.9
45-54	100	2.6	1.8-3.3		93	1.1	0.7-1.5
55-64	93	1.9	1.3-2.6		71	0.9	0.6-1.2
15-64	**557**	**2.5**	**2.1-2.8**		**465**	**1.3**	**1.1-1.6**

Analysis Information:

- *Questions used: A1a, A1b, A3, A7*

- *Epi Info program name: Aepisodicmen and Aepisodicwomen (unweighted); AepisodicmenWT and AepisodicwomenWT (weighted)*

DRINKING WITH MEALS

Description: *Percentage of current (past 30 days) drinkers who usually, sometimes, rarely or never drink with meals.*

Instrument Question:

- *During the past 30 days, when you consumed an alcoholic drink, how often was it with meals? Please do not count snacks.*

Tables 54,55,56 show the respondents who drink with meals. For those who usually drink with meals, respondents averaged 26.6% (males 26.0% and females 27.4%). Respondents who rarely drank with meals averaged 13.2% (males 14.6% and females 11.0%). Overall 14.1% sometimes drink with meals. The proportion of those surveyed who 'never drink with meals' was almost similar for males and females (45.6% and 46.9% respectively).

Table 54

Drinking with meals among current drinker									
	Men								
Age Group (years)	n	% Usually with meals	95% CI	% Sometimes with meals	95% CI	% Rarely with meals	95% CI	% Never with meals	95% CI
15-24	101	30.3	18.7-41.9	10.8	1.9-19.6	12.7	5.4-20.1	46.2	34.2-58.2
25-34	146	22.1	14.1-30.0	17.9	9.7-26.0	10.0	4.4-15.6	50.1	39.8-60.4
35-44	129	24.3	14.7-33.9	9.6	3.9-15.3	20.9	13.0-28.9	45.2	34.9-55.4
45-54	102	32.2	16.2-48.3	15.2	6.1-24.3	12.7	5.1-20.3	39.9	26.3-53.5
55-64	93	19.4	9.5-29.2	15.6	6.1-25.1	19.9	11.3-28.5	45.2	33.1-57.3
15-64	**571**	**26.0**	**20.0-32.1**	**13.7**	**9.5-17.9**	**14.6**	**11.1-18.2**	**45.6**	**39.5-51.7**

Table 55

Drinking with meals among current drinker									
	Women								
Age Group (years)	n	% Usually with meals	95% CI	% Sometimes with meals	95% CI	% Rarely with meals	95% CI	% Never with meals	95% CI
15-24	69	25.8	12.6-38.9	30.7	19.0-42.3	13.2	4.5-21.9	30.3	18.5-42.2
25-34	139	25.6	16.3-34.8	4.7	0.8-8.6	9.4	3.0-15.8	60.3	50.1-70.6
35-44	97	29.0	17.9-40.1	17.9	9.8-26.0	9.3	3.3-15.3	43.8	31.8-55.7
45-54	95	33.5	20.4-46.6	8.4	1.1-15.6	8.9	2.2-15.5	49.3	36.1-62.5
55-64	72	24.3	13.7-34.8	11.8	3.2-20.4	19.4	8.2-30.5	44.5	31.8-57.3
15-64	**472**	**27.4**	**21.3-33.5**	**14.7**	**10.5-18.8**	**11.0**	**7.5-14.5**	**46.9**	**40.1-53.8**

Table 56

Age Group (years)	Drinking with meals among current drinker							
	Both Sexes							
	n	% Usually with meals	95% CI	% Sometimes with meals	95% CI	% Rarely with meals	95% CI	% Never with meals	95% CI
15-24	170	28.4	19.6-37.3	18.9	11.3-26.5	12.9	7.4-18.5	39.7	30.7-48.7
25-34	285	23.7	17.5-29.8	11.9	6.8-16.9	9.7	5.5-14.0	54.8	47.3-62.3
35-44	226	26.0	18.8-33.3	12.7	8.0-17.4	16.6	11.1-22.1	44.6	36.5-52.8
45-54	197	32.6	20.9-44.4	12.9	6.4-19.4	11.4	5.7-17.1	43.1	32.3-53.8
55-64	165	21.0	13.1-28.9	14.3	7.4-21.3	19.7	13.1-26.4	45.0	35.4-54.5
15-64	**1043**	**26.6**	**21.8-31.4**	**14.1**	**10.8-17.3**	**13.2**	**10.4-16.0**	**46.2**	**41.1-51.2**

Analysis Information:

● *Questions used: A1a, A1b, A3, A8*

● *Epi Info program name: Ameals (unweighted); AmealsWT (weighted)*

PAST 7 DAYS DRINKING

Description: During each of the past 7 days, how many standard drinks of any alcoholic drink did you have each day?

Instrument Question:

● *During the past 30 days, when you consumed an alcoholic drink, how often was it with meals? Please do not count snacks.*

Tables 57,58,59 show the frequency and quantity of drinks consumed in the past 7 days. For males respondents 34.7% had 5 or more drinks on any day, whilst 11.6% drank on 4 or more days, and 8.0% had 20 or more drinks in the past 7 days. For the females, 20.4% had 4 or more drinks on any day, whilst 5.3% had 15 or more drinks in the last 7 days, and 4.6% drank on 4 or more days. Overall 8.8% of those surveyed drank on 4 or more days.

Table 57

Frequency and quantity of drinks consumed in the past 7 days

Age Group (years)	Men						
	N	% Drank on 4+ days	95% CI	% 5+ drinks on any day	95% CI	% 20+ drinks in 7 days	95% CI
15-24	99	8.8	3.0-14.7	35.6	24.0-47.3	11.1	3.5-18.8
25-34	140	15.0	8.2-21.8	31.5	22.3-40.6	5.0	0.5-9.5
35-44	126	9.8	4.4-15.2	38.5	28.7-48.3	5.5	1.5-9.5
45-54	100	8.6	2.9-14.3	39.9	24.6-55.3	12.6	1.3-23.9
55-64	91	19.0	9.6-28.4	22.8	13.8-31.9	5.4	0.5-10.4
15-64	**556**	**11.6**	**8.5-14.7**	**34.7**	**29.0-40.4**	**8.0**	**4.9-11.2**

Table 58

Frequency and quantity of drinks consumed in the past 7 days

Age Group (years)	Women						
	n	% Drank on 4+ days	95% CI	% 4+ drinks on any day	95% CI	% 15+ drinks in 7 days	95% CI
15-24	68	4.9	0.0-10.2	23.5	10.9-36.2	8.1	1.4-14.8
25-34	139	5.5	1.8-9.2	19.5	12.0-26.9	5.0	1.1-8.9
35-44	97	3.7	0.0-7.5	19.0	10.8-27.2	6.3	0.1-12.6
45-54	95	1.5	0.0-3.2	23.2	12.9-33.4	3.0	0.0-7.8
55-64	71	7.9	0.1-15.8	13.9	3.8-24.0	0.0	0.0-0.0
15-64	**470**	**4.6**	**2.5-6.7**	**20.4**	**16.1-24.8**	**5.3**	**2.9-7.7**

Table 59

Frequency and quantity of drinks consumed in the past 7 days

Age Group (years)	Both Sexes		
	n	% Drank on 4+ days	95% CI
15-24	167	7.2	3.2-11.3
25-34	279	10.6	6.4-14.8
35-44	223	7.5	3.5-11.5
45-54	195	6.1	2.4-9.8
55-64	162	15.3	8.6-22.1
15-64	**1026**	**8.8**	**6.7-10.9**

Analysis Information:

- Questions used: A1a, A1b, A3, A9a-g
- Epi Info program name: Aheavydrinking (unweighted); AheavydrinkingWT (weighted)

Fruit and Vegetable Consumption

MEAN NUMBER OF DAYS OF FRUIT AND VEGETABLE CONSUMPTION

Description: *Mean number of days fruit and vegetables consumed.*

Instrument Question:

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

To assess dietary behaviours, respondents were asked how often they consumed fruit and vegetables in a typical week in the past year. Respondents were shown flash cards with definitions of fruits, vegetables and serving sizes.

Tables 60 & 61 show that the consumption of fruits was the same for both male and female, 3.4 days per week, whilst the consumption of vegetables was 4.5 days per week, again being almost the same for both sexes. Generally the 'mean number of days of fruit and vegetable consumption' increased as age increased.

Table 60

	Men			Women			Both Sexes		
Age Group (years)	n	Mean number of days	95% CI	n	Mean number of days	95% CI	n	Mean number of days	95% CI
15-24	225	2.7	2.4-3.0	261	2.8	2.5-3.2	486	2.8	2.5-3.0
25-34	237	3.1	2.8-3.5	347	2.9	2.6-3.2	584	3.0	2.8-3.2
35-44	234	3.7	3.4-4.1	294	3.9	3.5-4.2	528	3.8	3.6-4.0
45-54	198	4.1	3.4-4.7	356	3.8	3.5-4.1	554	4.0	3.6-4.4
55-64	186	3.8	3.4-4.2	327	4.3	4.0-4.6	513	4.0	3.8-4.3
15-64	**1080**	**3.4**	**3.2-3.6**	**1585**	**3.4**	**3.2-3.5**	**2665**	**3.4**	**3.3-3.5**

Mean number of days fruit consumed in a typical week

Table 61

	Men			Women			Both Sexes		
Age Group (years)	n	Mean number of days	95% CI	n	Mean number of days	95% CI	n	Mean number of days	95% CI
15-24	228	4.3	3.9-4.6	260	3.9	3.6-4.3	488	4.1	3.8-4.4
25-34	237	4.0	3.6-4.4	350	4.4	4.1-4.7	587	4.2	4.0-4.5
35-44	233	4.6	4.2-4.9	295	5.1	4.8-5.4	528	4.8	4.6-5.1
45-54	198	4.8	4.2-5.3	352	4.8	4.5-5.1	550	4.8	4.5-5.1
55-64	187	4.8	4.4-5.2	327	5.1	4.8-5.4	514	4.9	4.7-5.2
15-64	**1083**	**4.4**	**4.2-4.6**	**1584**	**4.6**	**4.4-4.7**	**2667**	**4.5**	**4.4-4.6**

Mean number of days vegetables consumed in a typical week

Analysis Information:

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

MEAN NUMBER OF SERVINGS OF FRUIT AND VEGETABLE CONSUMPTION

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

Instrument Question:

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

Tables 62 & 63 show that the mean number of daily servings for fruit consumption was 1.0, the same for both men and women, whilst the mean number of servings for vegetable consumption was 1.3 (1.2 for men and 1.4 for women). Although there were only slight fluctuations in mean number of servings of fruits and vegetables, there seems to be a general pattern where fruit and vegetable consumption increased with age.

Table 62

Mean number of servings of fruit on average per day										
	Men				**Women**				**Both Sexes**	
Age Group (years)	N	Mean number of servings	95% CI		n	Mean number of servings	95% CI		n	Mean number of servings	95% CI
15-24	224	0.7	0.6-0.8		259	0.8	0.6-0.9		483	0.7	0.6-0.8
25-34	231	1.0	0.7-1.2		345	0.8	0.7-1.0		576	0.9	0.7-1.1
35-44	232	1.1	0.8-1.3		289	1.1	0.9-1.3		521	1.1	0.9-1.2
45-54	196	1.2	0.9-1.4		353	1.1	0.9-1.2		549	1.1	1.0-1.3
55-64	177	1.0	0.9-1.2		324	1.3	1.2-1.5		501	1.2	1.1-1.3
15-64	**1060**	**1.0**	**0.9-1.1**		**1570**	**1.0**	**0.9-1.1**		**2630**	**1.0**	**0.9-1.0**

Table 63

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
15-24	227	1.1	1.0-1.3		255	1.3	1.1-1.6		482	1.2	1.0-1.5
25-34	233	1.0	0.9-1.2		345	1.3	1.1-1.4		578	1.2	1.1-1.3
35-44	231	1.4	1.1-1.8		291	1.5	1.3-1.8		522	1.5	1.2-1.7
45-54	195	1.3	1.1-1.5		348	1.4	1.2-1.6		543	1.4	1.2-1.5
55-64	185	1.4	1.2-1.6		321	1.5	1.3-1.6		506	1.4	1.3-1.6
15-64	**1071**	**1.2**	**1.1-1.4**		**1560**	**1.4**	**1.3-1.5**		**2631**	**1.3**	**1.2-1.4**

The mean number *(Table 64)* of servings of fruit and/or vegetables on average per day was 2.2 (2.2 for men and 2.3 for women).

Table 64

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
15-24	229	1.8	1.5-2.0		260	2.1	1.7-2.4		489	1.9	1.7-2.2
25-34	237	1.9	1.7-2.2		348	2.1	1.8-2.4		585	2.0	1.8-2.2
35-44	233	2.5	2.1-2.9		293	2.6	2.1-3.0		526	2.5	2.2-2.8
45-54	200	2.5	2.1-2.8		356	2.5	2.2-2.7		556	2.5	2.2-2.7
55-64	185	2.4	2.1-2.6		325	2.8	2.5-3.1		510	2.6	2.4-2.8
15-64	**1084**	**2.2**	**2.0-2.3**		**1582**	**2.3**	**2.1-2.5**		**2666**	**2.2**	**2.1-2.4**

Analysis Information:

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

Description: *Frequency of fruit and/or vegetable consumption.*

Instrument Question:

- *In a typical week, on how many days do you eat fruit?*
- *How many servings of fruit do you eat on one of those days?*
- *In a typical week, on how many days do you eat vegetables?*
- *How many servings of vegetables do you eat on one of those days?*
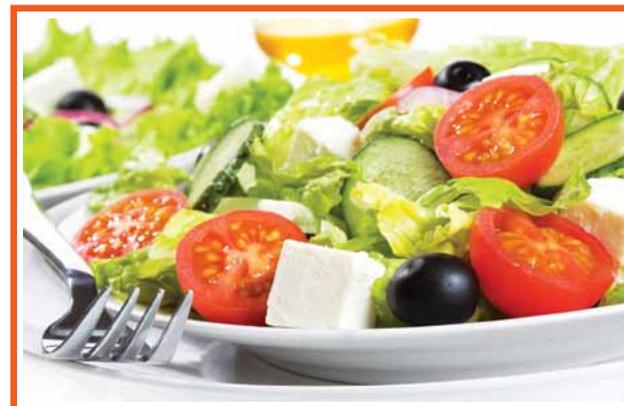
For both sexes, Tables 65,66 & 67, 48.8% (51.0% for men and 46.7% for women) reported consumption of 1-2 servings of fruit and/or vegetables on an average day. This was followed by 17% (17.0% for men and 16.9% for women) having 3-4 servings per day, and 9.0% (7.2% for men and 10.7% for women) reporting more than five (5) or more servings per day. The percentage having no fruit and/or vegetable was 24.9% for men and 25.6% for women, on average, close to a quarter of all respondents.

Table 65

	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
15-24	229	32.7	25.3-40.2	50.2	42.6-57.9	10.5	6.3-14.6	6.6	3.1-10.1
25-34	237	28.7	22.4-35.1	53.0	45.4-60.5	14.9	9.5-20.3	3.4	0.9-5.9
35-44	233	22.2	16.2-28.3	49.3	41.9-56.8	18.8	12.5-25.1	9.6	4.8-14.4
45-54	200	18.2	11.4-24.9	48.3	36.8-59.9	25.0	10.7-39.3	8.5	3.6-13.4
55-64	185	15.2	9.4-21.1	56.7	47.7-65.6	19.5	11.2-27.7	8.6	4.9-12.4
15-64	**1084**	**24.9**	**21.5-28.2**	**51.0**	**46.9-55.1**	**17.0**	**13.2-20.8**	**7.2**	**5.1-9.3**

Table 66

	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
15-24	260	34.5	27.7-41.2	41.7	34.7-48.7	16.1	11.0-21.3	7.7	3.8-11.7
25-34	348	29.0	23.3-34.6	49.3	42.5-56.1	11.5	7.3-15.7	10.2	5.8-14.7
35-44	293	21.8	16.5-27.2	48.6	41.3-55.9	18.3	12.6-24.0	11.3	6.8-15.7
45-54	356	17.9	12.6-23.2	47.9	41.4-54.4	21.7	16.6-26.8	12.6	8.2-17.0
55-64	325	15.2	10.6-19.7	48.2	41.4-55.1	21.0	15.8-26.2	15.6	11.1-20.1
15-64	**1582**	**25.6**	**22.6-28.6**	**46.7**	**43.0-50.4**	**16.9**	**14.5-19.4**	**10.7**	**8.3-13.2**

Table 67

Age Group (years)	Number of servings of fruit and/or vegetables on average per day
	Both Sexes
	N	% no fruit and/or vegetables	95% CI	% 1-2 servings	95% CI	% 3-4 servings	95% CI	% ≥5 servings	95% CI
15-24	489	33.6	28.5-38.8	45.8	40.4-51.2	13.4	10.2-16.6	7.2	4.2-10.2
25-34	585	28.9	24.7-33.1	50.9	45.9-56.0	13.0	9.8-16.3	7.2	4.2-10.1
35-44	526	22.0	18.0-26.0	49.0	43.6-54.3	18.5	14.3-22.8	10.5	7.1-13.8
45-54	556	18.0	13.6-22.5	48.1	41.1-55.1	23.4	15.0-31.8	10.5	6.9-14.1
55-64	510	15.2	11.5-18.9	52.4	46.6-58.2	20.2	15.4-25.0	12.2	9.1-15.2
15-64	**2666**	**25.2**	**22.8-27.7**	**48.8**	**46.0-51.6**	**17.0**	**14.7-19.2**	**9.0**	**7.1-10.9**

Analysis Information:

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

FRUIT AND VEGETABLE CONSUMPTION PER DAY

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

Instrument Question:

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

Table 68 shows that 91.0% of those surveyed consumed less than five servings of fruits or vegetables per day (males (92.8%) and females (89.3%)). Although there were slight fluctuations in proportions consuming less than 5 servings of fruits and vegetables per day, no substantial differences were noted across age groups, for both sexes.

Table 68

	Men			Women			Both Sexes		
Age Group (years)	n	% < five servings per day	95% CI	n	% < five servings per day	95% CI	n	% < five servings per day	95% CI
15-24	229	93.4	89.9-96.9	260	92.3	88.3-96.2	489	92.8	89.8-95.8
25-34	237	96.6	94.1-99.1	348	89.8	85.3-94.2	585	92.8	89.9-95.8
35-44	233	90.4	85.6-95.2	293	88.7	84.3-93.2	526	89.5	86.2-92.9
45-54	200	91.5	86.6-96.4	356	87.4	83.0-91.8	556	89.5	85.9-93.1
55-64	185	91.4	87.6-95.1	325	84.4	79.9-88.9	510	87.8	84.8-90.9
15-64	**1084**	**92.8**	**90.7-94.9**	**1582**	**89.3**	**86.8-91.7**	**2666**	**91.0**	**89.1-92.9**

Title row: **Less than five servings of fruit and/or vegetables on average per day**

Analysis Information:

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

TYPE OF OIL USED MOST FREQUENTLY

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

Instrument Question:

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

Table 69 shows that 81.2% of respondents used vegetable oil, followed by lard (0.7%), butter (0.6%) , margarine (0.7%) and none in particular (4%). Whilst 1.1% did not use any of the options, 11.7% used some other form of oil or fat.

Table 69

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
2672	81.2	78.7-83.8	0.7	0.2-1.1	0.6	0.2-1.0	0.7	0.3-1.1

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

n (house-holds)	% none in particular	95% CI	% None used	95% CI	% Other	95% CI
2672	4	2.5-5.5	1.1	0.6-1.6	11.7	9.8-13.5

Analysis Information:

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

EATING OUTSIDE HOME

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

Instrument Question:

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

Table 70 shows that on average, respondents consumed 1.8 meals (men 2.2 and women 1.5) per week, which was not prepared at home.

Table 70

Age Group (years)	Men				Women				Both Sexes		
	n	mean	95% CI		n	mean	95% CI		n	mean	95% CI
15-24	227	2.7	2.2-3.1		256	2.2	1.9-2.6		483	2.4	2.2-2.7
25-34	238	3.1	2.5-3.6		349	1.6	1.3-1.9		587	2.3	2.0-2.6
35-44	234	2.0	1.6-2.5		296	1.3	1.1-1.5		530	1.6	1.4-1.9
45-54	200	1.6	0.9-2.3		360	0.9	0.8-1.1		560	1.3	0.9-1.6
55-64	188	0.9	0.6-1.1		326	0.6	0.5-0.8		514	0.8	0.6-0.9
15-64	**1087**	**2.2**	**2.0-2.5**		**1587**	**1.5**	**1.3-1.6**		**2674**	**1.8**	**1.7-2.0**

Mean number of meals eaten outside a home

Analysis Information:

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

Physical Activity

Introduction

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

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

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

METABOLIC EQUIVALENT (MET)

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

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

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

Domain	MET value
Work	• Moderate MET value = 4.0 • Vigorous MET value = 8.0
Transport	• Cycling and walking MET value = 4.0
Recreation	• Moderate MET value = 4.0 • Vigorous MET value = 8.0

CATEGORICAL INDICATOR

For the calculation of a categorical indicator, the total time spent in physical activity during a typical week, the number of days as well as the intensity of the physical activity is taken into account. The three levels of physical activity suggested for classifying populations are low, moderate, and high. The criteria for these levels are shown below.

High
A person reaching any of the following criteria is classified in this category:
- Vigorous-intensity activity on at least 3 days achieving a minimum of at least 1,500 MET-minutes/week OR
- 7 or more days of any combination of walking, moderate- or vigorous-intensity activities achieving a minimum of at least 3,000 MET-minutes per week.

Moderate
A person not meeting the criteria for the "high" category, but meeting any of the following criteria is classified in this category:
- 3 or more days of vigorous-intensity activity of at least 20 minutes per day OR - 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day OR
- 5 or more days of any combination of walking, moderate- or vigorous-intensity activities achieving a minimum of at least 600 MET-minutes per week.

Low
A person not meeting any of the above mentioned criteria falls in this category.

LEVELS OF TOTAL PHYSICAL ACTIVITY

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

Instrument Question:

- *Activity at work*
- *Travel to and from places*
- *Recreational activities*

Tables 71,72 & 73 show that 36.6% (50.3% for men and 23.8% for women) had a high level of total physical activity, followed by 18.0% (16.7% for men and 19.2% for women) having moderate total physical activity, and 45.4% (33.0% for men and 57.0% for women) having low total physical activity. Whilst it is observed that low total physical generally increased with age, the opposite was observed for high total physical activity.

Table 71

Age Group (years)	Level of total physical activity						
	Men						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
15-24	225	26.7	20.1-33.3	16.0	10.5-21.5	57.3	49.7-64.9
25-34	234	25.0	17.5-32.5	11.0	5.7-16.4	63.9	55.7-72.2
35-44	229	31.6	24.1-39.1	16.0	10.7-21.4	52.4	44.4-60.4
45-54	195	37.2	27.5-46.9	25.0	10.5-39.5	37.8	28.6-47.0
55-64	184	57.9	49.3-66.4	15.8	10.0-21.7	26.3	18.4-34.2
15-64	**1067**	**33.0**	**29.1-36.9**	**16.7**	**12.9-20.5**	**50.3**	**46.2-54.5**

Table 72

Age Group (years)	Level of total physical activity						
	Women						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
15-24	256	60.9	53.3-68.6	18.1	12.4-23.8	21.0	15.1-27.0
25-34	341	58.7	52.4-65.1	15.9	11.5-20.2	25.4	19.9-31.0
35-44	294	47.9	40.5-55.4	27.0	20.9-33.0	25.1	19.1-31.1
45-54	350	52.9	46.1-59.7	18.2	13.6-22.8	28.9	23.1-34.6
55-64	324	67.0	60.5-73.5	16.0	11.5-20.5	17.0	11.7-22.4
15-64	**1565**	**57.0**	**52.9-61.1**	**19.2**	**16.6-21.8**	**23.8**	**20.7-27.0**

Table 73

Age Group (years)	Level of total physical activity						
	Both Sexes						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
15-24	481	44.5	38.9-50.1	17.1	13.0-21.1	38.4	33.1-43.7
25-34	575	43.5	37.9-49.1	13.7	10.1-17.3	42.8	37.2-48.4
35-44	523	40.0	34.2-45.8	21.7	17.7-25.7	38.3	33.0-43.7
45-54	545	44.8	38.3-51.4	21.7	13.9-29.5	33.5	27.9-39.0
55-64	508	62.5	56.9-68.1	15.9	12.3-19.5	21.6	16.8-26.5
15-64	**2632**	**45.4**	**42.1-48.7**	**18.0**	**15.8-20.1**	**36.6**	**33.6-39.7**

Analysis Information:

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

TOTAL PHYSICAL ACTIVITY MEAN

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

Instrument Question:

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

Table 74 shows that respondents reported a mean of 140.8 minutes (192.7 for men and 92.5 for women) of total physical activity per day. Of this overall 96.1 mins (132.3 for men and 62.5 for women) was spent on work related physical activity per day, followed by 23.4 mins (30 for men and 17.3 for women) of transport related activity, and 21.3 mins (30.5 for men and 12.7 for women) of recreational physical activity. It should be noted that in each category of activity men spent close to twice as many minutes when compared to women.

Table 74

Age Group (years)	Men				Women				Both Sexes		
	N	Mean minutes	95% CI		n	Mean minutes	95% CI		n	Mean minutes	95% CI
Mean minutes of total physical activity on average per day											
15-24	225	168.0	135.9-200.0		256	62.9	48.1-77.8		481	113.4	95.1-131.6
25-34	234	273.9	227.8-319.9		341	111.1	86.8-135.4		575	184.4	156.4-212.4
35-44	229	205.3	168.5-242.0		294	106.9	84.1-129.6		523	154.6	131.5-177.6
45-54	195	179.5	137.9-221.1		350	112.7	90.4-135.0		545	147.0	121.3-172.8
55-64	184	100.8	67.9-133.7		324	66.1	46.9-85.3		508	83.2	63.0-103.5
15-64	**1067**	**192.7**	**172.9-212.6**		**1565**	**92.5**	**80.8-104.1**		**2632**	**140.8**	**127.6-154.0**

Analysis Information:

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

TOTAL PHYSICAL ACTIVITY MEDIAN

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

Instrument Question:

- *Activity at work*
- *Travel to and from places*
- *Recreational activities*

Tables 75,76,77 & 78 show that respondents reported a median of 42.9 minutes (102.9 for men and 14.3 for women) of total physical activity per day. Of this, on average 96.1 mins (132.3 for men and 62.5 for women) was spent on work related physical activity per day, followed by 23.4 mins (30 for men and 17.3 for women) of transport related activity, and 21.3 mins (30.5 for men and 12.7 for women) of recreational physical activity. It should be noted that in each category of activity men spent close to twice as much minutes when compared to women.

Table 75

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)
15-24	225	102.9	24.3-248.6		256	14.3	0-85.7		481	42.9	4.3-137.1
25-34	234	194.3	25.7-407.1		341	12.9	0-134.3		575	60.0	0-308.6
35-44	229	107.1	12.9-342.9		294	30.0	0-120		523	45.0	4.3-267.9
45-54	195	100.0	14.3-297.1		350	25.7	0-192.9		545	51.4	0-240
55-64	185	17.1	0-107.1		324	6.4	0-60		509	12.9	0-64.3
15-64	1068	102.8571	24.3-248.6		1565	14.3	0-85.7		2633	42.9	4.3-137.1

Analysis Information:

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

DOMAIN-SPECIFIC PHYSICAL ACTIVITY- MEAN

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

Instrument Question:

- Activity at work
- Travel to and from places
- Recreational activities

Table 76

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

Age Group (years)	Men				Women				Both Sexes		
	n	Mean minutes	95% CI		n	Mean minutes	95% CI		n	Mean minutes	95% CI
15-24	225	97.4	69.7-125.2		256	26.4	15.4-37.4		481	60.5	45.0-76.0
25-34	234	205.7	162.7-248.7		341	85.3	63.0-107.6		575	139.5	114.0-164.9
35-44	229	136.4	106.2-166.7		294	76.1	56.8-95.3		523	105.3	86.6-124.1
45-54	195	134.3	90.4-178.3		350	84.4	63.9-105.0		545	110.1	84.9-135.2
55-64	184	68.1	40.0-96.1		324	42.2	28.3-56.1		508	55.0	38.4-71.5
15-64	1067	132.3	114.1-150.4		1565	62.5	52.8-72.1		2632	96.1	84.6-107.7

Table 77

Age Group (years)	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	n	Mean minutes	95% CI	n	Mean minutes	95% CI
15-24	225	23.5	17.4-29.7	256	17.3	11.0-23.5	481	20.3	15.7-24.8
25-34	234	30.1	16.8-43.5	341	15.5	9.4-21.5	575	22.1	14.5-29.7
35-44	229	43.1	26.2-60.1	294	19.3	13.1-25.4	523	30.8	21.7-39.9
45-54	195	32.0	14.6-49.4	350	20.4	13.4-27.3	545	26.4	15.7-37.0
55-64	184	17.2	7.7-26.6	324	12.7	8.3-17.0	508	14.9	8.9-20.9
15-64	**1067**	**30.0**	**23.7-36.2**	**1565**	**17.3**	**14.2-20.3**	**2632**	**23.4**	**19.6-27.2**

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

Table 78

Age Group (years)	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	n	Mean minutes	95% CI	n	Mean minutes	95% CI
15-24	225	47.0	35.5-58.5	256	19.3	13.3-25.3	481	32.6	26.1-39.1
25-34	234	38.1	29.4-46.7	341	10.4	6.6-14.1	575	22.8	18.3-27.3
35-44	229	25.7	17.6-33.8	294	11.5	6.1-17.0	523	18.4	13.4-23.4
45-54	195	13.2	6.5-19.8	350	7.9	5.6-10.2	545	10.6	7.1-14.1
55-64	184	15.6	8.6-22.6	324	11.2	4.2-18.3	508	13.4	8.4-18.4
15-64	**1067**	**30.5**	**25.8-35.2**	**1565**	**12.7**	**10.1-15.3**	**2632**	**21.3**	**18.6-24.0**

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

Analysis Information:

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

DOMAIN-SPECIFIC PHYSICAL ACTIVITY - MEDIAN

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

Instrument Question:

- *Activity at work*
- *Travel to and from places*
- *Recreational activities*

Table 79

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)
15-24	225	0	0-127.1	256	0	0-0	481	0	0-21.4
25-34	234	51.4	0-342.9	341	0	0-60.0	575	0	0-214.3
35-44	229	4.3	0-257.1	294	0	0-55.7	523	0	0-171.4
45-54	195	0	0-240.0	350	0	0-120.0	545	0	0-180.0
55-64	185	0	0-10.0	324	0	0-0	509	0	0-4.3
15-64	1068	0	0-214.3	1565	0	0-21.4	2633	0	0-120.0

Table 80

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)
15-24	225	7.1	0-25.7	256	0	0-15.0	481	1.4	0-21.4
25-34	234	0	0-20.0	341	0	0-12.9	575	0	0-14.3
35-44	229	1.4	0-30.0	294	0	0-21.4	523	0	0-30.0
45-54	195	0	0-30.0	350	0	0-15.0	545	0	0-21.4
55-64	185	0	0-10.0	324	0	0-10.7	509	0	0-10.0
15-64	1068	0	**0-25.7**	1565	0	**0-15.0**	2633	0	**0-20.0**

Table 81

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)
15-24	225	17.1	0-68.6	256	0	0-12.9	481	0	0-45.0
25-34	234	8.6	0-57.9	341	0	0-0	575	0	0-25.7
35-44	229	0	0-25.7	294	0	0-4.3	523	0	0-12.9
45-54	195	0	0-0	350	0	0-0	545	0	0-0
55-64	185	0	0-4.3	324	0	0-0	509	0	0-0
15-64	1068	0	0-34.3	1565	0	0-0	2633	0	0-17.1

Analysis Information:

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

NO PHYSICAL ACTIVITY BY DOMAIN

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

Instrument Question:

- *Activity at work*
- *Travel to and from places*
- *Recreational activities*

Tables 82,83 & 84 show that respondents reported an overall 63.4% (55.5% for men and 70.7% for women) having no work-related physical activity, followed by 55.8% (53.4% for men and 57.9% for women), whilst 67.6% (58.5% for men and 76.2% for women) had no recreational physical activity. It is noteworthy that close to 20% of more women, when compared to men, had no recreational activity. Approximately, three fifths (57.9% of 15-24 year olds and 65.8% of 25-34 year olds) had no recreational physical activity.

Table 82

		No work-related physical activity							
	Men			**Women**			**Both Sexes**		
Age Group (years)	n	% no activity at work	95% CI	n	% no activity at work	95% CI	n	% no activity at work	95% CI
15-24	225	61.7	54.0-69.3	256	79.3	72.8-85.7	481	70.8	65.6-76.0
25-34	234	45.7	36.9-54.5	341	67.4	61.2-73.5	575	57.6	51.8-63.4
35-44	229	49.6	41.3-57.9	294	64.7	58.4-71.1	523	57.4	51.8-63.1
45-54	195	53.7	41.0-66.4	350	65.2	58.7-71.6	545	59.3	51.8-66.7
55-64	184	72.7	64.5-80.9	324	76.8	70.4-83.2	508	74.8	69.3-80.2
15-64	**1067**	**55.5**	**51.0-60.0**	**1565**	**70.7**	**67.1-74.3**	**2632**	**63.4**	**59.9-66.9**

Table 83

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
15-24	225	46.1	37.5-54.6		256	50.9	43.1-58.7		481	48.6	42.3-54.9
25-34	234	58.8	51.1-66.4		341	62.7	55.8-69.6		575	60.9	55.5-66.4
35-44	229	49.7	41.6-57.9		294	56.3	49.6-63.0		523	53.1	47.7-58.5
45-54	195	53.4	39.9-67.0		350	59.1	51.8-66.4		545	56.2	48.2-64.2
55-64	184	67.6	59.0-76.1		324	66.0	59.5-72.4		508	66.8	61.1-72.4
15-64	**1067**	**53.4**	**48.2-58.7**		**1565**	**57.9**	**53.8-62.0**		**2632**	**55.8**	**52.0-59.5**

Table 84

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
15-24	225	44.2	36.8-51.6		256	70.6	64.2-77.0		481	57.9	52.7-63.2
25-34	234	47.8	39.5-56.2		341	80.4	75.5-85.3		575	65.8	60.7-70.8
35-44	229	61.4	54.0-68.8		294	74.5	68.5-80.5		523	68.2	63.2-73.1
45-54	195	77.3	69.9-84.8		350	77.2	72.1-82.4		545	77.3	72.7-81.9
55-64	184	74.5	67.1-81.9		324	82.1	77.2-87.0		508	78.3	73.8-82.9
15-64	**1067**	**58.5**	**54.3-62.6**		**1565**	**76.2**	**73.1-79.2**		**2632**	**67.6**	**64.9-70.4**

Analysis Information:

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

COMPOSITION OF TOTAL PHYSICAL ACTIVITY

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

Instrument Question:

- *Activity at work*
- *Travel to and from places*
- *Recreational activities*

Tables 85,86 & 87 show that overall 24.5% (26.9% for men and 21.8% for women) of total physical activity was spent during leisure time, followed by 35% (29.3% for men and 41.6% for women) was spent during transport, and 40.5% (43.8% for men and 36.6% for women) spent during work related physical activity.

Table 85

| | | | | Composition of total physical activity | | | |
| | | | | **Men** | | | |
Age Group (years)	N	% Activity from work	95% CI	% Activity for transport	95% CI	% Activity during leisure time	95% CI
15-24	196	33.1	26.5-39.7	28.2	21.3-35.2	38.7	32.1-45.2
25-34	199	51.6	43.7-59.5	19.7	12.8-26.7	28.7	21.8-35.6
35-44	192	47.8	40.1-55.4	31.3	24.1-38.6	20.9	15.5-26.3
45-54	150	49.0	33.9-64.0	38.7	22.2-55.2	12.3	7.0-17.6
55-64	123	38.7	28.7-48.7	32.1	22.1-42.1	29.2	20.5-37.8
15-64	**860**	**43.8**	**39.3-48.3**	**29.3**	**24.4-34.3**	**26.9**	**23.5-30.3**

Table 86

| | | | | Composition of total physical activity | | | |
| | | | | **Women** | | | |
Age Group (years)	N	% Activity from work	95% CI	% Activity for transport	95% CI	% Activity during leisure time	95% CI
15-24	176	22.5	15.8-29.1	46.6	39.3-53.9	31.0	24.1-37.9
25-34	216	44.9	37.6-52.2	38.4	31.3-45.5	16.7	11.5-21.9
35-44	205	41.0	34.2-47.9	40.6	33.9-47.3	18.4	12.7-24.0
45-54	246	44.2	36.7-51.7	39.0	31.6-46.5	16.8	11.9-21.6
55-64	191	34.5	26.2-42.9	41.1	32.7-49.6	24.4	17.6-31.1
15-64	**1034**	**36.6**	**32.6-40.6**	**41.6**	**37.4-45.7**	**21.8**	**18.5-25.2**

Table 87

Composition of total physical activity							
	Both Sexes						
Age Group (years)	N	% Activity from work	95% CI	% Activity for transport	95% CI	% Activity during leisure time	95% CI
15-24	372	28.3	23.4-33.2	36.5	31.2-41.8	35.2	30.2-40.2
25-34	415	48.5	42.7-54.4	28.3	22.8-33.7	23.2	18.6-27.8
35-44	397	44.5	39.1-50.0	35.8	30.5-41.1	19.7	15.8-23.6
45-54	396	46.9	37.9-55.8	38.9	28.9-48.8	14.3	10.6-18.0
55-64	314	36.7	29.8-43.5	36.5	29.6-43.5	26.8	20.8-32.9
15-64	**1894**	**40.5**	**37.1-43.8**	**35.0**	**31.3-38.6**	**24.5**	**22.0-27.1**

Analysis Information:

- *Questions used: P1-P15b*
- *Epi Info program name: Pcomposition(unweighted); PcompositionWT (weighted)*

NO VIGOROUS PHYSICAL ACTIVITY

Description: *Percentage of respondents not engaging in vigorous physical activity.*

Instrument Question:

- *Activity at work*
- *Recreational activities*

Table 88 shows that overall 68.3% (52.5% for men and 83.0% for women) of respondents reported no vigorous physical activity. It should be noted that women who reported no vigorous physical activity were more than one and a half times when compared to men.

Table 88

			No vigorous physical activity							
	Men				**Women**				**Both Sexes**	
Age Group (years)	n	% no vigorous activity	95% CI	n	% no vigorous activity	95% CI	n	% no vigorous activity	95% CI
15-24	225	39.5	32.0-46.9	256	79.6	73.8-85.5	481	60.4	55.0-65.7
25-34	234	39.2	30.8-47.6	341	85.0	80.9-89.2	575	64.4	59.5-69.3
35-44	229	54.1	46.4-61.8	294	81.0	75.5-86.4	523	67.9	63.1-72.8
45-54	195	66.6	55.8-77.4	350	83.4	78.9-88.0	545	74.8	68.9-80.7
55-64	184	80.6	73.5-87.7	324	89.7	85.5-93.9	508	85.2	81.0-89.4
15-64	**1067**	**52.5**	**48.4-56.5**	**1565**	**83.0**	**80.4-85.5**	**2632**	**68.3**	**65.7-70.8**

Analysis Information:

- *Questions used: P1-P15b*
- *Epi Info program name: Pnovigorous(unweighted); PnovigorousWT (weighted)*

SEDENTARY

Description: *Minutes spent in sedentary activities on a typical day.*

Instrument Question:

- *Sedentary behavior*

Tables 89,90 & 91 show that overall 234.6 'mean' minutes (231.9 for men and 237.2 for women) was spent in sedentary activities on average per day. Both male and female categories reported '180 median minutes' in sedentary activities.

Table 89

		Minutes spent in sedentary activities on average per day			
	Men				
Age Group (years)	N	Mean minutes	95% CI	Median minutes	Inter-quartile range (P25-P75)
15-24	230	247.4	217.8-276.9	180	120-360
25-34	242	250.3	215.1-285.4	180	120-330
35-44	232	188.6	168.2-208.9	180	90-255
45-54	201	218.6	198.1-239.1	180	120-300
55-64	188	262.1	232.1-292.0	240	120-360
15-64	**1093**	**231.9**	**218.4-245.5**	**180**	**120-300**

Table 90

Age Group (years)	Minutes spent in sedentary activities on average per day				
	Women				
	N	Mean minutes	95% CI	Median minutes	Inter-quartile range (P25-P75)
15-24	262	299.7	273.4-325.9	240	180-480
25-34	349	241.5	214.9-268.1	180	120-360
35-44	299	173.0	152.4-193.6	120	60-180
45-54	360	211.1	191.1-231.2	180	90-300
55-64	328	234.8	211.5-258.1	180	120-330
15-64	**1598**	**237.2**	**223.4-250.9**	**180**	**120-360**

Table 91

Age Group (years)	Minutes spent in sedentary activities on average per day				
	Both Sexes				
	N	Mean minutes	95% CI	Median minutes	Inter-quartile range (P25-P75)
15-24	492	274.7	254.2-295.2	240	120-360
25-34	591	245.5	222.9-268.1	180	120-360
35-44	531	180.5	165.8-195.2	120	60-240
45-54	561	215.0	200.1-229.8	180	120-270
55-64	516	248.4	229.2-267.6	180	120-360
15-64	**2691**	**234.6**	**223.8-245.5**	**180**	**120-300**

Analysis Information:

- *Question used : P16a-b*
- *Epi Info program name:* *Psedentary (unweighted);*

     PsedentaryWT (weighted)

     PsedentarymedianWT (weighted)

Blood Pressure and Diabetes History

Description: *Blood pressure measurement and diagnosis among all respondents.*

Instrument Question:

- *Have you ever had your blood pressure measured by a doctor or other health worker?*
- *Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension?*
- *Have you been told in the past 12 months?*

Tables 92,93 & 94 show that overall 11.2% of respondents (8.9% for men and 13.3% for women) were diagnosed with raised blood pressure within the past 12 months prior to the survey. This was followed by 5.2% (4.6% for men and 5.7% for women) who were diagnosed, but not within the past 12 months whilst, 65.1% (61.6% for men and 68.4% for women) were measured and not diagnosed. However 18.6% (24.9% for men and 12.7% for women) were never measured, twice as many men than women. Whilst close to one fifth (19.8%), it is noteworthy that overall there was an increasing trend in those diagnosed within the past 12 months as the age increased in both sexes.

Table 92

Blood pressure measurement and diagnosis									
Men									
Age Group (years)	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
15-24	232	40.5	32.9-48.0	54.2	46.7-61.8	0.9	0.0-2.2	4.4	1.2-7.6
25-34	243	25.2	18.0-32.5	68.0	60.5-75.6	3.4	1.0-5.9	3.3	0.7-6.0
35-44	237	16.4	10.8-22.0	74.6	67.9-81.3	3.4	1.0-5.9	5.5	2.4-8.6
45-54	211	22.3	8.5-36.0	57.6	46.5-68.6	8.4	3.8-12.9	11.8	6.9-16.7
55-64	190	7.9	3.9-11.9	49.9	40.8-59.0	11.1	6.2-16.0	31.0	21.7-40.4
15-64	**1113**	**24.9**	**20.9-28.8**	**61.6**	**57.6-65.6**	**4.6**	**3.2-6.0**	**8.9**	**7.1-10.7**

Table 93

Blood pressure measurement and diagnosis									
	Women								
Age Group (years)	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
15-24	268	29.9	23.7-36.2	64.9	58.5-71.4	1.5	0.0-3.0	3.7	1.3-6.0
25-34	351	6.1	3.3-8.9	80.2	75.4-84.9	5.3	2.6-7.9	8.5	4.9-12.0
35-44	300	8.1	4.4-11.7	74.9	69.0-80.7	4.5	2.1-7.0	12.5	8.4-16.7
45-54	360	6.2	3.1-9.4	62.5	56.5-68.4	9.9	6.3-13.4	21.4	16.4-26.5
55-64	331	2.5	0.9-4.1	47.5	41.2-53.7	12.9	8.5-17.3	37.1	30.8-43.5
15-64	**1610**	**12.7**	**10.4-14.9**	**68.4**	**65.4-71.3**	**5.7**	**4.5-6.9**	**13.3**	**11.4-15.2**

Table 94

Blood pressure measurement and diagnosis									
	Both sexes								
Age Group (years)	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
15-24	500	34.9	29.9-39.9	59.8	54.6-65.1	1.2	0.2-2.2	4.0	2.1-5.9
25-34	594	14.8	10.9-18.7	74.6	70.2-79.1	4.4	2.5-6.4	6.1	3.9-8.4
35-44	537	12.1	8.8-15.4	74.8	70.4-79.1	4.0	2.3-5.7	9.1	6.3-11.9
45-54	571	14.6	6.6-22.5	59.9	53.3-66.5	9.1	6.2-12.0	16.4	12.5-20.3
55-64	521	5.2	3.0-7.4	48.7	43.2-54.2	12.0	8.7-15.3	34.1	28.6-39.6
15-64	**2723**	**18.6**	**16.4-20.8**	**65.1**	**62.7-67.5**	**5.2**	**4.3-6.1**	**11.2**	**9.8-12.5**

Analysis Information:

- *Question used: H1, H2a, H2b*
- *Epi Info program name: Hbloodpressure (unweighted); HbloodpressureWT (weighted)*

Description: Raised blood pressure treatment results among those previously diagnosed with raised blood pressure.

Instrument Question:

- Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension?
- Are you currently receiving any of the following treatments/advice for high blood pressure prescribed by a doctor or other health worker?
- Drugs (medication) that you have taken in the last 2 weeks?

Table 95 shows that overall, among those diagnosed, 53.5% (52.1% for men and 54.4% for women) were currently taking blood pressure drugs prescribed by doctor or health worker. It is noteworthy, that overall, the number of respondents, of both sexes, currently on medication, increased as the age group increased.

Table 95

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
15-24	10	22.2	0.0-59.1	16	0.0	0.0-0.0	26	10.8	0.0-30.2
25-34	21	13.6	0.0-29.5	47	25.7	9.6-41.9	68	22.2	10.1-34.3
35-44	24	54.6	31.5-77.8	56	58.0	43.2-72.8	80	56.9	45.4-68.4
45-54	53	50.1	33.7-66.6	113	62.2	51.9-72.5	166	57.2	47.6-66.8
55-64	67	73.0	61.2-84.8	162	76.2	68.0-84.4	229	74.8	67.8-81.7
15-64	175	52.1	41.6-62.6	394	54.4	48.3-60.6	569	53.5	47.9-59.1

Analysis Information:

- Questions used: H1, H2a, H3a
- Epi Info program name: Hraisedbpadvice (unweighted); HraisedbpadviceWT (weighted)
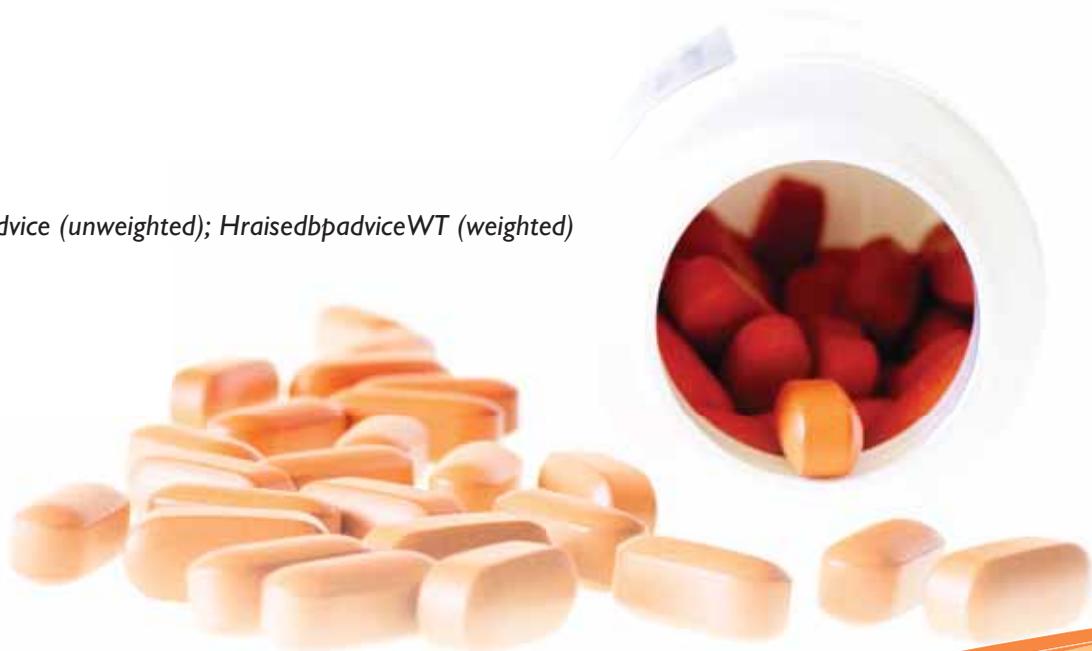
BLOOD PRESSURE LIFESTYLE ADVICE

Description: *Percentage of respondents who received lifestyle advice from a doctor or health worker to treat raised blood pressure among those previously diagnosed with raised blood pressure.*

Instrument Question:

- *When was your blood pressure last measured by a health professional?*

- *Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension?*

- *Are you currently receiving any of the following treatments/advice for high blood pressure prescribed by a doctor or other health worker?*

Tables 96,97,98 & 99 show the respondents previously diagnosed, and who were given lifestyle advice by a doctor or health worker to treat with their high blood pressure: 68.6% (63.6% for men and 71.9% for women) were advised to reduce salt intake, followed by 55.7% (50.2% for men and 59.3% for women) advised to lose weight, 21.4% (25.9% for men and 18.4% for women) to stop smoking and 67.0% (67.0% for men and 67.1% for women) advised to start or do more exercise. It is noteworthy that more women (59.3% vs 50.2%; 71.9% vs 63.6%) were advised to lose weight and reduce salt respectively when compared with their male counterparts.

Table 96

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
15-24	10	17.8	0.0-38.2	16	39.3	10.9-67.7	26	28.8	10.1-47.5
25-34	21	49.2	23.6-74.7	47	51.5	34.3-68.7	68	50.8	36.7-65.0
35-44	24	66.3	43.9-88.6	56	78.5	67.0-90.0	80	74.5	64.3-84.6
45-54	53	72.5	58.1-86.9	113	75.9	65.9-85.8	166	74.5	66.0-83.0
55-64	67	73.0	62.1-84.0	162	84.6	78.2-91.1	229	79.4	73.2-85.5
15-64	**175**	**63.6**	**55.0-72.2**	**394**	**71.9**	**65.8-78.0**	**569**	**68.6**	**63.8-73.4**

Table 97

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
15-24	10	8.9	0.0-26.2	16	17.8	0.0-40.5	26	13.5	0.0-28.2
25-34	21	17.0	2.7-31.2	47	50.9	34.0-67.8	68	41.0	28.4-53.6
35-44	24	55.8	32.8-78.8	56	75.7	63.6-87.8	80	69.2	58.3-80.0
45-54	53	60.3	45.2-75.4	113	61.2	49.4-72.9	166	60.8	51.8-69.8
55-64	67	61.9	48.9-74.9	162	62.8	54.7-70.9	229	62.4	54.4-70.4
15-64	**175**	**50.2**	**40.8-59.6**	**394**	**59.3**	**53.4-65.3**	**569**	**55.7**	**50.5-60.8**

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
15-24	10	22.2	0.0-59.1	16	17.8	0.0-39.1	26	20.0	0.0-41.0
25-34	21	42.4	14.6-70.1	47	32.0	16.2-47.7	68	35.0	21.0-49.0
35-44	24	18.6	0.1-37.1	56	9.8	2.9-16.7	80	12.7	4.9-20.6
45-54	53	19.4	7.4-31.3	113	14.7	6.9-22.5	166	16.6	9.8-23.5
55-64	67	30.2	15.8-44.7	162	19.6	11.5-27.8	229	24.5	16.4-32.6
15-64	**175**	**25.9**	**17.7-34.1**	**394**	**18.4**	**13.0-23.9**	**569**	**21.4**	**16.6-26.2**

Table 99

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
15-24	10	40.0	2.2-77.8	16	32.1	3.2-61.0	26	35.9	12.4-59.4
25-34	21	49.2	21.9-76.4	47	52.8	35.6-70.0	68	51.7	36.9-66.6
35-44	24	86.1	70.0-100.0	56	78.5	67.0-90.0	80	81.0	72.1-89.9
45-54	53	65.4	50.2-80.6	113	72.2	62.2-82.2	166	69.4	61.1-77.7
55-64	67	74.2	61.9-86.5	162	72.5	64.4-80.6	229	73.3	65.7-80.8
15-64	**175**	**67.0**	**57.9-76.1**	**394**	**67.1**	**60.7-73.5**	**569**	**67.0**	**61.8-72.3**

Analysis Information:

- *Questions used: H1, H2a, H3(b-e)*
- *Epi Info program name: Hraisedbplifestyle (unweighted); HraisedbplifestyleWT (weighted)*

BLOOD PRESSURE ADVICE BY A TRADITIONAL HEALER

Description: *Percentage of respondents who have sought advice or received treatment from traditional healers for raised blood pressure among those previously diagnosed with raised blood pressure.*

Instrument Question:

- *When was your blood pressure last measured by a health professional?*
- *Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension?*
- *Have you ever seen a traditional healer for raised blood pressure?*
- *Are you currently taking any herbal or traditional remedy for your high blood pressure?*

Tables 100 & 101 show that overall 6.8% (5.3% for men and 7.9% for women) of respondents was reported seeing a traditional healer for raised blood pressure, whilst 3.6% (3.8% for men and 3.6% for women) were currently taking herbal or traditional remedy for high blood pressure among those previously diagnosed. The results suggest that whilst more women in the

25-44 age groups were seeing a traditional healer when compared to the women in the older age groups, more women in the older age groups were currently taking herbal remedy. On the other hand whilst more men in the 25-44 age groups were seeing a traditional healer when compared to the men in the older age groups, more men in the younger age groups were currently taking herbal remedy.

Table 100

Age Group (years)	Seen a traditional healer among those previously diagnosed								
	Men			Women			Both Sexes		
	N	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	10	8.9	0.0-26.2	16	0.0	0.0-0.0	26	4.3	0.0-12.7
25-34	21	0.0	0.0-0.0	47	11.4	1.5-21.4	68	8.1	0.9-15.3
35-44	24	14.0	0.0-30.0	56	12.1	1.9-22.3	80	12.7	4.5-21.0
45-54	53	1.0	0.0-3.1	113	3.9	0.0-8.6	166	2.7	0.0-5.7
55-64	67	5.9	0.1-11.6	162	8.9	3.9-13.9	229	7.5	3.7-11.3
15-64	**175**	**5.3**	**1.4-9.1**	**394**	**7.9**	**4.5-11.3**	**569**	**6.8**	**4.3-9.4**

Table 101

Age Group (years)	Currently taking herbal or traditional remedy for high blood pressure among those previously diagnosed								
	Men			Women			Both Sexes		
	N	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	10	8.9	0.0-26.2	16	0.0	0.0-0.0	26	4.3	0.0-12.7
25-34	21	6.8	0.0-19.8	47	1.9	0.0-4.6	68	3.3	0.0-7.6
35-44	24	7.0	0.0-20.2	56	2.8	0.0-8.2	80	4.2	0.0-9.9
45-54	53	1.0	0.0-3.1	113	3.0	0.0-6.8	166	2.2	0.0-4.6
55-64	67	2.3	0.0-6.0	162	6.5	2.9-10.2	229	4.6	2.0-7.3
15-64	**175**	**3.8**	**0.6-7.0**	**394**	**3.6**	**1.7-5.4**	**569**	**3.6**	**1.9-5.4**

Analysis Information:

- Questions used: H1, H2a, H4, H5
- Epi Info program name: Hraisedbptrad (unweighted); HraisedbptradWT (weighted)

Description: *Diabetes measurement and diagnosis among all respondents.*

Instrument Question:

- *Have you ever had your blood sugar measured by a doctor or other health worker?*
- *Have you ever been told by a doctor or other health worker that you have raised blood sugar or diabetes?*
- *Have you been told in the past 12 months?*

Tables 102,103 & 104 show that overall 5.1% of respondents (5.0% for men and 5.3% for women) were diagnosed with raised blood sugar or diabetes within the past 12 months prior to the survey. This was followed by 2.8% (2.0% for men and 3.5% for women) who were diagnosed, but not within the past 12 months, whilst 51.9% (48.1% for men and 55.5% for women) were measured and not diagnosed. However 40.2% (44.9% for men and 35.7% for women) were never measured.

It is noteworthy that overall that 40.0% or respondents were never measured for raised blood sugar. Among men, 39.4% and 16.8% belonged to the 45-54 and 55-64 age groups respectively; and among women 19.7% and 11.5% of women of the same age groups respectively were never measured for raised blood pressure.

Table 102									
Blood sugar measurement and diagnosis									
Men									
Age Group (years)	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
15-24	232	67.1	60.1-74.0	32.0	25.2-38.8	0.9	0.0-2.8	0.0	0.0-0.0
25-34	243	48.1	40.6-55.7	50.3	42.6-58.0	0.7	0.0-1.7	0.9	0.0-2.3
35-44	237	34.1	27.0-41.2	60.4	52.9-67.9	2.3	0.4-4.2	3.2	0.8-5.7
45-54	211	39.4	27.3-51.5	47.9	37.4-58.4	2.1	0.0-4.4	10.6	5.2-16.1
55-64	190	16.8	10.9-22.7	59.0	50.8-67.1	6.7	1.4-12.0	17.5	10.2-24.9
15-64	**1113**	**44.9**	**40.7-49.2**	**48.1**	**44.2-51.9**	**2.0**	**1.0-3.0**	**5.0**	**3.4-6.5**

Table 103

Age Group (years)	Blood sugar measurement and diagnosis									
	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
15-24	268	64.5	57.8-71.2	34.8	28.1-41.4	0.0	0.0-0.0	0.7	0.0-1.9
25-34	351	33.0	26.5-39.6	64.4	57.6-71.2	1.4	0.0-3.2	1.1	0.2-2.1
35-44	300	26.5	20.8-32.2	64.7	58.8-70.7	6.4	2.9-9.8	2.4	0.6-4.2
45-54	360	19.7	14.8-24.6	62.8	57.2-68.3	5.8	3.0-8.6	11.7	8.0-15.4
55-64	331	11.5	7.7-15.3	59.4	53.2-65.5	7.5	4.5-10.6	21.6	16.3-27.0
15-64	**1610**	**35.7**	**32.2-39.2**	**55.5**	**52.1-58.9**	**3.5**	**2.5-4.5**	**5.3**	**4.2-6.4**

Table 104

Age Group (years)	Blood sugar measurement and diagnosis									
	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
15-24	500	65.7	61.1-70.3	33.5	28.8-38.1	0.5	0.0-1.3	0.4	0.0-1.0
25-34	594	39.9	34.8-45.0	58.0	52.7-63.3	1.1	0.1-2.1	1.0	0.2-1.8
35-44	537	30.2	25.7-34.7	62.6	57.7-67.5	4.4	2.4-6.4	2.8	1.3-4.3
45-54	571	30.0	22.8-37.1	55.0	48.6-61.5	3.9	2.1-5.6	11.1	7.8-14.5
55-64	521	14.1	10.4-17.9	59.2	53.7-64.6	7.1	3.9-10.4	19.6	14.9-24.3
15-64	**2723**	**40.2**	**37.6-42.8**	**51.9**	**49.5-54.3**	**2.8**	**2.1-3.5**	**5.1**	**4.2-6.1**

Analysis Information:

- *Question used: H6, H7a, H7b*
- *Epi Info program name: Hdiabetes (unweighted); HdiabetesWT (weighted)*

DIABETES TREATMENT AMONG THOSE DIAGNOSED

Description: *Diabetes treatment results among those previously diagnosed with raised blood sugar or diabetes.*

Instrument Question:

- *Have you ever had your blood sugar measured by a doctor or other health worker?*
- *Have you ever been told by a doctor or other health worker that you have raised blood sugar or diabetes?*
- *Are you currently receiving any of the following treatments/advice for diabetes prescribed by a doctor or other health worker?*

Tables 105 & 106 show that overall 14.5% (12.8% for men and 15.8% for women) were currently taking insulin prescribed by a doctor or health worker among those previously diagnosed with diabetes, and 74.3% (77.0% for men and 72.3% for women) were currently taking oral drugs for diabetes.

Table 105

	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
15-24	1	0.0	0.0-0.0	2	0.0	0.0-0.0	3	0.0	0.0-0.0
25-34	4	0.0	0.0-0.0	10	15.4	0.0-37.7	14	10.1	0.0-24.0
35-44	13	0.0	0.0-0.0	23	18.3	0.2-36.3	36	11.5	0.0-23.2
45-54	25	6.5	0.0-15.7	65	16.2	5.9-26.6	90	11.9	4.6-19.2
55-64	37	26.5	9.3-43.7	103	15.2	8.5-21.9	140	20.3	11.4-29.2
15-64	**80**	**12.8**	**4.7-20.9**	**203**	**15.8**	**9.7-22.0**	**283**	**14.5**	**9.6-19.5**

Table 106

	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
15-24	1	0.0	0.0-0.0	2	0.0	0.0-0.0	3	0.0	0.0-0.0
25-34	4	85.7	56.7-100.0	10	48.8	10.4-87.1	14	61.5	30.1-92.8
35-44	13	62.3	33.8-90.8	23	64.5	43.4-85.6	36	63.7	46.9-80.5
45-54	25	80.6	62.3-98.8	65	79.2	68.7-89.6	90	79.8	69.9-89.6
55-64	37	85.7	74.8-96.6	103	79.5	71.1-87.8	140	82.3	75.6-89.0
15-64	**80**	**77.0**	**64.7-89.2**	**203**	**72.3**	**64.7-79.9**	**283**	**74.3**	**67.4-81.1**

Analysis Information:

- *Questions used: H6, H7a, H8a, H8b*
- *Epi Info program name: Hdiabetes (unweighted); HdiabetesWT (weighted)*

DIABETES LIFESTYLE ADVICE

Description: *Percentage of respondents who received diabetes lifestyle advice from a doctor or health worker among those previously diagnosed with diabetes.*

Instrument Question:

- *Have you ever had your blood sugar measured by a doctor or other health worker?*
- *Have you ever been told by a doctor or other health worker that you have raised blood sugar or diabetes?*
- *Are you currently receiving any of the following treatments/advice for diabetes prescribed by a doctor or other health worker?*

Tables 107,108,109 & 110 show the respondents previously diagnosed, and who were given lifestyle advice by a doctor or health worker to treat with their high blood sugar: 50.8% (46.9% for men and 53.7% for women) were advised to have special prescribed diet, followed by 57.9% (52.8% for men and 61.8% for women) advised to lose weight, 21.9% (29.1% for men and 16.5% for women) to stop smoking and 76.0% (78.2% for men and 74.4% for women) advised to start or do more exercise.

It is noteworthy that more women (61.8% vs 52.8%) were advised to lose weight when compared with their male counterparts, whereas more males (29.1% vs 16.5%) were advised to stop smoking.

Table 107									
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
15-24	1	0.0	0.0-0.0	2	25.0	0.0-77.6	3	11.5	0.0-36.4
25-34	4	42.9	0.0-96.3	10	59.0	17.6-100.0	14	53.5	22.1-84.8
35-44	13	30.2	3.1-57.2	23	60.0	36.1-83.9	36	48.9	30.6-67.3
45-54	25	53.0	27.6-78.4	65	40.2	26.0-54.3	90	45.8	31.6-60.1
55-64	37	53.1	34.9-71.2	103	63.5	52.2-74.8	140	58.8	48.8-68.8
15-64	**80**	**46.9**	**31.9-61.9**	**203**	**53.7**	**44.7-62.7**	**283**	**50.8**	**42.5-59.0**

Table 108

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
15-24	1	0.0	0.0-0.0	2	0.0	0.0-0.0	3	0.0	0.0-0.0
25-34	4	14.3	0.0-43.3	10	64.1	21.1-100.0	14	47.0	17.3-76.7
35-44	13	45.3	15.7-74.8	23	78.2	59.3-97.1	36	65.9	48.7-83.2
45-54	25	44.9	19.1-70.7	65	49.8	34.8-64.8	90	47.7	33.7-61.6
55-64	37	72.4	58.0-86.9	103	67.1	57.3-76.9	140	69.5	60.8-78.2
15-64	**80**	**52.8**	**40.4-65.1**	**203**	**61.8**	**53.3-70.3**	**283**	**57.9**	**50.5-65.3**

Table 109

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
15-24	1	100.0	100.0-100.0	2	75.0	22.4-100.0	3	88.5	63.6-100.0
25-34	4	0.0	0.0-0.0	10	20.5	0.0-47.7	14	13.5	0.0-30.8
35-44	13	32.1	5.3-58.9	23	5.4	0.0-13.5	36	15.4	3.5-27.2
45-54	25	30.8	10.4-51.2	65	20.1	9.1-31.1	90	24.8	13.9-35.7
55-64	37	23.5	8.2-38.8	103	14.9	7.4-22.4	140	18.8	10.9-26.7
15-64	**80**	**29.1**	**17.3-40.9**	**203**	**16.5**	**10.1-22.8**	**283**	**21.9**	**15.4-28.3**

Table 110

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
15-24	1	100.0	100.0-100.0	2	75.0	22.4-100.0	3	88.5	63.6-100.0
25-34	4	42.9	0.0-96.3	10	64.1	21.1-100.0	14	56.8	24.7-89.0
35-44	13	64.1	36.1-92.1	23	72.8	50.5-95.0	36	69.5	52.3-86.8
45-54	25	78.9	58.4-99.4	65	75.3	62.2-88.4	90	76.9	65.6-88.2
55-64	37	85.7	74.0-97.4	103	76.4	66.7-86.1	140	80.6	72.6-88.6
15-64	**80**	**78.2**	**68.1-88.3**	**203**	**74.4**	**66.3-82.5**	**283**	**76.0**	**69.7-82.3**

Analysis Information:

- *Questions used: H6, H7a, H8c-f*
- *Epi Info program name: Hdiabeteslifestyle (unweighted); HdiabeteslifestyleWT (weighted)*

DIABETES ADVICE BY TRADITIONAL HEALER

Description: *Percentage of respondents who have sought advice or treatment from traditional healers for diabetes among those previously diagnosed.*

Instrument Question:

- *Have you ever had your blood sugar measured by a doctor or other health worker?*
- *Have you ever been told by a doctor or other health worker that you have raised blood sugar or diabetes?*
- *Have you ever seen a traditional healer for diabetes or raised blood sugar?*
- *Are you currently taking any herbal or traditional remedy for your diabetes?*

Tables 111 & 112 show that overall 4.7% (2.9% for men and 6.0% for women) of respondents was reported seeing a traditional healer for diabetes, whilst 4.1% (6.5% for men and 2.3% for women) were currently taking herbal or traditional remedy for diabetes among those previously diagnosed. The results suggest that whilst more women in the 15-34 age groups were seeing a traditional healer when compared to the women in the older age groups, more women in the older age groups were currently taking herbal treatment.

On the other hand men in the 45-64 age groups were both seeing a traditional healer and currently taking herbal treatment for diabetes.

Table 111

Age Group (years)	Seen a traditional healer for diabetes among those previously diagnosed								
	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	1	0.0	0.0-0.0	2	75.0	22.4-100.0	3	34.5	0.0-93.0
25-34	4	0.0	0.0-0.0	10	20.5	0.0-47.7	14	13.5	0.0-30.8
35-44	13	0.0	0.0-0.0	23	0.0	0.0-0.0	36	0.0	0.0-0.0
45-54	25	4.9	0.0-12.2	65	4.6	0.0-10.3	90	4.7	0.2-9.2
55-64	37	3.1	0.0-6.8	103	3.5	0.0-7.2	140	3.3	0.7-5.9
15-64	**80**	**2.9**	**0.0-5.9**	**203**	**6.0**	**1.5-10.5**	**283**	**4.7**	**1.8-7.6**

Table 112

Age Group (years)	Currently taking herbal or traditional treatment for diabetes among those previously diagnosed								
	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	1	100.0	100.0-100.0	2	0.0	0.0-0.0	3	54.0	0.0-100.0
25-34	4	0.0	0.0-0.0	10	0.0	0.0-0.0	14	0.0	0.0-0.0
35-44	13	0.0	0.0-0.0	23	0.0	0.0-0.0	36	0.0	0.0-0.0
45-54	25	4.9	0.0-12.2	65	2.3	0.0-6.9	90	3.4	0.0-7.5
55-64	37	3.1	0.0-6.8	103	4.3	0.5-8.1	140	3.8	1.1-6.4
15-64	**80**	**6.5**	**0.0-14.0**	**203**	**2.3**	**0.3-4.4**	**283**	**4.1**	**0.7-7.5**

Analysis Information:

- *Questions used: H6, H7a, H9, H10*
- *Epi Info program name: Hdiabetestrad (unweighted); HdiabetestradWT (weighted)*

DIABETES CONTROL: EYE EXAM

Description: *Percentage of participants previously diagnosed with diabetes who, as part of their diabetes control, have had their eyes examined within the past 2 years, more than 2 years ago or never.*

Instrument Question:

- *When was the last time your eyes were examined as part of your diabetes control?*

Tables 113,114 & 115 show that among all respondents previously diagnosed with diabetes, 40.7% (33.0% for men and 46.5% for women) had an eye examination within the past two years, as part of diabetes control. This was followed by 21.0% (20.4% for men and 21.4% for women) having an eye exam more than two years prior to the survey, and 38.3% (46.6% for men and 32.1% for women) who never had an eye examination.

It should be noted that 46.5% and 40.8% of men in the 45-54 and 55-64 age groups respectively never had an eye examination even though they have been diagnosed with diabetes. In a similar pattern 40.2% and 18.8 were diagnosed with diabetes. Similarly, 40.2% and 18.8% of women in the same age groups never had an eye examination.

Table 113							
Time of last eye exam, as part of diabetes control, among those diagnosed with diabetes							
Age Group (years)	**Men**						
	n	% within the past 2 years	95% IC	% more than 2 years ago	95% IC	% never	95% IC
15-24	1	0.0	0.0-0.0	0.0	0.0-0.0	100.0	100.0-100.0
25-34	4	28.6	0.0-77.8	57.2	3.7-100.0	14.3	0.0-43.3
35-44	13	30.2	3.1-57.2	11.3	0.0-27.7	58.5	29.7-87.4
45-54	25	30.8	8.4-53.2	22.7	3.2-42.2	46.5	20.3-72.7
55-64	37	39.8	21.3-58.3	19.4	5.7-33.1	40.8	22.3-59.4
15-64	**80**	**33.0**	**21.1-45.0**	**20.4**	**10.4-30.4**	**46.6**	**33.8-59.3**

Table 114

Age Group (years)	Women					
	n	% within the past 2 years	95% IC	% more than 2 years ago	95% IC	% never	95% IC
15-24	2	0.0	0.0-0.0	0.0	0.0-0.0	100.0	100.0-100.0
25-34	10	33.4	0.9-65.9	20.5	0.0-45.4	46.1	6.0-86.2
35-44	23	37.3	15.9-58.7	33.6	10.9-56.4	29.1	8.3-49.8
45-54	65	41.7	27.2-56.1	18.2	6.5-29.8	40.2	26.0-54.4
55-64	100	62.4	50.6-74.2	18.8	10.3-27.3	18.8	10.7-26.9
15-64	**200**	**46.5**	**37.7-55.4**	**21.4**	**14.0-28.7**	**32.1**	**24.0-40.2**

Time of last eye exam, as part of diabetes control, among those diagnosed with diabetes

Table 115

Time of last eye exam, as part of diabetes control, among those diagnosed with diabetes

Age Group (years)	Both sexes					
	n	% within the past 2 years	95% IC	% more than 2 years ago	95% IC	% never	95% IC
15-24	3	0.0	0.0-0.0	0.0	0.0-0.0	100.0	100.0-100.0
25-34	14	31.7	5.9-57.6	33.1	3.5-62.7	35.2	3.5-66.8
35-44	36	34.6	17.8-51.5	25.3	8.8-41.8	40.0	22.0-58.0
45-54	90	36.9	24.0-49.8	20.2	9.5-30.9	42.9	28.9-56.9
55-64	137	52.0	41.8-62.2	19.1	11.4-26.7	28.9	19.3-38.5
15-64	**280**	**40.7**	**33.7-47.7**	**21.0**	**15.1-26.9**	**38.3**	**31.1-45.6**

Analysis Information:

- *Questions used: H6, H7a, H11*
- *Epi Info program name: PAHOHdiabetescheck (unweighted); PAHOHdiabetescheckWT (weighted)*

DIABETES CONTROL: FOOT EXAM

Description: *Percentage of participants previously diagnosed with diabetes who, as part of their diabetes control, have had their feet examined within the past 2 years, more than 2 years ago or never.*

Instrument Question:

- *When was the last time your feet were examined as part of your diabetes control?*

Tables 116,117 & 118 show that among all respondents previously diagnosed with diabetes, 19.7% (14.7% for men and 23.2% for women) had a foot examination within the past year, as part of diabetes control. This was followed by 13.4% (13.4% for men and 13.4% for women) having a foot exam more than one year prior to the survey, and 66.9% (71.9% for men and 63.3% for women) reported never having a foot examination.

Table 116

Time of last foot exam, as part of diabetes control, among those diagnosed with diabetes

Age Group (years)	Men					
	n	% within the past year	95% IC	% more than 1 year ago	95% IC	% never	95% IC
15-24	1	0.0	0.0-0.0	0.0	0.0-0.0	100.0	100.0-100.0
25-34	4	28.6	0.0-77.9	14.3	0.0-43.3	57.1	3.6-100.0
35-44	12	8.2	0.0-24.0	8.2	0.0-24.0	83.7	62.1-100.0
45-54	23	13.3	0.2-26.4	26.6	3.0-50.2	60.1	34.3-86.0
55-64	36	17.9	3.1-32.7	6.3	0.0-14.3	75.8	59.1-92.5
15-64	**76**	**14.7**	**6.1-23.2**	**13.4**	**4.6-22.3**	**71.9**	**60.7-83.1**

Table 117

Time of last foot exam, as part of diabetes control, among those diagnosed with diabetes

Age Group (years)	Women					
	n	% within the past year	95% IC	% more than 1 year ago	95% IC	% never	95% IC
15-24	2	0.0	0.0-0.0	0.0	0.0-0.0	100.0	100.0-100.0
25-34	10	0.0	0.0-0.0	0.0	0.0-0.0	100.0	100.0-100.0
35-44	23	18.2	0.0-37.0	11.8	0.0-24.9	70.0	49.2-90.8
45-54	65	16.2	6.5-25.9	20.5	9.2-31.7	63.3	49.8-76.8
55-64	98	39.5	29.0-50.0	11.1	4.3-17.9	49.4	38.6-60.1
15-64	**198**	**23.2**	**16.5-30.0**	**13.4**	**7.9-19.0**	**63.3**	**55.4-71.3**

Table 118							
Time of last foot exam, as part of diabetes control, among those diagnosed with diabetes							
Age Group (years)	**Both sexes**						
	n	% within the past year	95% IC	% more than 1 year ago	95% IC	% never	95% IC
15-24	3	0.0	0.0-0.0	0.0	0.0-0.0	100.0	100.0-100.0
25-34	14	9.8	0.0-28.4	4.9	0.0-14.7	85.3	64.7-100.0
35-44	35	14.6	1.2-28.1	10.5	0.4-20.7	74.8	59.3-90.4
45-54	88	15.0	6.7-23.4	22.9	11.3-34.6	62.0	48.8-75.3
55-64	134	29.7	20.5-38.8	8.9	3.6-14.3	61.4	51.1-71.7
15-64	**274**	**19.7**	**14.3-25.1**	**13.4**	**8.4-18.5**	**66.9**	**60.2-73.6**

Analysis Information:

- *Questions used: H6, H7a, H12*

- *Epi Info program name: PAHOHdiabetescheck (unweighted); PAHOHdiabetescheckWT (weighted)*

CHOLESTEROL DIAGNOSIS AND TREATMENT

Description: *Raised total cholesterol diagnosis and treatment results.*

Instrument Question:

- *Have you ever been told by a doctor or other health worker that you have raised cholesterol?*

- *Were you told in the last 12 months?*

- *Are you currently receiving any of the following treatments/advice for raised cholesterol prescribed by a doctor or other health worker?*

- *Oral treatment (medication) taken in the last 2 weeks?*

Tables 119,120 & 121 show that among respondents, 7.9% (5.9% for men and 9.8% for women) were diagnosed with raised cholesterol, of which 66.0% (73.1% for men and 62.0% for women) were diagnosed with the last 12 months. Of those who have been diagnosed with raised cholesterol 47.0% (47.3% for men and 46.9% for women) are currently taking cholesterol medication prescribed by doctor or health worker.

Table 119

Raised cholesterol ever diagnosed

Age Group (years)	Men			Women			Both Sexes		
	n	% diagnosed	95% CI	n	% diagnosed	95% CI	n	% diagnosed	95% CI
15-24	230	1.4	0.0-3.0	262	1.5	0.0-3.3	492	1.5	0.3-2.7
25-34	242	3.5	1.3-5.6	349	6.5	3.3-9.8	591	5.1	3.0-7.3
35-44	232	4.6	1.6-7.5	299	5.8	2.9-8.6	531	5.2	3.2-7.2
45-54	201	10.4	4.9-15.9	360	18.1	13.5-22.7	561	14.2	10.5-17.9
55-64	188	16.0	9.4-22.6	328	32.8	26.8-38.8	516	24.4	20.1-28.8
15-64	**1093**	**5.9**	**4.4-7.4**	**1598**	**9.8**	**8.2-11.5**	**2691**	**7.9**	**6.8-9.1**

Table 120

Raised cholesterol diagnosed in last 12 months

Age Group (years)	Men			Women			Both Sexes		
	n	% diagnosed	95% CI	n	% diagnosed	95% CI	n	% diagnosed	95% CI
15-24	3	66.7	11.8-100.0	3	50.0	0.0-100.0	6	57.8	17.6-98.0
25-34	10	86.7	62.0-100.0	21	47.5	21.5-73.5	31	59.5	37.5-81.6
35-44	10	62.8	28.5-97.1	20	62.5	40.0-84.9	30	62.6	43.4-81.9
45-54	20	79.6	57.7-100.0	66	68.7	55.6-81.8	86	72.8	60.8-84.8
55-64	27	67.2	45.2-89.2	107	63.8	53.4-74.2	134	64.9	55.1-74.8
15-64	**70**	**73.1**	**60.5-85.8**	**217**	**62.0**	**53.6-70.4**	**287**	**66.0**	**58.8-73.2**

Table 121

Currently taking cholesterol medication prescribed by doctor or health worker

Age Group (years)	Men			Women			Both Sexes		
	n	% taking insulin	95% CI	n	% taking insulin	95% CI	n	% taking insulin	95% CI
15-24	3	33.3	0.0-88.2	3	0.0	0.0-0.0	6	15.6	0.0-44.3
25-34	10	40.1	7.2-73.0	21	26.2	2.5-49.9	31	30.5	8.3-52.6
35-44	10	27.9	0.0-60.7	20	18.1	2.3-33.9	30	22.2	5.5-39.0
45-54	20	44.9	18.5-71.3	66	60.4	47.8-73.1	86	54.6	41.5-67.6
55-64	27	65.6	44.3-86.9	107	59.3	49.4-69.1	134	61.3	51.5-71.1
15-64	**70**	**47.3**	**33.2-61.3**	**217**	**46.9**	**38.8-54.9**	**287**	**47.0**	**39.8-54.1**

Analysis Information:

- *Questions used: L1a, L2a, L2b, L3a*
- *Epi Info program name: PAHO_ Hcholesterol (unweighted); PAHO_ HcholesterolWT (weighted)*

CHOLESTEROL LIFESTYLE ADVICE

Description: *Percentage of population with raised cholesterol who received lifestyle advice.*

Instrument Question:

- *Are you currently receiving any of the following treatments/advice for raised cholesterol prescribed by a doctor or other health worker?*

Tables 122,123,124 & 125 show that among all respondents previously diagnosed, and who were given lifestyle advice by a doctor or health worker to treat with their raised blood cholesterol: 43.8% (45.2% for men and 43.0% for women) were advised to have special prescribed diet, followed by 51.2% (48.7% for men and 52.7% for women) were advised to lose weight, 19.7% (25.3% for men and 16.5% for women) to stop smoking, and 68.0% (71.9% for men and 65.9% for women) advised to start or do more exercise.

It is noteworthy that more males (25.3% vs 16.5%) were advised to stop smoking when compared to their female counterparts.

Table 122

Age Group (years)	Advised by doctor or health worker to have special prescribed diet								
	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	3	33.3	0.0-88.2	3	0.0	0.0-0.0	6	15.6	0.0-44.3
25-34	10	53.4	20.0-86.8	21	30.3	6.3-54.2	31	37.4	16.8-58.0
35-44	10	32.5	0.0-68.4	20	47.3	21.7-72.9	30	41.0	19.9-62.2
45-54	20	38.8	13.4-64.2	66	49.2	35.2-63.3	86	45.3	32.5-58.1
55-64	27	57.8	35.5-80.2	107	46.8	35.9-57.7	134	50.4	39.5-61.2
15-64	**70**	**45.2**	**31.4-58.9**	**217**	**43.0**	**33.7-52.3**	**287**	**43.8**	**35.8-51.8**

Table 123

Age Group (years)	Advised by doctor or health worker to lose weight								
	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	3	33.3	0.0-88.2	3	0.0	0.0-0.0	6	15.6	0.0-44.3
25-34	10	80.0	53.2-100.0	21	65.7	41.6-89.7	31	70.1	52.6-87.5
35-44	10	48.9	13.6-84.1	20	50.0	24.8-75.3	30	49.5	28.9-70.2
45-54	20	42.9	16.7-69.0	66	53.7	39.5-67.9	86	49.6	36.1-63.1
55-64	27	45.3	25.3-65.3	107	53.0	41.4-64.5	134	50.5	40.6-60.3
15-64	**70**	**48.7**	**35.4-61.9**	**217**	**52.7**	**44.1-61.2**	**287**	**51.2**	**44.0-58.5**

Table 124

Age Group (years)	Advised by doctor or health worker to stop smoking								
	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	3	0.0	0.0-0.0	3	0.0	0.0-0.0	6	0.0	0.0-0.0
25-34	10	53.3	20.0-86.7	21	19.2	0.0-38.5	31	29.7	11.1-48.2
35-44	10	13.9	0.0-39.7	20	8.4	0.0-20.4	30	10.7	0.0-23.6
45-54	20	22.5	0.8-44.1	66	20.9	8.6-33.2	86	21.5	9.7-33.3
55-64	27	28.1	11.3-44.9	107	16.1	8.6-23.7	134	20.0	12.5-27.6
15-64	**70**	**25.3**	**13.9-36.7**	**217**	**16.5**	**10.2-22.8**	**287**	**19.7**	**13.7-25.7**

Table 125

Age Group (years)	Advised doctor or health worker to start or do more exercise								
	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	3	0.0	0.0-0.0	3	25.0	0.0-71.3	6	13.3	0.0-38.5
25-34	10	100.0	100.0-100.0	21	69.7	46.3-93.1	31	79.0	61.8-96.2
35-44	10	69.7	38.4-100.0	20	58.4	34.1-82.7	30	63.2	44.0-82.4
45-54	20	73.5	48.2-98.7	66	70.9	57.9-83.9	86	71.9	59.5-84.2
55-64	27	75.0	56.0-94.0	107	67.0	57.2-76.9	134	69.6	60.4-78.8
15-64	**70**	**71.9**	**59.2-84.7**	**217**	**65.9**	**58.4-73.3**	**287**	**68.0**	**61.7-74.4**

Analysis Information:

- *Questions used: L3(b-e)*
- *Epi Info program name: PAHO_Hchollifestyle (unweighted); PAHO_HchollifestyleWT (weighted)*

CHOLESTEROL ADVICE BY A TRADITIONAL HEALER

Description: *Percentage of population with raised cholesterol, who are seeking advice with traditional healers.*

Instrument Question:

- *During the past 12 months have you seen a traditional healer for raised cholesterol?*
- *Are you currently taking any herbal or traditional remedy for your raised cholesterol?*

Tables 126 & 127 show that overall 4.7% (2.9% for men and 6.0% for women) of respondents was reported seeing a traditional healer for diabetes, whilst 4.1% (6.5% for men and 2.3% for women) were currently taking herbal or traditional remedy for diabetes among those previously diagnosed. The results suggest that whilst more women in the 15-34 age groups were seeing a traditional healer when compared to the women in the older age groups, more women in the older age groups were currently taking herbal treatment.

On the other hand men in the 45-64 age groups were seeing both a traditional healer, and currently taking herbal treatment for diabetes.

Table 126

Age Group (years)	Seen a traditional healer for diabetes in the last 12 months								
	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24				3	0.0	0.0-0.0	6	0.0	0.0-0.0
25-34				21	2.0	0.0-6.1	31	1.4	0.0-4.2
35-44				20	0.0	0.0-0.0	30	0.0	0.0-0.0
45-54				66	3.0	0.0-6.6	86	1.9	0.0-4.1
55-64				107	5.9	0.0-12.1	134	4.0	0.0-8.2
15-64				**217**	**3.4**	**0.8-6.0**	**287**	**2.2**	**0.5-3.8**

Table 127

Age Group (years)	Currently taking herbal or traditional treatment for raised cholesterol								
	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	3	13.3	0.0-38.0	3	0.0	0.0-0.0	6	0.0	0.0-0.0
25-34	10	0.0	0.0-0.0	21	0.0	0.0-0.0	31	4.1	0.0-11.3
35-44	10	0.0	0.0-0.0	20	0.0	0.0-0.0	30	0.0	0.0-0.0
45-54	20	0.0	0.0-0.0	66	2.2	0.0-5.5	86	1.4	0.0-3.5
55-64	27	**1.7**	**0.0-5.0**	107	5.9	0.0-11.9	134	4.0	0.0-8.1
15-64	**70**	13.3	0.0-38.0	**217**	**2.8**	**0.4-5.3**	**287**	**2.4**	**0.5-4.3**

Analysis Information:

- *Questions used: L4, L5*
- *Epi Info program name: PAHO_Hcholtrad (unweighted); PAHO_HcholtradWT (weighted)*

FAMILY HISTORY OF CHRONIC DISEASE CONDITIONS

Description: *Percentage with a family member who has been diagnosed with a chronic disease condition.*

Instrument Question:

- *Have some of your family members been diagnosed with the following diseases?*

    Diabetes; Raised Blood Pressure; Stroke; Cancer Or Malignant Tumor; Raised Cholesterol; Early Myocardial Infarction?

Tables 128,129 & 130 show the proportion of respondents who reported family members who have been diagnosed with a chronic condition(s). From the highest frequency of diagnosis of a health condition to the lowest, as reported: raised blood pressure 62.5% (67.4% for women and 57.4% for men), followed by diabetes 62.2% (59.5% for men and 64.8% for women), stroke 27.3% (24.2% for women and 30.3 for women), cancer or malignant tumor 26.4% (32.7% for women and 19.7% for men), raised cholesterol 23.2% (25.4% for women and 20.8% for men) and early myocardial infarction 18.9% (20.3% for women and 17.4% for men.

In all categories the percentage of women who had family members diagnosed with a chronic disease condition was higher when compared to men. It is noteworthy that among all age groups, including the youngest, reported a family member with a diagnosis of at least one chronic disease.

Table 128

| | | | **Family member who has been diagnosed with** | | | | |
| | | | | **Men** | | | |
Age Group (years)	n	% Diabetes or high blood sugar	% Raised blood pressure	% Stroke	% Cancer or malignant tumor	% Raised cholesterol	% Early myocardial infarction
15-24	230	63.5	56.9	21.5	21.6	28.3	20.2
25-34	242	61.4	59.7	18.4	25.4	18.8	14.7
35-44	232	62.2	58.0	32.4	17.7	19.6	20.6
45-54	201	48.5	51.2	21.1	14.7	16.7	11.5
55-64	188	59.7	63.4	31.5	16.5	16.5	19.7
15-64	**1093**	**59.5**	**57.4**	**24.2**	**19.7**	**20.8**	**17.4**

Table 129

Age Group (years)	n	% Diabetes or high blood sugar	% Raised blood pressure	% Stroke	% Cancer or malignant tumor	% Raised cholesterol	% Early myocardial infarction
				Family member who has been diagnosed with			
				Women			
15-24	262	63.5	67.7	29.1	34.9	27.6	18.1
25-34	349	65.1	64.9	27.0	34.3	25.0	19.3
35-44	299	64.1	68.2	32.0	34.4	27.4	21.0
45-54	360	66.7	68.0	30.8	28.4	23.3	23.7
55-64	328	65.8	69.4	36.5	26.9	20.1	21.4
15-64	**1598**	**64.8**	**67.4**	**30.3**	**32.7**	**25.4**	**20.3**

Table 130

Age Group (years)	n	% Diabetes or high blood sugar	% Raised blood pressure	% Stroke	% Cancer or malignant tumor	% Raised cholesterol	% Early myocardial infarction
				Family member who has been diagnosed with			
				Both Sexes			
15-24	492	63.5	62.5	25.4	28.5	27.9	19.1
25-34	591	63.4	62.5	23.1	30.3	22.2	17.2
35-44	531	63.2	63.3	32.2	26.4	23.7	20.8
45-54	561	57.4	59.4	25.8	21.4	19.9	17.4
55-64	516	62.7	66.4	34.0	21.7	18.3	20.5
15-64	**2691**	**62.2**	**62.5**	**27.3**	**26.4**	**23.2**	**18.9**

Analysis Information:

- *Questions used: F1(a-f)*
- *Epi Info program name: PAHO_Hfamilyhistory (unweighted); PAHO_HfamilyhistoryWT (weighted)*

Physical Measurements

HEIGHT, WEIGHT AND BMI

Description: *Mean height, weight, and body mass index among all respondents (excluding pregnant women for weight and BMI).*

Instrument Question:

- *Height*
- *Weight*

Tables 131 & 132 show that the mean height reported for men was 173.2 (cm) and 160.6 (cm) for women, whilst the mean weight reported for men was 76.7 (kg) and 71.1 (kg) for women.

Table 131

Mean height (cm)						
Age Group (years)	**Men**			**Women**		
	n	Mean	95% CI	n	Mean	95% CI
15-24	232	174.2	173.1-175.3	268	161.4	160.4-162.3
25-34	242	175.3	173.9-176.7	350	162.5	161.5-163.5
35-44	237	172.6	171.5-173.6	300	160.0	159.0-161.0
45-54	211	172.3	169.2-175.3	360	158.9	157.9-159.8
55-64	190	169.5	168.2-170.9	330	158.1	157.0-159.1
15-64	**1112**	**173.2**	**172.4-174.0**	**1608**	**160.6**	**160.1-161.1**

Table 132

Mean weight (kg)						
Age Group (years)	**Men**			**Women**		
	n	Mean	95% CI	n	Mean	95% CI
15-24	232	69.9	67.4-72.5	268	60.8	58.1-63.4
25-34	242	79.6	76.7-82.4	350	73.9	70.5-77.3
35-44	237	81.7	79.1-84.4	300	74.1	71.7-76.5
45-54	211	77.5	74.0-81.1	360	78.2	75.7-80.7
55-64	190	76.4	73.6-79.3	330	74.3	71.4-77.3
15-64	**1112**	**76.7**	**75.3-78.1**	**1608**	**71.1**	**69.6-72.6**

Further calculation (Table 133) reported an overall mean BMI of 26.5 (25.6 for men and 27.4 for women). The mean BMI ranges from 23.1 – 26.6 for men and 23.2 – 29.3 for women. It is noteworthy that for each of the age groups the mean BMI for women was higher than their male counterparts.

Table 133										
Mean BMI (kg/m^2)										
Age Group (years)	**Men**				**Women**				**Both Sexes**	
	N	Mean	95% CI		n	Mean	95% CI		n	Mean	95% CI
15-24	230	23.1	22.4-23.8		266	23.2	22.3-24.1		496	23.2	22.6-23.7
25-34	238	25.7	25.0-26.5		349	28.0	26.7-29.3		587	27.0	26.2-27.8
35-44	237	27.4	26.6-28.1		299	28.9	28.1-29.8		536	28.2	27.6-28.8
45-54	209	26.2	24.6-27.8		355	30.5	29.7-31.3		564	28.2	27.2-29.3
55-64	190	26.6	25.6-27.6		327	29.3	28.3-30.2		517	27.9	27.3-28.6
15-64	**1104**	**25.6**	**25.1-26.0**		**1596**	**27.4**	**26.9-28.0**		**2700**	**26.5**	**26.2-26.8**

Analysis Information:

- *Questions used: M3, M4, M5*
- *Epi Info program name: Mbmi (unweighted); MbmiWT (weighted)*

BMI CATEGORIES

Description: *Percentage of respondents (excluding pregnant women) in each BMI category.*

Instrument Question:

- *Height*
- *Weight*

Tables 134,135 & 136 show that of the 1104 men and 1596 women who were surveyed, 32.9% of men and 27.3% of women are overweight (BMI >=25 - = <29.9), an average of 30%. This pattern increases within all age groups from the 15-54, and then drops slightly in the 55-64 year age group.

With respect to obesity, 19.4% were males and 31.7% were females (BMI>= 30), an average of 25.7%. Again this pattern increased from the youngest 15- 54 year old and then dropped slightly in the last age group.

The data reports that a combined total of 55.7% of participants were either overweight (30.0%) and/or obese (25.7%). It is noteworthy that 29.7% of 15-18 year olds were overweight and 13.1% were obese, whilst the next youngest group, the 19-24 year olds, 37.9% were overweight and 10.8% were obese. This means that on average 42.8% of the 15-18 year old, and 48.7% of the 19-24 year old persons are either overweight or obese. The data reported that 7.4% of the respondents were underweight (both males and females 7.4%) with a BMI less than 18.5.

Table 134

Age Group (years)	BMI classifications							
	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
15-24	230	15.1	9.5-20.6	49.3	41.9-56.8	22.9	17.0-28.9	12.7	8.1-17.2
25-34	238	5.6	2.3-8.8	45.0	37.2-52.8	33.8	26.8-40.9	15.6	10.7-20.6
35-44	237	1.9	0.4-3.3	33.0	25.9-40.2	38.6	31.1-46.0	26.5	20.1-32.9
45-54	209	5.7	1.8-9.6	34.5	21.8-47.2	38.7	29.9-47.4	21.2	13.9-28.5
55-64	190	6.2	2.0-10.4	34.1	25.9-42.3	34.1	26.4-41.8	25.6	17.1-34.1
15-64	1104	7.4	5.5-9.3	40.3	36.3-44.3	32.9	29.6-36.3	19.4	16.7-22.1

Table 135

Age Group (years)	BMI classifications							
	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
15-24	266	16.1	10.0-22.1	50.2	42.1-58.2	23.0	17.0-29.0	10.8	6.6-15.0
25-34	349	8.4	4.8-11.9	37.4	31.1-43.6	19.4	14.6-24.2	34.9	28.3-41.5
35-44	299	1.3	0.0-2.5	27.0	21.3-32.6	32.2	25.0-39.4	39.6	32.7-46.4
45-54	355	2.5	0.2-4.7	16.6	12.3-21.0	35.2	29.9-40.5	45.8	39.7-51.8
55-64	327	2.7	0.4-5.0	22.8	17.6-28.0	34.0	28.2-39.8	40.5	34.1-47.0
15-64	1596	7.4	5.3-9.5	33.7	30.3-37.0	27.3	24.4-30.1	31.7	28.8-34.5

Table 136

Age Group (years)	BMI classifications							
	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
15-24	496	15.6	11.6-19.5	49.8	44.0-55.6	22.9	18.6-27.3	11.7	8.5-14.9
25-34	587	7.1	4.7-9.5	40.8	35.8-45.9	25.9	21.7-30.1	26.1	21.7-30.6
35-44	536	1.6	0.6-2.5	29.9	25.2-34.6	35.3	30.1-40.5	33.2	28.7-37.8
45-54	564	4.1	1.9-6.4	26.0	18.5-33.4	37.0	32.0-42.0	32.9	27.7-38.1
55-64	517	4.4	1.9-7.0	28.5	23.7-33.2	34.0	29.3-38.8	33.1	28.0-38.1
15-64	2700	7.4	6.0-8.8	36.9	34.3-39.4	30.0	27.8-32.2	25.7	23.9-27.6

Analysis Information:

- Questions used: M3, M4, M5
- Epi Info program name: Mbmiclass (unweighted); MbmiclassWT (weighted)

BMI ≥ 25

Description: *Percentage of respondents being classified as overweight (BMI≥25).*

Instrument Question:
- *Height*
- *Weight*

Table 137 shows that 36.9% (40.3% men and 33.7% women) of respondents are overweight (BMI>25).

Table 137

	BMI≥25								
Age Group (years)	**Men**			**Women**			**Both Sexes**		
	N	% BMI≥25	95% CI	n	% BMI≥25	95% CI	n	% BMI≥25	95% CI
15-24	230	49.3	41.9-56.8	266	50.2	42.1-58.2	496	49.8	44.0-55.6
25-34	238	45.0	37.2-52.8	349	37.4	31.1-43.6	587	40.8	35.8-45.9
35-44	237	33.0	25.9-40.2	299	27.0	21.3-32.6	536	29.9	25.2-34.6
45-54	209	34.5	21.8-47.2	355	16.6	12.3-21.0	564	26.0	18.5-33.4
55-64	190	34.1	25.9-42.3	327	22.8	17.6-28.0	517	28.5	23.7-33.2
15-64	**1104**	**40.3**	**36.3-44.3**	**1596**	**33.7**	**30.3-37.0**	**2700**	**36.9**	**34.3-39.4**

Analysis Information:
- *Questions used: M3, M4, M5*
- *Epi Info program name: Mbmiclass (unweighted); MbmiclassWT (weighted)*

WAIST CIRCUMFERENCE

Description: *Mean waist circumference among all respondents (excluding pregnant women).*

Instrument Question:
- *Waist circumference measurement*

Table 138 shows that the mean waist circumference reported for men was 104.9cm, and 89.3 for women.

Table 138

Age Group (years)	Waist circumference (cm)						
	Men				Women		
	n	Mean	95% CI		n	Mean	95% CI
15-24	223	103.4	101.6- 105.2		252	81.2	79.3-83.0
25-34	229	104.8	101.9-107.6		337	89.7	87.5-92.0
35-44	231	104.1	101.7-106.4		294	91.2	89.4-93.0
45-54	197	108.0	98.9-117.1		358	95.6	94.0-97.2
55-64	186	105.9	103.2-108.5		319	95.0	93.1-97.0
15-64	**1066**	104.9	102.9-107.1		**1560**	89.3	88.3-90.3

Analysis Information:

- *Questions used: M5, M7*
- *Epi Info program name: Mwaist (unweighted); MwaistWT (weighted)*

BLOOD PRESSURE

Description: *Mean blood pressure among all respondents, including those currently on medication for raised blood pressure.*

Instrument Question:

- *Reading 1-3 systolic and diastolic blood pressure.*

Tables 139 & 140 show that the overall prevalence of mean blood pressure reported among all respondents, including those currently on medication for raised blood pressure was: systolic 125.5mmHg (129.3 for men and 122.0 for women), and diastolic 78.7mmHg (79.6 for men and 77.9 for women). Generally both systolic and diastolic blood pressure increased with age group, and it is noteworthy that the youngest age group in men report a blood pressure of 123/72.6 mmHg.

Table 139

Age Group (years)	Mean systolic blood pressure (mmHg)									
	Men				Women			Both Sexes		
	n	Mean	95% CI		n	Mean	95% CI	n	Mean	95% CI
15-24	219	123.0	121.0-125.1		253	112.0	109.7-114.3	472	117.2	115.6-118.9
25-34	228	125.4	123.5-127.4		340	117.0	114.8-119.2	568	120.8	119.2-122.4
35-44	232	128.1	125.6-130.6		294	122.3	120.0-124.6	526	125.1	123.3-126.9
45-54	195	135.1	131.8-138.3		359	133.4	131.1-135.7	554	134.3	132.4-136.2
55-64	184	142.9	137.8-148.0		323	139.0	136.2-141.7	507	140.9	138.1-143.8
15-64	**1058**	**129.3**	**127.9-130.7**		**1569**	**122.0**	**120.7-123.3**	**2627**	**125.5**	**124.4-126.5**

Table 140

Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
15-24	219	72.6	71.1-74.2	253	71.5	69.7-73.3	472	72.0	70.9-73.2
25-34	228	77.1	75.6-78.7	340	76.6	75.1-78.0	568	76.8	75.7-77.9
35-44	232	82.2	80.4-84.0	294	79.8	78.2-81.4	526	81.0	79.7-82.2
45-54	195	85.5	83.7-87.3	359	84.1	82.6-85.6	554	84.8	83.7-85.9
55-64	184	85.4	83.0-87.8	323	83.1	81.6-84.5	507	84.2	82.9-85.6
15-64	**1058**	**79.6**	**78.6-80.6**	**1569**	**77.9**	**77.0-78.8**	**2627**	**78.7**	**78.0-79.4**

Mean diastolic blood pressure (mmHg)

Analysis Information:

- *Questions used: M11a, M11b, M12a, M12b, M13a, M13b*
- *Epi Info program name: Mbloodpressure (unweighted); MbloodpressureWT (weighted)*

RAISED BLOOD PRESSURE

Description: *Percentage of respondents with raised blood pressure.*

Instrument Question:

- *During the past two weeks, have you been treated for raised blood pressure with drugs (medication) prescribed by a doctor or other health worker?*
- *Reading 1- 3 systolic and diastolic blood pressure*

Tables 141 & 142 show that among those with raised blood pressure, 20.8% (25.4% for men and 16.4% for women) reported SBP ≥140 and/or DBP ≥ 90 mmHg and were not on any medication, whilst 26.3% (29.8% for men and 23.1% for women) who reported this level of raised blood pressure, were on medication.

Table 141

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
15-24	219	16.3	10.4-22.2	252	3.1	1.0-5.1	471	9.4	6.3-12.4
25-34	225	14.0	9.1-19.0	333	8.3	5.1-11.6	558	10.9	8.0-13.8
35-44	221	28.7	21.4-36.1	277	22.0	15.4-28.5	498	25.3	20.2-30.3
45-54	172	35.7	24.9-46.5	298	36.4	29.9-42.9	470	36.0	29.4-42.7
55-64	147	52.1	42.5-61.6	223	37.2	29.8-44.6	370	44.9	38.7-51.1
15-64	**984**	**25.4**	**22.2-28.7**	**1383**	**16.4**	**14.1-18.8**	**2367**	**20.8**	**18.7-23.0**

Table 142

Age Group (years)	Men			Women			Both Sexes		
	N	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	219	16.3	10.4-22.2	253	3.4	1.3-5.6	472	9.5	6.5-12.6
25-34	228	14.9	9.8-19.9	340	9.9	6.4-13.3	568	12.1	9.1-15.1
35-44	232	32.0	24.7-39.3	294	26.5	20.0-33.1	526	29.2	24.2-34.2
45-54	196	41.0	29.9-52.0	359	47.0	40.8-53.1	555	43.9	37.2-50.6
55-64	184	64.6	56.6-72.6	323	57.2	51.1-63.2	507	60.9	56.0-65.8
15-64	1059	29.8	26.5-33.1	1569	23.1	20.6-25.7	2628	26.3	24.1-28.5

SBP ≥140 and/or DBP ≥ 90 mmHg or currently on medication for raised blood pressure

Tables 143 & 144 show that among those with raised blood pressure, 6.4%% (7.7% for men and 5.2% for women) reported SBP ≥160 and/or DBP ≥ 100 mmHg and were not on any medication, whilst 12.9% (13.0% for men and 12.9% foe women) who reported this raised blood pressure were on medication.

Table 143

Age Group (years)	Men			Women			Both Sexes		
	N	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	219	1.0	0.0-2.2	252	0.4	0.0-1.1	471	0.7	0.0-1.4
25-34	225	2.2	0.0-4.4	333	2.7	0.7-4.8	558	2.5	1.0-4.0
35-44	221	11.0	5.3-16.7	277	6.4	3.3-9.4	498	8.6	5.4-11.9
45-54	172	12.2	5.8-18.5	298	12.8	8.3-17.4	470	12.5	8.5-16.5
55-64	147	24.0	16.3-31.7	223	13.2	8.3-18.1	370	18.8	14.2-23.4
15-64	984	7.7	5.8-9.5	1383	5.2	4.0-6.5	2367	6.4	5.2-7.6

SBP ≥160 and/or DBP ≥ 100 mmHg, excluding those on medication for raise d blood pressure

Table 144

Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	219	1.0	0.0-2.2	253	0.8	0.0-1.8	472	0.9	0.1-1.7
25-34	228	3.1	0.7-5.6	340	4.4	1.9-6.8	568	3.8	2.1-5.6
35-44	232	15.1	9.2-20.9	294	11.8	7.7-16.0	526	13.4	9.8-16.9
45-54	196	19.4	12.1-26.6	359	27.3	22.0-32.6	555	23.2	18.6-27.9
55-64	184	43.9	34.6-53.2	323	40.8	34.5-47.1	507	42.3	36.7-48.0
15-64	1059	13.0	10.6-15.5	1569	12.9	10.9-14.8	2628	12.9	11.4-14.5

SBP ≥160 and/or DBP ≥ 100 mmHg or currently on medication for raised blood pressure

Analysis Information:

- Questions used: M11a, M11b, M12a, M12b, M13a, M13b, M14
- Epi Info program name: Mraisedbp (unweighted);
  MraisedbpWT (weighted)

Description: *Percentage of respondents with treated and/or controlled of raised blood pressure among those with raised blood pressure (SBP ≥140 and/or DBP ≥ 90 mmHg) or currently on medication for raised blood pressure.*

Instrument Question:

- *During the past two weeks, have you been treated for raised blood pressure with drugs (medication) prescribed by a doctor or other health worker?*
- *Reading 1- 3 systolic and diastolic blood pressure*

Tables 145,146 & 147 show that of all respondents, 73.7% (70.2% for males and 76.9% for females) were being treated for, and/or controlled their raised blood pressure SBP<140 and DBP<90. Just over one quarter, 26.3% (29.8% for males and 23.1% for females) were being treated for, and/or controlled their raised blood pressure (SBP ≥140 and/or DBP ≥ 90mmHg.)

It is noteworthy that among all respondents being treated for and/or with controlled raised blood pressure (SBP<140 and DBP<90) decrease in prevalence as age increases, however, the opposite was observed for those on medication with a blood pressure of SBP ≥140 and/or DBP ≥ 90mmHg. Of all respondents 20.8% (25.4% for men and 16.4% for women were not on medication for a raised blood pressure of BP ≥140 and/or DBP ≥ 90mmHg.

Table 145

Age Group (years)	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
Respondents with treated and/or controlled raised blood pressure							
Men							
15-24	219	83.7	77.8-89.6	16.3	10.4-22.2	16.3	10.4-22.2
25-34	228	85.1	80.1-90.2	14.9	9.8-19.9	14.0	9.1-19.0
35-44	232	68.0	60.7-75.3	32.0	24.7-39.3	28.7	21.4-36.1
45-54	196	59.0	48.0-70.1	41.0	29.9-52.0	35.7	24.9-46.5
55-64	184	35.4	27.4-43.4	64.6	56.6-72.6	52.1	42.5-61.6
15-64	**1059**	**70.2**	**66.9-73.5**	**29.8**	**26.5-33.1**	**25.4**	**22.2-28.7**

Table 146

	Respondents with treated and/or controlled raised blood pressure					
	Women					
Age Group (years)	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
15-24	253	96.6	94.4-98.7	3.4	1.3-5.6	3.1	1.0-5.1
25-34	340	90.1	86.7-93.6	9.9	6.4-13.3	8.3	5.1-11.6
35-44	294	73.5	66.9-80.0	26.5	20.0-33.1	22.0	15.4-28.5
45-54	359	53.0	46.9-59.2	47.0	40.8-53.1	36.4	29.9-42.9
55-64	323	42.9	36.8-48.9	57.2	51.1-63.2	37.2	29.8-44.6
15-64	**1569**	**76.9**	**74.3-79.4**	**23.1**	**20.6-25.7**	**16.4**	**14.1-18.8**

Table 147

	Respondents with treated and/or controlled raised blood pressure						
	Both Sexes						
Age Group (years)	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
15-24	472	90.5	87.4-93.5	9.5	6.5-12.6	9.4	6.3-12.4
25-34	568	87.9	84.9-90.9	12.1	9.1-15.1	10.9	8.0-13.8
35-44	526	70.8	65.8-75.8	29.2	24.2-34.2	25.3	20.2-30.3
45-54	555	56.1	49.4-62.8	43.9	37.2-50.6	36.0	29.4-42.7
55-64	507	39.1	34.2-44.0	60.9	56.0-65.8	44.9	38.7-51.1
15-64	**2628**	**73.7**	**71.5-75.9**	**26.3**	**24.1-28.5**	**20.8**	**18.7-23.0**

Analysis Information:

- Questions used: M11a, M11b, M12a, M12b, M13a, M13b, M14
- Epi Info program name: Mraisedbp (unweighted); MraisedbpWT (weighted)

MEAN HEART RATE

Description: *Mean heart rate (beats per minute).*

Instrument Question:
- *Reading 1- 3 heart rate*

Table 148 shows that of all respondents the overall mean heart rate was reported as 82.4 (80.5 for men and 84.2 for women).

Table 148

Age Group (years)	Men			Women			Both Sexes		
	n	mean	95% CI	n	mean	95% CI	n	mean	95% CI
15-24	219	79.5	77.2-81.9	253	84.5	82.9-86.0	472	82.1	80.8-83.5
25-34	228	78.6	76.6-80.6	340	85.8	84.3-87.3	568	82.6	81.3-83.9
35-44	232	81.1	79.5-82.7	294	84.2	82.7-85.7	526	82.7	81.6-83.8
45-54	195	82.7	80.5-84.9	359	84.5	83.1-85.9	554	83.6	82.3-84.9
55-64	184	80.9	78.9-83.0	323	79.8	78.5-81.1	507	80.4	79.2-81.6
15-64	**1058**	**80.5**	**79.5-81.5**	**1569**	**84.2**	**83.5-85.0**	**2627**	**82.4**	**81.8-83.0**

Mean heart rate (beats per minute)

Analysis Information:
- *Questions used: M16a, M16b, M16c*
- *Epi Info program name: Mheartrate (unweighted); MheartrateWT (weighted)*

Biochemical Measurements

MEAN FASTING BLOOD GLUCOSE

Description: Mean fasting blood glucose results including those currently on medication for diabetes (non-fasting recipients excluded).

Instrument Question:

- During the last 12 hours have you had anything to eat or drink, other than water?

- Blood glucose measurement

Table 149 shows that among all respondents the overall mean fasting blood sugar level was 5.2 mmol/L (5.1 for men and 5.3 for women). Generally as age increased the mean fasting blood glucose increased.

Table 149

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
15-24	56	4.6	4.2-4.9	63	5.0	4.6-5.4	119	4.8	4.5-5.1
25-34	51	4.7	4.2-5.2	69	5.7	4.8-6.5	120	5.2	4.7-5.8
35-44	58	5.0	4.5-5.6	68	5.1	4.5-5.6	126	5.0	4.6-5.5
45-54	49	5.1	4.2-6.1	100	5.3	4.8-5.8	149	5.2	4.6-5.8
55-64	42	6.8	5.6-7.9	74	5.3	4.6-6.1	116	6.0	5.3-6.7
15-64	**256**	**5.1**	**4.7-5.4**	**374**	**5.3**	**5.0-5.6**	**630**	**5.2**	**4.9-5.4**

Analysis Information:

- Questions used: B1, B5

- Epi Info program name:
  - measurement in mmol/L: Bglucose (unweighted); BglucoseWT (weighted)
  - measurement in mg/dl: BglucoseMg (unweighted); BglucoseMgWT (weighted)

RAISED BLOOD GLUCOSE

Description: Categorization of respondents into blood glucose level categories and percentage of respondents currently on medication for raised blood glucose (non-fasting recipients excluded).

Instrument Question:

- Are you currently receiving any of the following treatments for diabetes prescribed by a doctor or other health worker? Insulin? Oral drugs (medication) that you have taken in the last 2 weeks?

- During the last 12 hours have you had anything to eat or drink, other than water?

- Blood glucose measurement.

- Today, have you taken insulin or other drugs (medication) that have been prescribed by a doctor or other health worker?

Tables 150,151 & 152 show that among all respondents, 6.3%. (6.8% for men and 5.9% for women) reported an impaired fasting glycaemic level (capillary whole blood value more than or equal to 5.6 mmol/L and less than 6.1 mmol/L). One fifth, 20.5% (19.8% for men and 21.2% for women) reported raised blood glucose (capillary whole blood value more than or equal to 6.1 mmol/L), or were currently on medication for diabetes. Additionally, 6.2% (5.6% for men and 6.8% for women) were currently on medication for diabetes.

It should be noted that 4.7% and 7.2% of those in the age groups 15-24 and 25-34 respectively had an impaired fasting glycaemic level.

Table 150

	Impaired Fasting Glycaemia*								
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	56	4.0	0.0-9.4	63	5.4	0.0-11.6	119	4.7	0.6-8.9
25-34	51	9.0	0.0-21.9	69	5.8	0.0-13.0	120	7.2	0.2-14.3
35-44	58	9.8	0.2-19.5	68	3.8	0.0-8.2	126	7.0	1.4-12.6
45-54	49	4.2	0.0-11.1	100	6.2	1.4-11.0	149	5.2	0.9-9.5
55-64	42	9.2	0.0-19.0	74	10.6	2.7-18.5	116	9.9	3.8-16.0
15-64	256	6.8	2.8-10.7	374	5.9	3.1-8.7	630	6.3	3.9-8.7

Table 151

	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
15-24	56	12.4	**3.9-20.8**	63	20.2	9.2-31.2	119	16.5	9.4-23.5
25-34	51	16.9	5.4-28.5	69	23.1	11.8-34.4	120	20.3	12.0-28.6
35-44	58	19.7	7.5-31.8	68	21.8	11.3-32.2	126	20.7	12.7-28.6
45-54	49	21.9	8.5-35.3	100	22.3	12.6-32.1	149	22.1	12.9-31.3
55-64	42	39.1	22.4-55.7	74	16.6	7.6-25.5	116	27.6	17.7-37.4
15-64	256	19.8	14.2-25.3	374	21.2	16.3-26.1	630	20.5	16.6-24.4

Table 152

Age Group (years)	Currently on medication for diabetes								
	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	232	0.0	0.0-0.0	268	0.0	0.0-0.0	500	0.0	0.0-0.0
25-34	243	1.4	0.0-3.0	351	1.2	0.2-2.3	594	1.3	0.4-2.2
35-44	237	3.4	1.0-5.9	300	6.5	3.1-10.0	537	5.0	2.9-7.2
45-54	211	11.0	5.6-16.4	360	14.8	10.9-18.8	571	12.9	9.6-16.1
55-64	191	21.5	13.6-29.5	331	24.3	19.1-29.6	522	22.9	18.1-27.8
15-64	**1114**	**5.6**	**3.8-7.4**	**1610**	**6.8**	**5.6-8.0**	**2724**	**6.2**	**5.2-7.3**

*** Impaired fasting glycaemia is defined as either**
- *capillary whole blood value: ≥5.6mmol/L (100mg/dl) and <6.1mmol/L (110mg/dl)*

**** Raised blood glucose is defined as either**
- *capillary whole blood value: ≥ 6.1 mmol/L (110 mg/dl)*

Analysis Information:

- *Questions used: H8a, H8b, B1, B5, B6*

- *Epi Info program name:*
  - *measurement in mmol/L: Bglucose (unweighted); BglucoseWT (weighted)*
  - *measurement in mg/dl: BglucoseMg (unweighted); BglucoseMgWT (weighted)*

TOTAL CHOLESTEROL

Description: *Mean total cholesterol among all respondents including those currently on medication for raised cholesterol.*

Instrument Question:

- *Total cholesterol measurement*

Table 153 shows that for all respondents, a mean of 5.1 mmol/L, (5.2 for men and 5.0 for women), of which 50.3% (50.1% for men and 50.4% for women) had reported a total cholesterol of ≥ 5.0 mmol/L or ≥ 190 mg/dl or were currently on medication for raised cholesterol. Additionally 23.5% (28.3% for men and 18.9% for women) reported a total cholesterol of ≥ 6.2 mmol/L or ≥ 240 mg/dl.

Table 153

Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
15-24	55	4.9	4.6-5.3	63	5.0	4.6-5.3	118	5.0	4.7-5.2
25-34	51	4.9	4.4-5.4	69	4.8	4.5-5.2	120	4.9	4.6-5.2
35-44	56	5.3	4.5-6.0	68	5.2	4.8-5.6	124	5.2	4.8-5.7
45-54	48	6.0	5.3-6.6	100	5.3	5.0-5.7	148	5.7	5.2-6.1
55-64	41	4.8	4.2-5.3	74	4.8	4.4-5.3	115	4.8	4.5-5.1
15-64	**251**	**5.2**	**4.9-5.5**	**374**	**5.0**	**4.9-5.2**	**625**	**5.1**	**5.0-5.3**

Mean total cholesterol (mmol/L)

Analysis Information:

- Questions used: B8

- Epi Info program name:
    - measurement in mmol/L: Btotallipids (unweighted); BtotallipidsWT (weighted)

RAISED TOTAL CHOLESTEROL

Description: *Percentage of respondents with raised total cholesterol and percentage of respondents currently on medication for raised cholesterol.*

Instrument Question:

- *Total cholesterol measurement*

- *During the past two weeks, have you been treated for raised cholesterol with drugs (medication) prescribed by a doctor or other health worker?*

Tables 154 & 155 show that respondents reported an average total cholesterol of ≥ 5.0 mmol/L or ≥ 190 mg/dl or who were currently on medication for raised cholesterol was 50.3% (50.1% for men and 50.4% for women). Additionally, those who reported a total cholesterol of ≥ 6.2 mmol/L or ≥ 240 mg/dl or who were currently on medication for raised cholesterol was an average of 23.5% (28.3% for men and 18.9% for women).

Table 154

Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	55	44.9	30.3-59.5	63	46.7	32.5-60.9	118	45.9	35.9-55.8
25-34	51	42.3	25.5-59.2	69	48.7	34.6-62.8	120	45.8	35.1-56.6
35-44	56	48.7	33.3-64.1	68	58.6	44.4-72.7	124	53.4	42.7-64.1
45-54	48	68.5	49.5-87.4	100	53.2	42.0-64.4	148	61.2	49.2-73.2
55-64	41	37.4	20.2-54.6	74	43.4	29.4-57.3	115	40.5	29.6-51.4
15-64	**251**	**50.1**	**42.0-58.3**	**374**	**50.4**	**44.0-56.8**	**625**	**50.3**	**45.1-55.4**

Total cholesterol ≥ 5.0 mmol/L or ≥ 190 mg/dl or currently on medication for raised cholesterol

Table 155

Age Group (years)	Men			Women			Both Sexes		
Total cholesterol ≥ 6.2 mmol/L or ≥ 240 mg/dl or currently on medication for raised cholesterol									
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	55	20.7	8.0-33.4	63	19.5	7.7-31.2	118	20.0	11.6-28.5
25-34	51	15.8	3.0-28.6	69	10.9	3.2-18.6	120	13.1	5.8-20.4
35-44	56	24.4	10.7-38.0	68	20.9	10.4-31.4	124	22.7	14.0-31.4
45-54	48	51.6	27.6-75.7	100	24.0	14.6-33.5	148	38.4	23.5-53.4
55-64	41	24.1	8.1-40.1	74	20.2	9.5-30.8	115	22.1	12.5-31.6
15-64	**251**	**28.3**	**19.4-37.1**	**374**	**18.9**	**14.1-23.7**	**625**	**23.5**	**18.4-28.6**

Analysis Information:

- *Questions used: B8, B9*

- *Epi Info program name:*
  - measurement in mmol/L: Btotallipids (unweighted); BtotallipidsWT (weighted)
  - measurement in mg/dl: BtotallipidsMg (unweighted); BtotallipidsMgWT (weighted)

HIGH DENSITY LIPOPROTEIN (HDL)

Description: *Mean HDL among all respondents and percentage of respondents with low HDL.*

Instrument Question:

- *HDL cholesterol measurement*

Tables 156 & 157 show that for all respondents the mean HDL reported was 1.5 mmol/L (1.5 for both men and women), of which 34.7% of women respondents reported an HDL of <1.29mmol/L or <50 mg/dl, whilst their male counterparts reported <1.03mmol/L or <40 mg/dl.

Table 156

Age Group (years)	Men			Women			Both Sexes		
Mean HDL (mmol/L)									
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
15-24	56	1.6	1.4-1.7	63	1.5	1.4-1.6	119	1.6	1.5-1.6
25-34	51	1.4	1.3-1.6	69	1.5	1.3-1.6	120	1.4	1.3-1.5
35-44	58	1.4	1.3-1.6	68	1.5	1.4-1.7	126	1.5	1.4-1.6
45-54	49	1.6	1.4-1.8	99	1.6	1.4-1.8	148	1.6	1.5-1.7
55-64	42	1.4	1.2-1.5	74	1.5	1.4-1.6	116	1.4	1.3-1.5
15-64	**256**	**1.5**	**1.4-1.6**	**373**	**1.5**	**1.5-1.6**	**629**	**1.5**	**1.5-1.6**

Table 157			
Percentage of respondents with HDL <1.03mmol/L or <40 mg/dl			
Age Group (years)	**Men**		
	n	%	95% CI
15-24	56	7.9	1.7-14.1
25-34	51	11.3	2.0-20.6
35-44	58	15.6	5.0-26.2
45-54	49	3.5	0.0-7.5
55-64	42	14.9	1.1-28.8
15-64	**256**	**9.9**	**5.9-13.8**

Table 158			
Percentage of respondents with HDL <1.29mmol/L or <50 mg/dl			
Age Group (years)	**Women**		
	n	%	95% CI
15-24	63	39.3	26.1-52.5
25-34	69	39.7	26.4-53.1
35-44	68	26.5	14.1-39.0
45-54	99	29.3	19.7-39.0
55-64	74	37.7	26.2-49.3
15-64	**373**	**34.7**	**29.1-40.3**

Analysis Information:

- *Questions used: B11*

- *Epi Info program name:*
  - measurement in mmol/L: Bhdlipids (unweighted); BhdlipidsWT (weighted)
  - measurement in mg/dl: BhdlipidsMg (unweighted); BhdlipidsMgWT (weighted)

TRIGLYCERIDES

Description: *Mean fasting triglycerides among all respondents and percentage of respondents with raised fasting triglycerides (non-fasting recipients excluded).*

Instrument Question:

- *During the last 12 hours have you had anything to eat or drink, other than water?*

- *Triglyceride measurement*

Tables 159,160 & 161 show of all respondents who was surveyed for fasting triglycerides a mean of 2.0 mmol/L (1.9 for men and 2.1 for women) was reported. Of these 49.7% (47.9% for men and 51.4% for women) reported fasting triglycerides ≥ 1.7 mmol/L or ≥ 150 mg/dl, and 39.4% ((37.2% for men and 41.6% for women) reported fasting triglycerides ≥ 2.0 mmol/L or ≥ 180 mg/dl.

Table 159

	Mean fasting triglycerides (mmol/L)								
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
15-24	55	1.8	1.5-2.2	63	1.9	1.5-2.2	118	1.9	1.6-2.1
25-34	50	1.9	1.6-2.2	69	2.1	1.7-2.6	119	2.0	1.8-2.3
35-44	55	2.1	1.7-2.5	66	2.1	1.8-2.4	121	2.1	1.8-2.3
45-54	49	1.8	1.4-2.3	97	2.3	2.0-2.7	146	2.1	1.8-2.4
55-64	41	2.2	1.8-2.6	74	1.9	1.6-2.2	115	2.0	1.8-2.3
15-64	250	1.9	1.8-2.1	369	2.1	1.9-2.2	619	2.0	1.9-2.1

Table 160

	Percentage of respondents with fasting triglycerides ≥ 1.7 mmol/L or ≥ 150 mg/dl								
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	55	47.0	31.4-62.6	63	42.8	29.4-56.2	118	44.8	34.3-55.2
25-34	50	50.9	33.6-68.1	69	53.2	39.7-66.8	119	52.2	41.1-63.2
35-44	55	54.8	39.7-69.9	66	58.0	43.9-72.0	121	56.3	45.8-66.7
45-54	49	33.9	14.2-53.6	97	58.0	47.1-68.9	146	45.1	32.1-58.1
55-64	41	63.8	47.0-80.6	74	47.0	33.8-60.2	115	55.0	44.2-65.9
15-64	250	47.9	39.8-55.9	369	51.4	44.9-57.9	619	49.7	44.6-54.7

Table 161

	Percentage of respondents with fasting triglycerides ≥ 2.0 mmol/L or ≥ 180 mg/dl								
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	55	36.9	21.8-51.9	63	37.3	24.3-50.4	118	37.1	27.1-47.1
25-34	50	32.0	17.9-46.1	69	38.5	25.5-51.4	119	35.6	26.0-45.1
35-44	55	42.6	27.4-57.8	66	51.6	37.3-65.9	121	46.8	36.1-57.6
45-54	49	30.4	11.6-49.2	97	46.7	34.9-58.4	146	38.0	26.0-49.9
55-64	41	53.0	35.4-70.6	74	32.5	21.1-43.8	115	42.3	31.6-52.9
15-64	250	37.2	29.7-44.8	369	41.6	35.4-47.8	619	39.4	34.7-44.2

Analysis Information:

- *Questions used: B1, B10*
- *Epi Info program name:*
  - measurement in mmol/L: Btriglyceride (unweighted); BtriglycerideWT (weighted)
  - measurement in mg/dl: BtriglycerideMg (unweighted); BtriglycerideMgWT (weighted)

SUMMARY OF COMBINED RISK FACTORS

Description: *Percentage of respondents with 0, 1-2, or 3-5 of the following risk factors:*

- *Current daily smoker*
- *Less than 5 servings of fruits & vegetables per day*
- *Low level of activity (<600 MET -minutes)*
- *Overweight or obese (BMI ≥ 25 kg/m2)*
- *Raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP).*

Instrument Question:

- *Combined from Step 1 and Step 2*

Tables 162,163 & 164 show that 51.0% of all respondents reported '3 − 5 risk factors' (53.0% for females and 48.8% for males, whilst 48.0% of all respondents reported '1 − 2 risk factors' (45.5% for females and 50.8% for males). One percent (1.0%) reported no risk factors.

Table 162

	Summary of Combined Risk Factors						
	Men						
Age Group (years)	n	% with 0 risk factors	95% CI	% with 1-2 risk factors	95% CI	% with 3-5 risk factors	95% CI
25-44	440	0.3	0.0-0.7	61.4	55.5-67.3	38.3	32.4-44.2
45-64	366	0.4	0.0-0.8	36.5	27.4-45.7	63.1	53.9-72.2
25-64	806	0.3	0.1-0.6	50.8	45.5-56.1	48.8	43.5-54.2

Table 163

	Summary of Combined Risk Factors						
	Women						
Age Group (years)	n	% with 0 risk factors	95% CI	% with 1-2 risk factors	95% CI	% with 3-5 risk factors	95% CI
25-44	612	1.7	0.4-3.0	54.1	48.6-59.6	44.3	38.6-49.9
45-64	652	1.5	0.4-2.5	31.6	27.2-35.9	67.0	62.4-71.6
25-64	1264	1.6	0.7-2.5	45.5	41.5-49.5	53.0	48.8-57.1

Table 164

Age Group (years)	Summary of Combined Risk Factors						
	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	1052	1.0	0.3-1.7	57.5	53.2-61.8	41.5	37.2-45.8
45-64	1018	0.9	0.4-1.5	34.1	29.0-39.2	65.0	59.8-70.1
25-64	2070	1.0	0.5-1.5	48.0	44.8-51.3	51.0	47.6-54.3

Analysis Information:

- *Questions used: T1, T2, D1-D4, P1-P15b, M3, M4, M5, M11a-M13b, M14*
- *Epi Info program name: Raisedrisk (unweighted); RaisedriskWT (weighted)*

PROSTATE AND RECTAL EXAMS

Description: *Participants who had prostate exam, who had feces checked for hidden blood, and those who have had colonoscopy.*

Instrument Questions:

- *Have you ever had your feces examined to look for hidden blood?*
- *Have you ever had a colonoscopy?*
- *Have you ever had an examination of your prostate?*

Table 165 shows that 15.5% of the male respondents had a prostate examination, with the frequency of examination increasing with each age group. Close to half (46.6%) of respondents belonged to the 55-64 age group, and 28.6% were from the 45-54 age group.

Table 165			
Had prostate exam			
Age Group (years)	**Men**		
	n	%	95% CI
15-24	230	1.0	0.0-2.3
25-34	242	5.5	2.6-8.4
35-44	232	15.4	10.0-20.9
45-54	201	28.6	17.8-39.4
55-64	188	46.6	38.1-55.0
15-64	**1093**	**15.5**	**12.4-18.6**

Table 166 shows that an average of 7.0% (7.3% for women and 6.7% for men) of all respondents submitted blood for the examination of hidden feces, with the frequency consistently increasing as the age group increased. Of all respondents, 4.5% reported having had a colonoscopy (5.3% men and 3.8% women).

Table 166

Had feces checked for hidden blood											
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	230	1.2	0.0-2.4	262	3.1	1.1-5.1	492	2.2	1.0-3.4
25-34	242	3.9	1.2-6.6	349	7.0	3.6-10.4	591	5.6	3.4-7.8
35-44	232	9.7	5.4-14.1	299	7.9	4.4-11.3	531	8.8	6.0-11.6
45-54	201	7.8	3.6-12.0	360	10.2	6.5-13.9	561	9.0	6.0-11.9
55-64	188	17.1	9.6-24.7	328	13.0	8.8-17.2	516	15.1	10.7-19.4
15-64	**1093**	**6.7**	**5.1-8.2**	**1598**	**7.3**	**5.8-8.8**	**2691**	**7.0**	**5.9-8.1**

Has had colonoscopy											
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
15-24	230	0.7	0.0-1.8	262	1.1	0.0-2.5	492	0.9	0.1-1.8
25-34	242	3.5	0.6-6.3	349	3.8	1.1-6.6	591	3.7	1.7-5.6
35-44	232	6.6	2.4-10.7	299	3.7	1.1-6.2	531	5.1	2.6-7.5
45-54	201	7.8	1.4-14.1	360	5.6	2.6-8.6	561	6.7	2.9-10.5
55-64	188	13.4	6.3-20.4	328	7.6	4.2-11.1	516	10.5	6.5-14.4
15-64	**1093**	**5.3**	**3.2-7.5**	**1598**	**3.8**	**2.6-4.9**	**2691**	**4.5**	**3.3-5.8**

Analysis Information:

- *Questions used: S1, S2, S3*
- *Epi Info program name: PAHO_Hprostaterectal (unweighted); PAHO_HprostaterectalWT (weighted)*

BREAST CANCER KNOWLEDGE AND BREAST EXAM

Description: *Percentage of women who were shown how to examine breasts and date of last breast exam.*

Instrument Questions:

- *Have you been shown how to examine your breasts?*
- *When was the last time you had an examination of your breasts?*

Tables 167 & 168 show that of the 1598 women, 53.1% were shown how to examine their breasts, with 22.6% had under-gone a breast examination within the past year, 8.6% between 1-2 years, and 20.5% more than two years ago. Close to half (48.2%), never had a breast examination.

Table 167

Shown how to examine breasts			
Age Group (years)	Women		
	n	%	95% CI
15-24	262	30.5	23.6-37.4
25-34	349	55.7	48.9-62.5
35-44	299	65.5	59.1-71.9
45-54	360	63.3	56.9-69.6
55-64	328	64.7	58.0-71.4
15-64	**1598**	**53.1**	**49.8-56.5**

Table 168

Last Breast Exam									
Age Group (years)	Women								
	n	% 1 year ago or less	95% CI	% Between 1 and 2 years ago	95% CI	% More than 2 years ago	95% CI	% Never had a breast exam	95% CI
15-24	257	10.5	6.2-14.7	5.4	2.3-8.6	8.9	4.2-13.7	75.2	68.7-81.6
25-34	344	25.4	19.7-31.0	8.3	5.1-11.5	22.1	16.2-28.0	44.2	37.2-51.2
35-44	297	29.1	22.6-35.5	11.1	6.9-15.3	26.2	20.4-31.9	33.7	27.0-40.3
45-54	347	28.8	23.0-34.5	11.5	7.5-15.5	21.4	16.1-26.6	38.4	31.9-44.9
55-64	324	24.7	18.9-30.6	8.3	4.9-11.7	33.7	27.4-40.0	33.2	26.8-39.7
15-64	**1569**	**22.6**	**19.8-25.4**	**8.6**	**7.0-10.3**	**20.5**	**17.8-23.2**	**48.2**	**44.9-51.6**

Analysis Information:

- *Questions used: S4, S5*
- *Epi Info program name: PAHO_Hbreastcancer (unweighted); PAHO_HbreastcancerWT (weighted)*

Table 169 shows, of the women surveyed, 9.6% had a mammogram within the past year, 4.8% within 1-2 years ago. It is note-worthy that 75.3% never had a mammogram. The frequency of having a mammogram generally increased with age.

Table 169									
Last mammogram									
Women									
Age Group (years)	n	% 1 year ago or less	95% CI	% Between 1 and 2 years ago	95% CI	% More than 2 years ago	95% CI	% Never had a mammo-gram	95% CI
15-24	258	2.6	0.6-4.5	2.8	0.1-5.4	2.7	0.4-5.0	92.0	88.0-96.0
25-34	347	9.1	5.2-12.9	3.6	1.3-6.0	7.8	4.5-11.0	79.5	74.3-84.8
35-44	296	9.5	5.5-13.5	4.3	1.7-7.0	15.5	11.3-19.7	70.6	64.7-76.6
45-54	351	16.7	11.6-21.8	8.7	5.2-12.2	14.2	9.6-18.8	60.4	54.3-66.5
55-64	324	17.6	13.0-22.3	7.2	3.9-10.6	18.5	13.9-23.0	56.6	50.2-63.0
15-64	**1576**	**9.6**	**7.9-11.4**	**4.8**	**3.5-6.0**	**10.3**	**8.6-11.9**	**75.3**	**72.7-77.9**

Analysis Information:

- *Questions used: S6*
- *Epi Info program name: PAHO_Hmammogram (unweighted); PAHO_HmammogramWT (weighted)*

DATE OF LAST PAP TEST EXAM

Description: *Date of last pap test exam.*

Instrument Questions:

- *When was the last time you had a Pap test?*

Table 170 shows that of the women surveyed 18.4% had a pap smear within the past year, 9.5% within 1-2 years and 23.0% over two years ago. Almost half (49.1%), never had a pap smear.

Table 170

Age Group (years)	n	% 1 year ago or less	95% CI	% Between 1 and 2 years ago	95% CI	% More than 2 years ago	95% CI	% Never had a pap test or cytological test	95% CI
Last pap test of cytological test									
Women									
15-24	261	6.9	3.8-10.1	3.9	0.8-7.0	2.8	0.5-5.1	86.3	81.8-90.8
25-34	347	24.7	19.5-30.0	11.1	7.6-14.5	18.3	12.5-24.1	45.9	38.9-53.0
35-44	297	25.1	19.2-31.0	11.5	7.6-15.5	34.6	28.1-41.1	28.7	23.0-34.5
45-54	355	20.8	15.5-26.1	14.6	10.4-18.7	35.7	29.5-41.8	28.9	23.3-34.6
55-64	323	16.7	11.9-21.5	8.3	4.8-11.7	42.2	36.2-48.2	32.9	27.1-38.6
15-64	**1583**	**18.4**	**16.2-20.7**	**9.5**	**7.9-11.1**	**23.0**	**20.4-25.5**	**49.1**	**46.1-52.1**

Analysis Information:

- Questions used: S7

- Epi Info program name: PAHO_Hcervicalcancer (unweighted); PAHO_Hcervicalcancer (weighted)

DISCUSSION

A total of 57 million deaths occurred in the world during 2008; 36 million (63%) were due to NCDs, principally cardiovascular diseases, diabetes, cancer and chronic respiratory diseases (1). Nearly 80% of these NCD deaths (29 million) occurred in low- and middle-income countries. NCDs are the most frequent causes of death in most countries in the Americas, the Eastern Mediterranean, Europe, South-East Asia, and the Western Pacific. In the African Region, there are still more deaths from infectious diseases than NCDs. Even there, however, the prevalence of NCDs is rising rapidly and is projected to cause almost three-quarters as many deaths as communicable, maternal, perinatal, and nutritional diseases by 2020, and to exceed them as the most common causes of death by 2030 (2). Over 80% of cardiovascular and diabetes deaths, and almost 90% of deaths from COPD, occurred in low- and middle-income countries. Behavioural risk factors, including tobacco use, physical inactivity, and unhealthy diet, are responsible for about 80% of coronary heart disease and cerebrovascular disease (3). These important behavioural risk factors of heart disease and stroke are discussed in detail later in this chapter. At this time it is estimated that about 2/3 of persons with Diabetes live in developing countries, and this will mean that the majority of new cases will be incidental to these countries. Many risk factors are now being further analyzed as being the main contributors to this epidemic, namely, obesity, changing dietary patterns, low levels of physical activity, aging population and increasing urbanization Chronic diseases contributes significantly to morbidity and mortality, globally, regionally and certainly in Trinidad and Tobago. The Pan American STEPs Survey of Risk Factors for Chronic Non Communicable Diseases in Trinidad and Tobago has provided valuable empirical data, critical to the creation of health policy, and to provide up-to-date evidence on the burden of Chronic Non-Communicable Diseases (CNCDS) in Trinidad and Tobago. The survey provides evidence that CNCD's, and related behavioral and physical risk factors are critical threats to the health and well-being of the people of Trinidad and Tobago. The data highlights factors that need to be targeted in a holistic approach to the integrated management, and prevention and control programs in order to achieve long-term health improvements in the country, and to provide a baseline against which these initiatives can be monitored and evaluated. These factors require a multi-sectoral strategic approach that is generic, age and population specific. Epidemics of diabetes, hypertension, heart diseases, stroke, cancer and other chronic diseases in the future will contribute to greatest burden of morbidity and mortality. In addition, the findings have shown that there are a number of people in the population who have undiagnosed disease and are in need of treatment and disease management interventions.

DEMOGRAPHICS

Of the 2,724 respondents in the survey, 40.9% (1,114) were males and 59.1% (1,610) were females. The age range of participants was relatively small and differed slightly. Approximately three quarters of participants (74.7 % males) and (77.9% females) finished primary and/or secondary school. This is indicative of a population that is able to process information, and possibly act decisively on the said information. This will dictate to some extent the categories which will be developed for the short, medium and long term health policies, and programme activities towards the holistic management of NCD's.

The two major chronic groups of the country were represented in the survey (Indian descend 39.9%; African descend 35.6%; mixed 23.0%). This is important since it is evidence that persons of Indian origin present with a higher level of diabetes, and which may also vary according to sex. Additionally, it is felt that persons of African origin may present with higher level of hypertension. The Ministry of Health will use these guidelines, and empirical data to model the approach for the reduction of these risk factors, tailoring the programme that will be more accessible, and culturally appropriate depending on gender, ethnicity and geography of the target group.

SMOKING

Over one fifth (1/5) of those who were surveyed were current smokers, with almost four times more men than women. The 25 - 34 age-group has the highest prevalence among both men and women. Just under one-fifth (18 %) of men and women are daily smokers, again with men close to four times as many to women. Two-fifths (39.9%) of men initiated smoking by 16.2 years, and 16.5% of girls by the age of 17.1 years. Fourteen percent (14%) of girls and boys started smoking before their 16th birthday. It should also be noted that 95.6% of daily smokers use manufactured cigarettes, which included eighty-three (83%) of men and women who started smoking before their 18th birthday. Maybe, the laws governing the sale of cigarettes to minors need to be enforced. Efforts to promote cessation of smoking were enacted when the Tobacco Control Bill 2009 was passed in parliament. The Tobacco Control Bill 2009 provides an effective legal framework upon which to base our strategic plans to address the harm caused by tobacco products. The Act prohibits tobacco smoking in public places, as well as other control measures in compliance with the Framework Convention on Tobacco Control. Additional efforts to promote smoking cessation are also needed to lower the risk of disease among persons who smoke. Additionally, 17.8 % and 16.7 % of respondents were exposed to tobacco smoke at home, and at the workplace respectively.

ALCOHOLIC CONSUMPTION

Two-fifths (2/5) or 40% of respondents are current drinkers, and another 16.7% drank alcohol within 30 days prior to the survey. Interestingly, except for the rise in consumption pattern from the 15 – 24 age-group to the 25 – 34 age-group, current alcohol consumption generally declined with increasing age, for both men and women. Paradoxically, the frequency of consumption (5 - 6 days per week) increased with the age group from the youngest to the

45 - 54 year old, and then declined again in the last age group. The 'age' for the other 'levels of frequency of consumptions,' remains relatively small. Even though the mean number of drinking occasions was lowest among the youngest age group, (15 – 24), the mean number of standard drinks per drinking occasion was second highest in this group among the females, and 2nd highest among the males. This brings credence to the thinking that young person's engage in 'binge drinking,' possibly resulting in the high levels of accidents and road fatalities among the nation's youths. The youngest age group ranked 2nd highest among men in Category III (≥ 60g pure alcohol) alcohol consumption, and was the highest among women. Note that this is ≥ 60 (men) and ≥ 40 as women) of pure alcohol on average per day. The youngest age group ranked highest in both men and women for Category II (40-59.9g pure alcohol) alcohol consumption, which is 40 – 59.9g (men) and 20- 39.9g (women) of pure alcohol per day. *Note that a standard drink is 10g of pure alcohol.*

Health promotion activities must target young men and women, regarding the negative impact on health and welfare which may result from excessive and irresponsible alcohol consumption. The 45-54 age group ranked 1st or 2nd in many categories of alcohol use, or abuse, and as such, may affect, or promote the presentation of certain chronic diseases from an early age. Bearing in mind that a standard drink is 10g of pure alcohol, men are averaging 6.5 drinks on some occasions, with the 15- 24 age group having 6.7 drinks. Women are averaging 3.6 drinks on some occasions, with the higher average of 4.1 being in the youngest age group of 15-24 years. One third (1/3) (33.9%) of men, and half of this figure (16.8%) among the female counterparts drank '5 or more drinks' at least once per single occasion in the 30 days prior to the survey.

This data is surprising and frightening to most who shared this knowledge. This problem is more exasperated when close to three fifths (59.4%) of alcohol users either 'rarely or don't have food/meals when drinking alcohol. Research shows that alcohol is rapidly absorbed into the blood stream, but does so at an accelerated rate on an 'empty stomach.'

FRUIT AND VEGETABLE CONSUMPTION

Fruits and vegetables consumption of five (5) or more servings per day is being promoted as a protective factor against chronic diseases, however, the use of fruits and vegetables in the diets of the people in Trinidad and Tobago falls very short of this target. Nine percent (9%) of respondents (91.0% CI) of the surveyed population ate 5 or more servings of fruits and/ or vegetables on average per day, with over one quarter (25.2%) persons reporting 'no servings per day.' There was no significant difference between consumption patterns among males and females in this area, as males consumed on average 2.2 servings of fruits and vegetables (95% CI 2.0-2.3) as compared to females consuming an average of 2.3 (95% CI 2.1- 2.5). Meat based dietary pattern and cost may be some of the obstacles for low consumption of fruits and vegetables in Trinidad and Tobago.

PHYSICAL ACTIVITY

Twice as many males (50.3%) than females (28.8%) engage in 'high level' physical activity, but more females do low or moderate levels of activities when compared to their male counterparts. It seems as men account for the high level of physical activity only because of their 'laborious' kind

of work, and this is not the case for women. This could account for one and a half times more women being obese than men. However, more women are engaged in low and moderate activities than men, which may be the reason for more men being overweight than women. Physical activity is highly promoted in Trinidad and Tobago through walks and many other sporting activities. However, participation in these activities is usually limited and seasonal. Physical activity is another critical protective factor for prevention of chronic diseases, and the low levels reported are one of the major risk factors. As a result, such levels of low physical activity put the population and females in particular at increased risk to chronic diseases. There is a need to build community-based activities at the primary care level, or maybe community recreational facilities.

OVERWEIGHT AND OBESITY

The prevalence of obesity in females is 31.7% (95% CI 28.8-34.5) which is approximately one and a half times as their male counterpart 19.4% (95% CI 16.7-22.1). This data derived from the survey is consistent with the report from CFNI (CFNI 2001). 36.9% (95% CI 34.3-39.4) of the surveyed population were overweight which is a major risk factor, and marker for chronic disease in the population. Raising public knowledge about the harmful effects of obesity is needed to stem the social norm associated with this factor. The average waist circumference for males was104.9 cm (95% CI 102.9-107.1) as compared to 89.3 cm (95% CI 88.3-90.3) for females. A high waist circumference or a greater level of abdominal fat is associated with an increased risk for Type 2 Diabetes, high cholesterol, high blood pressure and cardiovascular disease. Lifestyle factors such as low physical activity and high fatty diet are the major contributing factors for abdominal obesity.

RAISED BLOOD PRESSURE

Just over a quarter, 25.4%, of males (95% CI 22.2- 28.7) and 16.4% of females (95% CI 14.1- 18.8) had raised blood pressure of ≥ 140/ ≥ 90, and were not on medication. Data from the survey provides evidence that 73.7 % on antihypertensive medication had controlled blood pressure as compared to 26.3% on anti-hypertensive and uncontrolled blood pressure. Again this raises the need for a more intensified campaign and health promotion activities targeting persons to take charge of their own health. Additionally, the issue of 'wider selective screening' for raised blood pressure, must be considered as one activity.

BIOCHEMICAL MEASUREMENTS

One fifth, 20.5%, of the respondents who consented for biochemical tests have raised blood sugar, or are currently on medication for diabetes. High blood cholesterol was found in 50.3% of the population tested. The STEPS survey, therefore, identified significant numbers of people with physical risk factors for cardiovascular disease that require immediate management / treatment and long term monitoring. This is an important part of the disease control strategies that need to be further intensified in Trinidad and Tobago.

COMBINED RISKS

The risk factors for chronic non-communicable diseases assessed in this study include; current daily smokers, consumption of less than 5 servings of fruits and vegetables per day, low level of physical activity, overweight or obesity and raised blood pressure. The survey revealed that 53.0% of the population had three or more of the risk factors for chronic disease. Of great concern is the very less difference in the combined risk factors for age group 25 to 44 and 45 to 64, therefore the probability is increased for the population's most productive age-group to acquire a chronic disease at an earlier age than their predecessors.

CONCLUSION

The Value of the Survey

The results of the survey will be used to guide strategies, policies and legislations aimed at reducing the burden of chronic diseases in the population including the increased cost associated with long term treatment and care of the proliferation of people developing chronic disease at an early age.

There are several significant aspects of how the STEPS survey was carried out that have increased its potential value to the people of Trinidad and Tobago. First among these is that the study was managed by staff of the MOH. As a result, there is commitment to seeing that the results are used immediately to guide strategies to address the needs that have been identified. Secondly, considerable attention was paid to building the capacity of staff within the health system to implement all aspects of the study. This has imparted knowledge and skills for future implementation of a study of this nature. Thirdly, the STEPS study was a 'survey with a service'. The results of the physical and biochemical measures were available to participants, with accompanying advice about health behaviours and referral to treatment for those who needed this. Based on the results of the biochemical assessments, participants identified with high risk factors and were referred for further medical attention.

Technical assistance was provided by PAHO/ CAREC/ UWI/CFNI ensured that the survey was conducted scientifically and the results can be generalized to the population. Valuable information about chronic diseases and risk factors were provided to the population through nationwide media publicity of the survey before, during and after the survey. Additionally, talk shows were delivered by the Medical Director. These were also complemented by health promotion activities at the community level. The task at hand is to continue the momentum to address the many challenges in reducing the risk factors for chronic diseases in the population.

RECOMMENDATIONS FOR ACTION

PUBLIC HEALTH AND CLINICAL INTERVENTIONS

- *There must be high level participation for the prevention, control and management programme for the non-communicable diseases.*

- *The required resources must be invested in the programme in the short term, with the understanding that this will be an 'actual saving' in the long run.*

- *Build public awareness about the harmful consequences of tobacco use, physical inactivity, poor dietary habits and obesity.*

- *Develop interventions to prevent the early initiation of smoking among young people across both genders Implement the WHO Framework Convention on Tobacco Control (FCTC).*

- *Implement adult smoking cessation programs.*

- *Implement interventions to prevent/reduce smoking among adults, focusing on environmental (smoke-free places) and regulatory (advertising ban, taxes) measures.*

- *Develop interventions to support moderate consumption of alcohol and reduce hazardous and harmful drinking, including strategies to reduce access to and driving under the influence of alcohol.*

- *Build public awareness of the benefits of engaging in an active lifestyle and regular leisure time physical activity.*

- *Develop and promote awareness of national physical activity guidelines for adolescent and adult populations.*

- *Implement strategies to improve physical environments to support increased leisure time physical activity across all population populations.*

- *Implement strategies to support increased access and availability of fruit and vegetable for all population groups.*

- *Increase the capacity of health workers and the health system to identify, monitor and treat individuals with hypertension and impaired glucose tolerance.*

- *Prioritize diabetes management as a an entry point for NCD public health prevention and control efforts.*

- *Public health strategies to emphasize the prevention and control of the 5 common and critical risk factors for NCDs, including current daily smoking, overweight and obesity, raised blood pressure, consuming less than 5 servings of fruit and vegetables per day and low level of activity .*

INFRASTRUCTURE

- *Integrate prevention, management and control of NCD risk factors into health personnel training programs to increase availability of health workers skilled in providing lifestyle counseling and in managing population health programs.*

- *Ensure sustainable funding mechanism to support NCD strategy implementation and monitoring.*

- *Build coalitions, networks and private sector partnerships with NGO's(Non-Governmental Organizations), CBO's (Community Based Organizations), academia and other stakeholders in advocacy and action for preventing and controlling NCD risk factors.*

- *Re-orient health services to support health promotion/public health initiatives to address NCDs.*

SURVEILLANCE

- *Secure commitments at the highest level to a systematic framework of data collection, collation, analysis and reporting regarding NCD's.*

- *Continued monitoring and evaluation of the risk factors thorough national and special surveys. This could be tailored to include, among others, a comprehensive profile of psychosocial and biological risk factors for health problems, e.g., mental health, physical disabilities, intentional and non-intentional injury, oral health, attitudes and perceived barriers related to the achievement of optimum health.*

DISSEMINATION AND UTILITY OF STEPS FINDINGS

- *Wide dissemination of the STEPS findings and recommendations to policy-makers and international agencies.*

- *Wide dissemination of the STEPS findings and recommendations to the public through the media (including the world wide web) and community forums.*

- *Wide dissemination of the STEPS findings to the scientific community through presentations at key national and international scientific meetings and through peer-reviewed publications.*

- *Continue a collaborative and consultative process between key stakeholders to encourage optimal use of the STEPS results for identifying priority areas for programming, monitoring trends and evaluating effectiveness of public health programs.*

- *Ensure that the STEPS data inform national NCD plan and are applied in the evaluation of NCD related policies and programs*

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Trinidad and Tobago STEPS Survey 2011
FACT SHEET

The STEPS survey of chronic disease risk factors in Trinidad and Tobago was carried out from May to September 2011. Trinidad and Tobago carried out Step 1, Step 2 and Step 3. Socio demographic and behavioral information were collected in Step 1. Physical measurements such as height, weight and blood pressure were collected in Step 2. Biochemical measurements were collected to assess blood glucose and cholesterol levels in Step 3.

The STEPS survey in Trinidad and Tobago was a population-based survey of persons aged 15-64. A stratified cluster sampling design was used to produce representative data for that age range in Trinidad and Tobago. A total of 2724 persons participated in the survey. The overall response rate was 90.2%. A repeat survey is planned for 2016.

Results for persons aged 15-64 years (incl. 95% CI)	Both Sexes	Males	Females
Step 1 Tobacco Use			
Percentage who currently smoke tobacco	**21.1%** (19.0 – 23.2)	**33.5%** (29.8 – 37.3)	**9.4%** (7.6 – 11.2)
Percentage who currently smoke tobacco daily	**18.0%** (16.1 – 20.9)	**29.1%** (25.7 – 32.5)	**7.7%** (6.0 – 9.3)
For those who smoke tobacco daily			
Average age started smoking (years)	**17.4 (16.7-18.2)**	**17.0 (16.2-17.8)**	**19.1 (17.8-20.4)**
Percentage of daily smokers smoking manufactured cigarettes	**95.6%** (93.6 – 97.7)	**95.4%** (93.0 – 97.9)	**96.5%** (92.7 – 100.0)
Mean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	**11.5%** (10.7 – 12.3)	**12.2%** (11.3 – 13.1)	**9.1%** (7.7 – 10.5)
Percentage exposed to smoke at home on 1 or more days per week	**17.8%** (15.6 – 19.9)	**15.3%** (12.4 – 18.2)	**20.1%** (17.2 – 23.0)
Percentage exposed to smoke at workplace on 1 or more days per week	**16.7%** (14.3 – 19.0)	**21.2%** (17.6 – 24.7)	**12.6%** (10.2 – 14.9)
Step 1 Alcohol Consumption			
Percentage who are lifetime abstainers	**29.7%** (26.2 – 33.3)	**23.1%** (18.5 – 27.8)	**35.9%** (32.0 – 39.8)
Percentage who are past 12 month abstainers	**13.2%** (11.3 – 15.0)	**11.6%** (9.3 – 13.9)	**14.7 %** (12.3 – 17.1)
Percentage who currently drink (drank alcohol in the past 30 days)	**40.4%** (37.6 – 43.2)	**50.6%** (46.5 – 54.7)	**30.9%** (27.8 – 34.0)
Percentage who engage in heavy episodic drinking (men who had 5 or more / women who had 4 or more drinks on any day in the past 30 days)	**-**	**33.9%** (30.2 – 37.6)	**16.8%** (14.2 – 19.4)
Step 1 Fruit and Vegetable Consumption (in a typical week)			
Mean number of days fruit consumed	**3.4** (3.3-3.5)	**3.4** (3.2-3.6)	**3.4** (3.2-3.5)
Mean number of servings of fruit consumed on average per day	**1.0** (0.9-1.1)	**1.0** (0.9-1.1)	**1.0** (0.9-1.1)
Mean number of days vegetables consumed	**4.5** (4.4-4.6)	**4.4** (4.2-4.6)	**4.6** (4.4 -4.7)
Mean number of servings of vegetables consumed on average per day	**1.3** (1.2-1.4)	**1.2** (1.1-1.4)	**1.4** (1.3-1.5)
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	**91.0%** (89.1-92.9)	**92.8%** (90.7 -94.9)	**89.3%** (86.8-91.7)

Step 1 Physical Activity			
Percentage with low levels of activity (defined as < 600 MET-minutes per week)*	45.4% (42.1-48.7)	33.0% (29.1-36.9)	57.0% (52.9-61.1)
Percentage with high levels of activity (defined as ≥ 3000 MET-minutes per week)*	36.6% (33.6-39.7)	50.3% 46.2-54.5)	23.8% (20.7-27.0)
Median time spent in physical activity on average per day (minutes) (presented with inter-quartile range)	42.9 (4.3-137.1)	102.9 (24.3-248.6)	14.3 (0.0-85.7)
Percentage not engaging in vigorous activity	68.3% (65.7-70.8)	52.5% (48.4-56.5)	83.0% (80.4-85.5)

*For complete definitions of low and high levels of physical activity, other conditions are specified in the GPAQ Analysis Guide, available at: http://www.who.int/chp/steps/GPAQ/en/index.html

Trinidad and Tobago STEPS Survey 2011
FACT SHEET

Results for persons aged 15-64 years (incl. 95% CI)	Both Sexes	Males	Females
Step 2 Physical Measurements			
Mean body mass index - BMI (kg/m^2)	26.5 (26.2 -26.8)	25.6 (25.1-26.0)	27.4 (26.9-28.0)
Percentage who are overweight (BMI ≥ 25 kg/m^2)	36.9% (34.3-39.4)	40.3% (36.3-44.3)	33.7% (30.3-37.0)
Percentage who are obese (BMI ≥ 30 kg/m^2)	25.7% (23.9-27.6)	19.4% (16.7-22.1)	31.7% (28.8-34.5)
Average waist circumference (cm)		104.9 (102.9-107.1)	89.3 (88.3-90.3)
Mean systolic blood pressure - SBP (mmHg), including those currently on medication for raised BP	125.5 (124.4-126.5)	129.3 (127.9-130.7)	122.0 (120.7-123.3)
Mean diastolic blood pressure - DBP (mmHg) , including those currently on medication for raised BP	78.7 (78.0-79.4)	79.6 (78.6-80.6)	77.9 (77.0-78.8)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)	26.3% (24.1 – 28.5)	29.8% (26.5 – 33.1)	23.1% (20.6 – 25.7)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg) who are not currently on medication for raised BP	20.8% (18.7 – 23.0)	25.4% (22.2-28.7)	16.4% (14.1 – 18.8)
Step 3 Biochemical Measurement -			
Mean fasting blood glucose, including those currently on medication for raised blood glucose [choose accordingly: mmol/L or mg/dl]	5.2 (4.9-5.4)	5.1 (4.7-5.4)	5.3 (5.0-5.6)
Percentage with impaired fasting glycaemia as defined below • 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)	6.3 (3.9-8.7)	6.8 (2.8-10.7)	5.9 (3.1-8.7)
Percentage with raised fasting blood glucose as defined below or currently on medication for raised blood glucose • plasma venous value ≥ 7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥ 6.1 mmol/L (110 mg/dl)	20.5 (16.6-24.4)	19.8 (14.2-25.3)	21.2 (16.3-26.1)
Mean total blood cholesterol, including those currently on medication for raised cholesterol [choose accordingly: mmol/L or mg/dl]	5.1 (5.0-5.3)	5.2 (4.9-5.5)	5.0 (4.9-5.2)
Percentage with raised total cholesterol (≥ 5.0 mmol/L or ≥ 190 mg/dl or currently on medication for raised cholesterol)	50.3 (45.1-55.4)	50.1 (42.0-58.3)	50.4 (44.0-56.8)

Summary of combined risk factors

- current daily smokers
- less than 5 servings of fruits & vegetables per day
- low level of activity

- overweight (BMI ≥ 25 kg/m^2)
- raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)

Percentage with none of the above risk factors	**1.0%** (0.5-1.5)	**0.3%** (0.1-0.6)	**1.6%** (0.7-2.5)
Percentage with three or more of the above risk factors, aged 25 to 44 years	**41.5** (37.2-45.8)	**38.3** (32.4-44.2)	**44.3** (38.6-49.9)
Percentage with three or more of the above risk factors, aged 45 to 64 years	**65.0** (59.8-70.1)	**63.1** (53.9-72.2)	**67.0** (62.4-71.6)
Percentage with three or more of the above risk factors, aged 25 to 64 years	**51.0%** (47.6-54.3)	**48.8%** (43.5-54.2)	**53.0%** (48.8-57.1)

Trinidad and Tobago STEPS Survey 2011
FACT SHEET - 25-64 yrs

The STEPS survey of chronic disease risk factors in **Trinidad and Tobago** was carried out from May to September 2011. **Trinidad and Tobago** carried out Step 1, Step 2 and Step 3. Socio demographic and behavioral information were collected in Step 1. Physical measurements such as height, weight and blood pressure were collected in Step 2. Biochemical measurements were collected to assess blood glucose and cholesterol levels in Step 3.

The STEPS survey in **Trinidad and Tobago** was a population-based survey of persons aged 15-64. A stratified cluster sampling design was used to produce representative data for that age range in **Trinidad and Tobago**. A total of 2724 persons participated in the survey. The overall response rate was 90.2%. A repeat survey is planned for 2016.

Results for adults aged 25-64 years (incl. 95% CI)	Both Sexes	Males	Females
Step 1 Tobacco Use			
Percentage who currently smoke tobacco	**23.1** (20.5-25.7)	**37.4** (33.1-41.7)	**9.6** (7.6-11.5)
Percentage who currently smoke tobacco daily	20.3 (17.9-22.6)	33.2 (29.3-37.2)	8.0 (6.2-9.8)
For those who smoke tobacco daily			
Average age started smoking (years)	**17.3** (16.8-17.9)	**16.8** (16.3-17.3)	**19.5** (17.9-21.1)
Percentage of daily smokers smoking manufactured cigarettes	**95.7** (93.4-98.0)	**95.6** (92.9-98.2)	**96.2** (91.5-100.0)
Mean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	**12.1** (11.2-13.0)	**12.8** (11.8-13.8)	**9.5** (7.9-11.2)
Percentage exposed to smoke at home on 1 or more days per week	**17.4** (15.1-19.7)	**13.4** (10.4-16.4)	**21.1** (18.0-24.2)
Percentage exposed to smoke at workplace on 1 or more days per week	**16.9** (14.1-19.7)	**20.1** (16.1-24.2)	**14.1** (11.2-16.9)

Step 1 Alcohol Consumption			
Percentage who are lifetime abstainers	**27.5** (23.6-31.4)	**20.6** (15.3-25.8)	**34.1** (30.0-38.1)
Percentage who are past 12 month abstainers	**14.3** (12.2-16.4)	**12.0** (9.4-14.6)	**16.4** (13.7-19.2)
Percentage who currently drink (drank alcohol in the past 30 days)	**42.7** (39.6-45.8)	**53.8** (49.0-58.5)	**32.4** (29.1-35.7)
Percentage who engage in heavy episodic drinking (men who had 5 or more / women who had 4 or more drinks on any day in the past 30 days)	**-**	**36.1** (31.6-40.5)	**16.8** (14.1-19.5)
Step 1 Fruit and Vegetable Consumption (in a typical week)			
Mean number of days fruit consumed	3.6 (3.5-3.8)	3.7 (3.4-3.9)	3.6 (3.4-3.8)
Mean number of servings of fruit consumed on average per day	1.0 (1.0-1.1)	1.1 (0.9-1.2)	1.0 (0.9-1.2)
Mean number of days vegetables consumed	4.6 (4.5-4.8)	4.5 (4.3-4.7)	4.8 (4.6-4.9)
Mean number of servings of vegetables consumed on average per day	1.3 (1.2-1.4)	1.3 (1.2-1.4)	1.4 (1.3-1.5)
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	90.3 (88.3-92.3)	92.6 (90.3-95.0)	**88.1** **(85.4-90.8)**
Step 1 Physical Activity			
Percentage with low levels of activity (defined as < 600 MET-minutes per week)*	**45.8** **(42.3-49.2)**	**35.3** **(30.6-40.0)**	**55.5** **(51.3-59.7)**
Percentage with high levels of activity (defined as ≥ 3000 MET-minutes per week)*	**35.9** **(32.6-39.3)**	**47.8** **(43.1-52.5)**	**24.9** **(21.5-28.3)**
Median time spent in physical activity on average per day (minutes) (presented with inter-quartile range)	**42.9** **(0.0-244.3)**	**100** **(10.7-342.9)**	**20** **(0.0-123.6)**
Percentage not engaging in vigorous activity	**71.2** **(68.5-73.9)**	**57.3** **(52.8-61.7)**	**84.2** **(81.7-86.7)**

Trinidad and Tobago STEPS Survey 2011
FACT SHEET

Results for adults aged 25-64 years (incl. 95% CI) *(adjust if necessary)*	Both Sexes	Males	Females
Step 2 Physical Measurements			
Mean body mass index - BMI (kg/m^2)	27.8 (27.5-28.1)	26.5 (25.9-27.0)	29.0 (28.5-29.6
Percentage who are overweight (BMI ≥ 25 kg/m^2)	63.5 (60.8-66.2)	58.3 (53.6-63.1)	68.5 (65.3-71.7
Percentage who are obese (BMI ≥ 30 kg/m^2)	30.9 (28.7-33.1)	21.8 (18.5-25.1)	39.6 (36.1-43.1
Average waist circumference (cm)		105.6 (102.8-108.4)	92.3 (91.2-93.4
Mean systolic blood pressure - SBP (mmHg), including those currently on medication for raised BP	128.5 (127.3-129.7)	131.5 (129.9-133.1)	125.7 (124.2-127.
Mean diastolic blood pressure - DBP (mmHg) , including those currently on medication for raised BP	81.1 (80.4-81.9)	82.1 (81.0-83.2)	80.2 (79.3-81.2

Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)	32.4 (29.8-35.1)	34.6 (30.7-38.6)	30.4 (27.1-33.7
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg) who are not currently on medication for raised BP	25.4 (22.7-28.1)	29.0 (25.1-32.9)	21.9 (18.8-25.1
Step 3 Biochemical Measurement			
Mean fasting blood glucose, including those currently on medication for raised blood glucose [choose accordingly: mmol/L or mg/dl]	5.3 (5.0-5.6)	5.2 (4.8-5.7)	5.3 (5.0-5.7)
Percentage with impaired fasting glycaemia as defined below • 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)	6.9 (4.1-9.8)	7.8 (2.8-12.7)	6.1 (3.1-9.1)
Percentage with raised fasting blood glucose as defined below or currently on medication for raised blood glucose • plasma venous value ≥ 7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥ 6.1 mmol/L (110 mg/dl)	22.0 (17.4-26.6)	22.4 (15.6-29.3)	21.6 (16.4-26.7
Mean total blood cholesterol, including those currently on medication for raised cholesterol [choose accordingly: mmol/L or mg/dl]	5.2 (5.0-5.4)	5.3 (5.0-5.7)	5.1 (4.9-5.3)
Percentage with raised total cholesterol (≥ 5.0 mmol/L or ≥ 190 mg/dl or currently on medication for raised cholesterol)	51.9 (45.8-58.0)	52.0 (41.9-62.0)	51.8 (45.0-58.7
Summary of combined risk factors • current daily smokers • overweight (BMI ≥ 25 kg/m^2) • less than 5 servings of fruits & vegetables per day • raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or • low level of activity currently on medication for raised BP)			
Percentage with none of the above risk factors	**1.0%** (0.5-1.5)	**0.3%** (0.1-0.6)	**1.6%** (0.7-2.5)
Percentage with three or more of the above risk factors, aged 25 to 44 years	**41.5** **(37.2-45.8)**	**38.3** **(32.4-44.2)**	**44.3** **(38.6-49.9)**
Percentage with three or more of the above risk factors, aged 45 to 64 years	**65.0** **(59.8-70.1)**	**63.1** **(53.9-72.2)**	**67.0** **(62.4-71.6)**
Percentage with three or more of the above risk factors, aged 25 to 64 years	**51.0%** (47.6-54.3)	**48.8%** (43.5-54.2)	**53.0%** (48.8-57.1)

Trinidad and Tobago STEPS Survey 2011
FACT SHEET - 15-18 yrs

The STEPS survey of chronic disease risk factors in **Trinidad and Tobago** was carried out from May to September 2011. **Trinidad and Tobago** carried out Step 1, Step 2 and Step 3. Socio demographic and behavioral information were collected in Step 1. Physical measurements such as height, weight and blood pressure were collected in Step 2. Biochemical measurements were collected to assess blood glucose and cholesterol levels in Step 3.

The STEPS survey in **Trinidad and Tobago** was a population-based survey of persons aged 15-64. A stratified cluster sampling design was used to produce representative data for that age range in **Trinidad and Tobago**. A total of 2724 persons participated in the survey. The overall response rate was 90.2%. A repeat survey is planned for 2016.

Results for adults aged 15-18 years (incl. 95% CI) *(adjust if necessary)*	Both Sexes	Males	Females
Step 1 Tobacco Use			
Percentage who currently smoke tobacco	7.4 (3.2-11.6)	12.5 (4.7-20.4)	2.4 (0.0-5.5)
Percentage who currently smoke tobacco daily	4.3 (1.1-7.6)	6.3 (0.5-12.2)	2.4 (0.0-5.5)
For those who smoke tobacco daily			
Average age started smoking (years)	14.6 (13.1-16.1)	14.0 (12.5-15.5)	16.2 (11.9-20.5)
Percentage of daily smokers smoking manufactured cigarettes	-	-	-
Mean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	9.0 (4.9-13.0)	10.9 (6.8-15.0)	4.0 (0.0-12.9)
Percentage exposed to smoke at home on 1 or more days per week	13.3 (7.5-19.2)	11.5 (4.6-18.3)	15.2 (6.3-24.0)
Percentage exposed to smoke at workplace on 1 or more days per week	10.5 (5.9-15.1)	11.3 (4.2-18.3)	9.7 (3.8-15.7)
Step 1 Alcohol Consumption			
Percentage who are lifetime abstainers	54.4 (45.4-63.4)	42.1 (30.0-54.2)	66.8 (55.6-77.9)
Percentage who are past 12 month abstainers	7.4 (3.2-11.6)	8.0 (1.5-14.5)	6.8 (1.4-12.2)
Percentage who currently drink (drank alcohol in the past 30 days)	20.5 (13.7-27.3)	26.4 (15.9-36.8)	14.7 (6.6-22.8)
Percentage who engage in heavy episodic drinking (men who had 5 or more / women who had 4 or more drinks on any day in the past 30 days)	-	13.2 (4.7-21.7)	8.3 (1.6-15.0)
Step 1 Fruit and Vegetable Consumption (in a typical week)			
Mean number of days fruit consumed	2.9 (2.5-3.3)	2.8 (2.2-3.3)	3.1 (2.5-3.7)
Mean number of servings of fruit consumed on average per day	0.7 (0.6-0.8)	0.6 (0.5-0.8)	0.8 (0.6-1.0)
Mean number of days vegetables consumed	4.0 (3.5-4.4)	4.2 (3.6-4.8)	3.7 (3.1-4.4)
Mean number of servings of vegetables consumed on average per day	1.1 (0.9-1.4)	1.0 (0.8-1.3)	1.2 (0.9-1.6)
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	93.3 (88.9-97.8)	96.0 (92.3-99.8)	90.7 (83.6-97.8)

Step 1 Physical Activity			
Percentage with low levels of activity (defined as < 600 MET-minutes per week)*	44.5 (35.6-53.4)	30.6 (18.6-42.7)	58.4 (46.3-70.4)
Percentage with high levels of activity (defined as ≥ 3000 MET-minutes per week)*	37.5 (29.0-46.1)	46.7 (33.8-59.5)	28.4 (17.4-39.4)
Median time spent in physical activity on average per day (minutes) (presented with inter-quartile range)	47.1 (8.6-124.3)	60.0 (21.4-141.4)	20.0 (0-94.3)
Percentage not engaging in vigorous activity	57.8 (49.1-66.5)	44.0 (31.2-56.8)	71.6 (60.7-82.5)

For complete definitions of low and high levels of physical activity, other conditions are specified in the GPAQ Analysis Guide, available at: http://www.who.int/chp/steps/GPAQ/en/index.html

Trinidad and Tobago STEPS Survey 2011
FACT SHEET

Results for adults aged 15-18 years (incl. 95% CI)	Both Sexes	Males	Females
Step 2 Physical Measurements			
Mean body mass index – BMI (kg/m^2)	22.5 (21.6-23.4)	22.4 (21.1-23.6)	22.6 (21.3-23.9)
Percentage who are overweight (BMI ≥ 25 kg/m^2)	29.7 (22.1-37.4)	31.3 (20.2-42.5)	28.2 (17.6-38.7)
Percentage who are obese (BMI ≥ 30 kg/m^2)	13.1 (8.0-18.2)	15.7 (7.6-23.7)	10.6 (4.1-17.1)
Average waist circumference (cm)		**80.4 (77.1-83.8)**	**73.8 (71.0-76.7)**
Mean systolic blood pressure – SBP (mmHg), including those currently on medication for raised BP	116.0 (113.7-118.4)	122.2 (119.1-125.2)	109.8 (107.1-112.5)
-127Mean diastolic blood pressure – DBP (mmHg) , including those currently on medication for raised BP	69.4 (67.9-70.9)	70.4 (68.2-72.6)	68.5 (66.5-70.5)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)	6.8 (2.7-10.9)	10.5 (3.0-18.1)	3.0 (0.0-6.2)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg) who are not currently on medication for raised BP	6.8 (2.7-10.9)	10.5 (3.0-18.1)	3.0 (0.0-6.2)
Step 3 Biochemical Measurement			
Mean fasting blood glucose, including those currently on medication for raised blood glucose [choose accordingly: mmol/L or mg/dl]	4.6 (4.2-5)	4.5 (4.0-5.0)	4.7 (4.1-5.4)
Percentage with impaired fasting glycaemia as defined below • 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)	4.3 (-1.7-10.4)	9.5 (-4.2-23.2)	-
Percentage with raised fasting blood glucose as defined below or currently on medication for raised blood glucose • plasma venous value ≥ 7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥ 6.1 mmol/L (110 mg/dl)	16.3 (5.0-27.7)	9.5 (-3.8-22.9)	22 (3.6-40.4)
Mean total blood cholesterol, including those currently on medication for raised cholesterol [choose accordingly: mmol/L or mg/dl]	4.9 (4.6-5.3)	4.9 (4.4-5.5)	5.0 (4.4-5.5)
Percentage with raised total cholesterol (≥ 5.0 mmol/L or ≥ 190 mg/dl or currently on medication for raised cholesterol)	44.3 (28.4-60.2)	42.5 (21.1-64.0)	45.8 (21.4-70.1)

Summary of combined risk factors			
• current daily smokers • less than 5 servings of fruits & vegetables per day • low level of activity	• overweight (BMI ≥ 25 kg/m^2) • raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)		
Percentage with none of the above risk factors	3.2 (-0.6-7.0)	1.8 (-.9-4.5)	4.7 (-1.1-10.5)
Percentage with three or more of the above risk factors, aged 15 to 18 years	16.8 (10.6-23.0)	17.4 (8.5-26.4)	16.1 (7.5-24.8)

Trinidad and Tobago STEPS Survey 2011
FACT SHEET - 19-24 yrs

The STEPS survey of chronic disease risk factors in **Trinidad and Tobago** was carried out from May to September 2011. **Trinidad and Tobago** carried out Step 1, Step 2 and Step 3. Socio demographic and behavioral information were collected in Step 1. Physical measurements such as height, weight and blood pressure were collected in Step 2. Biochemical measurements were collected to assess blood glucose and cholesterol levels in Step 3.

The STEPS survey in **Trinidad and Tobago** was a population-based survey of persons aged 15-64. A stratified cluster sampling design was used to produce representative data for that age range in **Trinidad and Tobago**. A total of 2724 persons participated in the survey. The overall response rate was 90.2%. A repeat survey is planned for 2016.

Results for persons aged 19-24 years (incl. 95% CI)	Both Sexes	Males	Females
Step 1 Tobacco Use			
Percentage who currently smoke tobacco	21.0 15.5-26.5	30.2 20.7-39.8	13.0 7.0-18.9
Percentage who currently smoke tobacco daily	17.1 11.9-22.3	26.0 16.8-35.2	9.4 4.2-14.5
For those who smoke tobacco daily			
Average age started smoking (years)	16.2 15.5-16.8	15.7 14.9-16.5	17.3 16.1-18.4
Percentage of daily smokers smoking manufactured cigarettes	94.7 89.1-100.0	93.8 86.3-100.0	96.8 89.9-100.0
Mean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	8.9 7.0-10.7	9.1 6.8-11.4	8.3 4.8-11.8
Percentage exposed to smoke at home on 1 or more days per week	22.3 16.8-27.8	26.7 17.8-35.6	18.5 11.5-25.5
Percentage exposed to smoke at workplace on 1 or more days per week	19.8 13.8-25.7	32.7 22.5-43.0	7.5 3.0-12.0
Step 1 Alcohol Consumption			
Percentage who are lifetime abstainers	23.3 17.1-29.5	21.7 13.0-30.4	24.7 16.6-32.8
Percentage who are past 12 month abstainers	11.9 7.7-16.1	12.0 5.6-18.4	11.8 6.0-17.6
Percentage who currently drink (drank alcohol in the past 30 days)	43.1 36.5-49.6	53.1 43.6-62.5	34.3 25.5-43.1
Percentage who engage in heavy episodic drinking (men who had 5 or more / women who had 4 or more drinks on any day in the past 30 days)		38.2 28.8-47.7	21.9 14.4-29.5

Step 1 Fruit and Vegetable Consumption (in a typical week)			
Mean number of days fruit consumed	2.7 2.4-3.0	2.7 2.3-3.1	2.7 2.2-3.1
Mean number of servings of fruit consumed on average per day	0.7 0.6-0.9	0.7 0.5-0.9	0.7 0.5-1.0
Mean number of days vegetables consumed	4.2 3.9-4.5	4.3 3.9-4.8	4.1 3.6-4.6
Mean number of servings of vegetables consumed on average per day	1.3 1.1-1.6	1.2 1.0-1.5	1.4 1.0-1.8
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	92.5 88.6-96.4	91.6 86.1-97.1	93.3 89.0-97.6
Step 1 Physical Activity			
Percentage with low levels of activity (defined as < 600 MET-minutes per week)*	44.5 37.9-51.1	24.0 16.0-31.9	62.5 53.2-71.8
Percentage with high levels of activity (defined as ≥ 3000 MET-minutes per week)*	39.0 32.4-45.7	64.8 55.9-73.7	16.4 9.9-23.0
Median time spent in physical activity on average per day (minutes) (presented with inter-quartile range)	42.9 0-165.7	128.6 28.6-321.4	10.7 0-80
Percentage not engaging in vigorous activity	62.0 55.8-68.3	36.2 27.3-45.1	84.7 78.3-91.0

* For complete definitions of low and high levels of physical activity, other conditions are specified in the GPAQ Analysis Guide, available at: http://www.who.int/chp/steps/GPAQ/en/index.html

Trinidad and Tobago STEPS Survey 2011
FACT SHEET

Results for persons aged 19-24 years (incl. 95% CI)	Both Sexes	Males	Females
Step 2 Physical Measurements			
Mean body mass index - BMI (kg/m^2)	23.6 22.9-24.3	23.6 22.7-24.6	23.6 22.5-24.7
Percentage who are overweight (BMI ≥ 25 kg/m^2)	37.9 31.2-44.5	38.6 29.0-48.2	37.2 27.7-46.8
Percentage who are obese (BMI ≥ 30 kg/m^2)	10.8 7.0-14.5	10.6 4.8-16.4	10.9 6.3-15.6
Average waist circumference (cm)		105 (102.1-107.9)	82.4 (80.0-84.9)
Mean systolic blood pressure - SBP (mmHg), including those currently on medication for raised BP	118.0 115.8-120.3	123.7 120.9-126.5	113.3 110.0-116.6
Mean diastolic blood pressure - DBP (mmHg) , including those currently on medication for raised BP	73.8 72.2-75.4	74.3 72.2-76.3	73.4 70.9-75.8
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)	11.4 7.1-15.6	20.5 12.1-29.0	3.7 0.7-6.7
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg) who are not currently on medication for raised BP	11.1 6.9-15.3	20.5 12.1-29.0	3.1 0.4-5.8

Step 3 Biochemical Measurement - *Results pending*			
Mean fasting blood glucose, including those currently on medication for raised blood glucose [choose accordingly: mmol/L or mg/dl]	4.9 (4.6-5.3)	4.6 (4.1-5.1)	5.3 (4.7-5.9)
Percentage with impaired fasting glycaemia as defined below • 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)	5.0 (-0.8-10.9)	-	10.1 (-1.6-21.7)
Percentage with raised fasting blood glucose as defined below or currently on medication for raised blood glucose • plasma venous value ≥ 7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥ 6.1 mmol/L (110 mg/dl)	16.6 (7.2-25.9)	14.4 (2.2-26.6)	18.7 (3.9-33.5)
Mean total blood cholesterol, including those currently on medication for raised cholesterol [choose accordingly: mmol/L or mg/dl]	5.0 (4.6-5.3)	5.0 (4.4-5.5)	5.0 (4.5-5.5)
Percentage with raised total cholesterol (≥ 5.0 mmol/L or ≥ 190 mg/dl or currently on medication for raised cholesterol)	47.0 (33.2-60.8)	46.6 (25.2-68.0)	47.5 (28.8-66.1)

Summary of combined risk factors
  • current daily smokers   • overweight (BMI ≥ 25 kg/m^2)
  • less than 5 servings of fruits & vegetables per day   • raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or
  • low level of activity currently on medication for raised BP)			

Percentage with none of the above risk factors	1.1 (0.0-2.2)	2.5 (0.1-4.9)	-
Percentage with three or more of the above risk factors, aged 19 to 24 years	27.7 (21.5-33.9)	27.9 (18.9-36.9)	27.5 (19.1-35.9)

TRINIDAD AND TOBAGO: Pan American **STEPS** Instrument

Introduction

The Question-by-Question Guide presents the STEPS Instrument with a brief explanation for each of the questions.

Purpose

The purpose of the Question-by-Question Guide is to provide background information to the interviewers and supervisors as to what is intended by each question.

Interviewers can use this information when participants request clarification about specific questions or they do not know the answer.

Interviewers and supervisors should refrain from offering their own interpretations.

Guide to the columns

The table below is a brief guide to each of the columns in the Q-by-Q Guide.

Column	Description	Site Tailoring
Number	This question reference number is designed to help interviewers find their place if interrupted.	Renumber the instrument sequentially once the content has been finalized
Question	The question text to be read to the participants followed by question instructions.	• Select sections to use. • Add expanded and optional questions as desired.
Response	This column lists the available response options which the interviewer will be circling or filling in the text boxes. The skip instructions are shown on the right hand side of the responses and should be carefully followed during interviews.	• Add site specific responses for demographic responses (e.g. C6). • Change skip question identifiers from code to question number.
Code	The column is designed to match data from the Instrument into the data entry tool, data analysis syntax, data book, and fact sheet.	This should never be changed or removed. The code is used as a general identifier for the data entry and analysis.

PAN AMERICAN STEPS
FOR CHRONIC DISEASE RISK FACTOR SURVEILLANCE
TRINIDAD AND TOBAGO

SURVEY INFORMATION

Location and Date		Response	Code
1	Cluster/Centre/Village ID	L_I_I_I	I1
2	Cluster/Centre/Village name		I2
3	Interviewer ID	L_I_I	I3
4	Date of completion of the instrument	L_I_I L_I_I L_I_I_I dd mm year	I4

✂ – ✂

	Participant Id Number L_I_I_I L_I_I_I L_I_I_I		
Consent, Interview Language and Name		**Response**	**Code**
5	Consent has been read and obtained .	Yes 1 No 2 **If NO, END**	I5
7	Time of interview (24 hour clock)	L_I_I : L_I_I hrs mins	I7
8	Family Surname		I8
9	First Name		I9
Additional Information that may be helpful			
10	Contact phone number where possible		I10

Step 1 Demographic Information

CORE: Demographic Information		
Question	**Response**	**Code**
11	Sex (*Record Male / Female as observed*) .	Male 1 Go to question 13 Female 2 Go to question 12	C1
		No 2	
12	What is your date of birth?	|___|___| |___|___| |___|___|___|___| *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

EXPANDED: Demographic Information		
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 Senior comprehensive completed 5 Composite completed 6 Technical / Vocational completed 7 College/University completed 8 Post graduate degree 9 Refused 88	C5
16	What is your [*insert relevant ethnic group / racial group / cultural subgroup / others*] **background**?	African descent 1 East Indian descent 2 Mixed 3 White 4 Chinese 5 Other 6 Refused 88	C6
17	What is your **marital status**?	Never married 1 Currently married 2 Separated 3 Divorced 4 Widowed 5 Common law 6 Refused 88	C7

EXPANDED: Demographic Information, Continued

18	Which of the following best describes your **main work status** over the past 12 months?	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
20	Taking **the past month**, can you tell me what the average earnings of the household have been?	Per week ⎿__⎿__⎿__⎿__⎿__⎿__⎿__⏌ G*o to T1*	C10a
		OR per month ⎿__⎿__⎿__⎿__⎿__⎿__⏌ G*o to T1*	C10b
		Refused 88	C10d
21	If you don't know the amount, can you give an **estimate** of the monthly household income if I read some options to you? Is it	< $1,000 1 $1,000 – $2,999 2 $3,000 – $4,999 3 $5,000 – $6,999 4 $7,000 – $9,999 5 ≥ $10,000 6 Don't Know 77 Refused 88	C11

Step 1 Behavioural Measurements

CORE: 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	Do you currently smoke any **tobacco products**, such as cigarettes, cigars or pipes?	Yes 1 No 2 *If No, go to T6*	T1
23	Do you currently smoke tobacco products **daily**?	Yes 1 No 2 *If No, go to T6*	T2
24	During the past year, have you ever tried to stop smoking cigarettes?	Yes No	X2
25	Have you ever received help or advice to help you stop smoking cigarettes?	Yes No	X3
26	How old were you when you **first started** smoking daily?	Age (years) Don't know 77 └─┴─┘ *If known, go to T5a*	T3
27	Do you remember how long ago it was?	In Years └─┴─┘ *If known, go to T5a*	T4a
		OR in Months └─┴─┘ *If known, go to T5a*	T4b
		OR in Weeks └─┴─┘	T4c
28	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
		Other └─┴─┘ *If Other, go to T5other, else go to T9*	T5e
		Other (please specify): └─┴─┴─┴─┴─┴─┴─┴─┘ *Go to T9*	T5other

EXPANDED: Tobacco Use		
Question	**Response**	**Code**
29	In the past, did you **ever** smoke **daily**?	Yes 1 No 2 *If No, go to T9*	T6
30	How old were you when you **stopped** smoking **daily**?	Age (years) Don't Know 77 |__|__| *If Known, go to T9*	T7
31	Do you remember how long ago it was?	In Years |__|__| *If Known, go to T9*	T8a
		OR in Months |__|__| *If Known, go to T9*	T8b
		OR in Weeks |__|__|	T8c
32	Do you **currently use** any **smokeless tobacco** such as [*snuff, chewing tobacco, betel*]?	Yes 1 No 2 *If No, go to T12*	T9
33	Do you **currently use smokeless tobacco** products **daily?**	Yes 1 No 2 *If No, go to T12*	T10
34	In the past, did you **ever use** smokeless tobacco such as [*snuff, chewing tobacco, or betel*] **daily**?	Yes 1 No 2	T12
35	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 |__|__|	T13
36	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 |__|__|	T14

CORE: Alcohol Consumption		
The next questions ask about the consumption of alcohol.		
Question	**Response**	**Code**
37 Have you **ever** consumed an alcoholic drink such as beer, wine, spirits, fermented cider or *[add other local examples]*)?	Yes 1 No 2 *If No, go to D1*	A1a
38 Have you consumed an alcoholic drink within the **past 12 months**?	Yes 1 No 2 *If No, go to D1*	A1b
39 During the past 12 months, **how frequently** have you had at least one alcoholic drink?	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
40 Have you consumed an alcoholic drink within the **past 30 days**?	Yes 1 No 2 *If No, go to D1*	A3
41 During the past 30 days, on how many **occasions** did you have at least one alcoholic drink?.	Number Don't know 77 |__|__|__|	A4
42 During the past 30 days, when you drank alcohol, **on average**, how many **standard alcoholic drinks** did you have during one drinking occasion?	Number Don't know 77 |__|__|__|	A5
43 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 |__|__|__|	A6
44 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 |__|__|__|	A7

EXPANDED: Alcohol Consumption			
45	During the past 30 days, when you consumed an alcoholic drink, how often was it with meals? Please do not count snacks.	Usually with meals 1 Sometimes with meals 2 Rarely with meals 3 Never with meals 4	A8
46	During each of the **past 7 days**, how many standard drinks of any alcoholic drink did you have each day?	Monday ⌊__⌊__⌋	A9a
		Tuesday ⌊__⌊__⌋	A9b
		Wednesday ⌊__⌊__⌋	A9c
		Thursday ⌊__⌊__⌋	A9d
		Friday ⌊__⌊__⌋	A9e
		Saturday ⌊__⌊__⌋	A9f
		Sunday ⌊__⌊__⌋	A9g

CORE: Diet

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

Question		Response	Code
47	In a typical week, on how many days do you **eat fruit**?	Number of days |__|__| **If Zero days, go to D3** Don't Know 77	*D1*
48	How many **servings** of fruit do you eat on **one** of those days?	Number of servings Don't Know 77 |__|__|	*D2*
49	In a typical week, on how many days do you **eat vegetables**?	Number of days |__|__| **If Zero days, go to D5** Don't Know 77	D3
50	How many **servings** of vegetables do you eat on one of those days?	Number of servings Don't know 77 |__|__|	D4

EXPANDED: Diet

			Code
51	What type of **oil or fat is most often** used for meal preparation in your household?	Vegetable oil 1 Lard or suet 2 Butter or ghee 3 Margarine 4 Other 5 *If Other, go to D5other* None in particular 6 None used 7 Don't know 77	*D5*
		Other |__|__|__|__|__|__|__|	*D5other*
52	On average, how many meals per week do you eat that were not prepared at a home? By meal, I mean breakfast, lunch and dinner.	Number Don't know 77 |__|__|	*D6*

CORE: Physical Activity

Question		Response	Code
53	Does your work involve vigorous-intensity activity that causes large increases in breathing or heart rate like *[carrying or lifting heavy loads, digging or construction work]* for at least 10 minutes continuously?	Yes 1 No 2 *If No, go to P 4*	*P1*
54	In a typical week, on how many days do you do vigorous-intensity activities as part of your work?	Number of days |__|__|	*P2*
55	How much time do you spend doing vigorous-intensity activities at work on a typical day?	Hours : minutes |__|__| : |__|__| hrs mins	P3 (a-b)
56	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?	Yes 1 No 2 *If No, go to P 7*	P4
57	In a typical week, on how many days do you do moderate-intensity activities as part of your work?	Number of days |__|__|	P5
58	How much time do you spend doing moderate-intensity activities at work on a typical day?	Hours : minutes |__|__| : |__|__| hrs mins	P6 (a-b)
Travel to and from places			
59	Do you walk or use a bicycle (*pedal cycle*) for at least 10 minutes continuously to get to and from places?	Yes 1 No 2 *If No, go to P 10*	P7
60	In a typical week, on how many days do you walk or bicycle for at least 10 minutes continuously to get to and from places?	Number of days |__|__|	P8
61	How much time do you spend walking or bicycling for travel on a typical day?	Hours : minutes |__|__| : |__|__| hrs mins	P9 (a-b)

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

EXPANDED: Physical Activity		
Sedentary behavior		
68	How much time do you usually spend sitting or reclining on a typical day?	Hours : minutes |_|_| : |_|_| hrs min s	P16 (a-b)

CORE: History of Raised Blood Pressure		
Question	Response	Code
69 Have you ever had your blood pressure measured by a doctor or other health worker?	Yes 1 No 2 *If No, go to H6*	H1
70 Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension? .	Yes 1 No 2 *If No, go to H6*	H2a
71 Have you been told in the past 12 months?	Yes 1 No 2	H2b
72 Were you told that you have raised blood pressure or hypertension for the first time, in the past 12 months?	Yes 1	X6
	No 2	

EXPANDED: History of Raised Blood Pressure		
	Are you currently receiving any of the following treatments/advice for high blood pressure prescribed by a doctor or other health worker?	
73	Drugs (medication) that you have taken in the past two weeks	Yes 1 No 2	H3a
	On how many of the last 7 days did you take your blood pressure medication as prescribed?	0 1 2 3 4 5 6 7	X7
	Advice to reduce salt intake	Yes 1 No 2	H3b
	Advice or treatment to lose weight	Yes 1 No 2	H3c
	Advice or treatment to stop smoking	Yes 1 No 2	H3d
	Advice to start or do more exercise	Yes 1 No 2	H3e
74	Have you ever seen a traditional healer for raised blood pressure or hypertension?	Yes 1 No 2	H4
75	Are you currently taking any herbal or traditional remedy for your raised blood pressure?	Yes 1 No 2	H5

CORE: History of Diabetes

Question		Response	Code
76	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
77	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
78	Have you been told in the past 12 months?	Yes 1 No 2	H7b
79	Were you told that you have raised blood sugar or diabetes for the first time, in the past 12 months?	Yes 1	X8
		No 2	

EXPANDED: History of Diabetes

	Are you currently receiving any of the following treatments/advice for diabetes prescribed by a doctor or other health worker? .		
80	Insulin	Yes 1 No 2	H8a
	Drugs (medication) that you have taken in the past two weeks	Yes 1 No 2	H8b
	On how many of the last 7 days did you take your diabetes medication as prescribed?	0 1 2 3 4 5 6 7	X9
	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

81	Have you ever seen a traditional healer for diabetes or raised blood sugar?	Yes 1 No 2	H9
82	Are you currently taking any herbal or traditional remedy for your diabetes?	Yes 1 No 2	H10
83	When was the last time your eyes were examined as part of your diabetes control?	Within the past 2 years 1 More than 2 years ago 2 Never 3 Don't know 77	H11
84	When was the last time your feet were examined as part of your diabetes control?	Within the past year 1 More than 1 year ago 2 Never 3 Don't know 77	H12

EXPANDED*:* History of raised total cholesterol

Questions		Response	Code
85	Have you ever had your cholesterol measured by a doctor or other health worker?	Yes 1 No 2 *If No, go to F1a*	L1a
86	Have you ever been told by a doctor or other health worker that you have raised cholesterol?	Yes 1 No 2 *If No, go to F1a*	L2a
87	Were you told in the past 12 months?	Yes 1 No 2	L2b
88	Were you told that you have raised cholesterol for the first time, in the past 12 months?	Yes 1 No 2	X10
89	Are you currently receiving any of the following treatments/advice for raised cholesterol prescribed by a doctor or other health worker?		
	Oral treatment (medication) taken in the last 2 weeks	Yes 1 No 2	L3a
	On how many of the last 7 days did you take your cholesterol medication as prescribed?	0 1 2 3 4 5 6 7	X11
	Special prescribed diet	Yes 1 No 2	L3b
	Advice or treatment to lose weight	Yes 1 No 2	L3c
	Advice or treatment to stop smoking	Yes 1 No 2	L3d
	Advice to start or do more exercise	Yes 1 No 2	L3e
90	During the past 12 months have you seen a traditional healer for raised cholesterol?	Yes 1 No 2	L4
91	Are you currently taking any herbal or traditional remedy for your raised cholesterol?	Yes 1 No 2	L5

EXPANDED: Family history

Questions		Response	Code
92	Have some of your family members been diagnosed with the following diseases?		
	Diabetes or blood sugar	Yes 1 No 2	F1a
	Raised Blood pressure	Yes 1 No 2	F1b

Step 1 Optional Module

Section: Health Screening		Response		Code
93	Have you ever had your feces / stool examined to look for hidden blood?	Yes No	1 2	S1
94	Have you ever had a colonoscopy?	Yes No	1 2	S2
95	This question is for men only: Have you ever had an examination of your prostate?	Yes No	1 2	S3
96	The following questions are for women only: Have you been shown how to examine your breasts?	Yes No	1 2	S4
97	When was the last time you had an examination of your breasts?	1 year or less Between 1 and 2 years More than 2 years Never Don't know	1 2 3 4 77	S5
98	When was the last time you had a mammogram?	1 year or less Between 1 and 2 years More than 2 years Never Don't know	1 2 3 4 77	S6
99	When was the last time you had a Pap test?	1 year or less Between 1 and 2 years More than 2 years Never Don't know	1 2 3 4 77	S7

EXPANDED: Unintentional Injury

Question		Response		Code
100	In the past 30 days, how often did you use a seat belt when you were the driver or passenger of a motor vehicle?	All of the time	1	V1
		Sometimes	2	
		Never	3	
		Have not been in a vehicle in past 30 days	4	
		No seat belt in the car I usually drive	5	
		Don't Know	77	
		Refused	88	
101	In the past 30 days, how often did you wear a helmet when you drove or rode as a passenger on a motorcycle or motor-scooter?	All of the time	1	V2
		Sometimes	2	
		Never	3	
		Have not been on a motorcycle or motor-scooter in past 30 days	4	
		Do not have a helmet	5	
		Don't Know	77	
		Refused	88	
102	In the past 30 days, how many times have you driven a motor vehicle within 2 hours of having 2 or more alcoholic drinks?	Number of times	└─┴─┘	X4
		Don't know	77	
		Refused	88	
103	In the past 30 days, how many times have you ridden in a motor vehicle where the driver had 2 or more alcoholic drinks within 2 hours of driving?	Number of times	└─┴─┘	X5
		Don't know	77	
		Refused	88	

Step 2 Physical Measurements

CORE: Height and Weight		
Question	**Response**	**Code**
104	Interviewer ID └_┴_┴_┴_┘	M1
105	Device IDs for height and weight Height └_┴_┘ Weight └_┴_┘	M2
106	Height in inches (in) └_┴_┴_┴_┘ . └_┘	M3
107	Weight *If too large for scale, code 666.6* in pounds (lb) └_┴_┴_┴_┘ . └_┘ No 2	M4
CORE: Waist		
108	Device ID for waist └_┴_┘	M6
109	Waist circumference in inchess (in) └_┴_┴_┴_┘ . └_┘	M7
110	Interviewer ID └_┴_┴_┴_┘	M8
EXPANDED: Acanthosis Nigricans and Heart Rate		
111	Acanthosis nigricans	0 1 2 3 4	X12
CORE: Blood Pressure		
112	Interviewer ID	└_┴_┴_┴_┘	M1
113	Device ID for blood pressure	└_┴_┘	M9
114	Cuff size used	Small 1 Medium 2 Large 3	M10
115	Blood Pressure and Heart Rate Reading 1		
		Systolic (mmHg) └_┴_┴_┴_┘	M11a
		Diastolic (mmHg) └_┴_┴_┴_┘	M11b
		Beats per minute └_┴_┴_┴_┘	M16a
	Blood Pressure and Heart Rate Reading 2		
116		Systolic (mmHg) └_┴_┴_┴_┘	M12a
		Diastolic (mmHg) └_┴_┴_┴_┘	M12b
		Beats per minute └_┴_┴_┴_┘	M16b

	Blood Pressure and Heart Rate Reading 3		
117		Systolic (mmHg) |__|__|__|	M13a
		Diastolic (mmHg) |__|__|__|	M13b
		Beats per minute |__|__|__|	M16c
118	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

Step 3 Biochemical Measurements

CORE: Blood Glucose		
Question	**Response**	**Code**
119	During the past 12 hours have you had anything to eat or drink, other than water? .	Yes 1 No 2	B1
120	Technician ID	⌊__⌊__⌊__⌊__⌋	B2
121	Device ID	⌊__⌊__⌊__⌋	B3
122	Time of day blood specimen taken (24 hour clock)	Hours : minutes ⌊__⌊__⌋ : ⌊__⌊__⌋ hrs mins	B4
123	Fasting blood glucose	mmol/l ⌊__⌊__⌋ . ⌊__⌊__⌋	B5
124	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
CORE: Blood Lipids		
125	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
126	Device ID	⌊__⌊__⌋	B7
127	Total cholesterol	mmol/l ⌊__⌊__⌋ . ⌊__⌊__⌋	B8
128	Triglycerides	mmol/l ⌊__⌊__⌋ . ⌊__⌊__⌋	B10
129	HDL Cholesterol	mmol/l ⌊__⌋ . ⌊__⌊__⌋	B11
130	Calculated LDL	mmol/l ⌊__⌊__⌋ . ⌊__⌊__⌋	X13

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