QATAR STEPWISE REPORT 2012

CHRONIC DISEASE RISK FACTOR SURVEILLANCE


المسح الوطني التدرجي
National STEPwise survey


State Of Qatar دولة قطر
المجلس الأعلى للصحة
Supreme Council Of Health


جهاز الإحصاء
STATISTICS AUTHORITY


World Health Organization
Regional Office for the Eastern Mediterranean

QATAR STEPWISE REPORT 2012

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Supreme Council of Health, Qatar, 2013

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FORWARD

Chronic noncommunicable diseases (NCDs), such as cardiovascular diseases hypertension and diabetes, have been established as the cause for a major burden and threat to the Qatari community.

In Qatar, NCDs constitute more than half of the deaths registered per annum and with many more suffering of one or more of these diseases.

The latter can however be significantly reduced through a range of effective preventive and curative measures, as demonstrated by evidence on the preventability of these diseases from various parts of the world.

As such, an efficient surveillance system to collect data on the occurrence, prevalence, mortality, and known risk factors of NCDs must be established on the basis of the step-wise approach for planning and evaluating preventive and curative interventions.

This report provides extensive and reliable base-line data on the preventable behavioural risk factors and biological risk factors of NCDs, including smoking, insufficient fruit and vegetables intake, physical inactivity, obesity, hypercholesterolemia, hypertension and diabetes.

Hence, its value as guidance in our fight against these killing diseases extends beyond health care workers to engage the whole community, both government as well as civic organizations and individuals, in this important battle against the burden of NCDs in Qatar.

Finally, the valuable work and great achievement that has been accomplished in this report would not have been made possible without the sincere and sustainable efforts exerted by all survey team members in translating one of our aspirations into reality.

A word of thanks may not be a sufficient reward for this magnificent achievement, and such efforts will definitely be highly accredited and appreciated. We particularly wish to thank our main partners, Qatar Statistics Authority (QSA), for their firm commitment and work; and our primary collaborators, Hamad Medical Corporation (HMC), Primary Health Care Corporation (PHCC) and Qatar Diabetes Association (QDA) for their infallible support. Once again, we express deep gratefulness and thankfulness to everybody who made this mission possible and brought this report to light.

Finally, we would like to express our profound gratitude for our permanent partner the World Health Organization for the continuous support and guidance.

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INTRODUCTION

Chronic Noncommunicable Diseases (NCDs) are the leading causes of death, causing more deaths than all other causes combined. In 2008, of the 57 million deaths worldwide, 36 million (63%) were due to NCDs. The main causes of mortality from NCDs were cardiovascular diseases (17 million deaths, responsible for 48% of NCD deaths); cancer (7.6 million, responsible for 21% of NCD deaths); and respiratory diseases, including asthma and chronic obstructive pulmonary disease (COPD) (4.2 million, responsible for 11.7% of NCD deaths). In addition to 1.3 million deaths were caused by Diabetes (WHO 2011).

The impact of NCDs is growing steadily and affecting people of all ages in both developed and developing countries. In most of the countries in America, the Eastern Mediterranean, Europe, South-East Asia, and the Western Pacific, NCDs are the most frequent causes of death. According to WHO projection, deaths attributable to NCDs are expected to increase globally by 15% between 2010 and 2020 (WHO 2011). The biggest increases will be in the WHO regions of Africa, South-East Asia and the Eastern Mediterranean, increasing by over 20% (WHO 2011).

Based on WHO estimates in 2008, cardiovascular disease and cancer were responsible for the largest proportion of NCD deaths under the age of 70 with 39% and 27%, respectively. Diabetes was responsible for 4% (WHO 2011).

The main causes of the most prevalent chronic diseases are well established and well known. These include unhealthy diet and excessive energy intake, low levels of physical activity, tobacco use and the harmful use of alcohol. These behaviours lead to four key metabolic/physiological changes: raised blood pressure, overweight/obesity, hyperglycemia and hyperlipidemia (WHO 2011).

The WHO's Action Plan for Global Strategy for the Prevention and Control of noncommunicable Diseases 2008-2013 recommends that all Member States should take actions to strengthen surveillance and standardize data collection on NCD risk factors, disease incidence and cause-specific mortality. The plan also calls for routine collection of data and information on trends related to NCDs and their risk factors by age, sex and socioeconomic group, in addition to providing information about the progress in implementation of national strategies and plans (WHO 2008).

In Qatar, deaths attributable to chronic NCDs collectively are the number one causes of death in the last 10 years. Between 2004 and 2010 the top four NCD causes of death were from diseases of the circulatory system, neoplasms, endocrine, nutritional and metabolic diseases, and the respiratory system.

As the main causes of the NCD deaths are well defined and established globally, the need to have an accurate data on the behavioural risk factors such as unhealthy diet, physical inactivity, overweight and obesity and the effect on metabolic and physiology changes is highly needed in the State of Qatar. As such, establishing a database and surveillance system on the NCD risk factors is required to guide public health policy and interventions to reduce the burden of the NCDs in the State of Qatar and to improve the health status of the population overall.

WHO STEPS overview

Monitoring of risk factors at the population level has been the foundation of national NCD surveillance. Data on behavioural and metabolic risk factors are usually obtained from population based surveys, which include face-to-face interviews and/or physical health examinations (WHO 2001).

The WHO STEPS survey is a well established and tested method specifically for NCD risk factor surveillance, based on an integrated and phased approach. This allows countries to conduct chronic disease surveillance activities with the aim of developing a comprehensive risk profile of their national populations. As one of the key elements to controlling the global epidemic of chronic diseases is primary prevention based on comprehensive population-wide programmes, identifying the major common risk factors for chronic disease in the local population is crucial (WHO 2005).

Information on socio-demographic factors and behavioural risk factors are collected in STEPS through interviews. Physical measurements of the height and weight of body mass index (BMI), waist circumference and blood pressure are collected. Additionally, biochemical measurements are obtained for fasting blood glucose and total cholesterol levels (WHO 2005).

In order to establish a database and a surveillance system on the chronic NCD risk factors in the State of Qatar, the WHO STEPS survey was conducted in Qatar under the lead of the Supreme Council of Health (SCH) and in collaboration with Qatar Statistics Authority (QSA). Technical assistance was provided by the WHO Headquarter in Geneva and the WHO Regional Office for the Eastern Mediterranean.

A total of 2,496 adults (18-64 years) participated in Qatar's population-based STEPS survey with an overall response rate of 88%.

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NATIONAL CONTEXT

In this chapter background information will be provided on the geography and climate, socoi-cultural and economic factors in Qatar. It will also set out the current health status of the population (including available information from previous health related surveys), briefly describe the health system in Qatar and outline the Qatar National Vision and associated Qatar National Health Strategy (NHS). This chapter will feed in better understanding of the general context of Qatar where the STEPS were implemented.

Geography and Climate

The State of Qatar is located halfway along the West Coast of the Arabian Gulf, east of the Arabian Peninsula between 24 degrees 27 minutes and 26 degrees 10 minutes north – and at 50 degrees 45 minutes to 51 degrees 40 minutes east. Its territory comprises a number of islands including Halul, Al Shat, Shira'wa and others (QSA 2012).

According to the Qatar Statistics Authority 2012, Qatar occupies 11,606.8 square kilometers on a peninsula that extends approximately 160 kilometers north into the Arabian Gulf from the Arabian Peninsula.

Qatar consists of seven municipalities; Doha, Al Rayan, Al Wakra, Umm Salal, Al Khor, Al Shamal and Al Daayen. According to QSA 2011, more than three quarters of the population is settled in the Doha and Al-Rayan municipalities.

Qatar's climate considered to be a desert climate characterized by a hot summer and relatively warm winter. In summer, the temperature ranges between 25 and 46 degrees centigrade. Rainfall in the winter is minimal and on average does not exceed 75.2 mm per year (QSA 2012).

Socio-Cultural Factors

According to Qatar Statistics Authority (QSA), Qatar had more than 1.5 million inhabitants in mid 2010, a population increase of more than one million since 1998. However, the year to year annual population growth has ranged between 4.6% and 5.5% between 1999 and 2003, then in 2004 the population growth increased to 11.8% and it continued to increase to reach a peak of 18.9% in 2008 then to decline to 13.1% in 2009 and to 4.7% in 2010. The latter increase in the population growth was attributable to the economic boom that Qatar has experienced in recent years (QSA 2011).

The percentage of the working - age population (15-64 years old) increased from 70.8% in 1998 to 85.5% in 2010. Yet the percentage of 0-14 year old age group, declined from 27.7% in 1998 to 13.7% in 2010. A similar decline occurred in the size of the 65+ age group as it declined from 1.4% of the population in 1998 to 0.8% in 2010. These changes are attributable to the recruitment of a large number of expatriate workers required by the economic boom which has significantly increased the numbers of 15-64 year olds (QSA 2011).

Qatar was ranked 37th in the 2011 Human Development Report with a Human Development Index (HDI) value of 0.831 (UNDP 2011). The Qatari government has invested heavily in education since 1970s, and according to QSA, the total literacy rate in Qatar reached 96.3%, with 96.5% among males and 95.4% among females and with an equality indicator value of 0.99 in 2010. This is an increased of 8% from its level in 2004 which was 89%.

Education in Qatar, including tertiary, is free of charge. In 2002, the Supreme Education Council (SEC) was established by Emiri Decree number 37; the SEC directs the nation's education policy. According to the SEC, in the educational year 2009-2010 there were 437 schools in Qatar, divided into 201 primary schools, 126 preparatory schools, and 110 secondary schools. In 2009-2010 there were 157,871 students enrolled and 26,484 teachers (SEC 2011).

Economy

Qatar, according to The World Bank 2012, is considered to be among the high income non-Organization for Economic Co-operation and Development (OECD) countries with a Gross National Income (GNI) per capita Atlas methods (current US$) $80,440 of USD (The World Bank 2012). Qatar's planned exploitation of its hydrocarbon reserves resulted in a nominal Gross Domestic Product (GDP) with a compound annual growth rate of 27.5% between 2004 and 2011. As per the preliminary estimates of GDP, Qatar's economy grew by 14.1% (real GDP growth) in 2011 and the nominal GDP reached to QR 631,609 million (US$ 173,281 million) representing an increase of 36.3% in 2011 compared to 2010. The expansion in the production levels of gas-related products, Liquefied Natural Gas (LNG) and condensates, coupled with increases in hydrocarbon prices has been instrumental in pushing the nominal GDP of the country (36.3% rise). The oil and gas sector has contributed 51.7% and 58.3% of Qatar's total nominal GDP in 2010 and 2011, respectively. Besides the oil and gas sector, Qatar's economic growth and significant investments have helped increase economic returns from, petrochemicals, financial services, infrastructure development etc. As a result, nominal GDP for the non-oil and gas sector grew at a Compound Annual Growth Rate (CAGR) of 25.7% between 2004 and 2011. Nominal GDP for the non-oil and gas sector reached QR 267,151 million (US$ 73,292 million), or 42.3% of Qatar's total nominal GDP, in 2011 (QSA 2012).

The vast economic development that Qatar has witnessed in the recent years and the impact that the latter had on raising the GDP in all economic activities was associated with an increase in the economically active population (15 years and above), as the latter increased by about 4 folds during the period of 2001 and 2011 (QSA 2011). Between 2001 and 2009 there was also a 4 folds increase in the numbers of economically active non-Qatari males (QSA 2011).

According to the Qatar Statistics Authority in 2009, the percentage of Qatari males involved in economic activities related to Labour force was 63.6 % and, for females the percentage was 36.4%. The construction sector is the largest employer of Non Qatari's; 50.8% of Non Qatari males work in construction (QSA 2009). However, for Qataris the public administration and defense, compulsory social security employs the majority of the Qatari labour force with percentages of 61.6% and 33.1% for Qatari males and females, respectively. In 2009 37.8% of all Qatari females involved in labour activities were working in the educational sector (QSA 2012).

HEALTH STATUS INDICATORS

Trends in Mortality

In Qatar, the crude death rate declined from 1.88 per 1000 to 1.15 per 1000 between 2001 and 2010. Although in 2005 there was a slight increase in the crude death rate in comparison to 2004 from 1.68 to 1.71 respectively. However, after 2005, the crude death rate continued to decrease steadily to reach 1.15 per 1000 population in 2010 (See Fig. No 1).

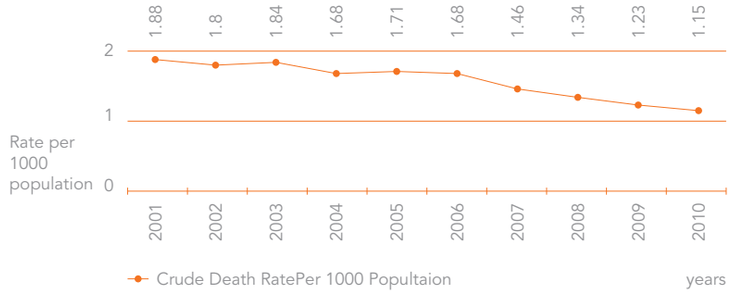
The overall downward trend in the crude death rate in Qatar between 2001 and 2007, despite the slight increase in 2005, was associated with an upward trend in life expectancy at birth. Total life expectancy at birth increased from 74.4 in 2001 to 78.4 in 2011 according to the Human Development Report 2011. The decline in the crude death rate and the increase in life expectancy at birth reflect the fact that Qatar has entered the epidemiological transition stage three (the age of Noncommunicable Disease).

The downward trend in crude death rate and the upward trend in life expectancy were associated with a high quality of health care in Qatar in terms of service delivery and service provision. In 2010, Qatar had 10 hospitals with 2052 hospital beds. Additionally, 2,981 doctors were working in the public sectors in 2010.

As government revenues increased, Qatar was able to provide free health care to all nationals. The per capita health expenditure was USD 1,561 in 2010. Qataris and non-Qataris are required to purchases a health card, but the cost of the card is very low and healthcare for health card holders is heavily subsidized. The government in Qatar is currently pursuing an alternate system of health care financing through health insurance. This is also expected to increase the number of private healthcare providers from the 4 private hospitals that were in Qatar in 2010. According to the Hamad Medical Corporation (HMC)'s annual health report, the number of Qatari doctors working at HMC was 635 in 2010.

Figure Number 1

Crude Death Rate Per 1000 Populatio 2001-2010 in Qatar



Source: SCH 2010

Noncommunicable Diseases

- Mortality

In Qatar between 2004 and 2010, the top four NCD causes of death (by ICD10 chapter) were;

- Diseases of the circulatory system;
- Neoplasms,
- Endocrine, nutritional and metabolic diseases; and
- Diseases of the respiratory system.

In 2010, the total mortality rate for females and males due to circulatory system diseases, neoplasms, endocrine, nutritional and metabolic diseases, and respiratory system diseases were17.1, 12.5, 7.3, and 4.5 per 100 000 population, respectively (See Fig. 2)

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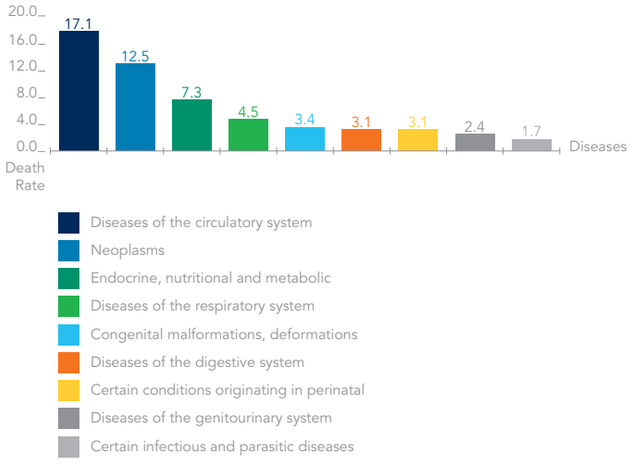
Figure Number 2

Death Rate per 100,000 for the most diseases leading to death in Qatar



Source: SCH 2010

In Qatar, mortality due to diseases of circulatory systems, neoplasms, endocrine nutritional and metabolic diseases, diseases of the respiratory system, and diseases of the digestive system, has fallen considerably between 2003 and the latest figures in 2010 with the exception of mortality attributable to digestive systems which increased from over this period. However, mortality rates in females remain considerably higher than in males in relation to mortality due to the above-mentioned NCDs.

- Morbidity

According to the World Health Survey (WHS) that was conducted in 2006 in Qatar, the prevalence of hypertension was 14.4%; the prevalence of high cholesterol was 24.7%; and the prevalence of obesity was 28.8% among the studied population.

Qatar National Vision

The Government of Qatar launched its National Vision 2030 (QNV) in 2008. The QNV shapes the country's vision and sets out long-term outcomes, in addition to providing a framework within which national strategies and implementation plans can be developed. The QNV reflects the aspirations of the Qatari people and the resolve of their political leadership. The strategy is founded upon the guiding principles of Qatar's Permanent Constitution, which pronounces that "the State shall foster public health; provide means of prevention from diseases and epidemics, and their care in accordance with the law." It puts forth the vision that, by 2030, Qatar will be an advanced society, capable of sustaining its development and providing a high standard of living. Thus, the QNV 2030 consists of four pillars, human development, social development, economic development and environmental development. (General Secretariat for Development Planning 2008)

QNV 2030 Rests on Four Pillars

Human Development
Development that expands the opportunities and capabilities of all the people of Qatar to enable them to sustain a prosperous society.

Social Development
Development of a just and caring society based on high moral standards, and capable of playing a significant role in the global partnership for development.

Economic Development
Development of a competitive and diversified economy capable of meetingthe needs of, and securing a high standard of living for all its people for the present and for the future.

Environmental Development
Management of the environment such that there is harmony between economic growth, social development and environmental protection.

Health is one of the key elements of the human development pillar. This pillar aims at developing its entire people, a country's most valuable asset, enabling them to fully participate in the country's economic, social and political life. The government is committed to secure continual human development through the establishment of advanced health and educational systems (General Secretariat for Development Planning 2008).

A healthy people, whose wellness is enhanced through an accessible, effective and safe health care system is critical to the future success of Qatar. At an individual level, health care is one of the most important parts of life, with a person's well-being affecting every aspect of their quality of life. At a societal level, health care significantly affects social productivity and economic competitiveness.

The QNV maintains that "to improve the health of Qatar's people, Qatar seeks to develop an integrated system for health care, managed according to world-class standards. This system will meet the needs of the existing and future generations and provide for an increased healthy and long life for all citizens. All health services will be accessible to the entire population"

Healthy people, whose wellness is enhanced through an accessible, effective and safe health care system, are one of the core elements of the future success of Qatar. At an individual level, health care is one of the most important parts of life, with a person's well-being affecting every aspect of their quality of life. At a societal level, health care

significantly affects social productivity and economic competitiveness. Thus, the population being in good health is essential to achieve QNV pillar objectives and health components should be incorporated

in all development plans (General Secretariat for Development Planning 2008).

In 2010, the National Development Strategy (NDS) 2011-2016 (NDS) was derived from the QNV. The NDS consists of 14 sector-specific strategies, including the health sector. The NDS was formulated with the aim of translating the QNV into a six-year strategy with defined primary initiatives and outcomes that are needed to achieve QNV goals and was launched in 2011.

National Health Strategy 2011-2016

National Health Strategy 2011-2016 (NHS) was developed in collaboration with the health sector under the leadership of the SCH, and with support from the General Secretariat for Development Planning (GSDP).

The NHS takes the health care vision that was outlined in QNV in details and sets out a more detailed plan for achieving it. It supports its recommendations with extensive analysis, benchmarking and stakeholder input. It aims to provide an implementable and practical strategy that will reform and improve healthcare and the health of the population.. Through its project plans, the NHS proposes change across the entire health system in order to achieve the 2016 and 2030 goals set out in the NDS and QNV. It highlights requirements for the programs' effective implementation, including coordination, enforcement, human resources, prioritization, monitoring and evaluation (NHS 2010).

The seven NHS goals, outlined earlier in the QNV, are (NHS 2010):

- Comprehensive world-class health care system
- Integrated system of health care
- Preventive health care
- Skilled national workforce
- National health policy
- Effective, affordable services
- High-quality research

Each of the above mentioned goals consists of a number of projects that has its own outputs and outcomes to track the implementation towards achieving the goals of the NHS.

Health related Surveys in Qatar

In Qatar, data on socioeconomic and demographic aspects about the population are provided from the census and vital statistics (births and deaths) registration and hospital registration systems. However, little information is available on the health of the population, particularly on morbidity indicators. To address the lack of routine morbidity information, the National Health Authority of Qatar in collaboration with the planning council of the Qatar Statistics Authority and WHO's Regional Office for the Eastern Mediterranean conducted the World Health Survey (WHS) in 2006. WHS is a national representative household sample survey. The WHS sample was a systematic random sample with probability proportional to the size of the primary sampling units (PSUs), after sorting the sampling frame by municipality and zones. The target population of the WHS survey consisted of Qataris and non-Qataris households and successfully covered 2423 Qatari household and 2352 non-Qatari household.

The aim of the WHS was to compile comprehensive information on the health of population, on the outcomes associated with the investment in health system and baseline evidence on the way the health system is currently functioning; and to extend the ability to monitor inputs, functions and outcomes. It developed a group of indicators relating to household population and individual respondents, aged 18 years and over. The selected indicators covered the aspects of health risk factors, morbidity prevalence, health status valuation, health system responsiveness, health expenditure and family support networks, including standard measures of tobacco use, nutrition, physical activities and obesity, current employment details and work history.

Sample indicators of WHS 2006:

Risk Factors	%
% admitted to being a daily smoker	11
% of smoking, but not daily	2.6
% of respondents reported an insufficient intake of fruit and vegetables (less than 5 servings)	81
% of Qataris with an insufficient intake of fruit and vegetables (less than 5 servings)	84.5
% of non Qataris with an insufficient intake of fruit and vegetables (less than 5 servings)	79.5
% of respondents do insufficient physical activity	56
% of adults are overweight	39
% of adults are obese	32.1
% Qatari nationals are obese	40
% non-Qatari nationals are obese	28
% of under five children obese	43
% of respondents with hypertension	14.4
% of Qataris are hypertensive	13
% of non-Qataris are hypertensive	15
% of respondents with high cholesterol	25.5
% of respondents with high triglycerides	24.7
% of respondents have a high level of Low Density Lipoproteins (LDL)	44.3
% of adults are in the pre diabetic stage	10

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METHODOLOGY

The chapter explains the important features of the WHO STEPS approach including the rationale, approach, sample design, STEPS instrument, STEPS preparations, and the major aspects of the analysis of the survey. This includes the training procedure for interviewers and the data entry process for the completed questionnaires.

Introduction

The World Health Organization (WHO) developed the STEPS approach as an entry point for countries to get started on chronic NCD disease surveillance activities. The STEPS approach helps support the countries to build and strengthen their capacity to conduct surveillance. The WHO STEPS approach is a recommended surveillance tool for chronic disease risk factors, and chronic diseases-specific morbidity and mortality (WHO 2005). The STEPS tool was designed to cover three different levels or STEPS of risk factor assessment:

- STEP 1 for gathering demographic and behavioural risk factors information by questionnaire;
- STEP 2 for collecting physical measurements with simple tests in a household settings; and
- STEP 3 for taking blood samples for biochemical measurements.

The latter STEPS are built on standard tools to collect standardized data that will allow regional comparison. Moreover, within each STEP there are three levels of data collection; core, expanded and optional. These depend on what can be accomplished in each country (WHO 2005).

In this context, risk factors refer to any attribute, characteristic or exposure of an individual that increases the likelihood of developing a chronic noncommunicable disease (WHO 2005). According to WHO World Health Report 2002 the major identified behavioural risk factors are tobacco use, harmful alcohol use, unhealthy diet (low fruit and vegetable consumption), and physical inactivity. While the major biological risk factors are overweight and obesity, raised blood pressure, raised glucose, and abnormal blood lipids and its subset raised total cholesterol (WHO 2002).

The above mentioned eight behavioural and biological risk factors are included in the STEPS risk factor surveillance. However, in the STEPS implemented in Qatar harmful alcohol consumption was excluded.

The STEPS survey was implemented by a team of experts from Qatar drawn from the fields of public health, epidemiology and statistics under the name of national STEPwise Survey. The preparation phase was assisted by a technical team from the WHO. There were two main stakeholders in the Qatar STEPS project. These were the Supreme Council of Health and the Qatar Statistic Authority. The Primary Health Care Corporation collaborated in the implementation of the project through facilitating the use of three of its centres for Data download.

The SCH and QSA worked in collaboration during the implementation of the national STEPwise survey to ensure that the results obtained from the survey are of the highest quality and are of most use to establish a chronic NCD surveillance system in Qatar.

National STEPwise Survey Planning

A comprehensive administrative plan covering the early developmental stage of the survey to the closing conference and the dissemination of the results has been prepared by the Health Promotion and NCD division at the SCH. All the related activities were arranged chronologically alongside the duration needed for each activity.

The communication between SCH and the WHO Regional Office for the Eastern Mediterranean started early 2011 in order to develop a concept note to conduct a STEPS survey in Qatar. The concept note was elaborated into a detailed project proposal including the needed budget for the STEPS implementation in Qatar. The latter proposal was submitted to His Excellency Minister of Public Health - Secretary General of the Supreme Council of Health for his kind approval.

After granting the approval from His Excellency Minister of Public Health, the budget was allocated for implementing the STEPS approach in Qatar under the name of national STEPwise survey. Afterwards, a two-day workshop was held in July 2011 in collaboration with WHO Regional office for the Eastern Mediterranean to plan the implementation with all below mentioned stakeholders:

- Qatar Statistics Authority (QSA)
- Primary Health Care Corporation (PHCC)
- Hamad Medical Corporation (HMC)
- Qatar Diabetes Association
- Weill Cornel Medical College in Qatar

The aim of the workshop was to introduce the aim and the objectives of the STEPS approach to the main stakeholders; review the STEPS tools; modify the tools to fit into the Qatari context; review and agree on the sample size based on the WHO manual for STEPS sample calculation; discus the role of the interviewers, field supervisors, and the general supervisors; review the data entry process, data management, and data analysis and reporting.

Afterwards, a task force was established from representatives of: the Noncommunicable Diseases Section at the SCH; Health Intelligence and Information Section at the SCH; QSA; and PHCC to oversee the planning and the implementation of the STEPS in Qatar under the name of national STEPwise survey. Official correspondents took place with the main key partners, namely PHCC and QSA to start the implementation process.

Additionally, Ministry of Interior support was granted to ensure their active participation and presence in cases of emergency.

Media and advocacy action plan was developed in the planning phase to disseminate information about the aim and the objectives of the national STEPwise survey in order to mobilize the Qatari's population to participate in the survey.

National STEPwise Sample Design

The STEPwise survey is a nationally representative survey that was planned to include Qataris only. As the STEPS is a surveillance tool for chronic disease risk factors with the aim to establish a surveillance system for chronic disease risk factors for the stable population of Qatar. Hence, a sample frame consisting of Qatari households only was used in this survey. According to the WHO STEPS guidelines the participant's age should be between 25 and 64 years old. However in Qatar based on consultation with WHO and following examples from other countries the age of the participants was modified to be between 18 and 64 years old.

To ensure that the sample of households and individuals who are interviewed are representative of all Qataris a detailed sample design was implemented. The sampling design took into account the WHO STEPS formula for calculating the sample size as specified in the STEPS guidelines for participating countries.

Forming Primary Sampling Units (PSUs)

QSA has divided the whole country into small geographical areas called Census blocks. These were enumeration areas during the Census. The country has been divided into Primary Sampling Units (PSUs) to form an area sampling frame. Each area frame is composed of a set of PSUs, constructed by grouping contiguous blocks such that each PSU contains about 60 to 70 Qatari households according to the 2010 Census frame. The formation of PSUs respects the administrative structure of the State of Qatar.

The number of PSUs and households in each municipality is provided in the table below.

Municipality	Qatari frame	
	PSUs	HH
Doha	190	11,506
Al Rayyan	265	15,979
Al Wakra	41	2,295
Umm Salal	58	3,291
Al Khor	19	1,219
Al Shamal	6	371
Al Daayeen	24	1,507
Total	603	36,168

Sample Size:

A WHO STEPS standard formula was used in the calculation of the sample size based on the guidelines/recommendations of the STEPS survey.

$n= Z^2 * P(1-P)/e^2$

Where;

n= The required sample size
Z= The probability value associated with the confidence level
P= The prevalence rate of NCDs in the country
e= The desired margin of error
Here Z= 1.96 (95% confidence interval as recommended)
P= 0.5 (the conservative value of prevalence rate)
e= 0.05 (as recommended in the guidelines)

Using these values, the initial calculation comes out to: n= 384

Now the value of design effect recommended in STEPS surveys is 1.5 and the response rate will be 80%. By inflating the sample size by these factors, the sample size comes out to be:

n= (384*1.5) /. 80
n= 720

To get the desired precision for male, females and two broad age-groups, the sample size will be: n= 720*4= 2880

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Sample Design Features

The sampling unit in each stage of selection refers to the entities that are selected for the survey. In this survey, the ultimate sampling units are the household and individual residing within the selected household.

A two-stage sample design is used, selecting PSUs at the first stage and a sample of households within each selected PSU at the second stage. The unit chosen at the first stage is called the Primary Sampling Unit and the unit selected at the second stage is called the Secondary Sampling Unit. The details for each stage are provided in the below table:

Stage	Sampling unit and frame	Stratification	Sample selection	Sample size
1	PSUs were selected from the frame of PSUs based on the 2010 population census. The PSUs are constructed by combining contiguous census blocks.	For the selection of PSUs, the municipalities were considered as stratum to make sure that the sample is representative of all the geographical areas of Qatar.	PSUs are selected using probability proportional to size sampling by explicit stratifcation technique.	96 PSUs from Qatari frame are selected.
2	Households are selected from the selected PSUs.	-	Households selected using simple systematic random sampling.	30 households seleced from each PSU.

Procedure for the Selection of Sample PSUs

A total of 96 PSUs was selected from the Qatari frame of PSUs. In the first stage, a systematic random sample of PSUs is drawn with probability proportional to size (size will be the number of HH in each PSU) from the area frames. The distribution of 96 selected PSUs among the municipalities along with expected sample households and actual selected number of households is presented in the table below.

As the census was conducted in April 2010 an updated list of the selected Primary Sampling Units was carried out before the actual enumeration. After selection of Primary Sampling Units (PSUs), household listing was done. A team of experienced field workers, who are familiar with the process of listing operation, was employed to do this job. They were provided with maps of the selected PSUs with existing households on it. They visited each household and asked them about whether it is a Qatari household or non-Qatari household and also they got information about the persons living in the household.

They listed any new household in the PSU and deleted the demolished households from the list. During the listing operation it was found that no household in one PSU out of 96 selected PSUs, therefore w 95 PSUs were left for the selection of households.

Municipality	Sample Distribution		
	PSUs	Expected number of selected Households	Actual number of selected households
Doha	30	900	900
Al Rayyan	43	1,290	1,260
Al Wakra	6	180	180
Umm Salal	9	270	270
Al Khor	3	90	90
Al Shamal	1	30	30
Al Daayeen	4	120	120
Total	96	2880	2850

Procedure for the Selection of Sample Households

After the selection of PSUs, household listing operation (as discussed in the previous section) was carried out in the selected PSUs. The household listing within each sample PSU served as a sample frame for the selection of households within each selected PSU.

In the second stage 30 households were selected from each selected PSU by simple systematic random sampling.

Selecting Individuals within Screened Households

Interviewers visited each selected household and identified an individual in the household who was ≥18 years old and knowledgeable about the household residents to create a roster of all survey-eligible individuals (who considered the sampled household to be their usual place of residence, and who are between the age of 18 and 64 years old). The list of eligible household residents on the roster was ordered from oldest to youngest.

The personal digital assistant (PDA) device was used to generate a random number to select one individual either male of female from (roster of 18-64 years old individuals) within the household. Only these selected individuals were administered the questionnaire.

Final sample information and non-response

After conducting the above described sampling, the actual sample size was 2850 Qatari households. However, it was seen that out of these selected households, 354 Qatari households were impossible to interview. The main reasons for that were either the households were empty blocks or there was a refusal to participate in the survey. As such, the overall non-response rate was 12%.

Overall the response rate achieved was 88% households. This means that 2496 Qatari households were interviewed.

National STEPwise survey instrument

The tool that has been used in the national STEPwise survey to collect data and measure chronic disease risk factors is called the STEPS Instrument (WHO 2005). An Arabic standardized version of the stepwise data collection form (Questionnaire) was used in the survey. The STEPS instrument was developed by the WHO and was tailored according to the Qatari Context. (See annex no.1)

The STEPS instruments that were used in Qatar covered three different levels or STEPS of risk factor assessment: Step 1, Step 2 and Step 3 as follows:

Step	Description	Purpose
1	Gathering demographic and behavioural information by questionnaire in a household setting	To obtain core data on: • Socio-demographic information • Tobacco use • Nutritional status • Physical activity
2	Collecting physical measurements with simple tests in a household setting	To build on the core data in Step 1 and determine the proportion of adults that: • Are overweight and obese and, • Have raised blood pressure
3	Taking blood samples for biochemical measurement in the household setting.	To measure the prevalence of diabetes or raised blood glucose and abnormal blood lipids.

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Within each Step, there are three levels of data collection (the core, expanded, and optional). In Qatar the core, expanded and optional levels of details gathered in each step are briefly described below:

Step	Core	Expanded	Optional
1	• Basic demographic information including: (Age, sex, years at school) • Tobacco use • Types of physical activity • Sedentary behaviour • Fruit and vegetable consumption	• Expanded demographic information including: (highest level of education, employment,) • History of tobacco use • Smokeless tobacco use • Oil and fat consumption • History of raised blood pressure • History of diabetes	• Injury and violence • Oral health
2	• Height and weight • Waist circumference • Blood pressure	• Hip circumference	
3	• Fasting blood glucose • Total cholesterol	• HDL-Cholesterol, LDL-Cholesterol and triglycerides	

However, in the national STEPwise survey of Qatar, more questions were added to collect further information about the nutritional practices and habitats in Qatar (See annex no.1). Additionally, the smoking section was modified to accommodate the investigation of using different types of smoking types (See annex no.1).

All the Qatar national STEPwise questionnaires were tested for cultural applicability and sensitivity through word and pilot testing of the questionnaires.

Guidelines

Guidelines for the utilization of the STEPS instruments were prepared based on the WHO STEPS guidelines manual and included within the national STEPwise packages that were provided to the data collection teams (See annex no.2). Additionally, show cards were included in the latter mentioned packages to show or explain the meaning of some of the items asked (See annex no.3).

TOOLS OF PHYSICAL MEASUREMENTS

Blood pressure

Blood pressure, both systolic and diastolic, was measured through a recommended device by the WHO. The Omron BP785 digital blood pressure device was used by the trained-nurses who were part of the data collection teams. Instructions on how to use the device were provided (See annex no.2). The nurses demonstrated the devices during the pilot phase. Daily calibration for the devices was conducted. According to the instructions, the blood pressure was measured while the respondent was sitting quietly. The right hand of the respondent was used to warp the appropriate cuff size. The cuff was wrapped and fastened securely with the lower edge 2cm above the inner side of the elbow joint and kept at the same level of the heart. The digital device then gave the reading. The process was repeated three times and the three readings were recorded. However, blood pressure was obtained by taking the average of second and third reading for an individual.

Weight

Weight measurements were taken using the 813 Seca digital floor scale with high capacity weighting-device. The latter device was recommended by the WHO and each team had one device. The nurses were trained on using the devices. Instructions on how to use the device was provided to each of the interviews (See annex no.2). Calibration for the devices was performed on a daily basis using a known weight. Based on the instruction, the scale was put on a firm flat surface and the respondents were dressed in light clothes, barefooted, facing forward and standing still.

Height

Height measurements were captured using the Seca height measure device 213. The latter device was recommended by the WHO. Each team had one device. The nurses in each team were trained to take the height measurements. Instructions on how to use the device were provided in the tool-kit that were distributed to the interviews (See annex no.2). Based on the instruction, the measurements were made by the participants standing with the back against the wall and head in the Frankfort position with heels together. The measuring stick was moved down and placed on the top of the head. The measurement was recorded to the nearest cm.

Waist circumference

Waist circumferences were measured using figure finder tape measure recommended by the WHO. The measurements were made in the mid-axillary line midway between the last rib and the superior iliac crest while the tape was horizontally across the back. The measurement was taken to the nearest 0.1 cm by the trained nurses.

Hip circumference

Hip circumferences were measured using finder tape measure recommended by the WHO. The measurements were made with the arms relaxed at the sides and the maximum circumference over the buttocks was measured. The measurement took place over light cloth in a private setting right after conducting the waist circumference measurement. The measurement was taken to the nearest 0.1 cm by the trained nurses.

Tools for biomedical investigations

Blood sugar, blood lipid and triglyceride tests were conducted using dry chemistry equipment and supplies. The same device was utilized for measuring blood sugar, cholesterol and triglyceride (CardioChek). The device was recommended by the WHO. However the strips differed as there was one strip for measuring blood glucose and the one for lipid and triglyceride for conducting the three tests. Sample blood was taken after 12 hours of fasting by the trained nurses in each team. A drop of blood was applied on the top of each strip. Fingertip was utilised to facilitate withdrawing the blood. The recorded results were registered in the Personal Digital Assistant according to the personal identification number.

CHAPTER TWO

NATIONAL STEPWISE SURVEY PERSONNEL AND TRAINING

SCH supervisors

A STEPwise team consisting of five people (Three public health specialist, one senior statistician, and one health educator) was established at the SCH under the direct supervision of the Health Promotion and Noncommunicable Diseases Manager. The team was in charge of the daily supervision and follow up on the field supervisors. As each SCH team member was in charge of four field supervisors. The field supervisors used to report on a daily bases on the field work progress in terms of the number of households visited, the registered appointments to conduct STEP3, and any emerging issues being faced in the field.

Field supervisors

The field supervisor team consisted of twenty-three supervisors (20 active supervisors and 3 backup supervisors). The supervisors were selected by the Qatar Statistics Authority. Each supervisor was assigned to a data collection team. The supervisors' main roles were to conduct Kish method using the personal digital assistant (PDA) to identify the participants at the household level, acquire the written consent form the respondents, fill in the tracking form, and report the interviewed respondents on daily bases with the appointed cases for the biomedical test and any emerging issues to the SCH supervisors. The supervisors participated in the STEPS training course in order to be fulfilling their tasks. A detailed term of references was provided to each supervisor (See annex no.4).

Data collectors

A total of 60 people (40 females and 20 males) participated in the data collection process. Due to cultural considerations, more female interviewers were recruited than males. The 60 data collectors were recruited from Primary Health Care Corporation, Hamad Medical Corporation, Supreme Council of Health, Qatar Diabetes Association, and Qatari Red Crescent. Announcements were made about the need to recruit data collectors for the STEPS among the latter organization to recruit data collectors in January 2012 and interviews were conducted with the applicants to select the 60 participants from 200 applicants. Among the 60 selected data collectors, 20 health professionals (nurses, health educators) were selected in order to conduct the physical and biomedical measurements. Additionally a back up team was recruited consisting of 10 persons. The data collectors were trained on the STEPS tool. A detailed term of reference was provided to each data collector (See annex no.4).

Training of the data collectors and supervisors

In order to ensure that the data collection process was performed to the highest possible standard, intensive one week training was provided for the selected data collectors and field supervisors.

A four-day workshop from the 27th of February to the 1st of March 2012 was conducted by the WHO team for the selected 60 interviewers, the 20 field supervisors, 5 SCH supervisors, 10 back up interviewers, 3 back up supervisors and representatives from Weill Cornell Medical College Qatar and QSA.. The training was in English however Arabic interpretation was also provided. During the workshop the interviewers were divided into twenty groups of field teams. Each team consisted of two male interviewers and one female interviewer. A field supervisor was assigned to each team. Additionally, each SCH supervisor was in charge of following up on four field teams.

The training programme for the workshop covered a number of aspects, including administrative issues, fieldwork planning, a review of all materials, the utilization of the Personal Digital Assistant, consents and confidentiality, and also how to conduct an interview and obtain the physical and biomedical measurements. Further sessions were held on the interview procedure in the field, supervision in the field and report procedures, the general structure of the survey team and the role of all members of the team. A detailed agenda was developed for the training (See annex no. 5). An additional session was held for the field supervisors to train them on how to use the kish table, fill in the tracking form, and report the biomedical appointments. For the health professionals among the team sessions were conducted on how to use the physical and biomedical tools.

The last day of the workshop included morning sessions where the participants' demonstrated actual interviews with selected participants among their teams. A feedback session was conducted afterwards.

Bi-weekly meetings with the supervisors and interviewers were conducted during the survey data collection phases to address any concerns or issues faced by the teams in the field.

STEPWISE IMPLEMENTATION

Organization process of the team

Well defined relations between the field team members were established to avoid function overlap and ensure full cooperation. Thus, twenty Teams of field interviews were formed. Each team consisted of three data collectors (two females and one male) in addition to one field supervisor. One nurse or health professional for conducting the physical and biomedical measurements was included in each team. Each SCH supervisor was assigned four field teams. The exact time for either supervision or actual work has been defined to avoid loss of time of both participants and members of the teams.

Data collection duration

The data collection process required 10 weeks to be completed (from the 7th of March 2012 to the 12th of May 2012). The teams conducted interviews in the afternoon between 4 pm and 9 pm everyday except for Friday. They also conducted interviews on Saturday mornings.

Data collection settings

The interviews were conducted over the main municipalities in Qatar. Each team was assigned to a certain geographical area based on the population clusters provided by QSA. The supervisors approached the selected households in each cluster, explained to them the aim and objectives of the survey and sought their consent to participate in the survey. After consenting to participate in the survey the supervisors used to conduct Kish method to select the participant at the household level then the interview would take place. Each interview took place in a secure setting at the household level. Each participant was interviewed at his/her household. As biomedical tests require 12 hours of fasting, appointments were given based on agreement between the interviewers and the respondents to and were conducted at the household level on Saturdays. However, for the respondents that didn't prefer to have the tests on Saturdays, other dates were appointed at their convenience in consultation with their respective teams. A number of respondents preferred to have their biomedical tests at the SCH, thus there was a standby nurse at the SCH to conduct the STEPS biomedical tests based on previous appointments.

Data management

The data were entered on Personal Digital Assistant during the interviews. The PDA belonged to QSA and specific software, developed by the WHO for STEPS, was installed on the PDAs. The PDAs were tested during the training. Each team was provided with two PDAs. Entering the data directly into the PDA replaced the paper-based data entry. The PDA software did not accept any outlier value and would not carry on to the next question unless the value of the previous question was entered. Yet jumping on the skipped questions were provided. The data on the PDA was downloaded on a daily basis from the 8th of March till the 12th of May 2012 to the below mentioned data download- points:

- SCH
- QSA
- Al-Wakra PHCC
- Al Rayyen PHCC
- Mesaimeer PHCC

Each participant was allocated an identifier code (PID). The PID code consisted of 5 digits the first 3 digits were the cluster number and the second two digits were the house listing number in the cluster.

Sample weights

In order to ensure that each household in Qatar and each Qatari aged between 18 and 64 years old in Qatar has an equal probability of being selected into the sample, the data were weighted during the analysis to account for this differential selection probability and to have representative results for the population. Hence, during the analysis the data were weighted using weighting factors calculated from the sizes of the different PSUs and to account for households that did not respond to the survey. Additionally, the data were weighted to account for the eligible individuals that did not respond to the survey at the household level.

Furthermore, adjustments were applied to the data set to correct for under or over representation of some age-sex groups based on data from the 2010 Census Qatari population. As the 2010 census data on Qatari gives us the total number of males and females in each of the age groups for which we wish to report data (i.e. Total number of males aged 25-44, total number of females aged-25-44, etc.).

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Data analysis

Data analysis process ranged from creating the database to producing the final report. The data analysis was conducted in a standard way abiding by the guidelines of the WHO for STEPS survey analysis. The data were cleaned properly and no missing variables were found. A workshop for analyzing the data was conducted between 8th and 12th July 2012 (See annex no.6). The analysis was led by an expert from the WHO headquarters in collaboration with the SCH data analysis team. The data were analyzed using EPI-info. Descriptive statistics were used as frequency, percentage, mean and medians. Also, 95% confidence intervals around the means and rates were presented and used for the detection of significant difference among groups. Towards the end of the workshop the STEPS standard data book and fact sheet were produced (See annex no 7).

Quality Assurance

Throughout the survey implementation quality assurance procedures were conducted to ensure that accurate and reliable data were obtained. The following activities were carried out:

- The Utilization of the Personal Digital Assistant: PDA for data collection has been used to replace the paper-based survey tools. All the software instruments were developed by the WHO and were installed in the PDAs and every team had two PDAs.
- The PDA software did not accept any outlier value. Additionally it would not carry on to the next question unless the value of the previous question was entered.
- In-depth interviews: key contacts, including the survey staff, and other partners associated with the survey were interviewed to assess the progress of the survey.
- The use of Personal Identity Code (PID): as the use of PID as an identifying code helped in cleaning the data and tracking the missing values in case existed.
- Continuous follow up by the SCH supervisors was applied on daily basis throughout the survey implementation to identify any emerging issues in the data collection process.
- Daily download of the data at the data download points to review the accuracy of the entered data, identify and track the correct PID.
- Bi-weekly meeting: the meetings were to clarify any inquiries and provide feedback on the data that had been downloaded from the PDA.
- The data were cleaned and analyzed in collaboration with the WHO team.

Ethical consideration

All ethical procedures were followed throughout the implementation of the survey. This was included in the design, training, and implementation stages. All required information was provided to the participants before taking part in the survey through the distribution of the information sheet that clarify the aim and objectives of the survey (See annex no. 8). A written consent for participating in STEP1 and STEP2 was acquired from the participants. Moreover, an additional consent was obtained for participation in STEP3 from all participants (See annex no.9). All participants were assured that the information provided would be confidential and would only be used for scientific purposes. It was stressed to the participants that they had the right to refuse the participation and withdraw from the interview at any stage.

CHAPTER THREE

CHAPTER THREE

RESULTS

3.1 Demographic information results

INTRODUCTION

Qatar national STEPwise survey collected information on the sociodemographic profile of all those who lived in the selected Qatari households. The respondents were randomly selected from all Qatari adults aged 18 and 64 listed as living in the households. Only one individual was selected from each household for the interviews. This chapter presents the results for the sociodemographic profile of the respondents in terms of age group and sex of the respondents, highest level of education achieved by the respondents, marital status of the respondents, respondents' employment status, and the proportion of respondents where there was a family relationship between the parents.

Summary information by group and sex

The results show that the percentage of Qataris in the surveyed household who were in the 18 to 44 age group was almost double the percentage of Qataris in the 45 to 64 age group.

In relation to sex distribution in the latter two age groups, women outnumbered men with almost same percentage in the two categories with 58.3% and 56.8% of women participants in the age group 18-44 and 45-64, respectively. See table 3.1.

Table 3.1: Age group and sex of the participants

Age group and sex of respondents						
Age Group(years)	Men		Women		Both Sexes	
	n	%	n	%	n	%
18-44	722	41.7	1008	58.3	1730	69.3
45-64	331	43.2	435	56.8	766	30.7
18-64	1053	42.2	2496	57.8	2496	100.0

Marital status

The results highlight that almost two-thirds of the population (69.8%) were then married, while (21.4%) had never been married. There are very few people who were divorced (5.1%) or widowed (3.7%).

A higher proportion of men compared to women reported to be currently married (76% married men vs. 65.3% married women). A higher percentage of men and women who have not been married were reported in the age group 18-44 than to the age group 45-64 as the percentages were 28.4% and 30.1% among women and men aged 18 to 44, respectively. See Table 3.2.

Table 3.2: Marital status of the participants

Marital status					
Age Group (years)	Men				
	n	% Never married	% Currently married	% Divorced	% Widowed
18-44	722	30.1	67.0	2.5	0.4
45-64	331	1.2	95.5	3.3	0.0
18-64	1053	21.0	76.0	2.8	0.3

Marital status					
Age Group (years)	Women				
	n	% Never married	% Currently married	% Divorced	% Widowed
18-44	1008	28.4	64.7	5.3	1.7
45-64	435	6.0	66.7	10.6	16.8
18-64	1443	21.6	65.3	6.9	6.2

Marital status					
Age Group (years)	Both Sexes				
	n	% Never married	% Currently married	% Divorced	% Widowed
18-44	1730	29.1	65.7	4.1	1.2
45-64	766	3.9	79.1	7.4	9.5
18-64	2496	21.4	69.8	5.1	3.7

Level of education

The results demonstrate that the overall mean of years of education for the respondents was 11.9 years. Men had a slightly higher mean number of years of education than that of women (12.4 vs. 11.6 yeas). It is worth reporting that the mean number of years of education among women in the age group 18-44 is noticeably higher than mean among women age group 45-64 as the means were 12.9 and 8.7 years, respectively. See table 3.3.

In relation to the level of education, the results show that a third of participants completed their college/university education (31.9%) and 31.7% of the participants finished their high school education. However, the percentage of women in the age group 18-44 who completed university was higher than that among men as the percentages were 35.7% and 28.8%, respectively. The overall percentage of participants with no formal schooling was 6.4 %. Yet the proportion of women with no formal schooling was higher than that among men (9.3 % vs. 2.8%). See table 3.4.

Table 3.3: Mean number of years of education

Mean number of years of education						
Age Group (years)	Men		Women		Both Sexes	
	n	Mean	n	Mean	n	Mean
18-44	721	12.8	1008	12.9	1729	12.9
45-64	330	11.4	435	8.7	765	9.9
18-64	1051	12.4	1443	11.6	2494	11.9

Table 3.4: Highest level of education

Highest level of education								
Age Group (years)	Men							
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% High school completed	% College/ University completed	% Post graduate degree completed
18-44	722	0.4	1.9	8.2	17.9	38.8	28.8	4.0
45-64	331	7.9	4.2	16.3	15.1	16.0	32.3	8.2
18-64	1053	2.8	2.7	10.7	17.0	31.6	29.9	5.3

Highest level of education								
Age Group (years)	Women							
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% High school completed	% College/ University completed	% Post graduate degree completed
18-44	1007	3.9	3.4	5.1	10.1	39.4	35.7	2.5
45-64	435	21.8	13.3	13.6	10.1	13.8	26.2	1.1
18-64	1442	9.3	6.4	7.6	10.1	31.7	32.8	2.1

Highest level of education								
Age Group (years)	Both Sexes							
	n	% No formal schooling	% Less than primary school	% Primary school completed	% Secondary school completed	% High school completed	% College/ University completed	% Post graduate degree completed
18-44	1729	2.4	2.8	6.4	13.4	39.2	32.8	3.1
45-64	766	15.8	9.4	14.8	12.3	14.8	28.9	4.2
18-64	2495	6.5	4.8	8.9	13.0	31.7	31.6	3.4

CHAPTER THREE

Employment status

Overall 47.8% of respondents reported to be government employees and only 5.2% worked in the non-government sector while 45.9% of the participants were engaged in unpaid work. There were higher proportions of governmental employees among men than that among women (66% vs. 34.5%). The percentage of unpaid work among women was almost three folds than that among men (62.1% vs. 23.7%). See table 3.5.

Table 3.5: Employment status

Employment status					
Age Group (years)	Men				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
18-44	715	70.5	10.1	1.8	17.6
45-64	324	56.8	4.9	1.9	36.4
18-64	1039	66.2	8.5	1.8	23.5

Employment status					
Age Group (years)	Women				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
18-44	1005	42.3	3.5	0.5	53.7
45-64	433	16.4	1.2	0.9	81.5
18-64	1438	34.5	2.8	0.6	62.1

Employment status					
Age Group (years)	Both Sexes				
	n	% Government employee	% Non-government employee	% Self-employed	% Unpaid
18-44	1720	54.0	6.2	1.0	38.7
45-64	757	33.7	2.8	1.3	62.2
18-64	2477	47.8	5.2	1.1	45.9

Parental consanguinity

The results illustrate that the overall consanguinity of the respondents was 37.3% with slight differences between the two age groups and between men and women. See table 3.6.

Table 3.6: Consanguinity

Consanguinity						
Age Group (years)	Men		Women		Both Sexes	
	n	%	n	%	n	%
18-44	722	39.1	1008	37.4	1730	38.1
45-64	331	36.9	435	34.3	766	35.4
18-64	1053	38.4	1443	36.5	2496	37.3

3.2 Behavioural measurement

INTRODUCTION

The national STEPwise survey in Qatar collected information on the major behavioural risk factors related to chronic noncommunicable diseases The main behavioural risk factors were studied among Qatari aged between 18 and 64 are: tobacco use, unhealthy diet (low fruit and vegetable consumption), physical inactivity. The data on the latter was collected among the studied population using the STEPS questionnaire.
This chapter studies the major behavioural risk in relation to NCDs that has been identified in the STEPS guidelines under STEP1.

3.2.1 Tobacco use

Data on tobacco was collected from Qatari aged between 18 and 64; the STEPS standard interview tool was utilized to collect information on the current and previous smoking status in Qatar in terms of percentage of the studied population who currently smoke any tobacco products. For example cigarettes, cigars; the smoking status of any tobacco products; daily no-daily, past smoker or never smoked; the mean age of initiation and mean duration of smoking in years among daily smoker; the percentage of smokers who use manufactured cigarettes among daily smoker; the mean amount of tobacco used by daily smokers per day ;the percentage of ex-daily smokers among all respondents and the mean duration, in years since ex-daily smokers quit smoking daily; the percentage of current smokers who have tried to stop smoking the last 12 months; the percentage respondents exposed to environmental tobacco smoke at home on one or more days in the 7 days prior to their STEPS interview; and presents the percentage of respondents who were exposed to environmental tobacco smoke in the workplace on one or more days in 7 days before the STEPS interview.

Current smoking Status

The overall prevalence of smoking was 16.4% among the studied population. However, the percentage of smoking among men was almost twenty seven folds higher than that among women (31.9 vs. 1.2). Regarding the age specific smoking rate among men, it is noticed that the proportion of current smokers among the age group 18-44 is higher than that among the age group 45-64 (33.5% vs. 25.7%). See table 3.7.

Table 3.7: Percentage of current smokers

Percentage of current smokers									
Age Group(years)	Men			Women			Both Sexes		
	n	% Current smoker	95% CI	n	% Current smoker	95% CI	n	% Current smoker	95% CI
18-44	722	33.5	28.6-38.4	1008	1.3	0.4-2.1	1730	17.4	14.9-19.9
45-64	331	25.7	19.3-32.1	435	1.1	0.1-2.1	766	12.6	9.3-16.0
18-64	1053	31.9	27.9-35.9	1443	1.2	0.5-1.9	2496	16.4	14.3-18.4

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Smoking status of any tobacco products

Overall, only 14.7 % of the studied population reported being a daily smoker. However the prevalence of daily smoking among men was 29.1% compared to 0.6 % among women. Daily smoking is higher among men in the age group 18 to 44 than that among men in the age group 45 to 64 as the percentages of daily smoking among men based on age groups were 30.6 and 23.2, respectively. See table 3.8.

Table 3.8: Smoking status

Smoking status									
Age Group (years)	Men								
	n	Current smoker				Non-smokers			
		% Daily	95% CI	% Non-daily	95% CI	% Past smoker	95% CI	% Never smoker	95% CI
18-44	722	30.6	25.9-35.3	2.9	1.2-4.5	7.0	4.1-9.9	59.5	53.8-65.2
45-64	331	23.2	16.8-29.6	2.4	0.5-4.4	16.1	9.9-22.4	58.2	49.9-66.5
18-64	1053	29.1	25.2-32.9	2.8	1.4-4.2	8.9	6.1-11.6	59.3	54.3-64.2

Smoking status									
Age Group (years)	Women								
	n	Current smoker				Non-smokers			
		% Daily	95% CI	% Non-daily	95% CI	% Past smoker	95% CI	% Never smoker	95% CI
18-44	1008	0.6	0.1-1.2	0.6	0.0-1.3	0.2	0.0-0.5	98.5	97.6-99.4
45-64	435	0.6	0.0-1.2	0.6	0.0-1.4	0.4	0.0-0.9	98.4	97.3-99.6
18-64	1443	0.6	0.1-1.1	0.6	0.1-1.1	0.3	0.1-0.5	98.5	97.7-99.3

Smoking status									
Age Group (years)	Both Sexes								
	n	Current smoker				Non-smokers			
		% Daily	95% CI	% Non-daily	95% CI	% Past smoker	95% CI	% Never smoker	95% CI
18-44	1730	15.6	13.2-18.1	1.7	0.9-2.6	3.6	2.2-5.1	79.0	76.1-81.9
45-64	766	11.2	7.9-14.5	1.4	0.4-2.4	7.8	4.7-10.9	79.6	75.0-84.1
18-64	2496	14.7	12.7-16.7	1.7	1.0-2.4	4.5	3.2-5.9	79.1	76.6-81.6

Mean age of initiation and mean duration of smoking in years among daily smoker

The overall mean age of starting smoking among the daily smokers was 18.9 years. Concerning the duration of smoking, the overall mean duration of smoking among daily smoker was 15.8 years. See table 3.9.

Table 3.9: Mean age started smoking and mean duration of smoking

Mean age started smoking									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean age	95% CI	n	Mean age	95% CI	n	Mean age	95% CI
18-44	231	18.5	17.8-19.3	7	24.2	15.4-33.0	238	18.6	17.8-19.4
45-64	80	20.5	18.0-23.0	5	21.4	11.1-31.8	85	20.5	18.1-23.0
18-64	311	18.8	18.1-19.6	12	23.7	15.7-31.6	323	18.9	18.1-19.8

Mean duration of smoking									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean duration	95% CI	n	Mean duration	95% CI	n	Mean duration	95% CI
18-44	231	12.5	11.4-13.6	7	11.8	7.4-16.2	238	12.4	11.3-13.5
45-64	80	32.5	29.3-35.7	5	33.0	16.8-49.2	85	32.5	29.4-35.6
18-64	311	15.7	14.2-17.3	12	16.1	9.7-22.6	323	15.8	14.2-17.3

Manufactured cigarettes smoke among daily smoker

The majority ofdaily smokers smoked manufactured cigarette (80.6%). The proportion of men who smoke manufactured cigarettes was slightly higher among the age group 18 to 44 than that among the age group 45 to 64. See table 3.10.

Table 3.10: Manufactured cigarette smokers among daily smoker

Manufactured cigarette smokers among daily smokers									
Age Group (years)	Men			Women			Both Sexes		
	n	% Manufactured cigarette smoker	95% CI	n	% Manufactured cigarette smoker	95% CI	n	% Manufactured cigarette smoker	95% CI
18-44	233	82.0	76.4-87.6	7	66.3	22.6-100.0	240	81.7	76.1-87.3
45-64	81	75.4	60.6-90.2	5	69.3	17.4-100.0	86	75.2	60.7-89.7
18-64	314	80.9	75.7-86.1	12	66.9	28.8-100.0	326	80.6	75.4-85.8

CHAPTER THREE

The mean amount of tobacco used by daily smokers per day

The overall mean number of manufactured cigarettes used by daily smoker was 13.6 cigarettes per day being almost the same mean among men. The mean amount of tobacco by type used by daily women smoker was not reported due to the small number of n for women (n less than 50). However the mean number of manufactured cigarettes among men in the age group 45-64 is higher than that among the age group 18-44 as the mean values were 18.3 and 12.6 cigarettes per day, respectively. See table 3.11.

Table 3.11: Mean amount of tobacco used by daily smokers by type

Mean amount of tobacco used by daily smokers by type									
Age Group (years)	Men								
	n	Mean # of manufactured cig.	95% CI	n	Mean #of hand-rolled cig.	95% CI	n	Mean # of pipes of tobacco	95% CI
18-44	230	12.7	11.1-14.3	214	0.0	0.0-0.0	214	0.1	0.0-0.2
45-64	79	18.5	13.2-23.8	75	0.0	0.0-0.0	74	0.1	0.0-0.3
18-64	309	13.6	12.1-15.2	289	0.0	0.0-0.0	288	0.1	0.0-0.2

Mean amount of tobacco used by daily smokers by type									
Age Group (years)	Men								
	n	Mean #of cigars, cheroots, cigarillos	95% CI	n	Mean #of shisha sessions	95% CI	n	Mean # of other types of tobacco	95% CI
18-44	224	0.7	0.1-1.3	218	0.5	0.2-0.8	216	0.0	0.0-0.0
45-64	77	0.1	0.0-0.3	78	1.0	0.0-2.2	77	0.0	0.0-0.0
18-64	301	0.6	0.1-1.1	296	0.6	0.2-0.9	293	0.0	0.0-0.0

Mean amount of tobacco used by daily smokers by type									
Age Group (years)	Both Sexes								
	n	Mean # of manufactured cig.	95% CI	n	Mean #of hand-rolled cig.	95% CI	n	Mean # of pipes of tobacco	95% CI
18-44	236	12.6	11.0-14.2	221	0.0	0.0-0.0	221	0.1	0.0-0.2
45-64	84	18.3	13.2-23.4	80	0.0	0.0-0.0	79	0.1	0.0-0.3
18-64	320	13.5	12.0-15.0	301	0.0	0.0-0.0	300	0.1	0.0-0.2

Mean amount of tobacco used by daily smokers by type									
Age Group (years)	Both Sexes								
	n	Mean #of cigars, cheroots, cigarillos	95% CI	n	Mean #of shisha sessions	95% CI	n	Mean # of other types of tobacco	95% CI
18-44	231	0.7	0.1-1.2	225	0.5	0.2-0.8	223	0.0	0.0-0.0
45-64	82	0.1	0.0-0.3	83	1.0	0.0-2.1	82	0.0	0.0-0.0
18-64	313	0.6	0.1-1.1	308	0.6	0.3-0.9	305	0.0	0.0-0.0

Ex-smoking status

The results show that the overall proportion of ex-daily smokers was 3.9% with 7.8% among men and 0% among women. There was an increasing trend of proportion of ex-smoking as the age advanced.

Regarding the duration since quitting daily smoking, the overall mean duration was 12.2 years. The duration is higher among the age group 45-64 than that among the age group 18-44. See table 3.12.

Table 3.12: Ex-daily smokers among all respondents and mean years since cessation

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
18-44	722	5.7	2.8-8.7	1008	0.0	0.0-0.0	1730	2.9	1.4-4.4
45-64	331	15.9	9.8-22.1	434	0.2	0.0-0.5	765	7.6	4.6-10.6
18-64	1053	7.8	5.3-10.4	1442	0.0	0.0-0.1	2495	3.9	2.6-5.2

Mean years since cessation									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean years	95% CI	n	Mean years	95% CI	n	Mean years	95% CI
18-44	42	5.3	3.0-7.5	-	-	-	42	5.3	3.0-7.5
45-64	39	21.7	15.9-27.5	-	-	-	40	21.7	16.0-27.4
18-64	81	12.2	7.9-16.6	-	-	-	82	12.2	7.9-16.6

Current smokers who have tried to stop smoking the last 12 months

The percentage of current male smokers who tried to quit smoking in the last 12 months prior to the interview was 56.9%. The proportion of males who have tried to stop smoking in the age group 18-44 was higher than that among the age group 45-64, as the percentages were 58.3 and 49.8, respectively. See table 3.13.

Table 3.13: Current smokers who have tried to stop smoking

Current smokers who have tried to stop smoking									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-44	253	58.3	50.8-65.9	-	-	-	265	57.9	50.4-65.4
45-64	88	49.8	38.9-60.6	-	-	-	95	50.1	39.4-60.8
18-64	341	56.9	50.2-63.6	-	-	-	360	56.6	49.9-63.3

CHAPTER THREE

Exposure to environmental tobacco smoke

At home, 22.2% of all respondents were exposed to environmental tobacco (ET) smoke on one or more days in the past seven days prior to the interview. The proportion of men who were exposed to ET smoke at home was higher than that among women (27.2% vs. 17.3%). However for both men and women the ET smoke exposure was higher among the age group 18-44 than that among the age group 45-64. See table 3.14.

However, at work 18.5 % of respondents reported being exposed to environmental tobacco smoke on one or more days in the past seven days prior to the interview. The proportion of men who was exposed to ET smoke at work was significantly higher than that among women (31.5% vs. 5.7%). However men ET smoke exposure was higher among the age group 18-44 than that among the age group 45-64. See table 3.15.

Table 3.14: Exposure to environmental tobacco smoke in the home on one or more occasions in the past 7 days

Exposed to ETS in home on 1 or more of the past 7 days									
Age Group (years)	Men			Women			Both Sexes		
	n	% Exposed	95% CI	n	% Exposed	95% CI	n	% Exposed	95% CI
18-44	720	31.5	25.9-37.1	1003	19.2	15.4-23.0	1723	25.4	21.8-28.9
45-64	329	10.5	4.6-16.3	430	10.7	7.1-14.2	759	10.6	7.5-13.6
18-64	1049	27.2	22.2-32.2	1433	17.3	14.1-20.4	2482	22.2	19.0-25.3

Table 3.15: Exposure to environmental tobacco smoke in the work on one or more occasions in the past 7 days

Exposed to ETS in the workplace on 1 or more of the past 7 days									
Age Group (years)	Men			Women			Both Sexes		
	n	% Exposed	95% CI	n	% Exposed	95% CI	n	% Exposed	95% CI
18-44	718	34.4	28.5-40.3	991	5.7	3.5-8.0	1709	20.2	16.9-23.5
45-64	325	19.9	14.5-25.4	419	5.4	2.5-8.3	744	12.4	9.5-15.2
18-64	1043	31.5	26.4-36.5	1410	5.7	3.8-7.5	2453	18.5	15.8-21.3

3.2.2 Dietary patterns

Data on dietary habits was collected among the studied population using the STEPS1 tool to generate information on the mean number of days of fruit and vegetable consumption; the mean number of fruits, vegetables and combined fruits and vegetables serving on average per day among the respondents; the percentage of respondents whom eat less than five servings of fruits and or vegetables on average per day; the type of oil or fat that is mostly used for meal preparation in households.

Number of days of fruits and vegetables consumed per week

The overall mean number of days of fruit consumption was 3.4 days with slight differences between men and women, 3.7 and 3.2, respectively. While the overall mean number of days of vegetables consumption was 5.5 days with almost similar means for both men and women. See table 3.16.

Mean number of servings of fruits and vegetables consumed per day

The overall average number of fruit servings was 0.8 serving per day. Men consumed slightly more fruits than women (0.9 vs. 0.7 serving per day). The overall average number of vegetable servings was higher than that of fruits as the average number of vegetable servings was 1.4 serving per day. Men and women shared the same average of vegetable consumption. See table 3.17.

As for the overall average number of combined fruit and/or vegetable servings, the reported value was 2.2 per servings per day. See table 3.17.

Table 3.16: Mean number of days fruits and vegetables consumed per week

Mean number of days fruit consumed in a typical week									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean number of days	95% CI	n	Mean number of days	95% CI	n	Mean number of days	95% CI
18-44	721	3.4	3.0-3.7	1004	3.0	2.7-3.3	1725	3.2	2.9-3.4
45-64	330	4.8	4.4-5.2	432	3.8	3.4-4.2	762	4.3	4.0-4.6
18-64	1051	3.7	3.3-4.0	1436	3.2	2.9-3.4	2487	3.4	3.2-3.7

Mean number of days vegetables consumed in a typical week									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean number of days	95% CI	n	Mean number of days	95% CI	n	Mean number of days	95% CI
18-44	721	5.6	5.3-5.8	1005	5.2	5.0-5.5	1726	5.4	5.2-5.6
45-64	331	6.0	5.7-6.4	434	5.7	5.4-6.0	765	5.9	5.6-6.1
18-64	1052	5.7	5.5-5.9	1439	5.4	5.1-5.6	2491	5.5	5.3-5.7

Table 3.17: Mean number of serving of fruits and vegetables on average per day

Mean number of servings of fruits on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean number of servings	95% CI	n	Mean number of servings	95% CI	n	Mean number of servings	95% CI
18-44	719	0.8	0.7-1.0	1003	0.7	0.6-0.8	1722	0.8	0.7-0.9
45-64	329	1.3	1.0-1.5	432	0.9	0.8-1.0	761	1.1	0.9-1.2
18-64	1048	0.9	0.7-1.1	1435	0.7	0.6-0.8	2483	0.8	0.7-0.9

Mean number of servings of vegetables on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean number of servings	95% CI	n	Mean number of servings	95% CI	n	Mean number of servings	95% CI
18-44	719	1.4	1.2-1.5	1003	1.3	1.1-1.5	1722	1.3	1.2-1.5
45-64	329	1.6	1.3-1.8	433	1.6	1.3-1.9	762	1.6	1.4-1.8
18-64	1048	1.4	1.2-1.6	1436	1.4	1.2-1.6	2484	1.4	1.2-1.6

Mean number of servings of fruits and/or vegetables on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean number of servings	95% CI	n	Mean number of servings	95% CI	n	Mean number of servings	95% CI
18-44	720	2.2	1.9-2.5	1007	2.0	1.8-2.2	1727	2.1	1.9-2.3
45-64	331	2.8	2.3-3.2	434	2.5	2.2-2.8	765	2.6	2.3-3.0
18-64	1051	2.3	2.0-2.6	1441	2.1	1.9-2.4	2492	2.2	2.0-2.5

CHAPTER THREE

Consuming less than five servings of fruits and/or vegetables per day

The majority of respondents reported consuming less than five servings of fruits and/or vegetables on average per day as the overall percentage was 91.1%, with very narrow difference between men and women (91.9% vs. 90.4%). However, women in the age group 18 to 44 were more likely to consume less than 5 servings of fruits or vegetables per day than women in the age group 45-64 (91.6% vs. 86.3%). Additionally, men in the age group 18 to 44 were more likely to consume less than 5 serving of fruits or vegetables per day than men in the age group 45-64 (92.9% vs. 88.1%). See table 3.18.

Table 3.18 Percentage of respondents consuming less than five serving of fruits and/or vegetables on average per day

Less than five servings of fruits and/or vegetables on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	% < five servings per day	95% CI	n	% < five servings per day	95% CI	n	% < five servings per day	95% CI
18-44	720	92.9	88.8-97.0	1007	91.6	88.1-95.0	1727	92.2	88.9-95.6
45-64	331	88.1	82.8-93.4	434	86.3	80.5-92.1	765	87.2	82.5-91.9
18-64	1051	91.9	87.8-96.1	1441	90.4	86.8-94.0	2492	91.1	87.7-94.6

Type of most commonly used fat or oil for food preparation

The vast majority of the respondents used vegetable oil for food preparation as 96.4% reported using vegetable oil for meal preparation at the household level. Lard was used by only 2.3% of the respondents for food preparation. See table 3.19.

Table 3.19: Type of oil or fat most often used for meal preparation in household

Type of oil or fat most often used for meal preparation in household								
n (house-holds)	% Vegetable oil	95% CI	% Lard	95% CI	% Butter	95% CI	% Margarine	95% CI
2487	96.4	95.3-97.5	2.3	1.6-3.0	0.1	0.0-0.2	0.3	0.0-0.6

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
2487	0.7	0.0-1.4	0.2	0.0-0.4	0.0	0.0-0.1

3.2.3 Physical activity

Data was collected from the studied population using the STEPS1 tool and guidelines through interviews to generate information on: the percentages of respondents level of physical activities based on pre classified three categories (low, moderate, high); the mean and median minutes of time spent in total physical activity; the mean and median minutes spent in work, transport and recreation-related to physical activity on average per day; the percentage of respondents classified as doing no physical activity in relation to work, transport or recreational activity; the percentage of work, transport, and recreational activity contributing to total activity; the percentage of respondents not engaging in vigorous physical activity; the minutes spend in sedentary activity on a typical day.

Level of total physical activities

The participants were classified into three levels of physical activities (low, moderate, and high) based on total time spent in physical activity during a typical week, the number of days as well as the intensity of the physical activity (See annex no.3). The results were as follows: the overall prevalence of low level of physical activity was 45.9%. Women had higher levels of low prevalence of physical activity than men (54.2% vs. 37.4%). Additionally, the overall prevalence rate of moderate level of physical activity was 22.8%. In this regard men had a slightly higher prevalence rate than women (24.6% vs. 21.0%). However, the overall prevalence of high level of physical activity was 31%, being higher among men than women as the rates were 38.1% and 24.8, respectively. See table 3.20.

Table 3.20: Percentages of participants by total level of physical activity

Level of total physical activity							
Age Group (years)	Men						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
18-44	704	34.3	29.0-39.6	23.5	20.0-27.0	42.2	37.2-47.2
45-64	326	49.0	42.5-55.6	28.7	22.7-34.6	22.3	16.4-28.2
18-64	1030	37.4	32.6-42.1	24.6	21.4-27.8	38.1	33.8-42.4

Level of total physical activity							
Age Group (years)	Women						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
18-44	987	52.3	47.1-57.6	22.2	18.8-25.7	25.4	20.4-30.4
45-64	425	60.6	53.4-67.8	16.8	11.5-22.1	22.6	17.0-28.3
18-64	1412	54.2	49.2-59.3	21.0	18.0-24.0	24.8	20.3-29.3

Level of total physical activity							
Age Group (years)	Both Sexes						
	n	% Low	95% CI	% Moderate	95% CI	% High	95% CI
18-44	1691	43.3	39.3-47.3	22.9	20.3-25.4	33.8	30.2-37.4
45-64	751	55.2	49.9-60.4	22.4	18.1-26.7	22.5	18.4-26.6
18-64	2442	45.9	42.2-49.6	22.8	20.4-25.1	31.3	28.2-34.5

CHAPTER THREE

Time spent of total physical activity per day

The overall mean time spent in total physical activity was 103.9 minutes per day. Men spent more time practicing total physical activity per day than women as the mean values were 120.5 and 87.8 minutes per day, respectively. Men and women in the age group 18-44 spent longer time practicing such activity than those in the age group 45-64. See table 3.21.

Table 3.21: Mean minutes of total physical activity on average per day

Mean minutes of total physical activity on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	n	Mean minutes	95% CI	n	Mean minutes	95% CI
18-44	704	133.4	111.0-155.7	987	92.4	72.1-112.8	1691	112.9	99.4-126.4
45-64	326	71.4	55.7-87.2	425	71.9	53.7-90.1	751	71.7	58.7-84.7
18-64	1030	120.5	102.0-139.1	1412	87.8	70.4-105.1	2442	103.9	92.3-115.5

The overall median time spent of total physical activity per day was 37.1 minutes per day. However, the median value among the men was higher than that among women (55.7 vs. 23.6 minutes per day) which indicates that men spend more time practicing total physical activity than women. Men in the age group 18-44 spend longer time in total physical activity than those in the age group 45-66. See table 3.22.

Table 3.22 Median time of total physical activity per day

Median minutes of total physical activity on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Median minutes	Interquartile range (P25-P75)	n	Median minutes	Interquartile range (P25-P75)	n	Median minutes	Interquartile range (P25-P75)
18-44	704	64.3	17.1-154.3	987	25.7	0.0-107.1	1691	42.9	8.6- 128.6
45-64	326	30.0	8.6-81.4	425	17.1	0.0-85.7	751	25.7	0.0-85.7
18-64	1030	55.7	14.3-141.4	1412	23.6	0.0-102.9	2442	37.1	6.4-120.0

Time spent in work, transport and recreational activity per day

The overall mean time spent in work-related physical activity was 42.6 minutes per day, followed by that spent in transport-related physical activity (38.5 minutes per day) and lastly by the time spent in recreation related physical activity (22.9 minutes per day). Generally men spent more time than women in work-related (44.6 vs. 40.6 minutes per day), transport-related (43.6 vs. 33.6 minutes per day) and recreation-related (32.3 vs. 13.6 minutes per day) physical activity. See table 3.23.

A descending trend in mean time spent per day in recreation-related physical activity was noticed with the advancement in age. The corresponding median time for these types of physical activity was zero minutes for both men and women as well as for all age groups except for transport related physical activity as the overall median was 12.9 minutes per day.

Table 3.23: Mean minutes spent in work-, transport-, and recreation-related physical activity on average per day

Mean minutes of work-related physical activity on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	n	Mean minutes	95% CI	n	Mean minutes	95% CI
18-44	704	50.5	37.8-63.3	987	43.0	30.3-55.7	1691	46.8	38.1-55.4
45-64	326	21.9	12.1-31.7	425	32.4	18.5-46.2	751	27.5	19.2-35.8
18-64	1030	44.6	34.1-55.1	1412	40.6	29.9-51.3	2442	42.6	35.2-49.9

Mean minutes of transport-related physical activity on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	n	Mean minutes	95% CI	n	Mean minutes	95% CI
18-44	704	45.6	34.9-56.4	987	34.6	25.3-43.8	1691	40.1	33.4-46.8
45-64	326	35.8	28.2-43.5	425	30.1	19.0-41.1	751	32.8	25.9-39.6
18-64	1030	43.6	34.6-52.6	1412	33.6	24.9-42.2	2442	38.5	32.4-44.6

Mean minutes of recreation-related physical activity on average per day									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean minutes	95% CI	n	Mean minutes	95% CI	n	Mean minutes	95% CI
18-44	704	37.2	29.5-44.9	987	14.9	10.4-19.4	1691	26.1	21.8-30.3
45-64	326	13.7	9.2-18.2	425	9.5	3.5-15.4	751	11.5	7.6-15.3
18-64	1030	32.3	26.0-38.6	1412	13.6	9.6-17.7	2442	22.9	19.3-26.5

Physical inactivity

The overall prevalence rates of respondents who reported no engagement in physical activity related to work, transport and recreation were, 67.7%, 32% and 63.3%, respectively. Women had higher rates of having no transport- or recreation-related physical activities, when compared with men (40.9% and 75.3% compared with 23% and 50.9%, respectively). Concerning the age it was noted that there was increasing prevalence rates of no-recreation-related physical activity among the age group 45-64 in comparison to the age group 18-44. See table 3.24.

Table 3.24: Percentage of respondents classified as doing no work-, transport- or recreation-related physical activity

No work-related physical activity									
Age Group (years)	Men			Women			Both Sexes		
	n	% no activity at work	95% CI	n	% no activity at work	95% CI	n	% no activity at work	95% CI
18-44	704	60.5	55.6-65.4	987	69.9	64.1-75.7	1691	65.2	60.9-69.5
45-64	326	79.1	72.9-85.2	425	74.2	67.9-80.6	751	76.5	71.8-81.2
18-64	1030	64.3	59.7-69.0	1412	70.9	65.6-76.2	2442	67.7	63.6-71.7

No transport-related physical activity									
Age Group (years)	Men			Women			Both Sexes		
	n	% no activity for transport	95% CI	n	% no activity for transport	95% CI	n	% no activity for transport	95% CI
18-44	704	23.1	17.7-28.5	987	39.3	33.3-45.2	1691	31.2	26.7-35.6
45-64	326	22.7	17.4-28.0	425	46.3	38.7-53.8	751	35.2	29.9-40.4
18-64	1030	23.0	18.3-27.7	1412	40.9	35.3-46.4	2442	32.0	28.0-36.1

No recreation-related physical activity									
Age Group (years)	Men			Women			Both Sexes		
	n	% no activity at recreation	95% CI	n	% no activity at recreation	95% CI	n	% no activity at recreation	95% CI
18-44	704	46.6	41.5-51.7	987	73.6	70.1-77.1	1691	60.1	56.8-63.4
45-64	326	67.3	61.2-73.4	425	81.2	76.0-86.4	751	74.7	70.5-78.8
18-64	1030	50.9	46.3-55.4	1412	75.3	72.3-78.4	2442	63.3	60.4-66.2

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Additionally the overall percentage of respondents that reported not being involved in vigorous physical activity was 71.3%. The percentage of women not engaging in vigorous physical activity was higher than that among men (82.7% vs. 59.6%). See table 3.25.

Table 3.25: Percentages of respondents not engaging in vigorous physical activity

No vigorous physical activity									
Age Group (years)	Men			Women			Both Sexes		
	n	% no vigorous activity	95% CI	n	% no vigorous activity	95% CI	n	% no vigorous activity	95% CI
18-44	704	55.0	50.4-59.6	987	81.7	76.8-86.5	1691	68.3	64.8-71.8
45-64	326	77.1	70.7-83.6	425	86.2	81.3-91.2	751	82.0	77.9-86.0
18-64	1030	59.6	55.4-63.7	1412	82.7	78.3-87.1	2442	71.3	68.1-74.4

Total time spent in sedentary activity per day

The overall median time spent in sedentary activities was 179 minutes per day. The median value was longer for men (180 minutes per day) when compared with that of women (135 minutes per day). The same trend can be observed for the mean time spent in sedentary activities per day with an overall mean 244.9 minutes per day and a mean of 286.1 minutes per day for men and 204.7 minutes per day for women. See table 3.26.

Table 3.26: minutes spent in sedentary activity on a typical day

Minutes spent in sedentary activities on average per day					
Age Group (years)	Men				
	n	Mean minutes	95% CI	Median minutes	Interquartile range (P25-P75)
18-44	722	286.5	216.3-356.7	180.0	90.0- 300.0
45-64	331	284.4	225.4-343.3	180.0	90.0-420.0
18-64	1053	286.1	222.7-349.4	180.0	90.0- 360.0

Minutes spent in sedentary activities on average per day					
Age Group (years)	Women				
	n	Mean minutes	95% CI	Median minutes	Interquartile range (P25-P75)
18-44	1008	204.5	184.1-225.0	135.0	60.0-300.0
45-64	435	205.3	177.8-232.9	140.0	60.0-300.0
18-64	1443	204.7	185.9-223.5	135.0	60.0-300.0

Minutes spent in sedentary activities on average per day					
Age Group (years)	Both Sexes				
	n	Mean minutes	95% CI	Median minutes	Interquartile range (P25-P75)
18-44	1730	245.6	205.8-285.3	150.0	60.0-300.0
45-64	766	242.4	208.9-275.9	180.0	60.0-300.0
18-64	2496	244.9	209.4-280.4	179.0	60.0-300.0

3.3 Clinical History

Data was collected from the respondents through interviews using the STEP1 tool and guidelines to generate information about high blood pressure and diabetes in terms of : blood pressure measurement and diagnosis among all respondents; blood pressure treatment among those previously diagnoses with raised blood pressure; the 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; the percentage of respondents who have family history of high blood pressure or hypertension; blood glucose measurement and diagnosis among all respondents; diabetes treatment among those previously diagnosed with diabetes; percentage of diabetic respondents who adhere to self care measures; percentage of respondents who have a family history of diabetes.

Blood pressure history

The results illustrated that the overall percentage of respondents with increased blood pressure diagnosed within the last 12 months preceding the survey was 14.9%. This rate was higher among women (14.4%) than men (12.4%). There was an increasing trend of raised blood pressure among the age group 45-64 in both men and women. See table 3.27.

Table 3.27: Blood pressure measurement and diagnosis among all respondents

Blood pressure measurement and diagnosis									
Age Group (years)	Men								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed witin past 12 months	95% CI
18-44	722	26.3	19.8-32.9	65.0	58.0-72.0	2.9	1.2-4.5	5.9	4.1-7.6
45-64	331	11.0	6.8-15.3	47.2	40.7-53.7	4.1	1.3-6.8	37.7	31.6-43.8
18-64	1053	23.2	17.3-29.0	61.3	55.2-67.4	3.1	1.5-4.7	12.4	10.2-14.7

Blood pressure measurement and diagnosis									
Age Group (years)	Women								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed witin past 12 months	95% CI
18-44	1008	20.7	15.3-26.1	68.7	62.8-74.6	2.2	1.0-3.4	8.5	5.7-11.2
45-64	435	9.0	5.0-13.1	50.8	44.5-57.2	5.8	3.2-8.3	34.4	28.7-40.0
18-64	1443	18.0	13.4-22.6	64.6	59.4-69.9	3.0	1.9-4.1	14.4	11.8-16.9

Blood pressure measurement and diagnosis									
Age Group (years)	Both sexes								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed witin past 12 months	95% CI
18-44	1730	23.5	18.9-28.1	66.8	62.1-71.5	2.5	1.6-3.5	7.2	5.6-8.7
45-64	766	10.0	6.9-13.0	49.1	44.9-53.4	5.0	3.0-6.9	35.9	31.8-40.1
18-64	2496	20.6	16.5-24.6	63.0	59.0-67.0	3.0	2.2-3.9	13.4	11.9-14.9

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Among those with raised blood pressure, 66.6% were receiving treatment for high blood pressure prescribed by a doctor. The percentage rates for receiving treatment for high blood pressure among men and women in the age group 45-64 were higher than that among men and women in the age group 18-44 (87.8% and 87.3% vs. 42.2% and 42.3%, respectively). See table 3.28.

Table 3.28: Raised blood pressure treatment results among those previously diagnosed with raised blood pressure

Currently taking blood pressure drugs prescribed by doctor or health worker among those diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
18-44	77	42.2	28.7-55.7	99	42.3	24.9-59.6	176	42.2	30.7-53.8
45-64	114	87.8	80.2-95.3	189	87.3	82.3-92.3	303	87.5	82.9-92.1
18-64	191	67.4	57.7-77.2	288	65.9	58.7-73.1	479	66.6	60.1-73.1

Additionally, 64.2% of the respondents reported having a history of high blood pressure or hypertension among their families being one of their parents, brothers or sisters. See table 3.29.

Table 3.29: Percentage of respondents who have a family history of high blood pressure or hypertension

Family member with raised blood pressure or hypertension									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-44	722	65.1	61.6-68.7	1008	64.3	60.6-68.0	1730	64.7	62.2-67.2
45-64	331	59.0	52.5-65.5	435	65.2	59.1-71.3	766	62.3	57.5-67.0
18-64	1053	63.9	60.9-66.9	1443	64.5	61.2-67.8	2496	64.2	62.1-66.3

Diabetes history

The results show that the overall proportion of diabetes diagnosed by a doctor or other health worker in the past 12 months prior to the STEPS survey among respondents was 12.7%. The rate was slightly higher among women (13.3%) than men (12 %). There was an increasing trend with increasing age. See table 3.30.

Table 3.30: Diabetes measurement and diagnoses among all respondents

Blood sugar measurement and diagnosis									
Age Group (years)	Men								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
18-44	722	37.8	30.7-44.8	55.4	47.8-63.1	1.4	0.3-2.4	5.4	3.3-7.5
45-64	331	14.8	9.0-20.7	45.1	37.6-52.6	2.8	0.5-5.1	37.3	29.9-44.6
18-64	1053	33.1	26.5-39.6	53.3	46.8-59.8	1.7	0.8-2.6	12.0	9.2-14.7

Blood sugar measurement and diagnosis									
Age Group (years)	Women								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
18-44	1008	29.9	24.2-35.6	60.3	54.1-66.6	2.1	1.1-3.1	7.7	5.4-10.0
45-64	435	11.8	7.5-16.0	49.5	41.8-57.1	6.1	2.7-9.5	32.7	25.5-39.8
18-64	1443	25.8	20.9-30.6	57.9	52.1-63.7	3.0	1.7-4.3	13.3	10.6-16.1

Blood sugar measurement and diagnosis									
Age Group (years)	Both sexes								
	n	% Never measured	95% CI	% measured, not diagnosed	95% CI	% diagnosed, but not within past 12 months	95% CI	% diagnosed within past 12 months	95% CI
18-44	1730	33.8	29.0-38.7	57.9	52.8-63.0	1.8	1.1-2.4	6.5	5.1-8.0
45-64	766	13.2	9.6-16.8	47.4	41.8-53.0	4.6	2.5-6.6	34.8	29.8-39.9
18-64	2496	29.4	25.0-33.7	55.6	51.1-60.2	2.4	1.6-3.1	12.7	10.9-14.4

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Among those diagnosed as diabetic during the last 12 months, 29.3% received insulin and 61.7% received oral anti-diabetic medicines by a physician or health care worker. Women were more likely to receive insulin than men (33.3% compared with 24.3%), while men were more likely to receive oral drugs than women (68.6% vs. 56%). See table 3.31.

Table 3.31: Diabetes treatment among those previously diagnosed with diabetes

Currently taking insulin prescribed for diabetes among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% taking insulin	95% CI	n	% taking insulin	95% CI	n	% taking insulin	95% CI
18-44	57	19.5	6.7-32.2	106	27.1	17.2-36.9	163	24.0	16.2-31.7
45-64	123	27.5	17.1-37.9	169	38.7	30.1-47.3	292	33.3	26.6-40.1
18-64	180	24.3	15.9-32.8	275	33.3	27.4-39.3	455	29.3	24.1-34.5

Currently taking oral drugs prescribed for diabetes among those previously diagnosed									
Age Group (years)	Men			Women			Both Sexes		
	n	% taking meds	95% CI	n	% taking meds	95% CI	n	% taking meds	95% CI
18-44	57	53.9	37.8-70.1	106	32.6	20.4-44.8	163	41.3	29.4-53.3
45-64	123	78.2	68.5-88.0	169	76.1	67.7-84.5	292	77.1	71.1-83.1
18-64	180	68.6	60.7-76.6	275	56.0	47.1-64.9	455	61.7	55.3-68.0

Regarding self care measures among diabetic respondents, 67.1% of overall respondents stated that they check their blood sugar at home. In this regards, respondents in the age group of 45-64 were more likely to conduct the blood sugar test at home than those in the age group 18-44. See table 3.32.

Overall, 62.2% of the diabetic respondents reported conducting regular visits to the diabetic clinic or doctors regarding diabetes. Men were more likely to conduct the regular visits than women (67% vs. 58.3%) see table 3.32.

Table 3.32: Percentage of respondents who conduct blood sugar test at home and visit regularly diabetic clinic or doctor

Do testing for blood sugar at home									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-44	57	55.5	39.4-71.5	106	56.6	42.8-70.4	163	56.2	45.1-67.3
45-64	123	77.8	68.4-87.2	169	73.4	64.5-82.3	292	75.5	68.4-82.6
18-64	180	69.0	59.8-78.2	275	65.7	57.7-73.6	455	67.1	60.6-73.7

Visit diabetes clinic or doctor on a regular basis									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-44	57	47.8	31.1-64.6	106	40.4	30.3-50.6	163	43.5	34.3-52.7
45-64	123	79.5	69.6-89.5	169	73.7	65.7-81.6	292	76.5	70.2-82.7
18-64	180	67.0	56.9-77.1	275	58.3	51.3-65.4	455	62.2	56.1-68.3

Finally, 66% of the respondents stated that they have a family history of diabetes among their families (parents, children, brothers and sisters). See table 3.33.

Table 3.33: Percentage of respondents who have a family history of diabetes

Family member with diabetes									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-44	722	64.5	60.8-68.2	1008	69.9	66.4-73.3	1730	67.2	64.7-69.6
45-64	331	64.8	58.1-71.6	435	66.0	59.7-72.2	766	65.4	60.3-70.6
18-64	1053	64.6	61.2-67.9	1443	69.0	65.8-72.1	2496	66.8	64.6-69.0

3.4 Physical measurements

INTRODUCTION

Data on height and weight, waist circumference and blood pressure was collected from the respondents using the STEP2 core and expanded tools and guidelines at the household setting to build on the core data that was collected in STEP1 and to determine the proportion of adults that are overweight or obese and have raised blood pressure.

Height, weight and body mass index among respondents

Mean height and weight and mean body mass index among all respondents (excluding pregnant women for weight and BMI) were calculated. Thus, the mean height was 171.2 cm for men and 157.7 for women. The mean weight was 84.6 kg for men and 73.4 kg for women. The mean body mass index (BMI) was 29.2 kg/m^2 (28.8 kg/m^2 for men vs. 29.5 kg/m^2 for women).Table 3.34.

According to BMI classifications (excluding pregnant women), 41.4% of the respondents were obese with BMI ≥30 kg/m^2. Women were more likely to suffer from obesity than men (43.2% vs. 39.5%). A minority of 3.7% of respondents suffered from underweight with higher prevalence among women (4.6%) compared with men (2.8%). A general trend of increasing rates of obesity with progress of age can be observed for both men and women. See table 3.35.

Table 3.34: Mean height, weight and body mass index among all respondents (excluding pregnant women for weight and BMI)

Mean height (cm)						
Age Group (years)	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
18-44	713	171.8	171.0-172.5	994	158.2	157.6-158.7
45-64	325	169.0	168.1-170.0	429	155.9	155.0-156.7
18-64	1038	171.2	170.5-171.9	1423	157.7	157.1-158.2

Mean weight (kg)						
Age Group (years)	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
18-44	711	84.7	82.6-86.7	927	71.2	69.6-72.8
45-64	325	84.2	81.9-86.5	425	80.5	78.3-82.7
18-64	1036	84.6	82.8-86.3	1352	73.4	72.0-74.9

Mean BMI (kg/m^2)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-44	708	28.7	28.1-29.3	927	28.4	27.8-29.1	1635	28.6	28.1-29.0
45-64	325	29.4	28.7-30.2	424	33.1	32.2-34.0	749	31.4	30.8-32.0
18-64	1033	28.8	28.3-29.4	1351	29.5	29.0-30.1	2384	29.2	28.8-29.6

Table 3.35: Percentage of respondents (excluding pregnant women) in each BMI category

BMI classifications									
Age Group (years)	Men								
	n	% Underweight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% BMI 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
18-44	708	3.6	1.6-5.6	26.5	22.5-30.6	30.8	26.8-34.9	39.1	34.7-43.4
45-64	325	0.0	0.0-0.0	21.1	15.0-27.1	37.6	31.9-43.2	41.4	33.6-49.1
18-64	1033	2.8	1.2-4.4	25.4	22.0-28.7	32.2	28.8-35.6	39.5	35.5-43.6

BMI classifications									
Age Group (years)	Women								
	n	% Underweight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% BMI 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
18-44	927	5.8	3.9-7.6	32.5	28.5-36.5	25.4	21.5-29.2	36.4	33.0-39.7
45-64	424	0.8	0.0-2.0	10.1	6.4-13.7	24.1	18.0-30.2	65.0	58.7-71.3
18-64	1351	4.6	3.2-6.0	27.1	23.8-30.4	25.1	22.0-28.2	43.2	40.1-46.3

BMI classifications									
Age Group (years)	Both Sexes								
	n	% Underweight <18.5	95% CI	% Normal weight 18.5-24.9	95% CI	% BMI 25.0-29.9	95% CI	% Obese ≥30.0	95% CI
18-44	1635	4.6	3.2-6.1	29.4	26.5-32.3	28.2	25.1-31.3	37.8	34.9-40.6
45-64	749	0.4	0.0-1.1	15.3	11.8-18.7	30.5	26.2-34.7	53.8	49.0-58.7
18-64	2384	3.7	2.6-4.8	26.2	23.9-28.6	28.7	26.1-31.2	41.4	38.8-44.0

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The overall prevalence rate of overweight, which means the prevalence of all respondents with BMI ≥ 25 kg/m^2 was 70.1%. The prevalence rate was slightly higher among men than that among women (71.8% vs. 68.3%). See table 3.36.

Table 3.36: Percentage of respondents being classified as overweight (BMI ≥ 25 kg/m^2)

BMI≥25									
Age Group (years)	Men			Women			Both Sexes		
	n	% BMI≥25	95% CI	n	% BMI≥25	95% CI	n	% BMI≥25	95% CI
18-44	708	69.9	65.9-73.9	927	61.7	57.5-66.0	1635	65.9	63.0-68.9
45-64	325	78.9	72.9-85.0	424	89.1	85.4-92.8	749	84.3	80.8-87.8
18-64	1033	71.8	68.5-75.0	1351	68.3	64.8-71.8	2384	70.1	67.6-72.5

Waist circumference

The results illustrate that mean waist circumference values for men was 99.9 cm, while the mean waist circumference for women excluding pregnant women was 90 cm. See table 3.37.

Table 3.37: Mean waist circumference among all respondents (excluding pregnant women)

Waist circumference (cm)						
Age Group (years)	Men			Women		
	n	Mean	95% CI	n	Mean	95% CI
18-44	705	98.4	96.3-100.5	895	86.4	84.8-88.0
45-64	316	105.9	103.4-108.4	419	100.9	98.4-103.4
18-64	1021	99.9	98.0-101.9	1314	90.0	88.3-91.6

Blood pressure

The results show that the mean blood pressure results among all respondents, including those currently on medication for raised blood pressure was 118 mmHg for systolic blood pressure and 78.5 mmHg for diastolic blood pressure. Both systolic and diastolic blood pressure mean values were higher in men than women (123.6 vs. 112.5 mmHg and 80 vs. 77 mmHg, respectively). There was an increasing trend of the mean systolic and diastolic blood pressure within the age groups. See table 3.38.

Table 3.38: Mean blood pressure among all respondents, including those currently on medication for raised blood pressure

Mean systolic blood pressure (mmHg)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-44	701	120.4	119.3-121.5	983	108.7	107.5-109.8	1684	114.5	113.6-115.4
45-64	321	136.0	133.7-138.4	427	125.4	123.1-127.8	748	130.4	128.6-132.3
18-64	1022	123.6	122.4-124.9	1410	112.5	111.3-113.7	2432	118.0	117.0-118.9

Mean diastolic blood pressure (mmHg)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-44	701	78.8	77.9-79.6	983	75.6	74.8-76.4	1684	77.2	76.6-77.8
45-64	321	84.7	83.4-86.0	427	82.0	80.7-83.3	748	83.3	82.3-84.2
18-64	1022	80.0	79.2-80.8	1410	77.0	76.3-77.8	2432	78.5	77.9-79.1

Additionally, the results illustrate that the overall percentage of respondents with raised blood pressure (SBP ≥140 and/or DBP ≥ 90 mmHg or currently on medication for raised blood pressure) was 32.9 %. Based on the aforementioned definition for raising blood pressure, women had a higher prevalence than men (37.7% vs. 28%). See table 3.39.

However, after excluding the percentage of respondents who have been taking medication for raised blood pressure, the overall percentage of respondents that have been diagnosed for raised blood pressure (SBP ≥140 and/or DBP ≥ 90 mmHg) during the survey was 13.4% with 15% among men respondents and 11.5% among women respondents. See table 3.39.

As for respondents with moderate to severe blood pressure (SBP ≥160 and/or DBP≥ 100 mmHg), the overall percentage of respondents with SBP ≥160 and/or DBP ≥ 100 mmHg or currently on medication for raised blood pressure was 24.8%. Yet when excluding participants who currently on medication for raise blood pressure the overall percentage was 2.9%. See table 3.39.

Table 3.39: Percentages of respondents with raised blood pressure

SBP ≥140 and/or DBP ≥ 90 mmHg, excluding those on medication for raised blood pressure									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-44	635	12.0	9.1-14.8	757	8.5	5.8-11.3	1392	10.4	8.5-12.4
45-64	204	33.0	23.7-42.4	230	25.5	18.5-32.4	434	29.1	23.2-35.1
18-64	839	15.0	12.0-17.9	987	11.5	8.7-14.3	1826	13.4	11.4-15.3

SBP ≥140 and/or DBP ≥ 90 mmHg or currently on medication for raised blood pressure									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-44	702	19.2	16.0-22.4	986	31.2	25.7-36.7	1688	25.2	22.2-28.3
45-64	322	61.4	54.6-68.2	427	59.8	53.9-65.6	749	60.5	55.9-65.2
18-64	1024	28.0	24.5-31.5	1413	37.7	33.3-42.1	2437	32.9	30.2-35.6

SBP ≥ 160 and/or DBP ≥ 100 mmHg, excluding those on medication for raised blood pressure									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-44	635	1.7	0.7-2.7	757	1.4	0.4-2.5	1392	1.6	0.9-2.3
45-64	204	12.9	6.6-19.2	230	6.7	2.8-10.7	434	9.7	5.4-14.0
18-64	839	3.3	1.9-4.6	987	2.4	1.3-3.4	1826	2.9	1.9-3.8

SBP ≥160 and/or DBP ≥ 100 mmHg or currently on medication for raised blood pressure									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-44	702	9.7	7.0-12.5	986	25.9	20.1-31.7	1688	17.9	14.7-21.1
45-64	322	49.8	42.7-56.8	427	49.7	43.4-55.9	749	49.7	44.8-54.6
18-64	1024	18.1	14.7-21.4	1413	31.3	26.4-36.2	2437	24.8	21.9-27.7

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3.5 Biochemical Measurements

INTRODUCTION

Blood chemistry screening methods using the dry type were applied in STEP3 in Qatar utilizing the respective WHO STEPS guidelines to measure the prevalence of diabetes or raised blood glucose and total cholesterol as recommended in the STEP3 core level. However, in Qatar STEP3 was expanded to the expanded level to additionally measure the level of HDL-cholesterol, LDL-cholesterol and triglycerides among the studied population.

Mean fasting blood glucose

The overall mean fasting blood glucose level of the studied population including those on medication for diabetes and excluding those non-fasting participants was 92.5 mg/dl. The mean values were almost the same for men and women. However, the mean fasting blood glucose level for men and women was higher among the age group 45 to 64 than that among the age group 18-44 (111.7 and 109.2 mg/dl vs. 87 and 88 mg/dl, respectively). See table 3.40.

Table 3.40: Mean fasting blood glucose including those currently on medication for diabetes (non-fasting recipients excluded)

Mean fasting blood glucose (mg/dl)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-44	373	87.0	83.2-90.8	635	88.0	84.8-91.1	1008	87.5	84.9-90.1
45-64	179	111.7	102.5-120.8	0283	109.2	102.0-116.4	462	110.4	104.5-116.2
18-64	552	92.2	88.4-96.0	918	92.9	89.7-96.0	1470	92.5	89.9-95.2

Prevalence of diabetes mellitus

The results illustrate that the overall prevalence of raised blood glucose (capillary whole blood value: ≥ 110 mg/dl) diagnosed by the survey as well as by history of receiving medication for diabetes among respondents was 16.7%. This rate was higher among men when compared with women (17.6% vs. 15.9%). Furthermore, it was observed that there was an increasing trend of the prevalence of raised blood sugar level diagnosed by the survey as well as by the history of receiving medication for diabetes among the age group 45-64 compared with age group 18-44 for both men and women. See table 3.41.

Additionally, the results show that the overall percentage of respondents with impaired fasting glycaemia was 5.8% being higher among women than men (6.2% vs. 5.5%). See table 3.41.

Moreover, the overall percentage of respondents currently on medication for diabetes was 11.3% having almost the same percentage value for men and women. See table 3.41.

Table 3.41: Categorization of respondents into blood glucose level categories and percentage of respondents currently on medication for raised blood glucose (non-fasting recipients excluded)

Impaired Fasting Glycaemia*									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-44	373	4.3	2.2-6.4	635	6.1	3.6-8.7	1008	5.2	3.7-6.7
45-64	179	10.0	4.9-15.0	284	6.2	2.2-10.3	463	8.0	5.0-11.0
18-64	552	5.5	3.3-7.7	919	6.2	4.1-8.3	1471	5.8	4.5-7.2

Raised blood glucose or currently on medication for diabetes **									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-44	373	12.7	7.7-17.6	635	11.0	7.2-14.8	1008	11.8	8.5-15.1
45-64	179	36.1	26.3-45.8	284	32.1	24.9-39.2	463	33.9	27.7-40.1
18-64	552	17.6	13.1-22.2	919	15.9	12.4-19.3	1471	16.7	13.7-19.8

Currently on medication for diabetes									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-44	722	4.8	2.6-7.0	1008	4.5	3.2-5.9	1730	4.7	3.4-5.9
45-64	331	37.7	29.8-45.6	435	35.9	29.7-42.2	766	36.8	31.8-41.8
18-64	1053	11.2	8.6-13.8	1443	11.4	9.5-13.3	2496	11.3	9.8-12.8

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

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

Mean level of total blood cholesterol

The results show that the overall mean for total level of cholesterol among the studied population was 160.9 mg/dl. The mean level was higher among women than men (166.3 mg/dl vs. 155.3 mg/dl). See table 3.42.

Table 3.42: Mean total cholesterol among all respondents including those currently on medication for raised cholesterol

Mean total cholesterol (mg/dl)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-44	386	155.2	148.6-161.8	656	163.5	159.8-167.2	1042	159.4	155.7-163.1
45-64	189	155.5	149.2-161.9	296	175.5	168.8-182.3	485	166.1	161.6-170.6
18-64	575	155.3	150.3-160.3	952	166.3	162.9-169.7	1527	160.9	157.9-163.9

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Mean of High density lipoprotine (HDL) and percentage of respondents with low HDL

The results show that the overall mean HDL among all respondents was 50.3 mg/dl, being higher among women than that among men (57.4 mg/dl vs. 43 mg/dl). See table 3.43.

As for the percentage of respondents with low HDL level, the results illustrate that at a cut off value of 50 mg/dl for women the percentage of women with HDL< 50 mg/dl was 37.3%. For men at a cut off value of 40 mg/dl the percentage of men with HDL<40 mg/dl was 49.2%. See table 3.43.

Table 3.43: Mean HDL among all respondents and percentage of respondents with low HDL

Mean HDL (mg/dl)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-44	386	42.4	39.7-45.2	655	57.7	55.7-59.6	1041	50.1	48.2-52.0
45-64	189	45.2	41.1-49.3	296	56.6	53.8-59.5	485	51.3	48.6-53.9
18-64	575	43.0	40.4-45.6	951	57.4	55.7-59.1	1526	50.3	48.5-52.1

Percentage of respondents with HDL <1.03mmol/L or <40 mg/dl			
Age Group (years)	Men		
	n	%	95% CI
18-44	386	50.2	42.3-58.2
45-64	189	45.3	37.0-53.5
18-64	575	49.2	42.3-56.0

Percentage of respondents with HDL <1.29mmol/L or <50 mg/dl			
Age Group (years)	Women		
	n	%	95% CI
18-44	655	35.5	30.1-41.0
45-64	296	43.2	35.6-50.8
18-64	951	37.3	32.5-42.2

Mean of low density lipoprotine (LDL) and percentage of respondents with high LDL

The results show that the overall mean LDL level among the respondents was 90.8 mg/dl, having almost the same mean level among men and women.

As for the percentage of respondents with high LDL, the results illustrate that at a cut value of 130 mg/dl, the overall percentage of respondents with LDL ≥ 130 mg/dl was 9%. See table 3.44.

Table 3.44: Mean LDL among all respondents and percentage of respondents with high LDL

Mean LDL (mg/dl)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-44	358	90.2	87.0-93.3	565	88.9	85.1-92.7	923	89.5	87.0-92.1
45-64	179	93.5	89.0-98.0	279	96.5	90.5-102.4	458	95.1	91.1-99.0
18-64	537	90.9	88.2-93.6	844	90.8	87.6-93.9	1381	90.8	88.6-93.0

LDL ≥ 3.3 mmol/L or ≥ 130 mg/dl									
Age Group (years)	Men			Women			Both Sexes		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
18-44	358	8.0	5.4-10.6	565	7.8	4.9-10.6	923	7.9	6.0-9.7
45-64	179	9.1	3.8-14.4	279	16.1	10.3-21.9	458	12.9	8.8-16.9
18-64	537	8.2	5.7-10.8	844	9.9	7.2-12.5	1381	9.0	7.1-11.0

Mean fasting triglycerides and percentage of respondents with raised fasting triglycerides

The results show that the mean level of fasting triglycerides among all respondents was 104.2 mg/dl. Women and men have almost the same mean level of triglycerides.

However, the percentage of men and women with fasting triglycerides level ≥ 150 mg/dl was 15.8% being almost the same among men and women (16 and 15.6 mg/dl, respectively). See table 3.45.

Table 3.45: Mean fasting triglycerides among all respondents and the percentage of respondents with raised fasting triglycerides (non-fasting recipients excluded)

Mean fasting triglycerides (mg/dl)									
Age Group (years)	Men			Women			Both Sexes		
	n	Mean	95% CI	n	Mean	95% CI	n	Mean	95% CI
18-44	374	100.7	93.4-108.0	632	98.0	91.1-104.9	1006	99.4	94.4-104.3
45-64	177	120.9	110.2-131.6	288	121.8	108.9-134.7	465	121.4	112.7-130.1
18-64	551	104.9	98.2-111.6	920	103.6	97.6-109.6	1471	104.2	99.7-108.8

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
18-44	374	14.2	10.0-18.5	632	14.3	10.6-18.0	1006	14.3	11.5-17.0
45-64	177	22.6	14.3-30.8	288	20.1	14.9-25.2	465	21.2	16.4-26.1
18-64	551	16.0	11.9-20.0	920	15.6	12.7-18.6	1471	15.8	13.2-18.4

CHAPTER THREE

3.6 Combined Risk Factors

INTRODUCTION

The WHO STEPS aims to collect data on the major behavioural risk factors identified in the WHO Health Report 2002 (Tobacco use, Unhealthy diet, Physical inactivity) in addition to collecting data on the major biological risk factors identified in the WHO Health Report 2002 (Overweight and obesity, raised blood pressure, raised blood glucose, and abnormal blood lipids and its subset raised total cholesterol). However a number of the latter mentioned risk factors were identified and mentioned below and percentages of respondents with 0, 1-2 or 3-5 of the mentioned below risk factors were calculated to provide the percentages of the population with low and high risk factors

- currently daily smokers
- less than 5 serving of fruits and vegetables per day
- low level of activity (<600 MET-minutes)
- overweight or obese (BMI ≥ 25 kg/m^2)
- raised BP(SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)

Respondents with low risk factors

As such, based on the aforementioned, the overall prevalence of respondents with low risk factors (0 risk factors) was 0.8% being higher among men than women (1.3% vs. 0.3%). See table 3.46.

Respondents with high risk factors

The overall prevalence of respondents with high risk factors (3-5 risk factors) was 50.6%. The difference in prevalence between men and women were very little. See table 3.46.

Additionally, the respondents in the age group 45 to 64 has a substantially higher proportion of high risk than that among those in the age group 18 to 44 (70.4% vs. 44.9%, respectively). See table 3.46.

Table 3.46: Summary of combined risk factors

Summary of Combined Risk Factors							
Age Group (years)	Men						
	n	% with 0 risk factors	95% CI	% with 1-2 risk factors	95% CI	% with 3-5 risk factors	95% CI
18-44	674	1.7	0.4-3.0	51.1	45.4-56.8	47.2	41.6-52.9
45-64	315	0.0	0.0-0.0	32.4	25.6-39.2	67.6	60.8-74.4
18-64	989	1.3	0.3-2.4	47.2	42.2-52.1	51.5	46.6-56.5

Summary of Combined Risk Factors							
Age Group (years)	Women						
	n	% with 0 risk factors	95% CI	% with 1-2 risk factors	95% CI	% with 3-5 risk factors	95% CI
18-44	895	0.3	0.0-0.8	57.3	53.2-61.3	42.4	38.4-46.5
45-64	411	0.3	0.0-0.8	26.7	21.0-32.5	72.9	67.2-78.7
18-64	1306	0.3	0.0-0.7	49.9	46.2-53.7	49.8	46.0-53.5

Summary of Combined Risk Factors							
Age Group (years)	Both Sexes						
	n	% with 0 risk factors	95% CI	% with 1-2 risk factors	95% CI	% with 3-5 risk factors	95% CI
18-44	1569	1.0	0.2-1.8	54.1	50.2-58.0	44.9	41.1-48.7
45-64	726	0.2	0.0-0.4	29.4	24.9-34.0	70.4	65.9-74.9
18-64	2295	0.8	0.2-1.4	48.5	45.3-51.8	50.6	47.4-53.9

3.7 Injury

INTRODUCTION

Data on injuries was collected through utilizing additional tools of the WHO SETPS to generate information on the percentage of respondents who have been involved in road traffic crash during the past 12 months; percentage of respondents injured in a non-road traffic related accident that required medical attention; percentage of respondents injured in a road traffic related accident that required medical attention; causes of serious injuries among respondents who were injured accidently form something other than a road traffic crash; location of serious accidental injuries among those respondents who were serious injured in the last 12 months.

Respondents who have been involved in a road traffic crash during the past 12 months prior to the survey

The results illustrate that 14.9% of the respondents have been involved in a road traffic crash as a passenger, driver or pedestrian in the last 12 months prior to the interview. The proportion was higher in men than that in women (16.9% vs. 12.9%). See table 3.47.

Table 3.47: Percentage of respondents involved in a road traffic crash during the past 12 months

Percentage of respondents involved in a road traffic crash during the past 12 months									
Age Group (years)	Men			Women			Both Sexes		
	n	% Involved in road traffic crash	95% CI	n	% Involved in road traffic crash	95% CI	n	% Involved in road traffic crash	95% CI
18-44	721	19.3	15.0-23.6	1005	13.9	8.9-18.9	1726	16.6	13.2-20.0
45-64	327	7.4	2.8-12.1	434	9.7	4.4-15.1	761	8.7	5.0-12.3
18-64	1048	16.9	13.1-20.6	1439	12.9	8.4-17.5	2487	14.9	11.9-17.9

Out those who involved in a road traffic accident, 15.5 % of the respondents stated that they were seriously injured and that they required medical attention. The proportion was higher in women that than in men (17.6% vs. 13.9%). See table 3.48.

Table 3.48: Percentage of respondents seriously injured as a result of road traffic crashes between those involved in a road traffic crash

Percentage of respondents seriously injured as a result of road traffic crash among those involved in a road traffic crash									
Age Group (years)	Men			Women			Both Sexes		
	n	% Seriously injured	95% CI	n	% Seriously injured	95% CI	n	% Seriously injured	95% CI
18-44	134	14.8	6.7-22.9	137	16.8	9.7-23.8	271	15.6	9.4-21.9
45-64	25	5.1	0.0-13.6	39	21.6	8.7-34.6	64	15.0	5.4-24.6
18-64	159	13.9	6.6-21.2	176	17.6	11.9-23.3	335	15.5	10.1-21.0

Respondents that have been injured in non-road traffic related accident

The results show that the overall percentage of respondents injured in a non-road traffic related accident that required medical attention in the last 12 months prior to the interview was 5.1%, being higher among women than men (6.2% vs. 4.0). See table 3.49.

Table 3.49: Percentage of respondents seriously injured in a non-road traffic accident

Percentage of respondents seriously injured in a non-road traffic accident									
Age Group (years)	Men			Women			Both Sexes		
	n	% Seriously injured	95% CI	n	% Seriously injured	95% CI	n	% Seriously injured	95% CI
18-44	714	4.4	2.7-6.0	989	5.7	3.4-8.0	1703	5.0	3.4-6.7
45-64	327	2.7	0.8-4.6	429	7.8	4.4-11.1	756	5.4	3.4-7.4
18-64	1041	4.0	2.6-5.4	1418	6.2	4.2-8.2	2459	5.1	3.7-6.5

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Among the respondents who were injured from non-road traffic accident, 59.2% were injured due to falling. Men had a higher proportion of falling related injuries than women (71% vs. 50.3%). See table 3.50.

Table 3.50: Causes of serious injuries among respondents who were injured other than road traffic crashes

Percentage of respondents who were seriously injured other than road traffic crashes											
Age Group (years)	Men										
	n	% Fall	95% CI	% Burn	95% CI	% Poisoning	95% CI	% Cut	95% CI	% Other	95% CI
18-44	34	71.0	53.6-88.4	6.8	0.0-16.6	2.0	0.0-6.1	7.3	0.0-17.8	12.9	2.6-23.2
45-64	8	79.0	52.4-100.0	0.0	0.0-0.0	0.0	0.0-0.0	0.0	0.0-0.0	21.0	0.0-47.6
18-64	42	71.9	56.2-87.7	6.0	0.0-14.7	1.7	0.0-5.4	6.5	0.0-15.7	13.8	4.2-23.4

Percentage of respondents who were seriously injured other than road traffic crashes											
Age Group (years)	Women										
	n	% Fall	95% CI	% Burn	95% CI	% Poisoning	95% CI	% Cut	95% CI	% Other	95% CI
18-44	49	45.5	28.5-62.4	5.7	0.0-13.8	7.0	0.0-14.5	8.6	0.0-17.3	33.2	12.5-53.9
45-64	26	62.4	37.5-87.4	5.7	0.0-14.8	0.0	0.0-0.0	4.7	0.0-14.2	27.2	4.1-50.3
18-64	75	50.3	34.7-66.0	5.7	0.0-12.0	5.0	0.0-10.5	7.5	0.7-14.3	31.5	14.3-48.7

Percentage of respondents who were seriously injured other than road traffic crashes											
Age Group (years)	Both Sexes										
	n	% Fall	95% CI	% Burn	95% CI	% Poisoning	95% CI	% Cut	95% CI	% Other	95% CI
18-44	83	57.3	43.1-71.4	6.2	0.2-12.3	4.7	0.0-9.8	8.0	0.3-15.8	23.8	11.1-36.6
45-64	34	66.1	45.9-86.3	4.4	0.0-11.3	0.0	0.0-0.0	3.7	0.0-11.0	25.8	6.9-44.8
18-64	117	59.2	46.7-71.6	5.8	0.8-10.8	3.6	0.0-7.7	7.1	0.8-13.4	24.3	13.3-35.3

The main location for serious accidental injuries among those respondents who were seriously injured in non-traffic crashes in the last 12 months prior to the interview was at home (49.3%), then in the sport-athletic area (16.4%). Women were more likely to be injured at home than men (71% vs. 15.2%). Men were more likely to be injured in sports-athletic area (38.3% vs. 2.1%). See table 3.51.

Table 3.51: Location of serious injuries among respondents seriously injured

Location of accidental serious injuries among respondents seriously injured													
Age Group (years)	Men												
	n	% Home	95% CI	% School/workplace	95% CI	% Road Street-Highway	95% CI	% Farm	95% CI	% Sports-Athletic area	95% CI	% other	95% CI
18-44	36	11.6	1.6-21.7	15.0	1.1-29.0	19.8	3.9-35.6	5.4	0.0-14.0	38.3	22.6-54.0	9.8	0.0-23.7
45-64	10	37.1	2.8-71.5	21.5	0.0-58.7	3.4	0.0-10.6	0.0	0.0-0.0	38.0	2.6-73.4	0.0	0.0-0.0
18-64	46	15.2	5.6-24.9	16.0	3.1-28.8	17.5	3.7-31.2	4.7	0.0-12.1	38.3	23.7-52.8	8.4	0.0-20.5

Location of accidental serious injuries among respondents seriously injured													
Age Group (years)	Women												
	n	% Home	95% CI	% School/workplace	95% CI	% Road Street-Highway	95% CI	% Farm	95% CI	% Sports-Athletic area	95% CI	% other	95% CI
18-44	54	69.7	54.8-84.7	9.6	0.0-20.8	12.0	3.2-20.8	0.0	0.0-0.0	2.9	0.0-7.0	5.8	0.0-11.9
45-64	28	77.0	58.2-95.8	4.4	0.0-10.8	9.4	0.0-19.4	0.0	0.0-0.0	0.0	0.0-0.0	9.2	0.0-22.0
18-64	82	71.8	59.1-84.5	8.1	0.0-16.6	11.3	4.4-18.2	0.0	0.0-0.0	2.1	0.0-5.0	6.7	1.3-12.2

Location of accidental serious injuries among respondents seriously injured													
Age Group (years)	Both Sexes												
	n	% Home	95% CI	% School/workplace	95% CI	% Road Street-Highway	95% CI	% Farm	95% CI	% Sports-Athletic area	95% CI	% other	95% CI
18-44	90	44.1	33.9-54.3	12.0	4.3-19.7	15.4	6.4-24.4	2.4	0.0-6.2	18.5	10.4-26.6	7.6	0.6-14.5
45-64	38	67.2	48.8-85.6	8.6	0.0-19.7	7.9	0.2-15.7	0.0	0.0-0.0	9.4	0.0-19.4	6.9	0.0-16.6
18-64	128	49.3	39.7-58.9	11.2	4.7-17.8	13.7	6.5-20.9	1.8	0.0-4.8	16.4	9.6-23.3	7.4	1.7-13.2

CHAPTER THREE

3.8 Oral health

INTRODUCTION

Data on oral health was collected using the oral health optional tool of the WHO STEPS to generate information on the percentage of respondents with natural teeth; percentage of respondents with poor teeth status among those having natural teeth; percentage of respondents having poor state of gum among those having natural teeth; percentage of respondents having removable dentures; percentage of respondents who have pain or discomfort caused by their teeth or mouth during the last past 12 months; percentage of respondents having seen a dentist during the past 12 months; the main reason for last visit to the dentist among those who ever visited a dentist; percentage of respondents cleaning their teeth at least once or twice a day.

Respondents with natural teeth

The results show that the overall percentage of respondents who have 20 or more natural teeth was 85.6% being almost similar among men and women (84.5% vs. 86.8%). Respondents in the age group 18 to 44 have a higher proportion of 20 or more natural teeth than those in the age group 45-66 (90.7% vs. 67%). See table 3.52.

Table 3.52: Percentage of respondents with natural teeth

Percentage of respondents with natural teeth									
Age Group (years)	Men								
	n	% No natural teeth	95% CI	% 1 - 9 natural teeth	95% CI	% 10 - 19 natural teeth	95% CI	% ≥ 20 natural teeth	95% CI
18-44	711	0.2	0.0-0.4	0.8	0.1-1.6	9.2	5.8-12.7	89.8	86.3-93.4
45-64	321	4.0	0.5-7.5	5.2	2.2-8.2	26.9	20.3-33.5	63.8	56.8-70.9
18-64	1032	0.9	0.2-1.7	1.7	0.8-2.6	12.8	9.3-16.3	84.5	80.8-88.3

Percentage of respondents with natural teeth									
Age Group (years)	Women								
	n	% No natural teeth	95% CI	% 1 - 9 natural teeth	95% CI	% 10 - 19 natural teeth	95% CI	% ≥ 20 natural teeth	95% CI
18-44	971	0.2	0.0-0.6	1.0	0.1-2.0	7.1	4.8-9.5	91.6	89.0-94.2
45-64	406	1.8	0.6-2.9	8.8	4.8-12.8	19.6	13.5-25.7	69.8	62.5-77.2
18-64	1377	0.6	0.2-0.9	2.8	1.4-4.1	9.9	7.4-12.4	86.8	83.9-89.6

Percentage of respondents with natural teeth									
Age Group (years)	Both Sexes								
	n	% No natural teeth	95% CI	% 1 - 9 natural teeth	95% CI	% 10 - 19 natural teeth	95% CI	% ≥ 20 natural teeth	95% CI
18-44	1682	0.2	0.0-0.4	0.9	0.4-1.5	8.2	5.8-10.6	90.7	88.1-93.3
45-64	727	2.8	1.1-4.6	7.1	4.4-9.7	23.1	18.1-28.1	67.0	61.3-72.7
18-64	2409	0.8	0.4-1.2	2.2	1.4-3.0	11.4	8.9-13.8	85.6	83.0-88.2

Respondents with poor state of teeth and poor state of gums among those having natural teeth

The results show that the overall percentage of respondents having poor or very poor teeth among those having natural teeth was 5.9%. The proportion of having poor or very poor teeth was higher in women than men (7.1% vs. 4.7%). See table 3.53.

Table 3.53: Percentage of respondents with poor or very poor state of teeth among those having natural teeth

Percentage of respondents having poor or very poor state of teeth among those having natural teeth									
Age Group (years)	Men			Women			Both Sexes		
	n	% having poor or very poor state of teeth	95% CI	n	% having poor or very poor state of teeth	95% CI	n	% having poor or very poor state of teeth	95% CI
18-44	719	4.5	2.5-6.5	1005	5.9	4.0-7.8	1724	5.2	3.7-6.7
45-64	322	5.3	2.3-8.3	422	11.5	6.8-16.2	744	8.6	5.7-11.6
18-64	1041	4.7	3.1-6.3	1427	7.1	5.3-9.0	2468	5.9	4.7-7.2

As for the respondents with poor or very poor state of gums among those having natural teeth, the overall percentage was 4.6%, being higher among women than men (5.9% vs. 3.4%). See table 3.54.

Table 3.54: Percentage of respondents with poor or very poor state of gum among those having natural teeth

Percentage of respondents having poor or very poor state of gums among those having natural teeth									
Age Group (years)	Men			Women			Both Sexes		
	n	% having poor or very poor state of teeth	95% CI	n	% having poor or very poor state of teeth	95% CI	n	% having poor or very poor state of teeth	95% CI
18-44	722	3.4	1.8-4.9	1007	5.6	3.5-7.6	1729	4.5	3.2-5.8
45-64	329	3.3	0.6-6.1	433	6.9	3.3-10.5	762	5.2	2.6-7.9
18-64	1051	3.4	2.0-4.7	1440	5.9	4.1-7.6	2491	4.6	3.5-5.8

Respondents with removable dentures

The results show that the overall percentage of respondents having removable dentures was 9.3%. Women have higher proportion of having removable dentures than men (11.3% vs. 7.3%). The percentage of respondents with removable dentures was higher among the age group 45-64 than that among the age group 18-44. See table 3.55.

Table 3.55: Percentage of respondents having removable dentures

Percentage of respondents having removable dentures									
Age Group (years)	Men			Women			Both Sexes		
	n	% Having removable dentures	95% CI	n	% Having removable dentures	95% CI	n	% Having removable dentures	95% CI
18-44	722	6.0	4.0-8.0	1008	9.3	6.5-12.0	1730	7.6	5.9-9.3
45-64	331	12.4	8.0-16.8	434	18.2	12.5-24.0	765	15.5	11.3-19.6
18-64	1053	7.3	5.6-9.0	1442	11.3	8.6-14.0	2495	9.3	7.7-11.0

Respondents with teeth pain or discomfort

The results illustrate that the overall percentage of respondents who have pain or discomfort caused by their teeth or mouth during the past 12 months prior to the interview was 40.6%. Women had higher proportion of oral pain than men (48.3% vs. 32.7%). See table 3.56.

Table 3.56: Percentage of respondents who have pain or discomfort caused by their teeth or mouth during the past 12 months

Percentage having oral pain or discomfort									
Age Group (years)	Men			Women			Both Sexes		
	n	% Having oral pain or discomfort	95% CI	n	% Having oral pain or discomfort	95% CI	n	% Having oral pain or discomfort	95% CI
18-44	722	33.7	28.1-39.4	1008	47.4	42.4-52.5	1730	40.6	36.4-44.7
45-64	331	28.7	22.0-35.4	434	51.1	43.5-58.6	765	40.5	35.2-45.8
18-64	1053	32.7	28.1-37.3	1442	48.3	43.5-53.0	2495	40.6	37.1-44.1

CHAPTER THREE

Respondents with dental care

The results show that the overall percentage of respondents having seen a dentist during the past 12 months was 64.7%. Women had higher proportion of visiting the dentist than men (69% vs. 59.6%). Respondents among the age group 18-44 had higher proportion of visiting a dentist in the last 12 months than those in the age group 45-64. See table 3.57.

Table 3.57: Percentage of respondents having seen a dentist during the past 12 months

Percentage of respondents having seen a dentist during the past 12 months									
Age Group (years)	Men			Women			Both Sexes		
	n	% having seen a dentist during the past 12 months	95% CI	n	% having seen a dentist during the past 12 months	95% CI	n	% having seen a dentist during the past 12 months	95% CI
18-44	722	60.4	54.8-66.1	1008	71.4	67.5-75.3	1730	65.9	62.7-69.1
45-64	331	56.3	50.3-62.4	434	63.6	58.4-68.9	765	60.2	56.4-64.0
18-64	1053	59.6	54.8-64.3	1442	69.6	66.1-73.1	2495	64.7	62.0-67.4

However, the main reason for last visit to the dentist among those who ever visited a dentist was to follow up on treatment as 39.4% of all respondents reported so. Pain or trouble with teeth or gums and routine check-up treatment came equally as the second reason for the last visit to the dentist with the same value of 24%. See table 3.58.

Table 3.58: Main reason for last visit the dentist among those who ever visited a dentist

Main reason for last visit to the dentist among those who ever visited a dentist											
Age Group (years)	Men										
	n	% Consultation/advice	95% CI	% Pain or trouble with teeth or gums	95% CI	% Follow-up treatment	95% CI	% Routine check-up treatment	95% CI	% Other	95% CI
18-44	690	9.7	6.9-12.5	24.2	17.5-31.0	38.9	31.3-46.5	25.8	19.3-32.3	1.4	0.4-2.4
45-64	321	11.2	6.2-16.1	19.9	13.7-26.0	39.5	31.7-47.2	26.2	19.7-32.8	3.2	0.0-7.3
18-64	1011	10.0	7.3-12.6	23.3	17.2-29.4	39.0	32.1-46.0	25.9	20.0-31.8	1.8	0.5-3.0

Main reason for last visit to the dentist among those who ever visited a dentist											
Age Group (years)	Women										
	n	% Consultation/advice	95% CI	% Pain or trouble with teeth or gums	95% CI	% Follow-up treatment	95% CI	% Routine check-up treatment	95% CI	% Other	95% CI
18-44	984	9.3	6.4-12.3	24.8	19.3-30.3	39.7	34.1-45.3	22.8	17.6-28.1	3.3	1.9-4.7
45-64	423	7.8	4.0-11.7	25.8	19.2-32.4	40.2	33.7-46.8	21.7	15.7-27.8	4.4	1.7-7.2
18-64	1407	9.0	6.1-11.8	25.0	20.0-30.1	39.8	34.7-44.9	22.6	17.7-27.5	3.6	2.2-4.9

Main reason for last visit to the dentist among those who ever visited a dentist											
Age Group (years)	Both Sexes										
	n	% Consultation/advice	95% CI	% Pain or trouble with teeth or gums	95% CI	% Follow-up treatment	95% CI	% Routine check-up treatment	95% CI	% Other	95% CI
18-44	1674	9.5	7.3-11.7	24.5	19.5-29.6	39.3	34.6-44.0	24.3	19.6-29.0	2.4	1.6-3.2
45-64	744	9.4	6.3-12.5	23.0	18.3-27.7	39.9	35.2-44.6	23.9	18.7-29.1	3.9	1.5-6.2
18-64	2418	9.5	7.4-11.6	24.2	19.6-28.8	39.4	35.2-43.7	24.2	19.8-28.6	2.7	1.8-3.6

Respondents with teeth cleaning habits

The results show that the overall percentage of respondents cleaning their teeth at least twice a day was 73.2%. Women had higher proportion of cleaning their teeth at least twice a day than men (80.2% vs. 66%). Only 4% of all respondents stated that they did not clean their teeth at least once a day. See table 3.59.

Table 3.59: Percentage of respondents cleaning their teeth at least once/ at least twice a day

Percentage of respondents cleaning their teeth at least once a day									
Age Group (years)	Men			Women			Both Sexes		
	n	% cleaning teeth at least daily	95% CI	n	% cleaning teeth at least daily	95% CI	n	% cleaning teeth at least daily	95% CI
18-44	722	94.5	92.4-96.6	1008	98.4	97.5-99.3	1730	96.4	95.3-97.6
45-64	331	92.3	87.5-97.1	434	96.3	94.3-98.2	765	94.4	91.9-96.9
18-64	1053	94.0	92.0-96.1	1442	97.9	97.1-98.8	2495	96.0	94.9-97.1

Percentage of respondents cleaning their teeth at least twice a day									
Age Group (years)	Men			Women			Both Sexes		
	n	% cleaning teeth at least twice a day	95% CI	n	% cleaning teeth at least twice a day	95% CI	n	% cleaning teeth at least twice a day	95% CI
18-44	722	67.7	62.8-72.5	1008	82.0	78.7-85.2	1730	74.8	71.6-78.0
45-64	331	59.5	51.2-67.8	434	74.4	68.6-80.1	765	67.4	62.3-72.4
18-64	1053	66.0	61.5-70.5	1442	80.2	77.3-83.2	2495	73.2	70.2-76.2

CHAPTER FOUR

CHAPTER FOUR

DISCUSSION

According to the World Health Report 2002, behavioural and biological risk factors affect individual's health. The main behavioural risk factors that hinder individuals' ability to achieve good health are tobacco use, harmful alcohol use, unhealthy diet (low fruit and vegetable consumption), and physical inactivity (WHO 2002). The latter risk factors lead to four major biological risk factors that increase the likelihood of developing chronic non communicable disease such as: overweight and obesity, raised blood pressure, raised blood glucose, and abnormal blood lipids and its subset "raised total cholesterol". It was evident that around 80% of heart disease, stroke, and type II diabetes and over one third of cancers could be prevented by eliminating shared risk factors, namely tobacco use, unhealthy diet and physical inactivity (WHO 2002).

As such, the above mentioned behavioural risk factors except for alcohol consumption and their consequent biological risk factors were examined in the STEPS approach that was implemented in Qatar under the name of National STEPwise survey. A detailed discussion about the aforementioned risk factors is below provided.

MODIFIED BEHAVIOURAL RISK FACTORS

Tobacco use

Tobacco use and exposure come in smokeless and smoking form. However, smoking tobacco is the most commonly used form globally. Tobacco contains over the 4000 chemicals of which 50 are known to be carcinogenic (WHO 2010). Currently, there are 1 billion smokers in the world. Manufactured cigarettes are the major form of smoking (Safey et al 2009). Direct tobacco consumption and exposure to secondhand tobacco cause major risks to health (WHO 2010). Around 6 million persons die from tobacco use and exposure each year, accounting for 6% of all female and 12% of all male deaths in the world (WHO 2009). Additionally tobacco use is considered the second leading risk factor globally for mortality (9% of deaths globally). Smoking is estimated to cause about 71% of all lung cancer deaths, 42% of chronic respiratory diseases and almost 10% of cardiovascular diseases (WHO 2010).

According to the WHO 2011, tobacco use was higher in middle-income countries than in low- or high-income countries, and was higher among men than women in all income grouping countries. The prevalence of smoking among men in lower middle- income countries was the highest with a prevalence of 39%, men in upper-middle-income countries came second with (35%). Among women, there were relatively higher rates (around 15%) in upper-middle and high-income countries, and considerably lower rates (between 2-4%) in low- and lower-middle income countries (WHO 2011).

In Qatar the STEPwise results illustrate that the overall prevalence of smoking was 16.4% among the studied population. However, the prevalence of smoking among men was 31.9%. While among women it was only 1.2%. Regarding the age specific smoking rate among men, the proportion of current smokers among the age group 18-44 is higher than that among the age group 45-64. Men in Qatar prefer to smoke manufactured cigarettes with 81% of men smoking manufactured cigarettes.

As such, the prevalence of tobacco use among men in Qatar is close to the prevalence of smoking among men in upper-middle-income countries however Qatar is placed among the high income countries. Men in Qatar followed the global trend in smoking manufactured cigarettes. Smoking prevalence among women is low in Qatar and close to the smoking prevalence rate among low-and lower middle income countries.

Insufficient physical activity

Insufficient physical activity is the fourth leading risk factor for mortality (WHO 2010). Each year, around 3.3 million deaths and 32.1 million DALYs (representing about 2.1 of global DALYs) are attributable to insufficient physical activity (WHO 2010). People who are insufficiently physically active have increased risk of all-cause mortality by 20-30% compared to those who engage in at least 30 minutes of moderate intensity physical activity on most days of the week (WHO 2010).

Participation in moderate physical activity for 150 minutes each week is estimated to reduce the risk of ischemic heart disease by approximately 30%, the risk of diabetes by 27% and the risk of breast and colon cancer by 21-25% (WHO 2010).

Globally, the prevalence of insufficient physical activity among adults aged 15 and above was 31% (men 28% and women 34%) in 2008. In the WHO regions of America and Eastern Mediterranean the prevalence of insufficient physical activity was the highest. In the aforementioned regions the prevalence of insufficient physical activity among women were 50% while for men it was 40% in the Americas and 36% in the Eastern Mediterranean in 2008 (WHO 2011).

According to WHO, men were more physically active than women, with the biggest differences in prevalence between the two sexes in the Eastern Mediterranean region (WHO 2011).

The prevalence of insufficient physical activity is related to the level of country income. As the prevalence of insufficient physical activity in high-income countries was double the prevalence in low-income countries for both men and women, with 41% men and 48% women being insufficiently physically active in comparison to 18% of men and 21% of women in low-income countries in 2008 (WHO 2011).

In Qatar, the STEPwise results show that only 31.3% of the studied population were involved in high level of physical activity, while 45.9% were involved in low level of physical activity and 22.8% in moderate physical activity. The proportion of women engaged in low level of physical activity was higher than that among men (54.2% vs. 37%).

The prevalence of insufficient physical activity in Qatar complies with the trend of insufficient physical activity in the Eastern Mediterranean region. As the prevalence figures of low physical activity in Qatar among men and women are close to the prevalence figures in the latter region.

Unhealthy diet

Low fruit and vegetable consumption is responsible of approximately 1.7 million (10%) DALYs and 1.7 million (2.8%) of deaths worldwide (WHO 2009). According to The World Health Report 2002, low fruit and vegetable intake is estimated to cause about 31% of ischemic heart disease and 11% of stroke, and 19% gastrointestinal cancer worldwide. The risk of cardiovascular diseases, stomach cancer and colorectal cancer can be reduced by adequate consumption of fruit and vegetables (Bazzano et al 2003).

The consumption of at least five servings of fruit and vegetables per day is recommended as a populating intake goal to prevent diet-related chronic disease (WHO FAO 2004).

Worldwide, there is a lack of comparable data on individual dietary intakes (WHO 2009), however the STEPS collects data on the behavioural risk factor of unhealthy diet.

Based on the results of the STEPwise in Qatar, around 91% of the Qatari studied population consume less than five servings of fruits and/or vegetables on average per day. Thus, the majority of the Qatari population is not protected towards the diseases that are triggered by the low consumption of fruit and vegetable.

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BIOLOGICAL RISK FACTORS

Overweight and obesity

Globally, overweight including obesity is responsible for the death of 2.8 million people each year and estimated 35.8 million (2.3%) of global DALYs are caused by overweight and obesity (WHO 2009). Overweight and obesity lead to undesirable metabolic effects on blood pressure, Cholesterol, triglycerides and insulin resistance. The increase in body mass index (BMI), a measure of weight relative to height, is steadily associated with the increase of the risks of coronary heart disease, ischemic stroke and type 2 diabetes mellitus (WHO 2002). Additionally, raised BMI increases the risk of cancer of the breast, endometrium, colon/rectum, kidney, esophagus and pancreas (WHO 2002).

According to WHO, the goal for individuals to achieve optimal health is to maintain their BMI in the range 18.5 to 24.9 kg/m and for the populations to achieve a median BMI in the range of 21 to 23 kg/m^2 (WHO 2000). BMI in the range of 25 to 29.0 kg/m^2 leads to increased risk of co-morbidities while a BMI greater than 30 kg/m^2 leads to moderate to severe co-morbidities (WHO 2000).

In 2008, 35% of adults aged 20 years and above were overweight with BMI> 25 kg/m^2 (34% men and 35% women). The worldwide prevalence of obesity has almost doubled between 1980 and 2008. As 10% of men and 14% of women were obese globally with BMI >30 kg/m^2 in 2008 compared to 5% for men and 8% for women in 1980 (WHO 2011).

The prevalence of overweight and obesity in 2008 was highest in the WHO region of Americas with 62% of both sexes were overweight and 26% were obese (WHO 2011). Over 50% of the women were overweight in the WHO European, Americas and Eastern Mediterranean regions. For the latter three regions, roughly half of the women were obese (23% of women in Europe. 24% in the Eastern Mediterranean, and 29% in the Americas) according to the WHO 2011. Women were more likely to be obese than men in all WHO regions (WHO 2011).

According to the WHO, the prevalence of overweight in high-income and upper-middle income countries was more than double of that in low and lower-middle income countries. As for obesity the difference is more than triples from 7% obesity among women and men in lower-middle-income countries to 24% in upper-middle-income countries (WHO 2011).

In Qatar, the STEPwsie results illustrate that the mean BMI for the Qatari population aged between 18 and 64 was 29.2 kg/m^2 (28.8 kg/m^2 for men and 29.5 kg/m^2 for women) and 70.1% of the studied population were classified as overweight with BMI equal or above 25 kg/m^2 . As such around 70.1% of the population are mainly at risk of developing coronary heart disease, ischemic stroke and type 2 diabetes mellitus (WHO 2002). Additionally, the trend of women being more likely to be obese in Qatar follows the same trend in the Eastern Mediterranean region.

Raised blood pressure

Raised blood pressure is estimated to cause 7.5 million deaths worldwide, around 12.8% of the total annual deaths (WHO 2009). This accounts for 3.7% of total DALYS (57 million DALYS) (WHO 2009). Raised blood pressure is major risk factor for developing coronary heart disease and ischaemic in addition to haemorrhagic stroke (WHO 2011). Furthermore, the complications of raised blood pressure include heart failure, peripheral vascular disease, renal impairment, and visual impairment (Williams 2004). Thus, treating systolic and diastolic blood pressure to be below 140/90 mmhg is associated with a decreases in cardiovascular complications (Brown et al 2009).

The overall prevalence of raised blood pressure in adults aged 25 and above in 2008 was around 40% globally (WHO 2011). In WHO Africa region the raised blood pressure was the highest while was the lowest in the America region. However, in all WHO region men have slightly higher prevalence of raised blood pressure than women (WHO 2011).

Across the low, lower-middle and upper-middle income countries, the prevalence of raised blood pressure was high with rates around 45% for both sexes. However, the prevalence in high-income countries was lower with rates around 35% for both sexes (WHO 2011).

In Qatar the STEPwise results illustrate that the overall percentage of respondents with raised blood pressure (SBP ≥140 and/or DBP ≥90 mmHg or currently on medication for raised blood pressure) was 32.9 %. Women had a higher prevalence of raised blood pressure than men (37.7% vs. 28%) unlike the global trend of men having higher prevalence of raised blood pressure than women.

Raised blood glucose

According to the WHO around 374 million persons have diabetes worldwide (WHO 2012). An estimate of 3.4 million persons died from the consequences of high blood sugar in 2004. Based on WHO projection the diabetes attributable deaths are expected to increase by two third between 2008 and 2030 (WHO 2012).

The development of diabetes and cardiovascular diseases are strongly associated with the risk of impaired glucose tolerance and impaired fasting glycaemia (Levitan et al 2004). Diabetes is the leading cause of renal failure in many populations in both the developing and developed world. In the developed countries, lower limb amputations are at least ten times more common in diabetic individuals than non-diabetic individuals (Icks et al 2009). Diabetes is one of the major causes of visual impairment and blindness in the developed world (Resnikoff et al 2004). Thus diabetes care may account for 15% of national health care budgets in many countries (Zhang et al 2004).

The global prevalence of diabetes in 2008 and according to WHO was estimated to be 10% in adults aged 25 years and above. The prevalence of diabetes was highest in the WHO Eastern Mediterranean region and America region (11% for both sexes) and lowest in WHO region of African and Europe (9% for both sexes) (WHO 2011).

Low income countries demonstrated lowest prevalence of diabetes (8% for both sexes) while the upper income countries demonstrated the highest prevalence rate (10% for both sexes) (WHO 2011).

In Qatar, the STEPwise results illustrated that prevalence of diabetes among the Qatari studied population was 16.7% for both sexes. The prevalence is higher than that in the Eastern Mediterranean WHO region and higher than the prevalence of diabetes among the high income countries. As such almost 16% of the studied Qatari population aged between 18 and 64 are more likely to develop the complications of diabetes unless preventive and curative measures being implemented to halt those complications.

Abnormal blood lipids

The risks of heart diseases and stroke are increased by the raised cholesterol levels (Ezzati et al 2002). Globally, 2.6 million deaths (4.5%) of total and 29.7 million DALYs or 20% of total DALYs are attributable to high cholesterol level (WHO 2009).

In 2008, the global prevalence of raised cholesterol among adults was 39%. However, the prevalence of raised cholesterol (190 mg/dl) among the population aged 25 and above in the Eastern Mediterranean WHO region was around 38% (WHO 2011).

Additionally the prevalence of raised total cholesterol increased significantly in relation to the income level of the country. As 50% of the adults in high income countries had raised total cholesterol more than double the level of the low-income countries.

In Qatar the STEPwise results showed that the mean level of cholesterol was 160.9 mg/dl. However, 49.2% of the men in the studied population have HDL levels above 40 mg/dl and 37.3% of the women in the studied population have HDL levels above 50 mg/dl. It is evident that the levels of HDL cholesterol in plasma are inversely related to coronary artery disease incidence. Yet, 15.8% of the Qatari studied population have fasting triglycerides level of 150 mg/dl as the latter figure is consider the recommended WHO cuter point for defining the high level of triglycerides level (WHO 2005).

CHAPTER FOUR

Combined risk factors

Noncommunicable diseases are the leading causes of death globally, they are strongly associated with the four main behavioural risk factors: tobacco use, insufficient physical activity, harmful used of alcohol, and unhealthy diet, which lead to: high blood pressure, raised blood glucose and cholesterol levels, and excess body weight (WHO 2011).

In Qatar the STEPwise results illustrate that 50.6% of the respondents had 3 to 5 of the mentioned below risk factors:

- currently daily smokers
- less than 5 serving of fruits and vegetables per day
- low level of activity (<600 MET-minutes)
- overweight or obese (BMI ≥ 25 kg/m^2)
- raised BP(SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)

As such, almost half of the studied population are found to be with high risks of developing chronic noncommunicable diseases.

Finally, Qatar witnessed an enormous economic development in the last few years which was reflected in the increased GDP per capita. According to The World Bank 2012, Qatar is considered to be among the high income non-Organization for Economic Co-operation and Development (OECD) countries with a Gross National Income (GNI) per capita Atlas methods (current US$) $80,440 of USD (The World Bank 2012). The increased GDP per capita might have been associated with changes in behaviours and practices among the population in Qatar. Qataris might have been more at risk to exposure to more risk factors due to sedentary life style; the introduction to different types of foods. Additionally the globalization and the financial prosperity means might have contributed to increase the risks among them.

Limitation and Constraints

The main limitation of the national Qatar STEPwise survey was that the information was collected through self-reported-fact-to-face interviews with the respondents. Respondents might have recalled inadequately the duration of their morbidity.

The number of women who reported to be smokers was very few. Hence, the reliability of the smoking related results might have been affected accordingly.

Strength of the Survey

The survey covered the Qatari population which are the stable population in the state of Qatar. Women and men Qataris aged between 18 and 64 years old participated in the survey.

The STEPwise survey population sample was supplied by the Qatar Statistics Authority as a representative sample of the Qatari population between the ages of 18 and 64. The country has been divided into Primary Sampling Units (PSUs) to form an area sampling frame. Each area frame is composed of a set of PSUs, constructed by grouping contiguous blocks such that each PSU contains about 60 to 70 Qatari households according to the 2010 Census. The formation of PSUs respects the administrative structure of the State of Qatar.

A total of 96 PSUs were selected from the Qatari frame of PSUs. In the first stage, a systematic random sample of PSUs is drawn with probability proportional to size (size will be the number of Household in each PSU) from the area frames.

Additionally to ensure that each household in Qatar and each Qatari aged between 18 and 64 years old in Qatar has an equal probability of being selected into the sample, the data were weighted during the analysis to account for this differential selection probability and to have representative results for the population.

As such the results of the STEPwise survey were applicable to the whole Qatari population aged between 18 and 64 years old.

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ANNEX

ANNEXONE

المسح الوطني التدرجي لعوامل الاختطار للأمراض المزمنة غير المعدية

أدوات الاستقصاء (الأساسية والإضافية)

رقم الاستمارة للشخص المشترك ا_ا_ا_ا_ا_ا_ا_ا_ا_ا

أدوات الاستقصاء
للمسح الوطني التدرجي لعوامل الاختطار للأمراض المزمنة غير المعدية

معلومات عن المسح

	المكان و الزمان	الاستجابة	الترميز
1	رقم البلدية:	ا_ا_ا	I1
2	رقم المنطقة:	ا_ا_ا	I2
3	رقم المربع التعدادي:	ا_ا_ا_ا	X1
4	رقم العقود:	ا_ا_ا_ا_ا	X2
5	رقم الكهرباء	ا_ا_ا_ا_ا_ا_ا_ا_ا	X3
6	رمز الباحث الميداني	ا_ا_ا_ا	I3
7	تاريخ إكمال الاستبيان:	ا_ا_ا_ا_ا_ا_ا_ا_ا_ا السنة الشهر اليوم	I4

رقم الاستمارة للشخص المشترك ا_ا_ا_ا_ا_ا_ا_ا_ا_ا

	الموافقة و الاسم	الاستجابة	الترميز
8	الموافقة قرأت شفهياً للمشترك وتمت الموافقة	نعم 1 لا 2 إذا كانت لا، أنهي المقابلة	I5
9	وقت بدء المقابلة (24 ساعة)	ا_ا_ا : ا_ا_ا ساعة دقيقة	I7
10	لقب الاسرة:		I8
11	إسم الشخص المشترك:		I9
	معلومات اضافية للمساعدة		
12	رقم التليفون للاتصال حيث أمكن (المنزل/ الموبايل/ العمل):		I10

ملحوظة هامة : ورقة البيانات من سؤال **I10 -I5** تحتوي على معلومات شخصية خاصة لذلك وجب حفظها منفصلة عن باقي الإستبيان.

ANNEX ONE

رقم الاستمارة للشخص المشترك |_|_|_|_|_|_|_|_|_|_|

الخطوة الأولى معلومات سكانية

معلومات سكانية (أساسية)			
	الأسئلـة	الاستجابة	الترميز
13	حدد الجنس	ذكر 1 أنثى 2	C1
14	تاريخ الميلاد اذا كان الجواب لا أعرف ضع 7777 77 77	السنة |_|_|_|_| الشهر |_|_| اليوم |_|_| اذا كان معلوما اذهب إلى C4	C2
15	كم عمرك؟	سنوات |_|_|	C3
16	ما هوعدد السنوات الكلي التي قضيتها في الدراسة (ما عدا الحضانة)؟	سنوات |_|_|	C4

	معلومات سكانية (موسعة)	الاستجابة	الترميز
17	ما هو أعلى مستوى تعليمي وصلت اليه؟	لم يلتحق بأي مدرسة 1 لم يتم التعليم الابتدائى 2 شهادة الابتدائية 3 شهادة الاعدادية 4 شهادة الثانوية 5 شهادة جامعية 6 دراسات عليا 7 رفض الاجابه 88	C5
18	ماهي حالتك الاجتماعية	لم يتزوج 1 متزوج حاليا 2 مطلق 3 أرمل 4 رفض الاجابه 88	C7

رقم الاستمارة للشخص المشترك |_|_|_|_|_|_|_|_|_|_|

	معلومات سكانية (موسعة)	الاستجابة	الترميز
19	أي من الفئات الآتية يصف عملك الأساسي جيداً خلال الأشهر الاثني عشر الأخيرة؟	موظف حكومي 1 موظف قطاع خاص 2 صاحب العمل 3 بدون أجر 4 طالب 5 ربة منزل 6 متقاعد 7 عاطل (قادر على العمل) 8 عاجز (غير قادر على العمل) 9 مكتفي (لا يعمل ولا يبحث عن عمل 10 رفض الإجابة 88	C8
20	هل توجد صلة قرابة بين الأم والأب (الوالدين)؟	نعم 1 لا 2	X4

ANNEX ONE

رقم الاستمارة للشخص المشترك ____________

الخطوة الأولى البيانات السلوكية

إستهلاك التبغ (أساسية)

الآن سوف أطرح بعض الأسئلة حول بعض عاداتك ذات العلاقة بالصحة مثل التدخين، تناول الخضار و الفاكهة و النشاط الجسماني. لنبدء بالتدخين.

#	الأسئلـة	الاستجابة	الترميز
21	هل سبق أن دخنت أي نوع من منتجات التبغ مثل السجائر، السيجار، الغليون أو الشيشة أو المدواخ ؟ (استخدم كروت للتوضيح)	نعم 1 لا 2 إذا كان لا اذهب الى T 9a	T1a
22	هل تدخن حالياً السجائر، السيجار، الغليون أو الشيشة أو المدواخ ؟ (استخدم كروت للتوضيح)	نعم 1 لا 2 إذا كان لا اذهب الى T6	T1
23	اذا كان الجواب نعم، هل تدخنً أي من هذه المنتجات يومياً؟	نعم 1 لا 2 إذا كان لا اذهب إلى T6a	T2
24	كم كان عمرك عندما بدأت التدخين يومياً؟	العمر (السنوات) ___ 77 لا أعلم إذا كان معلوما، اذهب إلى T5a	T3
25	إذا كنت لا تذكر عمرك عندما بدأت بالتدخين فهل تتذكر المدة الزمنية التي استغرقتها منذ بدأت بالتدخين؟ (اختر إجابة واحدة فقط) 77 لا أعلم	سنوات مضت ___ إذا كان معلوما، إذهب إلى T5a	T4a
		او شهور مضت ___ إذا كان معلوما، إذهب إلى T5a	T4b
		او أسابيع مضت ___	T4c
26	ما هو معدل تدخينك اليومي لأي من هذه الأنواع ؟ (استخدم كروت للتوضيح) (سجل كل واحدة منها) 77 لا أعلم	سيجارة مصنعة ___	T5a
		سيجارة لف ___	T5b
		غليون ___	T5c
		سيجار – سيجار صغير ___	T5d
		شيشة ___	X5
		مدواخ ___	X6
		أنواع أخرى ___ إذا أخرى أذهب إلى T5other أو انتقل إلى T 6a	T5e
		اذكر ما هى الانواع ____________	T5other
27	في ألاثني عشر شهر الماضية هل سبق أن حاولت الإقلاع عن التدخين؟	نعم 1 لا 2	T6a
28	خلال زيارتك لأي طبيب أو غيره من الكادر الصحي في ألاثني عشر شهر الماضية هل تم تقديم نصيحة لك بالإقلاع عن تدخين التبغ؟	نعم 1 إذا كان T2 نعم اذهب إلى T 9a لا 2 إذا كان T2 نعم اذهب إلى T9a لا يوجد أي زيارة خلال ألاثني عشر السابقة شهرا السابقة 3 إذا كان T2 نعم اذهب إلى T 9a	T6b

رقم الاستمارة للشخص المشترك ____________

إستهلاك التبغ (أسئلة موسعة)

#	الأسئلـة	الاستجابة	الترميز
29	في الماضي، هل سبق أن دخنت يومياً؟	نعم 1 لا 2 إذا كان لا، اذهب إلى T9a	T6
30	كم كان عمرك عندما أقلعت عن التدخين يومياً؟	العمر (سنوات) ___ 77 لا أعلم إذا كان معلوما، إذهب إلى T9 a	T7
31	اذا لم تعرف كم كان عمرك عندما أقلعت عن التدخين، هل تتذكر الفترة الزمنية منذ إقلاعك عن التدخين؟ (اختر اجابة واحدة) لا أعلم77	سنوات مضت ___ إذا كان معلوما، إذهب إلى T9 a	T8a
		او شهور مضت ___ إذا كان معلوما، إذهب إلى T9 a	T8b
		او اسابيع مضت ___	T8c

إستهلاك التبغ (أسئلة موسعة ـ يتبع)

#	الأسئلـة	الاستجابة	الترميز
32	هل سبق أن استخدمت التبغ بدون دخان مثل (نشوق، سويكة، أو ما شابه)؟ استخدم كروت للتوضيح	نعم 1 لا 2 إذا كان لا، اذهب إلى سؤال T13	T9a
33	هل تستعمل حالياً التبغ بدون دخان مثل (نشوق، سويكة، او ما شابه)؟	نعم 1 لا 2 إذا كان لا، اذهب الى سؤال T12	T9
34	اذا كان الجواب نعم، هل تتناولها يوميا؟	نعم 1 لا 2 إذا كان لا، اذهب الى سؤال T12	T10
35	ما هو معدل استهلا كك اليومي لهذه الأنواع؟ (استخدم كروت للتوضيح) لا أعلم 77	نشوق بالفم ___	T11a
		نشوق بالانف ___	T11b
		تبغ ممضوغ ___	T11c
		سويكة ___	X7
		أنواع أخرى ___ *إذا أخرى اذهب إلى T11other ثم اذهب إلى T13*	T11e
		اذكر ما هى الأنواع ________ اذهب إلىT13	T11other
36	فى الماضى هل سبق ان تناولت أنواع التبغ بدون دخان مثل (نشوق، سويكة، أو ما شابه) بصفة يومية ؟	نعم 1 لا 2	T12
37	في خلال السبعة أيام الماضية كم عدد الأيام التي دخن فيها أحد من أسرتك في وجودك ؟	عدد الأيام ___ 77 لا أعلم	T13

رقم الاستمارة للشخص المشترك |_|_|_|_|_|_|_|_|_|_|_|

	الأسماك وثمار البحر	عدد الأيام لا أعلم 77	___	X8e
	لحم الدواجن/ الطيور	عدد الأيام لا أعلم 77	___	X8f
	لحم البقر، الضان /الغنم	عدد الأيام لا أعلم 77	___	X8g
	الحلويات مثل (شوكولا، كيك، حلويات عربية، بوظة)	عدد الأيام لا أعلم 77	___	X8h
	المشروبات المحلاة بالسكر مثل (مشروبات غازية غير دايت، مشروبات اصطناعية)	عدد الأيام لا أعلم 77	___	X8i
	العصائر الطبيعية	عدد الأيام لا أعلم 77	___	X8j
	الأطعمة السريعة أي الفاست فود التي اشتريتها من مطعم الوجبات السريعة مثل(برغر، دجاج مشوي، شاورما، بيتزا، بطاطا مقلية)	عدد الأيام لا أعلم 77	___	X8k

رقم الاستمارة للشخص المشترك |_|_|_|_|_|_|_|_|_|_|_|

38	في خلال السبعة أيام الماضية كم عدد الأيام التي دخن فيها أحد أثناء وجودك في مكان مغلق في جهة عملك ؟	عدد الأيام لا أعلم أو لا أعمل في مكان مغلق 77	___	T14

التغذية (أساسية)

الأسئلة التالية تتعلق بالخضروات والفواكه التي غالباً ما تتناولها. لدى هنا نماذج كاملة لبعض الخضروات والفواكه . كل صورة تمثل حجم الحصة المتناولة من هذه الأمثلة.

	الأسئلـــة	الاستجابة		الترميز
39	كم يوما في الأسبوع تتناول الفواكه ؟ (استخدم كروت للتوضيح)	عدد الأيام لا أعلم 77	___ إذا صفر اذهب إلىD3	D1
40	كم حصة فواكه تتناول في اليوم الواحد؟ (استخدم كروت للتوضيح)	عدد الحصص لا أعلم 77	___	D2
41	كم يوما في الأسبوع تتناول الخضروات ؟ (استخدم كروت للتوضيح)	عدد الأيام لا أعلم 77	___ إذا صفر اذهب إلىD5	D3
42	كم حصة خضروات تتناول في اليوم الواحد؟ (استخدم كروت للتوضيح)	عدد الحصص لا أعلم 77	___	D4

التغذية (موسعة)

43	ما نوع الزيت أو الدهن الأكثر استهلاكاً للطهي أو لإعداد الطعام في المنزل؟ اختر إجابة واحدة فقط (استخدم كروت للتوضيح)	زيت نباتي سمن نباتي زبدة سمن حيواني أنواع أخرى غير محدد لا استخدمها لا أعلم أخرى	1 2 3 4 5 اذا اخرى اذهب إلى D5other 6 7 77 ___	D5 D5other
44	في المتوسط كم عدد الوجبات التي تتناولها في الأسبوع غير المعدة بالمنزل؟ يقصد بالوجبة إفطار، غذاء، عشاء	عدد الوجبات لا أعلم 77	___	D6

التغذية (موسعة) – دولة قطر

45	كم يوما في الأسبوع تتناول أطعمة ومشروبات من الفئات التالية ؟ (استخدم كروت للتوضيح)			
	منتجات الحبوب الكاملة مثل (خبز أسمر، أرز مع القشرة (أسمر)، شوفان)	عدد الأيام لا أعلم 77	___	X8a
	منتجات الحبوب المكررة مثل (خبز أبيض، أرز أبيض، معكرونة)	عدد الأيام لا أعلم 77	___	X8b
	البقوليات مثل (فول، فاصوليا، عدس، حمص)	عدد الأيام لا أعلم 77	___	X8c
	الحليب ومشتقاته (حليب، أجبان، ألبان، بيض)	عدد الأيام لا أعلم 77	___	X8d

AN
NEXONE

رقم الاستمارة للشخص المشترك |_|_|_|_|_|_|_|_|

الأسئلـة		الاستجابة	الترميز
أنشطة بدنية ترفيهية أثناء وقت الفراغ			
ساقوم الآن بسوالك بعض الأسئلة عن النشاط البدني خلال وقت الفراغ و الاستجمام مثل ممارسة الرياضة أو الاستجمام. لا تتحدث عن الأنشطة الجسمانية المتعلقة بالعمل أو بالتنقلات.			
55	هل تقضي وقت الفراغ بنشاط شاق سواء كان للرياضة أو الثقافة البدنية أو النشاط الترفيهي تزيد منته عن عشرة دقائق مستمرة مثل (الجري أو كرة القدم) ؟ استخدم الأمثلة و النماذج التوضيحية(الكروت)	نعم 1 لا 2 إذا لا اذهب إلى P13	P10
56	كم يوماً في الأسبوع الواحد تقوم بنشاط بدني شاق كجزء من وقت فراغك كالجري أو رفع الأثقال أو القيام بأي رياضة شديدة؟	عدد الايام ___	P11
57	كم من الوقت في اليوم تقوم بنشاط بدني شاق أثناء وقت الفراغ؟	دقيقة ساعة ___ : ___ دقيقة ساعة	P12 (a-b)
58	هل يشمل وقت فراغك القيام بأنشطة بدنية متوسطة الجهد، لمدة عشر دقائق على الأقل في المرة الواحدة مثل(المشي السريع ، السباحة، كرة اليد، ركوب الدراجة أو حمل أشياء خفيفة الوزن) ؟ استخدم الأمثلة والنماذج التوضيحية(الكروت)	نعم 1 لا 2 إذا لا اذهب إلى P16	P13
59	كم يوماً في الأسبوع تقوم بأنشطة بدنية متوسطة أثناء وقت الفراغ؟	عدد الايام ___	P14
60	كم من الوقت في اليوم الواحد تقوم بنشاط بدني متوسط أثناء وقت الفراغ؟	دقيقة ساعة ___ : ___ دقيقة ساعة	P15 (a-b)
النشاط البدني (موسعة)			
سلوكيات الخمول البدني			
الأسئلة التالية تتعلق بوضع الجلوس أو الاستلقاء عند العمل أو في البيت أو مع الأصدقاء و هي تشمل الوقت المنقضي في الجلوس، السفر بالسيارة، بالباص، القراءة أو مشاهدة التلفزيون لكن لا تشمل أوقات النوم.			
61	في الاسبوع الماضي كم من الوقت أمضيت جالساً أو مستلقياً في اليوم الواحد (ما عدا أوقات النوم) ؟	دقيقة ساعة ___ : ___ دقيقة ساعة	P16 (a-b)
62	ما هو إجمالي عدد ساعات العمل اليومية في أسبوع العمل ؟	عدد الساعات ___	X9

رقم الاستمارة للشخص المشترك |_|_|_|_|_|_|_|_|

الأسئلـة		الاستجابة	الترميز
النشاط البدني (اساسية)			
والآن سوف أسألك عن النشاط البدني الذي تبذله خلال الأسبوع والوقت الذي تمضيه بممارسة أنواع مختلفة من النشاط البدني. أرجو الإجابة على هذه الأسئلة حتى لو تعتقد انك لا تقوم بأي نشاط بدني فكر أولا بالنشاط البدني أثناء العمل سواء أكان بأجر أو بدون أجر. أو أعمال منزلية. (أدخل أمثلة أخرى إذا دعت الحاجة) في حالة الإجابة على الأسئلة التالية يمكن تعريف الأعمال التي تتطلب نشاط بدني شاق على أنها أعمال تتطلب بذل الجهد ويترتب عليه زيادة كبيرة بالتنفس أو بضربات القلب. أما النشاط البدني المتوسط فهو النشاط الذي يترتب عليه زيادة بسيطة بالتنفس أو بضربات القلب.			
النشاط البدني في محيط العمل			
46	هل طبيعة عملك تتطلب بذل نشاطا بدنيا شاقا لمدة 10 دقائق مستمرة على الأقل ويسبب زيادة كبيرة في التنفس وتسارع ضربات القلب مثل (حمل أشياء ثقيلة، الحفر، أعمال المباني) ؟	نعم 1 لا 2 إذا لا اذهب إلى P4	P1
47	كم يوما في الأسبوع تقوم بنشاط شاق كجزء من عملك؟	عدد الأيام ___	P2
48	كم من الوقت في اليوم الواحد تقوم بنشاط شاق اثناء العمل؟	دقيقة ساعة ___ : ___ دقيقة ساعة	P3 (a-b)
49	هل طبيعة عملك تتطلب أنشطة متوسطة الجهد التي تسبب زيادة بسيطة في التنفس ونبضات القلب مثل (المشي السريع، حمل أشياء خفيفة الوزن) لمدة عشر دقائق مستمرة على الأقل ؟	نعم 1 لا 2 إذا لا اذهب إلى P7	P4
50	كم يوم من أيام الأسبوع تقوم بنشاط بدني متوسط كجزء من عملك ؟	عدد الأيام ___	P5
51	كم من الوقت في اليوم الواحد تقوم بنشاط بدني متوسط كجزء من عملك ؟	دقيقة ساعة ___ : ___ دقيقة ساعة	P6 (a-b)
النشاط البدني أثناء التنقل ما بين الاماكن المختلفة			
سأقوم الآن بسوالك عن النشاط البدني خارج أوقات العمل (مثل الذهاب للمسجد أو للتسوق ...الخ)			
52	هل تسير على الأقدام من وإلى أماكن معينة لمدة عشر دقائق مستمرة على الأقل ؟	نعم 1 لا 2 إذا لا اذهب إلى P10	P7
53	كم يوماً في الأسبوع تسير على الاقدام لمدة عشر دقائق مستمرة على الأقل من و إلى أماكن معينة ؟	عدد الأيام ___	P8
54	كم من الوقت تسير على الأقدام للتنقل في اليوم الواحد؟	دقيقة ساعة ___ : ___ دقيقة ساعة	P9 (a-b)

ANNEX ONE

رقم الاستمارة للشخص المشترك

سابقة السكري (اساسية)			
الأسئلة		الاستجابة	الترميز
70	هل سبق أن قام طبيب أو أحد أفراد الكادر الطبي بقياس نسبة السكر في دمك ؟	نعم 1 لا 2 إذا لا اذهب إلى X13	H6
71	هل سبق أن أخبرك الطبيب أو أحد أفراد الكادر الطبي أنك مصاب بمرض السكري أو ارتفاع السكر بالدم؟	نعم 1 لا 2 إذا لا اذهب إلى X13	H7a
72	هل سبق ان اخبرت بذلك في الاثني عشر شهرا السابقة	نعم 1 لا 2	H7b

سابقة السكري (موسعة)			
	هل تتلقى حاليا علاجات من قبل الطبيب أو نصائح من قبل الطبيب أو أحد أفراد الكادر الطبي لمرض السكري؟		
73	الانسولين؟	نعم 1 لا 2	H8a
	أدوية عن طريق الفم خاصة خلال الأسبوعين الأخيرين؟	نعم 1 لا 2	H8b
	حمية غذائية خاصة؟	نعم 1 لا 2	H8c
	نصيحة أو علاج لتخفيف الوزن؟	نعم 1 لا 2	H8d
	نصيحة أو علاج للإقلاع عن التدخين؟	نعم 1 لا 2	H8e
	نصيحة للبدء أو لزيادة النشاط البدني؟	نعم 1 لا 2	H8f
74	هل سبق لك أن راجعت معالجاً في الطب التقليدي (الشعبي) لمعالجة السكري؟	نعم 1 لا 2	H9
75	هل تتناول حالياً أي من علاجات الأعشاب أو علاجات تقليدية للسكري ؟	نعم 1 لا 2	H10
76	هل تقوم بتحليل السكر بالدم في المنزل؟	نعم 1 لا 2	X11
77	هل تقوم بزيارة عيادة السكري أو طبيبك المعالج لمرض السكري بصورة منتظمة ؟	نعم 1 لا 2	X12
78	هل يوجد تاريخ مرضي أو هل يعاني أحد من أهلك (الوالد أو الوالدة أو الأخوة أوالاخوات أو الأولاد) من مرض السكري؟	نعم 1 لا 2	X13

رقم الاستمارة للشخص المشترك

سابقة ارتفاع ضغط الدم (أساسية)			
الأسئلة		الاستجابة	الترميز
63	هل سبق ان تم قياس ضغط دمك من قبل طبيب أو أحد أفراد الكادر الطبي ؟	نعم 1 لا 2 اذا لا اذهب الى X10	H1
64	هل سبق ان أخبرك الطبيب أو أحد أفراد الكادر الطبي أنك مصاب بارتفاع ضغط الدم ؟	نعم 1 لا 2 اذا لا اذهب الى X10	H2a
65	هل سبق ان اخبرت بذلك في الاثني عشر شهرا السابقة	نعم 1 لا 2	H2b

سابقة إرتفاع ضغط الدم (موسعة)			
	هل تتناول حاليا أي علاجات وصفت لك من قبل الطبيب أو أعطيت لك نصائح من قبل الطبيب أو أو أحد أفراد الكادر الطبي لعلاج ضغط الدم؟		
66	أدوية أخذتها خلال الأسبوعين الأخيرين؟	نعم 1 لا 2	H3a
	نصيحة بتقليل ملح الطعام	نعم 1 لا 2	H3b
	نصيحة أو علاج لتخفيف الوزن	نعم 1 لا 2	H3c
	نصيحة أو علاج للإقلاع عن التدخين	نعم 1 لا 2	H3d
	نصيحة للبدء او لزيادة النشاط البدني	نعم 1 لا 2	H3e
67	هل سبق لك ان قابلت معالجاً تقليديا (شعبيا) لمعالجة إرتفاع ضغط الدم؟	نعم 1 لا 2	H4
68	هل تتناول حالياً أي من علاجات الأعشاب أو من العلاجات التقليدية لإرتفاع ضغط الدم؟	نعم 1 لا 2	H5
69	هل يوجد تاريخ مرضي أو هل يعاني أحد من أهلك (الوالد أو الوالدة أو الأخوة أو الاخوات) من مرض إرتفاع ضغط الدم؟	نعم 1 لا 2	X10

AN
NEXONE

رقم الاستمارة للشخص المشترك ا ا ا ا ا ا ا ا ا ا ا ا

		مرة أسبوعيا	4		
		2–6 مرات أسبوعيا	5		
		مرة يوميا	6		
		مرتين أو أكثر يوميا	7		
88	هل تستخدم معجون أسنان لتنظيف أسنانك؟	نعم	1	إذا لا ، الرجاء الانتقال للسوال رقم O12a	O10
		لا	2		
89	هل تستخدم معجون أسنان يحتوي على فلورايد؟	نعم	1		O11
		لا	2		
		لا أعلم	77		
90	هل تستخدم أي من الأدوات التالية في تنظيف أسنانك؟ (سجل لكل منها)				
	الفرشاة	نعم	1		O12a
		لا	2		
	خلة الأسنان الخشبية	نعم	1		O12b
		لا	2		
	خلة الأسنان البلاستيكية	نعم	1		O12c
		لا	2		
	خيط (خيوط تنظيف)	نعم	1		O12d
		لا	2		
	المسواك	نعم	1		O12 f
		لا	2		
	أخرى	نعم	1	في حالة نعم، الرجاء الانتقال للسوال O12 أخرى	O12g
		لا	2		
	أخرى (الرجاء تحديد ذلك) ————————				O12 other
	هل واجهت أي من المشاكل التالية خلال الاثني عشر شهراً الماضية بسبب حالة أسنانك؟ (سجّل لكل منها)				
91	صعوبة في مضغ الطعام	نعم	1		O13a
		لا	2		
	صعوبة في التحدث/مشكلة في نطق الكلمات	نعم	1		O13b
		لا	2		
	الخجل من شكل الأسنان	نعم	1		O13 d
		لا	2		
	تجنب الابتسامة بسبب الأسنان	نعم	1		O13e
		لا	2		
	تقطع النوم بعض الأحيان	نعم	1		O13f
		لا	2		
	غياب أيام عن العمل بسبب الأسنان أو الفم	نعم	1		O13g
		لا	2		
	صعوبة أداء الأنشطة المعتادة	نعم	1		O13h
		لا	2		
	مشاركة أقل في الأنشطة الاجتماعية	نعم	1		O13j
		لا	2		

رقم الاستمارة للشخص المشترك ا ا ا ا ا ا ا ا ا ا ا ا

صحة الفم والأسنان(أساسية)

تستفسر الأسئلة التالية عن وضع صحة الفم والأسنان لديك والسلوكيات المرتبطة بها.

الأسئلة		الاستجابة			الترميز
79	كم عدد الأسنان الطبيعية لديك؟	لا توجد أسنان طبيعية	1	في حالة عدم وجود أسنان طبيعية، الرجاء الانتقال للسوال رقم O3	O1
		1 إلى 9	2		
		10 إلى 19	3		
		20 أو أكثر	4		
		لا أعرف	77		
80	كيف تصف حالة أسنانك؟	ممتازة	1		O2
		جيدة جدا	2		
		جيدة	3		
		متوسطة	4		
		سيئة	5		
		سيئة جدا	6		
		لا أعرف	77		
81	كيف تصف حالة اللثة لديك؟	ممتازة	1		O3
		جيدة جدا	2		
		جيدة	3		
		متوسطة	4		
		سيئة	5		
		سيئة جداً	6		
		لا أعرف	77		
82	هل لديك تركيبات أسنان متحركة ؟	نعم	1	إذا لا ، الرجاء الانتقال للسوال O6	O4
		لا	2		
83	أي نوع من أنواع تركيبات الأسنان المتحركة لديك؟ (سجل خاص بكل منها)				
	تركيبات أسنان متحركة بالفك الأعلى	نعم	1		O5a
		لا	2		
	تركيبات أسنان متحركة بالفك الأسفل	نعم	1		O5b
		لا	2		
84	هل سببت لك أسنانك، خلال الاثنا عشر شهراً الماضية، أي ألم أو إزعاج أو عدم راحة؟	نعم	1		O6
		لا	2		
85	كم من الوقت مر منذ قمت بزيارة طبيب الأسنان آخر مرة؟	أقل من سنة أشهر	1	إن لم تزر طبيب أسنان قط، الرجاء الانتقال للسوال O9	O7
		من 6 إلى 12 شهرا	2		
		أكثر من عام وأقل من عامين	3		
		عامين أو أكثر حتى خمسة أعوام	4		
		خمسة أعوام أو أكثر	5		
		لم أزر طبيب الأسنان مطلقاً	6		
86	ما السبب الرئيسي لزيارتك الأخيرة لطبيب الأسنان؟	استشارة/مشورة	1	في حالة وجود سبب آخر، الرجاء الانتقال للسوال O8 آخر	O8
		الشعور بألم أو مشكلة في الأسنان أو اللثة أو الفم	2		
		العلاج/متابعة العلاج	3		
		علاج أو فحص روتيني	4		
		سبب آخر	5		
		سبب آخر (يرجاء تحديده) ————————			O8 other
87	كم مرة تنظف أسنانك؟	لا أنظفها	1	في حالة عدم التنظيف، الرجاء الانتقال للسوال رقم O13a	O9
		مرة شهريا	2		
		مرتين–ثلاث مرات شهريا	3		

رقم الاستمارة للشخص المشترك ا ا ا ا ا ا ا ا ا ا ا ا

98	أين كنت عندما لحقت بك هذه الإصابة؟	المنزل	1	V7
		المدرسة	2	
		العمل	3	
		الطريق/الشارع/الطريق السريع	4	
		المزرعة	5	
		منطقة للرياضة وألعاب القوى	6	
		اخرى (الرجاء التحديد)	7	
		لا أعرف	77	
		أرفض الإجابة	88	
		أخرى (الرجاء التحديد) ————————		V7 other

رقم الاستمارة للشخص المشترك ا ا ا ا ا ا ا ا ا ا ا ا

الإصابات (اساسية):

تستفسر الأسئلة التالية عن التجارب والسلوكيات المختلفة المرتبطة بإصابات التصادمات على الطرق.

السؤال		الاستجابة		التزميز
92	خلال الثلاثين يوماً الماضية، كم مرة ارتديت حزام الأمان عند قيادتك أو ركوبك السيارة؟	جميع الأحيان	1	V1
		بعض الأحيان	2	
		لم أرتده مطلقاً	3	
		لم أقد أو أركب سيارة خلال الثلاثين يوماً الماضية	4	
		لا يوجد حزام أمان في السيارة التي أركبها عادة	5	
		لا أعرف	77	
		أرفض الإجابة	88	
93	خلال الثلاثين يوماً الماضية، كم مرة ارتديت خوذة الأمان عند قيادتك أو ركوبك دراجة بخارية أو نارية؟	جميع الأحيان	1	V2
		بعض الأحيان	2	
		لم أرتدها مطلقاً	3	
		لم أقد أو أركب دراجة بخارية أو نارية خلال الثلاثين يوماً الماضية	4	
		ليس لدي خوذة	5	
		لا أعرف	77	
		أرفض الإجابة	88	
94	خلال الاثني عشر شهراً الماضية، هل تعرضت لتصادم مروري سواء كنت قائداً لمركبة أو راكباً أو مترجلاً أو راكباً لدراجة؟	نعم (كسائق)	1	V3
		نعم (كراكب)	2	
		نعم (كمترجل)	3	
		نعم (كراكب دراجة)	4	
		لا	5	في حالة لا، انتقل للسؤال V5
		لا أعرف	77	في حالة عدم المعرفة، انتقل للسؤال V5
		أرفض الإجابة	88	في حالة الرفض، ، انتقل للسؤال V5
95	هل لحقت بك أي إصابة في هذا التصادم المروري تطلب رعاية طبية؟	نعم	1	V4
		لا	2	
		لا أعرف	77	
		أرفض الإجابة	88	

تستفسر الأسئلة التالية عن أخطر إصابة ناتجة عن حادث عانيت منه خلال الاثني عشر شهراً الماضية؟

96	خلال الاثني عشر شهراً الماضية، هل لحقت بك إصابة في حادث بخلاف تصادمات الطرق تطلبت رعاية طبية؟	نعم	1	V5
		لا	2	في حالة لا، انتقل للسؤال M1
		لا أعرف	77	في حالة عدم المعرفة، انتقل للسؤال M1
		أرفض الإجابة	88	في حالة الرفض، ، انتقل للسؤال M1
97	الرجاء توضيح أي من الأمور التالية كان السبب في الإصابة؟	السقوط	1	V6
		الحريق	2	
		التسمّم	3	
		قطع	4	
		الغرق الوشيك	5	
		عضة حيوان	6	
		اخرى (الرجاء التحديد)	7	
		لا أعرف	77	
		أرفض الإجابة	88	
		أخرى (الرجاء التحديد) ————————		V6 other

AN
NEXONE

رقم الاستمارة للشخص المشترك |_|_|_|_|_|_|_|_|_|_|

الخطوة الثالثة: المقاييس الحيوية

	السكر في الدم (اساسى)	الاستجابة	الترميز
114	هل أكلت أو شربت شيئاً غير الماء خلال ال 12 ساعة الماضية؟	نعم 1 لا 2	B1
115	رمز الفاحص	|_|_|_|	B2
116	رمز جهاز الفحص	|_|_|_|	B3
117	وقت سحب عينة الدم	|_|_| : |_|_| دقيقة ساعة	B4
118	نسبة السكر في الدم في حالة الصيام	مل جرام/دس لتر |_|_|.|_|_|_|	B5
119	اليوم هل اخذت انسولين أو أي علاج للسكر وصفه لك الطبيب لخفض معدل السكر بالدم؟	نعم 1 لا 2	B6
	الدهنيات في الدم (اساسية)		
120	رمز جهاز الفحص	|_|_|_|	B7
121	إجمالي الكوليستيرول	مل جرام/دس لتر |_|_|.|_|_|_|	B8
122	في خلال الاسبوعين السابقين هل اخذت اي علاج لخفض الكوليستيرول بالدم وصف لك من قبل الطبيب	نعم 1 لا 2	B9
	الدهون الثلاثية و الدهون العالية الكثافة والقليلة الكثافة (موسعة)		
123	الدهون الثلاثية	مل جرام/دس لتر |_|_|.|_|_|_|	B10
124	الدهون ذات الكثافة العالية	مل جرام/دس لتر |_|_|.|_|_|_|	B11
125	الدهون ذات الكثافة القليلة	مل جرام/دس لتر |_|_|.|_|_|_|	X14

منظمة الصحة العالمية

رقم الاستمارة للشخص المشترك |_|_|_|_|_|_|_|_|_|_|

الخطوة الثانية المقاييس البدنية

	الطول و الوزن (أساسى)	الاستجابة	الترميز
99	رقم الباحث الميدانى	|_|_|_|	M1
100	رمز جهاز الطول و الوزن	الطول |_|_| الوزن |_|_|	M2a M2b
101	طول الشخص المشترك	الطول (سم) |_|_|.|_|_|	M3
102	وزن الشخص المشترك في حال الوزن الزائد عن المقياس ادخل رمز 666.6	الوزن (كجم) |_|_|.|_|_|	M4
103	للنساء فقط: هل أنت حامل؟	نعم 1 إذا نعم اذهب إلى M8 لا 2	M5
	الخصر ((أساسي)		
104	رمز جهاز قياس محيط الخصر	|_|_|_|	M6
105	محيط الخصر	الطول (سم) |_|_|.|_|_|	M7
	قياس ضغط الدم ((أساسي)		
106	رقم الباحث الميدانى	|_|_|_|	M8
107	رمز جهاز قياس الضغط	|_|_|_|	M9
108	قياس عرض رباط جهاز الضغط المستعمل	معياري 1 كبير 2	M10
109	قراءة أولى	الضغط الانقباضى (ملم زئبقى) |_|_|_| الضغط الانبساطى (ملم زئبقى) |_|_|_|	M11a M11b
110	قراءة ثانية	الضغط الانقباضى (ملم زئبقى) |_|_|_| الضغط الانبساطى (ملم زئبقى) |_|_|_|	M12a M12b
111	قراءة ثالثة	الضغط الانقباضى (ملم زئبقى) |_|_|_| الضغط الانبساطى (ملم زئبقى) |_|_|_|	M13a M13b
112	خلال الاسبوعين السابقين هل تناولت علاجاً بالأدوية وصفه لك الطبيب؟	نعم 1 لا 2	M14
	قياس محيط الورك (موسعة)		
113	محيط الورك (الارداف)	الطول (سم) |_|_|.|_|_|	M15

المجلس الأعلى للصحة
Supreme Council Of Health

دولة قطر
State Of Qatar

Guide to Physical and Biochemical Measurements

Physical Measurements Overview

In this documents you will learn:

- What the physical measures are and what they mean
- What equipment you will need
- How to assemble and use the equipment
- How to take physical and blood pressure measurements and accurately record the results.

Physical Measurements

Prior to taking physical measurements, explain that you will be taking the following measurements:

- Blood pressure
- Height
- Weight
- Waist circumference
- Hip circumference
- Blood pressure is taken from the participants to determine the proportion of the population with raised blood pressure.
- Height and weight measurements are taken to calculate body mass index (BMI) that is used to determine the prevalence of overweight and obesity in the population.
- Waist and hip measurements are taken to provide additional information on overweight and obesity;and to calculate waist to hip ratio (W/h)

Sequence of tests

In most sites, the physical measurements (Step 2) are done immediately after the behavioral measurements (Step 1). Since the participant must have rested for 15 minutes before the blood pressure measurement, it is most convenient to start the Step (2) measurements with **blood pressure** as the participant will have already been sitting for the duration of the interview.

The Step 2 measurements should hence be taken from the participant in the following order:

1. Blood pressure (and heart rate, if measured)
2. Height
3. Weight
4. Waist circumference
5. Hip circumference

Equipment required for tests

The equipment you will need for taking physical measurements include:

- blood pressure monitor and appropriate cuff sizes;
- height measuring board;
- weighing scales;
- Tape measure;

Privacy

Where possible, all physical measurements should be conducted in a private area. In some settings, a separate room in the household may be set up with the necessary equipment to take each measurement. Where this is not possible, a separate area should be screened off to provide privacy for waist & hip circumference measurements. Allow the participant to select the degree of privacy.

ANNEXTWO

When to take physical measurements and record results

It is recommended that physical measurements are taken immediately after the Step 1 interview. Results of Step 2 measures are to be recorded on the same participant instruments.

Taking Blood Pressure

Equipment

To take blood pressure you will need the following:

- Digital automatic blood pressure monitor, e.g. OMRON
- Appropriate size cuffs.

Preparing the participant

Ask the participant to sit quietly and rest for 15 minutes with his/her legs uncrossed. If physical measurements (Step 2) are done immediately after the behavioral measurements (Step 1), as recommended, the participant have already been seated for at least 15 minutes, and the blood pressure measurements can be done immediately after finishing the Step 1 questions.

Three blood pressure measurements should be taken. During data analysis the **mean** of the **second and third readings** will be calculated. The participant will rest for three minutes between each of the readings.

Recording the blood pressure measurements

For recording the results of the blood pressure measurements, do the following:

- Record you're Interviewer ID (if not already filled in) in the participant's instrument.
- After each of the three measurements, record the results in the participant's instrument;
- Check that all readings are correctly filled in the instrument;
- Inform the participant on the blood pressure readings only after the whole process is completed.

Guide to Physical and Biochemical Measurements

OMRON procedure

The instructions below apply to the use of an OMRON blood pressure monitor. However, more detailed operating instructions are included with the device and should be reviewed before taking any blood pressure measurements.

Note that in case you use a different digital automatic blood pressure monitor, you should also read the instructions for the according machine carefully.

Applying the OMRON cuff

You should follow the steps below to select an appropriate size and apply the cuff:

1. Place the left arm* of the participant on the table with the palm facing upward.
2. Remove or roll up clothing on the arm.
3. Select the appropriate cuff size for the participant, using the following table:

Cuff Size	Arm Circumference (cm)
Medium (M)	22-32 cm
Large (L)	> 32 cm

4. Put the cuff above the elbow aligning the mark ART on the cuff with the brachial artery. The lower edge of the cuff should be placed 1.2 to 2.5 cm above the inner side of the elbow joint.
5. Wrap the cuff onto the arm.
6. Keep the level of the cuff at the same level as the heart during measurement.
7. If the right arm is used, note this in the right hand side margin on the participant's Instrument.

Follow the instructions below to take the blood pressure measurement with an OMRON:

1. Switch the monitor on and press START/STOP button.
2. The monitor will start measuring when it detects the pulse and the "heart" symbol will begin to flash. The systolic and diastolic blood pressure readings should be displayed within a few moments (systolic above and diastolic below).

3. Record the reading in the participant's instrument.
4. Switch the monitor off, but leave the cuff in place.
5. Wait three minutes and then repeat steps 1-4 two more times.

Measuring Height

The height of eligible participants is taken to help calculate their body mass index (BMI), which is their weight relative to their height, and therefore to determine the prevalence of overweight and obese people in the population.

Equipment

To measure height, you need a portable height/length measuring board. Follow the steps below to assemble the measuring board:

1. Separate the pieces of board (usually 3 pieces) by unscrewing the knot at the back
2. Assemble the pieces by attaching each one on top of the other in the correct order.
3. Lock the latches in the back.
4. Position the board on a firm surface against a wall.

Procedures

Follow the steps below to measure the height of a participant:

1. Ask the participant to remove their:
   - Footwear (shoes, slippers, sandals, etc)
   - Head gear (hat, cap, hair bows, comb, ribbons, etc).
   - The measurement may be taken over light fabric.
2. Ask the participant to stand on the board facing you.
3. Ask the participant to stand with:
   - Feet together
   - Heels against the back board
   - Knees straight.

4. Ask the participant to look straight ahead and not tilt their head up.
5. Make sure eyes are the same level as the ears.
6. Move the measure arm gently down onto the head of the participant and ask the participant to breathe in and stand tall.
7. Read the height in centimeters at the exact point.
8. Ask the participant to step away from the measuring board.
9. Record the height measurement in centimeters in the participant's Instrument.
10. Record your Technician ID code in the space provided in the participant's instrument & the ID of the scale.

Measuring Weight

The weight of eligible participants is taken to help determine their body mass index (BMI).

Equipment

To measure weight, you will need the following equipment:

1. Portable electronic weighing scale.
2. Do not place the scales on:
   - Carpet.
   - a sloping surface
   - a rough, uneven surface

Make sure the scales are placed on a firm, flat surface.

Electronic scales

Follow the steps below to put electronic scale into operation:

1. Put the scale on a firm, flat surface.
2. Turn on the scale.
4 .Switch the scale on and wait until the display shows 0.0.

ANNEX TWO

Procedures

Follow the steps below to measure the weight of a participant:

1. Ask the participant to remove their footwear (shoes, slippers sandals, etc) and socks.
2. Ask the participant to step onto scale with one foot on each side of the scale.

3 .Ask the participant to:

- Stand still
- Face forward
- Place arms on the side and
- Wait until asked to step off.

4. Record the weight in kilograms on the participant's instrument.

Measuring Waist & Hip Circumference

Waist circumference measurements are also taken to provide additional information on overweight and obesity; it is an approximate index of intra-abdominal fat mass and total body fat

Equipment

To take waist circumference measurements you will need a:

- Constant tension tape (for example, Figure Finder Tape Measure)

Privacy

A private area is necessary for this measurement. This could be a separate room, or an area that has been screened off from other people within the household.

Preparing the participant

This measurement should be taken over light clothing. It must not be taken over thick or bulky clothing.

Guide to Physical and Biochemical Measurements

How to take the waist measurement

This measurement should be taken:

- At the end of a normal expiration;
- with the arms relaxed at the sides;
- At the midpoint between the lower margin of the last palpable rib and the top of the iliac crest (hip bone).

Procedure

Follow the steps below to measure the waist circumference of a participant:

1. Standing to the side of the participant, locate the last palpable rib and the top of the hip bone. You may ask the participant to assist you in locating these points on their body.

2. Ask the participant to wrap the tension tape around themselves and then position the tape at the midpoint of the last palpable rib and the top of the hip bone, making sure to wrap the tape over the same spot on the opposite side.

3. Check that the tape is horizontal across the back and front of the participant and as parallel with the floor as possible.

4. Ask the participant to:

- stand with their feet together with weight evenly distributed across both feet;
- hold the arms in a relaxed position at the sides;
- Breathe normally for a few breaths, and then make a normal expiration.

5. Measure waist circumference and read the measurement at the level of the tape to the nearest 0.1 cm, making sure to keep the measuring tape snug but not tight enough to cause compression of the skin; (Measure only once)

6. Record the measurement on the participant's Instrument.

How to take the Hip measurement

This measurement should be taken:

- with the arms relaxed at the sides
- at the maximum circumference over the buttocks

Procedure:

Follow the steps below to take hip circumference measurements.

- Stand to the side of the participant, and ask them to help wrap the tape around themselves.
- Position the measuring tape around the maximum circumference of the buttocks
- Ask the participant to:

1. stand with their feet together with weight evenly distributed over both feet;
2. hold their arms relaxed at the sides.

- Check that the tape position is horizontal all around the body and snug without constricting
- Measure hip circumference and read the measurement at the level of the tape to the nearest 0.1 cm.
- Measure only once and record the measurement on the participant's instrument

Biochemical Measurements:

In this module, you will learn:

- What the biochemical measures are and what they mean
- The fasting process and instructions for participants
- What equipment you will need
- How to take biochemical measurements
- How to record the results.

The participant ID should already be filled in on the Step 3 results page of the instrument.

Blood Collection

Blood samples are taken from eligible participants to be used to perform simple tests to measure blood glucose and blood lipids.

Dry chemistry means that blood is taken from the fingertip.

Infection control

Follow the infection control procedures appropriate for your facility. Whole blood is more infective with regard to blood borne disease than centrifuged serum or plasma. There may be an increased risk in handling whole blood and universal precautions should be adopted.

Participant fasting requirements

To obtain accurate results, ensure that the participant DOES NOT have anything to eat or drink including chewing gum (except plain water) for at least 12 hours BEFORE blood collection. This means that if participants' blood samples are to be taken in the morning, this means they must not to eat or drink anything (except plain water) from about 8 pm the night before the appointment.

Participants must fast for at least 12 hours before blood collection. Most blood samples are to be taken in the morning.

Note for diabetics:

If the participant has diabetes controlled with tablets and/or insulin, he / she should AVOID taking these on the morning of his appointment, but takes them after testing is completed. The participants could take any other morning medications as usual.

Preparing the Participant

After greeting the participant, and asking him to take a seat, follow the steps below to prepare the participant for a blood test:

Ask the fasting question (first question on the instrument under Step 3) and circle the answer.

If the participant has not fasted correctly, then:

- Note "fasting default" on the participant's instrument;
- Explain that to get accurate results participants need to fast for a minimum of 12 hours;
- Ask if they would try fasting again and have a blood test on the following day.

If the participant agrees then:

- Give the participant an appointment time and fasting instructions;
- Inform the supervisor.

ANNEXTWO

If the participant has fasted correctly; then explain to the participant that:

1. Blood is going to be collected from a small prick on the finger;
2. Tests will be done on fasting:
   - Blood sugar,
   - Cholesterol and HDL Cholesterol
   - Triglycerides.

Cholesterol Measurement

Blood cholesterol tests are taken to measure total cholesterol and HDL cholesterol levels.

Equipment required

Dry chemistry equipment and supplies required for cholesterol measurements include:

- Cholesterol measuring device (such as: cardio check)
- Test strips;
- Lancet;
- Cotton balls;
- Sterile swabs;
- Gloves;
- Disposable container.

Preparing the device

You should read the instructions provided with the device carefully and follow the appropriate device instructions to set up, prepare and use the meter for cholesterol tests.

Cholesterol measurement procedure

Follow the steps below to take cholesterol measurements and record the results:

1. Put on gloves.
2. Remove a test strip.

Guide to Physical and Biochemical Measurements

3. Rub a fingertip to help withdraw blood (rub the side of the participant's finger closest to the thumb).
4. Wipe or swab the fingertip by using a sterile swab.
5. Lance the massaged place on the fingertip with lancing device.
6. Allow a hanging blood drop to form without applying too much pressure.
7. Carefully apply the drop of blood to the test field on top of the strip without touching the test field directly to the finger.

Note:

The test field must be completely covered with blood. If too little blood is applied, do not rub it in or apply a second drop, but repeat the measurement with a fresh test strip.

8. Give the participant a cotton ball to press on the puncture.
9. Put the test strip into the machine.
10. Wait for the measurement to be displayed (after a series of beeps followed by longer beep). The blood cholesterol results are usually displayed in mg/dl.
11. Record the results of the blood cholesterol reading in the participant's instrument and in the Participant Feedback Form (Step 3). Also tick the corresponding box on this form.
12. Record Device ID, and answer to medication question in the participant's instrument.

Triglyceride Measurement

Triglyceride test is taken to measure the fasting levels of natural fats in the bloodstream.

Triglyceride measurement procedure

The strip of cholesterol measurements will measure the Triglyceride level at the same time.

The triglyceride results are usually displayed in mg/dl. Record the results of the triglyceride reading in the participant's instrument and in the Participant Feedback Form (Step 3). Also tick the corresponding box on this form

Blood Glucose Measurement

Blood sugar tests are taken to measure raised blood sugar levels which are a risk factor for diabetes.

Equipment required

Dry chemistry equipment and supplies required for glucose measurements include:

- Cholesterol measuring device (such as: cardio check) is also used for blood glucose measurement;
- Test strips (different strip from Cholesterol one)

Preparing the device

Follow the appropriate device instructions to set up, prepare and use the meter for blood glucose tests.

Blood glucose measurement procedure

You should also read the instructions provided with the device carefully and you should:

- Follow the same steps of cholesterol measurements.
- Record the results of the fasting blood sugar reading in the participant's instrument and in the Participant Feedback Form (Step 3). Also tick the corresponding box on this form.
- Record Technician ID, Device ID, time of day and answer to medication question in the participant's instrument.

ANNEX THREE

التبـــــــغ

سيجارة مصنعة

شيشة

سيجارة لف

غليون

سيجار

١

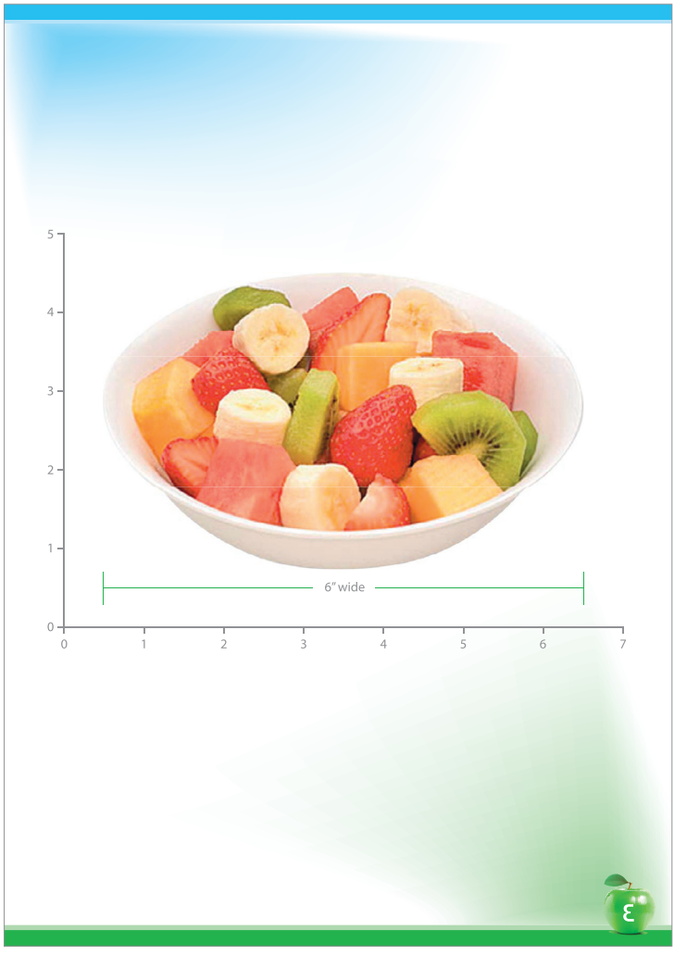
سويكة

نشوق

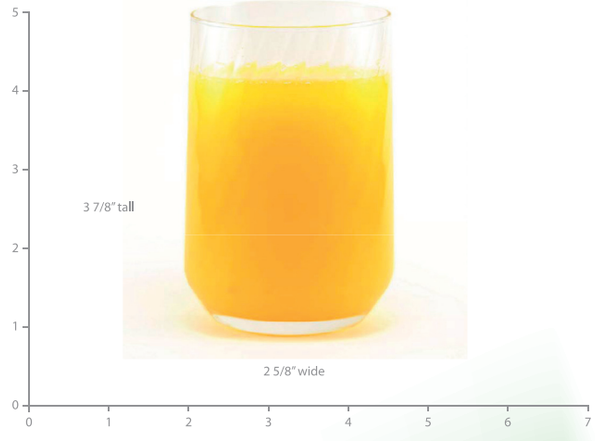
مدواخ

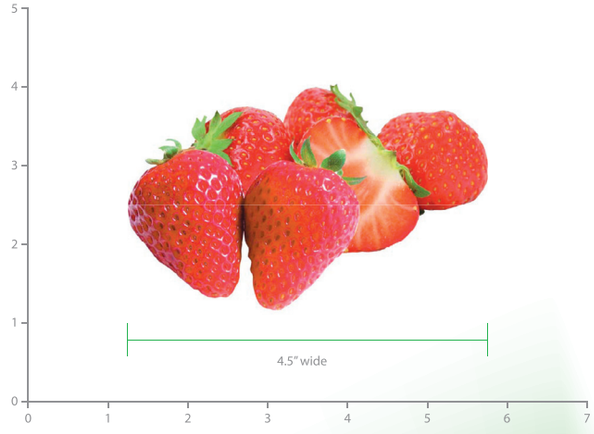
٢

ANNEX THREE



ANNEX THREE





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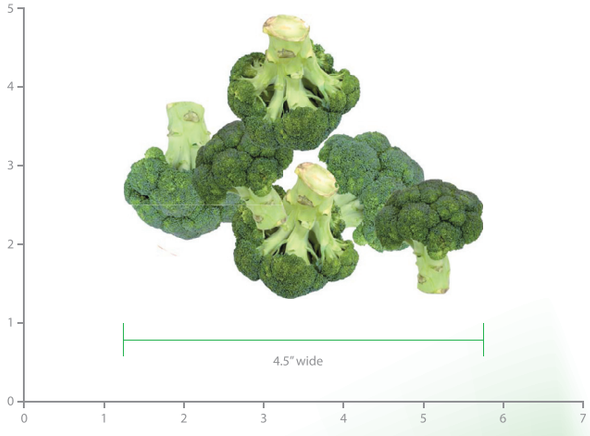

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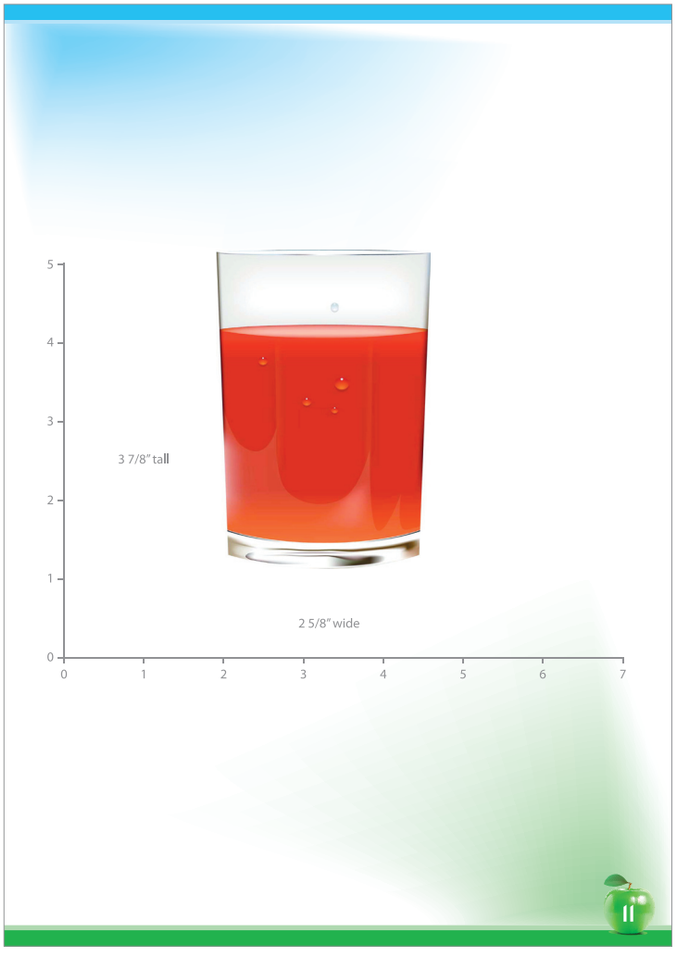

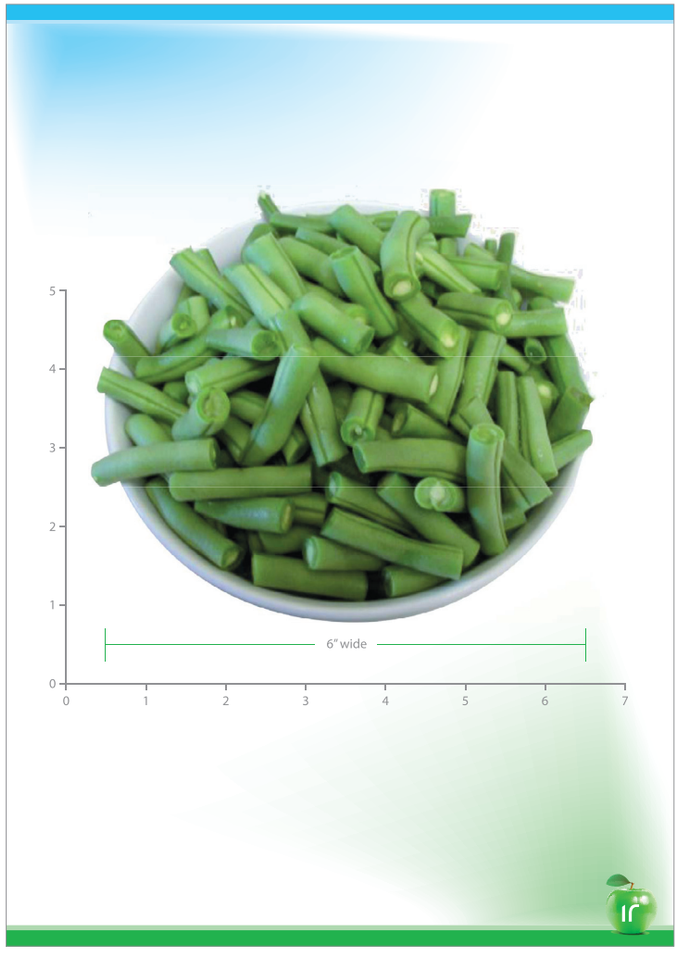

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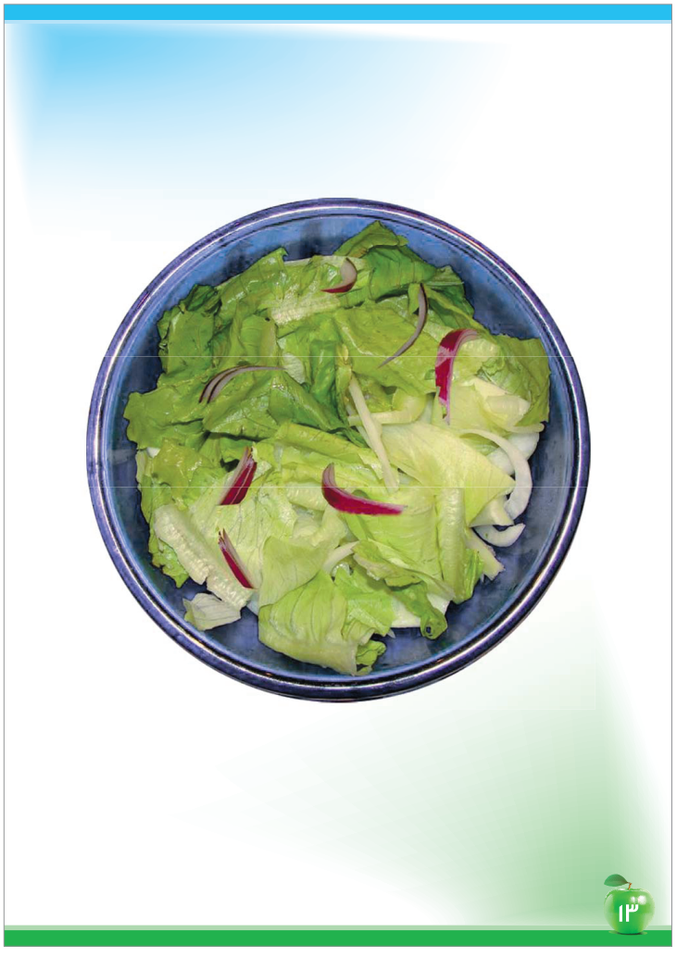

منتجات الحبوب الكاملة

خبز أسمر

أرز مع القشرة

فشار

شوفان

كورن فليكس أسمر

بسكوت رقيق بالقمح الكامل

ANNEX THREE

منتجات الحبوب المكررة

أرز ابيض

خبز ابيض

خبز ساندوتش (سمون / روتي)

معكرونة

بسكوت رقيق أبيض

كورن فليكس أبيض

١٥

البقوليات

فول

فاصوليا

حمص

عدس

١٦

ANNEX THREE

الحليب ومشتقاته

حليب

لبن

جبن

بيض

جبن ابيض

الأسماك

سمك فيليه

سمك

روبيان (الجمبري)

ANNEX THREE

لحوم

لحم البقر

كفته

لحم الغنم

٢٠

لحم الدواجن والطيور

لحم الدجاج

لحم الدجاج

لحم الدجاج

١٩

ANNEX THREE

النشاط البدني

شديد الكثافه

كرة القدم

السباحه

التنس

النشاط البدني

معتدل الكثافه

ركوب الدراجة

ركوب الخيل

ANNEX THREE

الأعمال المنزلية

متوسطة الكثافه

أعمال منزلية

ANNEX-FOUR

المقدمة:

يعرف المسح الميداني على انه جمع وتحليل بيانات محددة والتي تستخدم في تخطيط وتقييم سياسات وبرامج الصحة العامة.

المسح التدرجي هوعملية متتابعة تبدأ بجمع المعلومات الأساسية عن عوامل الاختطار باستخدام الاستبيان ثم ينتقل إلى القياسات الحيوية ثم ينتقل إلى المرحلة الأخيرة وهي عمل التحاليل الكيميائية الحيوية لعينات من الدم بوخزة في الإصبع.

الغاية من المسح الوطني التدرجي:

توفير قاعدة بيانات أساسية للأمراض المزمنة غير المعدية وعوامل الاختطار للإصابة بها في دولة قطر .

الأهداف الأساسية:

١. التنبؤ بعبء هذه الأمراض المزمنة غير المعدية واتجاه عوامل الاختطار للإصابة بها.

٢. مساعدة الخدمات الصحية والتخطيط لتحديد أولويات الصحة العامة.

٣. التمكن من وضع إستراتيجية وطنية للوقاية والسيطرة على هذه الأمراض عن طريق الحد من السلوكيات غير الصحية وعوامل الاختطار الرئيسية.

أسباب إجراء المسح الوطني التدرجي:

تعزى الأمراض المزمنة غير المعدية مثل الأمراض القلبية الوعائية والسكري والأمراض التنفسية المزمنة والسرطان إلى عوامل اختطار مشتركة والتي يمكن الوقاية منها مثل التدخين وإتباع نظام غذائي غير صحي وقلة النشاط البدني وارتفاع ضغط الدم والسمنة وارتفاع مستوى السكري في الدم وارتفاع نسبة الدهون في الدم.

تعتبر هذه الأمراض السبب الرئيسي لارتفاع إعداد الوفيات وحالات العجز في جميع أنحاء العالم حيث أن هناك زيادة مستمرة في معدل الإصابة بالأمراض المزمنة غير المعدية والتي تمثل إحدى التحديات الرئيسية للصحة العامة في هذا القرن، وهي تعتبر تهديدا لصحة وحياة الملايين من سكان العالم فضلا عن تأثيرها على عوامل التنمية الاقتصادية والاجتماعية.

تسبب الأمراض المزمنة غير المعدية ٦٠% من حالات الوفيات في العالم ومن المتوقع ان ترتفع هذه النسبة إلى ٧٣ % في العام ٢٠٢٠ .

وقد أظهرت نتائج المسح الصحي العالمي الذي أجري في دولة قطر بالتعاون مع منظمة الصحة العالمية في سنة ٢٠٠٦ أن ٣٩.٧ ٪ من البالغين يعانون من زيادة الوزن (مؤشر كتلة الجسم ٢٥ -٢٩.٩ كغم /م٢) و ٣٢.٧ ٪ يعانون من السمنة (مؤشر كتلة الجسم تساوي أو أكثر من ٣٠ كغم /م٢) وأن أكثر من نصف العينة (٥٦ ٪) لا يمارسون المستويات الموصى بها من قبل منظمة الصحة العالمية بها للنشاط البدني (٣٠ دقيقة يوميا لمدة خمسة أيام في الأسبوع) وأن ٨١.٧

مؤسسة حمد الطبية
Hamad Medical Corporation
HEALTH - EDUCATION - RESEARCH
صحة - تعليم - بحوث

الرعاية الصحية الأولية
PRIMARY HEALTH CARE

دولة قطر State Of Qatar
المجلس الأعلى للصحة
Supreme Council Of Health

جهاز الإحصاء
STATISTICS AUTHORITY

الجمعية القطرية للسكري
Qatar Diabetes Association

كلية طب وايل كورنيل في قطر
Weill Cornell Medical College in Qatar

المسح الوطني التدرجي
National STEPwise survey

الدليل الارشادي للباحث الميداني
للمسح الوطني التدرجي لعوامل الاختطار للأمراض المزمنة غير المعدية

ANNEX FOUR

٣. **رقم الأسرة المشاركة:** يجب تعيين رقم للأسر التي سيتم زيارتها والتي يجب إن تكون متتالية من ١ إلى إجمالي عدد الأسرالمختارة والتي يجب زيارتها .يمكن تعيين الرقم قبل البدء في جمع البيانات لأنة يجب أن يعرف العدد الإجمالي للأسر التي سيتم زيارتها من خلال طريقة اختيار عينة المسح وفي حالة لم تتم اجراء المقابلة في المنزل المختارلا يتم استخدام رقم المنزل.

٤. **رقم المشارك:** يجب تعيين أرقام فريدة لجميع المشاركين . لا يشترط ان تكون هذه الأرقام متتالية ولكنها تجتمع لتكون العنقود حيث يعتمد توالي ارقام المشاركين على العنقود اعتمادا كبيرا (مثال :في حالة كان رقم المشارك ١٠١ - ١٢٠ فيكون متصل بالعنقود رقم ١. في حالة كان رقم المشارك ٢٠١ - ٢٠٢ فيكون متصل بالعنقود رقم ٢)

٥. **رقم فريق جمع البيانات:** يجب تعيين رقم فريد لكل فريق من فرق جمع البيانات و يجب أن يكون هناك سجل بأرقام الباحثين الميدانيين و ارتباطهم مع أي فريق من فرق جمع البيانات

٦. **رقم الفني:** إذا كان سيتم تنفيذ الخطوة ٢ و /أو الخطوة ٣ من قبل شخص آخر غير الشخص الذي يجري المقابلة (على سبيل المثال الممرضة) ينبغي أن يتم تعيين لهؤلاء الأفراد رقم فني.

٧. **رقم الجهاز:** يجب أن يتم تعيين أي المعدات المستخدمة في الخطوة ٢ و /أو الخطوة ٣ برقم جهاز فريد من نوعه.

فريق جمع البيانات:

• كل فريق لجمع البيانات لديه رقم فريق فريد معين
• كل باحث ميداني سيتم تعيينه للعمل مع فريق معين من فرق جمع البيانات في منطقة محددة خلال كل مراحل جمع البيانات وكل باحث ميداني سيكون له رقم فريد يعبأ في استمارات جمع البيانات.
• سيقوم كل فريق بالعمل مع أحد المشرفين والذي سيقوم بمتابعة التقدم الذي يحرزه الباحثين الميدانيين . وضمان إكمال استمارات المسح بصورة صحيحة والتعامل مع أي مشاكل قد تواجه الباحثين الميدانيين.

المهارات التي يجب أن يتحلى بها مشرف جمع البيانات

- القدرة على العمل مع فريق العمل وتحفيزهم.
- ان يكون منظم وفعال في التخطيط لأنشطة وخطوات المسح.
- خبرة في المسوح الصحية.
- فهم جيد لفلسفة وأهداف عملية رصد عوامل الإختطار .
- القدرة على تحريك فرق متعددة خلال فترة قصيرة لاستكمال جمع البيانات.

٪ لا يتناولون يومياً الكميات الموصى بها من قبل منظمة الصحة العالمية من الفاكهة والخضروات (٥ حصص يوميا). كما بينت النتائج أيضا أن ١٣ ٪ من القطريين كانوا مشخصين بالإصابة بارتفاع ضغط الدم ويتناولون الأدوية الخاصة بذلك وان ٢٧.٢ ٪ من العينة يعانون من ارتفاع مستويات الكولسترول في الدم و ١١ ٪يدخنون يوميا.

الفئة المستهدفة:

يستهدف المسح المواطنين القطريين من ذكور وإناث في الفئة العمرية من ١٨ – ٦٤ سنة المتواجدين في دولة قطر اثناء فترة المسح

عملية جمع البيانات:

جمع البيانات يشمل كافة المهام التي ينبغي عملها وتشمل:

- الوصول للأسر المختارة والمشمولة بالمسح
- إبلاغ المشاركين والحصول عل الموافقة
- متابعة المشاركين
- إجراء المقابلات
- اخذ القياسات
- تسجيل البيانات التي تم جمعها
- ملئ استمارة المعلومات للمشارك
- اخذ موعد للقيام بالخطوة الثالثة
- الإشراف على جمع البيانات

إعداد استمارة جمع البيانات:

تعيين معرف متميز :

يجب تحديد أرقام مميزة لجميع الباحثين الميدانيين ولكل المجموعات العنقودية المختارة التي من خلالها سيتم اختيار الأسر و/او الأفراد .بالإضافة إلى ذلك فان جميع الأسر والأفراد المختارين يجب أن يحملوا أرقام مميزة لهم كالأتي:

١. **رقم الباحث الميداني:** يجب تعيين رقم فريد لكل باحث ميداني

٢. **رقم العنقود:** يجب تعيين رقم فريد لكل الوحدات في العينة التي من خلالها سيتم اختيار الأسر و/او الأفراد .قد يكون رقم العنقود هو مجموعة من المنازل أو الأحياء في المدينة وما إلى ذلك والذي يعتمد على طريقة اختيار عينة المسح.

ANNEX-FOUR

٤. وبالإضافة إلى ذلك، ينبغي الانتهاء من الأجزاء التالية قبل بداية جمع البيانات على سبيل المثال رقم المشارك . ورقم المنزل، رقم العنقود . اسم العنقود . و رقم الباحث الميداني.

- **توزيع الاستمارات ولوازم المسح على الباحثين الميدانيين :**

توزيع كافة استمارات جمع البيانات واجهزة ال (PDA)واجهزة الفحص لكل الباحثين الميدانيين يوميا قبل التوجه للعمل الميداني .

- **متابعة المقابلات:**

ينبغي على الباحثين الميدانيين إستخدام استمارة متابعة المقابلة، لتتبع المنازل واستجابة المشارك يوميا .ويتم جمع نماذج متابعة المقابلات بشكل منتظم حيث يتم تسليمها للمشرف على إدخال المعلومات.

- **الإشراف على عملية المقابلة وتسجيل الأنشطة اليومية:**

١. لضمان الجودة العالية في جمع البيانات، على مشرف الفريق الميداني مراقبة الباحث الميداني خلال قيامه بالمقابلة خاصة في بداية فترة جمع البيانات.

٢. المحافظة على جمع البيانات في إطار زمني محدد.

٣. يجب على المشرفين الميدانيين التحقق من أنه تم الانتهاء من كل استمارة بشكل صحيح.

٤. يجب التاكد من استكمال الاستمارات وجميع النماذج الأخرى قبل إرسالها إلى مركز المسح الرئيسي ليتم إدخال البيانات.

- **ادارة الموارد البشرية :إدارة ودعم فرق جمع البيانات لضمان ما يلي:**

١. إجراء مقابلات ذات نوعية جيدة وإستمارات معبئة بصورة كاملة.

٢. تتم المقابلات ضمن الاطار الزمني المحدد لها.

٣. دعم الباحثين الميدانيين في حالة وجود اي استفسارات من قبل المشارك

٤. يتم التعامل مع المشكلات في الأداء بشكل مناسب.

٥. احترام السرية لجميع مواد المسح في جميع الأوقات

٦. يتم توفير الردود لجميع موظفي جمع البيانات

٧. تغطية الإجازات المرضية بشكل مناسب.

- **تقديم التقارير** : يتم تقديم تقارير منظمة خلال مرحلة جمع البيانات إلى منسق المسح او الى لجنة المسح .
- تشتمل هذه التقارير على ما يلي:

دور مشرف جمع البيانات:

- تدريب الباحثين الميدانيين على:

١. مهارات المقابلة.

٢. كيفية الوصول إلى المنازل المختارة.

٣. متابعة المقابلات وعدم الإستجابه.

٤. إبلاغ المشاركين والحصول على الموافقة على إجراء المسح.

٥. إجراء المقابلات للخطوة ١.

٦. أخذ القياسات للخطوة ٢.

٧. استكمال الاستبيان.

٨. تعبئة استمارة المعلومات للخطوة ٢ واعطائها للمشارك.

٩. استخدام النماذج والأدوات المتاحة، بما في ذلك إجراء المواعيد للخطوة ٣.

١٠. الحصول على قوائم المنازل والخرائط لكل منطقة . وتعيين فريق الباحثين الميدانيين لكل موقع.

عند تعيين الموقع:

١. وضع جدول للفريق لمسح مكان واحد قبل الانتقال إلى آخر .

٢. جدولة المواعيد لاعادة زيارة المشاركين ليتم إنهاء المقابلات في كل موقع.

٣. إعداد ترتيبات التنقل لفرق جمع البيانات.

٤. متابعة المواقع التي تمت زيارتها ومن قبل إي فريق من الفرق الميدانية.

- الحصول على اللوازم والمعدات الضرورية:

١. ضمان وجود كميات كافية من المواد المطبوعة على سبيل المثال استمارة متابعة المقابلات . وجميع الاستمارات وأدوات المسح اللازمة لعمل الباحثين الميدانين.

٢. قبل بداية جمع البيانات، يجب أن تكون أجزاء معينة من اوراق المقابلة قد تم الإنتهاء من تعبئتها مثل نموذج متابعة المقابلة (على سبيل المثال رقم المشارك . ورقم المنزل، رقم العنقود . اسم العنقود . و رقم الباحث الميداني).

٣. من المستحسن أن يتعاون المشرف على جمع البيانات ومستشار الإحصاء في هذه المهمة لضمان تعبئة الاستمارات بشكل صحيح وجمع البيانات بشكل سليم.

ANNEX FOUR

مهارات إجراء المقابلة (الاستبيان)

- على الباحث الميداني ان لا يناقش أو يعلق على قضايا الأمراض المزمنة وعوامل الإختطار المتعلقة بها، لأن المشارك قد يعطي الإجابات التي يعتقد ان الباحث الميداني يبحث عنها
- على الباحث الميداني ان يشرح أن المقابلة ليست اختبار ويشير إلى أنه ليس هناك إجابات صحيحة أو خاطئة.
- على الباحث الميداني أن يسأل الاسئلة وفقا لمبادئ توجيهية في دليل الاسئلة .
- على الباحث الميداني قراءة جميع الخيارات باستثناء لا أعرف / لا اتذكر ، أو ارفض الإجابة وأخرى.
- على الباحث الميداني أن يقرا الأسئلة حسب كتابتها، بطريقة بطيئة والتأكيد على الكلمات الرئيسية بصوت لطيف لينقل اهميتها للمشارك ولا يغير كلمة أو ترتيب الكلمات في السوال . ويتأكد من أن المشارك قد سمع السؤال بشكل جيد
- على الباحث الميداني الا يفترض اي افتراضات للإجابة لان هذا قد يعطي معلومات غير دقيقة.
- على الباحث الميداني ان يقدم توضيحا عندما يكون المشارك:

١. غير قادر على الإجابة على السؤال.
٢. لا يبدو أنه فهم السؤال واعطى ردا غير مناسب
٣. يتردد ويستغرق وقتا طويلا للإجابة على السؤال
٤. لا يبدو أنه سمع السؤال
٥. يسأل عن جزء محدد من السؤال ليتم تكراره (من المقبول أن تكرر فقط ذلك الجزء)
٦. يسأل عن مصطلح واحد يحتاج إلى توضيح (يرجى الرجوع إلى التفسيرات الواردة في دليل الاسئلة)

- لا أعرف / لا أتذكر ، ورفض الاجابة يجب أن تستخدم فقط كملاذ أخير .
- **يحتاج الباحث الميداني إلى مزيد من التحقق للحصول على الرد المناسب عندما يكون المشارك:**

١. يبدو أنه فهم هذا السؤال ولكنه يعطي رد غير مناسب
٢. لا يبدو انه فهم ما طلب منه
٣. يسيء فهم هذا السؤال
٤. غير قادر على تحديد اجابة
٥. ينحرف عن الموضوع أو يعطي معلومات ليس لها صلة
٦. يحتاج إلى التوسع في ما قيل أو توضيح الإستجابة.
٧. يعطي معلومات غير كاملة أو جوابا غير واضح
٨. يقول انه لا يعرف الإجابة.

١. التقدم والتطور في المسح وجمع البيانات ومدى التقيد بالأطار الزمني المقرر .
٢. القضايا والمشاكل التي واجهتهم.

- تسليم استمارات المشاركين الكاملة التعبئة في (PDA) إلى المشرف على إدخال البيانات في نهاية كل يوم.
- توفير الردود: عند اكتمال جمع البيانات يجب الالتقاء بفرق جمع البيانات لاستخلاص الردود والحصول على المعلومات لما فيه من فائدة لمعالجة وتحليل البيانات وإعادة النظر في الاستمارات والكتيبات للجولة القادمة من المسح.

عملية جمع البيانات:

للباحث الميداني وظيفة أساسية في المسح .فالباحث الميداني الجيد هو حجر الأساس للمقابلات الجيدة وجمع البيانات بنجاح مما يؤدي للتوصل الى الجودة العالية في تحليل البيانات والحصول على نتائج المسح.

كيفية إجراء مقابلة المشاركين (مهارات المقابلة):

علينا أن نشعر يجب المشارك بالراحة حول المسح كما يمكن للمشارك أن يرفض إجراء المقابلة فالمشاركة طوعية ويجب أن تكون المقابلة طبيعية بالقدر الممكن ومهذبة مثل أى محادثة عادية.
وينبغي أن يتمتع الباحث الميداني بالمهارات التالية:

المهارات السلوكية :

- احترام السرية.
- احترام وقت المشارك .
- عدم اجبارالمشارك لاجراء المقابلة عندما لا يكون مستعدا لذا يمكن العودة لزيارته ثانية لاجراء المقابلة في وقت لاحق.
- كن صبورا في جميع الأوقات، وتصرف بطريقة ودية خلال المقابلة.
- الاهتمام بجميع التفاصيل
- استخدم لغة الجسم والحفاظ على حسن التواصل البصري.
- تخصيص وقتا كافيا للمشاركين للفهم والإجابة عن الأسئلة.
- في حالة اجبار المشارك للاجابة قد يقوم بالإجابة بما يجول فى ذهنه.
- تقبل الأجابة على اي سؤال مهما كانت ولا تكن حكما على نمط حياة المشاركين.
- اشكر المشارك على المساعدة والتعاون.

ANNEX FOUR

- لا تقم بتغيير الكلمات أو ترتيب الأسئلة كما لا تقم بافتراضات حول اجابات المشاركين.
- الرد على أي أسئلة قد تكون لدى المشارك.
- سجل اي تعليقات أو استفسارات بين قوسين مقابل للسؤال.
- تأكد مرتين من إكمال أسئلة الخطوة ١ .
- خذ القياسات الحيوية وسجل نتائج الخطوة ٢.
- تأكد مرتين من الانتهاء من المعلومات للخطوة ٢.
- تعبئة استمارة معلومات المشارك بنتائج الخطوة ٢ لإعطائها للمشارك.
- تحديد موعد للقيام بالخطوة ٣ (إذا لم يتم القيام بذلك فى الزيارة الأولى). و إبلاغ المشاركين عن اهمية الصيام للقيام بالخطوة ٣.
- تأكد من اكمال جميع النماذج ثم قم بتسليمها إلى مشرف الفريق الميداني.
- الإبلاغ عن أي صعوبات للمشرفين الميدانيين.
- يجب على المشاركين تقديم أسمائهم ومعلومات الاتصال بحيث يمكن الاتصال بهم إذا كان هناك أي مشكلة اثناء تحليل المعلومات.
- لا تمحو أي ملاحظات تم كتابتها .

يتم الانتهاء من إكمال الاستمارة بتوقيع كل من المشارك والباحث الميداني على نموذج الإستمارة.

اشكر المشارك لموافقته على المشاركة في المسح.

طرق استكمال استمارة المشارك:

لإكمال نموذج واحد لكل مشارك يجب الانتهاء من جميع البنود الواردة فيه لتكون صالحة. بما في ذلك:

يجب على الباحث الميداني تعبئة الأرقام التالية في نموذج الإستمارة على النحو التالي:

- رقم العنقود: رقم فريد لكل الوحدات في العينة التي من خلالها سيتم اختيار الأسر و/أو الأفراد
- رقم الباحث الميداني

- رقم الأسر المشاركة: لكل المنازل التي ستتم زيارتها يجب تعيين رقم فريد. وينبغي أن تكون هذه الأرقام متتالية من ١ إلى إجمالي عدد المنازل التي ستتم زيارتها ويمكن تعيين هذا العدد قبل أن تبدأ عملية جمع البيانات لأنه يجب أن يعرف العدد الإجمالي للمنازل التي ستتم زيارتها من خلال طريقة اختيار عينة المسح ولا يستخدم الرقم إذا لم تتم أي مقابلة في المنزل المختار
- رقم المشارك

اللوازم والاجهزةالتى ينبغى توفيرها للباحث الميداني لتنفيذ المسح:

- بطاقة الاسم .
- قائمة /خريطة المنازل في العينة المختارة.
- نموذج الإشعار عن زيارة فريق المسح للمنزل.
- نموذج المعلومات الخاصة عن المسح للمشارك (دليل المشارك)
- نموذج الموافقة .
- الاستبيان أو (PDA).
- بطاقات التوضيح.
- نموذج متابعة المقابلة.
- دليل الأسئلة.
- تعليمات الصوم.
- نموذج الموعد.
- نموذج معلومات المشارك الخطوة ٢ و ٣.

مهام الباحث الميداني خلال عملية جمع البيانات:

- يقرع أبواب المنازل المختارة.
- إعطاء فكرة موجزة لأفراد المنزل عن المسح وهدفه .
- تسجيل جميع المشاركين المؤهلين على جدول كيش باستخدام ال (PDA) واختيار مشارك واحد باستخدام طريقة كيش.
- تسجيل المعلومات على نموذج متابعة المقابلة .
- تزويد المشاركين المختارين بالمعلومات عن المسح باستخدام نموذج المعلومات الخاصة عن المسح للمشارك (دليل المشارك)والحصول على موافقة خطية.
- لكل مشارك نسختين من استمارة الموافقة، واحدة للمشارك للإحتفاظ بها و اخرى لمكتب المسح الرئيسي.
- تسجيل رقم التعريف على كل استبيان.
- إجراء المقابلة وتسجيل نتائج الخطوة ١.
- ينبغي أن تقرأ الاسئلة حسب كتابتها في النص بشكل بطيئ وواضح، مؤكدا على الكلمات الرئيسية وعلى كل نقطة كما يجب التأكد من أن المشارك قد سمع السؤال جيدا والاشارة إلى أنه ليس هناك إجابات صحيحة أو خاطئة وان المقابلة ليست اختبار .

ANNEX FOUR

كيفية تعبئة المعلومات السلوكية:

المعلومات السلوكية تتعلق بعوامل الإختطار :

- استخدام التبغ.
- استهلاك الفواكه والخضروات.
- استخدام الزيوت والدهون.
- النشاط البدني.
- التاريخ المرضي لارتفاع ضغط الدم والسكري.

كل واحد من هذه العوامل متعلق بأسئلة أساسية وأخرى موسعة.

المشاكل التي قد تواجهها وكيفية حلها:

- لا أحد في المنزل : اترك بطاقة الإشعار بالزيارة وسجل في نموذج متابعة المقابلة
- أفراد الأسرة غير متوفرين في المنزل في وقت أول زيارة؛ قم بزيارتين مختلفتين، واختار اوقات مختلفه في كلا الزيارتين (في الصباح الباكر أو وقت متأخر بعد الظهر)
- عندما يجيب المشارك على أي سؤال ب "لا " اسأل المشارك إذا كان فهم هذا السؤال أم لا.
- إذا لم يفهم المشارك السؤال يجب تكرار هذا السؤال.
- إذا كان المشارك فهم السؤال والجواب رغم ذلك لا يزال رافضا، ضع دائرة على (لا) في نموذج الموافقة و سجل السن والجنس (وهذا يعني أن الفرد في الأسرة المختارة لن يشارك في المسح).
- إذا قام أحد المشاركين بتغيير رأيه / رأيها على واحدة من الخيارات سجل الإجابة الجديدة.
- اذا كنت غير متأكد من الإجابة، كرر السؤال مرة أخرى وسجل الجواب بالضبط، (لا تعد صياغة الإجابة)
- إذا كان المشارك لا يعرف جواب السؤال، سجل ٧٧ لـ"لا أعرف."
- إذا كان مشارك قد رفض الإجابة عن سؤال سجل ٨٨ ولكن قبل الموافقة على الرفض اشرح الهدف من هذا السؤال للمشارك.
- إذا كان المصطلح المستخدم لا يصلح ثقافيا (على سبيل المثال المهن) غير المصطلح ليناسب الثقافه المحلية مع ضمان الابقاء على المعنى الأصلي (اطلب المشورة قبل تغيير المصطلح).
- بعض الأحيان، قد تحتاج إلى وقفة لأن هذا قد يعطي المشارك وقتا لجمع الأفكار وتوسيع الجواب .في حين لبعض المشاركين، قد يكون تكرار إجابة المشاركين وسيلة فعالة جدا تمكن المشارك التفكير في الجواب.
- إذا أصبح المشارك دفاعي: تحلى بالصبر وافهم وجهة نظره/ها و تحدث عن أهمية المسح.
- إذا كنت لا تحصل على ما يكفي من التعاون بسبب حاجز اللغة، قدم تقرير بهذا إلى مشرف الفريق الميداني.

- معلومات التعريف هي المعلومات التي تشمل اسم المشارك وتوجد في الجزء الثاني من الصفحة الأولى
- إتمام كل الأسئلة - **الأساسية والموسعة** - والقياسات.
- إذا كانت هناك بيانات معينة في المقدمة قبل السؤال يجب قراءتها قبل طرح السؤال.
- سجل استجابة المشارك لكل بند و قد يكون هناك أكثر من رد محتمل اولكل استجابة ممكنة يوجد رقم . ضع دائرة مرتبطة بالرد المناسب في المربع في كل بند.
- إذا كان لا بد من تسجيل الملاحظات اكتب في الهامش على الجانب الأيسر (على سبيل المثال استخدام الذراع اليمنى لقياس ضغط الدم بدلا من الذراع اليسرى).

كيفية استخدام دليل الأسئلة:

- اقرأ دليل الأسئلة عدة مرات للأسباب التالية:

١. أنها توفر تعليمات وإرشادات لكل سؤال.

٢. يعطي معلومات لتفسير السؤال تساعد في إكمال الاستبيان بشكل دقيق .

- استخدم دليل الأسئلة لتوضيح مسألة معينة للمشارك بدلا من الاعتماد على تفسيرك الخاص.
- تزيد من مهارة ممارسة طرح الأسئلة.
- تصبح محتويات نماذج الإستمارة مألوفة.

كيفية تعبئة المعلومات الديموغرافية:

- المعلومات الديموغرافية الدقيقة أمر ضروري للتحليل وتقديم التقارير للنتائج العامة للمسح.
- المعلومات الأساسية الديموغرافية هي : الجنس والعمر وعدد السنين التى قضيت في المدرسة.
- تاريخ الميلاد والسن :بعض الأفراد قد لا يعرفون على وجه الدقة العمر أو تاريخ الولادة فلا بد من التقدير.
- المعلومات الديموغرافية الموسعة تشمل ما يلي :أعلى مستوى من التعليم، والحالة الاجتماعية والعمل.

كيفية استخدام البطاقات التوضيحية:

بطاقات التوضيح أداة مساعدة مفيدة في تفسير معنى بعض الأمثلة في نموذج الاستبيان وتظهر أمثلة من المنتج الذي تتحدث عنه. الباحث الميداني في حاجة إلى بطاقات التوضيح لشرح وتوضيح ما يلي:

- منتجات وأنواع التبغ.
- الغذاء (حجم حصة الفواكه والخضروات النموذجيه).
- نوع النشاط البدني.

ANNEX FIVE

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Supreme Council Of Health

المسح الوطني التدرجي
National STEPwise survey

National Stepwise Survey for Chronic Non-communicable Diseases and Risk Factors

Training Workshop for data collectors

27th Feb 2012- 1st March 2012

AGENDA

Day One 27th Feb 2012

15:30 – 15:45 Opening Ceremony by Dr. Mohammed Bin Hamad Al-Thani

15:45 – 16:30 Introduction, objectives of the workshop, and overview and rationale of the WHO STEPwise approach to chronic disease risk factor surveillance

16:30 – 17:15 Introduction, to the STEPS survey in Qatar.

17:15 - 17:45 Interview Tracking, Reaching and approaching selected households

17:45 - 18:00 Break and prayer time for Al-Maghrib

18:00 - 18:30 Introduction to PDA-based data collection

18:30 - 19:30 Selecting an individual within selected households: the Kish method (presentation and practice)

19:30 – 19:45 Break and prayer time for Al-Eshaa

19:45 – 20:15 Selecting an individual within selected households: the Kish method (presentation and practice, *cont*

20:15- 20:45 Informing participants and obtaining consent

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20:45- 21:15 Interviewer skills

21:15 Break for dinner

Day Two 28th Feb 2012

15:30 – 15:45 Review Day 1

15:45 –16:30 The STEPS instrument, Q-by-Q guide and Show Cards

16:30 – 17:00 Recording and checking information on PDAs

17:00 - 17:30 Collecting demographic and behavioral risk factor information (STEP 1) (practice)

17:30 – 17:45 Break and prayer time for Al-Maghrib

17:45 - 19:45 Collecting demographic and behavioral risk factor information (STEP 1) (practice), *cont.*

19:45- 20:00 Break and prayer time for Al-Eshaa

20:00- 21:00 Taking and recording physical measures (STEP 2)

21:00 -- Break for dinner

Day Three 29th Feb 2012

15:30 – 15:45 Review Day 2

15:45 - 17:00 Taking and recording physical measures (STEP 2) (practice)

17:00- 17:30 Procedures for biochemical measures (STEP 3)

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17:30 – 17:45 Break and prayer time for Al-Maghrib

17:45 -18:15 Procedures for biochemical measures (STEP 3) *cont.*

18:15 -19:15 Check list for equipment and supplies
Care and use of the PDAs
Conducting the pilot
Other logistics

19:15- 19:30 Break and prayer time for Al-Eshaa

19:30 - 20:30 Final practice

20:30 - 21:00 Review Day 3
Closing of the training workshop

21:00 -- Break for dinner

Day Four 1st March 2012

PILOT
4:00- 7:00 pilot
7:00- 9:00 Discussion and feedback of the pilot

ANNEX SIX

Chronic Disease Risk Factor Surveillance
Workshop on STEPS Data Analysis and Reporting

Day 1

09:00 – 09:30 Opening session, Welcome, Introductions
Objectives of the workshop

09:30 - 10:00 *Presentation*: Downloading and organizing data from the PDAs

10:00 - 10:30 *Presentation:* Weighting the data to make it representative

10:30 - 11:00 Break

11:00 - 12:30 Work on downloading and weighting data

12:30 - 13:30 Lunch

13:30 - 17:00 Work on downloading and weighting data

Day 2

09:00 - 10:30 Introduction to Epi Info (hands-on, interactive training)

10:30 - 11:00 Break

11:00 - 12:30 Intro to Epi Info, cont.

12:30 - 13:30 Lunch

13:30 - 14:00 *Presentation:* STEPS Fact Sheet

14:00 - 17:00 Use Epi Info to do basic exploration of survey data
Begin work on fact sheet

Day 3

09:00 - 10:00 *Presentation:* STEPS Data Book & Excel Macros for Data Book Preparation

10:00 - 10:30 Continue work on fact sheet (if needed), begin work on data book (if ready)

10:30 - 11:00 Break

11:00 - 12:30 Continue work on fact sheet / data book

12:30 - 13:30 Lunch

13:30 - 15:00 Review completed fact sheet, discussion

15:00 - 17:00 Continue work on data book

Day 4

09:00 - 09:30 *Presentation*: STEPS Site Report

09:30 - 10:30 *Presentation*: Interpreting data, presenting results

10:30 - 11:00 Break

11:00 - 12:30 Continue work on data book, begin work on site report (if ready)

12:30 - 13:30 Lunch

13:30 - 14:30 Continue work on data book / site report

14:30 - 17:00 Continue work on data book / site report

Qatar STEPS Survey 2012

Fact Sheet

The STEPS survey of chronic disease risk factors in Qatar was carried out from March 2012 to May 2012. Qatar carried out Step 1, Step 2 and Step 3 if applicable. Socio demographic and behavioural information was 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 Qatar was a population-based survey of adults aged 18-64 . A multi-stage cluster sample design was used to produce representative data for that age range in Qatar. A total of 2496 adults participated in the Qatar STEPS survey. The overall response rate was 88%. A repeat survey is planned for 2015 if funds permit.

Results for adults aged 18-64 years (incl. 95% CI)	**Both Sexes**	**Males**	**Females**
Step 1 Tobacco Use			
Percentage who currently smoke tobacco	**16.4 %** (14.3 – 18.4)	**31.9 %** (27.9 – 35.9)	**1.2 %** (0.5 – 1.9)
Percentage who currently smoke tobacco daily	**14.7%** (12.7 – 16.7)	**29.1 %** (25.2 – 32.9)	**0.6 %** (0.1 – 1.1)
For those who smoke tobacco daily			
Average age started smoking (years)	**18.9** (18.1 – 19.8)	**18.8** (18.1 – 19.6)	*
Percentage of daily smokers smoking manufactured cigarettes	**80.6%** (75.4 – 85.8)	**80.9%** (75.7 – 86.1)	*
Mean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	**13.5** (12.0 – 15.0)	**13.6** (12.1 – 15.2)	*
Step 1 Fruit and Vegetable Consumption (in a typical week)			
Mean number of days fruit consumed	**3.4** (3.2 – 3.7)	**3.7** (3.3 – 4.0)	**3.2** (2.9 – 3.4)
Mean number of servings of fruit consumed on average per day	**0.8** (0.7 – 0.9)	**0.9** (0.7 – 1.1)	**0.7** (0.6 – 0.8)
Mean number of days vegetables consumed	**5.5** (5.3 – 5.7)	**5.7** (5.5 – 5.9)	**5.4** (5.1 – 5.6)
Mean number of servings of vegetables consumed on average per day	**1.4** (1.2 – 1.6)	**1.4** (1.2 – 1.6)	**1.4** (1.2 – 1.6)
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	**91.1%** (87.7 – 94.6)	**91.9%** (87.8 – 96.1)	**90.4%** (86.8 – 94.0)
Step 1 Physical Activity			
Percentage with low levels of activity (defined as < 600 MET-minutes per week)*	**45.9%** (42.2-49.6)	**37.4%** (32.6-42.1)	**54.2%** (49.2-59.3)
Percentage with high levels of activity (defined as ≥ 3000 MET-minutes per week)*	**31.3%** (28.2-34.5)	**38.1%** (33.8- 42.4)	**24.8%** (20.3-29.3)
Median time spent in physical activity on average per day (minutes) (presented with inter-quartile range)	**37.1** (6.4-120.0)	**55.7** (14.3-141.4)	**23.6** (0.0-102.9)
Percentage not engaging in vigorous activity	**71.3%** (68.1-74.5)	**59.6%** (55.4-63.7)	**82.7%** (78.3-87.1)

* 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

Qatar STEPS Survey 2012

Fact Sheet

Results for adults aged 18-64 years (incl. 95% CI)	**Both Sexes**	**Males**	**Females**
Step 2 Physical Measurements			
Mean body mass index – BMI (kg/m^2)	**29.2** (28.8- 29.6)	**28.8** (28.3 - 29.4)	**29.5** (29.0- 30.1)
Percentage who are overweight (BMI ≥ 25 kg/m^2)	**70.1%** (67.6 - 72.5)	**71.8%** (68.5- 75.0)	**68.3%** (64.8 - 71.8)
Percentage who are obese (BMI ≥ 30 kg/m^2)	**41.4%** (38.8 - 44.0)	**39.5%** (35.5 - 43.6)	**43.2%** (40.1 - 46.3)
Average waist circumference (cm)	-	**99.9** (98.0 - 101.9)	**90.0** (88.30 - 91.6)
Mean systolic blood pressure – SBP (mmHg), including those currently on medication for raised BP	**118.0** (117.0 - 118.9)	**123.6** (122.4 - 124.9)	**112.5** (111.35- 113.7)
Mean diastolic blood pressure – DBP (mmHg), including those currently on medication for raised BP	**78.5** (77.9 - 79.1)	**80.0** (79.2 - 80.8)	**77.0** (76.3 - 77.8)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)	**32.9%** (30.2 - 35.6)	**28.0%** (24.5 - 31.5)	**37.7%** (33.3 - 42.1)
Step 3 Biochemical Measurement			
Mean fasting blood glucose, including those currently on medication for raised blood glucose [mg/dl]	**92.5** (89.9-95.2)	**92.2** (88.4-96.0)	**92.9** (89.7-96.0)
Percentage with impaired fasting glycaemia as defined below • capillary whole blood value ≥5.6 mmol/L (100 mg/dl) and <6.1 mmol/L (110 mg/dl)	**5.8%** (4.5-7.2)	**5.5%** (3.3-7.7)	**6.2%** (4.1-8.3)
Percentage with raised fasting blood glucose as defined below or currently on medication for raised blood glucose • capillary whole blood value ≥ 6.1 mmol/L (110 mg/dl)	**16.7%** (13.7-18.8)	**17.6%** (13.1-22.2)	**15.9%** (12.4-19.3)
Mean total blood cholesterol, including those currently on medication for raised cholesterol [mg/dl]	**160.1** (157.9-163.9)	**155.3** (150.3-160.3)	**166.3** (162.9-169.7)
Percentage with raised total cholesterol (≥ 5.0 mmol/L or ≥ 190 mg/dl or currently on medication for raised cholesterol)	**21.9%** (18.8-25)	**19.1%** (14.7-23.4)	**24.6%** (20.9-28.4)
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	**0.8%** (0.2 – 1.4)	**1.3%** (0.3 – 2.4)	**0.3%** (0.0 – 0.7)
Percentage with three or more of the above risk factors, aged 18 to 44 years	**44.9%** (41.1 – 48.7)	**47.2%** (41.6 – 52.9)	**42.4%** (38.4 – 46.5)
Percentage with three or more of the above risk factors, aged 45 to 64 years	**70.4%** (65.9 – 74.9)	**67.6%** (60.8 – 74.4)	**73.0%** (67.2 – 78.7)
Percentage with three or more of the above risk factors, aged 18 to 64 years	**50.7%** (47.4 – 53.9)	**51.5%** (46.8 – 56.5)	**49.8%** (46.0 – 53.5)

* indicate less than 50 responses.

For additional information, please contact:
STEPS country focal point [Dr. Al-Anoud Bint Mohammed Al-Thani, email address: aalthani@sch.gov.qa**)**

WHO STEPS chronic disease risk factor surveillance
www.who.int/chp/steps
6-3C-1
fact sheet

AN
NEXEIGHT

كيفية إجراء المسح:

١. السرية التامة

- تقديم البيانات والمشاركة ستكون سرية تماما.
- يجب على المشارك تزويد فريق المسح باسمه ومعلومات الاتصال به حتى يتسنى الاتصال به لأي سبب يتعلق بالمعلومات والمتابعة.
- البيانات من هذا المسح قد يتم إرسالها للتحليل في مكان آخر ولن يتضمن ذلك أي بيانات شخصية.
- إن المعلومات الخاصة بالاسم والمنطقة ومعلومات أسر المشاركين لن يتم استخدامها في أي تقرير.

٢. الموافقة على إجراء المسح:

سوف يقوم الشخص المكلف بالبحث بإجراء المقابلة مع المشارك بعد إظهار بطاقة التعريف الشخصي الخاصة به، ثم القيام بالتالي:

أخذ الموافقة: سوف يقوم الشخص الذي يجرى المقابلة مع المشارك بأخذ موافقة شفهية وخطية (نموذج موافقة) قبل البدء في المسح فإذا قبل المشارك بإجراء خطوات المسح (١ و ٢) عندها سوف يقوم بالتوقيع بالموافقة لمرة اواحدة على نموذج الموافقة اما اذا قبل المشارك باجراء الخطوة (٣) حينها سيقوم بالتوقيع للمرة الثانية على نفس استمارة الموافقة وكذلك سوف يقوم المشارك بالتوقيع على صورتين من نموذج الموافقة حيث يجب الاحتفاظ بنسخة خاصة بالمشارك، وأخرى لمكتب التنسيق التابع للمسح وسوف يقوم الشخص الذي قام بعمل المقابلة بالتوقيع على الأوراق كشاهد.

٣ . خطوات المسح:

يشتمل المسح على ٣ خطوات:

- الخطوة ١: عبارة عن استبيان يضم مجموعة من الاسئلة لجمع المعلومات عن العمر، التعليم، الوظيفة، استهلاك التبغ، تناول الفواكه والخضروات والنشاط البدني وصحة الفم والأسنان والإصابات.
- خطوة ٢ :أخذ قياسات الطول ، الوزن ، محيط الخصر والورك وضغط الدم.
- بعد الانتهاء من الخطوة ٢ سيقوم الشخص المكلف بإعطائك جدول قياساتك والتي تحتوي على ما يلي :

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المسح الوطني التدرجي لعوامل الاختطارللاصابة بالأمراض المزمنة

مقدمة

الأمراض المزمنة غير المعدية تشمل الأمراض القلبية الوعائية والسكري والأمراض التنفسية والسرطان وهي تتقاسم عوامل اختطار مشتركة .

عامل الاختطار:

يعرف بأنه أي تعرض أو سلوك أو عوامل وراثية يتملكها الشخص أو يمر بها خلال حياته وتزيد من احتماليه إصابته بالمرض.

عوامل الاختطار المشتركة للأمراض المزمنة غير المعدية تشمل التدخين والسمنة وقلة النشاط البدني والتغذية غير الصحية وارتفاع ضغط الدم وزيادة السكر في الدم، وزيادة الدهون في الدم.

المسح الوطني التدرجي لعوامل الاختطارللاصابة بالأمراض المزمنة في دولة قطر:

يتم إجراء هذا المسح بالتعاون مع منظمة الصحة العالمية وبموافقة المجلس الأعلى للصحة، وجهاز قطر للإحصاء والمسح هو عملية متتابعة تبدأ بجمع معلومات أساسية عن عوامل الاختطارعن طريق استبيان ثم الانتقال إلى قياسات بسيطة وبعد ذلك لخطوة أكثر تعقيدا وهي فحص عينات دم من الأشخاص المشاركين.

أهداف المسح:

يهدف هذا المسح إلى:

- توفير قاعدة بيانات أساسية عن الأمراض المزمنة غير المعدية وعوامل الاختطار للإصابة بها في دولة قطر.
- التنبؤ بعبء هذه الأمراض واتجاه عوامل الاختطار للإصابة بها.
- مساعدة الخدمات الصحية والتخطيط لتحديد أولويات الصحة العامة.
- التمكن من وضع إستراتيجية وطنية للوقاية والسيطرة على هذه الأمراض عن طريق الحد من السلوكيات غير الصحية وعوامل الاختطار الرئيسية.

ANNEX EIGHT

١. ضغط الدم وتصنيفه بشكل طبيعي أم لا.

٢. طولك ووزنك.

٣. مؤشر كتلة الجسم وتصنيفه (طبيعي، زيادة الوزن أو السمنة).

٤. محيط الخصر والورك.

• الخطوة ٣: يتم فيها أخذ كمية صغيرة من الدم من وخزه في الأصبع وهذا قد يسبب بعض الألم البسيط لتحديد نسبة السكر في الدم ومستوى الدهون التي تشمل الكولسترول الكلي والدهون الثلاثية والدهون عالية الكثافة والدهون قليلة الكثافة.

• قد تستغرق الخطوة ١ حوالي (٣٠–٥٤ دقيقة)، الخطوة ٢ (٢٠–٣٠ دقيقة) والخطوة ٣ (٥–١٠ دقائق).

المشارك له الحق:

• الامتناع عن المشاركة في هذا المسح .

• سحب الموافقة في أي وقت.

• عدم الإجابة على أي سؤال في المقابلة لا يرغب في الإجابة عليه.

• إذا لم يفهم المشارك أي سؤال من الأسئلة يمكنه أن يطلب من الشخص الذي يجري المقابلة تكرار السؤال أو توضيحه.

إشعار بالزيارة الخاصة بالمسح الوطني التدرجي لعوامل الاختطار للأمراض المزمنة غير المعدية		
زار القائمون على المسح الوطني التدرجي لعوامل الاختطار للأمراض المزمنة غير المعدية اليوم مقر إقامتكم لإجراء مسح للأشخاص الذين تتراوح أعمارهم بين ١٨ و ٦٤ عاما لعوامل الاختطار للأمراض المزمنة غير المعدية، وسنقوم بزيارتكم مرة أخرى في التاريخ الموضح أدناه، وإذا كان الموعد المحدد لا يناسبكم اتصلوا بنا لاختيار موعد آخر لإجراء المسح.		
تاريخ الزيارة		
رقم المنزل		
الزيارة المقبلة	اليوم/التاريخ:	الوقت:
للاتصال رقم تليفون العمل / الجوال		
المجلس الأعلى للصحة		

إقرار الموافقة على المشاركة بالمسح الوطني التدرجي لعوامل الاختطار للإصابة بالأمراض المزمنة غير المعدية

عزيزي المشارك:

لقد تمّ اختيارك لتشارك معنا في هذا المسح الوطني للأمراض المزمنة غير المعدية وهذا هو سبب زيارتنا لك اليوم.

هذا المسح هو دراسة يتم القيام بها ضمن جهود المجلس الأعلى للصحة في دولة قطر بالتعاون مع جهاز قطر للإحصاء ومعتمد من قبل منظمة الصحة العالمية لدراسة العوامل المؤدية للإصابة بالأمراض المزمنة غير المعدية مثل مرض السكري والأمراض القلبية الوعائية والسمنة ومكافحتها.

ولذلك نحتاج تعاونك معنا لملئ استمارة الاستبيان والإجابة الدقيقة على الأسئلة وكذلك عمل الفحص اللازم والذي يتضمن قياس الطول والوزن ومحيط الخصر والورك وقياس ضغط الدم وسيتم أخذ كمية صغيرة من الدم من وخزه في إصبعك لعمل تحاليل الدم مثل نسبة السكر في الدم وصورة الدهون في الدم كالكولسترول والدهون الثلاثية.
إن جميع المعلومات التي ستدلي بها في هذا المسح ستكون سرية وستستخدم فقط في مجال البحث العلمي وليس لأي إغراض أخرى وسيتم التعامل مع المعلومات وفقا لأخلاقيات البحوث الطبية وبما يحفظ خصوصية المعلومات.

عزيزي المشارك:

بالتأكيد ستكون موافقتك على المشاركة معنا مكسباً لدولتنا الحبيبة قطر لدعم التطور في المجال الصحي ولك حرية الموافقة على المشاركة بالدراسة أو الرفض وفي حالة موافقتك فان لك حرية رفض الإجابة على أي سؤال من أسئلة المسح.

هل أنت موافق على المشاركة بالخطوة الأولى والثانية بالمسح؟	☐ نعم ☐ لا	توقيع المشارك	توقيع الشاهد
هل أنت موافق على المشاركة بالخطوة الثالثة بالمسح؟	☐ نعم ☐ لا	توقيع المشارك	توقيع الشاهد

تعليمات الصيام لإجراء فحوصات (الخطوة الثالثة)

مقدمة:

من الضروري الصوم عن الطعام للحصول على نتائج دقيقة من فحص الدم.

تعليمات الصيام:

يرجى التأكد من الامتناع عن الأكل والشرب بما في ذلك مضغ العلكة (باستثناء شرب الماء) لمدة لا تقل عن ١٢ ساعة قبل إجراء فحص الدم. أي إذا كان موعدك في الصباح، توقف عن الأكل والشرب بعد الساعة الثامنة مساء في الليلة التي تسبق الموعد.

ملاحظة لمرضى السكري:

إذا كنت تتناول عقاقير/أو تستخدم أنسولين للتحكم في معدل السكر، يرجى تجنب أخذ هذه العقاقير في صباح يوم الموعد، لكن يرجى تناولها بعد إجراء الفحص وفي حال تناول أي عقاقير أخرى يرجى أخذها في مواعيدها المحددة.