Ministry of Health & population, Egypt
Preventive Sector

Central Epidemiology and Disease Surveillance (ESU)

Non-Communicable Disease Surveillance Unit (NCDSU)

Community based survey study
On
Non-communicable diseases and their Risk Factors,
Egypt, 2005- 2006

Dr Eman Ellabany, Survey Coordinator

Dr Abel-Nasser M.A., Executive Director,
Egyptian Surveillance Unit

This work was supported by World Health Organization (WHO),
Eastern Mediterranean Regional Office (EMRO)
In collaboration wit USAID, Cairo

Introduction

It is well known that chronic diseases represent a major problem and public health burden in developing countries. It represents 73% of mortality and 60% of global morbidity burden.

There is emerging evidence that diabetes mellitus, obesity, hypertension and hyperlipidemia contribute to national morbidity & mortality in Egypt as it represents about 26% of all deaths related to chronic diseases.

Egypt needed to conduct a survey to measure the burden and the actual prevalence of chronic diseases due to difficulty in reporting these diseases and the different health facilities dealing with non-communicable diseases (NCD) (chronic diseases) e.g. MOHP, Universities, Police and Military health services, Private sector, NGO's health facilities.

Epidemiology and Surveillance Unit at the Egyptian Ministry of Health and Population has moved towards implementing NCD and their risk factors Surveillance System since 2002.

The surveillance project was funded and technically supported by the World Health Organization (WHO), with additional technical support from the United States Centers for Disease Control and Prevention.

This survey was the first community based one dealing with prevalence of chronic diseases such as; diabetes mellitus, hypertension and hyperlipidemia and their behavioral risk factors as; smoking habits, drinking alcohol, eating fruits and vegetables, oil consumption, physical activities and obesity as well as the physical and biochemical measurements.

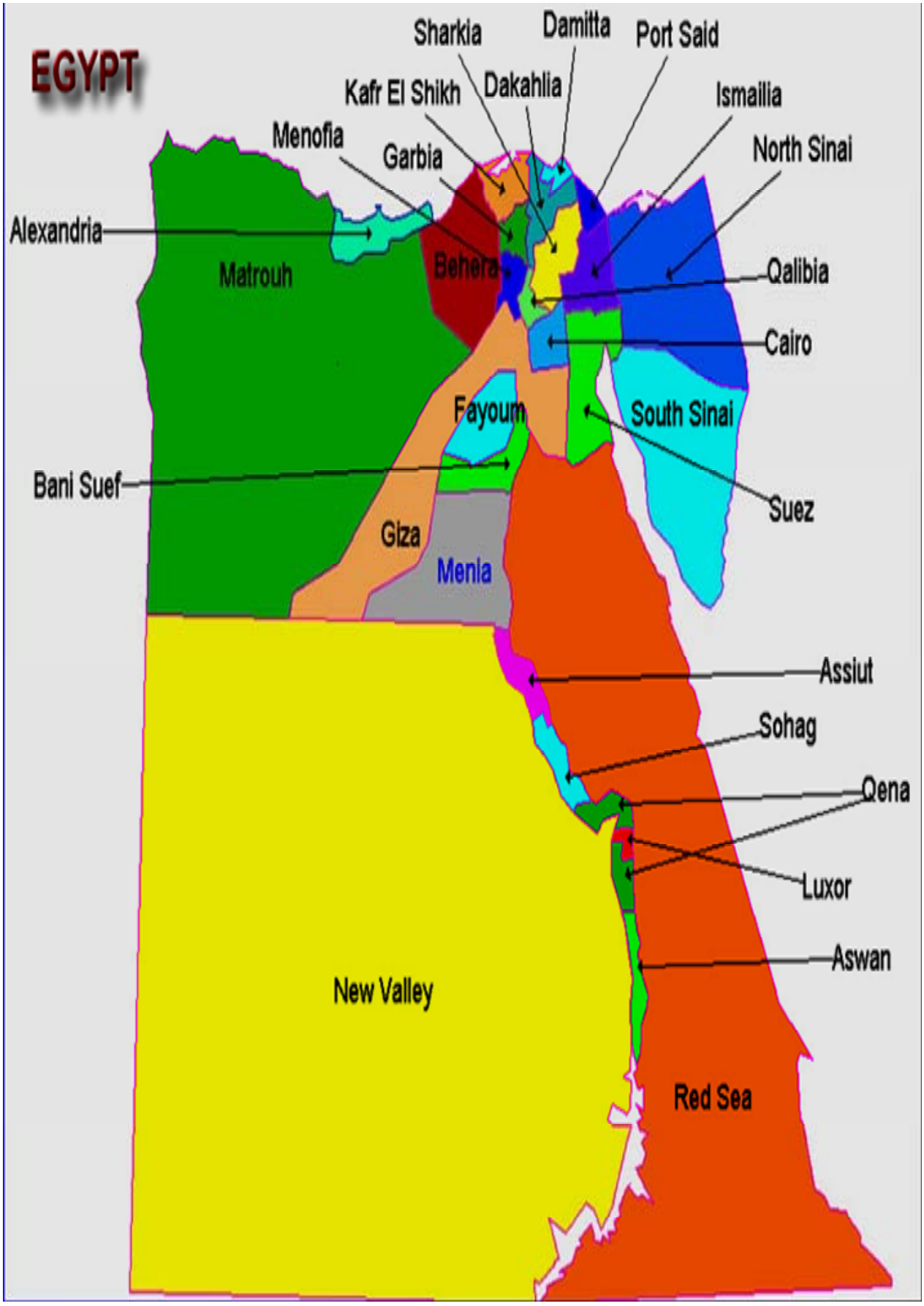
Objectives

General aim:

Community-based survey to detect the prevalence of NCDs and their associated risk factors among the Egyptian society.

Specific aim:

- Monitoring NCD trend & their risk factors to move towards prevention
- Nationwide standardizations of data base using software
- Data collection and analysis on an ongoing basis
- Using data for shaping public health policy
- Predicting future case load of NCD
- Monitoring impact of public health programs


EGYPT
Sharkia
Damitta
Port Said
Kafr El Shikh
Dakahlia
Ismaillia
Menofia
Garbia
North Sinai
Alexandria
Matrouh
Behera
Qalibia
Cairo
Fayoum
South Sinai
Bani Suef
Suez
Giza
Menia
Assiut
Sohag
Qena
Luxor
Aswan
New Valley
Red Sea

Methodology

Survey population:

The present survey included 10,000 participants representing the Egyptian population of the age group ≥= 15: ≤ 65 years selected proportionate to gender according to the last Egyptian census. All persons present in the selected house at the time of interview of the selected age and gender were interviewed.

All participants answered a verbal questionnaire filled by an epidemiologist; their physical measurements (weight, height, waist circumference) were taken by a nurse who also measured blood pressure once using digital blood pressure machines. Finally, 40% of the sample selected randomly proportionate to age group and gender, were asked to fast from 10 to 12 hours then go to the determined laboratory site where venous blood sample were drawn for measuring fasting blood glucose, fasting cholesterol level, triglyceride (TG), and high density lipoprotein (HDL) using Refletron lab machine

Study design:

This is a national cross sectional survey conducted on a representative sample of the population of Egypt, the WHO-Stepwise approach is adopted, collecting data on the risk factor that contribute to the major non-communicable diseases

Sampling:

The study was designed to be a Cross-sectional household survey targeting the populations in Egypt where population was around 70 millions. The sample chosen was based on the multistage proportionate stratified cluster random technique.

The strata were the Egyptian Governorates (Primary Sampling Unit) and the sample was distributed proportionally among them. Districts were the secondary Sample Unit. Tertiary sampling units constituted the streets and buildings. Residential places were considered the end-sampling units. At each level of the sampling methodology, simple random sampling or systematic random sampling techniques were used for randomization and representation of the selected sample.

Allocation:

The sample has been allocated among governorates proportional to size and population. Then the NCD data is weighted for Egypt.

Study sites:

For practical purpose, we have chosen not to include the 27 governorates of Egypt, to avoid time and money consuming, random selection of 10 governorates were selected representing the whole geographical areas in Egypt.

Cairo, Suez (from four Urban Governorates),
Marsa Matrouh and Red Sea (from five Frontier Governorates),
Dakahlia, Behira, Menofia (From nine Delta Governorates) and
Minia, Sohag and Luxor City (From nine Upper Egypt governorates).

The sampled population were selected randomly from each selected governorate randomly proportioning to the total population of each considering the selected age group (≥ 15: ≤ 65 years) and gender:

Table: The selected "10" Governorates

The following table shows the randomly selected "10" governorates who represent the whole geographical areas in Egypt and its "27" governorates and the Sampled Population from each

Governorate		Total Egyptian Pop. Aged ≥ 15 : ≤65	Sampled Population
Urban	Cairo	5,016,071	2,868
	Suez	293,373	167
Frontier	Marsa Matrouh	150,115	86
	Red Sea	115,146	66
Delta	Dakahlia	2,935,577	1,678
	Behira	2,709,512	1,549
	Menofia	1,875,486	1,072
Upper Egypt	Minia	2,136,873	1,222
	Sohag	2,019,761	1,155
	Luxor	240,751	137
Total		**17,492,665**	**10.000**

N.B., This data was revised by the National health Information Centre, log book 2003

From each selected governorate, districts were selected randomly proportionately to the selected age group (≥ 15: ≤ 65 years) and gender. This is represented in the following tables

Table: The selected urban governorates

The following table shows the randomly selected urban governorates with sampled population and selected districts from each

Gov.	Total Pop.\ gov. (≥ 15: ≤ 65 years)	Selected dist.	Total Pop.\district (≥ 15: ≤ 65 years)	Pop. sample\ Dist.
Cairo	5,016,071	M. nasr shark	225.597	310
		Elzayton	246.266	338
		Elshrabia	189.219	260
		Elzawia elhamra	233.846	322
		Elwaily	121.051	166
		Helwan	51.116	70
		M. Elslam	280.661	386
		Hdaek elkoba	236.391	326
		Elbsateen & dar elslam	504.495	694
Total		**9**	**2.088..643**	**2872**
El sues	293,373	Elsues	108.784	168
Total		**1**	**108.784**	**168**

Table: Frontier governorates

The following table shows the randomly selected Frontier governorates with sampled population and selected districts from each

Governorate	Total Pop./ gov. (≥ 15: ≤ 65 years)	Selected districts	Total Pop.\ district (≥ 15: ≤ 65 years)	Pop. sample\ district
Matrouh	150,115	Matrouh	67.108	88
Total		1	67.108	88
Red sea	115,146	Ras ghareb	20.216	62
Total		1	20.216	62

N.B., This data revised by the National health Information Centre, log book 2003

Table: Delta governorates

The following table shows the randomly selected Delta governorates with sampled population and selected districts from each

Governorate	Total Pop./ gov. (≥ 15: ≤ 65 years)	Selected districts	Total Pop.\ district (≥ 15: ≤ 65 years)	Pop. sample\ district
Menofia	1,875,486	Shbeen elkom	326.595	352
		Menof	259.184	280
		Kwesna	224.167	242
		Tlaa	186.443	202
Total		**4**	**996.390**	**1076**
Behera	2,709,512	Damanhor	419.609	582
		Rasheed	114.594	160
		Itay elbarod	237.523	330
		Eldlengat	179.881	250
		Abo elmtamer	160.804	224
Total		**5**	**1.112.411**	**1544**
Dakahlia	2,935,577	Mansoura	567.332	720
		Senblaween	264.125	336
		Dekerns	170.899	216
		Belkas	261.174	332
		Elgmalia	48723	62
Total		**5**	**1.312.253**	**1666**

Table: Upper Egypt governorates

The following table shows the randomly selected Upper Egypt governorates with sampled population and selected districts from each

Governorate	Total Pop./ gov. (≥ 15: ≤ 65 years)	Selected districts	Total Pop.\ district (≥ 15: ≤ 65 years)	Pop. sample\ district
Menia	2,136,873	Elmenia	415.942	468
		Bany mzar	254.146	286
		Mtay	134.142	150
		Smalot	315.774	354
Total		**4**	**1.120.003**	**1258**
Sohag	2,019,761	Tema	180.106	244
		Almonshaa	222.714	302
		Gerga	226.561	308
		Elbalina	209.090	284
Total		4	838.471	1140
Loxour city	240,751	Loxour	20.216	126
Total		**1**	**230.293**	**126**

Sample Size:

The minimum sample size required (with 95% confidence interval and 1% error) was 10,000 individuals, aged from ≤15: ≥65 yrs old. A further step was classifying the randomized individuals according to primary, secondary and tertiary sampling units depending on central department of statistics in Egypt to complete the framework.

Working team:

Consisted of an Epidemiologist to fill the questionnaire and supervise other steps during the interview, a nurse to take the physical measurements (wt., ht. & waist circumference) and measure blood pressure and a sanitarian from the related health district to guide the team towards the selected streets and building

Tools:

- Questionnaire: the working team used the international STEPs questionnaire after translating it into public traditional Egyptian Arabic language to facilitate the mission for the interviewer. An epidemiologist filled the questionnaire. Each questionnaire calls for one respondents.
- Blood pressure digital machine (Omron)
- Cm petrel for height and waist circumference measurements
- Portable scale for weight measurements
- Refletron machine for glucose and lipid profile detection
- Strips for glucose, cholesterol, HDL and triglyceride detection.
- Syringes, cotton and alcohol swaps for blood sample drawing

Laboratory techniques:

The blood samples were drawn from 40% of the selected individuals (i.e. two persons from each five persons) of the selected age group. We used Refletron machine, strips of glucose, cholesterol, HDL and triglyceride. The selected individual were asked to fast 12 hours before taking the blood sample

Training, Equipment Materials and Instruments:

The WHO' STEP wise Non-communicable diseases risk factors questionnaire was used with some modifications in the extended form (adding few questions on consanguinity, chronic obstructive pulmonary diseases, shisha smoking as a type of tobacco use). WHO' scales & measures for height and weights were standardized.
WHO supplied the Refletron for laboratory biochemical measurements (Fasting blood sugar, cholesterol, triglyceride, and HDL)
Approvals were taken from his Excellency Minister of Health and Population, MOHP officials, the epidemiologists from Central Epidemiology and Diseases Surveillance Unit (ESU) of MOHP and from Central Public Health Laboratory (CPHL)
The working team had different phases of training for this survey.
This procedure was supervised by a CDC consultant form NCD department in Egypt.

Timetable:

The fieldwork of this survey took a whole year (2005). The pilot study was started in Suez governorate at January 2005. The last governorate to be surveyed was Cairo and the fieldwork there was finished on December, 2005.

Data collection and analysis

Data was collected using the questionnaire and the laboratory sheet. Data was then entered and validated using Access database and analyzed using SPSS software and the statistical test of significance used in the ESU, MOHP

Ethical Approvals & Participation:

- A standardized written consent was distributed among all voluntary participants
- As the population differs from one Governorate to another, they were stratified proportionally
- This sample was also adjusted according to gender and age distributions from ≤15 : ≥65 years of the Egyptian populations
- Sample technique was revised by the National Center of Information of Health and Population (NCIHP) of MOHP

Summary of WHO-STEPwise approach for chronic diseases and their risk factors Surveillance System

Stepwise risk factors surveillance system was planned (Stepwise NCD) to start in Egypt like other countries in WHO- EMRO.
It consisted of three steps all of which were done in one visit to avoid time and money consuming.

Step wise steps:

1. **Step 1:** conducted to detect demographic data, age, gender, personal habits of smoking, alcohol drinking, fruits and vegetables consumption, as well as socioeconomic status (income, expenditure, number of family members, educational level, occupation and marital status.

2. **Step 2:** to study the physical measurements of the Egyptian Population (e.g. height, weight, and waist circumference), and calculate Body Mass Index (BMI) by gender, and age groups of the population in Egypt.

3. **Step 3:** to study the biochemical measurements such as Fasting blood sugar (FBS), Fasting Cholesterol level, Fasting Triglyceride level, and High Density Lipoprotein level (HDL) in blood.

Note: the STEPwise protocol and manual is online on the www.who.int

Results

- **Cross sectional household survey representing the 70 million Egyptian population were designed.**
- **The sample was chosen based on the multistage proportionate stratified sampling technique.**
- **The strata were the Egyptian Governorates and the sample was distributed proportionally among them. Clusters started at the level of districts then it went down to areas (Primary Sampling Units) and villages (Secondary Sampling Units). Tertiary sampling units constituted the streets and buildings.**
- **Residential places were considered to be the end-sampling units. At each level of the sampling methodology simple random sampling or systematic random sampling techniques were used for randomization and representatively of the selected sample**
- **The participants of this survey were 10000 population aged ≥= 15 to ≥= 65 years old and stratified according to the last Egyptian census into 5 age groups.**
- **The response rate was 97.8%. Data were weighted according to the last Egyptian census "2003" considering the gender and selected age group to represent the Egyptian population.**

Results of STEPwise Step 1

Step 1

Out of 10,000 a total of 9780 adults participated in the Egyptian Steps survey. The overall response rate was 97.8%

Sampling response and proportion:

Table 1. The planned sample for the survey

This table shows the geographical distribution of the planned sample for the survey participants

Geographical areas	Governorates	Sampled Population
Urban	Cairo	2,888
	Suez	167
Frontier	Marsa Matrouh	86
	Red Sea	66
Delta	Dakahlia	1,678
	Behira	1,549
	Menofia	1,072
Upper Egypt	Minia	1,222
	Sohag	1,155
	Luxor	137
Total	**10**	**10.000**

The10000 survey participants are randomly selected from each geographical area according to its total population and corresponding to the recorded data in the last Egyptian census (2003) and revised by the health information department of the Ministry of Health Egypt to represent the whole governorates.

Table 2. Response rate

This table shows summary results for the response proportions for STEPs step 1 and 2 by gender distribution in different governorates

Governorates	Male N %	Female N %	Both sex N %
Cairo	1491 15.25%	1397 14.28%	2888 29.53%
Suis	54 0.55%	59 0.6%	113 1.16%
Dakahlia	819 8.37%	811 8.29%	1630 16.67%
Menofia	548 5.6%	500 5.11%	1048 10.72%
Behera	805 8.23%	727 7.43%	1532 15.66%
Menia	517 5.29%	591 6.04%	1108 11.33%
Sohag	604 6.18%	556 5.69%	1160 11.86%
Matrouh	45 0.46%	44 0.45%	89 0.91%
Red sea	39 0.4%	35 0.36%	74 0.76%
Luxor	71 0.73%	67 0.69%	138 1.41%
Total Respondent Participants	**4993 51.05%**	**4787 48.95%**	**9780**

Note: The sampled population from each governorate is proportionate to the total population of each according to the Egyptian census 2003 and revised by the health information department of the Ministry of Health Egypt

Geographical distribution of the participants

Table 3. Summary results for the response proportions stratified by Egyptian Geographical areas

Both Sexes (N= 9780)

Age Group	Urban	Delta	Upper	Frontier
	N= 3001	N= 4210	N= 2406	N= 163
15-24years	31.2%	42.3%	25.0%	1.5%
25-34 years	30.6%	43.8%	23.9%	1.7%
35-44 years	30.4%	43.2%	24.5%	2.0%
45-54 years	30.8%	43.6%	23.9%	1.7%
55-65years	29.4%	42.8%	26.2%	1.6%
15-65years	30.7%	43.0%	24.6%	1.7%

Table 4. : Summary results for the response proportions by the Egyptian Geographical areas stratified by age group and gender

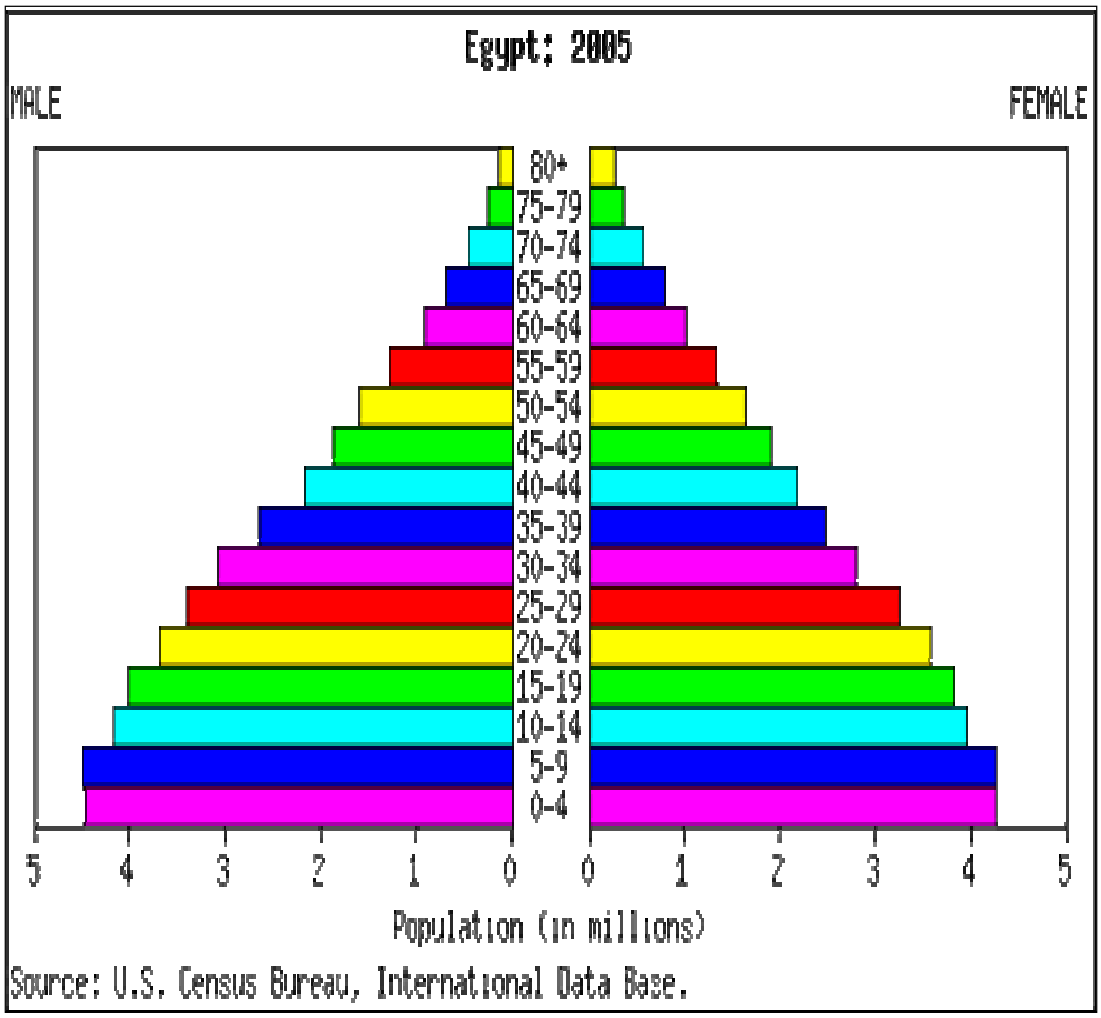
Age Group	Men				Women			
	Urban	Delta	Upper	Fortier	Urban Gov	Delta	Upper	Fortier
15-24 years	31.8%	43.0%	23.9%	1.4%	30.6%	41.7%	26.2%	1.6%
25-34 years	30.7%	44.2%	23.3%	1.8%	30.5%	43.3%	24.5%	1.6%
35-44 years	30.2%	43.4%	24.3%	2.1%	30.6%	42.9%	24.6%	1.9%
45-54 years	31.4%	44.1%	22.9%	1.7%	30.1%	43.2%	25.0%	1.8%
55-65 years	29.4%	42.9%	26.0%	1.7%	29.4%	42.6%	26.6%	1.4%
15-65 years	30.9%	43.5%	23.9%	1.7%	30.4%	42.6%	25.4%	1.7%

% within Age categories (years)

From the distribution of respondent participants by age group and gender we find higher percent in age group 15- 45 years which go with the Egyptian population pyramid.

Graph 1.

Population Pyramid of Egypt



Demographic Information Results

Table 5. : summary information by age group and gender of the participants sample in different governorate

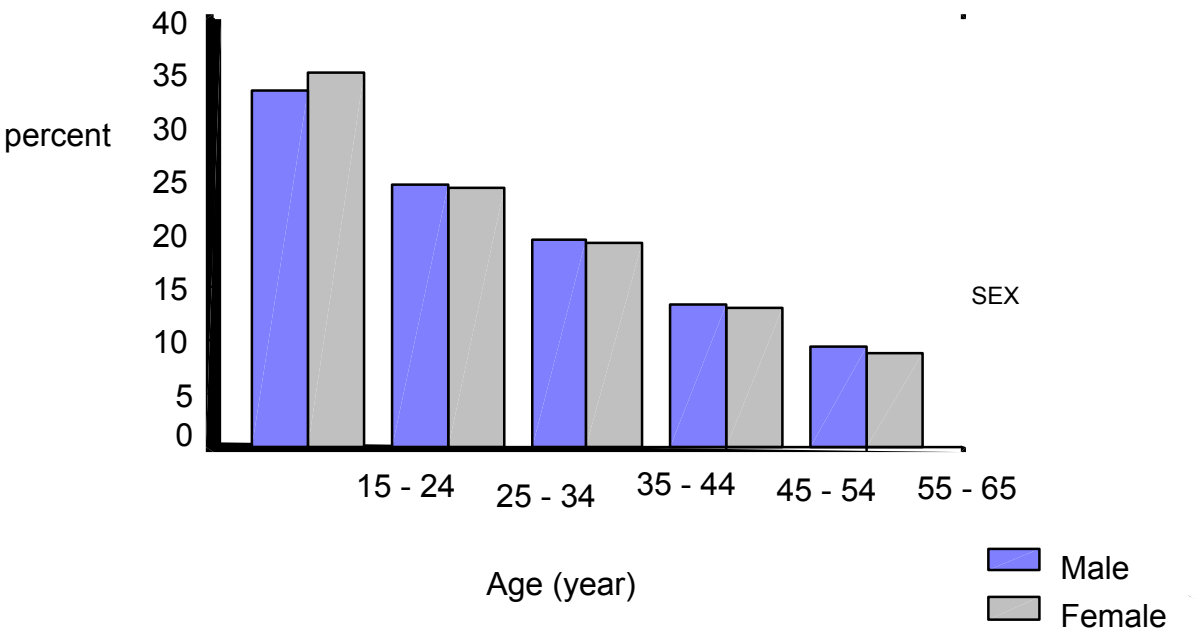
Gov		>=15-25	>25-35	>35-45	>45-55	>55-65	Total
Cairo	**N**	600	679	535	382	192	2888
	%	6.13%	6.94%	5.47%	4%	1.96%	29.5%
Port said	**N**	38	29	25	13	8	113
	%	0.39%	0.35%	0.3%	0.13%	0.08%	1.2%
Dakahlia	**N**	616	372	318	200	124	1630
	%	6.3%	3.8%	3.3%	2.04%	1.27%	16.7%
Menofia	**N**	370	245	219	137	77	1048
	%	3.78%	2.51%	2.2%	1.4%	0.79%	10.7%
Behera	**N**	564	383	290	201	94	1532
	%	5.77%	3.9%	3%	2.06%	0.96%	15.7%
Menia	**N**	418	259	214	123	94	1108
	%	4.27%	2.7%	2.2%	1.3%	1%	11.3%
Sohag	**N**	441	276	227	136	80	1160
	%	4.51%	2.8%	2.3%	1.39%	0.9%	11.9%
Matrouh	**N**	32	23	16	13	5	89
	%	0.33%	0.24%	0.2%	0.13%	0.05%	1%
Red sea	**N**	21	17	22	10	4	74
	%	0.21%	0.2%	0.22%	0.1%	0.04%	0.8%
Luxor	**N**	52	26	24	22	14	138
	%	0.53%	0.27%	0.3%	0.22%	0.14%	1.4%
Total	**N**	3652	2309	1890	1237	692	9780
	%	37.3%	23.6	19.3%	12.65%	7.08%	100%

Table 6. Age group by gender

The following table shows summary information of the participants by age group and gender

Age Group	Men	Women	Both Sexes
	N=	N=	N=
	N=4993	N=4787	N=9780
	%	%	%
15-24 years	1667	1673	3340
	49.9%	50.1%	100.0%
25-34 years	1228	1157	2385
	51.5%	48.5%	100.0%
35-44 years	967	914	1881
	51.4%	48.6%	100.0%
45-54 years	665	625	1290
	51.6%	48.4%	100.0%
55-65 years	466	418	884
	52.7%	47.3%	100.0%
15-65 years	4993	4787	9780
	51.1%	48.9%	100.0%

Graph 2.



Socioeconomic status of the survey participants

Household composition

Table 7. : Mean number of adults over 15 years old in each household (presented only for both sexes because results are for the household not individuals).

Age Group	Both Sexes	
	Mean no.	N
15-24 years	3.9	3340
25-34 years	3.2	2385
35-44 years	3.0	1881
45-54 years	3.7	1290
55-65 years	3.9	884
15-65 years	3.5	9780

Table 8. Marital status

The following table shows the marital status among the survey participants

Marital status	Male (4993)	Female (4787)	Both sexes (9780)
Single	20.75%	27.2%	34.1%
Married	29.4%	36.7%	60.6%
Divorced	0.2%	1.8%	1.1%
Widow	0.6%	7%	4.1%s
Other	0.05%	0.2%	0.2%

60.6 % of the population are married while only 34.1% are single. The remaining percentage is distributed between others (divorced, widow and separated)

Consanguinity

Table 9. The following table shows the prevalence of consanguineous marriage among the survey participants

Consanguineous marriage	%
1st degree	7.9
2nd degree	3.9
3rd degree	6
4th degree	40.3

7.9% of the population has a first degree consanguineous marriage, while second and third degree of relative marriage only seen in 3.9% and 6% respectively. Forty percent has a remote consanguinity.

Education

Illiteracy is shown in 22.4% respondents with the mean years of education 8.4 years; there was an evident gender gap in illiteracy being higher in females 29% than in males 16%.

The highest level of education did not exceed the Technical diploma in 31.7% of the respondents among males and females

University education is only seen in 18.5% of males' respondents and 12% of females, post graduates level is reached only by 0.7% of the respondents

Respondents of the age group of 45 years and older reported lower educational level than younger age especially in females

Table 10. Distribution of the respondents according to the highest level of education stratified by gender, Egypt, 2005

Education level	Male	Female	Both sexes
Illiterate	16%	29%	22.4%
Read & write	2%	2%	2%
Primary Schools	10.5%	7.5%	9%
Preparatory Schools	9%	8%	8.5%
High Schools	11%	8.5%	9.8%
Tech. diploma	31.5%	32%	31.7%
Bachelor degree	18.5%	12%	15.3%
Post graduate	0.5%	1%	0.7%

Table 11. : Distribution of the respondents according to the highest level of education stratified by gender and age group, Egypt, 2005

Age Group		No formal schooling	Some primary schooling	Completed primary	Completed secondary school	Completed high school	Tech. deploma	College /university completed	Post-graduate degree
Men	15-24 years	8.8%	0.9%	6.4%	15.7%	21%	28.1%	18.1%	0.1%
	25-34 years	13.1%	2.2%	9.1%	8.6%	4.2%	37.6%	22.2%	1.2%
	35-44 years	16.4%	1.9%	10.5%	6%	6.9%	37.3%	18.4%	1.7%
	45-54 years	25.3%	2.4%	14.1%	4.4%	4.7%	28.4%	17.1%	3.2%
	55-65 years	36.3%	5.2%	19.3%	6%	4.5%	17%	7.7%	3%
	15-65 years	16.1%	2%	10.1%	9.7%	10.4%	31.2%	18.1%	1.4%
Women	15-24 years	12.5%	0.9%	6%	13.7%	17%	33.4%	14.9%	0.4%
	25-34 years	20.1%	2%	7.5%	7.3%	5.5%	40%	15.3%	0.8%
	35-44 years	36%	3.1%	6.7%	3.9%	4.7%	34.8%	9.1%	1.2%
	45-54 years	50.7%	2.7%	11.4%	2.4%	3.8%	19.8%	6.7%	1.4%
	55-65 years	69.1%	2.6%	10.3%	2.9%	1.9%	10.3%	2.2%	0.5%
	15-65 years	28.8%	2%	7.6%	7.9%	8.9%	31.5%	11.7%	0.8%

Table 12. Distribution of the respondents according to the mean number of years of education stratified by age group and gender, Egypt, 2005

Age Group	Men	Women	Both Sexes
	Mean	Mean	Mean
15-24 years	9.9	9.4	9.7
25-34 years	9.9	8.9	9.4
35-44 years	9.5	7.1	8.4
45-54 years	8.4	4.8	6.7
55-64 years	5.5	2.6	4.2
Total	9.2	7.7	8.4

Employment

Governmental employee constituted (26.6%) of the studied population which is higher among males (30%) than females (23%), the rest of the respondents either have non-governmental work3.8% or private work 7.4%, students represents about 12.5% of the population. 52% of the females are housewives. Labor in males is about 22%.

Table 13. Prevalence of Employment status among respondents, Egypt, 2005

Employment	Male	Female	Both sex
	N= 4993	N= 4787	N= 9780
Gov. employee	30%	23%	26.5 %
Non gov employee	6%	2.5%	4.3 %
Private work owner	14%	1.5%	7.8 %
Labor	22%	1.3 %	11.7%
Student	13.5%	11.5%	12.5%
House wife		52.7%	25.3 %
Retired	4.7%	3.5%	4.1 %
Unemployed	5.0 %	2.5%	3.8 %
Can not work	4.5 %	1.5%	3 %

Income:

Table 14. Description of mean reported household earnings (income) per year of participants in local currency (presented only for both sexes because results are for the household not individuals).

The Average Earning Of The Household

Age Group	Both Sexes
	N=
	Mean
15-24years	272.7
25-34 years	286.2
35-44 years	300.6
45-54 years	331.3
55-65years	326.5
15-65 years	293.9

Table 15. Estimated household earnings

The following table shows summary of participant household earnings by quintile (presented only for both sexes because results are for the household not individuals)

An Estimate of the Annual Household Income

Age Group	< 100 LE	100 - <1000	1000 - <3000	3000 - <5000	>5000
15-24 years	1.3%	62.8%	3.4%	.1%	.1%
25-34 years	1.6%	69.1%	2.7%	.2%	.0%
35-44 years	1.0%	69.7%	2.8%	.2%	.0%
45-54 years	2.1%	65.7%	4.3%	.4%	.1%
55-64 years	3.5%	64.7%	3.6%	.2%	.2%
15-65 years	1.6%	66.2%	3.2%	.2%	.1%

Prevalence of behavioral risk factors (Summary table)

Table 16. The following table shows the prevalence of cigarette smoking, Shisha smoking, alcohol drinking, and feeding healthy food among Egyptian population stratified by gender

	Male/4993	Female/4787	Total/9780
Daily Smokers[1]	**34.6%**	**0.7%**	**18%**
Shisha Smokers[2]	9%	0.4%	4.8%
Alcohol Drinkers[3]	3.8%	0.5%	2.1%
Healthy Eating Habit4	21.3%	20.9%	21.1%

1. The percent of current daily smokers males is 34.6%, while in females 0.7%
2. The prevalence of Shisha smoking among males 9%, while in females 0.4%
3. The prevalence of those who drink Alcohol in the last 12 month among males 3.8%, while in females 0.5 %
4. The percentage of those who ate healthy food consisting of at least 5 or more combined servings of fruit and vegetables per day was 21.1% with equal distribution between males and females

Tobacco use:

Current smokers:

In order to assess the prevalence of smoking habits in Egypt the respondents were asked about their current status of smoking. Results showed that the prevalence of smoking was 19 %.

Smoking habit stratified by age group

Table 17. This table shows number and percent of current daily smoker participants stratified by age group

Age group	% within age group	Total
>=15 - 25	11.5	3652
>25 - 35	20.5	2309
>35 - 45	23.3	1890
>45 - 55	23.2	1237
>55 - 65	21.2	692

Regarding age specific response rate, it is noticed that the prevalence of smoking is higher among old age (23% in age group 35- 55 years old).

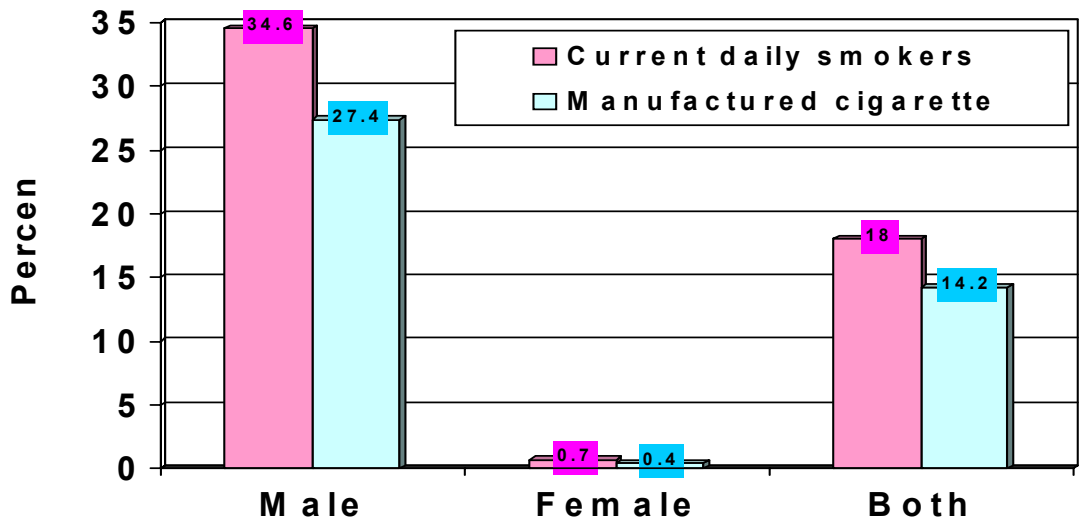
Table 18. This table shows the prevalence of smoking among respondents stratified by age and gender.

Age group	Men (N=4993)		Women (N=4787)		Both Sexes	
	Daily smokers	Non-daily smokers	Daily smokers	Non-daily smokers	Daily smokers	Non-daily smokers
15-24 years	21.1%	1.4%	.2%	.6%	10.6%	1.0%
25-34 years	38.8%	1.7%	.8%	1.0%	20.4%	1.3%
35-44 years	44.0%	1.2%	.7%	1.0%	22.9%	1.1%
55-65 years	38.2%	2.1%	1.9%	1.0%	21.0%	1.6%
15-65 years	34.6%	1.5%	.7%	.9%	18.0%	1.2%

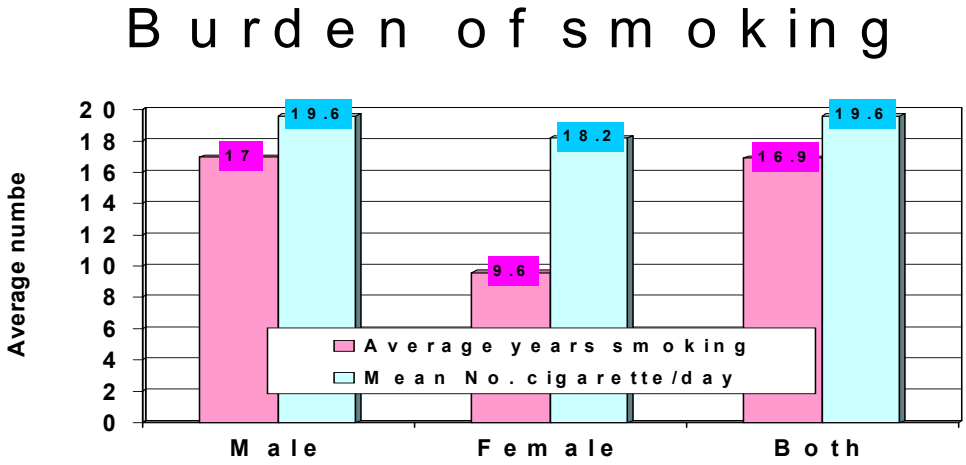
The prevalence of smoking among males who smoke tobacco products daily was 34% while in females was 0.7 %.

Note: The low females smoking percent may be due to that smoking habit in Egypt is refused culturally, religiously and by low

Graph 3. **The following graph shows the prevalence of tobacco smoking stratified by gender**



Graph 4. **The following graph shows the burden of tobacco smoking by studying the average years of current daily smokers among males and females and the mean number of smoked cigarette per day stratified by gender**



Alcohol drinking habit among the respondent participants

Table 19. **Alcohol consumption status of the population. Abstainers have not consumed alcohol in the last 12 months.**

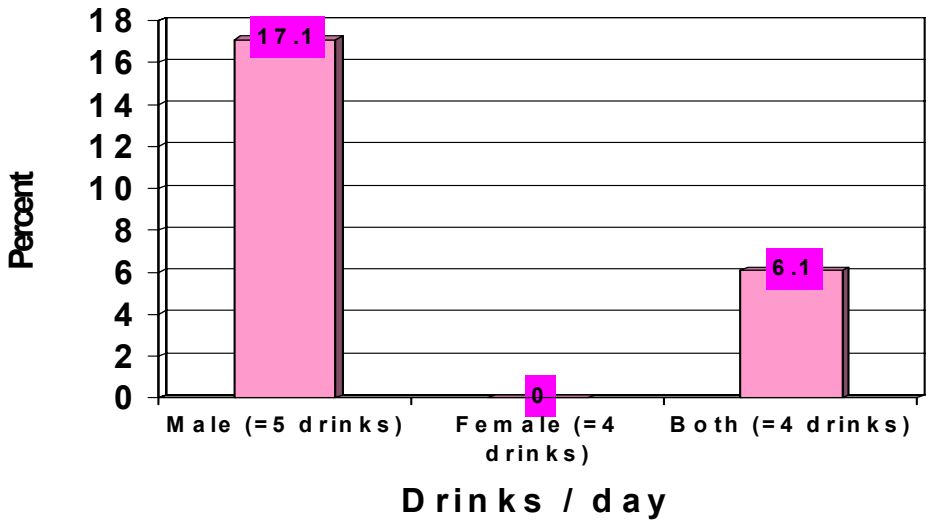
Instrument questions:

- Have you consumed alcohol (such as beer, wine, spirits, fermented cider, or (add other local examples) within the past 12 months?

- Have you consumed alcohol (such as beer, wine, spirits, fermented cider, or (add other local examples) within the past 30 days?

Age group	Men		Women	
	Current drinker (last 30 days)	Drank alcohol in last 12 months, not current	Current drinker (last 30 days)	Drank alcohol in last 12 months, not current
	%	%	%	%
15 -24 years	2.8	2.3	0. 3	0.1
25 -34 years	3.7	4.2	0.4	0.3
35 -44 years	1.9	3.5	0.3	0.7
45 -54 years	2.0	5.3	0.4	0.6
55 -65 years	2.6	5.2	0.6	0.2

Graph 5. **The following graph shows that 17.1% of males drinking alcohol ≥ 5 drink per time and no females drinking alcohol ≥ 4 drinks per time (0%) in the last 12 months among the respondent participants**



Feeding Habits among Respondents

Fruit and vegetable consumption

Table 20. Mean number of days per week on which respondents consume fruit and vegetable servings and the percent among respondents

Instrument questions:

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

Age Group	Mean number & percent of fruit serving			Mean number & percent of vegetables serving		
	Men	Women	Both Sexes	Men	Women	Both Sexes
	mean	mean	mean	mean	mean	mean
	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI
15-24 years	3.9250	3.9582	3.9416	3.9094	3.9289	3.9192
	17.2%	17.4%	34.7%	16.9%	17.1%	34.0%
25-34 years	3.8990	3.9075	3.9031	3.9503	3.9118	3.9317
	12.6%	11.9%	24.5%	12.6%	11.8%	24.4%
35-44 years	3.8014	3.7856	3.7937	3.9276	3.9179	3.9229
	9.7%	9.1%	18.8%	9.9%	9.3%	19.2%
45-54 years	4.0226	3.8176	3.9233	4.0722	3.9792	4.0271
	7.0%	6.3%	13.3%	7.0%	6.5%	13.5%
55-64 years	3.7618	3.7201	3.7421	3.8906	3.8278	3.8609
	4.6%	4.1%	8.7%	4.7%	4.2%	8.9%
25-64 years	3.8924	3.8738	3.8833	3.9429	3.9204	3.9319

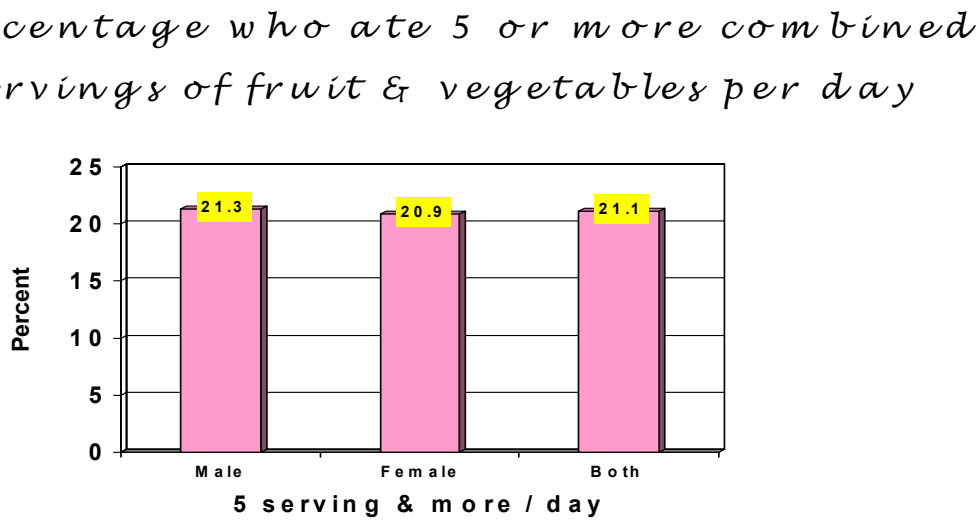
Table 21. Mean number of fruit and vegetable servings per day on days consumed

The following table describes the percentage of consuming five or more fruit and/or vegetables per day on days consumed.
Instrument questions:

- How many servings of fruit do you eat each on one of those days?
- How many servings of vegetables do you eat each on one of those days?

Age Group	Five or more fruit and/or vegetables per day		
	Men	Women	Both Sexes
	mean	mean	mean
	95% CI	95% CI	95% CI
15-24years	1.2124	1.2122	1.2123
25-34 years	1.2109	1.2230	1.2168
35-44 years	1.2213	1.1871	1.2047
45-54 years	1.2120	1.2208	1.2163
55-64 years	1.2039	1.1890	1.1968
15-64 years	1.2129	1.2091	1.2110

Graph 6. Eating habits stratified by gender This graph shows the percentage of those who ate healthy food consisting of at least 5 or more combined servings of fruit and vegetables per day was 21.1% with equal distribution between males and females.



Type of oils used most frequently

Table 22. Description: type of oil or fat most often used for meal preparation in households (presented only for both sexes because results are for the household not individuals).

Instrument question:

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

Age Group (	Vegetable oil	Olive oil	Butter	Margarine	Other
	95% CI	95% CI	95% CI	95% CI	95% CI
15-24 years	63.2%	3.7%	37.2%	55.9%	8.7%
25-34 years	63.3%	4.0%	39.2%	55.2%	7.9%
35-44 years	65.0%	3.1%	39.0%	56.8%	8.0%
45-54 years	65.0%	4.7%	38.8%	54.6%	8.3%
55-65 years	65.8%	3.7%	37.8%	52.6%	8.5%
15-65 years	64.0%	3.8%	38.3%	55.4%	8.3%

The total percent in this table is not 100% because of multiuse of different types of oil

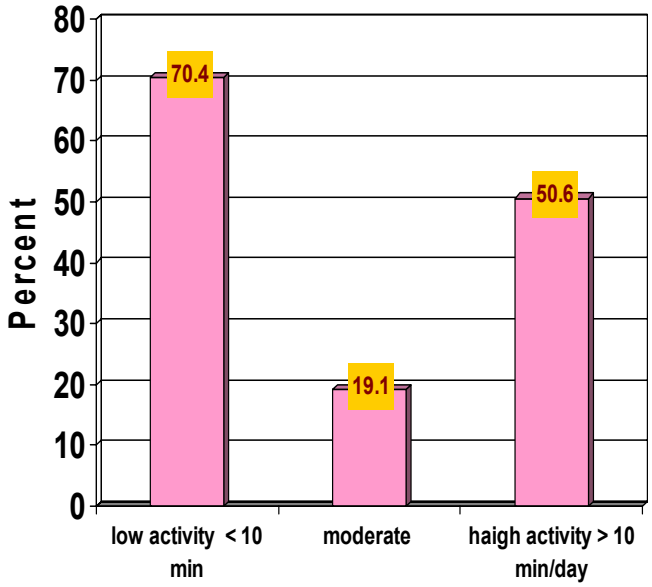
It is shown that most of the respondents households used vegetable oil (64%), this may be due its availability being accessible to the whole population. Small percentage of the respondents uses olive oil (3.8%). Butter is consumed by 38.3% of the population.

Physical activity

Table 23. Percentage of daily physical activity of the participants

Age Group	Both Sexes (N= 9780)		
	Low level of activity <10 min	Moderate level of activity	High level of activity >10min
15-24 years	69.6%	19.0%	8.9%
25-34 years	69.0%	21.4%	11.9%
35-44 years	70.8%	19.5%	10.6%
45-54 years	71.4%	19.8%	9.0%
55-65 years	74.5%	10.9%	5.9%
15-65 years	70.4%	19.1%	9.7%

Graph 7. This graph shows the prevalence of daily physical activity among Egyptian population stratified by gender.



Prevalence of chronic diseases

(Verbal-reported)

To identify awareness of population about their health status, the prevalence of diabetes & hypertension were estimated based on verbal questions. The respondent were asked if they have been told by health professional that they have diabetes or hypertension, and were also asked about their compliance to medical or traditional treatment

Verbal-reported diabetes mellitus

Table 15.

Distribution of the respondents according to diabetes, based on notification by a health professional, verbal reported, stratified by age group, Egypt, 2005

Instrument questions :

- During the past 12 months, have you ever been told by a doctor or other health worker that you have diabetes?

Age Group	Diabetes diagnosed by doctor or health worker in last 12 months		
	Men	Women	Both Sexes
	95% CI	95% CI	95% CI
15-24 years	1.0%	.9%	.9%
25-34 years	1.2%	2.5%	1.8%
35-44 years	5.5%	7.1%	6.3%
45-54 years	12.9%	17.4%	15.1%
55-65 years	17.2%	28.7%	22.6%
15-65 years	5.0%	7.1%	6.0%

Respondent's history of diabetes diagnosis and treatment

Table 16: Number and percentage of verbal- reported Diabetics by each type of managements, stratified by age group, Egypt, 2005

The respondents asked if they are during the past 12 months, told by a doctor or other health worker that they have diabetes, then the diabetics asked if they currently taking any of the following treatments/advice for diabetes prescribed by a doctor or other health worker or not

Age Group	Currently taking insulin prescribed for diabetes by doctor or health worker			Currently taking oral drugs prescribed for diabetes by doctor or health worker		
	Men	Women	Both Sexes	Men	Women	Both Sexes
15-24 years	.7%	.5%	.6%	.4%	.4%	.4%
25-34 years	.5%	1.0%	.8%	.9%	1.6%	1.2%
35-44 years	2.3%	2.6%	2.4%	4.0%	5.6%	4.8%
45-54 years	4.7%	7.0%	5.8%	10.5%	14.1%	12.2%
55-65 years	6.7%	11.5%	8.9%	14.4%	23.0%	18.4%
15-65 years	2.0%	2.8%	2.4%	3.9%	5.4%	4.6%

Diabetes lifestyle advice

Table 16. **Respondents with history of diabetes lifestyle advice**.

Respondents asked if they currently taking any of the following
The following table shows Number and percentage of verbal- reported Diabetics who received treatments/advice for diabetes prescribed by a doctor or other health worker?
for life style modification, stratified by age group, Egypt, 2005

Age Group	Advised or treated by doctor or health worker to go on Diet			Advised or treated by doctor or health worker to stop smoking			Advised or treated by doctor or health worker to start or do more exercise		
	Men	Women	Both Sexes	Men	Women	Both Sexes	Men	Women	Both Sexes
15- 24 years	.6%	.5%	.6%	.1%	.1%	.1%	.2%	.4%	.3%
25-34 years	1.1%	1.7%	1.4%	1.1%	.3%	.7%	.8%	1.0%	.9%
35-44 years	3.8%	5.3%	4.5%	3.5%	1.3%	2.4%	2.8%	3.8%	3.3%
45-54 years	9.5%	13.6%	11.5%	6.8%	1.1%	4.0%	6.9%	7.8%	7.4%
55-65 years	11.8%	19.6%	15.5%	6.9%	2.2%	4.6%	8.4%	11.2%	9.7%
15-65 years	3.6%	5.1%	4.3%	2.5%	.7%	1.6%	2.5%	3.1%	2.8%

% from diabetics within Age categories (years)

Table 16. Diabetes advice by traditional healer

The following table shows the percentage of diabetic population who during the past 12 months have seen a traditional healer for diabetes or seeking advice with traditional healers and receiving traditional treatment or currently taking any herbal or traditional remedy for diabetes

Age Group	Counseling by Traditional Healer for Diabetes during last 12 months			Current Herbal or traditional treatment for Diabetes		
	Men	Women	Both Sexes	Men	Women	Both Sexes
15-24 years	1.0%	.9%	.9%	.0%	.2%	.1%
25-34 years	1.2%	2.5%	1.8%	.4%	.5%	.5%
35-44 years	5.5%	7.1%	6.3%	.9%	1.3%	1.1%
45-54 years	12.9%	17.4%	15.1%	3.2%	3.4%	3.3%
55-65 years	17.2%	28.7%	22.6%	2.8%	6.2%	4.4%
15-65 years	5.0%	7.1%	6.0%	1.0%	1.4%	1.2%

% from diabetics within Age categories (years)

Verbal-reported Hypertension

Table 17. Respondents with raised blood pressure diagnosis and treatment results.

The awareness of respondents of being hypertensive diagnosed during the past 12 months and if they have been told by a doctor or other health worker that they have elevated blood pressure or hypertension. Then they asked if they currently receiving any treatments/ advice for high blood pressure prescribed by a doctor or other health worker or if they taken drugs (medication) the last 2 weeks?

Age Group	Raised blood pressure diagnosed by doctor or health worker in last 12 months				Currently taking blood pressure drugs prescribed by doctor or health worker		
	Men	Women	Both Sexes		Men	Women	Both Sexes
	%	%	%		%	%	%
	95% CI	95% CI	95% CI		95% CI	95% CI	95% CI
15-24 years	1.4%	3.5%	2.5%		.6%	1.5%	1.0%
25-34 years	4.7%	9.4%	7.0%		2.0%	4.6%	3.3%
35-44 years	7.8%	19.8%	13.6%		3.9%	12.1%	7.9%
45-54 years	20.2%	33.6%	26.7%		16.1%	27.8%	21.8%
55-65 years	32.8%	46.2%	39.1%		27.5%	38.3%	32.6%
15-65 years	8.9%	15.7%	12.2%		6.2%	10.9%	8.5%

12.3% of the population knows that they have elevated blood pressure, with higher elevation in females (15.7%) than males (8.9%). Only 8.5% of respondents knew they are hypertensive taking blood pressure drugs prescribed by doctor or health worker

Table 18. Percentage of population with raised blood pressure who received lifestyle advice.

Number & percent of respondents who currently receiving any of the following treatments/advice for high blood pressure prescribed by a doctor or other health worker?

Age Group	Advised or treated by doctor or health worker to lose weight			Advised or treated by doctor or health worker to stop smoking			Advised or treated by doctor or health worker to start or do more exercise		
	Men	Women	Both Sexes	Men	Women	Both Sexes	Men	Women	Both Sexes
15-24 years	.4%	1.0%	.7%	.6%	.2%	.4%	.6%	.8%	.7%
25-34 years	2.3%	3.4%	2.8%	2.4%	.5%	1.5%	2.5%	2.3%	2.4%
35-44 years	3.1%	8.5%	5.7%	3.5%	2.0%	2.8%	3.1%	7.1%	5.1%
45-54 years	9.5%	17.6%	13.4%	9.8%	3.7%	6.8%	10.2%	13.1%	11.6%
55-64 years	13.5%	20.6%	16.9%	14.2%	7.2%	10.9%	15.2%	18.7%	16.9%
15-65 years	3.8%	6.9%	5.3%	4.1%	1.7%	2.9%	4.2%	5.6%	4.9%

% from hypertensive within Age categories (years)

Table 19. Percentage of population with raised blood pressure, who is seeking advice with traditional healers.

Instrument questions:

During the past 12 months have you seen a traditional healer for raised blood pressure?
Are you currently taking any herbal or traditional remedy for your high blood pressure?

Age Group	Seen a traditional healer in the last 12 months			Currently taking herbal or traditional remedy for high blood pressure		
	Men	Women	Both Sexes	Men	Women	Both Sexes
15-24 years	.2%	.9%	.6%	.2%	.5%	.3%
25-34 years	1.2%	2.0%	1.6%	.8%	1.6%	1.2%
35-44 years	2.2%	7.7%	4.8%	2.1%	6.8%	4.4%
45-54 years	5.7%	10.6%	8.1%	5.4%	9.4%	7.4%
55-65 years	9.9%	12.7%	11.2%	9.2%	13.6%	11.3%
15-65 years	2.5%	4.7%	3.6%	2.2%	4.3%	3.2%

Results of

STEPwise **Survey**

Step 2

Step 2

Physical Measurements

Table 20. Mean results for height in meters

The following table shows the mean height of Egyptian population per each age group and gender

Age Group	Height (m)		
	Men	Women	Both Sexes
	mean	mean	mean
	95% CI	95% CI	95% CI
15-24 years	1.6	1.5	1.5
25-34 years	1.6	1.5	1.6
35-44 years	1.6	1.6	1.6
45-54 years	1.6	1.5	1.6
55-65 years	1.6	1.5	1.6
15-65 years	1.6	1.5	1.6

Table 21. Mean results for weight in Kg

The following table shows the mean weight of Egyptian population per each age group and gender

Age Group	Weight (kg)		
	Men	Women	Both Sexes
	mean	mean	mean
	95% CI	95% CI	95% CI
15-24 years	63.9	61.8	62.9
25-34 years	74.3	71.5	72.9
35-44 years	77.2	77.2	77.2
45-54 years	78.4	79.7	79.1
55-65 years	75.9	74.4	75.2
15-65 years	72.1	70.5	71.3

Table 22. Mean of Waist circumference measurement in meters

The following table shows the mean waist circumference of Egyptian population per each age group and gender

Age Group	Mean waist circumference In meters	
	Men	Women
15-24 years	.68	.71
25-34 years	.75	.79
35-44 years	.79	.85
45-54 years	.81	.86
55-65 years	.79	.86
15-65 years	.75	.79

Prevalence of over weight and obesity

Table 23. This following table shows the degree of overweight and obesity among Egyptian population stratified by age group

Age group	Overweight BMI 25.0-29.9	Obese BMI 30.0+
>15 - 25	26%	11.6%
>25 – 35	34.4%	26%
>35 – 45	34%	36.3%
>45 – 55	32.7%	41.7%
>55 – 65	32.6%	33.8%

Table 24. The following table shows the degree of overweight and obesity among Egyptian population stratified by age group and gender

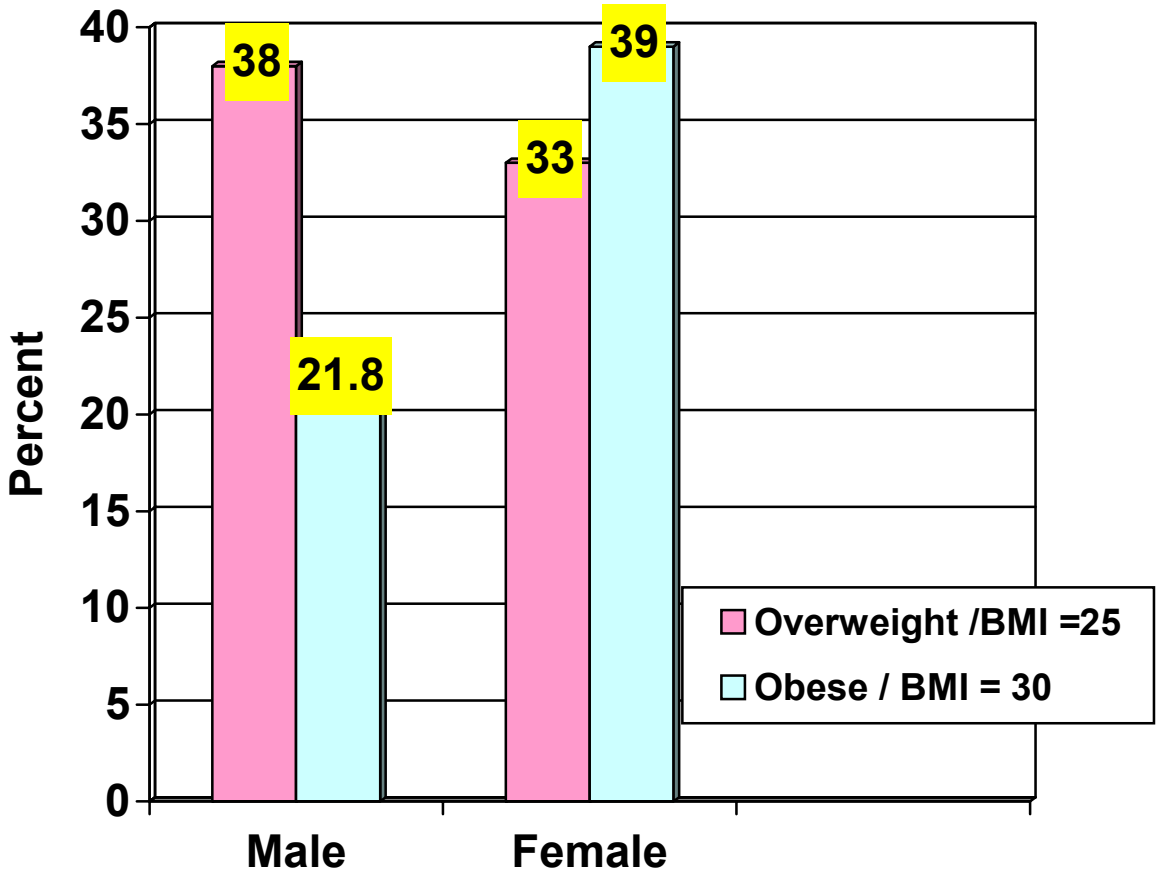
Age Group	Men				Women		
	Normal weight	Over-weight	Obese		Normal weight	Over-weight	Obese
	*BMI < 25	BMI 25.0-29.9	BMI 30.0+		BMI <25	BMI 25.0-29.9	BMI 30.0+
	(95% CI)	(95% CI)	(95% CI)		(95% CI)	(95% CI)	(95% CI)
15-24 years	60.9%	29.5%	9.6%		47.7%	33.4%	18.9%
25-34 years	37.0%	43.1%	19.8%		23.8%	35.8%	40.4%
35-44 years	26.2%	43.3%	30.4%		14.0%	34.0%	52.0%
45-54 years	23.2%	40.8%	36.0%		11.0%	26.6%	62.4%
55-65 years	26.0%	41.5%	32.5%		15.6%	33.9%	50.5%
15-65 years	40.0%	38.2%	21.8%		27.8%	33.2%	39.0%

* BMI= basal metabolic Index

The previous table we found that, over weight is higher in males (38.2%), while obesity is more in females (39%)

High prevalence of overweight among age group 25-45 years old and high prevalence of obesity among age group 45-55 years old

The following graph shows the overweight and obesity distribution among the survey respondents



Results of
STEPwise, Step 3

Step 3

Prevalence of chronic diseases

Table 25. This table shows the prevalence of chronic diseases among Egyptian population according to measurements taken during the survey

		Male	Female	Both
Diabetes[1]	FBS ≥ 7.0 mmol/L	6.2%	8.2%	7.2%
Diabetics with Ocular complication[2]		11.6%	27.9%	20.7%
Diabetics with foot complication[3]		8.7%	11.1%	10%
Hypertension[4]	SBP > 140 and/ or DBP > 90mmHg	26.3%	27.1%	26.7%
	SBP > 170 and/ or DBP > 100 mmHg	6.2%	7.6%	6.9%

Diabetes mellitus: the prevalence of diabetes is 7.2%, 6.2% in males and 8.2% in females when measured during the survey, about 20.7% of diabetics show ocular complication with higher percent in female diabetics (27.9%).
10% of diabetics have diabetic foot, 8.7% in diabetic males and 11.1% in diabetic females.
4 Hypertension: Mild hypertension (SBP > 140 and/ or DBP > 90mmHg) seen in 26.7% with a little bit equal distribution between males and females. Severe hypertension (SBP > 170 and/ or DBP > 100 mmHg) seen in 6.9%.
The prevalence of mild hypertension among Egyptian population (>140/ 90mmHg) is 26.7%. In males it is 26.2% with high incidence in age group 55- 65 years old.
Mild hypertension in females shown in 27% of them with higher distribution in age group 55-65 years old
The prevalence of severe hypertension among Egyptian population (>170/ 100mmHg) is 6.9%. In males it is 6.2% while in female it is 7.2% with high incidence in both gender in age group 55- 65 years old.

Raised Bl P

Table 26. Mild hypertension,

The prevalence of mild hypertension among Egyptian population (>140/ 90mmHg)

Age Group	SBP ≥ 140 and/or DBP ≥ 90 mmHg		
	Men	Women	Both Sexes
	95% CI	95% CI	95% CI
15-24 years	15.1%	12.3%	13.7%
25-34 years	20.6%	18.1%	19.4%
35-44 years	25.8%	31.0%	28.4%
45-54 years	42.7%	51.4%	46.9%
55-64 years	59.3%	65.5%	62.3%
15-65 years	26.3%	27.1%	26.7%

Table 27. Severe hypertension,

The prevalence of severe hypertension among Egyptian population (>170/ 100mmHg)

Age Group	SBP ≥ 170 and/or DBP ≥ 100 mmHg		
	Men	Women	Both Sexes
15-24 years	2.6%	2.1%	2.4%
25-34 years	4.3%	3.6%	4.0%
35-44 years	5.0%	6.8%	5.8%
45-54 years	10.9%	19.2%	14.9%
55-64 years	20.5%	24.3%	22.3%
15-65 years	6.2%	7.6%	6.9%

Lipid profile of Egyptian population

Fasting serum cholesterol

Table 28. Mean total cholesterol results

This table shows the Cholesterol level Of Egyptian population stratified by gender

Cholesterol Level	Male	Female	Both
≥ 5.2 mmol/L	15.7%	23.1%	19.4%
≥ 6.5 mmol/L	2%	4.4%	3.3%

Participants with raised cholesterol

Table 29. Rate of hypercholesterolemia stratified by age group and gender, Egypt, 2005

The prevalence of high serum cholesterol (≥ 5.2 mmol/L) was 19.4% being higher in females (23.1%) than males (15.7%)

Age Group	Total cholesterol ≥ 5.2 mmol/L or ≥ 200 mg/dl				Total cholesterol ≥ 6.5 mmol/L or ≥ 250 mg/dl		
	Men	Women	Both Sexes		Men	Women	Both Sexes
15-24 years	7.9%	11.4%	9.7%		.3%	2.1%	1.2%
25-34 years	15.7%	18.5%	17.0%		.7%	3.6%	2.1%
35-44 years	21.6%	28.5%	25.2%		4.7%	3.0%	3.8%
45-54 years	22.4%	35.2%	29.1%		4.3%	8.5%	6.5%
55-65 years	20.4%	41.7%	31.1%		2.7%	10.4%	6.6%
15-65 years	15.7%	23.1%	19.4%		2.0%	4.4%	3.3%

Table 30. Prevalence of High Density Lipoprotein among Egyptian population

Description: Mean level of high density lipoprotein (HDL) among respondents by age group and gender, Egypt, 2005.

Age Group	HDL (mmol/L)			HDL (mg/dl)		
	Men	Women	Both Sexes	Men	Women	Both Sexes
	mean	mean	mean	mean	mean	mean
	95% CI	95% CI	95% CI	95% CI	95% CI	95% CI
15-24 years	9.9	10.8	10.4	36.7	30.2	33.4
25-34 years	13.0	8.4	10.8	34.8	25.8	30.4
35-44 years	11.3	13.9	12.6	33.2	42.4	37.7
45-54 years	7.7	9.9	8.8	36.7	39.3	37.9
55-65 years	15.9	11.9	14.0	55.1	39.7	47.8
15-65 years	11.2	10.8	11.0	37.3	33.5	35.4

Note: the following tables will show the prevalence of diabetes and hypertension in Egyptian population as results of the survey whether the participant known as a patient or diagnosed during the survey

Hypertension in Egyptian population aged >= 15- 65 years

The following table shows the percentage of mild hypertension (SBP ≥ 140 and/or DBP ≥ 90 mmHg) in Egypt is 26.7% with irrelevant differences between males and females

Age Group	SBP ≥ 140 and/or DBP ≥ 90 mmHg & currently on medication for raised blood pressure		
	Men	**Women**	**Both Sexes**
15-24 years	15.1%	12.3%	13.7%
25-34 years	20.6%	18.1%	19.4%
35-44 years	25.8%	31.0%	28.4%
45-54 years	42.7%	51.4%	46.9%
55-64 years	59.3%	65.5%	62.3%
15-65 years	26.3%	27.1%	26.7%

The following table shows the percentage of sever hypertension in Egypt (SBP ≥ 170 and/or DBP ≥ 100 mmHg) is 6.9 %

Age Group	SBP ≥ 170 and/or DBP ≥ 100 mmHg or currently on medication for raised blood pressure		
	Men	**Women**	**Both Sexes**
15-24 years	2.6%	2.1%	2.4%
25-34 years	4.3%	3.6%	4.0%
35-44 years	5.0%	6.8%	5.8%
45-54 years	10.9%	19.2%	14.9%
55-64 years	20.5%	24.3%	22.3%
15-65 years	6.2%	7.6%	6.9%

Diabetes mellitus in Egyptian population aged >=15- 65 years

The following table shows the prevalence of diabetes mellitus in Egypt whether diagnosed during the survey or currently on medication for raised blood glucose which is 15.8%
N.B., cut off point is Plasma venous value ≥ 7.0 mmol/L or ≥ 126 mg/dl

Age Group	Raised blood glucose* ≥ 126 mg/dl currently on medication for diabetes		
	Men	**Women**	**Both Sexes**
	%	%	%
15-24 yeas	3.5	2.9	3.2
25-34 years	2.6	3.6	3.1
35-44 years	12.1	15.3	13.7
45-54 years	21.9	27.1	24.6
55-64 years	28.3	41	34.8
15-64 years	13.6	18	15.8

From the previous table we find that the prevalence of diabetes mellitus in Egypt as a results of STEPwise survey is 15.8 % with higher elevation in females 18 % than in males 13.6 %

Prevalence of Raised Risk

Respondents were assessed for having combined risk. The rate of raised risk for having at least three risk factors is calculated.
The commonest contribution of risk factors were due to daily smoking, raised blood pressure, high serum cholesterol and low consumption of fruits and vegetables

Table 31. Summary of combined risk factors

- current daily smokers
- less than 5 servings of fruits & vegetables per day
- low level of activity (<600 MET -minutes)
- overweight or obese (BMI ≥ 25 kg/m2)
- Raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP).

Instrument question: combined from Step 1

Age Group	Low risk (none of the risk factors)				At risk (at least 3 of the risk factors)		
	Men	Women	Both Sexes		Men	Women	Both Sexes
	N=	N=	N=		N=	N=	N=
	%	%	%		%	%	%
	95% CI	95% CI	95% CI		95% CI	95% CI	95% CI
15-24 years	6.8%	4.7%	5.8%		93.2%	95.3%	94.2%
25-34 years	1.8%	1.5%	1.6%		98.2%	98.5%	98.4%
35-44 years	.5%	.6%	.6%		99.5%	99.4%	99.4%
45-54 years	.7%	.5%	.6%		99.3%	99.5%	99.4%
55-65 years	.6%	.7%	.7%		99.4%	99.3%	99.3%
15-65 years	2.8%	2.3%	2.6%		97.2%	97.7%	97.4%

% with in age group

Conclusion and Recommendations

- Strengthening integration of chronic NCD care into PHC services:
    - ♦ Ascertaining the establishment of a health facility based screening system for early detection of asymptomatic hypertension and diabetes conditions at PHC level.
    - ♦ Capacity building of the PHC health workers (PHC physicians, nurses and lab technicians) in the integrated chronic NCD care.
    - ♦ Improvement of the facilities for chronic NCD detection and management at PHC services.
    - ♦ Integration of NCD prevention and control program into reproductive health services (MCH, school health, adolescence care) and elderly health care services.
- Starting community based health education programs on the importance of the consultation and follow-up process for early detection of hypertension, diabetes and their complications.
- Building up a national strategy for enhancement of healthy life style practices in coordination with the related ministries of Education, Higher Education and Scientific Research, Justice, Trade, Youth, Women Care, Civil Society, in addition to the Religious bodies and Media. The following should be considered:
    - ♦ Starting a comprehensive project for banning tobacco use at schools, workplaces, and transportation and public places.
    - ♦ Strengthening action to promote healthy diet and physical activity at schools and universities.

- ♦ Initiation of home based programs on healthy diet and indoor physical exercise targeting the female and the elderly.
- ♦ Enhancing utilization of the accessible sports and fitness recreational facilities.
- ♦ Raising public awareness through holding educational campaigns promoting healthy life style.

- Establishing a stepwise surveillance system:
- 4.1-Implementation of a survey on a sub-sample when the security situation is stabilized to neutralize the impact of stress on the studied risk factors.
- 4.2-Repetition of the national survey within three to five years to measure the trend of risk factors over time and evaluate the NCD prevention and control program.
- 4.3-Modification of the national Steps Instrument on the next survey to include further expanded questions regarding step 3 and addition of optional questions to serve other NCDs like common cancers (breast, rectum), mental health, injuries, …, also extending the study frame work to include younger age groups.
- 5---Collateral collaboration with the international organizations and scientific centers like CDC to sponsor studies in the field.
- Continuous collaboration with neighboring countries in the region to implement NCD control projects.

Appendix 1
Informed Consent Form

Dear Participant,

You have been randomly selected to be part of this survey and this is why we would like to interview you. This survey is conducted by the World Health Organization in collaboration with the Ministry of Health, & WHO Regional Office. It will be carried out by professional interviewers from (name of Institution). This survey is currently taking place in several countries around the world.

The information you provide is totally confidential and will not be disclosed to anyone. It will only be used for research purposes. Your name, address, and other personal information will be removed from the questionnaire, and only a code will be used to connect your name and your answers without identifying you. You may be contacted by the Survey Team again only if it were necessary to complete the information on the survey.

Your participation is voluntary and you can withdraw from the survey after having agreed to participate. You are free to refuse to answer any question that is asked in the questionnaire. If you have any questions about this survey you may ask me or contact (name of institution and contact details) or (Principal Investigator at site).

Signing this consent indicates that you understand what will be expected of you and are willing to participate in this survey.

Read by: Respondent [ ] Interviewer [ ]

Agreed: [ ] Refused [ ]

I hereby provide INFORMED CONSENT to take part in STEPS 1 and 2 of the Risk Factors Study.

For respondents under 21 years old, a parent or guardian must also sign this form.

Name : _____
Sign : _____
Parent/Guardian : _____
Sign : _____
Witness : _____
Sign : _____

Appendix 2
Informed Consent Form

Dear Participant,

You have been randomly selected to be part of this survey and this is why we would like to interview you. This survey is conducted by the World Health Organization in collaboration with the Ministry of Health, &
WHO Regional Office. It will be carried out by professional interviewers from (name of Institution). This survey is currently taking place in several countries around the world.
The information you provide is totally confidential and will not be disclosed to anyone. It will only be used for research purposes. Your name, address, and other personal information will be removed from the questionnaire, and only a code will be used to connect your name and your answers without identifying you. You may be contacted by the Survey Team again only if it were necessary to complete the information on the survey.
Your participation is voluntary and you can withdraw from the survey after having agreed to participate. You are free to refuse to answer any question that is asked in the questionnaire.
In STEP 3, you will have your blood taken to be tested for sugar and fat. These blood tests involve taking a small amount of blood from a vein in your arm, which may cause some mild pain.
It is critical that you are informed about the kind of tests which will be done on your blood sample (i.e. glucose, cholesterol).
If you have any questions about this survey you may ask me or contact (name of institution and contact details) or (Principal Investigator at site).
Signing this consent indicates that you understand what will be expected of you and are willing to participate in this survey.

Read by Respondent [ ] Interviewer [ ]

Agreed [ ] Refused [ ]

I hereby provide INFORMED CONSENT to take part in Steps 3 of the Risk Factors Study. For respondents under 21 years old, a parent or guardian must also sign this form.

Name : _____
Sign : _____
Parent/Guardian : _____
Sign : _____
Witness : _____
Sign : _____

The National Survey on Chronic Disease And Their Risk Factors, For age group 15 – 65 years, Egypt, 2005- 2006

This work done by Epidemiology and Surveillance Unit (ESU), Ministry of Health and Population (MOH& P) in collaboration with the World Health Organization (WHO)

Results for adults aged 15-65 years (incl. 95% CI) ***(adjust if necessary)***	**Both Sexes**	**Males**	**Females**
Step 1 Tobacco Use			
Percentage who currently smoke tobacco daily	18.0% (17.2 – 18.8)	34.6% (33.3 – 35.9)	0.7% (0.5 – 0.9)
For those who smoke tobacco daily			
Average age started smoking (years)	-	-	-
Average years of smoking	16.9±12.2	17.0±12.3	9.6±7.4
Percentage smoking manufactured cigarettes	14.2% (12.4 – 16.0)	27.4% (25.0 – 29.8)	0.4% (0 – 0.32)
For smokers of manufactured cigarettes			
Mean number of manufactured cigarettes smoked per day	19.6±9.9	19.6±9.9	18.2±11.9
Step 1 Alcohol Consumption			
Percentage of abstainers (who did not drink alcohol in the last year)	97.9% (97.6 – 98.2)	96.2% (95.7 – 96.7)	99.7% (99.5 – 99.9)
Percentage of current drinkers (who drank alcohol in the **past 12 months**)	2.1% (0.1 – 4.1)	3.8% (1 – 6.6)	0.3% (0 – 3.0)
*For those who drank alcohol in the **last 7 days***			
Percentage of women who had 4 or more drinks on any day in the last week			0%
Percentage of men who had 5 or more drinks on any day in the last week		17.1% (-)	
Percentage who drank alcohol on 4 or more days in the last week	6.1% (-)		
Step 1 Fruit and Vegetable Consumption (in a typical week)			
Mean number of servings of fruit consumed per day	1.4±0.8	1.4±0.78	1.4±0.82
Mean number of servings of vegetables consumed per day	2.34±1.2	2.41±1.3	2.37±1.2
Percentage who ate 5 or more combined servings of fruit & vegetables per day	21.1% (20.3 – 21.9)	21.3% (20.2 – 22.4)	20.9% (19.7 – 22.1)
Step 1 Physical Activity			
Percentage with low levels of activity (defined as <600 MET-minutes/week)	50.6% (49 – 52.2)	45.1% (43 – 47.2)	57.4% (55.1 – 59.7)
Median time spent in work-related physical activity per day (minutes)	17	51	0
Median time spent in transport-related physical activity per day (minutes)	15	30	0
Median time spent in recreational physical activity per day (minutes)	0	0	0

Results for adults aged 25-64 years (incl. 95% CI) (adjust if necessary)	Both Sexes	Males	Females
Step 2 Physical Measurements			
Mean body mass index - BMI (kg/m^2)	27.6±6.3	26.4±5.7	28.8±6.7
Percentage who are overweight or obese (BMI ≥ 25 kg/m^2)	66.0% (65 – 67)	60.0% (58.6 – 61.4)	72.2% (70.9 – 73.5)
Percentage who are obese (BMI ≥ 30 kg/m^2)	30.3% (29.4 – 31.2)	21.8% (20.6 – 23.0)	39.0% (37.6 – 40.4)
Average waist circumference (cm)	89.7±17.6	88.9±16.7	90.5±18.4
Mean systolic blood pressure - SBP (mmHg)	126.2±18.7	127.2±17.7	125.2±19.6
Mean diastolic blood pressure - DBP (mmHg)	78.6±11.8	78.4±11.7	78.8±11.9
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg)	26.7% (25.8 – 27.6)	26.3% (25 – 27.6)	27.1% (25.8 – 28.4)
Percentage with raised BP (SBP ≥ 170 and/or DBP ≥ 100 mmHg)	6.9% (6.4 – 7.4)	7.2% (6.5 – 7.9)	7.6% (6.8 – 8.4)
Step 3 Biochemical Measurements			
Mean fasting blood glucose (mmol/L)	4.7±2.6	4.6±2.5	4.7±2.7
Percentage with raised blood glucose (≥ 7.0 mmol/L)	7.2% (6.1 – 8.3)	6.2% (4.8 – 7.6)	8.2% (6.6 – 9.8)
Mean total blood cholesterol (mmol/L)	4.4±1.2	4.2±1.2	4.5±1.2
Percentage with raised total cholesterol (≥ 5.2 mmol/L)	19.4% (17.8 – 21.0)	15.7% (13.6 – 17.8)	23.1% (20.7 – 25.5)
Percentage with raised total cholesterol (≥ 6.5 mmol/L)	3.3% (2.6 – 4.0)	2% (1.2 – 2.8)	4.4% (3.2 – 5.6)

Summary of combined risk factors • current daily smokers • less than 5 servings of fruits & 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)			
Percentage with low risk (i.e. none of the risk factors included above)	2.6% (2.1 – 3.1)	2.8% (2.1 – 3.5)	2.3% (1.6 – 3.0)
Percentage with raised risk (i.e. at least three of the risk factors included above) distributed in the age groups below			
Percentage with raised risk, aged 25 to 44 years old	47.2% (44.8 – 49.6)	51.3% (48 – 54.6)	42% (38.4 – 45.6)
Percentage with raised risk, aged 45 to 64 years old	66.5% (63.2 – 69.8)	65.3% (60.9 – 69.7)	68.1% (63.2 – 73.0)

Acknowledgements

Special thanks to His Excellency, Honorable, Professor Hatem Elgabaly, the Minster of Health and Population, Egypt, without whose continuous support, we couldn't have achieved any progress.

From MOHP:

Dr. Nasr El Sayed,	**First Undersecretary of Health and, Preventive Affairs**

From ESU, MOHP:

Dr. Abdel Nasser Mohamed Ahmed,	***Executive Director, ESU***
Dr. Mohamed H. Barakat,	***Medical Epidemiologist***
Dr. Eman A. El Labany, coordinator	***Medical Epidemiologist***
Dr. Hesham Bastawy,	***Medical Epidemiologist***
Mr. Mostafa El Kady,	***Solution Developer***

All ESU staff, ESU IT staff, FETP staff and trainees

From NCIHP, MOHP:

Dr. A. Soheir Saad Botos,	***General Director, NCIHP***

WHO-EMRO:

Dr. Jan Jab, Senior	***Statistician, EMRO, WHO***
Dr. Nilly Aly-Eldeen Hassan…	***WHO***
Dr. Ossama El Khatib,	***Regional Advisor, NCD, EMRO***
Dr. Zuheir Halaj,	***WR, Egypt***

Appendix 4

استمارة الموافقة على المشاركة فى الدراسة

(خاص بالخطوات 1 و 2)

عزيزى المشترك،

لقد تم اختيارك عشوائياً لتكون جزءاً من من هذا المسح ولذا نرغب فـى مقابلتـك. سـتقوم وزارة الصحة بهذا المسح وسيقوم به متخصصون من الوزارة على مستوى الجمهورية وهذا المسح يجرى حالياً فى عدة بلدان من العالم.

ستكون المعلومات التى تخبرنا بها فى غاية السرية ولن يكشف عنها لأى أحد. فستستخدم لغـرض البحث فقط وسيرفع اسمك وعنوانك وكل المعلومات الشخصية من الاستبيان وسيوضع كـود لـربط اسمك واجاباتك بدون تحديد شخصيتك. وقد يتصل بك فريق المسح ثانيةً إذا كـان هـذا ضـرورى لاستكمال معلومات المسح. ستكون مشاركتك تطوعية ويمكنك الانسحاب من الاستبيان بعد الموافقـة على الاشتراك فيه كما أن من حقك رفض الإجابة على أى سؤال فى الاستبيان. لو كان لديك أسـئلة عن المسح فيمكنك الاتصال بوحدة الوبائيات والترصـد – وزارة الـصحة والـسكان 7923078 أو 7923079.

التوقيع على هذه الاستمارة يدل على أنك تعرف ما يتوقع منك وأنك موافق على المشاركة فى هـذا المسح.

أتقدم بموافقتى على المشاركةفى الخطوة الأولى والثانية من دراسـة عوامـل الخطـورة. إذا كـان المشترك أقل من 21 سنة يجب موافقة أحد أبواه أو الوصى عليه.

الاسم: ــــــــــــــــــــــــــــ التوقيع: ــــــــــــــــــــ

اسم الوالد/ الوصى: ــــــــــــــــــــــــ التوقيع: ــــــــــــــــــــ

الشاهد: ــــــــــــــــــــــــــــ التوقيع: ــــــــــــــــــــ

Appendix 5

استمارة الموافقة على المشاركة فى الدراسة
(خاص بالخطوة الثالثة)

عزيزى المشترك،

لقد تم اختيارك عشوائياً لتكون جزءاً من من هذا المسح ولذا نرغب فـى مقابلتـك. سـتقوم وزارة الصحة بهذا المسح وسيقوم به متخصصون من الوزارة على مستوى الجمهورية وهذا المسح يجرى حالياً فى عدة بلدان من العالم.

ستكون المعلومات التى تخبرنا بها فى غاية السرية ولن يكشف عنها لأى أحد. فستستخدم لغـرض البحث فقط وسيرفع اسمك وعنوانك وكل المعلومات الشخصية من الاستبيان وسيوضع كـود لـربط اسمك واجاباتك بدون تحديد شخصيتك. وقد يتصل بك فريق المسح ثانيةً إذا كـان هـذا ضـرورى لاستكمال معلومات المسح. ستكون مشاركتك تطوعية ويمكنك الانسحاب من الاستبيان بعد الموافقـة على الاشتراك فيه كما أن من حقك رفض الإجابة على أى سؤال فى الاستبيان.

فى الخطوة الثالثة سيتم سحب عينةدم منك لتحليلها للسكر والدهون. قد يسبب سحب عينة الدم ألـم بسيط بذراعك.

من المهم إخبارك بأنواع الاختبارات التى ستجرى على عينة الدم التى ستسحب منك (مثل الجلوكوز و الكوليسترول).

لو كان لديك أسئلة عن المسح فيمكنك الاتصال بوحدة الوبائيات والترصد – وزارة الصحة والسكان 7923078 أو 7923079.

لو كان لديك أسئلة عن المسح فيمكنك الاتصال بى أو بـ (اسم المؤسسة وكيفية الاتصال بها) أو بـ (الباحث الرئيسى بالموقع).

التوقيع على هذه الاستمارة يدل على أنك تعرف ما يتوقع منك وأنك موافق على المشاركة فى هـذا المسح.

أتقد بموافقتى على المشاركةفى الخطوة الأولى والثانية من دراسـة عوامـل الخطـورة. إذا كـان المشترك أقل من 21 سنة يجب موافقة أحد أبواه أو الوصى عليه.

الاسم: ---------- التوقيع: ----------

اسم الوالد/ الوصى: ---------- التوقيع: ----------

الشاهد: ---------- التوقيع: ----------

Appendix 6

الاستبيان

وزارة الصحة والسكان
بالتعاون مع المكتب الأقليمى لشرق المتوسط بمنظمة الصحة العالمية
وحدة الوبائيات والترصد المركزية
وحدة ترصد عوامل الإختطـــــار للأمراض غير المعدية

التعليمات الخاصـــــة بفريق الترصد قبل ملأ الإستبيان عوامل الإختطار للأمراض غير المعدية (نسخة معدلة 103)
(WHO STEPwise Risk Factors Surveillance System)

السادة والسيدات الأعزاء أعضاء وحدات الوبائيات والترصد .....
يرجى مراجعة هذه التعليمات قبل البدء فى العمل الميدانى وملأ الإستبيان ....

- يمكن إستعمال هذا النموذج العام لكل من الدول الأعضاء بمنظمة الصحة العالمية ، ويتضمن هذا النموذج العام وحدة أساسية (CORE) تحتوي على معطيات أساسية فقط ووحدة موسعة (EXPANDED) تحتوي على معطيات أساسية مقترحة. كذلك يحتوي النموذج على إختيارات لأجوبة مفصلة في الخطوات الأولى، الثانية، و الثالثة.

- تم صياغة المقدمة، الأسئلة والأجوبة الإختيارية لتتلاءم مع الحاجات المحلية لجمهورية مصر العربية .

- تم إدراج كل المعطيات الأساسية من النموذج العام في الأدوات المعدة خصيصاً لجمهورية مصر العربية دون تغيير أي شئ في طريقة طرح الأسئلة و إختيارات الأجوبة.

- طريقة (نمط) القفز بين الأسئلة واضحة داخل الإستبيان ويجب مراجعتها بإتقان (وتم عمل بعض التعديلات وفق المعطيات المدرجة في الأداة الخاصة المعدة لجمهورية مصر العربية).

- تم إضافة أسئلة إختيارية تتناسب مع الحاجات لجمهورية مصر العربية مثلاً الأسئلة التي سبق وسؤلت في إستبيان سابق يمكن أن تضاف لربط المعلومات حسب التسلسل الزمني.

- نعرض في هذا النموذج إضافة ترميز المعلومات بين القوسين وذلك لتسهيل إدخالها بطريقة سريعة ودقيقة (إستعمال هذا النموذج لا يحل محل الحاجة إلى إدخال معلومات مرتين لتأمين أفضل مراقبة للنوعية).

مثلاً: مدخن حالي يتناول 8 حصص من الفواكه خلال يوم عادي

س 1.أ هل تدخن حالياً أي نوع من منتجات التبغ مثلاً السيجارة، السيجار، الغليون؟

☐ **نعم** ☐ **لا** ☐ **لا أدرى**

(اذا كان **الجواب لا**، أقفز إلى القسم التالي لو سمحت**)**

د1.ب كم مرة تتناول الفواكه في اليوم؟ عدد الحصص **8**

لا أدرى

- **" لا أدري" أو"لا أتذكر"** هي أجوبة إختيارية موجودة في الأسئلة الأساسية و الأسئلة الموسعة. هذه الأجوبة لها رموز خاصة مثل "7"، "77"، "777"

- ثلاثة رموز أخرى مهمة لتسجيل " أرفض الجواب" أو "لا ينطبق" و هي "8" ،"88" ،"888". مثلاً، إذا كان جواب س 1. أ "كلا" مما يقتضي القفز إلى القسم التالي ، سيتم إدخال كل االأجوبة الأخرى المتعلقة بالتدخين ك "8". الأجوبة الناقصة لأي سؤال يجب أن تدخل ك "9" ،"99"، "999" عند إدخال المعلومات.

- يجب أتباع التعليمات الواضحة و المشددة للقائمين على المقابلات الشخصية للمشتركين فى المسح الطبى وذلك لتأمين حفظ هذه البيانات الشخصة بالطرق المناسبة.

- من الضروري تدريب الشخص الذي يجري المقابلة على استيعاب نموذج الإستبيان في أقسامه المختلفة: المقدمة، الأسئلة، طرق (أنماط) القفز، الأجوبة الإختيارية، إستعمال أوراق المعلومات و إشارات التلقين(عند الحاجة).

- من الضروري إجراء إختبار مسبق للأدوات الخاصة في كل بلد قبل استعمالها على صعيد عام.

- على كل بلد يستعمل إستبياناً خاصاً وضع لائحة بأرقام الأسئلة و ترميزها لتتقابل مع اعدادها و رموزها في النموذج العام الأساسي. هذا التقابل سوف يسهل عمل التواصل والمقارنة عبر البلدان.

وزارة الصحة والسكان
بالتعاون مع المكتب الأقليمى لشرق المتوسط بمنظمة الصحة العالمية
وحدة الوبائيات والترصد المركزية
وحدة ترصد عوامل الإختطـــــار للأمراض غير المعدية

ألصق رقم المشترك فى المسح الطبى لو سمحت

الموافقة على إجراء المقابلة:

أ 1- الموافقة قرأت شفهياً للمشترك بالمسح الطبى:

☐ **نعم** ☐ **لا** (إذا كانت الإجابة **لا**، إقرأ الموافقة لو سمحت)

أ 2 - تمت الموافقة (لفظياً أو خطياً):

☐ **نعم** ☐ **لا** (إذا كانت الإجابة **لا**، تنتهى المقابلة لو سمحت)

أ 3- وقت المقابلة ☐ ☐ **(ص/ م)**

المعلومات التعريفية (تثبيت الهوية)

أ 4- إسم العائلة

أ 5- الإسم الرباعى

أ 6- رقم التليفون (إن وجد)

أ 7- حدد مكان التليفون

☐ **العمل** ☐ **البيت** ☐ **الجيران** ☐ **غيره**

أ 8- المحافظة

أ 9- الإدارة الصحية

أ 10 – القرية

أ 11- 1 اسم مكتب الصحة

أ 11- 2 رمز مكتب الصحة

المعلومات الديموجرافية الأساسية

أسئلة أساسية

ج1- النوع ☐ **ذكر** ☐ **أنثى**

ج2 - تاريخ **الميلاد** **يوم** **شهر** **سنة**

ج3 - كم عمرك؟

ج4 - إجمالىعدد سنين الدراسة **(ماعدا الحضانة)**؟

أسئلة موسعة

ج5 - ما هو أعلى مستوى تعليمي وصلت اليه؟

☐ أمي ☐ ابتدائي (يكتب ويقرأ) ☐ اعدادى ☐ ثانوي

☐ دبلوم مهني (متوسط) ☐ جامعي ☐ دراسات عليا

ج6 - ما هى طبيعةعملك الأساسى فى الأشهر الاثني عشر الأخيرة؟

☐ موظف حكومي ☐ موظف غير حكومي ☐ صاحب عمل خاص

☐ أرزقي ☐ تلميذ ☐ ربة منزل ☐ متقاعد

☐ عاطل (قادر على العمل) ☐ عاطل (غيرقادرعلى العمل)

ج7 أ - عدد الاشخاص بالمنزل ، بما فيه حضرتك في منزلك ☐

ج7 ب - عدد الأشخاص فى المنزل عمر 18 سنة فما فوق ☐

ج7 ج - عدد الأطفال بالمنزل أقل من 18 سنة ☐

ج8 - كم بلغ معدل دخل البيت (بالجنيه المصرى) تقريباً خلال السنة الماضية؟ ***(اذا رفض إلى ج10)***

☐ في الأسبوع ☐ في الشهر ☐ في الستة

☐ رفض الاجابة

ج9 - إذا كنت لا تستطيع الإفادة بمعدل دخل البيت، ما هو أقرب رقم لدخلك الشهرى بالجنيه؟

☐ أقل من 100 ☐ من 100 – 1000 ☐ من 1000 – 3000

☐ من 3000 – 5000 ☐ أكثر من 5000 ☐ لا الاجابة

ج 10- كم مصروف بيتك الشهرى (بالجنيه المصرى) تقريباً؟ ☐

ج11 - الحالة الاجتماعية:

☐ أعزب ☐ متزوج ☐ مطلق

☐ أرمل ☐ منفصل ☐ رفض الإجابة

ج11ب - إذا كان متزوج هل توجد صلة قرابة بينك وبين زوجتك ؟

☐ ابن العم / الخال ☐ ابن ابن العم /الخال ☐ قرابة بعيدة ☐ لا توجد

الخطوة الأولى للمسح الطبى STEP 1 Risk Factor Surveillance
البيانات السلوكية الأساسية

الأسئلة الأساسية : إستهلاك التبغ (قسم س)

الآن سوف أطرح بعض الأسئلة حول مختلف السلوكيات الصحية. هذه الإسئلة تتضمن مواضيع مثل التدخين، شرب الكحول، تناول الخضار و الفاكهة و الرياضة البدنية. لنبدء بالتدخين.

س 1أ - هل تدخن حالياً أي نوع من منتجات الدخان مثلاً السيجارة ، السيجار، البايب ، الشيشة ؟

☐ **نعم** ☐ **لا** ***(إذا كانت لا إلى س4)***

☐ **لم يسبق له التدخين** **(إذا كانت لم إلى س 6أ)**

س1ب - **اذا كان الجواب نعم،** هل تدخنً أي من هذه المنتجات يومياً؟ ***(إذا لا إلى الفئة الخاصة س 4)***

☐ **نعم** ☐ **لا**

س2أ - كم كان عمرك عندما **بدأت** التدخين يومياً؟ (إذا **كان معروف** إلى س 3)

☐ **سنة** ☐ **لا اتذكر**

س2ب - اذا لم تعرف كم كان عمرك عندما بدأت بالتدخين، هل تتذكر الفترة الزمنية التي بدأت بها؟

☐ **سنوات مضت** ☐ **شهور مضت** ☐ **أسابيع مضت**

س3 - ما هو معدل إستعمالك اليومي لأي من هذه الأنواع ؟

☐ **سيجارة مصنعة** ☐ **سيجارة لف** ☐ **بايب /غليون/سيجار**

☐ **غيره (حدد)** ☐ **لا اتذكر**

(إذهب إلى س 6أ)

الأسئلة الموسعة لمن لا يدخن الآن (التبغ)

س4 - هل كنت تدخن يومياً (من زمان)؟ (اذا كانت الإجابة **لا** إلى س 6أ)

☐ **نعم** ☐ **لا**

س5أ - كم كان عمرك عندما بطلت عن التدخين؟ ☐ ☐ **لااتذكر**

س5ب - اذا لم تعرف كم كان عمرك عندما بطلت عن التدخين، هل تتذكر الفترة الزمنية؟

☐ **سنوات مضت** ☐ **شهور مضت** ☐ **أسابيع مضت**

س6أ - هل تستعمل حالياً الشيشة أو الجوزة او ما شابه ؟

☐ **نعم** ☐ **لا**

س6ب – اذا كان الجواب **نعم**، ما هو أسلوب إستعمالك الحالي للجوزة (أو الشيشة)؟

☐ **يوميا** ☐ **من 2 الى 6 ايام** ☐ **مرة فى الاسبوع** ☐ **اقل من مرة فى الاسبوع**

س7 - في الماضي، هل سبق أن استعملت الجوزة أو الشيشة ؟

☐ **نعم** ☐ **لا**

أساسية : إستهلاك الكحول (قسم ه)

ك1 أ - هل سبق أن شربت كحولياتً (مثل بيرة، نبيذ، ويسكي، عرق، الخ...)؟ ***(إذا لا إلى قسم ن)***

☐ نعم ☐ لا

ك1ب - إذا كان الجواب نعم، هل كان ده فى الأشهر الأثنى عشر الأخيرة؟ ***(إذا لا إلى قسم ن)***

☐ نعم ☐ لا

ك2 - خلال الأشهر الإثني عشرة الأخيرة، كم مرة شربت ولو مشروباً واحداً؟

☐ أقل من مرة بالأسبوع ☐ 1-2 أيام بالأسبوع

☐ 3-4 أيام بالأسبوع ☐ 5 أيام أو أكثر في الأسبوع

ك3 - عندما تشرب الكحول، كم كأساً تشرب خلال اليوم إجمالاً؟ ☐

ك4 - خلال الأيام السبعة الأخيرة، كم مشروباً (مقياس عادي) من الكحول شربت كل يوم؟

☐ السبت ☐ الأحد ☐ الإثنين

☐ الثلاثاء ☐ الأربعاء ☐ الخميس

☐ الجمعة ☐ لا أتذكر

التغذية (قسم ن)

الأسئلة التالية ستكون عن الخضار و الفاكه التي تتناولها عادةً. لدي بطاقات عن التغذية تبين أمثلة عن الخضار و الفاكهة المحلية. كل صورة تمثل حصة. أورد الأجوبة حول إستعمال هذه المأكولات كما في أسبوع عادي من أسابيع العام الماضي.

ن 1أ - كم يوماً في الأسبوع العادي تتناول الفاكهه؟ ***(اذا صفر إلى قسم ن2أ)*** ☐ الأيام

ن1ب - كم حصة فواكه تتناول في اليوم العادي؟ ☐
وجبة

ن2أ - كم يوماً في الأسبوع العادي تتناول الخضار المطبوخ؟ ***(صفر إلى قسم ن2أ)*** ☐ الأيام

ن2ب - كم حصة خضار مطبوخ تتناول في اليوم العادي؟ ☐ وجبة

ن2ج - كم يوم فى الاسبوع تتناول خضار نىء (الخضره)؟ ☐ يوم

ن2د - كم حصة خضار نىء (الخضره) تتناول فى اليوم العادى؟ ☐
حصة

موسع : تغذية

ن3 - هل عادة تحضر طعامك في البيت؟

☐ نعم ☐ لا

ن4 - أي نوع من الزيوت والدهون تستعملها أكثر من غيرها لتحضير الطعام فى البيت ؟

☐ زيت زيتون ☐ زيوت نباتية أخرى ☐ سمن حيواني/زبدة
☐ سمن نباتي ☐ غير محدد ☐ لا تستعمل زيوتاً أو دهناً

النشاط البدني (قسم د)

ولآن سوف أسألك عن الوقت الذي تمضيه بممارسة أنواع مختلفة من النشاط البدني.

أرجو الإجابة على هذه الأسئلة حتى لو لم تكن رياضياً.

فكر أولاً بالوقت الذي تمضيه في العمل. أكان بإجرة أو بدون إجرة، أعمال منزلية، حصاد أو صيد.

(أدخل أمثلة أخرى إذا دعت الحاجة)

د1 - هل أسلوب عملك يتطلب معظم الوقت الجلوس أو الوقوف مع مشى أقل من عشار دقائق ؟ *(اذا نعم إلى د 6)*

☐ **نعم** ☐ **لا**

د2 - هل أسلوب العمل يتوجب نشاطاً شاقاً مثل (الحمل الثقيل، الحفر، ورشة بناء) لمدة تزيد عن عشرة دقائق ؟

(أدخل بعض الأمثل إدا لزم الأمر) ***(اذا لا إلى د 4)***

☐ نعم ☐ لا

د3أ - كم من أيام الأسبوع يتوجب عليك النشاط الشاق كجزء من عملك؟ ☐ يوم

د3ب - فى كم من الوقت في اليوم تستغرق هذا النشاط الشاق؟

☐ دقائق ☐ ساعة

د4 - هل يشمل عملك أنشطة متوسطة المشقة مثل (المشي السريع حمل أشياء خفيفة الوزن) لمدة تزيد عن عشر دقائق ؟ (**أدخل بعض الأمثل إدا لزم الأمر)** ***(اذا لا إلى د 6)***

☐ نعم ☐ لا

د5أ - ما هو عدد أيام الأسبوع الذى تقوم فيه بنشاط متوسطة المشقة ☐ يوم

د5ب - ما هو الوقت المطلوب لانجاز هذا النشاط المتوسط ؟

☐ دقائق ☐ ساعة

د6 - بتشتغل كم ساعة فى اليوم؟ ☐ ساعة

غير الأنشطة التي ذكرتها الآن، أود أن أسألك عن طريقة تنقلك من و إلى أماكن إعتيادية مثلاً ألى عملك، للتسوق، للصلاة. (أدخل بعض الأمثل إذا لزم الأمر)

د7 - هل تسير على الأقدام أو تركب دراجة من والى أماكن معينة لمدة تزيد عن عشر دقائق متواصلة ؟

☐ نعم ☐ لا ***(اذا لا إلى د 9)***

د8أ - كم يوماً في الأسبوع العادي تستعمل الدراجة أو تسير من و إلى أماكن معينة لمدة تزيد عن 10 دقائق متواصلة ؟ ☐ يوم

د8ب - إيه إجمالى الوقت اللى تحتاجه للتنقل بالعجله أو سيراً على الأقدام في اليوم العادي:

☐ دقائق ☐ ساعة

الأسئلة التالية تسأل عن النشاطات التي تقوم بها خلال وقت الفراغ و الأستجمام مثلاً الرياضة أو الإستجمام لا تتحدث عن الأنشطة البدنية المتعلقة بالعمل أو بالتنقلات. (أدخل بعض الأمثلة إذا لزم الأمر).

د9 - هل يقتصر وقت الفراغ أو الأستجمام الجلوس، الاستلقاء أو الوقوف مع نشاط بدني بسيط لا يزيد عن عشرة دقائق؟ ***(اذا نعم إلى د 14)***

☐ نعم ☐ لا

د10 - هل يتضمن وقت الاجازة نشاطاً شاقاً مثل (الحمل الثقيل، الحفر، ورشة بناء) لمدة تزيد عن عشرة دقائق على الأقل ؟ ***(اذا لا إلى د 12)***

☐ نعم ☐ لا

د11أ - اذا كان **الجواب نعم**، كم يوماً في الأسبوع العادي تقوم بنشاط شاق كجزء من وقت فراغك؟

☐ يوم

د11ب - كم ساعة في اليوم العادي تستغرق لانجاز هذا النشاط ؟

☐ دقائق ☐ ساعة

د12 - هل يشمل وقت فراغك أنشطة متوسطة الضغط، مثل(المشي السريع ، ركوب عجلة أو حمل أشياء خفيفة الوزن) لمدة عشر دقائق على الأقل؟ (أدخل أمثلة إذا لزم الحال) ***(اذا لا إلى د 14)***

☐ نعم ☐ لا

د 13 أ - إذا كان الجواب نعم، كم يوماً في الأسبوع تقوم بأنشطة معتدلة كجزء من وقت الفراغ؟

☐ يوم

د13 ب - كم من الوقت تقضية فى هذا النشاط في يوم عادي؟

☐ دقائق ☐ ساعة

السؤال التالى تسأل عن الجلوساً و الإستلقاء. إرجع في تفكيرك إلى الأيام السبع الأخيرة، خلال العمل أو الفراغ، في البيت أو خارجه، خلال زيارة الأصحاب أو القراءة أو مشاهدة التلفاز، لكن لا تشمل أوقات النوم.

د 14 - خلال الأيام السبع الأخيرة، أد إيه الوقت اللى بتقضيه جالساً أو مستلقياً في اليوم.

☐ دقائق ☐ ساعة

موسع: سوابق إرتفاع ضغط الدم

ل 1 - **متىآخر مرة** تم قياس ضغط دمك من قبل أخصائي صحة؟

☐ **خلال الاشهر الـ 12 الاخيرة** ☐ **من 1-5 سنوات** ☐ **قبل السنوات الخمس الأخيرة**

☐ لا أتذكر ☐ لم يتم قياسه من قبل

ل 2 - فى الأشهر ال 12 الأخيرة،هل أخبرك الطبيب أو مرشد صحي أن لديك ضغط دم مرتفع؟

☐ نعم ☐ لا ***(اذا لا إلى ل 6)***

هل تتابع حالياً أي من هذه علاجات كما وصفها الطبيب أو المرشد الصحي لمعلجة ضغط الدم المرتفع؟

ل 3أ - أدوية أخذتها خلال اللأسبوعين الأخيرين؟

☐ نعم ☐ لا

ل3ب - هل لك نظام خاص فى الأكل ؟

☐ نعم ☐ لا

ل3ج - نصيحة أو علاج لتخفيف الوزن

☐ نعم ☐ لا

ل3د - نصيحة أو علاج لتوقف عن التدخين

☐ نعم ☐ لا

ل3 هـ نصيحة للبدء او لزيادة النشاط البدني

☐ نعم ☐ لا

ل - 4 خلال االأشهر ال 12 الأخيرة، هل استعملت الطب الشعبى/طب الأعشاب لمعالجة إرتفاع ضغط الدم؟

☐ نعم ☐ لا

ل5- هل تتابع حالياً أي من علاجات الأعشاب أو من العلاجات التقليدية لإرتفاع ضغط الدم؟

☐ نعم ☐ لا

موسع: سوابق داء السكري

ل6 - هل قمت بقياس معدل السكر في الدم خلال الأشهر ال 12 الأخيرة؟

☐ نعم ☐ لا ☐ لم يتم من قبل

ل7أ - هل أخبرك طبيب أو مرشد صحي فى الماضى أنك مصاب بالسكر؟

☐ نعم ☐ لا ***(إذالا إلى ل14أ)***

ل7ب - **أذكرتاريخ (السنة)** ☐ **سنة**

هل تتلقى من الطبيب أو المرشد الصحى أي من العلاجات التالية للسكري؟

ل8أ – إنسولين

☐ نعم ☐ لا

ل8ب - أدوية خاصة خلال الأسبوعين الأخيرين بالسكر

☐ نعم ☐ لا

ل8ج - هل لك نظام معين فى الأكل؟

☐ نعم ☐ لا

ل8د - نصيحة أو علاج لتخفيف الوزن

☐ نعم ☐ لا

ل8هـ نصيحة أو علاج للإقلاع عن التدخين

☐ نعم ☐ لا

ل8و - نصيحة للبدء أو زيادة النشاط البدني

☐ نعم ☐ لا

ل9 - خلال االأشهر ال 12 الأخيرة، هل استعملت الطب التقليدي/ أوطب الأعشاب لمعالجة السكري؟

☐ نعم ☐ لا

ل10 - هل تتابع حالياً أي من علاجات الأعشاب أو من علاجات التقليدية للسكر ؟

☐ نعم ☐ لا

ل11 - هل سبق وظهر لك تقرحات على قدميك ما خفتش أو أستغرق شفائها أكثر من أربعة أسابيع ؟

☐ نعم ☐ لا

ل12 - أمتى آخر مرة كشفت عل عينيك عند طبيب عيون؟

☐ خلال السنة الماضية ☐ بين سنة وسنتين ☐ بين سنتين وخمس

☐ أ أكثر من 5 سنوات ☐ لم يتم فحص عينى

ل13أ - هل سبق أن أخبرك طبيب العيون أن مرض السكر قد أحدث ضررا فى عينك ؟

☐ نعم ☐ لا

ل13ب - أذا نعم أذكر التاريخ (السنة) ☐ **سنة**

موسع سوابق الأمراض الشرايينى

ل14أ - هل أخبرك طبيب أو مرشد صحى أنك تعانى من مرض فى قلبك (تضييق شرايين) ؟

☐ نعم ☐ لا

ل14ب - أذا نعم أذكر التاريخ (السنة) ☐ **سنة**

ل15 أ - هل أخبرك طبيب أو مرشد صحى أنك تعانى من ضيق فى شرايين الدماغ أو جلطة فى الدماغ ؟

☐ نعم ☐ لا

ل15ب - أذا نعم أذكر التاريخ (السنة) ☐ **سنة**

ل16 - هل يعانى أحد فى أهلك (الوالدة أو الوالدة الأخوان أوالأولاد) بضيق فى شرايين القلب ؟

☐ نعم ☐ لا

أسئلة عامة

ل17أ - هل تعانى الان من اى تزييق او تصفير اثناء التنفس "مثال: ازمة بالصدر-كحة مزمنة-صعوبة بالتنفس-التهاب مزمن بالشعب الهوائية؟

☐ نعم ☐ لا

ل17ب - هل انت الان تحت العلاج او تتعاطى اى دواء خاص بالصدر ؟

☐ نعم ☐ لا

ل17ج - هل عانيت اثناء الصغر من اى تزييق او تصفير بالصدر او اى ازمة ؟

☐ نعم ☐ لا

ل18أ - هل زرت مكان صحى او طبيبا خلال السنة الماضية؟

☐ نعم ☐ لا

ل18ب - كم مرة خلال السنة الماضية ☐ مرة

ل19 - هل سبق ودخلت المستشفى لليلة واحدة على الأقل خلال السنة الماضية لسبب غير الولادة ؟

☐ نعم ☐ لا

الخطوة الثانية: المقاييس البدنية

الطول و الوزن

م1 - رمز التقني

م 2 - الطول **سم**

م3- الوزن **كج**

م**4 <u>للنساء فقط</u> هل هي حامل؟**

☐ نعم ☐ لا

م5 - **قياس الخصر** **سم**

ضغط الدم

م6 - رمز التقني

م7 - رمز الجهاز

م8أ - قراءة 1

ضغط الدم الانقباضي مم زئبق ضغط الدم الأنبساطي مم زئبق

م8أ - قراءة 2

ضغط الدم الانقباضي مم زئبق ضغط الدم الأنبساطي مم زئبق

م8أ - قراءة 3

ضغط الدم الانقباضي مم زئبق ضغط الدم الأنبساطي مم زئبق

م9 - هل تتابع علاجاً بالأدوية للضغط موصوفة من قبل أخصائي صحي؟

☐ نعم ☐ لا

الخطوة الثالثة: المقاييس الحيوية

السكر في الدم

ص1 - هل أكلت أو شربت شيئاً غير الماء أوالشاي / قهوة الغير محلى خلال ال 12 ساعة الماضية؟

☐ نعم ☐ لا

ص2 - الزمن الذي اتخذت فيه عينة الدم

دقائق ☐ ساعة ☐

ص3 أ - نسبة السكر في الدم ☐

ص3ب - إذا كان لا يمكن قياس السكر فما هو السبب

☐ منخفضة ☐ مرتفعة ☐ لا يمكن قياسها

الدهنيات في الدم

ص4أ - اجمالي الكوليستيرول ☐ مم/ل

ص4ب - إذا كان لا يمكن قياس الكوليسترول فما هو السبب ؟

☐ منخفضة ☐ مرتفعة ☐ لا يمكن قياسها

مواد موسعة إختيارية

ص5أ – الترايجلسيريد 

ص5ب - إذا كان لا يمكن قياس الترايجلسيريد فالسبب هو؟

☐ منخفضة ☐ مرتفعة ☐ لا يمكن قياسها

ص6 أ - الكوليستيرول الجيد(HDL)

ص6ب - إذا كان لا يمكن قياس HDL فالسبب هو؟

☐ منخفضة ☐ مرتفعة ☐ لا يمكن قياسها