NON-COMMUNICABLE DISEASES

RISK-FACTOR STEPS SURVEY,

GEORGIA, 2016

EXECUTIVE SUMMARY

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Introduction

WHO's STEPwise approach to noncommunicable diseases (NCDs) risk factors surveillance is the most common instrument for the surveillance of Non-Communicable Diseases risk-factors.

Conducting first STEPS Survey in Georgia in 2010 was made possible through the financial support of European Union and the technical and financial support of World Health Organization. STEPS survey gave us possibility to collect basic information on prevalence of NCDs and its biological and behavioral risk-factors in the country.

The second STEPS survey was conducted in Georgia in 2016 through the technical and financial support of World Health Organization and the National Center of Disease Control and Public Health of Georgia.

Survey was carried out from June to September 2016. Both surveys have nationwide representation and were implemented by the National Center of Disease Control and Public Health. In order to plan and successfully implement STEPS survey in the country, STEPS coordinating committee has been formed which was chaired by the Deputy Minister of Health, Labor and Social Affairs, Dr. Nino Berdzuli.

STEPS Instrument covers three different levels of "steps" of risk factors assessment. These steps are:

   I. Socio-demographic and behavioural information
   II. Physical measurements such as height, weight, waist and hip circumference, blood pressure, pulse
   III. Biochemical measurements to assess blood glucose, cholesterol and high density lipoproteins (HDL); urinary salt and cotinine

The target population of STEPS survey was adults aged 18-69. The population-based survey using a multi-stage, clustered sample design was conducted simultaneously both in the East and the West parts of Georgia. A total of 5,554 adults participated in the survey. The overall response rate was 75.7%.

It is worth noting, that Georgia is the only country in the European Region carried out the second STEPS survey. This gives us possibility to get evidence based information about trends of NCDs and its biological and behavioral risk factors in the county. This is an important resource to plan important public health decisions and interventions, which from its end, will support to improve the health of the Georgia's population.

Conducting the third STEPS survey is recommended for 2021.

Georgia STEPS Survey 2016
Fact Sheet

The STEPS survey of noncommunicable disease (NCD) risk factors in Georgia was carried out from June 2016 to September 2016. Georgia carried out Step 1, Step 2 and Step 3. 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 in Step 3. The survey was a population-based survey of adults aged 18-69. A Multi-stage cluster sampling design was used to produce representative data for that age range in Georgia. A total of 5554 adults participated in the survey. The overall response rate was 75.7%. A repeat survey is planned for 2021 if funds permit.

| Results for adults aged 18-69 years (incl. 95% CI) (adjust if necessary)	Both Sexes	Males	Females
Step 1 Tobacco Use			
Percentage who currently smoke tobacco	31.0% (28.9 – 33.0)	57.0% (53.6 – 60.3)	7.0% (5.8 – 8.2)
Percentage who currently smoke tobacco daily	28.0% (26.0 – 30.0)	51.5% (48.1 – 55.0)	6.2% (5.1 – 7.4)
For those who smoke tobacco daily			
Average age started smoking (years) among current daily smokers	18.3 -	17.8 -	22.4 -
Average age started smoking (years) among current smokers	18.4 -	17.9 -	22.6 -
Percentage of daily smokers smoking manufactured cigarettes	98.6% (97.7 - 99.5)	98.4% (97.5 - 99.4)	100.0% -
Mean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	21.3 -	22.2 -	14.4 -
Step 1 Alcohol Consumption			
Percentage who are lifetime abstainers	10.4% (8.9 - 12.0)	3.9% (2.6 - 5.3)	16.4% (14.1 - 18.8)
Percentage who are past 12 month abstainers	20.1% (18.5 - 21.7)	11.4% (9.5 - 13.3)	28.1% (25.8 - 30.4)
Percentage who currently drink (drank alcohol in the past 30 days)	39.1% (36.6 - 41.5)	58.9% (55.2 - 62.5)	20.8% (18.6 - 22.9)
Percentage who engage in heavy episodic drinking (6 or more drinks on any occasion in the past 30 days)	18.3% (16.1 - 20.6)	35.3% (31.2 - 39.4)	2.6% (1.7 - 3.5)
Step 1 Diet			
Mean number of days fruit consumed in a typical week	5.3 (5.2 - 5.4)	5.1 (4.9 - 5.3)	5.4 (5.3 - 5.6)
Mean number of servings of fruit consumed on average per day	2.0 (1.9 - 2.1)	2.0 (1.8 - 2.1)	2.1 (1.9 - 2.2)
Mean number of days vegetables consumed in a typical week	6.0 (5.9 - 6.1)	5.9 (5.8 - 6.0)	6.1 (5.9 - 6.2)
Mean number of servings of vegetables consumed on average per day	2.4 (2.3 - 2.5)	2.4 (2.3 - 2.6)	2.4 (2.3 - 2.5)
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	63.0% (60.1 - 66.0)	63.8% (59.6 - 67.9)	62.4% (59.5 - 65.3)
Percentage who always or often add salt or salty sauce to their food before eating or as they are eating	26.7% (24.7 - 28.8)	33.4% (29.4 - 37.3)	20.6% (18.6 - 22.7)
Percentage who always or often eat processed foods high in salt	14.3% (12.4 - 16.2)	18.9% (15.3 - 22.5)	10.1% (8.7 - 11.5)
Step 1 Physical Activity			
Percentage with insufficient physical activity (defined as < 150 minutes of moderate-intensity activity per week, or equivalent)*	17.4% (15.6 - 19.2)	16.2% (13.6 - 18.9)	18.4% (16.3 - 20.4)
Median time spent in physical activity on average per day (minutes) (presented with inter-quartile range)	137.1 (40.0 - 300.0)	158.6 (55.7 - 342.9)	173.8 (30.0 - 270.0)
Percentage not engaging in vigorous activity	82.4% (80.3 - 84.6)	72.2% (68.5 - 75.9)	91.8% (90.1 - 93.4)

Results for adults aged 18-69 years (incl. 95% CI) *(adjust if necessary)*	Both Sexes	Males	Females
Step 1 Cervical Cancer Screening			
Percentage of women aged 30-49 years who have ever had a screening test for cervical cancer			23.9% (20.6 - 27.3)
Step 2 Physical Measurements			
Mean body mass index - BMI (kg/m^2)	28.1 (27.8 - 28.4)	27.9 (27.5 -28.3)	28.3 (28.0 - 28.6)
Percentage who are overweight (BMI ≥ 25 kg/m^2)	64.6% (62.3 - 67.0)	65.5% (61.4 - 69.7)	63.8% (61.4 - 66.3)
Percentage who are obese (BMI ≥ 30 kg/m^2)	33.2% (31.3 - 35.2)	30.2% (26.9 - 33.6)	36.0% (33.7 - 38.2)
Average waist circumference (cm)		95.7 (94.3 - 97.2)	89.6 (88.7 - 90.5)
Mean systolic blood pressure - SBP (mmHg), including those currently on medication for raised BP	129.4 (128.4 - 130.4)	132.6 (131.3 - 134.0)	126.5 (125.4 - 127.6)
Mean diastolic blood pressure - DBP (mmHg), including those currently on medication for raised BP	82.2 (81.6 - 82.8)	83.0 (82.1 - 84.0)	81.4 (80.7 - 82.1)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)	37.7% (35.5 - 40.0)	38.6% (35.1 - 42.2)	36.9% (34.7 - 39.1)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg) who are not currently on medication for raised BP	55.4% (52.1 - 58.8)	64.2% (59.3 - 69.0)	47.2% (43.4 - 50.9)
Step 3 Biochemical Measurement			
Mean fasting blood glucose, including those currently on medication for raised blood glucose [mmol/L]	4.4 (4.3 - 4.5)	4.4 (4.3 - 4.5)	4.4 (4.3 - 4.5)
Percentage with impaired fasting glycaemia as defined below • Capillary whole blood value ≥5.6 mmol/L and <6.0 mmol/L	2.0% (1.4 - 2.5)	2.0% (1.0 - 3.0)	1.9% (1.4 - 2.4)
Percentage with raised fasting blood glucose as defined below or currently on medication for raised blood glucose • Capillary whole blood Capillary whole blood value value ≥ 6.1 mmol/L	4.5% (3.7 - 5.3)	4.7% (3.5 - 6.0)	4.3% (3.4 - 5.2)
Mean total blood cholesterol, including those currently on medication for raised cholesterol [mmol/L]	4.3 (4.3 - 4.4)	4.1 (4.0 - 4.3)	4.5 (4.4 - 4.6)
Percentage with raised total cholesterol (≥ 5.0 mmol/L or currently on medication for raised cholesterol)	27.7% (25.5 - 29.9)	21.9% (18.6 - 25.2)	33.0% (30.4 - 35.6)
Mean intake of salt per day (in grams)	8.5 (8.3 - 8.6)	9.7 (9.4 - 9.9)	7.4 -
Cardiovascular disease (CVD) risk			
Percentage aged 40-69 years with a 10-year CVD risk ≥ 30%, or with existing CVD[1]	28.8% (25.9 - 31.7)	30.8% (25.9-35.7)	27.1% (24.3 – 29.9)
Summary of combined risk factors • current daily smokers • less than 5 servings of fruits & vegetables per day • insufficient physical 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	7.6% (6.0 - 9.2)	5.7% (3.4 - 8.0)	9.3% (7.7 - 11.0)
Percentage with three or more of the above risk factors, aged 18 to 44 years	25.2% (22.1 - 28.3)	37.9% (32.5 - 43.3)	12.5% (10.2 - 14.8)
Percentage with three or more of the above risk factors, aged 45 to 69 years	48.6% (45.7 - 51.5)	55.1% (50.4 - 59.8)	43.4% (40.2 - 46.5)
Percentage with three or more of the above risk factors, aged 18 to 69 years	36.1% (33.8 - 38.4)	45.4% (41.7 - 49.2)	27.6% (25.5 - 29.8)

[1] A 10-year CVD risk of ≥30% is defined according to age, sex, blood pressure, smoking status (current smokers OR those who quit smoking less than 1 year before the assessment), total cholesterol, and diabetes (previously diagnosed OR a fasting plasma glucose concentration >7.0 mmol/l).

Tobacco

Almost one third of Georgia's population (31%) are smokers; 57% of male - current smokers, among them 90.5 % - daily smokers; 7% of female noted that, they are current smokers; in fact, according to urine cotinine test, smoking prevalence in female is 12.2%.

Picture #1. Current smokers (%) by age and sex
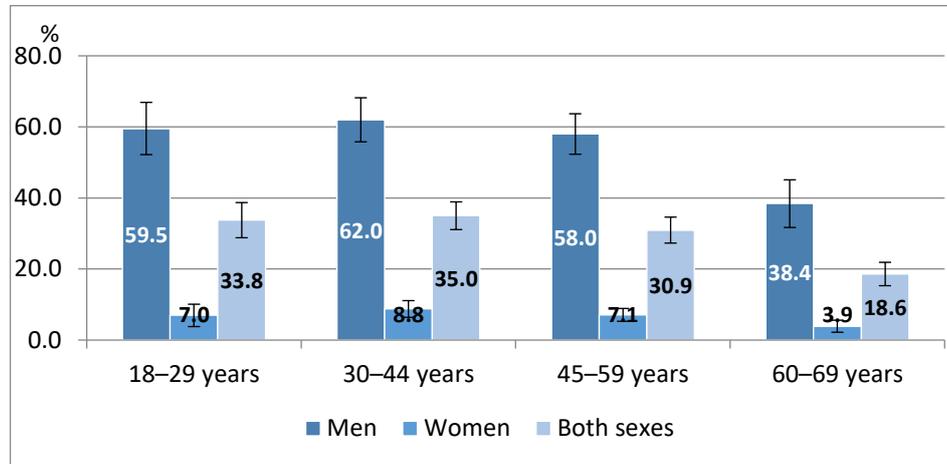
Mean age of starting smoking in male - 17.7 years and in female - 22.4 years.

**Picture #2. Mean age of starting smoking by age and sex**
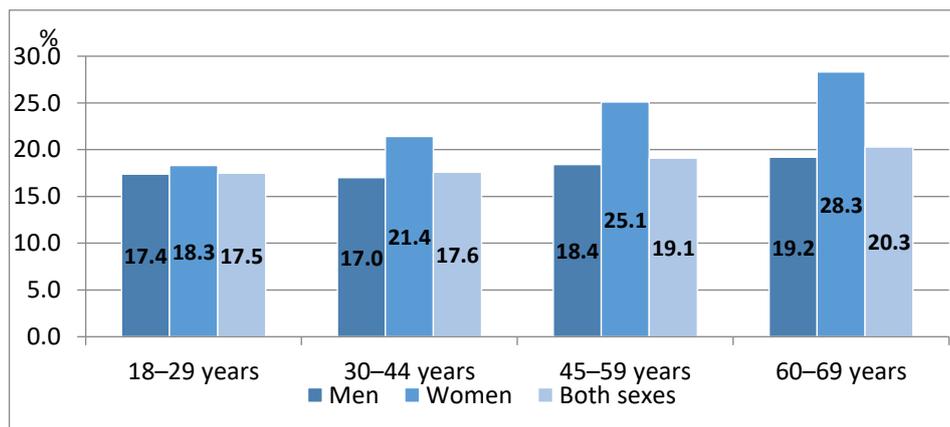
The absolute majority of smokers (98.6%) smoke manufactured cigarettes. Mean number of manufactured cigarettes smoked per day by daily smokers is 21.3 cigarettes (male - 22.2 cigarettes, female - 14.4 cigarettes).

Picture #3. Mean number of manufactured cigarettes smoked per day by daily smokers by age and sex
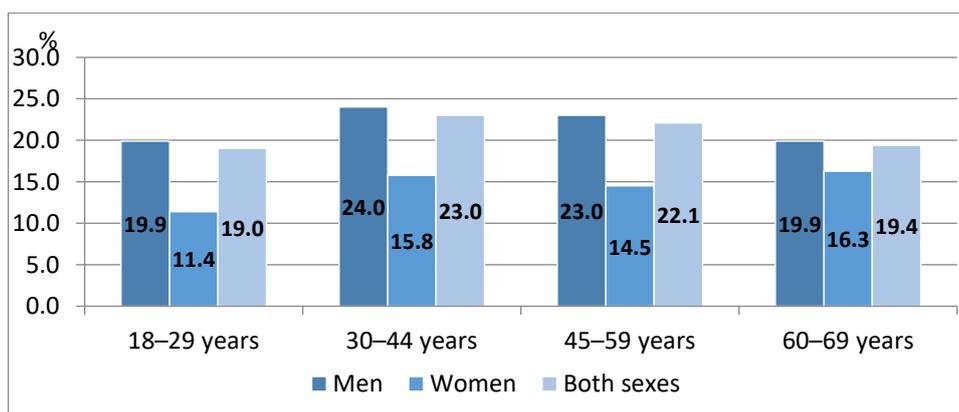
25.3 % of current smokers (male 25.5%, female 24.2%) tried to quit smoking during the past 1 year. Those who have tried to quit smoking used the following: consultation on a primary healthcare level - 11.0%; electronic cigarettes - 9.4%; nicotine replacement therapy - 0.3%; pharmacotherapy (*Tabex, Bypropion*) - 0.4%; none of them referred to Quit-line service.

Picture #4. Current smokers, who tried to quit smoking during the past one year (%) by age and sex
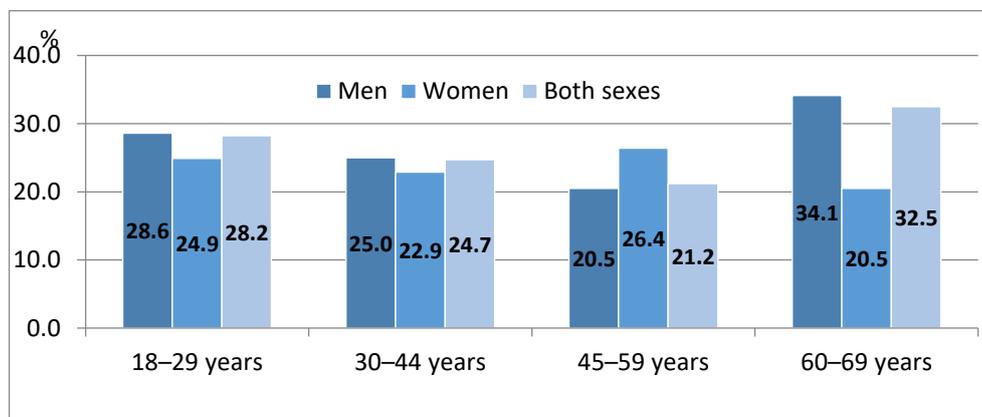
39.3% of male and 30.4% of female current smokers received doctor's/health worker's advice to quit smoking. 43% of respondents are exposed to secondhand smoke at home and 15.8 % at their workplaces.

Picture #5. Secondhand smoke exposure at home during the past 30 days (%) by age and sex
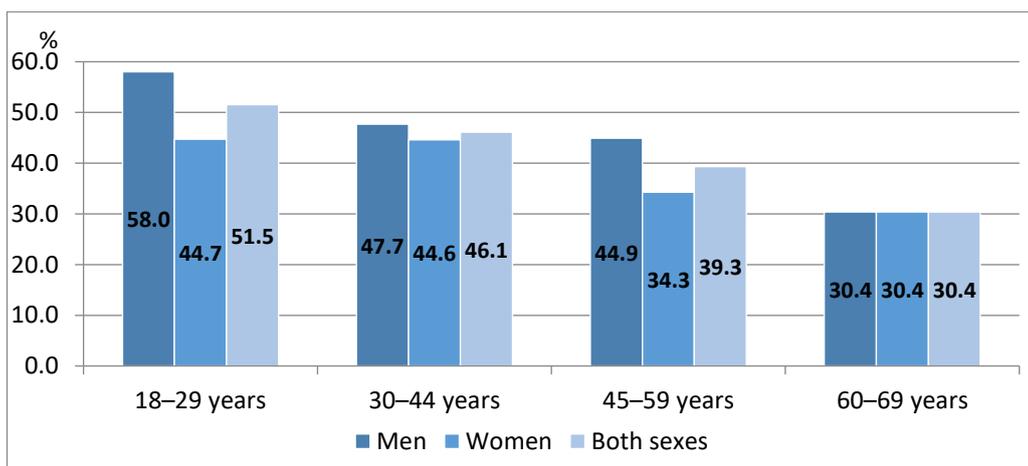
Picture #6. Secondhand smoke exposure at workplaces during the past 30 days (%) by age and sex

Alcohol

89.6% of respondents (male 96.1%, female 83.6%) consumed any type of alcohol at least once in a lifetime.

Picture #7. Alcohol consumption (%) by sex

Alcohol consumption status by gender

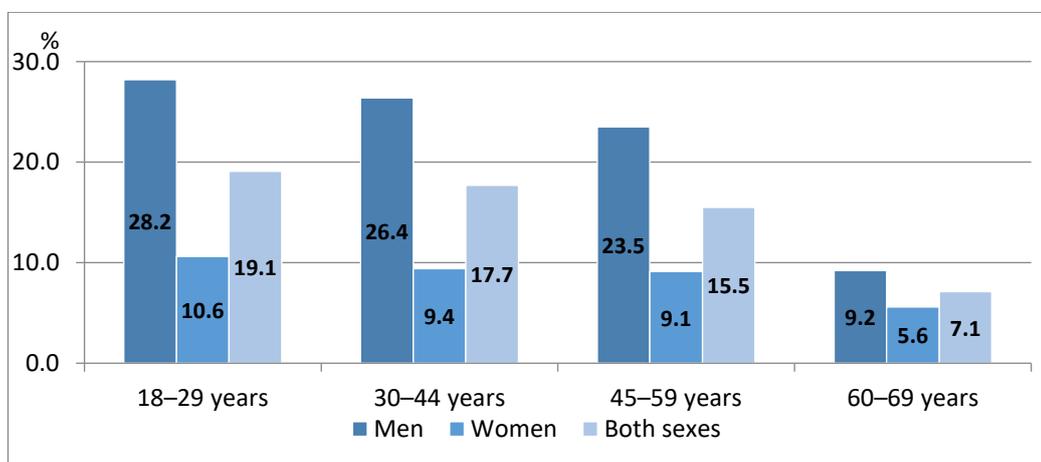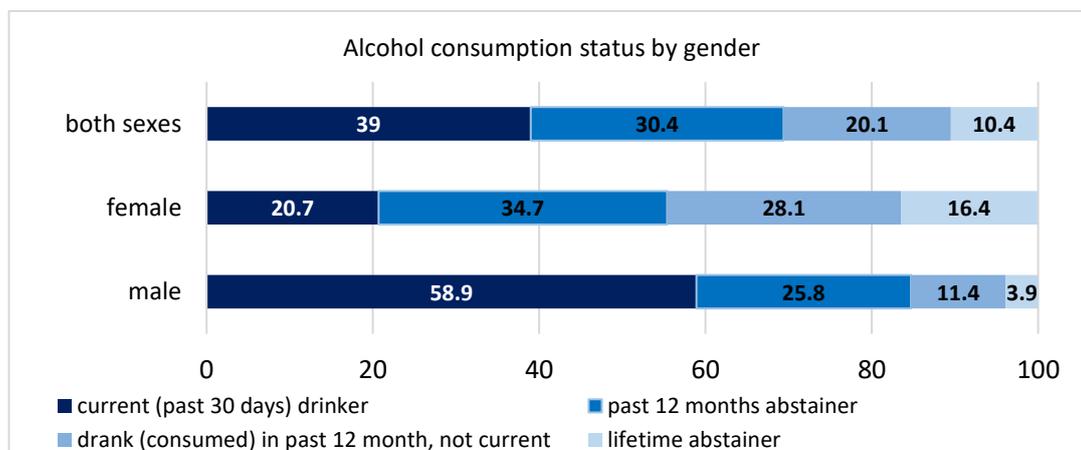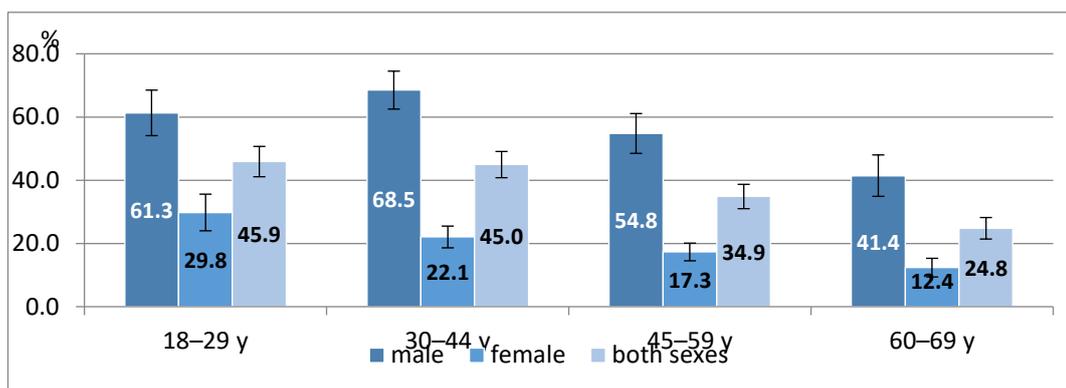|	current (past 30 days) drinker	past 12 months abstainer	drank (consumed) in past 12 month, not current	lifetime abstainer
both sexes	39	30.4	20.1	10.4
female	20.7	34.7	28.1	16.4
male	58.9	25.8	11.4	3.9

Current (during the past 30 days) alcohol consumption prevalence is 39% (male 58.9%, female 20.7%).

Picture #8. Past 30 days alcohol consumption (%) by age and sex

	18–29 y	30–44 y	45–59 y	60–69 y
male	61.3	68.5	54.8	41.4
female	29.8	22.1	17.3	12.4
both sexes	45.9	45.0	34.9	24.8

Number of drinking occasions on average is 2 times higher in male than in female respondents (5.7 vs. 2.5 occasions, accordingly). Average number of standard drinks is almost 3 times higher in man than in women (5.7 vs. 2.0, accordingly). Heavy drinking occasion (6 or more standard drinks on a single occasion) prevalence is 18.3%; it's almost 14-times higher in man than in women (35.3% vs. 2.6%). Quit alcohol drinking because of medical problem or per doctor's/health worker's advice among the abstainers during the past 12 months accounts to 21.6% (male 42.4%, female 13.8%). 38.8% of current drinkers (male 43.6%, female 26%) consumed unregistered alcohol during the past 7 days.

Picture #9. Consumption of 6 or more standard alcohol drinks at least once during the past 30 days (%) by age and sex

	18–29 years	30–44 years	45–59 years	60–69 years
Men	33.2	45.3	33.8	20.2
Women	4.5	2.9	1.9	0.8
Both sexes	19.1	23.8	16.9	9.0
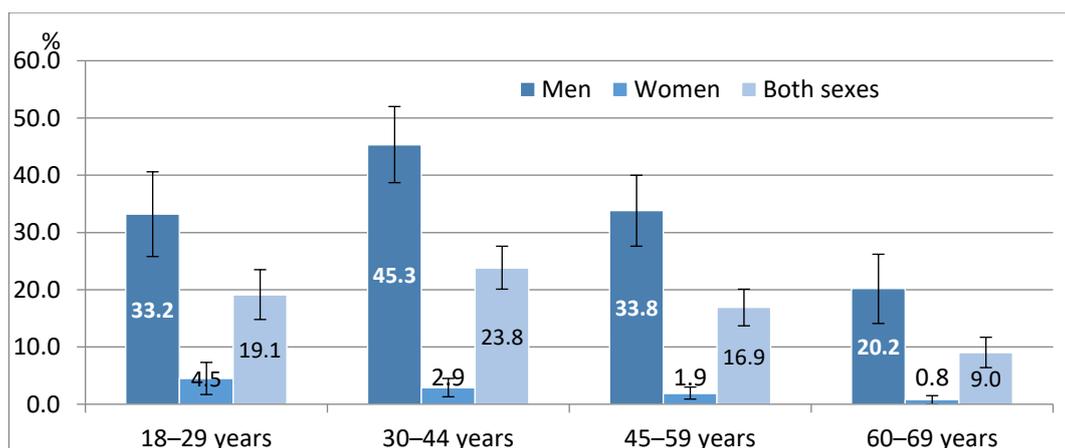
Diet

On average, respondents consumed fruits 5.3 days a week and vegetables 6 days a week.

Picture #10. Fruits consumption, mean number of days in a typical week by age and sex
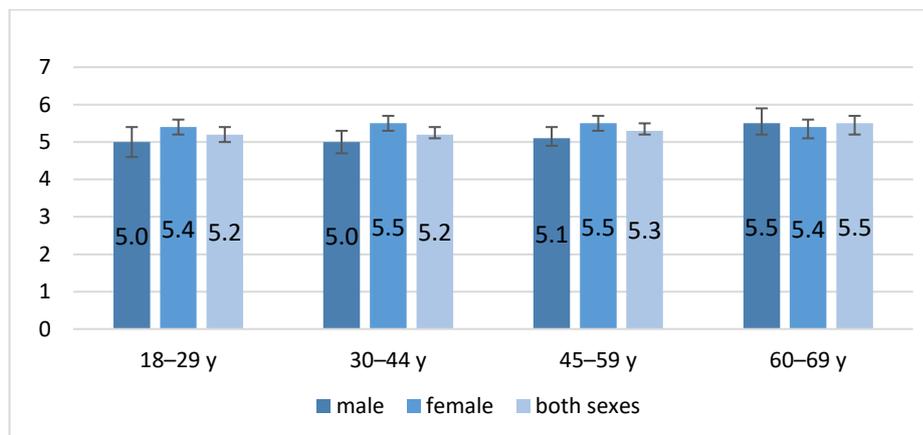
Picture #11. Vegetables consumption, mean number of days in a typical week by age and sex
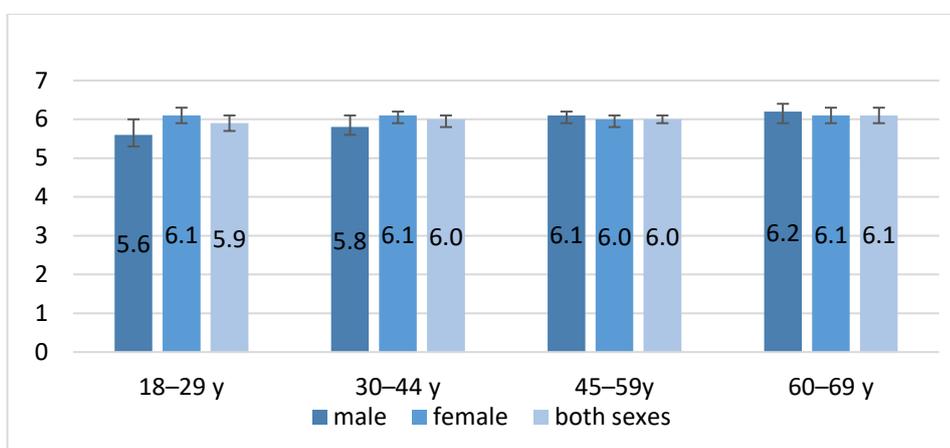
On average 2 servings of fruits and 2.4 servings of vegetables are consumed per day. Less than 5 servings of fruits and vegetables per day are consumed by 63.8% of male and 62.4 % of female respondents. Fruits and vegetables are not consumed at all by 6% of male and 4% of female respondents.

Picture #12. Consumption of 5 or more serving of fruit and vegetables (%) by age and sex
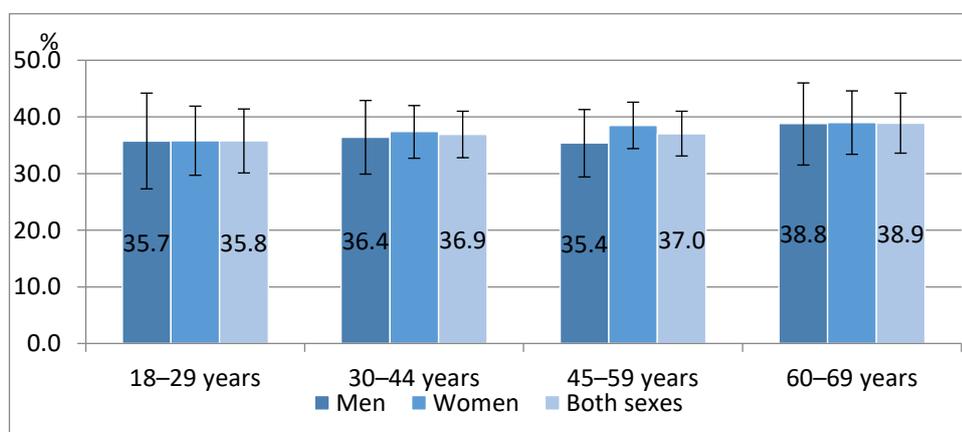
On average, meat and meat products were consumed on 2.2 days a week; fish and sea-products are consumed on 1 day a week; milk and diary products are consumed on 5.5 days a week; bread products – 6.7 days a week; sweets or sugar products – 1.5 days a week. 51.2% respondents eat three times a day; about 32% - four times a day; 14% of respondents eat more than 4-times a day ; 0.1% of the population does not eat everyday.

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Picture #13. Mean number of days by age and sex when meat and meat products were consumed
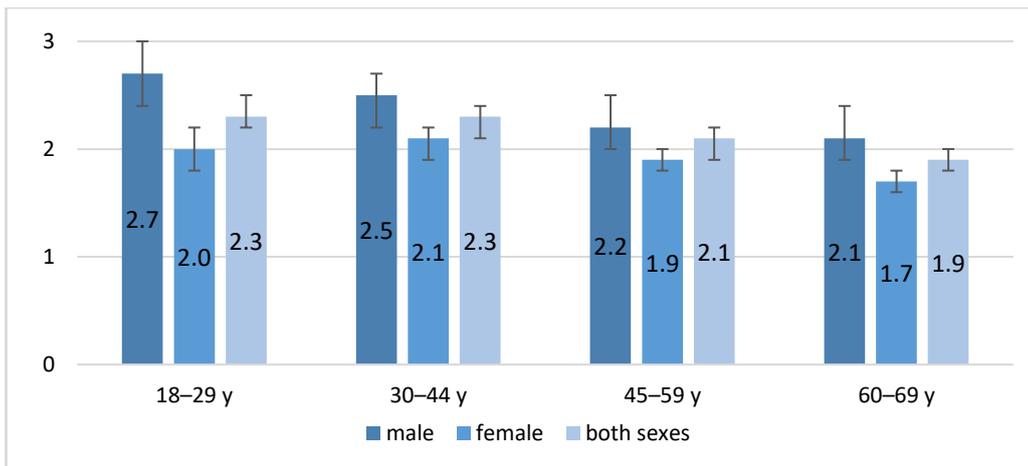
Picture #14. Mean number of days by age and sex when fish and fish products were consumed
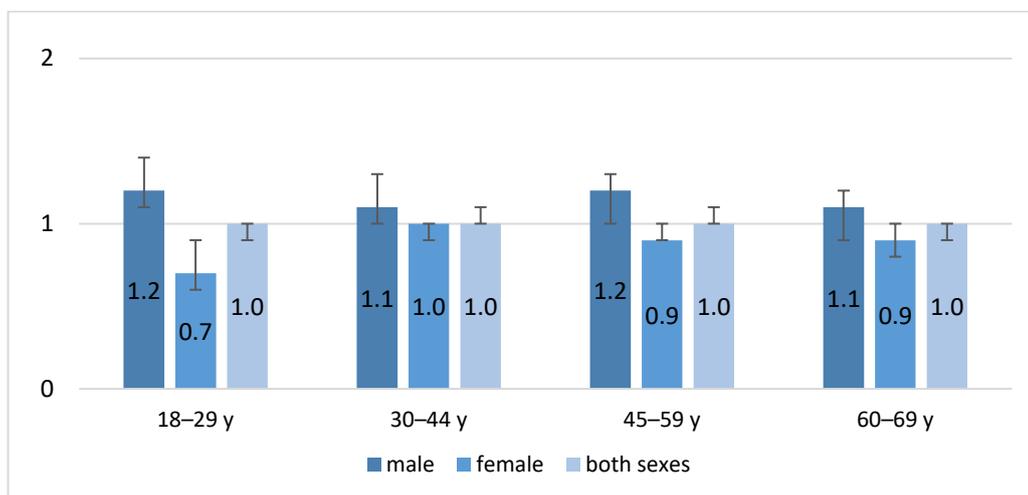
Picture #15. Mean number of days by age and sex when milk and dairy products were consumed
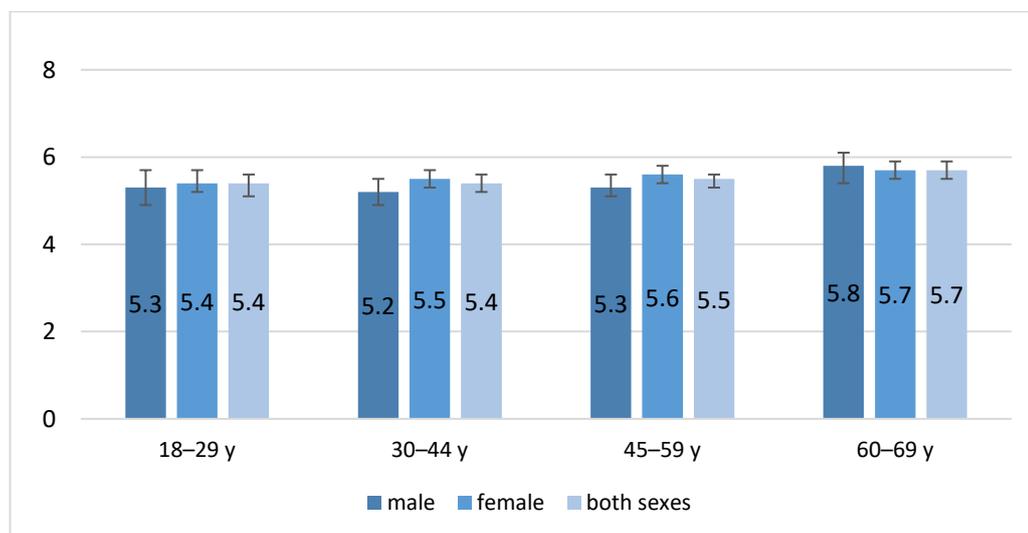
Picture #16. Mean number of days by age and sex when bread and bread products were consumed
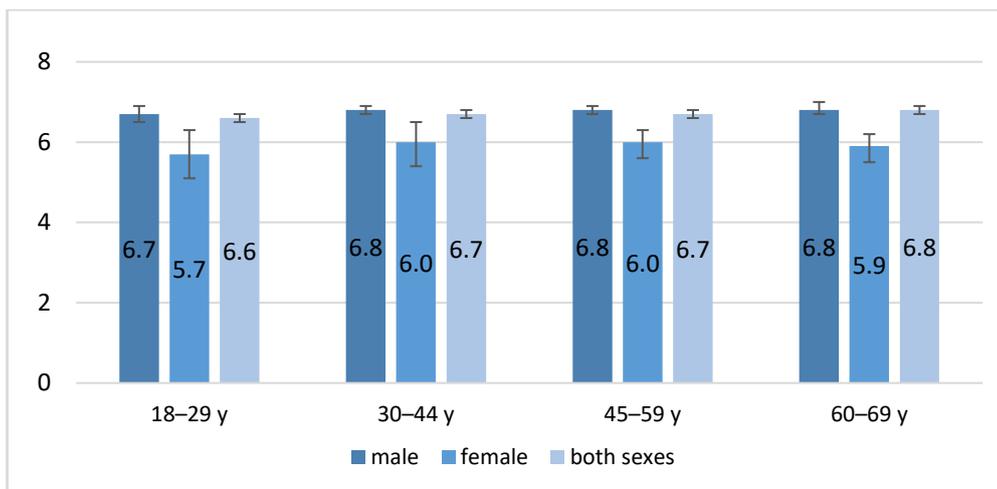
Picture #17. Mean number of days by age and sex when sweets were consumed
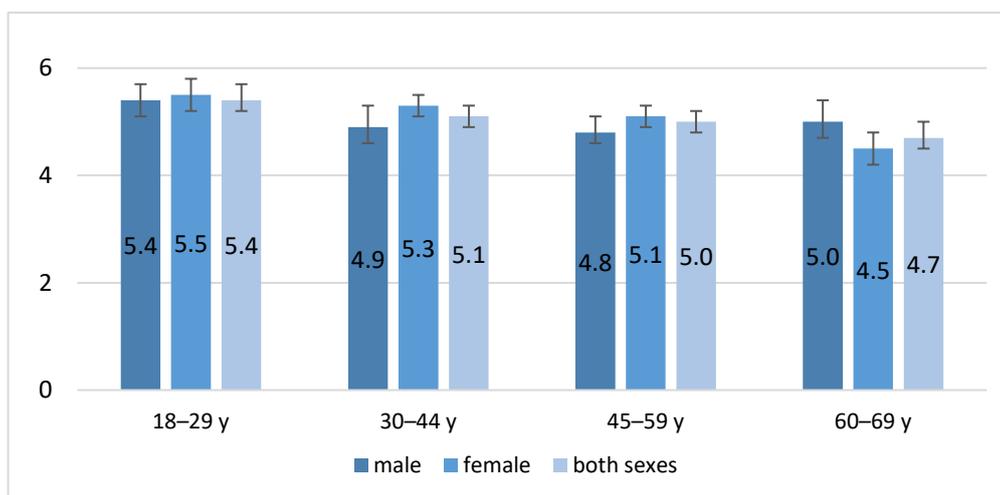
Mean daily consumption of salt is 8.5 gr. (male 9.7 gr; female 7.4 gr).

Physical Activity

Level of physical activity in 17.4% of respondents (male 16.2%, female 18.4%) does not meet WHO recommendations on physical activity. Younger men (18-29 years) are more physically active.

Picture #18. Proportion of respondents not meeting WHO recommendations on physical activity (%), by age and sex
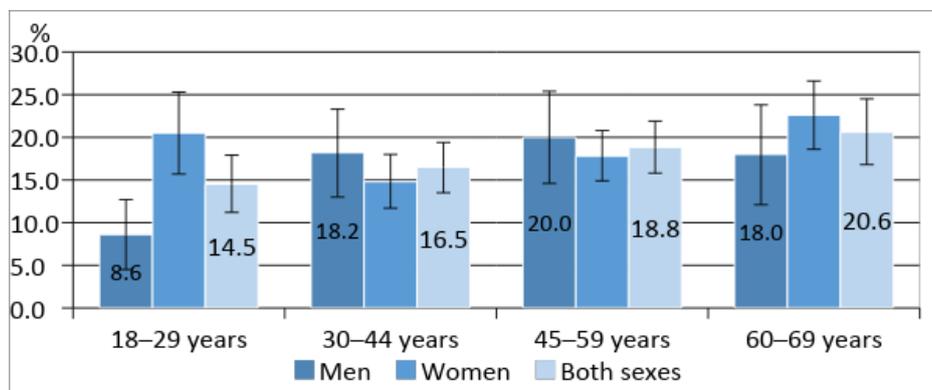
Mean length of general physical activity per day is 194.9 minutes (male 218.1 minutes, female 173.8 minutes). Recreational physical activity is 3.5% out of total physical activity (male 5.3%, female 1.5%).

Picture #19. Average length of a physical activity (minutes) by age and type of physical activity by age and sex
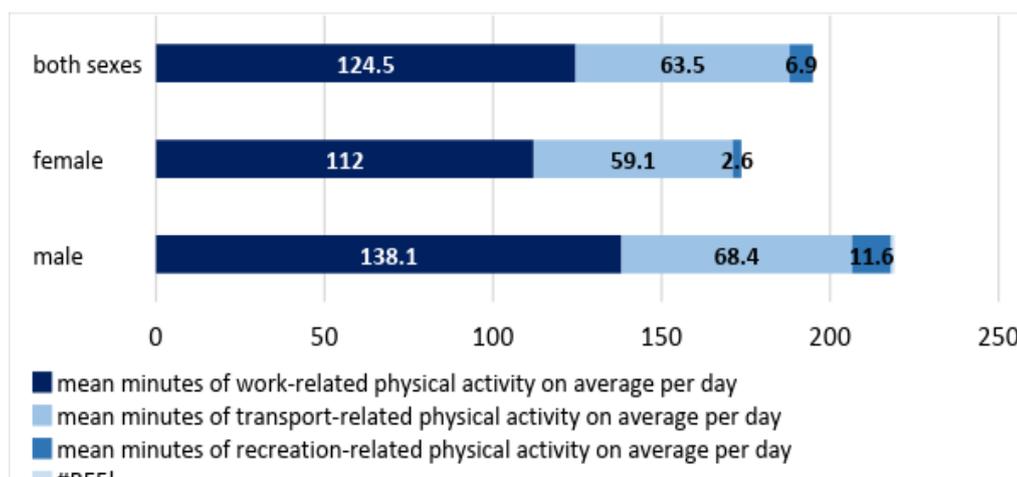
82.4% of respondents (male 72.2%, female 91.8%) are not involved in a vigorous physical activity.

Picture #20. Proportion of respondents, not participating in a vigorous physical activity by age and sex
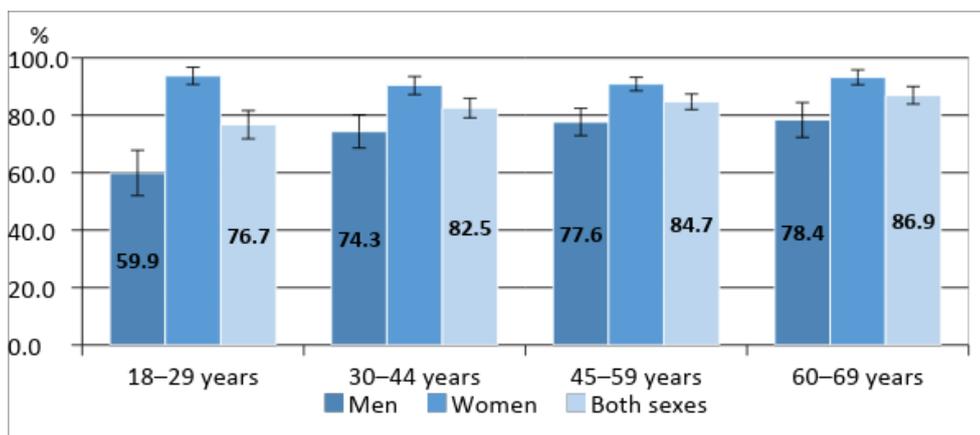
Anthropometry

Mean height in male is 173.8 cm and average male weight is 84.4 kg. Mean height in female is 161.2 cm and average female weight is 73.6 kg. Body Mass Index (Mean BMI) is 28.1; 27.9 in male and 28.3 in female. Body Mass Index increases with age.

Picture #21. Body Mass Index by age and sex
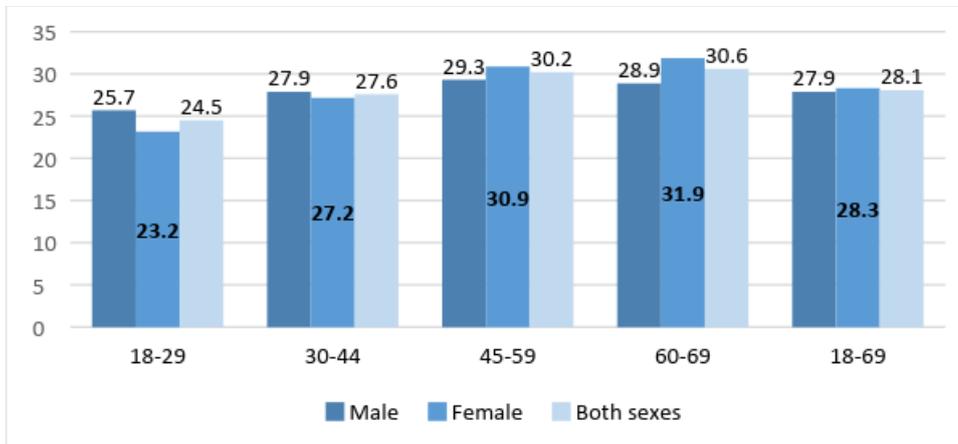
64.6% of respondents are overweight or obese (BMI ≥25), 32.8% of respondents have normal weigh and 2.5% are underweight. The prevalence of overweight is higher in male (35.3% and 27.9% accordingly), while the prevalence of obesity is higher in female (36.0% and 30.2% accordingly)

Picture #22. Body Mass Index categories by sex
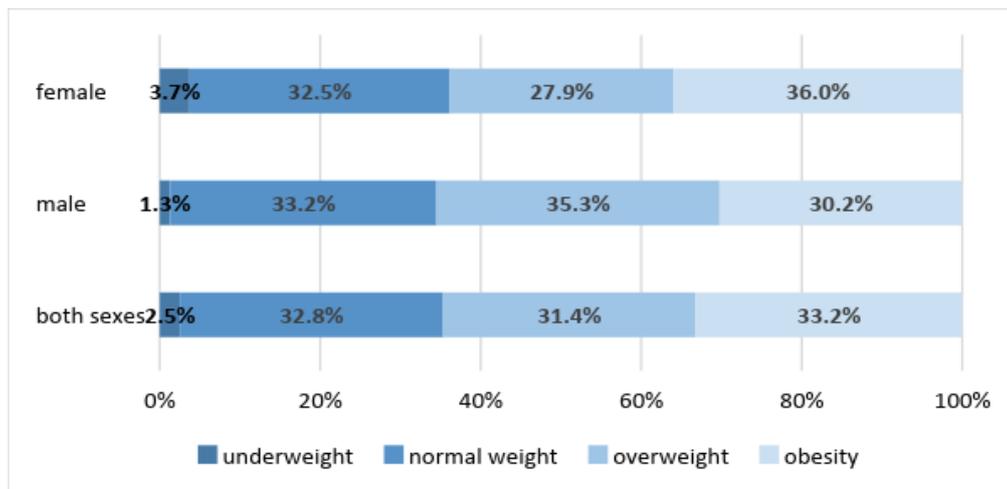
Picture #23. Overweight by age and sex
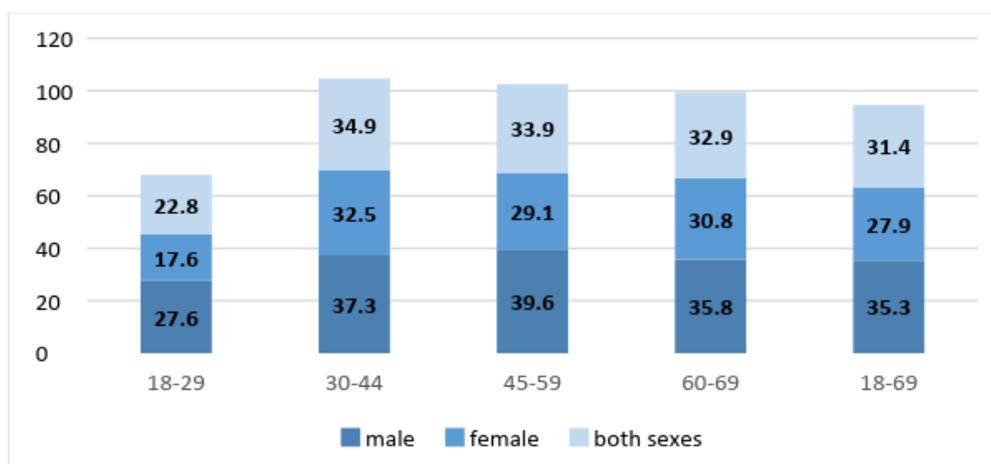
Picture #24. Obesity by age and sex
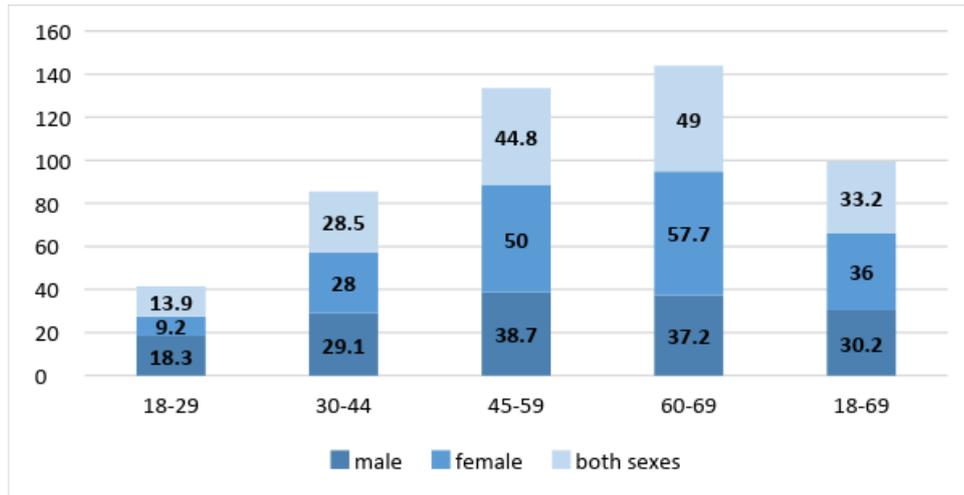
Waist-to-hip ratio is 1.0 among men and 0.9 in women. Both indexes are higher than the indexes according to WHO definition of obesity (male > 0.9 and female > 0.86).

Arterial Hypertension

24.5% of respondents have never had blood pressure measured by a doctor or other health worker. Among those who have ever been told that they have raised blood pressure or hypertension, 53.5% (47.5% male, 58.1% female) were taking some drugs (medication) for raised blood pressure prescribed by a doctor or other health worker.

Picture #25. Blood pressure measurement and diagnosis by sex
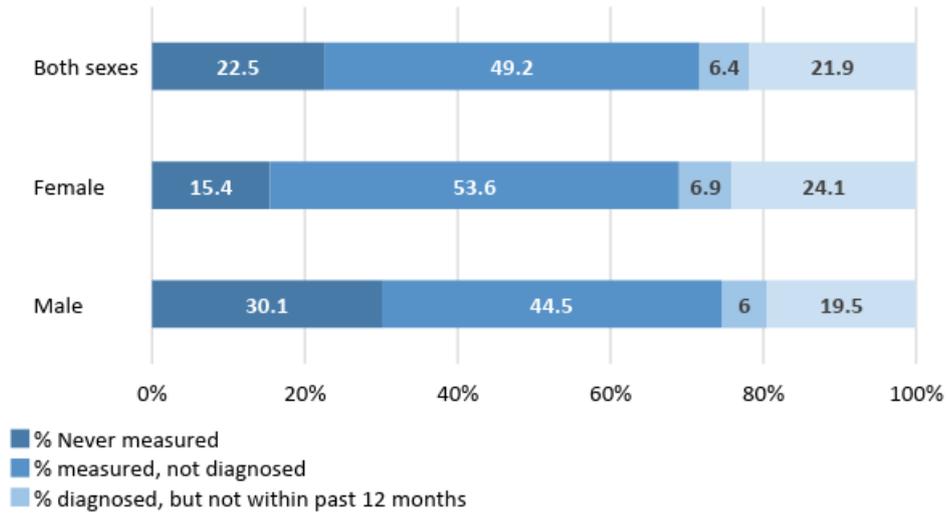
37.7% (male 38.6%, female 36.9%) of respondents have high blood pressure (≥140/100 mmHg). Prevalence of stage II hypertension (≥160/100 mmHg) is 24.0% (male 22.8%, female 25.2%). Among those who had high blood pressure during the research and currently are not receiving medication for raised blood pressure, 25.1% (male 28.7%, female 21.6%) have elevated blood pressure. Among those who currently are on medication for raised blood pressure, 16.4% (male-12.9% and female-19.7%) have normal blood pressure – controlled hypertension; 28.2% are on medication but still have raised blood pressure; 55.4% (male 64.2%, female 47.2%) were not receiving medication for raised blood pressure and also have high blood pressure. 53.5% of people with diagnosed arterial hypertension are currently on medication for raised blood pressure.

Picture #26. Antihypertensive treatment and blood pressure by sex
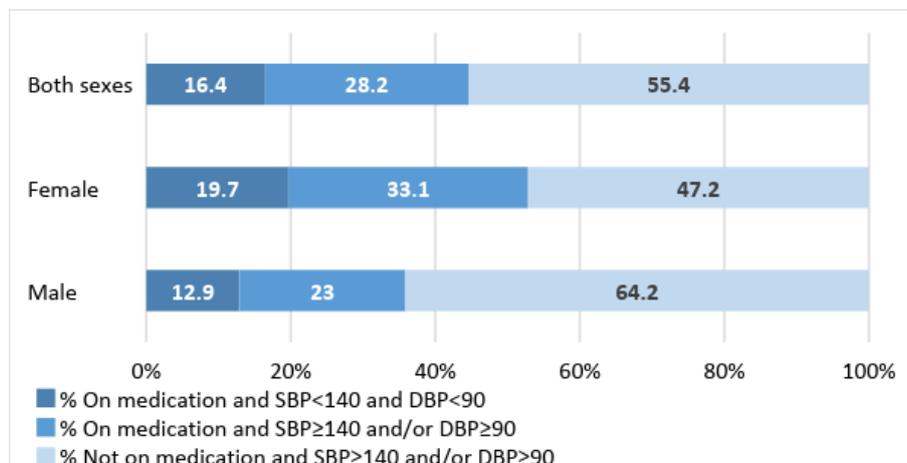
4.7% are currently taking Aspirin and 1.5% Statins for CVD prevention and treatment. Among those who past 2 weeks were taking medication for raised blood pressure, 30% were taking medication only when the blood pressure raises and 3.2% - irregularly, when recalled.

Picture #27. Regimen of taking medication for raised blood pressure by age and sex
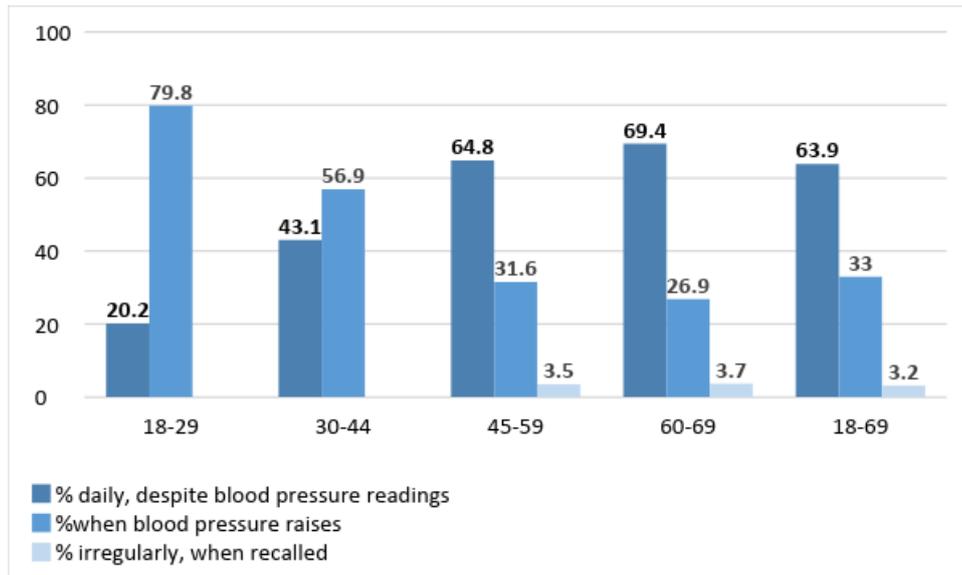
8.3% of medication recommended by the medical doctor (according respondents) to control blood pressure does not belong to the antihypertensive medicines. 5% of respondents have anamnesis of atrial fibrillation or arrhythmia and 11.3% - varicose veins disease; 5.5% are currently taking anticoagulants.

Mean systolic blood pressure was 129.4 mmHg (male 132.6, female 126.5) and mean diastolic blood pressure - 82.2 mmHg (male 83.0, female 81.4); mean heart rate was 79.2 (male 79.3, female 79.1).

Picture #28. SBP ≥140 and/or DBP ≥ 90 mmHg or currently on medication for raised blood pressure (%) by age and sex
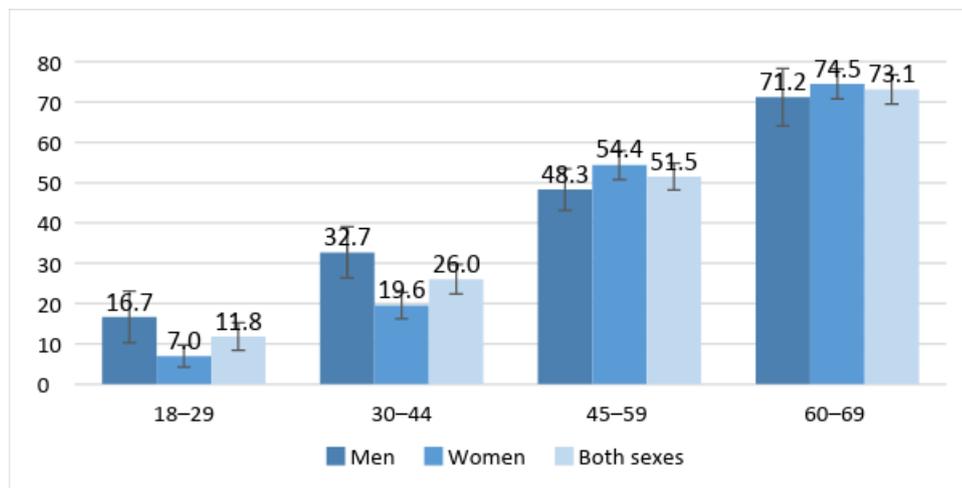
Picture #29. SBP ≥160 and/or DBP ≥ 100 mmHg or currently on medication for raised blood pressure (%) by age and sex
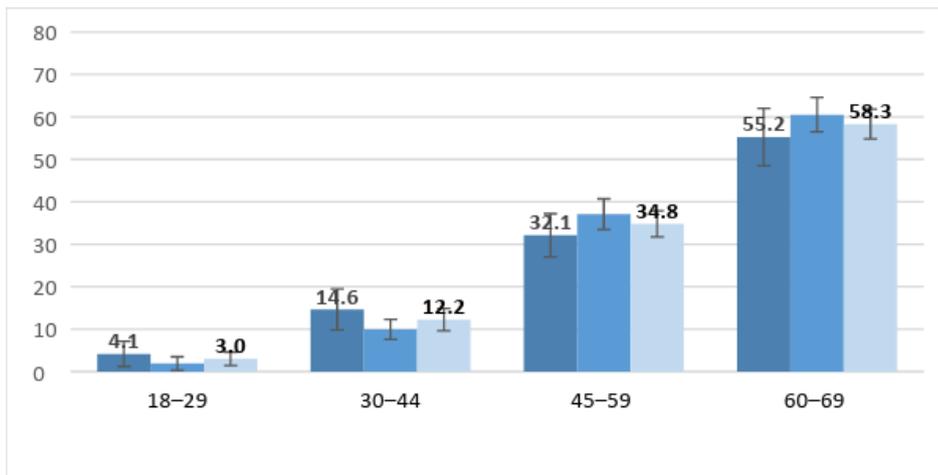
Picture #30. SBP ≥140 and/or DBP ≥ 90 mmHg, excluding those on medication for raised blood pressure (%) by age and sex
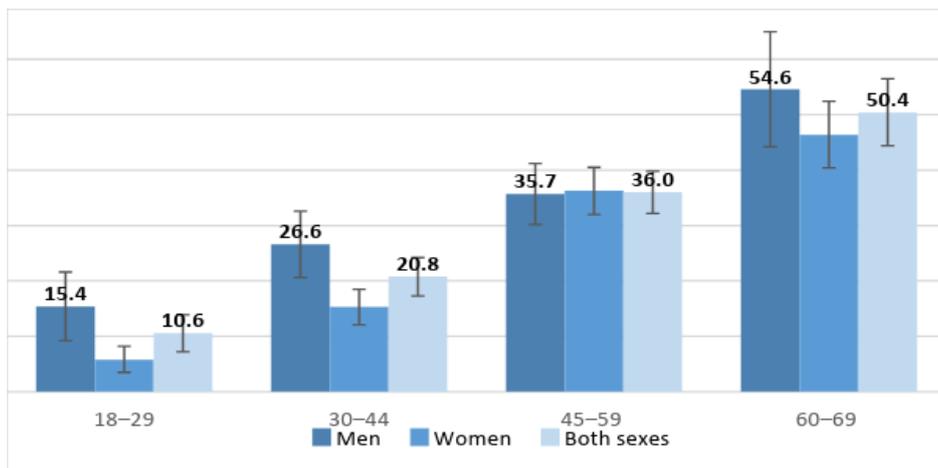
Picture #31. SBP ≥160 and/or DBP ≥ 100 mmHg, excluding those on medication for raised blood pressure (%) by age and sex
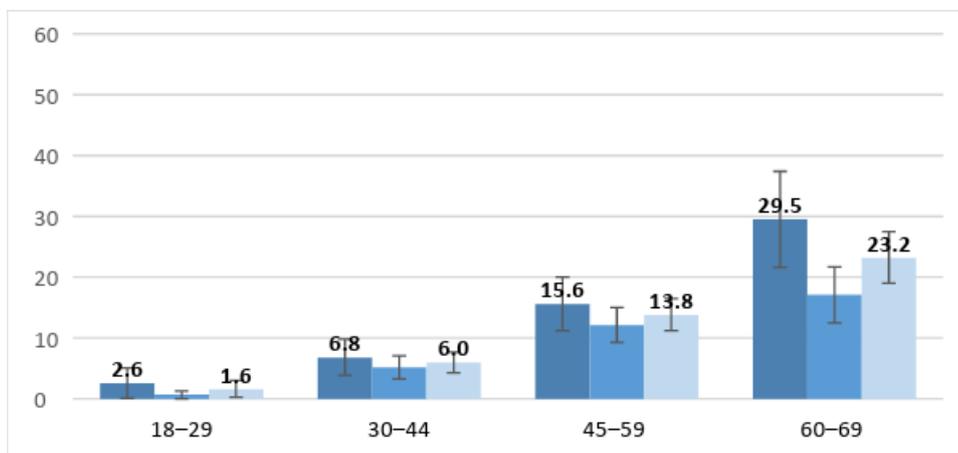
Diabetes

62.4% of respondents have never measured blood glucose. 5.1% of respondents (5.7% female and 4.6% male) mentioned that they have high blood glucose or are diagnosed with diabetes. Almost 60% of respondents with high blood glucose or those diagnosed with diabetes are on medication regardless of the gender. Among those who take drugs, 21.9% of male and 14.3% of female respondents are insulin dependant.

Picture #32. Measurement of blood glucose level and diagnoses (%) by sex
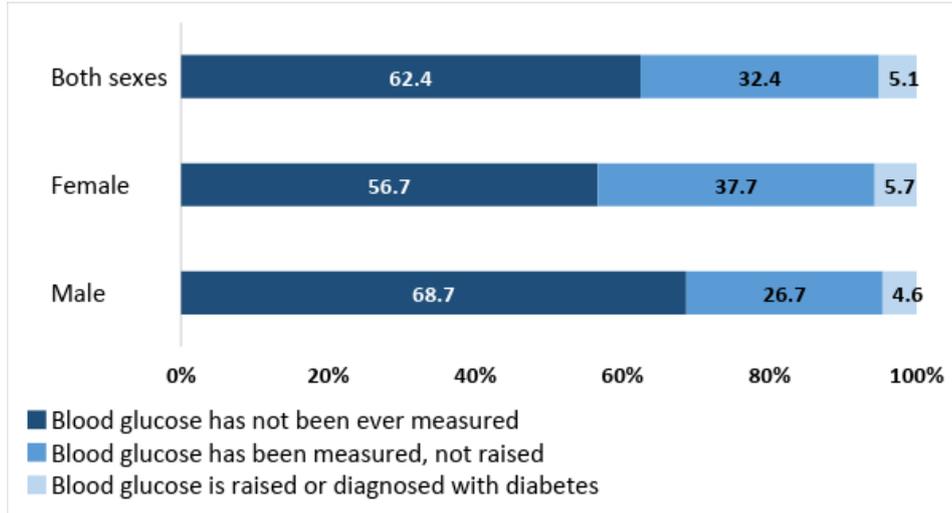
Picture #33. Raised blood glucose level or diagnosed with diabetes during the past 12 months (%) by age and sex
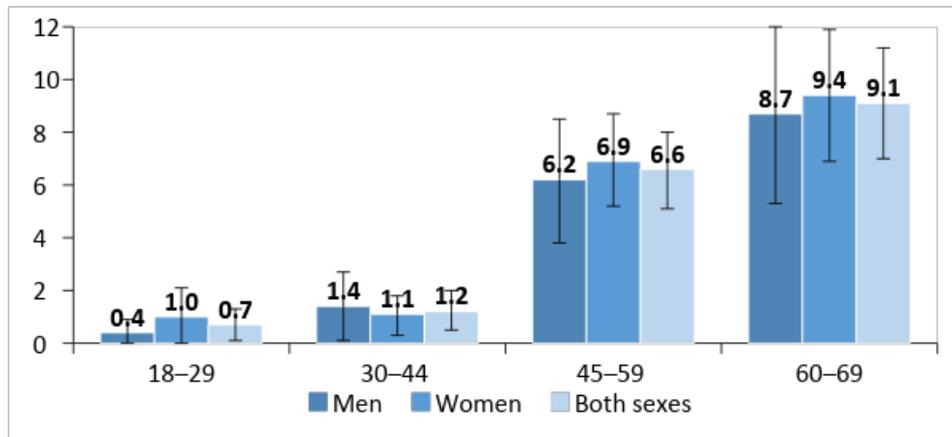
Picture #34. Insulin users among persons with high blood glucose or with diabetes (%) by age and sex
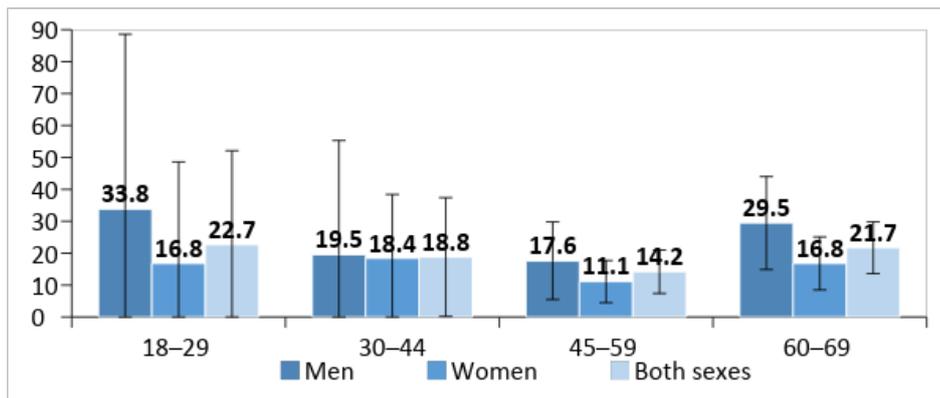
Mean fasting glucose was 4.4 mmol/l. Pre-diabetes condition was 2%. 3.3% of respondents were on anti-diabetic medication; rate increases with aging.

Picture #35. Impaired fasting glycemia (%) by age and sex
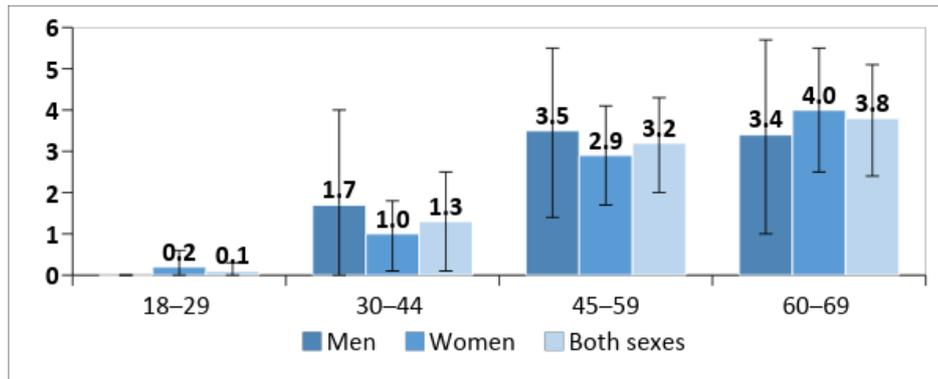
Picture #36. Raised blood glucose (>6.1 mmol/l) or currently on medication for diabetes (%) by age and sex
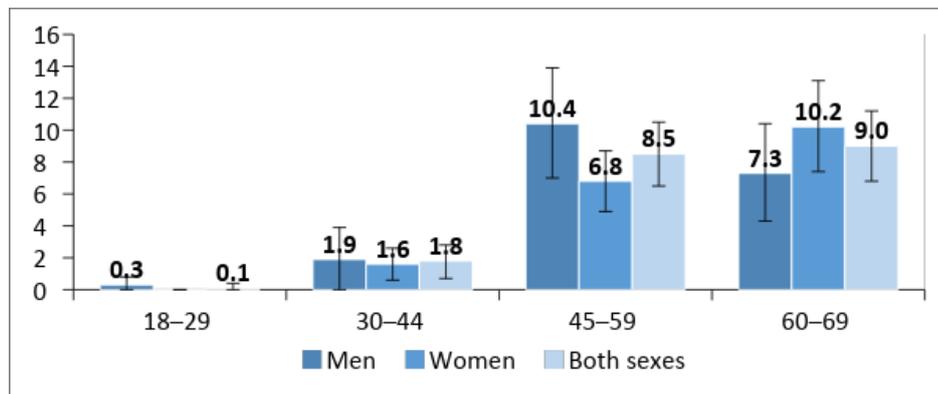
Picture #37. Fasting Blood sugar (%) by age and sex
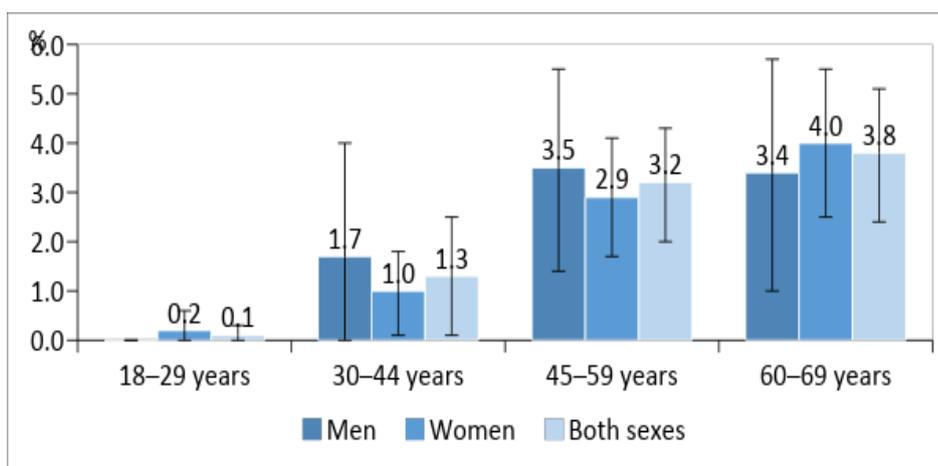
Picture #38. Respondents with high blood sugar or on anti-diabetic treatment (%) by age and sex
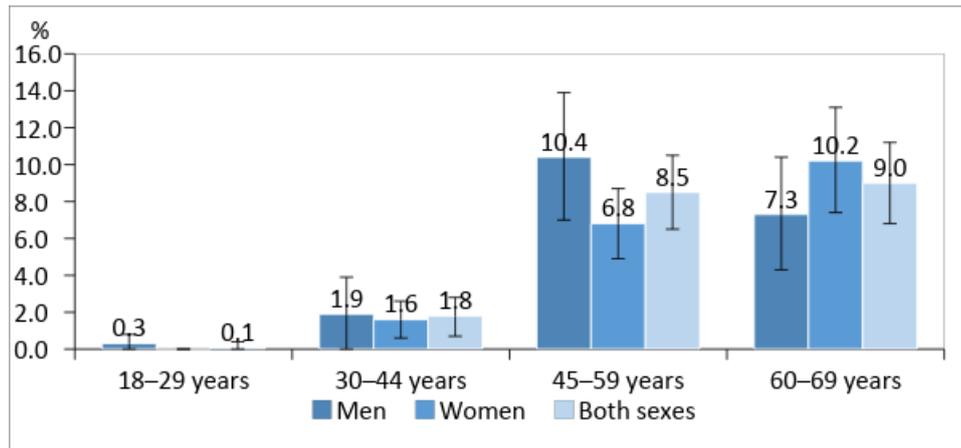
Picture #39. Blood sugar concentration (%) by age and sex
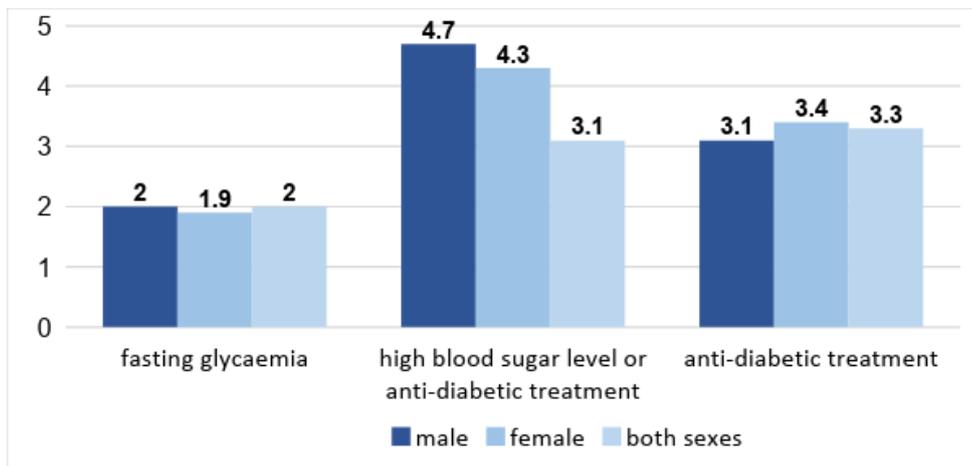
Cholesterol

84.2% of respondents have never measured blood cholesterol. Only one third of people with high cholesterol are taking oral medication for raised blood cholesterol.

Picture #40. Total cholesterol measurement and diagnosis during the lifetime (%) by age and sex
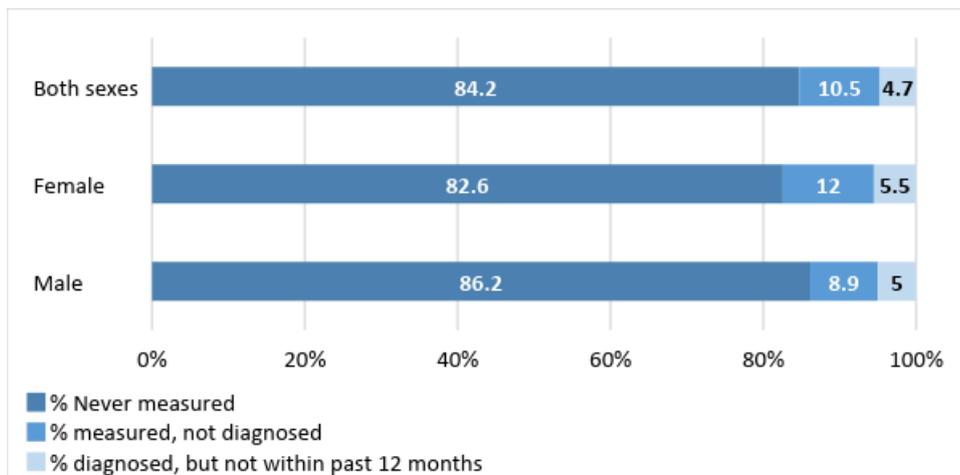
Picture #41. Respondents who have never measured blood cholesterol (%) by age and sex
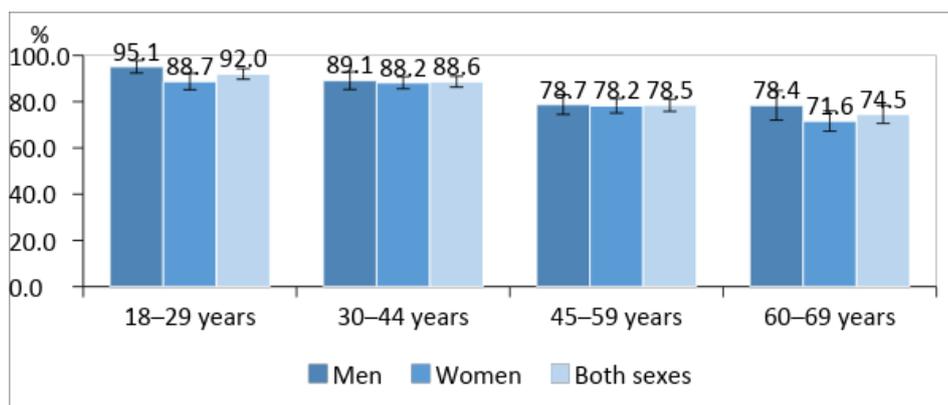
Picture #42. Respondents with high blood cholesterol diagnosed within past 12 months (%) by age and sex
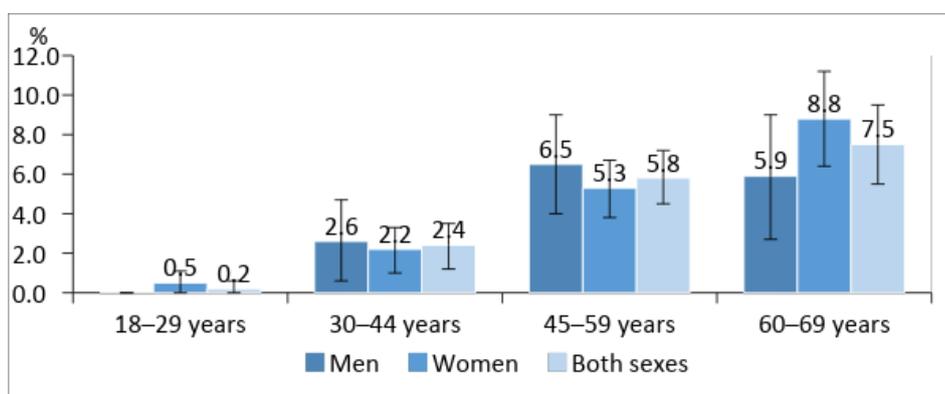
Mean total cholesterol was 4.3 mmol/l. 27.7% of respondents have total cholesterol level ≥5.0 mmol/l or are currently on medication for raised cholesterol and 8.7% have total cholesterol level ≥6.2 mmol/l or are currently on medication for raised cholesterol. Mean high density lipoprotein (HDL) was 1 mmol/l. 76.1% of male population has HDL<1.03 mmol/l and 76.3% of female has HDL<1.29 mmol/l.

10-year cardiovascular (CVD) risk

28.8% of respondents between 40-69 years of age have 10-year cardiovascular disease (CVD) risk of ≥30% or existing CVD. 28% of them are receiving drug therapy and consultations to prevent heart attacks and strokes.

Picture #43. People receiving drug therapy and consultation among those with a 10-year CVD risk of ≥30%, including those with existing CVD (%) by age and sex
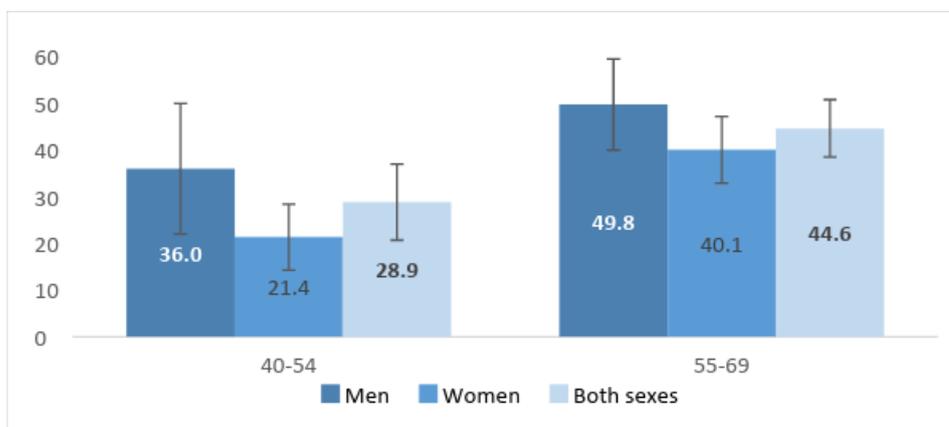
Picture #44. Respondents with a 10-year CVD risk of ≥30% or with existing CVD (%) by age and sex
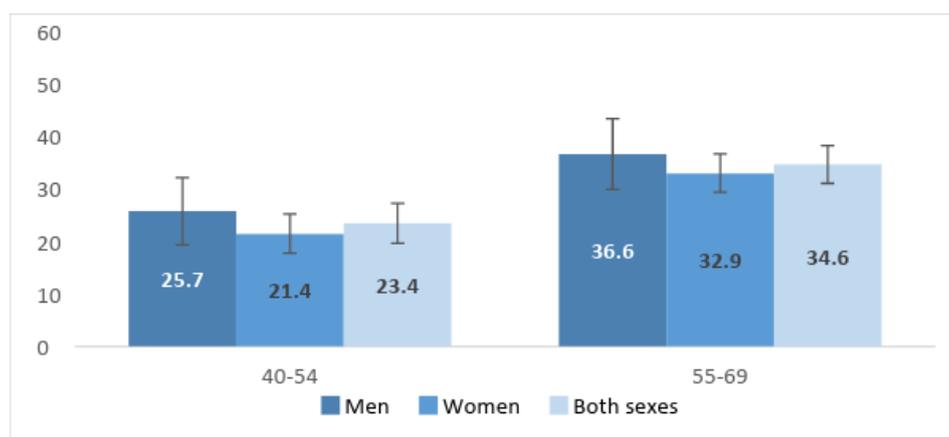
Combined risk-factors

92.4% of respondents (male 94.3%, female 90.7%) have one or more risk-factors and 36.1% (male 45.4%, female 27.6%) have 3 and more risk-factors.

Healthy lifestyle advice from doctors/medical professionals

Only one fifth of respondents have been advised by a doctor or other health worker regarding the healthy lifestyle components (tobacco, alcohol, nutrition, physical activity, maintenance of healthy weight, restriction of salt and fat). 16.6% have been advised to not to start smoking or to quit; 19.1% to decrease salt consumption; 20.8% to eat more than 5 servings of fruits and vegetables daily; 22.4% to optimize physical activity and 21.1% to maintain healthy weight or to loose weight.

Picture #45. Advised not to start or to to quit smoking (%) by age and sex
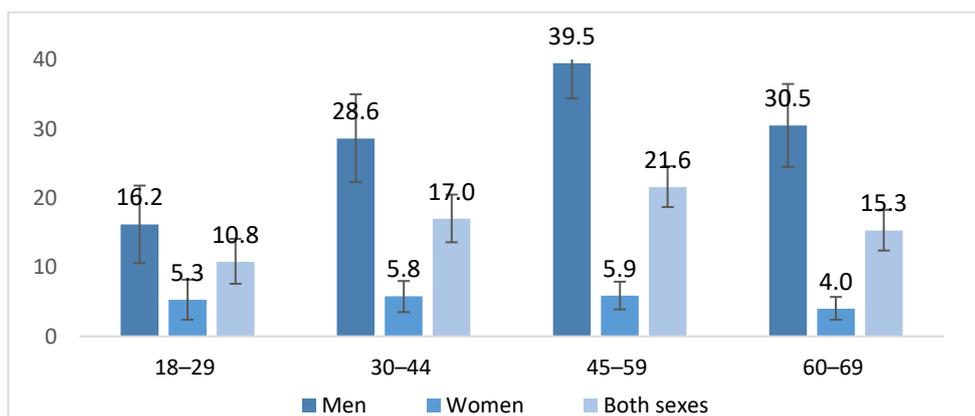
Picture #46. Advised to eat ≥5 servings of fruit and vegetables daily (%) by age and sex
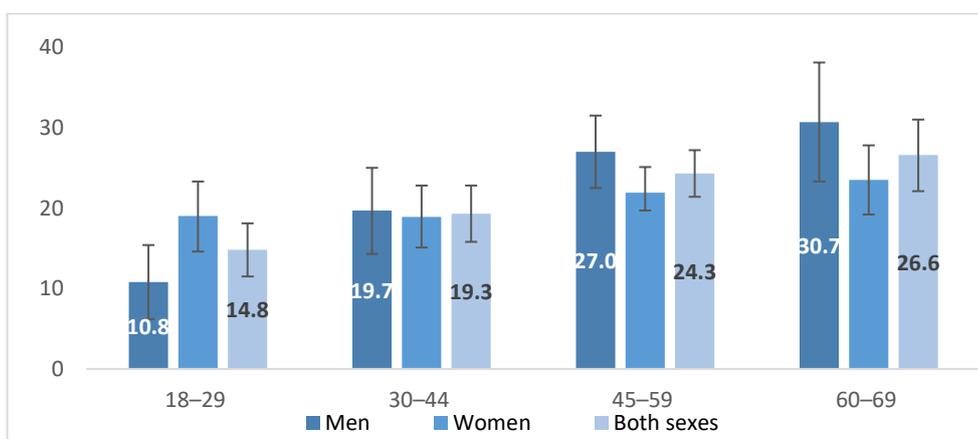
Picture #47. Advised to optimize physical activity (%) by age and sex
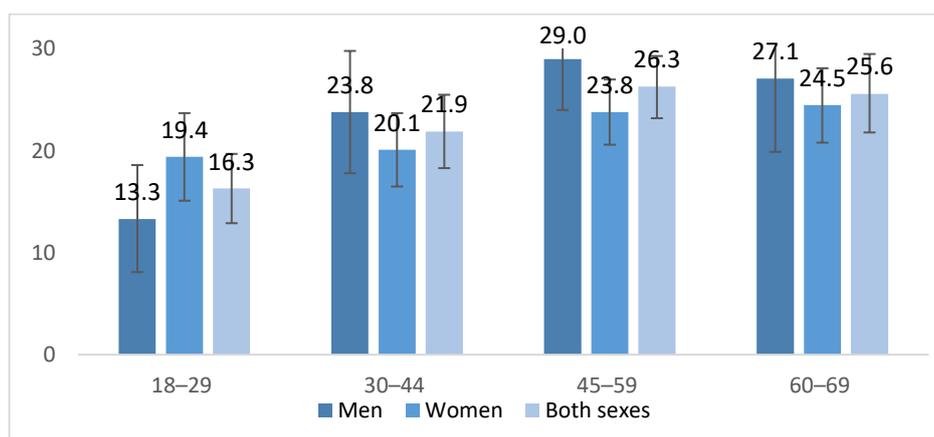
Picture #48. Advised to maintain healthy weight or to loose weight (%) by age and sex
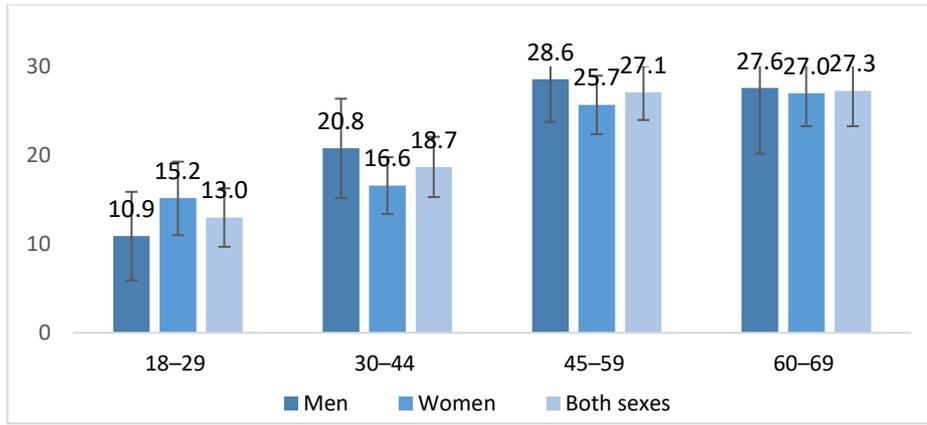
Picture #49. Advised to reduse salt consumption (%) by age and sex
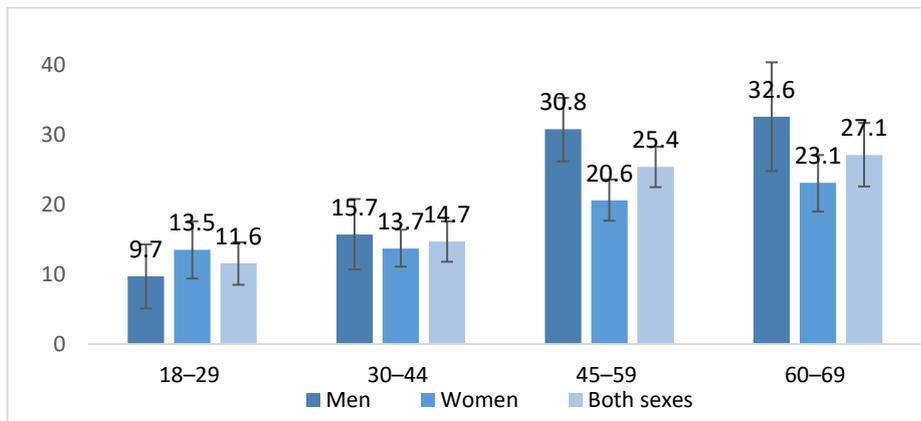
Picture #50. Advised to reduce fat in the diet (%) by age and sex
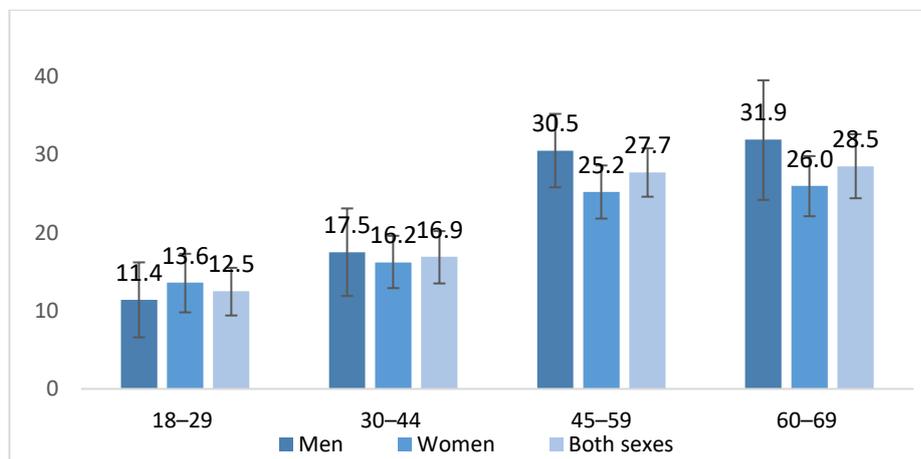
Visit to doctors

46.3% of respondents have visited doctor or medical personnel during last 12 months. In 75% of cases the main reason of last visit to doctor was specific health problem and in just 18.2% - preventive health checkup.

Picture #51. Reasons of last visit to doctor or medical personnel (%) by sex
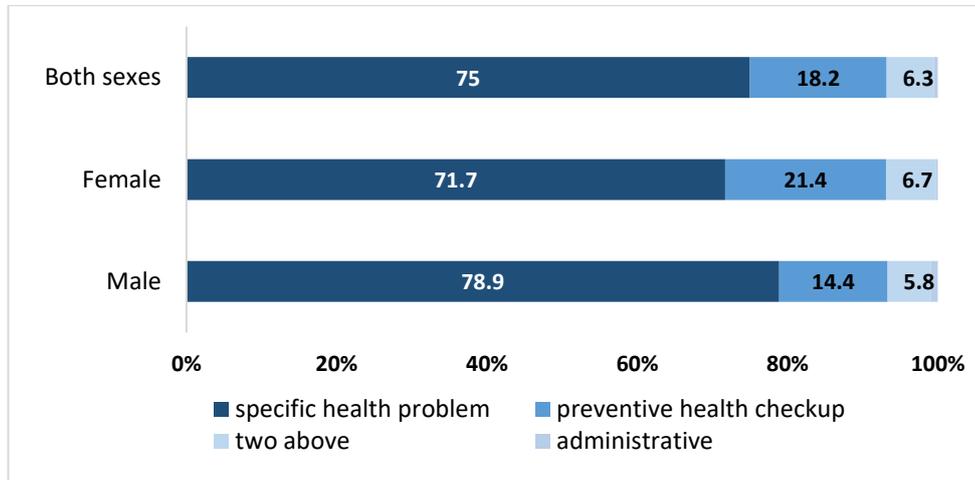
Picture #52. Recommendations from health professionals (%)
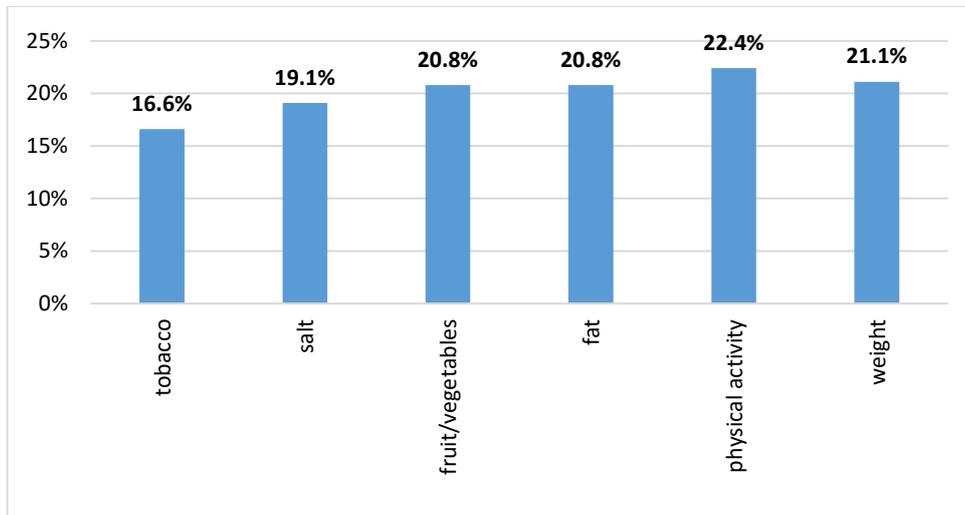
Cervical Cancer Screening

19.9% of women have ever had screening test for cervical cancer; in 30-49 years old women this rate is 23.9%.

Picture #53. Cervical cancer screening (%) by age
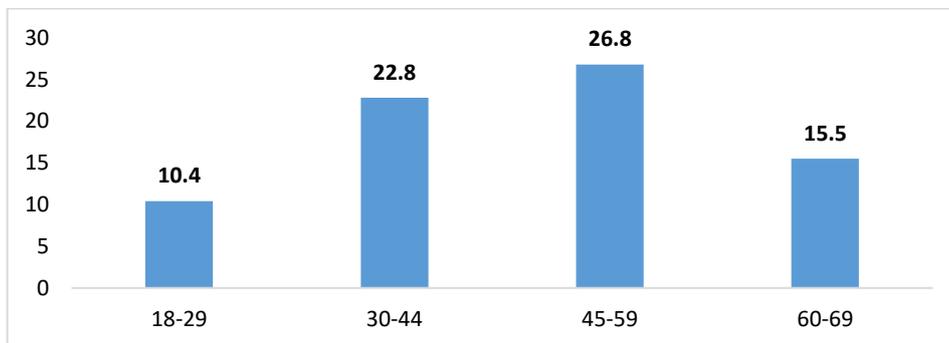
Oral health

60.9% of respondents reported having more than 20 natural teeth; 4.3% of respondents do not have any teeth. 86.2% of respondents reported they clean their teeth once a day and 35.3% - clean their teeth twice a day. 34% of respondents have experienced pain or discomfort caused by their teeth or mouth during the past 12 months.

Picture #54. Pain or discomfort in mouth during the past 12 months (%) by age and sex
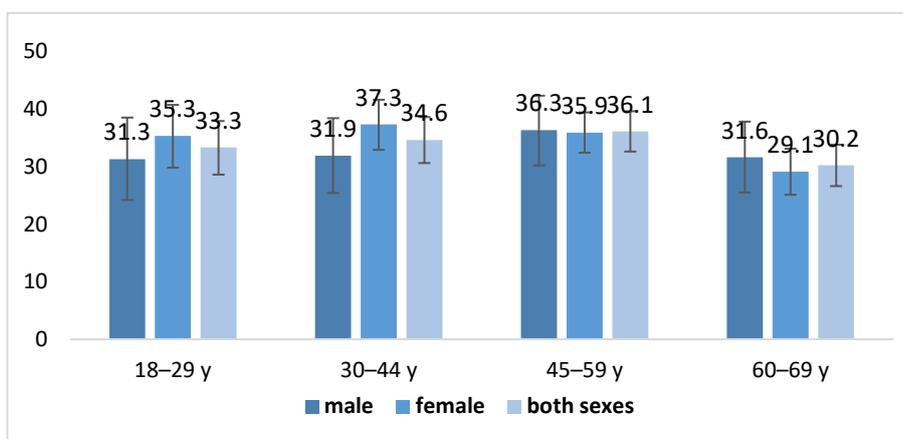
Mental health / Suicide

During the past 12 months 1.5% of respondents have seriously considered attempting suicide during the past 12 months, among which 16% made a plan about how to attempt suicide during the past 12 months. 0.9% have ever attempted suicide.

Injury

2.7% of respondents were involved in a road traffic accidents during the past 12 months.

Picture #55. Road-traffic accidnts durign the past 12 mnths (%) by age and sex
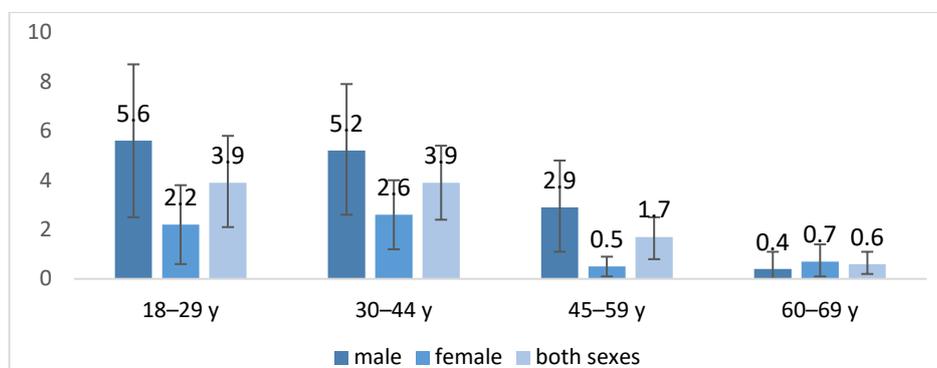
Violence

0.6% of respondents were involved in a violent incident during the past 12 months at least once. In 66.9% of cases violent incidence was done without a weapon and in 33.1% with weapon (other than a firearm).

Picture #56. Relationship with a person who caused the injury (%) by age and sex
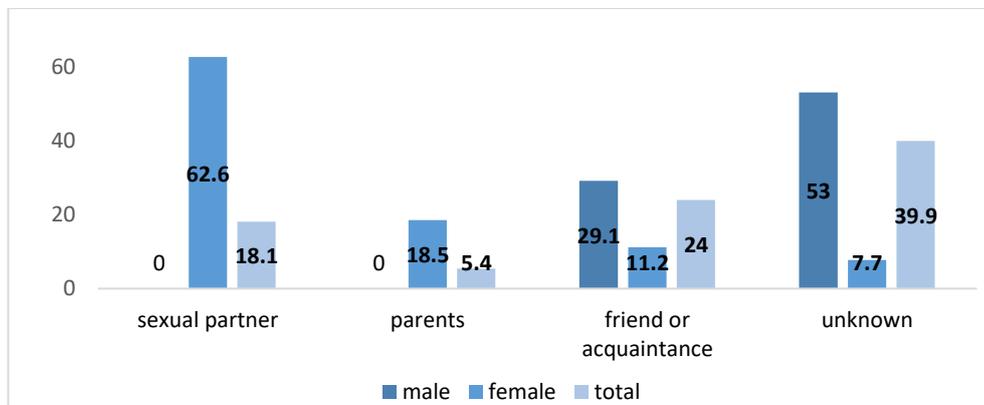
Sexual health

91.1% of respondents (male 96.7%, female 86.2%) have had a sexual intercourse during a lifetime. Average Age Index of first sexual intercourse was 19.8 year (male 18.1, female 21.5). First sexual intercourse before age of 15 was detected in 3.4% (male 6.3%, female 0.9%) of respondents. 25% has the past sexual intercourse during the past 1 week/past 1 month period. 76.9% did not report any use of contraception during the past sexual intercourse. During the past sexual intercourse usage of contraceptives was: condom in 32.6% (male 39.5%, female 22.6%), oral contraception in 2.5% and other methods in 3.6% of cases.

STEPS 2010-2016

Tobacco Consumption

- Percentage of current smokers increased both in male (from 55% to 59.2%) and in female (from 4.8% to 7.3 %) respondents. According to Urine Cotinine test smoking prevalence in women is - 12.2%
- Average age started smoking decreased from 18.6 (2010) to 18.2 (2016).
- The mean number of cigarette sticks consumed by daily smokers increased from 19.5 (2010) to 21.4 (2016)

Picture #57. Current smokers (%), 18-64 y., by age and sex; STEPS 2010-2016
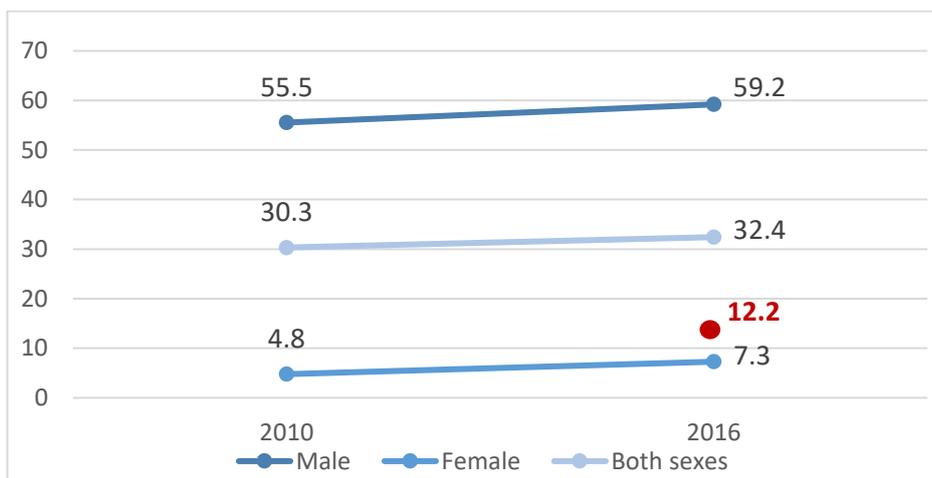
Alcohol Consumption

- Alcohol consumption during the lifetime - increased from 78.5% (2010) to 89.7% (2016)
- Alcohol consumption during the past 1 year – reduced from 85.5% (2010) to 81% (2016)
- Alcohol consumption during the past 30 days - increased by - 1.3%
- Excessive alcohol use has been relatively low in 2016 compared to 2010 - (13.4% less men and 7.4 % less women consumed excessive alcohol)

Picture #58. Alcohol consumption (%), 18-64 age.; STEPS 2010-2016

29
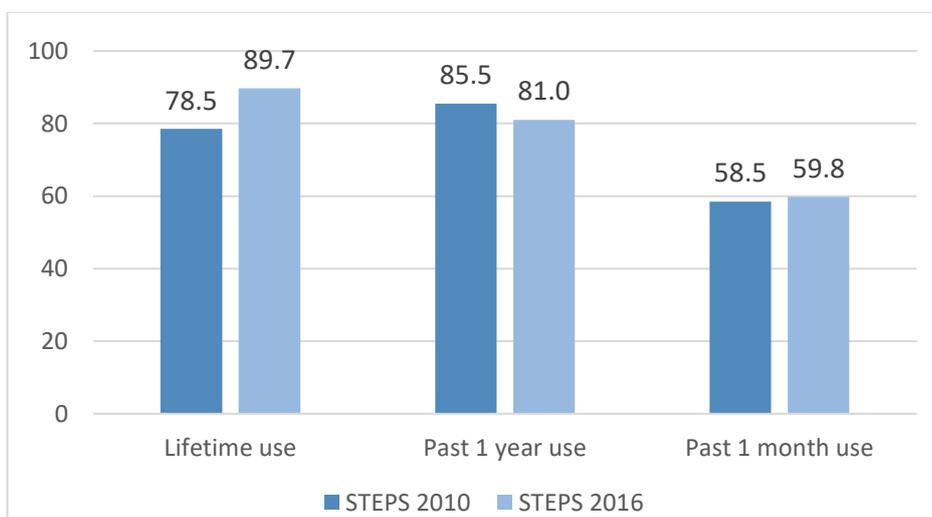
Diet

- Number of days fruits/vegetables consumed as well as amount of servings consumed per day has been increased
- ≥5 fruit and/or vegetables servings - has been increased from 30.4% (2010) to 36.8% (2016)

Picture #59. Consumption of 5 and more servings of fruit and vegetables (%), 18-64 y; STEPS 2010-2016
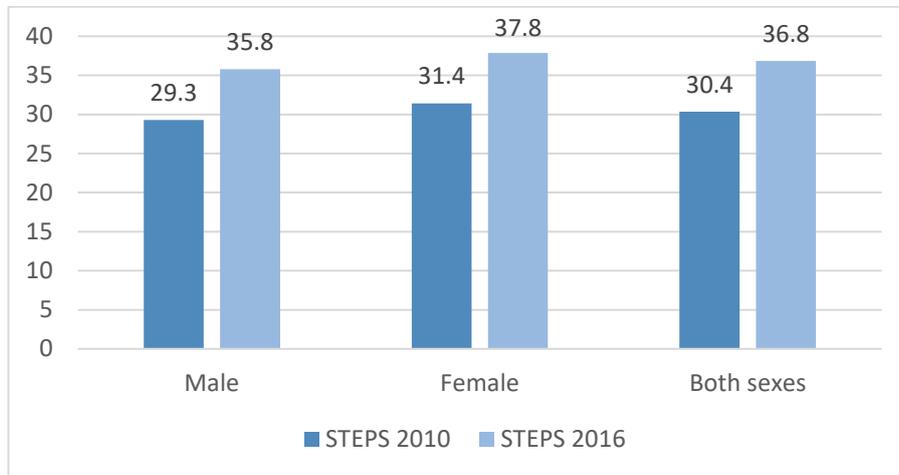
Physical Activity

- Mean minutes of physical activity has been reduced by 5 minutes per day
- Work-related physical activity has been reduced by 14.9 minutes
- Transport-related physical activity has been increased by 10.4 minutes
- Recreation physical activity has been increased by 1.1. minutes.
- Percentage of people who participate in vigorous physical activity has been reduced by 3%.
- Consumption of 5 and more servings of fruit and vegetables (%), 18-64 y; STEPS 2010-2016

Picture #60. Total physical activity (minutes), 18-64 y; STEPS 2010-2016
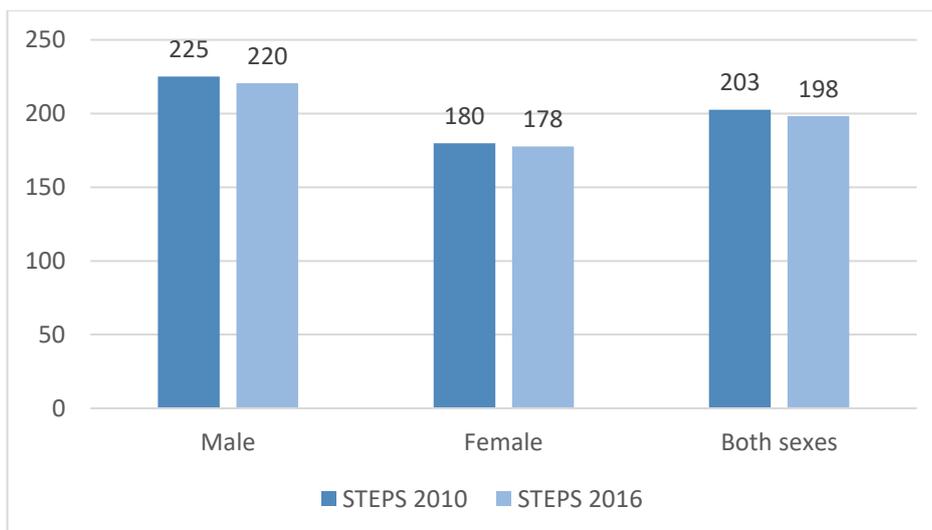
Anthropometry

- Mean Body Mass Index has been increased from 26.7 (2010) to 27.9 (2016)
- Significantly increased overweight (from 56.4 % to 62.9) and obesity (from 25.1% to 31.7%) indexes.

Picture #61. Overweight and obesity, 18-64 y; STEPS 2010-2016
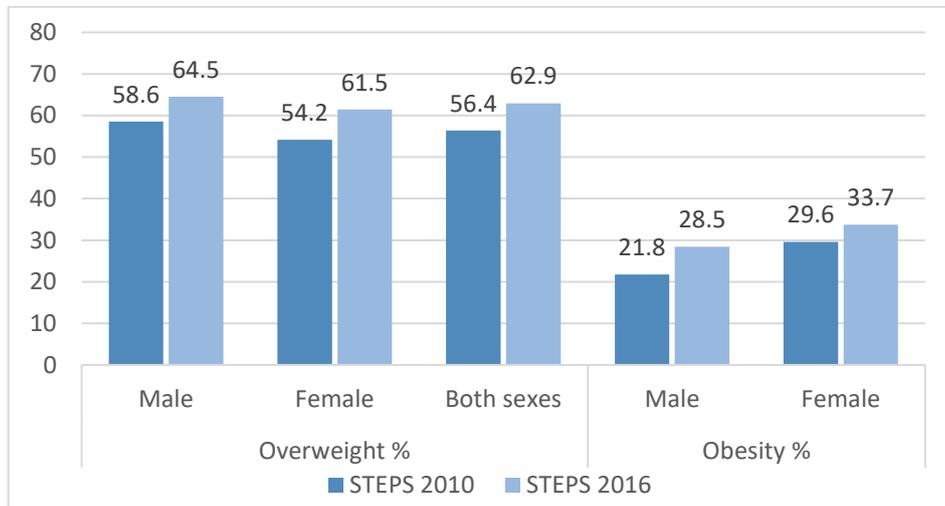
Biochemical Indicators

- Mean fasting blood glucose reduced by 1.3.mmol/l
- Mean fasting Cholesterol reduced by 0.2 mmol/l
- Percentage of those with total cholesterol 5.0. mmol/l or more or those who are on anti-lipid treatment has been increased almost 1.5 times. The raise is more visible in women.

Picture #62. Fasting glucose and choleterol (mmol/l), 18-64 y; STEPS 2010-2016
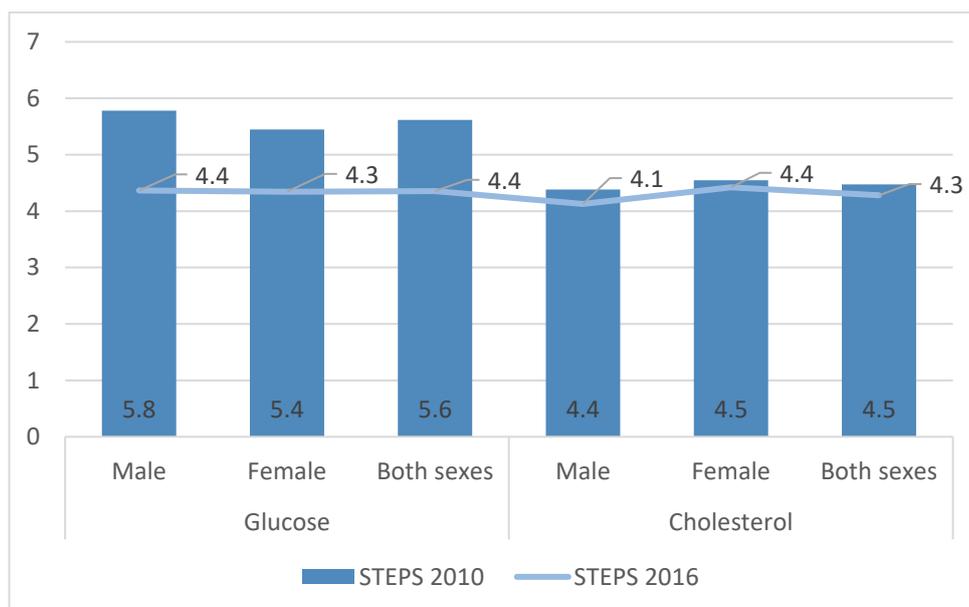
Arterial Hypertension

- Systolic and diastolic blood pressure levels have been slightly changed - systolic (from 129.3 mmHg to 128 mmHg.) and diastolic blood pressure (from 81.3 to 81.9 mmHg).
- Percentage of those with raised blood pressure or currently on medication has been increased by 1.2%. Prevalence of high blood pressure in men has been reduced by 1.1%, while increased by 3.4 % in women.
- Percentage of those with raised blood pressure but not on anti-hypertension medication has been increased by 0.5%.
- Prevalence of high blood pressure in men has been reduced by 2.6 % while increased by 4.1% in women.

Picture #63. Raised blood pressure (%), 18-64 y; STEPS 2010-2016
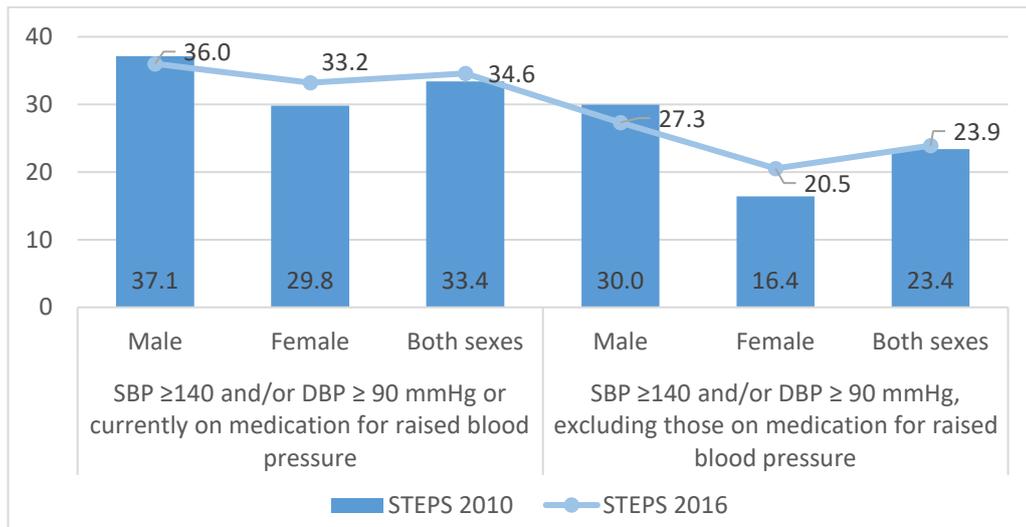
Cardiovascular disease (CVD) risk

- Percentage of those with at least one risk-factor for CVDs reduced by 1.6%
- Percentage of those with 3-5 of above risk-factors tendency is reduced both in men and women as well as both in 18-44 and 45-64 age groups.
- Percentage of those with 3-5 of above risk-factors in 18-64 age group has been reduced from 35.2% (2010) to 34.6%.

Picture #64. 3-5 CVD risk-factors in 18-44 and 45-64age groups (%); STEPS 2010-2016
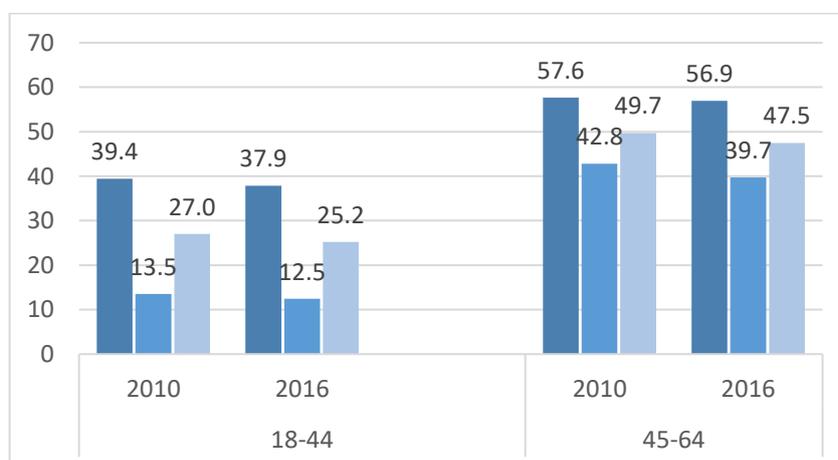
Conclusions

- According to the research results, 31.0% of the adult population in Georgia are smokers; 28% are current daily smokers; At this point, the highest smoking prevalence among both sexes was seen in the most productive period, among 30-44 age groups;

- 39.0% of the population consumes alcohol. 18.3% consumes alcohol excessively;

- 63.0% of the population in Georgia consumes less than 5 standard servings of fruits and/or vegetables per day; More than one fourth of the population (26.7%) always or often adds salt or salty sauce the dish before or after trying it;

- Physical activity level among 17.4% of the population does not comply with WHO recommendations; 64.6% is overweight; 33.2% is obese.

- 37.7% has hypertension or currently is receiving treatment for hypertension; Among those who currently are not receiving treatment for hypertension, 25.1% has high blood pressure;

- 4.5% of the population in Georgia has high blood glucose levels (≥6.1 mmol/l) or is receiving medications; 8.7% of the population has hypercholesterolemia;

- Only 20% of the woman population has had cervical cancer screening. Proportion of such women is highest among 30-59 age groups. But, even in this age group less that one third of the women had been screened;

- Majority of the population (92.4%) is under the influence of 1 or more risk factors of non-communicable diseases. 36.1% is under the influence of 3-5 risk factors. Men are influenced twice as much as women. Almost half of the population of 45 years of age and older (48.6%) has high risk of non-communicable diseases;

- Research results clearly highlight immediate need to implement effective system for non-communicable diseases prevention and control.

Recommendations

- Research results clearly highlight immediate need to implement effective system for non-communicable diseases prevention and control;

- It is crucial to use research results as an evidence to raise awareness, encourage healthy lifestyle and decrease non-communicable disease risk factors;

- It is essential to develop, plan and implement interventions tailored to decrease risk factors for non-communicable diseases taking into account the best buys for premature death caused by NCDs, which represent the best interventions;

- It is appropriate to disseminate results among all interested organisations and parties, including mass media sources, to raise awareness among population regarding NCD risks and health promotion;

- It is appropriate to share results with insurance companies and other governmental or non-governmental, national and international organisations working on health issues in order to accomplish in depth analyses which will be focused on win-win decisions, offered possibilities by insurance companies to manage NCDs and increase coverage;

- It is important to develop simplified informational, educational and communication materials for diverse groups of the population, which will ensure accessibility of health literacy;

- It is crucial to improve competencies among primary healthcare workers on NCD prevention and control and health promotion. It is vital to increase accessibility of preventive check-ups and essential medications for NCDs; This especially concerns hypertension.

- It is advised to develop and strengthen mechanisms for monitoring health status and surveillance;

- It is important to review NCD strategy and action plan, various laws and normative acts.

Annex 1.

STEPS 2016 Coordination Council

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17. Koka Liluashvili
18. Nato Shengelia
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21. Ramaz Kurashvili
22. Elene shelestova
23. Nino Makhashvili
24. Jana Javakhishvili
25. Elene Giorgadze
26. Irma Chokhonelidze
27. Mamuka Margvelashvili
28. Kakha Gvinianidze
29. Giorgi Bakhturidze
30. Paata Shavishvili
31. Nato Kopaleishvili

Annex 2.

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Nino Buadze

Natia Kakutia

Teona Todua

Tea Bokuchava

Sofo Chiraqadze

Nino Chekurishvili

Maia Beruchashvili

Irina Rukhadze

Fiqria Shavreshiani

Eka Jorjoliani

Eka Nodia

Mikheil Gelovani

Levan Bakuradze

Tamar Kvatadze

Lela Sabadze

Mariam Kakauridze

Tamar Kutaladze

Nino Chiqovani

Aleksandre Tavadze

Tedo Dumbadze

Shota Mzhavia

Lela Shashikasvili

Lela Bokoveli

Elene Eristavi

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Marina Topuridze

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Khatuna Aladashvili

Eka Gabitashvili

Dali Gongadze

Eka Oragvelidze

Qetevan Rukhadze

Nana Tsaguria

Tatiana Kutubidze

Khatuna Zoidze

Shorena Gedenidze

Maia Chubinidze

Iza Rokva

Nana Kishmareia

WHO STEPS Instrument
for Noncommunicable Disease
Risk Factor Surveillance

<Georgia 2016>

Survey Information

Location and Date	Response	Code
Cluster/Centre/Village ID	└─┴─┴─┴─┴─┴─┘	I1
Cluster/Centre/Village name		I2
Interviewer ID	└─┴─┴─┘	I3
Date of completion of the instrument	└─┴─┘ └─┴─┘ └─┴─┴─┴─┘ dd mm year	I4

Consent, Interview Language and Name	Response	Code
Consent has been read and obtained	Yes 1 No 2 **If NO, END**	I5
Time of interview (24 hour clock)	└─┴─┘ : └─┴─┘ hrs mins	I7
Family Surname		I8
First Name		I9
Personal ID Number		I9a
Additional Information that may be helpful		
Contact phone number where possible		I10

Step 1   Demographic Information

Demographic Information

Question	Response	Code
Sex (*Record Male / Female as observed*)	Male 1 Female 2	C1
What is your date of birth? *Don't Know 77 77 7777*	⌊ ⌊ ⌋ ⌊ ⌊ ⌋ ⌊ ⌊ ⌊ ⌋ *If known, Go to C4* dd mm year	C2
How old are you?	Years ⌊ ⌊ ⌋	C3
In total, how many years have you spent at school and in full-time study (excluding pre-school)?	Years ⌊ ⌊ ⌋	C4

Demographic Information

	Response	Code
What is the **highest level of education** you have completed?	No formal schooling 1 Not completed primary Primary school (1-6 years) 2 Main secondary (7-10 years) 3 Secondary school completed (11-12 years) 4 Professional education 5 University completed 6 Post graduate degree 7 Refused 88	C5
What is your ethnical background?	Georgian 1 Armenian 2 Azeri 3 Ossetian 4 Russian 5 Other 77 Refused 88	C6
What is your **marital status**?	Never married 1 Currently married 2 Separated 3 Divorced 4 Widowed 5 Cohabitating 6 Refused 88	C7
Which of the following best describes your **main work** status over the past 12 months? (*USE SHOWCARD*)	Government employee 1 Non-government employee 2 Self-employed 3 Non-paid 4 Student 5 Homemaker 6 Retired 7 Unemployed (able to work) 8 Unemployed (unable to work) 9 Refused 88	C8
How many people older than 18 years, including yourself, live in your household?	Number of people ⌊ ⌊ ⌋	C9

Demographic Information, Continued

Question	Response			Code
Taking **the past year**, can you tell me what the average earnings of the household have been? *(RECORD ONLY ONE, NOT ALL 3)*	Per week	|_|_|_|_|_|_|_|	*Go to X1*	C10a
	OR per month	|_|_|_|_|_|_|_|	*Go to X1*	C10b
	OR per year	|_|_|_|_|_|_|_|	*Go to X1*	C10c
	Refused 88			C10d
If you don't know the amount, can you give an **estimate** of the annual household income if I read some options to you (per month)? *(READ OPTIONS)*	≤ 250 GeL	1		C11
	251 – 500 GeL	2		
	501 – 1000 GeL	3		
	1001 – 1500 GeL	4		
	>1500 GeL	5		
	Don't know	77		
	Refused	88		
What is your religion?	Orthodox Cristian	1		X1
	Catholic	2		
	Gregorian	3		
	Muslim	4		
	Jewish	5		
	Not religious	6		
	Refused	88		

Step 1   Behavioural Measurements

Tobacco Use

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

Question	Response	Code
Do you **currently** smoke any **tobacco** products, such as cigarettes, cigars or pipes? *(USE SHOWCARD)*	Yes 1 No 2 *If No, go to T8*	T1
Do you currently smoke tobacco products **daily**?	Yes 1 No 2	T2
How old were you when you **first started** smoking?	Age (years) Don't know 77 ⌞_⌞_⌟ *If Known, go to T5a/T5aw*	T3
Do you remember how long ago it was? *(RECORD ONLY 1, NOT ALL 3)* *Don't know 77*	In Years ⌞_⌞_⌟ *If Known, go to T5a/T5aw*	T4a
	OR in Months ⌞_⌞_⌟ *If Known, go to T5a/T5aw*	T4b
	OR in Weeks ⌞_⌞_⌟	T4c

		DAILY↓	WEEKLY↓	
On average, **how many** of the following products do you smoke **each day/week?** *(IF LESS THAN DAILY, RECORD WEEKLY)* *(RECORD FOR EACH TYPE, USE SHOWCARD)* *Don't Know 7777*	Manufactured cigarettes	⌞_⌞_⌞_⌟	⌞_⌞_⌞_⌟	T5a/T5aw
	Hand-rolled cigarettes	⌞_⌞_⌞_⌟	⌞_⌞_⌞_⌟	T5b/T5bw
	Pipes full of tobacco	⌞_⌞_⌞_⌟	⌞_⌞_⌞_⌟	T5c/T5cw
	Cigars, cheroots, cigarillos	⌞_⌞_⌞_⌟	⌞_⌞_⌞_⌟	T5d/T5dw
	Number of Shisha sessions	⌞_⌞_⌞_⌟	⌞_⌞_⌞_⌟	T5e/T5ew
	Other	⌞_⌞_⌞_⌟	⌞_⌞_⌞_⌟	T5f/T5fw
		If Other, go to T5other, else go to T6		
	Other (please specify): ⌞_⌞_⌞_⌞_⌞_⌟			T5other/ T5otherw

Question	Response	Code
During the past 12 months, have you tried to **stop smoking**?	Yes 1 No 2 *go to T7*	T6
During the last 12 months which methods to quit smoking did you use?	Consultation at the Primary Healthcare level 1 Nicotine Replacement Therapy 2 Drugs (Buproprion, Tabex) 3 Telephone consultation 4 Electronic Cigarette 5 Other, Specify----------------------------------- 77 None 88	X2
During any visit to a doctor or other health worker in the past 12 months, were you advised to quit smoking tobacco?	Yes 1 *If T2=Yes, go to T12; if T2=No, go to T9* No 2 *If T2=Yes, go to T12; if T2=No, go to T9* No visit during the past 12 months 3 *If T2=Yes, go to T12; if T2=No, go to T9*	T7
In the past, did you **ever smoke** any tobacco products? *(USE SHOWCARD)*	Yes 1 No 2 *If No, go to T12*	T8
In the past, did you **ever** smoke **daily**?	Yes 1 *If T1=Yes, go to T12, else go to T10* No 2 *If T1=Yes, go to T12, else go to T10*	T9

Tobacco Use		
Question	**Response**	**Code**
How old were you when you **stopped** smoking?	Age (years) Don't Know 77 └─┴─┘ *If Known, go to T12*	T10
How **long ago** did you stop smoking? *(RECORD ONLY 1, NOT ALL 3)* *Don't Know 77*	Years ago └─┴─┘ *If Known, go to T12*	T11a
	OR Months ago └─┴─┘ *If Known, go to T12*	T11b
	OR Weeks ago └─┴─┘	T11c
Do you **currently use** any **smokeless tobacco** products such as *[snuff, chewing tobacco, betel]*? *(USE SHOWCARD)*	Yes 1 No 2 *If No, go to T15*	T12
Do you **currently use smokeless tobacco** products **daily?**	Yes 1 No 2	T13
On average, how many **times a day/week** do you use …. *(IF LESS THAN DAILY, RECORD WEEKLY)* *(RECORD FOR EACH TYPE, USE SHOWCARD)* *Don't Know 7777*	DAILY↓ WEEKLY↓	
	Snuff, by mouth └─┴─┴─┴─┘ └─┴─┴─┴─┘	T14a/ T14aw
	Snuff, by nose └─┴─┴─┴─┘ └─┴─┴─┴─┘	T14b/ T14bw
	Chewing tobacco └─┴─┴─┴─┘ └─┴─┴─┴─┘	T14c/ T14cw
	Betel, quid └─┴─┴─┴─┘ └─┴─┴─┴─┘	T14d/ T14dw
	Other └─┴─┴─┴─┘ └─┴─┴─┴─┘ *If Other, go to T14other, if T13=No, go to T16, else go to T17*	T14e/ T14ew
	Other (please specify): └─┴─┴─┴─┴─┴─┘ *If T13=No, go to T16, else go to T17*	T14other/ T14otherw
In the **past**, did you **ever use** smokeless tobacco products such as *[snuff, chewing tobacco, or betel]*?	Yes 1 No 2 *If No, go to T17*	T15
In the **past**, did you **ever use** smokeless tobacco products such as *[snuff, chewing tobacco, or betel]* **daily**?	Yes 1 No 2	T16
During the past 30 days, did someone smoke **in your home**?	Yes 1 No 2	T17
During the past 30 days, did someone smoke in closed areas **in your workplace** (in the building, in a work area or a specific office)?	Yes 1 No 2 Don't work in a closed area 3	T18

Tobacco Policy

You have been asked questions on tobacco consumption before. The next questions ask about tobacco control policies. They include questions on your exposure to the media and advertisement, on cigarette promotions, health warnings and cigarette purchase.

Question	Response		Code
During the past 30 days, have you noticed information about the dangers of smoking cigarettes or that encourages quitting through the following media? *(RECORD FOR EACH)*			
Newspapers or magazines	Yes No Don't know	1 2 77	TP1a
Television	Yes No Don't know	1 2 77	TP1b
Radio	Yes No Don't know	1 2 77	TP1c
During the past 30 days, have you noticed any **advertisements** or **signs** promoting cigarettes in stores where cigarettes are sold?	Yes No Don't know	1 2 77	TP2
During the past 30 days, have you noticed any of the following types of cigarette promotions? *(RECORD FOR EACH)*			
Free samples of cigarettes	Yes No Don't know	1 2 77	TP3a
Cigarettes at sale prices	Yes No Don't know	1 2 77	TP3b
Coupons for cigarettes	Yes No Don't know	1 2 77	TP3c
Free gifts or special discount offers on other products when buying cigarettes	Yes No Don't know	1 2 77	TP3d
Clothing or other items with a cigarette brand name or logo	Yes No Don't know	1 2 77	TP3e
Cigarette promotions in the mail	Yes No Don't know	1 2 77	TP3f
The next questions TP4 – TP7 are administered to current smokers only.			
During the past 30 days, did you notice any **health warnings on cigarette packages**?	Yes No Did not see any cigarette packages Don't know	1 2 *If no, go to TP6* 3 *If "did not see any cigarette packages", go to TP6* 77 *If Don't know, go to TP6*	TP4
During the past 30 days, have warning labels on cigarette packages led you to **think about quitting**?	Yes No Don't know	1 2 77	TP5
The last time you bought manufactured cigarettes for yourself, **how many cigarettes** did you buy in total?	Number of cigarettes Don't know or Don't smoke or purchase manuf. cigarettes 7777	⌞⌌⌞⌌⌞⌌⌞⌌ *If "Don't know or don't smoke or purchase manuf. cig.", end section*	TP6
In total, **how much money** did you pay for this purchase? *(DIGITS TO BE ADAPTED TO COUNTRY NEEDS)*	Amount Don't know 7777 Refused 8888	⌞⌌⌞⌌⌞⌌⌞⌌	TP7

Alcohol Consumption

The next questions ask about the consumption of alcohol.

Question	Response	Code
Have you **ever** consumed any alcohol such as beer, wine, spirits or C*hacha, Nalivka*? *(USE SHOWCARD OR SHOW EXAMPLES)*	Yes 1 No 2 *If No, go to A16*	A1
Have you consumed any alcohol within the **past 12 months**?	Yes 1 *If Yes, go to A4* No 2	A2
Have you stopped drinking due to health reasons, such as a negative impact on your health or on the advice of your doctor or other health worker?	Yes 1 *If Yes, go to A16* No 2 *If No, go to A16*	A3
During the past 12 months, **how frequently** have you had at least one standard alcoholic drink? *(READ RESPONSES, USE SHOWCARD)*	Daily 1 5-6 days per week 2 3-4 days per week 3 1-2 days per week 4 1-3 days per month 5 Less than once a month 6	A4
Have you consumed any alcohol within the **past 30 days**?	Yes 1 No 2 *If No, go to A13*	A5
During the past 30 days, on how many **occasions** did you have at least one standard alcoholic drink?	Number Don't know 77 ⌊_⌊_⌋	A6
During the past 30 days, when you drank alcohol, how many **standard drinks on average** did you have during one drinking occasion? *(USE SHOWCARD)*	Number Don't know 77 ⌊_⌊_⌋	A7
During the past 30 days, what was the **largest number** of standard drinks you had on a single occasion, counting all types of alcoholic drinks together?	Largest number Don't Know 77 ⌊_⌊_⌋	A8
During the past 30 days, how many times did you have **six or more** standard drinks in a single drinking occasion?	Number of times Don't Know 77 ⌊_⌊_⌋	A9
During each of the **past 7 days**, how many standard drinks did you have each day? *(USE SHOWCARD)* *Don't Know 77*	Monday ⌊_⌊_⌋	A10a
	Tuesday ⌊_⌊_⌋	A10b
	Wednesday ⌊_⌊_⌋	A10c
	Thursday ⌊_⌊_⌋	A10d
	Friday ⌊_⌊_⌋	A10e
	Saturday ⌊_⌊_⌋	A10f
	Sunday ⌊_⌊_⌋	A10g

Alcohol Consumption, continued

I have just asked you about your consumption of alcohol during the past 7 days. The questions were about alcohol in general, while the next questions refer to your consumption of homebrewed alcohol, alcohol brought over the border/from another country, any alcohol not intended for drinking or other untaxed alcohol. Please only think about these types of alcohol when answering the next questions.

Question	Response		Code
During the **past 7 days**, did you consume any **homebrewed** alcohol, any alcohol **brought over the border/from another country**, any alcohol **not intended for drinking** or other **untaxed** alcohol? *(USE SHOWCARD)*	Yes 1 No 2 *If No, go to A13*		A11
On average, **how many standard drinks** of the following did you consume **during the past 7 days**? [INSERT COUNTRY-SPECIFIC EXAMPLES] (USE SHOWCARD) *Don't Know 77*	Homebrewed spirits, e.g. Chacha, Nalivka	|␣|␣|	A12a
	Homebrewed beer or wine	|␣|␣|	A12b
	Alcohol brought over the border/from another country	|␣|␣|	A12c
	Alcohol not intended for drinking, e.g. alcohol-based medicines, perfumes, after shaves	|␣|␣|	A12d
	Other untaxed alcohol in the country	|␣|␣|	A12e

Alcohol Consumption

	Response	Code
During the **past 12 months,** how often have you found that you were not able to stop drinking once you had started?	Daily or almost daily 1 Weekly 2 Monthly 3 Less than monthly 4 Never 5	A13
During the **past 12 months,** how often have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Daily or almost daily 1 Weekly 2 Monthly 3 Less than monthly 4 Never 5	A15

Diet

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

Question	Response	Code
In a typical week, on how many days do you **eat fruit**? *(USE SHOWCARD)*	Number of days Don't Know 77 |_|_| *If Zero days, go to D3*	D1
How many **servings** of fruit do you eat on **one** of those days? *(USE SHOWCARD)*	Number of servings Don't Know 77 |_|_|	D2
In a typical week, on how many days do you **eat vegetables**? *(USE SHOWCARD)*	Number of days Don't Know 77 |_|_| *If Zero days, go to X3*	D3
How many **servings** of vegetables do you eat on one of those days? *(USE SHOWCARD)*	Number of servings Don't know 77 |_|_|	D4
In a typical week, on how many days do you **eat meat or meat products**?	Number of days Don't Know 77 |_|_| *If Zero days, go to X4*	X3
In a typical week, on how many days do you **eat fish or sea products**?	Number of days Don't Know 77 |_|_| *If Zero days, go to X5*	X4
In a typical week, on how many days do you **drink milk or milk products**?	Number of days Don't Know 77 |_|_| *If Zero days, go to X6*	X5
In a typical week, on how many days do you **eat bread or bread products**?	Number of days Don't Know 77 |_|_| *If Zero days, go to X7*	X6
In a typical week, on how many days do you **eat sugar or sweet products**?	Number of days Don't Know 77 |_|_| *If Zero days, go to X8*	X7
How many times a day you usually eat?	I don't eat everyday 1 Once a day 2 Twice a day 3 3 times a day 4 4 times a day 5 More than 4 times a day 6 Don't Know 77	X8

Dietary salt

With the next questions, we would like to learn more about salt in your diet. Dietary salt includes ordinary table salt, unrefined salt such as sea salt, iodized salt, salty stock cubes and powders, and salty sauces such as soya sauce or fish sauce (see showcard). The following questions are on adding salt to the food right before you eat it, on how food is prepared in your home, on eating processed foods that are high in salt such as marinade vegetables, smoked meat, smoked cheese, adjika, tkemali etc., and questions on controlling your salt intake. Please answer the questions even if you consider yourself to eat a diet low in salt.

How often do you **add salt or a salty sauce such as soya sauce** to your food right before you eat it or as you are eating it? *(SELECT ONLY ONE)* *(USE SHOWCARD)*	Always 1 Often 2 Sometimes 3 Rarely 4 Never 5 Don't know 77	D5
How often is **salt, salty seasoning or a salty sauce added** in cooking or preparing foods in your household?	Always 1 Often 2 Sometimes 3 Rarely 4 Never 5 Don't know 77	D6

| How often do you eat **processed food high in salt**? By processed food high in salt, I mean foods that have been altered from their natural state, such as packaged salty snacks, canned salty food including pickles and preserves, salty food prepared at a fast food restaurant, cheese, bacon and processed meat *[add* marinade vegetables, smoked meat, smoked cheese, etc. *(USE SHOWCARD)* | Always 1
Often 2
Sometimes 3
Rarely 4
Never 5
Don't know 77 | D7 |
| **How much salt or salty sauce** do you think you consume? | Far too much 1
Too much 2
Just the right amount 3
Too little 4
Far too little 5
Don't know 77 | D8 |

Diet		
Question	**Response**	**Code**
How important to you is **lowering the salt** in your diet?	Very important 1 Somewhat important 2 Not at all important 3 Don't know 77	D9
Do you think that too much salt or salty sauce in your diet could cause a **health problem**?	Yes 1 No 2 Don't know 77	D10
Do you do any of the following on a regular basis to **control your salt intake**? *(RECORD FOR EACH)*		
Limit consumption of processed foods	Yes 1 No 2	D11a
Look at the salt or sodium content on food labels	Yes 1 No 2	D11b
Buy low salt/sodium alternatives	Yes 1 No 2	D11c
Use spices other than salt when cooking	Yes 1 No 2	D11d
Avoid eating foods prepared outside of a home	Yes 1 No 2	D11e
Do other things specifically to control your salt intake	Yes 1 *If Yes, go to D11other* No 2	D11f
Other (please specify)	⌊__⌊__⌊__⌊__⌊__⌊__⌊__⌋	D11other
The next questions ask about the oil or fat that is most often used for meal preparation in your household, and about meals that you eat outside a home.		
What type of **oil or fat is most often** used for meal preparation in your household? *(USE SHOWCARD)* *(SELECT ONLY ONE)*	Vegetable oil 1 Lard 2 Butter 3 Margarine 4 Other 5 *If Other, go to D12 other* None in particular 6 None used 7 Don't know 77	D12
	Other ⌊__⌊__⌊__⌊__⌊__⌊__⌊__⌋	D12other
On average, how many meals per week do you eat that were not prepared at a home? By meal, I mean breakfast, lunch and dinner.	Number Don't know 77 ⌊__⌊__⌋	D13

Physical Activity

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

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

Question	Response	Code
Work		
Does your work involve vigorous-intensity activity that causes large increases in breathing or heart rate like *[carrying or lifting heavy loads, digging or construction work]* for at least 10 minutes continuously? *(USE SHOWCARD)*	Yes 1 No 2 *If No, go to P 4*	P1
In a typical week, on how many days do you do vigorous-intensity activities as part of your work?	Number of days ⌊_⌋	P2
How much time do you spend doing vigorous-intensity activities at work on a typical day?	Hours : minutes ⌊_⌊_⌋ : ⌊_⌊_⌋ hrs mins	P3 (a-b)
Does your work involve moderate-intensity activity that causes small increases in breathing or heart rate such as brisk walking *[or carrying light loads]* for at least 10 minutes continuously? *(USE SHOWCARD)*	Yes 1 No 2 *If No, go to P 7*	P4
In a typical week, on how many days do you do moderate-intensity activities as part of your work?	Number of days ⌊_⌋	P5
How much time do you spend doing moderate-intensity activities at work on a typical day?	Hours : minutes ⌊_⌊_⌋ : ⌊_⌊_⌋ hrs mins	P6 (a-b)
Travel to and from places		
The next questions exclude the physical activities at work that you have already mentioned. Now I would like to ask you about the usual way you travel to and from places. For example to work, for shopping, to market, to place of worship. *[Insert other examples if needed]*		
Do you walk or use a bicycle *(pedal cycle)* for at least 10 minutes continuously to get to and from places?	Yes 1 No 2 *If No, go to P 10*	P7
In a typical week, on how many days do you walk or bicycle for at least 10 minutes continuously to get to and from places?	Number of days ⌊_⌋	P8
How much time do you spend walking or bicycling for travel on a typical day?	Hours : minutes ⌊_⌊_⌋ : ⌊_⌊_⌋ hrs mins	P9 (a-b)

Physical Activity, Continued

Question	Response	Code
Recreational activities		
The next questions exclude the work and transport activities that you have already mentioned. Now I would like to ask you about sports, fitness and recreational activities (leisure)		
Do you do any vigorous-intensity sports, fitness or recreational *(leisure)* activities that cause large increases in breathing or heart rate like *[running or football]* for at least 10 minutes continuously? *USE SHOWCARD)*	Yes 1 No 2 *If No, go to P 13*	P10
In a typical week, on how many days do you do vigorous-intensity sports, fitness or recreational *(leisure)* activities?	Number of days |_|_|	P11
How much time do you spend doing vigorous-intensity sports, fitness or recreational activities on a typical day?	Hours : minutes |_|_|_| : |_|_|_| hrs mins	P12 (a-b)
Do you do any moderate-intensity sports, fitness or recreational *(leisure)* activities that cause a small increase in breathing or heart rate such as brisk walking, *[cycling, swimming, and volleyball]* for at least 10 minutes continuously? *(USE SHOWCARD)*	Yes 1 No 2 *If No, go to P16*	P13
In a typical week, on how many days do you do moderate-intensity sports, fitness or recreational *(leisure)* activities?	Number of days |_|_|	P14
How much time do you spend doing moderate-intensity sports, fitness or recreational *(leisure)* activities on a typical day?	Hours : minutes |_|_|_| : |_|_|_| hrs mins	P15 (a-b)

Physical Activity

Question	Response	Code
Sedentary behaviour		
The following question is about sitting or reclining at work, at home, getting to and from places, or with friends including time spent sitting at a desk, sitting with friends, traveling in car, bus, train, reading, playing cards or watching television, but do not include time spent sleeping. *(USE SHOWCARD)*		
How much time do you usually spend sitting or reclining on a typical day?	Hours : minutes |_|_|_| : |_|_|_| hrs mins	P16 (a-b)

History of Raised Blood Pressure

Question	Response	Code
Have you ever had your blood pressure measured by a doctor or other health worker?	Yes 1 No 2 *If No, go to H6*	H1
Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension?	Yes 1 No 2 *If No, go to H6*	H2a
Have you been told in the past 12 months?	Yes 1 No 2	H2b
In the past two weeks, have you taken any drugs (medication) for raised blood pressure prescribed by a doctor or other health worker?	Yes 1 No 2	H3
What is the regime of taking drugs?	Everyday despite the blood pressure numbers 1 When the pressure is high 2 Irregularly, when remember 3	X9
Which drug do you take? (note all drugs respondent mentions)	1 2 3 4 5	X10
Have you ever seen a traditional healer for raised blood pressure or hypertension?	Yes 1 No 2	H4
Are you currently taking any herbal or traditional remedy for your raised blood pressure?	Yes 1 No 2	H5

History of Diabetes

Question	Response	Code
Have you ever had your blood sugar measured by a doctor or other health worker?	Yes 1 No 2 *If No, go to H12*	H6
Have you ever been told by a doctor or other health worker that you have raised blood sugar or diabetes?	Yes 1 No 2 *If No, go to H12*	H7a
Have you been told in the past 12 months?	Yes 1 No 2	H7b
In the past two weeks, have you taken any drugs (medication) for diabetes prescribed by a doctor or other health worker?	Yes 1 No 2	H8
Are you currently taking insulin for diabetes prescribed by a doctor or other health worker?	Yes 1 No 2	H9
Have you ever seen a traditional healer for diabetes or raised blood sugar?	Yes 1 No 2	H10
Are you currently taking any herbal or traditional remedy for your diabetes?	Yes 1 No 2	H11

History of Raised Total Cholesterol

Question	Response	Code
Have you ever had your cholesterol (fat levels in your blood) measured by a doctor or other health worker?	Yes 1 No 2 *If No, go to H17*	H12
Have you ever been told by a doctor or other health worker that you have raised cholesterol?	Yes 1 No 2 *If No, go to H17*	H13a
Have you been told in the past 12 months?	Yes 1 No 2	H13b
In the past two weeks, have you taken any oral treatment (medication) for raised total cholesterol prescribed by a doctor or other health worker?	Yes 1 No 2	H14
Have you ever seen a traditional healer for raised cholesterol?	Yes 1 No 2	H15
Are you currently taking any herbal or traditional remedy for your raised cholesterol?	Yes 1 No 2	H16

History of Cardiovascular Diseases

Question	Response	Code
Have you ever had a heart attack or chest pain from heart disease (angina) or a stroke (cerebrovascular accident or incident)?	Yes 1 No 2	H17
Are you currently taking aspirin regularly to prevent or treat heart disease?	Yes 1 No 2	H18
Are you currently taking statins (Lovastatin/Simvastatin/Atorvastatin/Rosuvastatin or any other statin) regularly to prevent or treat heart disease?	Yes 1 No 2	H19
Have you ever been told by a doctor or other health worker that you have Atrial Fibrillation/?	Yes 1 No 2	X11
Have you ever been told by a doctor or other health worker that you have chronic vein vessel disease or varicose veins of lower extremities or deep vein thrombosis (DVT)?	Yes 1 No 2	X12
Are you currently taking anticoagulants (Aspirin/Heparin) prescribed by a doctor or other health worker?	Yes 1 No 2	X13

Lifestyle Advice

During the past three years, has a doctor or other health worker advised you to do any of the following? (RECORD FOR EACH)		
Quit using tobacco or don't start	Yes 1 No 2	H20a
Reduce salt in your diet	Yes 1 No 2	H20b
Eat at least five servings of fruit and/or vegetables each day	Yes 1 No 2	H20c
Reduce fat in your diet	Yes 1 No 2	H20d
Start or do more physical activity	Yes 1 No 2	H20e
Maintain a healthy body weight or lose weight	Yes 1 *If C1=1 go to X14* No 2 *If C1=1 go to X14*	H20f

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(for women only): Cervical Cancer Screening

The next question asks about cervical cancer prevention. Screening tests for cervical cancer prevention can be done in different ways, including Visual Inspection with Acetic Acid/vinegar (VIA), pap smear and Human Papillomavirus (HPV) test. VIA is an inspection of the surface of the uterine cervix after acetic acid (or vinegar) has been applied to it. For both pap smear and HPV test, a doctor or nurse uses a swab to wipe from inside your vagina, take a sample and send it to a laboratory. It is even possible that you were given the swab yourself and asked to swab the inside of your vagina. The laboratory checks for abnormal cell changes if a pap smear is done, and for the HP virus if an HPV test is done.

Question	Response	Code
Have you ever had a screening test for cervical cancer, using any of these methods described above?	Yes 1 No 2 Don't know 77	CX1

Admission to the medical personnel

Question	Response	Code
Have you visited medical doctor or other medical personnel during the last 12 months?	Yes 1 go to X15 No 2 go to M1 Don't know 77 go to M1	X14
From the following what was the main reason of the last visit?	Concrete health problem 1 Prophylactic check-up 2 Both 3 Administrative (non-medical) reasons 4 Don't know 77	X15

Oral Health

The next questions ask about your oral health status and related behaviours.

Question	Response	Code
How many **natural teeth** do you have?	No natural teeth 1 *If no natural teeth, go to O6* 1 to 9 teeth 2 10 to 19 teeth 3 20 teeth or more 4 Don't know 77	O1
During the past 12 months, did your teeth or mouth cause any **pain or discomfort**?	Yes 1 No 2	O6
How **often do you clean** your teeth?	Never 1 *If Never, go to MH1* Once a month 2 2-3 times a month 3 Once a week 4 2-6 times a week 5 Once a day 6 Twice or more a day 7	O9

Mental health / Suicide

The next questions ask about thoughts, plans, and attempts of suicide. Please answer the questions even if no one usually talks about these issues.

Question	Response		Code
During the **past 12 months**, have you seriously **considered** attempting suicide?	Yes	1	MH1
	No	2 *If No, go to MH4*	
	Refused	88	
During the **past 12 months**, have you made **a plan about how** you would attempt suicide?	Yes	1	MH3
	No	2	
	Refused	88	
Have you **ever attempted suicide**?	Yes	1	MH4
	No	2	
	Refused	88	

Injury

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

Question	Response		Code
In the past 12 months, have you been involved in a road traffic crash as a driver, passenger, pedestrian, or cyclist?	Yes (as driver)	1	V3
	Yes (as passenger)	2	
	Yes (as pedestrian)	3	
	Yes (as a cyclist)	4	
	No	5	
	Don't know	77	
	Refused	88	

The next questions ask about the most serious accidental injury you have had in the past 12 months.

Question	Response		Code
In the past 12 months, were you injured accidentally, other than the road traffic crashes which required medical attention?	Yes	1	V5
	No	2	
	Don't know	77	
	Refused	88	
Please indicate which of the following the cause of this injury was.	Fall	1	V6
	Burn	2	
	Poisoning	3	
	Cut	4	
	Near-drowning	5	
	Animal bite	6	
	Other (specify)	7	
	Don't know	77	
	Refused	88	
	Other (please specify) |_|_|_|_|_|_|_|_|		V6other

Violence		
The following questions are about different experiences and behaviours that are related to violence.		

Question	Response	Code
In the past 12 months, how many times were you in a violent incident in which you were injured and required medical attention?	Never 1 *go to SH1* Rarely (1- 2 times) 2 Sometimes (3 – 5 times) 3 Often (6 or more times) 4 Don't know 77 *go to SH1* Refused 88 *go to SH1*	V11
The next questions ask about the most serious violent incidence you have had in the past 12 months.		
Please indicate which of the following caused your most serious injury in the last 12 months.	Being shot with a firearm 1 A weapon (other than a firearm) was used by the person who injured me 2 Being injured without any weapon (slapped, pushed…) 3 Don't know 77 Refused 88	V12
Please indicate the relationship between yourself and the person(s) who caused your injury.	Intimate partner 1 Parent 2 Child, sibling, or other relative 3 Friend or acquaintance 4 Unrelated caregiver 5 Stranger 6 Official or legal authorities 7 Other (specify) 8 Refused 88	V13
	Other (please specify) ⌊_⌊_⌊_⌊_⌊_⌊_⌋	V13other

Sexual Health (expanded questions are shaded)		
The next questions ask about different experiences and behaviours that are related to sexual and reproductive health.		

Question	Response	Code
Have you **ever** had sexual intercourse?	Yes 1 No 2 *If No, finish the interview* Refused 88	SH1
How old were you when you **first** had sexual intercourse? *(USE SHOWCARDS)*	Age in years ⌊ ⌊ ⌋ Don't remember 77 Refused 88	SH2
When did you **last** have sexual intercourse?	In the last week 1 Between a week and a month ago 2 Between a month and a year ago 3 More than a year ago 4 *If More than a year ago, finish the interview* Don't remember 77 *If Don't remember, finish the interview* Refused 88	SH5
The **last** time you had sexual intercourse, did you use any kind of **protection** against pregnancy and/or infection?	Yes 1 No 2 *If No, finish the interview* Don't know 77 *If Don't know, finish the interview* Refused 88	SH9

The **last** time you had sexual intercourse, were any of the following methods of **protection** against pregnancy and/or infection used? *(RECORD FOR EACH)*		
A condom	Yes 1 No 2 Don't remember 77	SH10a
The pill	Yes 1 No 2 Don't remember 77	SH10b
A different method	Yes 1 *If Yes, please specify* No 2 Don't remember 77	SH10c
	Other (please specify) ⌊ ⌊ ⌊ ⌊ ⌊ ⌊ ⌋	SH10cOther
	No 2 Don't remember 77	
Other	Yes 1 *If Yes, please specify* No 2 Don't remember 77	SH11d
	Other (please specify) ⌊ ⌊ ⌊ ⌊ ⌊ ⌊ ⌋	SH11dOther

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Step 2   Physical Measurements

Blood Pressure

Question	Response	Code
Interviewer ID	⌞_⌟_⌞_⌟_⌞_⌟	M1
Device ID for blood pressure	⌞_⌟_⌞_⌟	M2
Cuff size used	Small 1 Medium 2 Large 3	M3
Reading 1	Systolic (mmHg) ⌞_⌟_⌞_⌟_⌞_⌟	M4a
	Diastolic (mmHg) ⌞_⌟_⌞_⌟_⌞_⌟	M4b
Reading 2	Systolic (mmHg) ⌞_⌟_⌞_⌟_⌞_⌟	M5a
	Diastolic (mmHg) ⌞_⌟_⌞_⌟_⌞_⌟	M5b
Reading 3	Systolic (mmHg) ⌞_⌟_⌞_⌟_⌞_⌟	M6a
	Diastolic (mmHg) ⌞_⌟_⌞_⌟_⌞_⌟	M6b
During the past two weeks, have you been treated for raised blood pressure with drugs (medication) prescribed by a doctor or other health worker?	Yes 1 No 2	M7

Height and Weight

Question	Response	Code
For women: Are you pregnant?	Yes 1 *If Yes, go to M 16* No 2	M8
Interviewer ID	⌞_⌟_⌞_⌟_⌞_⌟	M9
Device IDs for height and weight	Height ⌞_⌟_⌞_⌟ Weight ⌞_⌟_⌞_⌟	M10a M10b
Height	in Centimetres (cm) ⌞_⌟_⌞_⌟_⌞_⌟ . ⌞_⌟	M11
Weight *If too large for scale 666.6*	in Kilograms (kg) ⌞_⌟_⌞_⌟_⌞_⌟ . ⌞_⌟	M12

Waist

Question	Response	Code
Device ID for waist	⌞_⌟_⌞_⌟	M13
Waist circumference	in Centimeters (cm) ⌞_⌟_⌞_⌟_⌞_⌟ . ⌞_⌟	M14

EXPANDED: Hip Circumference and Heart Rate

Hip circumference	in Centimeters (cm) ⌞_⌟_⌞_⌟_⌞_⌟ . ⌞_⌟	M15
Heart Rate		
Reading 1	Beats per minute ⌞_⌟_⌞_⌟_⌞_⌟	M16a
Reading 2	Beats per minute ⌞_⌟_⌞_⌟_⌞_⌟	M16b
Reading 3	Beats per minute ⌞_⌟_⌞_⌟_⌞_⌟	M16c

Step 3   Biochemical Measurements

Blood Glucose

Question	Response	Code
During the past 12 hours have you had anything to eat or drink, other than water?	Yes 1 No 2	B1
Technician ID	|_|_|_|_|	B2
Device ID	|_|_|_|	B3
Time of day blood specimen taken (24 hour clock)	Hours : minutes |_|_| : |_|_| hrs mins	B4
Fasting blood glucose	mmol/l |_|_|_| . |_|_|_|	B5
Today, have you taken insulin or other drugs (medication) that have been prescribed by a doctor or other health worker for raised blood glucose?	Yes 1 No 2	B6

Blood Lipids

Device ID	|_|_|_|	B7
Total cholesterol	mmol/l |_|_|_| . |_|_|_|	B8
During the past two weeks, have you been treated for raised cholesterol with drugs (medication) prescribed by a doctor or other health worker?	Yes 1 No 2	B9

Urinary sodium and creatinine

Had you been fasting prior to the urine collection?	Yes 1 No 2	B10
Technician ID	|_|_|_|_|	B11
Device ID	|_|_|_|	B12
Time of day urine sample taken (24 hour clock)	Hours : minutes |_|_| : |_|_| hrs mins	B13
Urinary sodium	mmol/l |_|_|_|_| . |_|	B14
Urinary creatinine	mmol/l |_|_|_| . |_|_|	B15

Triglycerides and HDL Cholesterol

Question	Response	Code
HDL Cholesterol *[CHOOSE ACCORDINGLY: MMOL/L OR MG/DL]*	mmol/l |_| . |_|_|_| mg/dl |_|_|_| . |_|	B17