# Non-communicable Diseases Risk-factors STEPS survey results

**Lela Sturua**
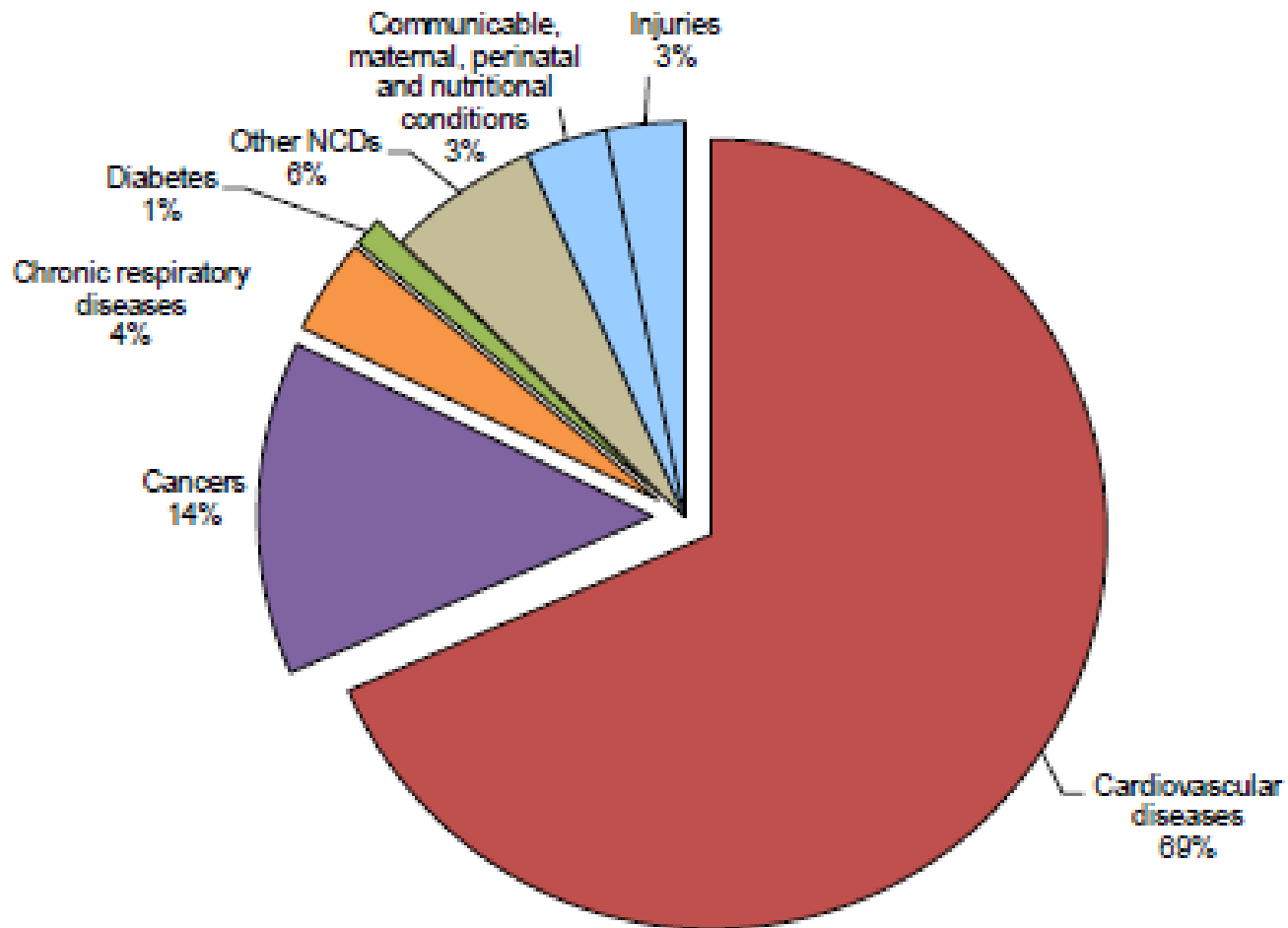
**Country Coordination Council on Non-communicable Diseases Prevention and Control**

**Expanded meeting**

**27 November, 2017**

# სიკვდილის მიზეზები, ყველა ასაკი, საქართველო 2014



World Health Organization - *Noncommunicable Diseases (NCD) Country Profiles* , 2014.

# Non-communicable Diseases Surveillance

- **Routine statistics**

- **Registries – cancer registry (2015), birth registry (2016)**

- **EIDSS**

- **Sentinel surveillance – „Strengthening of micronutrients deficiency surveillance systems" Collaborative Project / CDC USA – NCDC Georgia**

- **STEPS 2010 და STEPS 2016**

- **Other surveys**

  - **GeRHS, GNNS, GYTS, COSI, HBSC, ESPAD, HepC survey, Iodine survey...**

# STEPS 2016

**Goal**

to estimate NCDs and its risk-factors – behavioural and biological – prevalence, trends; evidence based comparisons with different countries

To implement of the non-communicable Diseases prevention and control effective policy and interventions

# STEPS 2016

I - : Social-demographic indicators, behavioral risk-factors (tobacco, alcohol, unhealthy diet, physical inactivity, etc.)

II - Physical measurements

- height, weight, waist and hip circumference

- blood pressure, heart rate

III – Biological risk-factors (rapid tests)

- blood glucose, cholesterol, HDL cholesterol

- Urine Na and cotinine

Core modules

Optional modules: Oral health; Suicide; Sexual health; Violence and Trauma; Tobacco Control Policy

Georgian questions: antihypertensive drugs, different products, visits to doctors…

# STEPS 2016

- A cross-sectional survey; Multi-stage cluster sampling of the general population aged 18-69 administrative regions (including capital City-Tbilisi) across Georgia; urban/rural, 4 age groups (18-29; 30-44; 45-59; 60-69)

- Sample size – 371 clusters; 5554 people; response rate – 75%

- 20 research teams - 40 interviewers, 20 nurse/lab personnel, 40 drivers

- 2 field coordinators – Tbilisi and East Georgia; West Georgia

- Samsung Galaxy Tab 4OS; Cardiochek PA; Growth Management Scale (330 HRS BMI); BMI calculator Seca 491; ergonomic Seca 201; test panels (Chol/HDL/Glu for Cardiocheck PA); Blood pressure monitor Bosch და Sohn Medicus UNO

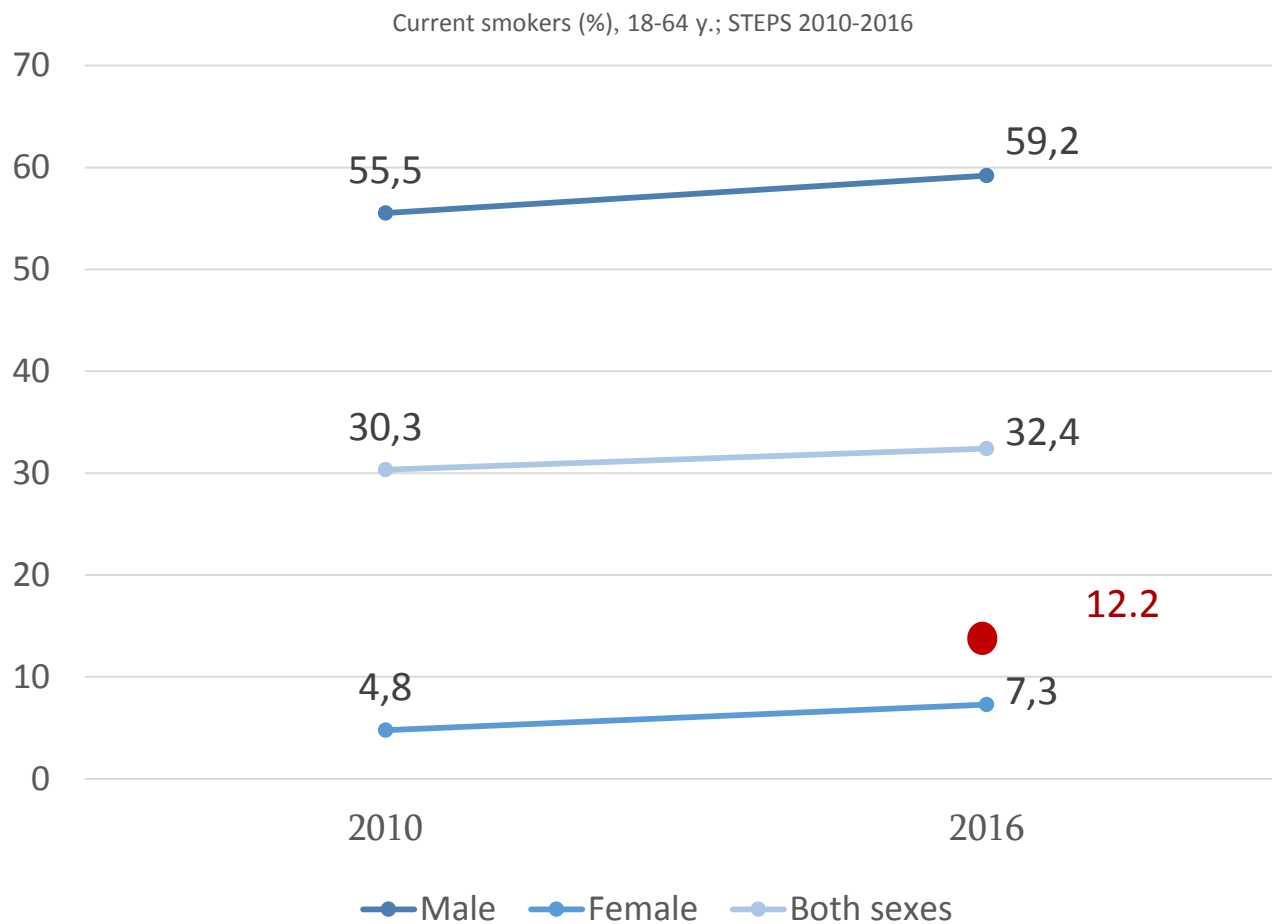# STEPS 2016 / STEPS 2010-2016

## Survey Results

# Tobacco

- Almost one third of Georgia's population (31%) are smokers

- current smokers - 57% of male and 7% of female; in fact, smoking prevalence in female is 12.2% (according to cotinine test)

- Average age of starting smoking: male - 17.7 years; female - 22.4 years

- The absolute majority of smokers (98.6%) smoke manufactured cigarettes

- Mean number of manufactured cigarettes smoked a day by daily smokers: 21.3 cigarettes (male 22.2 cigarettes, female 14.4 cigarettes)

- 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 applied: consultation on a primary healthcare level – 11.0%; electronic cigarettes – 9.4%

- 43% are exposed to secondhand smoke at home

- 15.8 % are exposed to secondhand smoke at their workplaces

# STEPS 2010-2016

## Tobacco

Current smokers (%), 18-64 y.; STEPS 2010-2016

**Alcohol**

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

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

- Number of drinking occasions, standard drinks and heavy drinking occasionon are higher in male Unregistered alcohol consumed during the past 7 days – 38.8% of current drinkers (male 43.6%, female 26%)

- Drinking alcohol 1-2 days in past weak – 1/3 of male and 55% of female

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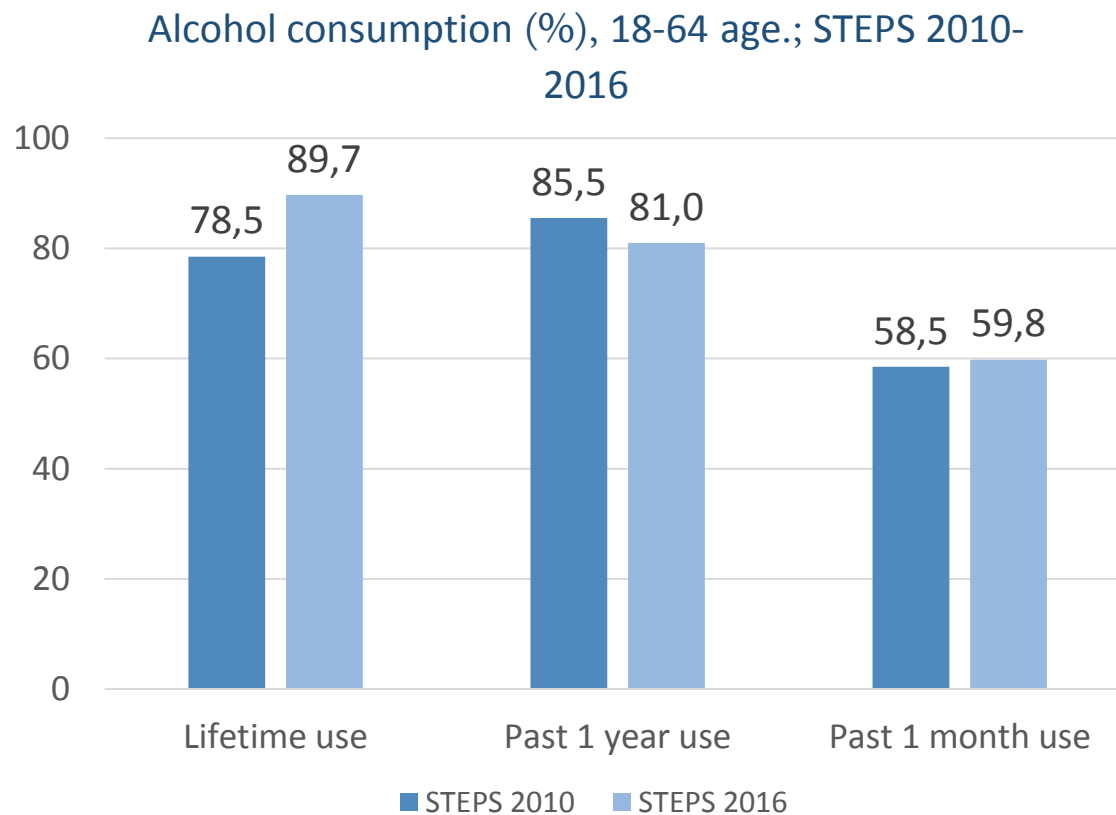
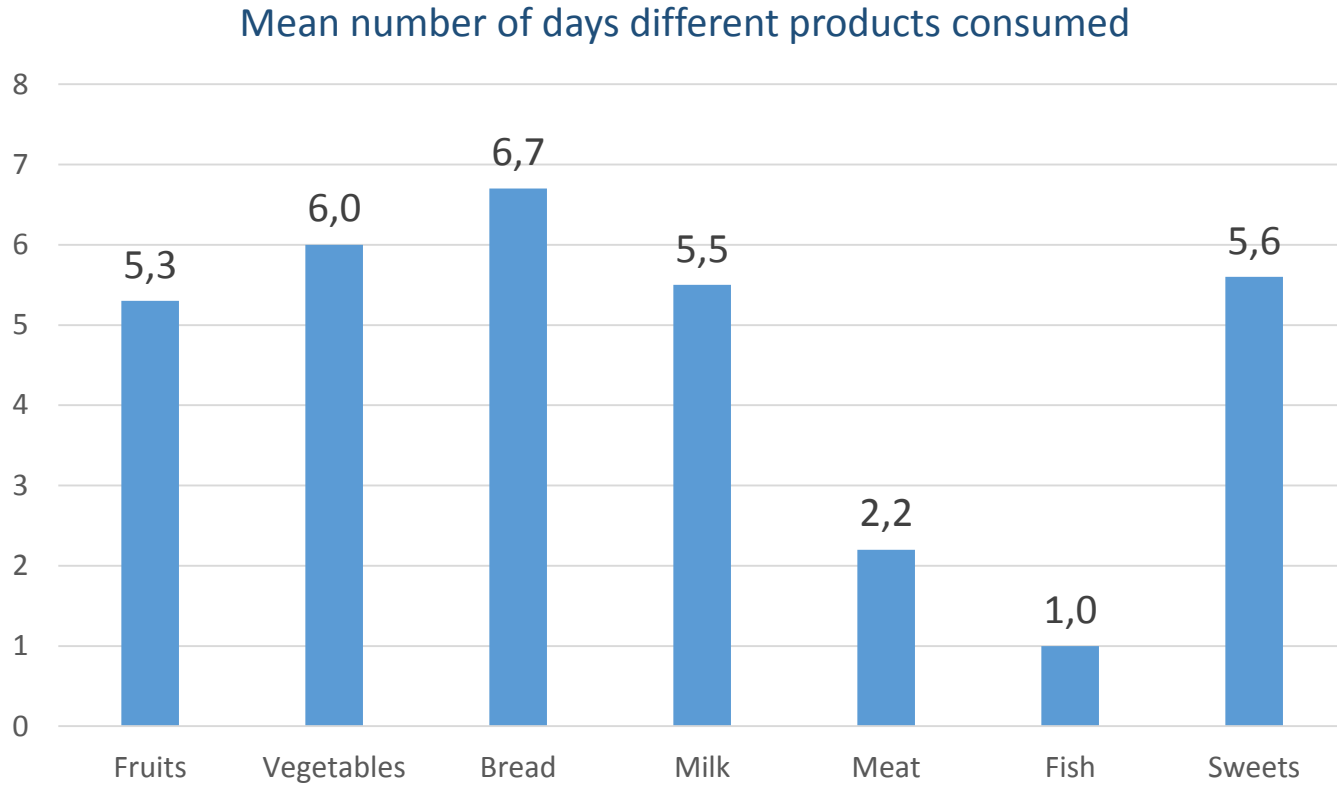Alcohol consumption (%), 18-64 age.; STEPS 2010-2016

**Diet**

- 63.8% of male and 62.4% of female consume less than five servings of fruit and/or vegetables on average per day

- Fruits and vegetables are not consumed (at all) by 6% of male and 4% of female respondents

**Diet**

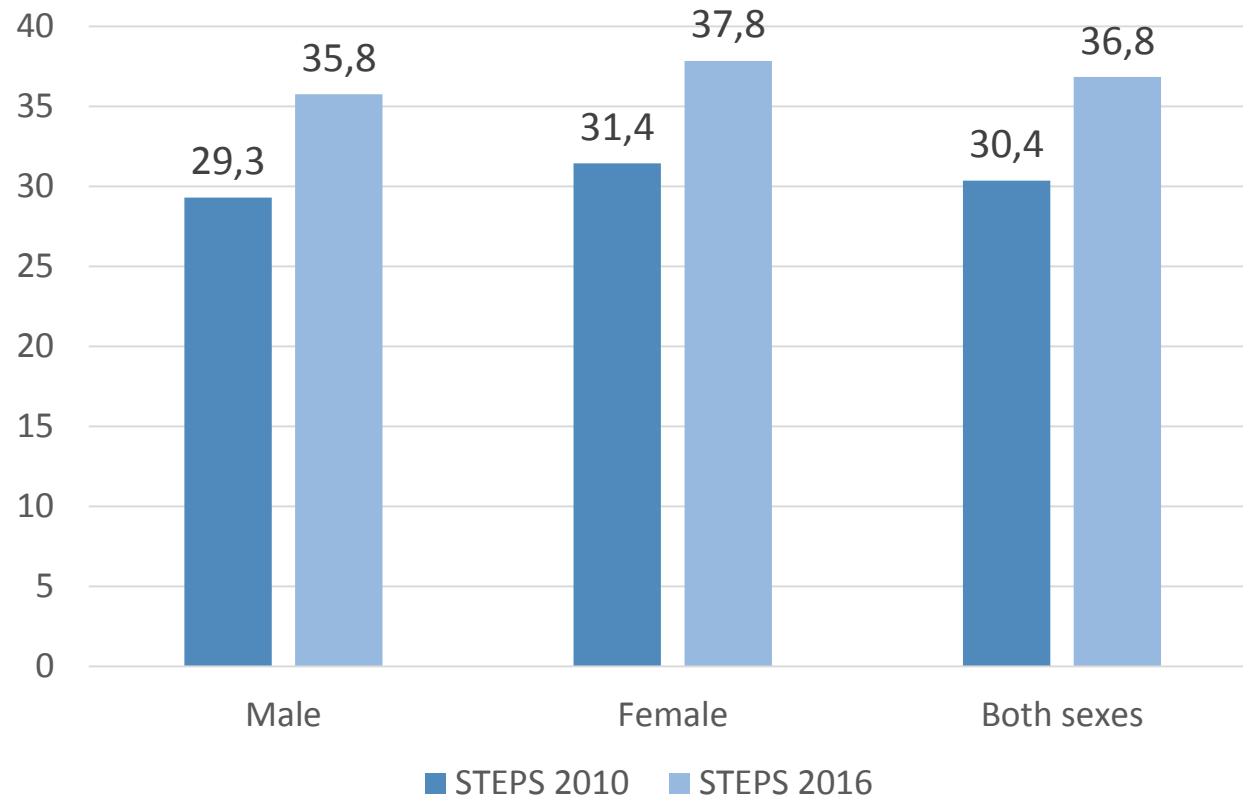## Mean number of days different products consumed



- 51.2% respondents eat three times a day; about 32% - 2 times a day; do not eat everyday – 0.1%

Diet

Consumption of 5 and more servings of fruit and vegetables (%), 18-64 y; STEPS 2010-2016

## Physical Activity



Avarage length of a physical activity (minutes) by age and type of physical activity

- Mean minutes of work-related physical activity on average per day
- Mean minutes of transport-related physical activity on average per day
- Mean minutes of recreation-related physical activity on average per day
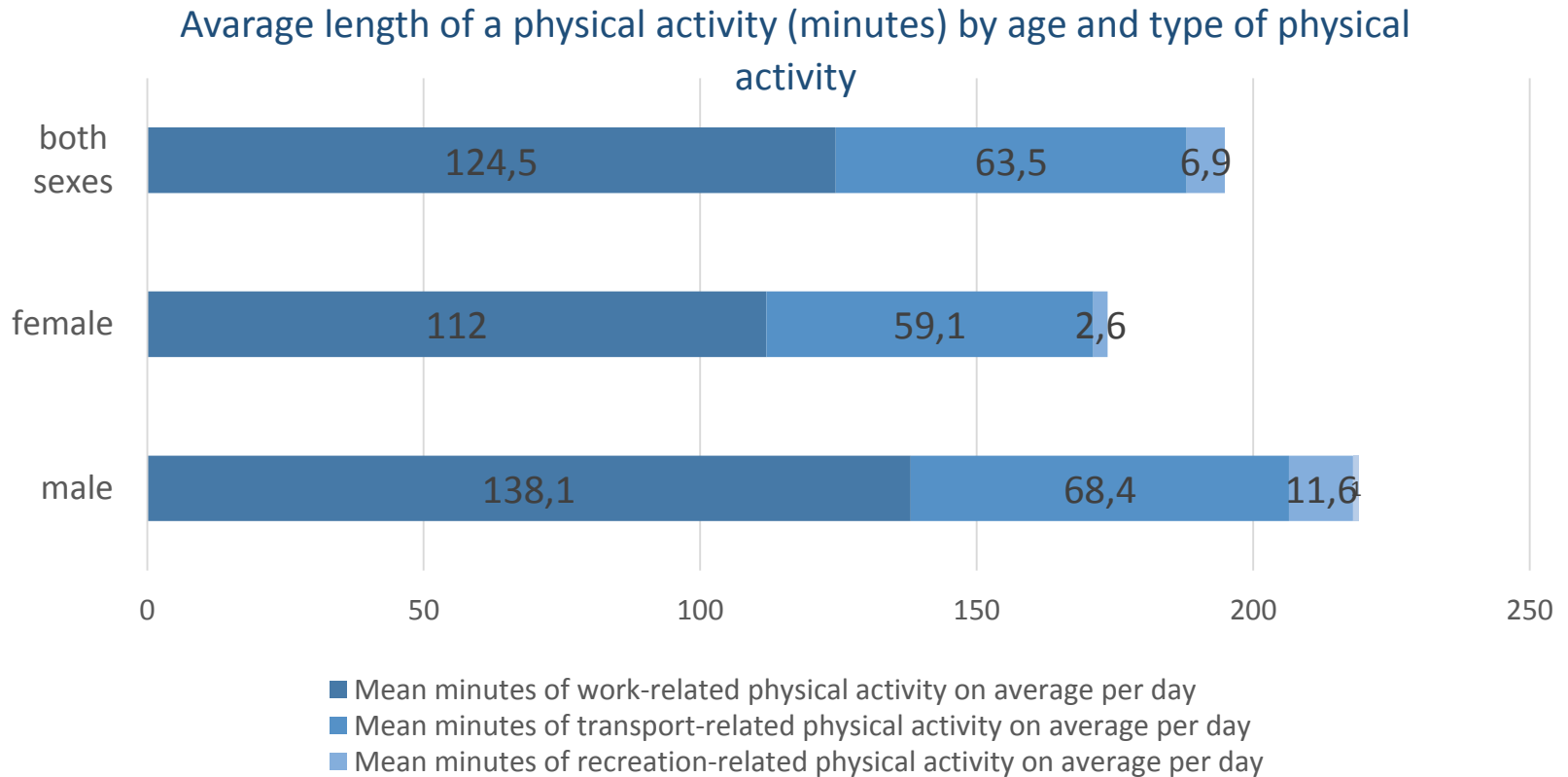
Physical activity in 17.4% of respondents (male 16.2%, female 18.4%) do not meet WHO recommendations on physical activity

# STEPS 2010-2016

## Physical Activity

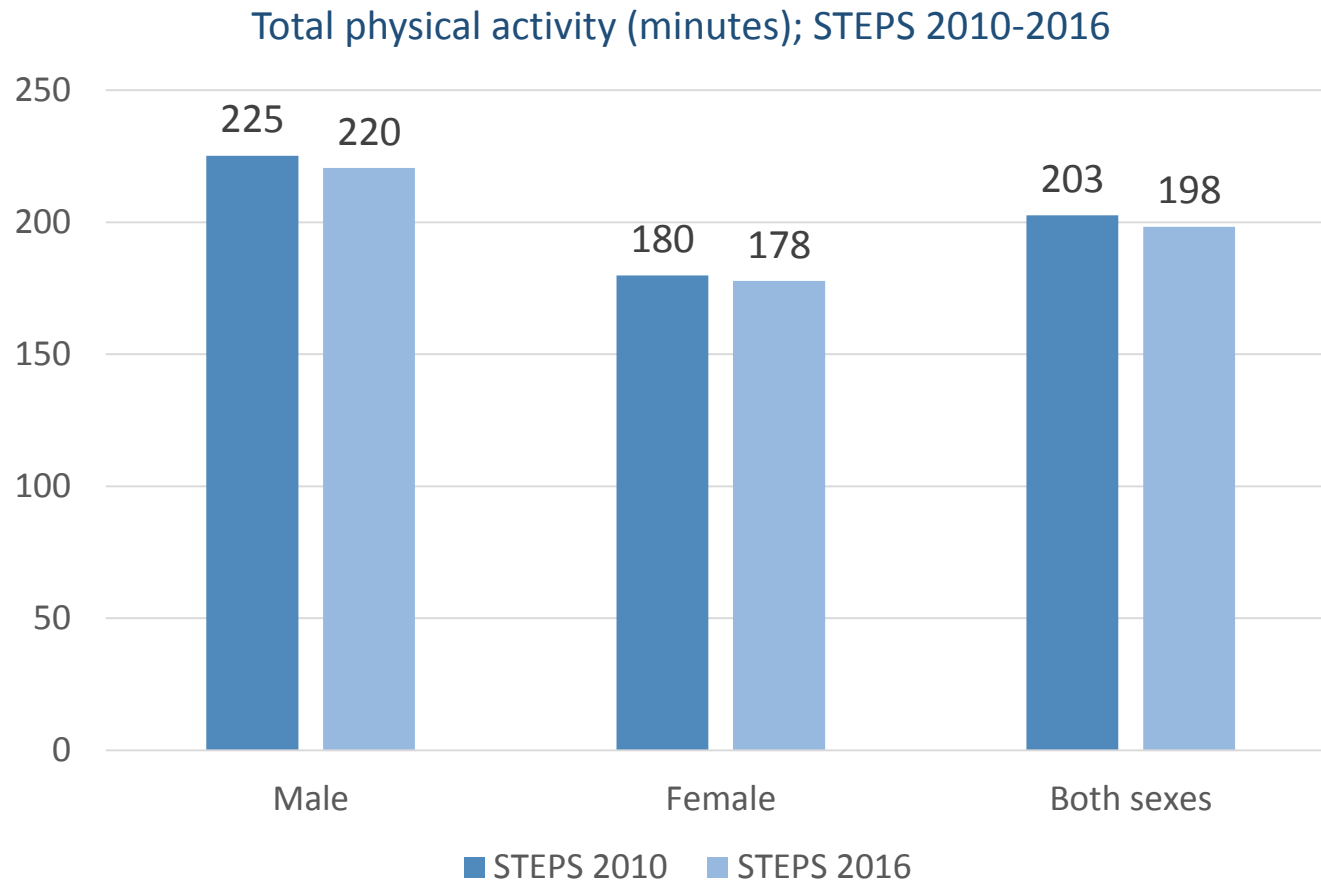### Total physical activity (minutes); STEPS 2010-2016



| | Male | Female | Both sexes |
|---|---|---|---|
| STEPS 2010 | 225 | 180 | 203 |
| STEPS 2016 | 220 | 178 | 198 |

## STEPS 2016

## Anthropometry

- Mean height in male - 173.8 cm; average male weight – 84.4 kg.

- Mean height in female is 161.2 cm; average female weight – 73.6 kg.

- Body Mass Index (Mean BMI - 28.1) (27.9 male and 28.3 female BMI); Body Mass Index increases with aging

- 64.6% of respondents are overweight or obese (MBI ≥25), 32.8% of respondents have normal weigh, 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)

- Waist-to-hip ratio – 1.0 among men, and 0.9 in women; both indexes are higher than the indices according to WHO definition of Obesity (male > 0.9 and female > 0.86)

# Overweight and obesity



Overweight and obesity, 18-64 y.; STEPS 2010-2016
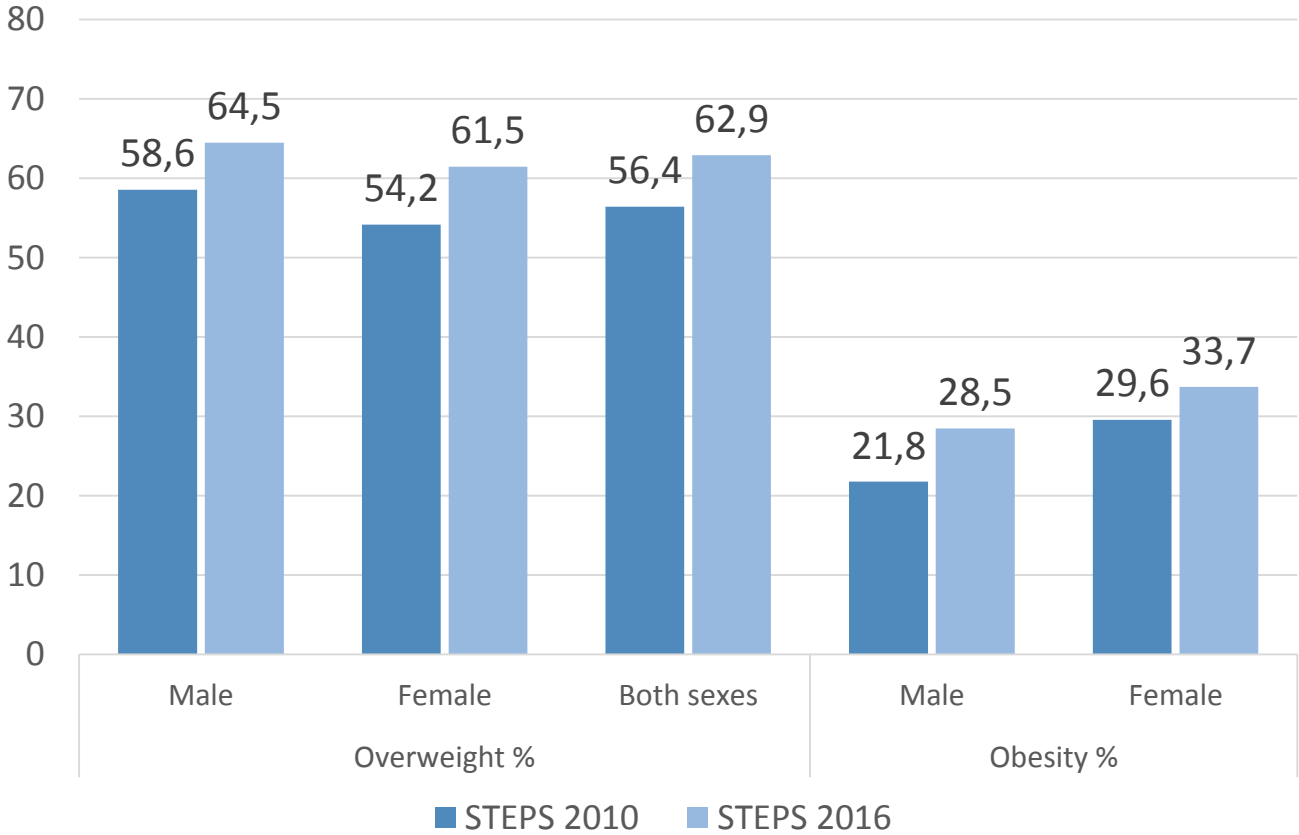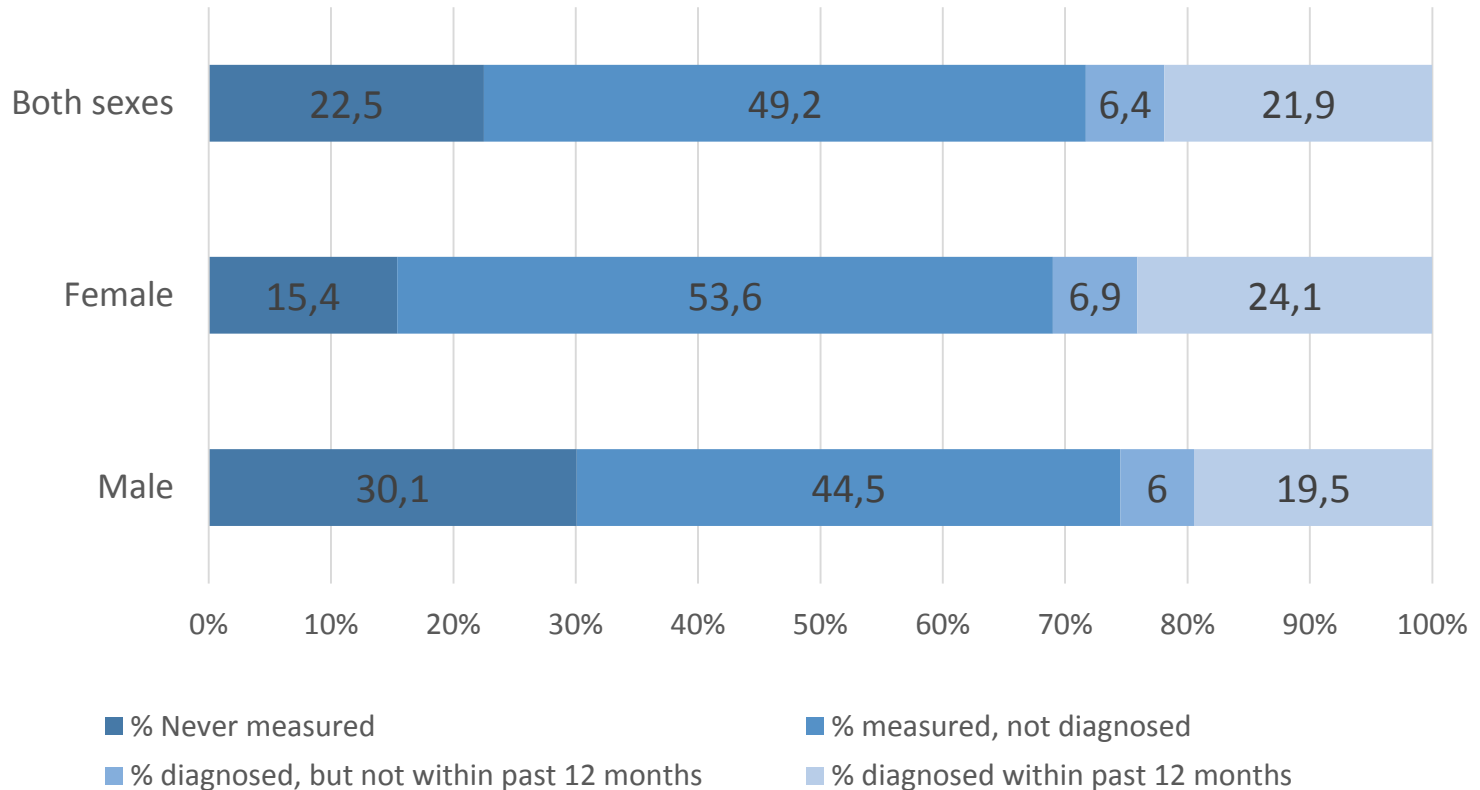
**STEPS 2016**

**Arterial Hypertension**

- 24.5% of respondents have never measured blood pressure by a doctor or other health worker

- 37.7% (male 38.6%, female 36.9%) have arterial hypertension ($\geq$140/100 mmHg)

- Prevalence of stage II hypertension ($\geq$160/100 mmHg) - 24.0% (male 22.8%, female 25.2%)

- Among those currently on medication for raised blood pressure 25.1% (male 28.7%, female 21.6%) has raised blood pressure

- Among those with raised blood pressure or currently on medication for raised blood pressure 16.4% (male-12.9% and female-19.7%) has normal blood pressure – controlled hypertension

- 28.2% were on medication but has raised blood pressure; 55.4% (male 64.2%, female 47.2%) was not on medication for raised blood pressure and also has high blood pressure

- Among those who last 2 weeks were taking medication for raised blood pressure, 30% were taking medication when the blood pressure raises and 3.2% - irregularly, when recalled

# Arterial Hypertension



Blood pressure measurement and diagnosis

**STEPS 2016**

Arterial Hypertension

antihypertensive tratment and blood pressure

Both sexes: 16,4 | 28,2 | 55,4
Female: 19,7 | 33,1 | 47,2
Male: 12,9 | 23 | 64,2

- % On medication and SBP<140 and DBP<90
- % On medication and SBP≥140 and/or DBP≥90
- % Not on medication and SBP≥140 and/or DBP≥90

# Arterial Hypertension

### Raised blood pressure (%): STEPS 2010-2016



| | Male | Female | Both sexes | Male | Female | Both sexes |
|---|---|---|---|---|---|---|
| STEPS 2010 | 37,1 | 29,8 | 33,4 | 30,0 | 16,4 | 23,4 |
| STEPS 2016 | 36,0 | 33,2 | 34,6 | 27,3 | 20,5 | 23,9 |

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

SBP ≥140 and/or DBP ≥ 90 mmHg, excluding those on medication for raised blood pressure

STEPS 2010    STEPS 2016

## Arterial Hypertension

- Mean systolic blood pressure – 129.4 mmHg (male 132.6, female 126.5)

- Mean diastolic blood pressure –  82.2 mmHg (male 83.0, female 81.4)

- Mean heart rate – 79.2 (male 79.3, female 79.1)

- 5% – have anamnesis of atrial fibrillation or heartbeat (arrhythmia); and 11.3% – varicose veins

  disease

- 5.5% - currently taking anticoagulants

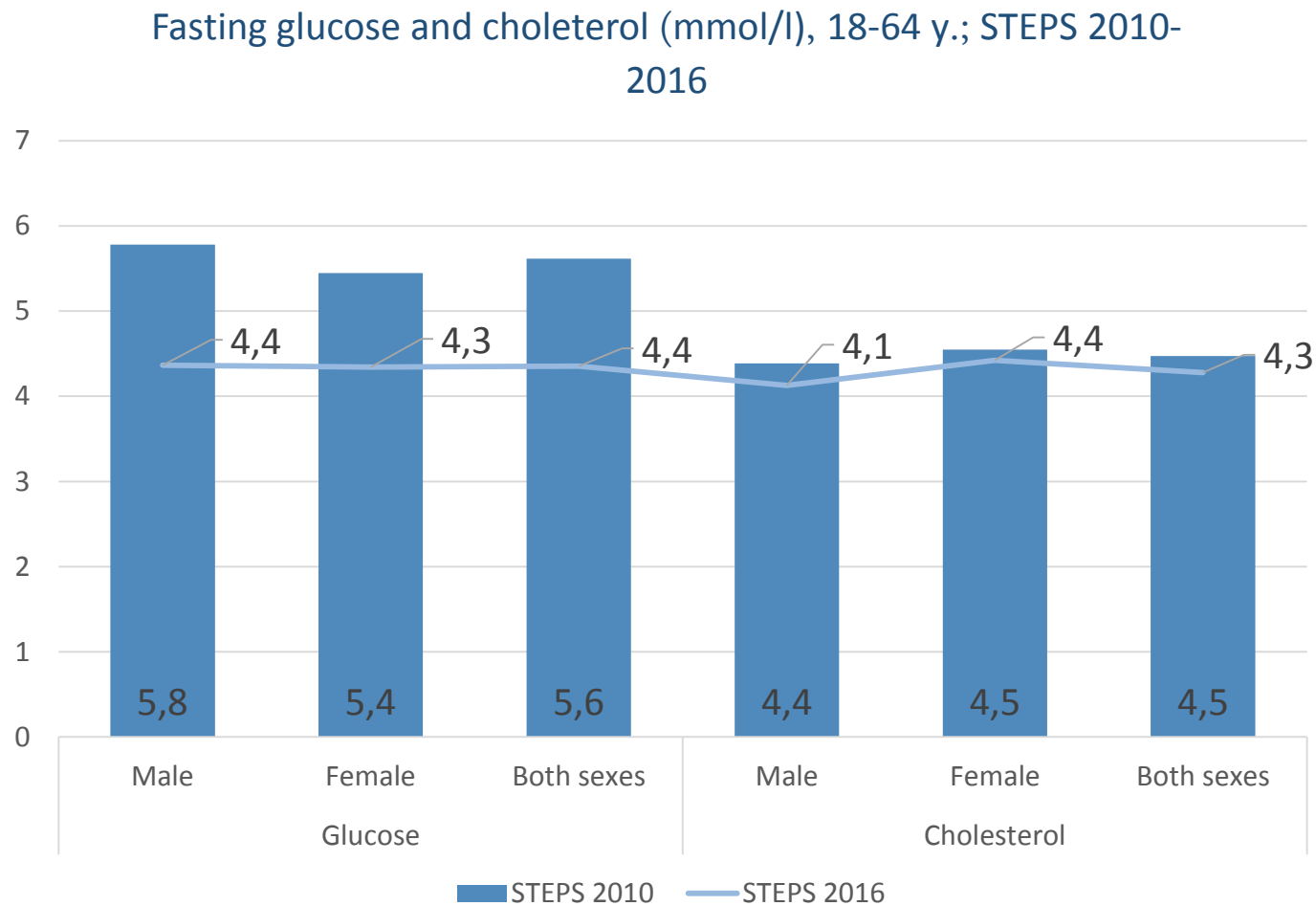- Mean intake of salt - 8.5 gr. (male 9.7 gr., female 7.4 gr.) per day

# STEPS 2016

## Glucose, Cholesterol

- 62.4% – have never measured blood glucose; 84.2% – cholesterol

- Mean fasting glucose - 4.4 mmol/l; Mean total cholesterol – 4.3 mmol/l; Mean high density lipoprotein (HDL) – 1 mmol/l

- 5.1% of respondents (5.7% female and 4.6 % male) have high blood glucose or are diagnosed with a diabetes

- Almost 60 % - on medication; Among those who take drugs, 21.9% of male and 14.3% of female respondents are insulin users; Persons on anti-diabetic Medication – 3.3%

- 27.7% has total cholesterol level ≥5.0 mmol/l or currently on medication for raised cholesterol

- 8.7% has total cholesterol level ≥6.2 mmol/l or currently on medication for raised cholesterol

- 76.1% of male – HDL <1.03 mmol/l

- 76.3% of female – HDL <1.29 mmol/l

**Glucose, Cholesterol**

Fasting glucose and choleterol (mmol/l), 18-64 y.; STEPS 2010-2016



Chart data:

| | Glucose | | | Cholesterol | | |
|---|---|---|---|---|---|---|
| | Male | Female | Both sexes | Male | Female | Both sexes |
| STEPS 2010 | 5,8 | 5,4 | 5,6 | 4,4 | 4,5 | 4,5 |
| STEPS 2016 | 4,4 | 4,3 | 4,4 | 4,1 | 4,4 | 4,3 |

STEPS 2010 STEPS 2016

# STEPS 2016

## 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; 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

## Mental Health/ Suicide

- 1.5% – seriously considered attempting suicide during the past 12 months

- 16% – made a plan about how to attempt suicide during the past 12 months

- 0.9% – have ever attempted suicide

## Violence

0.6% – were involved in a violent incident during the past 12 months at least once

33.1% – Violent incidence with weapon (other than a firearm)

relationship with a person who caused the injury – intimate partner in female and stranger in male

## STEPS 2016

**Injury**

- 2.7% – involved in a road traffic accidents during the past 12 months

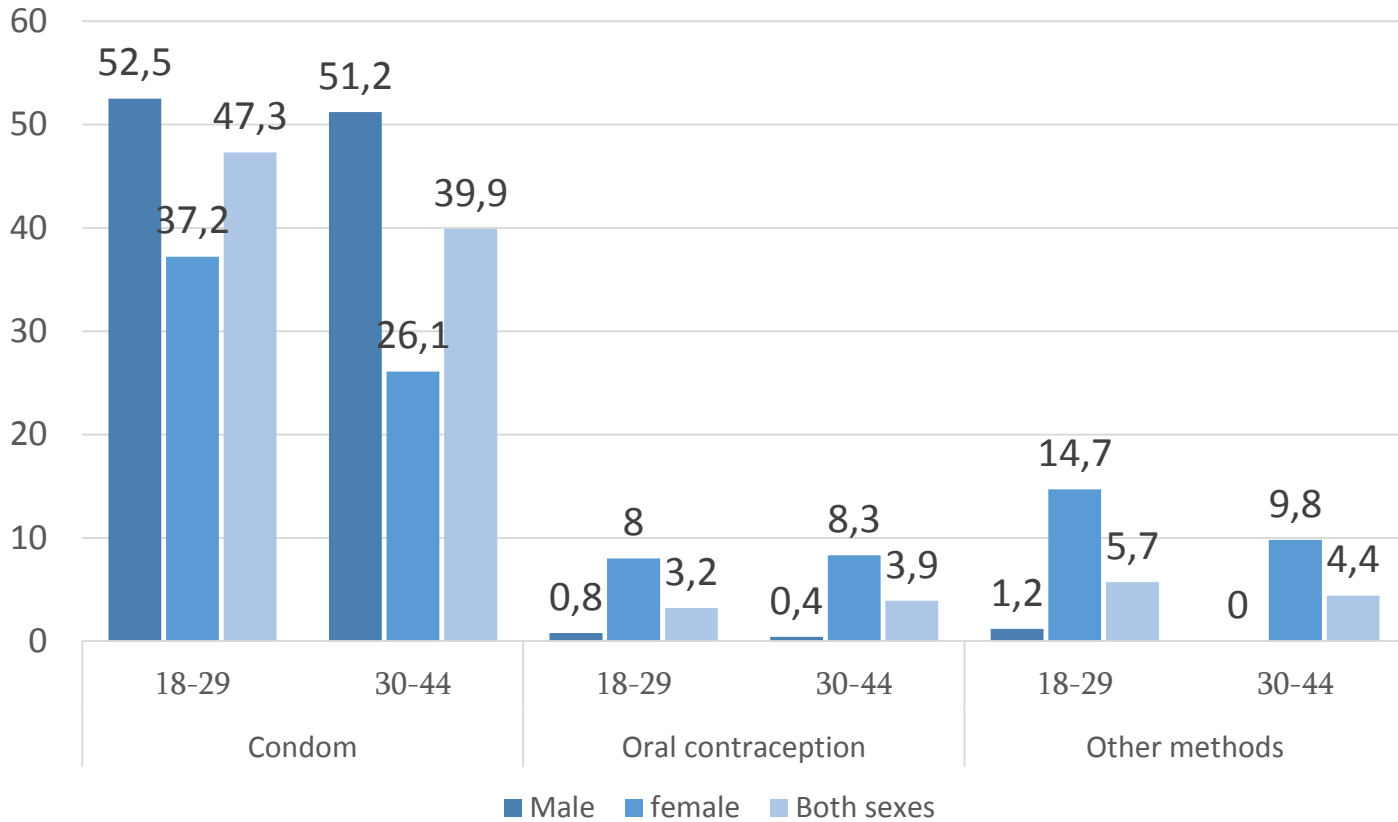- Cause of trauma other than road traffic crashes -fall (65.4%).

**Sexual Health**

- 91.1% - have had a sexual intercourse during a lifetime (male 96.7%, female 86.2%)

- Average Age index of first sexual intercourse – 19.8 year (male 17.9, female 21.5); First sexual intercourse before age of 15 – 3.4% (male 6.3%, female 0.9%)

- 25% – the past sexual intercourse during the past 1 week/past 1 moth

- 76.9% – not reporting any use of protection during the past sexual intercourse

Methods of contraception (%)
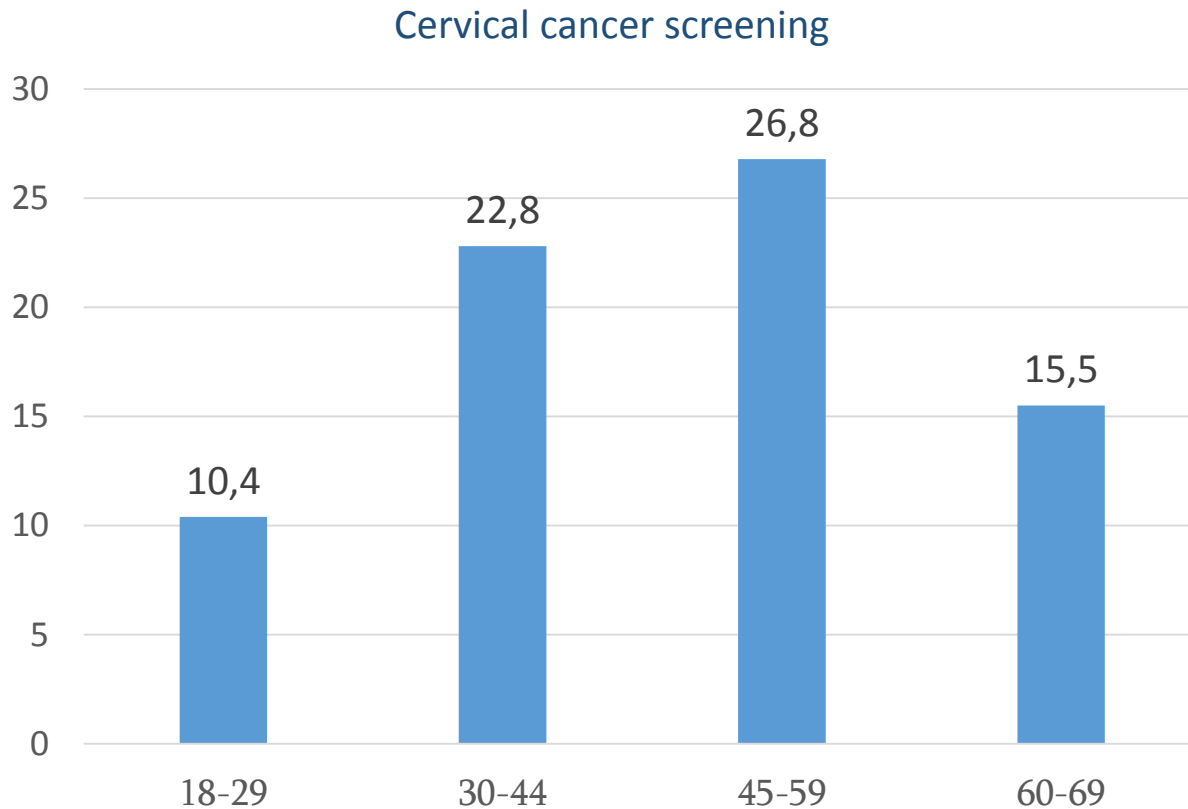
| | Condom | | Oral contraception | | Other methods | |
|---|---|---|---|---|---|---|
| | 18-29 | 30-44 | 18-29 | 30-44 | 18-29 | 30-44 |
| Male | 52,5 | 51,2 | 0,8 | 0,4 | 1,2 | 0 |
| female | 37,2 | 26,1 | 8 | 8,3 | 14,7 | 9,8 |
| Both sexes | 47,3 | 39,9 | 3,2 | 3,9 | 5,7 | 4,4 |

## 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%

### Cervical cancer screening



| Age group | Value |
|-----------|-------|
| 18-29 | 10,4 |
| 30-44 | 22,8 |
| 45-59 | 26,8 |
| 60-69 | 15,5 |

# STEPS 2016

## Risk Factors

**10-year cardiovascular disease (CVD) risk**

- In  28.8% of respondents aged 40-69 years having a 10-year cardiovascular disease (CVD) risk ≥30% or existing CVD

- 28% of them receiving drug therapy and counseling to prevent heart attacks and strokes
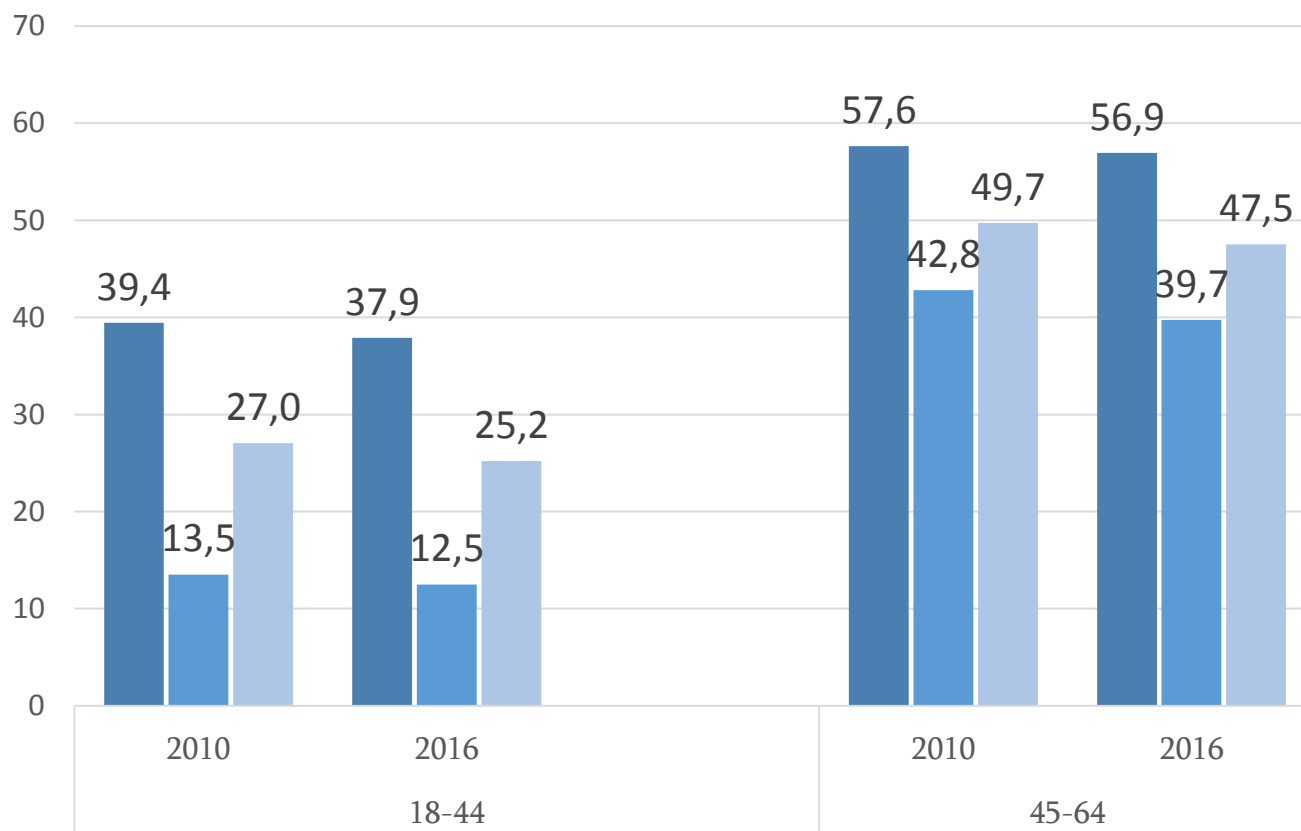
**Combined Risk Factors**

- 92.4% of respondents (male 94.3%, female 90.7%) have one or more risk-factors

- 36.1% of respondents (male 45.4%, female 27.6%) have 3 and more risk-factors

# Risk Factors



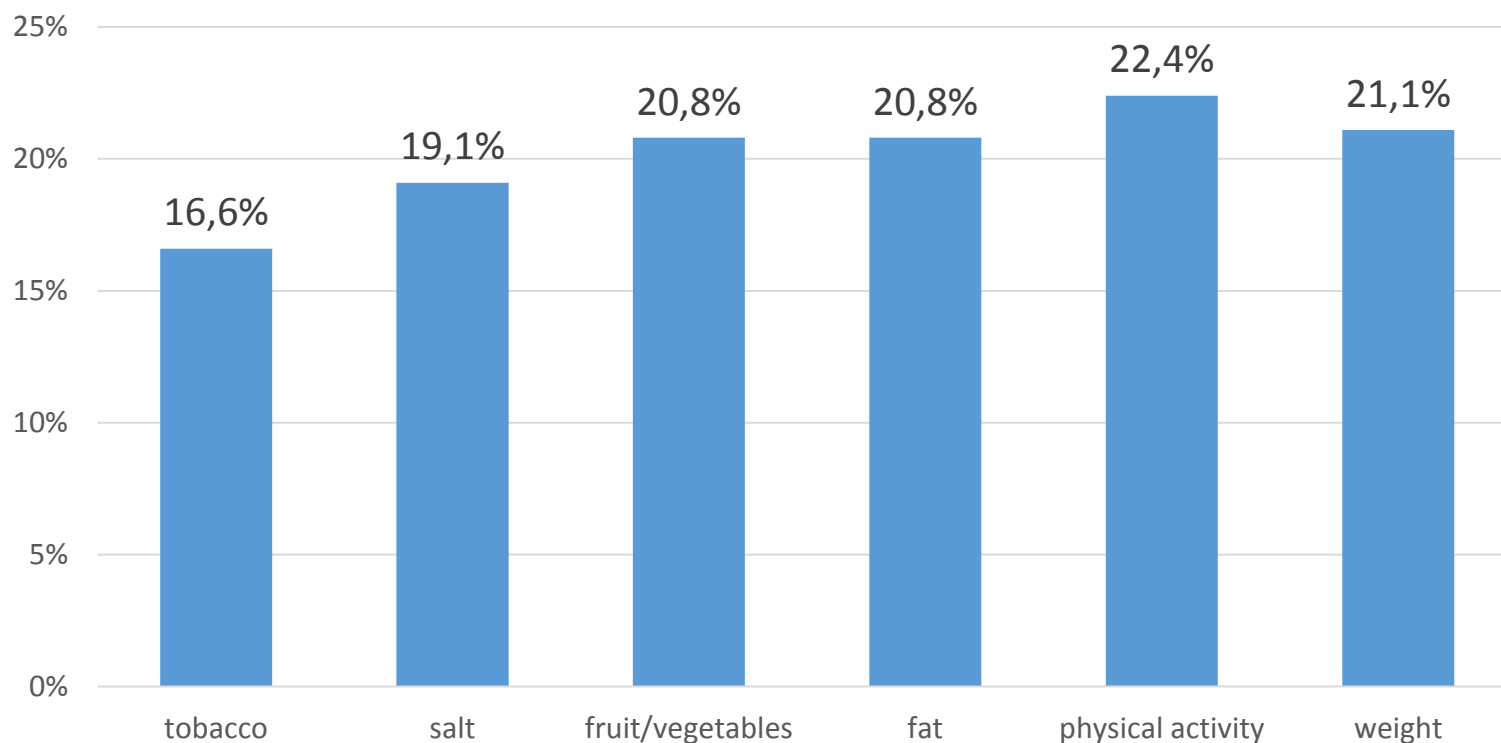3-5 CVD risk-factors in 18-44 and 45-64age groups (%); STEPS 2010-2016

# STEPS 2016
## Visits to doctor

- 46.3% visited doctor or medical personnel during last 12 months

- The reason of last visit to doctor: specific health problems -75%; preventive health checkup – 18.2%.

### Recommendations from health professionals (%)



| | tobacco | salt | fruit/vegetables | fat | physical activity | weight |
|---|---|---|---|---|---|---|
| | 16,6% | 19,1% | 20,8% | 20,8% | 22,4% | 21,1% |

**STEPS 2016**

**Recommendations**

- STEPS survey results show the importance of developing the effective system for NCDs prevention and control

- It is essential to use the survey evidence for awareness rising, health promotion development and reducing NCD risks

- It is important to develop a plan and implement effective interventions directed to reducing the prevalence and incidence of NCDs, considering the "best buy" approaches and solutions proved to be successful in other low-income countries worldwide.

**Recommendations**

- It is reasonable to disseminate survey results to all stakeholders and media sources to increase the awareness of the population regarding NCDs risks and health promotion

- It is desirable to disseminate the Survey results among the Insurance Companies as well as other governmental and non-governmental, national and international health stakeholders in the country to undertake an in-depth analysis, oriented at win-win solutions, in view of increasing capacities/coverage offered by the State Health Insurance Policy with regards to NCDs management

- It is essential to elaborate Information, Education and Communication (IEC) materials to ensure accessibility of health-related information

# Recommendations

- it is important to strengthen capacities of PHC personnel and to enable them to facilitate awareness raising on NCD prevention and control, on health promotion issues;  in order to reducng NCD-related risks. It is very important of ensure accessibility of regular preventive screening check-ups and to essential medications; especially for hypertension.

- It is reasonable to develop and strengthen the mechanism for monitoring and surveillance of health conditions

- It is important to review and change several policy documents

**Let's start a nationwide public movement to reduce health and**

**social harm related to non-communicable diseases**

**for Healthy Georgia**