



Risk factors for noncommunicable diseases in Ukraine in 2019

Summary of results from the WHO STEPS
survey and comparison with selected countries

UKRAINE

Risk factors for noncommunicable diseases – results of the 2019 STEPS survey



Population **44.4 M**
(United Nations Population Division, 2019)



46.3% 53.7%

Urban population **69.5%**
(United Nations Population Division, 2018)



Per capita Gross National
Income: **US\$9039**
(World Bank, 2018)



Life expectancy at birth

(United Nations Population Division, 2018)



66.7 years



76.7 years

Proportional mortality by noncommunicable disease **91% of all deaths**
(WHO, 2016)



cardiovascular
diseases **63%**



cancers **15%**



chronic respiratory
diseases **2%**



diabetes **0%**



other noncommunicable
diseases **10%**

TOBACCO

Current smokers

33.9%



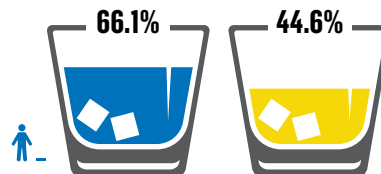
50.3%

16.7%

ALCOHOL

Current drinkers of alcohol

55.6%



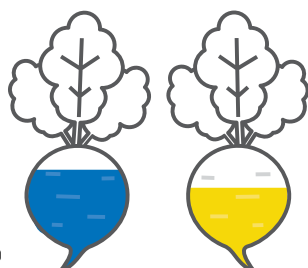
66.1%

44.6%

FRUITS AND VEGETABLES

Low intake of fruits and vegetables

66.4%



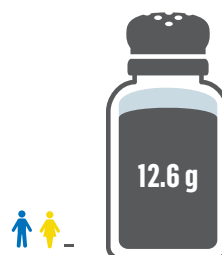
73.2%

59.4%

SALT

Salt intake of 5 g or more per day

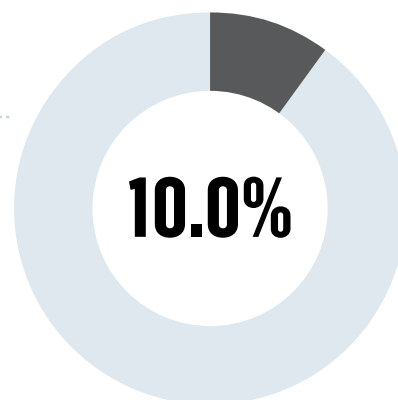
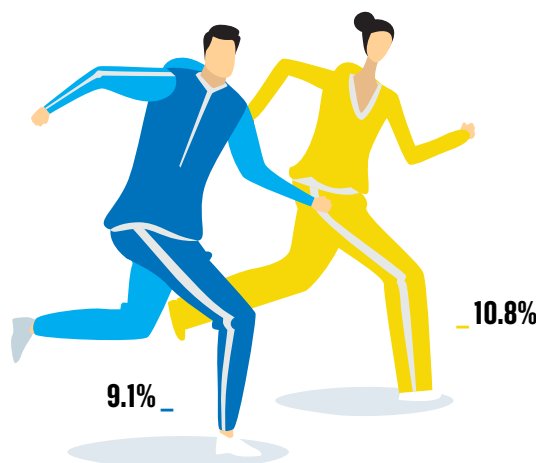
86.9%



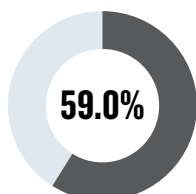
12.6 g

PHYSICAL ACTIVITY

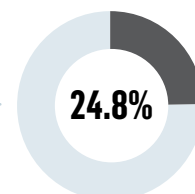
Insufficient physical activity



OVERWEIGHT

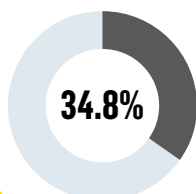
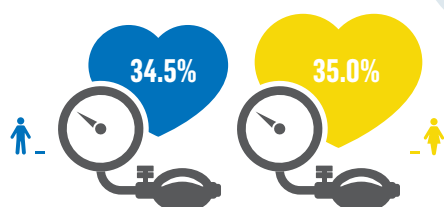


OBESITY



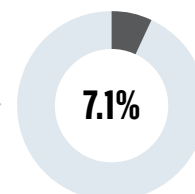
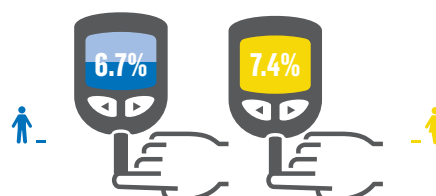
BLOOD PRESSURE

Raised blood pressure



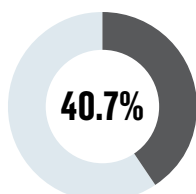
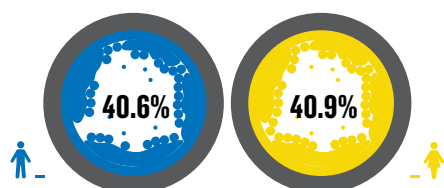
BLOOD GLUCOSE

Raised fasting plasma glucose



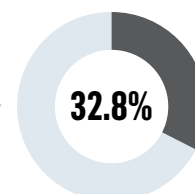
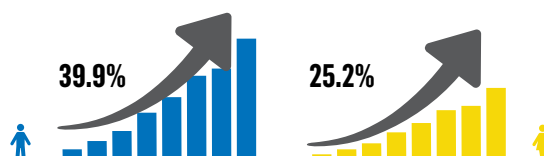
CHOLESTEROL

Raised total cholesterol



RISK FACTORS

Three or more noncommunicable disease risk factors



Technical notes: The WHO STEPwise approach to surveillance (STEPS) is a standardized method for collecting, analysing and disseminating comprehensive data on noncommunicable diseases (NCDs), their risk factors and the responses of health-care systems. Data are collected on a wide range of behavioural and biological risk factors as well as on the individual's medical history of NCDs. In 2019, 4409 adults aged 18–69 years were interviewed in Ukraine (response rate of 57%) using a standardized questionnaire and several physical and biochemical measurements were performed.

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> Background

The WHO STEPwise approach to surveillance (STEPS) is a standardized method for collecting, analysing and disseminating comprehensive data on noncommunicable diseases (NCDs), their risk factors, and the responses of health-care systems.¹ Data are collected on a wide range of behavioural and biological risk factors, as well as on individuals' medical history of NCDs. Data on behavioural risk factors include tobacco and alcohol use, diet, and physical activity. Data on biological risk factors include overweight and obesity, blood pressure, blood glucose, and blood lipid levels. Responses of health-care systems include measures and/or treatment for risk factors such as visits to physicians, cardiometabolic risk assessment, counselling, and treatments for reducing exposure to risk factors. The survey is designed to be repeated approximately every five years in each country to allow assessment of trends.

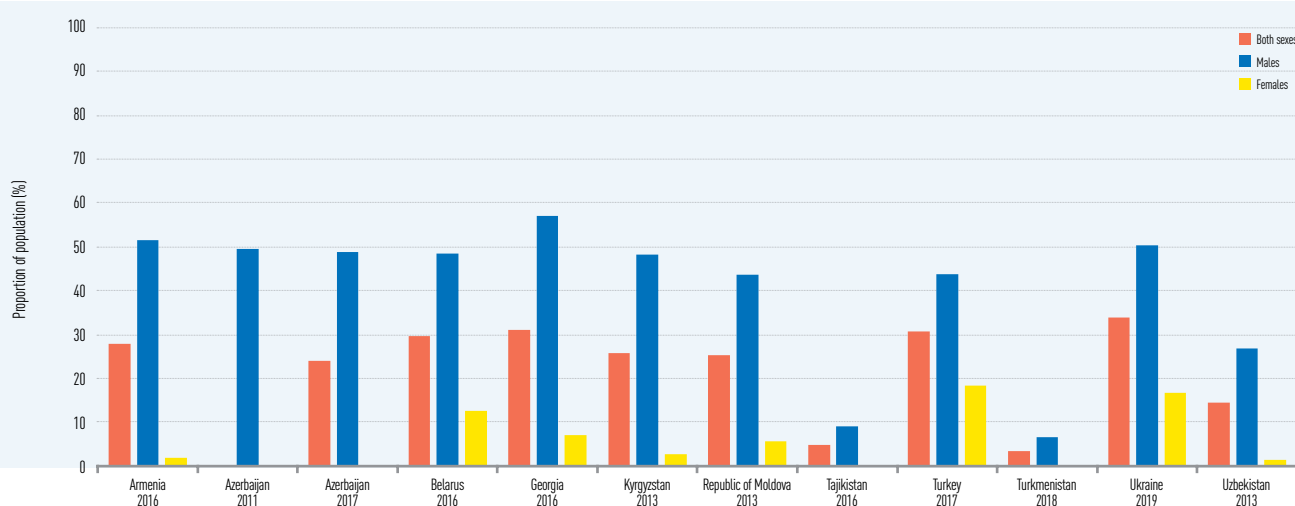
The first STEPS survey in Ukraine was conducted between July and November 2019. A random sample of the population, representative of the country as a whole, was invited to participate in the survey. A total of 7700 adults aged 18–69 years was included in the sample, and the response rate was 57% (4409 respondents). Participants were interviewed about demographic and behavioural factors using a standardized questionnaire, and several physical and biochemical measurements were performed.

The study revealed very high prevalence of NCDs and their behavioural and biological risk factors in Ukraine.² This document summarizes the findings of the STEPS survey in Ukraine and compares them with the results of STEPS surveys carried out in other countries in the WHO European Region, as well as with selected other surveys in Ukraine. Different iterations of the STEPS survey use similar methodologies, but these methodologies have evolved over time. Other studies previously conducted in Ukraine, such as the Global Adult Tobacco Survey (GATS) and Health Index, had different methods and age ranges.^{3,4,5} Their results, therefore, are not necessarily directly comparable, so any comparisons drawn here should be treated with caution.

> Behavioural risk factors

In 2019, 33.9% of the population aged 18–69 years in Ukraine were current tobacco smokers (Fig. 1). Half of all men (50.3%) and every sixth woman (16.7%) reported that they had smoked in the previous 30 days. These are among the highest values reported in countries with recent STEPS data, for both men and women, and indicate an increase compared to previous surveys in Ukraine. Novel tobacco products such as heated tobacco products and electronic cigarettes were increasingly used, especially by younger population groups, as well as hookah, which was used by 18.7% of the population aged 18–29 years. Every fifth current smoker (21%) had tried unsuccessfully to stop smoking; the proportion was particularly high among women aged 18–29 years, nearly half of whom (48.8%) had made an unsuccessful attempt to stop smoking.

Fig. 1. Proportion of adults aged 18–69 years who had smoked tobacco in the previous 30 days (current smokers) in Ukraine and selected countries with recent STEPS survey data



Alcohol consumption was frequent and levels consumed were high in Ukraine. Two thirds of men and nearly half of women had consumed alcohol in the previous 30 days (Fig. 2) – among the highest values reported in countries with recent STEPS data, for both men and women. Every fifth person (19.7%) had consumed six or more drinks on a single drinking occasion (heavy episodic drinking), and the proportion was three times higher among men (29.5%) than among women (9.4%). Symptoms associated with alcohol dependence were noticeable among people who had consumed alcohol over the previous 12 months and were three to four times more frequent among men than among women. Every eighth person (12.7%) reported not being able to stop drinking once they had started,

Fig. 2. Proportion of adults aged 18–69 years who had consumed alcohol in the previous 30 days (current drinkers) in Ukraine and selected countries with recent STEPS survey data

every tenth (10.8%) reported failing to do what was normally expected of them the next day, and every eighth (13.2%) drank in the morning to ease a hangover. In line with these findings, high prevalence of alcohol consumption among adolescents had already been determined by the recent HBSC and ESPAD surveys and is a matter of concern.^{6,7}

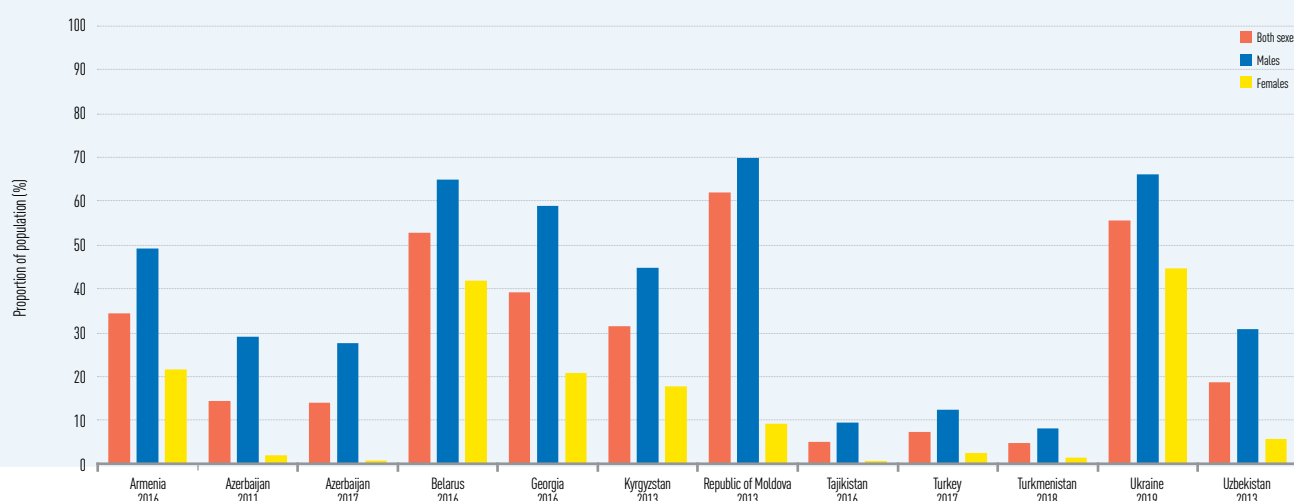
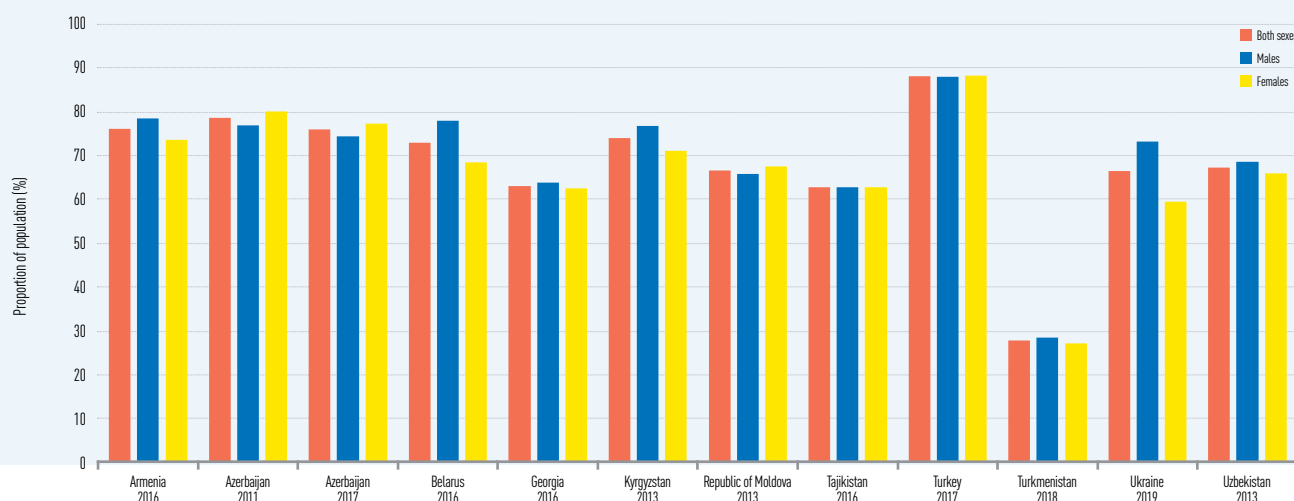


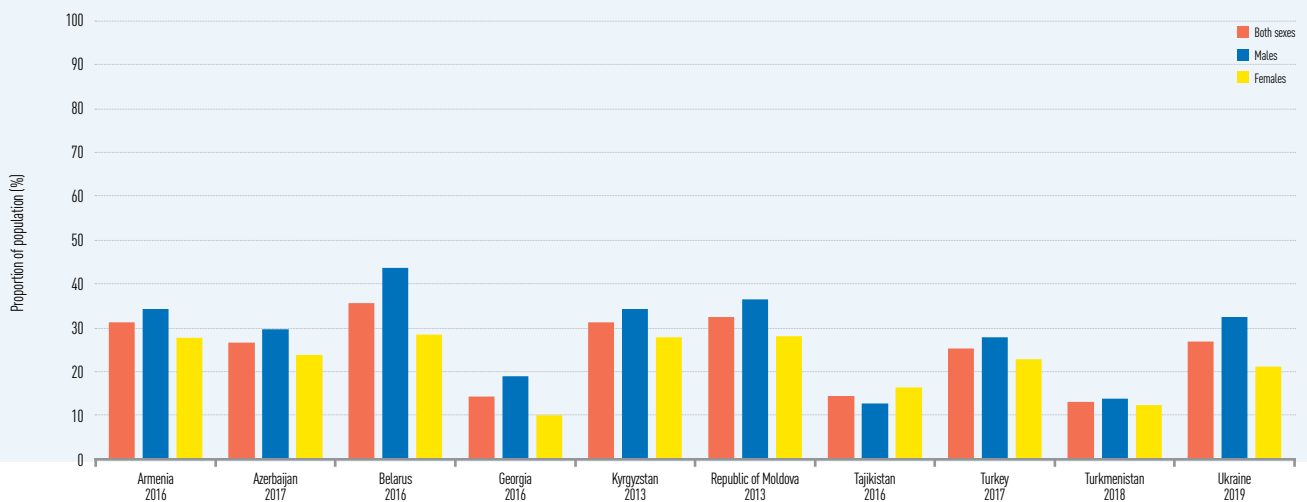
Fig. 3. Proportion of adults aged 18–69 years consuming on average less than five standard servings of fruits and vegetables daily in Ukraine and selected countries with recent STEPS survey data

WHO recommends daily consumption of at least five servings (equivalent to 400 g) of fruits and vegetables. In Ukraine, the proportion of the population who did not meet this recommendation in 2019 was 66.4%: 73.2% of males and 59.4% of females (Fig. 3). These values are broadly in line with other countries that have recently conducted STEPS surveys.



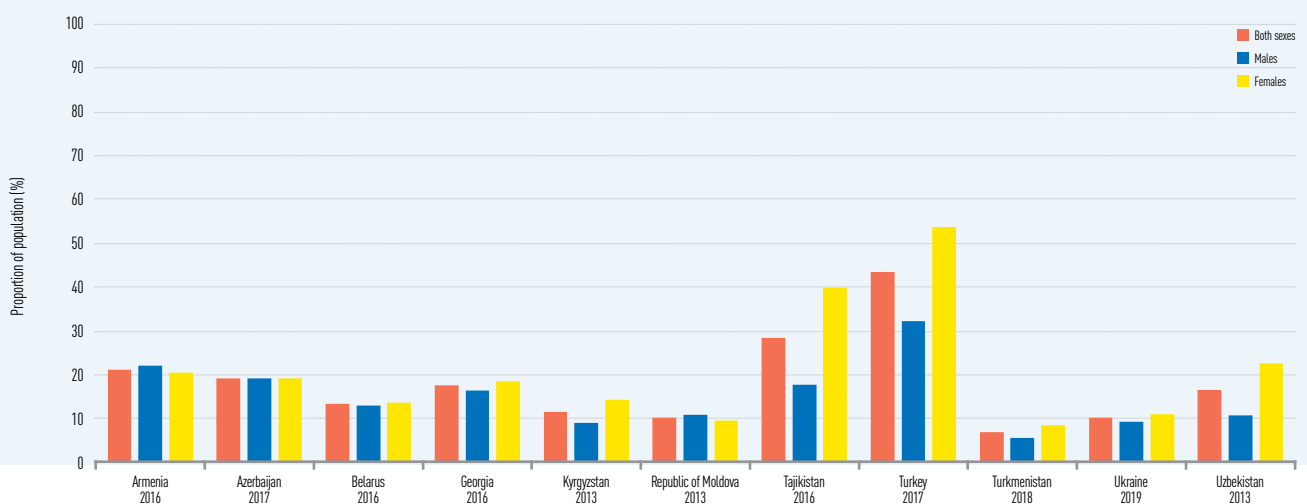
Nearly half the population (44.9%) always or often added salt or salty sauce to their food before or during eating; two thirds (66.7%) always or often added salt to food when cooking at home; and a quarter (26.9%) always or often ate processed food with a high salt content (Fig. 4). Average salt intake, determined by the gold-standard 24-hour urinary excretion method, was 12.6 g per day – more than twice the maximum level of 5 g per day recommended by WHO. Only 13% of the population had a salt intake less than 5 g per day.

Fig. 4. Proportion of adults aged 18–69 years always or often eating processed foods high in salt in Ukraine and selected countries with recent STEPS survey data



For adults, WHO recommends at least 150 minutes of moderate-intensity aerobic physical activity weekly, in addition to muscle-strengthening exercise twice weekly. Approximately 10.0% of the population of Ukraine did not meet this recommendation in 2019 (Fig. 5). This is a positive finding, as it is one of the lowest prevalence rates among countries with recent STEPS survey data.

Fig. 5. Proportion of adults aged 18–69 years with insufficient levels of physical activity in Ukraine and selected countries with recent STEPS survey data



> Biological risk factors

Fig. 6. Proportion of adults aged 18–69 years with overweight in Ukraine and selected countries with recent STEPS survey data

The prevalence of overweight (defined as a body mass index greater than or equal to 25 kg/m²) in Ukraine in 2019 was 59.0%, which is at the higher end among eastern European and central Asian countries (Fig. 6).

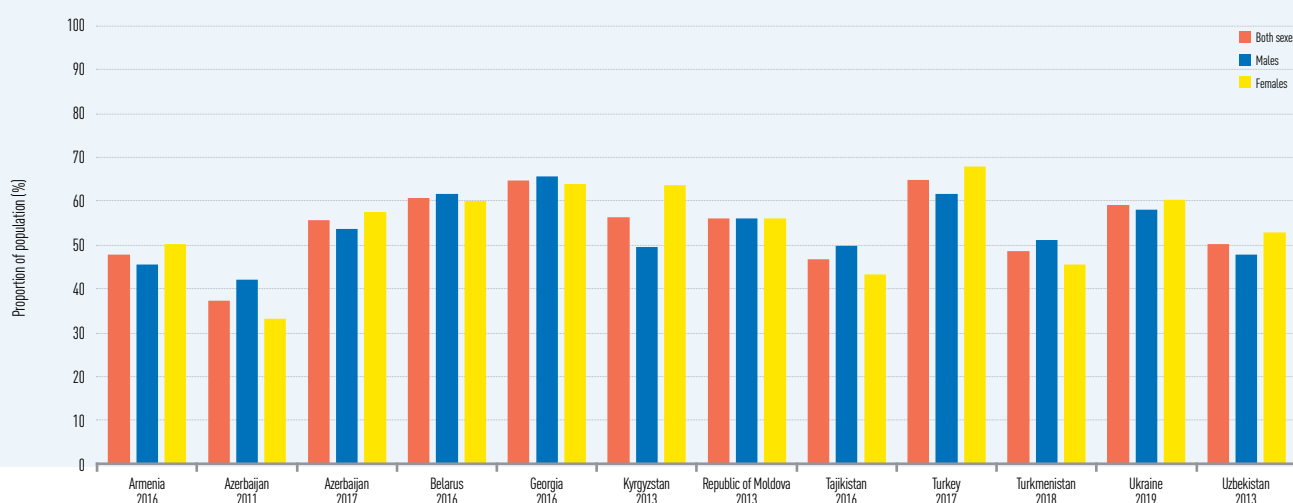
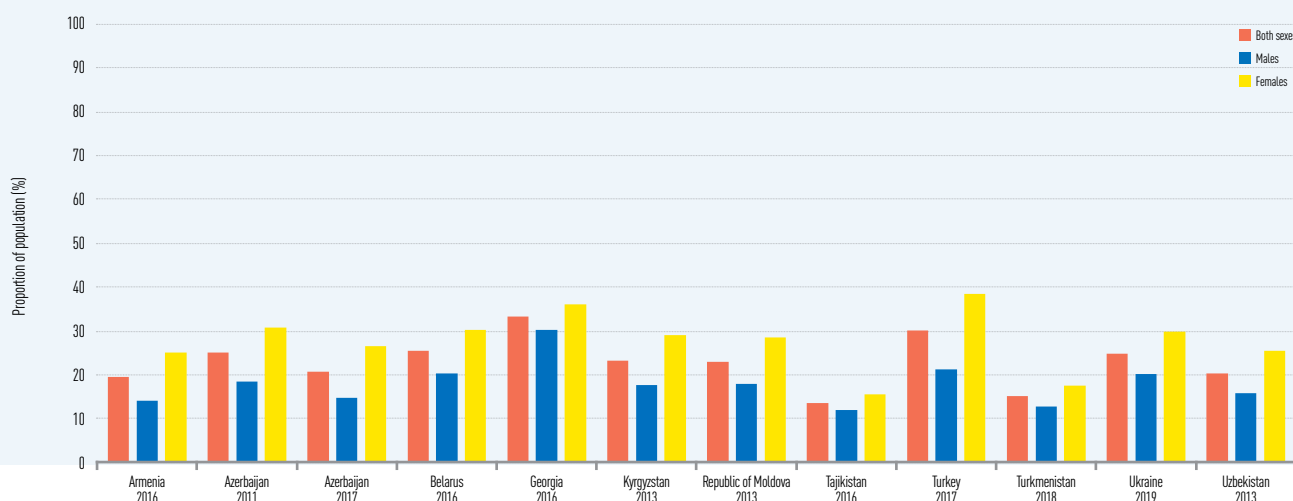


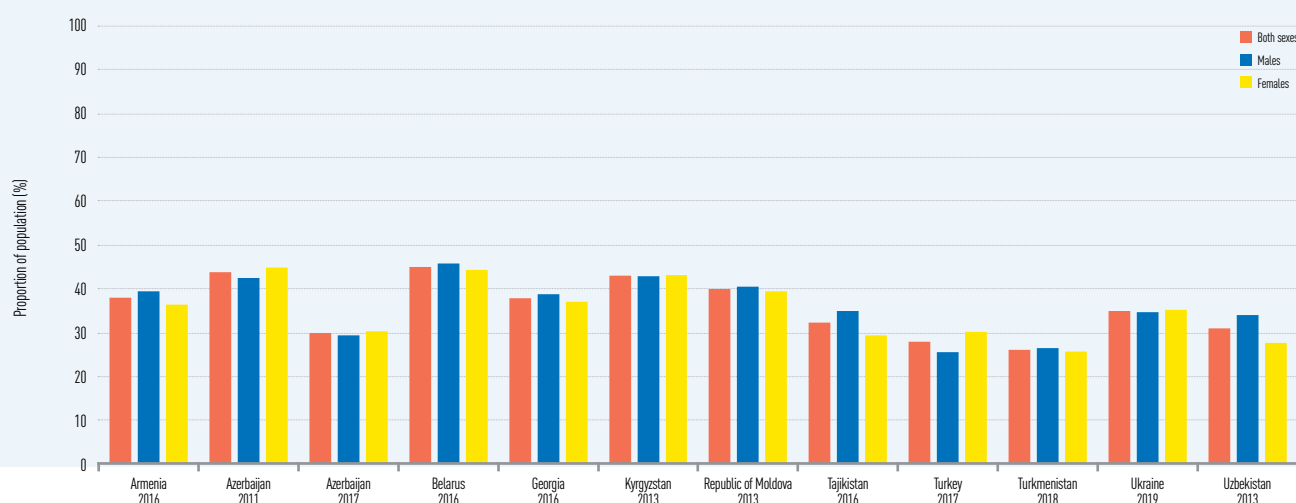
Fig. 7. Proportion of adults aged 18–69 years with obesity in Ukraine and selected countries with recent STEPS survey data

The prevalence of obesity (defined as a body mass index greater than or equal to 30 kg/m²) in Ukraine in 2019 was 24.8% – in other words, nearly a quarter of the population was obese (Fig. 7). Women were more frequently obese than men (29.8% versus 20.1%).



Raised blood pressure (defined as systolic blood pressure (SBP) $\geq$ 140 mmHg and/or diastolic blood pressure (DBP) $\geq$ 90 mmHg, or being under medication for raised blood pressure) was found in 34.8% of the Ukrainian population in 2019; the rates were similar in men (34.5%) and women (35.0%) (Fig. 8). Of these, a third (33.6%) had not been previously diagnosed; 17.6% had been diagnosed but were not taking medication; 34.4% were on medication but their blood pressure was not controlled (SBP $\geq$ 140 mmHg and/or DBP $\geq$ 90 mmHg); and only 14.4% were on medication and had controlled blood pressure levels (SBP $<$ 140 mmHg and DBP $<$ 90 mmHg).

Fig. 8. Proportion of adults aged 18–69 years with raised blood pressure in Ukraine and selected countries with recent STEPS survey data



Raised fasting blood glucose (defined as plasma venous value $\geq$ 7.0 mmol/L [126 mg/dL], or under medication for raised blood glucose) was found in 7.1% of the Ukrainian population: 6.7% of men and 7.4% of women (Fig. 9). The observed levels put Ukraine in the middle rank of countries that had recently conducted STEPS surveys. Nearly half of these people (3.8% of the overall population) had not previously been diagnosed with diabetes. In addition,

Fig. 9. Proportion of adults aged 18–69 years with raised fasting blood glucose in Ukraine and selected countries with recent STEPS survey data

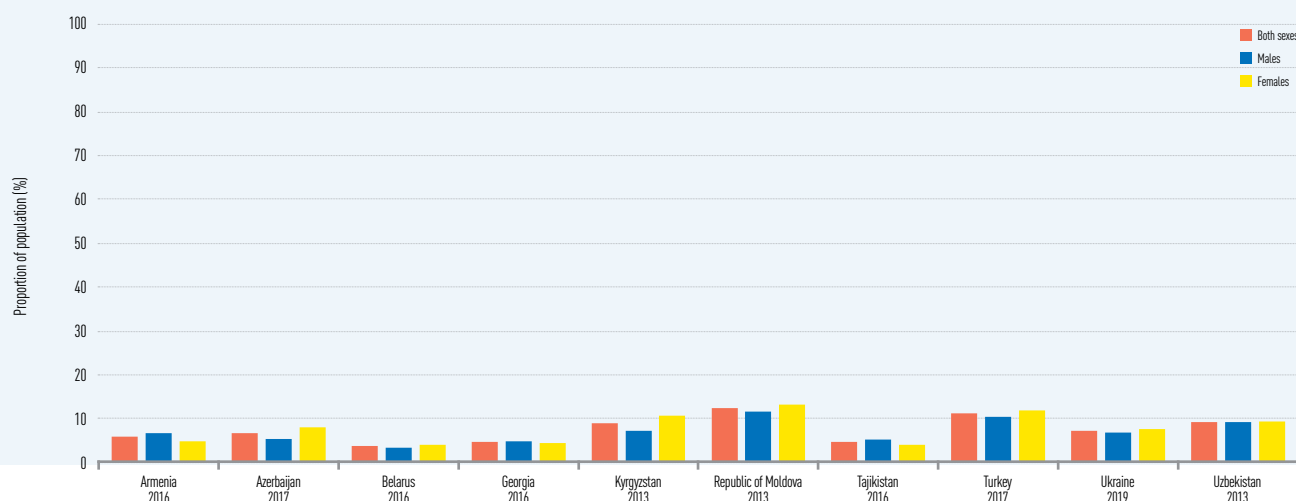
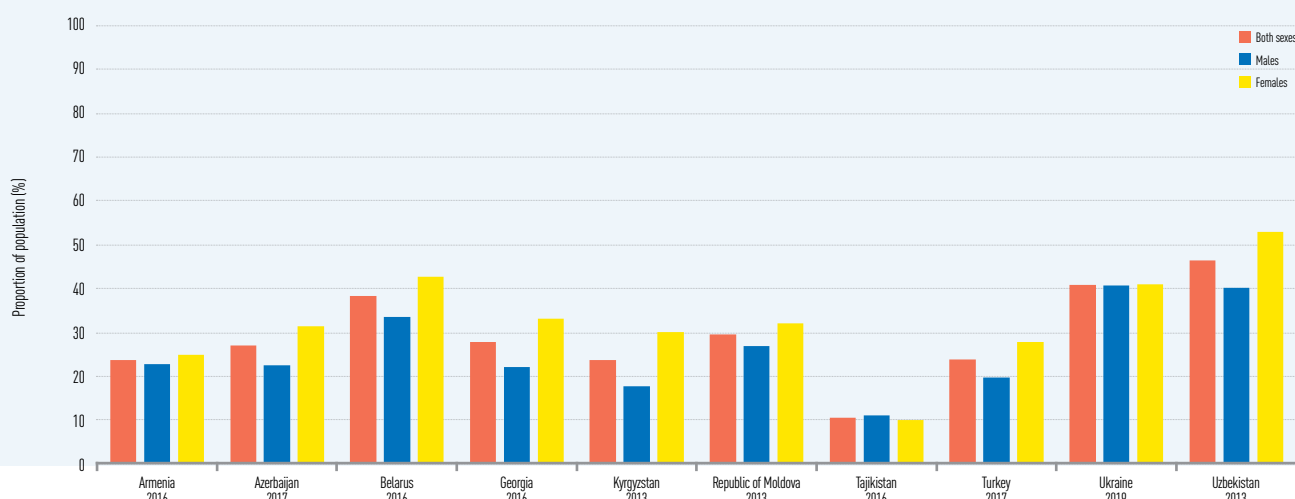


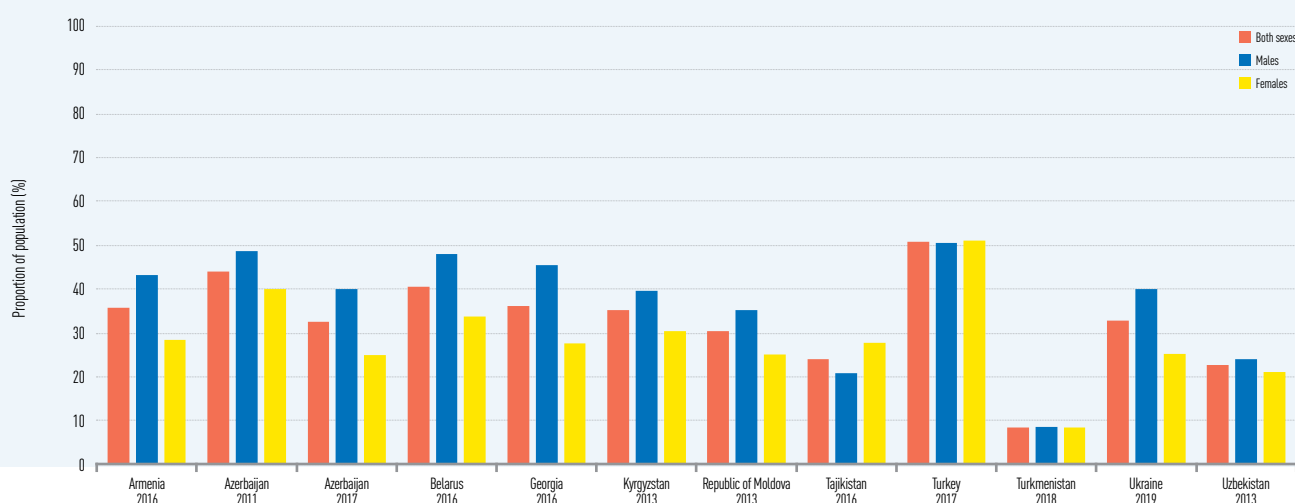
Fig. 10. Proportion of adults aged 18–69 years with raised total cholesterol in Ukraine and selected countries with recent STEPS survey data

40.7% of the population had total blood cholesterol levels ≥ 5.0 mmol/L or were currently on medication for raised cholesterol – one of the highest values among countries with recent STEPS survey data (Fig. 10).



For the purpose of exploring combined risk factors for NCDs, responses were grouped according to the presence of five major risk factors: (1) current daily smoker; (2) less than five servings of fruits and vegetables per day; (3) insufficient physical activity; (4) overweight or obesity; and (5) raised blood pressure. Almost one third (32.8%) of the population in Ukraine had a combination of 3–5 risk factors (Fig. 11). Men presented higher values than women (39.9% versus 25.2%). In addition, nearly a quarter (23.4%) of the population aged 40–69 years had a 30% or higher 10-year cardiometabolic risk of suffering a cardiovascular disease (CVD) event such as stroke and myocardial infarction. However, little more than one third (36.6%) of these high-risk individuals were receiving medication and counselling for CVD prevention.

Fig. 11. Proportion of adults aged 18–69 years with three or more NCD risk factors in Ukraine and selected countries with recent STEPS survey data





Optional modules: depressive symptoms, violence and injury, cervical cancer screening

Every eighth adult (12.4%) in Ukraine reported symptoms consistent with a clinical diagnosis of depression. However, only one in four people with probable depression (3.0% of the total population) had been told by a doctor or health-care professional that they had such a diagnosis. Only 0.4% of the population had undergone treatment, either with antidepressant medication or psychological therapy – equivalent to a treatment coverage rate of only 3.2% of probable cases of depression.

Adherence to road safety regulations was low in Ukraine. Half of those who had used a car in the previous 30 days did not always use a seat belt, reported that the driver was speeding, or used equipment such as mobile phones or tablets while driving. Helmet usage was very low: 82.2% of motorcycle or motor scooter drivers and passengers, and 95% of bicycle users, did not always use a helmet. Over the previous 12 months, 7% of the population had been involved in a road crash as driver, passenger, pedestrian or cyclist, and just over a third (35.4%) of these had injuries that required medical attention. In addition, 6.9% of the population had an unintentional injury caused by something other than a road crash that required medical attention, with falls being the most common preventable cause of such injuries. Almost half of respondents (44.1%) were physically abused in childhood. Furthermore, 2.1% of women and 0.8% of men were sexually abused in childhood; 3.2% of women and 0.9% of men as adults.

Just over half of all women (53.1%) had undergone screening for cervical cancer on at least one occasion in their life. Among women who had received abnormal/positive, suspected cancer or inconclusive results, the large majority (91.4%) received treatment to their cervix. Of the 46.9% of women who had not had a cervical cancer test, the reasons for not having a test were as follows: 48.7% did not have sufficient knowledge of the procedure (how and/or where to get a test); 7.8% mentioned embarrassment (fear of the visit being disclosed, social stigma); 26.5% did not have time to have a test; 7.8% said that the clinic was too far away; and 9.2% gave fear as the reason. Less than half (44.3%) of women had ever undergone a breast cancer test. Among women who had undergone a breast cancer test, 99.1% had a clinical breast examination and 64% mammography.

> Conclusion

As a result of conducting a STEPS survey and thereby determining the prevalence of NCD risk factors in Ukraine, reliable and internationally comparable data are now available to evaluate trends, set priorities, and plan necessary interventions and actions to ingrain healthy attitudes in the country's people over the coming years. By conducting the STEPS survey, Ukraine also fulfilled an important international commitment made at the Second United Nations High-level Meeting on NCDs in 2014.

Overall, levels of tobacco use and alcohol consumption were significantly higher among men than women, and were also a matter of concern among young people. Other lifestyle risk factors, such as insufficient intake of fruits and vegetables and high intake of processed foods high in salt, were pronounced in both men and women, but especially so among men. Levels of physical activity seemed to be relatively high compared to selected other countries in the WHO European Region. Regarding biological risk factors, overweight and obesity levels were very high in Ukraine, with particularly high obesity levels among women – a pattern seen in many countries in the WHO European Region. Raised blood pressure levels were relatively high compared to other countries, with little difference between males and females. Detection, treatment and control of raised blood pressure could be improved, and this would contribute to a reduction in CVD mortality. Raised fasting blood glucose and total cholesterol levels were high compared to other countries. When analysing the prevalence of a combination of NCD risk factors, Ukraine was in a group of countries with relatively high levels, with markedly higher levels in men than in women. In spite of this, only one third of the population with the highest CVD risk was receiving treatment and counselling.

Primary prevention, through changes in modifiable risk factors in the Ukrainian population, should be the main focus of policies and interventions that aim to reduce mortality and morbidity from NCDs. However, given the high levels of biological risk factors, early diagnosis and treatment should also play an important role in decreasing the burden due to NCDs. Reduction of gender and other inequalities should be considered one of the goals of strategic health planning. When discussing policy options for prevention and control of NCDs, WHO's "best buys" and other recommended interventions could be considered.⁸ A large number of technical packages for prevention and management of NCDs and other conditions are available and can be considered for implementation.

Ukraine's 2019 STEPS survey collated a wealth of data on NCDs, which should be used for more in-depth analyses of selected topics, as well as for implementation research – in other words, to inform and tailor the development, implementation and evaluation of effective policies and strategies aimed at reducing the burden of NCDs in the country. Such initiatives will make a key contribution to the implementation of Ukraine's National Action Plan for NCDs, as well as WHO's European and general programmes of work, in order to achieve the health-related United Nations Sustainable Development Goals.

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The WHO Regional Office for Europe

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