Fourth national STEPS Survey on the Prevalence of Noncommunicable Disease and Injury Risk Factors–2019

BRIEF SUMMARY

НИЙГМИЙН ЭРҮҮЛ МЭНДИЙН
ҮНДЭСНИЙ ТӨВ

**MONGOLIA
ULAANBAATAR
2020**

FOURTH NATIONAL STEPS SURVEY ON THE PREVALENCE OF NON COMMUNICABLE DISEASE AND INJURY RISK FACTORS-2019

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Mongolia
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FOREWORD

United Nations Sustainable Development Goals 2030, Mongolia's Sustainable Development Concept 2030, Goal 3, Objective 3, 2.2.2 are to reduce the prevalence of common non-communicable diseases (NCDs), their risk factors and preventable mortality and ultimately to reduce number of deaths from cardiovascular disease and the number of deaths from cancer to 16 and 9 per respectively per 10,000 population.

According to a 2015-2016 assessment by the United Nations Special Agency, NCDs accounted for 77% of all deaths among Mongolians, 32% of whom were aged 30-70. Compared to other low- and middle-income countries, Mongolia has the second highest prevalence of NCDs in the world. The assessment also found that more than 70 percent of the health sector budget is spent on high-cost diagnosis and treatment of chronic and late-stage diseases.

Based on the results of the 1st, 2nd, and 3rd surveys on the prevalence of NCDs, injuries, and risk factors, the government has implemented a wide range of NCD prevention and control measures, including the formation of NCD prevention and early detection system in the health sector and development of good habits and attitudes among the general public, such as abstinence from alcohol and tobacco, physical activity, and proper nutrition.

In accordance with Article 3.3.1 of the "National Program to Combat NCDs" approved by the Government Resolution No. 289 of 2017, the 4th National Survey aimed to determine the prevalence of NCD risk factors, provide evidence to stakeholders, register NCDs, establish an open electronic nationwide system for information, surveillance, monitoring and evaluation. " For the first time, the 4th National Study on the prevalence of NCDs, Injuries and risk factors has allowed a comparison into regionally within Mongolia and has led to the creation of database adapted to the country's specific conditions in the WHO's eSTEPS program.

We were able to establish scientific evidence for the implementation of preventive measures on a regional basis to strengthen our achievements in reducing the prevalence of NCDs in the population, to improve the participation and cooperation of organizations, communities, social sectors and international organizations, to enhance population-based prevention and early detection systems, and to combat NCDs with the support from the participation of multilateral organizations.

SARANGEREL D.
MEMBER OF THE GOVERNMENT OF MONGOLIA,
MEMBER OF PARLIAMENT, MINISTER OF HEALTH

APPRECIATION

The National Center for Public Health is a scientific organization staffed by national researchers who provide professional and methodological support for the provision of comprehensive science and evidence-based public health services. 84 researchers from 12 baghs collected data of 377 sampling units from 216 baghs of 130 soums of 21 aimags and 161 units of 142 khoroos of Ulaanbaatar in a disciplined and highly organized manner. Thank you to the staff of NCPH and researchers.

As the primary source of information on the prevalence of common risk factors for NCDs is the STEPS study, WHO recommends that countries run the research every 4-5 years. In line with the recommendations, Mongolia conducted the survey in 2005, 2009, and 2013 with technical and financial support from the World Health Organization and Millennium Challenge Account of Mongolia. However, for the first time, this study was funded by the Government of Mongolia and the Ministry of Health.

On behalf of the entire research community, I would like to thank Sarangerel and the chair and members of the research board at the Ministry of Health for providing administrative and financial support in uncovering/exhibiting regional specifics at national level.

We, the scientists, are very pleased to report Evidence-based data and results that meet the objectives requirements of NCD registration, information, surveillance, monitoring and evaluation specified as in section 3.3.1 of the "National NCD Control Program" approved by the Government Resolution No. 289 of 2017. This information both recorded in English and Mongolian.

Thanks to Stefan Savin and Patricia Rarau, experts from the WHO Headquarters in Geneva, and Warrick Junsuk Kim, WHO Regional Center for the Western Pacific, who provided technical assistance in conducting the study using the latest WHO methodology, in Mongolia and WHO Resident Representative Sergey Diorditsa and NCD Specialist S. Bolormaa!

On behalf of the research team, I would like to express my deep gratitude to the Health Promotion Fund of the Ministry of Health, the Public Health Department of the Ministry of Health, local health departments and organizations of the capital city and districts, the staff of Gyals Laboratory and all those who contributed!
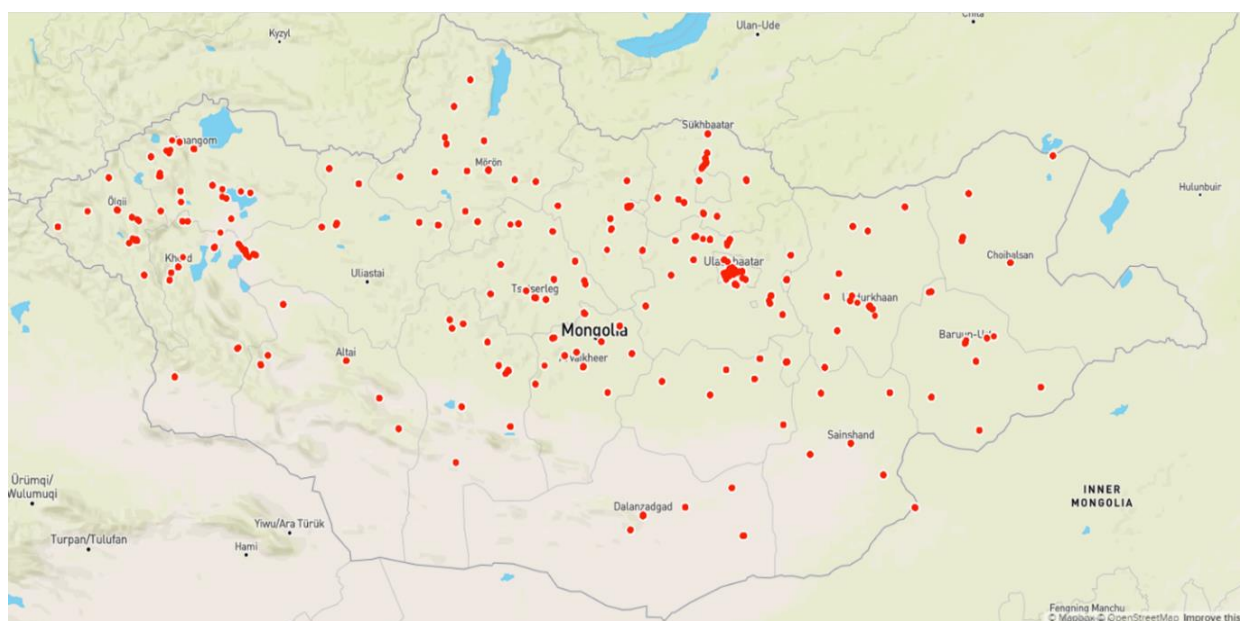
DR. NARANTUYA D.
DIRECTOR GENERAL, NATIONAL CENTER FOR PUBLIC HEALTH AND A HEAD OF RESEARCH TEAM

INTRODUCTION

Fourth STEPS Survey on The Prevalence of Noncommunicable Disease and Injury Risk Factors is a nationwide, cross-sectional survey intended to determine the prevalence of common risk factors for NCDs and injuries, and evaluate to impacts and effects of the Integrated National Programme on "NCD Prevention and Control" in Mongolia. In 2019, the fourth national STEPS survey was conducted in 377 sampling units (clusters) selected from 21 provinces and 9 districts of Ulaanbaatar in order to estimate key findings at the national level of Mongolia.

Location of primary sampling units of the survey
Source: ONA platform, WHO-HQ in Geneva, 2019.11.11

The WHO STEP wise approach to non-communicable disease risk factor surveillance (January 2017) was used to conduct the recent survey with three subsequent steps of a questionnaire, physical measurement, and biochemical analysis.

6654 people representing the population of Mongolia aged 15-69 were involved to the 1st and 2nd steps of the survey, and 6497 people were in the 3rd step of the survey. As 98.1% of sample population were covered.

The 4th National STEPS survey estimated the prevalence of lifestyle-related primary and intermediate-risk factors for developing NCDs including cardiovascular diseases, diabetes, and metabolic syndrome, the incidence of road traffic injuries and violence, status of oral health and health care services for NCDs, by age groups, gender, locality and economic regions of Mongolia.

POPULATION WITH COMBINED NCD RISK FACTORS

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Common NCD risk factors: - Current daily smoking - Less than five servings of fruit and/ or vegetables per day - Not meet WHO recommendations on physical activity for health - Overweight (BMI ≥ 25 kg/m²), - Raised blood pressure (SBP ≥140 and/or DBP ≥ 90 mmHg or currently on medication for raised blood pressure)*			
Percentage of population with none of common risk factors for NCDs.	**3.9** (3.1 – 4.8)	**2.5** (1.6 – 3.4)	**5.3** (4.1 – 6.6)
Percentage of 15-44 year-old population with 3 or more common risk factors for NCDs.	**22.7** (21.0 – 24.3)	**29.3** (26.8 – 31.8)	**15.9** (13.9 – 17.8)
Percentage of 45-69 year-old population with 3 or more common risk factors for NCDs.	**51.2** (48.7 – 53.8)	**58.1** (54.3 – 61.8)	**44.9** (41.6 – 48.1)
Percentage of 15-69 year-old population with 3 or more common risk factors for NCDs.	**30.8** (29.3 – 32.3)	**37.2** (34.9 – 39.5)	**24.4** (22.6 – 26.3)

WHO hypertension guideline
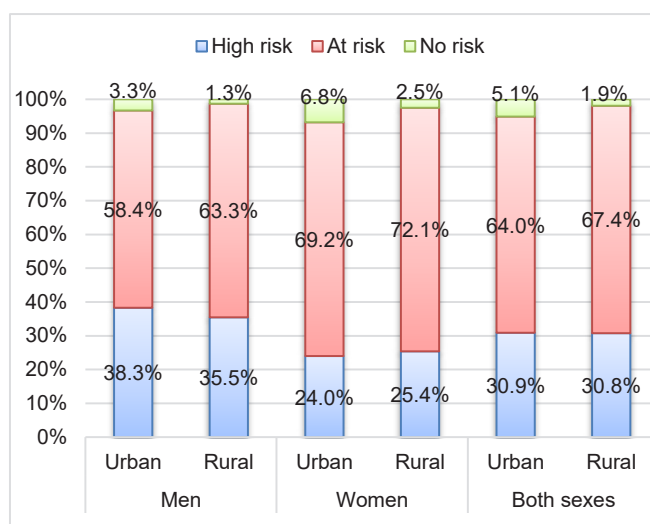
Percentage of population with common risk factors for NCDs, by gender and locality
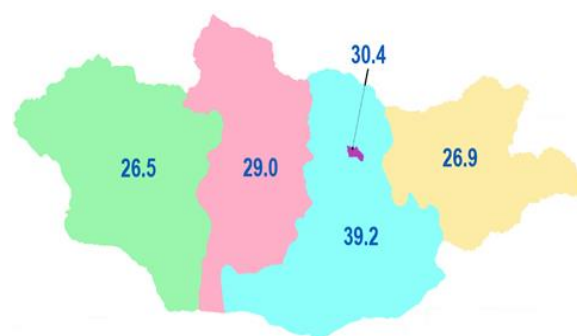
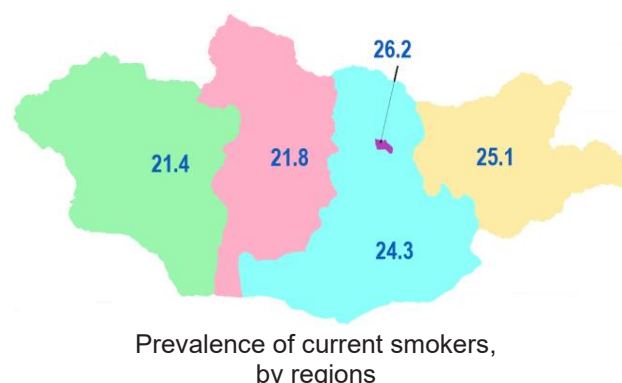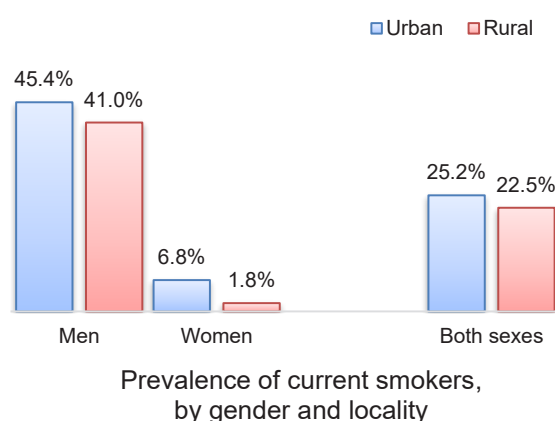Percentage of population with a high risk of NCDs, by regions

KEY FINDINGS

1. Among the Mongolian population, one in three of the 15-67 years-old population, and one in two of 45-69 year-old population (51.2%) had high risks of developing NCDs.
2. The prevalence of men who with high risk factors for developing of NCDs was 1.5 times higher than women.
3. The survey result demonstrate that the population with 3-5 of the common modifiable NCD risk factors is higher in Central region compared to other regions and Ulaanbaatar city.
4. Only 3.9% of the survey population had no common risk factors for developing NCDs. The prevalence of the population with none of the common risk factors is relatively higher in urban area than their rural counterparts.
5. Men are more likely to have 3-5 combined common NCD risk factors than women which might negatively affect the life expectancy and quality of life of Mongolian men.

TOBACCO USE

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Percentage who currently smoke tobacco	**24.2** (22.9 – 25.6)	**43.7** (41.3 – 46.0)	**5.0** (4.2 – 5.9)
Percentage who currently smoke tobacco daily	**21.6** (20.3 – 23.0)	**39.5** (37.1 – 41.8)	**4.1** (3.3 – 4.8)
For those who smoke tobacco daily:			
Mean age started smoking (in years)	**18.9** (18.5 – 19.2)	**18.4** (18.0 – 18.7)	**23.8** (22.4 – 25.2)
Percentage of smokers who use manufactured cigarettes among daily smokers	**96.8** (95.8 – 97.8)	**96.7** (95.6 – 97.8)	**97.7** (94.3 – 101.0)
Mean number of manufactured cigarettes smoked per day (among the population who use manufactured cigarettes)	**10.7** (10.2 – 11.2)	**11.0** (10.5 – 11.5)	**8.0** (6.9 – 9.2)
Percentage of population exposed to second-hand smoke at home in the past 30 days	**32.8** (30.6-35.0)	**29.9** (27.3-32.5)	**35.7** (32.9-38.5)
Percentage of population exposed to second-hand smoke at workplaces in the past 30 days	**22.6** (20.9-24.3)	**29.3** (26.8-31.9)	**16.1** (14.4-17.8)

Prevalence of current smokers, by gender and locality


Prevalence of current smokers, by regions
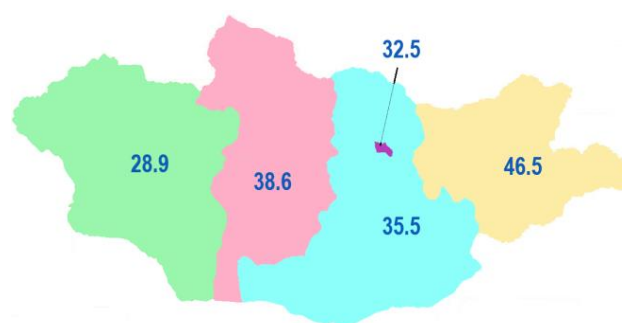
KEY FINDINGS

1. One in every five (24.2%) people aged 15-69 years are current smokers in Mongolia. The number of smokers remained similar compared to the survey findings in 2013. Tobacco use is 8.7 times higher among men than women.
2. There was no statistically significantly differences observed in tobacco use, cessation, and consultation between locality and regions.
3. The mean age started smoking was 18.9 in the survey population. The mean number of cigarettes smoked per day was 10.7 among the population who is using manufactured cigarettes.
4. Three in ten individuals were exposed to second-hand smoke at home. Women were more likely to be exposed to second-hand smoking at home, while men were at work that indicating insufficient tobacco law enforcement.
5. Only 13.7% of the population had seen tobacco advertisements and promotions at market places. The hidden advertisements still exist as tobacco law enforcement lacks.
6. The population who thought of quitting smoke after looking at the health warnings on cigarette packs accounted for 57.4% suggesting a need to help those to implement their motive.

ALCOHOL CONSUMPTION

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Percentage who are lifetime abstainers	**30.6** (28.4 – 32.7)	**25.0** (22.4 – 27.7)	**36.0** (33.5 – 38.4)
Percentage who are past 12 month abstainers	**12.0** (11.0 – 13.1)	**9.6** (8.3 – 11.0)	**14.4** (12.9 – 16.0)
Percentage of population who consumed alcohol drinks in the past 30 days	**34.8** (32.8 – 36.7)	**44.9** (42.2 – 47.6)	**24.8** (22.7 – 27.0)
Mean number of drinking occasions in the past 30 days (frequency)	**4.8** (4.4-5.3)	**5.7** (5.0-6.3)	**3.3** (3.0-3.7)
Mean number of standard drinks consumed per drinking occasion in the past 30 days (1 standard drink = vodka 25 ml, beer 330 ml, wine 100 ml)	**9.3** (8.7-9.9)	**11.4** (10.6-12.2)	**5.7** (5.2-6.2)
Percentage of population who consumed ≥6 standard drinks per drinking occasion in the past 30 days	**19.8** (18.4 – 21.2)	**28.2** (26.1 – 30.3)	**11.5** (10.1 – 12.9)
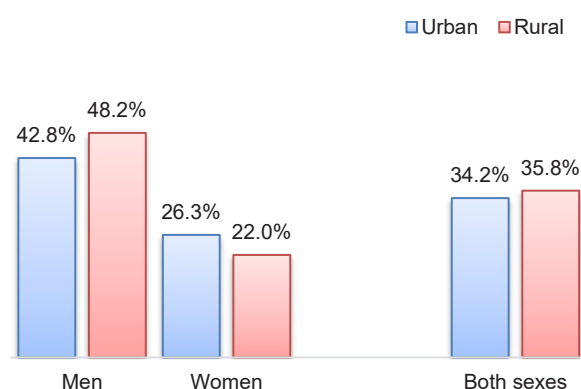
Percentage of population who consumed alcohol drinks in the past 30 days, by gender and locality


Percentage of population who consumed alcohol drinks in the past 30 days, by regions
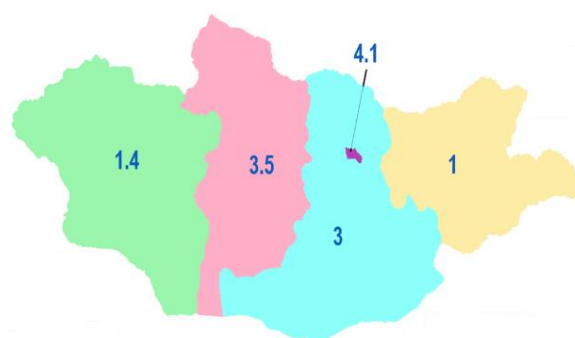
KEY FINDINGS

1. In the last month, one in three (34.8%) survey population aged 15-69-years consumed alcohol in some extend. It is similar to the survey findings in 2013. Alcohol consumption was 1.8 times higher among men compared to women.
2. In the past 12 months, drinking frequency is higher in urban areas than their rural counterparts.
3. The percentage of the population who consumed ≥6 standard drinks per drinking or binge drinking occasion was higher in Eastern region than the national average and Ulaanbaatar.
4. The survey population consumed on average 9.3 standard drinks per occasion, its indicating a common binge drinking behavior among the Mongolian population.

DIET

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Mean number of days fruit consumed in a typical week	**1.8** (1.7 – 1.9)	**1.5** (1.4 – 1.6)	**2.1** (2.0 – 2.2)
Mean number of servings of fruit on average per day (serving size)	**0.9** (0.8 – 1.1)	**0.8** (0.6 – 0.9)	**1.1** (0.9 – 1.3)
Mean number of days vegetables consumed in a typical week	**4.7** (4.6 – 4.8)	**4.5** (4.4 – 4.7)	**4.9** (4.7 – 5.0)
Mean number of servings of vegetables on average per day (serving size)	**2.3** (2.1 – 2.6)	**2.2** (2.0 – 2.4)	**2.5** (2.2 – 2.7)
Mean number of servings of fruit and/or vegetables on average per day (serving size)	**3.2** (2.9 – 3.5)	**2.9** (2.5 – 3.2)	**3.5** (3.1-3.9)
Percentage of population who ate less than five servings of fruit and/or vegetables on average per day	**83.4** (81.2 – 85.6)	**85.3** (82.9 – 87.7)	**81.5** (78.9 – 84.2)
Population predominantly used vegetable oil for cooking	**87.2** (85.5-88.7)	**86.8** (84.6-88.7)	**87.6** (85.7-89.3)
Mean number of occasions ate meals prepared outside of home in a typical week	**1.8** (1.6-1.9)	**2.0** (1.8-2.1)	**1.5** (1.4-1.7)
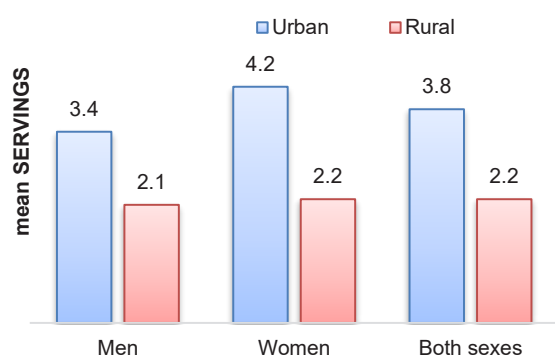
Mean number of servings of fruit and/or vegetables on average per day, by gender and locality


Mean number of servings of fruit and/or vegetables on average per day, by regions
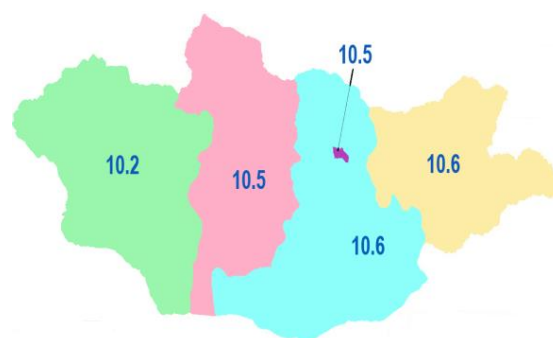
KEY FINDINGS

1. Among population aged 15-69 year-old consumed fruits 1.8 days a week and vegetables 4.7 days a week which increased from the survey findings in 2013. The mean number of servings of fruits and vegetables was lower than the WHO Healthy Diet recommendations, which was 3.2 servings a day.

2. The average daily consumption of fruits and vegetables consumption is lower in the rural area than urban area and this indicator shows that 1.5-3.2 times less in Western and Eastern regions compared to national average, which was completely insufficient.

3. About 87.2% of survey population was predominantly used vegetable oil for meal preparation in the household.

4. The percentage of population predominantly using lard, suet, ghee, or butter is relatively higher in rural area compared to urban settings.

5. The survey respondents dine outside of their home 1.8 times a week. The mean number of meals eaten outside of home was 1.3 times higher in men compared to women and urban population was 2.9 times higher compared to the rural population, respectively.

SALT INTAKE

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Percentage of population who always or often add salt or salty sauce before eating or when eating	**17.3** (15.8 – 18.9)	**19.9** (17.8 - 22.0)	**14.8** (13.2 – 16.5)
Percentage of population who always or often eat processed foods high in salt	**11.0** (9.9 – 12.2)	**10.9** (9.5 – 12.3)	**11.2** (9.6 – 12.8)
Percentage of population who look at the salt or sodium labels on food	**20.1** (18.3-21.9)	**16.3** (14.1-18.4)	**23.8** (21.6-26.0)
Percentage of population who limit consumption of processed foods to control salt intake	**42.6** (40.1-45.1)	**36.9** (34.0-39.8)	**48.2** (45.3-51.1)
Average urine sodium, mmol/l	**115.1** (112.9-117.3)	**121.6** (118.4-124.7)	**108.7** (106.1-111.3)
Average daily salt intake (g)	**10.5** (10.4 – 10.6)	**11.9** (11.8 – 12.1)	**9.0** (8.9 – 9.0)
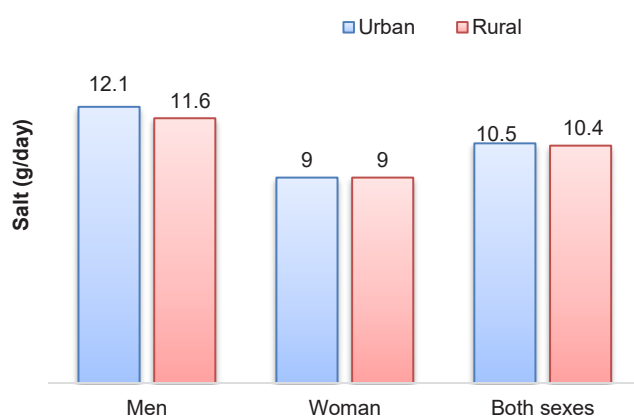
Average daily salt intake, by gender and locality

Average daily salt intake (g), by regions

KEY FINDINGS

1. The average daily salt intake in the 15-69 year-old population was 10.5 gr.
2. Although the salt intake reduced by 0.6 gr nationwide, 5.1 gr in the Western region, and 1.2 gr in Ulaanbaatar since 2013, it remains 2 times higher than the WHO recommendations.
3. The salt intake increased by 1.1g in the Khangai region, 0.7g in the Central region, and 2.9g in the Eastern region, its indicating that insufficient implementation and monitoring to reduce their salt intake.
4. Seven in every ten people think that high salt intake has a serious health consequence, and one in third of survey population have positive attitude that it is very important to reduce salt intake.

PHYSICAL ACTIVITY

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Percentage of population with insufficient physical activity (defined as < 150 minutes of moderate-intensity activity per week, or <75 minutes of high-intensity activity per week)	**21.9** (20.1 – 23.9)	**21.0** (18.8 – 23.3)	**22.8** (20.7 – 24.9)
Median time spent in physical activity on average per day, minutes (p25-p75)	**120.0** (25.7 – 360.0)	**150** (30.0 – 424.3)	**94.3** (25.0 – 300.0)
Percentage of population not engaging in vigorous physical activity	**61.0** (58.9 – 63.1)	**50.1** (47.4 – 52.7)	**71.8** (69.5 – 74.1)
Median time spent in inactive, per day/ minutes	**208.5** (199.9-217.5)	**204.4** (196.4-212.4)	**206.5** (199.6-213.4)
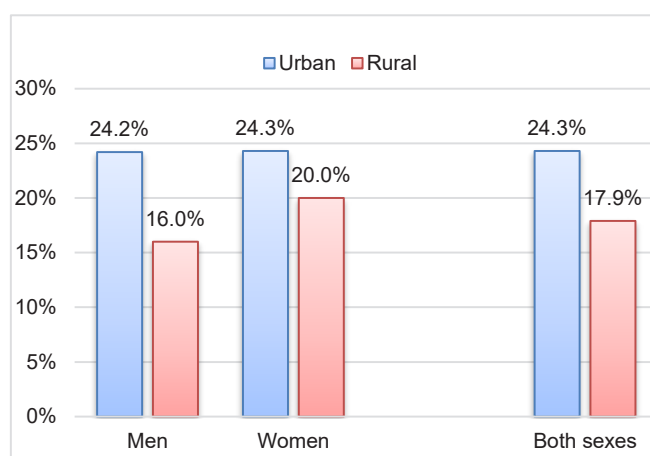
Prevalence of physical inactivity, by gender and locality
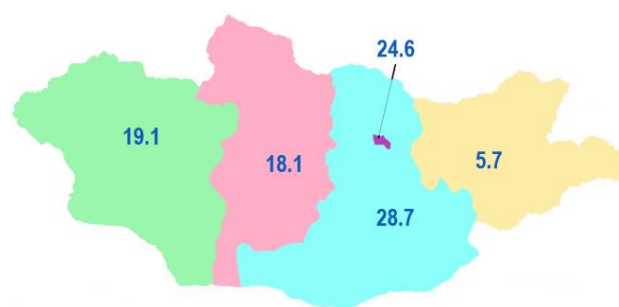
Prevalence of physical inactivity, by regions

KEY FINDINGS

1. One in every five (21.9%) of Mongolian population aged 15-69 year-old were did not meet the WHO recommendations for health and its indicating that no change since the survey findings in 2013.
2. The prevalence of the population who physical inactive having higher in urban area and the Central region, while lower in Eastern region.
3. On average, median time spent in physical activity per day was 120 minutes, males were 58 minutes more time spent than females.
4. 52.4% of population had physical activity at work, 48.2% of the population were not engaged in vigorous physical activity, respectively. The prevalence of population not engaged in physical activity at work was high among the women.
5. One in two of population were not engaged in vigorous level of physical activity, which is relatively higher in urban women.

LIFESTYLE ADVICE

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Percentage of population who received lifestyle advice by doctor or health worker to quit using tobacco or don't start	38.5 (36.1-41.0)	50.7 (47.1-54.3)	28.7 (25.9-31.6)
Percentage of population who received advice by doctor or health worker to eat at least five servings of fruit and/or vegetables each day	59.6 (57.4-61.8)	57.1 (53.9-60.4)	61.6 (58.8-64.3)
Percentage of population who received advice by doctor or health worker to reduce fat in the diet	59.5 (57.2-61.8)	59.2 (556-62.7)	59.7 (56.9-62.5)
Percentage of population who received advice by doctor or health worker to reduce salt in the diet	57.6 (55.3-60.0)	57.6 (54.2-61.0)	57.7 (54.7-60.6)
Percentage of population who received advice by doctor or health worker to start or do more physical activity	64.4 (56.7-61.6)	64.1 (60.7-67.4)	64.8 (62.0-67.5)
Percentage of population who received advice by doctor or health worker to maintain a healthy body weight or to lose weight	59.1 (56.7-61.6)	59.5 (56.6-62.4)	58.6 (55.1-62.1)
Percentage of population who received advice by doctor or health worker to reduce sugary beverage consumption	58.5 (56.1-61.0)	57.8 (54.1-61.5)	59.2 (56.3-62.0)
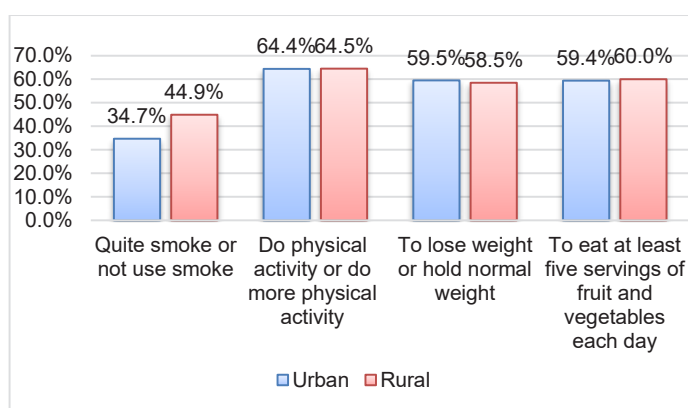
Percentage of population who received lifestyle advice from doctor or health worker, by types of advises and locality
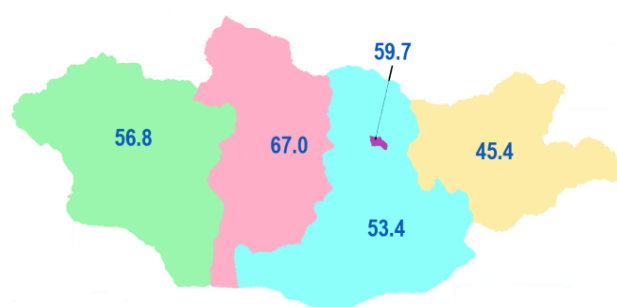
Percentage of population who received advices from doctor or health worker to maintain a healthy body weight or to lose weight, by regions

Percentage of population who received lifestyle advice from doctor or health worker to quit using tobacco or not to start, by regions

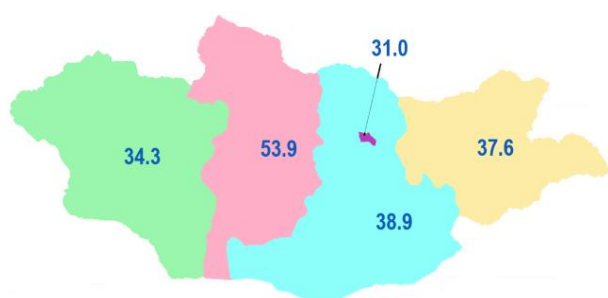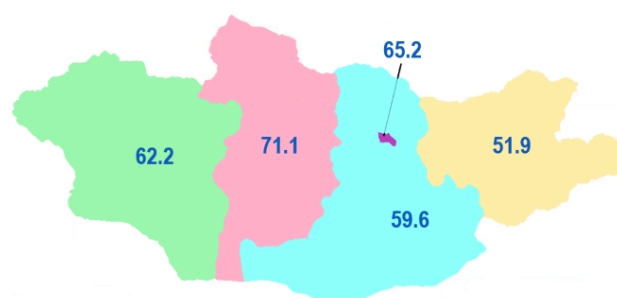
Percentage of population who received advice from doctor or health worker to start or do more physical activity, by regions

KEY FINDINGS

About 57.6-64.4% of the population aged 15-69 year-old received any advice from doctors or health workers to reduce the fats, salt, sweetened and carbonated beverages consumption, and 38.5% on tobacco cessation or no to start smoking. It decreased by 1.3 times than previous survey findings.

OVERWEIGHT AND OBESITY

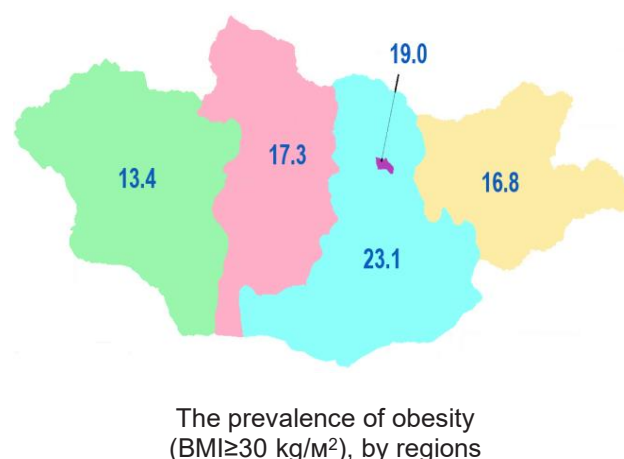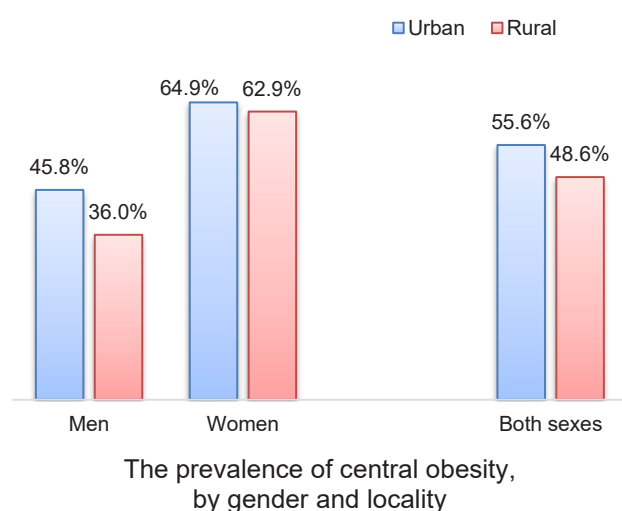| Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Mean Body Mass Index (BMI) (kg/м2)	**25.5** (25.4 – 25.7)	**25.2** (25.0 – 25.5)	**25.9** (25.6 – 26.1)
Percentage of population with overweight and/or obesity (BMI ≥ 25 kg/м2)	**49.4** (47.8 – 51.1)	**48.0** (45.8 – 50.7)	**50.9** (48.7 – 53.0)
Percentage of population who are obese (BMI≥ 30 kg/м2)	**18.5** (17.3 – 19.7)	**16.6** (14.9 – 18.3)	**20.4** (18.8 – 22.0)
Mean waist circumference (cm)	-	**87.3** (86.6 – 88.1)	**85.7** (85.0 – 86.4)
Percentage of population with central obesity (waist circumference: men≥90 cm, women≥80 cm)	**53.0** (51.2-54.8)	**41.9** (39.5-44.4)	**64.2** (62.0-66.4)

The prevalence of central obesity,
by gender and locality

The prevalence of obesity
(BMI≥30 kg/м²), by regions

KEY FINDINGS

1. Mean BMI of the Mongolians aged 15-69 year-old is 25.5 кg/m² which shows no change since 2013. The mean BMI of the Mongolians who are older than 25-year-old is higher than the WHO recommended normal ranges.
2. In 49.4% of the Mongolian population were overweight or have obesity, of which 30.9% were overweight, and 18.5% had obesity. The prevalence of obesity is higher among women compared to men and tends to increase by aging.
3. The percentage of population with overweight and/or have obesity is relatively high in Ulaanbaatar city and the Central Region of Mongolia. The prevalence of overweight and obesity was lowest among the population living in the Western region.
4. One in two people has central obesity, and the percentage of women with central obesity was 1.5 times higher than men.
5. The prevalence of central obesity accounted for 55.6% in the city and 48.6% in rural areas.

CARDIOVASCULAR DISEASE RISK

Results for Mongolians aged 40-69 years (95% CI)	Both Sexes	Men	Women
Percentage of population who have history of cardiovascular disease (CVD)	**14.0** (12.7-15.2)	**12.3** (10.8 -13.8)	**15.6** (13.9 -17.3)
Percentage of population who are currently taking statins regularly to prevent or treat CVD	**2.2** (1.8 - 2.6)	**1.6** (1.1 - 2.1)	**2.8** (2.2 - 3.4)
Percentage of population who are currently taking aspirin regularly to prevent or treat CVD	**11.0** (10.0 - 12.1)	**10.2** (8.9 - 11.5)	**11.9** (10.6 - 13.2)
Percentage of population aged 40-69 years with a 10-year CVD risk ≥30% or with existing CVD	**19.3** (17.4 – 21.2)	**18.4** (15.8 – 20.9)	**20.1** (17.6 – 22.6)
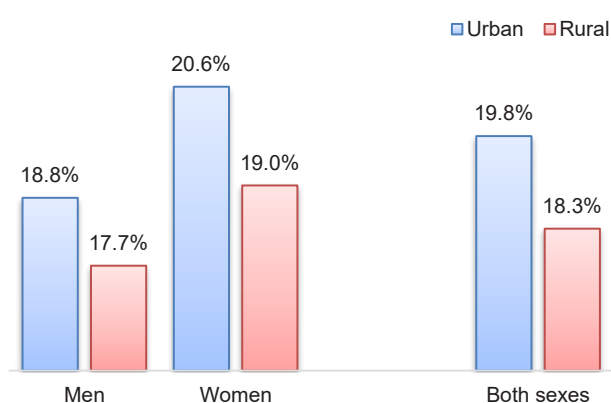
Percentage of population aged 40-69 year-old with a 10-year CVD risk ≥30% or with existing CVD, by gender and locality
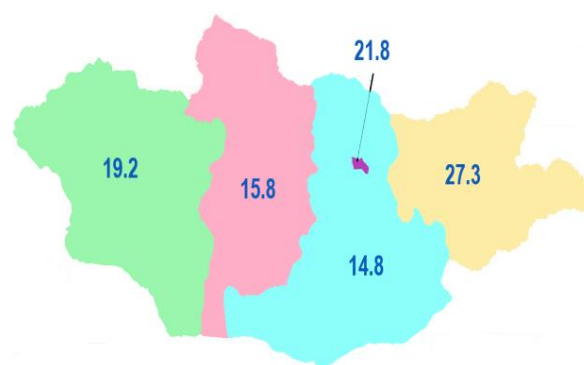
Percentage of population aged 40-69 years with a 10-year CVD risk ≥30% or with existing CVD, by regions

KEY FINDINGS

1. In total 14.0% of Mongolians aged 15–69 years reported that they had CVDs. History of CVDs was revealed among relatively younger population groups, such 15-24-year-old population. The increased CVD among a very young draws attention.
2. One in five people (19.3%) aged 40-69 year-old has existing CVD or high risks of developing CVD in the next 10 years.
3. The incidence of existing CVD or at high risk for developing CVDs in the next 10 years is relatively high among the population living in the urban area. In the Eastern region, the percentage of the population with high risk or existing CVDs was relatively high compared to the other regions of Mongolia, and similar to that of Ulaanbaatar and the urban population.
4. Only 42.1% of the population with CVD or ≥30% at risk of developing CVD in the next 10 years is seeking medical advice and taking medication to prevent CVD complications such as heart attack and stroke.
5. The use of aspirin and statins for blood lipid reduction is very low among the survey population.

STATUS OF BLOOD LIPIDS

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Mean total cholesterol (mmol/L) (including the population currently on medication for lowering cholesterol)	**4.4** (4.4 – 4.4)	**4.5** (4.4 – 4.5)	**4.3** (4.3 – 4.4)
Percentage of respondents with raised total cholesterol (total cholesterol in capillary blood ≥5.0 mmol/L or ≥190 mg/dl) or currently on medication for raised cholesterol	**27.8** (26.3 – 29.3)	**30.8** (28.7 – 32.8)	**25.0** (23.0 – 26.9)
Mean fasting triglycerides (mmol/L)	**1.5** (1.5-1.6)	**1.6** (1.6-1.7)	**1.5** (1.5-1.6)
Percentage of population with raised triglycerides (blood triglycerides ≥1.7 mmol/L)	**31.1** (29.4-32.8)	**32.9** (30.7-35.1)	**29.4** (27.3-31.5)
Mean fasting high density lipoprotein (HDL), mmol/L	**1.4** (1.3-1.4)	**1.3** (1.3-1.3)	**1.4** (1.4-1.4)
Percentage of population with reduced HDL (men<1.3mmol/L; women<1.29mmol/L)	**26.3** (24.8-28.0)	**22.1** (19.9-24.4)	**30.5** (28.4-32.5)
Mean fasting low density lipoprotein (LDL), mmol/L	**2.4** (2.3-2.4)	**2.4** (2.4-2.5)	**2.3** (2.2-2.3)
Percentage of population with raised LDL (LDL≥3.0 mmol/L)	**23.3** (21.9-24.8)	**27.2** (25.1-29.5)	**19.4** (17.6-21.3)
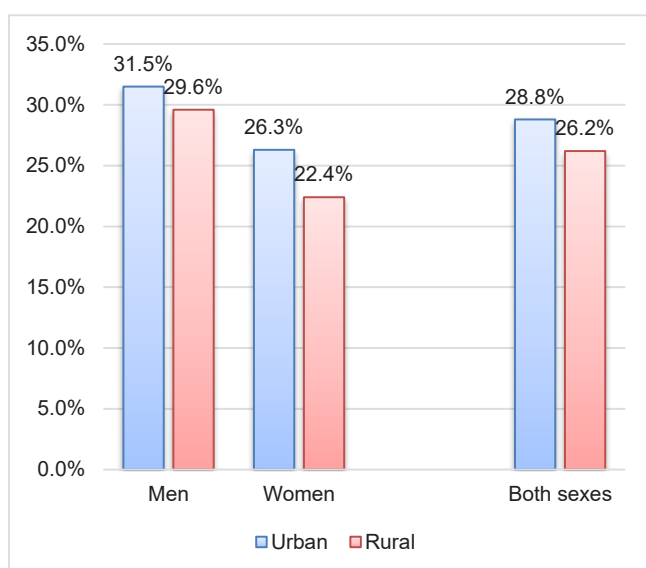
Percentage of population with raised total cholesterol, by gender and locality

Proportion of population with raised total cholesterol, by region

Percentage of population with reduced HDL, by regions
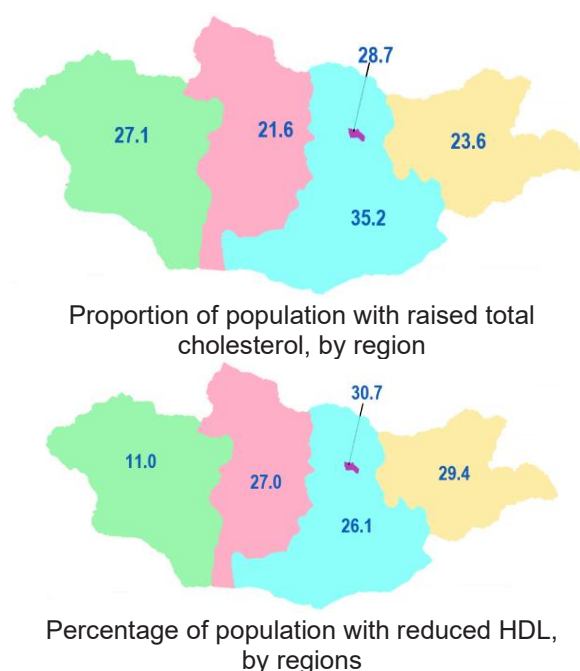
KEY FINDINGS

1. The mean total cholesterol in 15-69-year-old population is 4.4 mmol/L similar to that of survey findings in 2009.
2. The percentage of the population with raised blood triglycerides increased from 22.4% in 2009 to 31.1% in 2019.
3. The prevalence of population with raised LDL, known as "bad cholesterol," is higher in Ulaanbaatar than in rural areas.
4. The percentage of reduced HDL the "good fat" is more prevalent in women than in men.

HYPERTENSION

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Mean systolic blood pressure (mm HG) (including the population currently on medication for raised blood pressure)	**120.5** (119.8 – 121.1)	**124.1** (123.3 – 124.9)	**116.9** (116.1 – 117.7)
Mean diastolic blood pressure (mm HG) (including the population currently on medication for raised blood pressure)	**77.3** (76.9 – 77.8)	**79.2** (78.6 – 79.9)	**75.4** (74.9 – 76.0)
Percentage of population with raised blood pressure (SBP ≥ 130 and/or DBP ≥ 80 mm HG or currently on medication for raised blood pressure)	**44.0** (42.2 – 45.7)	**50.8** (48.2 – 53.4)	**37.3** (35.2 – 39.7)
Percentage of population with raised blood pressure (SBP ≥140 and/or DBP ≥ 90 mm HG or currently on medication for raised blood pressure)	**23.6** (22.3 – 24.9)	**25.2** (23.2 – 27.1)	**22.1** (20.4 – 23.7)
Percentage of population with raised blood pressure, currently not on medication for raised blood pressure (SBP ≥130 and/or DBP ≥ 80 mm HG or currently on medication for raised blood pressure)	**69.5** (67.3-71.8)	**77.0** (74.4-79.5)	**59.7** (56.3-63.1)
Percentage of population with raised blood pressure, currently not on medication for raised blood pressure (SBP ≥140 and/or DBP ≥ 90 mm HG or currently on medication for raised blood pressure)	**43.2** (40.0-46.5)	**53.5** (49.3-57.6)	**31.8** (27.7-36.0)
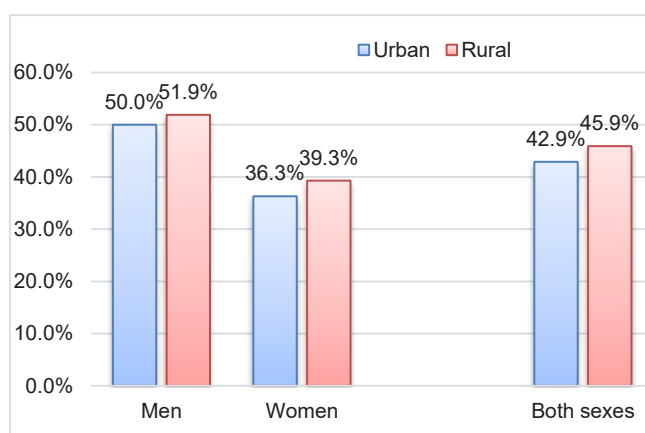
Prevalence of hypertension, by gender and locality
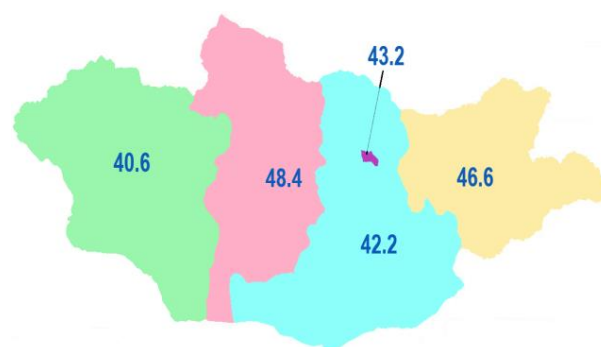
Prevalence of hypertension, by regions

KEY FINDINGS

1. The mean systolic and diastolic blood pressure among the 15-69 year-old population of Mongolia was 120.5 and 77.3 mm Hg, respectively. The mean level of blood pressure has decreased in comparison to the previous survey findings.
2. The prevalence of hypertension (SBP ≥140 and/or DBP ≥ 90 mm Hg) is 23.6%, significantly lower than survey findings conducted in 2013.
3. The prevalence of hypertension (SBP ≥130 mm Hg and DBP ≥80 mm Hg) is 44%, the percentage of the population with uncontrolled hypertension was relatively high in men.
4. Newly diagnosed cases of hypertension were relatively higher among 15-44 years old men and in women living in rural areas.
5. The average heart rate of the survey population was 78.2 times per minute.
6. The incidence of atrial fibrillation was relatively lower, thus is 5.4%. It is more prevalent among the population of Khangai and Central regions than in Ulaanbaatar city.

DIABETES

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Mean fasting blood glucose (mmol/L), including the population currently on medication for diabetes	**5.9** (5.8 – 5.9)	**5.9** (5.8 – 6.0)	**5.7** (5.6 – 5.7)
Percentage of population with impaired fasting glucose level ≥5.6 mmol/L (100 mg/dl) and <6.1 mmol/l (110 mg/dl) • Serum glucose level ≥6.1 mmol/l (110 mg/dl) and <7.0 mmol/l (126 mg/dl)	**17.4** (16.1–18.7)	**19.2** (17.4–21.0)	**15.7** (14.0–17.3)
Percentage of population with raised fasting glucose and/or currently on medication for diabetes • Fasting glucose level ≥ 6.1mmol/l (110 mg/dl) • Serum glucose level ≥ 7.0 mmol/l (126 mg/dl)	**8.3** (7.4–9.2)	**10.0** (8.5–11.4)	**6.7** (5.7–7.6)
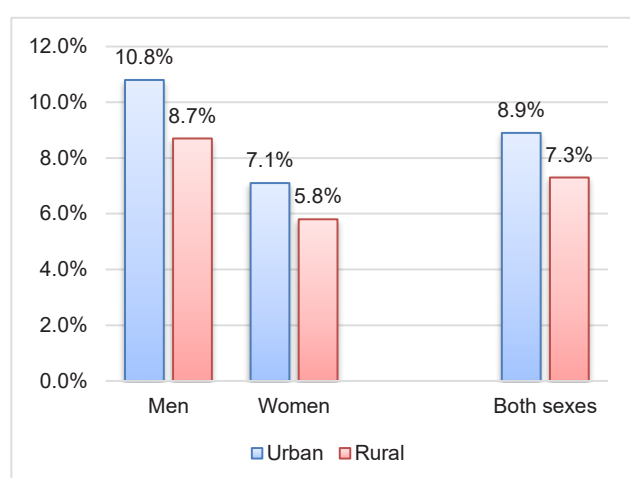
Percentage of population with raised fasting glucose level and/or currently on medication for diabetes, by gender and locality
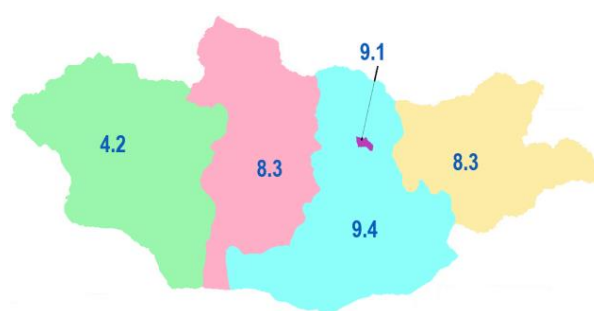
Percentage of population with raised fasting glucose level and/or currently on medication for diabetes, by regions

KEY FINDINGS

1. The mean fasting blood glucose of the population aged 15-69 years was 5.9 mmol/L, higher than the survey findings in 2013.
2. The prevalence of the population with impaired fasting blood glucose was 17.4% and 8.3% of the survey population have raised blood glucose or diabetes.
3. The prevalence of diabetes is 4.2% in the Western region, lower than the national average, Ulaanbaatar, and other regions.
4. Only 7.9% of men with diabetes were recently diagnosed.
5. Among the population with diabetes, 28.3% are taking medication for raised blood glucose, 17.9% are on insulin treatment, and 12.6% are using traditional healing.

METABOLIC SYNDROME

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Metabolic syndrome: Central obesity (men ≥ 90 cm, women ≥80 cm), additionally ≥2 of the below symptoms appeared[1] • Raised triglycerides level (≥ 1.7 mmol/L) • Lowered HDL (men< 1.03 mmol/L, women<1.29 mmol/L) or currently on medication for raised lipid • Raised glucose level (≥ 5.6 mmol/L), or diagnosed with diabetes • Raised blood pressure (SBP ≥ 130 and/or DBP ≥ 85 mm Hg or currently on medication for hypertension)			
Percentage of population with metabolic syndrome (Central obesity, with ≥2 additional symptoms)	**28.6** (27.2-30.1)	**26.8** (24.9-28.9)	**30.4** (28.5-32.4)
Percentage of population with metabolic syndrome (Central obesity, with 2 additional symptoms)	**15.8** (14.7-16.9)	**13.4** (12.1-14.8)	**18.2** (16.7-19.8)
Percentage of population with metabolic syndrome (Central obesity, with 3 additional symptoms)	**9.4** (8.7-10.3)	**9.6** (8.4-10.9)	**9.3** (8.3-10.3)
Percentage of population with metabolic syndrome (Central obesity, with 4 additional symptoms)	**3.4** (3.0-4.0)	**3.8** (3.1-4.7)	**3.0** (2.4-3.7)
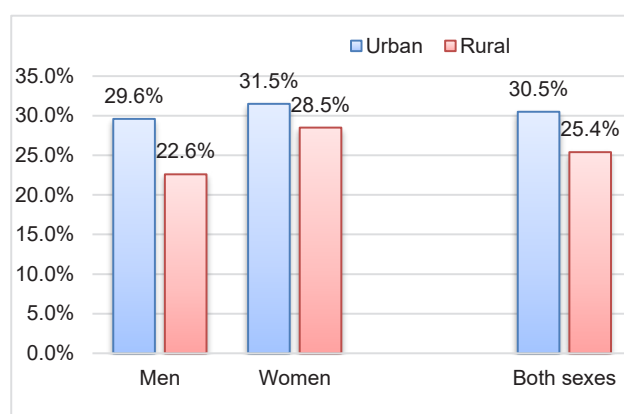
Prevalence of metabolic syndrome,
by gender and locality
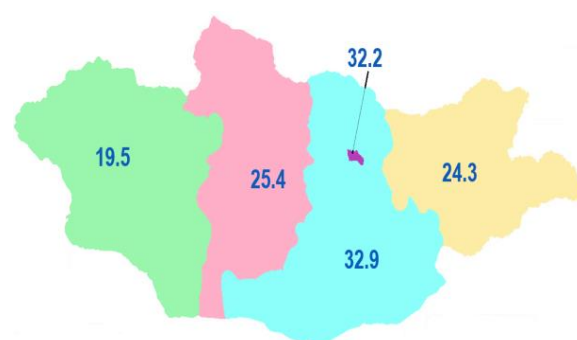
Prevalence of metabolic syndrome, by regions

KEY FINDINGS

1. In the Mongolians aged 15-69 year-old, 28.6% have metabolic syndrome. The prevalence of metabolic syndrome was relatively common in women and individuals aged 45-69-year-old.
2. The prevalence of metabolic syndrome was 30.5% in urban. The percentage of urban men with metabolic syndrome was significantly higher than rural men.
3. The percentage of the population with metabolic syndrome is relatively high among the population of Ulaanbaatar city and Central region, and low in the Western region.

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[1] International diabetes association, 2004

ORAL HEALTH

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Percentage of population with 20 or more natural teeth	**78.6** (77.3 - 80.0)	**80.2** (78.3 - 82.1)	**77.1** (75.5 - 78.7)
Percentage of population with removable dentures	**20.8** (19.6 - 21.9)	**18.3** (16.8 - 19.8)	**23.2** (21.7 - 24.8)
Percentage of population had visited dentists during the past 12 months	**35.6** (34.1 - 37.2)	**30.6** (28.5 - 32.8)	**40.6** (38.5 - 42.6)
Percentage of population who clean teeth at least twice a day	**57.0** (55.0 - 59.1)	**48.2** (45.7 - 50.8)	**65.7** (63.1 - 68.3)
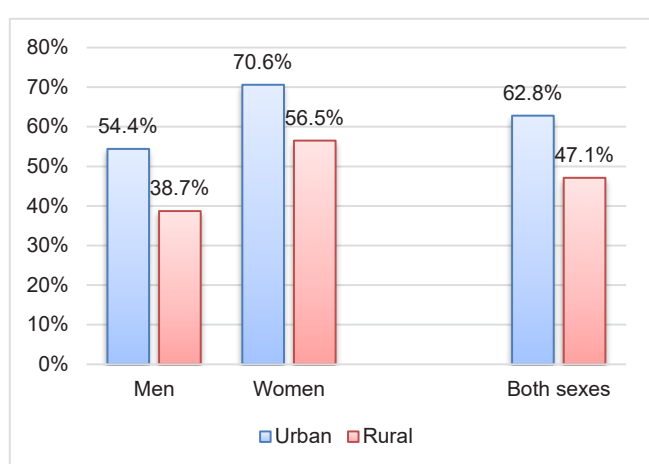
Percentage of population who brush teeth at least twice a day, by gender and locality
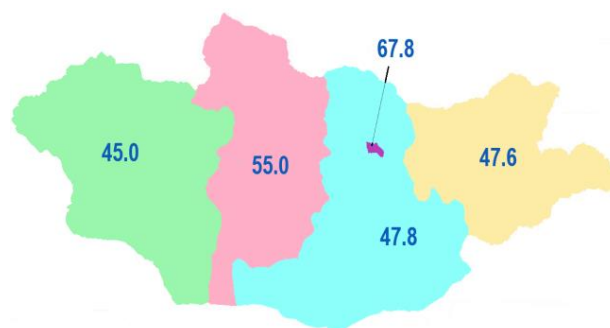
Percentage of population who brush teeth at least twice a day, by regions

KEY FINDINGS

1. Among the population aged 15-69 year-old, 78.6% have 20 or more teeth and 1.7% have no teeth, same as survey findings in 2013.
2. In the last 12 months, 35.6% of the population visited a dentist for dental treatment, follow up treatment, dental pain, and teeth related symptoms, which is relatively high among women in urban areas. It was more common in rural areas for residents to visit a dentist only when they had pain.
3. The number of teeth remaining tends to decrease with increasing age. Also, the percentage of the population with no teeth has been increased.
4. The use of dentures was i 23.2% and 18.3% in women and men, respectively.
5. Of the total population, 92.7% brush their teeth, and 57% brush 2 or more times a day. It decreases with aging.

CERVICAL CANCER SCREENING

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Percentage of women aged 15-69-year-old who have had a screening tests for early detection of cervical cancer	-	-	**46.5** (44.1-48.9)
Percentage of women aged 30-49-year-old who have had a screening tests for early detection of cervical cancer	-	-	**64.2** (61.0 – 67.3)
Percentage of population who have had heard about human papilloma virus	**15.4** (14.2-16.8)	**6.0** (4.9-7.2)	**24.1** (22.3-26.1)
Percentage of population who have had heard about human papilloma virus causes cervical and penile cancer	**83.0** (80.0-85.7)	**79.5** (70.6-86.2)	**83.8** (80.6-86.6)
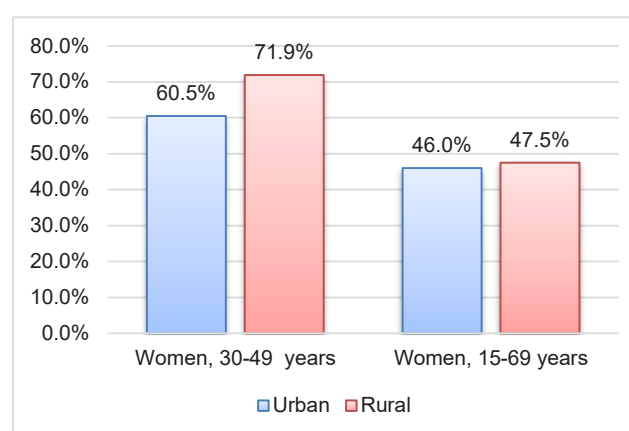
Percentage of women who have had a screening tests for early detection of cervical cancer, by age groups and locality
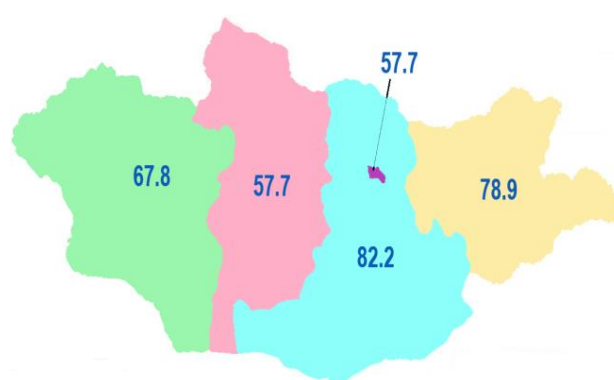
Percentage of women aged 30-49-year-old who have had a screening tests for cervical cancer, by regions

KEY FINDINGS

1. Of the women aged 15-69 and 30-49 years in Mongolia, 46.5% and 64.2% screened for cervical cancer respectively which indicates a decrease compared to the survey findings in 2013.
2. The majority of women have had cervical cancer screening tests at the Family and Soum health centers during their regular health check-ups. The main reasons for the women who have never had cervical cancer screening test were time constraints and lack of knowledge on test locations.
3. The overall awareness level of the Mongolians aged15-69 year-old on the human papillomavirus was extremely insufficient. Only 15.4% of the total population, 6.0% of men and 24.1% of women have had heard about human papillomavirus.

INJURY

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Percentage of population involved in road traffic accident in the past 12 months	**3.7** (3.0-4.3)	**4.0** (3.1-4.9)	**3.3** (2.5-4.2)
Percentage of population injured in a non-road traffic accident that required medical attention in the past 12 months	**6.1** (5.2-6.9)	**7.1** (5.9-8.3)	**5.1** (4.1-6.1)
Percentage of drivers or passengers of motor vehicle who do not use a seatbelt	**42.0** (39.6-44.5)	**39.8** (36.7-42.8)	**44.3** (41.6-47.1)
Percentage of population who rode in motor vehicle with the drivers under influence of alcoholic drinks in the past 30 days	**10.4** (9.1-11.8)	**12.2** (10.4-14.0)	**8.7** (7.2-10.1)
Percentage of drivers or passengers of a motorcycle or bicycle who do not always wear a helmet	**81.8** (79.5-84.0)	**78.3** (75.2-81.4)	**87.1** (84.5-89.8)
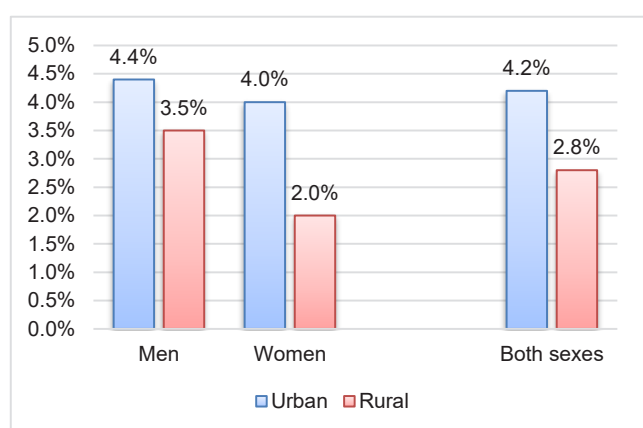
Percentage of population involved in road traffic accident in the past 12 months, by gender and locality
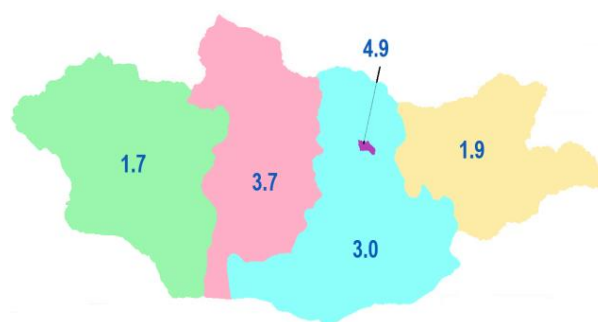
Percentage of population involved in road traffic accident in the past 12 months, by regions

KEY FINDINGS

1. About 3.7% of the Mongolian population aged 15-69 year-old was involved in road traffic accidents. There is no change since the survey findings in 2013.
2. Men are 1.2 times more likely to get injured than women.
3. The most common types of accidents were falls, and injuries caused by blunt objects. Poisoning and animal bites were relatively higher among the population of the Central region and the case of burns was common in the Khangai and Eastern regions.
4. Four out of 10 people received medical care due to serious injury after involving a road traffic accident.
5. The overall percentage of population using seat belts was 58%. As a result of the inclusion of specific provisions in the law on the use of seat belts, the percentage of drivers or passengers who use seat belts increased by 1.9 times compared with the survey results conducted in 2013.
6. The percentage of population who do not wear a helmet regularly when riding a bicycle or motorcycle was 81.8%.

VIOLENCE

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Percentage of population injured in a violent incidence that required medical services	**5.1** (4.2-5.9)	**5.7** (4.4-6.9)	**4.5** (3.4-5.5)
Percentage of population who reported being physically abused during their childhood	**37.2** (35.2-39.3)	**40.2** (37.5-42.9)	**34.4** (32.0-36.8)
Percentage of population who were sexually abused in childhood	**4.1** (3.4-4.8)	**2.6** (1.8-3.3)	**5.5** (4.4-6.6)
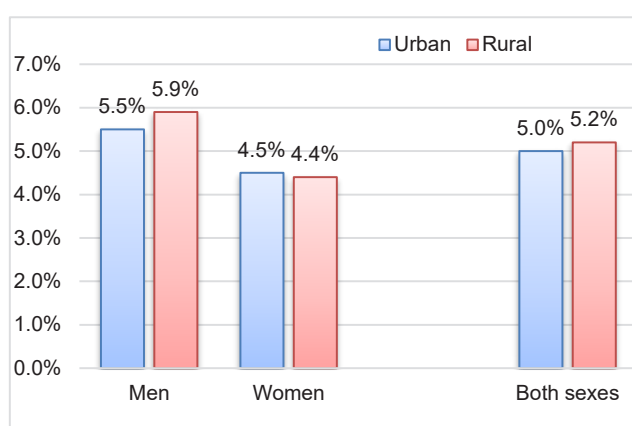
Percentage of population injured in a violent incidence that required medical services in the past 12 months, by gender and locality
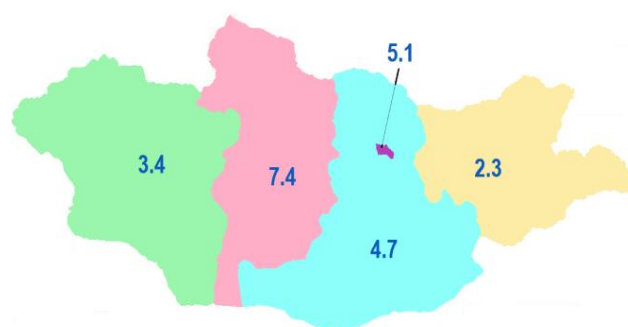
Percentage of population injured in a violent incidence that required medical services in the past 12 months, by regions

KEY FINDINGS

1. The population injured in a violent incidence that required medical services was 5.1%, with no tendency to decline from the survey findings in 2013. In the eastern region, the figure is lower than the national average.
2. During childhood, 37.2% of the population was physically abused such as slapping, pushing, pulling, throwing, burning, and throwing objects. The percentage of the population physically abused during their childhood decreased by 11.0% compared to the 2013 survey findings.
3. Childhood sexual abuse was increased 1.8 times in 2019 compared with 2013 (2.3%).
4. Childhood sexual abuse was relatively common among younger women aged 25-34 year-old.

HEALTH CARE SERVICES FOR NCDs

Results for Mongolians aged 15-69 years (95% CI)	Both Sexes	Men	Women
Percentage of population who currently have any kind of health insurance	**78.6** (76.5-80.5)	**75.6** (73.0-78.0)	**81.5** (79.1-83.7)
Percentage of population who have recently had NCDs	**7.9** (7.1-8.8)	**7.2** (6.2-8.4)	**8.6** (7.5-9.8)
Percentage of population who have visited health care facilities due to NCDs in the past 30 days.	**24.6** (21.0-28.7)	**23.3** (18.2-29.2)	**25.8** (20.5-31.9)
Percentage of population who had been hospitalized due to any NCDs in the past 12 months.	**29.8** (25.9-34.0)	**31.1** (25.1-37.8)	**28.7** (23.4-34.7)
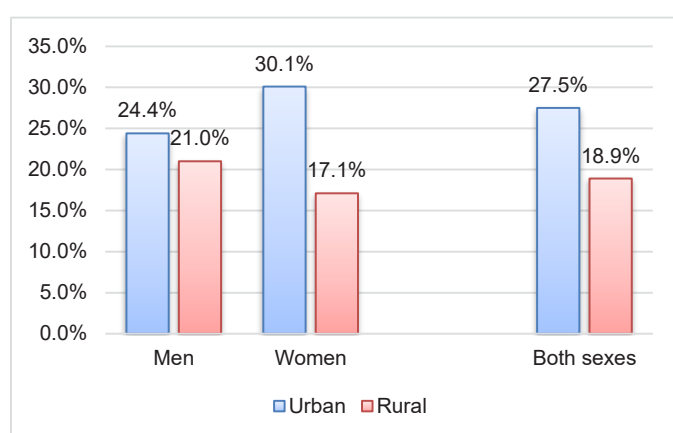
Percentage of population who have visited health care facilities due to NCDs in the past 30 days, by gender and locality
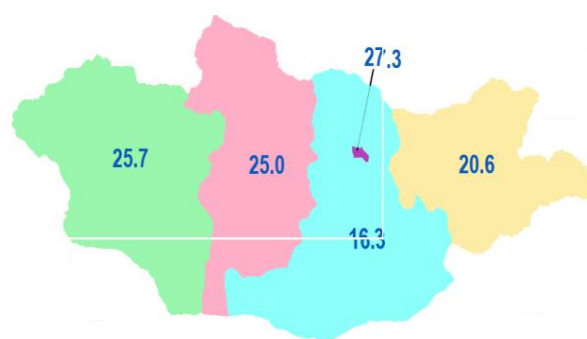
Percentage of population who have visited health care facilities due to NCDs in the past 30 days, by regions

KEY FINDINGS

1. The percentage of the population with health insurance is 78.6%, reduced by 13.5% from the survey findings in 2013. About 75.6% of men and 81.5% of women had health insurance.
2. Only 7.9% of the survey population had reported that they have any type of NCDs, of which 57.8% has CVDs. During the last month, 24.6% of the population with NCDs had received outpatient health care and 29.8% received inpatient health care services in the last year. The outpatient health care service cost increased by 25743 MNT and the inpatient service cost decreased by 47067.4 MNT.
3. A total of 131837 MNT was spent out of pocket on the examination, test, diagnosis, and medication during the outpatient health care service for average. Although these costs increased in comparison to the previous survey, the cost of accommodation, meal, and cash for the health care professional has decreased.
4. One in 10 people with NCDs was unable to work or missed work/school for 14.1 days, and had home care, causing an average of 23.3 hours of loss for the caregivers.

RECOMMENDATION

ONE. FOR DECISION MAKERS:

1. Develop the health care sector by improving the public health services

2. Establish a system for early detection and prevention for NCDs risk factors by "scheduled" type of service within the primary health centers starting from birth of a Mongolian citizen.

3. Intensify the implementation of the national health programs and improve the monitoring

4. Improve health care services by buying products through health insurance and increase the number of insured citizens by reducing their own expenses.

5. Local government unit authorities and health organizations should take into account the results of regional surveys and plan and implement improvement strategies.

6. Develop a system of lifelong health education

7. On tobacco and alcohol:

    7.1. Increase the excise tax on tobacco and alcohol

    7.2. Enforce the implementation of Law on Tobacco Control and amend additional article on protecting the citizens from harmful effects of second-hand smoking

    7.3. Prohibit tobacco retail sales and smoking at the workplace, along with further improvement of the implementation and monitoring of law on tobacco advertisement

    7.4. Intensify the implementation of the Law on Combating Alcoholism, restrict indirect advertising, and launch a public movement to abstain from alcohol.

    7.5. Allocate a budget from local development fund for reducing alcohol use at the local level and implement activities

    7.6. Cover the medicine expense for tobacco and alcohol dependency treatment from the health insurance fund

8. On nutrition:

    8.1. Limit vegetable import

    8.2. Promote family gardening and implement policy to increase the use of fruits and vegetables in the countryside

    8.3. Limit the production, market, and import of unhealthy products high in sugar, salt, trans fat, and saturated fat by economic approaches, increase tax and prohibit marketing of unhealthy food products targets directly at children and youths

    8.4. Organize and implement effective measures to promote production and use of products with low salt content.

    8.5. Enforce the use of food label such as salt amount and calorie at public restaurants

9. Increase the number of public parks with the environment to exercise, walk and cycle as well as establish numerous recreational centers

10. Develop, implement and monitor clinical guidelines for NCDs prevention

11. On Violence:

11.1. Improve the legal punishment for child abuse

11.2. Implement community-based, multi-sectoral cooperation for reducing child abuse

11.3. Establish a complex center for victims of abuse, and improve the registration and information

11.4. Increase the understanding, knowledge, and responsibility of social service professionals on abuse

TWO. FOR HEALTH CARE ORGANIZATIONS:

1. Implement initiatives to reduce the copayment of patients for health care services due to NCDs

2. Implement initiatives to reduce the number of patients receiving health care services due to NCDs

3. On tobacco and alcohol:

   3.1. Scale-up the consulting service at the local public health center for patients who are willing to quit smoking

   3.2. Organize continuous promotion and training on consequences of excessive alcohol use, negative effects of tobacco, and healthy lifestyle habits

   3.3. Promote campaigns against alcohol use such as celebrating holidays with no-alcohol and "Non-alcohol community"

4. On nutrition:

   4.1. Develop healthy eating advice and promotion materials based on the nutrition, as well as recipe and technology of nutritious food with fruits and vegetables

   4.2. Collaborate with all levels of educational institutions and implement a campaign for children and youth to promote healthy eating with the "Ger" food pyramid

   4.3. Include urine sodium test in the early detection and screening to monitor the salt consumption of the population

5. On early detection and prevention:

   5.1. Establish a national database at the NCPH for overweight and obesity monitoring in the family

   5.2. Encourage youth to measure their blood pressure at least once a year

   5.3. Organize early detection and monitoring for atrial fibrillation in collaboration with health care organizations

   5.4. Increase the allocated budget and clients for early detection of cervical cancer, and introduce new testing methods

6. Implement a comprehensive strategy and measures to improve oral hygiene and increase the availability and accessibility of dental care services in remote areas

7. Improve awareness on the practical use of CVD risk detection table by WHO to assess the individual CVD risks

8. Raise public awareness on the prevention of cervical cancer, human papillomavirus, and vaccine

THREE. FOR GENERAL POPULATION:

1. Increase personal responsibility for individual health

2. Encourage public to purchase health insurance

3. Monitor tobacco law enforcement and protect yourself and others from second-hand smoking

4. Reduce excessive use of alcohol and abstain the smoking

5. Improve supply and access of fruits and vegetables through family farming, and promote recipes and cooking technologies using red and green vegetables and fruits rich in vitamins and minerals, decrease the fat, salt, sugar, and sugary beverage consumption, and develop a healthy eating habit

6. Practice oral hygiene

7. Regularly measure BMI as well as waist circumference and improve the knowledge, attitude, and practice of obesity prevention, especially among women

8. Raise awareness and implement practices on hypertension control, diabetes monitor, and cardiovascular diseases prevention

9. Increase the voluntary vaccination by raising public awareness on human papillomavirus

10. Always use a helmet when riding a motorcycle and bicycle

11. Prevent children from burn in the home environment, prevent child abuse and improve parental care

Mongolia Fourth National STEPS Survey – 2019
Fact Sheet (by gender)

The STEPS survey of noncommunicable disease (NCD) risk factors in Mongolia was carried out from June 2019 to September 2019. Mongolia 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 to assess blood glucose and cholesterol levels in Step 3. The survey was a population-based survey of adults aged 15-69. A multistage stratified sampling design was used to produce representative data for that age range in Mongolia. A total of 6654 adults participated in the survey. The overall response rate was 98.1%. A repeat survey is planned for 2024 if funds permit.

Results for adults aged 15-69 years (incl. 95% CI)	Both Sexes (6654)	Males (2996)	Females (3688)
Step 1 Tobacco Use			
Percentage who currently smoke tobacco	**24.2** (22.9 – 25.6)	**43.7** (41.3 – 46.0)	**5.0** (4.2 – 5.9)
Percentage who currently smoke tobacco daily	**21.6%** (20.3 – 23.0)	**39.5%** (37.1 – 41.8)	**4.1%** (3.3 – 4.8)
For those who smoke tobacco daily			
Average age started smoking (years)	**18.9** (18.5 – 19.2)	**18.4** (18.0 – 18.7)	**23.8** (22.4 – 25.2)
Percentage of daily smokers smoking manufactured cigarettes	**96.8** (95.8 – 97.8)	**96.7** (95.6 – 97.8)	**97.7** (94.3 – 101.0)
Mean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	**10.7** (10.2 – 11.2)	**11.0** (10.5 – 11.5)	**8.0** (6.9 – 9.2)
Step 1 Alcohol Consumption			
Percentage who are lifetime abstainers	**30.6** (28.4 – 32.7)	**25.0** (22.4 – 27.7)	**36.0** (33.5 – 38.4)
Percentage who are past 12 month abstainers	**12.0** (11.0 – 13.1)	**9.6** (8.3 – 11.0)	**14.4** (12.9 – 16.0)
Percentage who currently drink (drank alcohol in the past 30 days)	**34.8** (32.8 – 36.7)	**44.9** (42.2 – 47.6)	**24.8** (22.7 – 27.0)
Percentage who engage in heavy episodic drinking (6 or more drinks on any occasion in the past 30 days)	**19.8** (18.4 – 21.2)	**28.2** (26.1 – 30.3)	**11.5** (10.1 – 12.9)
Step 1 Diet			
Mean number of days fruit consumed in a typical week	**1.8** (1.7 – 1.9)	**1.5** (1.4 – 1.6)	**2.1** (2.0 – 2.2)
Mean number of servings of fruit consumed on average per day	**0.9** (0.8 – 1.1)	**0.8** (0.6 – 0.9)	**1.1** (0.9 – 1.3)
Mean number of days vegetables consumed in a typical week	**4.7** (4.6 – 4.8)	**4.5** (4.4 – 4.7)	**4.9** (4.7 – 5.0)
Mean number of servings of vegetables consumed on average per day	**2.3** (2.1 – 2.6)	**2.2** (2.0 – 2.4)	**2.5** (2.2 – 2.7)
Mean number of servings of fruits and/or vegetables consumed on average per day	**3.2** (2.9 – 3.5)	**2.9** (2.5 – 3.2)	**3.5** (3.1-3.9)
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	**83.4** (81.2 – 85.6)	**85.3** (82.9 – 87.7)	**81.5** (78.9 – 84.2)
Percentage who always or often add salt or salty sauce to their food before eating or as they are eating	**17.3** (15.8 – 18.9)	**19.9** (17.8 - 22.0)	**14.8** (13.2 – 16.5)
Percentage who always or often eat processed foods high in salt	**11.0** (9.9 – 12.2)	**10.9** (9.5 – 12.3)	**11.2** (9.6 – 12.8)
Step 1 Physical Activity			

Percentage with insufficient physical activity (defined as < 150 minutes of moderate-intensity activity per week, or equivalent)*	**21.9** (20.1 – 23.9)	**21.0** (18.8 – 23.3)	**22.8** (20.7 – 24.9)
Median time spent in physical activity on average per day (minutes) (presented with inter-quartile range)	**120.0** (25.7 – 360.0)	**150** (30.0 – 424.3)	**94.3** (25.0 – 300.0)
Percentage not engaging in vigorous activity	**61.0** (58.9 – 63.1)	**50.1** (47.4 – 52.7)	**71.8** (69.5 – 74.1)
Step 1 Cervical Cancer Screening			
Percentage of women aged 30-49 years who have ever had a screening test for cervical cancer			**64.2** (61.0 – 67.3)
Step 2 Physical Measurements			
Mean body mass index - BMI (kg/m^2)	**25.5** (25.4 – 25.7)	**25.2** (25.0 – 25.5)	**25.9** (25.6 – 26.1)
Percentage who are overweight (BMI ≥ 25 kg/m^2)	**49.4** (47.8 – 51.1)	**48.0** (45.6 – 50.5)	**50.9** (48.7 – 53.0)
Percentage who are obese (BMI ≥ 30 kg/m^2)	**18.5** (17.3 – 19.7)	**16.6** (14.9 – 18.3)	**20.4** (18.8 – 22.0)
Average waist circumference (cm)		**87.3** (86.6 – 88.1)	**85.7** (85.0 – 86.4)
Percentage who are central obese (WC: for men≥90 cm, women≥80 cm)	**53.0** (51.2-54.8)	**41.9** (39.5-44.4)	**64.2** (62.0-66.4)
Mean systolic blood pressure - SBP (mmHg), including those currently on medication for raised BP	**120.5** (119.8 – 121.1)	**124.1** (123.3 – 124.9)	**116.9** (116.1 – 117.7)
Mean diastolic blood pressure - DBP (mmHg), including those currently on medication for raised BP	**77.3** (76.9 – 77.8)	**79.2** (78.6 – 79.9)	**75.4** (74.9 – 76.0)
Percentage with raised BP (SBP ≥ 130 and/or DBP ≥ 80 mmHg or currently on medication for raised BP)	**44.0** (42.2 – 45.7)	**50.8** (48.2 – 53.4)	**37.3** (35.2 – 39.7)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)	**23.6** (22.3 – 24.9)	**25.2** (23.2 – 27.1)	**22.1** (20.4 – 23.7)
Percentage with raised BP (SBP ≥ 160 and/or DBP ≥ 100 mmHg or currently on medication for raised BP)	**15.7** (14.6 – 17.8)	**15.2** (13.7 – 16.8)	**16.2** **(14.8 – 17.6)**
Percentage with raised BP (SBP ≥ 130 and/or DBP ≥ 80 mmHg or currently on medication for raised BP) who are not currently on medication for raised BP	**69.5** (67.3-71.8)	**77.0** (74.4-79.5)	**59.7** (56.3-63.1)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP) who are not currently on medication for raised BP	**43.2** (40.0-46.5)	**53.5** (49.3-57.6)	**31.8** (27.7-36.0)
Step 3 Biochemical Measurement			
Mean fasting blood glucose, including those currently on medication for raised blood glucose [mmol/L]	**5.8** (5.7–5.8)	**5.9** (5.8 – 6.0)	**5.7** (5.6–5.7)
Percentage with impaired fasting glycaemia as defined below • plasma venous value ≥6.1 mmol/L (110 mg/dl) and <7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥5.6 mmol/L (100 mg/dl) and <6.1 mmol/L (110 mg/dl)	**17.4** (16.1–18.7)	**19.2** (17.4–21.0)	**15.7** (14.0–17.3)
Percentage with raised fasting blood glucose as defined below or currently on medication for raised blood glucose • plasma venous value ≥ 7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥ 6.1 mmol/L (110 mg/dl)	**8.3** (7.4–9.2)	**10.0** (8.5–11.4)	**6.7** (5.7–7.6)
Mean total blood cholesterol, including those currently on medication for raised cholesterol [mmol/L]	**4.4** (4.4 – 4.4)	**4.5** (4.4 – 4.5)	**4.3** (4.3 – 4.4)
Percentage with raised total cholesterol (≥ 5.0 mmol/L or ≥ 190 mg/dl or currently on medication for raised cholesterol)	**27.8** (26.3 – 29.3)	**30.7** (28.7 – 32.8)	**25.0** (23.0 – 26.9)
Percentage with raised total cholesterol (≥ 6.2 mmol/L or currently on	**5.9**	**6.9**	**4.9**

medication for raised cholesterol)	(5.2-6.2)	(5.8-8.0)	(4.1-5.8)
Mean fasting blood triglycerides [mmol/L]	**1.5** (1.5-1.6)	**1.6** (1.6-1.7)	**1.5** (1.5-1.6)
Percentage of population with raised blood triglycerudes (≥1.7 mmol/L)	**31.1** (29.4-32.8)	**32.9** (30.7-35.1)	**29.4** (27.3-31.5)
Mean fasting blood HDL [mmol/L]	**1.4** (1.3-1.4)	**1.3** (1.3-1.3)	**1.4** (1.4-1.4)
Percentage of population with lower blood HDL (men<1.3 mmol/L; women<1.29 mmol/L)	**26.3** (24.8-28.0)	**22.1** (19.9-24.4)	**30.5** (28.4-32.5)
Mean fasting LDL [mmol/L]	**2.4** (2.3-2.4)	**2.4** (2.4-2.5)	**2.3** (2.2-2.3)
Percentage of population with raised blood LDL (LDL≥3.0 mmol/L)	**23.3** (21.9-24.8)	**27.2** (25.1-29.5)	**19.4** (17.6-21.3)
Mean intake of salt per day (in grams)	**10.5** (10.4 – 10.6)	**11.9** (11.8 – 12.1)	**9.0** (8.9 – 9.0)
Cardiovascular disease (CVD) risk			
Percentage aged 40-69 years with a 10-year CVD risk ≥ 30%, or with existing CVD**	**19.3** (17.4 – 21.2)	**18.4** (15.8 – 20.9)	**20.1** (17.6 – 22.6)
Summary of combined risk factors			
• current daily smokers • less than 5 servings of fruits & vegetables per day • insufficient physical activity • overweight (BMI ≥ 25 kg/m²) • raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)			
Percentage with none of the above risk factors	**3.9** (3.1 – 4.8)	**2.5** (1.6 – 3.4)	**5.3** (4.1 – 6.6)
Percentage with three or more of the above risk factors, aged 15 to 44 years	**22.7** (21.0 – 24.3)	**29.3** (26.8 – 31.8)	**15.9** (13.9 – 17.8)
Percentage with three or more of the above risk factors, aged 45 to 69 years	**51.2** (48.7 – 53.8)	**58.1** (54.3 – 61.8)	**44.9** (41.6 – 48.1)
Percentage with three or more of the above risk factors, aged 15 to 69 years	**30.8** (29.3 – 32.3)	**37.2** (34.9 – 39.5)	**24.4** (22.6 – 26.3)

* For complete definitions of insufficient physical activity, refer to the GPAQ Analysis Guide
() or to the WHO Global recommendations on physical activity for health
(http://www.who.int/dietphysicalactivity/factsheet_recommendations/en/index.html)

** 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 (126 mg/dl).

Mongolia Fourth National STEPS Survey – 2019
Fact Sheet (Areas)

The STEPS survey of noncommunicable disease (NCD) risk factors in Mongolia was carried out from June 2019 to September 2019. Mongolia 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 to assess blood glucose and cholesterol levels in Step 3. The survey was a population-based survey of adults aged 15-69. A multistage stratified sampling design was used to produce representative data for that age range in Mongolia. A total of 6654 adults participated in the survey. The overall response rate was 98.1%. A repeat survey is planned for 2024 if funds permit.

Results for adults aged 15-69 years (incl. 95% CI)	Both	Urban	Rural
Step 1 Tobacco Use			
Percentage who currently smoke tobacco	**24.2** (22.9 – 25.6)	**25.2** (23.6-26.9)	**22.5** (20.1-24.8)
Percentage who currently smoke tobacco daily	**21.6** (20.3 – 23.0)	**22.3** (20.7-23.9)	**20.5** (18.2-22.8)
For those who smoke tobacco daily			
Average age started smoking (years)	**18.9** (18.5 – 19.2)	**19.1** (18.6-19.5)	**18.6** (18.0-19.2)
Percentage of daily smokers smoking manufactured cigarettes	**96.8** (95.8 – 97.8)	**99.1** (98.5-99.6)	**92.6** (89.9-95.2)
Mean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	**10.7** (10.2 – 11.2)	**10.6** (10.1 – 11.2)	**10.9** (10.0-11.2)
Step 1 Alcohol Consumption			
Percentage who are lifetime abstainers	**30.6** (28.4 – 32.7)	**26.9** (24.4-29.4)	**36.8** (32.7-40.9)
Percentage who are past 12 month abstainers	**12.0** (11.0 – 13.1)	**12.7%** (11.3-14.0)	**11.0%** (9.1-12.9)
Percentage who currently drink (drank alcohol in the past 30 days)	**34.8** (32.8 – 36.7)	**34.2** (31.9-36.4)	**35.8%** (32.1-39.5)
Percentage who engage in heavy episodic drinking (6 or more drinks on any occasion in the past 30 days)	**19.8** (18.3 – 21.2)	**19.2** (17.4-21.0)	**20.8** (18.4-23.2)
Step 1 Diet			
Mean number of days fruit consumed in a typical week	**1.8** (1.7 – 1.9)	**2.1** (2.0-2.3)	**1.2** (1.0-1.3)
Mean number of servings of fruit consumed on average per day	**0.9** (0.8 – 1.1)	**1.1** (0.9-1.3)	**0.6** (0.4-0.8)
Mean number of days vegetables consumed in a typical week	**4.7** (4.6 – 4.8)	**5.4** (5.3-5.5)	**3.5** (3.3-3.7)
Mean number of servings of vegetables consumed on average per day	**2.3** (2.1 – 2.6)	**2.7** (2.4-3.1)	**1.6** (1.4-1.9)
Mean number of servings of fruits and vegetables consumed on average per day	**3.2** (2.9-3.5)	**3.8** (3.3-4.3)	**2.2** (1.8-2.9)
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	**83.4** (81.2 – 85.6)	**79.9** (77.0-82.8)	**89.3** (86.2-92.4)
Percentage who always or often add salt or salty sauce to their food before eating or as they are eating	**17.3** (15.8 – 18.9)	**18.0** (16.1-19.8)	**16.3** (13.7-18.9)
Percentage who always or often eat processed foods high in salt	**11.0** (9.9 – 12.2)	**12.0** (10.5-13.4)	**9.4** (7.6-11.2)
Step 1 Physical Activity			
Percentage with insufficient physical activity (defined as < 150 minutes of moderate-intensity activity per week, or equivalent)*	**21.9** (20.1 – 23.9)	**24.3** (22.1-26.4)	**17.9** (14.6-21.2)
Median time spent in physical activity on average per day (minutes) (presented with inter-quartile range)	**120.0** (25.7 – 360.0)	**90.0** (21.4-272.1)	**210.0** (44.3-488.6)
Percentage not engaging in vigorous activity	**61.0** (58.9 – 63.1)	**64.6** (62.2-66.9)	**54.9** (50.8-59.0)

* For complete definitions of insufficient physical activity, refer to the GPAQ Analysis Guide (http://www.who.int/chp/steps/GPAQ/en/index.html) or to the WHO Global recommendations on physical activity for health (http://www.who.int/dietphysicalactivity/factsheet_recommendations/en/index.html)

Mongolia Fourth National STEPS Survey – 2019

Fact Sheet

Results for adults aged 15-69 years (incl. 95% CI)	Both	Urban	Rural
Step 1　Cervical　Cancer Screening			
Percentage of women aged 30-49 years who have ever had a screening test for cervical cancer	**64.2** (61.0 – 67.3)	**60.5** (56.5-64.5)	**71.9** (66.8-77.0)
Step 2　　Physical Measurements			
Mean body mass index - BMI (kg/m^2)	**25.5** (25.4 – 25.7)	**25.7** (25.5-25.9)	**25.3** (25.0-25.6)
Percentage who are overweight (BMI ≥ 25 kg/m^2)	**49.4** (47.8 – 51.1)	**51.0** (49.1-53.0)	**46.7** (43.7-49.8)
Percentage who are obese (BMI ≥ 30 kg/m^2)	**18.5** (17.3 – 19.7)	**18.8** (17.3-20.3)	**18.0** (15.8-20.1)
Average waist circumference (cm) men	**87.3** (86.6 – 88.1)	**88.8** (87.9-89.7)	**85.1** (84.0-86.3)
Average waist circumference (cm) women	**85.7** (85.0 – 86.4)	**85.9** (85.1-86.6)	**85.4** (84.2-86.7)
Percentage who are central obese (WC: for men≥90 cm, women≥80 cm)	**53.0** (51.2-54.8)	**55.6** (53.5-57.7)	**48.6** (45.3-51.9)
Mean systolic blood pressure - SBP (mmHg), including those currently on medication for raised BP	**120.5** (119.8 – 121.1)	**119.5** (118.7-120.2)	**122.1** (121.0-123.2)
Mean diastolic blood pressure - DBP (mmHg), including those currently on medication for raised BP	**77.3** (76.9 – 77.8)	**76.7** (76.2-77.2)	**78.4** (77.5-79.3)
Percentage with raised BP (SBP ≥ 130 and/or DBP ≥ 80 mmHg or currently on medication for raised BP)	**44.0** (42.2 – 45.7)	**42.9** (40.8-44.9)	**45.9** (42.7-49.1)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)	**23.6** (22.3 – 24.9)	**22.8** (21.2-24.3)	**25.1** (22.7-27.5)
Percentage with raised BP (SBP ≥ 160 and/or DBP ≥ 100 mmHg or currently on medication for raised BP)	**15.7** (14.6 – 16.8)	**15.5** (14.1-16.8)	**16.1** **(14.2 – 18.1)**
Percentage with raised BP (SBP ≥ 130 and/or DBP ≥ 80 mmHg or currently on medication for raised BP) who are not currently on medication for raised BP	**69.5** (67.3-71.8)	**68.7** (66.0-71.5)	**70.9** (67.0-74.7)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP) who are not currently on medication for raised BP	**43.2** (40.0-46.5)	**41.1** (37.3-45.0)	**46.6** (40.9-52.4)
Step 3　　Biochemical Measurement			
Mean fasting blood glucose, including those currently on medication for raised blood glucose [mmol/L]	**5.8** (5.7 – 5.8)	**5.8** (5.7 – 5.9)	**5.8** (5.7 – 5.8)
Percentage with impaired fasting glycaemia as defined below • plasma venous value ≥6.1 mmol/L (110 mg/dl) and <7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥5.6 mmol/L (100 mg/dl) and <6.1 mmol/L (110 mg/dl)	**17.4** (16.1–18.7)	**16.6** (15.0-18.2)	**18.7** (16.4-21.1)
Percentage with raised fasting blood glucose as defined below or currently on medication for raised blood glucose • plasma venous value ≥ 7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥ 6.1 mmol/L (110 mg/dl)	**8.3** (7.4–9.2)	**8.9** (7.7-10.1)	**7.3** (5.9-8.8)
Mean total blood cholesterol, including those currently on medication for raised cholesterol [mmol/L]	**4.4** (4.4 – 4.4)	**4.4** (4.4 – 4.5)	**4.4** (4.3 – 4.4)
Percentage with raised total cholesterol　(≥ 5.0 mmol/L or ≥ 190 mg/dl or currently on medication for raised cholesterol)	**27.8** (26.3 – 29.3)	**28.8** (27.0-30.6)	**26.2** (23.5-28.9)
Percentage with raised total cholesterol　(≥ 6.2 mmol/L or currently on medication for raised cholesterol)	**5.9** (5.2-6.2)	**5.9** (5.0-6.9)	**5.8** (4.6-7.0)
Mean fasting blood triglycerides [mmol/L]	**1.5** (1.5-1.6)	**1.6** (1.5-1.6)	**1.5** (1.4-1.6)
Percentage of respondents with raised blood triglycerudes (≥1.7 mmol/L)	**31.1** (29.4-32.8)	**32.9** (30.7-35.1)	**28.3** (25.5-31.1)
Mean fasting blood HDL [mmol/L]	**1.4** (1.3-1.4)	**1.4** (1.3-1.4)	**1.4** (1.4-1.4)
Percentage of respondents with lower blood HDL (men<1.3 mmol/L; women<1.29 mmol/L)	**26.3** (24.8-28.0)	**28.1** (26.0-30.3)	**23.3** (20.8-30.3)
Mean fasting LDL [mmol/L]	**2.4** (2.3-2.4)	**2.4** (2.3-2.4)	**2.3** (2.3-2.4)

Results for adults aged 15-69 years (incl. 95% CI)	Both	Urban	Rural
Percentage of respondents with raised blood LDL (LDL≥3.0 mmol/L)	**23.3** (21.9-24.8)	**25.3** (23.4-27.3)	**20.0** (17.7-22.5)
Mean intake of salt per day (in grams)	**10.5** (10.4 – 10.6)	**10.5** (10.4-10.7)	**10.4** (10.2-10.5)
Cardiovascular disease (CVD) risk			
Percentage aged 40-69 years with a 10-year CVD risk ≥ 30%, or with existing CVD**	**19.3** (17.3 – 21.1)	**19.8** (17.5 – 22.0)	**18.4** (14.9-21.8)
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	**3.9** (3.1 – 4.8)	**5.1** (3.9-6.3)	**1.9** (1.0-2.8)
Percentage with three or more of the above risk factors, aged 15 to 69 years	**30.8** (29.3 – 32.3)	**30.9** (29.0-32.8)	**30.8** (28.1-33.4)

** 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 (126 mg/dl).

Mongolia Fourth National STEPS Survey – 2019

Fact Sheet (Regions)

The STEPS survey of noncommunicable disease (NCD) risk factors in Mongolia was carried out from June 2019 to September 2019. Mongolia carried out Step 1, Step 2 and Step 3. Socio demographic and behavioral information was collected in Step 1. Physical measurements such as height, weight and blood pressure were collected in Step 2. Biochemical measurements were collected to assess blood glucose and cholesterol levels in Step 3. The survey was a population-based survey of adults aged 15-69. A multistage stratified sampling design was used to produce representative data for that age range in Mongolia. A total of 6654 adults participated in the survey. The overall response rate was 98.1%. A repeat survey is planned for 2024 if funds permit.

Results for adults aged 15-69 years (incl. 95% CI)	All	Western	Khangai	Central	Eastern	UB
Step 1 Tobacco Use						
Percentage who currently smoke tobacco	24.2 (22.9 – 25.6)	21.4 (17.4-25.5)	21.8 (18.8-24.8)	24.3 (20.8-27.8)	25.1 (21.3-28.9)	26.2 (24.2-28.3)
Percentage who currently smoke tobacco daily	21.6 (20.3 – 23.0)	19.7 (15.5-23.8)	18.8 (16.1-21.5)	21.7 (18.3-25.1)	23.6 (19.8-27.4)	23.4 (21.4-25.4)
For those who smoke tobacco daily						
Average age started smoking (years)	18.9 (18.5 – 19.2)	19.4 (18.6-20.2)	18.9 (18.1-19.7)	18.7 (17.8-19.6)	18.4 (17.6-19.2)	18.9 (18.3-19.4)
Percentage of daily smokers smoking manufactured cigarettes	96.8 (95.8 – 97.8)	93.4 (89.6-97.1)	91.4 (87.1-95.6)	98.2 (96.3-100.0)	96.4 (93.0-99.9)	99.5 (99.0-100.0)
Mean number of manufactured cigarettes smoked per day (by smokers of manufactured cigarettes)	10.7 (10.2 – 11.2)	10.8 (9.2-12.4)	10.4 (9.4-11.4)	11.1 (10.1-12.1)	11.7 (9.3-14.1)	10.5 (9.8-11.2)
Step 1 Alcohol Consumption						
Percentage who are lifetime abstainers	30.6 (28.4 – 32.7)	47.5 (38.9-56.0)	36.1 (30.8-41.3)	29.9 (25.0-34.7)	19.1 (14.6-23.7)	24.3 (21.6-26.9)
Percentage who are past 12 month abstainers	12.0 (11.0 – 13.1)	7.2 (5.1-9.4)	10.1 (7.7-12.5)	15.1 (12.0-18.2)	6.2 (3.8-8.7)	14.2 (12.5-16.0)
Percentage who currently drink (drank alcohol in the past 30 days)	34.8 (32.8 – 36.7)	28.9 (22.9-34.9)	38.6 (33.5-43.7)	35.5 (31.0-40.0)	46.5 (40.3-52.8)	32.5 (29.8-35.1)
Percentage who engage in heavy episodic drinking (6 or more drinks on any occasion in the past 30 days)	19.8 (18.4 – 21.2)	13.7 (10.6-16.7)	19.1 (15.6-22.7)	21.3 (18.0-24.6)	35.3 (30.2-40.3)	18.9 (16.6-21.1)
Step 1 Diet						
Mean number of days fruit consumed in a typical week	1.8 (1.7 – 1.9)	1.2 (1.0-1.5)	1.5 (1.3-1.8)	1.9 (1.6-2.1)	0.9 (0.7-1.1)	2.2 (2.1-2.4)
Mean number of servings of fruit consumed on average per day	0.9 (0.8 – 1.1)	0.4 (0.3-0.5)	1.0 (0.7-1.4)	0.9 (0.7-1.2)	0.2 (0.2-0.3)	1.2 (0.9-1.4)

Mean number of days vegetables consumed in a typical week	**4.7** (4.6 – 4.8)	**2.9** (2.5-3.4)	**3.8** (3.5-4.1)	**5.2** (4.9-5.5)	**4.0** (3.5-4.4)	**5.6** (5.5-5.8)
Mean number of servings of vegetables consumed on average per day	**2.3** (2.1 – 2.6)	**1.0** (0.8-1.2)	**2.5** (1.9-3.0)	**2.1** (1.8-2.5)	**0.8** (0.7-0.9)	**3.0** (2.6-3.4)
Mean number of servings of fruits and vegetables consumed on average per day	**3.2** (2.9 – 3.5)	**1.4** (1.1-1.6)	**3.5** (2.6-4.3)	**3.0** (2.4-3.5)	**1.0** (0.9-1.1)	**4.1** (3.5-4.8)
Percentage who ate less than 5 servings of fruit and/or vegetables on average per day	**83.4** (81.2 – 85.6)	**94.2** (91.9-96.5)	**79.6** (73.6-85.5)	**87.9** (84.2-91.5)	**99.0** (98.2-99.8)	**77.3** (73.5-81.1)
Percentage who always or often add salt or salty sauce to their food before eating or as they are eating	**17.3** (15.8 – 18.9)	**20.1** (14.7-25.5)	**13.9** (10.3-17.5)	**14.4** (11.2-17.7)	**39.1** (34.1-44.1)	**15.9** (13.7-18.1)
Percentage who always or often eat processed foods high in salt	**11.0** (9.9 – 12.2)	**7.2** (4.1-10.3)	**8.4** (6.4-10.4)	**14.3** (10.9-17.6)	**14.5** (11.3-17.8)	**11.6** (9.9-13.3)
Step 1 Physical Activity						
Percentage with insufficient physical activity (defined as < 150 minutes of moderate-intensity activity per week, or equivalent)*	**21.9** (20.1 – 23.9)	**19.1** (14.8-23.5)	**18.1** (12.7-23.5)	**28.7** (25.0-32.4)	**5.7** (3.3-8.1)	**24.6** (22.0-27.2)
Median time spent in physical activity on average per day (minutes) (presented with inter-quartile range)	**120.0** (25.7 – 360.0)	**141.4** (30.0-400.0)	**270.0** (64.3-600.0)	**60.0** (11.4-244.3)	**261.4** (125.7-422.9)	**82.9** (20.0-250.7)
Percentage not engaging in vigorous activity	**61.0** (58.9 – 63.1)	**44.1** (36.6-51.6)	**56.3** (51.1-61.5)	**63.2** (59.6-66.8)	**63.4** (57.3-69.5)	**67.7** (64.9-70.5)

* For complete definitions of insufficient physical activity, refer to the GPAQ Analysis Guide (http://www.who.int/chp/steps/GPAQ/en/index.html) or to the WHO Global recommendations on physical activity for health (http://www.who.int/dietphysicalactivity/factsheet_recommendations/en/index.html)

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Fact Sheet (Regions)

Results for adults aged 15-69 years (incl. 95% CI)	All	Western	Khangai	Central	Eastern	UB
Step 1 Cervical Cancer Screening						
Percentage of women aged 30-49 years who have ever had a screening test for cervical cancer	64.2 (61.0 – 67.3)	67.8 (60.1-75.4)	57.7 (49.3-65.9)	82.2 (75.7-88.8)	78.9 (69.8-88.2)	57.7 (53.0-62.4)
Step 2 Physical Measurements						
Mean body mass index - BMI (kg/m²)	25.5 (25.4 – 25.7)	24.3 (23.8-24.8)	25.5 (25.1-25.9)	26.2 (25.7-26.7)	25.2 (24.7-25.7)	25.8 (25.5-26.0)
Percentage who are overweight (BMI ≥ 25 kg/m²)	49.4 (47.8 – 51.1)	37.9 (32.9-42.9)	49.4 (45.4-53.4)	53.5 (49.2-57.7)	46.1 (40.8-51.5)	52.1 (49.9-54.4)
Percentage who are obese (BMI ≥ 30 kg/m²)	18.5 (17.3 – 19.7)	13.4 (11.1-15.8)	17.3 (14.4-20.2)	23.1 (19.7-26.5)	16.8 (12.8-20.8)	19.0 (17.2-20.8)
Average waist circumference (cm) men	87.3 (86.6 – 88.1)	84.1 (82.2-85.9)	85.8 (84.5-87.1)	88.3 (86.2-90.3)	84.9 (82.7-87.1)	89.6 (88.5-90.8)
Average waist circumference (cm) women	85.7 (85.0 – 86.4)	86.2 (84.3-88.1)	84.0 (82.7-85.4)	87.0 (84.9-89.1)	84.1 (82.0-86.2)	86.0 (85.1-86.9)
Percentage who are central obese (WC: for men≥90 cm, women≥80 cm)	53.0 (51.2-54.8)	47.3 (42.5-52.0)	47.9 (43.9-51.9)	55.4 (50.4-60.2)	44.6 (38.7-50.6)	57.9 (55.4-60.4)
Mean systolic blood pressure - SBP (mmHg), including those currently on medication for raised BP	120.5 (119.8 – 121.1)	119.7 (118.4-121.1)	121.5 (120.0-123.1)	121.5 (119.6-123.4)	121.7 (119.7-123.7)	119.5 (118.6-120.3)
Mean diastolic blood pressure - DBP (mmHg), including those currently on medication for raised BP	77.3 (76.9 – 77.8)	76.5 (75.3-77.7)	78.9 (77.6-80.1)	77.2 (76.0-78.5)	78.5 (77.0-80.0)	76.6 (76.1-77.2)
Percentage with raised BP (SBP ≥ 130 and/or DBP ≥ 80 mmHg or currently on medication for raised BP)	44.0 (42.2 – 45.7)	40.6 (35.8-45.5)	48.4 (44.4-52.4)	42.2 (37.2-47.3)	46.6 (39.4-53.8)	43.2 (40.8-45.5)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)	23.6 (22.3 – 24.9)	20.6 (17.5-23.8)	26.8 (23.7-30.0)	24.3 (20.6-28.1)	25.5 (20.5-30.4)	22.3 (20.5-24.2)
Percentage with raised BP (SBP ≥ 160 and/or DBP ≥ 100 mmHg or currently on medication for raised BP)	15.7 (14.6 – 16.8)	15.1 (11.7-18.5)	17.3 (14.9-19.7)	16.0 (13.0-19.0)	14.2 (11.1-17.2)	15.2 (13.6-16.8)
Percentage with raised BP (SBP ≥ 130 and/or DBP ≥ 80 mmHg or currently on medication for raised BP) who are not currently on medication for raised BP	69.5 (67.3-71.8)	67.1 (59.6-74.5)	69.9 (65.0-74.9)	67.8 (62.5-73.1)	75.4 (69.9-80.8)	69.8 (66.3-73.2)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP) who are not currently on medication for raised BP	43.2 (40.0-46.5)	35.2 (25.3-45.1)	45.7 (38.1-53.3)	44.1 (36.6-51.6)	54.9 (45.4-64.4)	41.6 (37.0-46.3)

Results for adults aged 15-69 years (incl. 95% CI)	All	Western	Khangai	Central	Eastern	UB
Step 3 Biochemical Measurement						
Mean fasting blood glucose, including those currently on medication for raised blood glucose [mmol/L]	5.8 (5.7 – 5.8)	5.5 (5.4-5.6)	5.8 (5.7-5.9)	5.9 (5.8-6.0)	5.7 (5.5-5.9)	5.8 (5.8-5.9)
Percentage with impaired fasting glycaemia as defined below • plasma venous value ≥6.1 mmol/L (110 mg/dl) and <7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥5.6 mmol/L (100 mg/dl) and <6.1 mmol/L (110 mg/dl)	17.4 (16.1-18.7)	9.6 (6.7-12.5)	19.9 (16.9-22.8)	22.1 (18.4-25.8)	11.7 (7.6-15.9)	17.4 (15.5-19.3)
Percentage with raised fasting blood glucose as defined below or currently on medication for raised blood glucose • plasma venous value ≥ 7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥ 6.1 mmol/L (110 mg/dl)	8.3 (7.4-9.2)	4.2 (2.4-5.9)	8.3 (6.3-10.3)	9.4 (6.9-11.9)	8.3 (5.7-11.0)	9.1 (7.6-10.6)
Mean total blood cholesterol, including those currently on medication for raised cholesterol [mmol/L]	4.4 (4.4 – 4.4)	4.4 (4.3-4.5)	4.3 (4.2-4.4)	4.6 (4.5-4.7)	4.3 (4.1-4.4)	4.4 (4.3-4.4)
Percentage with raised total cholesterol (≥ 5.0 mmol/L or ≥ 190 mg/dl or currently on medication for raised cholesterol)	27.8 (26.3 – 29.3)	27.1 (23.0-31.3)	21.6 (19.1-24.2)	35.2 (30.9-39.2)	23.6 (18.8-28.3)	28.7 (26.4-31.1)
Percentage with raised total cholesterol (≥ 6.2 mmol/L or currently on medication for raised cholesterol)	5.9 (5.2-6.2)	5.1 (3.3-6.9)	4.7 (3.4-6.1)	9.8 (7.5-12.1)	4.3 (2.1-6.5)	5.2 (4.3-6.2)
Mean fasting blood triglycerides [mmol/L]	1.5 (1.5-1.6)	1.4 (1.3-1.4)	1.5 (1.4-1.5)	1.7 (1.7-1.8)	1.4 (1.3-1.5)	1.6 (1.5-1.6)
Percentage of respondents with raised blood triglycerudes (≥1.7 mmol/L)	31.1 (29.4-32.8)	23.8 (19.2-28.3)	25.9 (22.5-29.3)	39.7 (35.2-44.1)	27.0 (21.5-32.5)	33.2 (30.5-35.9)
Mean fasting blood HDL [mmol/L]	1.4 (1.3-1.4)	1.5 (1.4-1.5)	1.3 (1.3-1.4)	1.4 (1.3-1.4)	1.3 (1.3-1.4)	1.3 (1.3-1.4)
Percentage of respondents with lower blood HDL (men<1.3 mmol/L; women<1.29 mmol/L)	26.3 (24.8-28.0)	11.0 (7.9-15.1)	27.0 (24.1-30.2)	26.1 (23.0-29.4)	29.4 (23.8-35.8)	30.7 (27.9-33.6)
Mean fasting LDL [mmol/L]	2.4 (2.3-2.4)	2.3 (2.2-2.4)	2.3 (2.2-2.4)	2.4 (2.3-2.5)	2.3 (2.2-2.4)	2.4 (2.3-2.4)
Percentage of respondents with raised blood LDL (LDL≥3.0 mmol/L)	23.3 (21.9-24.8)	18.5 (14.9-22.7)	18.9 (16.3-21.7)	26.1 (22.2-30.5)	20.3 (16.9-24.3)	26.6 (24.2-29.2)
Mean intake of salt per day (in grams)	10.5 (10.4 – 10.6)	10.2 (10.0-10.4)	10.5 (10.3-10.7)	10.6 (10.4-10.8)	10.6 (10.3-10.9)	10.5 (10.4-10.7)
Cardiovascular disease (CVD) risk						
Percentage aged 40-69 years with a 10-year CVD risk ≥ 30%, or with existing CVD**	19.3 (17.4 – 21.2)	19.2 (13.6-24.8)	15.8 (12.2-19.4)	14.8 (10.6-19.0)	27.3 (17.6-36.9)	21.8 (18.9-24.7)
Summary of combined risk factors • current daily smokers • less than 5 servings of fruits & vegetables per day • insufficient physical activity • overweight (BMI ≥ 25 kg/m²) • raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)						
Percentage with none of the above risk factors	3.9 (3.1 – 4.8)	1.6 (0.1-3.1)	4.3 (2.2-6.4)	2.6 (1.1-4.1)	0.2 (0.0-0.5)	5.7 (4.2-7.3)
Percentage with three or more of the above risk factors, aged 15 to 69 years	30.8 (29.3 – 32.3)	26.5 (22.5-30.5)	29.0 (25.8-32.3)	39.2 (35.1-43.2)	26.9 (22.2-31.7)	30.4 (28.1-32.6)

** 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 (126 mg/dl)).

Key Findings Of The Mongolia Steps Survey On The Prevalence Of NCDs Risk Factors In 2005 – 2019

Mongolia: Results for adults aged 15-64 years (incl. 95%CI)	2005 (N=3411)	2009 (N=5438)	2013 (N=6013)	2019 (N=6329)
Step1. Tobacco Use				
Percentage who currently smoke tobacco	26.6 (23.8 29.4)	27.6 (26.0–29.4)	27.1 (25.2–29.0)	24.2 (22.9 – 25.6)
Percentage who currently smoke tobacco daily	23.3 (20.8–25.8)	24.3 (22.9–25.7)	24.8 (23.0–26.8)	21.6 (20.3 – 23.0)
Among those who smoke tobacco daily:				
Average age started smoking (years)	20.1 (19.6–20.6)	19.2 (18.7–19.6)	19.7 (19.2–20.3)	18.9 (18.5 – 19.2)
Percentage of daily smokers smoking manufactured cigarettes	90.5 (87.9–93.0)	84.6 (78.8–90.3)	95.2 (90.5–97.6)	96.8 (95.8 – 97.8)
Mean number of manufactured cigarettes smoked per day (among smokers of manufactured cigarettes)	11.3 (10.8–11.7)	8.7 (7.8–9.6)	10.0 (9.2–10.8)	10.7 (10.2 – 11.2)
Step1. Alcohol Consumption				
Percentage who are life time abstainer	-	34.2 (28.7–39.6)	23.4 (19.5–27.3)	30.5 (28.3–32.7)
Percentage who are past 12 months abstainer	-	7.4 (5.7–9.1)	12.1 (10.2–14.0)	11.8 (10.7–12.9)
Percentage who consumed alcohol in the past 12 months	66.9 (64.2–69.5)	58.5 (54.2–62.7)	64.6 (60.3–68.6)	57.7 (55.4–60.0)
Percentage who drank on 5 or more days per week in the past 12 months	0.6 (0.4–0.9)	0.8 (0.3–1.2)	0.3 (0.0–0.9)	0.3 (0.0–0.5)
Percentage who drank less than once a month in the past 12 months	37.2 (35.0–39.7)	62.0 (55.0–69.0)	58.0 (54.1–61.8)	63.7 (61.5–65.8)
Percentage who consumed alcohol in the past 30 days	-	38.6 (34.6–42.7)	36.3 (33.3–39.3)	35.0 (33.0–37.0)
Mean number of standard drinks consumed on a drinking occasion among current (past 30 days) drinkers	-	7.7 (7.1–8.3)	9.0 (8.3–9.6)	9.3 (8.7–9.9)
Percentage who engage in heavy episodic drinking (6 or more drinks on any occasion in the past 30 days)	-	-	23.5 (21.2 – 25.7)	19.8 (18.4 – 21.2)

Step1. Fruit and Vegetable Consumption(in a typical week)			
Mean number of days fruit consumed	1.8 (1.7-1.9)	1.2 (1.0-1.3)	1.1 (1.0-1.2)	1.8 (1.7 – 1.9)
Mean number of servings of fruit consumed on average per day	0.8 (0.7-0.9)	0.4 (0.3-0.5)	0.4 (0.4-0.5)	0.9 (0.8 – 1.1)
Mean number of days vegetables consumed	5.7 (5.6-5.8)	4.8 (4.3-5.3)	4.5 (4.2-4.9)	4.7 (4.6 – 4.8)
Mean number of servings of vegetables consumed on average per day	1.6 (1.5-1.7)	1.4 (1.2-1.7)	1.0 (0.9-1.1)	2.3 (2.1-2.6)
Mean number of servings of fruit and vegetables consumed on average per day	3.2 (3.16-3.24)	1.8 (1.5-2.2)	1.5 (1.3-1.6)	3.2 (2.9 – 3.5)
Percentage who had less than 5 servings of fruit and/or vegetables on average per day	91.1 (89.8-92.5)	92.3 (88.7-95.8)	96.4 (95.3-97.2)	83.4 (81.2 – 85.5)
Step1. Physical Activity			
Percentage with low levels of activity (defined as < 600 MET-minutes per week)	7.4 (6.0-8.8)	7.5 5.2-9.9	22.3 18.4-26.7	27.4 (25.3-29.4)
Percentage with insufficient physical activity (defined as < 150 minutes of moderate-intensity activity per week, or equivalent)*	-	-	18.3 (14.5-22.2)	21.5 (19.6-23.3)
Median time spent in physical activity on average per day (minutes) (presented with inter-quartile range)	181.4 (85.7-330.0)	342.9 (158.6-510.0)	105.7 (31.4-300.0)	124.3 (28.6 – 360.0)
Percentage not engaging in vigorous activity	58.9 (52.3-65.6)	48.5 (43.3-53.6)	66.6 (63.4-69.8)	60.4 (58.2 – 62.5)
Step 2. Physical Measurements			
Mean Body Mass Index - BMI (kg/m^2)	23.9 (23.7-24.1)	24.6 (24.3-24.9)	25.9 (25.7-26.2)	25.5 (25.3 – 25.7)
Percentage who are overweight (BMI ≥ 25 kg/m^2)	32.4 (30.3-34.4)	39.8 (37.1-42.5)	54.4 (52.3-56.6)	48.9 (47.2 – 50.6)
Percentage who are obese (BMI ≥ 30 kg/m^2)	10.2 (9.0-11.4)	12.5 (10.8-14.3)	19.7 (18-21.5)	18.3 (17.0 – 19.5)
Mean systolic blood pressure - SBP (mmHg)	124.6 (123.8-125.5)	125.6 (124.3-126.9)	127 (125.9-128)	120.1 (119.5 – 120.7)
Mean diastolic blood pressure - DBP (mmHg)	76.9 (76.4-77.4)	78.9 (78.1-79.6)	79.9 (79.3-80.4)	77.2 (76.7 – 77.6)

Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg or currently on medication for raised BP)[1]	28.5 (26.1-30.8)	27.3 (24.9-29.8)	27.5 (25.6-29.4)	22.6 (21.3 – 23.9)
Percentage with raised BP (SBP ≥ 140 and/or DBP ≥ 90 mmHg) who are not currently on medication for raised BP	50.4 (45.1-55.8)	61.1 (56.4-65.8)	71.9 (66.7-76.5)	44.8 (41.4-48.1)
Step 3 Biochemical Measurement: among adults aged 25-64 years (incl. 95%CI)				
Mean fasting blood glucose, including those currently on medication for raised blood glucose (mmol/L)[1]	4.9 (4.8-5.0)	4.7 (4.6-4.9)	5.0 (4.8-5.1)	5.9 (5.8 – 5.9)
Percentage with impaired fasting glycaemia as defined below • plasma venous value ≥6.1 mmol/L (110 mg/dl) and <7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥5.6 mmol/L (100 mg/dl) and <6.1 mmol/L (110 mg/dl)	10.3 (7.9-12.6)	9.4 (7.4-11.5)	8.3 (6.0-11.5)	19.0 (17.7-20.3)
Percentage with raised fasting blood glucose as defined below or currently on medication for raised blood glucose • plasma venous value ≥ 7.0 mmol/L (126 mg/dl) • capillary whole blood value ≥ 6.1 mmol/L (110 mg/dl)	10.0 (7.7-12.3)	6.5 (4.5-8.4)	6.9 (4.3-11.0)	9.7 (8.6-10.8)
Mean total blood cholesterol (mmol/L)	4.7 (4.6-4.8)	4.4 (4.1-4.6)	5.1 (5.0-5.2)	4.6 (4.5 – 4.6)
Percentage with raised total cholesterol (≥5.0 mmol/L or ≥190 mg/dl) or currently on medication for raised cholesterol	23.9 (20.5-27.3)	25.0 (19.4-30.5)	61.9 (55.7-67.6)	32.6 (31.0 – 34.3)
Cardiovascular disease (CVD) risk				
Percentage aged 40-64 years with a 10-year CVD risk ≥ 30%, or with existing CVD**	-	-	17.8 (12.0-23.6)	18.9 (16.9 – 20.8)
Prevalence of Combined NCD Risk Factors (among adults aged 15-64 years, incl. 95%CI): • Current daily smokers • Consuming less than 5 servings of fruit and/or vegetables per day • Low level of 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 NCD risk factors	3.4 (2.6-4.3)	3.0 (1.7-4.2)	1.0 (0.6-1.5)	4.0 (3.2 – 4.9)
Percentage with 3-5 of the above NCD risk factors, among respondents aged 15-44 years.	15.8 (13.9-17.7)	19.4 (17.3-21.5)	28.2 (26.1-30.4)	22.7 (21.0 – 24.3)

[1]including those currently on medication for raised blood glucose

Percentage with 3-5 of the above risk factors, among respondents aged 45-64 years	**53.0** (49.6-56.5)	**53.8** (49.4-58.1)	**53.2** (49.8-56.5)	**50.7** (48.0 – 53.3)
Percentage with 3-5 of the above risk factors, among respondents aged 15-64 years	**23.8** (21.7-25.9)	**26.4** (24.1-28.7)	**36.9** (34.6-39.1)	**30.1** (28.6 – 31.7)