

## DIETARY SALT INTAKE SURVEY IN THE REPUBLIC OF MOLDOVA, 2016





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## ABSTRACT

High salt consumption is an important determinant of high blood pressure and reducing it would improve health outcomes by lowering cardiovascular disease and therefore death rates. Reducing salt intake has been identified as one of the most effective public health measures and is one of the leading targets at global, regional and national levels to reduce the burden of noncommunicable diseases. The purpose of the Dietary Salt Intake Survey in the Republic of Moldova was to establish current baseline average consumption of salt (sodium), potassium and iodine through 24-hour urinary excretion testing among a random sample of the adult population (aged 18-69 years), and to assess the knowledge, attitudes, practices and behaviour around dietary salt in order to enable more efficient planning and the implementation of an effective salt-reduction strategy in the Republic of Moldova. The survey was a population-based survey of adults aged 18-69 years and carried out in three stages: questionnaire survey, physical measurements, and 24-hour urine collections. The sample for the survey was selected using a stratified probabilistic method in three stages from the master sample used by the National Bureau of Statistics, to be nationally representative. From a total of 1950 individuals selected from the sampling frame, 1307 (67%) provided suitable data for inclusion and the final sample included 858 participants.

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## LIST OF ABBREVIATIONS

AIDS	acquired immune deficiency syndrome
ANOVA	analysis of variance
BMI	body mass index
CI	confidence interval
CVD	cardiovascular disease
DBP	diastolic blood pressure
DHS	Demographic Health Survey
HIV	human immunodeficiency virus
MDL	Moldovan lei (currency)
MICS	Multiple Indicator Cluster Survey
NBS	National Bureau of Statistics
NCDs	noncommunicable diseases
ODK	Open Data Kit
PPS	probability proportional to size
PSU	primary sampling unit
OR code	quick response code
SBP	systolic blood pressure
SD	standard deviation
SSU	secondary sampling unit
STEPS	WHO STEPwise approach to surveillance
TSU	tertiary sampling unit
UCr	urinary creatinine
UI	urinary iodine
UK	urinary potassium
UNa	urinary sodium
WHO	World Health Organization
WHR	waist-to-hip ratio

## FOREWORD

Cardiovascular diseases are the leading cause of death in the Republic of Moldova, accounting for more than half of all deaths (approximately 57%). One of the major causal factors for cardiovascular diseases is high blood pressure. Evidence from recent decades suggests that high dietary salt consumption is an important determinant of rising blood pressure incidence and the associated risks. A high-sodium diet is considered one of the most important dietary risk factors to health globally and the reduction of salt intake represents one of nine global targets for preventing and controlling noncommunicable diseases within the Global Action Plan for the Prevention and Control of NCDs 2013–2020. In addition, salt reduction is a priority highlighted in the Action Plan for the Prevention and Control of Nuclean Region, as well as in the European Food and Nutrition Action Plan 2015–2020.

The Government of the Republic of Moldova is committed to reducing population salt intake nationwide to less than 8 g per day by 2020 (representing a 30% reduction). This target is envisaged under the National Programme on Food and Nutrition for 2014–2020 and in the National Action Plan for 2016–2020 on the implementation of the National Strategy for Prevention and Control of Noncommunicable Diseases. Achieving this target would only be possible by implementing a comprehensive and multisectoral approach that includes but is not limited to the reformulation of food products, labelling, school food policies, and public awareness campaigns.

It was estimated that the citizens of the Republic of Moldova have a high level of dietary sodium intake, but data were not available on the actual figures. The objectives of the National Salt Intake Survey were: to provide baseline data on sodium, potassium and iodine consumption across a random sample of the adult population; to identify food products that contribute to the population's high dietary sodium intake (along with their frequency of consumption); to evaluate the iodine content in the samples of table salt used in the population's diet; as well as to assess their knowledge, attitude, practices and behaviour around dietary salt. Intake of sodium, potassium and iodine were estimated by measuring urinary excretion, which closely reflects an individual's intake.

The findings of the study will be used to design effective national populationbased interventions directed at reducing dietary sodium intake through a wholeof-government and whole-of-society approach and at better handling high blood pressure levels and the associated cardiovascular risks among the population.

Svetlana CEBOTARI, Minister of Health, Labour and Social Protection Haris HAJRULAHOVIC, WHO Representative to the Republic of Moldova

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## **EXECUTIVE SUMMARY**

#### Background

In the Republic of Moldova, noncommunicable diseases are the leading cause of death, and CVD represents the main cause of population morbidity and mortality, accounting for every second death in 2016. High blood pressure (hypertension) and unhealthy diet are the leading risk factors for most of the CVD burden in the Republic of Moldova.

High salt consumption is a significant determinant of high blood pressure and reducing it improves the blood pressure and associated health outcomes. In the Republic of Moldova it is a common habit to add salt to food at the table and when cooking, as well as eating processed foods that have high salt content. In 2013 a national survey indicated that 24.3% of those surveyed always or often added salt to food, and 32.4% always or often ate processed foods that are high in salt. The World Health Organization currently recommends that adults should consume no more than 5 g of salt daily. Since most countries in the world eat far in excess of this target, the current global action plan has set as a health priority to reduce population salt consumption by at least 30% by 2025.

There is no reliable measure of salt consumption in the Republic of Moldova. Comprehensive, up-to-date data on population salt intake in the country are therefore urgently needed.

## **Objective**

The overall objective of the present survey was to establish the current baseline average consumption of salt (sodium), potassium and iodine in a random sample of men and women in the Republic of Moldova.

#### **Methods**

The survey was carried out in three stages: questionnaire survey, physical measurements, and 24-hour urine collections. The sample for the survey was selected using a stratified probabilistic method in three stages from the master sample used by the National Bureau of Statistics (NBS), to be nationally representative. From 1950 households and individuals selected from the sampling frame, 1307 (67%) provided suitable data for inclusion. Of these, 449 (34%) were excluded during quality-control checks (on completeness of urine collections). The final sample included 858 participants (66% of the suitable sample), of which 326 were men and 532 women, aged between 18 and 69 years.

## Results

The prevalence of hypertension (blood pressure >140 and/or >90 mmHg or being on antihypertensive medications) was 45.5%, with no difference between the sexes. Almost two thirds of respondents (74.3%) were not taking medication and had raised blood pressure, with higher prevalence in men (82.4%) compared to women (69.2%).

Mean urinary sodium (UNa) excretion was 173 + 79 mmol/24h; higher in men than women (184 + 86 versus 166 + 74 mmol/24h, p<0.01); and higher in rural than urban areas (180 + 80 versus 160 + 76 mmol/24h, p<0.001). UNa excretion tended to increase with age, more so in men than women, and was equivalent to a mean salt consumption of 10.8 + 4.9 g per day. Men consumed more salt than women (11.5 + 5.4 versus 10.3 + 4.6 g per day; p=0.001). Higher salt consumption was detected in rural compared to urban areas (11.3 + 5.0 versus 10.0 + 4.8 g per day, p<0.001). Only 11.3% of the survey respondents consumed 5 g of salt per day or less; in rural areas the proportion was lower (10.0%) than in urban areas (13.5%).

Bread is the biggest contributor of salt in the diet; every 100 g of bread provides an average of 1.85 g of salt. More than half of the population (55.4%) consumed bread 2–3 times per day with a higher proportion among the rural population (61.6%) than among people living in urban areas (45.4%). One fifth of the population consumed sausages, salami and liver sausage and almost a quarter consumed cheese 2–4 days per week, adding 1.88 g of salt with every 100 g of product eaten.

Mean urinary potassium (UK) excretion was 73 + 31 mmol/24h, and higher in men than women (76 + 33 versus 71 + 30 mmol/24h, p=0.02). The proportion of participants consuming adequate amounts of potassium (>90 mmol per day) was 49.7%; again, higher in men than women (52.5% versus 47.9%).

Fruit and vegetable consumption was generally low: more than half of the population surveyed (56.4%) reported eating fewer than five servings of fruit and vegetables per day; thus being at higher risk for noncommunicable diseases. Consumption of fruit and vegetables was higher among the urban population.

Mean and median urinary iodine (UI) excretions were 225 and 196 mcg/24h for both sexes, respectively. UI excretion (as measure of intake) was adequate in 41% of participants, irrespective of sex and area of residence. UI excretion was above requirement or excessive in a total of 30% of respondents, while 29% were deficient (only 2.3% severely).

Salt intake in adults in the Republic of Moldova exceeds the WHO recommended maximum target of 5 g per day by more than twofold. More than half (57.2%) of the 856 households visited consumed salt containing 15 mg/kg of iodine or more, while 23% of them consumed salt that was not iodized. Awareness, attitudes and behaviours around salt and its importance indicate a need for intensive awareness and health promotion campaigns to improve the uptake of preventive strategies aiming to reduce salt consumption and increase potassium and iodine intake.

A national programme for reducing salt intake and promoting increased potassium consumption in the Republic of Moldova needs to be implemented through systematic efforts, including food product reformulation; product labelling; and public education involving the health sector and the food industry, with the objective of achieving a 30% reduction in salt consumption by 2025. This would also be an opportunity to revise the criteria for iodine fortification in the adult population, aiming to correct both the deficiency still present in some people, and the excess detected in others.

# 1. BACKGROUND

The Republic of Moldova is a lower-middle-income country with a population of 3.4 million, of which 53% live in rural areas. It is situated in south-eastern Europe and has common borders with Romania and Ukraine. The administrative structure consists of municipalities, an autonomous territorial-administrative unit, and districts divided into communes. The country's gross domestic product per capita is increasing, but remains lower than that of other countries in the region.

The country has been undergoing an epidemiological transition since the 1990s. As a result, the prevalence of disease related to lifestyle and health behaviours - including CVD, diabetes, cancer, chronic hepatitis and cirrhosis - is increasing steadily and these diseases have become the leading causes of population mortality. Noncommunicable diseases (NCDs) are the leading cause of death in the Republic of Moldova; responsible for more than 85% of all deaths annually. As is the case in other developing countries, the Republic of Moldova is now facing a double burden of disease, comprising newer challenges, such as obesity and NCDs, as well as infectious diseases, such as tuberculosis and HIV/AIDS. According to national health statistics from 2016, the following diseases were the leading causes of death in the Republic of Moldova (1): diseases of the circulatory system (617.3 per 100 000 population); neoplasms (175.3 per 100 000 population); chronic hepatitis and cirrhosis (80.1 per 100 000 population); injury and poisoning (66.2 per 100 000 population); and diabetes (11.5 per 100 000 population). Diseases of the circulatory system are the leading cause of population morbidity and mortality, and accounted for every second death in 2016 (1).

High blood pressure and unhealthy diet are the leading risk factors for CVD in the world and among the risk factors that account for most of the disease burden in the Republic of Moldova (2). High salt consumption is an important determinant of high blood pressure and reducing it can directly improve health outcomes and indirectly reduce overall mortality through the beneficial effects on systolic blood pressure (SBP) and diastolic blood pressure (DBP). In the Republic of Moldova, the prevalence of raised blood pressure in adults aged 18 years and over was 40% in 2013, with no difference between the sexes. It is a common habit in the Republic of Moldova to

add salt to food at the table and when cooking, as well as to eat processed foods that have high salt content (2). The STEPS survey of noncommunicable disease risk factors (carried out in 2013–2014) indicated that 24.3% of respondents always or often added salt before eating or while eating, and 32.4% of respondents always or often ate processed foods that are high in salt (2).

There is compelling evidence from experimental epidemiological, migration and intervention studies, as well as meta-analyses, to indicate that high salt intake is associated with raised blood pressure and adverse cardiovascular health (that is, coronary heart disease and stroke) (3–6). In addition, high salt intake is related to adverse health effects independent of its effects on blood pressure (7).

WHO currently recommends that adults should consume no more than 5 g of salt per day (8). Even though sodium intake varies in populations across the world, in the vast majority of countries, salt intake is high and it exceeds both physiological requirements and recommendations (9,10). The Republic of Moldova lacks data on actual salt consumption. The European Food and Nutrition Action Plan 2015–2020 recommends that countries adopt comprehensive salt-reduction strategies (11). Salt-reduction strategies in the WHO European Region, including the Republic of Moldova, encompass monitoring and evaluation actions as one of their important pillars (12,13). Hence, comprehensive, current data on salt intake in Moldova are urgently needed, using at least one accurately collected 24-hour urine sample for assessing UNa, which is regarded as the gold standard method to assess salt consumption, at least for a population average (14).

In contrast to sodium, evidence from epidemiological studies and randomized trials point to the beneficial effects of dietary potassium on blood pressure and cardiovascular health (15). This effect is more pronounced in those with high sodium intake (16). In addition to sodium, potassium can also be determined accurately in 24-hour urine collections, hence avoiding the need to rely on reported dietary intake data and national food composition tables (which may not always be up to date).

Iodine deficiency is a public health problem in the Republic of Moldova and salt iodization has been implemented since the late 1990s to prevent iodine deficiency disorders. Other voluntarily iodized foodstuffs, including bottled iodized water, are available on the internal market, which may increase iodine intake in some population groups. A WHO special expert consultation held in 2013 concluded that policies are needed to (a) increase salt iodization and (b) reduce salt intake to less than 5 g/day. Such policies are also compatible with each other.

# 2. SURVEY GOAL AND OBJECTIVES

The goal of the present survey was to establish current baseline average consumption of salt (sodium), potassium and iodine in a random sample of the general population of the Republic of Moldova and to explore knowledge, attitudes and practices around dietary salt for the implementation of the National Programme on Food and Nutrition for 2014–2020. The objectives were to survey a random sample of men and women aged 18–69 years from urban and rural areas of the Republic of Moldova, in order to: acquire information on demography, knowledge, attitudes, practices and behaviours through a questionnaire; obtain physical measurements of anthropometry, blood pressure and heart rate; obtain 24-hour urine sample collection to determine daily excretion of sodium, potassium, creatinine and iodine; to identify food products that contribute to the high dietary sodium intake of the population, as well as their frequency of consumption; and to evaluate the iodine content in the samples of table salt used in the population's diet.

The National Salt Intake Survey is a part of the activities foreseen under the Biennial Collaborative Agreement between the WHO Regional Office for Europe and the Ministry of Health, Labour and Social Protection of the Republic of Moldova within the project "Support to strengthening governance and policy dialogue in the health sector, 2nd phase", funded jointly by WHO and the Swiss Agency for Development and Cooperation. It is also reflected in national policy documents, such as the National Programme on Food and Nutrition for 2014–2020 and the National Action Plan for 2016–2020 on the implementation of the National Strategy for Prevention and Control of Noncommunicable Diseases 2012–2020, as a monitoring tool to measure progress in implementing national policies on NCDs.

# 3. SURVEY METHODOLOGY

#### 3.1 Survey design

The survey was carried out using three consecutive steps, similar to the WHO concept of using a stepwise approach for the surveillance of risk factors for NCDs, and considering local needs and resources.

**STEP 1** comprised a questionnaire survey – an adapted version of the WHO STEPwise approach to surveillance (STEPS) Instrument for Non-Communicable Disease Risk Factor Surveillance (see Annex 1, Chapter 7). This was a face-to-face interview, using a questionnaire to collect demographic information, as well as information on diet (including consumption of foods contributing to high salt intake, fruit and vegetable consumption, oil and fat consumption, and dietary salt); history of high blood pressure, diabetes and CVD; and whether participants had received lifestyle advice.

**STEP 2** comprised a series of physical measurements of overweight and obesity using specific tests and devices (body weight and height, waist and hip circumference), along with blood pressure and heart rate.

**STEP 3** comprised 24-hour urine sample testing for sodium, potassium, iodine and creatinine content, as well as household salt testing for iodine.

The adapted version of the instrument was translated into Romanian and Russian, and used to take into consideration specific characteristics/requirements within the country.

#### 3.2 Survey population and sampling

A total of 1307 randomly selected respondents participated in the survey. They were all aged 18–69 years, and the group comprised both sexes, as well as residents of all districts and the territorial-administrative unit of Gagauz-Yeri, along with Chișinău and Balti municipalities. The survey did not cover the districts from the left bank of the Nistru River and the municipality of Bender.

#### 3.3 Sample size

In general, to detect approximately 1 g reduction in salt intake over time using 24-hour UNa excretion, with a standard deviation of 75 mmol/day (alpha = 0.05, power = 0.80), a minimum sample of 120 individuals per age and sex stratum is recommended (*17,18*). To account for attrition (e.g. non-participation, incomplete collection or implausible values), which may be as high as 50%, up to 240 people per age and sex stratum should be invited to participate. Thus, a minimum recommended sample size of 120 was multiplied by 8 estimated age and sex groups and adjusted for an anticipated non-response rate of 50%. Calculations resulted in a minimum final sample size of 1920 individuals (see Formula 1).

#### Formula 1. Sample size calculation n = 120 \* 8÷0.5 = 1920

The survey sample ensures accuracy of the results both at national and area of residence (urban/rural) levels, as well as by sex and by age group (18–29, 30–44, 45–59 and 60–69 years).

The estimated sample size consisted of 50 primary sampling units (PSUs; communes or cities, or sectors within cities), 1920 secondary sampling units (SSUs; households), and 1920 tertiary sampling units (TSUs; individuals) (Table 3.1).

Age	Sex		Non-response rate	Total
(years)	Men	Women	(%)	
18–29	120	120	50	480
30-44	120	120	50	480
45-59	120	120	50	480
60–69	120	120	50	480
Total	480	480	50	1 920

Table 3.1. Survey sample calculation by age and sex

#### 3.4 Sampling

A probabilistic master sample (used by the National Bureau of Statistics (NBS) for the Household Budget Survey) was applied in order to select the sample for this survey. The nationally representative stratified probabilistic sample was extracted in three stages (phases). The list of all PSUs (communes, cities/sectors in the cities) was used as a sampling base at Phase 1, the list of all households at Phase 2 and the list of all eligible individuals within the selected households at Phase 3 (Table 3.2).

|--|

Stratum	PSU	Households (individuals)
Urban	20	780
Rural	30	1 170
Total	50	1 950

In the first stage, two phases of sampling were applied. The Phase 1 survey base consisted of 931 PSU, of which 150 PSU were selected, with the probability proportional

to size (PPS) within each stratum. The strata were formed by the intersection of statistical areas (north, centre, south and the municipality of Chişinău), with area of residence (urban/rural), and the size of the communes (large and small). Thus, Phase 1 resulted in 11 sampling strata.

Each PSU represents one administrative-territorial unit (level 1: commune) in accordance with the Classifier of Administrative-Territorial Units of the Republic of Moldova (19). Exceptions include the municipalities of Chișinău and Balti, as well as the cities of Cahul and Ungheni, for which one PSU represents a part of the locality.

The 150 PSU extracted at Phase 1 represented the survey base of the second sampling phase (Phase 2). These 150 PSU were stratified by area of residence, resulting in two strata – urban and rural. Within each stratum, the PSUs were ordered from north to south to obtain a default geographical stratification. Then, from each stratum, the required number of PSU (20 urban PSU and 30 rural PSU) were extracted, with a probability of extraction proportional to their size (number of population) using the systematic extraction procedure.

For Phase 2 of sampling, the list of respondent households within the Household Budget Survey carried out by the NBS of the Republic of Moldova in 2014 was used as a sampling base. Thus, 39 households within each PSU were randomly selected, using the systematic extraction procedure.

Phase 3 selection took place on site, within the 1950 households selected at the previous stage. This stage involved the random selection of only one individual (aged 18–69 years) from within the household to respond to the questionnaire.

PSU sample selection at Phase 1 and SSU selection (of households) at Phase 2 of sampling were carried out in collaboration with the NBS. Respondent selection at Phase 3 of sampling took place in the field, and was carried out by the interviewers (random selection using an Android app).

#### 3.5 Ethical considerations

The survey was carried out in accordance with the Declaration of Helsinki (20,21) and the principles of good clinical practice. Ethical approval for the survey was obtained from the Committee of Research Ethics of the National Public Health Agency. All participants were informed about the survey goal and objectives, as well as the procedures that would be applied. Prior to data collection the selected household participant received information and signed a consent form. To ensure confidentiality of all collected and archived data, unique identification numbers were assigned to each participant and data registers refer only to these numbers. The information and consent forms were available in both Romanian and Russian languages.

#### 3.6 Training of field data collectors in survey methodology

Field data collectors and field data supervisors were recruited from the National Centre of Public Health (now the National Public Health Agency) and the territorial centres of public health from among the individuals who had previously participated in the STEPS survey in 2013 and/or in the Multiple Indicator Cluster Survey (MICS) in 2012 and/or in the Demographic Health Survey (DHS) in 2005. Two workshops on the National Salt Consumption Survey and its data collection methodology were conducted by the National Centre of Public Health in collaboration with the Ministry of Health (now Ministry of Health, Labour and Social Protection) and the WHO Country Office in the Republic of Moldova. The first workshop took place on 5 December 2015; the second on 18–20 July 2016. A total of 12 national data collectors attended the workshops.

The training of data collectors was conducted by the survey's technical working group, which previously performed similar functions in the STEPS 2013 survey. The training session on 5 December 2015 was performed in cooperation with WHO expert, Professor Francesco Cappuccio from the WHO Collaborating Centre for Nutrition of the University of Warwick (United Kingdom). It focused in particular on the methodology of how to collect complete and reliable 24-hour urine samples. During the second workshop, survey staff was trained on the methodology of communicating with households selected to participate in the survey, obtaining informed consent from the survey participants, and delivering the questionnaire. The core of the training focused on the skills required to use an electronic device (tablet) for the selection of one survey participant at the household level and for data entry.

#### 3.7 Pilot testing

The trained data collectors carried out preliminary testing in Chişinău, aiming to validate the field data collector's skills in carrying out the various elements involved in the data collection exercise. The preliminary testing tasks comprised selecting one individual from within the household, obtaining informed consent, delivering the questionnaire, carrying out physical measurements, collecting urine and salt samples and sending them to the laboratories for testing. Four teams, each comprising two interviewers and one coordinator/supervisor, participated in data collection; each team delivered the questionnaire, performed physical measurements, and collected urine and salt samples on three to four individuals.

#### 3.8 Data collection process

In the present survey, the WHO STEPS Instrument for Non-Communicable Disease Risk Factor Surveillance was adapted and used for data collection and physical measurements. The adapted questionnaire was translated into Romanian and Russian. All participants were visited at home between 21 July and 5 September 2016 by field team members, who were specially trained health professionals. Every selected participant was informed verbally and in writing about the survey. After obtaining informed consent and applying exclusion criteria (Table 3.3), a questionnaire was carried out with each participant and physical measurements were taken, used to calculate body mass index (BMI) and waist-to-hip ratio (WHR). Upon completion of the measurements, the survey participant was informed about the urine collection procedure; the necessary equipment, the registration form and the participant guide on urine collection were provided.

#### Table 3.3. Exclusion criteria

- People unable to provide informed consent
- People with known history of heart or kidney failure, stroke, and liver disease
- People who recently began therapy with diuretics (within the last two weeks)
- Pregnant women, and those who are breastfeeding and/or menstruating

#### 3.9 STEP 1 Questionnaire survey

The questionnaire was used to collect data on respondent's demographic and socioeconomic status; diet, including frequency of high salt food consumption, fruit and vegetable consumption; knowledge, attitudes and practices on dietary salt; history of high blood pressure, diabetes and CVD; and whether participants had received lifestyle advice.

#### 3.9.1 Assessing diet

In order to assess the diet pattern of the surveyed population, the respondents were asked about frequency of consuming foods that contribute significantly to salt intake; frequency of fruit and vegetable consumption; mean number of portions of these foods consumed daily; type of oils and fats used for meal preparation; and knowledge, attitudes and practices on dietary salt. Consumption of foods which contribute significantly to salt intake and of fruit and vegetables was assessed in terms of number of servings, with a serving being equal to 80 g. Showcards were used to collect data on consumption of these foods within a certain time frame (day, week, and month). Oil and fat intake was assessed by asking about the type of oil or fat most frequently used for cooking.

Consumption of foods which contribute significantly to salt intake was assessed by asking about frequency of consumption. The question related to the following food groups: bread, cereals and porridge; potatoes, rice and pasta; processed meat preparations; processed fish preparations; cheese and sheep's cheese; and other salty foods. Survey participants were asked about the number of portions consumed within a certain time frame.

Dietary salt consumption was evaluated by asking about frequency of adding salt or salty sauce to food during preparation/cooking, or before or while eating; and/ or frequency of consuming high-salt processed foods. Participants were asked also about their perception of the quantity of salt they consumed and its link with health problems; the importance of reducing salt intake; as well as measures undertaken to control it.

#### 3.9.2 History of NCDs and their risk factors

History of diabetes, CVD and raised blood pressure was determined by asking whether specific measurements for these purposes had been performed by a doctor or health care worker. Participants were also asked about any medication taken.

#### 3.9.3 Lifestyle advice

Participants were asked about any advice given by a doctor or a health worker during the past three years relating to reducing common risk factors for NCDs.

#### 3.10 STEP 2 Physical measurements

Participants were not allowed to smoke, exercise, overeat, consume caffeine or have a full bladder for 30 minutes before the measurements were taken. Body weight, height, waist circumference, hip circumference, SBP, DBP, and heart rate were measured in all participants. Body weight (in kilograms) and height (in centimetres) were measured with an electronic growth management scale. This is a combined device (scale for body weight with height gauge) with a laser, suitable for survey purposes. It measures body weight and height, and calculates BMI; a ratio of body weight in kilograms to the square of body height in metres, calculated according to Formula 2.

Formula 2. (	Calcul	ation o	f BMI
_		• • • /1	

 $BMI = \frac{Body weight (kg)}{Body height (m2)}$ 

A BMI of  $\geq$  25 kg/m<sup>2</sup> indicates that a person is overweight, while a BMI of  $\geq$  30 kg/m<sup>2</sup> indicates that a person is obese. Waist and hip circumferences were measured by MioType, a non-stretch tape with millimetre precision. Waist circumference (in centimeters) was measured by placing a tape measure around the abdomen at the midpoint between the lower margin of the last palpable rib and the top of iliac crest (hip bone). Hip circumference (in cm) was measured by placing a tape measure around the bare abdomen at the maximum circumference around the buttocks. The waist-to-hip ratio (WHR) was computed using measurements of waist and hip circumferences among all respondents. The WHO reference cut-off for WHR was used to define obesity at above 0.90 for males and above 0.86 for females (22,23). SBP, DBP and heart rate measurements were taken three times in the right arm in a sitting position, using a Boso Medicus Uno instrument with a universal cuff and automatic blood pressure and heart rate monitor. The first measurement was eliminated and the mean of second and third measurements was taken for analysis. The measurements were taken after the participant had rested for 15 minutes, and with three minutes of rest between each of the measurements (maximum deviation of cuff pressure measurement ± 3 mmHg, and of pulse rate display ± 5%). Hypertension definition, management and control are defined in Table 3.4.

Table 3.4. Definitions of hypertension, its management and control

Category	Definition
Hypertension	Systolic blood pressure (SBP) ≥ 140 mmHg and/or diastolic blood
	pressure (DBP) $\geq$ 90 mmHg, or currently taking anti-hypertensive
	medications.
Controlled hypertension	Taking medication and SBP < 140 mmHg and/or DBP < 90 mmHg
Uncontrolled hypertension	Taking medication and SBP $\geq$ 140 mmHg and/or DBP $\geq$ 90 mmHg
Untreated hypertension	Not taking medication and SBP $\geq$ 140 mmHg and/or DBP $\geq$ 90 mmHg

#### 3.11 STEP 3 Laboratory analysis

Laboratory tests were performed for sodium, potassium, creatinine and iodine in 24-hour urine samples, and for iodine in the sample of table salt collected from within the participant's home.

#### 3.11.1 Analytical methods

Sodium and potassium content in the urine samples were determined using an ionselective electrode with a Beckman Coulter Synchron CX5PRO System, expressed in mmol/L (24). Creatinine content in participants' urine was measured using a kinetic modification of the Jaffe method, expressed in mg/L (25). UI was determined using the ammonium persulfate digestion method with spectrophotometric detection by Sandell-Kolthoff reaction, expressed as mcg/L (26). Iodine determinations in table salt were made by titration method (27). Sodium, potassium and creatinine determinations were carried out in a private accredited laboratory (ICS Medical Laboratory Synevo SRL), and iodine determinations in urine and table salt were performed at the National Public Health Agency.

#### 3.12 Survey data collection

Data collection for the survey was carried out by four teams of four people; each team consisted of a coordinator/supervisor, two interviewers, and a driver. Local guidance, in the form of a family doctor or a nurse, was brought in to reach selected households. On the day of data collection, the selected households were visited, and general information was given (verbally) on the goal and objectives of the survey. Then one participant was selected from among all adults aged 18–69 years in each household. Further information was given to the selected participant and active consent was requested. Survey data collection and urine collection, including physical measurements, then took place at the participant's home.

#### 3.12.1 24-hour urine sample collections

At the end of the first visit each participant was given a leaflet with explanations, along with the necessary equipment (a 5-litre screw-cap container for urine collection and storage; a 2-litre screw-cap container for temporal collection of urine made away from home; a 1.5-litre cup with funnel, for women, to be used during

urine collection; two plastic bags; and a safety pin as an aide-memoire). Further equipment included a record sheet on which participants were to note the start and finish times of their 24-hour urine collection, any missed urine aliquots, and any medication taken during the collection.

The participants were carefully instructed on the urine collection methodology. The so-called first-pass urine of the starting day was discarded and the time was noted. All urine passed thereafter was collected in the container provided. Participants were instructed to keep urine in a dark and cool place.

Upon completion of the urine collection, the next day, field team members measured/weighed the total volume of urine collected. They thoroughly mixed the urine container, collecting two urine aliquots in two separate tubes, which were taken to a laboratory for testing. The rest of the urine was discarded. At the same time, a sample (50–70 g) of household table salt (used for cooking and as table salt) was collected. The urine samples were stored in a cool place for a maximum of 24 hours until transportation to the laboratory was possible. Sodium, potassium, and creatinine determinations were carried out immediately, and urine samples for iodine determinations were frozen at -40oC and tested at a later date (within a month).

#### 3.12.2 Sampling of various foods

In addition, samples of the most frequently sold foods were collected randomly from a predefined list of food categories (determined within the FEEDcities project (23) and were tested for salt content using the titrimetric method at the laboratory of the National Centre of Public Health (now the National Public Health Agency).

#### 3.13 Monitoring of data collection

The data collection monitoring team comprised four representatives from the National Centre of Public Health (now the National Public Health Agency). Monitoring was carried out in the field, providing technical and logistical support to the data collection teams through the data collection process.

#### 3.14 Data entry

Collection of all the survey data was carried out using electronic devices (Android 5.0 tablets). Data from nine electronic devices (eight with field data collected and one with laboratory results) were uploaded to the Open Data Kit (ODK) Collect database, completing the data entry process. Each survey respondent had a four-digit unique identifier (quick response (QR) code).

#### 3.15 Data cleaning and weighting

Data cleaning and weighting was performed at the end of the field work, when all information collected using electronic devices had been uploaded to the central server.

#### 3.15.1 Data cleaning

The purpose of the data cleaning procedure was to identify and correct all possible errors that may have occurred during data collection and to prepare the dataset for analysis, thus minimizing the impact of any errors on the study results. The process started with the download of three data files from the central server; each of them representing data collected during the three days of the survey. The first step consisted of identifying duplicates. In order to be able to combine those three pieces of information later, a unique QR code was used for every respondent. During data collection the QR code was scanned and stored in the memory of the Android device and later exported to the server. In some cases, the code was entered manually. This was allowed in instances when the QR code had been damaged and was unreadable. When inspecting the data files, it was found that in many cases the code had been entered manually, and some of these were duplications. It was possible to correct the duplicate entries by comparing other records on age, sex, location and other variables among all three files. After the duplications had been cleaned, data files from the three data collection days were merged (using the QR codes as unique identifiers).

The next step was to identify incomplete records by analysing the initial combined dataset. In total, 20 records were dropped from the dataset because key variable records were missing.

The screening of the dataset was performed next in order to identify all possible records with lack of or excess data, outliers, strange patterns and other inconsistencies. Owing to the fact that the survey used electronic data collection based on ODK software which allows the limitation of data entry within pre-established ranges, as well as use of skip logic questions and links – the number of outliers and data format errors was considerably reduced. In some cases, inconsistencies were identified and some of these, where possible, were corrected. The final dataset, with 184 variables, was then considered clean and ready for the next phase.

#### 3.15.2 Data weighting

Weighting of the dataset was performed in order to make the survey results representative of the target population in the country; namely, adults aged 18–69 years. Data weighting was conducted using the sample weight and population distribution weight. The non-response rate was not applied in the current survey because the age, sex and other characteristics of non-respondents were not known. Sample weight was computed using the sample design information provided in the survey documentation. The final sample weight was calculated as the inverse probability of selection, at every stage of selection up to the individual level, within the household. The selection technique was considered when computing the probability of selection at each stage. The first and second selection steps (PSUs and SSUs) where performed using the PPS procedure and the probability of selection was calculated accordingly. The next selection step was to choose households within the SSUs, using a random selection procedure. The final step was to select one eligible household member using

a random selection procedure. All these probabilities of selection were multiplied and computed for every respondent. The inverse of the probability of selection was the sample weight for each survey respondent.

The second phase of data weighting was to calculate the population distribution weight that allows for the correction of over- or under-representation in the sample of the targeted age/sex groups. For that reason, both the target population (aged 18–69 years) and the weighted counts of the survey population were divided into eight age and sex groups and the proportion of each group was calculated. The population distribution weight specific to each age/sex group was calculated by dividing the proportion of a specific group from the target population by the proportion of the same group in the survey population.

Finally, the sample weight of each respondent was multiplied by the population distribution weight for the specific age/sex group in order to get the final survey weight.

#### 3.16 Data analysis

The population was also stratified in groups by sex (men and women), by age (18–29, 30–44, 45–59, and 60–69 years), and by residence status (urban and rural settings). Moreover, in order to convert urinary output to dietary intake, the UNa excretion or UK values (mmol/day) were first converted to mg/day. Then, sodium values were multiplied by 1.05, while potassium values were multiplied by 1.3 (28). The conversion from dietary sodium (Na) intake to salt (NaCl) intake was made by multiplying the sodium value by 2.542 (as shown in Formula 3).

Formula 3. Conversion of dietary sodium (Na) intake to salt (NaCl) intake

NaCl (g) = Na (g) x 2.542

A T-test for unpaired samples or analysis of variance (ANOVA) was used to assess differences between group means. A Pearson chi-square test was used to test the association between categorical variables. The results were reported, as appropriate, as mean (standard deviation (SD) and/or 95% confidence interval (CI)), median, or as percentages. Two-sided P-values below 5% were considered statistically significant. Statistical analyses were performed with IBM software package SPSS Statistics version 20.

# 4. SURVEY RESULTS

# **4. SURVEY RESULTS**

#### 4.1 Recruitment and response rate

From the 1950 households and individuals originally selected from the sampling frame, 1307 provided suitable data for inclusion in the survey database [1307/1950 = 67%]. Of these, 449 (34%) were excluded during quality control, as indicated in Fig. 4.1, following a stepwise procedure based on assessing the completeness of the 24-hour urine collection: those who had missing data (n=11); all those who had declared missing more than one void of urine collection (n=263); those with urinary volume of less than 500 mL (n=0); those with a collection duration of less than 23 hours or more than 25 hours (n=77); those without urinary creatinine (UCr) (n=2); and the participants whose UCr collection was outside of 2 SDs of the sex-specific distribution of UCr (n=37, men=13, women=24) [UCr for men > 28.442 – for women < 0.925 & > 21.745]. According to the selection criteria, the final sample was 858 (326 men and 532 women) (Fig. 4.1). The geographical sampling is provided in detail in Fig. 4.2.

**Fig. 4.1.** Stepwise procedure for excluding records after assessing the completeness of 24-hour urine collections



\*Notes. M: male. F: female. UCr [M >28.442 – F < 0.925 & > 21.745]





#### 4.2 Sex and age distribution of respondents

There were 326 men and 532 women (Table 4.1). The age groups were equally represented by sex. Younger participants (aged 18–29 years) were under-represented compared to other age groups.

Age	Men		Women		Both sexes	
(years)	n	%	n	%	n	%
18–29	44	13.5	64	12.0	108	12.6
30-44	92	28.2	133	25.0	225	26.2
45-59	117	35.9	181	34.0	298	34.7
60–69	73	22.4	154	28.9	227	26.5
18-69	326	100.0	532	100.0	858	100.0

Table 4.1. Sex and age distribution of respondents

#### 4.3 Demographic and socioeconomic characteristics

Other demographic and socioeconomic characteristics – including ethnicity, area of residence, educational attainment, marital status, employment status, and income – are reported in the data tables in Annex 2 (section 8.1 Demographic indicators, Tables A1 to A17 inclusive).

#### 4.4 History of NCDs and their risk factors

#### 4.4.1 History of CVD

A total of 3.5% of all respondents reported having had a heart attack or chest pain from heart disease or stroke (see Annex 2, section 8.6 CVD history, Table A130). A total of 12.4% of respondents reported taking aspirin regularly and 3.5% of them took statins to prevent or treat CVD (Table A131 and Table A132). The proportion of women who reported taking aspirin and statins was higher than that of men (Table A132). Information on healthy lifestyle advice for reducing the risk for CVD provided by a doctor or health worker is reported in Annex 2 (section 8.7 Lifestyle advice, Tables A133 to A138).

#### 4.4.2 History of raised blood pressure

A total of 5.8% of respondents had never had their blood pressure measured (see Annex 2, section 8.5 Personal medical history, Table A111). A total of 73.9% had undergone blood pressure measurement but had not been diagnosed with hypertension; 7.1% had been diagnosed with high blood pressure more than a year before survey and 13.2% had been diagnosed with high blood pressure within the last 12 months, prior to data collection. The proportion of women diagnosed with high blood pressure both more than a year before the survey and within the past 12 months was higher than that of men (Tables A109 to A111).

Compliance with high blood pressure treatment regimens was low. About half of all respondents diagnosed with hypertension were taking medication prescribed by a doctor or health worker; this level of compliance increased with age (Table A112). Information on healthy lifestyle advice for raised blood pressure provided by a doctor or health worker is reported in Annex 2 (section 8.5 Personal medical history, Tables A113 to A116). About one fifth of respondents reported having seen a traditional healer or having taken herbal or traditional remedies for high blood pressure (Table A117 and Table A118).

#### 4.4.3. History of diabetes

A total of 16.5% of all respondents had never had their blood sugar measured and 80.0% of them had undergone the blood sugar test but had not been diagnosed with diabetes. A total of 1.2% of all respondents had been diagnosed with high blood sugar more than 12 months before the survey and 2.4% within the previous 12 months (see Annex 2, section 8.5 Personal medical history, Table A121). The percentage of respondents who had never undergone a test for high blood sugar was higher among younger age groups compared to older age groups. The proportion of respondents diagnosed both within the past 12 months and previously was also associated with age (being higher in older age groups).

The percentage of respondents who never had their blood sugar measured was higher among women than men (Tables A119 and A120). The proportion of men who had undergone blood sugar measurement but had not been diagnosed with diabetes was higher than that of women.

Tables A122 to A129 provide detailed data on the population diagnosed with diabetes, in terms of the approach to tackling the condition; those prescribed insulin, other medication or diet control measures; the proportions of individuals advised to lose weight, stop smoking or increase their physical activity level; and those seeking help from a traditional healer or taking herbal or traditional remedies for diabetes (differentiated by age group and sex).

#### 4.5 Anthropometry

The baseline characteristics of the participants' height, weight and BMI are reported by sex, age group and area of residence. Men were found to be taller than women (Table 4.2) across all age groups. They were also heavier, with the exception of the age group 60–69 years (Table 4.3). The resulting BMI distribution indicated that women had a higher BMI than men across all age groups (Table 4.4). The combined percentages of the mean BMI was higher within rural areas (BMI 29.1; versus BMI 26.6 in urban areas). with highest mean BMI recorded among women from rural areas (mean BMI 29.6 kg/ m2) (see Annex 2, section 8.2 Anthropometry and physical measurements, Table A18). Obesity rates (BMI ≥30) were found to be higher in women than in men (35.3% versus 26.3%), with the highest rate among older adults aged 45 years and above (Table A19 and Table A20). In contrast, prevalence of overweight (BMI 25.0-29.9) was higher in men than in women (39.3% versus 37.6%). Further classifications by area of residence and prevalence of overweight or obesity by sex and age can be seen in the Annex 2 (section 8.2, Tables A18 to A23). Table 4.5, Table 4.6 and Table 4.7 show the sex and age distributions of waist and hip circumferences and the WHR; a measure of adiposity. Younger men (aged under 59 years) had a higher WHR than women (Table 4.7).

Age		М	en			Wo	men		
(years)	n	Mean	95%	% CI	n	Mean	95% CI		
		height				height			
		(cm)				(cm)			
18–29	44	173.7	170.9	176.5	63	165.2	163.1	167.3	
30-44	92	175.6	174.0	177.2	130	163.2	162.0	164.4	
45-59	115	171.7	170.3	173.1	180	163.5	162.5	164.5	
60–69	72	170.6	168.7 172.4		151	160.9	159.9	161.9	
18–69	323	172.8	171.9	173.7	524	162.9	162.3	163.5	

Table 4.2. Mean	height (cm)	of participants,	by sex and	age group
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#### Table 4.3. Mean weight (kg) of participants, by sex and age group

Age		М	en		Women				
(years)	n	Mean	959	% CI	n	Mean	95% CI		
		weight				weight			
		(kg)				(kg)			
18–29	44	71.4	68.1	74.7	63	65.7	62.2	69.3	
30-44	92	82.6	79.8	85.4	130	71.8	69.1	74.4	
45-59	115	84.3	81.3	87.4	180	80.8	78.7	83.0	
60–69	73	94.9	72.5	117.2	151	77.6	75.3	79.9	
18–69	324	84.5	79.3	89.6	524	75.8	74.5	77.2	

Age		Mei	n			Women Both sexes						
(years)	n	Mean BMI (kg/ m²)	95%	6 CI	n	Mean BMI (kg/ m²)	95%	6 CI	n	Mean BMI (kg/ m <sup>2</sup> )	95%	6 CI
18–29	44	23.7	22.7	24.7	63	23.9	22.9	25.0	107	23.8	23.1	24.6
30-44	92	26.8	25.9	27.6	130	26.9	26.0	27.9	222	26.9	26.2	27.5
45-59	115	28.5	27.6	29.5	180	30.3	29.5	31.1	295	29.6	29.0	30.2
60–69	72	28.7	27.5	30.0	151	30.0	29.1	30.8	223	29.6	28.9	30.3
18-69	323	27.4	26.9	28.0	524	28.6	28.1	29.1	847	28.1	27.8	28.5

#### Table 4.4. Mean BMI (kg/m<sup>2</sup>) of participants, by sex and age group

Table 4.5. Mean waist circumference (cm) of participants, by sex and age group

Age		Men				Wome	n	
(years)	n	Mean	95%	% CI	n	Mean	95%	6 CI
		circumference				circumference		
		(cm)				(cm)		
18–29	42	80.1	77.0	83.1	63	78.4	75.1	81.7
30–44	92	92.9	90.1	95.6	130	85.3	82.7	87.8
45-59	113	97.5	94.8	100.2	179	96.5	94.6	98.4
60–69	71	97.2	93.3	101.1	148	97.7	95.6	99.8
18–69	318	93.8	92.1	95.5	520	91.8	90.5	93.1

Table 4.6. Mean hip circumference (cm) of participants, by sex and age group

Age		Men			Women					
(years)	n	Mean circumference (cm)	95% CI		n	Mean circumference (cm)	95%	6 CI		
18–29	42	94.5	89.6	99.4	63	97.4	94.5	100.2		
30–44	92	100.2	97.8	102.5	130	102.2	100.1	104.4		
45–59	113	101.6	99.5	103.6	179	110.5	108.5	112.5		
60–69	71	102.8	100.0	105.6	148	109.4	107.3	111.4		
18–69	318	100.5	99.2	101.9	520	106.5	105.3	107.7		

Table 4.7. Mean WHR of participants, by sex and age group

Age		Mer	1		Women				
(years)	n	Mean ratio	95%	6 CI	Ν	Mean ratio	95%	6 CI	
18–29	42	0.9	0.8	0.9	63	0.8	0.8	0.8	
30-44	92	0.9	0.9	0.9	130	0.8	0.8	0.8	
45–59	113	1.0	0.9	1.0	179	0.9	0.9	0.9	
60–69	71	0.9	0.9	1.0	148	0.9	0.9	0.9	
18–69	318	0.9	0.9	0.9	520	0.9	0.8	0.9	

#### 4.6 Blood pressure and pulse rate

Both SBP and DBP increased with age in both sexes (Table 4.8 and Table 4.9). Men had higher SBP and DBP than women across all age groups. Of all the study respondents, excluding those taking medication for raised blood pressure, 38.2% had hypertension (SBP  $\geq$ 140 mmHg and/or DBP  $\geq$ 90 mmHg) with higher proportion of men (41.1%) than of women (36.4%) (see Annex 2, section 8.2, Table A24). The proportion of respondents who had very high blood pressure (SBP ≥160 mmHg and/or DBP ≥100 mmHg) was 12.2%, with only a small difference between men and women (11.4% in men versus 12.6% in women) (Table A26). In particular, the prevalence of hypertension (defined as present in those with SBP >140 mmHg and/or DBP>90 mmHg, or individuals on anti-hypertensive treatment) was 45.5% overall, and comparable by sex (Table A25). There was an expected rise in prevalence with age in both men and women (Table A25). The proportion of respondents with very high blood pressure, defined as SBP ≥160 mmHg and/or DBP ≥100 mmHg (or those on anti-hypertensive treatment) was overall 22.4%, with higher prevalence in women (24.8%) than in men (18.6%) (Table A27). When analysed together, among respondents identified as having high blood pressure (SBP ≥140 mmHg and/or DBP ≥90 mmHg) and those taking medication for raised blood pressure, only 4.4% had controlled blood pressure (taking medication and SBP <140 mmHg and DBP <90 mmHg), with higher prevalence among the rural population (5.2%) and in older adults aged 45 years and above (5.0-5.3%) (Table A32 and Table A33). A significant difference was found between men and women (5.9% of women have controlled blood pressure in comparison with 2.0% of men). Women from rural areas control their blood pressure better than women from urban areas (7.0% versus 3.8%) (Table A31).

Age		Men Women								Both	sexes	
(years)	n	Mean SBP	95%	% CI	n	Mean SBP	95%	% CI	n	Mean SBP	95%	6 CI
18–29	44	124.1	121.1	127.2	63	116.3	112.9	119.7	107	119.5	117.1	122.0
30-44	92	130.2	127.6	132.7	130	121.8	119.1	124.6	222	125.3	123.3	127.3
45-59	115	138.8	135.7	142.0	180	136.7	133.4	140.0	295	137.5	135.2	139.9
60–69	72	146.8	141.2	152.5	151	145.5	141.9	149.1	223	145.9	142.9	148.9
18–69	323	136.1	134.1	138.2	524	133.1	131.1	135.0	847	134.3	132.8	135.7

Table 4.8. Mean SBP (mmHg) of participants, by sex and age group

Age		Γ	۸en			Women Both sexes						
(years)	n	Mean	95	5% CI	n	Mean	95%	6 CI	n	Mean	95%	6 CI
		SRA				SBN				SRA		
18–29	44	81.2	79.0	83.3	63	77.8	75.3	80.3	107	79.2	77.5	80.9
30-44	92	85.3	83.4	87.3	130	83.8	82.0	85.6	222	84.5	83.1	85.8
45-59	115	89.0	87.0	90.9	180	88.3	86.5	90.2	295	88.6	87.2	89.9
60–69	72	90.2	87.1	93.3	151	90.7	88.7	92.8	223	90.6	88.8	92.3
18–69	323	87.1	86.0	88.33	524	86.6	85.6	87.7	847	86.8	86.0	87.6

A total of 21.3% of respondents were taking medications but had raised blood pressure (SBP  $\geq$ 140 mmHg and DBP  $\geq$ 90 mmHg), with much higher prevalence among women than in men (24.9% among women versus 15.5% among men). Almost two thirds of respondents (74.3%) were not taking medications and had raised blood pressure (SBP  $\geq$ 140 mmHg and DBP  $\geq$ 90 mmHg) with higher prevalence in men (82.4% in men in comparison with 69.2% in women). The distribution of respondents according to their level of treatment by sex, age groups and area of residence are reported in detail in the data tables in the Annex 2 (section 8.2, Tables A28 to A33).

Mean pulse rate was comparable in men and women and did not vary significantly by age group (Table 4.10).

Age		М	en			Wor	nen			Both sexes			
(years)		Mean				Mean				Mean			
	n	BPM	95%	% CI	n	BPM	95%	% CI	n	BPM	959	% CI	
18–29	44	77.2	73.8	80.5	63	74.4	71.9	76.9	107	75.5	73.5	77.5	
30-44	92	76.4	74.5	78.3	130	73.8	72.4	75.1	222	74.9	73.7	76.0	
45-59	115	78.9	77.0	80.8	180	75.6	74.2	77.0	295	76.9	75.7	78.0	
60-69	72	79.0	76.5	81.5	151	76.2	74.8	77.6	223	77.1	75.9	78.3	
18-69	323	78.0	76.8	79.1	524	75.2	74.4	75.9	847	76.2	75.6	76.9	

#### Table 4.10. Mean pulse rate (b/min) of participants, by sex and age group

#### 4.7 UNa excretion

Mean, median, standard deviation and 95% CI for UNa excretion (in mmol/24h) are reported in Table 4.11 to Table 4.16 by sex, area of residence and age group. Mean UNa excretion was 172.7 (SD 79.3) mmol/24h (Table 4.11), equivalent to a mean consumption of 10.8 g of salt per day (Table 4.12). The graphic distribution of mean UNa excretion was bell-shaped with a tail towards higher values (Fig. 4.3).

Table 4.11. UNa excretion (mmol/24h) in total and by sex

	n	Mean	Median	SD	95% CI
Both sexes	858	172.7	160.9	79.3	167.3–178.0
Men	326	183.9*	170.7	86.0	174.5–193.2
Women	532	165.8	155.3	74.1	159.5–172.1

\*p<0.01 (men versus women)

Table 4.12.	Daily salt	intake (g)	overall,	by sex a	nd by area	a of residence
	5	(0)	,	5	5	

	n	Mean	Median	SD	95% CI
Both sexes	858	10.8	10.0	4.9	10.4–11.1
				• •	
Men	326	11.5*	10.7	5.4	10.9–12.1
Women	532	10.3	9.7	4.6	10.0–10.7
Rural	531	11.3**	10.8	5.0	10.8–11.7
Urban	327	10.0	9.2	4.8	9.5-10.5

\*p=0.001 (men versus women); \*\*p<0.001 (rural versus urban)

Men excreted more sodium than women (mean difference 18.1 mmol/24h, p<0.01). Excretion was higher in rural than urban areas with a difference in means of 20.3 mmol/24h, p<0.001 (Table 4.13). There was a significant difference between women in rural areas versus those in urban areas, with a difference in means of 24 mmol/24h, p<0.001 (Table 4.14). Excretion also increased with increasing age (Table 4.15), but more clearly in men (Table 4.16).


# Fig. 4.3. Distribution of mean UNa excretion, both sexes

# Table 4.13. UNa excretion (mmol/24h) by area of residence, both sexes

	n	Mean	Median	SD	95% Cl	
Rural	531	180.4*	172.3	80.2	173.5–187.2	
Urban	327	160.1	147.8	76.2	151.8–168.4	
$*n_{2}0.001$ (rural vareus urban)						

\*p<0.001 (rural versus urban)

<b>Fable 4.14.</b> UNa excretion	(mmol/24h),	by area of resi	dence and sex
----------------------------------	-------------	-----------------	---------------

	n	Mean	Median	SD	95% Cl			
Men								
Rural	191	190.9	178.5	85.6	178.7–203.1			
Urban	135	173.9	154.5	85.9	159.2–188.5			
		W	omen					
Rural	340	174.5*	167.4	76.4	166.3–182.6			
Urban	192	150.5	143.1	67.1	140.9–160.0			
Notos Mon	n = 0.00 (rural va	roug urban) *Ma	$m_{0}n_{1}n_{2}0001$					

Notes. Men: p=0.08 (rural versus urban). \*Women: p<0.001.

# Table 4.15. UNa excretion (mmol/24h) by age group, both sexes

Age (years)	n	Mean	Median	SD	95% CI
18–29	108	152.5	150.5	69.8	139.2–165.8
30-44	225	166.2	147.8	74.4	156.4–176.0
45-59	298	179.6	170.5	81.3	170.3–188.8
60–69	227	179.6*	161.3	83.6	168.7–190.5

p<0.01 by ANOVA

# Table 4.16. UNa excretion (mmol/24h) by age group and sex

Age (years)	n	Mean	Median	SD	95% CI
			Men		
18–29	44	156.0	154.5	65.3	136.1–175.9
30–44	92	178.1	150.0	84.5	160.6–195.6
45-59	117	188.2	181.7	90.2	171.6–204.7
60–69	73	200.9	181.8*	88.7	180.2–221.6
		W	omen		
18–29	64	150.1	146.9	73.1	131.8–168.4
30–44	133	157.9	147.6	65.7	146.7–169.2
45-59	181	174.0	163.5	74.8	163.0–185.0
60–69	154	169.5	157.6	79.3	156.8-182.1

*Notes.* \**Men: p*=0.04; *women: p*=0.07, *by ANOVA.* 

### 4.8 UK excretion

Mean, median, standard deviation and 95% CI for UK excretion (in mmol/24h) are reported in Table 4.17 to Table 4.22 by sex, area of residence, and age group. The distribution of mean UK excretion was bell-shaped with a tail towards higher values (Fig. 4.4).

### Table 4.17. UK excretion (mmol/24h) overall and by sex

	n	Mean	Median	SD	95% CI
Both sexes	858	72.7	68.8	31.5	70.6–74.8
Men	326	76.0*	70.1*	33.4	72.3–79.6
Women	532	70.7	67.8	30.1	68.1–73.3

\*p=0.02 (men versus women)

### Table 4.18. Daily potassium intake (g) overall, by sex and by area of residence

	n	Mean	Median	SD	95% CI
Both sexes	858	3.7	3.6	1.6	3.6–3.8
Men	326	3.8*	3.5	1.7	3.7–4.0
Women	532	3.6	3.4	1.5	3.4–3.7
Rural	531	3.7**	3.6	1.6	3.6-3.9
Urban	327	3.6	3.4	1.6	3.4–3.8
* 0.017 (		** 0.0 ( ]	1		

\*p=0.017 (men versus women); \*\*p=0.2 (rural versus urban)

Mean UK excretion was 72.7 (SD 31.5) mmol/24h (Table 4.17), equivalent to 3.7 g of potassium per day (Table 4.18). Men excreted more potassium than women (mean difference 5.3 mmol/24h, p=0.02). Excretion was comparable between rural and urban areas (Table 4.19), and across sexes (Table 4.20). Excretion tended to increase with increasing age (Table 4.21), but more clearly in men (Table 4.22).

# Table 4.19. UK excretion (mmol/24h), by area of residence, both sexes

	n	Mean	Median	SD	95% Cl
Rural	531	73.8	70.1	31.6	71.1–76.5
Urban	327	71.0	67.1	31.2	67.6–74.4

Note. p=0.2 (rural versus urban)

# Table 4.20. UK excretion (mmol/24h), by area of residence and sex

	n	Mean	Median	SD	95% CI			
Men								
Rural	191	77.1	72.0	32.4	72.5–81.7			
Urban	135	74.4	69.1	34.8	68.5-80.4			
Women								
Rural	340	71.9	69.1	31.1	68.6–75.2			
Urban	192	68.5	64.8	28.2	64.5-72.5			

Notes. Men: p=0.5; women: p=0.2 (rural versus urban).

## Table 4.21. UK excretion (mmol/24h), by age group, both sexes

n	Mean*	Median	SD	95% CI
108	68.8	64.4	33.9	62.4–75.3
225	70.0	65.4	28.6	66.3–73.8
298	76.1	72.9	32.4	72.4–79.8
227	72.8	69.7	31.4	68.7–76.9
	n 108 225 298 227	nMean*10868.822570.029876.122772.8	nMean*Median10868.864.422570.065.429876.172.922772.869.7	nMean*MedianSD10868.864.433.922570.065.428.629876.172.932.422772.869.731.4

Note. p=0.08, by ANOVA

# Table 4.22. UK excretion (mmol/24h), by age group and sex

Age (years)	n	Mean	Median	SD	95% CI			
Men								
18–29	44	69.6	64.1	36.7	58.4-80.7			
30–44	92	76.3	72.3	30.1	70.1-82.5			
45–59	117	74.9	70.1	34.7	68.6-81.3			
60–69	73	81.1	75.1	33.1	73.4-88.8			
		Wo	omen					
18–29	64	68.3	64.8	32.2	60.3–76.4			
30–44	133	65.7	60.1	26.8	61.1–70.2			
45–59	181	76.9	75.8	31.0	72.3–81.4			
60–69	154	68.8*	67.1	29.9	64.1–73.6			

*Notes. Men: p***=***0.3. Women:* \**p***<***0.01, by ANOVA.* 





# 4.9 Urinary volume and UCr excretion

Mean urinary volume and UCr excretion are reported in Table 4.23 for the whole sample, including both men and women and urban and rural settings. As expected, men excreted more urine than women (probably reflecting higher drinking volumes) and more creatinine (expression of greater lean body mass) than women. There was less volume excretion and higher creatinine excretion in rural compared to urban areas.

**Table 4.23.** Urinary volume (ml/24h) and UCr excretions (mg/24h) overall, by sex and by area of residence

		Volume (ml/24h)		Creatinine (mg/24h)	
	n	Mean	SD	Mean	SD
Both sexes	858	1441	529	11.7	5.0
Men	326	1505*	536	13.3 <sup>§</sup>	5.6
Women	532	1401	521	10.7	4.2
Rural	531	1333	427	12.3 <b>†</b>	4.8
Urban	327	1616 <sup>§</sup>	624	11.4	5.0

Notes. \*p=0.005; §p<0.001 (men versus women). †p<0.01; §p<0.001 (urban versus rural).

### 4.10 UI excretion

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Mean, median, standard deviation and 95% CI for UI excretion (in mcg/24h) are reported in Table 4.24 by sex and area of residence. The distribution of mean UI excretion was bell-shaped with a tail towards higher values (Fig. 4.5). Mean UI excretion was 225 (SD 152) mcg/24h, with a median excretion of 196 mcg/24h (Table 4.24). There were no significant differences in daily UI excretion by sex, area of residence, or age group (see Annex 2, Section 8.2 Anthropometry and physical measurements, Table A34 to Table A36).

	n	Mean	Median	SD	95% Cl		
UI excretion (mcg/24h)							
Both sexes	856	225	196	152	215-235		
Men	326	232	200	154	215-249		
Women	530	221	190	150	208–233		
Rural	529	225	186	145	211-239		
Urban	327	224	202	128	210-238		
		lodine content o	of table salt (mg/kg)				
Both sexes	856	21.0	-	18.6	19.8–22.3		
Men	326	22.1	-	18.2	20.2-24.1		
Women	530	20.3	-	18.9	18.7–21.9		
Rural	529	16.7	-	18.6	15.1–18.2		
Urban	327	28.1 <b>†</b>	-	16.5	26.3-29.9		

**Table 4.24.** UI excretion (mcg/24h) and iodine content of table salt (mg/kg) overall, by sex and by area of residence

Notes. Urine: p=0.3 (men versus women); p=0.9 (rural versus urban). Salt: p=0.16 (men versus women); tp<0.001 (rural versus urban).



Fig. 4.5. Distribution of mean UI excretion, both sexes

# **4.11 Proportion of the population meeting WHO target recommendations for sodium, potassium and iodine consumption**

Considering current WHO target recommendations *(8,29,30)*, the proportion of participants achieving salt consumption targets of 5 g or less per day was only 11.3%, with similar proportion in men and women. In rural areas the proportion tended to be lower (10.0%) than in urban areas (13.5%) (Table 4.25).

The proportion of participants consuming adequate amounts of potassium (≥90 mmol per day) was 49.7% overall. There were no differences between men and women and rural and urban participants (Table 4.25).

**Table 4.25.** Proportion of participants meeting WHO recommended targets for salt and potassium consumption, overall, by sex and by area of residence

Target (per day)	All (n=858)	Men (326)	Women (532)	Urban (327)	Rural (531)
	n (%)	n (%)	n (%)	n (%)	n (%)
Salt	97	38	59	44	53
<u>≤</u> 5g	(11.3)	(11.7)	(11.1)	(13.5)	(10.0)
Potassium ≥90 mmol	426 (49.7)	171 (52.5)	255 (47.9)	152 (46.5)	274 (51.6)

Finally, UI excretion (as measure of intake) was adequate in 40.9% of participants, irrespective of sex or area of residence (Table 4.26). Iodine consumption was above requirement or excessive in 30.3% of the participants, irrespective of sex or area of residence. Of the 28.6% who fell into the category indicating insufficient consumption (equally distributed by sex and area of residence), only 2.3% had severe deficiency (Table 4.26).

**Table 4.26.**Proportion of participants meeting WHO targets for iodine consumption (based on UI concentrations in mcg/L derived from 24-hour urine collections), overall, by sex and by area of residence

Group (mcg/L)	All (n=856)	Men (326)	Women (530)	Urban (327)	Rural (529)
	n (%)	n (%)	n (%)	n (%)	n (%)
Insufficient (<100) Severe (<20) Moderate (20–49) Mild (50–99)	245 (28.6) 20 (2.3) 60 (7.0) 165 (19.2)	95 (29.1) 6 (1.8) 24 (7.4) 65 (19.9)	150 (28.2) 14 (2.6) 36 (6.8) 100 (18.8)	104 (31.8) 4 (1.2) 28 (8.6) 72 (22.0)	141 (26.6) 16 (3.0) 32 (6.0) 93 (17.5)
Adequate (100–199)	351 (40.9)	132 (40.5)	219 (41.2)	131 (40.1)	220 (41.4)
Above requirement (200–299)	152 (17.7)	59 (18.1)	93 (17.5)	58 (17.7)	94 (17.7)
Excessive (>300)	108 (12.6)	40 (12.3)	68 (12.8)	34 (10.4)	74 (13.9)

# 4.12 Dietary salt: knowledge, attitudes and practices

Consumption of salt was assessed by asking survey participants about the frequency, quantity and type of salt used in their household, as well as their cooking habits and their attitudes towards dietary salt. A total of 35.4% of respondents mentioned that they added salt always or often before eating or while eating (see Annex 2, section 8.4 Dietary salt, Table A83 and Table A84). The middle age group (30-44 years) showed

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the highest proportion of those who added salt always or often before eating or while eating (39.2%). The percentage of men who added salt always or often to their meal was significant higher than that of women (Table A83).

A total of 61.3% of respondents reported that they always or often added salt when cooking or preparing food at home (Table A85 and Table A86); this was the case more often in rural than in urban areas (Table A86). More than half of the respondents (64.4%) mentioned that they used iodized salt when cooking or preparing food at home (Table A87 and Table A88). Consumption of iodized salt, however, tended to decrease with age (Table A87) and it was higher in urban than in rural areas (Table A88).

About a quarter (26.7%) of respondents felt they consumed too much salt or far too much salt, with a higher proportion of men than women believing this (32.1% versus 23.3%) (Tables A91 to A94). More than half acknowledged that consuming too much salt could cause serious health problems (Tables A95 to A98). Despite the fact that more than half of respondents were aware that salt consumption can cause serious health problems, only 28.2% considered lowering salt in diet to be very important (Tables A99 to A101). More than a quarter of respondents mentioned that they consumed processed foods high in salt, with more men than women doing so (34.9% versus 23.5%, respectively) and more people in urban settings than among the rural population (39.2% versus 20.8%, respectively) (Table A89 and Table A90).

Respondents were asked about actions they take to control salt intake on a regular basis. A total of 81.7% limited their consumption of processed food high in salt; 22.3% of respondents were using spices other than salt when cooking and 31.1% mentioned that they did not add salt when cooking. Only 8.8% of respondents noted that they looked at salt or sodium content on food labels and 14.3% reported that they bought low salt/sodium alternatives (Table 4.27) (see section 8.4, Tables A102 to A106). A total of 33.1% of respondents reported avoiding eating food prepared outside of a home and 0.8% took other measures to control salt intake (Table A107 and Table A108).

People who:	Proportion (%) (95% C.I.)
limit their consumption of processed food	81.7 [76.9–86.5]
look at salt/sodium content in foods	8.8 [5.3–12.3]
buy low salt/sodium alternatives	14.3 [10.0–18.6]
do not add salt when cooking	31.1 [25.4–36.8]
use spices instead of salt when cooking	22.3 [17.2–27.4]
avoid eating food prepared outside a home	33.1 [27.3–38.9]
take other measures to control salt intake	0.8 [0.3–1.9]

Table 4.27. Practices relating to the use of salt

### 4.13 Fruit and vegetable consumption

Full results on the consumption of fruit and vegetables are given in Annex 2 (see section 8.3 Diet, Tables A37 to A50). The average consumption was 4.4 servings per day. The overall consumption was greater in urban than in rural areas (5.1 versus 4.0 servings per day, respectively). More than half the sample of respondents (56%) reported consuming fewer than five servings of fruit and vegetables per day.

Fruit was consumed, on average, 5.2 days a week, while vegetables were consumed 5.8 days a week. Compared to rural areas, urban areas had the most frequent consumption of fruit (6.0 versus 4.7 days a week) and vegetables (6.4 versus 5.5 days a week). Average servings were 2.19 servings per day of fruit and 2.20 servings per day of vegetables, with more consumed in urban than in rural areas (2.6 versus 1.9 servings/day of fruit and 2.4 versus 2.1 servings/day of vegetables, respectively).

# 4.14 Food consumption frequency

Frequency of consumption of food contributing to salt intake during the previous year was assessed by age group, sex and area of residence by means of a questionnaire (presented in Annex 1). Respondents were asked about frequency and quantity of food consumption.

### 4.14.1 Bread

Bread is one of the staple foods for the population of the Republic of Moldova and the main source of salt in the diet, alongside salt added to food during cooking or while eating. Information on bread consumption can be found in Annex 2 (section 8.3 Diet, Tables A51 to A54). The most common form of bread consumed was white bread. The majority of respondents of both sexes (55.4%) reported consuming white bread 2–3 times per day. Rural populations consumed higher proportions than urban populations. One fifth (20.4%) consumed black bread 2–3 times per day. Whole-grain bread is rarely consumed by the population of the Republic of Moldova; only 1.3% of respondents reported consuming this type of bread 2–3 times per day.

### 4.14.2 Cereals

Information on consumption of cereals can be found in Annex 2 (section 8.3 Diet, Tables A55 to A58). About a quarter of respondents of both sexes (23.1%) reported consuming cereals or rice once a day, with a higher proportion among women than men; more frequently in urban than in rural areas; and with variation among age groups. Only 6% reported consuming breakfast cereals daily (muesli, cornflakes, oats).

#### 4.14.3 Pizza, pie and pasta

Information on consumption of pizza, pies and pasta are reported in Annex 2 (Tables A59 to A62). Pizza is not popular among the population of the Republic of Moldova, with 98.5% of respondents consuming this product only once per week or less frequently. Younger age groups, men, and urban populations were the main consumers of pizza. Pie, a traditional food in the country, was reported to be consumed 2–4 days per week by 20.1% of respondents of both sexes, with a higher proportion among men than women. The proportion of respondents consuming pie 2–4 days per week was higher among younger age groups and among the urban population. About one in three respondents (28.1%) reported consuming pasta or macaroni 2–4 days per week, with a higher proportion among men and among the rural population.

### 4.14.4 Salty snacks

Information on salty snack consumption is reported in Annex 2 (section 8.3 Diet, Tables A63 to A66). Salty snacks or crisps were consumed once a week or less by more than 99% of respondents, with small differences among the age groups, by sex and by area of residence.

### 4.14.5 Processed meat products

Information on the consumption of processed meat products is reported in Annex 2 (Tables A67 to A70). One fifth of respondents (19.7%) ate cooked sausages, salami and liverwurst 2–4 days per week. The highest percentage was identified in the age group 18–29 years (31.8%) and in urban areas (35.5%). Pastrami, smoked ham and cured and/ or smoked salami were consumed 2–4 times per week by 16.1% of the population. The vast majority of respondents reported consuming canned meat (94.1%) and semi-prepared meat products (99.1%) once per week or less often.

### 4.14.6 Processed fish products

Information on consumption of processed fish products is reported in Annex 2 (Tables A71 to A74). Salty, smoked, marinated or canned fish were eaten by the majority of respondents (more than 95%) once per week or less, with small variations between the age groups, by sex and by area of residence.

### 4.14.7 Dairy products

Information on consumption of dairy products are reported in Annex 2 (section 8.3 Diet, Tables A75 to A78). About a quarter (23.3%) of respondents of both sexes reported consuming hard or soft cheese 2–4 times per week, with a much higher proportion in urban (48.1%) compared to rural areas (7.9%). Consumption levels tended to decrease with age among both sexes. A total of 3.8% of respondents reported consuming hard and soft cheese once per day and 71.3% once per week or less. Sheep's cheese was consumed by a quarter of respondents (24.5%) of both sexes 2–4 times per week, with

a higher proportion in rural areas (30.2%) compared to urban areas (15.4%). About 1 in 10 respondents of both sexes consumed sheep's cheese 2–3 times per day; 5% consumed it 5–6 times per week; and 59.6% once a week or less often.

# 4.14.8 Pickled and marinated vegetables, sauces

Information on consumption of pickled/marinated vegetables, and sauces is reported in Annex 2 (Tables A79 to A82). Pickled vegetables and sauces (ketchup, mayonnaise, adjika, etc.) were consumed 2–4 days per week by 14.2% and 12.1% of respondents, respectively, with the proportion almost twice as high in men as in women. Pickled vegetables were consumed 2–4 days per week by almost one fifth of respondents from rural areas (18.9%), compared to 6.5% of those from urban areas. Sauces had the reverse distribution: about one fifth of respondents (19.4%) from urban areas consumed sauces 2–4 days per week, compared to 7.6% of those from rural areas.

# 4.15 Salt content in food samples

Bread is the biggest contributor to salt intake; every 100 g supplies 1.85 g of salt (95% CI: 1.62–2.08) to the population's diet. Taking into account that the average consumption of bread in the Republic of Moldova is 300 g per day (*31*),<sup>1</sup> it is possible to assess that bread provides more than the daily recommended amount of salt for an adult diet (5.55 g as compared to the 5 g recommended by WHO). Sausages and cheese each supply on average 1.88 g of salt per 100 g of product. Sweet pastry and ice cream also contribute to the salt intake of the population. Salt content in various food samples is presented in Table 4.28.

Food group	n	Mean (g/100g)	95% CI
Bread (white and brown)	15	1.85	1.62-2.08
Sausages (salami (boiled), liverwurst*)	65	1.88	1.81–1.95
Cheese (hard)	10	1.88	1.84–1.92
Savoury pastry (pizza, pie)	26	1.28	1.14-1.42
Sweet pastry	41	0.49	0.39–0.59
Salty snacks	18	2.63	1.95–3.31
Canned and semi-prepared meat products	20	1.37	1.18–1.56
Ready-to-eat foods**	8	1.23	1.04-1.42
Smoked fish	4	3.25	2.75-3.75
Butter	3	0.1	0.084-0.12
lce cream	4	0.23	0.19-0.27

**Table 4.28.** Salt content in various food samples (grams of salt per 100 g of food)

\* Cooked sausages of the "doctor's sausage" type. \*\* For example hamburger, kebab, McDonald's Big Mac, cheeseburger.

According to data from the NBS, consumption of bread and bakery products per capita in 2016 constituted 116.8 kg, which is equal to 320 g per day (*31*).

# 4.16 Household consumption of iodized salt

More than half (57.2%) of the 856 households visited consumed salt containing 15 mg/kg of iodine or more, while 23% of them consumed salt that was not iodized (Table 4.29).<sup>2</sup> The consumption of iodized salt was significantly higher in urban compared to rural areas (77.9% versus 44.5%, respectively (p<0.001)); it was associated with a higher level of education (from 50.3% in those with lower-secondary school qualifications to 72.9% in those with university-level education or higher (p<0.001)) and increasing wealth (from 50.6% in quintile 1 of the wealth index to 80.9% in quintile 5 (p=0.001)) (Table 4.29).

	No. of	Percentage of	P-value		
	households	Not iodized	>0 and <15 mg/	≥ 15 mg/kg	
		0 mg/kg	Kġ		
Total	856	196 (22.9)	170 (19.9)	490 (57.2)	
		Are	a		
Urban	326	32 (9.8)	40 (12.3)	254 (77.9)	<0.001
Rural	530	164 (30.9)	130 (24.5)	236 (44.5)	
		Level of e	ducation		
Total	808	182 (22.5)	157 (19.4)	469 (58.0)	
Lower-secondary school/ gymnasium	185	53 (28.6)	39 (21.1)	93 (50.3)	<0.001
Upper-secondary school/lyceum	180	47 (26.1)	34 (18.9)	99 (55.0)	
College/ vocational school	260	60 (23.1)	55 (21.2)	145 (55.8)	
University/ postgraduate degree	181	22 (12.2)	27 (14.9)	132 (72.9)	
		Wealth index	k (per year)		
Total	430	73 (17.0)	65 (15.1)	292 (67.9)	
Quintile 1	77	19 (24.7)	19 (24.7)	39 (50.6)	0.001
Quintile 2	70	19 (27.1)	7 (10.0)	44 (62.9)	
Quintile 3	95	11 (11.6)	14 (14.7)	70 (73.7)	
Quintile 4	94	16 (17.0)	15 (16.0)	63 (67.0)	
Quintile 5	94	8 (8.5)	10 (10.6)	76 (80.9)	

**Table 4.29.** Consumption of iodized salt per household by area of residence, level of education and wealth index

<sup>2</sup> Of the 858 households (matching individuals) included in the analysis, two did not have iodine measurements, so the final sample for the iodine analysis was 856.

# **5. CONCLUSIONS**

D iseases of the circulatory system are the leading cause of morbidity, disability and mortality in the Republic of Moldova, accounting for every second death in recent years. Unhealthy diet and high blood pressure are two main risk factors for CVD that account for most of the disease burden in the country. High salt consumption is a significant determinant of high blood pressure.

Almost half of the adult population has raised blood pressure, with no difference between the sexes. About two thirds of the population were not taking medication and had raised blood pressure, with this being the case more among men than women. A modest reduction in blood pressure would have important public health benefits. Reducing salt intake at the population level would reduce the risk of heightened blood pressure and CVD.

Salt intake in adults in the Republic of Moldova (especially in men) exceeds by more than twofold the WHO recommended maximum population target of 5 g/day. Bread is the biggest contributor of salt to the diet, providing more than the recommended daily salt intake for the majority of the population. Adding salt to food always or often when cooking, before eating or while eating, is a common practice among the population of the Republic of Moldova. A comprehensive programme for reducing salt intake among the population needs to be implemented at national level through systematic efforts, including raising public awareness and changing behaviours through communication (for example via health care professionals and education in schools). Structured programmes should also be implemented to: reformulate industrially processed food; set the framework for the food industry to reduce salt; introduce labelling to highlight the salt content of foods; and monitor and evaluate salt intake.

Based on international experience and using national dietary intake data, the Government of the Republic of Moldova can set salt reduction targets by food category

for the foods that contribute most to increased salt intake among the population, with the objective of achieving a 30% reduction in salt consumption by 2025.

Only one in two people consume sufficient potassium in the country. In response to this, public policies should be directed towards encouraging an increase in intake of fruit, vegetables, pulses and nuts to increase potassium consumption to at least 90 mmol/day. Increasing availability and affordability, along with health promotion and health education activities, can contribute to achieving this.

About 6 out of 10 households in the Republic of Moldova consumed adequately iodized salt, with a significantly higher proportion among the urban population, people with higher levels of education, and those with a higher wealth index. Iodine consumption was adequate in 40.9% of participants, while around 30% consumed excessive amounts and 28.6% had insufficient consumption. A programme to encourage the reduction of population salt intake is an opportunity to revise the criteria for iodine fortification among the adult population, and to correct both the current deficiency and the excess detected.

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# 7. ANNEX 1. QUESTIONNAIRE

# Questionnaire for determining sodium content in 24-hour urine samples, Republic of Moldova, 2016

Part I

Survey information						
Location and date	Response	Code				
Locality ID		11				
Locality name		12				
Rayon/Municipality		13				
Interviewer ID		14				
Date of completion of the question- naire	dd mm year	15				
Selection of survey participant (among all eligible household members – according to the Android methodology for the STEPS survey)						
Participant ID		16				
Consent, interview language, name	Response	Code				
Consent has been read and obtained	Yes 1	17				
Sex (Becord Male / Female as	Male 1 Go to 110					
observed)	Female 2	18				
For women: Are you pregnant or breastfeeding or menstruating?	Yes 1 <b>IF YES, END</b> No 2	19				
What is your date of birth? Don't Know 77	L L L If known, Go to 112 dd mm year	110				
How old are you?	Years	111				
Have you ever had a heart or kidney failure, stroke or liver disease?	Yes 1 <b>IF YES, END</b> No 2	112				
In the past two weeks, have you taken any diuretics prescribed by a doctor or other health worker?	Yes 1 <b>IF YES, END</b> No 2	113				
Interview language	Romanian 1 Russian 2	114				
Time of interview (24-hour clock)	hrs mins	l15				
Family surname		116				
First name		117				
Additional Information that may be l	helpful					
Contact phone number where possible		118				

## 1. Demographic information

Demographic information						
Question	Response		Code			
In total, how many years have you spent at school and in full-time study (excluding preschool)?	Years		C1			
	No formal schooling/less than primary school	1				
	Primary school completed (gr.1–4)	2				
	Gymnasium completed (gr.5–9)	3				
What is the <b>highest level of</b>	Lyceum/secondary school completed	4	C2			
education you have completed?	College/vocational school completed	5				
	University completed/ postgraduate degree	6				
	Refused	88				
	Romanian/Moldovan	1				
	Russian	2				
	Ukrainian	3				
What is your <b>ethnic group</b> /	Roma	4	C3			
	Gagauz	5				
	Other ethnic groups	6				
	Refused	88				
	Never married	1				
	Currently married	2				
	Separated	3				
What is your <b>marital status</b> ?	Divorced	4	C4			
,	Widowed	5				
	Cohabitating	6				
	Refused	88				
	Government employee	1				
	Non-government or private employee	2				
Which of the following best	Self-employed	3				
describes your <b>main work status</b>	Non-paid	4				
over the past 12 months?	Student	5				
	Homemaker	6	C5			
	Retired	7				
	Linemployed (able to work)	8				
	Unemployed (unable to work)	9				
	Refused	88				
How many people older than 18						
years, including yourself, live in	Number of people		C6			
Taking into account the past 12 months, can you tell me what the average monthly earnings (MDL) of the household have been?	L I I I I I I Refused	Go to D1 88	C7a			
	< 2000	1				
If you don't know the amount are	More than 2000, < 3500	2				
It you don't know the amount, can you give an <b>estimate</b> of the monthly	More than 3500, < 5000	3				
month if I read some options to you?	More than 5000, < 7500	4	C8			
	More than 7500	5				
		77				
	Don't Kilow	88				
	neiusea	00				

#### 2. Dietary behaviour

#### Diet: fruit and vegetable consumption

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

Question	Response					
In a typical week, on how many days do you eat <b>fruit</b> ? (USE SHOW CARD)	Number of days Don't know 77	If Zero days, go to D3	D1			
How many <b>servings</b> of fruit do you eat on <b>one</b> of those days? (USE SHOW CARD)	Number of servings Don't know 77		D2			
In a typical week, on how many days do you <b>eat vegetables</b> (excluding potatoes)? (USE SHOW CARD)	Number of days Don't know 77	If Zero days, go to D5	D3			
How many <b>servings</b> of vegetables (excluding potatoes) do you eat on one of those days? (USE SHOW CARD)	Number of servings Don't know 77		D4			
Diet: oils and fat consumption						
What type of <b>oil or fat is most often</b> used for meal preparation in your household? (SELECT ONLY ONE)	Vegetable oil Lard or suet Butter or ghee Margarine Other None in particular None used Don't know	1 2 3 4 5 If other, go to D5 other 6 7 77	D5			
	Other		D5 other			
On average, how many meals per week do you eat that were not prepared at a home? By meal, I mean breakfast, lunch and dinner.	Number Don't know	L 77	D6			
Diet: food consumption						
<b>Now I will ask you some questions about your diet during the last year.</b> For every food, a quantity is mentioned, a medium portion or a usually a unit used in the household, such as a slice or a spoon. The interviewer will mark (+) in the box to specify how often, <b>on average</b> , the participant eats the specified quantity of the following food <b>during the last year</b> (USE SHOW CARD).						

Question	Response						Code					
How often have you eaten		Average consumption during last year										
the following foods and in what quantity?	Never or less than once per	1–3 times per month	Once per week	2–4 times per week	5–6 times per week	Once per day	2–3 times per day	4—5 times per day	6+ per day	Re- fused 88	Don't know 77	
	month											
Bread (one slice)	r	1	1	1	1	r	1	Υ.	<u>.</u>	1	1	
White bread												F1
Black bread												F2
Whole cereals bread												F3
Cereals/rice porridge (a portion = 5 spoons = 80 g)												F4
Breakfast cereals (muesli, cornflakes, oats) (a portion = 5 spoons = 80 g)												F5
Potatoes and pasta (medium portion = 80 g)												
Chips												F6
Pizza (slice)												F7
Pies												F8
Pasta, macaroni (medium portion)												F9
Salty snacks (salty nuts, biscuits, crackers)												F10
Processed meat products (me	edium port	tion = 80	g)					• •				
Sausages, salami (boiled), liver sausage												F11
Pastrami, smoked ham, cured/ smoked salami												F12
Canned meat											İ	F13
Semi-prepared meat products (mici, pârjoale)												F14
Fish products (medium portio	on = 80 g)											
Salty/smoked/marinated fish												F15
Canned fish												F16
Dairy products (medium porti	on = 80 g)											
Hard and soft cheese												F17
Sheep's cheese												F18
Other foods	1	1	1	1	1	1	1	1	<u>1</u>	1	1	
Pickled vegetables (medium portion = 80 g), (USE SHOW CARD)												F19
Marinated vegetables (medium portion) (USE SHOW CARD)												F20
Sauces (ketchup, mayonnaise, adjica, other sauces) (medium portion = one spoon)												F21

#### Dietary salt: knowledge, attitudes and practices

With the next questions, we would like to learn more about salt in your diet. Dietary salt includes ordinary table salt, unrefined salt such as see salt, iodized salt, salty powder (extra), salty cubes, coarse and rock salt and salty sauces, such as ketchup, adjika, and soya sauce (USE SHOW CARD). The following questions are on adding salt to the food right before you eat it, on how food is prepared in your home, on eating processed foods that are high in salt, such as pickles, marinated foods, salty herbs and seasonings, sheep's and dairy salty cheese, sausages, pastrami, bacon, and other salty meat products, salty fish, and questions on controlling your salt intake. Please answer the questions even if you consider yourself to eat a diet low in salt.

Questions	Response		Code	
How often is salt or a salty sauce such as	Always	1		
ketchup, adjica, and soya sauce added to	Often	2		
your meal right before or during eating?	Sometimes	3		
	Rarely	4	51	
	Never	5		
(USE SHOW CARD)	Don't know	77		
	Always	1		
	Often	2		
How often is <b>salt</b> , <b>salty seasoning</b> or <b>a salty</b>	Sometimes	3	6.2	
sauce added in cooking or preparing foods	Rarely	4	52	
	Never	5		
	Don't know	77		
	lodized	1		
What kind of salt do you use for cooking or	Non-iodized	2	S3	
mear preparation in your nousehold?	Don't know	3		
How often do you eat processed foods high	Always	1		
in salt? Processed food that are high in salt	Often	2		
are foods that were modified, from their	Sometimes	3		
natural status, such as packaged saily snacks, canned salty foods other processed foods	Rarely	4		
that are high in salt [ i.e: pickles , marinades,	Never	5	S4	
sheep's and dairy salty cheese, salami, sausages, bacon, pastrami, and other salty meat products, salty fish, salty nuts/biscuits]. (USE SHOW CARD)	Don't know	77		
	Far too much	1		
	Too much	2		
How much salt or salty sauce do you think	Just the right amount	3	C E	
you consume?	Too little	4	55	
	Far too little	5		
	Don`t know	77		
	Yes	1		
Do you think that too much salt or salty	No	2		
sauce in your diet could cause <b>a serious</b> health problem?	Don`t know Refused	77 88 If NO, DON`T KNOW or REFUSED, go to S8	S6	

	High blood pressure	1	
	Osteoporosis	2	
What sort of <b>serious health problem</b> do	Stomach cancer	3	
you think a high-salt diet could cause?	Kidney stones	4	67
[mention all possible options]	None of the above	5	5/
	All of the above	6	
	Don`t know	77	
	Refused	88	
	Very important	1	
How important to you <b>is lowering the salt</b> in your diet?	Somewhat important	2	
	Not at all important	3	58
	Don`t know	77	
Do you do anything of the following on a regular basis <b>to control your salt or sodium intake</b> ?	Yes	1	
	No	2	
	Don`t know	77	59
	Refused	88 If NO, DON`T KNOW OR REFUSED, go to H1	
	Limit consumption of processed foods	1	
	Look at the salt or sodium content on food labels	2	
	Do not add salt at table	3	
What do you do on a regular basis <b>to control</b>	Buy low salt alternatives	4	
your salt or sodium intake? [mention all possible options]	Buy low sodium alternatives	5	S10
	Do not add salt when cooking	6	
	Use spices other than salt when cooking	7	
	Avoid eating out	8	
	Other (specify)	9	

3. Personal medical history							
Question	Re	sponse	Code				
Personal medical history							
Have you ever been told by a medical doctor or	Yes	1					
other health worker that you have, or have had, heart failure?	No	2	H1				
Have you ever been told by a medical doctor or	Yes	1					
other health worker that you have, or have had, a <b>heart attack</b> ?	No	2	H2				
Have you ever been told by a medical doctor or	Yes	1					
other health worker that you have, or have had,	No	2	H3				
Have you ever been told by a medical doctor or	Vec	1					
other health worker that you have, or have had, a	Na	י ר	H4				
stroke?	INO	2					
Have you ever been told by a medical doctor or	Yes	1	ЦE				
kidnev trouble?	No	2	СП				
Have you ever been told by a medical doctor or	Yes	1					
other health worker that you have, or have had, a	Na	r	H6				
peptic ulcer?	INO	2					
Have you ever been told by a medical doctor or	Yes	1					
other health worker that you have, or have had,	No	2	H/				
Have you ever been told by a medical doctor or		-					
other health worker that you have, or have had.	Yes	1	H8				
cancer or a malignant tumour?	No	2	-				

History of raised blood pressure					
Have you ever had your blood pressure measured	Yes	1			
by a doctor or other health worker?	No	2	If NO, go to B1		
Have you ever been told by a medical doctor or	Yes	1		тэ	
pressure or hypertension?	No	2	If NO, go to B1	12	
Have you been told (the above) in the past 12	Yes	1		ТЗ	
months?	No	2		15	
Are you currently receiving any of the following	Yes	1			
prescribed by a doctor or other health worker?	No	2		14	
Drugs (medication) that you have taken in the past	Yes	1			
2 weeks?	No	2		144	
Advice to reduce calt intake?	Yes	1			
Advice to reduce sait intake:	No	2		140	
Advice or treatment to lose weight?	Yes	1		TAC	
	No	2			
Advice or treatment to stop smoking?	Yes	1		T/d	
	No	2		140	
Advice to start or do more evercise?	Yes	1		T40	
	No	2		140	
Have you ever seen a traditional healer for raised	Yes	1		Т5	
blood pressure or hypertension?	No	2			
Are you currently taking any herbal or traditional	Yes	1		т	
remedy for raised blood pressure?	No	2			

History of diabetes				
Have you ever had your blood sugar measured by	Yes	1		D1
a doctor or other health worker?	No	2	If NO, go to G1	DI
Have you ever been told by a doctor or other	Yes	1		
diabetes?	No 2		If NO, go to G1	D2
Have you been told (the above) in the past 12	Yes	1		B3
months?	No	2		65
Are you currently receiving any of the following treatments/advice for diabetes prescribed by a	Yes	1		
doctor or other health worker?	No	2		Ът
Inculin?	Yes	1		B/la
	No	2		DHa
Drugs (medication) that you have taken in the past	Yes	1		P/h
2 weeks?	No	2		D4D
Special prescribed diet?	Yes	1		Blo
	No	2		DHC
Advice or treatment to lose weight?	Yes	1		B4d
	No	2		Бна
Advice or treatment to stop smoking?	Yes	1		B/o
	No	2		Ътс
Advice to start or do more evercise?	Yes	1		B∕lf
	No	2		ודע
Have you ever seen a traditional healer for raised	Yes	1		B5
blood glucose or diabetes?	No	2		05
Are you currently taking any herbal or traditional	Yes	1		B6
remedy for raised blood glucose or diabetes?	No	2		

History of cardiovascular disease			
Have you ever had a heart attack or chest	Yes	1	C1
(cerebrovascular accident or incident)?	No	2	GI
Are you currently taking aspirin regularly to	Yes	1	62
prevent or treat heart disease?	No	2	02
Are you currently taking statins (Lovastatin/	Yes	1	<u> </u>
regularly to prevent or treat heart disease?	No	2	60

#### Lifestyle advice

During the past 3 years, has a doctor or other health worker advised you to do any of the following? (Register for every one)

Stop smalling tobasso or dop't start	Yes	1	<b>V</b> 1	
	No	2	NI NI	
	Yes	1	КЭ	
Reduce sait in your diet	No	2	KZ	
Eat at least 5 servings of fruit and/or vegetables	Yes	1	K2	
each day	No	2	Г\ <b>Э</b>	
Paduca fat in your diat	Yes	1	K4	
Reduce fat in your diet	No	2		
Start to do more physical activity	Yes	1	VE	
Start to do more physical activity	No	2	C7	
Maintain a boolthy body weight or loss weight	Yes	1	Ve	
maintain a healthy body weight or lose weight	No	2	ŇÖ	

4. Physical measurements				
Question	Response	Code		
Blood pressure				
Device ID for blood pressure		L1		
Reading 1	Systolic (mmHg)	L2a		
	Diastolic (mmHg)	L3a		
Reading 2	Systolic (mmHg)	L2b		
	Diastolic (mmHg)	L3b		
Reading 3	Systolic (mmHg)	L2c		
	Diastolic (mmHg)	L3c		
Heart Rate				
Reading 1	Beats per minute	L5a		
Reading 2	Beats per minute	L5b		
Reading 3	Beats per minute	L5c		
Height and Weight				
Device ID for height and weight		M1		
Height	in centimetres (cm),,,	M2		
Weight If too heavy for scale 666.6	in kilograms (kg),,,	M3		
Waist				
Device ID for waist		01		
Waist circumference	in centimetres (cm),,,	02		
Hip circumference	in centimetres (cm),,,	03		

#### 5. 24-hour urine sample

#### 24-hour urine sample collection

[At this point, the participant will be given the "Participant's guide for the 24-hour urine sample collection". The participant will be guided through the guide and the interviewer will answer any questions that might arise. After this, the participant will be given the "Urine collection sheet", will be requested to void the bladder and to discard the urine. At this moment the interviewer will enter into the urine collection sheet the date and time of starting the urine collection and provide an explanation on how to fill it in. The interviewer will inform the participant about the second visit (to take the urine sample and a household salt sample)].

Now I would like to review a few of your log sheets and go over any comments or concerns you might have.

#### Part II

#### 6. Collection of 24-hour urine sample

Location and date/Question	Response	Code
Date of the second visit (to those who agreed to participate in the survey, for the second part of the survey)	dd mm year	E1
Time of interview (24-hour clock)	لــلــا hrs mins	E2
Participant ID		
Urine sample collection	Yes 1 No 2 If NO, END	E3
Total volume of urine collected	In millilitres (ml)/ grams (g) 1 ml = 1g	E4
Number of missed urine collections		E5

7. Household salt				
Household salt sample collection (50–100 g)				
The survey participant is asked to pre	esent the salt usually used for co	ooking and as the table salt		
Llousehold serveds collection	Yes	1	P1	
Household sample collection	No	2		

# 8. Laboratory test results

# (data will be recorded at the National Public Health Agency, for all participants)

Participant ID		
Urinary sodium content	In milligrams (mg) / 24 hrs	U1
Urinary potassium content	In mg / 24 hrs	U2
Urinary creatinine content	In mg / 24 hrs	U3
Urinary iodine content	In micrograms / 24 hrs	U4
Salt iodine content	In mg / kg	U5

# 8. Annex 2. Data tables

#### **8.1 DEMOGRAPHIC INDICATORS**

Age (years)	Men		Women		Both sexes	
	n	Mean no. of years	n	Mean no. of years	n	Mean no. of years
18–29	43	13.6	62	12.5	105	13.0
30–44	89	12.3	126	12.4	215	12.4
45–59	109	11.1	169	11.2	278	11.2
60–69	71	10.8	140	10.9	211	10.9
18–69	312	11.8	497	11.6	809	11.7

# Table A1. Mean number of years of education

# Table A2. Highest level of education in men

				Men			
Age (years)	n	Without formal schooling/not completed primary school (%)	Primary school completed (%)	Lower- secondary/ gymnasium completed (%)	Secondary school/ lyceum completed (%)	College/ vocational school completed (%)	University/ postgraduate degree completed (%)
18–29	43	-	-	18.6	20.9	20.9	39.5
30-44	89	-	-	15.7	18.0	38.2	28.1
45-59	109	-	-	21.1	23.9	45.0	10.1
60–69	71	-	_	23.9	19.7	38.0	18.3
18-69	312	-	_	19.9	20.8	38.1	21.2

# Table A3. Highest level of education in women

				Women			
Age (years)	n	Without formal schooling/ not completed primary school (%)	Primary school completed (%)	Lower- secondary/ gymnasium completed (%)	Secondary school/ lyceum completed (%)	College/ vocational school completed (%)	University/ postgraduate degree completed (%)
18–29	62	1.6	0.0	25.8	24.2	11.3	37.1
30–44	126	0.0	0.0	22.2	19.0	25.4	33.3
45–59	169	0.0	0.6	19.5	28.4	34.3	17.2
60–69	140	0.0	0.0	32.9	20.0	31.4	15.7
18–69	497	0.2	0.2	24.7	23.1	28.4	23.3

# Table A4. Highest level of education, both sexes

		Both sexes										
Age (years)	n	Without formal schooling/ not completed primary school (%)	Primary school completed (%)	Lower- secondary/ gymnasium completed (%)	Secondary school/ lyceum completed (%)	College/ vocational school completed (%)	University/ postgraduate degree completed (%)					
18–29	105	1.0	0.0	22.9	22.9	15.2	38.1					
30–44	215	0.0	0.0	19.5	18.6	30.7	31.2					
45-59	278	0.0	0.4	20.1	26.6	38.5	14.4					
60–69	211	0.0	0.0	29.9	19.9	33.6	16.6					
18-69	809	0.1	0.1	22.9	22.2	32.1	22.5					

# Table A5. Ethnic group of respondents

		Both sexes										
Age (years)	n	Ethnic Romanian/ Moldovan (%)	Ethnic Russian (%)	Ethnic Ukrainian (%)	Ethnic (Roma) (%)	Ethnic (Gagauz) (%)	Other ethnic group (%)					
18–29	105	89.5	2.9	0.0	0.0	6.7	1.0					
30–44	215	85.6	6.0	5.1	0.5	2.3	0.5					
45–59	278	82.7	2.9	6.5	0.0	7.6	0.4					
60–69	211	82.5	6.2	5.2	0.5	5.2	0.5					
18–69	809	84.3	4.6	4.9	0.2	5.4	0.5					

# Table A6. Distribution of population, by ethnicity and area of residence

Ethnisity		Rural		Urban			Total			
Ethnicity	n	Ethnicity (%)	Area (%)	n	Ethnicity (%)	Area (%)	n	Ethnicity (%)	Area (%)	
Romanian/ Moldovan	436	63.9	89.0	246	36.1	77.1	682	84.3	84.3	
Russian	3	8.1	0.6	34	91.9	10.7	37	4.6	4.6	
Ukrainian	25	62.5	5.1	15	37.5	4.7	40	4.9	4.9	
Roma	0	0.0	0.0	2	100.0	0.6	2	0.2	0.2	
Gagauz	25	56.8	5.1	19	43.2	6.0	44	5.4	5.4	
Other ethnic group	1	25.0	0.2	3	75.0	0.9	4	0.5	0.5	
Total	490	60.6	100.0	319	39.4	100	809	100	100	

### Table A7. Marital status in men

		Men										
Age (years)	n	Never married (%)	Currently married (%)	Separated (%)	Divorced (%)	Widowed (%)	Cohabitating (%)					
18–29	43	62.8	34.9	0.0	2.3	0.0	0.0					
30–44	89	9.0	78.7	0.0	11.2	1.1	0.0					
45–59	109	2.8	79.8	3.7	10.1	2.8	0.9					
60–69	70	1.4	62.9	11.4	4.3	18.6	1.4					
18–69	311	12.5	69.5	3.9	8.0	5.5	0.6					

# Table A8. Marital status in women

		Women									
Age (years)	n	Never married (%)	Currently married (%)	Separated (%)	Divorced (%)	Widowed (%)	Cohabitating (%)				
18–29	62	38.7	46.8	6.5	4.8	1.6	1.6				
30–44	124	9.7	70.2	7.3	8.1	1.6	3.2				
45–59	169	1.2	66.9	5.3	5.9	18.9	1.8				
60–69	140	2.1	33.6	5.0	7.9	50.7	0.7				
18-69	495	8.3	55.8	5.9	6.9	21.4	1.8				

# Table A9. Marital status, both sexes

		Both sexes									
Age (years)	n	Never married (%)	Currently married (%)	Separated (%)	Divorced (%)	Widowed (%)	Cohabitating (%)				
18–29	105	48.6	41.9	3.8	3.8	1.0	1.0				
30-44	213	9.4	73.7	4.2	9.4	1.4	1.9				
45–59	278	1.8	71.9	4.7	7.6	12.6	1.4				
60–69	210	1.9	43.3	7.1	6.7	40.0	1.0				
18-69	806	9.9	61.0	5.1	7.3	15.%	1.4				

# Table A10. Employment status in men

			Men		
Age (years)	n	Government employee (%)	Non-government employee (%)	Self-employed (%)	Unpaid (%)
18–29	43	16.3	41.9	14.0	27.9
30–44	89	12.4	32.6	32.6	22.5
45–49	109	22.0	24.8	33.0	20.2
60–69	71	9.9	7.0	8.5	74.6
18–69	312	15.7	25.3	24.7	34.3

# Table A11. Employment status in women

		Women								
Age (years)	n	Government employee (%)	Non-government employee (%)	Self-employed (%)	Unpaid (%)					
18–29	62	22.6	16.1	8.1	53.2					
30–44	126	29.4	23.8	9.5	37.3					
45–49	169	29.0	13.6	12.4	45.0					
60–69	140	8.6	2.1	1.4	87.9					
18-69	497	22.5	13.3	8.0	56.1					

# Table A12. Employment status, both sexes

A		Both sexes									
(years)	n	Government employee (%)	Non-government employee (%)	Self-employed (%)	Unpaid (%)						
18–29	105	20.0	26.7	10.5	42.9						
30-44	215	22.3	27.4	19.1	31.2						
45-49	278	26.3	18.0	20.5	35.3						
60–69	211	9.0	3.8	3.8	83.4						
18–69	809	19.9	17.9	14.5	47.7						

# Table A13. Unpaid work and unemployment in men

	Men										
	n	Unpaid (%)		Homo		Unemplo	oyed				
Age (years)			Student (%)	maker (%)	Retired (%)	Able to work (%)	Not able to work (%)				
18–29	12	0.0	66.7	8.3	0.0	25.0	0.0				
30–44	20	5.0	0.0	35.0	0.0	55.0	5.0				
45–59	22	0.0	0.0	50.0	9.1	36.4	4.5				
60–69	53	0.0	0.0	7.5	90.6	1.9	0.0				
18–69	107	0.9	7.5	21.5	46.7	21.5	1.9				

# Table A14. Unpaid work and unemployment in women

		Women										
Age (vears)	n	Unpaid (%)		Homo		Unemplo	yed					
Age (years)			Student (%)	maker (%)	Retired (%)	Able to work (%)	Not able to work (%)					
18–29	33	3.0	30.3	36.4	0.0	30.3	0.0					
30–44	47	2.1	0.0	80.9	2.1	12.8	0.0					
45–59	76	0.0	0.0	51.3	39.5	5.3	2.6					
60–69	123	0.0	0.0	0.8	99.2	0.0	0.0					
18–69	279	0.7	3.6	32.3	54.8	7.2	0.7					

# Table A15. Unpaid work and unemployment, both sexes

	Both sexes										
Age (vears)	n	Unpaid (%)		Homo		Unemplo	yed				
Age (years)			Student (%)	maker (%)	Retired (%)	Able to work (%)	Not able to work (%)				
18–29	45	2.2	40.0	28.9	0.0	28.9	0.0				
30–44	67	3.0	0.0	67.2	1.5	25.4	1.5				
45–59	98	0.0	0.0	51.0	32.7	12.2	3.1				
60–69	176	0.0	0.0	2.8	96.6	0.6	0.0				
18–69	386	0.8	4.7	29.3	52.6	11.1	1.0				

# Table A16. Mean annual per capita income

n	Mean (Moldovan lei; MDL)	Median (Moldovan lei; MDL)
431	108 478.36	90 000

# Table A17. Estimated household earnings per month, by quintile

n	Quintile 1 (<2000 MDL) (%)	Quintile 2 (2000 – 3500 MDL) (%)	Quintile 3 (3501 – 5000 MDL) (%)	Quintile 4 (5001 – 7500 MDL) (%)	Quintile 5 (>7500 MDL) (%)
178	41.6	35.4	14.0	5.6	3.4

#### 8.2 ANTHROPOMETRY AND PHYSICAL MEASUREMENTS

	Men		Women			Both sexes						
Area	n	Mean BMI (kg/ m²)	95%	6 CI	n	Mean BMI (kg/ m²)	95%	% CI	n	Mean BMI (kg/ m²)	95%	6 CI
Rural	189	28.2	27.5	28.9	335	29.6	29.0	30.2	524	29.1	28.6	29.6
Urban	134	26.3	25.6	27.1	189	26.8	26.1	27.5	323	26.6	26.1	27.1
Total	323	27.4	26.9	28.0	524	28.6	28.1	29.1	847	28.2	27.8	28.5

# Table A18. Body mass index (BMI) by sex and area of residence

# **Table A19.** Prevalence of BMI categories in men, by age group

	Men							
Age (years)	n	Under-weight < 18.5 kg/m² (%)	Normal weight 18.5–24.9 kg/m² (%)	Overweight 25.0–29.9 kg/m² (%)	Obese ≥ 30.0 kg/m² (%)			
18–29	44	6.8	61.4	29.5	2.3			
30–44	92	0.0	35.9	45.7	18.5			
45–59	115	0.9	26.1	36.5	36.5			
60–69	72	0.0	23.6	41.7	34.7			
18–69	323	1.2	33.1	39.3	26.3			

## Table A20. Prevalence of BMI categories in women, by age group

	Women							
Age (years)	n	Under-weight < 18.5 kg/m² (%)	Normal weight 18.5–24.9 kg/m <sup>2</sup> (%)	Overweight 25.0–29.9 kg/m² (%)	Obese ≥ 30.0 kg/m² (%)			
18–29	63	4.8	65.1	19.0	11.1			
30–44	130	3.8	34.6%	36.2	25.4			
45–59	180	0.0	16.7	38.9	44.4			
60–69	151	0.7	11.3	45.0	43.0			
18–69	524	1.7	25.4	37.6	35.3			

## Table A21. Prevalence of BMI categories in both sexes, by age group

A ===	Both sexes							
Age (years)	(years) n		Normal weight 18.5–24.9 kg/m <sup>2</sup> (%)	Overweight 25.0– 29.9 kg/m <sup>2</sup> (%)	Obese ≥ 30.0 kg/ m <sup>2</sup> (%)			
18–29	107	5.6	63.6	23.4	7.5			
30–44	222	2.3	35.1	40.1	22.5			
45–59	295	0.3	20.3	38.0	41.4			
60–69	223	0.4	15.2	43.9	40.4			
18–69	847	1.5	28.3	38.3	31.9			

# **Table A22.** Prevalence of overweight, by age group and sex

<b>A</b> <i>m</i> o	Men		Wo	men	Both sexes	
Age		$BMI \ge 25 \text{ kg/m}^2$		$BMI \ge 25 \text{ kg/m}^2$		$BMI \ge 25 \text{ kg/m}^2$
(years)	п	(%)	n	(%)	n	(%)
18–29	44	31.8	63	30.2	107	30.8
30–44	92	64.1	130	61.5	222	62.6
45–59	115	73.0	180	83.3	295	79.3
60–69	72	76.4	151	88.1	223	84.3
18–69	323	65.6	524	72.9	847	70.1

Table A23. Prevalence of overweight, by area of residence and sex

	Men		Woi	nen	Both sexes		
Area	_	BMI ≥ 25 kg/	_	BMI ≥ 25 kg/	_	BMI ≥ 25 kg/	
	n	m² (%)	n	m² (%)	п	m² (%)	
Rural	189	70.4	335	80.0	524	76.5	
Urban	134	59.0	189	60.3	323	59.8	
Total	323	65.6	524	72.9	847	70.1	

**Table A24.** Prevalence of hypertension (SBP  $\geq$  140 and/or DBP  $\geq$  90 mmHg), excluding those taking medication for raised blood pressure, by sex and age group

Age	Men		Woi	nen	Both sexes		
(years)	n	%	n	%	n	%	
18 – 29	44	20.5	63	14.3	107	16.8	
30 – 44	90	24.4	127	22.8	217	23.5	
45 – 59	102	54.9	156	42.3	258	47.3	
60 – 69	61	57.4	105	57.1	166	57.2	
18 - 69	297	41.1	451	36.4	748	38.2	

**Table A25.** Prevalence of hypertension (SBP  $\geq$  140 and/or DBP  $\geq$  90 mmHg, or currently taking medication for raised blood pressure), by sex and age group

Age	Men		Woi	Women		Both sexes	
(years)	n	%	n	%	n	%	
18 – 29	44	20.5	63	14.3	107	16.8	
30 – 44	92	26.1	130	24.6	222	25.2	
45 – 59	115	60.0	180	50.0	295	53.9	
60 – 69	72	63.9	151	70.2	223	68.2	
18 – 69	323	45.8	524	45.2	847	45.5	

**Table A26.** Prevalence of hypertension (SBP  $\geq$  160 and/or DBP  $\geq$  100 mmHg), excluding those taking medication for raised blood pressure, by sex and age group

Age	Men		Woi	Women		Both sexes	
(years)	n	%	n	%	n	%	
18–29	44	0.0	63	1.6	107	0.9	
30–44	90	5.6	127	6.3	217	6.0	
45–59	102	11.8	156	13.5	258	12.8	
60–69	61	27.9	105	25.7	166	26.5	
18–69	297	11.4	451	12.6	748	12.2	

**Table A27.** Prevalence of hypertension (SBP  $\geq$  160 and/or DBP  $\geq$  100 mmHg, or currently taking medication for raised blood pressure), by sex and age group

Age group	Men		Woi	men	Both sexes	
(years)	n	%	n	%	n	%
18–29	44	0.0	63	1.6	107	0.9
30–44	92	7.6	130	8.5	222	8.1
45–59	115	21.7	180	25.0	295	23.7
60–69	72	38.9	151	48.3	223	45.3
18–69	323	18.6	524	24.8	847	22.4

**Table A28.** Male respondents with treated and/or controlled raised blood pressure, by age group

		M	en		
Age (years)	n	Taking medication and SBP < 140 and DBP < 90 (%)	Taking medication and SBP $\geq$ 140 and DBP $\geq$ 90 (%)	Not taking medication and SBP $\geq$ 140 and DBP $\geq$ 90 (%)	
18–29	9	0.0	0.0	100.0	
30–44	24	4.2	4.2	91.7	
45–59	69	2.9	15.9	81.2	
60–69	46	0.0	23.9	76.1	
18–69	148	2.0	15.5	82.4	

**Table A29.** Male respondents with treated and/or controlled raised blood pressure, by area of residence

		М	en		
Area	n	Taking medication and SBP < 140 and DBP < 90 (%)	Taking medication and SBP $\geq$ 140 and DBP $\geq$ 90 (%)	Not taking medication and SBP $\geq$ 140 and DBP $\geq$ 90 (%)	
Rural	94	2.1	14.9	83.0	
Urban	54	1.9	16.7	81.5	
Total	148	2.0	15.5	82.4	

**Table A30.** Female respondents with treated and/or controlled raised bloodpressure, by age group

		Woi	men	
Age (years)	Age (years) n		Taking medication and SBP $\geq$ 140 and DBP $\geq$ 90 (%)	Not taking medication and SBP $\geq$ 140 and DBP $\geq$ 90 (%)
18–29	9	0.0	0.0	100.0
30–44	32	0.0	9.4	90.6
45–59	90	6.7	20.0	73.3
60–69	106	7.5	35.8	56.6
18–69	237	5.9	24.9	69.2

**Table A31.** Female respondents with treated and/or controlled raised blood pressure,by area of residence

		Women									
Area	n	Taking medication and SBP < 140 and DBP < 90 (%)	Taking medication and SBP ≥ 140 and DBP ≥ 90 (%)	Not taking medication and SBP $\geq$ 140 and DBP $\geq$ 90 (%)							
Rural	158	7.0	24.1	69.0							
Urban	79	3.8	26.6	69.6							
Total	237	5.9	24.9	69.2							

**Table A32.** Respondents (both sexes) with treated and/or controlled raised blood pressure, by age group

		Both	sexes	
Age (years)	Age (years) n		Taking medication and SBP ≥ 140 and DBP ≥ 90 (%)	Not taking medication and SBP $\geq$ 140 and DBP $\geq$ 90 (%)
18–29	18	0.0	0.0	100.0
30–44	56	1.8	7.1	91.1
45–59	159	5.0	18.2	76.7
60–69	152	5.3	32.2	62.5
18–69	385	4.4	21.3	74.3

**Table A33.** Respondents (both sexes) with treated and/or controlled raised bloodpressure, by area of residence

		Both sexes								
Area	n	Taking medication and SBP < 140 and DBP < 90 (%)	Taking medication and SBP ≥ 140 and DBP ≥ 90 (%)	Not taking medication and SBP $\geq$ 140 and DBP $\geq$ 90 (%)						
Rural	252	5.2	20.6	74.2						
Urban	133	3.0	22.6	74.4						
Total	385	4.4	21.3	74.3						

# Table A34. Urinary iodine (UI) excretion (mcg/24h), by area of residence and sex

Area	n	Mean*	Median	SD	95% Cl						
Men											
Rural	191	229.8	200.3	163.6	206.5-253.2						
Urban	135	234.7	201.9	141.2	210.6–258.7						
Women											
Rural	338	222.9	175.2	165.5	205.2-240.6						
Urban	192	216.8	202.5	118.4	199.9–233.7						
	Both sexes										
Rural	529	225	186	164	211–239						
Urban	327	224	202	128	210–238						

\*Men: p=0.8; women: p=0.7 (rural versus urban).

# Table A35. UI excretion (mcg/24h), by age group

Age (years)	n	Mean	Median	SD	95% CI
18-29	108	220.5	201.7	140.6	193.7-247.3
30-44	225	217.6	192.0	140.3	199.2-236.0
45-59	296*	226.3	189.0	167.5	207.2-245.5
60-69	227	232.4	204.2	146.8	213.2-251.6
18-69	856	225	196	152	215-235

\*p=0.7, by ANOVA

# Table A36. UI excretion (mcg/24h), by age group and sex

Age (years)	n	Mean	Median	SD	95% CI								
	Men												
18–29	44	222.4	199.3	136.7	180.8–263.9								
30-44	92	242.8	206.6	154.8	210.8-274.9								
45–59	117	211.2	182.8	163.7	181.2–241.1								
60–69	73	256.9	216.3	146.9	222.6–291.1								
		Wom	nen										
18–29	64	219.2	203.6	144.3	183.1–255.2								
30-44	133	200.2	179.7	127.0	178.4–222.0								
45-59	5-59 179*		190.7	169.6	211.2-261.3								
60-69	154	220.9	194.5	145.8	197.7–244.1								

\*Men: p=0.2; Women: p=0.2, by ANOVA.

#### 8.3 **DIET**

**Table A37.** Mean number of days consuming fruit in a typical week, by age groupand sex

		M	en			Wor	nen		Both sexes			
Age (years)	n	Mean no. of days	95%	% CI	n	Mean no. of days	95% CI		n	Mean no. of days	95% CI	
18–29	44	5.7	5.1	6.2	63	5.7	5.2	6.1	107	5.7	5.3	6.0
30–44	92	5.6	5.2	5.9	130	5.5	5.1	5.8	222	5.5	5.3	5.8
45–59	115	5.0	4.6	5.3	180	5.0	4.8	5.3	295	5.0	4.8	5.2
60–69	73	5.0	4.6	5.5	151	4.8	4.5	5.1	224	4.9	4.6	5.1
18-69	324	5.2	5.0	5.4	524	5.2	5.0	5.3	848	5.2	5.1	5.3

**Table A38.** Mean number of days consuming fruit in a typical week, by area of residence and sex

		Men				Women				Both sexes			
Area	n	Mean no. of days	95%	6 CI	n	Mean no. of days	95%	% CI	n	Mean no. of days	95%	6 CI	
Rural	189	4.8	4.6	5.1	335	4.6	4.4	4.8	524	4.7	4.5	4.8	
Urban	135	5.8	5.5	6.1	189	6.2	6.0	6.4	324	6.0	5.9	6.2	
Total	324	5.2	5.0	5.4	524	5.2	5.0	5.3	848	5.2	5.1	5.3	

**Table A39.** Mean number of days consuming vegetables in a typical week, by age group and sex

		Me	en			Wom	nen		Both sexes				
Age		Mean				Mean				Mean			
(years)	n	no. of	95%	6 CI	n	no. of	95%	6 CI	n	no. of	95%	6 CI	
		days				days			days				
18–29	44	6.3	6.0	6.7	63	6.2	5.8	6.5	107	6.2	6.0	6.5	
30–44	92	6.1	5.8	6.4	130	5.9	5.6	6.2	222	6.0	5.8	6.2	
45–59	115	5.7	5.4	5.9	180	5.8	5.5	6.0	295	5.7	5.6	5.9	
60–69	73	5.7	5.4	6.1	151	5.6	5.3	5.8	224	5.6	5.4	5.8	
18–69	324	5.9	5.7	6.1	524	5.8	5.7	5.9	848	5.8	5.7	5.9	

**Table A40.** Mean number of days consuming vegetables in a typical week, by area of residence and sex

Area	Men				Women				Both sexes			
	n	Mean no. of days	95%	95% CI		Mean no. of days	95% CI		n	Mean no. of days	95% CI	
Rural	189	5.6	5.4	5.8	335	5.4	5.2	5.6	524	5.5	5.3	5.6
Urban	135	6.3	6.1	6.5	189	6.5	6.3	6.7	324	6.4	6.3	6.5
Total	324	5.9	5.7	6.1	524	5.8	5.7	5.9	848	5.8	5.7	5.9

Table A41. Mean number of servings of fruit on average per day, by age group and sex

Age (years)	Men				Women				Both sexes				
	n	Mean no. of servings	95% CI		n	Mean no. of servings	95% CI		n	Mean no. of servings	95% CI		
18–29	44	2.4	2.1	2.8	63	2.4	2.1	2.7	107	2.4	2.1	2.7	
30–44	92	2.7	2.4	3.0	130	2.3	2.1	2.6	222	2.5	2.3	2.7	
45–59	115	2.0	1.8	2.1	180	2.1	1.9	2.3	295	2.1	1.9	2.2	
60–69	73	1.9	1.7	2.1	151	2.0	1.8	2.2	224	2.0	1.8	2.1	
18–69	324	2.23	2.11	2.34	524	2.18	2.08	2.27	848	2.19	2.12	2.27	
**Table A42.** Mean number of servings of fruit on average per day, by area of residence and sex

		Me	n			Wom	en		Both sexes				
Area	n	Mean no. of servings	95%	% CI	n	Mean no. of servings	95%	6 CI	n	Mean no. of servings	95%	6 CI	
Rural	189	2.0	1.9	2.1	335	1.9	1.8	2.0	524	1.9	1.8	2.0	
Urban	135	2.5	2.3	2.7	189	2.7	2.6	2.9	324	2.6	2.5	2.8	
Total	324	2.2	2.1	2.3	524	2.2	2.1	2.3	848	2.2	2.1	2.3	

**Table A43.** Mean number of servings of vegetables on average per day, by age group and sex

		Me	n			Wom	en		Both sexes				
Age (years)	n	Mean no. of servings	95%	% CI	n	Mean no. of servings	95%	6 CI	n	Mean no. of servings	95%	6 CI	
18–29	44	2.3	2.0	2.5	63	2.1	1.8	2.3	107	2.1	2.0	2.3	
30–44	92	2.7	2.5	2.9	130	2.4	2.2	2.5	222	2.5	2.4	2.6	
45–59	115	2.3	2.1	2.5	180	2.2	2.0	2.3	295	2.2	2.1	2.3	
60–69	73	2.1	1.9	2.3	151	2.1	1.9	2.2	224	2.1	2.0	2.2	
18–69	324	2.4	2.3	2.5	524	2.2	2.1	2.3	848	2.2	2.2	2.3	

**Table A44.** Mean number of servings of vegetables on average per day, by area of residence and sex

		Me	n			Wom	en		Both sexes			
Area	n	Mean no. of servings	95%	% CI	n	Mean no. of servings	95%	6 CI	n	Mean no. of servings	95%	6 CI
Rural	189	2.3	2.1	2.4	335	2.0	1.9	2.2	524	2.1	2.0	2.2
Urban	135	2.5	2.4	2.7	189	2.4	2.3	2.5	324	2.4	2.4	2.5
Total	324	2.4	2.3	2.5	524	2.2	2.1	2.3	848	2.2	2.2	2.3

**Table A45.** Mean number of servings of fruit and/or vegetables on average per day, by age group and sex

		Men	1			Wome	en		Both sexes				
Age (years)	n	Mean no. of servings	95%	% CI	n	Mean no. of servings	95%	% CI	n	Mean no. of servings	95%	% CI	
18–29	44	4.7	4.2	5.2	63	4.5	4.0	4.9	107	4.6	4.2	4.9	
30–44	92	5.4	5.0	5.8	130	4.7	4.3	5.1	222	5.0	4.7	5.3	
45–59	115	4.3	4.0	4.6	180	4.3	4.0	4.5	295	4.3	4.1	4.5	
60–69	73	4.0	3.6	4.4	151	4.1	3.8	4.3	224	4.0	3.8	4.3	
18-69	324	4.6	4.4	4.8	524	4.3	4.2	4.5	848	4.4	4.3	4.6	

**Table A46.** Mean number of servings of fruit and/or vegetables on average per day, by area of residence and sex

		Men				Wome	en			Both se	xes	
Area	n	Mean no. of servings	959	% CI	n	Mean no. of servings	95%	% CI	n	Mean no. of servings	95%	6 CI
Rural	189	4.3	4.0	4.5	335	3.9	3.7	4.1	524	4.0	3.9	4.2
Urban	135	5.0	4.7	5.3	189	5.1	4.9	5.4	324	5.1	4.9	5.3
Total	324	4.6	4.4	4.8	524	4.3	4.2	4.5	848	4.4	4.3	4.6

**Table A47.** Number of servings of fruit and/or vegetables on average per day amongmen, by age group

Age (years)	n	1–2 servings (%)	95% Cl	3–4 servings (%)	95% CI	≥ 5 servings (%)	95% CI
18–29	44	9.1	2.5–21.7	40.9	26.3–56.7	50.0	34.6–65.4
30–44	92	3.3	0.7–9.3	26.1	17.5–36.3	70.7	60.3–79.7
45–59	115	11.3	6.1–18.5	47.8	38.4–57.3	40.9	31.8–50.5
60–69	73	17.8	9.8–28.5	57.5	45.4–69.0	24.7	15.3–36.2
18-69	324	10.2	7.1-14.0	42.9	37.4-48.5	46.9	41.4-52.5

**Table A48.** Number of servings of fruit and/or vegetables on average per day among women, by age group

Age (years)	n	1–2 servings (%)	95% Cl	3–4 servings (%)	95% CI	≥ 5 servings (%)	95% CI
18–29	63	15.9	7.9–27.3	46.0	33.4–59.0	38.1	26.1–51.2
30-44	130	19.2	12.8–27.0	28.5	20.9–37.1	52.3	43.4–61.1
45–59	180	15.6	10.6–21.7	44.4	37.0–52.0	40.0	32.8–47.5
60–69	151	17.9	12.1–25.0	46.4	38.3–54.7	35.8	28.1-44.0
18-69	524	17.2	14.1–20.7	41.2	36.9-45.5	41.6	37.3–45.9

**Table A49.** Number of servings of fruit and/or vegetables on average per day amongboth sexes, by age group

Age (years)	n	1–2 servings (%)	95% CI	3–4 servings (%)	95% CI	≥ 5 servings (%)	95% CI
18–29	107	13.1	7.3–21.0	43.9	34.3–53.8	43.0	33.5–52.9
30–44	222	12.6	8.5–17.7	27.5	21.7–33.9	59.9	53.1–66.4
45–59	295	13.9	10.1–18.4	45.8	40.0–51.7	40.3	34.6–46.1
60–69	224	17.9	13.1–23.6	50.0	43.3–56.7	32.1	26.0–38.6
18–69	848	14.5	12.2–17.0	41.9	38.5-45.3	43.6	40.2-47.0

**Table A50.** Fewer than 5 servings of fruit and/or vegetables on average per day, by age group and sex

		Men			Wome	en	Both sexes			
Age (years)	n	< 5 servings per day (%)	95% CI	n	< 5 servings per day (%)	95% CI	n	< 5 servings per day (%)	95% CI	
18–29	22	50.0	34.6–65.4	39	61.9	48.8–73.8	61	57.0	47.1–66.5	
30–44	27	29.3	20.3–39.7	62	47.7	38.9–56.6	89	40.1	33.6–46.9	
45–59	68	59.1	49.5–68.2	108	60.0	52.4–67.2	176	59.7	53.9–65.3	
60–69	55	75.3	63.8-84.6	97	64.2	56.0–71.8	152	67.9	61.4–74.0	
18-69	172	53.1	47.5-58.6	306	58.4	54.0-62.7	478	56.4	53.0-59.8	

Table A51. Average consumption of bread among men, by age group

#### FC1 White bread

Age (years)	Once	per week or less	2-4 \	days per veek	5-6	days per week	Once	per day	2–3 ti	mes per day	4–6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	7	15.9	3	6.8	0	0.0	6	13.6	27	61.4	1	2.3
30–44	8	8.7	4	4.3	1	1.1	13	14.1	57	62.0	9	9.8
45–59	12	10.4	7	6.1	2	1.7	15	13.0	77	67.0	2	1.7
60–69	17	23.3	8	11.0	1	1.4	3	4.1	42	57.5	2	2.7
18–69	44	13.6	22	6.8	4	1.2	37	11.4	203	62.7	14	4.3

### FC2 Black bread

Age (years)	Once p	er week or less	2–4 c w	lays per /eek	5-бс м	lays per /eek	Once	per day	2–3 ti	imes per day	4–6 ti	imes per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	27	61.4	2	4.5	3	6.8	8	18.2	4	9.1	0	0.0
30-44	54	59.3	7	7.7	1	1.1	19	20.9	10	11.0	0	0.0
45–59	54	47.4	12	10.5	0	0.0	20	17.5	28	24.6	0	0.0
60–69	40	54.8	5	6.8	1	1.4	5	6.8	21	28.8	1	1.4
18-69	175	54.3	26	8.1	5	1.6	52	16.1	63	19.6	1	0.3

# FC3 Whole-grain bread

Age (years)	Once ol	per week r less	2-4	4 days per week	5-6	days per week	Once	per day	2-3	times per day	4–6 times per day	
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	41	95.3	0	0.0	0	0.0	0	0.0	1	2.3	1	2.3
30–44	80	87.9	3	3.3	1	1.1	5	5.5	2	2.2	0	0.0
45–59	107	93.0	1	0.9	0	0.0	6	5.2	1	0.9	0	0.0
60–69	67	91.8	1	1.4	0	0.0	2	2.7	2	2.7	1	1.4
18–69	295	91.6	5	1.6	1	0.3	13	4.0	6	1.9	2	0.6

# Table A52. Average consumption of bread among women, by age group

# FC1 White bread

Age (years)	Once of	per week · less	2-4 ( V	days per veek	5-6 \	days per week	Once	per day	2–3 tim	ies per day	4–6 t	imes per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	15	23.8	4	6.3	4	6.3	10	15.9	30	47.6	0	0.0
30–44	34	26.2	6	4.6	1	0.8	28	21.5	55	42.3	6	4.6
45–59	42	23.3	9	5.0	5	2.8	27	15.0	93	51.7	4	2.2
60–69	39	25.8	5	3.3	0	0.0	15	9.9	89	58.9	3	2.0
18–69	130	24.8	24	4.6	10	1.9	80	15.3	267	51.0	13	2.5

### FC2 Black bread

Age (years)	Once of	per week r less	2-4 (	days per veek	5-6 \	days per week	Once	per day	2–3 tim	ies per day	4–6 t	imes per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	31	49.2	8	12.7	1	1.6	15	23.8	8	12.7	0	0.0
30–44	60	46.5	8	6.2	3	2.3	29	22.5	29	22.5	0	0.0
45–59	89	49.4	14	7.8	4	2.2	36	20.0	36	20.0	1	0.6
60–69	77	51.0	11	7.3	3	2.0	23	15.2	36	23.8	1	0.7
18–69	257	49.1	41	7.8	11	2.1	103	19.7	109	20.8	2	0.4

# FC3 Whole-grain bread

Age (years)	Once of	per week r less	2-4	days per week	5-6	days per week	Once	per day	2–3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	54	85.7	4	6.3	0	0.0	3	4.8	1	1.6	1	1.6
30–44	109	83.8	6	4.6	1	0.8	13	10.0	1	0.8	0	0.0
45–59	165	91.7	6	3.3	1	0.6	6	3.3	2	1.1	0	0.0
60–69	135	90.6	5	3.4	1	0.7	6	4.0	1	0.7	1	0.7
18-69	463	88.7	21	4.0	3	0.6	28	5.4	5	1.0	2	0.4

# Table A53. Average consumption of bread among both sexes, by age group

#### FC1 White bread

Age (years)	Once of	per week r less	2-4 \	days per week	5–6 \	days per week	Once	per day	2-3 t	imes per day	4–6 ti c	mes per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	22	20.6	7	6.5	4	3.7	16	15.0	57	53.3	1	0.9
30–44	42	18.9	10	4.5	2	0.9	41	18.5	112	50.5	15	6.8
45–59	54	18.3	16	5.4	7	2.4	42	14.2	170	57.6	6	2.0
60–69	56	25.0	13	5.8	1	0.4	18	8.0	131	58.5	5	2.2
18-69	174	20.5	46	5.4	14	1.7	117	13.8	470	55.4	27	3.2

#### FC2 Black bread

Age (years)	Once p or	per week · less	2-4 \	days per week	5-6 \	days per veek	Once	per day	2–3 tim	ies per day	4–6 pe	5 times er day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	58	54.2	10	9.3	4	3.7	23	21.5	12	11.2	0	0.0
30–44	114	51.8	15	6.8	4	1.8	48	21.8	39	17.7	0	0.0
45–59	143	48.6	26	8.8	4	1.4	56	19.0	64	21.8	1	0.3
60–69	117	52.2	16	7.1	4	1.8	28	12.5	57	25.4	2	0.9
18–69	432	51.1	67	7.9	16	1.9	155	18.3	172	20.4	3	0.4

# FC3 Whole-grain bread

60

Age (years)	Once J or	per week r less	2-4	days per week	5-6 '	days per week	Once p	oer day	2–3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	95	89.6	4	3.8	0	0.0	3	2.8	2	1.9	2	1.9
30–44	189	85.5	9	4.1	2	0.9	18	8.1	3	1.4	0	0.0
45–59	272	92.2	7	2.4	1	0.3	12	4.1	3	1.0	0	0.0
60–69	202	91.0	6	2.7	1	0.5	8	3.6	3	1.4	2	0.9
18–69	758	89.8	26	3.1	4	0.5	41	4.9	11	1.3	4	0.5

# **Table A54.** Average consumption of bread among both sexes, by area of residence

4–6 times per day %

3.4

2.8

3.2

n 18

9

27

C1 Whit	e brea	ld								
Area	Once p	er week or less	2-4 c v	days per veek	5-6 \	days per veek	Once	per day	2–3 tim	es per day
	n	%	n	%	n	%	n	%	n	%
Rural	72	13.7	31	5.9	6	1.1	74	14.1	323	61.6
Urban	102	31.5	15	4.6	8	2.5	43	13.3	147	45.4
Total	174	20.5	46	5.4	14	1.7	117	13.8	470	55.4

#### 1 FC

#### FC2 Black bread

Area	Once p	er week or less	2–4 c w	lays per /eek	5-6 \	days per veek	Once	per day	2–3 tim	nes per day	4– p	6 times er day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	297	56.9	38	7.3	6	1.1	75	14.4	104	19.9	2	0.4
Urban	135	41.8	29	9.0	10	3.1	80	24.8	68	21.1	1	0.3
Total	432	51.1	67	7.9	16	1.9	155	18.3	172	20.4	3	0.4

### FC3 Whole-grain bread

Area	Once	oer week or less	2-4 \	days per veek	5-6	days per week	Once	per day	2–31	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	478	91.7	9	1.7%	1	0.2	23	4.4	9	1.7	1	0.2
Urban	280	86.7	17	5.3	3	0.9	18	5.6	2	0.6	3	0.9
Total	758	89.8	26	3.1	4	0.5	41	4.9	11	1.3	4	0.5

Table A55. Average consumption of cereals among men, by age group

### FC4 Cereals/rice porridge

Age (years)	Once oi	per week r less	2-4 c v	lays per veek	5-6	days per week	Once	per day	2–3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	18	40.9	13	29.5	0	0.0	12	27.3	1	2.3	0	0.0
30-44	51	55.4	24	26.1	4	4.3	13	14.1	0	0.0	0	0.0
45–59	41	35.7	52	45.2	1	0.9	21	18.3	0	0.0	0	0.0
60–69	34	46.6	24	32.9	1	1.4	13	17.8	1	1.4	0	0.0
18–69	144	44.4	113	34.9	6	1.9	59	18.2	2	0.6	0	0.0

### FC5 Breakfast cereals (muesli, cornflakes, oats)

Age (years)	Once ol	per week r less	2-4	days per week	5-6	days per week	Once	per day	2-3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	39	88.6	2	4.5	0	0.0	3	6.8	0	0.0	0	0.0
30-44	84	91.3	7	7.6	0	0.0	1	1.1	0	0.0	0	0.0
45–59	100	87.0	8	7.0	1	0.9	6	5.2	0	0.0	0	0.0
60–69	68	93.2	1	1.4	0	0.0	4	5.5	0	0.0	0	0.0
18-69	291	89.8	18	5.6	1	0.3	14	4.3	0	0.0	0	0.0

**Table A56.** Average consumption of cereals among women, by age group

### FC4 Cereals/rice porridge

Age (years)	Once oi	per week r less	2-4 c W	lays per /eek	5-6 \	days per week	Once	e per day	2–3	times per day	4–6 t	imes per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	29	46.0	17	27.0	1	1.6	14	22.2	2	3.2	0	0.0
30-44	48	36.9	39	30.0	5	3.8	37	28.5	1	0.8	0	0.0
45–59	47	26.1	80	44.4	4	2.2	47	26.1	1	0.6	1	0.6
60–69	40	26.7	67	44.7	4	2.7	39	26.0	0	0.0	0	0.0
18-69	164	31.4	203	38.8	14	2.7	137	26.2	4	0.8	1	0.2

### FC5 Breakfast cereals (muesli, cornflakes, oats)

Age (years)	Once ol	per week r less	2-4	days per week	5-6	days per week	Once	oer day	2–3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	57	90.5	3	4.8	0	0.0	3	4.8	0	0.0	0	0.0
30-44	112	86.2	6	4.6	5	3.8	7	5.4	0	0.0	0	0.0
45–59	137	76.1	21	11.7	4	2.2	17	9.4	1	0.6	0	0.0
60–69	120	80.0	15	10.0	5	3.3	10	6.7	0	0.0	0	0.0
18–69	426	81.5	45	8.6	14	2.7	37	7.1	1	0.2	0	0.0

# Table A57. Average consumption of cereals among both sexes, by age group

### FC4 Cereals/rice porridge

Age (years)	Once of	per week r less	2-4 c W	lays per ⁄eek	5-6 \	days per week	Once	e per day	2–3	times per day	4–6 t	imes per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	47	43.9	30	28.0	1	0.9	26	24.3	3	2.8	0	0.0
30-44	99	44.6	63	28.4	9	4.1	50	22.5	1	0.5	0	0.0
45–59	88	29.8	132	44.7	5	1.7	68	23.1	1	0.3	1	0.3
60–69	74	33.2	91	40.8	5	2.2	52	23.3	1	0.4	0	0.0
18-69	308	36.4	316	37.3	20	2.4	196	23.1	6	0.7	1	0.1

# FC5 Breakfast cereals (muesli, cornflakes, oats)

Age (years)	Once ol	per week r less	2-4	days per week	5-6	days per week	Once J	oer day	2–3	times per day	4–6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	96	89.7	5	4.7	0	0.0	6	5.6	0	0.0	0	0.0
30-44	196	88.3	13	5.9	5	2.3	8	3.6	0	0.0	0	0.0
45–59	237	80.3	29	9.8	5	1.7	23	7.8	1	0.3	0	0.0
60–69	188	84.3	16	7.2	5	2.2	14	6.3	0	0.0	0	0.0
18-69	717	84.7	63	7.4	15	1.8	51	6.0	1	0.1	0	0.0

Table A58. Average consumption of cereals among both sexes, by area of residence

### FC4 Cereals/rice porridge

Area	Oncep	oer week or less	2-4 c W	lays per ⁄eek	5-6 \	days per week	Once	per day	2-3	times per day	4– p	6 times er day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	188	35.9	216	41.3	13	2.5	100	19.1	5	1.0	1	0.2
Urban	120	37.0	100	30.9	7	2.2	96	29.6	1	0.3	0	0.0
Total	308	36.4	316	37.3	20	2.4	196	23.1	6	0.7	1	0.1

# FC5 Breakfast cereals (muesli, cornflakes, oats)

Area	Once p	er week or less	2-4 ( v	days per veek	5-6	days per week	Once	per day	2-31	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	422	80.7	52	9.9	11	2.1	37	7.1	1	0.2	0	0.0
Urban	295	91.0	11	3.4	4	1.2	14	4.3	0	0.0	0	0.0
Total	717	84.7	63	7.4	15	1.8	51	6.0	1	0.1	0	0.0

# Table A59. Average consumption of pizza, pie and pasta among men, by age group

# FC7 Pizza (slice)

Age (years)	Once p	er week or less	2-4	ł days per week	5-6	days per week	Once p	oer day	2–3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	40	93.0	1	2.3	0	0.0	0	0.0	0	0.0	2	4.7
30-44	89	96.7	3	3.3	0	0.0	0	0.0	0	0.0	0	0.0
45–59	112	97.4	2	1.7	1	0.9	0	0.0	0	0.0	0	0.0
60–69	73	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
18–69	314	97.2	6	1.9	1	0.3	0	0.0	0	0.0	2	0.6

#### FC8 Pies

Age (years)	Once o	per week r less	2-4	days per week	5-6	days per week	Once	per day	2-3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	21	47.7	21	47.7	1	2.3	1	2.3	0	0.0	0	0.0
30–44	58	63.0	32	34.8	0	0.0	2	2.2	0	0.0	0	0.0
45–59	89	77.4	22	19.1	2	1.7	1	0.9	0	0.0	1	0.9
60–69	58	79.5	12	16.4	1	1.4	2	2.7	0	0.0	0	0.0
18–69	226	69.8	87	26.9	4	1.2	6	1.9	0	0.0	1	0.3

# FC9 Pasta (macaroni; medium portion)

Age (years)	Once of	per week <sup>.</sup> Iess	2-4 c v	days per veek	5-6	days per week	Once	per day	2–3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	35	81.4	7	16.3	1	2.3	0	0.0	0	0.0	0	0.0
30–44	56	60.9	30	32.6	1	1.1	5	5.4	0	0.0	0	0.0
45–59	64	55.7	42	36.5	0	0.0	7	6.1	1	0.9	1	0.9
60–69	49	67.1	22	30.1	1	1.4	1	1.4	0	0.0	0	0.0
18-69	204	63.2	101	31.3	3	0.9	13	4.0	1	0.3	1	0.3

# Table A60. Average consumption of pizza, pie and pasta among women, by age group

# FC7 Pizza (slice)

Age (years)	Once p	er week or less	2-4	4 days per week	5-6	days per week	Once p	oer day	2-3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	61	96.8	2	3.2	0	0.0	0	0.0	0	0.0	0	0.0
30–44	127	98.4	2	1.6	0	0.0	0	0.0	0	0.0	0	0.0
45–59	180	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
60–69	151	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
18–69	519	99.2	4	0.8	0	0.0	0	0.0	0	0.0	0	0.0

#### FC8 Pies

Age (years)	ן Once סו	per week • less	2-4	days per week	5-6	days per week	Once	per day	2–3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	42	66.7	19	30.2	1	1.6	1	1.6	0	0.0	0	0.0
30–44	107	82.3	21	16.2	1	0.8	1	0.8	0	0.0	0	0.0
45–59	146	81.1	30	16.7	1	0.6	2	1.1	1	0.6	0	0.0
60–69	135	90.0	13	8.7	0	0.0	2	1.3	0	0.0	0	0.0
18–69	430	82.2	83	15.9	3	0.6	6	1.1	1	0.2	0	0.0

# FC9 Pasta (macaroni; medium portion)

Age (years)	Once ol	per week r less	2-4 \	days per veek	5-6	days per week	Once	per day	2-3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	44	69.8	15	23.8	0	0.0	3	4.8	1	1.6	0	0.0
30–44	92	70.8	33	25.4	0	0.0	4	3.1	1	0.8	0	0.0
45–59	118	65.6	55	30.6	2	1.1	4	2.2	1	0.6	0	0.0
60–69	107	70.9	34	22.5	3	2.0	6	4.0	1	0.7	0	0.0
18-69	361	68.9	137	26.1	5	1.0	17	3.2	4	0.8	0	0.0

# Table A61. Average consumption of pizza, pie and pasta among both sexes, by age group

### FC7 Pizza (slice)

Age (years)	Once p	oer week or less	2-4	days per week	5-6	days per week	Once p	oer day	2-3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	101	95.3	3	2.8	0	0.0	0	0.0	0	0.0	2	1.9
30-44	216	97.7	5	2.3	0	0.0	0	0.0	0	0.0	0	0.0
45–59	292	99.0	2	0.7	1	0.3	0	0.0	0	0.0	0	0.0
60–69	224	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
18–69	833	98.5	10	1.2	1	0.1	0	0.0	0	0.0	2	0.2

#### FC8 Pies

Age (years)	Once of	per week r less	2-4 ( v	days per veek	5-6	days per week	Once	per day	2–3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	63	58.9	40	37.4	2	1.9	2	1.9	0	0.0	0	0.0
30–44	165	74.3	53	23.9	1	0.5	3	1.4	0	0.0	0	0.0
45–59	235	79.7	52	17.6	3	1.0	3	1.0	1	0.3	1	0.3
60–69	193	86.5	25	11.2	1	0.4	4	1.8	0	0.0	0	0.0
18-69	656	77.4	170	20.1	7	0.8	12	1.4	1	0.1	1	0.1

### FC9 Pasta (macaroni; medium portion)

Age (years)	Once ol	per week r less	2-4 \	days per week	5-6	days per week	Once	per day	2–3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	79	74.5	22	20.8	1	0.9	3	2.8	1	0.9	0	0.0
30–44	148	66.7	63	28.4	1	0.5	9	4.1	1	0.5	0	0.0
45–59	182	61.7	97	32.9	2	0.7	11	3.7	2	0.7	1	0.3
60–69	156	69.6	56	25.0	4	1.8	7	3.1	1	0.4	0	0.0
18-69	565	66.7	238	28.1	8	0.9	30	3.5	5	0.6	1	0.1

**Table A62.** Average consumption of pizza, pie and pasta among both sexes,by area of residence

# FC7 Pizza (slice)

Area	Once	oer week or less	2-4	days per week	5-6	days per week	Onc	e per lay	2-3	times per day	4–6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	520	99.6	0	0.0	0	0.0	0	0.0	0	0.0	2	0.4
Urban	313	96.6	10	3.1	1	0.3	0	0.0	0	0.0	0	0.0
Total	833	98.5	10	1.2	1	0.1	0	0.0	0	0.0	2	0.2

#### FC8 Pies

Area	Once p	oer week or less	2-4 c W	lays per /eek	5-6	days per week	Once	per day	2-3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	438	83.6	73	13.9	3	0.6	8	1.5	1	0.2	1	0.2
Urban	218	67.5	97	30.0	4	1.2	4	1.2	0	0.0	0	0.0
Total	656	77.4	170	20.1	7	0.8	12	1.4	1	0.1	1	0.1

# FC9 Pasta (macaroni; medium portion)

Area	Once p	oer week or less	2-4 c w	lays per /eek	5-6	days per week	Once	per day	2–3	times per day	4–6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	324	62.0	165	31.5	6	1.1	24	4.6	3	0.6	1	0.2
Urban	241	74.4	73	22.5	2	0.6	6	1.9	2	0.6	0	0.0
Total	565	66.7	238	28.1	8	0.9	30	3.5	5	0.6	1	0.1

Table A63. Average consumption of chips and salty snacks among men, by age group

Age (years)	Once p	er week or less	2-4	4 days per week	5-6	days per week	Once p	oer day	2–3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	43	97.7	0	0.0	0	0.0	0	0.0	1	2.3	0	0.0
30–44	91	98.9	1	1.1	0	0.0	0	0.0	0	0.0	0	0.0
45–59	113	99.1	1	0.9	0	0.0	0	0.0	0	0.0	0	0.0
60–69	73	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
18–69	320	99.1	2	0.6	0	0.0	0	0.0	1	0.3	0	0.0

#### FC6 Chips

# FC10 Salty snacks (salty nuts, biscuits, crackers)

Age (years)	Once p	er week or less	2-4	4 days per week	5-6	days per week	Once p	oer day	2–3	times per day	4–61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	43	97.7	1	2.3	0	0.0	0	0.0	0	0.0	0	0.0
30–44	90	97.8	2	2.2	0	0.0	0	0.0	0	0.0	0	0.0
45–59	114	99.1	1	0.9	0	0.0	0	0.0	0	0.0	0	0.0
60–69	73	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
18-69	320	98.8	4	1.2	0	0.0	0	0.0	0	0.0	0	0.0

Table A64. Average consumption of chips and salty snacks among women, by age group

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Age (years)	Once p	oer week or less	2-4	4 days per week	5-6	days per week	Once	per day	2-3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	62	98.4	1	1.6	0	0.0	0	0.0	0	0.0	0	0.0
30-44	130	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
45–59	179	99.4	0	0.0	0	0.0	1	0.6	0	0.0	0	0.0
60–69	151	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
18-69	522	99.6	1	0.2	0	0.0	1	0.2	0	0.0	0	0.0

#### FC6 Chips

# FC10 Salty snacks (salty nuts, biscuits, crackers)

Age (years)	Once p	er week or less	2-4	4 days per week	5-6	days per week	Once p	oer day	2–3	times per day	4–6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	61	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
30-44	130	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
45–59	179	99.4	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0
60–69	150	99.3	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0
18–69	520	99.6	2	0.4	0	0.0	0	0.0	0	0.0	0	0.0

**Table A65.** Average consumption of chips and salty snacks among both sexes, by age group

# FC6 Chips

Age (years)	Once p	er week or less	2-4	4 days per week	5-6	days per week	Once J	oer day	2–3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	105	98.1	1	0.9	0	0.0	0	0.0	1	0.9	0	0.0
30–44	221	99.5	1	0.5	0	0.0	0	0.0	0	0.0	0	0.0
45–59	292	99.3	1	0.3	0	0.0	1	0.3	0	0.0	0	0.0
60–69	224	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
18-69	842	99.4	3	0.4	0	0.0	1	0.1	1	0.1	0	0.0

# FC10 Salty snacks (salty nuts, biscuits, crackers)

Age (years)	Once oi	per week r less	2-4	l days per week	5–6	days per week	Once p	oer day	2–3	times per day	4–6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	104	99.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0
30-44	220	99.1	2	0.9	0	0.0	0	0.0	0	0.0	0	0.0
45–59	293	99.3	2	0.7	0	0.0	0	0.0	0	0.0	0	0.0
60–69	223	99.6	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0
18-69	840	99.3	6	0.7	0	0.0	0	0.0	0	0.0	0	0.0

**Table A66.** Average consumption of chips and salty snacks among both sexes, by area of residence

### FC6 Chips

Area	Once	oer week or less	2-4	days per week	5-6	days per week	Once	per day	2–3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	521	99.6	0	0.0	0	0.0	1	0.2	1	0.2	0	0.0
Urban	321	99.1	3	0.9	0	0.0	0	0.0	0	0.0	0	0.0
Total	842	99.4	3	0.4	0	0.0	1	0.1	1	0.1	0	0.0

# FC10 Salty snacks (salty nuts, biscuits, crackers)

Area	Once	per week or less	2-4	days per week	5-6	days per week	Once	per day	2–3	times per day	4–6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	522	99.8	1	0.2	0	0.0	0	0.0	0	0.0	0	0.0
Urban	318	98.5	5	1.5	0	0.0	0	0.0	0	0.0	0	0.0
Total	840	99.3	6	0.7	0	0.0	0	0.0	0	0.0	0	0.0

Table A67. Average consumption of processed meat products among men, by age group

		•	•									
Age (years)	Once po or l	er week ess	2–4 da we	ays per eek	5–6 da we	ays per eek	Once p	oer day	2–3 tin da	nes per ay	4–6 tin da	nes per ay
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	29	65.9	11	25.0	2	4.5	2	4.5	0	0.0	0	0.0
30–44	56	60.9	18	19.6	3	3.3	15	16.3	0	0.0	0	0.0
45–59	89	78.1	22	19.3	3	2.6	0	0.0	0	0.0	0	0.0
60–69	57	78.1	13	17.8	0	0.0	3	4.1	0	0.0	0	0.0
18-69	231	71.5	64	19.8	8	2.5	20	6.2	0	0.0	0	0.0

### FC11 Sausages (salami (boiled), liver sausage)

# FC12 Pastrami, smoked ham, cured/smoked salami

Age (years)	Once po or l	er week ess	2–4 da we	ays per eek	5–6 da we	iys per ek	Once p	oer day	2–3 tin da	nes per ay	4–6 tin da	nes per ay
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	26	60.5	13	30.2	1	2.3	3	7.0	0	0.0	0	0.0
30–44	58	63.0	23	25.0	5	5.4	6	6.5	0	0.0	0	0.0
45–59	92	80.7	20	17.5	0	0.0	2	1.8	0	0.0	0	0.0
60–69	61	83.6	11	15.1	1	1.4	0	0.0	0	0.0	0	0.0
18-69	237	73.6	67	20.8	7	2.2	11	3.4	0	0.0	0	0.0

#### FC13 Canned meat

Age (years)	Once po or	er week ess	2–4 da we	ays per eek	5–6 da we	iys per ek	Once p	oer day	2–3 tin da	nes per ay	4–6 tin da	nes per ay
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	43	97.7	1	2.3	0	0.0	0	0.0	0	0.0	0	0.0
30–44	81	89.0	9	9.9	0	0.0	1	1.1	0	0.0	0	0.0
45–59	104	91.2	10	8.8	0	0.0	0	0.0	0	0.0	0	0.0
60–69	68	93.2	5	6.8	0	0.0	0	0.0	0	0.0	0	0.0
18-69	296	91.9	25	7.8	0	0.0	1	0.3	0	0.0	0	0.0

# FC14 Semi-prepared meat products

Age (years)	Once po or l	er week ess	2–4 da we	iys per ek	5–6 da we	iys per ek	Once p	oer day	2–3 tin da	nes per ay	4–6 tin da	nes per ay
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	41	93.2	3	6.8	0	0.0	0	0.0	0	0.0	0	0.0
30–44	91	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
45–59	112	97.4	3	2.6	0	0.0	0	0.0	0	0.0	0	0.0
60–69	72	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
18-69	316	98.1	6	1.9	0	0.0	0	0.0	0	0.0	0	0.0

**Table A68.** Average consumption of processed meat products among women,by age group

		•	•			<u> </u>						
Age (years)	Once p or	er week less	2–4 da we	ays per eek	5–6 da we	ays per eek	Oncep	oer day	2–3 tin di	nes per ay	4–6 tin da	nes per ay
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	34	54.0	23	36.5	2	3.2	4	6.3	0	0.0	0	0.0
30-44	86	66.2	35	26.9	2	1.5	5	3.8	1	0.8	1	0.8
45–59	142	78.9	26	14.4	2	1.1	10	5.6	0	0.0	0	0.0
60–69	131	86.8	19	12.6	0	0.0	1	0.7	0	0.0	0	0.0
18-69	393	75.0	103	19.7	6	1.1	20	3.8	1	0.2	1	0.2

# FC11 Sausages (salami (boiled), liver sausage)

# FC12 Pastrami, smoked ham, cured/smoked salami

Age (years)	Once of	per week r less	2-4	days per week	5-б ( v	days per veek	Once	per day	2–3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	48	76.2	12	19.0	3	4.8	0	0.0	0	0.0	0	0.0
30-44	98	75.4	23	17.7	6	4.6	2	1.5	0	0.0	1	0.8
45–59	151	84.4	22	12.3	4	2.2	2	1.1	0	0.0	0	0.0
60–69	137	90.7	12	7.9	0	0.0	2	1.3	0	0.0	0	0.0
18-69	434	83.0	69	13.2	13	2.5	6	1.1	0	0.0	1	0.2

### FC13 Canned meat

Age (years)	Once oi	per week r less	2-4	days per week	5-6	days per week	Once	per day	2–3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	62	98.4	1	1.6	0	0.0	0	0.0	0	0.0	0	0.0
30-44	126	96.9	4	3.1	0	0.0	0	0.0	0	0.0	0	0.0
45–59	163	91.1	14	7.8	0	0.0	1	0.6	0	0.0	1	0.6
60–69	148	98.0	3	2.0	0	0.0	0	0.0	0	0.0	0	0.0
18-69	499	95.4	22	4.2	0	0.0	1	0.2	0	0.0	1	0.2

# FC14 Semi-prepared meat products

Age (years)	Once p	er week or less	2-4	4 days per week	5-6	days per week	Once p	er day	2–3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	62	98.4	1	1.6	0	0.0	0	0.0	0	0.0	0	0.0
30-44	129	99.2	1	0.8	0	0.0	0	0.0	0	0.0	0	0.0
45–59	179	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
60–69	151	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
18-69	521	99.6	2	0.4	0	0.0	0	0.0	0	0.0	0	0.0

**Table A69.** Average consumption of processed meat products among both sexes, by age group

	<u> </u>	•	•			0,						
Age (years)	Once per week or less		2-4 ( v	days per veek	5-бо м	days per veek	Once	per day	2-3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	63	58.9	34	31.8	4	3.7	6	5.6	0	0.0	0	0.0
30-44	142	64.0	53	23.9	5	2.3	20	9.0	1	0.5	1	0.5
45–59	231	78.6	48	16.3	5	1.7	10	3.4	0	0.0	0	0.0
60–69	188	83.9	32	14.3	0	0.0	4	1.8	0	0.0	0	0.0
18-69	624	73.7	167	19.7	14	1.7	40	4.7	1	0.1	1	0.1

# FC11 Sausages (salami (boiled), liver sausage)

# FC12 Pastrami, smoked ham, cured/smoked salami

Age (years)	Once of	per week r less	2-4 ( v	days per veek	5-бо v	days per veek	Once	per day	2–3	times per day	4-61	imes per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	74	69.8	25	23.6	4	3.8	3	2.8	0	0.0	0	0.0
30-44	156	70.3	46	20.7	11	5.0	8	3.6	0	0.0	1	0.5
45–59	243	82.9	42	14.3	4	1.4	4	1.4	0	0.0	0	0.0
60–69	198	88.4	23	10.3	1	0.4	2	0.9	0	0.0	0	0.0
18-69	671	79.4	136	16.1	20	2.4	17	2.0	0	0.0	1	0.1

### FC13 Canned meat

Age (years)	Once ol	per week r less	2-4	days per week	5-6	days per week	Once	per day	2–3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	105	98.1	2	1.9	0	0.0	0	0.0	0	0.0	0	0.0
30-44	207	93.7	13	5.9	0	0.0	1	0.5	0	0.0	0	0.0
45–59	267	91.1	24	8.2	0	0.0	1	0.3	0	0.0	1	0.3
60–69	216	96.4	8	3.6	0	0.0	0	0.0	0	0.0	0	0.0
18-69	795	94.1	47	5.6	0	0.0	2	0.2	0	0.0	1	0.1

# FC14 Semi-prepared meat products

Age (years)	Once p	er week or less	2-4	4 days per week	5-6	days per week	Once p	oer day	2–3	times per day	4–6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	103	96.3	4	3.7	0	0.0	0	0.0	0	0.0	0	0.0
30-44	220	99.5	1	0.5	0	0.0	0	0.0	0	0.0	0	0.0
45–59	291	99.0	3	1.0	0	0.0	0	0.0	0	0.0	0	0.0
60–69	223	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
18-69	837	99.1	8	0.9	0	0.0	0	0.0	0	0.0	0	0.0

**Table A70.** Average consumption of processed meat products among both sexes, by area of residence

	0	•	•			0,						
Area	Once per week or less		2-4 ( v	days per veek	5-6 ,	days per week	Once	per day	2–3	times per day	4-б	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	451	86.2	52	9.9	5	1.0	15	2.9	0	0.0	0	0.0
Urban	173	53.4	115	35.5	9	2.8	25	7.7	1	0.3	1	0.3
Total	624	73.7	167	19.7	14	1.7	40	4.7	1	0.1	1	0.1

#### FC11 Sausages (salami (boiled), liver sausage)

### FC12 Pastrami, smoked ham, cured/smoked salami

Area	Once p	er week or less	2–4 d w	lays per æek	5-6 \	days per week	Once	per day	2-31	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	478	91.6	36	6.9	2	0.4	5	1.0	0	0.0	1	0.2
Urban	193	59.8	100	31.0	18	5.6	12	3.7	0	0.0	0	0.0
Total	671	79.4	136	16.1	20	2.4	17	2.0	0	0.0	1	0.1

#### FC13 Canned meat

Area	Once	oer week or less	2-4 ( v	days per veek	5-6	days per week	Once	per day	2–3	times per day	4–6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	478	91.7	41	7.9	0	0.0	1	0.2	0	0.0	1	0.2
Urban	317	97.8	6	1.9	0	0.0	1	0.3	0	0.0	0	0.0
Total	795	94.1	47	5.6	0	0.0	2	0.2	0	0.0	1	0.1

# FC14 Semi-prepared meat products

Area	Once	per week or less	2-4	days per week	5-6	days per week	Once	per day	2–3	times per day	4–6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	520	99.8	1	0.2	0	0.0	0	0.0	0	0.0	0	0.0
Urban	317	97.8	7	2.2	0	0.0	0	0.0	0	0.0	0	0.0
Total	837	99.1	8	0.9	0	0.0	0	0.0	0	0.0	0	0.0

Table A71. Average consumption of processed fish products among men, by age group

### FC15 Salty/smoked/marinated fish

Age (years)	Once p	er week or less	2-4	days per week	5-6	days per week	Once p	oer day	2–3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	44	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
30–44	84	91.3	8	8.7	0	0.0	0	0.0	0	0.0	0	0.0
45-59	112	98.2	1	0.9	0	0.0	1	0.9	0	0.0	0	0.0
60–69	71	97.3	2	2.7	0	0.0	0	0.0	0	0.0	0	0.0
18-69	311	96.3	11	3.4	0	0.0	1	0.3	0	0.0	0	0.0

### FC16 Canned fish

70

Age (years)	Once J or	per week r less	2-4	l days per week	5-6	days per week	Once p	er day	2-3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	42	97.7	1	2.3	0	0.0	0	0.0	0	0.0	0	0.0
30–44	91	98.9	0	0.0	0	0.0	0	0.0	0	0.0	1	1.1
45–59	114	99.1	1	0.9	0	0.0	0	0.0	0	0.0	0	0.0
60–69	71	98.6	0	0.0	0	0.0	0	0.0	1	1.4	0	0.0
18–69	318	98.8	2	0.6	0	0.0	0	0.0	1	0.3	1	0.3

**Table A72.** Average consumption of processed fish products among women, by age group

Age (years)	Once ol	per week r less	2-4	days per week	5-6	days per week	Once p	oer day	2–3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	62	98.4	1	1.6	0	0.0	0	0.0	0	0.0	0	0.0
30–44	125	96.2	4	3.1	0	0.0	0	0.0	0	0.0	1	0.8
45–59	175	97.2	5	2.8	0	0.0	0	0.0	0	0.0	0	0.0
60–69	149	98.7	1	0.7	0	0.0	1	0.7	0	0.0	0	0.0
18-69	511	97.5	11	2.1	0	0.0	1	0.2	0	0.0	1	0.2

# FC15 Salty/smoked/marinated fish

#### FC16 Canned fish

Age (years)	Once p	er week or less	2-4	4 days per week	5-6	days per week	Once p	oer day	2–3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	60	98.4	0	0.0	0	0.0	0	0.0	0	0.0	1	1.6
30–44	127	99.2	1	0.8	0	0.0	0	0.0	0	0.0	0	0.0
45–59	177	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
60–69	150	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
18–69	514	99.6	1	0.2	0	0.0	0	0.0	0	0.0	1	0.2

**Table A73.** Average consumption of processed fish products among both sexes,by age group

### FC15 Salty/smoked/marinated fish

Age (years)	Once of	per week r less	2-4	days per week	5-6	days per week	Once	per day	2–3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	106	99.1	1	0.9	0	0.0	0	0.0	0	0.0	0	0.0
30-44	209	94.1	12	5.4	0	0.0	0	0.0	0	0.0	1	0.5
45–59	287	97.6	6	2.0	0	0.0	1	0.3	0	0.0	0	0.0
60–69	220	98.2	3	1.3	0	0.0	1	0.4	0	0.0	0	0.0
18-69	822	97.0	22	2.6	0	0.0	2	0.2	0	0.0	1	0.1

### FC16 Canned fish

Age (years)	Once o	per week r less	2-4	l days per week	5-6	days per week	Once p	oer day	2–3	times per day	4–6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	102	98.1	1	1.0	0	0.0	0	0.0	0	0.0	1	1.0
30–44	218	99.1	1	0.5	0	0.0	0	0.0	0	0.0	1	0.5
45–59	291	99.7	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0
60–69	221	99.5	0	0.0	0	0.0	0	0.0	1	0.5	0	0.0
18-69	832	99.3	3	0.4	0	0.0	0	0.0	1	0.1	2	0.2

**Table A74.** Average consumption of processed fish products among both sexes, by area of residence

		•										
Area	Once	per week or less	2-4	days per week	5-6	days per week	Once	per day	2-3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	513	98.1	8	1.5	0	0.0	1	0.2	0	0.0	1	0.2
Urban	309	95.4	14	4.3	0	0.0	1	0.3	0	0.0	0	0.0
Total	822	97.0	22	2.6	0	0.0	2	0.2	0	0.0	1	0.1

# FC15 Salty/smoked/marinated fish

# FC16 Canned fish

Area	Once	per week or less	2-4	days per week	5-6	days per week	Onc	e per lay	2–3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	511	99.0	2	0.4	0	0.0	0	0.0	1	0.2	2	0.4
Urban	321	99.7	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0
Total	832	99.3	3	0.4	0	0.0	0	0.0	1	0.1	2	0.2

Table A75. Average consumption of dairy products among men, by age group

# FC17 Hard and soft cheese

Age (years)	Once of	per week r less	2-4	days per week	5-6	days per week	Once J	per day	2–3	times per day	4–6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	22	50.0	19	43.2	1	2.3	2	4.5	0	0.0	0	0.0
30–44	50	54.3	33	35.9	4	4.3	5	5.4	0	0.0	0	0.0
45–59	91	79.8	17	14.9	4	3.5	2	1.8	0	0.0	0	0.0
60–69	59	80.8	13	17.8	0	0.0	1	1.4	0	0.0	0	0.0
18-69	222	68.7	82	25.4	9	2.8	10	3.1	0	0.0	0	0.0

### FC18 Sheep's cheese

Age (years)	Once oi	per week r less	2-4	days per week	5-бс м	lays per /eek	Once	e per day	2–3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	27	62.8	12	27.9	1	2.3	3	7.0	0	0.0	0	0.0
30–44	56	60.9	27	29.3	4	4.3	5	5.4	0	0.0	0	0.0
45–59	50	43.5	40	34.8	11	9.6	13	11.3	0	0.0	1	0.9
60–69	45	61.6	14	19.2	6	8.2	7	9.6	1	1.4	0	0.0
18-69	178	55.1	93	28.8	22	6.8	28	8.7	1	0.3	1	0.3

Table A76. Average consumption of dairy products among women, by age group

Age (years)	Once of	per week r less	2-4 ( V	days per veek	5-6	days per week	Once	per day	2-3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	35	55.6	23	36.5	1	1.6	4	6.3	0	0.0	0	0.0
30–44	82	63.1	38	29.2	1	0.8	9	6.9	0	0.0	0	0.0
45–59	141	78.3	30	16.7	3	1.7	6	3.3	0	0.0	0	0.0
60–69	123	82.0	24	16.0	0	0.0	3	2.0	0	0.0	0	0.0
18–69	381	72.8	115	22.0	5	1.0	22	4.2	0	0.0	0	0.0

# FC17 Hard and soft cheese

# FC18 Sheep's cheese

Age (years)	Once o	per week r less	2–4 c w	lays per reek	5–6 d W	lays per æek	Once	e per day	2–3	times per day	4-( p	6 times er day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	48	77.4	6	9.7	2	3.2	6	9.7	0	0.0	0	0.0
30–44	74	57.4	31	24.0	6	4.7	16	12.4	1	0.8	1	0.8
45–59	98	54.4	49	27.2	6	3.3	25	13.9	1	0.6	1	0.6
60–69	105	70.0	28	18.%	6	4.0	7	4.7	4	2.7	0	0.0
18-69	325	62.4	114	21.%	20	3.8	54	10.4	6	1.2	2	0.4

 Table A77. Average consumption of dairy products among both sexes, by age group

#### FC17 Hard and soft cheese

Age (years)	Once of	oer week • less	2-4 ( v	days per veek	5-бс м	days per /eek	Once	per day	2–3	times per day	4–61	imes per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	57	53.3	42	39.3	2	1.9	6	5.6	0	0.0	0	0.0
30–44	132	59.5	71	32.0	5	2.3	14	6.3	0	0.0	0	0.0
45–59	232	78.9	47	16.0	7	2.4	8	2.7	0	0.0	0	0.0
60–69	182	81.6	37	16.6	0	0.0	4	1.8	0	0.	0	0.0
18–69	603	71.3	197	23.3	14	1.7	32	3.8	0	0.0	0	0.0

# FC18 Sheep's cheese

Age (years)	Once of	per week r less	2-4 ( v	days per veek	5-бс м	lays per /eek	Once	per day	2–3	times per day	4-6 pe	6 times er day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	75	71.4	18	17.%	3	2.9	9	8.6	0	0.0	0	0.0
30–44	130	58.8	58	26.%	10	4.5	21	9.5	1	0.5	1	0.5
45–59	148	50.2	89	30.%	17	5.8	38	12.9	1	0.3	2	0.7
60–69	150	67.3	42	18.%	12	5.4	14	6.3	5	2.2	0	0.0
18-69	503	59.6	207	24.%	42	5.0	82	9.7	7	0.8	3	0.4

**Table A78.** Average consumption of dairy products among both sexes,by area of residence

#### FC17 Hard and soft cheese

Area	Oncep	oer week or less	2-4 c W	lays per veek	5-6	days per week	Once	per day	2-31	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	462	88.5	41	7.9	3	0.6	16	3.1	0	0.0	0	0.0
Urban	141	43.5	156	48.1	11	3.4	16	4.9	0	0.0	0	0.0
Total	603	71.3	197	23.3	14	1.7	32	3.8	0	0.0	0	0.0

### FC18 Sheep's cheese

Area	Oncep	oer week or less	2-4 c W	days per veek	5-6 \	days per week	Once	e per day	2-3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	258	49.6	157	30.2	35	6.7	61	11.7	6	1.2	3	0.6
Urban	245	75.6	50	15.4	7	2.2	21	6.5	1	0.3	0	0.0
Total	503	59.6	207	24.5	42	5.0	82	9.7	7	0.8	3	0.4

Table A79. Average consumption of other foodstuffs among men, by age group

# FC19 Pickled vegetables (medium portion)

Age (years)	Once of	per week r less	2–4	days per week	5-б ( v	days per veek	Once	per day	2–3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	36	81.8	7	15.9	0	0.0	1	2.3	0	0.0	0	0.0
30–44	75	81.5	15	16.3	2	2.2	0	0.0	0	0.0	0	0.0
45–59	76	66.1	26	22.6	10	8.7	2	1.7	1	0.9	0	0.0
60–69	57	78.1	11	15.1	3	4.1	2	2.7	0	0.0	0	0.0
18–69	244	75.3	59	18.2	15	4.6	5	1.5	1	0.3	0	0.0

# FC20 Marinated vegetables (medium portion)

Age (years)	Once oi	per week r less	2-4	days per week	5-6	days per week	Once	per day	2–3	times per day	4–6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	42	95.5	1	2.3	0	0.0	1	2.3	0	0.0	0	0.0
30–44	88	95.7	4	4.3	0	0.0	0	0.0	0	0.0	0	0.0
45–59	106	93.0	5	4.4	1	0.9	2	1.8	0	0.0	0	0.0
60–69	72	98.6	0	0.0	0	0.0	1	1.4	0	0.0	0	0.0
18-69	308	95.4	10	3.1	1	0.3	4	1.2	0	0.0	0	0.0

# FC21 Sauces (ketchup, mayonnaise, other sauces)

Age (years)	Once oi	per week r less	2-4	days per week	5-6	days per week	Once J	per day	2–3	times per day	4–6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	27	61.4	13	29.5	1	2.3	3	6.8	0	0.0	0	0.0
30–44	59	64.1	19	20.7	5	5.4	9	9.8	0	0.0	0	0.0
45–59	95	82.6	18	15.7	2	1.7	0	0.0	0	0.0	0	0.0
60–69	64	87.7	9	12.3	0	0.0	0	0.0	0	0.0	0	0.0
18–69	245	75.6	59	18.2	8	2.5	12	3.7	0	0.0	0	0.0

# Table A80. Average consumption of other foodstuffs among women, by age group

		0		-		,							
Age (years)	Once of	per week r less	2-4	2–4 days per week		5–6 days per week		Once per day		2–3 times per day		4–6 times per day	
	n	%	n	%	n	%	n	%	n	%	n	%	
18–29	61	96.8	2	3.2	0	0.0	0	0.0	0	0.0	0	0.0	
30–44	117	90.0	7	5.4	5	3.8	1	0.8	0	0.0	0	0.0	
45–59	139	77.2	37	20.6	2	1.1	1	0.6	1	0.6	0	0.0	
60–69	136	90.1	15	9.9	0	0.0	0	0.0	0	0.0	0	0.0	
18-69	453	86.5	61	11.6	7	1.3	2	0.4	1	0.2	0	0.0	

# FC19 Pickled vegetables (medium portion)

### FC20 Marinated vegetables (medium portion)

Age (years)	Once of	per week r less	2–4 days per 5 week		5-6	5–6 days per week		Once per day		2–3 times per day		4–6 times per day	
	n	%	n	%	n	%	n	%	n	%	n	%	
18–29	57	90.5	2	3.2	0	0.0	3	4.8	1	1.6	0	0.0	
30–44	128	98.5	2	1.5	0	0.0	0	0.0	0	0.0	0	0.0	
45–59	163	90.6	10	5.6	1	0.6	5	2.8	1	0.6	0	0.0	
60–69	146	97.3	3	2.0	0	0.0	1	0.7	0	0.0	0	0.0	
18-69	494	94.5	17	3.3	1	0.2	9	1.7	2	0.4	0	0.0	

# FC21 Sauces (ketchup, mayonnaise, other sauces)

Age (years)	Once or	per week <sup>.</sup> less	2-4	days per week	5-6	days per week	Once J	oer day	2–3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	51	81.0	8	12.7	0	0.0	4	6.3	0	0.0	0	0.0
30–44	119	91.5	10	7.7	0	0.0	0	0.0	0	0.0	1	0.8
45–59	160	88.9	18	10.0	2	1.1	0	0.0	0	0.0	0	0.0
60–69	142	94.0	8	5.3	0	0.0	1	0.7	0	0.0	0	0.0
18–69	472	90.1	44	8.4	2	0.4	5	1.0	0	0.0	1	0.2

Table A81. Average consumption of other foodstuffs among both sexes, by age group

# FC19 Pickled vegetables (medium portion)

Age (years)	Once or	per week · less	2-4 ( V	days per veek	5-бо м	days per /eek	Once	per day	2–3	times per day	4–61	imes per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	97	90.7	9	8.4	0	0.0	1	0.9	0	0.0	0	0.0
30–44	192	86.5	22	9.9	7	3.2	1	0.5	0	0.0	0	0.0
45–59	215	72.9	63	21.4	12	4.1	3	1.0	2	0.7	0	0.0
60–69	193	86.2	26	11.6	3	1.3	2	0.9	0	0.0	0	0.0
18-69	697	82.2	120	14.2	22	2.6	7	0.8	2	0.2	0	0.0

### FC20 Marinated vegetables (medium portion)

Age (years)	Once or	per week r less	2-4	days per week	5-6	days per week	Once per day		2–3 times per day		4–6 times per day	
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	99	92.5	3	2.8	0	0.0	4	3.7	1	0.9	0	0.0
30–44	216	97.3	6	2.7	0	0.0	0	0.0	0	0.0	0	0.0
45–59	269	91.5	15	5.1	2	0.7	7	2.4	1	0.3	0	0.0
60–69	218	97.8	3	1.3	0	0.0	2	0.9	0	0.0	0	0.0
18-69	802	94.8	27	3.2	2	0.2	13	1.5	2	0.2	0	0.0

# FC21 Sauces (ketchup, mayonnaise, other sauces)

Age (years)	Once oi	per week r less	2-4 ( V	days per veek	5-бо v	days per veek	Once	per day	2-3	times per day	4-61	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
18–29	78	72.9	21	19.6	1	0.9	7	6.5	0	0.0	0	0.0
30–44	178	80.2	29	13.1	5	2.3	9	4.1	0	0.0	1	0.5
45–59	255	86.4	36	12.2	4	1.4	0	0.0	0	0.0	0	0.0
60–69	206	92.0	17	7.6	0	0.0	1	0.4	0	0.0	0	0.0
18-69	717	84.6	103	12.1	10	1.2	17	2.0	0	0.0	1	0.1

**Table A82.** Average consumption of other foodstuffs among both sexes, by area of residence

		<u> </u>		-		,						
Area	Once	oer week or less	2-4 ( v	days per veek	5-6	days per week	Once	per day	2-3	times per day	4-6	times per day
	n	%	n	%	n	%	n	%	n	%	n	%
Rural	401	76.5	99	18.9	17	3.2	5	1.0	2	0.4	0	0.0
Urban	296	91.4	21	6.5	5	1.5	2	0.6	0	0.0	0	0.0
Total	697	82.2	120	14.2	22	2.6	7	0.8	2	0.2	0	0.0

### FC19 Pickled vegetables (medium portion)

# FC20 Marinated vegetables (medium portion)

Area	Once	oer week or less	2-4 \	days per week	5-6	5–6 days per week		Once per day		2–3 times per day		4–6 times per day	
	n	%	n	%	n	%	n	%	n	%	n	%	
Rural	495	94.8	13	2.5	1	0.2	11	2.1	2	0.4	0	0.0	
Urban	307	94.8	14	4.3	1	0.3	2	0.6	0	0.0	0	0.0	
Total	802	94.8	27	3.2	2	0.2	13	1.5	2	0.2	0	0.0	

### FC21 Sauces (ketchup, mayonnaise, other sauces)

Area	Oncep	oer week or less	2-4 c v	days per veek	5-6	5–6 days per week		Once per day		2–3 times per day		4–6 times per day	
	n	%	n	%	n	%	n	%	n	%	n	%	
Rural	474	90.5	40	7.6	5	1.0	5	1.0	0	0.0	0	0.0	
Urban	243	75.0	63	19.4	5	1.5	12	3.7	0	0.0	1	0.3	
Total	717	84.6	103	12.1	10	1.2	17	2.0	0	0.0	1	0.1	

### **8.4 DIETARY SALT**

Table A83. Add salt always or often before eating or while eating, by age group and sex

	M	en	Wor	nen	Both sexes		
Age (years)	n	%	n	%	n	%	
18–29	44	34.1	63	27.0	107	29.9	
30–44	92	52.2	130	30.0	222	39.2	
45–59	115	52.2	180	26.7	295	36.6	
60–69	73	43.8	151	27.2	224	32.6	
18–69	324	47.8	524	27.7	848	35.4	

**Table A84.** Add salt always or often before eating or while eating, by area of residence and sex

<b>A</b> # <b>a a</b>	M	en	Won	nen	Both sexes		
Area	n	%	n	%	n	%	
Rural	189	45.5	335	30.1	524	35.7	
Urban	135	51.1	189	23.3	324	34.9	
Total	324	47.8	524	27.7	848	35.4	

**Table A85.** Add salt always or often when cooking or preparing food at home, by age group and sex

	Μ	en	Woi	men	Both sexes		
Age (years)	n	%	n	%	n	%	
18–29	44	52.3	63	54.0	107	53.3	
30–44	92	63.0	130	57.7	222	59.9	
45-59	115	71.3	180	66.7	295	68.5	
60–69	73	65.8	151	53.0	224	57.1	
18-69	324	65.1	524	59.0	848	61.3	

**Table A86.** Add salt always or often when cooking or preparing food at home, by area of residence and sex

Area	Men		Woi	Women		Both sexes	
	n	%	n	%	n	%	
Rural	189	68.3	335	70.7	524	69.8	
Urban	135	60.7	189	38.1	324	47.5	
Total	324	65.1	524	59.0	848	61.3	

**Table A87.** Use iodized salt when cooking or preparing food at home, by age group and sex

Age (years)	Men		Women		Both sexes	
	n	%	n	%	n	%
18–29	44	81.8	63	76.2	107	78.5
30–44	92	73.9	130	66.9	222	69.8
45–59	115	58.3	180	65.0	295	62.4
60–69	73	56.2	151	54.3	224	54.9
18-69	324	65.4	524	63.7	848	64.4

**Table A88.** Use iodized salt when cooking or preparing food at home, by area of residence and sex

Age (years)	Men		Women		Both sexes	
	n	%	n	%	n	%
Rural	189	52.9	335	49.9	524	51.0
Urban	135	83.0	189	88.4	324	86.1
Total	324	65.4	524	63.7	848	64.4

**Table A89.** Always or often consume processed food which is high in salt, by age group and sex

Age (years)	Men		Women		Both sexes	
	n	%	n	%	n	%
18–29	44	47.7	63	34.9	107	40.2
30–44	92	41.3	130	26.9	222	32.9
45–59	115	30.4	180	25.6	295	27.5
60–69	73	26.0	151	13.2	224	17.4
18–69	324	34.9	524	23.5	848	27.8

**Table A90.** Always or often consume processed food which is high in salt, by area of residence and sex

Age (years)	Men		Wor	nen	Both sexes		
	n	%	n	%	n	%	
Rural	189	23.8	335	19.1	524	20.8	
Urban	135	50.4	189	31.2	324	39.2	
Total	324	34.9	524	23.5	848	27.8	

Table A91. Think they consume far too much or too much salt, by age group and sex

Age (years)	М	Men		men	Both sexes		
	n	%	n	%	n	%	
18–29	44	18.2	63	20.6	107	19.6	
30–44	92	34.8	130	28.5	222	31.1	
45-59	115	33.0	180	26.7	295	29.2	
60–69	73	35.6	151	15.9	224	22.3	
18–69	324	32.1	524	23.3	848	26.7	

# Table A92. Self-reported quantity of salt consumed among men, by age group

	Men								
Age group	'n	Far too much	Too much (04)	Just the right		Ear too little (04)			
(years)	n	(%)	100 much (%)	amount (%)	100 IIIIe (%)	Fai too iittie (%)			
18–29	44	2.3	15.9	79.5	0.0	0.0			
30–44	92	3.3	31.5	60.9	1.1	1.1			
45–59	115	5.2	27.8	60.9	0.9	0.0			
60–69	73	8.2	27.4	57.5	5.5	0.0			
18–69	324	4.9	27.2	62.7	1.9	0.3			

# Table A93. Self-reported quantity of salt consumed among women, by age group

<b>A</b> <i>aa</i>	Women								
(years)	n	Far too much (%)	Too much (%)	Just the right amount (%)	Too little (%)	Far too little (%)			
18–29	63	4.8	15.9	76.2	0.0	1.6			
30–44	130	8.5	20.0	61.5	3.8	1.5			
45–59	180	5.6	21.1	65.6	3.3	0.6			
60–69	151	2.6	13.2	74.2	6.6	0.7			
18–69	524	5.3	17.9	68.3	4.0	1.0			

# Table A94. Self-reported quantity of salt consumed among both sexes, by age group

Age group (years)	Both sexes							
	n	Far too much (%)	Too much (%)	Just the right amount (%)	Too little (%)	Far too little (%)		
18–29	107	3.7	15.9	77.6	0.0	0.9		
30-44	222	6.3	24.8	61.3	2.7	1.4		
45-59	295	5.4	23.7	63.7	2.4	0.3		
60–69	224	4.5	17.9	68.8	6.2	0.4		
18–69	848	5.2	21.5	66.2	3.2	0.7		

**Table A95.** Think consuming too much salt could cause a serious health problem, by age group and sex

Age (years)	Men		Woi	men	Both sexes		
	n	%	n	%	n	%	
18–29	44	81.8	63	57.1	107	67.3	
30–44	92	69.6	130	73.8	222	72.1	
45–59	115	56.5	180	68.3	295	63.7	
60–69	73	60.3	151	70.2	224	67.0	
18-69	324	64.5	524	68.9	848	67.2	

**Table A96.** The type of serious health problem male respondents think a high-salt diet could cause, by age group

0.00	Men									
Age (vears)	n	High blood	Osteoporosis	Stomach	Kidney stones	None of the	All of the			
(years)	11	pressure (%)	(%)	cancer (%)	(%)	above (%)	above (%)			
18–29	36	55.6	30.6	16.7	44.4	0.0	25.0			
30–44	64	54.7	23.4	6.2	37.5	0.0	35.9			
45–59	65	64.6	16.9	3.1	43.1	1.5	23.1			
60–69	44	52.3	15.9	6.8	27.3	0.0	29.5			
18-69	209	57.4	21.1	7.2	38.3	0.5	28.7			

**Table A97.** The type of serious health problem female respondents think a high-salt diet could cause, by age group

Ago	Women									
(vears)	n	High blood	Osteoporosis	Stomach	Kidney stones	None of the	All of the			
(),		pressure (%)	(%)	cancer (%)	(%)	above (%)	above (%)			
18–29	36	36.1	19.4	5.6	38.9	2.8	44.4			
30–44	96	52.1	25.0	3.1	41.7	1.0	33.3			
45–59	123	49.6	20.3	6.5	31.7	0.0	40.7			
60–69	106	65.1	29.2	9.4	43.4	0.0	27.4			
18–69	361	53.5	24.1	6.4	38.5	0.6	35.2			

**Table A98.** The type of serious health problem respondents of both sexes think a high-salt diet could cause, by age group

Age				Both sexes			
(mge		High blood	Osteoporosis	Stomach	Kidney stones	None of the	All of the
(years)	n	pressure (%)	(%)	cancer (%)	(%)	above (%)	above (%)
18–29	72	45.8	25.0	11.1	41.7	1.4	34.7
30–44	160	53.1	24.4	4.4	40.0	0.6	34.4
45–59	188	54.8	19.1	5.3	35.6	0.5	34.6
60–69	150	61.3	25.3	8.7	38.7	0.0	28.0
18-69	570	54.9	23.0	6.7	38.4	0.5	32.8

Table A99. The importance attributed by men to lowering salt in diet, by age group

Age	Men						
(years)	n	Very important (%)	Somewhat important (%)	Not-at-all important (%)			
18–29	44	25.0	47.7	15.9			
30–44	92	25.0	42.4	16.3			
45–59	115	22.6	51.3	13.9			
60–69	73	15.1	50.7	19.2			
18-69	324	21.9	48.1	16.0			

Table A100. The importance attributed by women to lowering salt in diet, by age group

Age	Women						
(years)	n	Very important (%)	Somewhat important (%)	Not-at-all important (%)			
18–29	63	25.4	34.9	14.3			
30–44	130	37.7	40.8	7.7			
45–59	180	30.6	49.4	9.4			
60–69	151	31.8	43.0	11.9			
18–69	524	32.1	43.7	10.3			

Table A101. The importance attributed by both sexes to lowering salt in diet, by age group

Age	Both sexes						
(years)	n	Very important (%)	Somewhat important (%)	Not-at-all important (%)			
18–29	107	25.2	40.2	15.0			
30–44	222	32.4	41.4	11.3			
45–59	295	27.5	50.2	11.2			
60–69	224	26.3	45.5	14.3			
18–69	848	28.2	45.4	12.5			

**Table A102.** Respondents that limit consumption of processed food, by age group and sex

Age (vears)	Men		Women		Both sexes	
Age (years)	n	%	n	%	n	%
18–29	8	75.0	15	73.3	23	73.9
30–44	18	83.3	46	91.3	64	89.1
45–59	27	74.1	59	78.0	86	76.7
60–69	16	87.5	62	82.3	78	83.3
18–69	69	79.7	182	82.4	251	81.7

**Table A103.** Respondents that look at the salt or sodium content on food labels, by age group and sex

Age (years)	Men		Women		Both sexes	
	n	%	n	%	n	%
18-29	8	12.5	15	13.3	23	13.0
30-44	18	22.2	46	10.9	64	14.1
45-59	27	7.4	59	8.5	86	8.1
60-69	16	0.0	62	4.8	78	3.8
18-69	69	10.1	182	8.2	251	8.8

Table A104. Respondents that buy low salt/sodium alternatives, by age group and sex

	Men		Women		Both sexes	
Age (Jears)	n	%	n	%	n	%
18–29	8	50.0	15	13.3	23	26.1
30–44	18	22.2	46	19.6	64	20.3
45–59	27	7.4	59	10.2	86	9.3
60–69	16	12.5	62	11.3	78	11.5
18–69	69	17.4	182	13.2	251	14.3

# Table A105. Do not add salt when cooking, by age group and sex

	Men		Women		Both sexes	
Age(years)	n	%	n	%	n	%
18–29	8	50.0	15	40.0	23	43.5
30–44	18	22.2	46	34.8	64	31.2
45–59	27	14.8	59	27.1	86	23.3
60–69	16	31.2	62	37.1	78	35.9
18-69	69	24.6	182	33.5	251	31.1

Table A106. Use spices other than salt when cooking, by age group and sex

	Men		Women		Both sexes	
Age (years)	n	%	n	%	n	%
18–29	8	0.0	15	33.3	23	21.7
30–44	18	16.7	46	37.0	64	31.2
45–59	27	18.5	59	13.6	86	15.1
60–69	16	18.8	62	24.2	78	23.1
18–69	69	15.9	182	24.7	251	22.3

Table A107. Avoid eating food prepared outside of home, by age group and sex

Age (vears)	Men		Women		Both sexes	
Age (years)	n	%	n	%	n	%
18–29	8	0.0	15	33.3	23	21.7
30–44	18	16.7	46	37.0	64	31.2
45–59	27	33.3	59	30.5	86	31.4
60–69	16	43.8	62	38.7	78	39.7
18–69	69	27.5	182	35.2	251	33.1

**Table A108.** Take other measures specifically to control salt intake, by age group and sex

Age (vears)	Men		Women		Both sexes	
Age (years)	n	%	n	%	n	%
18–29	8	12.5	15	0.0	23	4.3
30–44	18	0.0	46	0.0	64	0.0
45–59	27	0.0	59	1.7	86	1.2
60–69	16	0.0	62	0.0	78	0.0
18–69	69	1.4	182	0.5	251	0.8

#### **8.5 PERSONAL MEDICAL HISTORY**

	Men							
Age (years)	n	Never measured (%)	Measured, but not diagnosed (%)	Diagnosed, but not within past 12 months (%)	Diagnosed within past 12 months (%)			
18–29	44	9.1	88.6	2.3	0.0			
30–44	92	4.3	87.0	3.3	5.4			
45–59	115	3.5	76.5	5.2	14.8			
60–69	73	4.1	63.0	11.0	21.9			
18–69	324	4.6	78.1	5.6	11.7			

# Table A109. Blood pressure measurements and diagnosis in men, by age group

### Table A110. Blood pressure measurements and diagnosis in women, by age group

	Women						
Age (years)	n	Never measured (%)	Measured, but not diagnosed (%)	Diagnosed, but not within past 12 months (%)	Diagnosed within past 12 months (%)		
18–29	63	12.7	82.5	3.2	1.6		
30–44	130	10.0	83.1	3.8	3.1		
45–59	180	3.3	72.8	11.1	12.8		
60–69	151	4.6	55.0	9.9	30.5		
18–69	524	6.5	71.4	8.0	14.1		

### Table A111. Blood pressure measurements and diagnosis in both sexes, by age group

	Both sexes						
Age (years)	n	Never measured (%)	Measured, but not diagnosed (%)	Diagnosed, but not within past 12 months (%)	Diagnosed within past 12 months (%)		
18–29	107	11.2	85.0	2.8	0.9		
30–44	222	7.7	84.7	3.6	4.1		
45–59	295	3.4	74.2	8.8	13.6		
60–69	224	4.5	57.6	10.3	27.7		
18–69	848	5.8	73.9	7.1	13.2		

**Table A112.** Currently taking medication for raised blood pressure prescribed by a doctor or health worker among those diagnosed, by age group and sex

	Men		Women		Both sexes	
Age (years)		Taking	2	Taking	2	Taking
	11	medication (%)	11	medication (%)	11	medication (%)
18–29	1	0.0	3	0.0	4	0.0
30–44	8	12.5	9	33.3	17	23.5
45–59	23	56.5	43	51.2	66	53.0
60–69	24	41.7	61	72.1	85	63.5
18–69	56	42.9	116	59.5	172	54.1

**Table 113.** Currently receiving advice to reduce salt intake for raised blood pressure prescribed by a doctor or health worker among those diagnosed, by age group and sex

	Men		Woi	men	Both sexes	
Age (years)	(years) n Advice to reduce salt (%)	Advice to		Advice to		Advice to
		n	reduce salt (%)		reduce salt (%)	
18–29	1	0.0	3	0.0	4	0.0
30–44	8	25.0	9	33.3	17	29.4
45–59	23	56.5	43	55.8	66	56.1
60–69	24	45.8	61	75.4	85	67.1
18-69	56	46.4	116	62.9	172	57.6

**Table 114.** Currently receiving advice or treatment to lose weight for raised blood pressure prescribed by a doctor or health worker among those diagnosed, by age group and sex

	Men		Women		Both sexes	
Age (years)	n	Advice to lose	n	Advice to lose	n	Advice to lose
		weight (%)	11	weight (%)		weight (%)
18–29	1	0.0	3	0.0	4	0.0
30-44	8	12.5	9	11.1	17	11.8
45-59	23	39.1	43	46.5	66	43.9
60–69	24	37.5	61	60.7	85	54.1
18–69	56	33.9	116	50.0	172	44.8

**Table 115.** Currently receiving advice or treatment to stop smoking for raised blood pressure prescribed by a doctor or health worker among those diagnosed, by age group and sex

	Men		Women		Both sexes	
Age (years)	n	Advice to stop		Advice to stop		Advice to stop
	п	n n smoking (%)	n	smoking (%)	n	smoking (%)
18–29	1	0.0	3	0.0	4	0.0
30–44	8	12.5	9	0.0	17	5.9
45–59	23	34.8	43	11.6	66	19.7
60–69	24	20.8	61	24.6	85	23.5
18-69	56	25.0	116	17.2	172	19.8

**Table 116.** Currently receiving advice to start or do more physical activity for raised blood pressure prescribed by a doctor or health worker among those diagnosed, by age group and sex

	Men		Woi	men	Both sexes		
		Advice to do		Advice to do		Advice to do	
Age (years)	n	more physical	n	more physical	n	more physical	
		activity (%)		activity (%)		activity (%)	
18–29	1	0.0	3	0.0	4	0.0	
30–44	8	25.0	9	11.1	17	17.6	
45–59	23	47.8	43	41.9	66	43.9	
60–69	24	25.0	61	55.7	85	47.1	
18-69	56	33.9	116	45.7	172	41.9	

**Table 117.** Seen a traditional healer, for raised blood pressure by age group and sex

	Men		Women		Both sexes	
Age (years)		Seen traditional		Seen traditional	Seen traditional	
	n	healer (%)	n healer (%)		n	healer (%)
18–29	1	0.0	3	0.0	4	0.0
30-44	8	12.5	9	0.0	17	5.9
45-59	23	17.4	43	30.2	66	25.8
60–69	24	16.7	61	13.1	85	14.1
18-69	56	16.1	116	18.1	172	17.4

**Table 118.** Currently taking herbal or traditional remedy for raised blood pressure, byage group and sex

	Men		Woi	nen	Both sexes	
		Taking		Taking		Taking
Age (years)	n	traditional	n	traditional	n	traditional
		medication (%)		medication (%)		medication (%)
18–29	1	0.0	3	0.0	4	0.0
30–44	8	0.0	9	0.0	17	0.0
45–59	23	13.0	43	25.6	66	21.2
60–69	24	12.5	61	27.9	85	23.5
18–69	56	10.7	116	24.1	172	19.8

# Table A119. Blood sugar measurement and diagnosis in men, by age group

	Men						
Age (years)	n	Never measured (%)	Measured but not diagnosed (%)	Diagnosed but not within past 12 months (%)	Diagnosed within past 12 months (%)		
18–29	44	20.5	79.5	0.0	0.0		
30–44	92	13.0	85.9	1.1	0.0		
45–59	115	12.2	86.1	0.0	1.7		
60–69	73	15.1	76.7	2.7	5.5		
18–69	324	14.2	83.0	0.9	1.9		

### Table A120. Blood sugar measurement and diagnosis in women, by age group

	Women							
Age (years)	n	Never measured (%)	Measured but not diagnosed (%)	Diagnosed but not within past 12 months (%)	Diagnosed within past 12 months (%)			
18–29	63	30.2	68.3	0.0	1.6			
30-44	130	20.8	78.5	0.0	0.8			
45–59	180	13.9	79.4	2.2	4.4			
60–69	151	15.2	80.1	2.0	2.6			
18–69	524	17.9	78.1	1.3	2.7			

Table A121. Blood sugar measurement and diagnosis, by age group, both sexes

	Both sexes							
Age (years)	n	Never measured (%)	Measured but not diagnosed (%)	Diagnosed but not within past 12 months (%)	Diagnosed within past 12 months (%)			
18–29	107	26.2	72.9	0.0	0.9			
30-44	222	17.6	81.5	0.5	0.5			
45–59	295	13.2	82.0	1.4	3.4			
60–69	224	15.2	79.0	2.2	3.6			
18-69	848	16.5	80.0	1.2	2.4			

**Table A122.** Currently taking insulin prescribed for diabetes among those previously diagnosed, by age group and sex

	Men		Women		Both sexes	
Age (years)	n	Taking insulin (%)	n	Taking insulin (%)	n	Taking insulin (%)
18–29	0	0.0	1	0.0	1	0.0
30–44	1	0.0	1	0.0	2	0.0
45–59	2	0.0	12	0.0	14	0.0
60–69	6	0.0	7	57.1	13	30.8
18-69	9	0.0	21	19.0	30	13.3

**Table A123.** Currently taking medication prescribed for diabetes among those previously diagnosed, by age group and sex

	Men		Women		Both sexes	
Age (years)	n	Taking medication (%)	n	Taking medication (%)	n	Taking medication (%)
18–29	0	0.0	1	0.0	1	0.0
30–44	1	0.0	1	100.0	2	50.0
45–59	2	50.0	12	66.7	14	64.3
60–69	6	50.0	7	71.4	13	61.5
18-69	9	44.4	21	66.7	30	60.0

**Table A124.** Currently receiving a special diet prescribed for diabetes among those previously diagnosed, by age group and sex

	Men		Women		Both sexes	
Age (years)	n	Receiving special diet (%)	n	Receiving special diet (%)	n	Receiving special diet (%)
18–29	0	0.0	1	0.0	1	0.0
30–44	1	0.0	1	100.0	2	50.0
45–59	2	0.0	12	41.7	14	35.7
60–69	6	33.3	7	71.4	13	53.8
18–69	9	22.2	21	52.4	30	43.3

**Table A125.** Currently receiving advice or treatment to lose weight for diabetes prescribed by a doctor or health worker among those diagnosed, by age group and sex

	Men		Women		Both sexes	
Age (years)	n	Advice to lose weight (%)	n	Advice to lose weight (%)	n	Advice to lose weight (%)
18–29	0	0.0	1	0.0	1	0.0
30–44	1	0.0	1	0.0	2	0.0
45–59	2	50.0	12	66.7	14	64.3
60–69	6	50.0	7	42.9	13	46.2
18–69	9	44.4	21	52.4	30	50.0

**Table A126.** Currently receiving advice or treatment to stop smoking for diabetes prescribed by a doctor or health worker among those diagnosed, by age group and sex

	Men		Women		Both sexes	
Age (years)	n	Advice to stop smoking (%)	n	Advice to stop smoking (%)	n	Advice to stop smoking (%)
18–29	0	0.0	1	0.0	1	0.0
30–44	1	0.0	1	0.0	2	0.0
45–59	2	50.0	12	0.0	14	7.1
60–69	6	33.3	7	42.9	13	38.5
18-69	9	33.3	21	14.3	30	20.0

**Table A127.** Currently receiving advice to start or do more physical activity for diabetes prescribed by a doctor or health worker among those diagnosed, by age group and sex

	Men		Women		Both sexes	
Age (years)	n	Advice to do more physical activity (%)	n	Advice to do more physical activity (%)	n	Advice to do more physical activity (%)
18–29	0	0.0	1	100.0	1	100.0
30–44	1	100.0	1	100.0	2	100.0
45-59	2	100.0	12	91.7	14	92.9
60–69	6	66.7	7	85.7	13	76.9
18–69	9	77.8	21	90.5	30	86.7

Table A128. Seen a traditional healer for diabetes, by age group and sex

	М	Men		Women		Both sexes	
Age (years)	n	Seen traditional healer (%)	n	Seen traditional healer (%)	n	Seen traditional healer (%)	
18–29	0	0.0	1	0.0	1	0.0	
30–44	1	0.0	1	0.0	2	0.0	
45–59	2	0.0	12	16.7	14	14.3	
60–69	6	16.7	7	0.0	13	7.7	
18–69	9	11.1	21	9.5	30	10.0	

**Table A129.** Currently taking herbal or traditional remedy for diabetes, by age group and sex

	Men		Woi	men	Both sexes	
Age (years)	n	Taking traditional medication (%)	n	Taking traditional medication (%)	n	Taking traditional medication (%)
18–29	0	0.0	1	0.0	1	0.0
30–44	1	0.0	1	0.0	2	0.0
45-59	2	0.0	12	16.7	14	14.3
60–69	6	50.0	7	57.1	13	53.8
18-69	9	33.3	21	28.6	30	30.0

#### 8.6 CARDIOVASCULAR DISEASE (CVD) HISTORY

**Table A130.** Having ever had a heart attack, or chest pain from heart disease, or a stroke, by age group and sex

Age	Men		Women		Both sexes	
(years)	n	CVD history (%)	n	CVD history (%)	n	CVD history (%)
18–29	44	0.0	63	0.0	107	0.0
30–44	92	1.1	130	0.8	222	0.9
45–59	115	4.3	180	5.6	295	5.1
60–69	73	4.1	151	6.6	224	5.8
18-69	324	2.8	524	4.0	848	3.5

**Table A131.** Currently taking aspirin regularly to prevent or treat heart disease, by age group and sex

0.000	Men		Women		Both sexes	
(years)	n	Taking aspirin (%)	n	Taking aspirin (%)	n	Taking aspirin (%)
18–29	44	0.0	63	0.0	107	0.0
30–44	92	1.1	130	1.5	222	1.4
45–59	115	10.4	180	17.2	295	14.6
60–69	73	19.2	151	29.8	224	26.3
18–69	324	8.3	524	14.9	848	12.4

**Table A132.** Currently taking statins regularly to prevent or treat heart disease, by age group and sex

0	Men		Women		Both sexes	
(years)	n	Taking statins (%)	n	Taking statins (%)	n	Taking statins (%)
18–29	44	0.0	63	0.0	107	0.0
30–44	92	0.0	130	0.0	222	0.0
45–59	115	2.6	180	5.0	295	4.1
60–69	73	1.4	151	11.3	224	8.0
18-69	324	1.2	524	5.0	848	3.5

#### **8.7 LIFESTYLE ADVICE**

**Table A133.** Advised by a doctor or health worker to stop smoking / using tobacco products or not to start, by age group and sex

Age	Men		Women		Both sexes	
(years)	n	(%)	n	(%)	n	(%)
18–29	44	81.8	63	54.0	107	65.4
30–44	92	81.5	130	47.7	222	61.7
45–59	115	67.8	180	36.7	295	48.8
60–69	73	60.3	151	36.4	224	44.2
18-69	324	71.9	524	41.4	848	53.1

**Table A134.** Advised by a doctor or health worker to reduce salt in diet, by age group and sex

Age	Men		Women		Both sexes	
(years)	n	(%)	n	(%)	n	(%)
18–29	44	86.4	63	73.0	107	78.5
30–44	92	88.0	130	77.7	222	82.0
45–59	115	82.6	180	86.7	295	85.1
60–69	73	83.6	151	80.8	224	81.7
18–69	324	84.9	524	81.1	848	82.5

**Table A135.** Advised by a doctor or health worker to eat at least 5 servings of fruit and/or vegetable each day, by age group and sex

Age	Men		Women		Both sexes	
(years)	n	(%)	n	(%)	n	(%)
18–29	44	86.4	63	76.2	107	80.4
30–44	92	90.2	130	79.2	222	83.8
45–59	115	82.6	180	86.1	295	84.7
60–69	73	82.2	151	81.5	224	81.7
18-69	324	85.2	524	81.9	848	83.1

**Table A136.** Advised by a doctor or health worker to reduce fat in diet, by age group and sex

Age	Men		Women		Both sexes	
(years)	n	(%)	n	(%)	n	(%)
18–29	44	84.1	63	76.2	107	79.4
30–44	92	88.0	130	80.0	222	83.3
45–59	115	87.0	180	88.3	295	87.8
60–69	73	86.3	151	81.5	224	83.0
18–69	324	86.7	524	82.8	848	84.3

**Table A137.** Advised by a doctor or health worker to start or do more physical activity, by age group and sex

Age	Men		Women		Both sexes	
(years)	n	(%)	n	(%)	n	(%)
18–29	44	84.1	63	79.4	107	81.3
30–44	92	90.2	130	76.9	222	82.4
45-59	115	73.9	180	78.9	295	76.9
60–69	73	74.0	151	70.2	224	71.4
18-69	324	79.9	524	76.0	848	77.5

**Table A138.** Advised by a doctor or health worker to maintain a healthy body weight or to lose weight, by age group and sex

Age	Men		Women		Both sexes	
(years)	n	(%)	n	(%)	n	(%)
18–29	44	81.8	63	77.8	107	79.4
30–44	92	85.9	130	76.9	222	80.6
45–59	115	71.3	180	80.6	295	76.9
60–69	73	76.7	151	72.8	224	74.1
18-69	324	78.1	524	77.1	848	77.5



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