
*“Policies for Enhancing Access to Health Services in
Deprived Areas”*

The Healthy Municipality

MIS Code: 5011021

Deliverable 6.2.1
Evaluating results of
pilot application at local level

The Project is co-funded by the European Regional Development Fund (ERDF) and by national funds of the countries participating in the Interreg V-A “Greece-Bulgaria 2014-2020” Cooperation Programme



Table of contents

Introduction	3
General Characteristics of Municipality of Iasmos	3
Mortality data	7
Additional data on prevalence of risk factors and morbidity	10
Procedures	10
Prevalence of modifiable risk factors and morbidity	12
Modifiable Behavioral/ Lifestyle Risk Factors	12
Other findings	17
Conclusions	17

Introduction

General Characteristics of Municipality of Iasmos

Data for this section of "General Characteristics" have been derived from the study 3.2.1 - 3.5.1. These data concern secondary sources (ELSTAT, Municipal Business Plans, Studies for the area, etc.).

The Municipality of Iasmos is located in the western part of the prefecture of Rodopi and borders in the north with Bulgaria, in the east with the Municipality of Komotini, in the south with the Municipality of Komotini and the Municipality of Avdira and in the west with the Municipality of Avdira, the Municipality of Xanthi and the Municipality of Myki.

The Municipality has an area of 485.3sq.km and a population of 13,810 inhabitants, with a population density of 28.46 persons/sq.km according to the 2011 census.

Christians and Muslims coexist in the area. Some settlements of the Municipality are purely Muslim settlements. In other settlements different cultural and religious groups are living.

The Municipal Units (M.U.) of the Municipality of Iasmos are the following 3: Iasmos, Sostis and Amaxades.

The Municipality is covered by 3/5 of mountainous and semi-mountainous areas and by 2/5 of lowland. Most of the Municipality of Iasmos belongs to the northwestern mountainous area of Rodopi, it is very sparsely populated, with many uninhabited or very small villages with little population. Some of them are inhabited periodically by farmers (breeders) and only during the summer months. In the Municipality, settlements with a relatively high population concentration are located in its lowland southern part.

There is a 7% decrease in the population in the Municipality of Iasmos, between the 2001 and 2011 censuses. A large percentage of the population belongs to the oldest age groups and specifically to the age group 60-79 years, with almost the 1/4 of the local population.

The Municipality of Iasmos presents high aging rate and a low birth rate.

The level of education is low with 18.88% being in the category of “not knowing how to read and write” and 60.75% being in the category of “having not completed secondary education”.

The living conditions are not good, with 67% of the houses in the Municipality of Iasmos using wood burning for cooking, while the percentages are the same for the heating (with the same way). Also, 38% of the houses in the Municipality of Iasmos do not have a toilet inside the house.

The inhabitants are working in their large majority, 58.71%, in the primary sector. There are also specialized craftsmen (11.45%), followed by employees in the services and sales (11.43%).

The main agricultural products of the area are cotton, corn, wheat, tobacco, sugar beets. Livestock farming (mainly sheep, goats and cattle) is complementary to the agriculture.

Employment in the secondary sector is low, with a few craft enterprises.

There are several businesses in the tertiary sector: commercial businesses with chemicals - gases - paints, as well as many with food items and several leisure shops.

Availability of Public Health Services and Access

Data for this section have been drawn from the study 3.2.1-3.5.1 regarding the existing primary health care structures and their shortages and from the research 3.5.2 regarding the problems of access in these structures.

In the Municipality of Iasmos both the Health Center of Iasmos and Regional & Local Medical Offices are operating.

The Regional Medical Offices in the Municipality of Iasmos are 4: the Regional Medical Office of Ambrosia, Sostis, Asomati, Polyanthos. There is also the Local Medical Office of Amaxades for the residents of this Municipal Unit.

The foreseen medical services of the Health Center are presented in the table below.

Table: HEALTH CENTER OF IASMOS – CLINICS – MEDICAL LABORATORIES	
CLINICS	GENERAL MEDICINE
	PEDRIATIC
	DIABETES
MEDICAL LABORATORIES	MICROBIOLOGICAL
	RADIOLOGICAL
HOURS	7.00 – 15.00 / 24 hours

Source: 4rth Regional Health Authority

Also, for the Health Center of Iasmos, according to the following table, for 2017, 19 staff positions of physicians were foreseen, as follows:

Table: Staff Positions of Medical Personnel foreseen at the Health Center of Iasmos (2017)	
Employee Category	Number
DIRECTORS OF CLINICS	2
ATTENDING DOCTORS	5
ATTENDING PHYSICIANS OF GENERAL MEDICINE ON RURAL SERVICES	12
PHYSICIANS OF GENERAL MEDICINE ON RURAL SERVICES	
TOTAL	19

However the physicians currently employed (2018) in the Health Center are just 12.

Also, after the retirement of some radiologists and microbiologists, the relative staff positions remain vacant, resulting to a rather occasional operation of the radiology laboratory.

As for the nursing and other staff, again for 2017, according to the data of the 4th Regional Health Authority, it was foreseen: 14 nursing staff (6 Assistant Nurses, 7 Nurses of Technical Education and 1 Auxiliary Personnel of Compulsory Education), 4 paramedical staff (2 Assistant staff and 2 of Technical Education), 1 person non-medical staff (1 of University Education), 1 person administrative staff (1 Assistant) and 3 other staff (3 Assistants).

However, there are also shortages of nursing and paramedical staff.

In addition to staff shortages (physicians, nursing and paramedical staff), there are also shortages of equipment.

The Health Center of Iasmos has its own ambulance however this is currently used by the National Emergency Center.

According to the data of the 4th Regional Health Authority 1 staff position of a general physician / Attending Doctor B' - in the position of Rural Service, is foreseen for each of the Regional Medical Offices of Ambrosia, Sostis, Assomati and Polyanthos. However, today there are no such staff positions. The physicians of the Health Center of Iasmos visit only twice a month the above Regional Medical Offices.

In conclusion, the shortages of the medical and the nursing staff, as well as of the equipment both at the Health Center of Iasmos and the Regional Medical Offices, make difficult their effective work.

The above shortages in personnel and equipment are also reflected in the field research (in the context of 3.5.2), where, precisely because of these shortages, a large percentage of people with health problems do not prefer to ask medical help to the nearest to their home public health structures.

According to the results of this field research: In the Municipality of Iasmos, a percentage of 76.0% of the sample asked for medical help. Out of those who reported on seeking help for their problem, only 34,7% visited the nearest Public Health Service.

The main reason for not going to the nearest Public Health Structure was that "There was no proper medical specialization - equipment", with 63.4% in Iasmos. At a much lower rate of 11.0% the answer was "Due to lack of confidence" and with 7,9% "It was an emergency and I didn't have time to go".

Another interesting issue is related to the medical visits to the Health Center and the Regional Medical Offices and the reasons for these visits.

The Health Center of Iasmos counts about 25,000 medical visits per year (24,217 for 2017). Of these, about 4,865 concern regular cases, 9,003 concern only medical prescriptions and 10,349 are emergencies.

In other words, the number of medical visits for emergencies is more than double than those for regular cases. The same applies for medical visits only for medical prescription (twice as many as in regular cases).

The above data first of all show the accessibility of the Health Center from its residents who, when there is an emergency, they have the possibility of access to a local public health structure.

The data show also that residents do not use the Health Center for regular medical examinations, either because they consider that there is a lack of proper infrastructure (laboratories, equipment, etc.) and staffing (specialized staff) or because they consider other structures outside the area (the hospital, the private doctors) as better.

In the Regional Medical Offices of the Municipality of Iasmos, the visits only for medical prescription are the main reason for a visit.

In general, in all the public structures, the medical visits for examination are much less than the visits only for medical prescription, a fact that confirms that the residents of the Municipality address to other structures for their medical examinations and make use of the Regional Medical Offices mainly to prescribe their medications. In other words, residents are making more use of the local health facilities to meet their routine needs.

The combination of, on the one hand the many emergencies and the many visits for medical prescription and on the other hand the staff shortages, seems to contribute to

the inability of the population to use the local public health structures for medical examinations.

The above are reflected in the answer given by the respondents to the question of whether there were problems in their access to the local public health services (in the field research in the context of 3.5.2) where 47.3% in the Municipality of Iasmos stated problems - barriers relating to the use of health services. The greater frequency occurred in the problem of "the delay in fixing an appointment with the doctors of the National Health System".

Public Health Services and Prevention

Data for this section have been drawn from the study 3.2.1 - 3.5.1 regarding the existing health prevention policies in the area and from the research 3.5.2 regarding the behavior of the local population towards health prevention.

According to the study (in the context of 3.2.1 - 3.5.1), health prevention policies are implemented in the area, but not in a systematic way.

The Regional Authority of REMTH, through its Directorate of Public Health, intervenes regulatory and supervisory to the service providers of different sectors (licensing, health checks, etc.), but also directly, with initiatives in the field of information on health issues, the offering of free medical examinations, the blood donation, etc. The Directorate conducts health prevention policies in cooperation with the health agencies, the Municipalities, the voluntary organizations of the area, however, these health prevention policies are not carried out in a systematic way. A good practice, first implemented in 2018, concerned the Public Health Week throughout the Region.

At the level of interventions in the field of health by the Local Authorities, a series of initiatives are being implemented. The most important and fully acclaimed initiative with tangible results is the "Help at Home" Program addressed mainly to the elderly. In the Municipality of Iasmos there is an "Independent Department of Social Protection, Education and Culture" which undertakes mainly supportive actions of health and regulatory content, either independently or in cooperation with the competent central structures (Ministries). At the same time, the Municipality undertakes initiatives of a

mainly fragmentary character in the framework of various programs at the level of health prevention, information, medical examinations, etc.

The non-systematic health prevention policy is also reflected in the behavior of the local population, where according to the field research (in the context of 3.5.2), it was resulted that in the Municipality of Iasmos:

- the vaccinations concerned a small percentage of the sample 29.7%,
- the test pap/ mammography (women) / prostate control (PSA, men), also a very small percentage of the sample 12.0%,
- the intestinal examination (e.g. colonoscopy etc.), only a percentage of 0.1%
- the cardiac tests, a fairly small percentage of 8.3%.

Mortality data

Data on morbidity have already been obtained from 3 different sources. From ELSTAT - patients discharged from hospitals in 2012 per disease category (study 3.2.1-3.5.1) -, from the Regional Medical Offices - main diagnosis from medical visits to the Regional Medical Offices in 2017 (study 3.2.1-3.5 .1) -, from the field research in the context of the research 3.5.2.. In this report they are further enriched, in the following section, by a fourth source, the activity on “Sampling on identifying local morbidity in project areas” for the Municipality of Iasmos.

According to the data of ELSTAT (patients discharged from hospitals in 2012 per disease category), (study 3.2.1-3.5.1), the data were available only at Regional Unit level (from patients discharged in 2012), in this case for the Regional Unit of Rodopi and showed that the most common cause of hospitalization for the Regional Unit of Rodopi were the diseases of the circulatory system (16.74%), with a higher frequency than in the country and the region. A second cause of hospitalization were the diseases of the nervous system and the sensory organs (12.45%), also with higher frequency than in the country and the region, third cause, the neoplasms (11.06), followed by the diseases of the urogenital system (9,53%), of the digestive system (9.06%), the pregnancy complications (7.32%), the injuries and poisonings, the respiratory diseases and "symptoms, signs and un-defined conditions".

According to the same source:

A large increase in discharged patients from Hospitals in the Regional Unit of Rodopi, from 2008-2012, concerned diseases related to:

- Diseases of the skin and the subcutaneous tissue (+ 29.63%) (significant increase but lower in REMTH, decrease in Greece)
- Mental disorders (+ 18.81%) (while in REMTH there was a small decrease and in Greece a small increase)
- Symptoms, signs and un-defined conditions (+ 17.38%) (very small decrease in REMTH, significant decrease in Greece)
- Congenital malformations (+ 11.76%) (very significant decrease in REMTH, sufficient decrease in Greece)
- Complications of pregnancy, childbirth (+ 11.66%)
- Neoplasms (+ 11.34%) (approximately the same increase in Greece, much smaller increase in REMTH)
- Diseases of the urogenital system (+ 7.24%), (small decrease in REMTH, approximately the same increase in Greece)
- Diseases of the blood and hematopoietic organs (+ 6.45%), (decrease in REMTH, approximately the same increase in Greece)

A great reduction of discharged patients from hospitals in the Regional Unit of Rodopi, from 2008-2012 concerned diseases related to:

- Infectious and parasitic diseases (-39.51%) (there were no corresponding reductions in REMTH and Greece)
- Endocrine and metabolic diseases and disorders of nutritional deficiencies (-27.45%) (decrease in AMTH and Greece, but much smaller decreases)
- Injuries and poisonings (-26.03%) (significant decrease in REMTH, less significant decrease in Greece)
- Diseases of the musculoskeletal system and the connective tissue (-24,47%) (significant but smaller reduction appears in both REMTH and Greece)
- Certain conditions originating from the perinatal period (-24%) (more significant decrease in REMTH, but increase in Greece)
- Respiratory diseases (-15.01%) (slight decrease in REMTH, significant increase in Greece)

According to the study 3.2.1-3.5.1, it is also estimated that since most employed in the Municipality of Iasmos are found in the sector of agriculture - livestock (59.82% of employees) should also show musculoskeletal diseases. It is also pointed out that the agricultural sector in the REMTH Region presents twice the frequency of work accidents than in the country. The workers in the agricultural sector report more musculoskeletal problems and infections, also greater exposure to manual weight management, inappropriate physical postures, chemicals and dust, as well as accidents risks.

In addition, it is estimated that due to the employment of the inhabitants of the area with farming (livestock), as well as to their living conditions (existence of livestock farms within the settlements, uncontrolled disposal of livestock waste, etc.), there is the presence, although not in a large scale, of diseases that are transmitted from the animals to the humans (brucellosis, echinococcosis, etc.), which necessitates drastic protection measures (vaccinations, killing of animals, etc.), as well as measures against infectious diseases.

Data on morbidity in the study 3.2.1 - 3.5.1 for the Municipality of Iasmos have been obtained also from the Health Center of Iasmos. Specifically, the data concerned the main diagnosis for those examined in 2017. According to these, the high blood pressure, the cardiovascular problems, the diabetes are the main diagnoses of morbidity. In addition, other diagnoses concern the dietary anemia, the respiratory problems and the osteoporosis due to vitamin D deficiency.

It has to be noted that depression was also pointed out by the Health Center, as a problem for the Municipality of Iasmos and is attributed to the "closed" way of life of the residents resulting from the cultural peculiarities of the local population.

According to the field research (3.5.2) conducted on a sample of the population of the Municipality of Iasmos, a larger percentage, 38.8% of the cases state diseases of the circulatory system, followed by the psychiatric-psychological problems (12.6%) and the endocrinological diseases with 9.0%. The gastrointestinal disorders appear with a frequency of 5.5%, followed by the respiratory diseases with 5.3% and the musculoskeletal problems with 4.9%.

As to the sub-categories of the above disease categories, according to the field research, the following have been resulted:

- Diseases of the Circulatory System. Hypertension complicated was found in a greater percentage (33.3%), the hypertension non complicated (28.2%), while increased blood pressure was found in a percentage of 16.8%.
- Psychiatric - Psychological Problems. The most prevalent disease was the depression (19.0%).
- Diseases of the Endocrinological System. The non-insulin-dependent diabetes mellitus (33.3%) and the hyperthyroidism / thyotoxicosis (31.9%) are the most prevalent diseases, while the insulin-related diabetes occurs with 23.6%.

Additional data on prevalence of risk factors and morbidity from “Sampling on identifying local morbidity in project areas”

Procedures

The “Sampling on identifying local morbidity in project areas” was performed from 7/12/2021 until 12/05/2022, in the three Municipal Units (M.U.) of the Municipality of Iasmos (Iasmos, Sostis and Amaxades). In Table 1, the representation of the two sexes within each M.U. is presented in absolute numbers and percentages (within each M.U.).

Table 1. Absolute numbers and percentages of the population sample in the three M.U. of the Municipality of Iasmos

SEX	M.U. IASMOS N (% WITHIN M.U.)	M.U. SOSTIS N (% WITHIN M.U.)	M.U. AMAXADES N (% WITHIN M.U.)	TOTAL
MALE	95 (31.2%)	90 (39%)	14 (21.9%)	199
FEMALE	209 (68.8%)	141 (61%)	50 (78.1%)	400
TOTAL	304	231	64	599

First phase

During the first phase, the participants were examined by a primary care physician. In total, 450 people were referred for diagnostic medical examinations, that comprised of blood tests or even X-rays, if it was considered necessary (405 people). The blood tests that have been carried out included complete blood count, serum glucose, cholesterol, triglycerides, SGOT and SGPT.

Second phase

During the second phase, that started on the 15/03/2022, all the participants that were referred by the primary care physician to a specialist were examined accordingly by a cardiologist, a pneumonologist, an orthopedist, a gastroenterologist, an endocrinologist, or a psychiatrist that worked in the wider project area, based on their special needs. After the specialist consultation, some participants underwent some further diagnostic exams. For instance, the 300 people that were examined by a cardiologist had an

electrocardiogram (ECG) to detect heart problems and monitor the heart's health more thoroughly. Moreover, for the monitoring of the achieved control of diabetes mellitus 119 were underwent the glycated hemoglobin blood test (HbA1c), while for diagnosing and monitoring the treatment of a thyroid disorder 202 were tested for the thyroid-stimulating hormone (TSH). Finally, screening for breast cancer was performed with mammographs in 213 women and screening for prostate cancer with blood tests of the prostate-specific antigen (PSA) in 104 men.

Health Education Initiatives

In parallel to all the above clinical and diagnostic examinations, health education initiatives in the form of lectures were delivered in the three Municipal Units of the Municipality of Iasmos (Iasmos, Sostis and Amaxades). To increase the health literacy of the population in the project areas, the lectures covered four hot topics regarding prevention and management of some of the most prevalent chronic conditions, healthy diet, as well as dealing with urgent, life-threatening health conditions. The lectures were performed by expert healthcare professionals with experience in their field. The specific topics that were addressed are presented below:

1. First Aid Training, by an academic physician, professor in Democritus University of Thrace
2. Cardiovascular diseases, by a cardiologist
3. Prevention and management of diabetes mellitus, by an internist
4. Healthy diet as a lifestyle and disease prevention measure, by a nutritionist.

Prevalence of modifiable risk factors and morbidity

From the evaluation of all the clinical and the diagnostic examinations that were described above, high percentages of suboptimal control in common chronic diseases that constitute major modifiable risk factors for cardiovascular diseases were revealed. Furthermore, high prevalence of modifiable risk behavioral/ lifestyle factors for a number of diseases- including cardiovascular, pulmonary, cancer, etc- associated with lifestyle was also found. Finally, new conditions that had been undiagnosed until then were revealed for several participants.

Modifiable Behavioral/ Lifestyle Risk Factors

Tobacco smoking

The tobacco epidemic is one of the biggest public health threats the world has ever faced, killing more than 8 million people a year, including around 1.2 million deaths from exposure to second-hand smoke. Second-hand tobacco smoke is the smoke emitted from the burning end of a cigarette or from other smoked tobacco products and the smoke exhaled by the smoker. More than 4000 chemicals have been identified in tobacco smoke and there is no safe level of exposure to second-hand tobacco smoke. Furthermore, all forms of tobacco are harmful, and there is no safe level of exposure to tobacco.

Tobacco smoking was highly prevalent mainly among males, since 38.8% declared current smokers, while the relevant percentage in women was 17.9%. In Figure 1, the percentages of smoking within sex among the three M.U.s are presented. Significant variance was observed between the two sexes and among the different M.U.s. The mean cigarettes smoked per day were 17 (SD±12, min 1, max 60). Moreover, 11.3% declared ex-smokers, having quit smoking for a mean duration of 16.3 years (SD±10.2, min 1, max 42).

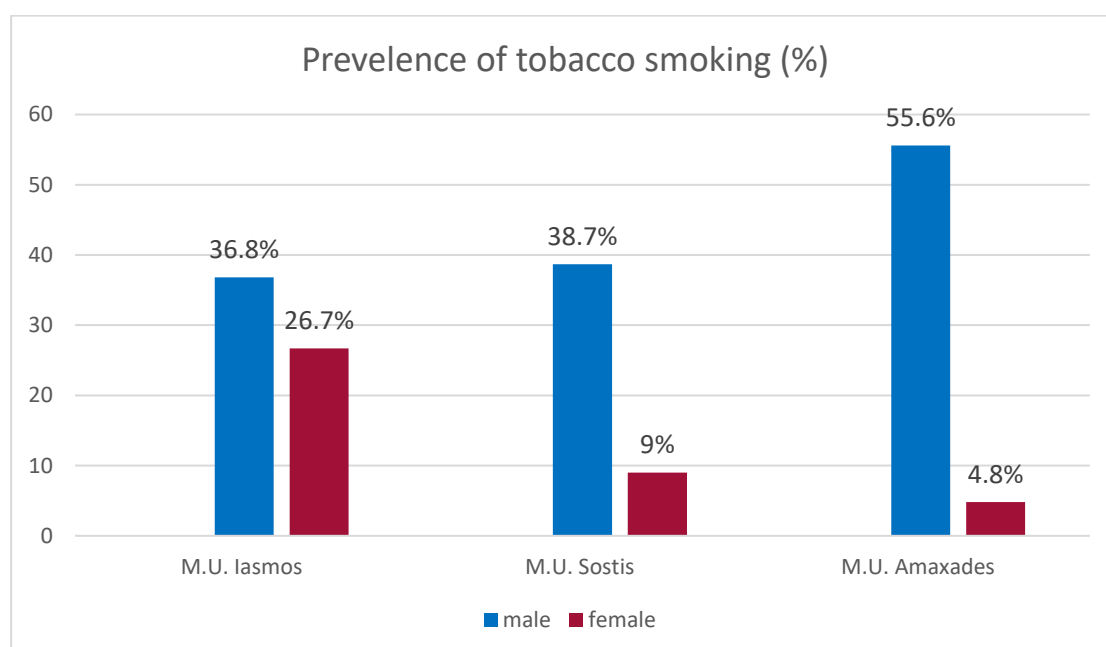


Figure 1. Prevalence of tobacco smoking within sex in each of the three M.U. of the Municipality of Iasmos

Considering that there is no safe level of exposure to tobacco, either to actual smokers or second-hand tobacco smokers, the prevalence of smoking especially among men raises concern and requires immediate action.

Body Mass Index (as a reflection of unhealthy diet and physical inactivity)

Raised Body Mass Index (BMI), as a result of unhealthy diet and physical inactivity, is a major risk factor for noncommunicable diseases such as: cardiovascular diseases (mainly heart disease and stroke), diabetes, musculoskeletal disorders (especially osteoarthritis – a highly disabling degenerative disease of the joints) and some cancers (including endometrial, breast, ovarian, prostate, liver, gallbladder, kidney, and colon). The risk for these noncommunicable diseases increases, with increases in BMI.

Weight and height measurements that allowed the calculation of the Body Mass Index (BMI) were mainly performed in the M.U. of Iasmos. According to the World Health Organization's (WHO) recommended body weight based on BMI values for adults. used for both men and women, age 18 or older, the person with a BMI ranging between 18.5 to 24.9 kg/m² is considered to have normal weight, between 25 to 29.9 kg/m² is categorized as overweight and equal or over 30 kg/m² as obese. Moreover, obesity is further categorized as class I – between 30 to 34.9 kg/m², class II – between 35 to 39.9 kg/m² and class III – greater than or equal to 40 kg/m² (also referred to as severe, extreme, or massive obesity).

The mean BMI calculated in the population studied was 31 (SD±5.3, min 21- max 48) kg/m². Figure 2 presents the prevalence of the different BMI categories in the studied population.

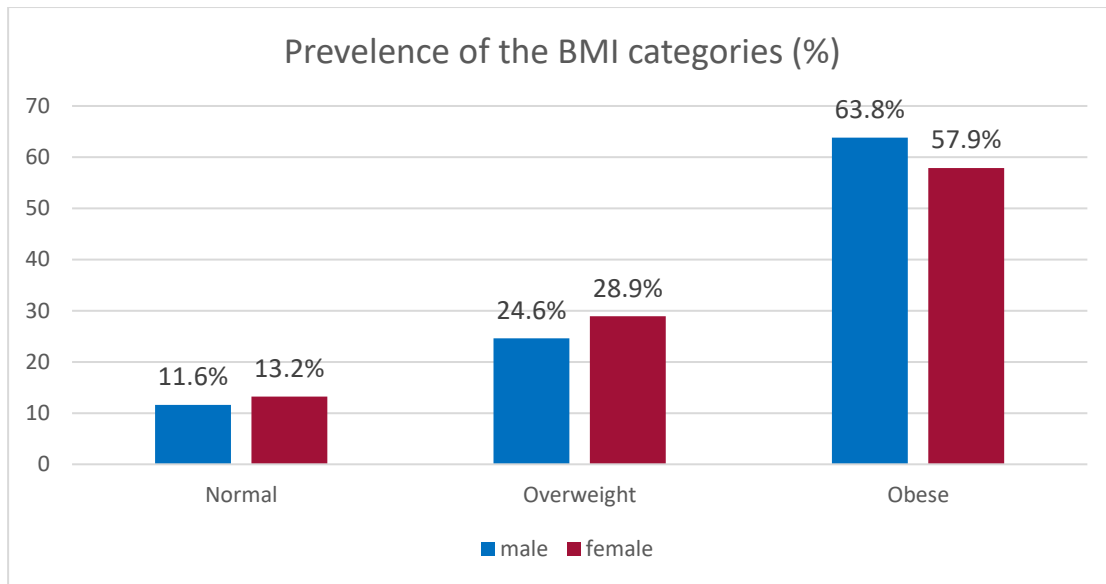


Figure 2. The prevalence of the three main BMI categories (normal weight, overweight and obese) in the studied population

In a further analysis of the obese participants, 62% of them were categorized with obesity class I, 26,4% as obesity class II and the remaining 10.9% as obesity class III. It is apparent that the above findings raise a serious concern, regarding the growing obesity epidemic. However, overweight and obesity, as well as their related noncommunicable diseases, are largely preventable. Supportive environments and communities are fundamental in shaping people’s choices, by making the choice of healthier foods and regular physical activity the easiest choice (the choice that is the most accessible, available and affordable), and therefore preventing overweight and obesity.

Alcohol Consumption

Alcohol consumption is a causal factor in more than 200 diseases, injuries and other health conditions. Drinking alcohol is associated with a risk of developing health problems such as mental and behavioral disorders, including alcohol dependence, and major noncommunicable diseases such as liver cirrhosis, some cancers, and cardiovascular diseases.

A significant proportion of the disease burden attributable to alcohol consumption arises from unintentional and intentional injuries, including those due to road traffic crashes, violence, and suicide. Fatal alcohol-related injuries tend to occur in relatively

younger age groups. The impact of alcohol consumption on chronic and acute health outcomes is largely determined by the total volume of alcohol consumed and the pattern of drinking, particularly those patterns which are associated with episodes of heavy drinking.

There are gender differences in alcohol-related mortality and morbidity, as well as levels and patterns of alcohol consumption. The percentage of alcohol-attributable deaths among men amounts to 7.7 % of all global deaths compared to 2.6 % of all deaths among women. Total alcohol per capita consumption in 2016 among male and female drinkers worldwide was on average 19.4 litres of pure alcohol for males and 7.0 litres for females.

In the studied population alcohol consumption was highly prevalent mainly among males, since 53.4% declared frequent alcohol users, while the relevant percentage in women was 8.8%. In Figure 3, the percentages of alcohol consumption within sex by M.U. are presented, indicating differences among the different M.U.s. Significant variance was observed between the two sexes and among the different M.U.s.

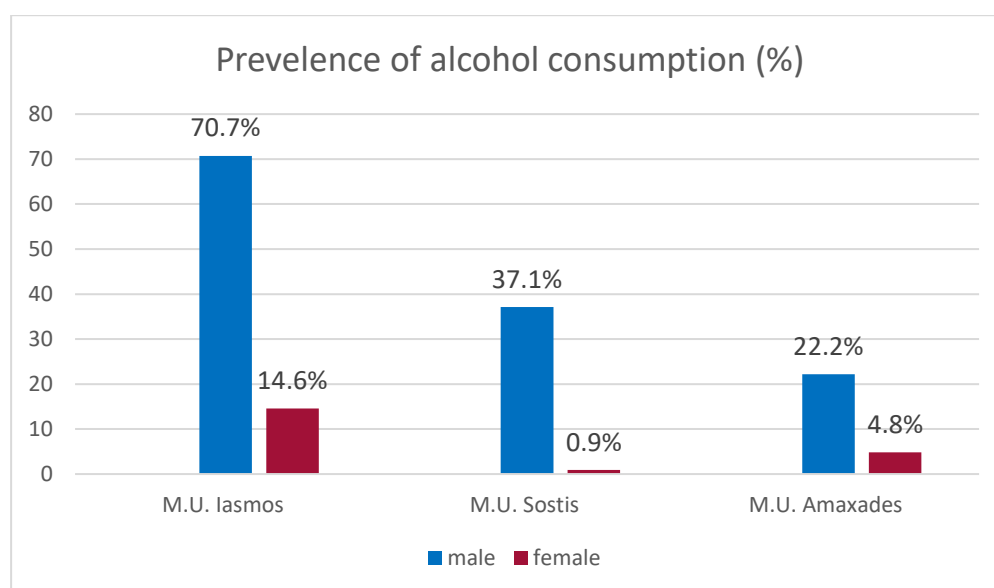


Figure 3. Prevalence of alcohol consumption within sex in each of the three M.U. of the Municipality of Iasmos

Highly Prevalent Diseases that constitute Modifiable Risk Factors for Cardiovascular Diseases

The effects of behavioral risk factors may show up in individuals as raised blood pressure, raised blood glucose, and raised blood lipids. These “intermediate risks factors” can be measured in primary care facilities and indicate an increased risk of heart attack, stroke, heart failure and other complications.

Dyslipidemia was highly prevalent among the population sample, since it was found in 60% of the participants. Poor control of two major modifiable risk factors of cardiovascular diseases hypertension and diabetes was also among the findings. Suboptimal control in hypertension was found in 40%, while the relevant percentage for already diagnosed diabetes mellitus was 30%.

Previously undiagnosed diseases

After the examinations that were performed at both phases of this project, new conditions have been undiagnosed until then were revealed for several participants. Interestingly, 8.5% were newly diagnosed with diabetes, 1-2% with chronic hepatitis C. Moreover, after the cardiologic examination 5% were diagnosed with a valvular heart disease, while another 5% were diagnosed with a pulmonary disease after their referral to a specialist pulmonologist.

Other findings

Orthopedic problems were highly prevalent, since 60% of the people were suffering from back pain and 40% from knee osteoarthritis.

Moreover, a psychiatric condition was found in 17.5%, while among other cardiological problems 5% were suffering from some type of arrhythmia.

Finally, 23% were found with vitamin D3 deficiency, 10% with increased SGOT and/ or SGPT, 15% with increased urid acid. In terms of anemia, 5% were suffering from iron deficiency anemia and 5% of Vitamin B12 deficiency.

Conclusions

The “sampling on identifying local morbidity” revealed high prevalence in behavioral risk factors for several diseases, including cardiovascular diseases, which are associated with the higher mortality rates in the studied population, and at a national level. Moreover, suboptimal control in the most prevalent chronic diseases, also associated with increased risk of cardiovascular diseases, was also reported. Finally undiagnosed conditions were also found in the studied population revealing issues of suboptimal access to healthcare services and low health literacy.

Enhancement of access to public primary health care, with the implementation of the personal family doctor can play an important role in the early detection of chronic diseases and their optimal management. Detecting modifiable risk factors, altering harmful lifestyles, investing on vaccination and on population screening is of major importance within the scope of primary prevention. Health education initiatives based on the especial needs of the studied population could increase its health literacy, achieving to inform and empower citizens to make the right choices for their health.

Cessation of tobacco use, reduction of salt in the diet, eating more fruit and vegetables, regular physical activity and avoiding harmful use of alcohol have been shown to reduce the risk of cardiovascular disease and should be encourage through primary health care and public health approaches. In the studied population language issues should be particularly considered, since the effectiveness of the interventions, depend highly on transmitting the right message, in the right language for all the citizens. Health policies that create conducive environments for making healthy choices affordable and available are essential for motivating people to adopt and sustain healthy behaviors. Identifying those at highest risk of CVDs and of the other conditions associated with high mortality in the studied population, and ensuring they receive appropriate treatment can prevent premature deaths. Access to noncommunicable disease medicines and basic health technologies in all primary health care facilities is essential to ensure that those in need receive the high-quality treatment and counselling.

