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HEALTH OF MIGRANTS AND THE ROMA IN BULGARIA: MEDICO-SOCIAL ASPECTS

EXTENDED ABSTRACT OF A DISSERTATION

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The dissertation is written on 374 standard typewritten pages and is illustrated with 25 tables, 74 figures, 3 photos and 9 appendices.

The bibliography includes 363 literary sources, of which 68 in Cyrillic and 298 in Latin.

In connection with the dissertation, 5 full page publications in scientific journals have been published and 11 reports at scientific forums were presented.

The dissertation was discussed and directed for public defense by a Reinforced Council of the Department of Social Medicine and Health Management at the Faculty of Public Health, Medical University - Pleven, held on 10th of May 2022nd (Protocol № 5/10.05.2022).

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The official public defense of the dissertation will take place on 30th of September 2022 at 15 pm in the hall 113 of the Faculty of Pharmacy, Medical University - Pleven.

The materials on the defense are available in the scientific department of MU-Pleven and published on the website of MU-Pleven: (http://mu-pleven.bg)

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Abbreviations used:

AIDS	Acquired Immunodeficiency Syndrome
AREF	State Agency for Refugees
BMI	Body Mass Index
BP	Blood Pressure
BPHA	Bulgarian Public Health Association
BRC	Bulgarian Red Cross
CVD	Cardio-Vascular Diseases
EC	European Commission
ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Area
EU	European Union
GDP	Gross Domestic Product
GP	General Practitioner
HBP	High Blood Pressure
HBV	Hepatitis B virus
HC	Hospital Care
HIV	Human Immunodeficiency Virus
ICESCR	International Covenant on Economic, Social and Cultural Rights
IOM	International Organisation of Migration
LE	Life Expectancy
MEM	Migrants and Ethnic Minorities
MIPEX	Migrant Integration Policy Index
NCD	Non-Communicable Diseases
NGO	Non-Governmental Organisation
NHIF	National Health Insurance Fund
NNHM	National Network of Health Mediators
OECD	Organisation for Economic Co-operation and Development
RRC	Registration and Reception Centre
SDGs	Global Sustainable Development Goals
SDH	Social Determinants of Health
SHC	Specialised Health Care
TC	Transit Centre
UN	United Nation
UNHCR	The United Nation Refugee Agency

INTRODUCTION

The world is changing rapidly, and the impact that social, economic, political and environmental changes are having on health in general and on health inequalities within countries or vulnerable groups is difficult to assess.

Health, as one of the main components of a good life, is widely covered in the Sustainable Development Goals and the European Health Policy Framework 2020. These strategic documents provide guidelines for developing government policies and approaches to create healthier societies and reduce health inequalities, stating that the entire population, incl. vulnerable groups are entitled to the highest attainable standard of health.

Migrants and ethnic minorities (MEMs) often experience serious inequalities both in terms of their health status and in terms of access to quality health services.

Although the health problems of refugees and migrants are similar to those of the rest of the population of the host and / or transit country, some societies perceive migration as a challenge or even a threat. It is a challenge for public health and health systems in the countries. According to the Index of the Policy for Integration of Migrants, immigrants in Bulgaria enjoy basic rights and security, but not equal opportunities, as obstacles are established in almost all areas of their lives, incl. health.

In general, the Roma in our country are highly discriminated and suffer from negative stereotypes: the high levels of poverty and unemployment, deprivation, low level of education and health care they face are often similar to those in the poorest countries in the world. The poor health of the Roma is closely linked to the social determinants of health. Challenges to improving Roma health include understanding the specific needs of this population and improving Roma access to health services. Successful initiatives in this direction must focus on building a sense of full citizenship among the Roma through a careful approach aimed at promoting their full inclusion in the education system, providing secure housing, access to employment and health services.

Due to the difficult socio-economic situation, migrants and ethnic minorities face a much higher risk of severe damage and death from COVID-19, and security measures against the spread of the pandemic further worsen the medical and social situation of these vulnerable groups.

Despite the described significant health challenges among migrants and members of the Roma ethnic group, empirical research and evidence of these public health problems are not often the subject of research and in the context of our country are limited and insufficient.

The presented research meets the need for a comprehensive analysis of the health problems of migrants and members of the Roma ethnic group and the readiness of our health system to meet these needs with quality and affordable health services.

Statement by the European Public Health Association on migration, ethnicity and health *

Migrants and ethnic minorities often face serious inequities concerning both their state of health and their access to good quality health services. These inequities are increasingly being brought to light by public health researchers, but action to tackle them has lagged behind. To ensure that adequate attention is paid to the determinants of MEM health and the problems of service delivery that can confront these groups, health systems need to become more inclusive.

The rising tide of populism and nationalism in European politics has created a hostile environment for such reforms. Nevertheless, a new willingness to stand up for migrants' rights is

emerging at the level of international organizations. Member organizations such as the IOM, WHO, ILO and UNHCR have succeeded in placing migration center stage at the United Nations, where 'Global Compacts' on migrants and refugees are currently being drafted.1

These are linked to the Sustainable Development Goals (SDGs) that define the UN's development programme for 2015-2030. The SDG's, with their maxim of 'leaving no-one behind' and their emphasis on equity in all countries (not just 'developing' ones), provide welcome and explicit support for efforts to combat inequities in MEM health.

For those who are unwilling to see research on MEM health limited to a purely academic enterprise, these are encouraging moves. However, policies can only be as good as the data they are based on.

EUPHA is therefore issuing this call to reduce the gap between researchers and policy-makers, in particular those responsible for setting research priorities and implementing findings. The statement addresses the following key issues, which are discussed in more detail in the Explanatory Memorandum:2

1. The need for evidence-based policies on MEM health.

How can the evidence base for policy reforms be strengthened?

a. Fundamental concepts and data collection.

The need for more and better data should be the first priority in MEM health.

b. MEMs' state of health and its determinants

Epidemiological evidence, based on population-based rather than clinical data, is badly lacking on many topics**.** On the principle "no smoke without fire", it is often assumed that migrants' main health problems are those on which most research has been carried out. However, priorities are often defined by myths rather than realities.

c. Issues concerning service delivery

The interaction between health services and their MEM users, including issues of access, quality, utilization and communication, has become a major field of research within EUPHA. Not enough attention is paid to the need to adapt health services to the needs of migrant and minority users. Quite independently of their particular vulnerabilities, MEMs have the right to affordable and effective health services of all kinds and at all times, not only in emergencies. Considerations of immigration policy should never be allowed to stand between them and the help they need.

2. The target group. Whereas most international organizations tend to confine their attention to migrants, the position of EUPHA has always been that ethnic minorities need to be considered as well. These include the descendants of migrants as well as indigenous minorities. Such groups may experience inequities at least as great as those affecting migrants, and often similar in nature. This has implications for data collection: both ethnicity and migrant status need to be taken into account.

3. The diversity of MEM groups. Over-generalizing approaches that fail to acknowledge diversity within groups need to be replaced by 'intersectional' analyses that examine simultaneously the effects of socioeconomic position, sex/gender, age and many other variables, as well as their interactions. Instead of being targeted at monolithic categories such as 'migrants', 'refugees' or 'minorities', policies should focus on within-group differences and real need. A 'grapeshot' approach encourages stereotyping and inaccurate targeting. Neither migrants, refugees nor ethnic minorities should be labelled in their entirety as 'vulnerable groups': to do so is to stigmatise them and underestimate their strength and resilience. In service delivery, 'diversity sensitivity' is to be preferred to a narrow emphasis on 'cultural competence'.

4. The need to return to a broader framing of migration. The influx of unauthorized entrants to the EU in 2015-2016 (the so-called 'migrant crisis') has led to a one-sided focus on the needs of forced and irregular migrants – ignoring the 'routine'3 migration that is in no way a 'crisis'. Moreover, whereas the response of policy-makers to the 2015-2016 influx focused mainly on asylum seekers and refugees, many of the newcomers have joined the EU's existing population of migrants in irregular situations; this group is all too often neglected in both research and policy-making.

5. Combating the fragmentation of MEM health policy in Europe. Much duplication of effort and 'reinventing the wheel' results from insufficient coordination within and between responsible agencies. In addition to the intrinsic divisions between European countries and language communities, regional and international organizations often compete with each other instead of cooperating, which leads to wasted effort and lost opportunities to create synergies. Priorities should be based on the latest insights into public health and the position of MEM in today's Europe.

6. More attention in EU research programmes for MEM health. MEM health was a central topic in the First and Second Programmes of the European Commission (EC), but apart from a sudden surge in financing for projects on asylum seekers and refugees, it has been seriously neglected so far in the Third Health Programme. EUPHA is concerned about the lack of attention in this programme for health inequities in general, and those affecting MEMs in particular.

7. Better provision of education and training on MEM health. Although this Statement is primarily concerned with the links between research and policy-making on MEM health, capacity building in both areas has to be supported by education and training directed at health workers of all kinds, researchers, managers and policy makers. This should not only be provided in optional additional courses, but as part of basic curricula.

The dissertation is in response to the presented statement and is realized after over ten years of theoretical, scientific and practical experience of the author in the field of medical and social problems of ethnic minorities (Roma) and migrants in Bulgaria.

** The statement has been translated by the author and was published in Bulgarian on the website of the Bulgarian Public Health Association, and information about the translation is presented in the monthly bulletin of European Public Health Association, published in March 2019.*

I. AIM, TASKS AND METHODOLOGY OF THE STUDY

1. AIM OF THE STUDY

To establish the views of specialists working on the first line with MEM, regarding the medical and social problems of migrants[1] and persons of Roma origin, aspects of their health care, the impacts of the COVID-19 epidemic and the anti-epidemic measures applied among the Roma ethnic group in Bulgaria, as well as by analyzing the views of the society and persons of Roma origin on the researched problems to improve the education of students in public health and substantiation of recommendations to the stakeholders responsible for solving health and social problems of MEM.

2. TASKS OF THE STUDY

To achieve the goals presented in this way, the following main tasks are formulated:

1. To study and analyze literature sources, including normative documents, on the medical and social determinants of MEM health.
2. To investigate and analyze the risk factors for health and the health status of persons of the Roma ethnic group in Bulgaria.
3. To study the consumption of health services and the barriers in the health care of the persons of Roma origin.
4. To analyze the impacts of the COVID-19 epidemic and the anti-epidemic measures applied among the Roma ethnic group in Bulgaria.
5. To study the public view about the medical and social problems of the migrants and the preparedness of the health system of the country for their service.
6. To study the views and experiences of specialists working on the first line, regarding the medical and social problems of migrants and the preparedness of the health system of the country for their service.
7. To make a comparative analysis of the results in the different studied groups regarding the medical and social problems of migrants in Bulgaria.
8. To develop and test a training program on " Migrants and minorities Health" for students from the Faculty of Public Health of the Medical University - Pleven.

3. HYPOTHESES OF THE STUDY

The research work verifies the validity of the following hypotheses:

Hypothesis 1. The Roma population is characterized by an unfavorable risk constellation and an unfavorable health profile

Hypothesis 2. The health services provided to the persons of Roma origin are inadequate to their needs.

Hypothesis 3. The opinion of the citizens of Roma origin about the effect of the anti-epidemic measures on their lives is negative.

Hypothesis 4. Among the society and the specialists working on the first line with migrants, the prevailing opinion is that the health status of migrants does not endanger the health of the Bulgarian population.

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[1] For the purposes of the empirical study, the generalized definition of IOM for migrant is used instead of the term immigrant.

Hypothesis 5. The health system in the country is not prepared to meet the health needs of migrants.

4. OBJECT, SUBJECT MATTER, TIME AND PLACE OF THE STUDY

4.1. Object of the study

The **object** of this research is the health and health care of migrants and the Roma minority in the Republic of Bulgaria.

4.2. Subject matter of the study

The subject of the study is the migrant and minority status of the persons covered as determinants of the health risk factors and deteriorating health status among the representatives of these population groups and the preparedness of the health system in Bulgaria to meet specific health problems of migrants and minorities.

4.3. Time of the study

Time: The study covers a ten-year period from 2012 to 2021. (**Table 1**).[2]

Table 1 *Stages of scientific research*

Stages	Task	Place	Time period
Permanent	**Task 1**	FPH MU-Pleven	2012 – 2021
First stage Study №1	**Task № 2**	Kotel, Kneja	2015 – 2018
	Task № 3	Kotel, Kneja	2015 – 2018
Second stage Study №2	***Task № 5***	*FPH MU-Pleven*	*2017 – 2019*
	Task № 6	*town of Pravets Bulgaria*	*2017 – 2019*
	Task № 7	*FPH MU-Pleven*	*2019 – 2020*
Third stage Study №3	**Task № 4**	Town of Sliven, Nadezhda district	2020 – 2021

[2] The study does not cover the current wave of migrants in Bulgaria and Europe as a result of the war in Ukraine

Permanent	**Task № 8**	FPH MU-Pleven	2016 – 2021

4.4. Place of study

The different stages of the study were conducted in the towns of Kotel and Knezha, and the third stage - in Sliven, Nadezhda district.

The town of Kotel is located in Eastern Bulgaria. It is the administrative center of Kotel municipality, Sliven district. The population of Kotel municipality is 19 391, and in the town - 5329 people (2016). The Roma are main minority ethnic groups in the city and the region. According to data from 2011, 3667 people from the city's population identify themselves as Bulgarians, 1177 people as Roma, and 61 people - Turks.

Kotel Municipality is the municipality with the highest concentration of Roma in the country and every 4th inhabitant is of Roma origin.

Kneja is a town in Pleven District, Central Northern Bulgaria. It is the administrative and economic center of the municipality of Kneja. The population of the city in 2011 is 13 803 inhabitants. According to data from the last census, 948 inhabitants or 6.87% of the city's population identify themselves as Roma.

Sliven is a city in Southeastern Bulgaria. It is the eighth largest in the country and is the administrative center of the municipality and district of Sliven. According to the census (2011), 91 620 people live in the town of Sliven. The city is home to representatives of various ethnic groups: Bulgarians, Armenians, Karakachans, Gypsies, Turks and Russians. The two main religions are Orthodox Christianity and Islam. The city is in second place among the regional cities in the number of Roma - 11.8% of the total Roma population in the country or 38 390, and Sliven district is among the least literate and least economically active districts in the country.

Nadezhda district in Sliven is one of the most recognizable neighborhoods in Bulgaria, inhabited exclusively by Roma. The neighborhood is "surrounded" by a long brick wall, built during socialism, which regulates and restricts access to the neighborhood. In the last few years, the population of the Nadezhda district has doubled. In 2011, nearly 12 000 people lived in this part of the city, and today - between 20 000 and 25 000.

5. MATERIAL AND METODS OF THE STUDY

5.1. Characteristics of the studied groups of persons

The complexity of the object of research requires the conduct of three cross-sectional studies and one community-based study, applying a variety of research methods and covering a variety of population groups as follows:

5.1.1. Study №1: Adult citizens of Roma origin are covered as follows:

- Residents of Knezha - **a total of 59 people**;
- Households from the town of Kneja and the town of Kotel - **18 families (50 persons)**;

5.1.2. Study №2: Adult citizens are covered as follows:

- Students from MU-Pleven and members of their families: **a total of 388 people;**
- Specialists: **a total of 22 people**, including: health workers - 5, social workers - 2, law enforcement officers - 13, NGO representatives - 2.

5.1.3. Survey №3: Adult citizens are covered as follows:

- Residents of Nadezhda district in Sliven - **8 people**;
- Specialists working in Nadezhda district: **a total of 7 persons**, including: RHI-Sliven specialists, Public Health Department - 2, Sliven Municipality employee, expert on Roma community issues - 1, general practitioner - 1, health mediator - 1, pastor - 1, NGO representative - 1.
- Public health experts: **a total of 13 university professors.**

Total number of persons included in the survey - 547.

5.2. Organization of the study

A comprehensive observational epidemiological medical and social survey of population groups in the country was conducted, including the collection and analysis of quantitative and qualitative data.

5.2.1 Study №1 **(Tasks № 2 and №3)**

- In May 2015, as part of a health promotion program, a community-based approach was conducted among Roma. The purpose, methodology and conduct of the survey were discussed, planned and developed jointly with representatives of the Roma community of the town of Knezha.

In the study, as organizers, performers and researchers a health mediator, five students of Roma origin, studying in the specialty "medicine" at MU-Pleven, a doctor-clinician and the author of the study and dissertation as their mentors were involved. Two of the students are residents of the covered neighborhood, which ensures the sustainability of the results of the health promotion program conducted jointly with the study.

All adult residents of the neighborhood are invited to participate through visual materials presenting the purpose, place and time of the study. Only the persons who have agreed to participate (59) or about 9% of the adult residents of the town of Knezha of Roma origin are included.

The collection of primary information was carried out by the author of the study and students of Roma origin, **by measuring basic vital signs.**

- In the period of April-May 2016, 18 families of Roma origin, residents of Kotel and Kneja were studied. The cities are representative of settlements of medium size, located in northern and southern Bulgaria, respectively, with separate neighborhoods of Roma origin. An invitation to participate was extended to all residents over the age of 18 in Roma neighborhoods in the cities covered, through oral information provided by the researchers. The study group / sample is self-formed by the method of respondents. Only families and persons who have agreed to participate are included, ie about 50 representatives of the Roma ethnic group.

The interviewers are Roma students in medicine at MU-Pleven, residents of the same neighborhoods (two students). At the planning stage of the survey, they were trained to gather information from the respondents using a standardized methodology and through **a semi-structured interview (Appendix №3),** conducted face to face in the home of the interviewees. The average duration of the interview is about 1 hour and 30 minutes.

5.2.2. Study №2 **(Tasks № 5, № 6 and №7)**

➢ In the period September 2017 - April 2018 the opinion of Bulgarian students from different specialties of the Medical University of Pleven and members of their families was studied as follows:

- Assistant pharmacist, 1st year - 27 students;
- Social workers, 2nd year - 10 students;
- Medical laboratory assistant, 2nd year - 16 students;
- Medical laboratory assistant, 3rd year - 14 students;
- Nurse, 3rd year - 44 students;
- Medical rehabilitation and occupational therapy, 4th year - 30 students;
- Protection and control of public health, 2nd year - 11 students.

All students from the respective courses (or a total of 152 students) are invited to participate in the study. Each student is provided with the required number of questionnaires to be completed by adult members of his/her family. In order to guarantee of anonymity, the questionnaires were returned to the author personally by the students in sealed envelopes. Information was collected from a total of 388 respondents - students and members of their families.

The collection of information from the persons covered was carried out through a **direct individual self-administered questionnaire (Appendix № 1).**

➢ In March 2019 in the town of Pravets, within the project TRAIN4M&H, funded by the European Commission, a survey among health workers, social workers, law enforcement officers and representatives of NGOs working on the first line with migrants and refugees in the Republic of Bulgaria was conducted. All experts invited are participate in the study.

The study was conducted in a spacious conference room. In order to ensure the anonymity of the respondents, the necessary physical distance between them is provided. Each respondent personally puts the completed questionnaire in a specially prepared box.

The collection of information was carried out through a **direct group self-administered questionnaire (Appendix №2).**

5.2.3. Study №3 **(Task № 4)**

In the period October - November 2020 in the framework of the national study "Interactions between residents of Roma neighborhoods and local institutions in a pandemic situation", under the project "Assessment of the impact of COVID-19 on the population in Roma neighborhoods", funded by the Open Institute Society-Sofia, the author of the dissertation conducted a study in the Nadezhda district of Sliven, as one of the Roma neighborhoods in Bulgaria, which are completely "closed" during the state of emergency.

The organizers provide permission to use the information gathered by the author for the scientific purposes of the dissertation **(Appendix № 9).**

➢ In order to check whether and to what extent the imposed anti-epidemic measures, in a state of emergency due to a pandemic, have led to the desired results and what are the consequences for citizens, a study was conducted among: 8 adult residents of the neighborhood, from different age groups and evenly distributed by gender. The primary information from the residents of the Nadezhda district was gathered through **a collective in-depth focus group interview (Appendix №5).** The interview was conducted by the author in a specially prepared hall in the largest church in the neighborhood and in compliance with anti-epidemic measures.

The duration of the interview is 1 hour and 40 minutes. The speeches of the participants during the focus group discussion were recorded on electronic device and processed in the form of anonymous transcripts. The transcript texts are analyzed and encoded. In order to minimize the

subjective opinion of the author, 13 public health experts were involved in the development of the codes to support the analysis.

- Specialists in the field of Roma health are also covered, such as: employees of RHI-Sliven, municipal employee, general practitioner, health mediator, pastor, representative of the non-governmental sector.

The primary information from the specialists was gathered through **an individual unstructured interview (Appendix №4).** The in-depth interviews were conducted by the author face to face and at a time and place convenient for the interviewee. Due to security reasons, in a pandemic of COVID-19, the interview with the representatives of RHI-Sliven was conducted in an electronic environment through the ZOOM platform.

The duration of the interviews is on average 1 hour and 15 minutes. The interviews were recorded on electronic device and processed in the form of anonymous transcripts.

- In the course of the study **a secret, participating observation** of the neighborhood with a duration of about 6 hours **(Appendix №6)** was conducted by author.

6. METHODS OF STUDY

A wide range of research methods was applied as follows:

6.1. Historical method

It is applied to study on the one hand the migration processes in historical terms, incl. the movement of Roma and their settlement in Europe, the Balkans and the Republic of Bulgaria, and on the other hand the migration processes and the effect of migration on the health of migrating populations and the public health of their host societies.

6.2. Sociological methods

6.2.1. Self-administered questionnaire

Appendix № 1
Direct individual self-administered questionnaire: through a questionnaire created for the study (including **31 closed, open and semi-open questions**) with students and members of their families about medical and social problems of migrants, public attitudes and challenges to the country's health system.

- ***7 questions*** related to the awareness about the migrant flow in the country and some demographic characteristics of the migrants;
- ***6 questions*** analyzing the country's policy on integration of migrants;
- ***9 questions*** covering the health and social problems of migrants;
- ***4 questions*** regarding the health care of migrants in the country;
- ***5*** identification ***questions***.

Appendix №2
Direct group self-administered questionnaire: through a questionnaire created for the study (including **39 closed, open and semi-open questions**) with specialists working on the first line about medical and social problems of migrants, public attitudes and challenges to the country's health system.

- ***11 questions*** related to the working conditions of the experts;

- ***6 questions***, analyzing the country's policy for integration and solving the problems of migrants;
- ***13 questions*** covering the health and social problems of migrants;
- ***4 questions*** regarding the health care of migrants in the country;
- ***5*** identification ***questions***.

<u>6.2.2. Sociological interview</u>

Appendix №3
Semi-structured interview - a study of the socio-economic and health status of Roma, conducted by face-to-face at the place of residence and in the home of the covered persons in Kotel and Kneja and with the participation of students of Roma origin studying in the specialty "medicine" of MU-Pleven, through a **questionnaire** created for the purposes of the study, including **165 closed, open and semi-open questions.**

Household questions (*21 questions*) looking at:
- ***9 questions*** - demographic characteristics;
- ***3 questions*** - health needs;
- ***9 questions*** - living conditions.

Family questions (*144 questions*) analyzing:
- ***22 questions*** - demographic and social characteristics of the family;
- ***19 questions*** - health status of the elderly (over 15 years);
- ***32 questions*** - consumption of health services such as: treatment and use of drugs, visits to the doctor, vaccinations of children, dental health, hospital care, emergency care.
- ***15 questions*** - women's health;
- ***48 questions*** - lifestyle factors;
- ***8 questions*** - health insurance status.

6.3. Qualitative research

Qualitative research methods have been applied in order to study in depth specific values, opinions, behavior and social context specific to the culture of the Roma ethnic group in the time of the COVID-19 epidemic and the anti-epidemic measures applied.

<u>6.3.1. In-depth interview</u>

Appendix №4
In-depth interview with experts on the problems of the Roma ethnic group on the effect of anti-epidemic measures against the spread of COVID-19. The interviews were semi-structured, conducted face to face at a convenient time and place for the interviewee, using questionnaires created for the study (***15 open, semi-open and closed questions***) and provided to the author by the project organizer - Open Society Institute ".
* As an anti-epidemic measure, against the spread of COVID-19, the interview with the employees of RHI-Sliven (2 participants) was conducted remotely, through the ZOOM platform.

- ***3 questions*** regarding the profile of the expert;
- ***4 questions*** analyzing the effects of COVID -19;
- ***3 questions*** related to measures to overcome the impact of the Kovid-19 epidemic;

- ***5 questions*** examining the expert's expectations for the development of the epidemic and its consequences.

6.3.2. Collective interview (focus group)

Appendix №5
Collective interview (focus group) - with representatives of the Roma ethnic group on the effectiveness of anti-epidemic measures against the spread of COVID-19 (***16 questions***). The questionnaire was created for the purposes of the study and provided to the author by the project organizer - the Open Society Institute.
Date: November 14, 2020, 10.00
Name of the moderator: Assoc. Prof. Dr. Mariela Stefanova Kamburova, Ph.D.

- ***4 questions*** about demographic characteristics;
- ***3 questions*** about the overall impact of COVID-19 on the neighborhood/settlement and compliance with anti-epidemic measures;
- ***3 questions*** on employment, education and other public services;
- ***2 questions*** on difficulties and assistance in a state of emergency - and beyond;
- ***4 questions*** related to expectations and fears about the spread of the epidemic.

During the collective interview, generalized criteria for reporting qualitative research were applied: COREQ - checklist with 32 questions (Table 2).

Table 2 *COREQ – checklist for analysis reporting of the focus group*

No.	Characteristics	Questions	Description
Area 1: Research team and impartiality			
Personal characteristics			
1.	Interviewer / facilitator	Who is the author / who conducted the interviews, monitoring and focus group?	*Assoc. prof. Mariela Stefanova Kamburova, MD*
2.	Certificates	What were the researcher's credentials?	*Medical Doctor* *Formal*
3.	Occupation	What was their activity during the study?	*Gathering primary information*
4.	Gender	Researcher is male or female?	*Female*
5.	Experience and training	What experience or training did the researcher have?	*Over 10 years of experience with vulnerable groups* *Specializations in Bulgaria and abroad*
Relationships with participants			
6.	Contact	Was contact established before the start of the training?	*Yes, contact was established with the health mediator and with all participants involved in the interviews and the focus group*
7.	Participants' awareness of the researcher	What did the participants know about the researcher?	*The researcher was introduced at the beginning of each interview and the focus group*

No.	Characteristics	Questions	Description
8.	Characteristics of the interviewer	What characteristics of the interviewer / facilitator are presented?	*Physician working at MU-Pleven, with many years of experience in working with the Roma ethnic group - empathy*
Area 2: Study design			
Theoretical framework			
9.	Methodological basis	What methodological basis was the basis of the study?	*Ethnography of the Roma ethnic group. Analysis of the literature on the origin and spread of the COVID-19 pandemic and anti-epidemic measures*
Selection of participants			
10.	Selection of the sample	How were the participants selected?	*The participants were selected by the health mediator among the residents of Nadezhda district, Sliven.*
11.	Method of conducting	How was the interview with the participants conducted??	*The collective interview / focus group was conducted face to face, in compliance with the anti-epidemic measures*
12.	Sample size	How many participants were included in the study?	*8*
13.	№ of people refused to participate or dropped out	How many people refused to participate or dropped out? Reasons?	*No people refused to participate or dropped out*
Setting			
14.	Place of data collection	Where was the data collected?	*In the field, in the Nadezhda district, Sliven*
15.	Presence of non-participants	Was anyone other than the participants and researchers present?	*Yes, health mediator from Nadezhda district, Sliven*
16.	Description of the participants	What are the important characteristics of the participants?	*Evenly distributed by sex and age, adults, residents of Nadezhda district, Sliven*
Data collection			
17.	Interview Guide	Are there any questions, guidelines, guides provided by the authors? Was the study piloted?	*Pre-developed questionnaire and instructions for conducting the interview. It was tested among other participants.*
18.	Re-interviews	Were re-interviews conducted? If so, how much?	*No re-interviews were conducted*
19.	Audio / visual recording	Is an audio or visual recording used in the survey to collect data?	*Yes, after prior given consent, an audio recording*

No.	Characteristics	Questions	Description
			was used and photos were taken.
20.	Field notes	Have notes been made during and / or after the focus group?	*Yes, notes been made after the focus group*
21.	Duration	What was the duration of the focus group?	*90 minutes*
22.	Data saturation	Have additional data been discussed?	*Yes, additional issues discussed*
23.	Transcripts returned	Are transcripts returned to the participants for comment and / or correction?	*No, transcripts were presented to the organizers of the survey*
Area 3: Analysis and findings			
Data analysis			
24.	Number of data codes	How many data codes are used?	*14*
25.	Description of the coding tree	Did the authors provide a description of the coding tree?	*Yes, the coding tree is based on the questionnaire and was developed with the support of public health experts*
26.	Topic outputs	Were topics identified or extracted from the data in advance?	*Yes, 7 priority topics were listed*
27.	Software	What software, if applicable, was used for data management?	*The coding is done manually, and available software is used to display the hierarchical frame. https://www.wordclouds.com/*
28.	Verification of the participants	Has the participants been provided with feedback on the findings?	*Feedback has been provided to the organizers and a summary report was published*
Reporting			
29.	Quotes presented	Were quotes presented to the participants to illustrate the topics / findings? Is each quote identified? e.g. with participant number	*Yes, quotes are presented. Participants are identified by number and gender.*
30.	Reconciliation of data and findings	Is there consistency between the presented data and the findings?	*Yes*
31.	Clarity of the main topics	Were the main topics clearly presented in the findings?	*Yes*
32.	Clarity of secondary topics	Is there a description of different cases or a discussion of secondary topics?	*Yes*

6.3.3. Sociological observation

The method was used to observe the inhabitants of the Roma ethnic group in their natural environment. During the observation, the researcher, author of the dissertation, was accompanied and assisted by a health mediator, a representative of the Roma community from Nadezhda district, Sliven.

Appendix №6
In order to avoid subjectivism and to ensure the collection of authentic information, the observation is in secret and included, conducted in the period 13-16 October 2020. The questionnaire for observation the Nadezhda district in Sliven contains ***11 questions*** and is designed for the objectives of the study, as provided to the author by the organizer of the project - the Open Society Institute.

- ***3 questions*** to describe the neighborhood with its external and internal borders:
- ***3 questions*** about the technical infrastructure of the neighborhood;
- ***4 questions*** about social infrastructure;
- ***1 question*** about social life in the neighborhood.

6.4. Expert assessment in the development of codes for analysis of quality data

To discuss the qualitative data regarding the opinions expressed by the participants in the focus group of the Roma ethnic group, the method of manual coding was applied with the construction of priority topics for analysis.

The priority topics set by the survey methodology and reflected in the questionnaire (**Appendix № 5**) are as follows:

1. Overall impact of the COVID-19 epidemic;
2. Anti-epidemic measures;
3. Difficulties in using services;
4. Difficulties caused by the state of emergency;
5. Supporting measures;
6. Expectations for the future;
7. Feelings experienced by the interviewees.

To support the analysis and to minimize the subjective opinion of the author, **13 public health experts were involved in the development of the codes (responded - 8)**.

Each of them was provided with textual material from the conducted, recorded on electronic device and transcribed by the author of the dissertation collective interview. Experts are given the opportunity to formulate from ***3 to 5 keywords or expressions*** - codes on some of the pre-formulated priority topics.

For visualization of the results, the keyword codes proposed by the experts are processed with free word cloud generator software, available at: https://www.wordclouds.com/.

The image/cloud is a hierarchical framework of the most common keywords/codes. The most significant messages on the topic, which are most often repeated by experts, are displayed with the largest font size. They reflect objectively and to the greatest extent the opinion of the interviewees, which is supported by quotations from the persons covered.

6.5. Participatory health research (Community-based research)

In May 2015, in the town of Kneja, a community-based approach was conducted among vulnerable Roma groups, in which the purpose, methodology and conducting of the study were

discussed, planned and developed jointly with representatives of the community. In order to improve the health of the marginalized community and reduce health disparities with the majority of the population community-based research is organized jointly with a health promotion program. Community members are involved as partners and actively participate in the research process.

In the course of the study, some of the elements of the participatory study were realized, such as:

● **consultation** - the opinion of the residents of the neighborhood was analyzed, and the Roma students from MU-Pleven, the author of the study and a clinician conducted the study and decided to combine it with a health education program under the motto "Stop and check-up your health“ for screening leading risk factors;

● **cooperation** - the study is planned together with the pastor, leaders of the Roma neighborhood in Knezha and students of Roma origin, residents of the neighborhood studying at MU-Pleven.

● **joint training** - the local community and external researchers shared knowledge on the problem of health determinants in order to make the study useful and adequate to the needs of the population of the neighborhood.

● **collective action** - the residents of the neighborhood, together with the pastor and community leaders identified the topics discussed in the health education program and mobilized the residents of the neighborhood to participate in the study and screening of some key vital indicators.

In order to analyze the main risk factors, information on: demographic characteristics (***2 questions***); lifestyle factors (***2 questions***) and anthropometric data were measured: height and weight (***2 questions***), blood pressure (***2 questions***) and blood sugar level (***1 question***) was collected of the Roma residents (**59 participants**).

6.6. Clinical method

In the process of community-based research, clinical examinations, anthropometry and screening of vital signs of the 59 people covered were conducted.

6.6.1. Height in an upright position

It is done with a height meter, graduated in cm, consisting of a stand and a movable board, which slides on the stand and is placed above the head. The measurement is performed as the patient is well leaning on the height meter in a "peaceful" position, touching at three main points: heel, buttocks and shoulders. The head is in such a position that the tragus of the ear and the lower end of the eyes are in a horizontal line. The height in centimeters at the bottom of the board is recorded.

6.6.2. Weight on an empty stomach

The measurement is performed on an empty stomach and without shoes. The person steps in the center of the weight, the weight is locked, the measurements go down, taking into account the value in kilograms.

6.6.3. Body mass index

An age and gender appropriate body mass index was calculated using an online calculator.

The assessment of the body mass index (kg/m2) according to gender and age was performed on the following scale:

- Below the norm - less than 19 kg / m2;
- Norm - 19 - 25 kg / m2;
- Above the norm - 25 - 30 kg / m2;
- Obesity - over 30 kg / m2.

6.6.4. Blood pressure in a sitting position

Blood pressure was measured according to the requirements of the European Society of Hypertension Guidelines Committee with a blood pressure monitor consisting of a stethoscope and a sphygmomanometer, using a cuff that wraps around the right arm, connected to a hand pump and a manometer or digital scale in mmHg.

The measurement is performed at the level of the arm in a sitting position, after a 5-minute rest, by compressing the brachial artery to the point of cessation of arterial pulsations.

The level of pressure reflected on the manometer, at the appearance of the first tone is registered as systolic pressure or the so-called "upper limit" of blood pressure, and the level of pressure at which the tones stop is registered as diastolic pressure or the so-called "lower limit" of blood pressure.

In assessing blood pressure values, we were guided by the classification of hypertension according to the WHO, estimating the variable according to the following scale:

- Normal - below 129 at 84 mmHg;
- High - from 130 at 85 to 139 at 89 mmHg;
- Hypertension - over 140 at 90 mmHg.

6.6.5. Fasting blood sugar levels

The measurement was performed with a glucometer through factory strips, ie. by rapid test applicable at home or on an outpatient basis. Blood sugar values were measured with the “Contour plus” Blood Serum Glucose Measurement System. The method is a rapid screening test with factory test strips (up to 10% error), which is not used for a definitive diagnosis, but is an indicator of the risk and the need for more accurate tests.

After pricking the tip of one of the fingers, a drop of blood is dropped on a special strip, which is inserted into the device. After a few seconds, the blood sugar value in mmol/l appears on the display of the device.

The results according the WHO Diagnostic Criteria for Diabetes (2006) are as follows [65]:

- normal blood sugar values – up to 6.0 mmol / l;
- impaired glucose tolerance – 6.1-7.0 mmol / l;
- diabetes mellitus – over 7 mmol / l.

6.7. Statistical methods

The statistical processing of primary data was performed with software packages Microsoft Office Excel 2010 and STATGRAPHICS-19 centurion.

A set of classical statistical methods were used to present and analyze the collected quantitative and qualitative data. The discussed answers from the collected questionnaires were reviewed and recoded according to the requirements of the statistical program.

Depending on the type of variable and the type of data distribution in the analysis of the results, the following parametric tests were applied to test hypotheses in normal and close to normal distribution of cases: t - test, ANOVA and nonparametric tests in different than normal distribution of cases : Pearson χ^2 - test, Mann-Whitney, Kruscal-Wallis H-test.

The significance of the results and conclusions was determined at $p<0.05$.

For the analysis of qualitative data, a method of summary criteria for reporting qualitative research (COREQ) a checklist with 32 questions and an inductive method of manual coding with the construction of a hierarchical framework/cloud were applied.

The results were described by tables, graphs and numerical indicators for structure, frequency, correlation etc.

Permits from Commission for Ethics of Research at the Medical University at MU-Pleven

The comprehensive medical and social study examines the health problems of two vulnerable groups of the population - Bulgarians of Roma ethnicity and migrants. Permission to conduct the research was obtained from the Commission for Ethics of Research at the Medical University - Pleven:

1. Decision № 375 / 22.10.2015 to conduct a study №1 (**Appendix № 7**);
2. Decision № 477 / 21.06.2017 to conduct survey №2 (**Appendix № 8**);
3. Permission to conduct study №3 and use the data collected by the author was obtained from the Open Society Institute in 2020 (**Appendix № 9**).

Limitations

In the name of scientific objectivity, we recognize some possible limitations in conducting a comprehensive multi-phase socio-epidemiological study.

1. The Roma ethnic group is not homogeneous and is difficult to access for research, even in terms of health status and consumption of health services. Due to this fact, the principle of representativeness in the conduct of cross-sectional studies is difficult to apply, which raises the question of the external validity of the results. To increase the reliability of the results and the internal validity of the study in proses of collecting primary data, students from MU-Pleven from Roma origin were involved, and in organizing the focus group among residents of Nadezhda in Sliven - health mediator in the neighborhood.
2. The author's original idea was to study the health status of migrants retrospectively by analyzing their medical records. For this purpose, a meeting was organized with representatives of AREF, but due to the impossibility of obtaining informed consent from the migrants themselves, we were not given permission to access their documents. This necessitated the aspects of the health status of migrants and the readiness of the system in the Republic of Bulgaria for their health care to be studied indirectly, by including representatives of society and specialists working on the first line with migrants.

II. DISCUSSION OF RESULTS

1. HEALTH RISKS FACTORS AND HEALTH STATUS OF ROMA POPULATION IN BULGARIA

They were analyzed in two studies, covering the following:

1. Adult citizens of Roma origin, residents of the town of Knezha (59 people in total).
2. Households from the town of Kneja and the town of Kotel (18 households - a total of 50 persons).

Results of study 1

1.1. Risk factors for the health of Roma

The main demographic characteristics of the residents of Knezha (sex, age, educational and employment status) are presented in Table 3. The study included 59 people, representing 9% of the Roma population in Knezha.

A higher relative share of women (38 people - 64.4%) and persons over 65 (20 people - 33.9%) than the usual age and sex distributions for the country and the Roma ethnic group was established, as 22 (37.3%) have no education or primary education.

Roma women have a lower level of education than Roma men. A similar relationship was found in our study ($\chi^2=7.250$, $df=2$, $p=0.03$). High level of unemployment among the persons covered in the survey was found – 23 (38.9%).

Table 3 *Distribution of the participants according sex, age, education and employment*

Characteristics		Number	Rel. share (%)
Gender		**59**	**100**
	A woman	**38**	**64,4**
	A man	21	35,6
Age		**59**	**100**
	18 – 39 age	15	25,4
	40 – 64 age	**24**	**40,7**
	Over 65 age	20	33,9
Education		**59**	**100**
	Less than 4 years	22	37,3
	4 to 8 years	15	25,4
	More than 8 years	22	37,3
Work position		**59**	**100**
	Unemployed	23	38,9
	Employed	9	15,3
	Retirees	**27**	**45,8**

1.1.1. Body mass index

Fig. 1 presents data on the distribution of the persons according to the BMI measured.

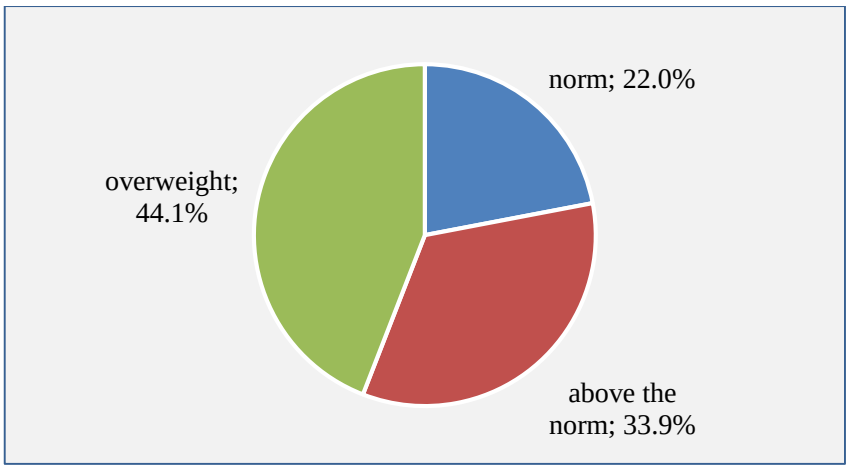

Fig. 1 *Distribution of persons according to BMI*

Over two thirds of the covered (46 persons – 78.0%) have BMI values above the norm. The high relative share, respectively 26 (44.1%), of persons with BMI over 30 kg/m2 (obesity) was found. Only less than a quarter, or 13 (22.0%) of those surveyed, have normal BMI. Similar results, but lower than the data we found, was published by Borisova et al. (2015).

In our study we found a higher relative share and frequency of obesity among Roma women (Table 4), while among men there is a wider prevalence of BMI above normal ($\chi^2=6.440$, $df=2$, $p<0.05$).

Similar results for higher BMI in younger women (18-34 years) and with poor socioeconomic status have been reported by other authors.

Table 4 *Distribution (%) and frequency (per 100 men / women) of Roma population by BMI*

Body Mass Index	Total	Number (%)		Frequency	
	Number (%)	Men	Women	per 100 men	per 100 women
Norm 19 – 24.9 kg/m^2	14 (23,7%)	2 (3,4%)	12 (20,3%)	9,5	31,6
Above the norm 25 – 29.9 kg/m^2	19 (32,2%)	11 (18,6%)	8 (13,6%)	52,4	21,1
Obesity > 30 kg/m^2	26 (44,1%)	8 (13,6%)	18 (30,5%)	38,1	47,4
Total	59 (100,0%)	21 (35,6%)	38 (64,4%)	-	-

Age is a significant factor for the BMI of persons of Roma origin ($\chi^2=14.170$, $df=4$, $p<0.01$). Among the young age group, people with normal weight predominate (8 persons – 53.3%), but the distribution in the other two age groups is particularly worrying. The frequency of overweight increases with age. This is observed in the middle age group and progresses slightly in the third age group. In the age group 40-65 y. 9 persons (37.5%) are overweight, and half of the persons are obese (12 persons – 50%). Almost 90% of the persons over 65 have weight problems, respectively above the norm (9 persons – 47.4%) and obesity (8 persons – 42.1%). Similar results on the influence of age on BMI among the Bulgarian population were reported by Borisova et al.

While the education does not have a significant impact on BMI of people survived ($p>0.05$), the presence of work plays a significant role ($\chi^2=13.780$, $df=4$, $p<0.01$). Among the unemployed, the share of those with normal BMI values prevails – 9 persons (39.1%). The relative share of working people in the study group who are obese is seven times higher than that of working people with normal weight, and the share of pensioners with normal weight is over three

times lower than that of pensioners with obesity and four times lower than the share of overweight adults.

1.1.2. Blood pressure (BP)

While some studies report that the Roma population is genetically less susceptible to essential hypertension than the general population, our study found a high relative share of people with hypertension – 25 (42.3%) of those covered. The predominant part (26 persons – 44.1%) of the representatives of the Roma ethnic group have normal blood pressure, and 8 (13.6%) have high values (Fig. 2).

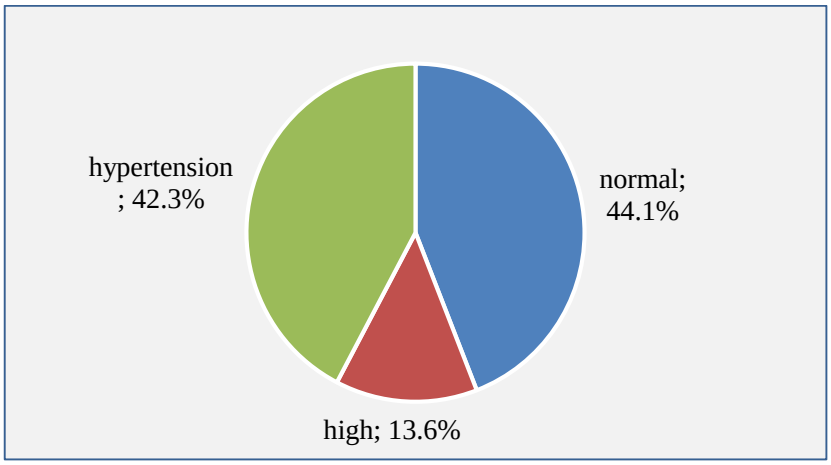

Fig. 2 *Distribution of persons according blood pressure (in%)*

The results of the study coincide with the reported higher levels of hypertension in the Balkan countries and Bulgaria – about 38-44%.

Our study does not confirm what was reported by Borisova et al. (2015). In a representative for the country study was found the distribution of hypertension between the sexes in the Bulgarian population as follow: significantly higher incidence in men 45.1% compared to women - 33.5%. A similar distribution of hypertension is found in the data of NHANES: women - 28.6% (95% CI, 27.4-29.7) against men - 30.5% (95% CI, 29.0- 30.9). In 1997-98, a representative study of the country, within the CINDI program, reported a frequency of hypertension (≥140 / 90 mmHg) in 43.0% of men and 39.0% of women aged 25-64. A study in the same program in 2007 found hypertension (≥140 / 90 mmHg) in every 3rd man and every 4th woman at that age. Our study found a higher incidence of hypertension in women - 44.7% compared to men - 38.1% ($p>0.05$). The observed differences are most likely due to the self-formation of the sample, which is characterized by a higher relative share of women.

It is found higher than the usual effect of age on blood pressure ($\chi^2=10.450$, $df=4$, $p=0.02$).

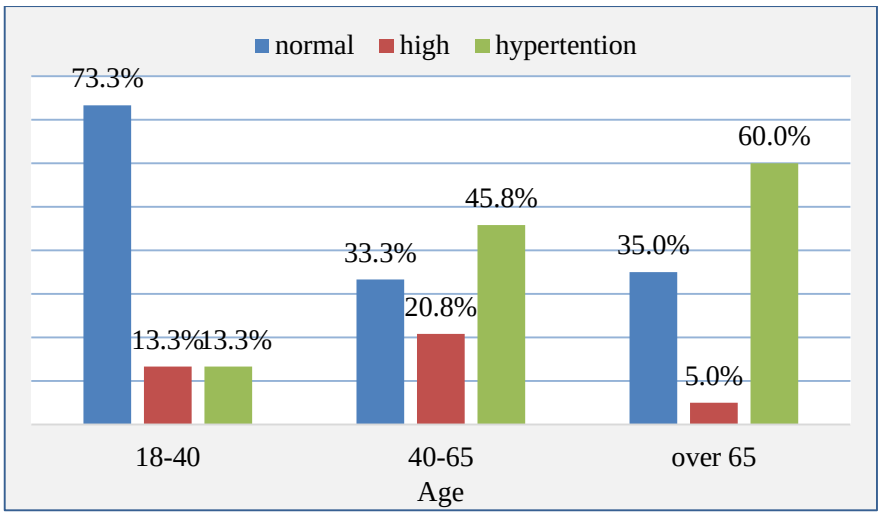

Fig. 3 *Distribution of the participants by blood pressure (by age, in %)*

With increasing of age, the values of blood pressure increase (Fig. 3). Among the persons in the young age group the share of those with normal blood pressure values prevails (11 persons - 73.3%), while among the persons over 65 - that of the persons with hypertension (12 persons - 60%). Particularly worrying is the distribution of people with high blood pressure or prehypertension, which is most likely not controlled and treated. The 5 (20.8%) of people in the age group 40-65 have high blood pressure and their share is more than 4 times higher than that of people over 65 with high blood pressure (1 person - 5%).

The results established in the present study indicate a wider prevalence of hypertension among the different age groups of the Roma population compared to the Bulgarian, respectively 13.3% vs. 9.3% among the young, 45.9% vs. 12.3% for the average age and 60% compared to 17.4% among the third age group. At the same time, they do not confirm the data from the Hungarian population, which reports that the risk of central obesity, hypertension and elevated triglycerides among the elderly Roma does not differ from that of the Hungarian population.

Education has a significant effect on blood pressure ($\chi^2=10.260$, $df=4$, $p=0.02$). Hypertension was found in the majority of those with lower education (12 persons - 54.6%), while among the other two compared groups with hypertension were as follows: 5 (33.3%) in those with primary education, and 8 (36.4%) among Roma with higher education. Among people with primary and higher education, those with normal blood pressure predominate – 7 (46.7%) and 14 (63.6%), respectively. It is established that with the increase of the educational degree the probability of the spread of increased values of blood pressure and hypertension decreases.

Higher educational status gives better opportunities for realization on the labour market. The presence of work is not a significant factor for the values of BP in our study ($\chi^2=9.470$, $df=4$, $p=0.05$).

The study examined the impact of health determinants - gender, age, education and employment status on diastolic blood pressure. We found a significant effect of age, ie. with age, diastolic pressure increases ($\chi^2=13.280$, $df=4$, $p=0.01$), but this has not been demonstrated for the sex, educational and employment status of the persons covered ($p>0.05$).

1.1.3. Blood sugar / serum glucose

Elevated levels of the blood sugar were found in almost 40% (22) among the Roma residents of the town of Knezha. In equal relative shares the persons with impaired glucose tolerance and diabetes respectively 11 (18, 7%) are presented.

According to our results while the gender and employment status of the Roma persons do not have a significant effect on blood sugar levels ($p>0.05$), the age ($\chi^2=11.120, df=4, p=0.025$) and educational degree ($\chi^2=9.590, df=4, p=0.04$) have.

According to our data, people with impaired glucose tolerance are mostly middle-aged women with basic education, unemployed or retired, while the profile of people with diabetes is formed mainly by women over 65, without or with basic education and retirees.

Our results are particularly worrying for the health of Roma women: ***a higher proportion and prevalence of obesity, a higher incidence of hypertension and a higher risk of developing diabetes, which puts them in a situation of increased risk of developing socially significant diseases.***

Results of study 2

1.2. Health status of persons of Roma origin

1.2.1. Factors of lifestyle

Nutrition

In our study, only 32% (16) of Roma people ate fruit 2-3 times a week, but 68% (34) of respondents ate vegetables daily. An unbalanced and unhealthy dietary profile of Roma families with predominant carbohydrate consumption and lack of dietary products is established:

- 2-3 times a week (16 persons - 32%), consumption of fruits, but daily consumption of vegetables (68%);
- Over three times a week use of beans/lentils (25 people - 50%) and eggs (28 persons - 56%);
- Daily consumption of meat (22 persons - 44%) and 2-3 times a week fish (22 persons - 44%);
- *100% consume bread daily;*
- *47 (94%) almost never consume dietary products;*
- *Daily consumption of sweets among 62% (31);*
- *Over three times a week consumption of pasta and rice (28 persons - 56%).*

According to CINDI HEALTH MONITOR (2007) in Veliko Tarnovo area, approximately two thirds of the respondents (63.3%) consume sweets and this result coincides with our findings.

Smoking

There is a wider prevalence of smoking among adult men of Roma ethnicity than women. Among regular cigarette smokers 56.3% (10) are men, and all who have used cigarettes in the past are also male. Among non-users, the relative share of women is significantly predominant - 81.8% (9).

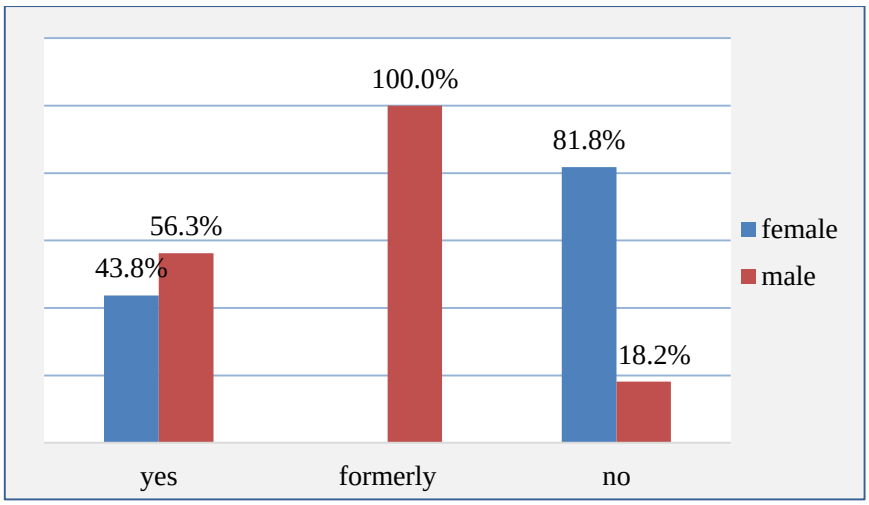

Fig. 4 *Prevalence of smoking among covered persons by gender (in %)*

Our results confirm significant differences in the number of cigarettes consumed by both sexes per day ($\chi^2=7.420$, $df=2$, $p=0.02$). The number of cigarettes used by men on average - 19.5 ± 9.5 (6-40) is more than twice as high as the number of cigarettes used by women - respectively 8.6 ± 6.2 (1-20).

Roma men start smoking at the age of 17 (15-18) and women at the age of 22 (14-40).

Our findings are similar to those reported in the European Health Interview study, which show that 56% of Roma women and 65% of Roma men smoke every day in the Czech Republic, and children develop regular smoking habits from the age of 16 but sometimes at a younger age.

Alcohol use

Contradictory data have been reported on alcohol consumption, and most studies suggest that the Roma population consumes less alcohol than the non-Roma population.

All men included in the study consumed alcohol. Among the daily drinkers, 100% (9) are men. Their relative share predominates among alcoholic drinkers only on special occasions (8 persons - 53.3%). Only women do not use alcohol and they are less than half of those who use alcohol on special occasions – respectively 7-46.7% ($\chi^2=6.560$, $df=2$, $p=0.04$).

Although no significant difference was found in the age at which the two compared groups began to use alcohol ($p>0.05$), men began to drink at an earlier age 18.6 ± 1.4 (16-20) while all women covered started drinking at the age of 20.

All people involved claim that there is no member of their family who has problems with alcohol use.

Sleep

There was no significant difference in the mean sleep duration of the men and women included in the study ($p>0.05$). Men sleep an average of 7.9 ± 1.05 (6-10) hours a day, and the average duration of women's sleep is shorter - 7.5 ± 1.03 (5-8) hours.

Sports

There is evidence that a small proportion of Roma (adults and/or children) regularly engage in physical activity in order to maintain good health.

We found similar results in our study. Over 70% (42) of people surveyed do not play sports at all, and only one woman answered that she plays sports regularly. No significant differences

were found between the compared groups by sex ($p>0.05$). These results may be due to the lack of access to recreation areas and open spaces, but they can also be considered as a cultural phenomenon specific to the Roma community, as reported in studies available in the literature.

1.2.2. Self-assessment of health status and health status

The self-assessment of the health status of Roma people is presented in Table 5.

Table 5 *Self-assessment of the health status of the covered (by gender, in%)*

Self-assessment	Men	Women
Very good	**6 (27,3%)**	**5 (17,9%)**
Good	8 (36,4%)	11 (39,3%)
Medium	6 (27,3%)	11 (39,3%)
Bad	2 (9,0%)	0 (0,0%)
Very bad	**0 (0,0%)**	**2 (7,1%)**
Total	**22 (100.0)**	**28 (100.0)**

The majority of people covered assess positively their health status as good and very good. It was found the higher relative share of men (6 persons - 27.3%) with very good self-assessment of health compared to women and the presence of only women (2 - 7.1%) who assess their health as very poor. No significant difference is found in the self-assessment of the health status related to the sex of the persons covered ($p>0.05$).

2. HEALTH SERVICES CONSUMPTION AND BARRIERS IN THE HEALTH CARE OF PERSONS OF ROMA ORIGIN

2.1. Health insurance status

According to international data, Roma in Bulgaria have low levels of health insurance (45-48%) compared to 85% in the general population. In studies in our country similar data for 55-60% of the uninsured among the Roma ethnic group are reported.

In our study we found a higher relative share of uninsured persons than the studies cited above (Figure 4).

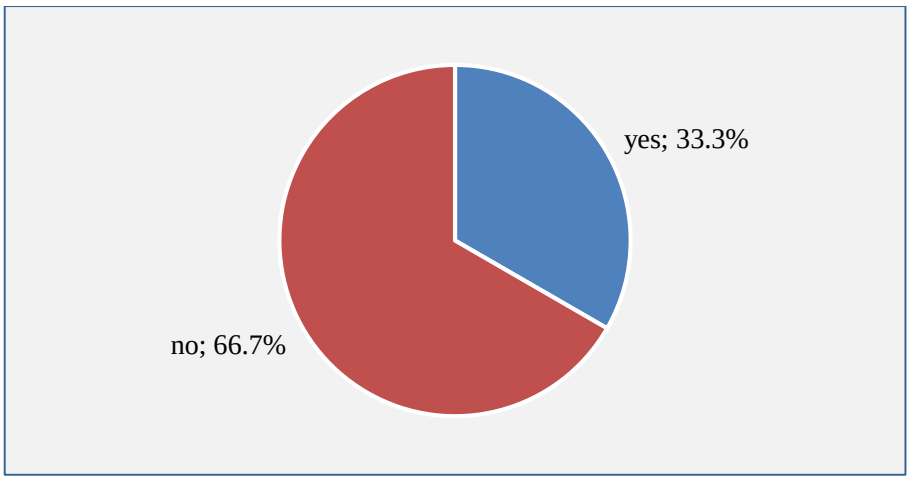

Fig. 5 *Distribution of the participants according to their health insurance status (in %)*

Over two thirds (33 persons - 66%) of the covered persons of Roma origin do not have health insurance, which implies serious difficulties in using and accessing health services paid for by the National Health Insurance Fund (NHIF).

The average number of uninsured persons in households is presented in Table 6.

Table 6 *Average number of uninsured persons in households*

Households	Total
n	18
Mean ± SD	1,8 ± 0,8
Minimum value	1
Maximum value	3

In each household an average of 1.8 uninsured people are found, but in some of the families almost all (three) of the elderly members are not insured. The lack of health insurance coverage for a large part of the Roma population leads to frequent refusals by health professionals to provide health care.

In 14% (3) of the households there was a refusal to provide health care due to lack of health insurance. Those covered report a refusal to provide health care most often by general practitioners (GPs) and specialists in out-hospital care.

In 83.3% (15) of the covered households required direct payment for the provision of health services, which corresponds to the high share of informal payments in health care in our country - 46.6% in 2017, but among the Roma population this share of informal payments is significantly higher.

Most often, the households covered by the survey have to pay for specialized out-hospital care (12 – 66.6%). The relative share of families who paid for services provided by GPs is also significant 4 (22.2%), and 1 (5,6%) share payments for emergency assistance, which is guaranteed to every citizen of the country, regardless of their insurance status. These data confirm the reports of Baev and Manov in 2018.

2.2. Health services consumption by elderly family members

Health care

A number of studies indicate that hospital and emergency care are more commonly used by Roma than the general population. Others report higher consumption of primary health care, and still others report bypassing GPs and direct consumption to emergency care.

Three quarters of the Roma families covered used health services in the year preceding the survey. One third received health care within the month before the survey, while two thirds within the last year. Our data correspond to those reported by Nesvadbová (2009), according to which in the Czech Republic 23% of Roma visit a GP or specialists less than once a year.

Most often health care is sought in connection with:

- high blood pressure - 7 families;
- acute viral infection - 6 families;
- hearing problems - 4 families, etc.

In 10 (55.6%) of the families the reason for consulting a health specialist is diagnosis and treatment, in 5 (22.8%) of the families the reason for visiting a doctor is the need to prescribe medication, in only two of the families an adult member has visited a doctor for regular health check-up and in one of the families the reason was the issuance of a certificate of temporary incapacity for work. Five families sought health care for more than one health service.

More than half of families (10 – 55.5%) reported having a health problem in the family for which no health care was sought.

The reasons why the necessary health care was not sought are also analyzed. The rank in order of importance is as follows:

- "lack of health insurance" - 8 families;
- "services are expensive and we do not have enough money" - 7 families;
- "We are at work and there is no one to take the child", "we were not admitted by the doctor" and other reasons - 1 family.

One third of the families (6 households – 33,3%) reported a combination of factors as reasons for not seeking health care. Most often, this is because of the lack of health insurance and the high cost of services that families cannot afford due to lack of funds.

Our results are supported by the reported data on the highest registered in the EU (57.9%) difficulties in the consumption of medicines and health services in Bulgaria, especially among low-income households, and this share is even higher in the consumption of dental help.

Consumption of drugs

Women take an average of 2.9 medications prescribed by a doctor every day, while men take a lower number of medications - 1.7 ($p<0.05$). Our results confirm the established fact that women seek health care more often than men.

Dental care

In the last year, 44.4% (8) of the interviewed families have received dental care, and in 11.1% (2) of them an adult family member has never visited a dentist. We are concerned about the result we found that in the last year in 8 (44.4%) of the families covered an adult member of the family had a dental problem for which no dental care was sought due to:

- "Services are expensive and we do not have enough money" - 8 families;
- "Lack of health insurance" - 6 families;

- Other reasons - 3 families.

In five of the families, the two leading causes were cited as a combination of factors that hindered the use of dental care.

Hospital care

In one third of the families (6 – 33.3%) it is established that an adult member was hospitalized in the last one year. The result reports a similar level of hospitalizations among the Roma ethnic group compared to the data for the country (about 31.7 per 100 people). The reasons for hospitalization are as follows: treatment of asthma, discopathy, cardio-vascular diseases (CVD), ovarian cysts, surgical treatment of hernia and others.

According to the respondents, in one third (5 - 27.8%) of the families there is a need for hospital treatment, which is unrealized. The reasons for that are ranked as follows:

- "Services are expensive and we do not have enough money" - in two thirds of families in need of hospitalization;
- "Lack of health insurance" - in half of the families in need of hospitalization;
- "We wanted, but we were not admitted to hospital" and other reasons - in one of the families in need of hospitalization.

Emergency care

The lack of health insurance forces people to turn directly to emergency care in a life-threatening situation. This situation disproportionately affects the unemployed, the Roma and those living in disadvantaged regions. According to international data, up to a third of all patients in the country, including the uninsured, bypass GPs by going directly to the emergency care.

A significant share of the covered families (8 - 44.4%) have used the services of emergency care in the last one year (Fig. 6).

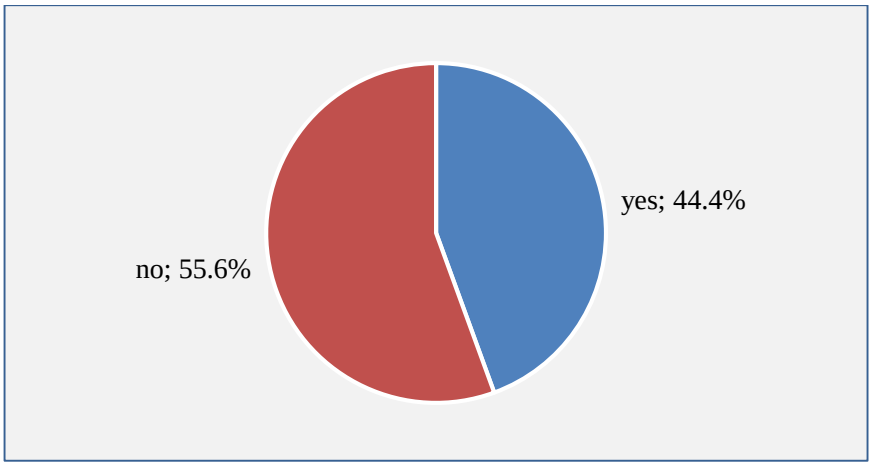

Fig. 6 *Distribution of the participants according to the consumption of emergency care (in %)*

The leading reasons for seeking emergency care are: CVD / high blood pressure, fracture, epileptic seizures and others. In two of the families the need for emergency assistance was not realized. The main reasons are the same as those already discussed, ie. lack of health insurance and high cost of services that people cannot afford.

2.3. Consumption of health services by Roma women

More than a third of women have visited a gynaecologist in the last six months for reasons

other than pregnancy. The majority of them (11 – 39.3%) have not had a gynaecological examination in the last year, and 2 (7.1%) have never visited a gynaecologist for a preventive examination or a gynaecological problem. The data found in our study confirm the data reported by Krumova (2009) for more than 45% of Roma women who have not visited a gynaecologist in the last year.

The most common reasons for gynaecological examination are prevention (in two thirds of cases) and treatment of gynaecological problems.

Our study finds worrying results regarding the prevention of women's health in Roma women. The 23 (82.1%) of them have never undergone a prophylactic examination of the mammary glands (mammography), and 20 (71.4%) - a smear test.

3. EFFECTS OF THE COVID-19 EPIDEMIC AND OF THE ANTI-EPIDEMIC MEASURES APPLIED ON PERSONS OF ROMA ORIGIN, RESIDENTS OF NADEZHDA DISTRICT, SLIVEN

3.1. Sociological observation of Nadezhda district

External borders

The Nadezhda district is surrounded by a concrete wall on all sides, which people perceive as restricting their free movement and separating them from the residents of Sliven (photo 1). The presence of a fence interrupts their access to goods and services, incl. health, social, and their job search opportunities. There is a road on one side of the neighborhood and a railway on the other.

Photo 1 *Nadezhda district, Sliven, general view*
Sources: Internet

There are two official entrances to the neighborhood - pedestrian and for vehicles.

During the period of "closing the neighborhood" both exits were fenced: the pedestrian one with a metal fence, and the transport one with temporary fences and the presence of security guards from the Ministry of Interior Affaire. In a conversation with people, it became clear that during the "closure of the neighborhood", people were "forced" to leave the neighborhood illegally through openings in the wall to be able to go to work, buy medicine and more.

Internal "boundaries":

The parts of the neighborhood located near to the entrances are significantly different - the houses are "richer": 2-3 floors, monolithic construction, the streets are wider, paved and with sidewalks.

The further go into the neighborhood, the worse living conditions become. In the most peripheral part, near the landfill, the houses are shabby, with a lack of basic living conditions, built up, rebuilt and upgraded with unstable materials and narrow entrances. The streets are muddy and dusty, narrow, without any road surface. Women wash dishes from a dripping pipe directly on the street. Food products (pies, meat, etc.) are sold on the table, without observing basic hygiene measures and cleanliness. Walking to the exit of the neighborhood, the houses become more stable and massive again.

Technical infrastructure:

Due to the unregulated construction and the lack of an official way to reveal individual batches for reporting the consumed water, a serious problem with the water supply persists in the neighborhood. During the epidemic, the neighborhood was without water supply for a long time, which further worsens sanitation.

There is no landscaping in the neighborhood. Every free piece of land is built up. Only in the center there is a small unmaintained green area with 2-3 benches.

There is a public transport line that runs near the neighborhood. There is no public transport in the neighborhood itself, and garbage collection is done with carts at its end, where a landfill has been formed.

Social infrastructure

At the entrance of the neighborhood, there is a kindergarten - a renovated, good-looking building. According to residents, this is the best kindergarten in the city. There are 3-4 playgrounds, landscaped and very beautiful. The children visit it willingly and in compliance with the anti-epidemic measures.

Most of the children from the neighborhood attend to the 6th Secondary School. The school is renovated, modern. It has a well-equipped yard and a gym. In the process of observation you can see children returning from school.

In the Nadezhda district are located: a police station, a deputy mayor. There is a general practitioner, but no pharmacy. The buildings are located near the entrance to the neighborhood.

According to the pastor, there are 16 different churches and a mosque in the neighborhood.

Many small shops have been opened in the neighborhood - mainly for clothes and groceries.

Social life

There is no unusually large crowd. In the neighborhood, however, it is impossible to keep the recommended distance of 1.5 - 2 meters between people. The neighborhood has narrow streets and overcrowded houses. People do not wear masks outdoors. In front of the GP's office and at the end of his working day there is a crowd of patients waiting for an examination.

According to people from the neighborhood, "*The situation was particularly tense during the complete closure of the neighborhood. People were angry, they were crowded, there were even quarrels with the police and the authorities."*

People opinion from the neighborhood about the epidemic of COVID-19?

People are worried, which is not the case when watching their lives from the sidelines. They are worried about the stigma of the disease, which is reason they do not seek timely medical care.

The biggest worries are about the children's education and their financial situation, especially the men who lost their jobs and in view of the coming winter season.

They consider the measures necessary, but are particularly affected by the "closure of the neighborhood". They are worried that this situation will happen again. Concern is pervasive: both in purely everyday life and in the education of children. In the event of a re-transition to e-learning, people would again have problems with lack of internet access and lack of e-devices. In families where both children and parents study, preference is given to children using the device.

3.2 Results of in-depth interviews with experts working with the Roma community

The study covered professionals working with vulnerable groups in the Nadezhda district and municipality of Sliven, as follows:

- Regional Health Inspection-Sliven (**RHI**) - 2 main experts in the Public Health Directorate (**E1** and **E2**);
- Expert from the Municipality of Sliven (**EM**);
- General Practitioner (**GP**);
- Health Mediator (**HM**);
- Representative of a non-governmental organization (**NGO**);
- Pastor (**P**).

• ***Duration of work experience (Table 7) and professional experience of specialists***

Table 7 *Duration of work experience of experts (in years)*

Expert	**E1**	**E2**	**EM**	**GP**	**HM**	**NGO**	**P**
Experience	16 years	12 years	13 years	20 years	7 years	11 years	31 years

E1: Participation in the Regional Council of Ethnic Minorities; work on the National Strategy and the National Action Plan on the National Strategy for Roma Integration.

E1: In mobile offices - conducting training lectures, seminars and talks with groups of Roma.

EM: *"I work and live in the Nadezhda neighborhood. I am a mediator between health, social and almost all institutions in the city and the people who live in the neighborhood".*

GP: *"Treatment of patients from my patient list, but also of people from the Nadezhda neighborhood".*

HM: Organizing of health information programs; work with **GPs**; work with institutions assistance to people from vulnerable groups; we are a bridge between people from vulnerable groups and institutions.

NGO: *"We are working in the field of community mobilization activities in the Nadezhda neighborhood. I offer services, especially in the field of healthcare, as a community mobilizer, in which position I have been working for a year. My goal is to help the residents of the Nadezhda neighborhood to mobilize and solve their own problems, not someone from outside to solve them."*

P: *"We work with children in the church. We are currently working with three groups of children: The first is from four to six years old. We teach them to speak Bulgarian, which is very difficult. The other group includes children from 7 to 11 years of age. With them we emphasize mathematics*

- to prepare homework. They have nowhere to copy them at home, because 10-15 people live in one room. With them we go out for coffee in the centre, we introduce them - where are the court, police, hospital. The goal is to leave the neighbourhood and feel full, free and not close in on themselves.

The third group is teenagers - they are very "wild". We also encounter problems there. For the last five or six years, there has been no such mass "campaign" of marrying 13-14-year-olds - we are introducing them to the pros and cons of this, and the risk side, and what awaits them in the future.

The church has about 80-90 children.

The church includes many different people: there are retirees, there are young families. We help them as much as we can. We hold seminars - before we had four or five seminars a year: youth, family, pastoral and general, in which everyone can participate. We haven't done anything this year. "

• In your opinion, what are the most urgent needs of the people living in the municipality and in particular in the Nadezhda district in the context of the Kovid-19 epidemic?

A variety of opinions are established, which are influenced by the profile of the expert. According to E2 and NGO, there is a need for more information - what is COVID-19, what are the ways of transmitting the infection. The EM puts in the first place, as the most significant need for work "*Companies in the area, realizing that people are of non-Bulgarian origin, and are Roma give them unpaid leave. People stayed in her homes… therefore, they will face major economic problems*". The most urgent thing, according to GPs, is for people to receive adequate health care "*The problem is that people are looking for health care late*". The **HM** prioritizes the need to provide disinfectants and masks in order to prevent the spread of the epidemic, and **NGO** - the need for trust *"…. people are tired. Many different organizations have worked for Nadezhda that have not met the community's expectations, others have been deceived and the community is generally difficult to trust*". The **P** emphasizes **the mental burden** *"… we must remove the mental burden in the life of this people….the human psyche is a battlefield and when you lose the battle there - you are already destroyed!"*

• How did the COVID-19 epidemic in general affect the municipality of Sliven, city of Sliven and Nadezhda district?

The most of experts (**E1, E2, ME**) share the confusion and fear that occurred at the beginning of the epidemic, as a result of the contradictory information spread on the issue. At the time of the study (13.10.2020), the **ME** shared that fear prevailed *"People have changed - the fear of COVID distances people themselves. …. People are pretty scared"*. Despite the critical assessment of the deteriorating health status of the people in the neighbourhood, **NGO** and **HM** also emphasize the effect of its "**closure**": "*There were generally infected people in the neighbourhood, and even if he was imprisoned, maybe there should be others, not only Roma, but in the whole country, they should be imprisoned in this way"* and *"people were very angry, that there was a lot of control over the Nadezhda neighbourhood - we are talking about control of the checkpoints and the police, and this infuriated people. We are not saying that it may be discrimination that the people of the Nadezhda district need control and measures for their health, but I do not believe that only their people need this.*"

• In which areas of life or governance was the effect of the COVID-19 epidemic felt most strongly?

Experts' opinions cover a wide range of effects of the epidemic on the population of the Nadezhda district and society as a whole.

"*There is no area that is not affected:* ***health, the economy*** *also suffers" (**E1**), "**Education** also suffers. With this distance learning, we are of the opinion that it cannot be effective enough in the way it is with the present learning of children. Not to mention that we have three schools with a Roma population and hardly all children can get involved. In the villages, the majority of children are Roma and they can hardly participate in education. The municipality of Sliven is like that - almost all schools in the villages are almost 100% Roma*". (**E2**) - say the experts from **RHI**-Sliven. A similar opinion on the effect of the epidemic on children's ability to learn is shared by the **ME**, adding that "*If we talk about the economy, parents did not work, they stayed in their homes and it was horrible"*. Behind the view of the complex impact of the pandemic are also **GP**, **HM**, and **NGO** present particularly severe effects of the crisis on the population: *"... because they work privately. People were literally starved. They were so hungry that they were already begging in the streets"*.

• What were the main measures to overcome the consequences of Kovid-19, which were implemented in the municipality of Sliven and specifically - in the neighbourhood " Nadezhda"?

The variety of measures applied to overcome the COVID-19 epidemic and its consequences are reflected in the responses of the specialists involved.

Particularly impressive is the **community's involvement and mobilization** to tackle the problem. **HM** shares: "*Many volunteers got involved with their own cars, which we did not pay for gasoline. For 15 minutes he drove around the neighbourhood to say he shouldn't go out. It was said that the measures were not observed in the Nadezhda district, but this is not true. The neighborhood is very densely populated and only one family cannot be quarantined - whole streets were quarantined and in general they did not agree very much, but after talking to them they understood that it was necessary*." **P** confirms the opinion expressed by **HM** with the words "*There was, there was, there was spraying - a special car that passed and sprayed" smoke ", as it was called? The whole neighborhood was sprayed with a pump, there was no street where it did not pass…. They (health mediators and volunteers) were very important and reassured people - when they saw them, their presence, in addition to spraying, they had contact with people, told them what they have to do it, they were given masks, food"*. The issue of **the permanent lack of water** in the neighbourhood is presented as a very serious problem during the epidemic. According to **NGO**, there is another very serious problem: *"it was very bad to tell people "wash your hands, disinfect yourself." The problem is that there was no water"*.

"**Closing the neighbourhood**" is not unequivocally accepted by those surveyed. It is seen as extremely negative and discriminatory, imposed surprisingly and without prior discussion and training of people living in the neighbourhood. This leads to severe limitations in the daily lives of both quarantined and healthy residents. The view expressed by **P** on the issue "*Closing the neighbourhood has had a stressful effect on people. You can't go out, you can't shop, you can't talk, you can't go to work, because you have to have a document from the employer, from the doctor that you go to the doctor! This is stressful! No, the neighbourhood didn't have to close! You can't close one society or one neighbourhood when the other part is free - we are talking about common things!*". Is also confirmed by the **NGO** *"It is strong to say that closing the neighbourhood was discrimination, but when they closed it they did it without the community knowing. Suddenly, they locked and found the tunnel, everything, and that startled everyone, and people started going crazy. After the tunnel (the pedestrian entrance to the neighbourhood) was locked, we got up and said, "Why does this have to happen this way and not the other way around?" Mr. Mayor organized this meeting to explain to us. There was a specialist from RHI and we understood that the*

conditions were set by RHI. It is not realistic to close only one neighbourhood while the whole city is free. Others who are not well in my opinion cannot suffer because of 20%. It was not necessary to close the neighbourhood, it was necessary to announce, to talk, to make a decision, as we all gathered after the closing of the neighbourhood. "

Assessing the help received from the health mediators, the **GP** sees the situation with the "closure" in a different way. "*The main thing was the application of masks, disinfectants - less often. The boys, health mediators, put in a lot of effort - they used megaphones to go around and inform people, deliver food to them, help me quarantine those affected by isolating them and transporting them to hospital. The closure of the neighbourhood, in my opinion, was justified - there were a lot of people with symptoms who did not follow the measures*".

As a final announcement on the topic of overcoming the consequences of the epidemic crisis, the words of the **EM** sound "*What we realize is that when we are united (institutions and people living in Roma neighbourhoods), when we unite we can solve absolutely any problem*".

• Has the attitude of other citizens and institutions towards the residents of the neighborhood changed in any way? If so, in what way? Why?

The answers to the question range from a **positive change** in the attitude towards the residents of the neighbourhood by other citizens and institutions, through the **lack of such** to a **negative attitude** towards the residents of Nadezhda district.

• In your opinion, how will the Kovid-19 epidemic develop in the municipality of?.? Do you think the worst is over or is it?

The answers range from **hope for improvement** to **despair**.

The **most pessimistic** is the view of **P** "*Oh, we are not waiting for a good time ... no, no! Every passing day, life changes for the worst, not for the better! Something has to challenge us, something moves things. Good and bad go together, but evil goes more…. for God always provides two things: good and bad, and man chooses. Many people choose evil*". More moderately, but in the direction of worsening the epidemic situation during the autumn-winter season, think **EM** "*I think it is ... yet to come. I personally am waiting for the first rain or snow and the incidence of the disease will increase. Various cases of influenza will also occur. However, the problem there is different. People will be locked up in their homes and the disease will be transmitted more easily*" and the **GP** "*I think things will get worse during the winter season, especially if a flu epidemic spreads*".

• Do you think the effects will be lasting or will disappear soon after the end of the epidemic?

The views of the covered specialists are as follows:

- **E1**: "*It will take some time*";
- **E2**: "*Yes, yes - it will not happen with a magic wand*";
- **EM**: "*The effects will be very lasting in the next 5-10 years, it will have a lot of impact. We are talking in the field of economics, healthcare, education - it will have a lot of influence*".
- **GP**: "*I cannot say. The disease is new and has not been studied enough*".
- **HM**: "*I think we have not seen the effect yet. We'll see it in a year*. "
- **NGO**: "*The effects will be lasting. Economically they will not be lasting, the economy will be fine, but mentally it will remain in the people. I have two daughters and one of them tells me, "Dad, we'll probably tell our kids that." .... My daughter has crossed out 2020, she made it black and she doesn't like it this year, which means that people will remember it and it will remain a permanent mental trauma*".
- **P**: "***If it continues in this way, I think that in any area there may be a problem. Health and education will be most affected***".

• In which areas of life do you expect the consequences of the epidemic to be most lasting?

According to those covered, the consequences of the epidemic will affect health, education and the economy as follows:

- **E2**: "***Economics, Education***".
- **EM**: "*Education, **Health**, Economics*".
- **GP**: "*It will be difficult in healthcare. There is a shortage of staff and it will be very difficult in the future. There is especially shortage of nurses*. "
- **HM**: "*Education and Economics. The health element - there is a lack of staff.* "
- **NGO**: "*More **mental trauma** will remain in people than economic consequences*."
- **P**: "*In health care - many people from the neighbourhood are not insured*."

• What conclusions should be drawn from the pandemic regarding access to health care for people from vulnerable groups, incl. Roma? What new problems have you identified and what opportunities for improvements in health policies, measures and approaches have emerged - in particular with regard to people from vulnerable groups, incl. Roma?

EM: *What we learned first is that **they can too - the Roma**! We have proved that we can unite and solve a problem together*.

GP: "*A major change must be made in the health system so that it works in the service of the people. Despite the increasing funds in it, they are not directed properly. If there aren't enough doctors and especially nurses, that means things aren't going well*".

3.3. Results of a collective interview (focus group) among representatives of Roma ethnicity, residents of Nadezhda district, Sliven

Date: November 14, 2020, 10.00

Name of the moderator: Assoc. prof. Mariela Stefanova Kamburova, MD, PhD.

Demographic characteristics of the participants:

- female, 54, married, working, secondary education
- female, 38, married, working, secondary education
- woman, 57, married, unemployed, primary education
- female, 18 years of age, single, mainly studying for secondary education
- male, 52, married, unregistered unemployed, primary education
- male, 40, married, unregistered unemployed, secondary education
- male, 31, married, unemployed, primary education
- male, 29, married, working, mainly - studying for secondary education

During the collective interview, the so-called generalized criteria for reporting qualitative research were applied: COREQ - checklist with 32 questions (Table 2).

1. Total impact of the COVID-19 epidemic (cloud №1)

As can be seen from Cloud №1, the overall impact of the COVID-19 epidemic on the population of the Nadezhda district is mainly **unemployment and insecurity.**

These conclusions are objectified by the words of the people from the neighbourhood:

- *"Woman: I think it has affected a lot. Many people **lost their jobs**, their finances… "*
- *"Woman: I think people were very stressed, there was a fear - people became alienated, removed, everyone is afraid, everyone is locked in their shell, there is a sense of coldness and **insecurity**".*

2. Anti-epidemic measures (cloud №2)

In the period of state of emergency, introduced by a decision of the National Assembly of the Republic of Bulgaria, along with the generally accepted anti-epidemic measures, Nadezhda district in Sliven is one of the few in the country completely closed to free entry and exit. This also affects the respondents' perception of the implemented measures. As illustrated by cloud №2, people associate anti-epidemic measures mainly with the words distance and police.

This perception of the experts is also supported by the words of the interviewed representatives of the Roma ethnic group.

- *"Woman: The **police** also took to the streets to restore order. And it was a scary picture, really like in the movies. We've only seen these things in the movies, but it really happened".*
- *"Woman: aren't we free people after all! Why should they lock us with padlocks and doors!? We are not in prison, we are free people! What a century we live in!"*

3. Difficulties in using services (cloud №3)

In the period of state of emergency, the use of public services is very difficult. In the conditions of total closure of the Roma neighbourhood, this is even more difficult. The words **access and doctor** stand out with the largest font size in cloud №3.

- *"Woman: Well, yes, it affected a lot. I personally know people in the neighbourhood who **didn't have laptops**".*
- *"Man: my son studied with my phone and when I go to work there is nowhere to study, only when I'm home. We **don't have another device**".*
- *"Man: whether doctors, police officers, institutions - **everything has changed**".*

4. Difficulties caused by the state of emergency (cloud №4)

The state of emergency imposed in the country and the ensuing epidemiological situation during the COVID-19 pandemic is a real challenge for the population in the world and in the country. This situation poses even greater challenges for people of the Roma ethnic group.

- "Man: Well, if you don't have money, how will you buy food, how will you buy medicines? No one will give it to you!

- "Woman: I remember that there were cases when the police did not let people to the pharmacy, not because of a problem with the money, but because they do not let them."

- "Woman: there is no pharmacy in the neighbourhood!"

- "Woman: In the weeks when the neighbourhood was closed, people borrowed medicine from neighbours."

Their view of the real situation is adopted and passed on by experts through two key codes: **absence and unemployment**. The lack is expressed both in the loss of work and in the lack of money, medicines, opportunities, etc.

5. Support measures (cloud №5)

In difficult times, such as a pandemic, it is crucial, especially for vulnerable groups, to have an organization, an institution, people to help those in need. Those covered in the study associate the assistance provided mainly with its lack, ie. with **no help and no food**. Their words eloquently describe reality.

- „Man: ... because they want to imprison us and imprison us, why didn't help come to us, as they gave to other cities….

- "Man: the only organization he had was Sasho's." Only the other boys who had sent the money from abroad…. They had made donations and… it's just a torture for us, for the Roma.

- "Man: otherwise a positive side for me during this campaign was that the community itself has mobilized and united to help each other".

6. Expectations for the future (cloud № 6)

- "Man: Well, when I look at the future, it seems to go backwards rather than forward, because in order for a future to be in your hands, you first have to go to work, to let your child go to school."
*- "Woman: more **misery, hunger and disease**"*
- "Man: this year, from the beginning it was difficult, the whole year was very difficult. Some people didn't have breakfast, some people didn't have lunch, they were just very worried.

7. Feelings experienced by the interviewees (cloud № 7)

Public health experts are invited to share the feelings they feel about the interviewed representatives of the Roma ethnic group in Sliven in connection with the spread of the COVID-19 epidemic, anti-epidemic measures and their impact on the lives of residents of Nadezhda.
According to them, the dominant emotion is **fear**, and negative feelings of abandonment, rejection, and worries about the future also prevail.

3.4. Comparison of the results of the in-depth interviews and the collective interview (focus group)

From a research point of view, it is important to establish whether the opinions of the author and public health experts coincide or, on the contrary, differ greatly. Through manual coding and application of codes related to the respective topics, the dissertation recreates her impressions from the conducted in-depth interviews with the specialists working with the population from Nadezhda district. The summary of the experts reflects the information received from residents of the neighbourhood participating in the focus group. The answers of the compared groups (author and experts) are summarized in Table 8.

From the comparisons presented in this way, a number of coincidences are established in the codes of the author and the experts regarding most topics, such as:

- Topic 1: work - *work*;
- Topic 2: fear - *insecurity*;
- Topic 3: healthcare - *doctor*;
- Topic 4: "closing the neighbourhood" - *police*;
- Topic 5: despair, pessimistic views, deterioration of the epidemic situation - *disease, misery, famine*.

Table 8 *Comparison of the views of author (professionals) and public health experts on priority topics (via codes)*

№	Topic	The codes	
		Professionals (Roma specialists)	**PH experts**
1.	The most pressing needs of the people. ***Difficulties caused by the state of emergency (cloud №4).***	Awareness **Work** Health care Trust Mental pressure	*Lack of* ***Work***
2.	Impact of the epidemic. ***Total impact of the COVID-19 epidemic (cloud №1).***	Confusion **Fear** Mutual support Limit the epidemic Severe injury Unfair and unjustified "closure"	*Unemployment* ***Insecurity***
3.	Areas most severely affected. ***Difficulties in using services (cloud №3).***	Complex impact **Health care** Economics Education Mental health	*Access* ***Doctor***
4.	Measures to overcome the consequences of COVID-19. ***Anti-epidemic measures (cloud №2).***	Community mobilization **Closing the neighborhood** Health mediators Good communication with the institutions in the city etc.	***Police*** *Distance*
5.	Development of the COVID-19 epidemic. ***Expectations for the future (cloud № 6).***	Improving the situation **Despair** **Pessimistic view** **Deterioration of the epidemic situation**	***Diseases*** ***Misery*** ***Hunger***
6.	Future measures to reduce the negative effects of the COVID-19 crisis. ***Support measures (cloud №5).***	Remote work Job creation Opening of public institutions in the neighbourhood Organization of the health system Complex of proposals	*No help* *No Food*

No coincidences have been found regarding future measures to reduce the negative effects of the COVID-19 crisis. While experts see in the future opportunities to improve the situation through a set of measures such as: **remote work, job creation, opening public institutions in the**

neighbourhood and better organization of the health system, for residents of the neighborhood the future is worrying and associated with *no food and no help*.

4. PUBLIC ATTITUDES TOWARDS THE MEDICO-SOCIAL PROBLEMS OF MIGRANTS

4.1. Demographic profile of the persons covered

The study covered 388 people, representatives of society, whose demographic profile is presented in Table 9.

Table 9 *Demographic characteristics of the persons covered by the study*

Characteristics		Number (n = 388)	Rel. share (%)
Age		**385***	**100**
	18 – 30 years	**162**	**42,1**
	30 – 50 years	158	41,0
	Up to 50 years	65	16,9
Sex		**382***	**100**
	Woman	**234**	**61,3**
	Man	148	38,7
Place of living		**383***	**100**
	Urban	**324**	**84,9**
	Rural	59	15,1
Education (n=385)*		**385***	**100**
	Bachelor/Master	120	31,1
	High school	**252**	**65,8**
	Secondary	11	2,6
	Primary	2	0,5

* Number of responding persons

The cohort described in this way, relatively young with a predominantly active population living mainly in cities and with a satisfactory educational status, presupposes a high level of awareness and commitment to social processes in the country. This gives us reason to rely on an informed opinion regarding the medical and social problems and health care of migrants in the country.

4.2. Assessment of migration processes and the country's policy towards migrants

The main sources of information that people use are essential for forming an opinion about ongoing social processes. The persons covered in the study share that the main source of information for them, regarding the problems of migrants is the electronic media - television (Table 10).

The results we found correlate with those published by UNHCR in 2018, which report that television is the main source of information (91%) among the population on issues related to migrants and refugees.

Table 10 *Sources of information on migrant issues (in number and %)*

Main sources	General problems	Social problems	Health problems
El. mass media	**357 (92,0%)**	**335 (88,9%)**	**328 (89,1%)**
Newspapers	23 (5,9%)	27 (7,1%)	26 (7,1%)
Another source	8 (2,1%)	15 (4,0%)	14 (3,8%)
Total	**388* (100,0%)**	**377* (100,0%)**	**368* (100,0%)**

** Number of responding persons*

At the time of the survey (2017-2018), the feeling of an ongoing and real migrant crisis is widespread in Bulgarian society.

This feeling is reflected in the results of our study. As can be seen in Fig. 7 almost 80.0% (307) of those covered agree (fully or partially) with the statement that the country is threatened by a wave of migrants. Only 31 (8.0%) of the respondents completely disagree with him.

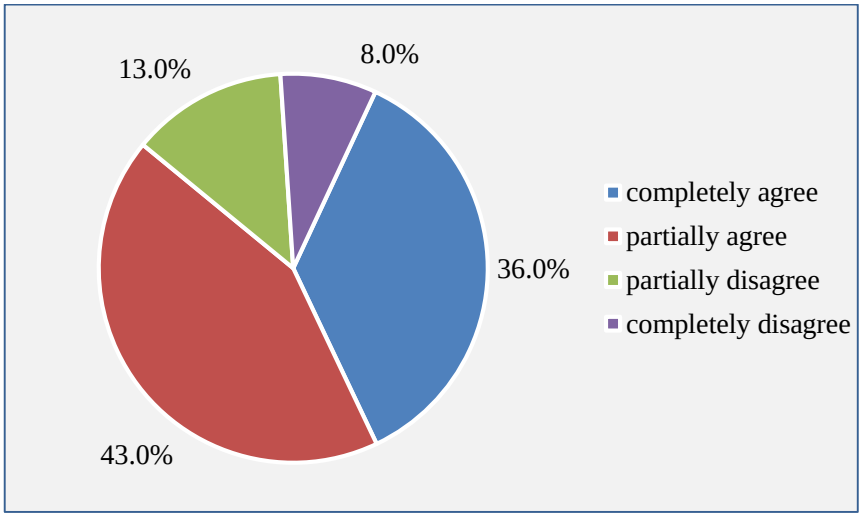

Fig. 7 *Distribution of respondents according to the answers to the question "Do you agree with the statement that Bulgaria is currently threatened by a wave of migrants?"*

The one third (113 people - 29.0%) of those surveyed share the opinion that the relative share of migrants in Bulgaria is higher than in EU member states. These results correlate with public opinion in other countries, where the share of migrants is overestimated and is assessed by people as many times higher than the real one.

The majority of respondents define people's desire for migration as justified (227 people - 58.5%). According to 51 (13.1%) this desire is unfounded, and one third cannot assess how justified the desire of people to migrate to another country is. The high level of tolerance for the desire for migration corresponds to the fact of significant, mainly economic, immigration of young people from Bulgaria in the last 30 years. According to data from the last census in 2011, there are over 1 million Bulgarians living permanently outside Bulgaria. The UN data is similar - 1.18 million, and Eurostat reports a higher number of Bulgarians abroad, by 2017, respectively 1.3 million people.

Respondents were given the opportunity to identify three leading reasons for people to migrate from their own country. According to them, they are ranked as follows:

1. War in their country - 271 respondents;

2. Poor economic conditions in their country - 201 respondents;

3. Search for better living conditions for their families - 173 respondents.

It is noteworthy that according to the respondents, the leading reasons for migration are the so-called pushing factors that actually force war victims to flee in panic from their country of origin.

Significant differences are found between the official data of the State Agency for Refugees under the Council of Ministers (AREF) and the opinion of the respondents regarding the country of origin of the migrants. Over 70.0% (273) of them believe that the majority of migrants in Bulgaria are of Syrian origin, most likely affected by the war in the country at the time of the survey and the ensuing refugee crisis. The ranking of the opinions of those covered puts the following places, as countries of origin of migrants, as follows: Iraq - 47 (12.0%); Afghanistan - 28 (7.2%), Pakistan and Iraq with 20 (5.2%) respectively. According to official data for 2020, migrants in Bulgaria come mainly from Afghanistan, followed by Syria, Iraq, Morocco and Pakistan. These data raise the hypothesis that the leading reasons for migration of residents in Bulgaria are mostly economic, ie. the so-called pulling factors, not so much for humanitarian reasons and as a result of war.

The opinion of the respondents regarding the educational status of migrants in the country overlaps significantly with the information published by AREF.

Historically, our country has received large flows of migrants (Jews, Armenians, etc.). According to 245 (63.1%) of those surveyed, Bulgaria is a country through which migrants only pass, ie. it is a transit country. More than one fifth of the respondents (86 people - 22.1%) agree that Bulgaria is a country where migrants are forced to stay, but there is no lack of positive people (55 people - 14.2%) who believe that our country is a place where migrants want to stay. These results confirm the fact that Bulgaria is a transit country under the so-called "Balkan road" to Western Europe.

The relative share (356 persons - 91.8%) of the persons who expressed an opinion that they are not familiar with the integration state policies regarding the emigrants in our country is high.

There were statistically significant differences in the assessment of the different groups of persons included in the study, in terms of the adequacy of the state policy related to migrants. In almost equal relative shares are distributed the evaluators of the policy as rather adequate (141 persons - 36.4%), rather inadequate (123 persons - 31.7%) and hesitant on the issue (123 persons - 31.7 %). Among the population between the ages of 18 and 30, the prevailing opinion is that the policy is inadequate: 35 (21.6%) assess it as partially and 25 (15.4%) as completely inadequate. In the middle age group, about 40.0% (63) of those covered accept the state policy towards migrants as rather adequate. Among the population over 50 years of age, the state policy is mostly assessed as completely adequate (13 people - 20.0%). With increasing age, the assessment of the full adequacy of public policy increases *($\chi^2=20.300$, $df=8$, $p<0.01$).*

There is no significant gender difference in the assessment of the adequacy of the state policy regarding migration processes in the country ($p>0.05$). The share of men who accept the policy as completely adequate is twice as high (19 people - 12.8%) compared to women (16 people - 6.8%).

Residence also has a statistically significant influence on public opinion about the country's policy *($\chi^2=14.230$, $df=4$, $p<0.01$)*. The population living in the villages tends to evaluate the policy positively, while the urban population has a rather negative view of the issue.

The relative share of the persons assessing the state policy as completely inadequate

increases with the increase of the educational status of the covered persons (Fig. 8). The share of people with higher education who negatively evaluate policy (24 people - 20.0%) is twice as high as the share of people with primary education (1 person - 10.0%), and conversely the share of people with higher education, who accept the country's policy towards migrants as fully adequate is four times smaller (6 persons - 5.0%) than that of persons with primary education - 2 (20.0%) *(p>0.05).*

Bulgaria is a country characterized by a successful model of ethnic tolerance. However, over two thirds (267 persons - 68.8%) of the covered persons share the opinion that the state should restrict the access of migrants in the country, and almost one third of them express an opinion on the state's tolerance towards migrants. To some extent, these results contradict the above understanding of the validity of migrants' desire to leave their country and seek a better place to live, and confirm the results published by UNHCR in 2018.

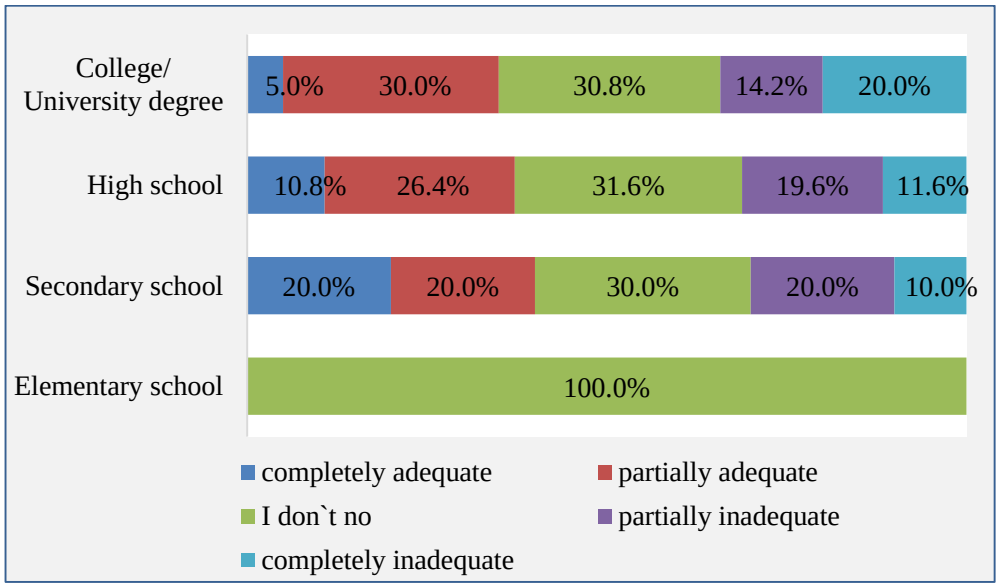

Fig. 8 *Distribution of respondents according to the answers to the question "In your opinion, the state policy towards migrants is?" by educational level (in %)*

4.3. Medico-social and health problems of migrants

More than three quarters (305 people - 78.6%) of the respondents answered that they are not aware of the social problems of migrants, and even higher (335 people - 86.3%) is the relative share of those unfamiliar with their health problems.

The majority (316 people - 81.4%) of those surveyed claim that the health of migrants is worse than that of the local population. There was no statistically significant difference in the answers of the respondents according to their demographic characteristics such as gender, age, place of residence and educational status *(p>0.05)*. These results contradict the real situation, which is described by the so-called the “effect of a healthy migrant” and the fact that people with severe illnesses are not fit to travel.

The assessment of the respondents for the impact that the health status of migrants has on the health of the Bulgarian population confirms the results discussed so far. Just over one tenth (43 persons - 11.1%) of the covered persons share the opinion that the health of Bulgarians is not endangered by the health status of migrants (Fig. 9). 148 (38.1%) fully or partially (197 persons - 50.8%) agree with the opposite statement - about the existing threat to public health in relation to the health of migrants. A similar public perception of the threat to the health status of migrants

was established by UNHCR in 2018.

Among the population aged 18-30, the share of those who agree with the statement that the health of migrants threatens the health of the Bulgarian population is predominant - 71 (43.8%) are fully agree and 76 (46.9%) of them partially agree. Similarly, but in higher relative shares, is the ranking of the opinion of persons over 50, respectively 29 (44.6%) fully agree and 31 (47.7%) partially agree. Among the persons in the age group 30-50, the share of those who disagree with the opinion about the existing threat to public health in Bulgaria is the highest: 10 (6.3%) are completely disagreeable, and 13 (8.2%) are partly disagree with this statement *(χ^2=11.580, df=9, p>0.05).*

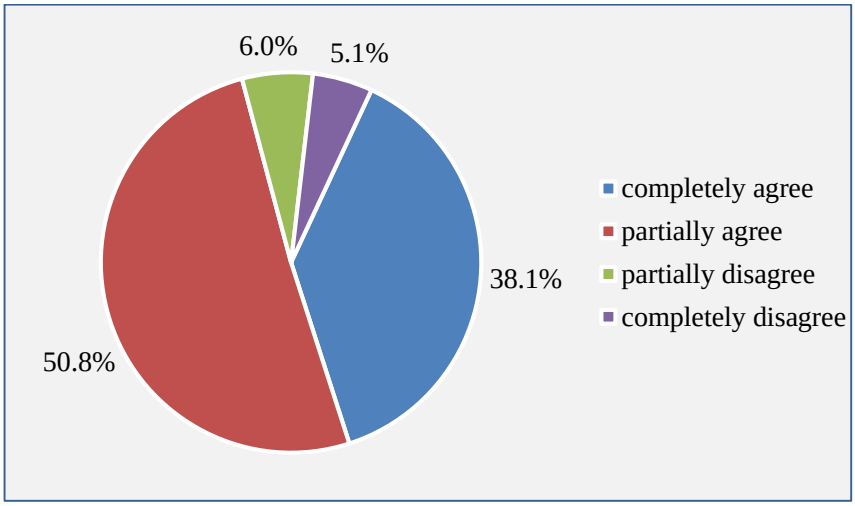

Fig. 9 *Distribution of the respondents according to the answers to the question "Does the health condition of migrants endanger the health of the Bulgarian population?" (in %)*

No statistically significant difference was found in the opinions on the issue in relation to the sex of the persons *(χ^2=7.020, df=3, p>0.05).* Among the two sexes, the share of persons who completely agree (men - 66, 44.6%; women - 81, 34.6%) and partially agree (men - 63, 42.2%; women - 131, 55.9%) with the statement about the existing threat to health significantly prevails. of the Bulgarian population. Among those who disagree with this statement, few, but the relative share of men prevails.

Rather, residence has an impact on the perception of a threat to the health of the local population as a result of the health status of migrants *(χ^2=7.950, df=3, p=0.04).* Among the two compared groups, the answers "strongly agree" and "partly agree" prevail, with the share of the urban population fully agreeing with this statement (131 or 40.4%) being almost twice as high as that of the population, living in the villages - 15 (25.4%).

Education is extremely important in forming an opinion regarding social processes. In our study, it did not have a significant effect in assessing the impact of the health status of migrants on that of the local population *(χ^2=14.150, df=9, p>0.05).* Among the respondents, the prevailing opinion is about the existing threat to public health related to the health status of migrants. The share of persons with higher (41 persons - 34.2%) and secondary (104 persons - 41.3%) education, fully agree with this statement, is three to four times higher than that of persons with primary education (1 person - 9.1%). All persons with primary education partly agree with the thesis of the existing threat to public health.

The results presented confirm those published in a study by Agyemang (2014). In addition, they fit in with those reported by Moullan and Jusot (2014), who concluded that there is a north-

south gradient in Europe in terms of immigrants' health: their health is better in Italy and Spain than in France and Belgium. Conversely, the health status of local people is worse in Italy and Belgium than in France and Spain, and they conclude that differences in health status also depend on host countries. This implies differences in health selection in migration and in the integration of immigrants between European countries.

4.4. Health care for migrants

The inclusion of migrants in the health systems of destination countries is seen as an essential component of their integration and is an element of the UN Agenda for Sustainable Development Goals, with the imperative "No one left behind".

The results discussed in this way, expressed by the respondents, for the poorer health status of migrants and the danger that their health status poses to public health in the country, reflect on the assessment of respondents for the health needs of migrants.

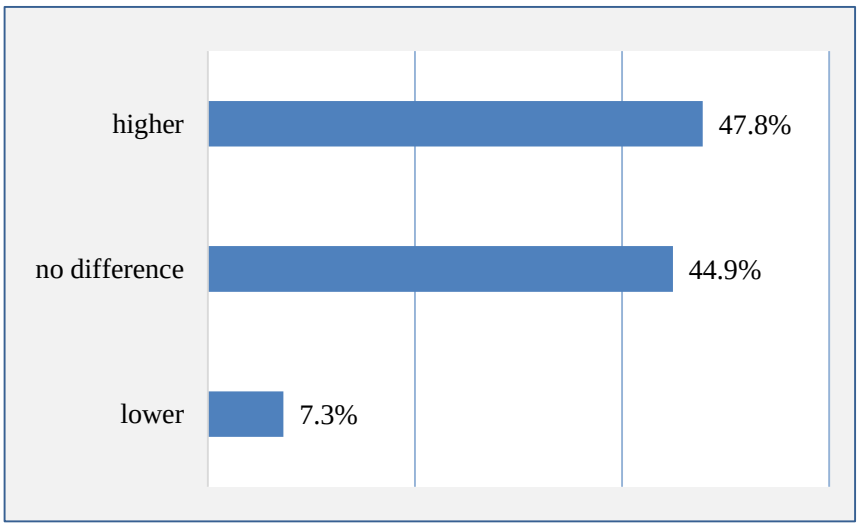

Fig. 10 *Distribution of respondents according to the answers to the question "In your opinion, compared to the Bulgarian population, the needs of migrants for health care are:?" (in %)*

The majority (185 people - 47.8%) of the respondents in the survey expressed an opinion for greater needs for health care of migrants compared to the Bulgarian population. The share (174 persons - 44.9%) of the people who accept that there is no difference between the health care needs of the two compared groups is slightly smaller (Fig. 10).

There was no significant difference in the opinions of the participants in the study according to their age *(χ^2=8.660, df=4, p>0.05).*

With age, the share of people who believe that the needs of migrants for health care are higher than those of the Bulgarian population decreases, as among the age group 18-30 it is 56.2% (91), among people in the average age group - 43.1% (68) and among the oldest respectively 38.5% (25). Accordingly, with increasing age, the relative share of persons responding that there is no difference in the needs for health care of the two compared groups increased: over 50 - 34 (52.3%), from 30 to 50 - 79 50.0%) and among the youngest - 60 (37.1%). The shares of the persons in the three age groups accepting that the health needs of the migrants are lower than those of the Bulgarian population are insignificant.

Education (Fig. 11) does not appear as a factor influencing the opinion of the respondents

regarding the needs of migrants for health care *(χ^2=5.520, df=6, p>0.05).*

Persons with university degree assess the needs of migrants for health care as greater than those of the Bulgarian population (60 persons - 50.0%). Those with high education as older (128 persons - 50.9%), and in the other two compared groups in equal relative shares they were assessed as larger and similar to those of the local population. One fifth of the persons with primary education (2 persons - 20.0%) consider the health needs of migrants to be lower than those of the Bulgarian population.

The place of residence and sex do not have a statistical effect on the answers of the respondents on the considered topic (p>0.05).

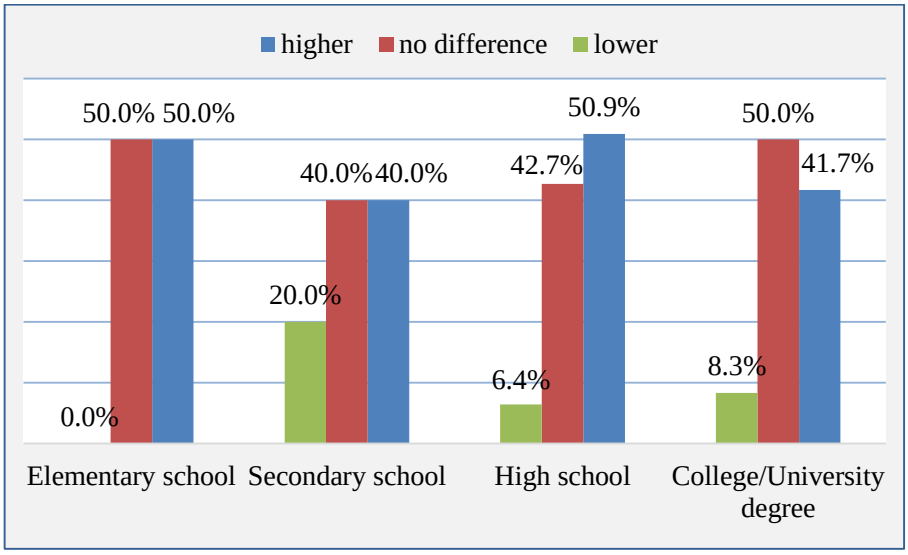

Fig. 11 *Distribution of the respondents according to the answers to the question "In your opinion, compared to the Bulgarian population, the needs of migrants for health care are:?" by educational degree (in %)*

In addition to assessing the health needs of migrants, respondents had the opportunity to share their views on the type of health care that migrants need. According to the predominant part of the covered migrants need mostly primary (134 persons - 34.5%) and specialized (123 persons - 31.8%) health care. One in six respondents shares the view that migrants need hospital care.

Tolerance of the Bulgarian population is manifested in the answer to the question "Do you think that health services should be provided to migrants, regardless of their status?". Over 80% of respondents (307 respondents) strongly stated the need to provide health services to migrants regardless of their legal status.

Less than a quarter (93 people - 24.0%) of those surveyed are strongly agreed about the readiness of the health system to fully respond to the needs of migrants with adequate health care (**Fig. 12**).

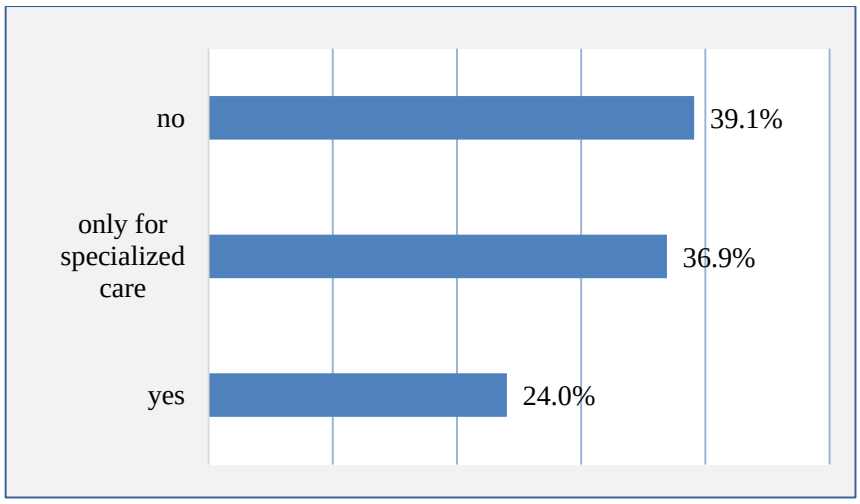

Fig. 12 *Distribution of respondents according to the answers to the question "Is our healthcare able to provide adequate health care for migrants?" (in %)*

The highest (152 persons - 39.1%) is the relative share of those who answered negatively to the question, and 143 (36.9%) of the persons accept the readiness of the system to meet only some of their specific health needs.

Regarding the influence of the place of residence and the educational level of the covered, no significant differences in the answers were found *($p>0.05$).*

The age distribution of the respondents on the issue is presented in Fig. 13.

People in the 18-30 age group are rather pessimistic. Among them, the relative share (72 persons - 44.4%) of those who answered negatively to the question is the highest. The prevailing opinion among people over the age of 50 is that the health care system can only meet some specific needs of migrants (28 people - 43.1%).

Among the representatives of the middle age group (30-50 years) there is no definite view on the issue, but compared to the other two age groups, the highest share of persons (49 persons - 31.2%) accept that the health system fully meets the needs of migrants *($\chi^2=8.650$, $df=4$, $p>0.05$).*

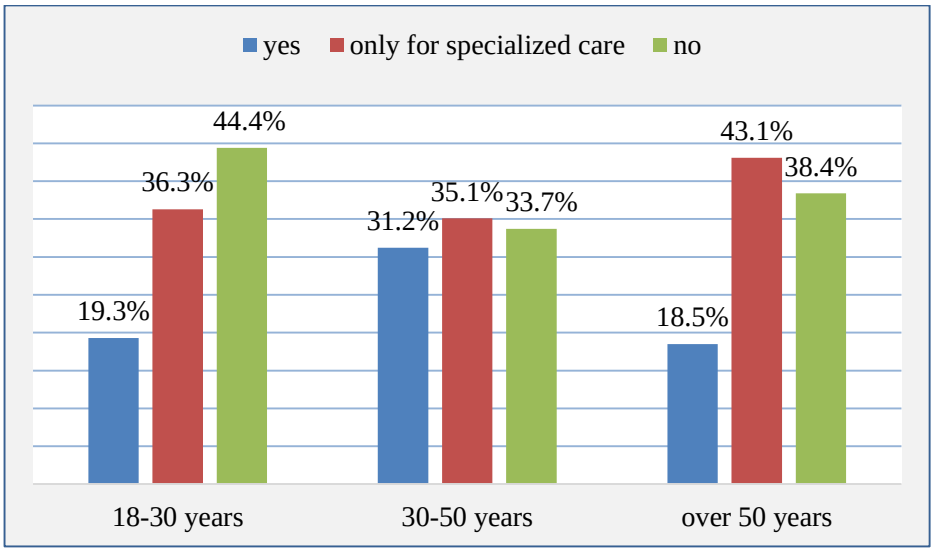

Fig. 13 *Distribution of respondents according to the answers to the question "Is our health care able to provide adequate health care for migrants?" by age (in %)*

Men (65 people - 43.8%) are more likely to assess the country's health system as incapable

of providing adequate health care to migrants, while women (96 people - 40.9%) are of the opinion that our health system can to provide health care only in relation to certain special health needs of migrants. Approximately one quarter of the respondents in both compared groups accepted health care as fully prepared to meet the health needs of migrants *(χ^2=4.110, df=2, p>0.05).*

5. THE FIRST LINE PROFESSIONALS OPINION ON THE MEDICO-SOCIAL PROBLEMS OF MIGRANTS

In March 2019, within the project TRAIN4M & H, funded by the European Commission, a survey was conducted among 22 professionals working on the first line with migrants and refugees in the Republic of Bulgaria. All experts were invited and participated in the study.

The collection of information was carried out through a direct group survey conducted by the author.

5.1. Demographic characteristics, professional competencies and working conditions of specialists

According to their professional expertise, the coverage is distributed as follows:

- health specialists – 5 persons
- social workers – 2 persons
- law enforcement officers – 13 persons
- NGO specialists – 2 persons

The majority of participants (15) are men, which corresponds to the professional characteristics of those covered. Their age varies from 28 to 68 years, with an average of 44.82 years.

Participants with work experience in the specialty over 15 years predominate, which is a guarantee of expertise in their work and in-depth knowledge of the medical and social problems of migrants.

Both the theoretical and practical training of specialists and their resource provision are important for the effective work and achievement of the desired results in the provision of health care to migrants.

The majority of those surveyed believe that they know the main determinants of the health of migrants and know the conditions, values and their cultural characteristics. Almost all respondents (20) share that the health of migrants is an important determinant of the health of the population in the host country, as 55% of those surveyed believe that the health of migrants threatens the health of the Bulgarian population.

The distribution of the respondents in terms of their knowledge of the main health problems of migrants is in two equal parts: 11 of them share that they do not know all or part of the health problems of migrants. This distribution is adequate to the characteristics of the covered group and their professional specialization.

Impressive is the fact that the majority of first-line professionals say they know where to find information on migrants' health problems, have the skills to assess migrants' individual health risks and are convinced of the benefits of improvement the health of migrants.

At the same time, however, the majority of them consider that they are not sufficiently prepared and do not have in whole or in part: skills for assessing the specific health problem of migrants; skills for planning, implementing and evaluating health intervention among the migrant community and do not know and do not apply modern interactive methods of health education among migrants.

Of great importance for the positive results in solving the health problems of migrants are the resources they have and the conditions under which professionals work. The majority of professionals say that they have the skills to build partnerships and teamwork, have a desire to work with migrants, have the necessary working conditions - office, internet connection, telephone and have the support of their managers, colleagues and associates. At the same time, the financial resources and the time available to professionals to carry out activities to improve the health of migrants are considered insufficient.

The presented results, for self-assessment of the professional training of the specialists covered in the study and for the resources at their disposal for solving health problems of migrants, show that they are motivated and objectively assess the need for continuing education on migrant health.

5.2. Assessment of migration processes and the country's policy towards migrants

Only 20.0% of respondents who work with migrants strongly disagree with the statement that the country is threatened by a migrant crisis. The majority or 55.0% of those covered agree (in part or in full) with this statement. The opinion of all (100.0%) specialists is that Bulgaria is a country through which migrants only pass, ie. it is a transit country.

Of interest is how front-line professionals define government policy towards migrants. Almost half of them (46.0%) assess it as partially adequate and 18.0% as fully adequate, which is a good attestation of the role of the state in managing migration processes in the country.

There is a statistically significant difference in the opinion of professionals, according to their professional competencies *(χ^2=5.460, df=1, p=0.02).* Significantly higher relative share (71.4%) of medical professionals (MP: health and social workers), define the country's policy as inadequate, while according to 80.0% of non-medical professionals (NMP: law enforcement officers and employees in NGO) it is adequate. These results, in particular the opinion of the MP, coincide with the general assessment, according to the MIPEX system. Bulgaria falls into the group of countries assessed as the so-called ***equality of documents - half unfavourable*** (average score: 40/100), ie. the country's policy focuses mainly on the basic rights of immigrants and is only halfway to providing them with long-term security.

There were no statistically significant differences in the responses of specialists according to their age, length of service in the specialty and gender *(p>0.05).*

The state's policy towards migrants is commented on according to the nuances of the answer to the previous question. Opinions on obstacles and problems to adequate policies declared such as:

- lack of administrative capacity;
- integration policies are absent or completely subject to EU rules;
- transfer of responsibilities between institutions;
- spending a lot of money on migrants, etc.

As positive aspects of the policy, the respondents point out the provision of access to health care and the labour market for asylum seekers, as well as the provision of financial resources by the state for the integration of refugees and migrants.

It is noteworthy that only three of the respondents say that the country's policy should be tolerant of migrants, and more than half believe that the state should restrict the access of migrants in the country. Among those who expressed a different opinion, the prevailing views are on the need for full compliance of the country's policy with international standards and tolerance, according to the status of the person. There are also opinions on restricting the access to the country

of illegal and economic migrants, as well as their return to the country of origin. The results confirm those published by UNHCR in 2018.

5.3. Medico-social and health problems of migrants

The majority of experts (over 85.0%) answered that they are familiar with the leading social problems of migrants.

Those covered were given the opportunity to identify the three most important social problems of migrants, which led to a wide range of opinions, the leading ones being:

- Ignorance (of migrants) of the cultural, social and administrative conditions and regulations in the country - 9 respondents;
- Lack of work experience and unwillingness to work - 5 respondents;
- Language barrier - 4 respondents;
- Low educational status - 3 respondents;
- Lack of work, lack of funds, lack of social assistance, religious beliefs - 2 respondents for each;
- Separation of families, criminal acts, negative attitude of the local population, etc. - 1 answered for each.

The view of the lack of prior training (educational, linguistic, administrative) on the part of migrants stands out, which confirms the fact and opinion of the experts that Bulgaria is a transit country for migrants, where they are forced to stay due to legal provisions.

The relative share of professionals (59.0%) who say they are aware of migrants' health problems is lower. However, the fact that the specialists covered by the study, regardless of their professional expertise, face daily a variety of problems (social, health, legal, etc.) of migrants allows them to assess their leading health problems.

According to the respondent, the ranking of health problems among migrants is as follows:

- Poor hygiene and as a result the spread of infectious, respiratory and parasitic diseases - 11 respondents;
- Mental problems and stress - 5 respondents;
- Injuries, frostbite and burns - 3 respondents;
- Chronic diseases, children's health problems, malnutrition and low health culture - 2 respondents for each;
- Pregnancy, religious practices and traditions affecting health - 1 answer.

According to the prevailing public opinion, the health of migrants endangers the public health of the host country. Only 5.0% of the specialists covered by the survey share this opinion, and one in five completely disagrees with this position, three quarters of the respondents do not have a firm position on the issue (Fig. 14). 54.5% of the respondents generally fully or partially agree with the opinion that migrants are a threat to public health, which corresponds to the findings of Tallarek M et al. (2020) that refugees and asylum seekers are often portrayed as a "burden" and carriers of diseases that threaten the "healthy society" of the host or transit country.

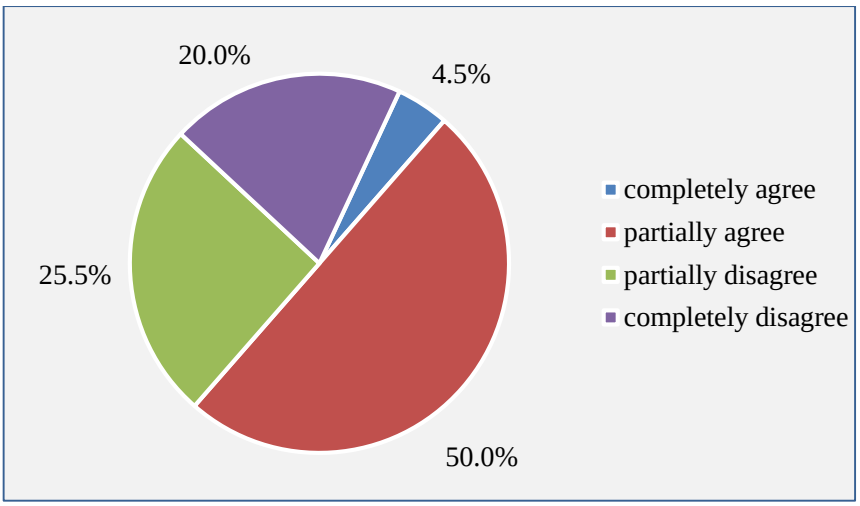

Fig. 14 *Distribution of the surveyed specialists according to the answers to the question "Does the health condition of migrants endanger the health of the Bulgarian population?" (in %)*

Significant differences are found in terms of the negative impact of the health status of migrants on the health of the Bulgarian population as follows: the relative share of MP who agree with this statement (15.4%) is almost five times lower than the share of NMP, respectively 84 , 6% *($\chi 2 = 3{,}960$, $df = 1$, $p = 0.04$)*; over 80.0% of male respondents perceive the health status of migrants as a threat to public health, while only 15.0% of women agree with this statement *($\chi^2=3.960$, $df=1$, $p=0.04$)*. No significant differences were found in the responses of the persons covered in terms of their age and length of professional experience *($p>0.05$).*

According to the respondents, the diseases of migrants that are a threat to the health of the population in the country are:

- Infectious and parasitic diseases (10 answers);
- Skin diseases (7 answers);
- Sexually transmitted diseases (1 answer)

and only one of those covered shared the opinion that the health status of migrants does not differ significantly from that of the local population.

The views of the experts presented in this way do not correspond to the generally accepted notion that there is no connection between migration and an increase in the incidence of infectious diseases in the host country.

5.4. Health care for migrants

According to three quarters of the specialists covered, there is no difference in the needs of migrants for health care compared to the Bulgarian population.

There was a statistically significant difference in the responses of MP and NMP regarding the needs of migrants for health care *($\chi^2=7.440$, $df=1$, $p<0.01$)*. All NMP define the needs of migrants for health care as greater than those of the Bulgarian population, and among the MP - 57.1% are of the same opinion. All persons assessing the health needs of migrants as lower than those of the Bulgarian population are MP (Fig. 15).

There were no significant differences in the opinions of the covered specialists depending on their gender, age and professional experience *($p>0.05$).*

The prevailing opinion (45.0%) is that migrants need mostly out of hospital health care provided by a general practitioner (GP). Almost a third of the specialists surveyed believe that migrants need outpatient specialized care, and a quarter estimate that migrants need mainly

emergency care. None of the respondents stated that the hospital is the place to provide health care to migrants. These results confirm the positive impact of the lower average age of migrants and the so-called "healthy migrant effect" on the health status of migrants and, respectively, lower or similar health care needs in the host country.

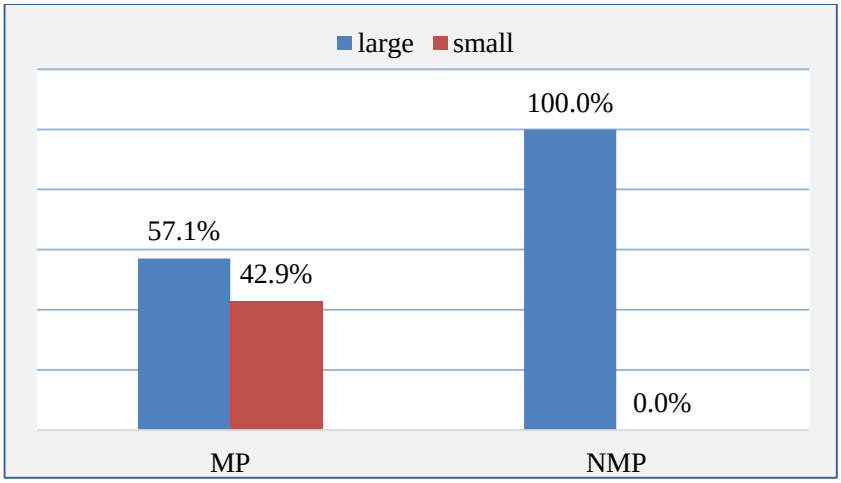

Fig. 15 *Distribution of the MP and the NMP according to the answers to the question "In your opinion, compared to the Bulgarian population, the needs of migrants for health care are:" (in %)*

Only one respondent answered in the negative to the question *"Do you think that health services should be provided to migrants, regardless of their status?"*. Almost all of the experts surveyed expressed the need to provide health care to migrants, regardless of their legal status. The vision of the specialists corresponds to the stated right to health for everyone in a number of world laws and instruments.

Of interest is the assessment of specialists regarding the readiness of the health system in the country to provide adequate health care for migrants.

As can be seen in Fig. 16 two thirds of the respondents share the opinion that health care in the country can provide only some specific care, 14.0% say that the system is not prepared, and one in five respondents assess the health system as fully ready to provide adequate health care to migrants.

There were no statistically significant differences in the assessments of the respondents depending on their gender, age, professional experience and work experience in the specialty *($p>0.05$).*

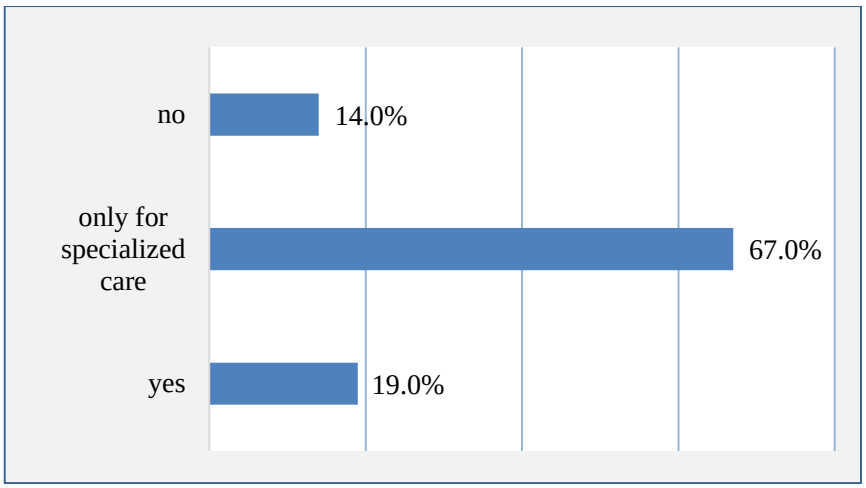

Fig. 16 *Distribution of respondents according to the answers to the question "Is our healthcare able to provide adequate health care for migrants?" (in%)*

6. COMPARATIVE ANALYSIS OF THE RESULTS OF THE SOCIETY AND THE SPECIALISTS REGARDING THE MEDICO-SOCIAL PROBLEMS OF MIGRANTS IN BULGARIA

For the full analysis of the object of the research (medical and social problems and health care of migrants) a comparison of the opinions and views of the representatives of the society and expressed by the specialists working on the first line with the migrants was made.

The results obtained, in which a statistically significant difference was found in the responses of the compared groups, are presented in Table 11.

Table 11 *Comparative analysis of the results in the answers of the society and the specialists (in %)*

Characteristics	Society	Specialists
1. *„Do you agree with the statement that Bulgaria is currently threatened by a wave of migrants?“* *(χ^2=14.500, df=3, p<0.001)*		
1. Completely agree	**140 (36,1%)**	3 (13,6%)
2. Partly agree	167 (43,0%)	9 (40,9%)
3. Partly disagree	50 (12,9%)	6 (27,3%)
4. Completely disagree	31 (8,0%)	**4 (18,2%)**
Total	**388 (100,0%)**	**22 (100,0%)**
2. *„In your opinion, the state's policy towards migrants is?“* *(χ^2=22.340, df=4, p<0.001)*		
1. Completely adequate	35 (9,0%)	**4 (18,2%)**
2. Partly adequate	107 (27,6%)	10 (45,5%)
3. I can not decide	122 (31,4%)	2 (9,1%)
4. Partly inadequate	69 (17,8%)	6 (27,2%)
5. Completely inadequate	**55 (14,2%)**	NA
Total	**388 (100,0%)**	**22 (100,0%)**
3. *„Are you aware of the health problems of migrants?“*		
1. Yes	54 (13,9%)	**13 (59,1%)**
2. No	**334 (86,1%)**	9 (40,9%)
Total	**388 (100,0%)**	**22 (100,0%)**
4. *„Are you aware of the social problems of migrants?“*		
1. Yes	82 (21,1%)	**19 (86,4%)**

2. No	**306 (78,9%)**	3 (13,6%)
Total	**388 (100,0%)**	**22 (100,0%)**
5. *„The health condition of migrants endangers the health of the Bulgarian population?“* *(χ^2=37.840, df=3, p<0.001)*		
1. Completely agree	**148 (38,1%)**	1 (4,5%)
2. Partly agree	198 (51,0%)	11 (50,0%)
3. Partly disagree	23 (6,1%)	6 (27,3%)
4. Completely disagree	19 (4,9%)	**4 (18,2%)**
Total	**388 (100,0%)**	**22 (100,0%)**
6. *„In your opinion, compared to the Bulgarian population, the needs of migrants for health care are?“* *(χ^2=24.070, df=2, p<0.001)*		
1. Smaller	28 (7,2%)	3 (13,6%)
2. No difference	174 (44,9%)	**17 (77,3%)**
3. Bigger	**186 (47,9%)**	2 (9,1%)
Total	**388 (100,0%)**	**22 (100,0%)**
7. *„What kind of health care do migrants need?“* *(χ^2=9.770, df=3, p=0.02)*		
1. Emergency	68 (17,5%)	5 (22,7%)
2. General practitioner	**134 (34,5%)**	**10 (45,5%)**
3. Specialized out of hospital care	123 (31,7%)	7 (31,8%)
4. Hospital care	**63 (16,2%)**	NA
Total	**388 (100,0%)**	**22 (100,0%)**
8. *„Is our healthcare able to provide adequate health care for migrants?“* *(χ^2=15.110, df=2, p<0.001)*		
1. Yes, completely	93 (24,0%)	4 (18,2%)
2. Only for special care	143 (36,9%)	**15 (68,2%)**
3. No	**152 (39,2%)**	3 (13,6%)
Total	**388 (100,0%)**	**22 (100,0%)**

6.1. Assessment of migration processes and the country's policy towards migrants

At the time of the cross-sectional survey, the feeling of an ongoing and real migrant crisis was widespread in Bulgarian society. This feeling is reflected in the results of our study. A significant difference was found between the answers of the compared groups, *society and specialists* working on the first line with migrants *(χ^2=14.500, df=3, p<0.001).*
As can be seen in Table 11, only 20.9% of the members of the public surveyed disagree (fully or partially) with the statement that the country is threatened by a wave of migrants.
The share of specialists working with migrants who disagree with the statement that the country is threatened by a migrant crisis is significantly higher (45.5%). The majority of specialists (55.1%) agree (partially or completely) with this statement.

Over 36.0% is the relative share of people who assess the state policy towards migrants as adequate. *The share of specialists (over 60.0%) who share the same view is higher. It should be noted that none of the front-line workers with migrants assess the policy as completely inadequate, while about 14.0% of the society define it as such (χ^2=22.340, df=4, p<0.001).*

The prevailing opinion among the society (68.8%) is that the state should restrict the access of migrants in the country, and almost a third of them express an opinion about the state's tolerance towards migrants. *Only three of the surveyed experts say that the country's policy should be tolerant towards migrants, and more than half are of the opinion that the state should restrict the access of migrants in the country.*

6.2. Medico-social and health problems of migrants

Over three quarters (78.9%) of the respondents, representatives of the society, answered that they are not aware of the social problems of migrants, and the relative share (86.1%) of those among them who are not familiar with the health problems of migrants. *The majority of experts (over 86.1%) answered that they are familiar with the leading social problems of migrants. The*

relative share of professionals who claim to be familiar with the health problems of migrants is lower (59.1%).

There was a statistically significant difference in the answers of the two compared groups regarding the question related to the impact of the health status of migrants on public health in the country *(χ^2=37.840, df=3, p<0.001).*

Nearly nine out of ten public respondents fully (38.1%) or partially (51.0%) agree with the statement about the existing threat to public health. It was found that, contrary to public opinion, only 4.5% of experts fully support the opinion of an existing threat to public health. 50.0% of the surveyed experts partly agree with the opinion that migrants are a threat to public health, and one in five (18.2%) completely disagrees with this position.

6.3. Health care for migrants

The predominant part (47.9%) of the respondents covered by the survey from the public express an opinion about greater needs for health care of migrants compared to the Bulgarian population. The share (44.9%) of people accepting that there is no difference between the health care needs of the two compared groups is slightly lower. *According to three quarters of the specialists covered, there is no difference in the needs of migrants for health care compared to the Bulgarian population. Significant differences were found in the assessment of the health care needs of migrants according to the profile of the compared groups (χ^2=24.070, df=2, p<0.001).*

According to the majority of the covered members of the society, the needs of migrants are mainly for out of hospital care: primary (34.5%) and specialized (31.7%), and there are also opinions that migrants need hospital care. *According to the experts covered by the survey, the prevailing opinion (45.5%) is that migrants need mostly out of hospital health care provided by a general practitioner (GP). None of the respondents stated that the hospital is the place to provide health care to migrants (χ^2=9.770, df=3, p=0.002).*

To the question "Do you think health services should be provided to migrants, regardless of their status?" Over 80% of respondents (307 respondents) strongly stated the need to provide health services to migrants regardless of their legal status. *Almost all of the experts surveyed expressed the need to provide health care to migrants regardless of their legal status.*

Less than a quarter (24.0%) of the public covered by the survey are adamant about the readiness of the health system to fully respond to the needs of migrants with adequate health care. The highest (39.2%) is the relative share of those who answered negatively to the question, and 36.9% of those who accept the readiness of the system to meet only some of their specific health needs.

Almost two thirds of the respondents share the opinion that health care in the country can provide only some specific care, 13.6% say that the system is not prepared, and every fifth respondent assesses the health system as fully ready to provide adequate health care to migrants (χ^2=15.110, df=2, p<0.001).

In general, statistically significant differences in the views of society and professionals working on the front lines with migrants were found on the following main issues:

1. The threat to the country from the migrant wave;
2. The adequacy of the state policy towards migrants;
3. Knowledge of the health and social problems of migrants;
4. The extent to which the health condition of migrants endangers the health of the Bulgarian population;
5. The needs of migrants for health care;
6. The type of health care that migrants need;
7. The readiness of the health system in the country to provide adequate health care for migrants.

The opinions of the compared groups coincided on the issues of:

1. Restricting the access of migrants in the country
2. Providing health care to migrants, regardless of their legal status.

Thus, the differences in the views of specialists and those of society related to the medical and social problems of migrants clearly indicate the ignorance of society about the nature of the problems and the impossibility of building a real assessment of the actual situation. Possible overcoming of ignorance can be achieved by objectively presenting the problems of migrants in the media and reducing misinformation about the problem.

7. TRAINING PROGRAM ON "HEALTH OF MIGRANTS AND MINORITIES" IN SPECIALTIES FROM THE FACULTY OF PUBLIC HEALTH OF THE MEDICAL UNIVERSITY - PLEVEN

7.1. Need to develop and test a training program on "Health of migrants and minorities"

The European Public Health Association's statement on migration, ethnicity and health addresses the need to support the development and implementation of public health policies, including through the provision of training courses on MEM health.

Following the unprecedented migrant crisis in Europe in 2015, MEM's health has been the focus of EUPHA's theoretical and practical research interests, and based on the author's training as a mentor to Roma students at the Faculty of Public Health A decision to develop and test a training program on "Health of Migrants and Minorities" among students majoring in "Public Health and Health Management" master's degree was made.

The program has been developed and implemented since the academic year 2016-2017, and is available to authorized users in the Distance Learning System of MU-Pleven https://do.mu-pleven.bg/course/view.php?id=4038 (Picture 2).

The main goals of the unique for the country curriculum on "Health of migrants and minorities", offered at the Medical University of Pleven as an optional subject are:

- to expand and upgrade the specific knowledge of students in public health;
- to develop competencies and skills of future public health specialists to solve the medical and social problems of MEM.

The training includes 15 academic hours and ends with an electronically based test.

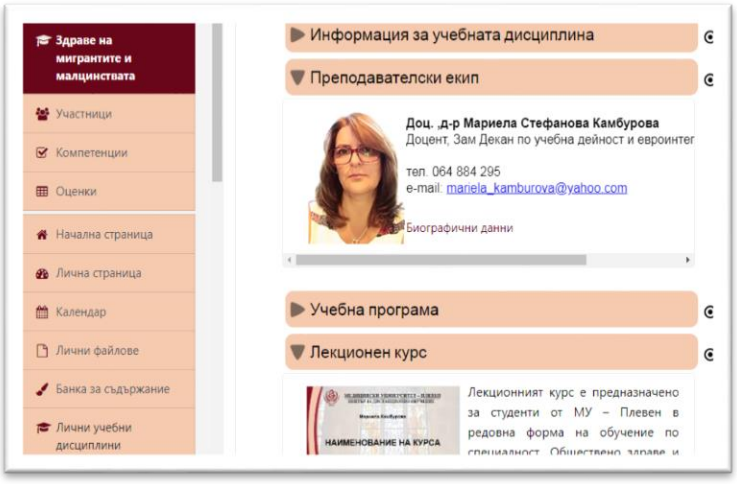

Photo 2 *MU-Pleven distance learning system*

Teaching methods include lectures, seminars and individual practical tasks, with an emphasis on practical rather than theoretical classes.

The training addresses a number of issues related to the health of migrants and minorities, presenting:

- the most important social and health problems of migrants;
- the impact of migrants' health status on public health;

- the organization of health care in the countries, final destination and migrants.

The lecture course provides information on the main challenges facing health professionals and the health system regarding the health of migrants and major minority groups, in particular the Roma as the predominant ethnic minority in Bulgaria and Europe.

The training course provides an opportunity for public health professionals to acquire objective knowledge of the international situation, critical assessment skills and the ability to apply appropriate strategies to deal with specific health problems of MEM representatives.

The training in the discipline "Health of migrants and minorities" meets the needs of in-depth knowledge of public health professionals regarding the medical and social problems of migrants and minorities in Bulgaria.

7.2. Results of training in the discipline

In Table 12 presents the exam results after taking the semester exam by the students.

Table 12 *Exam results in the discipline "Health of migrants and minorities" of students majoring in "Public Health and Health Management"*

Academic year	Number of students	Chose the discipline	Average success
2017-2018	23	7 (30.4%)	Very good (5.00)
2019-2020	25	8 (32.0%)	Very good (5.38)
2020-2021	17	9 (52.3%)	Excellent (5.56)
Total	**65**	**24 (36.9%)**	**Very good (5.31)**

There is an increase in students' interest in the discipline - from 30.4% to 52.3%, as well as an increase in the average success of the semester exam - from very good (5.00) to excellent (5.56).

The positive experience gives grounds to include the module as part of the main curricula of students in public health faculties in the country and as an elective course in other faculties of medical universities in Bulgaria.

CONCLUSIONS

1. Negative aspects in health status and in the distribution of health determinants are more common among disadvantaged people as migrants and belonging to the Roma ethnic group are major social factors determining all aspects of life of MEM, incl. their health. There is a shortage of scientific literature in Bulgaria on the medical and social problems of MEM.
2. The COVID-19 pandemic raises issues of deepening inequalities such as racial and geographical discrimination, inequalities in access to quality treatment and vaccination, the balance between public health and individual rights, with negative effects on the impact of these differences on global health justice.
3. The study found a widespread prevalence of unhealthy factors of lifestyle among the Roma population and as a result: 76.3% of those covered have BMI values above normal, including 44.1% - obesity; 42.3% of people have hypertension; 90% of the households covered have a family member with a chronic illness, as well as more than twice as many women suffering from more than three illnesses as men. Despite the declared good self-assessment of the health status, particularly alarming results are found with regard to the health of Roma women.
4. More than two thirds of the covered persons of Roma origin do not have health insurance, and in more than half of the families there is a health problem for which no health care has been sought. High consumption of emergency care, as 83.3% of those covered paid directly for the provision of health services. 82.1% of Roma women have never had a mammogram and 71.4% have had a smear test.
5. Specialists working on the Roma frontline disagree on the impact of the COVID-19 pandemic and the proportionality and effectiveness of the anti-epidemic measures imposed, while residents of the Nadezhda district illustrate the impact of the disease and the anti-epidemic measures in words. : "Lack of work", "no help", "illness", "misery", "hunger", "fear" and assess as negative and discriminatory the complete "closure" of the neighborhood during the state of emergency (April 2020) .
6. The society is not familiar with the social and health problems of migrants, but accepts the health of migrants as worse than that of the Bulgarian population and threatening public health in the country, *while 85.0% of specialists are aware of the leading social problems of migrants, and 59.0% with their health problems, as 55.0% of them accept the health status of migrants as a threat to public health.*
7. The society estimates the needs of migrants for health care as higher than those of the Bulgarian population, and the share of those who claim that the country's health system is not prepared to provide adequate health care for migrants is almost 40.0%. *There is a prevailing opinion among specialists that migrants need mostly out of hospital health care provided by a general practitioner. None of the respondents stated that the hospital is the place to provide health care to migrants.*
8. The current dissertation and the proposed teaching programme on "Health of migrants and minorities" for students from the faculty of Public Health of MU-Pleven, meet the call and recommendations expressed in the Statement of the European Public Health Association (EUPHA) on the health of migrants and ethnic minorities, to build MEM health capacity, which should be supported by education and training aimed at all health professionals, researchers, managers and policy makers.

The study confirms the hypotheses:

Hypothesis 1. The Roma population is characterized by an unfavorable risk constellation and an unfavourable health profile

Hypothesis 2. The health services provided to the persons of Roma origin are inadequate to their needs.

Hypothesis 3. The opinion of the citizens of Roma origin about the effect of the anti-epidemic measures on their lives is negative.

Hypothesis 5. The health system in the country is not prepared to meet the health needs of migrants.

The study does not confirm the hypothesis:

Hypothesis 4. Among the society and the specialists working on the first line with migrants, the prevailing opinion is that the health status of migrants does not endanger the health of the Bulgarian population.

RECOMMENDAIONS

According to the Statement of the European Public Health Association (EUPHA) regarding the health of migrants and ethnic minorities, measures need to be taken at the following levels: pre-hospital care, hospital care, higher medical schools, society and intersectoral action, therefore we make recommendations to:

The Ministry of Education to introduce an optional subject "Health of Migrants and Ethnic Minorities" in schools, with the aim of increasing the awareness of young people on the health problems of vulnerable groups and education in acceptance and inclusion of people of different ethnicities and cultures in society.

The Ministry of Health for:

1. establishment of offices and introduction of training practices on the health of migrants and ethnic minorities;
2. population-level measures and field work with vulnerable communities to provide timely and quality health services;
3. interaction between health services and their MEM users to improve communication and access to health services.

The Medical Universities and Faculties of Public Health for:

1. inclusion of compulsory, optional or elective courses on the health of migrants and ethnic minorities;
2. conducting post-graduate training of medical specialists to update knowledge on inequalities in health and the problems of vulnerable social groups;
3. capacity building through MEM health education and training aimed at all health professionals, researchers, managers and politicians;
4. funding and supporting qualitative scientific studies to gather more and valid data on MEM health.

Cross-sectoral cooperation measures through:

1. creation, maintenance and strengthening of permanent teams of specialists from various institutions (AREF, Ministry of Internal Affairs, Ministry of Health etc.) for the development and implementation of strategic documents regarding the organization of health care of the MEM.
2. continuous improvement of the qualifications of specialists from various interested institutions (AREF, Ministry of Internal Affairs, Ministry of Health etc.) regarding solving the complex health problems of MEM.
3. political, economic and financial support of the processes of integration of MEM in Bulgarian society.

CONTRIBUTIONS

Contributions of theoretical significance:

1. The first comprehensive study of its kind in our country on the migrant and minority (Roma) status as risky and negatively influencing the health status of the MEM was conducted.

2. For the first time, the medico-social problems and accessibility to quality health services of two vulnerable groups - migrants and Roma in Bulgaria - are being studied.

3. For the first time in our country, a scientific study comparing the points of view of representatives of the Roma ethnic group, public opinion and specialists working on the front line with MEM, regarding the medico-social problems of the covered groups, is being conducted.

4. For the first time, the impact of the epidemic of COVID-19 and the anti-epidemic measures against its spread on the life and health of citizens of Roma origin is assessed.

5. The literature review of the health problems of the MEM and the results of the study complement the lack of literature in Bulgarian on the medico-social problems of the two vulnerable population groups.

Contributions of a confirmatory nature

1. The role of migrant status and belonging to the Roma ethnic group as factors for deteriorating health status and difficult access to health services is confirmed.

2. The unpreparedness of the health system in the country to respond to the specific health needs of the MEM is confirmed.

Practical-applied contributions

1. A unique for the country curriculum on "Health of Migrants and Minorities" for students of MU-Pleven was developed and approved.

2. Specific recommendations have been formulated to the institutions in our country for intersectoral cooperation in order to adequately address the health and social problems of the MEM.

LIST OF SCIENTIFIC PUBLICATIONS RELATED TO THE DISSERTATION

1. **Kamburova M.** The impact of the COVID-19 epidemic and anti-epidemic measures in the Roma neighborhood in Sliven district, Bulgaria. *General practice*. 2021; 23(6): 37-46. ISSN: 1311-1817

2. **Kamburova M.** Health risk factors: body mass index, blood pressure and blood glucose among Roma in Bulgaria. *J of IMAB*. 2021 Oct-Dec; 27 (4): 4014-19. ISSN: 1312-773X

3. **Kambourova**, M., S. Georgieva. Roma origin as a factor for high level of adolescent fertility and abortion rate in European Union. *Medical review*, 2021; 57 (6): 53-9. ISSN: 1312-2193

4. **Kambourova**, **M.**, S. Georgieva. Health status of Roma population. *5th Electronic International Interdisciplinary Conference*, Publishing Society, Slovakia, 2016, 236-239. ISBN: 978-80-554-1248-1

5. **Kamburova, M.,** S. Georgieva, D. Tsanova. Social and health inequalities in the spread of SARS-COV-2 (COVID-19) in Bulgaria. In: New Approaches in Public Health and Health Policy: Proceedings of the Jubilee Scientific Conference with International Participation, Pleven, November 26-28, 2020: dedicated to the 15th anniversary of the Faculty of Public Health. Pleven, 20-25. ISBN: 978-954-756-254-7

SUMMARY

HEALTH OF MIGRANTS AND ETHNIC MINORITIES - MEDICAL AND SOCIAL ASPECTS IN BULGARIA

Mariela Kamburova, MD, PhD, MPH

Background: Migrants and ethnic minorities (MEM) often face serious inequities concerning both their state of health and their access to good quality health services. These inequities are increasingly being brought to light by public health researchers, but action to tackle them has lagged behind. To ensure that adequate attention is paid to the determinants of MEM health and the problems of service delivery that can confront these groups, health systems need to become more inclusive.

Objective: To explore medico-social problems of migrants and persons of Roma origin, aspects of their health care and effects of the COVID-19 epidemic among the Roma ethnic group in Bulgaria.

Material and methods: A complex observational cross-sectional study and participatory health research have been conducted exploring the migrant and minority status of the covered persons as factors determining the health risk factors and deteriorating health status among the representatives of these population groups on the one hand and on the other hand the preparedness of the health system in Bulgaria to respond to specific health problems of MEM. The health and health care of migrants and the Roma minority in the Republic of Bulgaria. were the object of the study.

Quantitative and qualitative data were collected through an unstructured interview. Summary criteria for reporting qualitative research: COREQ - checklist with 32 questions was used. Data processing was performed by SPSS v.24.

Results:

The study confirms the hypotheses:

Hypothesis 1. *The Roma population is characterized by an unfavorable risk constellation and an unfavorable health profile.*

Hypothesis 2. *The health services provided to the persons of Roma origin are inadequate to their needs.*

Hypothesis 3. *The opinion of the citizens of Roma origin about the effect of the anti-epidemic measures on their lives is negative.*

Hypothesis 5. *The health system in the country is not prepared to meet the health needs of migrants.*

The study does not confirm the hypothesis:

Hypothesis 4. *The health status of migrants does not affect negatively public health in Bulgaria.*

Conclusion: Negative aspects in health status and in the distribution of health determinants are more common among disadvantaged people, such as MEM, and effective treatment of health inequalities requires large-scale and systematic action that is universal but also proportionate. the disadvantage of the individual or social group in the social gradient. In order to establish MEM friendly health system in Bulgaria and to improve the quality of services provided develop and enhance skills of professionals working at local level is crucial.

Key words: *migration, Roma origin, social determinants of health, health inequalities, health*