Psychiatria Danubina, 2021; Vol. 33, Suppl. 10, pp S89-96
Medicina Academica Mostariensia, 2021; Vol. 9, No. 1, pp 89-96 *Original paper*

THE ROLE OF FAMILY PHYSICIANS IN THE PREVENTION AND EARLY DETECTION OF CANCER IN HERZEGOVINA-NERETVA AND WEST-HERZEGOVINA CANTON

Inga Marijanović[1], Marija Kraljević[1], Daniela Bevanda Glibo[2], Teo Buhovac[1] & Edita Černi Obrdalj[3]

[1]*Oncology Clinic, University Clinical Hospital Mostar, Mostar, Bosnia and Herzegovina*
[2]*Department of Internal Medicine, University Clinical Hospital Mostar, Mostar, Bosnia and Herzegovina*
[3]*Department of Family Medicine, School of Medicine University of Mostar, Mostar, Bosnia and Herzegovina*

received: 18.5.2021; revised: 23.6.2021; accepted: 14.7.2021

SUMMARY

Background: *This study aimed to investigate and analyze the role of general practitioners / family physicians (GPs/FPs) in counseling and encouraging early cancer prevention, their perception of value systems towards health and disease (especially malignant diseases), knowledge and experience with the national and local cancer early detection program.*

Subjects and methods: *A cross-sectional observational study included 38 GPs/FPs from nine municipalities in the Hercegovina-Neretva and West Herzegovina canton. Data were collected by using an Individual questionnaire for all GPs/FPs which was prepared according to the Questionnaire for family physicians on implementing the Cancer Control Program, which is used in Croatia.*

Results: *Statistical analysis showed that most GPs/FPs carried out activities on primary cancer prevention (educating patients about smoking, alcohol, diet, physical activity, cancer education, and screening). The majority of respondents stated that it was not profitable to do screening for lung cancer and stomach cancer. Most GPs/FPs (73.7%) recommended mammography to women individually, sporadically, according to individual risk assessment.*

Conclusions: *The scientific contribution and the results of this work can be applied in practice in local communities. Given its position in the health system, ongoing contact with the population that elected it, and its impact on the local community in which it operates, GP/FP plays an important role in the prevention of disease. Integration of preventive activities into the daily work of the doctor plays the most important role in achieving excellent results. Family medicine is primarily focused on primary and secondary prevention, which is carried out through a continuous approach and long-term management of patients.*

Key words: *neoplasms - preventive medicine – physicians - family*

* * * * *

INTRODUCTION

Cancer is one of the leading public health problems, in developed and developing countries, because of its high prevalence and incidence, the cost of treatment and rehabilitation and the reduced quality of life of patients. According to the International Agency for Research on Cancer (IARC), a specialized agency of the World Health Organization (WHO), in 2018 there was an increase to 18.1 million newly diagnosed cancer patients in the world, and 9.6 million died (International Agency for Research on Cancer 2018).

According to the report on the health status of the population of the FBiH published by Public Health Institute in 2018, the leading causes of death in 2017 in the Federation of Bosnia and Herzegovina (FBiH) were diseases of the circulatory system (51.6%) and malignant neoplasms (22.3%) which recorded a slight increase (Institute for Public Health of the Federation of Bosnia and Herzegovina 2018). The registration process of malignant disease is decentralized: primary, secondary and tertiary level health care institutions, and private health care activities, submit cancer cases to the competent Cantonal Institute of Public Health, and the FBiH Institute of Public Health compiles the data. Inaccurate instructions, insufficient education of health professionals result in sub-registration of newly discovered cases and relatively poor data quality. According to a report by GLOBOCAN 2020, 14 673 new cases of cancer in 2020 have been estimated in Bosnia and Herzegovina, with an age-standardized (World) incidence rate of 227.1. The 5 most frequent cancers excluding non-melanoma skin cancer (ranked by cases) were: lung, colorectum, prostate, stomach and bladder (in men); breast, colorectum, lung, corpus uteri and ovary (in women) (International Agency for Research on Cancer 2020).

Given the difficulties in establishing the Cancer Registry, there is still no accurate data for the FBiH and the Herzegovina-Neretva Canton.

Given that the therapeutic success, i.e. survival is most affected by the earlier diagnosis of the disease, the measure of secondary prevention is appropriate screening. Cancer screening is synonymous with secondary prevention. Systematic examinations of predominantly asymptomatic individuals of average risk of a certain age by scientifically proven tests, followed by appropriate

treatment, can prevent many cancer deaths in the population. Screening programs have the ability to significantly reduce the burden of breast, cervical and colorectal cancer in the population. This is associated with the detection and treatment of malignant tumors and the precursor lesions earlier than in the case without screening. The benefit can only be achieved if the quality is optimal in each step of the screening process. Many studies have shown that breast cancer screening is evidently beneficial for women between the ages of 50 and 74, while for age groups younger than 50, the benefit of screening is questionable (Brotons et al. 2005, Sim & Khong 2006, Strnad et al. 2008a,b, Katić et al. 2010, Znaor 2008, Šupe Parun 2011).

The criteria for the screening procedure (according to the WHO Observatory) are as follows (European Observatory on Health Systems and Policies 2006, World Health Organization 2007):

- The disease must be an important public health problem;
- Diagnostics must be accessible, safe and acceptable to the target population;
- Intervention for the patients must be established and available;
- The costs of diagnostics and intervention must be economically viable.

Given the indicators that show an increasing trend in the prevalence and incidence of cancer in FBiH and based on WHO recommendations, the Federal Institute of Public Health, in cooperation with cantonal/county institutes and other partners in the health system and civil society, is trying to work intensively on this problem. As mentioned earlier, because of difficulties in decentralized data collection that do not give a realistic picture of the size of the problem and because of the lack of a national cancer strategy and a coordinated program at the national level, monitoring and success of activities are lacking. However, this does not mean that there are no activities at the local level. It involves health professionals in collaboration with active non-governmental organizations (NGO). Local action initiatives exist, but their effectiveness is poorly monitored and reported.

An early cancer detection program significantly contributes to improving the cost-benefit ratio and the health of the population only if it is well conceived and covers the overall target population and if good quality of work is organized at all levels. The public health goal is to prevent the disease in the population.

The long transition in the FBIH directly affects the sustainability of the health system and the organization of health care, and the global economic crisis poses a threat to progress. Although wage and pension growth have increased in previous years, the severity of poverty has remained the same, and inequality is increasing. All the above contributes to the further deterioration of the socio-economic status of the population.

General/family medicine, by definition, is intended for all people regardless of gender, age, religion or ethnicity, or type of health problem. This is being achieved in most European countries. General practitioners/family physicians (GPsFPs) conduct prevention and early detection of malignancies. There are permanent needs for improving the health of the population. Taking care not to disrupt the existing health care organization and the capabilities, GPs/FPs could be involved in early detection of malignant diseases. GPs/FPs should not neglect its social role either, as much needs to be done for improving people's health (Westerman et al. 1990, Olesen et al. 2000, Boerma 2003, Starfield et al. 2005, World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians Europe 2005, Katić et al. 2013)

This study aimed to investigate and analyze the role of the health care system, especially GPs/FPs, in counseling and encouraging early cancer prevention, their perception of value systems towards health and disease (especially malignant diseases) and beliefs in the environment in which they work, knowledge and experience with the national and local program of early detection of cancer, the role of general practitioners in that program.

The purpose of this translational research was to identify and analyze the participation of GPs/FPs, their contribution to cancer prevention with predictors that affect it, in order to identify factors that can be influenced in the secondary prevention program in the local community. GPs/FPs implement health care planning and prevention and early detection of malignancies. Although the organization of health care is traditionally within the scope, GPs/FPs take part in health care, cancer prevention. However, according to statistical reports, there is a continuing need to improve health and space is opening up to include GPs/FPs in cancer prevention programs.

SUBJECTS AND METHODS

The study included 38 subjects who work as GPs/FPs in nine municipalities in Hercegovina-Neretva and West Herzegovina Canton. Before implementing the study, approval of the Ethics Committee was obtained. This study conforms to the Declaration of Helsinki in 1995 (as revised in Edinburgh 2000). Participation in the study was voluntary and anonymous. All subjects signed an informed consent form after receiving a detailed description of the study.

The study was a cross-sectional, made by interviewing.

Instrument of work used in this research was an individual questionnaire for all GPs/FPs prepared according to the Survey Questionnaire for Family Physicians on implementing the Cancer Control Program used in the Republic of Croatia.

Statistical analysis

In statistical data processing, standard methods of descriptive statistics were used: arithmetic mean, standard deviation and coefficient of variation to display the mean and scatter measures. Parametric tests (Student's t-test, Z-test, ANOVA test) were used to test the statistical significance of differences between samples. When the distribution of continuous variables was asymmetric, positional mean values were used to show the mean and scatter measures: mode, median, quartiles and interquartile range, and nonparametric tests (Mann-Whitney U test, Kruskal-Wallis test) to compare them. Parametric and non-parametric significance tests (test, Student's T-test, Z-test) were used to test the statistical significance of differences between samples. Nonparametric tests, Spearman correlation test, Pearson correlation test and multivariate analysis of variance by standard regression analysis-ANOVA (linear and logistic regression analysis) were used for multivariate correlation analyzes. Multivariate regression analysis was used for dichotomous dependent variables. Statistical hypotheses were tested at the level of significance $p<0.05$. The software system SPSS for Windows (version 17.0, SPSS Inc, Chicago, Illinois, USA) and Microsoft Excell (version 11. Microsoft Corporation, Redmond, WA, USA) were used for statistical analysis of the obtained data.

RESULTS

The study included 38 subjects who work as GPs/FPs in nine municipalities in Hercegovina-Neretva and West Herzegovina Canton. There was a higher proportionof femalethan male respondents in our study (χ^2=10526, df=1, p=0.001). There were no significant differences in findings considering the patients` population appointed to GPs/FPs (urban, predominantly urban, predominantly rural and rural patients` populations): χ^2=6.842, df=3; p=0.077. In the age structure of patients, the number of children and adolescents was the lowest (χ^2; df=2; p=0.009).

Table 1 shows the answers of GPs/FPs related to work on primary cancer prevention-implementation of activities on primary cancer prevention.

Table 1. Carrying out activities on primary cancer prevention among family physicians in Herzegovina

Variables	Yes		No		χ^2	p
	N	%	N	%		
Smoking						
Counseling during regular check-ups	37	97.4	1	2.6	34.105	<0.001
Smoking status recording in medical records	28	73.7	10	26.3	8.526	0.004
Other ways	15	39.5	23	60.5	1.684	0.194
Alcohol						
Counseling during regular check-ups	36	94.7	2	5.3	30.421	<0.001
Recording in medical records	25	65.8	13	34.2	3.789	0.052
Other ways	11	28.9	27	71.1	6.737	0.009
Dietary habits						
Counseling during regular check-ups	38	100.0	-	-	-	-
Recording in medical records	26	68.4	12	31.6	5.158	0.023
Other ways	18	47.4	20	52.6	0.105	0.746
Physical activity						
Counseling during regular check-ups	35	92.1	3	7.9	26.947	<0.001
Recording in medical records	15	39.5	23	60.5	1.684	0.194
Other ways	14	36.8	24	63.2	2.632	0.105
Education about cancer						
The relationship between healthy lifestyle and reduced incidence of cancer	33	86.8	5	13.2	20.632	<0.001
About screening programmes	33	86.8	5	13.2	20.632	<0.001
About early symptoms and signs of cancer	33	86.8	5	13.2	20.632	<0.001
Taking and recording family history	29	76.3	9	23.7	10.526	0.001
Vaccination or advising adolescents about HPV vaccination	5	13.2	33	86.8	20.632	<0.001
Knowledge of the cost-effectiveness of screening for specific cancer localizations						
Lung cancer	9	23.7	29	76.3	10.526	0.001
Gastric cancer	5	13.2	33	86.8	20.632	<0.001
Breast cancer	38	100.0	-	-	-	-
Colon cancer	37	97.4	1	2.6	34.105	<0.001
Prostate cancer	33	86.8	5	13.2	20.632	<0.001
Cervical cancer	37	97.4	1	2.6	34.105	<0.001

Table 2. Activities for early detection of cancer among family physicians in Herzegovina

Variables	Yes		No		χ^2	p
	N	%	N	%		
Cervical cancer						
Performing Pap Smear Test	1	2.6	37	97.4	34.105	<0.001
Only enter the date and results of the last PAPA test in the health card, and record whether it was performed within three years (as per the National Program)	25	65.8	13	34.2	3.789	0.052
You advise women over the age of 18 who are at increased risk for developing the disease (e.g., freer-minded adolescents, menopausal women with a previously poor PAPA test) to be checked regularly by a gynecologist	35	92.1	3	7.9	26.947	<0.001
You don't deal with it at all, you leave everything to the primary gynecologist	4	10.5	34	89.5	23.684	<0.001
Breast cancer						
Clinical exam of breast						
You systematically examine certain groups of women at regular checkups	9	23.7	29	76.3	10.526	0.001
Individually, sporadically, according to individual risk assessment	32	84.2	6	15.8	17.789	<0.001
Systematic examination of women older than 50 years	5	13.2	33	86.8	20.632	<0.001
I don’t do a clinical breast examination at all	2	5.3	36	94.7	30.421	<0.001
Mammography						
You systematically examine certain groups of women	17	44.7	21	55.3	0.421	0.516
Individually, sporadically, according to individual risk assessment	28	73.7	10	26.3	8.526	0.004
You perform a mammogram at the request of the patient	21	55.3	17	44.7	0.421	0.516
You record in the health card the date and result of mammography according to the National Program	30	78.9	8	21.1	12.737	<0.001
I don't do that at all	2	5.3	36	94.7	30.421	<0.001
Colon cancer						
Testing occult blood in the stool						
You systematically test specific groups	13	34.2	25	65.8	3.789	0.052
Individually, sporadically, according to individual risk assessment	32	84.2	6	15.8	17.789	<0.001
At the request of the patient	22	57.9	16	42.1	0.947	0.330
Take the test as part of the preventive examination of people over the age of 50 according to the National Program	4	10.5	34	89.5	23.684	<0.001
I don’t do it at all	1	2.6	37	97.4	34.105	<0.001
Performing the Hemoccult test						
Exclusively alone	3	7.9	35	92.1	26.947	<0.001
Exclusively through the laboratory of the Health Center	28	73.7	10	26.3	8.526	0.004
Alone and through the laboratory of the Health Center	1	2.6	37	97.4	34.105	<0.001
*DRE**						
You systematically examine certain asymptomatic groups	8	21.1	30	78.9	12.737	<0.001
Individually, sporadically, according to individual risk assessment	24	63.2	14	36.8	2.632	0.105
Perform a DRE* only in people with symptoms that would indicate cancer	16	42.1	22	57.9	0.947	0.330
I don’t do a DRE* at all	7	18.4	31	81.6	15.158	<0.001
Prostate cancer						
How do you most often start an examination?						
First, perform a DRE* of the prostate, PSA** test, ultrasound of the prostate, and if there is a suspicion of cancer or signs of prostatitis, refer the patient to a urologist.	12	31.6	26	68.4	5.158	0.023
Do PSA** test, prostate ultrasound, urine test, then refer to a urologist (do not do a DRE)	26	68.4	12	31.6	5.158	0.023
Refer to a urologist immediately	2	5.3	36	94.7	30.421	<0.001
What risk groups do you cover with an examination?						
Men aged 50 and over	24	63.2	14	36.8	2.632	0.105
Only men who have signs of prostatism	18	47.4	20	52.6	0.105	0.746
Do you question men over age of 40about family history of prostate cancer	29	76.3	9	23.7	10.526	0.001

*DRE-a digital rectal exam; **PSA-Prostate-Specific Antigen

Table 2 shows the answers of GPs/FPs related to activities on early detection of cancer.

Table 3 shows the answers of GPs/FPs related to monitoring and rehabilitation of cancer patients.

Table 4 shows participants` attitudes and opinions about primary cancer prevention program, early cancer detection program, implementation of the Cancer Control Program, follow-up program for cancer patients and terminal care program for cancer patients.

DISCUSSION

A GP/FP is defined as a specialist educated doctor of medicine who provides personal, primary, continuing and comprehensive health care to individuals and families in the local community regardless of age, gender or illness. Thanks to specialist education, GPs/FPs are trained to work on health improvement, prevention and early detection of diseases.

In our work, we have shown that the vast majority of GPs/FPs are fully aware of the importance of women going for a mammogram.

The majority of them agreed to advise patients on the link between a healthy lifestyle and reduced cancer incidence, existing screening programs, early symptoms and signs of cancer, to take and record family history, all for the cost-effectiveness of breast cancer screening. Most GPs/FPs stated it was not profitable to do screening for lung cancer and stomach cancer.

Most respondents examined women individually, sporadically, according to individual risk assessment, while a small number of them systematically examined certain groups of women at regular check-ups, performed systematic examinations of women over 50 and did not perform clinical breast examinations at all. They indicated mammography individually, sporadically, according to an individual risk assessment and record the date and result of mammography in the health card according to the Croatian National Program of early detection of breast cancer, while few stated they did not indicate it at all. There were no significant differences in the habits of systematic examination of certain groups of women and mammographic examinations at the request of the patient. This is very important because the results from the study in Herzegovina have shown that more women with a diagnosis of breast cancer presented with a larger tumor size (Marijanović et al. 2020).

Most GPs/FPs performed home visits only on call and to educate and teach family members during their visits to the ambulance, while a small number of them performed planned home visits, periodically, to actively work with certain groups-clubs and that monitoring and rehabilitation activities were performed only within the home care service.

According to research by Barbara Starfield et al, Primary health care based on this family medicine not only contributes to better health indicators and patient satisfaction but also contributes to savings within the health system and the reduction of health inequalities. However, how much and in what way the potentials of this profession will be exploited depends on the vision of those who decide on health systems (Starfiled et al. 2005).

Very few GPs/FPs stated that the cancer control program should be optional, a matter of choice for each physician until there were no significant differences in the other variables studied.

A small number of GPs/FPs stated that the cancer control program could be implemented within the existing health service organization or with minimal reorganization, while the majority of them stated that the cancer control program could be implemented only with significant service reorganization.

Table 3. Monitoring and rehabilitation of cancer patients among family physicians in Herzegovina

Variables	Yes		No		χ^2	p
	N	%	N	%		
What are you doing on a program to monitor and rehabilitate cancer patients?						
Home visits on call only	28	73.7	10	26.3	8.526	0.004
Home visits planned, periodically	9	23.7	29	76.3	10.526	0.001
Active work with certain groups-clubs	1	2.6	37	97.4	34.105	<0.001
Education and teaching of family members, during their visit to the clinic	32	84.2	6	15.8	17.789	<0.001
Only within the home care service	2	5.3	36	94.7	30.421	<0.001
What are you doing in the palliative care program for cancer patients?						
Intervention only on call	24	63.2	14	36.8	2.632	0.105
On your own initiative, plan periodic home visits	13	34.2	25	65.8	3.789	0.052
I leave it entirely to the Home Care Service and the nurses	8	21.1	30	78.9	12.737	<0.001
Home care						
Are you satisfied with the work/your cooperation with Home Care Institutions?	29	76.3	9	23.7	10.526	0.001
Are you satisfied with the work/your cooperation with the community nurses?	32	84.2	6	15.8	17.789	<0.001

Table 4. Participants` attitudes and opinions about primary cancer prevention program, early cancer detection program, implementation of the Cancer Control Program, follow-up program for cancer patients and the palliative care program for cancer patients

Variables	Yes		No		χ^2	p
	N	%	N	%		
Your attitudes and opinions about primary cancer prevention program						
It is not necessary, as greater success in reducing cancer mortality cannot be expected	2	5.3	36	94.7	30.421	<0.001
It is useful, it is sufficiently carried out within working hours, by giving advice, by informing	9	23.7	29	76.3	10.526	0.001
Insufficient implementation, there is still a lot of room for improvement	32	84.2	6	15.8	17.789	<0.001
Your attitudes and opinions about early cancer detection program						
Completely self-administered by family doctors, only for people with symptoms	12	31.6	26	68.4	5.158	0.023
Carried out independently by family doctors, for people with symptoms and for asymptomatic people with individually assessed high risk	31	81.6	7	18.4	15.158	<0.001
It is necessary to leave everything to the National Program	2	5.3	36	94.7	30.421	<0.001
Such a method of primary prevention is not necessary	1	2.6	37	97.4	34.105	<0.001
Your views on how to implement the Cancer Control Program						
It should be optional, a matter of choice for each physician	7	18.4	31	81.6	15.158	<0.001
Mandatory part of the work, but only for persons with individually assessed increased risk	19	50.0	19	50.0	0	1.000
Mandatory part of the work, systematically for special groups	16	42.1	22	57.9	0.947	0.330
In the form of special prevention programs in agreement with the HIA*, it requires a certain period of time	24	63.2	14	36.8	2.632	0.105
Your attitudes and opinions about the organization of the implementation of the Cancer Control Program						
It could be implemented within the existing health service organization, or with minimal reorganization	11	28.9	27	71.1	6.737	0.009
Only with a significant reorganization of the service (e.g. fewer patients on the list, more preventive activities)	29	76.3	9	23.7	10.526	0.001
What should a follow-up program for cancer patients with a stable clinical condition include?						
Clubs of patients treated for cancer at the office level, Health stations, leaders: family physicians	10	26.3	28	73.7	8.526	0.004
Clubs of patients treated for cancer at the level of the Health Community-leaders: community nurse	5	13.2	33	86.8	20.632	<0.001
Clubs of patients treated for cancer at the level of the Health Community – leaders: doctors and community nurses	31	81.6	7	18.4	15.158	<0.001
Only tips and services during arrivals at the clinic	1	2.6	37	97.4	34.105	<0.001
What should a rehabilitation program for cancer patients include?						
Rehabilitation only as part of the Home Care Service, as it is now	4	10.5	34	89.5	23.684	<0.001
Rehabilitation is performed by a physiotherapist, a permanent member of the family doctor's team	15	39.5	23	60.5	1.684	0.194
Independent physical therapy units, with an equipped Cabinet in each health station and a mobile home treatment team (physiotherapist members, and possibly a physiatrist)	19	50.0	19	50.0	0	1.000
Specialist physiatrist as a consular member of the family doctor's team	6	15.8	32	84.2	17.789	<0.001
What should the palliative care program for cancer patients contain?						
Intervention only on call	5	13.2	33	86.8	20.632	<0.001
Only within the care of the Home Care Institution	4	10.5	34	89.5	23.684	<0.001
Palliative care should be separated and scored differently from other care for chronic patients in home care	24	63.2	14	36.8	2.632	0.105
Independent units for palliative care, under the guidance of additionally trained family doctors within the Health Centers	13	34.2	25	65.8	3.789	0.052
Independent hospice service	10	26.3	28	73.7	8.526	0.004

*HIA-Health Insurance Associate

Results from the study among GPs/FPs in Europe showed that about 56.02% of the GPs/FPs stated that carrying out prevention and health promotion activities are difficult (Brotons et al. 2005).

Cursory analysis of the data shows that a lot can and should be done to improve health. GPs/FPs must take responsibility for the overall health of their patients. The results of study in Canada showed that the GPs/FPs and cancer specialist health care providers both recommended additional training and education for GPs/FPs in survivorship care, cancer screening, genetic testing, and new cancer treatments (Easley et al. 2017). All of above is essential in order to improve care for cancer patients.

Health promotion, disease prevention, and management of chronic diseases are priorities today in most health systems in the world. Promoting health means encouraging people to choose a healthy lifestyle. Examples of health promotion in primary care include education and counseling through programs that encourage physical activity, improve nutrition, reduce cigarette, alcohol, and drug use. Disease prevention focuses on preventive strategies that reduce the risk of disease and identify risk factors (World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians Europe 2005). The results showed that the population is not aware of more favorable results in early detection of cancer. Health education is not sufficiently developed, and it is also clear that people have a fear of the examination itself, and the results of the same. Health attitudes need to be improved, health culture needs to be developed and expanded, and this could be part of a successful program in which, besides theoretical knowledge, a practical part should be introduced. In the health education of the population, the importance of cancer prevention should be emphasized and "oncological awareness" should be awakened. A very important task is secondary prevention, accepting preventive tests, sending messages about them, getting to know the fact that a timely recognized disease can be successfully treated. People's health culture - attitudes, habits, and behaviors - need to be changed and improved. It is important to increase the engagement of health professionals working in primary health care. They are the ones who meet patients on a daily basis, and improving health and health education is part of their daily work. Cancer is a curable disease if detected at an early stage (Austoker et al. 2009, Forbes et al. 2014). Control should become a routine and an obligation for everyone.

The scientific contribution of this work and its results can be applied in practice in local communities. There is insufficient data about this in our region.

Our study had some limitations: first, nature of the cross-sectional study design and second, small sample size which may not represent the entire population of the country.

Future study is required with a large sample of respondents to provide representative population and to help to develop the guidelines of an individual work plan and proactive action.

CONCLUSIONS

One of the growing dangers of today are malignant diseases. Secondary prevention and public health strategies are the most promising for reducing mortality in the short and medium term, in which the most important means are programmed preventive examinations, but also no less important primary prevention. A preventive examination can be successful if, besides social and material resources, the individual also has the knowledge of health and health care, and a higher level of health culture in which a family doctor will be heavily involved. A special way of organizing work in primary health care that ensures preventive work is the dispensary method of work. It requires GP/FP to actively search for risk factors and symptoms present in seemingly healthy people, a multidisciplinary or teamwork, group work with patients and systematic programmed care for chronic patients. Given its position in the health system, ongoing contact with the population that elected it, and its impact on the local community in which it operates, GP/FP plays an important role in prevention. It is the integration of preventive activities into the daily work of the doctor, i.e. in every consultation with the patient, that plays the most important role in achieving excellent results. Family medicine is primarily focused on primary and secondary prevention, but also plays an important role in tertiary prevention, which is carried out by a continuous approach and long-term management of patients. The scientific contribution of this work and its results can be applied in practice in local communities. The analysis of the role of the health care system and attitudes and knowledge towards cancer in the social community environment could be the guidelines for the development of an individual work plan at risk age and proactive action in the local environment. This is especially important in the Herzegovina-Neretva County, where health indicators are poor and intervention measures are weak or absent.

Acknowledgements: None.

Conflict of interest: None to declare.

Contribution of individual authors:

Inga Marijanović, Marija Kraljević, Teo Buhovac & Edita Černi Obrdalj all made substantial contributions to the design of the study, and/or data acquisition, and/or the data analysis and its interpretation.

References

1. *Austoker J, Bankhead C, Forbes LJ, Atkins L, Martin F, Robb Ket al: Interventions to promote cancer awareness and early presentation: systematic review. Br J Cancer 2009; 101(Suppl 2):S31-9*
2. *Boerma WGW: Profiles of General Practice in Europe. An international study of variation in the tasks of general practitioners. NIVEL, Utrecht, 2003*
3. *Brotons C, Björkelund C, Bulc M, Ciurana R, Godycki-Cwirko M, Jurgova E et al: Prevention and health promotion in clinical practice: the views of general practitioners in Europe. Prev Med 2005;40:595-601*
4. *Easley J, Miedema B, O'Brien MA, Carroll J, Manca D, Webster F et al: Canadian Team to Improve Community-Based Cancer Care Along the Continuum. The role of family physicians in cancer care: perspectives of primary and specialty care providers. Curr Oncol 2017; 24:75-80*
5. *European Observatory on Health Systems and Policies: Policy brief. Screening in Europe. WHO Regional Office for Europe, Copenhagen, 2006*
6. *Forbes LJ, Warburton F, Richards MA & Ramirez AJ: Risk factors for delay insymptomatic presentation: a survey of cancer patients. Brit J Cancer 2014; 111:581–8*
7. *Institute for Public Health FB&H: Health state of population and health protection in the Federation of Bosnia and Herzegovina 2017. Institute for Public Health FB&H [Internet]. 2018 [Accessed 24 February 2019]. Available at: http://www.zzjzfbih.ba/wp-content/uploads/2018/10/ Zdravstveno-2017.pdf*
8. *International Agency for Research on Cancer: Latest global cancer data:Cancer burden rises to 18.1 million new cases and 9.6 million cancer deaths in 2018. Global Cancer Observatory [Internet]. 2018 [Accessed 24 February 2019]. Available at: https://www.who.int/cancer/PRGlobocanFinal.pdf*
9. *International Agency for Research on Cancer: Bosnia and Herzegovina-Globocan 2020. Global Cancer Observatory [Internet]. 2020 [Accessed December 2020]. Available at: https://gco.iarc.fr/today/data/factsheets/populations/70-bosnia-and-herzegovina-fact-sheets.pdf*
10. *Katić M, Juresa V, Bergman-Marković B, Jurković D, Predavec S, Hrastinski M et al: Proaktivni pristup preventivnom radu u obiteljskoj medicini [Preventive work in family medicine--proactive approach]. Acta Med Croatica 2010; 64:443-52*
11. *Katić M, Švab I et al: Family medicine: textbook. Alfa, Zagreb, 2013*
12. *Marijanović I, Kraljević M, Jović Zlatović J, Buhovac T & Pavleković G:Tumour Size Distribution of Invasive Breast Cancer in a One-Year Period: Case Study Herzegovina. Psychiatr Danub 2020;32(Suppl 4):520-7*
13. *Olesen F, Dickinson J & Hjortdahl P: General practice—time for a new definition. BMJ 2000; 320:354–7*
14. *Sim MG & Khong E: Prevention building on routine clinical practice. Australian Family Physician. 2006; 35:12-5*
15. *Starfield B, Shi L & Macinko J: Contribution of primary care to health systems andhealth. Milbank Q 2005; 83:457-502*
16. *Strnad M, Ivanda T & Ljubičić N: Implementation of National program of early detection of breast cancer. Croatian Journal for Public Health 2008; 13. Available at: http//www.hcjz.hr*
17. *Strnad M: Beginning of National program of early detection of breast cancer. Croatian Journal for Public Health. 2008;4:13. Available at:http:// www.hcjz.hr*
18. *Šupe Parun A: National program of early detection of breast cancer. Croatian Journal for Public Health. 2001; 7:7. Available at: http:// www.hcjz.hr*
19. *Westerman RF, Hull FM, Bezemer PD & Gort G: A study of communication betweengeneral practitioners and specialists. Br J Gen Pract 1990; 40:445–9*
20. *World Health Organization: Cancer Control: Knowledge into Action: WHO Guide for Effective Programmes: Module 3: Early Detection. WHO, Geneva, 2007*
21. *World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians Europe (WONCA) Europe: The European definitions of general practice/family medicine. EUROACT, Portugal, 2005*
22. *Znaor A: Breast cancer incidence and mortality trends in the World and in the Republic of Croatia. In Janković S (ed): Mammographic screening for breast cancer. Organization, early results and quality control, 13-18. University of Split-The School of Medicine, Split, 2008*

Correspondence:

Marija Kraljević, MD
Oncology Clinic, University Clinical Hospital Mostar
Bijeli brijeg bb, 88 000 Mostar, Bosnia and Herzegovina
E-mail: marija.kraljevicc91@gmail.com