



Policy Research Paper

**Reasons for low health care seeking
among men with hypertension in
Kyrgyzstan**

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ABSTRACT

In Kyrgyzstan there is a significant gender gap in premature mortality from cardiovascular disease. In the 0–64-year age group, male mortality from diseases of the circulatory system exceeds female mortality by a factor of 2.5, that from ischemic heart disease by a factor of 3, and that from cerebrovascular disease by a factor of 1.9. High mortality rate is caused with a number of factors including poor awareness of health status and low utilization of PHC services by men leading to late detection of chronic conditions. Better hypertension detection and management is one of the key priorities of the National “Den Sooluk” Health Care Reform Program which envisages a number of population-based activities and individual services. However, gender factors are not considered in these measures, and there are no approaches to raise awareness and adherence to treatment to be tailor-made for men. This study is aimed at identifying the reasons for low health care seeking among men who have high level of blood pressure. The research findings should become a basis for development of the balanced approach involving control of risk factors, community action for health in order to raise men’s commitment to disease detection and continuous control in health organizations.

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ABBREVIATIONS

BP	Blood pressure
FGP	Family Group Practice
KSMI CME	Kyrgyz State Medical Institute for Continuous Medical Education
KRSU	Kyrgyz-Russian Slavonic University
MoH	Ministry of Health of the Kyrgyz Republic
CBC	Complete Blood Count
PHC	Primary Healthcare
VHC	Village Health Committee
FAP	Feldsher-Midwife Station
MHIF	Mandatory Health Insurance Fund
FMC	Family Medicine Centre
ECG	Electrocardiography

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The preliminary results have been discussed with the Ministry of Health, the Association of Village Health Committees of the KR and other stakeholders; and final report has been prepared considering their comments and recommendations.

1. BACKGROUND

At the moment, Kyrgyzstan is facing a significant gender gap in premature mortality from cardiovascular diseases. **In the age group 0 - 64 y.o., the mortality from circulatory system diseases in males is 2.5 folds higher than in females, by 3 folds from coronary heart disease, and by 1.9 folds from cerebrovascular diseases.** Higher mortality rates in males is thought to be explained by a number of factors, including higher prevalence of smoking in males, and poor awareness of health status in males, such as awareness of blood pressure.

The health policy studies¹ in recent years have been consistent in demonstrating low levels of primary healthcare utilization by men, with allegedly resulted late identification and poor management of chronic conditions. The household survey for 2010 found that primary healthcare was sought twice as many women than men aged over 18 y.o. The gap in the service utilization between men and women in the age group of 19-39 years can be explained by the fact that women in this age group seek services for reproductive health and pregnancy. However, in the age group of over 40 years, the gap in the healthcare service utilization by men is two folds less than by women.

The significant gender gaps in health service utilization due to lower rates of men seeking PHC services explain the gaps in the mortality rates due to cardiovascular disease and hypertension. The premature mortality from cardiovascular diseases in men is higher than in women, although the hypertension prevalence is higher in women than in men.

The identified challenges with cardiovascular diseases, in particular with hypertension, called the program 'Community Action for Health' (CAH), a program introduced in Kyrgyzstan to mobilize communities in building awareness and utilization of healthcare services, to designate as priority the detection of people with high BP and informing them of hypertension.

Starting from 2011, the CAH program has worked with the Village Health Committees (VHC), with support from the Republican Center for Health Promotion and Family Medicine Centers, to annually hold awareness building activities on hypertension, through BP screening in the people.

From 2011 through 2014, over 1.7 mln people have been examined. Through the whole period, the program identified app. 300,000 people with high BP. Approximately 20,000 people annually, or 4% of the total screened, find out their BP during the screening and are referred to medical consultation in the community.

Furthermore, the annual screenings have identified that 64% of those who aware of their hypertension status and taking medications to control BP still had high BP, with men twice higher than women among them².

The STEPS³ study found on average 42.7% of men taking hypotensive medications still had high BP. This suggests the uncontrolled or improper management of patients with high BP. This

¹ KIHS, 2007, 2010, Jakab M., Landin et al. 'Health system effectiveness in hypertension control in Kyrgyzstan', 2007, N. Akunov et al. 'Quality of treatment and prevention of CVDs in the Kyrgyz Republic', 2007.

² Study by the Community Action for Health Project 'Actions of Village Health Committees for Hypertension prevention', 2011-2014

³ Study 'STEPS' for epidemiological surveillance of risk factors of non-communicable diseases in the Kyrgyz Republic, MoH, 2015

fact is obviously exacerbated by the low rates of visits of men to healthcare organizations to receive health services and regular monitoring of their health conditions.

Therefore, this study aims to identify the causes of low rates of attendance to primary healthcare organizations by men with elevated BP. Findings of this study are expected to lead to proposing a balanced approach, which would embrace the control of risk factors, community action to enhance men's commitment to disease identification and control, with reliance on primary healthcare organizations.

2. STUDY AIM AND OBJECTIVES

The study aims to identify the existing barriers for men with high arterial pressure to seek and receive primary healthcare services for prevention and treatment of hypertension.

Objectives:

1. Determine rates of men with high BP seeking medical services care in PHC organizations.
2. Interviews and focus group discussions to identify the existing barriers for men with high BP to seek prevention and treatment services for hypertension.
3. Identify differences in the causes of not seeking care behavior amongst men - residents of cities, district centers, and villages.
4. Identification of existing barriers on the part of primary healthcare workers and health system in general in provision of good quality services to men for treatment and prevention of hypertension.

3. STUDY METHODOLOGY

The study methodology was designed to explore the underlying causes of low rates of men with high BP seeking PHC services.

The study employed interviews with men with high blood pressure identified during the 'Know your blood pressure' campaign, held prior to the annual week of countering hypertension. In that campaign, the VHC members/activists take BP measurements, with maximum people coverage.

All men who reportedly knew they had high BP were included in this study and interviewed using the study tools.

3.1. Health Promotion by VHCs: detection of people with elevated BP

During the annual hypertension week (in September, close to the World Heart Day), the VHCs across the country take BP measurements in people aged over 18 y.o., with the support of the 'Community Action for Health' project and the Republican Centre for Health Promotion.

Prior to and during the week, the information of the campaign is publicized and the VHC members are instructed based on the specific Guidelines.

In crowded areas of rayon centers and cities, the FGPs/FMCs organize the BP measurement points: in the markets, retail outlets, healthcare organizations and other settings. For the past 2 years, the Public Committees for Health (PCH) established in cities and rayon centers have also exercised the BP measurements in the workplaces.

If a person is first found with elevated BP, the result is registered and the person is referred to a community healthcare organization. The VHCs provide them with leaflets with detailed information on hypertension and other CVD risk factors. For people who have known their diagnoses, the VHC members reiterate the need of regular intake of the prescribed medicines.

All data on the persons with high BP are communicated to the primary healthcare organizations - FMCs, FGPs, or FAPs.

3.2. Data collection under the study

The Health Policy Analysis Center and the Association of Village Health Committees jointly designed the form to collect data on men with high BP and the instructions for filling out the form named the 'Supplement to the Manual on Blood Pressure Measurement' (see Annex 1).

Men who responded they knew about elevated BP, and who previously had been referred to the Family Medicine Center/Family Group Practice, were all included in the study and were interviewed using the study tools.

All VHC members involved were additionally instructed on interviewing men and filling out the forms.

3.3. Focus group discussions

To obtain quality data, focus group discussions were held with men with identified high BP and healthcare professionals in FMCs, FGPs, and FAPs.

The focus group discussions were held in cities, rayon administrative centers, and villages. The focus group discussions were held in the following cities:

Osh oblast: Osh city, Kara-Suu town, and Jarbashy village in Chon-Alai rayon.

Chui oblast: Tokmok town, Kemin town, and Jany-Alysh village in Kemin rayon.

The target group involved men with elevated BP of different ages and health professionals providing primary healthcare services at FMCs / FGPs / FAPs.

Totally, 12 focus group discussions were held: 6 focus group discussions with over 90 men, and 6 focus group discussions with primary healthcare professionals.

4. STUDY FINDINGS

4.1. Summary on identification of persons with elevated BP

During the campaign of 2015, totally 480,289 people aged over 18 y.o. were examined across the country (in rayon centers, cities and villages) including 283,452 women (59%) and 196 837 (40.9%) men. Annually, the proportion of screened women makes 60% and men 40%.

The campaign in 2015 identified 66,102 persons with high BP (defined as above 140/90 mmHg), which accounted for 13.6% of the total screened. 16,776 persons or 25.5% of total number of those with high BP identified during the campaign, for first time learned they had high BP. **74.6% of people knew they had high BP before the campaign, out of them 33,529 persons (68%) were patients receiving hypotensive medications.**

In the villages overall 326,795 persons were measured BP. Out of them, 138,723 men (42%) and 188,072 women (58%). In total, 48,719 (15%) were found with high BP. Out of them, 11,332 (3%) persons found out they had high BP for the first time and 37,387 (11%) persons knew they had elevated BP. 26,796 persons, or 72% out of 37,377 persons who knew they had high BP prior to screening, reported they took medications on the campaign day.

In cities and rayon centers, overall 153,494 people were measured BP. Out of them, 58,114 were men (38%), and 95,380 were women (62%). Totally, 17,287 persons with high BP were identified, including 5,716 men (33%), and 8,417 women (49%). 5,444 persons (4%) found out they had high BP for the first time, and 11,929 persons (8%) knew they had high BP prior to screening, out of them 6,733 (56%) had high BP while taking medications.

Table 1. Results of BP measurement campaign, 2011-2015

	2011	2012	2013	2014	2015	Total
Number of examined persons	311 342	403 717	482 273	577 731	480 289	2255 352
Number of persons with identified elevated BP for the first time	13182	22077	21785	22265	16776 (25,5%)	96 085
Number of persons aware of elevated BP (uncontrolled hypertension) of the total examined	29842 (9.5%)	47462 (11.7%)	52058 (10.7%)	67866 (11.7%)	49326 (10.2%)	246554 (10.9%)
Number of persons aware of elevated BP (uncontrolled hypertension) of the total identified with elevated BP	69.3%	68.2%	70.4%	75.2%	74.6%	71.9%
Total identified with elevated BP	43024 (14%)	69539 (17%)	73843 (15%)	90131 (15%)	66102 (13,6%)	342639 (15%)

4.2. Men identified with high BP under this study

Out of the total 66,102 with BP above 140/90 mm Hg, 45,421 (68.7%) were women and 20,681 (31.5%) were men.

Out of the total number of men with high BP, 15,428 (74.5%) of men resided in rural area, and 5,253 (25.4%) of men resided in rayon centers and cities, including Bishkek and Osh.

Table 2. Number of men with high BP, by oblasts

Region	Rayon centers, towns/cities	Villages
Naryn oblast	141	647
Talas oblast	115	730
Issyk-Kul oblast	416	586
Chui oblast	836	2327
Batken oblast	301	2424
Osh oblast	1173	2216
Jalal-Abad oblast	1577	6498
Bishkek	304	
Osh	390	
Subtotal	5 253	15 428
TOTAL	20681	
%	25.4%	74.5%

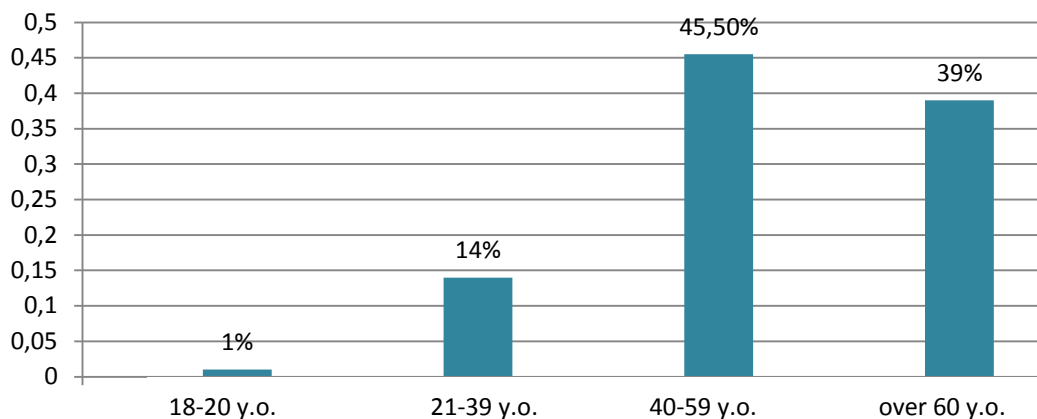
The study found out that more men were measured for elevated BP and identified with high BP in the rural area rather than in rayon centers and cities. This was due to different approaches to screening in villages and cities. In villages, the BP measurement was carried out by VHC members following the rule of 'from house to house', while in the cities the screenings were held in the BP measurement points which could be attended by anyone willing to participate.

Table 3. Distribution of men with high BP, by age groups

Region	18- 20 y.o.		21-39 y.o.		40-59 y.o.		Over 60 y.o	
	Urban	Rural	Rural	Urban	Rural	Urban	Rural	Urban
Naryn oblast			83	10	251	71	313	60
Talas oblast			52	9	315	63	363	43
Issyk-Kul oblast	12	2	130	56	252	204	192	154
Chui oblast	0	39	249	104	1104	373	974	320
Batken oblast	5	2	237	34	921	167	1261	98
Osh oblast	17		167	126	1016	511	1016	536
Jalal-Abad oblast	113	27	1271	279	2941	761	2173	510
Bishkek		9		75		189		31
Osh				49		276		65
Subtotal	147	79	2189	742	6800	2615	6292	1817
TOTAL	226		2931		9415		8109	
% of the total examined	1.09%		14.1%		45.5%		39.2%	

Out of all men identified with high BP - 1% were young men aged 20 y.o., 14% were in age group of 21-39 y.o., 45.5% of men were in age group of 40-59 y.o. and 39.2% were men over 60 y.o. The highest number of men identified with elevated BP was in the age group of 40 - 59 y.o. and over 60 y.o. both in rural and urban area.

Figure 1. Distribution of men with high BP by age groups



4.3. Men seeking care in primary healthcare organizations following the identified high blood pressure

Countrywide, out of total 20,681 men found out with high BP, 69% (14,241) men reported they have sought care in primary healthcare organizations following the identified high BP, and 31% (6,400) men reported they had never sought medical care, although previously were aware of their high BP.

Out of those 14,241 men who attended FMCs/FGPs after they found out they had high BP, 71.5% reported they visited primary healthcare organizations in the last 6 months, and 28.4% reported they did not attend the PHC in the last 6 months.

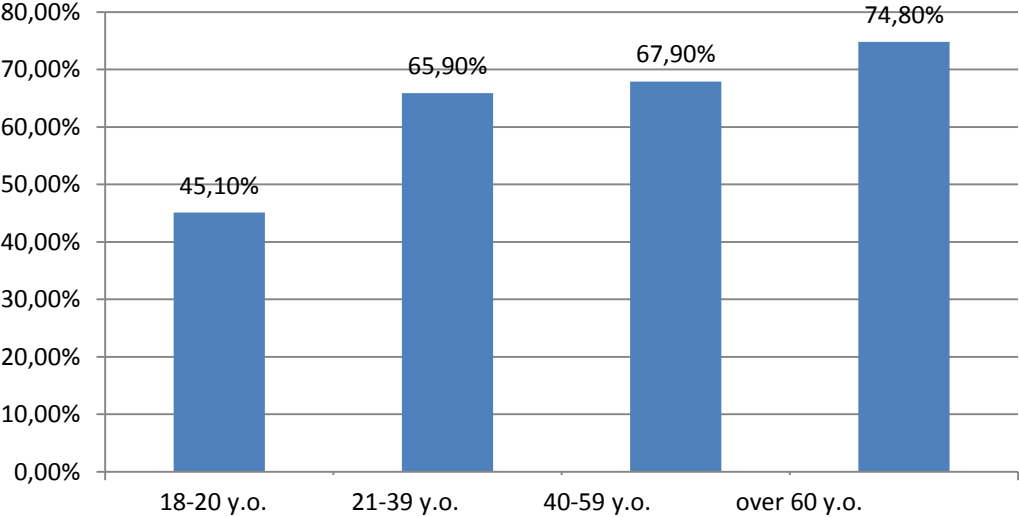
Table 4. Men with high BP seeking health care

Region	Number of men with elevated BP		Did you attend FCM/FGP/FAP after you found out you had elevated BP?			
			Yes		No	
	Rural	Urban	Rural	Urban	Rural	Urban
Naryn oblast	647	141	545	103	102	38
Talas oblast	730	115	602	87	128	28
Issyk-Kul oblast	586	416	301	265	285	151
Chui oblast	2327	836	1763	625	574	211
Batken oblast	2424	301	1476	177	948	124
Osh oblast	2216	1173	1632	791	584	382
Jalal-Abad oblast	6498	1577	4488	1012	2010	565
Bishkek		304		139		165
Osh		390		235		155
Subtotal	15428	5253	10807	3434	4631	1819
TOTAL	20681		14241		6440	
%			68.8%		31.1%	

The attendance rates of men to healthcare services due to high BP varied across age groups. The lowest attendance to PHC organizations was in the age group from 18 to 40 y.o. At this age, nearly half of men with high BP did not seek PHC services.

Figure 2 provides data on attendance of men to PHC services in various age groups, after they found out they had high BP.

Figure 2. Attendance of men to health facilities after they were identified with high BP, by age groups



The higher the age of the men, the more they seek healthcare services. The number of young men at 18-20 y.o. with identified high BP who visited FMC/ FGP/ FAP was less than half, making 45.1%; men aged 21-39 y.o. visited the FMC / FGP / FAP in 65.9% of cases; men aged 40-59 y.o. in 67.9%; and men aged over 60 visited PHC organizations in 74.8%.

To explore the extent to which visits to PHC services by men were regular, the men who reported visits to PHC after they were identified high BP were asked whether they had visited the PHC in the last 6 months.

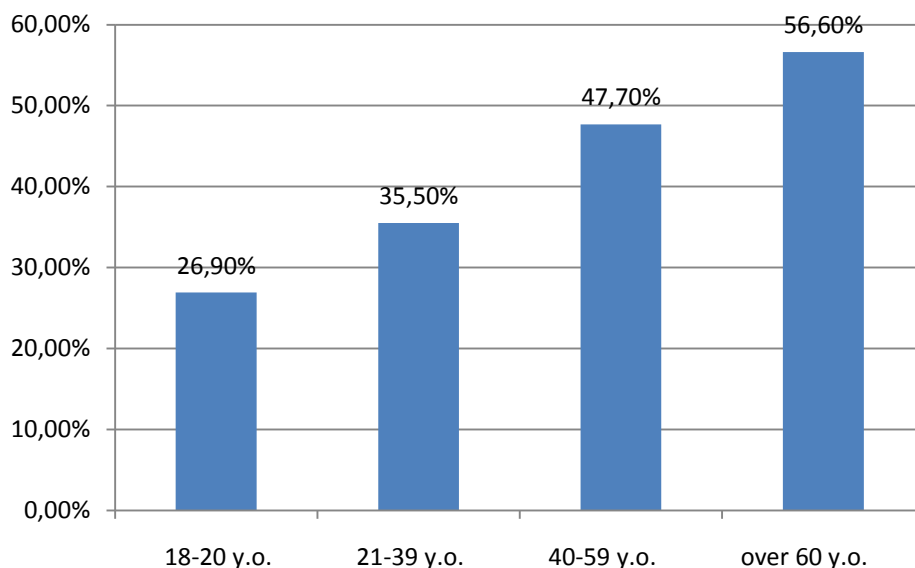
The interviews suggest not all men had commitment to continuous follow-up of their conditions through regular visits to healthcare organizations, and the commitment is dependent on age. Men at younger and at working age did not regularly seek care in FMCs/FGPs/FAPs. Out of 14,241 men with identified high BP who visited FMCs/FGPs, 71.5% reported they visited PHC organizations in the last 6 months, and 28.4% did not visit the PHC in the last 6 months.

Table 5. Attendance of men to primary health facilities in the last 6 months

Region	Did you attend FMC/FGP/FAP in the last 6 months?			
	Yes		No	
	Rural	Urban	Rural	Urban
Naryn oblast	403	69	142	34
Talas oblast	388	64	214	23
Issyk-Kul oblast	148	117	153	148
Chui oblast	1083	400	680	225
Batken oblast	975	87	501	90
Osh oblast	1406	539	226	252
Jalal-Abad oblast	3618	638	870	374
Bishkek		54		85
Osh		207		28
Subtotal	8021	2175	2786	1259
TOTAL	10196		4045	
%	71.5%		28.4%	

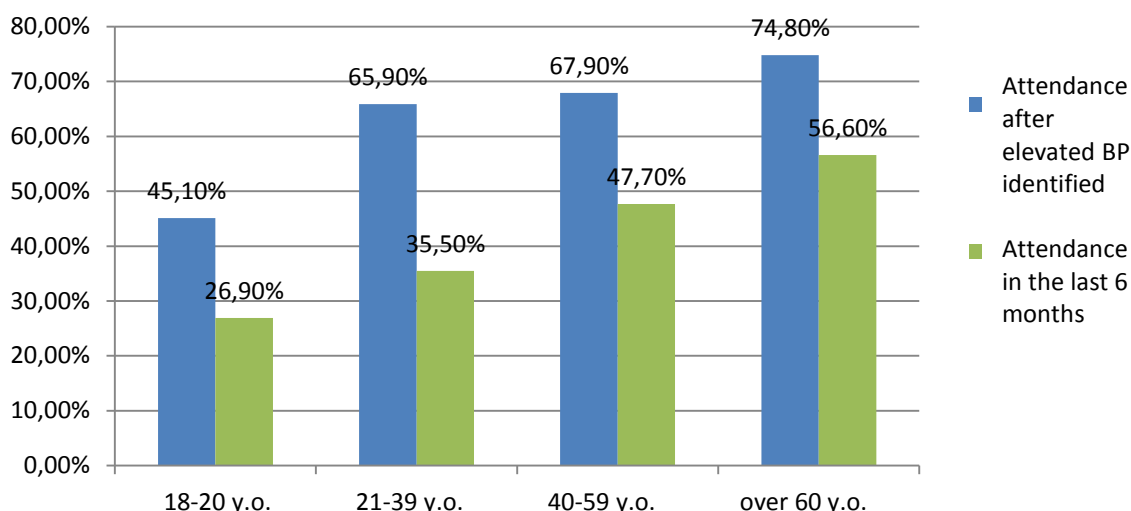
The number of men seeking health care in the last 6 months due to high BP was the least in the age group under 40 y.o. To illustrate, only quarter (26.9%) of men aged 18- 20 y.o. and one-third (35.5%) of men aged 21- 39 y.o. reported they visited FGPs/ FAPs in the last 6 months.

Figure 3. Men seeking health care in the last 6 months, by age groups



The comparison of frequencies of attendance to FMCs/FGPs/FAPs by men with identified high BP in the last 6 months against attendance for regular monitoring suggests that men tend to seek care after identified high BP rather than for the purposes of regular health monitoring. We believe this significant difference may be due to the fact that not all men with actually high BP become registered (registered in the PHC system) and then regularly visit PHC services. We will discuss the reasons for this later.

Figure 4. Comparison of attendance to PHC services following the identified elevated BP and in the last 6 months



4.4. Reasons for low rates of health care seeking among men with high BP

Those men who never visited FMCs/FGPs/FAPs once they knew they had high BP and those men who did not attend FMCs/FGPs/FAPs in the last 6 months were asked to name reasons why they did not attend FMCs/FGPs/FAPs.

Totally 10,485 men responded to the question, with average 1 answer given by each respondent and which meant the most significant reason.

The most frequent answer was 'I felt well' (28.3%), followed by 'No time for treatment' (13%), 'I forgot that I had high BP' (12.3%), 'I treat myself on my own' (12.1%), 'No money for treatment' (10.7%), 'FMC/FGP/FAP is located in long distance' (7.8%), and other reasons (5.4%).

Table 6. Reasons for not seeking health care in PHC facilities by men with elevated BP

Reasons for not health care seeking in FMC/FGP/FAPs by men	Rural	Urban	Total (abs. numbers)	%
I felt well	2011	943	2954	28,3%
I forgot I had elevated BP	892	398	1290	12,3%
FMC/FGP/FAPs are distantly located	653	171	824	7,8%
No money for treatment	755	369	1124	10,7%
I have to take many tests	711	324	1035	9,9%
I have no time for treatment	838	526	1364	13%
I treat myself on my own	882	390	1272	12,1%
Other	412	162	574	5,4%

When reviewed against the age groups, the most frequent answer for all ages was 'I felt well'. Among men aged 18-20 y.o. many also responded 'I forgot that I had high BP' and 'I have to take numerous tests'. There were no other significant differences by age identified (Table 7).

Table 7. Reasons of non-attendance to FMCs/FGPs/FAPs by men, by age groups

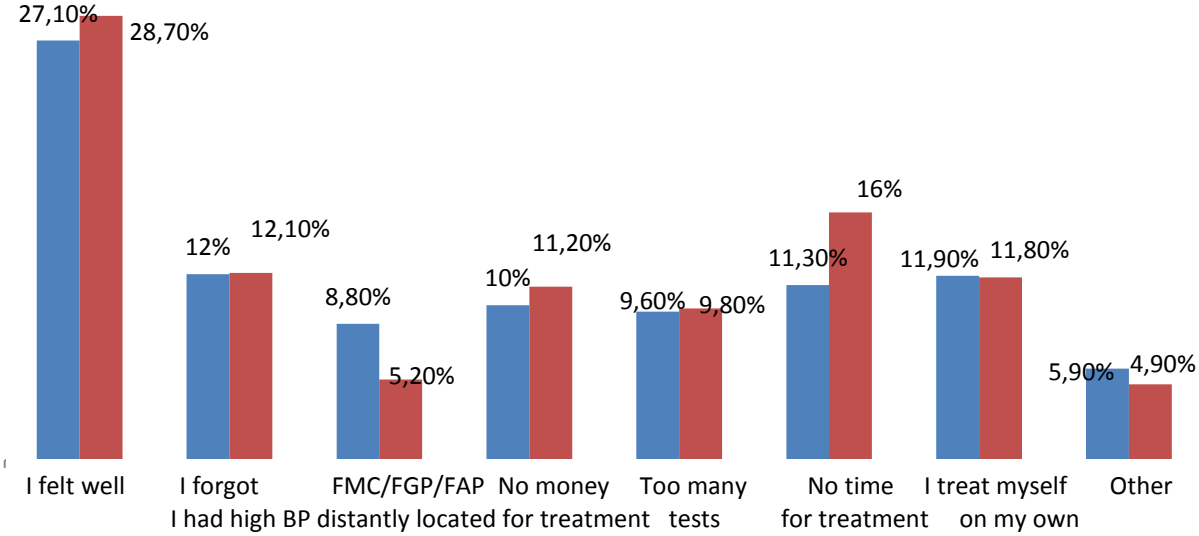
Reasons	18- 20 y.o.	21-39 y.o.	40-59 y.o.	over 60 y.o.
I felt well	26.6%	34.6%	27.8%	25.5%
I forgot I had elevated BP	21.8%	10.6%	13.5%	11%
FMC/FGP/FAPs are distantly located	11.5%	5.9%	8%	8.7%
No money for treatment	10.3%	9.7%	10.9%	11%
I have to take many tests	15.1%	10.4%	8.9%	10.8%
I have no time for treatment	12.7%	14.2%	14.3%	10.4%
I treat myself on my own	7.2%	10.9%	11.1%	14.6%
Other	1.8%	3.3%	5.6%	7.4%

The reasons of men’s non-attendance to FMCs/ FGPs/FAPs to control their high BP was reviewed against the residence in rural and urban area. The review found no significant differences in specific reasons for low utilization of healthcare services. There is a difference in access to medical services in rural and urban areas. Rural residents often pointed out that ‘FMCs/FGPs/FAPs are located distantly’, while residents of urban area often responded ‘I have no time for treatment’.

This has likely been due to more employment opportunities in urban area that leave few time to visit healthcare organizations.

No money as the reason for not attending healthcare facilities was reported by 10% of men in rural area and 11.2% of men-residents of urban area.

Figure 5. Reasons of men not attending FMCs/FGPs/FAPs, by rural/urban residence



4.5. Findings of the focus group discussions with men having high BP

When asked how they found out they had elevated BP, many men reported they learned it by accident: their family members, colleagues, or friends measured BP upon complaints of headaches; some other men found out it when attending health professionals for other health issues. All men believed the headache was a sign of elevated BP.

Most men aged over 40 years reported that at least once visited health professionals or received some kind of consultations for elevated BP. This was mainly due to the situation when they first found out they had high BP. Many interviewed men noted they attended a health professional not immediately, but after some time, mainly when they had headache that concerned them.

The interviewed men reported that at the first consultation for elevated BP healthcare providers gave advices on diet, reducing or quitting smoking, prescribed herbal preparations and 'weak' hypotensive medications. Those consultations normally do not involve advices on how to monitor BP and how to take medications. In the repeated visits, if patients failed to lower the BP, healthcare providers usually advice to increase the medication dose.

Interestingly, the most participants of the focus group discussions were not registered with PHC services for hypertension and were not aware they had to be registered. These men also did not know there is a public program for preferential provision of medicines to insured citizens, with up to 50% discounts provided.

The dispensary registration at PHC services was mostly covering men who have had myocardial infarction or stroke and those who receive medications under the Mandatory Health Insurance Fund medication provision program. This category of men realized better they need follow-up visits to family doctors following their complicated conditions, although they also noted that irregular visits to family doctors do occur.

Some of the interviewed men reported they took some clinical tests, most often CBC and urine tests. Only a few people pointed they went through examinations prescribed by their doctors. The examinations, they said, took long time and cost significantly. They were mainly those who live in rayon centers and cities. Most of rural resident men reported they did not receive any kinds of examinations.

Residents of rural area did not report any difficulties in receiving family doctor consultations in settings where FGP and family doctors are available; however, they pointed out the lack of access to good quality examinations. Resident men who are assigned to the community FAPs noted the absence of doctors, which forced them to travel for consultations to rayon centres to attend the FMCs. Travel to rayon centers normally took a day and cost significant money. In addition, these men were sure that visits to FMCs in rayon centres would necessarily require additional money for tests and examinations.

The interviewed men residents of rayon centres and cities reported they had decent access to health care, but no time sufficient for examinations and consultations. In their opinion, regular attendance to healthcare organizations would involve waiting in long queues for doctor consultations, laboratory tests, additional examinations and specialist consultations.

Some of the interviewed men said they often receive medical consultations without visiting the healthcare facility, namely by phone, through spouses or children, or consult the 'friend doctors'. These men believed that, despite the fact that they were not registered with the FGPs, they were still followed-up by healthcare professionals, because any time they could receive consultations (advise). They mentioned that consultations with healthcare professionals could occur even when they met by chance on the street, at the party, or in retail outlets. These men believed that they did not need regular visits to FGPs once they can call by phone to their doctors for headache or elevated BP.

When discussing the signs of elevated BP, nearly all men highlighted 'headache' and demonstrated decent awareness of the elevated BP implications by naming the 'Myocardial infarction' and 'Stroke'. When having headache, most often they take painkillers or medications advised by relatives, friends or 'any healthcare professional' (Analgin, Baralgin, Zitramon, etc.). They did not name medications for lowering BP.

When asked the question 'Knowing about such consequences of elevated BP, why do you not visit healthcare organizations?', men (mostly younger age men) gave responses such as 'Feel good', 'No time', 'Have to work to keep the family'. Attending the healthcare organization, in their opinion, would take time due to long queues and referrals for numerous diagnostic tests and specialist consultations.

Almost all interviewed men demonstrated understanding that lack of commitment to regular visits to healthcare organizations was the result of their improper and irresponsible attitude to their health. Many reported the men's normal behavior is 'delaying the medical care until the point when it becomes unbearable'.

It is worth noting that, although during the screening only 10 - 11.2% of men reported lack of money as a reason of non-attendance to PHC services, during the focus group discussions most men noted the lack of money as the main reason. Many believed that visits to healthcare services are bound to involve financial expenses, including medical consultations, diagnostic tests, and purchasing prescribed medicines. Therefore, when having financial gaps, they did not attend the healthcare facilities.

The interviewed men were asked why they were not registered with hypertension in PHC organizations after being identified with elevated BP. Most answered that doctor prescribed numerous diagnostic tests (blood tests, urine tests, cholesterol, blood glucose, renal ultrasonography, specialist consultations, and others), which they failed to complete and then did not turn back to PHC services. Resident men in rural area reported that, to do those tests and examinations, they would need to go to rayon centres and it would take several days. Men residents of rayon centres and cities reported they did not have time for such many appointments.

In this regard, the interviewed men proposed to simplify the process of registration of hypertension and of consultations in PHC facilities. When patient feels sick, they could simply make a phone call, for example, to the help desk at the PCH organization and have the consultation.

Many interviewed men were aware of the need of ongoing medication to control hypertension. Those who did not take medications regularly reported the perceived improvement of health, normalized BP, absence of headaches and other symptoms as main reasons. Often men with elevated BP on their own increased the dosage of medications or reduced the dosage when BP lowered, which was often associated with the emergence or increase of headache, without measuring BP. They explained this behavior by the fact that doctors to whom they had previously consulted or called proceeded the same way, with either increasing or decreasing the dosage; so these patients decided they could change the dosage on their own depending on their condition.

4.6 Findings of the focus group discussions with PHC professionals (family doctors, nurses, paramedics)

During the focus group discussions, health staff of the PHC organizations reportedly observed the increasing number of people with high BP, with the notably growing number of younger men (under 40 y.o.) with elevated BP and the mortality in this population group.

The interviewed health professionals considered the irresponsible attitude to the own health as the driving cause of the lower utilization of healthcare services, typically observed among men, including those with high BP. In addition, the reasons listed were around the perceived the tough schedules at workplaces, non-health priorities, avoiding the long queues, fear of hearing a 'terrible' diagnosis, fear of treatment, reluctance to go around doctors and medical offices, fear of tests. Respondents also pointed to socioeconomic factors such as unemployment, poverty, migration, low wages and pensions, insolvency, increasing prices for medicinal products and medical examinations. Health professionals in rural FGPs and FAPs also reported the remoteness of the FMCs/FGPs/FAPs as one of the causes, whereby patients, particularly men, tend not to be willing to attend FMCs for diagnostic procedures and tests. These health professionals noted the lack of available essential types of diagnostics at FGPs/FAPs. For example, absence of a laboratory technician prevents from even some of the basic clinical tests, such as CBC, urinalysis, blood glucose. ECG tends not to be conducted even with the equipment available, because they lack interpreting skills.

All healthcare professionals stated the management and counseling of patients with hypertension was only the doctor's function. Nurses have not been involved in management of patients with hypertension.

When asked 'What do you do when you detect a man with high BP?', many doctors reported they act guided by clinical protocols. For establishing clinical diagnosis, a doctor requests a patient to run three sequential BP measurements at home and record the BP. Then the doctor evaluates the patient's condition and makes decision on the treatment. At slight elevation of BP, the doctor prescribes non-pharmacological treatment according to the clinical protocol. In the event of high BP elevation, for the diagnosis and differential diagnosis the patient is expected to take clinical tests: CBC, urinalysis, and biochemical tests, such as blood glucose, cholesterol, and, reportedly renal function tests, beta lipoproteins, creatinine and others. As obligation, the patient shall take chest X-ray, ECG, renal ultrasound, consult with ophthalmologist and ophthalmologist. With all these results the patient is then referred to cardiologist consultation to verify the diagnosis and prescriptions, and to other specialists, such as endocrinologist, neurologist, and others. Almost all doctors reportedly follow this practice, in accordance with clinical guidelines for hypertension management.

The discussion of the question 'Can you diagnose the Essential Hypertension without all these tests and prescribe treatment?' found out what happens in practice. Without tests and examinations they do provide treatment and monitoring of patients with hypertension, albeit with no dispensary registration and entries in the ambulatory patient's card.

It turned out that many patients with hypertension attending the PHC services were followed by family doctors, but without proper registration with hypertension.

For example, during the discussions, doctors themselves gave examples when with the enrolled population of 2,250 only 22 patients with hypertension were registered, with enrolled population of 1,800 only 21 patients with hypertension were registered, or with enrolled population of 1,900 only 18 were registered with hypertension. However, doctors pointed out, the actual number of patients with essential hypertension in their catchment areas was much higher.

The discussion of the causes of the current situation with health workers not registering patients with hypertension has revealed two key reasons:

- 1) Patients with hypertension, more often men, do not pass all diagnostic tests/examinations detrimental for doctors to register for dispensary as patients with hypertension;
- 2) The second reason named by healthcare workers was inspections by MHIF. As hypertension represents a disease subject to regular monitoring under the contracts between healthcare organizations and the MHIF, the MHIF inspectors often check the ambulatory cards of patients with hypertension and follow the pre-specified indicators. On the one hand, absence of diagnostic test records in the card of the patient who has been registered as a hypertension patient can represent grounds for penalties. From the other side, availability of numerous registered patients entails constant verifications of patient data, with HIF reportedly performing consistently well in finding violations related to incorrect management, which also potentially brings penalties incurred to the doctors.

Therefore, the doctors noted 'they do not want to have many registered patients who fail to comply with all requirements and regularly visit the healthcare organizations'. For the events of inspections, the doctors have cards of 'disciplined' patients who have complete lists of tests and consultations.

Doctors also noted that available clinical guidelines for management of hypertension do not consider individual characteristics of patients, and in such cases doctors feel not bound by these guidelines. In the market, there are many new generation medicines that are considered to be more effective, and they can see this in their practice. Therefore, they are forced to prescribe treatment that does not coincide with the recommendations in the guidelines. This is also the reason when doctors avoid official prescriptions, as using the prescription form can impose the unwanted responsibility.

All the doctors reported they were able to diagnose without additional tests and consultations and prescribe treatment, follow-up during treatment in the enrolled population, because doctors knew 'their' people well.

The doctors reported that, due to intensive workload and numerous patients; they could not devote time sufficient for complete counseling patients with hypertension on nutrition, lifestyle,

and others. According to the visit standards, within 1 hour a doctor should examine 5 people, and then has no time left for counseling and consultation.

According to doctors, in the ambulatory patient cards they most often record risk factors such as smoking and obesity. However, the doctors did not know how to assess risk factors. Only a few doctors were able to show how to calculate the Body Mass Index.

4.7 List of essential examinations and diagnostics tests according to the approved clinical guidelines and protocols

According to PHC clinical guideline and protocol on 'Hypertension' as approved by the Ministry of Health (Order №839 dated December 25, 2009), the following components of the baseline physical examination are recommended as a routine for hypertension:

- BMI and abdominal circumference measurement;
- Examination of the ocular fundus (except for cases when no ophthalmoscope available);
- Auscultation of carotid arteries;
- Examination of chest (palpation and auscultation of heart, lung auscultation);
- Examination of abdomen: palpation for the enlarged kidneys, abdominal aortic aneurysm, renal and femoral arteries);
- Examination of limbs: for ischemic signs, palpation for cold extremities, edema, muscle strength test, symmetry of the peripheral pulse over radial artery and feet, detection of delayed radial and femoral pulse.

Laboratory and instrumental examinations:

Compulsory:

- Urine analysis;
- Hemoglobin;
- Total cholesterol;
- Fasting blood glucose;
- If possible: daily proteinuria, or the ratio of urine albumin to creatinine (mmol) in randomly taken (at any time) sample of urine;
- Serum creatinine and calculation of Creatinine clearance based on Cockcroft-Gault formula;
- ECG;
- Potassium;
- High-density lipoprotein (HDL), low density lipoproteins (LDL), triglycerides (fasting);
- Echocardiogram.

Based on medical indications:

- Oral glucose tolerance test - at fasting glucose over 5.6 mmol/L;
- Renal ultrasound (in patients with proteinuria, hematuria or cilindruria);
- Adrenal gland ultrasound (in symptomatic patients suggesting Pheochromocytoma).

In addition, attachments to these documents:

- WHO questionnaire to rule out symptomatic arterial hypertension;
- Cardiovascular risk factors;

- Calculation of body mass index.

The recommendations for examination indicate as follows: upon the diagnosis of hypertension, each patient should be carefully examined for signs and symptoms of secondary hypertension and target organs damage, by means of physical examination and baseline laboratory tests (where feasible).

5. CONCLUSIONS AND DISCUSSIONS

- There is a lack of awareness amongst men on signs, manifestations, and consequences of high blood pressure. Their knowledge mainly confines to headache, with the headache as an 'indicator' of hypertension and reason for seeking health care. General good subjective health status, absence of headaches and changes in physical status of health, good working ability etc., even with elevated BP are found to be the main reasons for not seeking health care amongst men.
- Although app. 10% of interviewed men reported they did not seek health care due to lack of money, financial problems were not among the most significant reasons for not seeking care. The majority of men perceived any attendance to healthcare facilities would entail high financial costs and, therefore, they simply did not go to healthcare organizations. This was primarily due to the quality of services for managing hypertension. Doctors were not committed to comply with clinical guidelines and often practiced irrational and often expensive prescriptions, which made patients, in particular men, to believe that continuous monitoring of BP was associated with high expenditures for both diagnostic process and intake of medicines.
- There are barriers of access to health services, particularly in rural area. Often, consultations and regular follow-ups were time-consuming. Men residents of rural area have to attend rayon or oblast centers to take examinations, lab tests, specialist consultations.
- Most men sought health care and understood that regular monitoring and follow-up visits during treatment were essential only in critical situations, such as severe headaches or following the complication events (myocardial infarction, stroke).
- It has become common practice of so called 'informal follow-up' for men with elevated BP, whereby men do not register with and do attend healthcare facilities and believe that doctors follow their conditions. It is particularly prevalent in rayon centers and villages. Men and their families receive advices from healthcare professionals through various channels (by phone, through family members, encounters by chance, and others.).
- There were two main reasons identified for health workers occasionally not registering patients with hypertension: i) patients with hypertension, more often men, tend not to take all essential diagnostic examinations that are required for registration and taking into the hypertension registers; ii) high numbers of registered patients with hypertension reportedly lead to constant revisions of documents from the side of the MHIF; as hypertension is a monitored disease based on the contracts between MHIF and healthcare organizations, violations in the ambulatory HTN patient cards will often result

in the MHIF penalties on doctors. Therefore, doctors, avoiding additional responsibility, tend to have the least possible number of patients enrolled.

- Lack of commitment of doctors to compliance with the approved clinical protocols for hypertension suggests they have not been implemented into practice: no trainings were held on application of these recommendations, recommendations on clinical and laboratory examinations did not consider local conditions and equipment capacities. This represents a barrier for the application of clinical guidelines and protocols. They also need to be updated, possibly followed by a revision of recommendations for laboratory and instrumental diagnostics, considering equipment capacities of healthcare organizations.

6. RECOMENDATIONS

- It is essential to develop specific awareness building materials for men on risks and symptoms of elevated BP, and disseminate them through both VHCs and primary healthcare workers.
- Rigorous mechanisms of communicating data on persons with high BP from VHCs to FMC/FGP, with focus on men, monitoring, and, if necessary, registering such patients with hypertension.
- Motivation of PHC workers should be addressed to facilitate detection and registration of patients with hypertension. To do this, consider the requirements set by clinical guidelines and protocols in relation to the patient's registration (priority group registration) and develop straightforward criteria. Those criteria should consider diagnostic methods available at all healthcare levels and ensure all patients with high BP can be registered. A temporary moratorium on the sanctions by the MHIF and other agencies during monitoring of the hypertension cases should be discussed.
- Expand the powers and functions of nurses in terms of hypertension management, follow-up, and counseling, using the existing educational programs for general public, in particular for men. Detection of hypertension cases and registration of risk factors should also be assigned to nurses.
- Update the approved clinical guideline and protocol on hypertension for primary healthcare and revise recommendations on laboratory and instrumental diagnostics, with reference to the equipment available and local conditions. Introduce the developed clinical guidelines and protocols through series of trainings of healthcare professionals in the field.

ANNEX 1

Supplement to the Guidelines for screening of elevated BP

Instructions for filling in the form:

1. Fill in columns 1 and 2.
2. Ask a question "Do you ever visited FMC / FGP / FAP after they learned about high blood pressure?" (Column 3).
 - a. If the answer is "Yes» Ask a question "Have you ever visited a doctor in FMC / FGP / FAP in the last 6 months about high blood pressure?" (Column 4).
 - b. If the columns 3 and 4 answered "No" Check the reasons why not visit (column 5)

Table 1. Registration of men and the reasons for their not seeking medical help.

№	Full name	Age	Did you attend FMC/FGP/FAP after you found you had elevated BP		Did you visit FMC/FGP/FAP due to elevated BP in the last 6 months		Reasons for not attending:		
			3	4	4	5	1. I felt myself well. 2. I forgot I had elevated BP. 3. FMC/FGP/FAP are distantly located. 4. No money for treatment. 5. I have to take many tests/examinations. 6. No time for treatment 7. I treat myself on my own 8. Other		
							Yes	No	Yes
	1	2							
							1 2 3 4 5 6 7		