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ORIGINAL ARTICLE

CITIZEN CONTROL IN PRIMARY OUTPATIENT CARE – OPPORTUNITIES AND REALITIES IN BULGARIA

T. Zlatanova, M. Djuglarska, N. A. Popov, D. Shtereva-Tzouni, Ts. Petrova-Gotova, R. Yaneva, E. Naseva, M. Lazarova, Ts. Stoyanova, N. N. Popov

Faculty of Public Health "Prof. Tzekomir Vodenicharov, MD, DSc", Medical University – Sofia, Bulgaria

Abstract. *The significance of control increases with the push towards improving the overall effectiveness of the health insurance system. In order for public resources to be spent lawfully and effectively, there needs to be increased control not only from the National Health Insurance Fund (NHIF), but citizen control also needs to be incorporated in the process.* ***Materials and Methods:*** *The goal of this survey is to analyze the opportunities for implementing citizen control over the spending of public health funds and compare them to the real conditions as far as the outpatient medical care level. Legislation and news from NHIF's webpage related to citizen control opportunities were studied. A direct, anonymous survey was carried out on the Google forms platform amongst Bulgarian citizens past the age of majority.* ***Results:*** *The results of the questionnaire survey carried out between 24.06.2022 and 16.10.2022 among 1045 adults with compulsory health insurance from all over the country, showed that they were poorly informed on the opportunities for citizen control which have been regulated and created in practice and don't take advantage of them. Only 45,6% of the participants were aware of the digital services "Record review for health-insured persons", which is found on NHIF's webpage, and less than half of them (42,8%) used this service. The NHIF's mobile application for feedback was used by as little as 11,8% of the respondents, and only seven patients have used it to share an opinion, while nine have used it to get notifications for data changes in their patient record. The portion of participants who have taken part in NHIF inquiries was also very small – 2,5%. Merely 2,8% have posted a complaint to the NHIF after being denied medical services.* ***Conclusions:*** *All of this makes it evident that a change is necessary in order for citizen control to be strengthened as a mechanism. This will lead to the correction of proven deviations in reported medical activities and will make it easier to get the patients' opinions on the medical care they have been provided with.*

Key words: *control, National Health Insurance Fund, compulsory health-insured people, primary outpatient medical care*

Corresponding author: *T. Zlatanova, Department of Healthcare Economics, Faculty of Public Health "Prof. Tzekomir Vodenicharov, MD, DSc", Medical University, 8, Byalo More street, 1527, Sofia, Bulgaria, e-mail: t.zlatanova@foz.mu-sofia.bg*

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INTRODUCTION

Modern healthcare is scarred by many unsolved or poorly solved problems, which have turned it into a sensitive topic for our society. There are established tendencies for public and private health expenses to rise constantly and steadily, for the health indicators of the population as a whole to worsen, and for patients to end up unsatisfied by the provided medical services. This is clear evidence for the ineffective use of health funds. The optimal use of the public resources provided for healthcare for the purpose of improving the population's health status, and consequently the reduction of the high relative portion of direct payments by the patients themselves, has a direct relation and is dependent on one fundamental function of the administrative process – control. With the push towards improving the overall effectiveness of the health insurance system, control becomes even more important. What was laid out gives us unshakable grounds to perceive the financing of health services "not only as a payment procedure", but also as "a system controlled by the government and the public" [5].

The control over the spending of public health funds is carried out by the National Health Insurance Fund (NHIF), which is the only institution in the Republic of Bulgaria that can finance the regulated package of health activities [2, 3]. Practically, NHIF serves as a buyer (even if not real) of the medical care provided to persons with compulsory health insurance (PCHI), wherein the supplier is the provider of the medical care, who has a contract with NHIF. In order to guarantee the lawful and effective spending of public resources it is within NHIF's powers to request documentary evidence for services which have been carried out [1]. The control is realized by an inquiry in the health institution or through the documents for the services reported to NHIF [4]. However, the document inquiries carry the risk that medical services that were correctly filed but never carried out (unlawful practices) will still be paid for.

The spending of public health funds is directly tied not only to the accurate (i.e. lawful) reporting of medical activity performed to help a patient, but also to the level of the patient's satisfaction with the medical help provided (i.e. its effectiveness). This makes it necessary for NHIF's control to be strengthened, which may be achieved through actively including the consumer of health services. Incorporating citizen control in the process of spending public health funds in the healthcare system proves its crucial role and place in the effective management and spending of the funds from compulsory health insurance payments.

Meanwhile, primary health care (PHC) takes a fundamental place in the modern healthcare model in the Republic of Bulgaria, because it performs a wide array of activities crucial for our society.

Until now there haven't been any results of citizen control on the level of public health funds spending reported including on the POC level.

GOAL AND TASKS

The goal of this research is to analyze and compare the opportunities for citizen control over the spending of healthcare funds to the reality of its condition as far as the PHC level.

In this light, the major tasks are:

1. To study and present the opportunity for exercising citizen control over the spending of healthcare funds, including at the PHC level.
2. To study how informed PCHI are on their ability to exercise control over the spending of healthcare funds, including at the PH level.
3. To assess the actual condition of citizen control including at the PHC level.

MATERIALS AND METHODS

Regulations were studied, as well as news from NHIF's website (www.nhif.bg), related to the opportunities for citizen control.

A direct anonymous questionnaire was distributed through the platform Google Forms amongst Bulgarian citizens (PCHI over 18) in the period between 24.06.2022 and 16.10.2022. The sample was made up of the willing respondents but it was large enough in size (1045) to guarantee that the results were reliable.

Statistical analysis

Both descriptive and analytical statistical methods were used. The quantitative variables are presented as a median with an interquartile range (IQR, 25th and 75th percentile), meanwhile for fullness the normal range (minimum and maximum) was added as well; the qualitative were presented as absolute and relative frequencies. The shape of the distribution was checked with the Kolmogorov–Smirnov test. The Mann–Whitney test was used to compare the averages of two independent samples. Chi-Quadrant analysis was used to find connections between cat-

egorical variables. Values of $p < 0,05$ have been accepted as significant.

RESULTS

Opportunities for exercising citizen control

In Bulgaria, citizen control over the spending of public health funds, including those for POC, takes four separate forms. One of them is the providing of digital health record, which can be accessed by any PCHI, even to those who have had their health insurance rights suspended. This access happens through the NHIF's web page – www.nhif.bg – and it allows for every PCHI control over the accuracy of the information reported in their file. This accomplishes the constitutional right of every Bulgarian citizen to "seek, obtain and disseminate information" (Art. 41 (1) of the Constitution of the Republic of Bulgaria). At the time of conducting this research (July 2022) the service "Record review for health-insured persons" was free of charge and could be accessed in three possible manners: with a digital signature; with a unique access code (UAC) issued by the National Health Insurance Fund; with a personal identification code (PIC) issued by the National Revenue Agency (NRA).

Another opportunity for exercising citizen control is NHIF's mobile application for citizen feedback, which has been active since June 2020 [7]. Through this app, PCHI can submit opinions on the medical services they were provided within outpatient, inpatient and dental care, as well as in pharmacies; they can also check the accuracy of the information reported in their patient files. A year later the application was made even more function through its connection to the PIC of NHIF. By subscribing to receive notifications through the mobile application, all health-insured citizens can receive notifications for changes in their medical data, which is reported by NHIF's contracting partners, as well as in case the contract between their general practitioner (GP) and NHIF is terminated.

The PCHI's right to submit complains to the director of the relevant district health insurance fund when not satisfied with the medical care provided is another venue for exercising citizen control over the spending of public health resources. (art. 35(2)(1) of the Health Insurance Act). Complaints can be filed by PCHI who have been left unsatisfied by the medical services they were provided (art 35 (2)(1) of the Health Insurance Act). In practice, the feedback the PCHI give in the form of a complaint is particularly valuable for improving the management and spending of the public health funds received through the compulsory health insurance payments. The questionnaires sent to PCHI in the course of inquiries conducted by the NHIF are among the regulated opportunities for exercising citizen control (Art. 24 (3) from the Instructions from 2020). The implementation of this approach aims to get further detail regarding facts and circumstance related to the inspected healthcare provider.

Demographic characteristics of the respondents

A questionnaire was conducted among 1045 adult PCHI in order to make clear the degree to which the public is informed on the opportunities for citizen control over the spending of health funds, including at the POC level. The majority of them (70.1%) were women (Table 1). The median of their ages was 43 years (IQR 34-51), where the age varied from 18 to 91 years.

Table 1. Demographic characteristics of the respondents

Variables		PCHI	
		n	%
1. Sex	man	312	29,9%
	woman	733	70,1%
2. Age	median (IQR);	43 (34-51)	18-91
3. Highest level of completed education	Primary School	0	0,0%
	Junior High School	2	0,2%
	Secondary Education	250	23,9%
	Professional Bachelor (specialist)	72	6,9%
	Bachelor's	282	27,0%
	Master's	390	37,3%
	Doctorate	49	4,7%
4. Place of residence	Capital city	622	59,5%
	Province center	197	18,9%
	Town	184	17,6%
	Village	42	4,0%

The majority of the respondents have graduated a higher education level (Table 1) – 37.3% had a Master's Degree, 27.0% – a Bachelors', 6.9% - a Professional Bachelor's, 4.7% – a PhD. Overall, 23.9% have completed secondary education, while 0.2% have completed junior high school.

In regards to their place of residence (Table 1) over half of the respondents reported that they lived in the capital (54.5%), 18.9% – in province centers, 17.6% – in towns, and as little as 4.0% lived in villages.

The real state of citizen control

Less than half of the participants (45.6%) were aware of the NHIF's digital service "Record review for health-insured persons" (Table 2) despite the institution's attempts to popularize it in the campaigns from 2017 – "For open records" and 2018 – sending letters to randomly selected patients with information from PIS containing the medical and dental care that was performed and paid for during the 2017-2018 period [7].

Statistically significant connections were found between PCHI's awareness of the digital service for access to the personal medical record and their education level ($p < 0,001$), as well as their place of residence ($p < 0,001$). The results (Figure 1) showed that Bachelor's graduates were the ones who reported most often that they knew of the service (62%),

Table 2. Absolute and relative distribution of the respondents' answers to the questions in the questionnaire

Questions	Answers	PCHI	
		n	%
5. Are you aware of the "Record review for health-insured persons" service on NHIF's website?	Yes	477	45,6%
	No	568	54,4%
5.1. Have you used the "Record review for health-insured persons" service provided by NHIF?	Yes	204	42,8%
	No	273	57,2%
5.2. How do you access the service?	With an UAC issued by NHIF	30	14,7%
	With a PIC issued by the NRA	144	70,6%
	With a digital signature	30	14,7%
5.3. Have you personally issued a complaint to the NHIF about a discrepancy between the health services in your medical record and the ones you received?	Yes	4	2,0%
	No	200	98,0%
5.3.1. Was the complaint connected to medical services reported by your general practitioner, which were never performed?	Yes	4	100,0%
	No	0	0,0%
Were you made aware of the results of the inquiry?	Yes	3	75,0%
	No	1	25,0%
5.3.2.1. What was the result of the inquiry?	Legitimate complain	3	100,0%
	Illegitimate complaint	0	0,0%
6. Are you aware of NHIF's mobile application for feedback?	Yes	124	11,9%
	No	921	88,1%
6.1. How did you initially learn of NHIF's mobile application for citizen feedback?	Media	26	21,0%
	NHIF's web page	34	27,4%
	Social Media	18	14,5%
	Google Play	2	1,6%
	Apple Store	1	0,8%
	Another citizen	37	29,8%
	Other	6	4,8%
6.2. Have you installed NHIF's mobile application for citizen feedback for yourself?	Yes	25	20,2%
	No	99	79,8%
6.3. Have you personally used NHIF's mobile application to submit an opinion on the health services you were provided with?	Yes	7	28,0%
	No	18	72,0%
6.4. Have you shared an opinion directly connected to the work of your general practitioner?	Yes	2	28,6%
	No	5	71,4%

Continuation of table 2

6.5. Do you have a subscription for receiving notifications from the NHIF's mobile application?	Yes	9	36,0%
	No	16	64,0%
6.6. How would you evaluate NHIF's mobile application for citizen feedback?	Perfect	2	22,2%
	Very Good	3	33,3%
	Good	1	11,1%
	Unsatisfactory	2	22,2%
	Poor	1	11,1%
7. Have you received questionnaire (been interviewed) in relation to inquiries carried out by NHIF?	Yes	26	2,5%
	No	1019	97,5%
7.1. Was the questionnaire (interview) directly connected to the work of your general practitioner?	Yes	11	42,3%
	No	15	57,7%
8. Have you ever been unsatisfied by the medical care provided to you and submitted a complaint to NHIF?	Yes	29	2,8%
	No	1001	97,2%
8.1. Was the complaint directly connected to the services provided by your general practitioner?	Yes	2	6,9%
	No	27	93,1%
What were the grounds on which you submitted the complaint (it is possible to choose more than one answer)?			
– A medical service that was reported but never performed	Yes	5	17,2%
	No	24	82,8%
– The quality of medical care, which didn't conform to the established criteria	Yes	17	58,6%
	No	12	41,4%
– Being refused access to medical documents	Yes	8	27,6%
	No	21	72,4%
– Sums of money received by the medic without legitimate reason	Yes	9	31,0%
	No	20	69,0%
– Other	Yes	3	10,3%
	No	26	89,7%
8.3. What was the result of the inquiry into the complaint?	Legitimate complaint	17	58,6%
	Illegitimate complaint	12	41,4%

followed by PhD graduates (59.2%), master's graduates (40.5%), Professional Bachelors (37.5%), and high school graduates (34.7%). To satisfy the requirements of statistical analysis the respondents whose highest education level was Junior High have been excluded from the analysis.

The participants living in province centers and smaller towns reported more often that they were aware of the service (65% and 62.5%, respectively) compared to the respondents living in the capital or in villages (35% and 38.1%, respectively) (Figure 2).

The participants who reported being aware of NHIF's service were asked an additional question on whether they had actually used it (Table 2). Merely 42.8% of the participants who were aware of the service had given an affirmative answer. The majority of them (70,6%) had used the service through PIC by the National Revenue Agency, while only 14.7% have used it through with UAC issued by NHIF or a digital signature.

A statistically significant relationship can be observed between the respondents who used the "Record review for health-insured persons" service and their highest education level ($p = 0,005$). The higher the education, the bigger the portion of PCHI who used the service (Figure 3). Only those who had a Professional Bachelor's program do not fit in this model. Their portion (48.1%) was higher than the Bachelor's graduates who used the service (36.4%). Nevertheless, the established relationship remains meaningful.

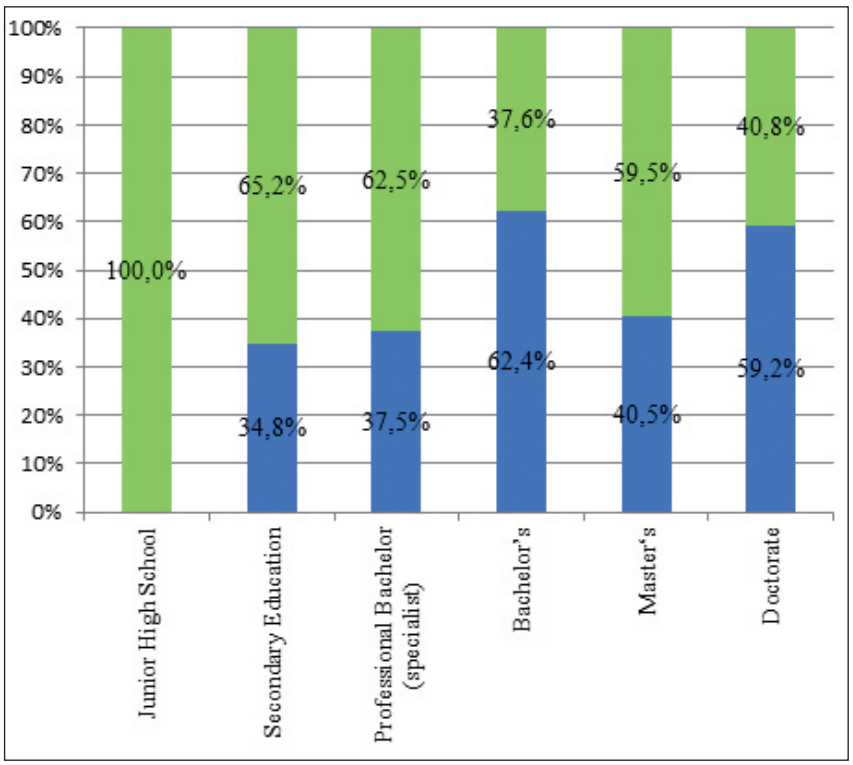


Fig. 1. Relationship between PCHI's awareness of NHIC's digital service and their educational level

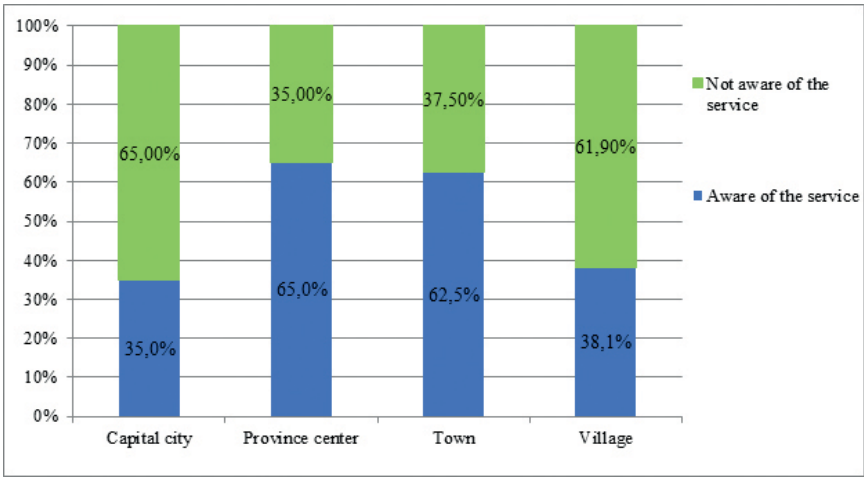


Fig. 2. Relationship between PCHI's awareness of NHIC's digital service and their place of residence

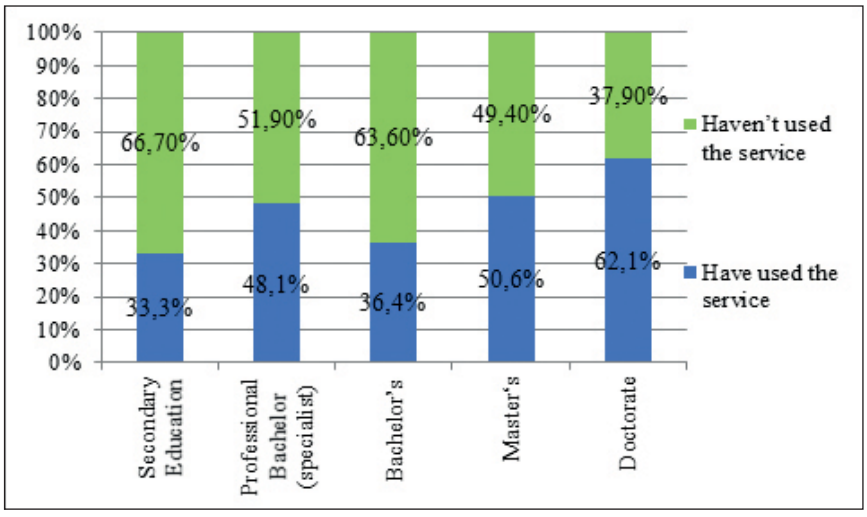


Fig. 3. Relationship between PCHI who have used the NHIF's digital service and their highest level of completed education

The connection with the place of residence of the participants was statistically significant. As expected, those living in the capital and in province centers more frequently reported that they have used NHIF's digital service "Record review for health-insured persons" compared to participants from small towns (Figure 4). The majority of people who have used the service among those living in villages is an exception to this model. Even if they are excluded from the analysis, the relationship between place of residence and use of the service remains significant, i.e. PCHI from larger towns and cities report having used the service considerably more frequently (p = 0,018 for the entire sample and 0,012 if the participants living in villages are removed from the analysis).

Only 4 (2%) of the participants who have used the services have submitted a complaint to the NHIF for a discrepancy between the services reported in their medical record and the ones they actually received (Table 2). Three of them were informed about the results from the investigation, which were that their complaints were considered legitimate, while the fourth's was considered illegitimate.

As little as 11.9% from the responding PCHI were aware of NHIF's mobile application for citizen feedback (Table 2). They were also asked how they did initially learn of NHIF's mobile application. The biggest portion is that of the respondents found the application through another citizen (29.8%), followed by those who did it through NHIF's website and the media (21%). A total of 14.5% learned about the application from social media, and 24% from Google Play/App Store. Only 4.8% reported other sources, and they listed GPs, colleagues and radio most frequently.

There was statistically significant difference between the average (median) age of the PCHI who were aware of the NHIF's application and those who were not. On average, the ones who knew of the application were noticeably older (median – 46 years) than those who didn't (median – 42 years) (Figure 5).

When asked whether they have the mobile application, 1/5 of the respondents who reported being aware of it answer affirmatively (Table 2). In relation to the functions the application serves, there were additional questions asked on how

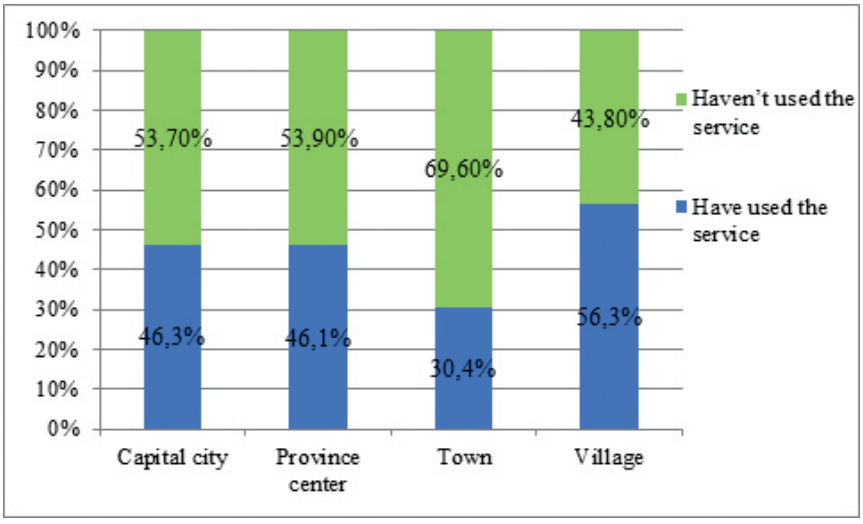


Fig. 4. Relationship between PCHI who used the NHIF's digital service and their place of residence

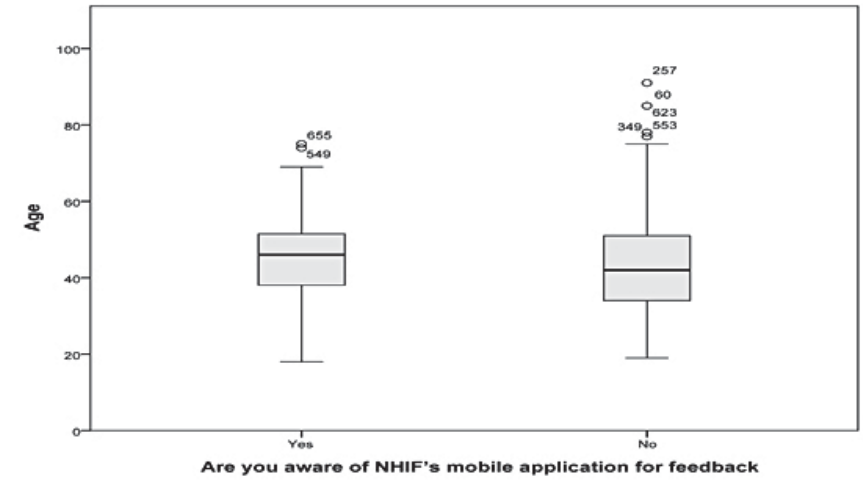


Fig. 5. The age of PCHI who are aware of NHIF's mobile application and those who are not

they were used (with the assumption that an application being installed on a smartphone doesn't mean it's being used). As little as seven of the respondents (28.0%) reported having used the application to share an opinion related to the medical care they were provided. Among them, only two (28.6%) have submitted an opinion on their GP's work. When asked an additional question about whether they had activated the notifications subscription on the app in case of changes to their patient information and/or a termination of their GP's contract with NHIF, only nine respondents (36%) said they had done so. Nine of the participants, who had used the application's functions, evaluated it. The application got a "perfect" assessment from one participant, "very good" from three participants, "good" from one, "unsatisfactory" from two and "poor" from one.

All of the PCHI who participated in the survey were asked whether they ever received questionnaires (were interviewed) in relation to inquiries carried out by NHIF. A total of 26 of them (2.5%) answered in the affirmative (Table 2). Only they were asked whether the questionnaire (interview) had directly related to their GP's work: in 11 of them (42.3%) that had been the case.

All the respondents were also asked "Have you ever been unsatisfied by the medical care provided to you and submitted a complaint to NHIF?" Twenty nine of them (2.8%) answered in the affirmative, and two of them (6.9% of the affirmative answers) reported that their complaint was directly connected to their GP's work. When asked about the reasons for issuing their complaints to NHIF, the majority of the respondents listed "quality of medical care, which didn't meet the established criteria" (58.6%) as the reason. This is followed by those who responded with "sums of money received by the medic without legitimate reason" (31.0%), with "Being refused access to medical documents" (27.6%) and with "A medical service that was reported but never performed." (17.2%). The response "other" was given by three respondents (10.3%), which include two cases of an untimely medical treatment and one case of unprofessional attitude towards the patient. The sum of the percentages is over 100 because the PCHI had the opportunity to choose more than one answer. In over half of the PCHI who issued a complaint to NHIF due to the unsatisfactory medical treatment they were provided with (29 people), the end result was that their complaint was found to be legitimate while in the others (41.4%) the complaint was found to be illegitimate.

The respondents also had the opportunity to give suggestions for improving the citizen control of public health funds spending. Almost 1/5 of participants (17.3%) gave suggestions (Table 3).

Table 3. Distribution of the PCHI's suggestions for improving public of public health funds spending

№	Suggestion	PCHI	
		n	%
1.	Keeping the public up to date on opportunities for and benefits of citizen control through appropriate informational campaigns	70	39,3
2.	Providing complete transparence and clear results when it comes to citizen control	57	32,0
3.	Finalizing the full digitalization of the processes in healthcare	44	24,7
4.	Pushing for control from national patient organizations by making the results of its implementation known	30	16,9
5.	Implementing mechanism by which one can pay for medical care based on the quality of the health services provided	17	9,6
6.	A regular campaign of sending citizens letters with information from the medical files organized by NHIF	12	6,7
7.	Other	15	8,4

It is logical that most of the respondents (39.3%) have chosen the "keeping the public up to date on the opportunities for and the benefits of citizen control through appropriate informational campaigns" option. A total of 32% of the participants suggested that full transparency on citizen control with clear results should be provided. Finalizing the complete digitalization of the processes in healthcare was suggested by 24,7% of the respondents. For another 16.9% citizen control could be improved through pushing for control from national patient organizations by making the results of its implementation known. Another 9.7% of the respondents were in favor of implementing mechanism by which one can pay for medical care based not only on the quantity, but also on the quality of the health services provided. Only 6.7% of the participants expressed support for the regular renewal of NHIF's 2018 campaign (sending the patient's information via mail). The proposed digital service for submitting complaints to the NHIF, which would allow one to track the complaint review process, and the simplification of the information included in the digital patient record to make it accessible to anyone were both suggested by 3.9% of the participants, while only one person proposed implementing

personal incentives for PCHI who exercise effective personal control.

When combined those suggestions exceed 100% because the respondents were given unlimited opportunities to give suggestions for the improvement of citizen control over the spending of public funds.

DISCUSSION

Generating medical and professional information, which is both significant in side and varied in character for every PCHI made it easy to set up the personalized information system (PIS) of NHIF [1]. In practice, it was PIS that laid the foundations for the first digital health record of its kind, whose contents were improved over time. According to the most recent data released by NHIF during March 2021, the digital health record contains "information for every citizen's choice of general practitioner (from 2000 till now) and the activities reported by the general practitioner, specialist, hospitals, laboratories and pharmacies from 2009 till now" [6]. There was also development in the digital access to that information provided by NHIF. At first the only provided opportunity was access via Universal electronic signature. Since 15.04.2013 a new functionality has been added – UAC issued by NHIF. And since 30.05.2018 the opportunity to access the digital health record with the PIC from the National Revenue Agency has also been made available. Expanding the means of digitally accessing the health record implies an active inclusion of PCHI in the control over the spending of public health funds. But does this hold true?

At the end of March 2017 the "For Open Records" campaign was started to promote the NHIF's "Record review for health-insured person" digital service. The institution's efforts were directed towards providing all citizens who had a reason to visit a district health insurance fund in the country with information and the opportunity to receive a UAC to their digital health records. For the first month of the campaign over 21 225 PCHI had received their UAC, compared to the total number of 38 000 for the 04.2013-08.2017 period [6]. Another initiative began in September 2018, in the span of NHIF's campaign for actively including PCHI in the health funds spending control. Over 700 letters were sent out to randomly elected patients with information from PIC on the medical and dental care provided and compensated in the 2017-2018 period [6]. However, there isn't any feedback on the initiative's outcome.

The last data released by NHIF show that by March 2021 75181 have reviewed their health records using a UAC issued by NHIF or a PIC issued by NRA, and that 37869 – using an electronic signature. As little as 1295 citizens have taken advantage of NHIF's mobile app for feedback, which has been in operation since June 2020, including to check the information in their health record [6]. Meanwhile, reported data by the NHIF show than in 2021, there were 1918 complaints (signals and letters) submitted to the NHIF in relation to providers of outpatient, in-patient and dental care, and pharmacies [7]. The information on the submitted complaints is structured in terms of provider type only on the level of the Central Office of the NHIF (901 complaints), but not in the case of the district health insurance funds (1017 complains). Therefore, the analysis of the submitted complaints would be partial.

In addition to the aforementioned, there are also no data on the application of the questionnaires sent out to PCHI in the course of the NHIF's inquiries. There is also no reported data on cases where it was found that medical and/or dental procedures were paid for but never performed as a result of the exercising of any of the forms of citizen control.

What was presented so far piqued the interest towards this questionnaire survey among PCHI.

Despite the campaigns conducted by NHIF to actively include PCHI in the control over public health fund spending and the measured high share of highly educated participants (75,9%), there is a surprising share of them who are not aware of the NHIF's "Record review for health insured persons" (54,4%) and of the NHIF's mobile application for citizen feedback (88,1%), compared to the share who know of these opportunities.

Meanwhile, acquiring higher education requires maintaining extensive general knowledge, which is explanation for the markedly high share who are aware of the digital service among the participating Bachelors (62%), followed by the participants with PhDs (59,2%) and those with Master's Degrees (40,5%). The active lifestyle in the capital and the calmness in the villages are probably the explanation for the lower level of awareness of the people living there (35% and 38,1% respectively) compared to those living in province centers and towns (65% and 62,5%, respectively).

Less than half of those who reported being aware of the digital service "Record review for health insured person" actually used it (42,8%). Most of them accessed their records through PIC from the National

Revenue Agency (70,6%). In the case, the low relative share of the people who used the service with their UAC issued by NHIF (14,7%) doesn't provide evidence on the effectiveness of the For Open Records campaign, which was started in March 2017.

Only those who had completed a Professional Bachelor's program do not fit the outlined model of a steady rise of the share of the respondents using the digital service in connection with their level of education. This is perhaps due to the fact many of the responding Professional Bachelors are health works, which would have this knowledge because of their profession.

As expected, the people living in the capital and province centers are the ones who used the service most frequently, compared to those living in small towns (56,3%). The portion of participants who in villages and answered in the affirmative is inexplicably high. However, this might be caused by their rather small number in the survey (42).

There is an insignificant share (2%) of complaints submitted to the NHIF regarding a discrepancy between the services reported in health records and the ones actually received. The complaints which were found to be legitimate are predominant (3:4). In this case, we can only hope that this is probably caused by the PCHI finding only incidental cases of unregulated practices, rather than by a passivity.

The share of respondents aware of the NHIF's application for citizen feedback is unsatisfactory (11,9%). Their age is significantly larger (median 46) compared to that of those who are unaware of the application (median 42). The main information sources listed by the respondents – "another citizen" (29,8%), NHIF's web page (27,4%), media (21%), show that the application was poorly promoted by the NHIF. The fact that only 1/5 of the people who know of the app have installed it shows that there isn't a strong interest for it. There is a larger share of people who have opted to receive notifications through the application upon changes in their patient information and/or the termination of their GP's contract with the NHIF (36%) compared to those using the other functional of the app for giving opinion on the received health services (28%), whereby only two respondents have given an opinion on the work of their GP. The total assessment of the application seems to me mostly positive.

Sending questionnaires to PCHI in the course of NHIF's inquiries is a method that's rarely applied, which is also substantiated by the insignificant share of participants in this research who received such questionnaires from the NHIF (2,5%). Under half of them were questioned in order to clarify facts and circumstances related to the work of their GP (42,3%).

The portion of respondents who submitted a complaint to the NHIF after unsatisfactory medical care is also small (2,8%), and only two of those complaints were connected to the work of their GP. Unsatisfactory quality of the provided medical care is reported as the most frequent reason for submitting a complaint (58,6%), followed by money received by a doctor without legitimate reason (31,0%), refused access to medical care (27,6%), and a reported but not performed medical procedure (17,2%). A little over half of the complaints were ruled as legitimate (58,6%) and the other not insignificant portion as illegitimate. This end result is a probably explanation for the participant's low activity in submitting complaints.

The respondents' lead suggestions for improving citizen control over the public health fund spending are examined in the context of their lack of knowledge on this question and the long-awaited complete digitalization of the healthcare processes. Logically, 1/3 of the suggestions involve informing the public on the opportunities for public control and its advantages through current awareness campaigns. 1/3 of the participants believe that full transparency with clear results from citizen control would be a stimulus for the active participation of more PCHI. Feedback is important not only to the inspection body – NHIF, but also to the citizens, especially for those who have doubts about the effectiveness of the control over public health fund spending. According to ¼ of the respondents improving the citizen control over the funds from compulsory health insurance payments is directly connected to the finalizing of the complete digitalization of the healthcare processes.

CONCLUSION

Citizen control, as a mechanism aiding NHIF's control, is an important source of information on the management and spending of the funds from the compulsory health insurance payments. The ultimate effect of its implementation will be the correction, even if only subsequent, of proven deviations in reporting, and hence in the payment for, medical help provided to a patient, as well as receiving feedback on the patients' satisfaction with the health services provided, which will guide subsequent activity. Citizen control is the only effective method of suspending unlawful practices in healthcare.

The results of this study show how poorly informed PCHI are despite the opportunities for exercising citizen control prescribed and provided by the only public health insurer of our health system – NHIF. They are also not proactive in exercising citizen control over the spending of public health funds, incl. at the PHC level.

Taking the respondent's suggestions into account would improve the economic and social effectiveness of healthcare expenses, and it will improve the citizens' trust in the health insurance system.

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