

# Motivacija zdravstvenih radnika u preventivnim aktivnostima

# Healthcare workers' motivation in preventive activities

Boban M. Trifunović<sup>1</sup>, Marina B. Fišeković-Kremić<sup>2</sup>

Boban M. Trifunovic<sup>1</sup>, Marina B. Fisekovic-Kremic<sup>2</sup>

1. Dom zdravlja Golubac, Golubac, Serbia  
2. Dom zdravlja Novi Beograd, Belgrade, Serbia

1. Primary Healthcare Center Golubac, Golubac, Serbia  
2. Primary Healthcare Center New Belgrade, Belgrade, Serbia

## Sažetak

**Uvod.** Uspešnu realizaciju svih aktivnosti, a posebno u oblasti preventive, zdravstvene ustanove mogu da ostvare samo ako su zaposleni visoko motivisani i adekvatno nagrađeni za svoj rad. Sistem motivisanja najbolje je dizajnirati tako da zaposleni dobiju one nagrade koje su za njih najbitnije. Zato se kao nužan preduslov uspešnosti motivacije javlja istraživanje motiva i potreba zaposlenih.

**Cilj rada.** Ispitati koji su najznačajniji faktori motivacije zdravstvenih radnika u preventivnim aktivnostima.

**Metod.** Istraživanje je sprovedeno studijom slučaja u Domu zdravlja Golubac, u periodu od decembra 2019. do decembra 2020. godine. Rezultati preventivnih aktivnosti zdravstvenih radnika Doma zdravlja Golubac analizirani su u toku projektnih aktivnosti u 2020. godini u odnosu na rezultate iz 2018. godine. Stavovi zaposlenih o motivacionim faktorima analizirani su na osnovu sprovedenog individualnog intervjua i ankete.

**Rezultati.** Rezultati preventivnog rada u 2020. godini kroz projektne aktivnosti su bili značajno bolji od onih u 2018. godini. Odziv na skrining na dijabetes je iznosio 42%, realizacija evidentiranja merenja krvnog pritiska dijabetičarima je bila 58%, određivanje HbA1c dijabetičarima je iznosilo 34% u 2020. godini. U 2018. godini realizacija skrininga je bila 15%, krvni pritisak je izmeren kod 50% dijabetičara, a HbA1C je realizovan kod 10%. Najznačajniji faktori motivacije zdravstvenih radnika su značaj preventivnih aktivnosti za zdravlje stanovnika, učešće direktora kao vođe projekta, oprema dobijena u toku projekta koja će unaprediti rad, jasno definisanje cilja i lična odgovornost za uspeh projekta.

**Zaključak.** Motivacija zdravstvenih radnika je od velikog značaja za uspešno sprovođenje preventivnih aktivnosti. Sprovedeno istraživanje obezbeđuju informacije rukovodiocima zdravstvenih organizacija o načinima na koji se može povećati motivacija zaposlenih.

**Ključne reči:** motivacija, zdravstveni radnici, preventiva, projektne aktivnosti

## Abstract

**Introduction.** Successful implementation of all activities, especially in the area of preventive medicine, healthcare institutions may accomplish only if their employees are highly motivated and properly rewarded for their work. The best motivational system should be designed so the employees get the rewards that matter to them. That is why research into the motives and needs of employees appears as a necessary prerequisite for the effectiveness of motivation.

**Objective.** We aimed at examining the most important motivational factors for preventive activities in healthcare workers.

**Method.** The research was conducted, as a case study, in the Primary Healthcare Center (PHC), Golubac from December 2019 to December 2020. We analyzed the results of the preventive activities of healthcare workers from the PHC Golubac during project activities in 2020 and compared them to the results from 2018. Employees' attitudes towards motivational factors were analyzed based on the conducted individual interviews and surveys.

**Results.** The results of preventive actions in 2020, through project activities, were significantly better than those in 2018. The diabetes screening response was 42%, the realization of blood pressure measuring in diabetic patients was 58%, and HbA1c was measured in 34% of diabetics in 2020. In 2018 screening realization was 15%, blood pressure was measured in 50% of diabetics, and HbA1C in 10%. The most important motivational factors for healthcare workers were the importance of preventive activities for the people's health, the participation of the manager as the project leader, the equipment gained during the project that will improve their work, clearly defined goals, and personal responsibility for the project's success.

**Conclusion.** The motivation of healthcare workers is of great importance for the successful implementation of preventive activities. Our research provides information for healthcare managers on ways to improve their employees' motivation.

**Keywords:** motivation, healthcare workers, prevention, project activities

## Uvod

Motivacija je proces pokretanja i usmeravanja zaposlenih ka određenom cilju. Ona podstiče zaposlene da svojim radom i angažovanjem obezbede ispunjenje organizacionog cilja, ali istovremeno i realizaciju nekih svojih potreba usled čega i dobijaju određene nagrade<sup>1</sup>. Kako bi efekat bio veći, sistem motivisanja najbolje je dizajnirati tako da zaposleni dobiju one nagrade koje su za njih najbitnije. Zato se kao nužan preduslov uspešnosti motivacije javlja istraživanje motiva i potreba zaposlenih.

Da bi motivacija bila uspešnja, podrazumeva se definisan cilj koji je izazovne prirode, dovoljno kompleksan, ali ipak ostvariv, pri čemu se zaposlenima mora dati informacija o stepenu ostvarenja datog cilja. Takođe, uspešnost motivacije zahteva redovno merenje performansi i davanje povratne informacije, ne samo kako bi zaposleni znao da li je i u kojoj meri ostvario cilj, već i da bi unapredio sopstveno znanje<sup>2</sup>. Uspešnost u motivaciji može biti još veća ukoliko se zaposlenima ponude one nagrade koje oni očekuju i više vole. Stoga, pre motivisanja zaposlenih potrebno je utvrditi šta oni zapravo žele dobiti na radnom mestu, odnosno da li više očekuju materijalne ili nematerijalne stimulacije<sup>3</sup>.

Za motivisanje zdravstvenih radnika se kao relevantne javljaju unutrašnje motivacije, kao što su kontinuirano obrazovanje, davanje priznanja i pohvala za ostvareni rezultat, mogućnosti napredovanja i razvoja u karijeri, kao i obezbeđivanje raspoloživih resursa za rad<sup>4</sup>. U različitim istraživanjima je potvrđeno da za zdravstvene radnike veći značaj imaju nematerijalne nego materijalne nagrade<sup>5</sup>. U jednoj od studija se navodi da lekari, medicinske sestre i tehničari više vole profesionalni razvoj, autonomiju u radu, ovlašćenja za odgovornosti kako bi ispoljili svoje sposobnosti, davanje povratne informacije, upravljanje stresom, kao i sticanje onih znanja koja se ne odnose isključivo na posao koji se obavlja (sticanje sposobnosti rada u timu, na računarima i sl.)<sup>6</sup>.

U skladu sa određenim istraživanjima koja su sprovedena u Republici Srbiji, za zaposlene u zdravstvenim organizacijama se u 22,6% slučajeva kao relevantan podsticajni faktor javlja zarada. Međutim, značajan broj ispitanika u ovom slučaju smatra da isključivo zarada nije dovoljna za motivaciju na radnom mestu, već se mora vršiti kombinovanje sa nematerijalnim sistemima nagrađivanja<sup>7</sup>. Timski rad i dobri međuljudski odnosi nalaze se na drugom mestu prema značaju, a potom dolazi zadovoljstvo zaposlenih koje nastaje na osnovu zadovoljstva pacijenata dobijenom lekarskom uslugom.

Karakteristike dobro dizajniranog posla, koji deluje stimulatивно na motivaciju zaposlenih, su: vremenski jasno preciziran, omogućava primenu stečenog znanja, podrazumeva sigurnost, daje mogućnost napredovanja u karijeri, jasno je povezan sa drugim zadacima, kao i sa nagradama koje će se dobiti realizacijom datog posla<sup>8,9</sup>.

Motivacija na osnovu učešća zaposlenih se povećava usled rasta morala, zadovoljstva poslom, zadovoljavanja čo-

## Introduction

Motivation is a process of moving and directing employees towards a certain goal. It encourages the employees to reach organizational goals with their hard work and commitment. But at the same time they may fulfill some of their needs and get rewarded for it.<sup>1</sup> In order to get better performance, it's best to design a motivational system so the employees get rewards that are best for them. Therefore, the motive research and needs of the employees arise as the necessary prerequisite for effective motivation.

To make motivation effective, the goal must be defined, challenging, and complex enough but manageable. The employees must be given information on the level of the goal accomplishment. Also, the effectiveness of motivation requires regular performance measuring and feedback, not only for the sake of employees following the level of goal accomplishment but to improve their knowledge.<sup>2</sup> Effectiveness in motivation can be even greater if the employees are offered the rewards they expect and prefer. Therefore, before motivating employees, it's necessary to establish what they really want to get at their workplace and if they prefer material or immaterial stimulation.<sup>3</sup>

Intrinsic rewards appear to be relevant for the motivation of healthcare workers – continuous education, giving recognition and praise for the achieved results, the possibility of career growth and development, as well as procurement of work resources.<sup>4</sup> Different studies confirmed healthcare workers find immaterial things more relevant than material ones.<sup>5</sup> One of the studies stated physicians, nurses, and medical technicians prefer professional growth, work autonomy, delegating responsibility so they could show their skills, giving feedback, stress management, and learning new things that are not work-related (teamwork, computer skills etc.).<sup>6</sup>

Following some studies carried out in the Republic of Serbia, it was shown that salary is a relevant incentive for 22.6% of those working in healthcare. Nevertheless, a significant number of the respondents, in this case, consider salary not the only incentive at work but it should be combined with immaterial reward systems.<sup>7</sup> Teamwork and good interpersonal relations take second place, as far as their importance is concerned, and employees' satisfaction follows, as a result of patients' satisfaction with received medical care.

Well designed work, stimulating for the employees' motivation, is characterized by time precision, enables the application of the acquired knowledge, implies security, gives the possibility of career growth, is clearly connected with other tasks, as well as rewards, that will follow after work completion.<sup>8,9</sup>

Motivation based on employees' participation is multiplied due to morale growth, work satisfaction, fulfilling one's needs of higher order, the possibility to achieve some personal goal, as well as increased devotion to the organization. When employees are able to participate in decision-making

vekovih potreba višeg reda, mogućnosti da se ostvari neki lični cilj, kao i usled povećane organizacione privrženosti. Kada se zaposlenima obezbedi učešće u odlučivanju, oni imaju mogućnost primene stečenog znanja i iskustva, a usled povećanja odgovornosti za konačne ishode, dolazi do ulaganja većeg nivoa napora u toku rada<sup>10</sup>. Učešće u odlučivanju dovodi do većeg stepena motivacije i organizacione privrženosti, što iz perspektive zdravstvenih organizacija može dovesti do povećanja kvaliteta zdravstvene zaštite.

U planu rada, svaki dom zdravlja ima definisan broj i vrstu preventivnih usluga koje treba da realizuje u toj godini. Preventivne aktivnosti zaposleni sprovode svakodnevno u svom radu. Realizacija preventivnih usluga utiče na kapitationu ocenu i visinu zarade izabranog lekara i medicinskog tehničara koji je sa njim u timu. Zbog kompleksnosti posla, lekari u malim domovima zdravlja, osim preventivnih aktivnosti, imaju obavezu da leče pacijente, zbrinjavaju hitne slučajeve 24 sata, rade vikendom i noću, a često ne uspevaju da ostvare planirane preventivne usluge. Potrebna je adekvatna motivacija da bi se realizacija preventivnih usluga popravila. Istraživanja koja se bave ispitivanjem motivacije i načina povećanja motivacije zdravstvenih radnika su ograničena. Rezultati ovog istraživanja stvaraju osnovu za sprovođenje budućih istraživanja.

## Cilj rada

Osnovni cilj istraživanja je ispitati koji su najznačajniji faktori motivacije zdravstvenih radnika u preventivnim aktivnostima.

## Metod

Istraživanje u radu je sprovedeno primenom metode studije slučaja, koja je realizovana u Domu zdravlja Golubac, u periodu od decembra 2019. godine do decembra 2020. godine. Analizirani su rezultati preventivnih aktivnosti zdravstvenih radnika Doma zdravlja Golubac u toku projektnih aktivnosti u 2020. godini u okviru Drugog projekta razvoja zdravstva Srbije. Osnovni cilj projekta je bio evidentiranje osoba sa povećanim rizikom za obolevanje od dijabetesa i bolja kontrola lečenja obolelih od dijabetesa. Lekari su osobama starijim od 45 godina, koje ne boluju od dijabetesa, sprovodili upitnik za procenu rizika za dijabetes tip 2 prema preporukama Nacionalnog vodiča za prevenciju dijabetesa tip 2. Medicinski tehničari u timu su ispitanicima merili telesnu masu, visinu, obim struka i određivali glikemiju. Dijabetičarima je meren krvni pritisak i upućivani su da urade HbA1C. Dobijeni podaci su ubacivani u elektronske baze podataka.

U projektu je učestvovalo ukupno 16 zaposlenih Doma zdravlja Golubac, od čega sedam lekara, četiri medicinska tehničara, tri laboranta i po jedan administrativni radnik i in-

they can apply acquired knowledge and experience. Due to increased responsibility for the final outcomes, more effort is put into work assignments.<sup>10</sup> Participation in decision-making leads to a higher level of motivation and devotion to the organization. From the perspective of healthcare organizations, this may lead to an increased quality of healthcare.

The work plan of every PHC contains a defined number and sort of preventive services that should be realized during the year. The employees perform preventive activities on the daily basis. The realization of preventive services influences the capitation mark and salary of the general practitioner and his/her team nurse/technician. Due to work complexity, physicians in small PHCs, aside from preventive activities, must treat sick patients, care for emergency cases 24 hours, work on weekends and at night, and they often cannot succeed to perform planned preventive services. Adequate motivation is needed to improve the realization of preventive activities. Studies about motivation research and improvement in healthcare workers are limited. The results of this study are the basis of future research in the field.

## Objective

We aimed at examining the most important motivational factors for preventive activities in healthcare workers.

## Method

The research was conducted as a case study in the Primary Healthcare Center (PHC), Golubac from December 2019 to December 2020. We analyzed the results of the preventive activities of healthcare workers from the PHC Golubac during project activities in 2020, as a part of The Second Project of healthcare development in Serbia. The main goal of the project was to file persons with an elevated risk for diabetes and better diabetic control in the diseased. Physicians performed a questionnaire on diabetes risk assessment in persons over 45. The questionnaire was following The National guidelines for diabetes prevention. Team medical technicians measured respondents' height, weight, waist, and glucose level. Blood pressure and HbA1C were measured in diabetic patients. The data were entered into electronic database.

A total of 16 employees from PHC Golubac participated in the project and 7 of them were physicians, 4 medical technicians, 3 lab technicians, 1 admin, and 1 IT person. The project manager was the PHC manager. The team members were general practitioners (they had their own patients) and preventive activities were part of their capitation rating. The donated equipment included an HbA1C device, a weight scale with a height gauge, 3 laptops, a computer, a projection screen, a projector, and 6 blood pressure monitors. Monetary compensation for participating in the project was from 15.000 to 45.000 RSD gross value.

formatičar. Rukovodilac projekta bio je direktor Doma zdravlja. Članovi tima bili su svi izabrani lekari (koji imaju određene pacijente) i kojima se preventiva računa u kapitacionu ocenu. Oprema dobijena u projektu je: aparat za određivanje HbA1C, vage sa visinometrom, tri laptopa, računar, projekciono platno, projektor, šest merača krvnog pritiska. Materijalna naknada za učešće u projektu iznosila je od 15.000 do 45.000 u bruto iznosu.

Stavovi zaposlenih o motivacionim faktorima analizirani su na osnovu sprovedenog individualnog intervjua i anonimne ankete. Anketa se sastojala iz 15 konstatacija, kroz koje su zaposleni izražavali svoj stav o ključnim motivacionim faktorima. Stav o navedenim konstatacijama izražavali su gradacijski: 1 (uopšte se ne slažem), 2 (pretežno se slažem), 3 (nisam siguran), 4 (pretežno se slažem), 5 (potpuno se slažem). Ponuđene konstatacije su bile: jasna podela uloga, jasno definisan cilj, pravilnik koji je jasno definisao način rada i kontrolu rezultata, profesionalni uspeh zbog uspešne realizacije projekta, učešće u projektu kroz planiranje i organizaciju svojih aktivnosti, poređenje rezultata sa rezultatima drugih kolega, oprema dobijena u projektu koja će unaprediti rad, značaj preventivnih aktivnosti za zdravlje stanovnika, materijalna motivacija (novac dobijen u toku projekta), pohvale/nagrade za dobar rezultat, to je bio izazovan i kreativan posao, učešće direktora kao vođe projekta, posao vremenski preciziran, merenje rezultata i dobijanje povratne informacije o postignutom uspehu, lična odgovornost za uspeh projekta. Za obradu podataka korišćene su statističke tehnike poput deskriptivne statističke analize i frekvencije podataka. Za statističku obradu podataka korišćen je program SPSSV24.

## Rezultati

Ciljna populacija koju je projekat obuhvatio predstavlja sve odrasle preko 45 godina u opštini Golubac, a to je 4.186 stanovnika. Skrining na dijabetes tip 2 je planiran da se sprovede na 986 osoba starijih od 45 godina. Realizacija je bila 414, što predstavlja realizaciju od 42%. U 2018. godini, plan je bio da skrining obuhvati 1.059 osoba starijih od 45 godina. Realizacija je bila 159 osoba (15%).

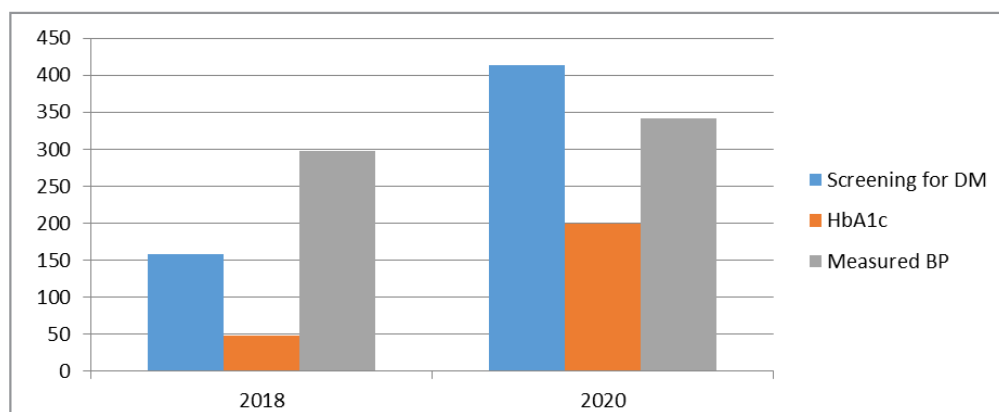
Evidentiran broj osoba obolelih od dijabetesa tip 2 u 2020. godini u bazi podataka Knjige evidencije dijabetesa (KED) bio je 587 osoba. Evidentirano je da je 341 obolelom izmeren krvni pritisak, što predstavlja realizaciju od 58%. U 2018. godini realizacija je bila 297 od 496 (50%). Ukupno je kod 200 (34%) dijabetičara određen HbA1C. Realizacija u 2018. godini je bila 10%.

Employees' attitudes towards motivational factors were analyzed based on the performed individual interviews and anonymous surveys. The survey consisted of 15 statements through which employees expressed their attitudes on key motivational factors. Their attitudes on given statements were graded from 1 (I completely disagree), 2 (I mostly disagree), 3 (I am not sure), 4 (I mostly agree), and 5 (I agree completely). Offered statements were: clear distribution of roles, clearly defined goals, the Rule book clearly defining the way of working and results control, professional success due to project realization, participating in the project through planning and organizing their activities, results in comparison with the results of their colleagues, the equipment donated through the project which will improve their work, the importance of preventive activities for people's health, material motivation (money earned through the project), praise/reward for good performance, it was a challenging and creative job, manager's participation as the project leader, timely specified work, results measuring and getting feedback on accomplished success, personal responsibility for the project success. Statistical techniques, such as descriptive statistical analysis and data frequency were used for data processing. Program SPSSV24 was used for statistical data processing.

## Results

The target population in the project included all people over 45 years of age in Golubac municipality which was 4.186 inhabitants. Screening for diabetes type 2 was planned for 986 persons over 45. The realization was 414 persons, which would make a realization of 42%. In 2018, the plan was to screen 1.059 persons over 45 years of age. The realization was 159 persons (15%).

The recorded number of persons suffering from type 2 diabetes in 2020 in the DRB (Diabetes Record Book) database was 587 persons. It was recorded that 341 diseased persons had their blood pressure measured, which makes 58% realization. In 2018, the realization was 297 out of 496 (50%). HbA1C was measured in 200 diabetics (34%). Realization was 10% in 2018.



Slika 1. Rezultati projekta / Figure 1: Project results

Uspeh u realizaciji projekta i bolji rezultati u odnosu na ostvarene rezultate u 2018. godini analiziran je intervjuima sa učesnicima projekta i popunjavanjem ankete. Cilj ovog dela projekta je podrazumevao ispitivanje razloga poboljšanih efekata projektnih aktivnosti i njihovo dovođenje u vezu sa motivacijom zdravstvenih radnika. Karakteristike uzorka su prikazane u tabeli 1. Najveći broj učesnika projekta je ženskog pola (81,3%), prosečne starosti 41–50 godina (56,3%), sa radnim stažom od 11 do 20 godina (37,5%), obavljaju medicinske poslove (87,5%). Broj ispitanika koji ima završen fakultet i srednju školu je identičan (po 43,8%).

The project realization success and better results, compared to 2018 results, were analyzed through interviews with the project participants and filling in the questionnaire. The goal of this part of the project implied examining the reasons for better effects of project activities and linking them with healthcare workers' motivation. Research sample characteristics are shown in Table 1. The majority of the participants were females (81,3%), of an average age from 41-50 (56,3%), with work experience from 11 to 20 years (37,5%), doing medical work (87,5%). The number of participants with university and high school education was identical (43,8% each).

Tabela 1. Karakteristike uzorka / Table 1. Research sample characteristics

Element uzorka/ Sample element	Frekvencija/ Frequency	Učešće u uzorku/ Sample participation
Pol/ Gender		
Muški/ Male	3	18,8
Ženski/ Female	13	81,3
Godine starosti/ Age		
20–30	-	-
31–40	4	25
41–50	9	56,3
51–60	2	12,5
Preko 60/ Over 60	1	6,3
Obrazovanje/ Education		
Fakultet/ University	7	43,8
Viša škola/ College	2	12,5
Srednja škola/ High school	7	43,8
Radni staž/ Work experience		
Do 5 godina/ Up to 5 years	1	6,3
6–10 godina/6-10 years	3	18,8
11–20 godina/11-20 years	6	37,5
21–30 godina/21-30 years	5	31,3
Preko 30 godina/ Over 30 years	1	6,3
Vrsta posla u organizaciji/ Kind of work in the organization		
Medicinski poslovi/ Medical jobs	14	87,5
Nemedicinski poslovi/ Non-medical jobs	2	12,5

U tabeli 2 prikazani su rezultati deskriptivne statističke analize, a potom su prikazane frekvencije odgovora za svaku konstataciju.

Table 2 shows the results of the descriptive statistical analysis and then the frequencies of answers for each statement.

**Tabela 2.** Rezultati deskriptivne statističke analize: motivacioni faktori  
**Table 2.** Results of descriptive statistics: motivational factors

Red. br.	Konstatacije/ Statements	Aritmetička sredina/ Arithmetic mean	Standardna devijacija/ Standard deviation
1.	Jasne podele uloga/ Clear distribution of roles	4,18	1,1
2.	Jasno definisan cilj/ Clearly defined goals	4,43	1,03
3.	Pravilnik koji je jasno definisao način rada i kontrolu rezultata/ The Regulation book clearly defining the way of working and results control	4,31	1,19
4.	Profesionalni uspeh zbog uspešne realizacije projekta/ Professional success due to project realization	3,93	1,61
5.	Učešće u projektu kroz planiranje i organizaciju svojih aktivnosti/ Participating in the project through planning and organizing their activities	4,31	1,01
6.	Poređenje rezultata sa rezultatima drugih kolega/ Results in comparison with the results of their colleagues	3,68	1,3
7.	Oprema dobijena u toku projekta, koja će unaprediti rad/ The equipment donated through the project which will improve their work	4,5	0,89
8.	Značaj preventivnih aktivnosti za zdravlje stanovnika/ The importance of preventive activities for people's health	4,81	0,54
9.	Materijalna motivacija (novac dobijen u toku projekta)/ Material motivation (money earned through the project)	4	1,36
10.	Pohvala/nagrada za dobar radni učinak/ Praise/reward for good performance	3,81	1,42
11.	To je bio izazovan i kreativan posao/ It was a challenging and creative job	4,18	0,98
12.	Učešće direktora kao vođe projekta/ Manager's participation as the project leader	4,56	0,89
13.	Posao vremenski preciziran/ Timely specified work	4,25	1,06
14.	Merenje rezultata i dobijanje povratne informacije o postignutom uspehu/ Results measuring and getting feedback on accomplished success	3,81	1,51
15.	Lična odgovornost za uspeh projekta/ Personal responsibility for the project success	4,31	0,87

Rezultati deskriptivne statistike pokazuju da najveću vrednost aritmetičke sredine ostvaruje konstatacija koja se odnosi na značaj preventivnih aktivnosti za zdravlje stanovnika (4,81). Kod ove konstatacije je ostvarena najniža standardna devijacija (0,54) koja ukazuje na visok stepen slaganja stavova ispitanika. Najmanji značaj ima konstatacija koja ukazuje na poređenje sa rezultatima drugih kolega (3,68). Rezultati frekvencije odgovora ispitanika su prikazani u tabeli 3.

The results of descriptive statistics show the biggest value of the arithmetic mean was for the statement on the importance of preventive activities on people's health (4,81). In this statement, the lowest standard deviation was achieved (0,54), which implies a high level of attitudes agreement between participants. The lowest importance was for the statement showing the comparison of the results with other colleagues' results (3,68). The frequency of participants' answers is shown in Table 3.

**Tabela 3.** Rezultati statističke analize: frekvencija stavova  
**Table 3.** Results of statistical analysis: attitude frequency

Red. br.	Konstatacije/ Statements	1	2	3	4	5
1.	Jasne podele uloga/ Clear distribution of roles		6,3%	31,3%		62,5%
2.	Jasno definisan cilj/ Clearly defined goals		6,3%	18,8%		75%
3.	Pravilnik koji je jasno definisao način rada i kontrolu rezultata/ The Regulation book clearly defining the way of working and results control	6,3%		18,8%	6,3%	68,8%
4.	Profesionalni uspeh zbog uspešne realizacije projekta/ Professional success due to project realization	18,8%		12,5%	6,3%	62,5%
5.	Učešće u projektu kroz planiranje i organizaciju svojih aktivnosti/ Participating in the project through planning and organizing their activities		6,3%	18,8%	12,5%	62,5%
6.	Poređenje rezultata sa rezultatima drugih kolega/ Results in comparison with the results of their colleagues	6,3%	6,3%	43,8%		43,8%
7.	Oprema dobijena u toku projekta, koja će unaprediti rad/ The equipment donated through the project which will improve their work			25%		75%
8.	Značaj preventivnih aktivnosti za zdravlje stanovnika/ The importance of preventive activities for people's health			6,3%	6,3%	87,5%
9.	Materijalna motivacija (novac dobijen u toku projekta)/ Material motivation (money earned through the project)	12,5%		12,5%	25%	50%
10.	Pohvala/nagrada za dobar radni učinak/ Praise/reward for good performance	12,5%	6,3%	12,5%	25%	43,8%
11.	To je bio izazovan i kreativan posao/ It was a challenging and creative job		6,3%	18,8%	25%	50%
12.	Učešće direktora kao vođe projekta/ Manager's participation as the project leader		6,3%	6,3%	12,5%	75%
13.	Posao vremenski preciziran/ Timely specified work		6,3%	25%	6,3%	62,5%
14.	Merenje rezultata i dobijanje povratne informacije o postignutom uspehu/ Results measuring and getting feedback on accomplished success	12,5%	6,3%	25%		56,3%
15.	Lična odgovornost za uspeh projekta/ Personal responsibility for the project success			25%	18,8%	56,3%

Ako se posmatraju rezultati frekvencije, primećuje se da su ispitanici u najvećem broju slučajeva visoko saglasni sa definisanim konstatacijama. Najveći nivo frekvencije ostvaren je kod značaja preventivnih aktivnosti sa kojom je visoko saglasno 87,5% ispitanika. Visoka saglasnost postoji za konstatacije jasno definisanog cilja i učešće direktora kao vođe projekta 75%. Stavovi prema faktorima motivacije medicinskog i nemedicinskog osoblja koje je učestvovalo u projektu prikazani su u tabeli 4.

If we look at the frequency results, we can notice the participants were mostly highly concurrent with defined statements. The highest level of frequency was achieved in the importance of preventive activities and 87.5% of the participants were highly agreeable. A high level of agreement was found for statements of clearly defined goals and participation of the manager as the project leader - 75%. Attitudes towards motivational factors of medical and non-medical staff who participated in the project are shown in Table 4.

**Tabela 4.** Rezultati statističke analize: stavovi medicinskog i nemedicinskog osoblja  
**Table 4.** Results of statistical analysis: medical and non-medical staff attitudes

Red. br.	Konstatacije/ Statements	Aritmetička sredina/ Arithmetic mean	
		Medicinsko osoblje/ Medical staff	Nemedicinsko osoblje/ Non-medical staff
1.	Jasne podele uloga/ Clear distribution of roles	4,21	4
2.	Jasno definisan cilj/ Clearly defined goals	4,5	4
3.	Pravilnik koji je jasno definisao način rada i kontrolu rezultata/ The Regulation book clearly defining the way of working and results control	4,35	4
4.	Profesionalni uspeh zbog uspešne realizacije projekta/ Professional success due to project realization	3,92	4
5.	Učešće u projektu kroz planiranje i organizaciju svojih aktivnosti/ Participating in the project through planning and organizing their activities	4,28	4,5
6.	Poređenje rezultata sa rezultatima drugih kolega/ Results in comparison with the results of their colleagues	3,78	3
7.	Oprema dobijena u toku projekta, koja će unaprediti rad/ The equipment donated through the project which will improve their work	4,57	4
8.	Značaj preventivnih aktivnosti za zdravlje stanovnika/ The importance of preventive activities for people's health	4,92	4
9.	Materijalna motivacija (novac dobijen u toku projekta)/ Material motivation (money earned through the project)	3,92	4,5
10.	Pohvala/nagrada za dobar radni učinak/ Praise/reward for good performance	3,85	3,5
11.	To je bio izazovan i kreativan posao/ It was a challenging and creative job	4,14	4,5
12.	Učešće direktora kao vođe projekta/ Manager's participation as the project leader	4,5	5
13.	Posao vremenski preciziran/ Timely specified work	4,42	3
14.	Merenje rezultata i dobijanje povratne informacije o postignutom uspehu/ Results measuring and getting feedback on accomplished success	3,92	3
15.	Lična odgovornost za uspeh projekta/ Personal responsibility for the project success	4,5	3

Sagledavanjem rezultata u tabeli 4 stiče se zaključak da je medicinsko osoblje više bilo motivisano za učešće u projektu, nego nemedicinsko osoblje. U tom pogledu, zaposlene zdravstvene radnike na projektu posebno motivišu činjenica da se preventivnim delovanjem obezbeđuje pozitivan uticaj na zdravlje ljudi. U tabeli 5 prikazani su rezultati koji se odnose na razliku u motivaciji ispitanika različitog obrazovanja.

Observing the results in Table 4, the conclusion can be made that medical staff was more motivated to participate in the project than non-medical. In that regard, the participating healthcare workers were especially motivated by the fact that preventive doing may provide a positive effect on people's health. The results on motivational differences in participants of different levels of education are shown in Table 5.



**Tabela 5.** Rezultati statističke analize: stavovi zaposlenih različitog obrazovanja  
**Table 5.** Results of statistical analysis: employees' attitudes in relation to their education

Red. br.	Konstatacije/ Statements	Aritmetička sredina/ Arithmetic mean		
		Fakultet/ University	Viša škola/ College	Srednja škola/ High school
1.	Jasne podele uloga/ Clear distribution of roles	4	4,3	4,2
2.	Jasno definisan cilj/ Clearly defined goals	4	4,3	4,5
3.	Pravilnik koji je jasno definisao način rada i kontrolu rezultata/ The Regulation book clearly defining the way of working and results control	4	4,3	4,2
4.	Profesionalni uspeh zbog uspešne realizacije projekta/ Professional success due to project realization	3	4,3	4
5.	Učešće u projektu kroz planiranje i organizaciju svojih aktivnosti/ Participating in the project through planning and organizing their activities	4	4,7	4,3
6.	Poređenje rezultata sa rezultatima drugih kolega/ Results in comparison with the results of their colleagues	3,42	3	3,5
7.	Oprema dobijena u toku projekta, koja će unaprediti rad/ The equipment donated through the project which will improve their work	4,14	4	5
8.	Značaj preventivnih aktivnosti za zdravlje stanovnika/ The importance of preventive activities for people's health	4,85	4,3	4,8
9.	Materijalna motivacija (novac dobijen u toku projekta)/ Material motivation (money earned through the project)	4,28	4,7	3,9
10.	Pohvala/nagrada za dobar radni učinak/ Praise/reward for good performance	3,28	4	3,8
11.	To je bio izazovan i kreativan posao/ It was a challenging and creative job	3,85	4,67	4,15
12.	Učešće direktora kao vođe projekta/ Manager's participation as the project leader	4,14	5	4,5
13.	Posao vremenski preciziran/ Timely specified work	4	3,7	4,2
14.	Merenje rezultata i dobijanje povratne informacije o postignutom uspehu/ Results measuring and getting feedback on accomplished success	3,14	3,7	3,8
15.	Lična odgovornost za uspeh projekta/ Personal responsibility for the project success	4,5	3	

Posmatrajući rezultate u tabeli 5 primećuje se da su ispitanici sa završenim fakultetom najviše motivisani činjenicom da se preventivnim aktivnostima unapređuje zdravlje ljudi, jer je u tom pogledu ostvarena najviša aritmetička sredina (4,85). Ispitanici sa višom školom najviše su motivisani liderskim stilom rukovodioca projekta (aritmetička sredina = 5), dok je za ispitanike sa srednjom školom najbitnija oprema dobijena u toku projekta (aritmetička sredina = 5), ali je i za njih veoma bitan značaj preventivnih aktivnosti za zdravlje ljudi (aritmetička sredina = 4,8).

Observing the results in Table 5, we noticed the participants who finished university education were the most motivated by the fact that preventive activities improve people's health and it was shown as the highest arithmetic mean achieved (4.85). The participants who finished college were the most motivated by the leadership style of the project manager (arithmetic mean = 5), while for the participants with finished high school donated equipment during the project was the most important (arithmetic mean = 5), but the importance of preventive activities on people's health was as important for them, as well (arithmetic mean = 4.8).

## Diskusija

Sprovedeno istraživanje pokazuje da je najznačajniji faktor motivacije zdravstvenih radnika, u preventivnim aktivnostima, značaj preventivnih aktivnosti za zdravlje stanovnika. Za tu konstataciju postoji i najznačajnija saglasnost učesnika projekta. Objašnjenje za ovakve stavove zdravstvenih radnika su pre svega opredeljenje za ovaj poziv iz želje da se pomaže ljudima i saznanje o značaju preventivnih aktivnosti kroz školovanje i edukaciju.

Sledeći po važnosti motivacioni faktori su učešće direktora kao vođe projekta i oprema dobijena u toku projekta koja će unaprediti rad, jasno definisanje cilja i lična odgovornost za uspeh projekta. Materijalna motivacija se nalazi na 11/15. poziciji po značaju kao motivacioni faktor. Najmanje značajan motivacioni faktor je poređenje sa rezultatima drugih kolega. Kulturološki je zdravstvenim radnicima u našoj zemlji značajna podrška nadređenog i postojanje lidera u novim aktivnostima, kao i osećaj odgovornosti za uspeh projekta, ali i nedostatak rivalstva i takmičarskog odnosa u profesionalnim aktivnostima, koji je svojstven nekim drugim kulturama.

Postoje razlike u motivacionim faktorima između medicinskih i nemedicinskih radnika. Za medicinske radnike najveći značaj imaju značaj preventivnih aktivnosti za zdravlje stanovnika i dobijena oprema koja će unaprediti rad. Nemedicinskim radnicima je najznačajnije učešće direktora u projektu, kreativnost posla i materijalna motivacija. Ova razlika u motivacionim faktorima je i očekivana zbog različitog obrazovanja, stručnosti i posla koji obavljaju.

Lekari, medicinski i laboratorijski tehničari saglasni su oko značaja preventivnih aktivnosti za zdravlje stanovnika kao motivacionog faktora, ali je dobijena oprema za medicinske radnike sa srednjom školom značajnija u listi prioriteta. Osim toga, učešće direktora i jasno definisan cilj je za njih od većeg značaja nego za lekare. Lekarima je materijalna motivacija na drugom mestu, ali su na visokim pozicijama i učešće direktora, i nabavka opreme. Nešto veći značaj nabavke opreme, kao motivacioni faktor za zaposlene sa srednjom školom, je verovatno razlog jer će tu opremu uglavnom direktno oni koristiti u svakodnevnom radu. Materijalna motivacija kao značajniji faktor motivacije za lekare je verovatno zbog nominalno većeg iznosa koji su lekari dobili u toku realizacije projekta.

Dobijeni rezultati su većim delom u skladu sa do sada sprovedenim istraživanjima motivacije u zdravstvenim ustanovama u Srbiji.

Prema rezultatima istraživanja Krstića i saradnika, sprovedenog u zdravstvenim ustanovama u Beogradu, Požarevcu, Pirotu, Nišu, Novom Sadu, Zrenjaninu, Kruševcu, Novom Pazaru i Varvarinu, najznačajniji faktori motivacije zaposlenih su: visina finansijske nadoknade za rad, dobri međuljudski odnosi, timski rad, ali i unapređenje zdravlja stanovništva i zadovoljstvo pacijenata<sup>11</sup>.

## Discussion

Our research shows the most important motivational factor in preventive activities for healthcare workers is the importance of preventive activities for people's health. There's the most significant concordance for this statement among project participants. The explanation for this attitude could be, above all, healthworkers' orientation to help people and their knowledge gained through medical school and education on the importance of preventive activities.

The next most important motivational factors are the manager's participation, as the team leader, and the equipment gained during the project which will improve work quality, clearly defined goals, and personal responsibility for the project's success. Material motivation is in the 11th/15th position considering its importance as a motivational factor. The least important motivational factor is the comparison with the results of other colleagues. Support of the superiors and leaders' presence in the new activities, as well as the feeling of responsibility for the project's success, are cultural characteristics of our healthcare workers. On the other hand, they lack rivalry and competitive relationships in professional activities which is inherent to some other cultures.

There are differences in motivational factors between medical and non-medical staff. The importance of preventive activities for people's health and provided equipment that will improve their work are the most important for medical staff members. The manager's participation in the project, job creativity, and material motivation are the most important for non-medical staff members. This difference in motivational factors is expected due to the different educational levels, competence and job they do.

Physicians, medical and lab technicians are unanimous on the importance of preventive activities for people's health, as a motivational factor, but provided equipment is on the priority list of medical workers with finished high school. Besides, the manager's participation and clearly defined goals are of greater importance for them than physicians. Material motivation is in second place for physicians but the manager's participation and provided equipment are also highly ranked. The somewhat greater importance of equipment procurement, as a motivational factor for workers with finished high school, is probably due to the fact that they'll be the ones mostly using it in their everyday work. Material motivation, as an important motivational factor for physicians, is probably due to the greater nominal sum they received in the project realization.

The obtained results are mostly in line with the previous research on motivation in healthcare facilities in Serbia.

According to Krstic et al. research results, conducted in Belgrade, Požarevac, Pirot, Novi Sad, Zrenjanin, Krusevac, Novi Pazar, and Varvarin, the most important motivational factors for the employees were salary, good interpersonal relations, teamwork, but the improvement of people's health and patients' satisfaction, as well.<sup>11</sup>

Rezultati istraživanja Radevića i saradnika, sprovedenog u zdravstvenim ustanovama primarnog nivoa zdravstvene zaštite u Šumadijskom okrugu, ukazuju da je značajan motivacioni faktor podrška koju pruža rukovodilac<sup>12</sup>.

Studija sprovedena u domovima zdravlja u Beogradu i Valjevu (domu zdravlja i opštoj bolnici), ukazuje da zdravstvene radnike motivišu mogućnost unapređenja i napredovanja, podrška rukovodioca, pohvala za dobro obavljen posao, finansijska nadoknada za rad, posedovanje savremene opreme za rad, postojanje dobrih međuljudskih odnosa na radnom mestu, postizanje ciljeva zdravstvene ustanove<sup>13</sup>.

Rad poseduje izvesna ograničenja. Veličina uzorka ograničava primenu kompleksnijih statističkih metoda. Za procenu motivacije potrebno je primeniti neki od zvaničnih mernih instrumenata za merenje motivacije.

## Zaključak

Rezultati istraživanja pokazuju da je za zaposlene u zdravstvenim organizacijama značajna materijalna i nematerijalna motivacija. Najznačajniji motivacioni faktori su vezani za unapređenje zdravlja pacijenata, opremanje ustanove kvalitetnom opremom i ostvarenje postavljenih ciljeva. Značajna je materijalna stimulacija i adekvatan liderski stil upravljanja, naročito u projektnim aktivnostima. U praktičnom pogledu, rezultati istraživanja pružaju informacije rukovodiocima zdravstvenih organizacija kako se može povećati motivacija zaposlenih.

Research results of Radevic et al. conducted in the healthcare facilities on the primary healthcare level in Sumadija county show the important motivational factor is superior's support.<sup>12</sup>

The study conducted in PHC in Belgrade and Valjevo (PHC and local hospital) shows healthcare workers are motivated by the possibility of improvement and promotion, superior's support, praise for the job well done, financial compensation, possession of modern equipment, good interpersonal relations at work, goal achievement of the healthcare facility.<sup>13</sup>

There are certain study limitations. The sample size limits use of the complex statistical methods. Some of the official measuring instruments for motivation measurement should be applied for the motivation assessment.

## Conclusion

The research results show that for the employees working in healthcare facilities material and immaterial motivation are important. The most important motivational factors are associated with patients' health improvement, equipping the institutions with quality gear, and achieving set goals. The material motivation and an adequate leadership style management are important, especially in project activities. From the practical point of view, research results give information to healthcare institution managers how to increase employees' motivation.

## Reference/ Literatura

1. Janićijević, N. Organizaciono ponašanje. Univerzitet u Beogradu, Ekonomski fakultet, Beograd, 2008.
2. Lunenburg FC. Goal-setting theory of motivation. *International journal of management, business, and administration* 2011;15(1):1–6.
3. Lambright KT. An update of a classic: applying expectancy theory to understand contracted provider motivation. *Administration & Society* 2011;42(4): 375–403.
4. Willis-Shatuck M, Bidwell P, Thomas S, Wyness L, Blaauw D, Ditlopo P. Motivation and retention of health workers in developing countries: a systematic review. *BMC Health Serv Res* 2008;8:247.
5. Lagarde M, Huicho L, Papanicolas I. Motivating provision of high quality care: it is not all about the money. *BMJ* 2019;366:15210.
6. Vilma Z, Egle K. Improving motivation among health care workers in private health care organizations. A perspective of nursing personnel. *Baltic Journal of Management* 2007;2(2):213–24.
7. Krstic M, Obradovic V, Terzic-Supic Z, Stanisavljevic D, Todorovic J. Motivational Factors of Employees in Health Care Institutions in Serbia. *Management: Journal of Sustainable Business and Management Solutions in Emerging Economies* 2019;24(1):33–41.
8. Daneshkohan A, Zarei E, Mansouri T, Maajani K, Ghasemi MS, Rezaeian M. Factors affecting job motivation among health workers: a study from Iran. *Glob J Health Sci* 2015;7(3):153–60.
9. Irawanto DW. Employee participation in decision-making: evidence from a state-owned enterprise in Indonesia. *Management-Journal of Contemporary Management Issues* 2015; 20(1):159–72.
10. Uma MH. Employee participation: a tool of motivation and high productivity. *Pacific Business Review International* 2015;8(3):99–102.
11. Krstic M, Obradovic V, Terzic-Supic Z, Stanisavljevic D, Todorovic J. Motivational factors of employees in health care institutions in Serbia. *Management: Journal of Sustainable Business and Management Solutions in Emerging Economies* 2019;24(1):33–41.
12. Radević S, Mihailović N, Kocić S, Radovanović S, Milosavljević M, Živanović S, I dr. Zadovoljstvo zaposlenih u zdravstvenim ustanovama primarne zdravstvene zaštite Šumadijskog okruga. *Medicinski časopis* 2015;49(1):7–12.
13. Grujičić M. Motivacija i zadovoljstvo poslom zdravstvenih radnika u centralnoj Srbiji. Master rad. Medicinski fakultet i Fakultet organizacionih nauka Beograd, 2011.

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