

Yu.V. Kirik*

Far Eastern State Medical University, the Department of Public Health and Health Management,
Khabarovsk, Russia

EVALUATION OF LABOR CONDITIONS BY PUBLIC HEALTH WORKERS IN THE RUSSIAN FAR EAST

Abstract

The objective of the study is to analyze the conditions and working practices of health workers in public healthcare organizations in the Russian Far East on the basis of a medical and sociological survey. **Materials and methods.** A questionnaire survey was chosen with 835 people involved. Three groups of respondents were selected to obtain sociological information: 1) top and middle managers, 2) heads of structural units; 3) doctors of various clinical specialties, who are the part of management personnel reserve. The collection of statistical data was conducted in 2015-2017. Statistical analysis of the data was carried out using the methods of calculation of relative values, calculation of mean values, and ANOVA. **Results.** According to the obtained results, all groups of respondents believe that healthcare sector in Russia has achieved a satisfactory level of development. The current state of resources of public health institutions was estimated as rather low. Respondents gave a low assessment of the condition of buildings, the staffing of medical institutions by medical specialists and nursing staff. Among the proposed motivational factors to encourage productivity among healthcare professionals, the respondents agreed and gave a satisfactory assessment of such factors as workplace discipline, workload, observance of occupational safety, ensuring stability of employment, and interpersonal relations with colleagues. Medical workers did not agree on the factors of salary; financial and logistical support at the workplace; volume of document flow; opportunities for professional development, self-realization and career development. Top and middle managers assess these factors as "satisfactory," doctors give an assessment of "unsatisfactory." The heads of departments assess the factors of financial and logistical support at the workplace, salaries and volume of document flow as unsatisfactory, and the opportunity for professional development, self-realization and career growth as "satisfactory". **Conclusion.** Based on the subjective opinion of health workers, the results of the study made it possible to identify a number of economic and organizational aspects of working conditions in public health institutions that require scientific and practical justification in health care and management decisions affecting the development of the industry.

Key words: Far Eastern Federal District, state medical organizations, health workers, working conditions, satisfaction

For citation: Kirik Yu.V. EVALUATION OF LABOR CONDITIONS BY PUBLIC HEALTH WORKERS IN THE RUSSIAN FAR EAST. The Russian Archives of Internal Medicine. 2018; 8(2): 127-136. [In Russian]. DOI: 10.20514/2226-6704-2018-8-2-127-136

DOI: 10.20514/2226-6704-2018-8-2-127-136

Introduction

The creation of an effective healthcare system with a high level of results achievement and low financial expenditures is a major persistent task for most countries around the world nowadays. Previously created models for healthcare providing are rapidly becoming obsolete due to dynamic and rapid

changes in the modern world. Capitalist Russia has long been searching for an effective model of the healthcare system development and conducted reforms to transform state health organizations. One of the important aspects of studying the problems of a healthcare system is the consistency of the medical care provision to present needs of the population. Previously, we have conducted medical and

* Contacts. E-mail: swan_look@mail.ru

sociological researches to determine whether the population of Russian Far East was satisfied with all stages of healthcare delivery. According to the study results, the population believes that medical care is inaccessible in their region. Among the main reasons that citizens name are low medical service density, inadequate supply and deterioration of equipment, and outdated fixed assets [4, 5]. These results have become prerequisites for a more in-depth analysis and study of the subjective opinion not only of the population itself about the status and development of the modern healthcare system and those who are receiving medical care, but also of health workers who are providing these medical services.

Scientific studies targeted at the problem of the position of the individual within the occupational environment and scientifically examining objective and subjective indicators that impact the attitude that people take towards work have been conducted around the world for many years now. A retrospective and contemporary review of foreign and Russian publications demonstrates that the analysis of this problem involved scientists from different sectors, including engineers, economists, sociologists, psychologists, and physiologists [3, 6–9, 11, 13–21, 23–24].

In the past two decades, empirical research of personal attitude toward work and job satisfaction has focused on certain types of activity. The number of scientific publications and works devoted to the subjective assessment of working conditions by medical workers, both in foreign and Russian literature [1–2, 10, 12, 22], is insufficient, and the studies that have been conducted are not interdisciplinary.

The objective of the study is to analyze the conditions and working practices of health workers in public healthcare organizations in the Russian Far East on the basis of a medical and sociological survey.

Materials and methods

Medical officers and specialists at state medical organizations of all healthcare system levels were selected as the subjects of the present study. Three groups of respondents were selected to obtain sociological information:

- 1) Chief physicians and their deputies (for medical treatment, for clinical and expert work, for organizational and methodical management).
- 2) Heads of structural departments.

- 3) Medical specialists in various clinical fields who are the part of management personnel reserve.

The study was performed during the period from 2015 to 2017. Survey and registration of the subjects were carried out using the selective observation method. The arrangement of the sampling units' extraction from the general population was carried out in accordance with a simple random sampling and serial (cluster) sampling procedure. Respondents from all federal subjects of the Russian Far East were included in the set of observation units.

The sociological survey covered 835 people. An assessment of the representatives of the sample was conducted on the basis of statistical analysis and errors calculation. The number of respondents included in the study was 10 % of the total population, where the deviation in the sample population did not exceed 5 %. The study assumes that the scope of observation of this study is reliable.

The statistical distribution of respondents by occupational groups is presented as follows: chief physicians — 34.1 % (group I); heads of structural departments — 33.7 % (group II); medical specialists — 32.2 % (group III).

The age of the respondents was included as one of the main indicators together with professional characteristics in order to ensure the reliability of information in the sociological study. Age is a fundamental demographic characteristic that defines roles, behavior and norms, and it helps shape the subjective opinion of others. The age differentiation has been assessed in the study. The mean age of chief physicians of public healthcare institutions was 46.7; heads of structural departments were 45.0 on average, and medical specialists were 46.8 on average. All respondents are in the same age group. The mean age of the respondents of all groups was 46.2 years (Table 1).

According to the analysis of the mean age distribution the degree of the empirical skewness values deviation from zero values corresponds to the normal distribution in all the surveyed groups of respondents. The degree of deviation of the empirical kurtosis values (peaked distribution) from zero values in the groups of chief physicians and heads

Table 1. Characteristics of the respondents mean age

	M ± δ (years)	m	Minimum (years)	Maximum (years)	Skewness	Kurtosis
Group I	46.7 ± 9.8	1.7	27	66	–0.09	–0.6
Group II	45.0 ± 8.9	1.7	30	61	0.1	–0.9
Group III	46.8 ± 10.3	2.2	32	63	0.1	–1.2
Total	46.2 ± 9.6	1.0	27	66	0.06	–0.9

of structural departments is estimated as being close to a normal distribution, with a tendency to low-peaked (flat-topped) distribution. The same distribution was observed in the group of medical specialists (Table 1).

A questionnaire survey was chosen as the sociological research method. The collection of primary information was performed in the presence of the researcher-interviewer at the place of work and training of respondents. The survey was conducted with the help of individual, group, and audit questionnaires. Anonymity was guaranteed to the respondents included in the sociological survey.

The questionnaire, which was specially designed by the researcher, included 24 questions and consisted of three parts: introductory, basic, and biographical sections. A welcome message to the respondent was presented in the introductory part of the questionnaire; thereafter the purpose of the interview, the conditions of its anonymity, the rules for filling out the questionnaire, and an explanation of how the results would be used were presented. The main part contained questions about the assessments and opinions of respondents on healthcare reforms and development, quality of medical services, and labor conditions at state medical organizations. The biographical part of the questionnaire included questions about the socio-demographic data of the respondents.

The questionnaire consisted of three types of questions: closed-ended, semi-closed, and open-ended. Closed-ended questions (dichotomous, multiple choice and rank order questions) contained a full set of possible answers. The open-ended questions did not contain answers, and they suggested that the respondents formulate the answer themselves in free form. Semi-closed questions contained answer options for the posed question, but the respondents were also allowed to propose their own answer.

The following statistical analysis methods were used in the study: calculation of relative values, calculation of mean values, and calculation of one-way analysis of variance.

During the analysis of variance, the hypothesis about the normal distribution of the studied random value was checked in advance using the Levene test. The null hypothesis of the variance equality was applied when the Levene criterion (L_{cr}) was less than the empirical significance level (L). Differences in the experimental groups were considered significant at $p < 0.05$.

Presence of an influence of the set factor on the studied process was determined using an analysis of variance. The conclusion about the influence of the factor on the mean of the observed value was considered significant in obtaining the Fisher criterion (F_{cr}) higher the empirical significance level (F_{emp}). Statistical data processing was performed using the computer programs Statistical Package for Social Sciences (SPSS) version 14 and Statistica version 6.

Results and discussion

The first phase of the empirical study examined the opinion of the survey participants on the overall developmental level of healthcare service in the country and the quality of medical care at the institution where they work. According to the results obtained, all respondents, including chief physicians of medical organizations, heads of structural departments, and doctors from management personnel reserve, believe that currently the healthcare sector in Russia has achieved a satisfactory level of development ($L_{cr} 0.32 < L 0.72$; $F_{cr} 0.12 < F_{emp} 0.88$) (Figure 1).

Among chief physicians and heads of structural departments, only one in five (20.6 % and 21.4 %, respectively) support the reforms, and every third respondent (33.3 %) does so among doctors. In all study groups, one in ten is against the political

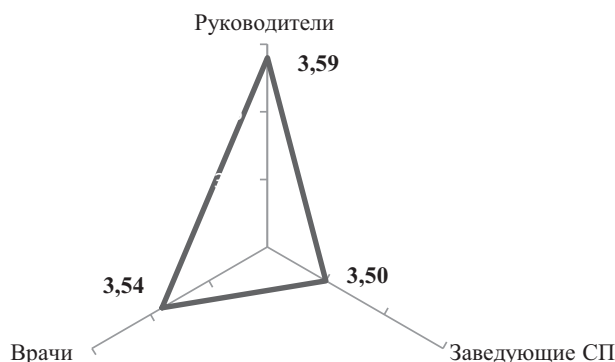


Figure 1. The assessment of healthcare system development by the respondents (mean score)

Note: Руководители – Chief physicians, Врачи – Doctors, Заведующие СП – Heads of structural departments

changes that have taken place in recent years in Russian healthcare ($F_{cr} 0.01 < F_{emp} 0.98$).

To ensure the development of the industry in accordance with the order of importance of the identified factors, all respondents stated that the most important objective should be effective healthcare management at every level; the second most important objective is the formation of the necessary volume of financial resources; the third is the availability of a sufficient number of trained medical personnel; and the fourth is the development of infrastructure and technological equipment of medical institutions ($F_{cr} 0.14 < F_{emp} 0.86$).

The majority of survey participants believe that the healthcare system in the country should receive shared management and funding. At the same time, most chief physicians and doctors believe that primarily public healthcare institutions are developed (76.4 % and 66.6 %, respectively). More heads of structural departments believe that medical organizations mainly within the system of private practice are developed (60.7 %) ($F_{cr} 0.73 > F_{emp} 0.31$).

No differences were discovered in how various groups of survey respondents evaluated the provision of paid healthcare services to citizens at public healthcare institutions. Respondents on average approved of how paid healthcare services were provided to members of the statistical population at healthcare institutions ($F_{cr} 0.14 < F_{emp} 0.96$).

More than half of doctors (52.4 %) believe that the quality of medical care in the institution where

they work is good. The same opinion is held only by every third head of the department (32.4 %) and every fourth chief physician (26.5 %). More than half of respondents representing groups of chief physicians and heads of structural departments assessed the quality of medical care as satisfactory ($F_{cr} 1.55 > F_{emp} 0.21$).

Therefore, all healthcare professionals (both in leadership positions at various levels and at the practitioner level) characterize the current state of healthcare sector as satisfactory. A significant share of them does not support the political reforms in the industry that have been carried out in the recent years. According to the opinion of the healthcare professionals, it is necessary to fulfill a number of priority tasks to develop the system: create a highly effective management model at all levels, provide the sector with sufficient financial resources, trained specialists staff, modern infrastructure, and medical and non-medical technologies. Most healthcare professionals believe that the state should administer a mixed socio-economic model of healthcare service provision. But at the same time the top managers of medical institutions and doctors organizationally support the model of healthcare provision based primarily on state medical organizations, while lower level managers (heads of departments) believe that the system should be based primarily on private clinics. Given the current economic conditions, a significant share of healthcare professionals expressed a positive attitude toward the market for paid medical services. The quality of medical care at public institutions is assessed by practitioners higher than by managers at different levels.

The term “quality of medical care” is not a strictly defined concept and does not have a single generally accepted definition. The multidimensionality of the concept allows society to understand and interpret the definition unequally. It can be assumed that in answering the question about the quality of medical care, the surveyed groups of respondents considered the term from the standpoint of their own professional competencies. Participants in the survey were doctors who possess a certain set of medical skills (diagnosis, treatment, rehabilitation, and prevention) and who do not practice management functions (planning, organization, incentivization, and control), assess the quality of medical care in terms of performing

medical functions, and obtain results for individual patients. Chief physicians and heads of departments that ensure the quality of medical care through the consistent implementation of management functions assess a set of characteristics that include the quality of the conditions, the stages of the medical care process, and the results achieved in regard to patient flows within the healthcare institution.

During the second stage of empirical research we studied the satisfaction of respondents with the provision and condition of the medical institution resources (Table 2). During the survey, respondents were asked to assess their satisfaction on a five-point scale where the lowest score was one. According to the obtained results, it was found that respondents gave a low assessment of the condition of buildings (the average number of points given

by members of groups was between 2.54 and 2.79), the staffing of medical institutions by medical specialists (between 2.38 and 2.61 points) and nursing staff (between 2.71 and 2.91 points).

The sanitary condition of buildings and the level of medical and hospital equipment received an average assessment of three points (3.24–3.54 points, 3.01–3.14 points, and 3.05–3.21 points, respectively).

Taking into account the mean values and standard deviations in the conditions of normal distribution, the answers of all groups of respondents were similar. There were no significant differences between the aforementioned assessments of the respondents.

The results of the study showed statistically significant differences in the degree of satisfaction

Table 2. Satisfaction of respondents with medical institution resources

Resource	Position*	M**	σ	m	Fisher's test (F _{cr})	Empirical level of significance F _{emp}	F _{cr} < > F _{emp}
Technical building condition	Group I	2,79	1,2	0,2	0,43	0,64	F _{cr} < F _{emp}
	Group II	2,54	1,1	0,2			
	Group III	2,57	0,9	0,2			
Sanitary building condition	Group I	3,53	1,1	0,1	0,50	0,60	F _{cr} < F _{emp}
	Group II	3,36	1,0	0,2			
	Group III	3,24	1,0	0,2			
Supply with medical equipment	Group I	3,01	1,0	0,1	0,49	0,54	F _{cr} < F _{emp}
	Group II	3,04	1,1	0,2			
	Group III	3,14	1,2	0,2			
Supply with hospital equipment	Group I	3,21	1,1	0,1	0,13	0,87	F _{cr} < F _{emp}
	Group II	3,14	1,1	0,2			
	Group III	3,05	0,9	0,2			
Computer equipment	Group I	2,71	1,0	0,1	2,03	0,13	F _{cr} > F _{emp}
	Group II	3,25	1,0	0,2			
	Group III	2,81	1,2	0,2			
Medicines equipment	Group I	2,92	1,1	0,1	0,75	0,47	F _{cr} > F _{emp}
	Group II	3,21	1,0	0,2			
	Group III	3,36	0,9	0,2			
Staffing by doctors	Group I	2,38	0,9	0,1	0,46	0,63	F _{cr} < F _{emp}
	Group II	2,61	0,9	0,2			
	Group III	2,38	0,9	0,2			
Nursing staff	Group I	2,91	1,1	0,2	0,29	0,74	F _{cr} < F _{emp}
	Group II	2,71	1,1	0,2			
	Group III	2,71	1,1	0,2			

Note: * group I — Chief physicians, group II — Heads of departments, group III — Doctors
** 1 point — not satisfied; 2 points — little satisfied; 3 points — not satisfied with everything; 4 points — mostly satisfied; 5 points — fully satisfied

of the participants with regard to provision with computer equipment and medications. Chief physicians were not very satisfied with the provision of both medicines and computer equipment (2.71 and 2.92 points, respectively). Doctors were not satisfied with the computer equipment or with all of the aspects of the medicines supply (2.82 and 3.36 points, respectively). Heads of structural departments were not completely satisfied and gave an average assessment of three points for two types of resources (3.25 and 3.21 points, respectively). The answers of the surveyed groups of respondents differ to a substantial and statistically significant degree (Table 2).

Thus, similar to how healthcare professionals assess the state of healthcare sector, they generally give quite low rating to the current state of resources of public health institutions. According to the results of the survey, healthcare professionals give an unsatisfactory assessment of the physical condition of buildings of medical institutions and the level of staffing of medical institutions with doctors and nurses. At the same time, they believe that the maintenance of the necessary sanitary norms in medical institutions, the provision of facilities with medical and hospital equipment, including functional beds, operating tables, medical clothes and medical products, has been organized to a satisfactory level. All healthcare professionals agree on the low staffing of medical personnel, as well as on obsolete fixed assets that support the process of healthcare service provision.

Health workers have differing opinions concerning the medicines and computer equipment supply. Top and middle managers believe that the current level of provision of these types of resources at healthcare institutions is unsatisfactory. In turn, heads of departments, i.e., the lowest level managers, give these indicators a satisfactory assessment. Doctors assess the current state of provision of computer equipment as unsatisfactory, while they assess current stocking levels of medicines as satisfactory.

So, the differences in the opinions of the three groups can be summarized as follows:

- Chief physicians of top and middle levels of management recognize the problems of insufficient

supply of medicines and weak implementation of modern information and communication equipment at institutions.

- Heads of departments do not generally experience difficulties with these two types of resources.
- Doctors believe that they are poorly provided with computers.

The third stage of the empirical research studied the twelve motivational factors that encourage healthcare professionals to work. When choosing factors for this study, we utilized the methods from motivation theories, including F. Herzberg's two-factor theory of motivation [8, 14].

The results of the study show that out of all the factors that motivate employees to work, the respondents gave the highest rating to choosing a profession (from 4.18 to 4.38 points) (Table 3). Being a particular social group within society, the respondents were mostly satisfied with their professional activity.

All groups of respondents evaluated the following working conditions by assigning a score according to a three-point scale: discipline (between 3.07 and 3.18 points), relations on the team (between 3.62 and 3.79 points), workload (between 3.01 and 3.15 points), observance of occupational safety (between 3.52 and 3.71 points), and stability of employment (between 3.48 and 3.68 points). There were no significant differences in evaluation scores that survey participants gave.

The results of the study showed statistically significant differences in the degree of satisfaction of respondents with a number of factors. According to the data obtained (Table 3), chief physicians at medical organizations rated the following factors on a three-point scale (within a range of 3.00 to 3.68 points): financial and logistical support at the workplace; salary; volume of document flow; and opportunities for professional development, self-realization, and career development.

In turn, doctors evaluated all of the above factors and working conditions within a range of two points (2.19–2.96).

Heads of structural departments gave assessments in the range of two points (2.14–2.96) for financial

Table 3. Satisfaction of respondents with working conditions

Resource	Position	$M \pm \sigma^{**}$	σ	m	Fisher's test (F_{cr})	Empirical level of sig- nificance F_{emp}	$F_{cr} > F_{emp}$
Financial and logistical support at the workplace	Group I	3,24	0,8	0,1	0,90	0,41	$F_{cr} > F_{emp}$
	Group II	2,96	1,3	0,2			
	Group III	2,86	1,0	0,2			
Discipline	Group I	3,18	0,9	0,1	0,08	0,91	$F_{cr} < F_{emp}$
	Group II	3,07	1,1	0,2			
	Group III	3,10	1,0	0,2			
Relations on the team	Group I	3,62	0,8	0,1	0,31	0,73	$F_{cr} < F_{emp}$
	Group II	3,79	0,9	0,2			
	Group III	3,76	0,8	0,2			
Professional de- velopment oppor- tunities (courses, seminars, etc.)	Group I	3,35	1,1	0,1	1,13	0,32	$F_{cr} > F_{emp}$
	Group II	3,39	0,9	0,1			
	Group III	2,96	1,2	0,2			
Salary	Group I	3,02	1,0	0,1	1,55	0,10	$F_{cr} > F_{emp}$
	Group II	2,68	1,1	0,2			
	Group III	2,19	0,8	0,1			
Workload	Group I	3,15	1,1	0,1	0,39	0,57	$F_{cr} > F_{emp}$
	Group II	3,04	1,0	0,2			
	Group III	3,01	1,2	0,2			
Volume of document flow	Group I	3,00	1,1	0,2	1,78	0,13	$F_{cr} > F_{emp}$
	Group II	2,14	1,2	0,2			
	Group III	2,38	1,3	0,3			
Observance of occupational safety	Group I	3,71	0,9	0,1	0,29	0,74	$F_{cr} < F_{emp}$
	Group II	3,54	1,1	0,2			
	Group III	3,52	0,9	0,2			
Self-realization opportunities	Group I	3,38	0,9	0,1	0,87	0,46	$F_{cr} > F_{emp}$
	Group II	3,29	1,1	0,2			
	Group III	2,94	1,3	0,3			
Career development opportunities	Group I	3,65	0,9	0,1	2,30	0,10	$F_{cr} > F_{emp}$
	Group II	3,43	1,1	0,2			
	Group III	2,91	1,2	0,2			
Stability of employment	Group I	3,68	0,9	0,1	0,32	0,72	$F_{cr} < F_{emp}$
	Group II	3,46	1,2	0,2			
	Group III	3,62	1,0	0,2			
Profession	Group I	4,18	0,9	0,1	0,48	0,61	$F_{cr} < F_{emp}$
	Group II	4,36	0,8	0,1			
	Group III	4,38	0,7	0,1			

Note: * group I — Chief physicians, group II — Heads of departments, group III — Doctors
** 1 point — not satisfied; 2 points — little satisfied; 3 points — not satisfied with everything; 4 points — mostly satisfied; 5 points — fully satisfied

and logistical support at the workplace as well as salary and volume of document flow, while they gave assessments in the range of three points (3.29–3.43) for opportunity for professional development, self-realization, and career development.

The results of the study allow us to conclude that healthcare professionals highly assess their career decision to go into professional medical practice. Among the proposed motivational factors to encourage productivity among healthcare

professionals, the respondents agreed and gave a satisfactory assessment of such factors as workplace discipline, workload, observance of occupational safety, ensuring stability of employment, and interpersonal relations with colleagues.

Medical workers did not agree on the factors of salary; financial and logistical support at the workplace; volume of document flow; opportunities for professional development, self-realization and career development. Executive top and middle level managers assess the listed factors as satisfactory, while the doctors give an assessment of “unsatisfactory”. The heads of departments, who have been assigned medical and tactical management functions, assess the factors of financial and logistical support at the workplace, salaries and volume of document flow as unsatisfactory, but their assessment of opportunities for professional development, self-realization, and career development is satisfactory.

An analysis of the data obtained shows that healthcare professionals poorly assess the proposed motivational factors. But, at the same time, the leaders of medical organizations, who have been delegated decision-making powers, are socially active and open, and are the most satisfied with work. The heads of the structural departments have the greatest need for material factors. Doctors who are members of the management personnel reserve expressed a need for both material and personal development factors.

The last stage of the empirical study investigated how respondents assessed the subjective estimation of their own work activity. According to the results, 66.7 % of chief physicians believe that the amount of work performed in the healthcare organization exceeds the essential standards (in fact, staff works overtime hours). A total of 89.3 % of heads of departments and 73.4 % of doctors agree with this assessment ($F_{cr} 1.56 > F_{emp} 0.22$).

There were no differences between the groups of respondents in how they assessed the efficiency and performance of their work. The surveyed population on average stated that functional duties are performed well in many respects, but some aspects of the work require improvement to achieve an excellent result ($F_{cr} 0.09 < F_{emp} 0.91$).

Each fourth chief physician (23.6 %) and head of the structural department (25 %), and every fifth doctor (19.0 %) like their work and are satisfied with their salary level. More than a half of chief physicians (52.9 %) and doctors (57.1 %) and less than a half of heads of departments (46.4 %) believe that their salaries are too small, but they like their work, which brings them professional satisfaction ($F_{cr} 2.9 > F_{emp} 0.05$).

In addition to the main place of work, half of chief physicians (50 %) and more than a half of heads of structural departments (67.9 %) and doctors (61.9 %) take on additional paid work. Every third executive (32.4 %), every second head of department (42.9 %), and every fourth doctor (23.8 %) pursue internal secondary employment ($F_{cr} 0.79 > F_{emp} 0.45$). The ratio of the place of work for external secondary employment within a public medical organization to a place of work at a private clinic for chief physicians is 1:0.5, and for heads of structural departments and doctors it is 1:1.3 and 1:1.7, respectively (Figure 2).

We did not discover any differences in the assessments between the groups of respondents about the attitude to the fee-based method of payment for healthcare professionals or material remuneration for the provision of medical services. Just over half of the survey respondents support this method of payment ($F_{cr} 0.52 < F_{emp} 0.65$).

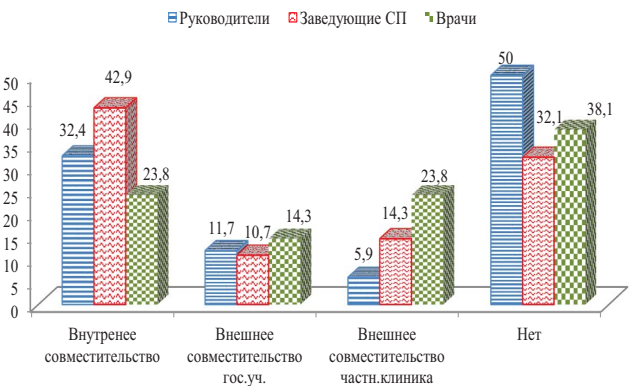


Figure 2. Availability of additional paid work (%)
Note: руководители/Chief physicians, заведующие СП/Heads of departments, врачи/Doctors; внутреннее совместительство/internal secondary employment, внешнее совместительство гос.уч./external secondary employment within a public medical organization, внешнее совместительство частн.клиника/external secondary employment at a private clinic, нет/no additional work

In all investigated groups more than half of respondents are thinking about changing their job for various reasons. At the time of the sociological study every fourth chief physician and doctor (23.5 % and 23.8 % respectively) and each third (32.1 %) head of structural department ($F_{cr} 2.52 > F_{emp} 0.08$) were not thinking about changing their job.

In all groups, those survey participants who are thinking of changing their job have indicated the prospect of achieving a high salary as the main basis for their decision. Chief physicians of medical organizations and doctors indicated the prospect of achieving more interesting professional work within their specialty as the second most important reason, and heads of departments named comfortable conditions and good organization of work at their new job. As the third most important reason chief physicians named comfortable working conditions, good organization of work, and stability of employment, whereas the heads of structural departments indicated more interesting professional work within their specialty and a change of place of residence, and doctors specified the opportunity to achieve self-realization in a new place and growth prospects ($F_{cr} 0.92 > F_{emp} 0.07$).

Thus, most healthcare professionals agree that the workload that they must shoulder in the course of the performance of their duties is now reaching a high level. Among all healthcare professionals, a large proportion of the heads of structural departments noted in particular experiencing an excess workload. It should be noted that the availability of additional paid work on both internal and external part-time work terms is recognized by the majority of healthcare professionals. Managers at all levels mainly pursue internal secondary employment, while ordinary doctors pursue external opportunities. Among all healthcare professionals who have secondary employment on an external part-time basis, the heads of departments and doctors most often choose a private clinic as a place of work.

Most healthcare managers and doctors appreciate carrying out their professional duties. In general, the work brings them satisfaction. However, healthcare professionals believe that in order to get a better result, it is necessary to improve working conditions. The number one problem for most of

them is the low level of salary. Secondary and tertiary problems include workplace organization conditions, interpersonal relations, and personal development factors.

Conclusion

In completing our analysis of the medical and sociological analysis of the subjective opinion of healthcare professionals of the Russian Far East on the conditions and organization of work at state medical institutions, we are able to draw the following conclusions:

- 1) The overall assessment by healthcare professionals of the development of the healthcare service provision system in general, and at the individual institution level in particular, is the same, and is assessed by them as satisfactory. Characterizing the state of the resources of the medical institution, healthcare professionals believe that the following factors are of major concern: low availability of medical personnel, the use of obsolete fixed assets, and the low level of implementation of modern and effective medical and information technologies.
- 2) According to the high assessments that respondents provided of their chosen profession, the chosen career of healthcare is important to employees at public healthcare institutions. However, the overall level of satisfaction with working conditions is low. The status of employees has had an impact on assessments of motivational factors of work activity. The higher the status of the respondents, the higher the degree of their satisfaction with the work.
- 3) Among the proposed external motivational factors for healthcare professionals, salaries, workload and document flow, and financial and logistical support at the workplace have a significant impact. Doctors who are members of the management personnel reserve also feel the need to pursue personal development factors – the possibility of professional development, self-realization, and career development.
- 4) The high evaluation by healthcare professionals of their own functional duties and the results of their work demonstrates the high potential of internal motivational factors that influence the results of the labor process and the quality of medical services.

- 5) Based on the subjective opinion of healthcare professionals, the results of the study revealed a number of economic and organizational aspects of working conditions in public healthcare institutions, which require scientific and practical justification in healthcare service activities and adoption of strategic, prospective and operational management decisions affecting the development of the sector.

Acknowledgments

The author is grateful to Ratmanov P.E., Doctor Med. Sci., Prof., Far Eastern State Medical University, the Department of Public Health and Health Management (Khabarovsk, Russia), for assistance in the preparation of this publication.

Conflict of interests

The authors declare no conflict of interests.

References:

- Volnukhin A.V. Analysis of the satisfaction of medical personnel of private network polyclinics performs works. *International Scientific Review*. 2017; 1 (32): 89-91 [in Russian].
- Davydova I.A., Igumnov S.A. Satisfaction of medical workers with their labor: a review of literature. *Psychiatry, psychotherapy and clinical psychology*. 2011; 2: 112-119 [in Russian].
- Zdravomyslov A.G., Yadov V.A. Influence of differences in the content of labor on the attitude to work. The experience and methodology of specific sociological research. M.: Thought. 1965; 144-196 [in Russian].
- Kirik Yu.V. Problems of accessibility and quality of medical services in the Russian Far East, according to population surveys. *Far Eastern Medical Journal*. 2016; 2: 103-108 [in Russian].
- Kirik Yu.V., Kapitonenko N.A. Organization and development of health care in the Russian Far East, according to Gallup polls. *Pacific Medical Journal*. 2015; 59(1): 51-55 [in Russian].
- Kissel A.A. Value-normative aspect of the relationship and work. *Sociological research*. 1984; 1: 47-55 [in Russian].
- Kitvel T.A. About socio-psychological problems of satisfaction with work. Tallinn. 1974; 134 p. [in Russian].
- Meskon M., Albert M., Hedouri F. Fundamentals of Management. M.: Case, 1997; 704 p. [in Russian].
- Murutar A.A. Experience of a comprehensive study of the satisfaction of activities in work collectives: Author's abstract. Cand. dis. L., 1977; 10 p. [in Russian].
- Reshetnikov A.V., Efimenko S.A., Tsyplenkova L.P. Value orientations of doctors: prestige and job satisfaction in assessments of medical workers // In the book: *PROFESSION AND HEALTH* Ministry of Health and Social Development of the Russian Federation. 2011. P. 418-420 [in Russian].
- Tikhonov A.A. Sociology of management. Fundamental and applied significance. Publishing house Kanon + ROOI «Rehabilitation». 2014; 560 p. [in Russian].
- Cherkasov S.N., Kostikova A.Yu. Satisfaction of doctors of public medical institutions. *International Scientific and Research Journal*. 2017; 4-3 (58): 198-200 [in Russian].
- Yadov V.A., Kissel A.A. Satisfaction with work: analysis of empirical generalizations and an attempt at their theoretical interpretation. *Sociological research*. 1974; 1: 78-88 [in Russian].
- Brayfield A.H., Rothe H.F. An index of job satisfaction. *Journal of Applied Psychology*. 1951; 35: 307-311.
- Gazioglu S., and Tansel A. Job satisfaction in Britain: individual and job related factors. *Applied Economics*. 2006; 38: 1163-1171.
- Hamermesh D. Economic Aspects of Job Satisfaction / Essays in Labor Market Analysis. N.Y., 1977; Freeman R. Job Satisfaction as an Economic Variable. *The American Economic Review*. 1978; 68(2): 135.
- Hoppock R., and Odom C. L. Job Satisfaction. Occupations. *The Vocational Guidance Journal*. 1940; 19: 24-29.
- Jones R.J., Sloane P.A. Regional differences in job satisfaction, *Applied Economics*. 2009; 41: 1019-1041.
- Judge T.A. Five-Factor Model of Personality and Job Satisfaction: A Meta-Analysis. *Journal of applied psychology*. 2002; 87: 530-541.
- Locke E.A. The Nature and Causes of Job Satisfaction. Dunnette M.D. *Handbook of Industrial and Organizational Psychology*. Chicago. 1976; 1297-1349.
- Ross C.E. and Reskin B.F. Education, control at work, and job satisfaction. *Social Science Research*. 1992; 21: 134-148.
- Voltmer E., Rosta J., Siegrist J., and Aasland O. G. Job stress and job satisfaction of physicians in private practice: comparison of German and Norwegian physicians. *International Archives of Occupational and Environmental Health*. 2012; 85: 819-828.
- Wu C.H., Griffin M.A. Longitudinal relationships between core self-evaluations and job satisfaction. *Journal of Applied Psychology*. 2012; 97: 331.
- Żołnierczyk-Zreda D., Bedyńska S. & WarszevskaMakuch M. Work Time Control and Mental Health of Workers Working Long Hours: The Role of Gender and Age. *International Journal of Occupational Safety and Ergonomics*. 2012; 18(3): 311-320.