

17. Van Damme P, Olsson SE, Block S, et al. Immunogenicity and Safety of a 9-Valent HPV Vaccine. *Pediatrics*. 2015; 136(1):28-29. doi: 10.1542/peds.2014-3745
18. Kaarthigeyan K. Cervical cancer in India and HPV vaccination. *Indian Journal of Medical and Paediatric Oncology*. 2012; 33(1):7-12. doi: 10.4103/0971-5851.96961
19. Basu P, Bhatla N, Ngoma T, et al. Less than 3 doses of the HPV vaccine – Review of efficacy against virological and disease end points. *Human Vaccines and Immunotherapeutics*. 2016; 12(6):1394-1402. doi: 10.1080/21645515.2016.1146429
20. De Vincenzo R, Conte C, Ricci C [et al.]. Long-term efficacy and safety of human papillomavirus vaccination. *International Journal of Women's Health*. 2014; 2014(6):999-1010. doi:10.2147/IJWH.S50365
21. Mariani L, Venuti A. HPV vaccine: an overview of immune response, clinical protection, and new approaches for the future. *Journal of Translational Medicine*. 2010; 8:105. doi:10.1186/1479-5876-8-105
22. Brisson M, Bénard É, Drolet M, et al. Population-level impact, herd immunity, and elimination after human papillomavirus vaccination: a systematic review and meta-analysis of predictions from transmission-dynamic models. *The Lancet Public Health*. 2016; 1(1):e8-17. doi: 10.1016/S2468-2667(16)30001-9
23. Stanley M. HPV - immune response to infection and vaccination. *Infectious Agents and Cancer*. 2010; 5:19. doi:10.1186/1750-9378-5-19
24. Huang L-M, Puthanakit T, Cheng-Hsan C, et al. Sustained Immunogenicity of 2-dose Human Papillomavirus 16/18 AS04-adjuvanted Vaccine Schedules in Girls Aged 9-14 Years: A Randomized Trial. *Journal of Infectious Diseases*. 2017; 215(11):1711-1719. doi: 10.1093/infdis/jix154
25. Lehtinen M, Lagheden C, Luostarinen T, et al. Ten-year follow-up of human papillomavirus vaccine efficacy against the most stringent cervical neoplasia end-point—registry-based follow-up of three cohorts from randomized trials. *BMJ Open*. 2017; 7:e015867. doi: 10.1136/bmjopen-2017-015867
26. Turner TB, Huh WK. HPV vaccines: Translating immunogenicity into efficacy. *Human Vaccines and Immunotherapeutics*. 2015; 12(6):1403-1405. doi: 10.1080/21645515.2015.1103936.

The authors

Kononova Irina Vasilyevna – Candidate of Medical Sciences, the Research Worker of YSC CMP Department of epidemiology of chronic non-communicable diseases Laboratory of Precancerogenesis and Malignant Tumors, e-mail: irinakon.07@mail.ru, 677000, Yakutsk, Sergelyakhskoye shosse, 4, FGBNU “The Yakut Scientific Center of Complex Medical Problems”;

Kirillina Marya Petrovna – Candidate of Biological Sciences, the Leading Research Worker – the Head of YSC CMP Department of epidemiology of chronic non-communicable diseases Laboratory of Precancerogenesis and Malignant Tumors, 677000, Yakutsk, Sergelyakhskoye shosse, 4, FGBNU “The

Yakut Scientific Center of Complex Medical Problems”; the Head of North-Eastern Federal University named after M. K. Ammosov Medical Institute Pathomorphology, Histology and Cytology Educational and Scientific Laboratory, Yakutsk, ulitsa Belinskogo, 58;

Afanasyeva Lena Nikolaevna – Candidate of Medical Sciences, Doctor of Medicine, Oncologist, Chief of GBU Yakutian Republican Oncology Center, 677000, Yakutsk, ulitsa Sverdlova, 3, k.2.

Nikiforov Petr Vladimirovich – Doctor of Medicine, Oncologist, Surgeon of GBU Yakutian Republican Oncology Center General Surgery Department, 677000, Yakutsk, ulitsa Sverdlova, 3, k.2;

[Zakharova Fedora Appolonovna – Doctor of Medical Sciences, Professor of North-Eastern Federal University named after M. K. Ammosov, Medical Institute \[Department of Normal and Pathological Physiology\]\(#\), 677000, Yakutsk, ulitsa Belinskogo, 58.](#)

Mamaeva Sargylana Nikolaevna - Candidate of Physical and Mathematical Sciences, the Associate Professor of North-Eastern Federal University named after M. K. Ammosov Physics and Technology Institute Department of General and Experimental Physics, 677000, Yakutsk, ulitsa Belinskogo, 58.

Antonov Stepan Romanovich – Candidate of Physical and Mathematical Sciences, the Associate Professor of North-Eastern Federal University named after M. K. Ammosov Physics and Technology Institute Department of Radio Physics and Electronics, 677000, Yakutsk, ulitsa Belinskogo, 58.

S.V. Romanov, O.P. Abaeva

ATTITUDE OF THE POPULATION TOWARDS THE POST-MORTEM ORGAN DONATION IN FOREIGN COUNTRIES AND THE REGION OF RUSSIA AND THE SOURCES OF INFORMATION INVOLVED IN ITS SHAPING

ABSTRACT

This study focuses on the need to shape attitude of the Russian people to support the development of the post-mortem organ donation program. The **aim** of the work was to study the attitude of the population to the post-mortem organ donation and to determine the sources of information involved in its shaping, based on a study of the results of medical and sociological researches in foreign countries and analysis of survey data from a group of people in the region of Russia. The objectives of the study were: to study, according to data from sources of literature, the results of population surveys in countries around the world about attitudes towards participation in programs of post-mortem organ donation; explore the importance of different sources of information involved in the shaping of public opinion on this issue; to analyse the attitude of the group of the population of the region of Russia, in which transplant operations of human organs are performed, towards the possibility of participation in programs of post-mortem organ donation and sources of information that are important for its shaping. The study was based on the publications of the RSCI and PubMed and the results of a survey of 250 patients at the federal medical center where organ transplant operations are performed. The analysis of publications demonstrates the multi-stage process of shaping a position of support for the post-mortem organ donation among the population of the countries of the world - from understanding the humanity of this activity to concrete steps to support it. At the same time, propaganda of organ donation is important through the involvement of the media, educational system resources, and scientific professional communities. In Russia, it is necessary to start outreach with the population concerning organ donation from the first stage, to facilitate an understanding of the need for its development in order to save the lives of seriously ill people, and therefore systematic work is needed using opportunities primarily from television and Internet sources.

Keywords: post-mortem organ donation, sources of information for the public.

According to the concept of self-sufficiency in transplantation, adopted by WHO in Madrid in 2010, the shaping of a positive attitude towards organ donation and organ transplantation among the population is the most important task of each state striving to develop these high-tech medical assistance programs [14, 29]. In the Russian Federation, at present, human organ transplants, in addition to the specialized centers of the cities of Moscow and St. Petersburg, are performed only in every fourth region of the country, while the systems of interaction between the participants of transplant programs and organ donation in the subjects of the Russian Federation have individual features [3]. Accordingly, outreach with the population, aimed at promoting organ donation, should take into account both the ethnic and religious characteristics of the inhabitants, as well as the organization of this type of medical care in the region. One of the subjects of the Russian Federation that successfully develops organ donation and transplantation programs is the Nizhny Novgorod Region, where, on the basis of the Federal Budgetary Healthcare Institution "Volga District Medical Center" of the Federal Medical-Biological Agency, kidney, liver and pancreas transplants are performed. At the same time, the main problem limiting the growth in the number of operations is the shortage of donor organs, which is caused, among other things, by the high frequency of refusals of relatives of post-mortem donors from organ removal [5].

In connection with the above, we determined the following purpose of this work: on the basis of studying the results of medical and sociological researches in foreign countries and analysing data from a survey of a population in the region of Russia, study the attitude of the population towards post-mortem organ donation and determine the sources of information involved in its shaping. The objectives are:

- to study, according to data from sources of literature, the results of population surveys in countries around the world about attitudes towards participation in programs of post-mortem organ donation,
- explore the importance of different sources of information involved in the shaping of public opinion about the problems of organ donation,
- to analyse the attitude of the group of the population of the region of Russia, in which trans-

plant operations of human organs are performed, towards the possibility of participation in programs of post-mortem organ donation and sources of information that are important for its shaping.

Materials and methods. The study of literary sources was carried out on the information resources of the RSCI and PubMed. Own medical sociological research consisted of a questionnaire survey of 250 surgical patients of the surgical Federal Budgetary Healthcare Institutions of the Volga District Medical Center of the Federal Medical-Biological Agency (ФБУЗ ПОМЦ ФМБА), Russia. The choice of the group of respondents was due to the fact that patients had personal experience of health problems, physical suffering, restrictions on the quality of life, which, in our opinion, made for them more relevant than for the general population discussion of problems associated with the treatment of serious diseases. Patients were asked to answer following questions:

- Do you think that post-mortem organ removal should be carried out (answer options: in the presence of the lifetime consent of the donor, with the consent of the donor or his relatives, regardless of the consent of the donor or his relatives);
- if you asked to agree to a posthumous organ donation, you would answer (answer options: agree, disagree, not sure);
- please select the sources of information from which you received information about organ transplantation (answer options: TV, Internet sources, newspapers, radio, etc., the opportunity to specify any other sources of information was provided).

A comparative analysis was carried out using the calculation of the Pearson's Chi-square test, pairwise comparisons with the Bonferroni adjustment.

As the results of the analysis of publications have shown, in many countries the opinion of the population or its groups is being studied on the issues of acceptance or objection of post-mortem organ donation. At the same time, as experts emphasize, a positive answer to the question of the questionnaire is by no means a guarantee of a person's actual registration of consent to the post-mortem removal of organs. Thus, 75% of the respondents in Turkey expressed their willingness to donate after death, while only 24% of the population actually ac-

cepts consent [13]. The same trend was noted in Iran, where according to the survey, 78% of the country's population favored organ donation issues, but only 25% issued a donor card [8], as well as in Italy, where 95% of respondents expressed support for post-mortem donation, but in reality only 22% of them have officially registered this consent [22]. In the UK, with a general understanding of the need for development of donor programs, only 57% of families agreed to a question about a possible donation and only 30% of the population registered on the official portal as possible donors [15, 23]. In China, 67% of those surveyed said they were willing to donate a kidney after their death, but only 53% said they agreed to register their consent in the registry [21]. In Nigeria, 47.3% of survey participants had a positive attitude towards post-mortem donation and only a quarter expressed readiness to become kidney donors after death [12].

According to medical and sociological research, there is also no correlation between willingness to donate and the indicator of donor activity: in Europe, 83% of residents of Sweden, 77% of Malta, 72% of Belgium and Finland, 70% of Denmark, expressed their willingness to agree to a post-mortem donation. 66% - France, 64% - Ireland and the Netherlands, 62% - Slovenia and Luxembourg, 61% - Great Britain and Spain, 60% - Portugal, 53% - Hungary, Poland and Croatia, 49% - Italy, 47% - Germany [Левада-центр Евробарометра 333a]. While Belgium and Malta lead in both of the analyzed indicators, Spain and Croatia, the leaders of Europe in donor activity, lost first place in a sociological study to Denmark and Sweden, where the indicator does not exceed 13-17 per 1 million people [4, 24, 25].

Among the means of shaping public opinion, experts all over the world primarily note the media work [1, 2, 4, 6, 11 23 26 28]. At the same time, the authors highlight mass media influence: for example, according to M. Boratinska, from 10 to 20% of the refusals from relatives of the post-mortem donor are caused by negative speech of some journalists. According to the results of the Levada-Center study in Russia, less than 10% of respondents encountered positive examples of transplantation development in the mass media; the percentage of respondents who had experience of facing with negative speech turned out to be three times higher [4].

Shaping a positive attitude to the development of donor programs can also

be carried out through Internet, including social networks [18]. Such approach has been recognized as very effective in Canada [28] Israel [2], USA [1]. Apart from the public awareness, social networks are very useful in sharing information between members of professional communities. The leading magazine for doctors interested in different aspects of transplantation and organ donation, Transplantation, actively uses Twitter to interact with authors, readers, scientists, coordinators, etc. Internet resources allowed the journal to implement new forms of work: upload videos, present the works of young scientists, analyze the readers interests. [10, 19].

There is in no way less important factor of informing the public about the importance of organ donation, that is the use of an educational resource in educating the public [6, 13, 21], and its particular professional groups such as nurses [16, 20, 22], police [27]. In this case, of course, the special direction is the training of doctors, starting with students [6, 7, 8, 22].

Family relationships are important in increasing the population supporting the efforts of promoting organ donation: the emergence of a potential organ recipient, the signing of donor card by one of the family members, as a rule, contribute to obtaining consent to post-mortem organ donation of other relatives [6, 7, 16, 21].

The results of our research based on a questionnaire survey in which 250 patients from a surgical hospital took part, people of different age groups (from 18 to 79 years old), showed that only $14.0 \pm 2.2\%$ of respondents support the presumption of consent to post-mortem organ removal, regulated by country's local legislation. $34.0 \pm 3.0\%$ believe that the necessary condition for post-mortem organ donation should be a person's lifetime consent, the majority ($52.0 \pm 3.2\%$) will accept the possibility of obtaining the donor's lifetime consent as well as post-mortem consent of his relatives. At the same time, $40.8 \pm 3.1\%$ stated that they would have signed a consent to the posthumous organ donation, if they had been approached with such a proposal, $54.8 \pm 3.2\%$ had refused, the rest were not sure. Among the possible factors that could influence their decision, $24.4 \pm 2.7\%$ noted the opinion of a representative of a religious denomination, $4.4 \pm 1.3\%$ - financial incentives and $45.6 \pm 3.2\%$ - information about a person, which they could save.

Analysis of the survey results allowed to determine the list of sources of informa-

tion involved in the shaping of the respondents' opinion on organ donation. We identified four groups of respondents: the first group, the most numerous, indicated the only source of information - television programs, percentage of this group was $42.4 \pm 3.1\%$, the second group ($20.8 \pm 2.6\%$) preferred also one source - Internet sites, a third group made up $12.0 \pm 2.1\%$ of respondents who indicated several sources of information as sources of information (television, radio, newspapers), the fourth - $13.2 \pm 2.1\%$ of respondents receive information from all of the above sources (television radio, newspapers, Internet). The percentage of the other groups of survey participants who received information from other sources, for example, from the medical literature, did not have statistical significance.

Comparative analysis did not allow to determine the dependence of the possibility of registration the consent of respondents on the post-mortem organ donation on the preferred source of information ($\chi^2 = 7.4$ at a critical value of 12.6). Conducted pairwise comparisons also did not allow to identify statistically significant results.

The understanding of the humanity and safety of organ donation by society is the key to the success of the implementation of these programs in national health care. The data of literary sources analyzed by us testify to the complexity and multi-stage nature of shaping the public opinion from a person's understanding of the problem of organ donation to concrete steps to promote it, while outreach should combine a wide variety of forms and use all available information sources for the population. In Russian society, according to sociological research, the majority of the population treats organ donation with distrust, which is certainly a consequence of the negative reflection of the situation in the media and the inadequacy of the work of the professional medical community in promoting the results of transplantation centers [1, 4, 5].

The results of the conducted survey, having general compliance, differ from the similar study by the Levada Center in the 2013, in which more than half of the respondents found it difficult to answer the question about the possibility of obtaining consent to a post-mortem organ donation, every fourth declared readiness to sign consent and 13% reported their refusal [4]. In our study we analyzed the opinion of hospital patients, that is, a group of people who have a greater interest in the problems associated with helping people who are suffering than the

general population. Accordingly, there were large groups with a clearly shaped attitude to consent or refusal of posthumous organ donation. At the same time, the leading factor that could influence the decision of the respondents was information about a person who can be saved by transplanting organs. The foregoing emphasizes once again the importance of public outreach. An analysis of respondents relevant sources of information on this topic showed, given the specific role of each of them, the priority importance of Internet sources and television. At the same time, the absence of any difference in relation to the post-mortem donation of people who receive information from different sources indicates the uniformity of their approach to the coverage of this problem.

Conclusion. The results of our study indicate the need for systematic advocacy with the population of our country, aimed at developing among Russians the understanding of the humanity of organ donation. Such activities should be carried out by using all possible sources of information, primarily television and Internet sites, also it should be systematic all over the country and coordinated by the professional medical community.

References

1. Виноградов В.Л. Актуальные вопросы органного донорства. Введение. Лекция. *Трансплантология*. 2013;(4):15-23. [Vino-gradov VL. Actual issues of organ donation. Introduction. *Transplantologiya*. 2013; (4):15-23. (In Russ.).]
2. Виноградов В.Л. Опыт Израиля в организации программы органного донорства. Интервью с трансплант-координатором Кириллом Грозовским. *Трансплантология*. 2015;(2):20-25. [Vino-gradov VL Israel's experience in the organization of the program of organ donation. Interview with transplant coordinator Kirill Grozovskiy Hadassah University Hospital (Jerusalem, Israel). *Transplantologiya*. 2015; (2):20-25. (In Russ.).]
3. Готье С.В., Хомяков С.М. Донорство и трансплантация органов в Российской Федерации в 2017 году. Хрестоматия регистра Российского трансплантологического общества. *Вестник трансплантологии и искусственных органов*. 2018;20(2):6-28. [Gautier SV, Khomyakov SM. Organ donation and transplantation in Russian Federation in 2017. X report of National Register. *Vestnik transplantologii i iskusstvennyh organov*. 2018; 20(2):6-28. (In Russ.).] DOI: 10.15825/1995-1191-2018-2-6-28
4. Донорство и пересадка органов в общественном мнении россиян (редакционная статья). *Трансплантология*. 2014;(1):8-19. [Donation and organ transplantation in public opinion of Russians. *Transplan-tologiya*. 2014; (1):8-19. (In Russ.).]

5. Романов С.В., Абаева О.П., Смирнова Г.Ю. Пути совершенствования использования донорского ресурса в Нижегородской области. *Трансплантология*. 2018;10(1):15-22. [Romanov SV, Abaeva O.P., Smirnova G.Y. Ways to improve the use of donor resources in the Nizhny Novgorod Region. *Transplantologiya*. 2018;10 (1):15-22. (In Russ.).] DOI: 10.23873/2074-0506-2018-10-1-15-22
6. [Tasaki M](#), [Saito K](#), [Nakagawa Y](#), [Ikeda M](#), [Imai N](#), [Ito Y](#), [Narita I](#), [Takahashi K](#). 20-Year Analysis of Kidney Transplantation: A Single Center in Japan. *Transplantation Proceedings*. 2014; 46(2):437-441. DOI: 10.1016/j.transproceed.2013.10.052
7. [Lavee J](#), [Ashkenazi T](#), [Gurman G](#), [Steinberg D](#). A new law for allocation of donor organs in Israel. *Lancet*. 2010; 375(9720):1131-1133. DOI: 10.1016/S01406736(09)61795
8. [Zahmatkeshan M](#), [Fallahzadeh E](#), [Moghtaderi M](#), [Najib KS](#), [Farjadian S](#). Attitudes of medical students and staff toward organ donation in cases of brain death: a survey at Shiraz University of Medical Sciences. *Progress in Transplantation*. 2014; 24(1):91-96. DOI: 10.7182/pit2014248
9. [Kahveci B](#), Topal K, Gerekliloglu Ç, [Aksoy H](#). Attitudes Toward Organ Donation Among Relatives of the Patients Who Are Being Followed Up in Intensive Care and Dialysis Units. *Transplantation Proceedings*. 2017;49(9):1988-1992. DOI: 10.1016/j.transproceed.2017.09.034
10. Baan CC, Dor FJ. The Transplantation Journal on Social Media: The @TransplantJrnl Journey From Impact Factor to Klout Score. *Transplantation*. 2017; 101(1):8-10. DOI: 10.1097/TP.0000000000001581
11. Boratynska M, Patrzalek D. Transplantation: Challenges for Today. *Archivum Immunologiae et Therapiae Experimentalis*. 2016; 64(1):37-45. DOI: [10.1007/s00005-016-0439-1](#)
12. [Abiodun MT](#), [Solarin AU](#), [Adejumo OA](#), [Akinbodewa AA](#). Caregivers and Healthcare Workers' Willingness to Donate Kidney in Three Tertiary Institutions in Southern Nigeria. *Transplantation Proceedings*. 2015; 47(10):2810-2815. DOI: 10.1016/j.transproceed.2015.10.05
13. Can F, Hovardaoglu S. Organ Donation: A Comparison of Donating and Nondonating Families in Turkey. *Transplantation Proceedings*. 2017;49(9):1969-1974. DOI: 10.1016/j.transproceed.2017.09.032
14. Delmonico FL. Striving to achieve a national self-sufficiency. *Transplant International*. 2011;24(3):315-316. DOI:10.1111/j.1432-2277.2011.01227.x
15. Ensuring fair allocation of organs. Editorial. *The Lancet*. 2013;382(9888):181. DOI: 10.1016/S0140-6736(13)61582-2
16. [Hulme W](#), [Allen J](#), Manara AR, [Murphy PG](#), [Gardiner D](#), [Poppitt E](#). Factors influencing the family consent rate for organ donation in the UK. *Anaesthesia*. 2016;71(9):1053-1063. DOI: 10.1111/anae.13535
17. [Shaw D](#), [Georgieva D](#), [Haase B](#), [Gardiner D](#), [Lewis P](#), [Jansen N](#), [Wind T](#), [Samuel U](#), [McDonald M](#), [Ploeg R](#). Family Over Rules? An Ethical Analysis of Allowing Families to Overrule Donation Intentions. *Transplantation*. 2017;101(3):482-487 DOI:10.1097/TP.0000000000001536
18. Fox CS, Barry K, Colbert J. Importance of social media alongside traditional medical publications. *Circulation*. 2016;133(20):1978-1983. DOI:10.1161/CIRCULATIONAHA.115.020303
19. Johnson ChL, Hutchinson JA. Promote Your Work in Transplantation. *Transplantation*. 2017;101(7):1512-1513. DOI:10.1097/TP.0000000000001741
20. Ju MK, Sim MK, Son SY. A Study on Nursing Students' Knowledge, Attitude, and Educational Needs for Brain-Death Organ Transplantation and Donation and Intent to Donate Organs. *Transplantation Processing*. 2018;50(4):1187-1191 DOI:10.1016/j.transproceed.2018.02.036
21. [Zhang QX](#), [Xie JF](#), [Zhou JD](#), Xiao SS, [Liu AZ](#), [Hu GQ](#), [Chen Y](#), [Wang CY](#). Impact Factors and Attitudes Toward Organ Donation Among Transplantation Patients and Their Caregivers in China. *Transplantation Proceedings*. 2017;49(9):1975-1981. DOI:10.1016/j.transproceed.2017.09.022
22. [Fontana F](#), [Massari M](#), [Giovannini L](#), [Alfano G](#), [Cappelli G](#). Knowledge and Attitudes Toward Organ Donation in Health Care Undergraduate Students in Italy. *Transplantation Proceedings*. 2017;49(9):1982-1987. DOI: [10.1016/j.transproceed.2017.09.029](#)
23. Murphy PG, Smith M. Towards a framework for organ donation in the UK. *British Journal of Anaesthesia*. 2012;108(1):i56-i67. DOI:10.1093/bja/aer402
24. New ideas in organ donation. Editorial. *The Lancet*. 2009; 374(9698):1302. DOI: [10.1016/S0140-6736\(09\)61801-8](#)
25. Organ donation and transplantation. *Special Eurobarometer 333a*. http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_333a_en.pdf
26. [Kiani M](#), [Abbasi M](#), [Ahmadi M](#), [Salehi B](#). Organ Transplantation in Iran: Current State and Challenges with a View on Ethical Consideration. *Journal of Clinical Medicine*. 2018;7(3):45. DOI:10.3390/jcm7030045
27. [Kim HS](#), [Yoo YS](#), [Cho OH](#), [Lee CE](#), [Choi YH](#), [Kim HJ](#), [Park JY](#), [Park HS](#), [Kwon YJ](#). Police Officers' Knowledge and Attitudes Toward Brain Death and Organ Donation in Korea. *Transplantation Processing*. 2018;50(4):1185-1186. DOI: 10.1016/j.transproceed.2018.02.049
28. [Fortin MC](#), [Buchman D](#), [Wright L](#), [Chandler J](#), [Delaney S](#), [Fairhead T](#), [Gallagher R](#), [Grant D](#), [Greenberg R](#), [Hartell D](#), [Holdsworth S](#), [Landsberg D](#), [Paraskevas S](#), [Tibbles LA](#), [Young K](#), [West L](#), [Humar A](#). Public Solicitation of Anonymous Organ Donors: A Position Paper by the Canadian Society of Transplantation. *Transplantation*. 2017;101(1):17-20. DOI:10.1097/TP.0000000000001514
29. [White SL](#), [Richard H](#), [Mahillo B](#), [Domínguez-Gil B](#), [Delmonico FL](#), [Noel L](#), [Chapman J](#), [Matesanz R](#), [Carmona M](#), [Alvarez M](#), [Núñez JR](#), [Leichtmang A](#). The global diffusion of organ transplantation: trends, drivers and policy implications. *Bull World Health Organ*. 2014; 92(11):826-835. DOI: [10.2471/BLT.14.137653](#)

The authors

Romanov Sergej V. – director of the Federal budgetary institution of health care «Volga district medical center» Nizhny Novgorod, Russian Federation, 8(8312)4218282 e-mail: info@pomc.ru;

Abaeva Olga P. – the doctor of medical sciences, Professor of the Department of Sociology of Medicine, Health Economics and Medical Insurance Sechenov University Moscow, Russian Federation 89107925507, e-mail: abaevaop@inbox.ru.

