

Information needs of Russian specialists in health care administration, management and economics

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Abstract

Aim: to analyze information needs of specialists in health care administration, management and economics.

Methods: sociological, statistical and content analysis.

Objectives:

1. to analyze results of the questionnaire survey of specialists in health care administration, management and economics designed to identify their information needs;
2. to analyze requests for information to the WHO Documentation Center by specialists in health care administration, management and economics;
3. to identify and present topics and types of information resources that specialists in health care administration, management and economics need.

Results: Generally, specialists in health care administration, management and economics develop information and analytical updates for decision makers. Therefore, it is crucial to understand what topics this group of information consumers is most interested in, as well as what sources of information this group may need. To find out we conducted a questionnaire survey of this group of specialists and analyzed their requests for information to the WHO Documentation Center.

The questionnaire helped identify major information needs of this group of specialists with the following findings. Topics of interest: mortality analysis and trends by age and cause of death; fertility analysis and trends; economic performance of health care facilities; quality performance of health care facilities; and analysis of the relevant international experience and comparative overviews. Types of information resources: Russian statistics digests; National health report; articles on health economics and management in the Russian journals; WHO statistical databases (Health for all) and EUROSTAT; WHO evidence reports on health economics and management; PubMed – articles on economics and quality of health care; Cochrane library etc.

1. Background

Modern theory and practice of health management science requires comprehensive and detailed problem analysis and improved management methods which is not possible without evidence-based medical data. Such data should adequately reflect current state and dynamics of the healthcare system, be intensive and applicable for managerial decision making regardless of health topics (1-2). Availability of modern reliable information ensures international comparisons, provides for priority identification for developing national health systems and helps predict development of the situation depending on different activities and intervention (3).

Information support is one of the necessary conditions for evidence-based improvement of management, financing and legal support to the health care reforming, quality assurance of health care, public health issues, etc.

In the 2000s, the world has seen an active implementation of the evidence-based approach to develop managerial decisions in healthcare based on analysis of relevant available researches, selection of most evidence-based ones out of them and use of scientific papers to develop certain decisions to implement new technological or organizational interventions (4-5). Nowadays, such approach is considered to be most up-to-date strategy to develop organizational innovations world-wide (6). The evidence-base approach helps decision makers opt for most cost-effective alternatives to avoid unwanted expenditures in the context of limited resources (7-8).

Among other things information support includes provision of health leaders with organizational and methodological materials which has certain specifics. Decision makers lack time to search and analyze big mass of information. Therefore, such groups of information consumers need brief and very informative materials. Since such materials are strategic they should include facts and statistics, outline trends and prospects. Latest updates for leaders should contain data and brief analytical summaries of the current state of the art in a particular area. As recently all countries have become interdependent due to universal globalization, evidence-based international comparisons are required. Even the message text has its specific features, i.e. the message should be plain in clear language without specific terms and include graphs and tables to visualize trends (9-11).

More specifically, decision makers need the following types of knowledge (4):

- knowledge about priority problems;
- knowledge about proven solutions for priority problems (e.g. cost-effective prevention and treatment options for a particular disease profile in a country);
- knowledge about the context for change and whether solutions are likely to work in the local setting; and

- knowledge about proven mechanisms to bring about the change.

Therefore, **specific characteristics of information support for decision making are:**

- Brief and informative documents three to five pages long
- Should include facts and statistics
- Should outline trends and prospects
- Should provide for international comparisons and outline best practices
- Should be adjustable to local environment

Adaptation to local environment and data obtained within other countries play a crucial role in research results' presentation.

Another important issue of information support is development of specific infrastructure to collect, store and process research results. This idea is supported by the fact that review and analysis of huge volumes of currently available scientific publications are extremely time and effort-consuming and costly and require ever strong commitment from not only individual researchers and decision-makers from the developing world, but scientific institutes as well (12).

In Russia, information support for the Ministry of Health is provided by major research institutes according to their focus area and federal medical universities. For example, the Russian Scientific Cardiological Scientific and Technological Complex of the Ministry of Health develops guidelines and analytical reviews on cardiology, the Russian Oncology Research Center named after N.N. Blokhin – on oncology, etc.

Regional medical universities provide information support for regional health authorities.

Information support for the Ministry of Health in health management and economics is provided by Federal Research Institute for Health Organization and Informatics; Higher School of Economics; National Public Health Institute named after Nicolay Semashko and federal medical universities.

In particular, the World Health Organization Documentation Center based on the Federal Research Institute for Health Organization and Informatics provides analytical materials on international experience.

This study was implemented by the WHO Documentation Center staff to analyze information needs of decision makers at the federal and regional levels and specialists in health care administration, management and economics, who are responsible for developing information materials for decision makers as well as analyze information needs of health leaders.

2. Methods

The study pursued the following objectives:

1. to analyze results of the questionnaire survey of specialists in health care administration, management and economics designed to identify their information needs;
2. to analyze requests for information to the WHO Documentation Center by specialists in health care administration, management and economics;
3. to identify and present topics and types of information recourses that specialists in health care administration, management and economics need.

We conducted our study in two stages:

1. To survey participants of international and All-Russia conferences that took part in 2012-2014. A total of 750 questionnaires were completed.
2. To analyze requests submitted to the WHO Documentation Center in 2012-2014. A total of 320 requests were analyzed.

At the first stage we tried to ensure as wide regional representation as possible, when selecting the survey pilots. Therefore, we decided to survey participants at several major all-Russia and international conferences (including all-Russia Congress of Pediatricians, “Man and Medications” Congress, “Health of the Nation” all-Russia Forum, Tobacco Control Congress, etc). The survey was conducted through interviews.

All respondents (750 questionnaires) were divided into the following groups (Table 1):

Table 1. Groups of respondents - participants of international and All-Russia conferences that took part in 2012-2014

#	Groups of respondents	Number	Share
1.	Representatives of regional healthcare departments and administrations	172	22.93%
2.	Management of health care facilities	164	21.87 %
3.	Specialists in health care management and economics from Research Institutes and Institutions of higher education	389	51.87%
4.	Other	25	3.33%
	total	750	100%

The Table1 shows that more than half of respondents (389 respondents or 51.87% of the interviewed) are specialists of Research institutes and Higher education institutions engaged in health care management and economics. 172

respondents (22.93% of the interviewed) represent regional health care departments and administrations and 164 respondents (21.87% of the interviewed) represent management of the regional health care facilities (head physicians, deputy heads, heads of departments).

During the second stage we analyzed requests for information materials that were submitted to the WHO Documentation Center via e-mail in 2012-2014. A total of 320 requests were analyzed.

All requests were combined by groups of specialists that submitted them (Table 2).

Table 2. Requests by groups of specialists

#	Requests by groups of specialists	Number	Share
1.	Requests by the Russian Ministry	78	24.38%
2.	Requests by regional healthcare departments and administration	54	16.88%
3.	Health care facilities	41	12.81%
4.	Specialists in healthcare management and economics	147	45.93
Total		320	100%

The Table2 shows that the majority of requests were made by specialists in health care managements and economics – 147 requests (45.93%). 78 requests (24.38%) were authored by mid-level specialists of the Ministry of Health and 54 requests (16.88%) came from the regional health care departments and administrations.

3. Results:

At the first stage we asked our respondents about types of information they used and received the following answers:

- statistical reports - 526 (70.13%)
- State Report on Healthcare in Russia - 422 (56.27%)
- articles from Russian journals - 327 (43.60%)
- proceedings of conferences and workshops - 311 (41.47%)
- topical analytical reports - 254 (33.87%)
- statistical databases of WHO (Health for All) - 157 (20.93%)
- OECD Statistical reports – 143 (19.07%)
- PubMed – quality of care articles – 129 (17.20%);
- EUROSTAT - 123 (16.40%)
- Cochrane library etc. – 104 (13.87%)
- WHO evidence reports on health care economics and management – 96 (12.80%).

The total score does not equal to 100% since respondents could select several options.

The majority of information resources needed by our recipients are Russian statistics and analytical reports. But the minority of recipients had an interest for international information.

The most popular topics among the respondents (750 respondents in total) include the following:

- legislation in health care - 324 (43.20%);
- economics and management - 287 (38.27%);
- noncommunicable diseases (prevention and control) - 273 (36.40%);
- communicable diseases including TB and HIV - 259 (34.53%);
- maternal and child health - 257 (34.27%);
- harmful use of alcohol - 228 (30.40%);
- tobacco - 211 (28.13%);
- medicines - 191 (25.47%);
- healthy nutrition - 154 (20.53%); and
- drug abuse - 139 (18.53%).

This also the total score does not equal to 100% since respondents could select several options.

The majority of topics needed by recipients are legislation and economics and management on prevention and control of chronic diseases, communicable disease and maternal and child health.

At the second stage all requests for information materials that were submitted to the WHO Documentation Center via e-mail in 2012-2014 were grouped by topics (Figure 1).

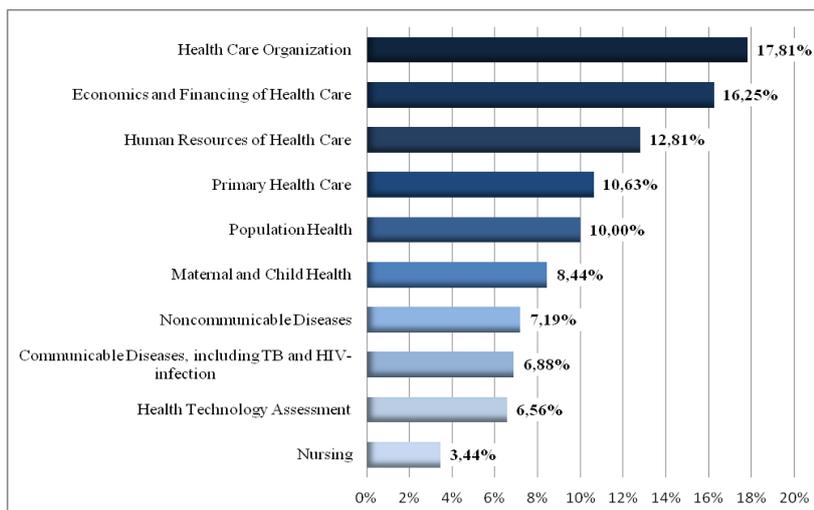


Fig.1. Distribution of requests to WHO Documentation Center by topics

As Figure 1 shows, the majority of requests are related to health care organization – 17.81%; economics and financing of health care – 16.25%; and human resources – 12.81%.

The Ministry of Health was most interested in:

- Analysis and trends in mortality by age and cause of death;
- Analysis and trends in fertility;
- Economic performance of health care facilities;
- Quality of care delivery;
- Analysis of international practices and comparisons between different countries on the mentioned topics

Requests by regional health care departments and administrations of health care facilities on the mentioned topics mainly included their demand for statistical data or references to legislation as well as international experience in addressing different issues.

Besides statistical data, specialists in health care management required links to full text of World health organization analytical reports, especially reviews of the European countries, and studies produced by the European Observation on Health Systems and Policy. Specialists were also interested in articles from international journals containing analysis of different approaches to managerial decision making and issues related to financing of health care.

Language barriers is yet another important issue. Both survey respondents and request submitters need information in Russian. 91.4% of respondents expressed their need in Russian-language materials (750 =100%) and 92.5% of request submitters (Figure 2).

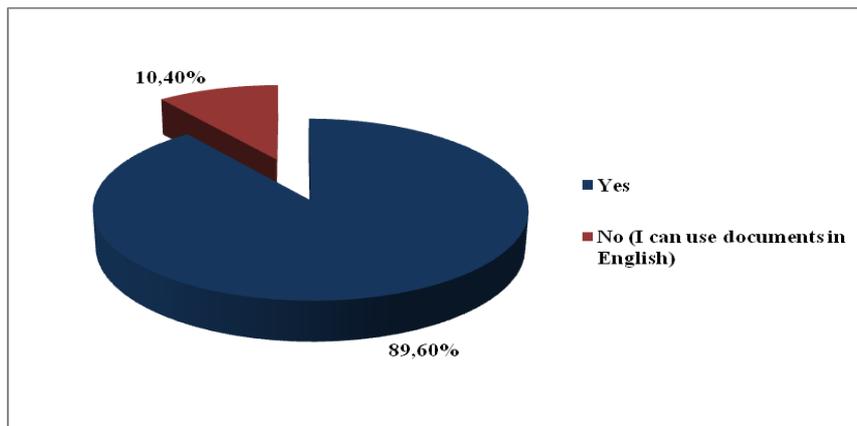


Fig 2. Need in Russian-language information

Need for official translation is not necessarily associated with ignorance of the English language. It is rather related to the demand for official explanation of international norms, standards and approaches to different issues in health care.

Liberal translation by different translators makes it impossible to provide official references to WHO materials when developing national health care documents in Russia.

Specialists in health care management and economics also mentioned that even if you know English, availability of materials in Russian saves time to review them. Furthermore, all materials that are provided to the official health authorities including the Russian Ministry of health should be in Russian despite the language of the original source.

We also analyzed **using different sources of information by groups of respondents.**

Our study shows that more than half of respondents from regional health care departments and regional health care facilities do not know about specific information resources and often use free access Internet information and Google searches.

Specialists from institutions on health care management and economics usually use the following sources of information:

- WHO website (use world statistic database and work with “Health for All” database, download electronic publications, comparative studies, etc.;
- OECD website as a source of analytical and statistical information in developed economies;
- EUROSTAT website as a source of statistics to compare with European countries;
- PubMed as a source of articles in international journals.

4. Use of World Health Organization information

World Health Organization (WHO) has stored a unique comprehensive database of both statistical and scientific information. WHO collects health statistics in all member states including demographic indicators (deaths by major causes, life expectancy, etc.) as well as indicators of the health system strengthening (healthcare expenditures, staffing), etc. WHO documents and publications cover all health-related issues from policy papers and health development analyses to practical guidelines for doctors and nurses. WHO information is a valuable resource for both decision-makers and different specialists in medicine and allied sciences.

Unbiased data presentation is yet another advantage of WHO information. According to its Constitution WHO can neither support nor advertise any commercial companies. Therefore, WHO information reflects actual statistics related to both pharmaceuticals and clinical guidelines, etc.

World Health Organization has been actively posting on-line more and more full text documents and publications. It should be noted here that free access to WHO information fundamentally distinguishes it from other mage-databases outlined above. Free access to WHO information empowers any user to obtain any WHO documents and publications on-line globally regardless of his/her economical status or territorial location.

As Figure 3 shows, the majority of respondents (369=49.2%) use WHO materials in their work from time to time, (231=30,8%) respondents use them on a regular basis, (144=19.2%) – seldom and (18=2.4%) never use WHO materials. WHO statistical databases turned out to be most popular source among the Russian specialists. As to other types of information, the majority of respondents specified analytical reports on different countries, WHO analytical material on economics and financing and official documents of WHA, Executive Body and WHO Regional Committee for Europe).

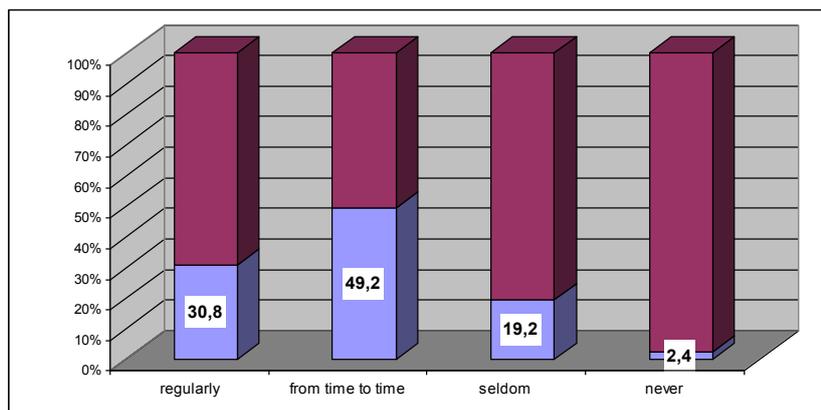


Figure 3. Use of WHO materials

More than a half of responders (444 specialists or 59.2%) have problems obtaining WHO materials in the WHO web-site, however a quarter of respondents (180 specialists or 24%) reported no difficulties at all. At the same time, experts (specialists in economics and financing) know WHO internet resources more better that managerial staff in health care departments and facilities.

5. Conclusions

To conclude this study, we can say that our survey showed that information support for decision making is a topical issue, dissemination of information including WHO materials among national users is extremely relevant and that analytical reviews and selections of related materials on certain topics including health care improvement in Russia and international practices are highly demanded by specialists, and timely update on latest materials is much welcomed.

From a practical point of view, such surveys help to adequately select topics for information products and remain in the know of the information needs of different groups of specialists.

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