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#### INTERNET-BASED TARGET AUDIENCE OF PHARMACEUTICAL MARKET IN RUSSIA

**Abstract.** The article describes the key characteristics of the target Internet audience of the Russian pharmaceutical market. The author has collected and systematized statistical information on three key audiences of the pharmaceutical market with the use of modern metrics of the description of target audience on the Internet. The study was conducted at three interrelated levels, each of which contains focused data on the topic under consideration - a description of the Internet audience in the world, a description of the Internet audience in Russia, a description of the Internet audience in the Russian pharmaceutical market. Based on the study, it is concluded that the importance of Internet promotion for key market participants and it is assumed that doctors and pharmacists are gradually increasing the use of the Internet in the field of health, as well as increasing their participation in reliable online medical services for the prevention of diseases.

Key words: target audience analysis; digital audience; pharmaceutical market; marketing.

JEL: M31, L11

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here are 60 new Internet users emerge every 6 seconds in the World [8]. Each of them is starting the lifespan with this technology, because once they try it – can't keep their hands off it. The Internet is important human-made technology which erase cultural, language and research borders (the knowledge, technology and news transition) among the population of the Earth. The focal point of this paper is development of Russian internet-user portrait with an emphasis on pharmaceutical market.

Statistical data for pharmaceutical target audience analysis in Russia were gathered from valid and reliable lpsos Comcon<sup>2</sup> databases separately for each of a target audience – physicians, patients and pharmacists. Described briefly, the first syndicated research of attitudes and preferences of the population HealthIndex includes quarterly study of about 47000 Russia's population and about 14000 households ages 16-75 in 47 cities with general population over 60 million. The aims are to study the decision-making process, attitudes of end-users towards the health, factor-analysis with respect to decision-making process of remedies purchasing, key performance indicators' monitoring of 1090 trademarks among 57 categories of remedies, research of target audiences' profiles et cetera. Present article provides the large-sample analysis of 19 cities of Russia (n = 5775). The second syndicated research Pharma-Q "Pharmacists' opinion" is upon multipurpose factor-analysis with respect to professional activities, socio-demographic and professional status and lifestyle of pharmacists. It is held twice a year in 27 cities of Russia among more than 2000 pharmacists ages 21-72 (n = 2069)<sup>3</sup>.

The article also has an analysis of report Medi-Q "Opinion of practicing physicians" of 21 cities of Russia among 16 specialties: GPs, Gynecologists, Pediatricians, Otorhinolaryngologists, Endocrino-logists, Neurologists et cetera (n = 5717)<sup>4</sup>.

At the end of 2018-year, total world penetration rate is 55%. Asia takes the most part among regions with high rate of the Internet users, 49% users of the World with 55% of the World population. North America with 4.8% of the World population is the first with respect to penetration rate – 95% users<sup>5</sup>. Russia takes 15% of European Internet users being a part of Eastern Europe. In general, European continent takes the

<sup>2</sup> HealthIndex 3Q 2018 database: end-user Research / Ipsos Comcon

<sup>3</sup> Base Pharma-Q 2Q 2018: opinion of pharmacists / Ipsos Comcon

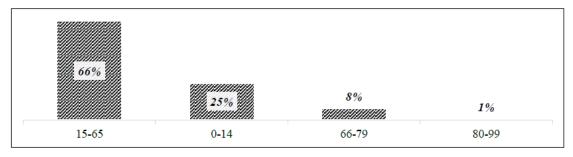
<sup>4</sup> Medi-Q 2Q 2018: opinion of practitioners / Ipsos Comcon

<sup>5</sup> Global trends and Russian consumer 2017 / GFK

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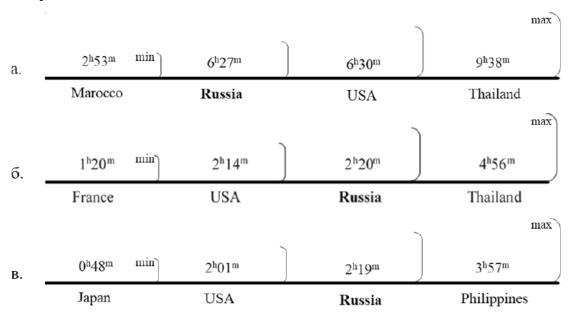
second place of penetration rate – 85%. Annual dynamics of the Internet users is 7% from January 2017, of the social networks – 13% and of the mobile phones – 4%. It means positive dynamics among the World population in modern technology usage<sup>7</sup>. According to British "Global Digital Report 2018", 7 in 10 people in the World are unique mobile users, but 4 in 10 are active social media users.

Appealing to the World Health Organization age classification, age-groups of the Internet users can be divided in the following way: 25% underage, 66% young people, 9% middle-aged and elderly people [Internet as a source .., 2018].



**Chart 1.** Distribution of global population by age classification

On average, these groups spend 6 hours and 33 minutes on Internet per day. Geographically the most time-spending country is Thailand, which spends 9 hours and 38 minutes per day on Internet. And the least time-spending country is Morocco – 2 hours and 53 minutes. In Russia this indicator is 6 hours 27 minutes, which 3 minutes less than in USA and 19 minutes more than in Italy [Ibid., p. 39]. Comparing the time of using mobile Internet with the time of using social networks there is a trend of using social networks by mobile device. For instance, average using of mobile internet in Russia id 2 hours and 20 minutes, that is less than in Thailand (4 hours and 56 minutes) and more than in France (1h 20m). In spite of the first rank of Thailand's average time-spendings on the Internet, it takes 4th place in the ranking of average time in social networks (3h 10m). And the first place in this ranking take Philippines with 3h 57m in social networks [lbid., pp. 40-58].



- a. Time spent on the Internet per day
- 6. Time spent using mobile internet
- в. Time spent on social media

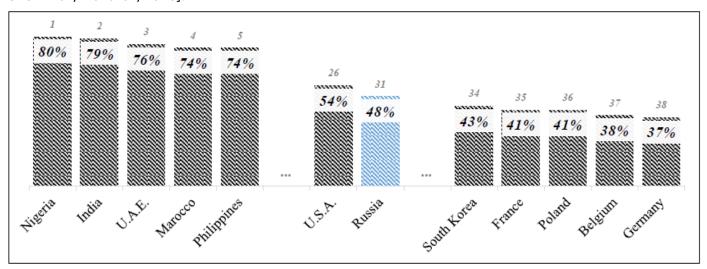
**Image 1.** Time spendings on the Internrt

Global digital report 2018 / We are social. URL: https://digitalreport.wearesocial.com/ (15.11.2018)

Medi-Q 20 2018: opinion of practitioners / Ipsos Comcon; Global digital report 2018 / We are social.

Suggesting that the most part of the time on the Internet is spends through the mobile device, there is a trend of using mobile applications as main source of information in the Internet. As of October 2018, annual change in the number of mobile apps downloaded is 10% or 40 mobile apps per person and 2h per day spent<sup>1</sup>.

Over the past decade an Artificial Intelligence (AI) and Big Data technologies having a great practical importance in business. Thereby companies trying to digitize its business processes for creating an omnichannel marketing, or integrate into communication platforms where target audience is [Ganavin, Chernikov, Makarov, 2018].



**Chart 2.** Top and bottom 5 countries by Digital Optimism indicator with USA and Russia<sup>2</sup>

But due to widespread capability of information technologies there inevitably are its proponents and opponents. For example, in Nigeria 80% of the population believes that new technologies offer more opportunities than risks, in Germany believes only 37%, but in Russia Digital Optimism, that how it calls, is 48% and in USA – 54% [Internet as a source .., 2018, p. 46] (Chart 2).

Also, the important theme to consider is personal data protection on the Internet. It the World about 42% of population believes that their data is being misused on the Internet. In Russia this "Data Privacy Concern" indicator is 43%, which 3% more than in USA. The most nervous country about data protection is Spain with 63% of skeptical population. Nigeria and Netherlands are the most loyal – 29% [WEB-Index .., 2018].

Among tendentious of consumer behavior in Russia is highlighting the following fact: over 40% of those surveyed identified increased expectations among patients with regard to the quality and standard of medical care as one of the most significant trends. Patients increasingly expect their doctor to provide a personal approach and flexible communication, making them more likely to present complaints and grievances about the standard of service which are not related to the quality of medical care per se [lbid.].

According to WEB-Index report, Russian Internet audience over 12 years old make up 74% of the population, but only 71% of them use the Internet at least once in a week and in most of the observed cases they use the Internet at home [lbid.].

Age	Men		Women	
	Monthly Reach %	% penetration	Monthly Reach %	% penetration
12-17	97%	5%	97%	4%
18-24	94%	5%	98%	5%
24-34	90%	12%	95%	12%

<sup>1</sup> Base Pharma-Q 2Q 2018: opinion of pharmacists / pharmacists / lpsos Comcon.

<sup>2</sup> Internet as a source of information for drug users according to the 3Q 2018 regular syndicated study of healthindex / Ipsos Comcon settings and preferences of the population

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Age	Men		Women	
	Monthly Reach %	% penetration	Monthly Reach %	% penetration
35-44	89%	11%	93%	11%
45-54	75%	7%	82%	9%
55-64	54%	5%	54%	7%
65+	31%	2%	25%	4%

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**Table 1.** Gender distribution of Internet users in Russia<sup>3</sup>

From the gender distribution of users presented in Table 1, it can be concluded that women and men aged 24-44 dominate among Internet users. Among the age groups, the absolute majority of women aged 18–24 and men aged 12–17 use the Internet. The smallest group is the elderly population of 65 years or more [WEB-Index .., 2018].

The socio-demographic distribution of Internet users in Russia over 12 years old is represented by 8 groups: managers, professionals, employees, workers, students, retirees, the unemployed and housewives. Among the groups represented, the greatest in terms of the number of users within their groups are students (97%), specialists (96%) and managers (95%). Among pensioners, 35% are actively using the Internet. In general, it is a working population with an upper middle income and three members in a family [lbid.].

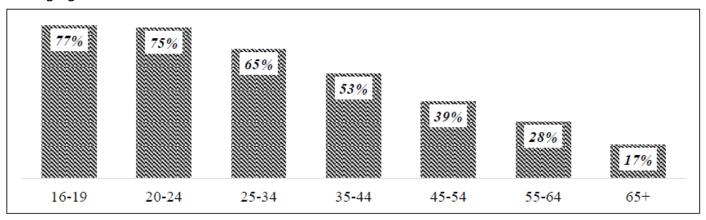
According to a periodic Ipsos Comcon "Russian Target Group Index 2018 for the 3rd quarter" study<sup>4</sup>, 24% of Internet users over the age of 16 are searching for information about health, medicine and medications via the Internet at home, but only 5% of users are interested in medical information on the Internet at work or at the place of study.

Among women over 16, 30% at home and 6% at work or school are looking for information about health on the Internet. And among men over 16, only 9% are interested in medical information on the Internet at home and 3% outside the home.

The age structure of Internet users in Russia over the past year has changed – the 65+ audience has increased by 2.5%, 55–64 by 3.1%, 25–34 by 3.5%. The largest group is 20–24 years old – 23.5%.

On average, patients over 16 spend 2 or 3 hours a day in the Internet on weekdays and weekends. More often between 11 and 12 in the morning, from 2 to 3 in the afternoon and at 11 p.m. at night via Mobile phone, smartphone, Desktop computer or laptop [Ryazhskih, Yampolskaya, Chernikov, 2018].

Every day 48% of Internet users in Russia use the social networks (Chart 3) and 23% use the Internet messaging services (Chart 4).



**Chart 3.** Social media users of Russia distribution inside the age groups<sup>5</sup>

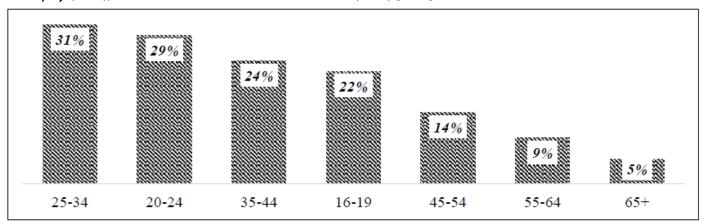
The most frequently these users search in the Internet Instructions for use remedies (33%), Information about illnesses and ways to treat them (28%), Prices and remedy availability in pharmacies (26%) and Get-

- Global digital report 2018 / We are social.
- HealthIndex 3Q 2018 database: end-user Research / Ipsos Comcon
- Internet Live Stats statistics available in a dynamic and time relevant format to a wide audience around the world

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ting information about remedies to treat certain illnesses (17%) [Internet as a source .., 2018].

Main sources of information about health, medicine, remedies on the Internet are Medical books of reference (40%), Forums with feedbacks regarding remedy usage (34%), Web-sites about healthy lifestyle, eutrophy (25%), Sites with comments about doctors (24%) [lbid.].



**Chart 4.** Messaging services users of Russia distribution inside the age groups<sup>1</sup>

The most frequently these users search in the Internet Instructions for use remedies (33%), Information about illnesses and ways to treat them (28%), Prices and remedy availability in pharmacies (26%) and Getting information about remedies to treat certain illnesses (17%) [lbid.].

Main sources of information about health, medicine, remedies on the Internet are Medical books of reference (40%), Forums with feedbacks regarding remedy usage (34%), Web-sites about healthy lifestyle, eutrophy (25%), Sites with comments about doctors (24%) [lbid.].

The Internet also plays a role in the purchase of drugs after the appointment and in the perception of its diagnosis, as shown in the following statements: Firstly I read the comments to prescript remedies in the Internet (19%), Firstly I read about made diagnosis in the Internet (15%) [Ibid.].

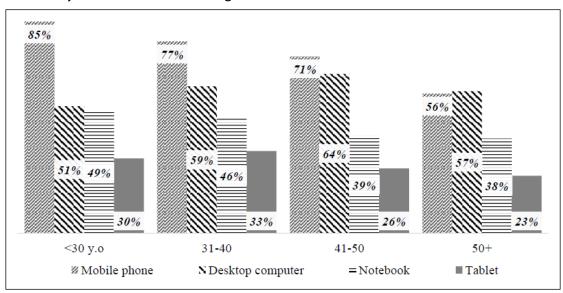


Chart 5. Age distribution of gadgets usage by doctors

As of Spring 2018, 81% of Russian doctors use the Internet for professional purposes, among which 39% use it every day for 1-2 hours according to Medi-Q "Opinion of practicing doctors"<sup>2</sup>. Internet access occurs at 83% at home via a smartphone or a desktop computer.

Among all doctors, the most professional use of the Internet is Ophthalmologists (89%), followed by Pulmonologists (88%) and Endocrinologists (85%). Otorhinolaryngologists are in last place (77%). More

<sup>1</sup> Internet World Stats. World Internet Users and 2018 Population Stats.

<sup>2</sup> Global digital report 2018 / We are social. — URL: https://digitalreport.wearesocial.com/ (15.11.2018)

than half of the doctors consider the Internet to be an important source of professional information, but only 30% treat it with confidence.

Targets of using the Internet by specialists in professional goals are following: reading professional medical information, professional communication and consultation with colleagues, participate in educational programs and webinars, on-line counseling patients. At the moment of Spring 2018, only 8% of doctors advise clients online, and 74% read professional information<sup>3</sup>.

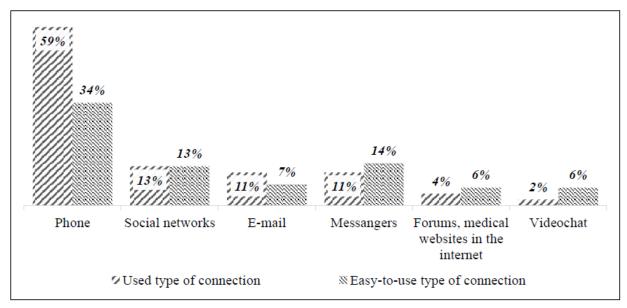
On average, 31% of doctors use professional communication with colleagues on the Internet, but it is common among dermatologists (45%). Participation in Internet conferences and webinars, on average, is used by 41% of doctors, but it is common among allergists (56%) and cardiologists (54%).

Doctors more often searching on the Internet Information about drugs (93%), The scientific articles, results of clinical studies (61%), Web-conferences, webinars (41%) and News of medicine (41%) [Zdravookhraneniye v Rossii, 2017]. Mostly in Russian websites because 49% of doctors do not speak English at a professional level and only 3% regularly English language sites.

Telemedicine is a relatively modern way of organizing a healthcare system. Only 29% of doctors use the Telemedicine for professional purposes: Education (8%), Participation in symposia / conferences (7%), Upgrading of skills (7%), Patient counseling (4%), Consultation of colleagues / participation in councils (3%). On average once per month and rarelier.

Continuing the topic of information technology, it should be noted that 93 out of 100 Russian clinics use an online appointment with doctors; more than 45% of clinics have created private rooms for patients on the site; 37% of clinics have a clinic mobile app<sup>4</sup>.

Also, it's interesting to know the statistics of past and planning teleconversations between doctors and patients. In Russia there is only 2% of population over 16 years had a teleconversation with a doctor for the last year with the following purposes: second opinion – getting other specialist's opinion (44%), prescription of medical therapy (40%)<sup>5</sup>, making a diagnosis (33%), correction of previous recommendations taking into account idiosyncrasy and the therapy effectiveness (31%), get to know if it's necessary to visit a doctor having such a kind of symptoms (27%), getting of recommendations regarding first-aid dressing when the ambulance is in mid-course (15%) – almost 70% out of that 2% are planning to have a teleconversation with doctors in case of problems with health.



**Chart 6.** Used and comfortable type of connection among population over 16 years who have an experience of teleconversation with doctors for the last year

In most cases this communication was via phone (59%), social networks and e-mail (13% and 11%) and

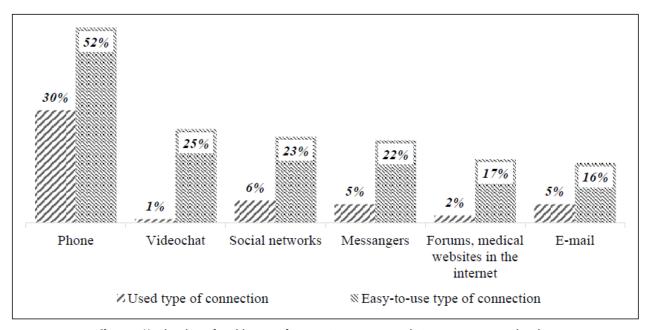
<sup>3</sup> Medi-Q 2Q 2018: opinion of practitioners / Ipsos Comcon.

<sup>4</sup> Study of the commercial medicine market in Russia for 2016 and the first half of 2017 / EY - 46.

<sup>5</sup> Q4 2018 Global Digital Statshot report / We are social

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messengers (11%). A phone is also the comfortable type of connection with specialist in case of planning teleconversation in 34% out of that 2% population<sup>1</sup> (Chart 6 and Chart 7)<sup>2</sup>.



**Chart 6.** Used and comfortable type of connection among population over 16 years who plan to have a teleconversation with doctors in case of problems with health

In most cases this communication was via phone (59%), social networks and e-mail (13% and 11%) and messengers (11%). A phone is also the comfortable type of connection with specialist in case of planning teleconversation in 34% out of that 2% population<sup>3</sup> (Chart 6 and Chart 7)<sup>4</sup>.

From Pharma-Q"Opinion of pharmacists" database, it is known that 93% of pharmacists use the Internet for professional purposes. Basically, Internet access occurs via PC at work (75%) and smartphone (42%), which takes no more than 2 hours for 37% of pharmacists and less than half an hour for 36%<sup>5</sup>.

The main themes of mobile applications that are used by pharmacists for professional purposes are applications for searching for analogues and reference information about medicines. In general, pharmacists are looking for the following information on the Internet more than once a day: The interaction of drugs (57%), Specification of information about new drugs (55%), Search for analogue drugs (27%), Searching for information about new drugs (26%), Treatment regimen preventive health care (19%).

The number of Internet users is growing every second, in parallel in Russia the number of doctors in the healthcare system is decreasing and the annual number of graduates in the medical field is increasing, as is the number of patients with mild and severe diseases [Zdravookhraneniye v Rossii, 2017, p. 108, 116, 29]. For example, annual patient-flow growth is 1% since 2010 and increasing; annual reduction in the number of doctors is 800 doctors<sup>6</sup> to 100 000 of population since 2013 and increasing; annual increasing in number of graduated for the health care is 2% since 2013 and increasing.

Come to the conclusion, three findings can be drawn about three digital target audiences of Russian pharmaceutical market. Firstly, Russia has a big potential of the telemedical area, because now there is 6% of population over 16 years out of 76% of Russian Internet users plan to use telemedical systems to communicate with a doctor and this indicator is growing showing a Global trend of faster growing technologies and Russian trend of Web consumption [Global trends .., 2017, p. 5]. Secondly, more than two third of

<sup>1</sup> HealthIndex 3Q 2018 database: end-user Research / Ipsos Comcon.

<sup>2</sup> Study of the commercial medicine market in Russia for 2016 and the first half of 2017 / EY

<sup>3</sup> HealthIndex 3Q 2018 database: end-user Research / Ipsos Comcon.

<sup>4</sup> Study of the commercial medicine market in Russia for 2016 and the first half of 2017 / EY

<sup>5</sup> Base Pharma-Q 2Q 2018: opinion of pharmacists / pharmacists / lpsos Comcon.

<sup>6</sup> WEB-Index Report 2018/ Mediascope

Russian specialists use the Internet for professional purposes and more than a third out of that use it every day. Thirdly, nearly 100% of pharmacists use the Internet for professional purposes every day.

Based on this article, we can make one main conclusion that the Internet is an important part of the professional life of doctors and pharmacists and the personal lives of patients. Given this trend, it is likely that these groups will become more aware of the Internet's potential in the field of healthcare and increase their involvement in reliable medical online services in order to increase the general health of the population through online disease prevention. Also, the Internet is a way to reduce the burden on doctors through the transfer of repeated visits to the online environment. That is, the Internet provides an opportunity to create telemedicine platforms, connecting both patients and doctors, and pharmacists, meeting the needs of each group in a personal and professional manner.

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# ЦИФРОВИЗАЦИЯ И УПРАВЛЕНИЕ

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# ЦИФРОВАЯ АУДИТОРИЯ ФАРМАЦЕВТИЧЕСКОГО РЫНКА РОССИИ

**Аннотация.** Статья посвящена описанию ключевых характеристик целевой интернет-аудитории фармацевтического рынка России. Автором была собрана и систематизирована статистическая информация по трем ключевым аудиториям фармацевтического рынка с использованием современных метрик описания целевой аудитории в Интернете. Исследование проводилось на трёх взаимосвязанных уровнях, каждый из которых содержит сфокусированные данные по рассматриваемой теме-описание аудитории Интернета в мире, описание аудитории интернета России, описание аудитории интернета фармацевтического рынка России. На основании исследования сделан вывод о важности интернет продвижения для ключевых участников рынка и сделано предположение, что врачи и провизоры постепенно наращивают использование потенциала интернета в области здравоохранения, а также увеличивают свое участие в надежных медицинских онлайнсервисах с целью профилактики заболеваний.

**Ключевые слова:** анализ целевой аудитории; цифровая аудитория; фармацевтический рынок; маркетинг.

JEL: M31, L11

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