GROUP DSM

RUSSIAN PHARMACEUTICAL MARKET 2019

Opening speech

DSM Group has been conducting marketing research and analysing the pharmaceutical industry of Russia and the CIS countries since 1999. The experience and expertise gained by DSM Group specialists have been recognized by the entire industry community. We are glad to present you the results of work of the Russian pharmaceutical market in 2019.

Dear friends!

For the last few years the pharmaceutical market was living waiting for a crisis. A crisis that could have been caused by some public initiatives or general economic factors.

And it all happened at once. Events of 2020 — the coronavirus pandemic, high exchange rate volatility, legislative initiatives, including labelling and online trading of OTC and Rx drugs — transform the infrastructure of our market.

Against a background of these changes the outcomes of 2019 look more positive now. At least we knew in what conditions we would have to work.

Serious challenges and changes await the pharmaceutical market. Let us assess their influence together. Our products will, among other things, enable to actively capture the opportunities of the world changing so quickly. The key point is to stay healthy!

Sergey Shulyak,
DSM Group Founder and CEO. One of the most frequently media-cited experts of the pharmaceutical market of Russia and the CIS countries. A member of the Coordination Council of the Russian Association of Pharmaceutical Marketing.

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Analytical Report
Russian Pharmaceutical Market
Results of 2019

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Summary

We are trying to make an overview of the Russian pharmaceutical market for 2019 in a situation when each day brings us something new. And it is not about planned and scheduled initiatives intended to improve the way processes are run. The situation is changing due to external factors that are getting out of control as well as on account of consumer response that can be hardly expected in an information world. And knowing which trends were observed on the pharmaceutical market last year is no longer sufficient for effective decision-making. Today, more than ever, it is crucial to be able to rapidly assess the impact and effects of what is happening now.

So far (according to the data for March), the coronavirus outbreak has not yet caused any significant increase in sales of drugs in pharmacies. The largest shortage is that of medical face masks and antiseptics. One of the measures for preventing the transmission of the coronavirus is closing the borders - that's what many countries are doing. And this is something that can really affect the availability of both imported and domestic medicines.

Of course, the good news against this background is that manufacturers have stocked up - at the end of the year there was a visible increase in the volumes of imports of both finished pharmaceutical products and pharmaceutical substances. Obviously, businesses did not expect a large-scale pandemic and were only getting ready for the introduction of labelling requirements and stocked up for smooth operations.

The coronavirus has already speeded up the enactment of the law on the remote trade of medicines. Public pharmacy organizations have been advocating interests of the market participants since 2017. The solution that seems to be suggested as a measure for preventing the spread of the infection can drastically reshape the market and change its structure after the 'global' quarantine is over.

> Today, more than ever, it is crucial to be able to rapidly assess the impact and effects of what is happening now

Any innovation talked about on the pharmaceutical market is analyzed, in the first place, in the context of whether it will enhance or affect the drug availability, in particular, in terms of prices. In 2020, the prices are sure to go up. The epidemiologic distress goes side by side with a growing economic crisis. The increase in the USD and EUR rates will make medicines more expensive. The inflation in prices for medicines will not remain within 2-5% but will become double-digit. One should also remember that, according to forecasts, an

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additional growth in prices was expected in July 2020 as one of the effects of the introduction of labelling. As a result, this year the pharmaceutical market is sure to grow in terms of value but the price factor can turn out to be the key one.

In 2019, the volume of the Russian pharmaceutical market went above 1,843 billion roubles, which is 9.5% higher than in 2018. Sales of drugs dropped in volume terms by 2.4% to come to 6.17 billion packages.

For the first time in years the growth was driven by the state segment - extra money for purchases of medicines was injected under national projects. Most of the growth was thanks to the «Fight against Oncology» program, around 70 billion rubles were allocated in 2019.

The commercial segment remains the largest segment of the pharmaceutical market, accounting for 65%. The year-to-year growth rate shrinks even in value terms. For example, five years ago the market grew by 11% whereas in 2019 - only by 3%. This low figure is, in the first place, due to the low-level incidence in the reporting year of influenza and acute respiratory viral infections (ARVI) and, consequently, no growth in the demand for seasonal drugs.

The share of imported medicines continues decreasing. At the end of 2019, imported medicines accounted for 70.0% in money, and for 39.5% in packages. In its turn, the share of localized drugs is increasing. At the end of 2019, sales of foreign companies equaled around 21% in money. All in all, domestic and localized drugs accounted for 51.4%, or 67% in packages.

The top-rated manufacturers remain the foreign ones: Sanofi, Novartis and Bayer. Among the top 20 there are three domestic manufacturers: OTCpharm, Biocad and Pharmstandard.

So far, no external factor is interfering with the consolidation processes on the pharmacy retail market: the share of the top 20 players grew in 2019 to 63%. ASNA, with a 14% share, achieved the best results in the association of pharmacies and pharmacy chains. Among the "traditional" chains, Rigla has the largest share - 6.3%. Erkapharm Group with a 5.1% share remains third. In 2019, marketing associations demonstrated a higher rate of growth than pharmacy chains.

The distributor segment, on the contrary, has seen de-concentration trends over the last five years. In 2019, the top 10 companies held around 71%. The decrease in the share of the major players was mainly on account of a stronger growth of the state segment, where the leaders' presence is insignificant. Wholesalers that are focused on public procurement grew at a more rapid rate.

In 2019, the distributor Protek with a 14.8% share remained on top. The distributor Puls with a 14.3% share came in second. The third in the 2019 top 3 is the distributor Katren with a 13.3% share.

> The distributor segment has seen de-concentration trends over the last five years

1. Volume of the Russian pharmaceutical market

For all participants of the pharmaceutical market 2019 was a year of expectations, expectations for the better and expectations for the worse.

One of the positive initiatives launched in the reporting year is the update of all regulatory and legal acts and laws regulating the market. The 'regulatory guillotine' mechanism implies an extended analysis and revision of effective instruments, cancellation of all obsolete rules, from Soviet-era documents to more recent acts, and exclusion of redundant rules and regulations. To implement this approach, the government approved a roadmap for the revision of regulatory documents, to be completed by 2021. It concerns also the circulation of medicines, with numerous mandatory requirements to the participants of the pharmaceutical market.

One of the main problems with the regulation of the circulation of medicines is the collapse of the regulatory chain and the fact that regulation over part of its elements (for example, manufacturing) is outside the area of responsibility of public health authorities. This leads to a fragmentary regulation of the system and makes the regulatory decision-making less effective.

The 'regulatory guillotine' mechanism is necessary, among other things, for the facilitation of efficient operation of the EAEU common market for medicines since its regulatory model rests on the principle of continuity and coordination of regulatory relations for the benefit of public health care.

In accordance with the Agreement on the Common Rules and Principles for Circulation of Medicines within the EAEU, in 2016 a common market for medicines of the member states was launched and individual stages of the circulation of drugs are governed by the Union's law. In 2019, the Ministry of Health of Russia started accepting applications for registration procedures in accordance with the Union's law. According to the EEC's statistics, by September 2019 the ministry accepted for review about 50 marketing authorization applications from applicants. Similar steps are taken also in other EAEU member states. For example, Kazakhstan accepted for review over 40 marketing authorization applications according to the EAEU rules, and Belarus accepted over 50 applications for pharmaceutical GMP inspections in accordance with the EEC's acts.

Now, though, it is a transition period for the EAEU market authorization. From January 1, 2021, drugs will be allowed to be registered in the EAEU countries only according to the EAEU rules, and with the use of the EAEU GMP certificate issued by a national competent authority. The national rules of registration will cease to be in force. Before January 1, 2025, all

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drugs registered in the territory of the EAEU according to the national requirements must be brought in line with the Union's requirements according to the procedure prescribed by the EEC.

So, the Russian Federation has currently two concurrent systems of the regulation over circulation of medicines: one is based on the national rules while the other works according to the EAEU rules. This creates an additional administrative burden both on business and on regulatory authorities.

In 2020, they will review the results of the development of the pharmaceutical industry according to the Strategy-2020 program. At the same time, in the last two years intensive efforts have been made to elaborate a new program of the Strategy for the Development of the Pharmaceutical Industry until 2030 (Pharma-2030). Pharma-2020 envisages launching the domestic pharmaceutical industry and reducing dependence on imported drugs whereas the new strategy pursues more ambitious tasks.

The strategy implies creating in the industry a high-performing export-oriented sector and increasing exports of Russian pharmaceuticals by 5-6 times and of medical devices - by 8-10 times.

Also, Pharma-2030 suggests:

- implementing advanced technology competencies in manufacturing;
- ensuring appropriate material and technical support and cooperation links between manufacturing facilities, educational and research institutions;
- supplying the industry with raw materials and materials, pharmaceutical substances, high-purity solvents and catalysts required in high-tech industries;
- developing interdisciplinary industry-specific competencies.

The basic concept of the Pharma-2030 strategy envisages effective enhancement of the pharmaceutical industry and launch of Russian medicines on the overseas markets.

There are also several legislative initiatives, which have been under discussion for quite a time already and the implementation of which can have a major impact on the market performance.

First, it is about the legalization of the online trade of medicines. The draft law has been under consideration by the State Duma since 2017 and is expected to be passed each year. According to the latest amendments in respect of over-the-counter drugs, the law on the remote trade is to take effect as of July 1, 2020, and in respect of Rx drugs - as of January 1, 2022. Remote trade of narcotic drugs, psychotropic medications and alcohol-containing pharmaceuticals with over 25% of ethanol will be prohibited.

" The Russian Federation has currently two concurrent systems of the regulation over circulation of medicines: one is based on the national rules while the other works according to the EAEU rules "

According to the draft law on the Internet trade of medicines, only pharmacy institutions holding appropriate retail licenses will be allowed to engage in trade. Distributors and wholesalers that do not have such licenses will be prohibited to sell drugs directly to the public.

The enactment of the law on the Internet trade of medicines will cause new players to emerge on the market and attract marketplaces selling a wide range of articles, such as ozon.ru, wildberries.ru and others. This will increase competition in the pharmacy retail sector. Another stumbling block in the online trade is the process of delivery of drugs, which is required to be in line with the 'good pharmacy practice' standards. The courier delivering a drug is to be able to act as a skilled specialist advising the buyer on how to use the drug. If delivery is made by people without appropriate education, pharmacies will not be on a par with online stores.

The coronavirus infection, which started spreading worldwide and in Russia at the end of January 2020, can speed up the adoption of the online trade law. Legalization of the online trade of medicines can become one of the countermeasures preventing the dissemination of the coronavirus; the Association of Internet Trade Companies (AITC) counts online trade will cover all drug categories, including Rx ones.

Lastly, the top trend of 2019 was the introduction of labelling and the industry's preparedness to start selling labelled drugs from January 1, 2020. The first discussions over the need for introducing labelling of drugs manufactured or sold in the territory of the Russian Federation were heard back in 2015. The pilot project was launched on February 1, 2017 and participants were given time to take the necessary steps for switching to a new system. However, due to a great amount of technical and administrative procedures and formalities at all stages of the product supply chain and numerous modifications required to be made in marketing authorizations, the pharmaceutical market was not prepared to introduce labelling in due time as prescribed by the law.

This is evidenced also by results of the monitoring at the end of 2019:

- 15% of companies were registered in the system;
- the range of registered drugs equals 8% of the total quantity;
- manufacturing capabilities: around 45% (not all manufacturing lines are supplied with appropriate labelling equipment);
- preparedness of pharmacies: 11-40% (depending on the region).

In the end, it was decided to postpone the introduction of drug labelling to July 1, 2020. Of course, after that date unlabelled drugs may be still marketed but only those that were manufactured before the date. That is why Russian manufacturers are ramping up, where possible, production volumes and foreign companies are increasing supplies to Russia.

Obviously, the pharmaceutical market cannot be analyzed without taking into account the external influence. The economic volatility (decrease in GDP growth rates), slowdown in the rates of growth of consumer purchasing power due to stagnation of the real disposable money income, decrease in population and workforce - these are the factors affecting

> In terms of packages, consumption of drugs again went negative, after five years of positive dynamics

the consumption of drugs, especially, purchases at one's own expense.

Yet, on the whole, the macroeconomic factors did not have any major impact on the overall performance for 2019. In figures, the pharmaceutical market looks more positive than a year before. The market volume came to 1,843 billion roubles, which is 9.5% higher than in 2018. The market growth rates are significantly higher compared to 2017. It is true though that for the first time in years the growth was driven by the state segment - extra money for purchases of medicines was injected under national projects.

In dollars and euros, the pharmaceutical market also grew in 2019 despite the negative foreign exchange rates because of the devaluation of the rouble. In 2019, dollar cost 5% more than a year before. However, as the market growth in roubles was almost two-fold higher, in this currency the market grew by 3%. In euros, the situation is even more illustrative: the currency fell by 1% but consumption grew by 10%.

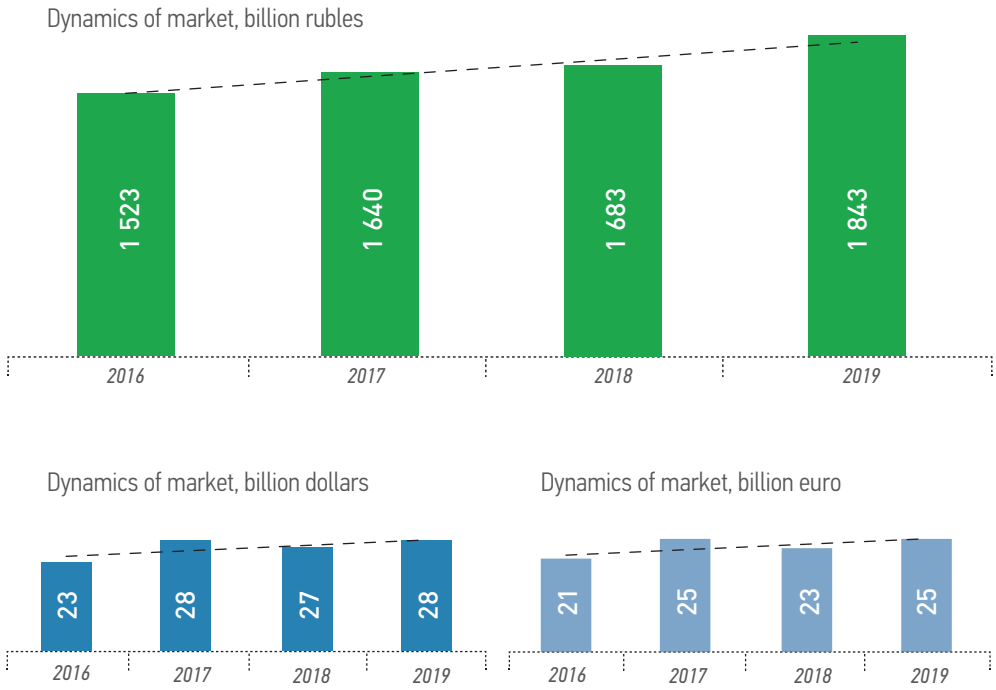
In terms of packages, consumption of drugs again went negative, after five years of positive dynamics. The reduction was observed not only in the commercial sector but also in hospital purchases, despite a perceptible inflow in money. In 2019, sales of drugs in volume terms dropped by 2.4% to come to 6.17 billion packages.

Figure 2 shows the dynamics of the volume of the Russian pharmaceutical market in 2018-2019, by segment.

The state sector - the publicly-funded market sector: hospital purchases, pharmaceutical benefits (including High-Cost ICD and Essential Drug Coverage programs) and regional benefits — accounts for about 35.4% of the drug market volume. In 2018,

Figure 1

Pharmaceutical market dynamics



public expenditure in the drug consumption was 31%, with a 4% increase in the figure. Last time the indicator was as high as that was in 2011.

The strongest growth is still observed in the procurement of drugs with regional benefits - to 123 billion roubles (+39%). This dynamics is, among other things, due to an increased burden on the regions in terms of supply of orphan drugs to benefit-entitled categories of the population. Expenditures on the federal benefits were 18% higher than in 2018 (127 billion roubles): the state allocated extra funds for the extension of the High-Cost ICD program. Funds allocated for drugs for the needs of healthcare institutions (HCI) amounted to 309.8 billion roubles, which is 21% higher than in the previous year. Most of the growth was thanks to the «Fight against Oncology» program, around 70 billion roubles were allocated in 2019.

The commercial segment of drugs is the main segment of the pharmaceutical market, with a significant market share and positive dynamics over years. The year-to-year growth rates are falling though. For example, five years ago the market grew by 11% whereas in 2019 - only by 3%. This low figure is, in the first place, due to the low-level incidence in the reporting year of influenza and acute respiratory viral infections (ARVI) and, consequently, no growth in the demand for seasonal drugs. For the second year in a row no flu season is observed, thanks, among other things, to an extensive vaccination of the population. The trend towards diversification of buyers by income continued in 2019: sales of expensive drugs (over 500 roubles) and cheap drugs (up to 50 roubles) were increasing in real terms, despite a high inflation rate in this price segment.

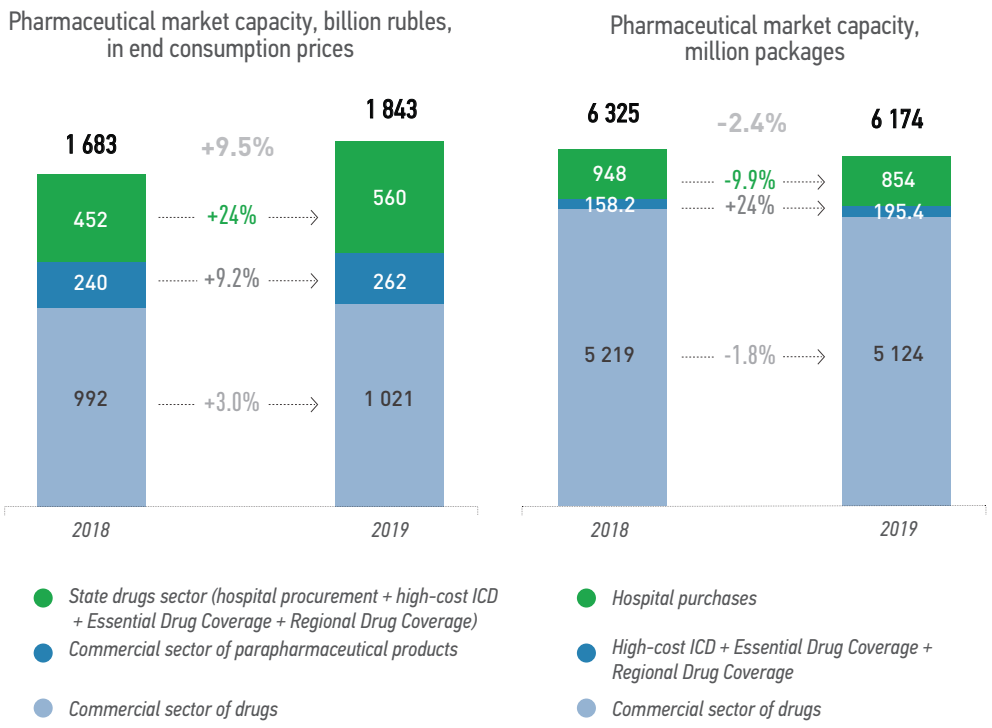


Figure 2

Pharmaceutical market capacity

> Five years ago the market grew by 11% whereas in 2019 – only by 3%

In 2019, 5,124 million packages of drugs worth 1,021 billion roubles (in retail prices) were sold through pharmacy chains. So, consumer spending in the consumption of drugs went beyond 1 trillion roubles.

In 2019, once again pharmacy sales of parapharmaceuticals grew faster than those of drugs. The segment augmented by 9.2% to come to 262 billion roubles. Among the growth drivers were dietary supplements, diagnostic units and devices, and patient care products. A drop in volumes was observed for certain product groups, for example, dressings and sanitary protection/care products.

Market in figures

At the end of 2019, imported drugs in the overall market accounted for 70% in roubles, and for 39.5% in packages. In volume terms, the market growth was negative both for domestic drugs (-2%) and foreign-made ones (-3%). In rouble terms, domestic drugs grew by 11%, and imported ones - by 9%.

> In 2019, once again pharmacy sales of parapharmaceuticals grew faster than those of drugs

The structure of the drug market by the dispensing type noticeably grew for Rx drugs (+3% of the share at the end of the year). Rx drugs account for around 67% in monetary terms. Owing to lower prices, however, OTC drugs prevail in packages and account for 55.6%.

Let us note that most of OTC drugs are sold in pharmacies (about 97% in roubles of the OTC volume). Rx drugs are sold mainly in the state segment: over 90% of the consumption volumes in bid purchasing.

Vital and Essential Drugs (VED) are a list of drugs, approved by the Government of the Russian Federation for the state regulation of drug prices. VEDs account for around 50%, both in volume and value terms, of the total volume of the drug market.

In 2019, the share of original drugs was 40.2% in value terms, and 14.5% in volume terms. Compared to 2018, their share had increased, especially, as can be observed, in value terms (+1%). The growth was thanks to the increased funding in the state segment for purchases of expensive drugs. In pharmacy sales, on the contrary, we observe a continuing shift to generic drugs (+1.1% of the share).

The ATC rating is headed by [A] Alimentary Tract and Metabolism, accounting for 15.5%. The main channel, through which drugs of this category are sold, is the pharmacy segment: 76% in roubles are from purchases of drugs at the expense of the population.

ATC codes that come second and third by volume are mainly publicly-funded.

Code [L] Antineoplastic and Immunomodulating Agents includes expensive drugs. Thanks to the increased

funding in the public sector, the volume of consumption of drugs of this category significantly increased: +49%. This moved ATC [L] to the second position and, in value terms, it neared the leader. The main channel, through which dispensing of antineoplastic drugs is funded, are pharmaceutical benefit programs (federal and regional benefits) - 45%, and hospital purchases - 44%. At their own expense, consumers buy only cheaper immunomodulators.

Code [J] Antiinfectives for Systemic Use: these drugs are bought for hospital needs (53%) and are dispensed in pharmacies by preferential prescriptions (10.5%).

> The structure of the drug market by the dispensing type noticeably grew for Rx drugs (+3% of the share at the end of the year)

Figure 3

Market structure, various sections, 2019

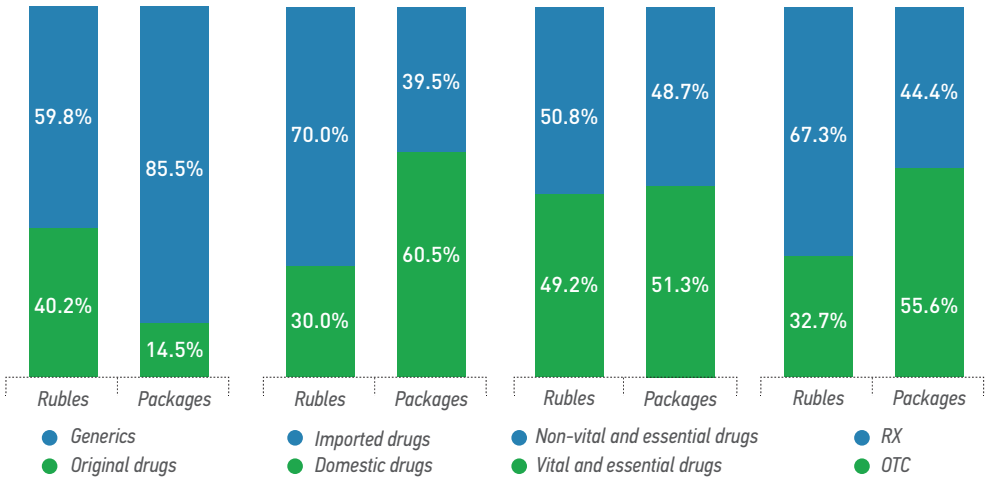


Table 1

Structure of sales of drugs by ATC codes, 2019

ATC codes 1st level	Share in value terms, %	Share in volume terms, %
A: Alimentary tract and metabolism	15.5%	15.6%
L: Antineoplastic and immunomodulating agents	15.1%	1.3%
J: Antiinfectives for systemic use	12.5%	9.4%
C: Cardiovascular system	10.2%	12.3%
N: Nervous system	9.1%	14.8%
R: Respiratory system	8.9%	13.1%
B: Blood and blood forming organs	7.4%	7.6%
M: Musculoskeletal system	5.9%	6.7%
G: Genitourinary system and sex hormones	5.3%	1.8%
D: Dermatologicals	4.1%	10.8%
S: Sensory organs	2.2%	2.3%
V: Various	1.6%	0.9%
Non-ATC	1.2%	2.3%
H: Systemic hormonal preparations, excluding sex hormones	0.9%	0.8%
P: Antiparasitic products, insecticides and repellents	0.2%	0.4%

2. Commercial drugs segment

For the first time since 2016, the retail pharmaceutical market saw a decrease in the consumption of drugs in packages. The market could not go back to positive dynamics due to the low incidence of ARVI and influenza, which once again evidences that the drug market much depends on sales of seasonal drugs.

In 2019, the ARVI outbreak threshold was exceeded only at the end of January - beginning of February (according to statistics of the Smorodintsev Research Institute of Influenza). Another factor contributing to the drop in sales of this group of drugs is an extensive vaccination of the population. In the recent years, the vaccination campaign has noticeably increased its coverage. In 2015, only 31.4% of the population were vaccinated, whereas in 2019 the figure grew to 50.5% (over 73.95 million people). Mainly triple vaccines were administered. So, half the population of Russia participates in this program. And what is the result of this?

Pharmacies depend on sales of anti-influenza and anti-ARVI drugs. Traditionally, these drugs account for about 20% of the pharmacy turnovers. In 2019, only 16% of cash revenues came from sales of seasonal medicines. In consequence, this group of drugs did not contribute to any additional growth of the commercial sector of the market; moreover, it affected the market growth (this negative trend is observed for the first time over years). If drugs for the treatment of ARVI and influenza were excluded, the market would have grown by 3.6% in money and the dynamics would have totalled 3.0%.

The panic caused by the coronavirus outbreak at the beginning of 2020 can drive certain consumer categories to buy more drugs, but any global effects on the results of sales for the year can be expected only if the disease widely spreads in Russia.

Among the leaders in terms of increase in consumption are drugs used in the treatment of cardiovascular diseases: in 2019 they demonstrated maximum dynamics. Cardiovascular diseases (CVD) are the leading cause of death in Russia (49.3%); by this indicator, Russia has come up to the European countries. According to Rosstat (the Federal State Statistics Service), in 42 regions of Russia the rate of mortality from CVD significantly grew over the first eight months of 2019 compared to the similar period in 2018. In Russia, about 587 people per 100 thousand population die for this cause. For this reason, one of the tasks set by the President of Russia under the national projects is to reduce this figure to 450 by 2024. It should be noted though that in 2019 there was a decrease in the volume of cardiovascular drugs purchased through public funding (by 3.4% in roubles, and by 9% in packages). Besides, on the whole this group of drugs accounts only for 2% of funding. That is probably why

”Pharmacies depend on sales of anti-influenza and anti-ARVI drugs. Traditionally, these drugs account for about 20% of the pharmacy turnovers.“

pharmacy sales of these drugs are growing.

In 2020, the market will see global changes: introduction of the labelling system, abolishment of the Single Tax on Imputed Earnings, re-registration of VED sale prices, and legalization of the online trade of drugs. 2019 was the year of active discussions by the market players of all of these initiatives and their future effect on each link of the supply chain. Most expect that the initiatives will increase prices for drugs. Inflation for this category has been insignificant since 2014 when the price index was above 12% due to an increase in the USD/EUR to RUB rate.

One of the expected effects of a new system of registration of VED prices can be reduction of the product mix offered by pharmacies. According to new rules, the manufacturer of the original drug is required to re-register the price in view of the price for a similar position in reference countries (the price registered may not be higher than in reference countries). Prices for generics will be calculated on the basis of prices for original drugs and will be reduced by applying a certain coefficient. Perhaps, this problem is more relevant for categories represented by few drugs. There will be no globally noticeable effects for drugs that have numerous equivalents on the market. But exit of niche drugs from the market will affect the consumer.

> In 2020, the market will see global changes: introduction of the labelling system, abolishment of the Single Tax on Imputed Earnings, re-registration of VED sale prices, and legalization of the online trade of drugs

Of course, varieties of pharmacy products are rotated annually. In 2019, 2,066 INNs were sold in pharmacies, with 75 new INNs and 74 INNs that left the market. Which means that the figure did not change since 2018. As far as branded drugs are concerned, 411 new drugs appeared and 331 exited the market. It should be noted that in turnovers of pharmacies those drugs that left the market accounted, all in all, for only 0.03% of the pharmacy retail market in 2018. So, such rotation is associated most often with low demand for and reduced consumption of certain drugs.

In 2019, pharmacies sold in total 5.13 billion drug packages worth 1,021.2 billion roubles (in retail prices). The market growth in roubles was 3%, with negative dynamics in packages (-2%).

Positive dynamics in volume terms were observed only during 3 months over the whole year, against the similar period of 2018. In January, such trends are due to the high rates of seasonal incidence. Thanks to cold July of 2019, pharmacies went positive in sales of drugs in packages. In September, rains and expectations of colds and flu increased the demand once again for seasonal drugs by 5.7% in rouble and by 4.7% in volume terms. During the rest of the year the market was shrinking in packages and, for this reason, fell from time to time also in money. The largest drop in sales was at the beginning of the spring - in March pharmacy sales fell by 4.9% in value terms and by 10.3% in volume. In the fourth quarter, the drug market was steadily growing in roubles (approximately by 6% in the rouble equivalent), though sales of packages kept falling.

The structure of consumption of drugs detectably depends on macroeconomic factors, in particular, stagnation of household incomes (0.8% according to the estimates of the Ministry of Economic Development of Russia), a shift in the household spending towards statutory charges and savings, the overall rate of inflation (+3.0%), which is higher than the drug price index.

As a result, 2019 saw a variety of trends in terms of sales by price segments: low-cost drugs were falling both in share and in volume, the market grew mainly on account of expensive drugs. So, the differentiation of the population by incomes translated into the pharmacy segment, too. More conscious spending is reflected in the dynamics and structure of Rx and OTC drugs. Consumption of OTC drugs is reducing. There are several reasons for that: stocking up on drugs becomes less popular, the demand for drugs for self-medication, which often include seasonal drugs, is decreasing, also due to variations in the incidence rates.

> At the end of 2019, out-of-pocket per capita consumption of drugs was worth 6.97 thousand roubles, which is 3.2% higher than in 2018. On average, every Russian annually buys 35 drug packages in pharmacies

At the end of 2019, out-of-pocket per capita consumption of drugs was worth 6.97 thousand roubles, which is 3.2% higher than in 2018. On average, every Russian annually buys 35 drug packages in pharmacies. Part of the money paid can be refunded to the consumer through tax deductions. From 2019, incomes taxable at the 13% personal income tax can be reduced by the sums spent on any drugs

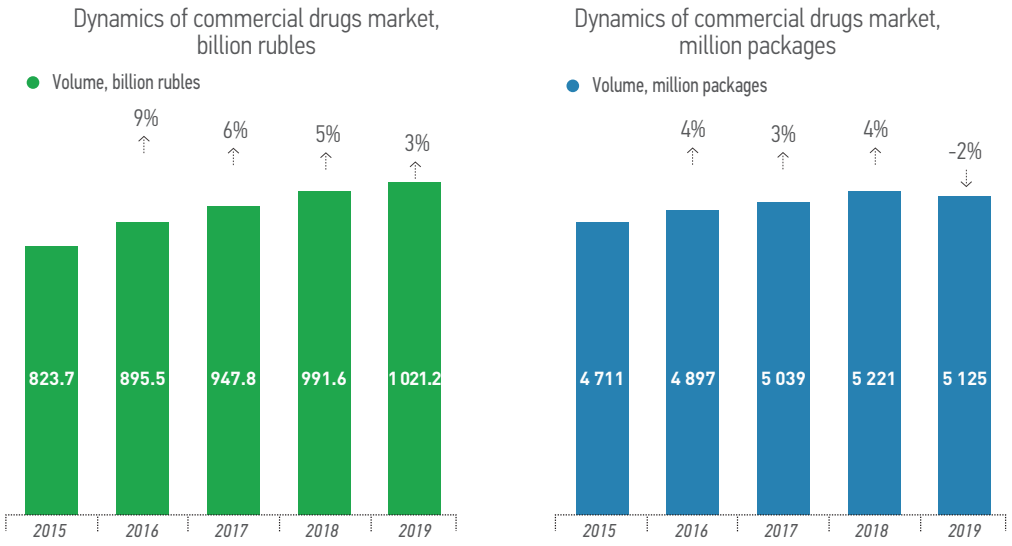


Figure 4

Dynamics of retail sales of drugs, 2015-2019

prescribed by the doctor. Earlier, costs on buying drugs could be deducted only if the drug or active substance was on the list from the Government's Order No. 201. Tax deductions for purchases of drugs are made if there is a prescription form and proof of payment. With proof of expenses on drugs, 13% of the sum paid can be refunded (maximum RUB 15,600).

Imported/domestic drugs sales ratio

The structure of the commercial drug market by volumes of sales of domestic and imported drugs is shown in Figure 6.

At the end of 2019, the share of Russian drugs grew by 1.2% to 28.5% in roubles, and by 0.4% to 57.8% in packages. In absolute values, sales of domestic drugs in money grew by 7.5% whereas sales of imported drugs increased only by 1.3%.

This is owing to the increase in sales of Russian brands such as Atorvastatin (+85.4% in value terms and +35.9% in volume terms), Bisoprolol (+66.7% in roubles and +32.9% in packages), and others.

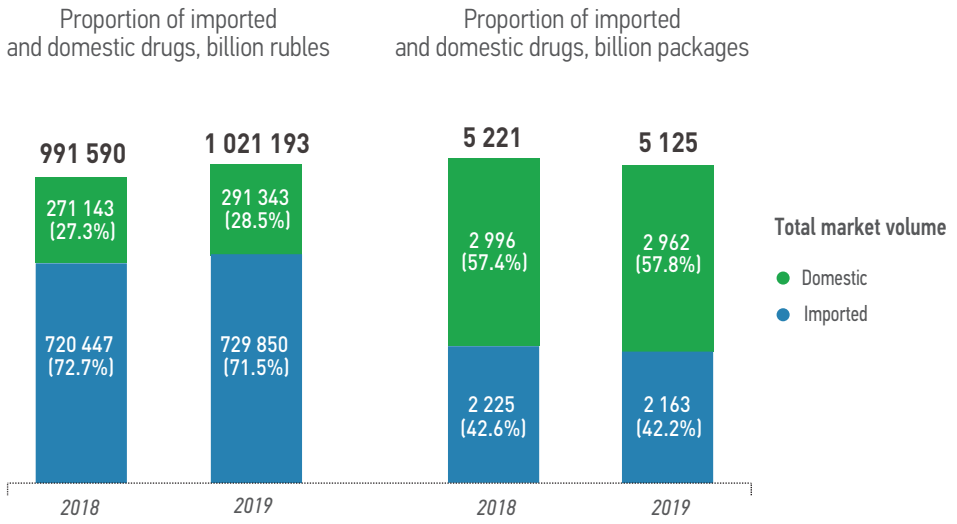
Though, on average, Russian and foreign manufacturers present on the market are more or less the same in number (around 520 and 570 companies, respectively), pharmacies have more imported brands (around 3,378, or 9,060 SKU). The same figure for Russian drugs is 41% lower - 2,394 brands (7,975 SKU). This shows that foreign companies sell more 'unique' positions - original drugs and branded generics. Large amounts of Russian drugs are unbranded generics manufactured by several companies at a time.

In 2019, the average price per unit of a Russian drug in retail prices was 98 roubles, which is approximately 3.4 times lower than the price per unit of an imported drug (337 roubles). At the same time, the weighted average price of a Russian drug grew by 8.7%, that of an imported drug - by 4.2%.

The growing share of Russian drugs is an already established trend on the drug market. Since 2012, this figure has grown from 23.8% to 28.5%. In packages,

Figure 5

Imported/domestic drugs sales ratio, Russian retail market, 2018-2019



dynamics is more moderate: over 7 years the share has grown only by 2.4%.

Though localization is more characteristic of drugs sold through public procurement, pharmacy sales of drugs manufactured in Russia are also observed to be consistently growing.

Localized drugs account for 13.0% of the pharmacy turnovers in value terms and for 6.3% in packages. Consumers buy 42% of drugs manufactured in Russia; in packages, the volume of such drugs goes up to 64%.

> The growing share of Russian drugs is an already established trend on the drug market

Rx/OTC drug sales ratio

The ratio of pharmacy sales of Rx and over-the-counter drugs is shown in Figure 7.

In 2019, over-the-counter drugs accounted for 48.6% of the market in value terms and for 65.0% in volume terms. Owing to more prominent dynamics, Rx drugs (+5.8% against +0.1% for OTC drugs) increased their market share and prevailed in the rouble equivalent. As a result, the share of Rx drugs grew from 50.0% to 51.4%. The share grows despite changes in the rules for receiving prescriptions.

In 2019, new rules were introduced for the issue, registration and keeping of prescription forms. Now electronic prescriptions can be made out only according to the uniform requirements of the Ministry of Health. Electronic prescriptions may be issued only by medical institutions put on the federal register of

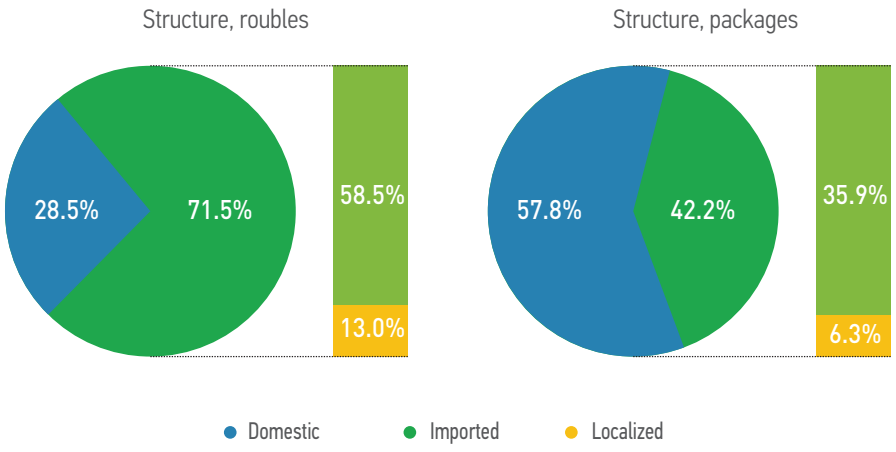


Figure 6

Commercial segment structure, by origin, including localization

medical institutions of the Uniform State Health Information System and connected to the regional health information system. Prescriptions are required to be affixed with a medical officer's qualified electronic signature, prescriptions for narcotic and psychotropic drugs require also the medical institution's qualified electronic signature. Prescriptions on paper may be received not only by patients or legal representatives but also under power of attorney.

In packages, the structure of the drug market also shifted towards Rx drugs, with a 2.0% increase in their sales. The OTC drug market shrank by 3.8%. There is no doubt that a major factor accounting for the situation on the market is that there was no surge of cold-related diseases.

The average price per unit of an Rx drug was 293 roubles, an OTC drug cost on average in pharmacy retail prices 149 roubles. Prices for both categories rose compared to the similar period of the last year, by 3.8% and 4.1%, respectively.

Original/generic drug sales ratio

The market conditions existing in 2019 promoted the basic trends of the previous years. The share of generics in the total market volume keeps growing: from 2014 the share of bioequivalents increased by 6.7% in roubles and by 2.4% in packages.

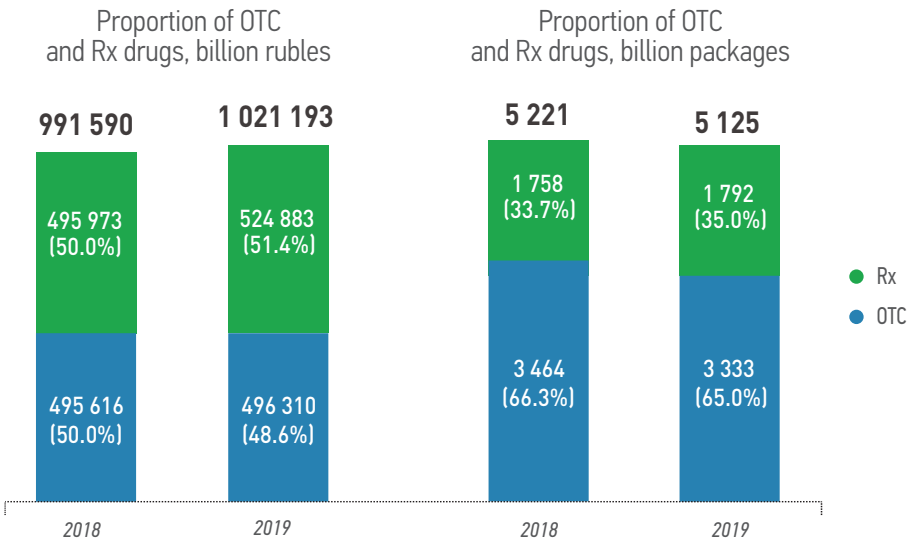
In roubles, sales of generics grew by 4.9% to get a 62.5% market share in 2019, having increased it by 1.1%. Sales of generics in packages dropped by 1.5% but their share grew from 83.6% to 83.9%. The average price of an original drug was 463 roubles/package (+3.7% against 2018); on average, generics were sold at 148 roubles (+6.5%).

Structure of sales of drugs on the retail market by ATC codes

The ratio of Russia's pharmacy sales of drugs by ATC codes, 1st level, is shown in Table 2.

Figure 7

OTC/Rx drug sales ratio, Russian retail market, 2018-2019



Note. Shares of Rx and OTC drugs have been calculated on the basis of the official classification according to the List of Over-the-Counter Drugs, without taking into account that Rx drugs are often dispensed in pharmacies on an unrestricted basis.

[A] Alimentary Tract and Metabolism, with a 18.3% share, topped the ATC rating much ahead of the other codes. Compared to 2018, this group demonstrates an insignificant growth of sales in monetary terms - by 0.4%. Here, ATC leaders were eubiotic Linex (2.3%) and hepatoprotective agent Essentiale (2.2.%). Enzyme preparation Creon (2.1%) went up to rank 3rd, with a significant increase in sales volumes by 15.7%. The maximum fall was observed also with one of the best sellers -- Essentiale brand (-13.1%).

About 15.7% of the value volumes of sales in ATC [A] fall within [A07] Antidiarrheals. The leader by sales volume in [A07] was Linex, with a 14.6% share in roubles. Enterosgel and Enterofuryl are 2nd and 3rd in the value rating, with 10.5% and 7.4%, respectively. The leader by the number of sold packages is the low-cost and generally home-made Activated Carbon (almost 38.5% of sales in [A07]).

The lowest dynamics in its ATC segment was observed in 2019 in [A11] Vitamins - sales volumes dropped by 8.0% in roubles and by 4.7% in packages. One of the reasons for that is that consumers started buying more drugs registered as dietary supplements.

Second-best by value volumes is ATC [C] Cardiovascular System (14.8%). The leading brands in [C] are Detralex (4.6%), Concor (4.0%) and Lorista (3.2%). The drugs that contributed most to the 8.1% increase in sales in this category were antihypertensive agent Valsacor (+92.6%) and lipid-lowering drug Atorvastatin (+62.2%). The biggest fall was with vasoprotective Troxevasin and Prestarium A acting on the renin–angiotensin system: their sales dropped by 6.1% and 3.5%, respectively.

The structure of the commercial market by ATC codes remains rather stable from year to year. Increase in the volume and average per unit prices in ATC codes is shown in Figure 9.

At the end of 2019, 13 ATC codes demonstrated positive dynamics in the value of sales. The highest growth rates were observed for [V] and [C] drugs.

Sales of drugs in [V] Various increased by 8.7%. This increase is owing, to a larger extent, to the growth in sales of one of the most demanded brands of the category (an increase of over 20%): allergen Staloral (+60.5%), enzyme medication Longidaza (+35.0%), and Ketosteril for renal failure (+24.4%).

Figure 8

Original/generic drug sales ratio, Russian retail market, 2018-2019

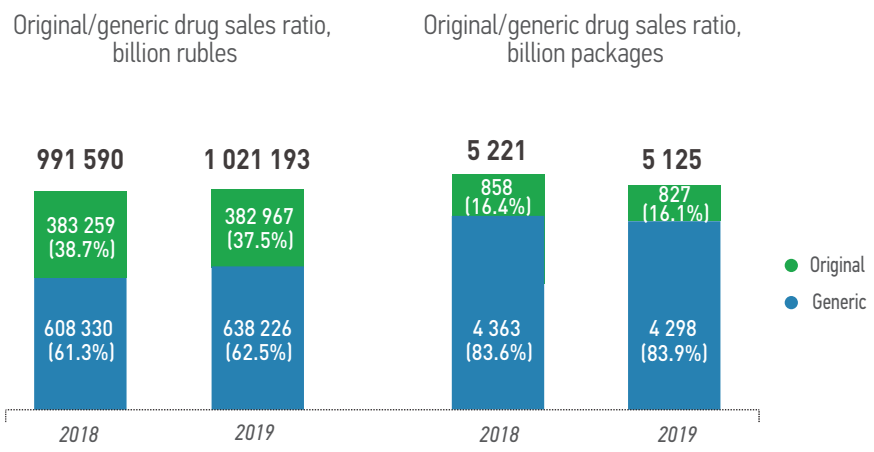


Table 2

Drug sales structure, Russian retail market, by ATC, 2019

Note. Non-ATC drugs without ATC codes (homeopathic medicines, vegetable drugs, animal-extracted products, substances, etc.)

ATC codes 1st level	Value, billion roubles	Increase in value, %	Volume, million packages	Increase in volume, %
Alimentary tract and metabolism [A]	187.4	0.4%	844.3	-3.0%
Cardiovascular system [C]	151.0	8.1%	679.9	2.4%
Respiratory system [R]	126.9	2.3%	777.9	-2.7%
Nervous system [N]	117.1	4.1%	807.4	-2.6%
Musculoskeletal system [M]	86.0	5.4%	388.8	-0.7%
Genitourinary system and sex hormones [G]	81.0	1.1%	109.3	-2.1%
Antiinfectives for systemic use [J]	72.3	-1.4%	330.1	-5.3%
Dermatologicals [D]	62.3	1.0%	605.9	0.7%
Blood and blood forming organs [B]	51.0	6.6%	158.6	-6.5%
Sensory organs [S]	30.0	6.9%	134.6	-0.9%
Antineoplastic and immunomodulating agents [L]	25.9	-4.2%	54.8	-10.5%
Non-ATC	13.8	0.7%	137.5	-4.1%
Various [V]	8.1	8.7%	40.8	3.2%
Systemic hormonal preparations, excluding sex hormones [H]	6.0	6.8%	32.2	-0.9%
Antiparasitic products, insecticides and repellents [P]	2.4	0.9%	23.3	-0.4%

Sales of drugs in [C] Cardiovascular System increased by 8.1%. 6 drugs put of the top 10 in this sub-group demonstrate growth: the leaders are Valsacor (+92.6%) and Atorvastatin (+62.2%). Sales of the best seller, venotonic Detralex, also grew by 2%.

Most of the value in [C] falls within [C09] Agents Acting on the Renin-Angiotensin System (33.5% of the sales volume in [C]). The leader in the sub-group is Lorista accounting for around 9.6% of the value of sales in [C09] in 2019.

In volume terms, the highest reduction in consumption was observed in [L] Antineoplastic and Immunomodulating Agents (-10.5%) and [B] Blood and Blood Forming Organs (-6.5%). Pharmacy sales in packages increased only in three categories: Various (+3.2%), Cardiovascular System (+2.4%) and Dermatologicals (+0.7%).

The highest weighted average per unit price at the end of 2019 was 741 roubles for drugs in [G] Genitourinary System and Sex Hormones. The price is so high because the price per unit for certain drugs of this category is 10,000 roubles and more. A high weighted average price is observed also in [L] Antineoplastic and Immunomodulating Agents - around 473 roubles, and in [B] Blood and Blood Forming Organs - around 322 roubles.

How much various ATC categories contributed to the overall commercial market growth has been measured on the basis of the weighted average increase: the value showing the share of the ATC category multiplied by its growth rate (Figure 9).

In 2019, the largest contribution to the growth of the commercial drug market in roubles was from [C] Cardiovascular System, [N] Nervous System and [M] Musculoskeletal System, which totalled 2.1% or about 69% of the market growth on the whole.

Drug manufacturers on the retail market

Table 3 shows the top 20 manufacturers leading by the sales volumes on the Russian commercial market in 2019.

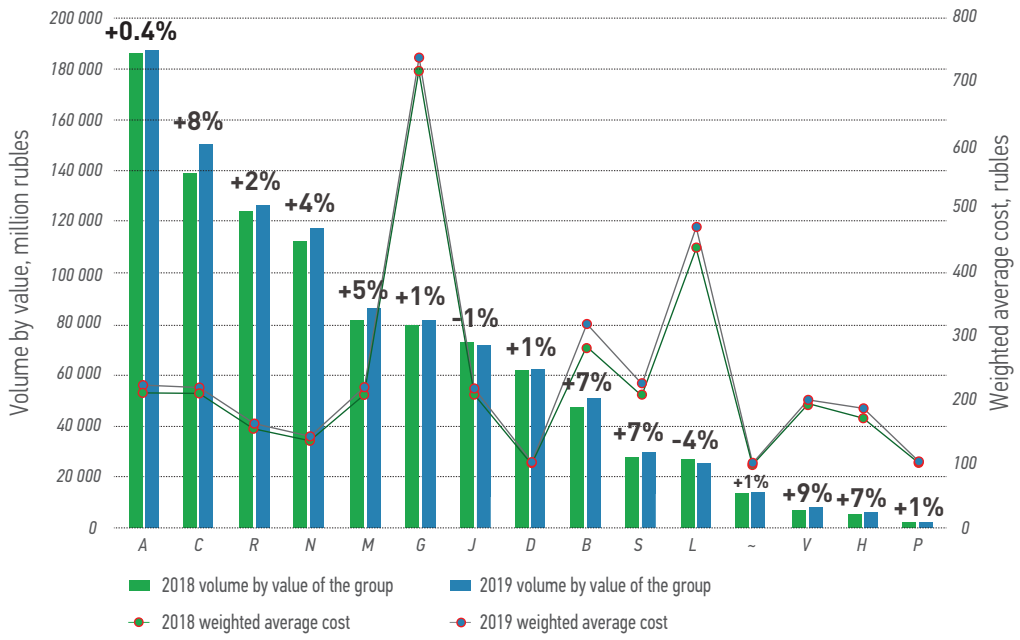


Figure 9

Structure of the retail drug market, 2018-2019

In 2019, there were about 1,090 players on the Russian pharmaceutical market. Cumulatively, the top 20 companies cover 52.5% of the value of drug sales. Compared to 2018, the total share of the top 20 fell by 1.3%. Changes during the year in the rating of manufacturers are less noticeable than in the top 20 brands.

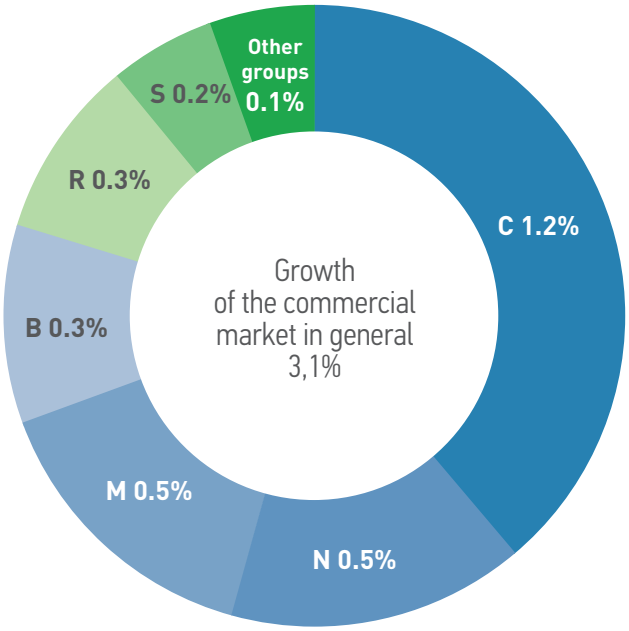
Classically, the year-end market leader in the pharmacy segment is Bayer (4.4% in roubles), its volumes of sales in the pharmacy segment decreased by 0.5%. Bayer's portfolio is quite large (71 brands sold through pharmacies). The company's maximum sales are from direct-acting anticoagulant Xarelto - at the end of 2019 it accounted for 19.9% of the company's sales in the rouble equivalent, demonstrating a 23.7% increase in the yearly sales, which was the largest sales increase among the company's key drugs. The second best by the growth of sales volumes (from the top 10 in Bayer's portfolio) is combined contraceptive Qlaira: +13.3% to the volume of sales in 2018. In volume terms, the leaders by sales volumes are famous brands such as Relief, Rennie and Bepanthen. These three brands account for 31.0% of sold packages, which is nearly twice as much as the total share of these drugs in value terms in the company's sales.

Sanofi ranks second, having lost to the leader only 0.6% in the share in roubles. In 2019, the company's sales dropped by 7.6% compared to the previous year. At the end of 2019, the leading antihypertensive drug Lozap holds 12.3% of Sanofi's total sales, hepatoprotective agent Essentiale and Magne B6 ranks second and third, with 10.8% and 6.7%.

The third best is Novartis Corporation with a 3.6% share. At the end of 2019, the company's growth rates were positive (+2.2%). Several key drugs of the company saw a noticeable increase in sales: Broncho-Munal (+18.2% to the rate of sales in 2018), Baneocin (+13.3%) and Ferrum (+13.1%). At the same time, there was a 'falling' group of drugs in Novartis portfolio: Galvus Met (-5.8% against sales in 2018), Ketonal (-2.3%), Linex (-1.1%), and others.

Figure 10

Weighted increase in retail market drugs, by ATC codes, 2019



11 companies out of the top 20 demonstrated positive dynamics. Slovenian KRKA saw the highest growth (+15.5%): the increased demand for antihypertensive drugs Valsacor (+92.6%) and Vamloset (+43.6%) moved the company up to the 7th position in the manufacturer rating (+4 positions). The other changes in the rating were within ±2 positions. Another significant increase in the sales volumes was demonstrated by GlaxoSmithKline (+7.7%), owing to a 23.6% increase in sales of NSAID Voltaren and a 14.9% increase in sales of decongestant Otrivin.

Let us note that half of the top 20 retained their positions in 2019. Most manufacturers recorded sales growth.

Nine companies out of the top 20 had negative dynamics. The largest drop in sales was observed with the Russian manufacturer Valenta Pharm (-8.6%): the negative dynamics was on account of antiviral Ingavirin (-14.6%) and nootropic Pantocalcin (-13.4%).

Most of the ranked manufacturers are foreign companies: in 2019, only three Russian companies can be found in the rating - OTCpharm ranking 5th (a 3.4% share in roubles), Pharmstandard ranking 15th (2.0%) and Valenta Pharm ranking 20th (1.4%).

In packages, as before among the leaders are Russian and foreign companies with a large proportion of generics in their product mix. The maximum share is held by Pharmstandard (7.1%). Ozon holds around 3.9% in packages of pharmacy sales. The third in the top three is OTCpharm (3.7%). The top 20 manufacturers in the volume rating hold more than fifty percent of the pharmacy retail market (50.8%), which is comparable to the concentration in value terms (52.5% held by the top 20 corporations).

Drugs on the retail commercial market

Table 5 shows the top 20 brands leading by the sales volumes on the Russian commercial market in 2019.

In 2019, over 5,300 drug brands were sold through the commercial segment. Top 20 drug brands accounted for 11.1% of the market in roubles. There is a number of significant changes in the rating of the brands leading by value on the retail market. Anticoagulant Xarelto demonstrated a high growth rate (23.7%) and pushed painkiller Nurofen off the first position. Only one drug managed to retain its position of the previous year - venotonic Detralex (ranks 3rd).

The maximum drop in sales was observed in antiviral Ingavirin (-14.6%), which by the end of 2019 went down to rank 12th (-5 positions).

Among noticeable positive dynamics is the advancement of Pfizer's direct-acting anticoagulant Eliquis that gained 42 positions (+64.4%). Among those no longer found in the rating are Dr. Reddy's anti-inflammatory Nise (ranking 21st) and Bayer's combined contraceptive Yaz (ranking 25th).

By packages, the leaders are the same: traditionally cheap Bactericidal Patch (2.2% in packages), Citramon (1.9%) and Acetylsalicylic Acid (1.6%). Most of the drugs (12 brands) out of the top 20 by volume demonstrated negative dynamics. The biggest drop was observed for

Table 3

Top 20 drug manufacturers by value, 2019

Rating 2019	Change against 2018	Manufacturer	Sales volume, billion roubles	Growth, % 2019/2018	Share, % 2019
1	-	Bayer	**44.8**	**-0.5%**	**4.4%**
2	-	Sanofi	**38.9**	**-7.6%**	**3.8%**
3	+1	Novartis	**37.2**	**2.2%**	**3.6%**
4	-1	Teva	**35.2**	**-5.0%**	**3.4%**
5	-	OTCpharm	**34.6**	**0.6%**	**3.4%**
6	-	Servier	**33.4**	**-2.5%**	**3.3%**
7	+4	KRKA	**29.1**	**15.5%**	**2.8%**
8	-	GlaxoSmithKline	**28.8**	**7.7%**	**2.8%**
9	-2	Berlin-Chemie	**27.5**	**2.0%**	**2.7%**
10	-1	Gedeon Richter	**26.2**	**-1.8%**	**2.6%**
11	-1	Stada	**25.2**	**-1.3%**	**2.5%**
12	-	Abbott	**24.2**	**3.3%**	**2.4%**
13	-	Takeda	**23.9**	**2.1%**	**2.3%**
14	-	Johnson & Johnson	**21.4**	**-2.7%**	**2.1%**
15	-	Pharmstandard	**20.1**	**3.3%**	**2.0%**
16	+1	Polpharma	**18.4**	**5.8%**	**1.8%**
17	-1	Dr.Reddy's	**18.0**	**0.5%**	**1.8%**
18	+1	Pfizer	**17.8**	**6.7%**	**1.7%**
19	-1	Astellas	**17.2**	**-0.4%**	**1.7%**
20	-	Valenta Pharm	**14.4**	**-8.6%**	**1.4%**

Table 4

Top 20 drug manufacturers by volume, 2019

Rating 2019	Change against 2018	Manufacturer	Sales volume, million packages	Growth, % 2019/2018	Share, % 2019
1	-	Pharmstandard	**365.1**	**-7.9%**	**7.1%**
2	+1	Ozon	**198.8**	**15.0%**	**3.9%**
3	-1	OTCpharm	**189.0**	**-0.2%**	**3.7%**
4	-	Veropharm	**168.3**	**-1.4%**	**3.3%**
5	-	Stada	**157.9**	**-3.9%**	**3.1%**
6	+2	Tula Pharmaceutical Factory	**148.3**	**1.1%**	**2.9%**
7	-	Teva	**139.4**	**-5.9%**	**2.7%**
8	-2	Renewal	**136.9**	**-14.5%**	**2.7%**
9	-	Polpharma	**118.5**	**2.6%**	**2.3%**
10	-	Dr.Reddy's	**109.9**	**-4.2%**	**2.1%**
11	+1	Novartis	**100.6**	**-1.0%**	**2.0%**
12	-1	Sanofi	**100.3**	**-7.6%**	**2.0%**
13	-	Tatchempharmpreparaty	**90.2**	**-3.1%**	**1.8%**
14	-	Berlin-Chemie	**88.3**	**-3.4%**	**1.7%**
15	+5	Sintez (including Biocom)	**87.5**	**13.4%**	**1.7%**
16	+1	GlaxoSmithKline	**83.1**	**1.8%**	**1.6%**
17	-1	Gedeon Richter	**82.3**	**-2.6%**	**1.6%**
18	+1	KRKA	**81.1**	**2.1%**	**1.6%**
19	+2	Gippokrat	**80.3**	**16.3%**	**1.6%**
20	-5	Johnson & Johnson	**79.9**	**-6.3%**	**1.6%**

herbal expectorant Mukaltin (-14.5%), enterosorbent Activated Carbon (-14.1%) and analgesic Citramon (-6.6%). Maximum positive dynamics was demonstrated by Omeprazole (+17.4%) decreasing the amount of stomach acid, antihypertensive agent Enalapril (+14.1%) and cephalosporin antibiotic Ceftriaxone (+12.2%). The top 20 brands by volume account for 20.8% of retail sales, which is a higher concentration than by value. The weighted average price for the top 20 in packages is about 36 roubles.

Vital and Essential Drugs (VED)

Vital and Essential Drugs (VED) are a list of drugs, approved by the Government of the Russian Federation for the state regulation of drug prices.

In 2019, 735 international nonproprietary names of drugs were on the VED list. On October 12, Prime Minister signed Order of the Government of the Russian Federation No. 2406-r, according to which 23 new INNs and 2 new dosage forms were added to the VED list. So, as of 2020 the list will contain 758 names.

At the end of 2019, 622 INNs from the VED list (2,146 brands) were recorded as sold through pharmacies. VED sales were worth 364.6 billion roubles, or 2,225 million packages (Figure 10).

Let us note than in value terms the growth in sales of VEDs was less noticeable than of other drugs (+2.0% - VEDs, +6.9% - non-VEDs). In volume terms, the drop of sales of VEDs was bigger - by 1.5% whereas sales of non-VEDs decreased by 1.1%.

Domestic vital and essential drugs in volume terms accounted for 56.0% and for 32.2% on money terms.

At the end of 2019, the weighted average price for VEDs was 164 roubles; the price per unit for domestic drugs was about 94 roubles whereas that of imported ones - almost 2.7 times higher (252 roubles).

The average price of VEDs was higher than the weighted average price for other drugs (103 roubles). It shows that the shift in sales towards expensive drugs in the VED segment was more perceptible than across the whole market.

Figure 11 shows the price index for various drug groups.

In 2019, inflation for medicines was quite low, especially against the figure for the previous year (6.1%): by the end of December 2019, prices had grown up only by 1.8% compared to December 2018. The increase in the prices for VEDs was much lower: in 2019, VEDs cost 0.6% less. Inflation for the other drugs sold in pharmacies was 3.1%.

The sales rating for INNs from the VED list is shown in Table 6. The leader of the VED INN rating is Xylometazoline: in 2019, its sales grew by 6.7% compared to the previous year. Notable is that Xylometazoline was the leader also in 2016-2018.

The situation at the bottom of the rating changed much: INN Apixaban strengthened its positions by moving 27 lines higher thanks to a 64.4% growth of sales. The increase in sales was due to the growing popularity of direct-acting anticoagulant Eliquis.

Most of the INNs out of the top 20 demonstrated positive dynamics. The highest sales growth was recorded for INN Apixaban (+64.4%), Rivaroxaban (+23.7%) and Moxonidine (+22.6%). Three INNs saw a decrease in sales: the largest drop was observed for INN Imidazolyl Ethanamide

Table 5

Top 20 brands by value, 2019

Rating 2019	Change against 2018	Brand	Sales volume, billion roubles	Growth, % 2019/2018	Share, % 2019
1	+1	Xarelto	**8.9**	**23.7%**	**0.9%**
2	-1	Nurofen	**7.8**	**1.5%**	**0.8%**
3	-	Detralex	**6.9**	**1.9%**	**0.7%**
4	+6	Mexidol	**6.5**	**12.4%**	**0.6%**
5	+4	Miramistin	**6.4**	**9.0%**	**0.6%**
6	+5	Pentalgin	**6.3**	**12.0%**	**0.6%**
7	-2	Concor	**6.1**	**-3.4%**	**0.6%**
8	-4	Kagocel	**6.0**	**-10.2%**	**0.6%**
9	+3	Teraflu	**5.9**	**13.7%**	**0.6%**
10	-4	Cardiomagnyl	**5.8**	**-5.9%**	**0.6%**
11	-3	Actovegin	**5.8**	**-3.2%**	**0.6%**
12	-5	Ingavirin	**5.2**	**-14.6%**	**0.5%**
13	+5	Lorista	**4.8**	**15.6%**	**0.5%**
14	+1	Canephron	**4.8**	**7.8%**	**0.5%**
15	-1	Lozap	**4.8**	**-0.4%**	**0.5%**
16	+3	Voltaren	**4.7**	**19.1%**	**0.5%**
17	+42	Eliquis	**4.4**	**64.4%**	**0.4%**
18	-2	Linex	**4.3**	**-1.1%**	**0.4%**
19	-6	Essentiale	**4.2**	**-13.1%**	**0.4%**
20	+1	Mydocalm	**4.1**	**8.3%**	**0.4%**

Pentandioic Acid (-14.6%) - antiviral Ingavirin.

Price segmentation of retail market drugs

In 2019, the weighted average per unit price on the commercial market grew by 4.9% to come to 199 roubles. Let us have a look at the value components. Pharmacy consumers tend to buy more expensive medicines. Some consumers give up cheap drugs as ineffective. Other pharmacy consumers want to save by buying bigger packages, which also makes the average purchase price higher. Yet, cheaper drugs are in great demand with the population.

Figure 12 shows the commercial market structure and the average per unit price in price segments, 2018-2019.

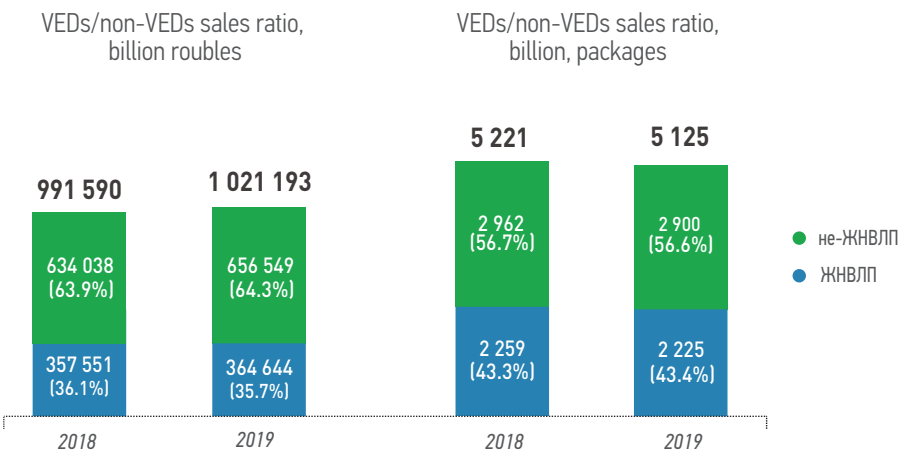
Over the year, the market structure changed by shifting towards a higher price segment compared to the last year. All categories except for 'up to 50 roubles' and '150-300 roubles' groups demonstrated positive sales dynamics in roubles. The most notable sales growth was recorded for drugs priced over 500 roubles (+6.8% in roubles and +6.9% in packages). Owing to this, the share of expensive drugs increased by 1.5% in rouble and by 0.8% in volume terms. It is worth noting that this segment is growing from year to year. From 2012, its share grew from 29.3% to 42.8% in roubles, and from 3.9% to 9.2% in packages. This group of drugs is characterized by -0.8% deflation. So, the major factor were changes in consumer preferences and choice of drugs.

Drugs that cost '50 roubles and less' remain the most demanded by consumers: in packages, cheap drugs account for 37.1%. The share of this group of drugs fell by 2.5% in volume terms and by 0.4% in value terms. If looked at over several years, the decline in the share is more noticeable: from 53.1% in 2012 in packages and from 7.0% in roubles. The main factor accounting for such dynamics are inflation processes. Drugs priced 'up to 50 roubles' are the fastest growing in price - 15.2%.

If the consumer basket is 'fixed' at the level of 2018 (i.e. when, regardless of how much a drug costs in 2019, it falls within

Figure 11

VEDs/non-VEDs sales ratio, 2018-2019



the segment where it is found at the end of 2018), then the share of drugs priced less than 50 roubles in 2019 is 6.8%, i.e. 2.2% higher than in 2018. It shows that, in fact, the actual consumption of 'cheap' drugs is growing, in particular, due to the reduction in the share of mid segments against 2018. In this context, positive dynamics is also demonstrated only by the 'priced over 500 roubles' category (+1.5% in roubles, accordingly). Thus, the consumer's focus is shifting to cheaper and more expensive drugs.

> At the end of 2019, the weighted average price for VEDs was 164 roubles; the price per unit for domestic drugs was about 94 roubles whereas that of imported ones – almost 2.7 times higher (252 roubles)

Price index of drugs on the retail commercial market

For an objective analysis of changes in the prices for drugs in the retail segment of the pharmaceutical market, we have studied the price index measured on the basis of a fixed list of finished pharmaceutical products.

In the reporting period, the price factor had no major impact: in December 2019, prices rose only by 1.8% against December 2018, whereas a year earlier this indicator was at 6.1%. Dynamics in the drugs sales volumes were conditioned, to a larger extent, on changes in the consumption structure.

In 2019, inflation for drugs (1.8%) was lower than the overall consumer price index reported by Goskomstat (the State Statistics Service) (3.04%). Thus, the increase in the prices for drugs was not the key factor in the growth of the prices for basic commodities.

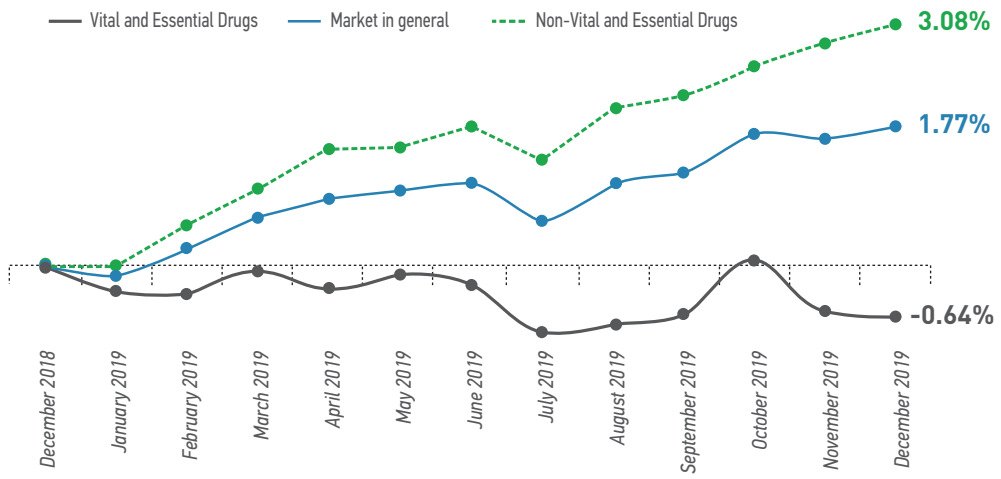


Figure 12

Price index dynamics on the retail market, 2019

Table 6

Top 20 INNs on the VED list, by value of sales, 2019

Rating	Change	INN	Share in sales of VEDs, roubles	Sales volume, billion roubles	Leader among brands within INN
1	-	Xylometazoline	**4.8%**	**17.5**	**Snup**
2	-	Ibuprofen	**3.2%**	**11.5**	**Nurofen**
3	+1	Bisoprolol	**2.8%**	**10.1**	**Concor**
4	-1	Pancreatin	**2.7%**	**10.0**	**Creon**
5	-	Rivaroxaban	**2.4%**	**8.9**	**Xarelto**
6	-	Ethylmethylhydroxypyridine succinate	**2.0%**	**7.3**	**Mexidol**
7	+2	Atorvastatin	**1.9%**	**6.8**	**Atorvastatin**
8	+2	Losartan	**1.8%**	**6.5**	**Lorista**
9	-1	Amoxicillin + clavulanic acid	**1.7%**	**6.1**	**Amoksiklav**
10	+1	Omeprazole	**1.6%**	**5.9**	**Omeprazole**
11	+2	Ursodesoxyholic acid	**1.5%**	**5.5**	**Ursosan**
12	-	Metformin	**1.5%**	**5.4**	**Metformin**
13	-6	Pentandioic Acid	**1.4%**	**5.2**	**Ingavirin**
14	+3	Perindopril	**1.3%**	**4.6**	**Prestarium A**
15	-1	Tamsulosin	**1.2%**	**4.5**	**Omnic**
16	-	Cetirizine	**1.2%**	**4.5**	**Zodac**
17	+1	Ademetionine	**1.2%**	**4.4**	**Heptral**
18	+27	Apixaban	**1.2%**	**4.4**	**Eliquis**
19	-	Amoxicillin	**1.1%**	**4.2**	**Flemoxin Solutab**
20	+7	Moxonidine	**1.1%**	**4.0**	**Moxonidine**

Prices for Rx drugs grew somewhat slower than the overall inflation rates: the price index for those positions was 1.1% (Fig. 13).

Prices for OTC drugs grew faster, despite the dropping sales: at the end of 2019, inflation for this category came to 2.4%. Let us note that until March the rates of growth in the prices were almost the same, but in the second quarter pharmacies changed their product mix management policies, trying to make up for losses from sales of OTC drugs by significantly increasing prices.

The price index for imported and domestic drugs in 2019 is shown in Figure 14.

High growth is observed in prices for domestic drugs: prices for Russian drugs rose by 4.5% whereas prices for imported ones grew only by 0.7%.

According to Goskomstat data, in 2019 drugs accounted for about 1.73% in the basic structure of consumer spending in Russia, by increasing by 0.02%. Public health in general accounts for 2.13%.

Figure 15 shows the general consumer price index and price indices for individual categories of goods and services.

In 2019, the general consumer price index was 3.04%. The lowest ever level of inflation is recorded for nearly all goods categories. For example, the petrol price growth rate is 5 times lower compared to 2018. The highest growth rates are for services (3.8.2%). The lowest growth is in prices for drugs (1.8%).

New drugs on the retail market

In 2019, 324 new drug brands appeared in pharmacies. Sales of novel drugs in 2019 totalled around 1.9 billion roubles, or 6.4 million packages, which is equivalent to 0.18% and 0.12% of the overall pharmacy sales of all drugs, in value and in volume, respectively. The weighted average per unit price of novel drugs was around 295 roubles. Most of the new drugs are generics.

By the volume of retail sales in value terms, the leader among the novel drugs that emerged on the Russian market

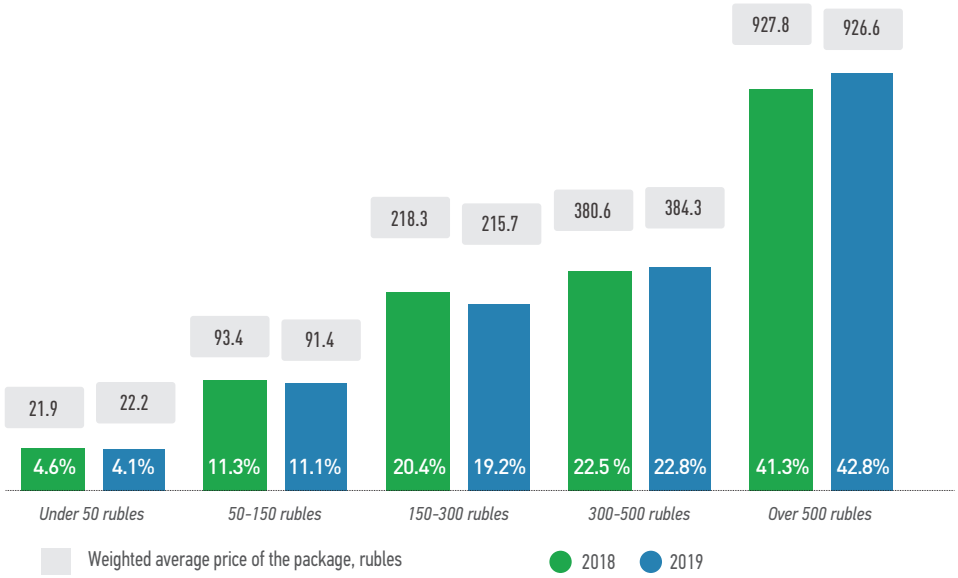


Figure 13

Value sales structure, retail market, by price segments, 2018-2019

in 2019 is Trekresil made by Russian GlobalMedPharm. Its sales were worth 117.6 million roubles. According to the marketing authorization files, Trekresil belongs to the pharmacotherapeutic group of adaptogenes and has immunostimulating and adaptogenic effects. The main active ingredient of Rx Trekresil is Oxyethylammonium methylphenoxiacetate. The tablets are intended for prevention and treatment of acute respiratory viral infections as part of a combined therapy, are used in case of intensive intellectual and high physical activities as well as for enhancing stress resistance.

The second in the rating is combined herbal drug Fitophron made by PharmVILAR. Fitophron is a diuretic used in complex treatment of chronic inflammatory bladder conditions and kidney diseases. In 2019, sales of the drug were worth 108.8 million roubles.

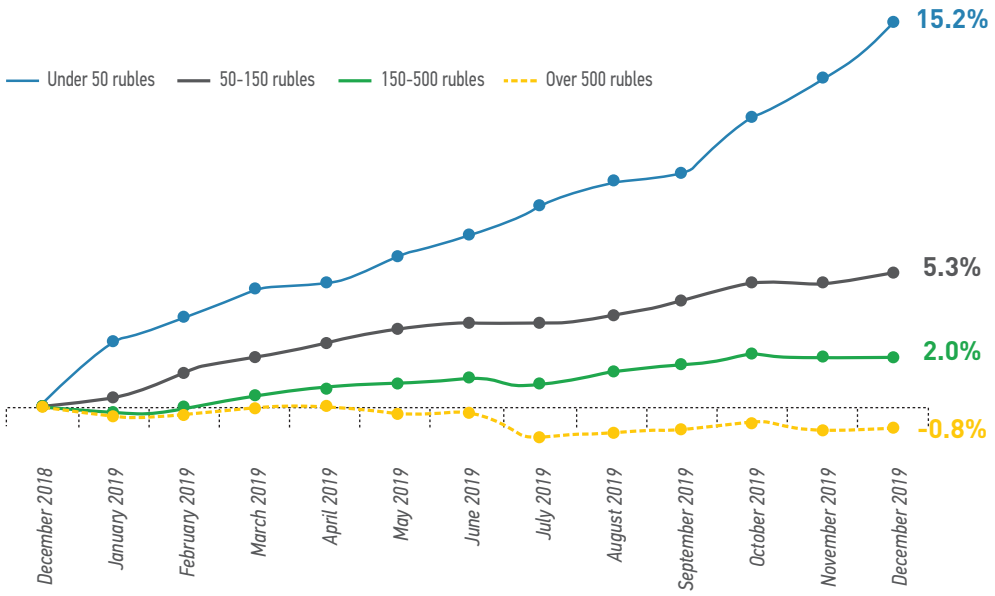
The third in the rating is combined multivitamin preparation Larigama (Grotex LLC), its sales were worth 93.3 million roubles. This brand appeared in pharmacies in January 2019, it is a Russian equivalent of Milgamma. Larigama intramuscular solution is used in the treatment of neurological diseases.

In 2019, Solopharm (Grotex LLC) successfully launched more than 20 branded pharmacy drugs, seven of which got into the top twenty novel drugs by value of sales. For more effective communications with pharmacy chains, in the reporting year the manufacturer joined the PharmaSpace pilot project. PharmaSpace.ru e-Platform is designed for establishing direct contacts with pharmaceutical retailers, transparent formalization of turnover contracts, marketing agreements, fiscal and audit reports and direct logistics to make commercialization of drugs more profitable, flexible and cost-effective in terms of management.

In summing up, it should be said that by its product range the drug segment of the retail market is more stable than the market for dietary supplements and other parapharmaceuticals due to significant costs of the state registration of drugs.

Figure 14

Price index dynamics, by price segments, 2019



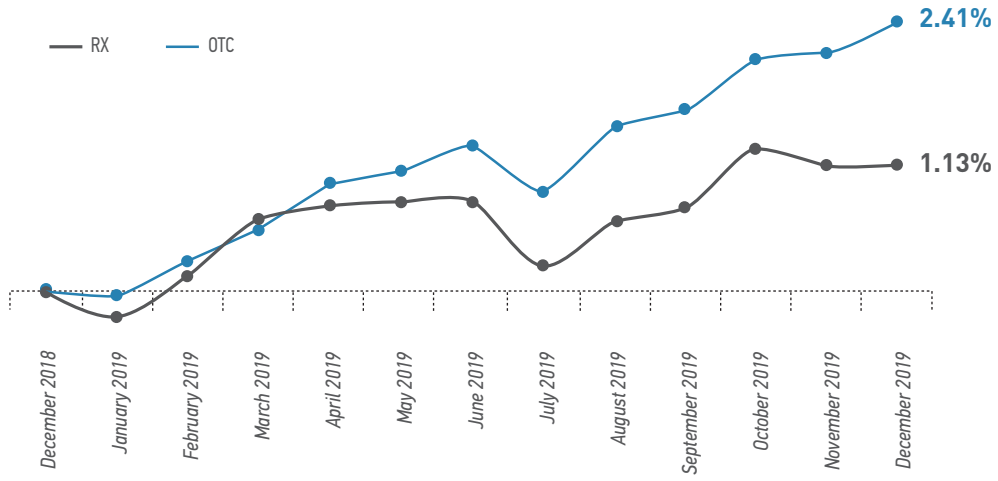


Figure 15

Change in prices for drugs on the Russian retail market, 2019

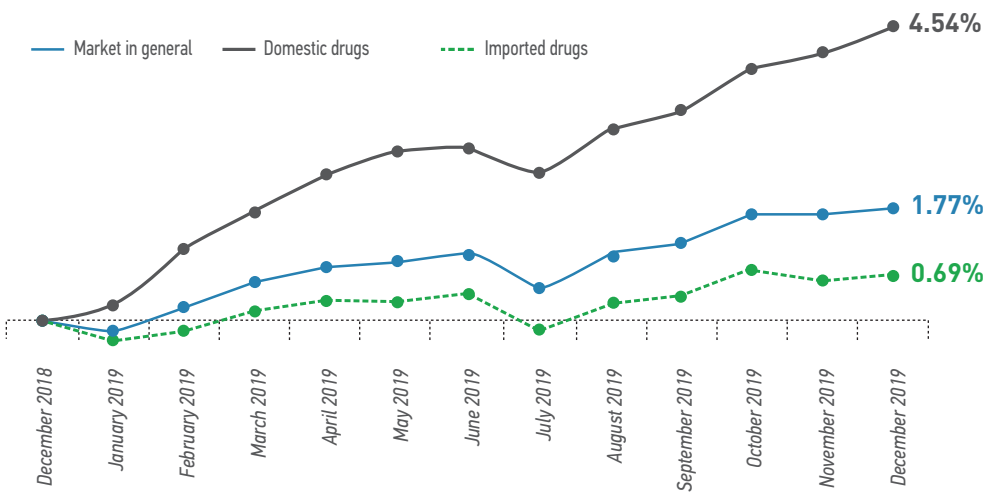


Figure 16

Price index for drugs of foreign and Russian manufacturers, Russian retail market, 2019

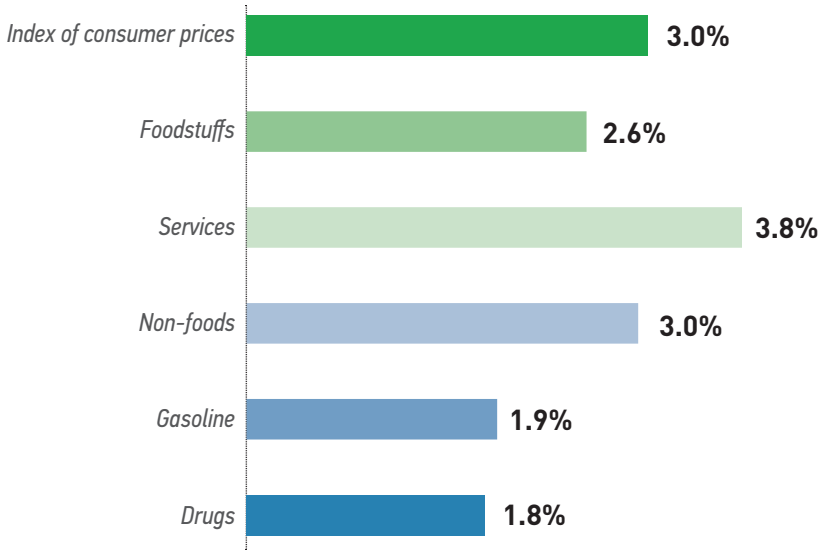


Figure 17

Consumer price index in Russia (December 2019 against December 2018)

Table 7

Top 20 new brands on the Russian commercial market in 2019

Rating	Brand	Manufacturer	Sales volume, million roubles	Date of availability in pharmacies
1	Trekresil	GlobalMedPharm	**117.6**	**Nov. 2019**
2	Fitophron	PharmVILAR	**108.8**	**May 2019**
3	Larigama	Grotex	**94.3**	**Jan. 2019**
4	Teraliv 275	Bayer	**93.7**	**Jan. 2019**
5	Tiloron-SZ	Severnaya Zvezda	**92.1**	**Feb. 2019**
6	Naximin	Grotex	**85.3**	**May 2019**
7	Lidamitol	Grotex	**76.3**	**Apr. 2019**
8	Lorotox	Grotex	**74.9**	**March 2019**
9	Next Activgel	OTCpharm	**73.2**	**June 2019**
10	Ivilekt	Grotex	**54.1**	**Jan. 2019**
11	Detriferol	Grotex	**52.9**	**March 2019**
12	Fremitus	Озон	**39.6**	**Oct. 2019**
13	Xigduo Long	AstraZeneca UK	**37.7**	**March 2019**
14	Naftoderil	Ozon	**36.8**	**March 2019**
15	Kontrdiar	KRKA	**35.3**	**May 2019**
16	Methucinvel	Velpharm	**32.9**	**May 2019**
17	Inspirax	Alium	**32.1**	**Jan. 2019**
18	Gelangin	Grotex	**31.8**	**July 2019**
19	Prostolor	Braitfarm	**31.8**	**Feb. 2019**
20	Invida ODF	Selvim	**29.4**	**Feb. 2019**

3. Drug reimbursement program (DRP)

Discussions about transformation of the drug reimbursement system have been on for long. Debates over introducing a national program of reimbursement of the cost of drugs for patients have been held for more than 10 years already. In 2014, the prescription drug insurance system was planned to be put into effect in five years - by 2019.

Establishing a program that would cover all the population is envisaged by the Strategy of the Public Drug Supply in the Russian Federation until 2025, developed by the Ministry of Health and approved back in 2013. Today, nearly 80 percent of Russians buy drugs at full cost and out of their own pocket, and any economic fluctuations lead to a reduction in the consumption of drugs. In this connection, it is projected to launch a program for free provision of drugs to citizens who have compulsory health insurance (CHI) policies - the drug reimbursement program.

In 2019, they once again talked about setting up pilot projects. In 2020, a number of regions are expected to launch schemes allowing patients who have suffered acute cardiovascular diseases to get drugs for free. This will help build a system expected to cover later on all ICD categories. Drugs used to treat cardiovascular diseases rank second among all ATC on the commercial market. To buy these drugs, people spend around 151 billion roubles (according to the data for 2019).

Each region autonomously elaborates drug reimbursement mechanisms for a defined drug category. Moscow, for example, approved a program of free provision of drugs to people with cardiovascular diseases. The program covers 8 drugs for three categories of patients:

1) Acute myocardial infarction patients (ticagrelor and prasugrel);

2) Atrial fibrillation patients (dabigatran etexilate, rivaroxaban and apixaban);

3) Patients with high blood cholesterol (alirocumab, evolocumab and ezetimibe).

These drugs will be dispensed for free to about 80,000 Moscow residents who need them and will be prescribed regardless of disability or other benefit-entitled status, on medical indications only.

Similar projects are being developed also in other regions. All in all, 10.2 billion roubles are budgeted for the implementation of pilot projects on fighting cardiovascular diseases in 2020-2022, which is much less than the market needs. Whichever reimbursement mechanism is used, the main question remains how much money will be needed for the integration of the new system and where to find extra funding. Drug reimbursement is scheduled to be introduced by 2025. Maybe, the implementation timeframes will be reduced by 2-3 years so that in 2022 all Russians can get prescribed drugs in pharmacies for free. Today, this option is available only for benefit-entitled social categories.

By force of Russian laws, benefit-entitled social categories are guaranteed to be provided with the necessary drugs out of

public funding of different levels. Subsidized drug coverage/drug reimbursement include three main elements.

Essential Drug Coverage, under which benefit-entitled categories are provided with the necessary prescribed drugs in accordance with the medical care standards out of the federal budgetary funds. This program is governed by Federal Law No. 178-FZ dated July 17, 1999 «Concerning the State Social Assistance» and covers 9 social categories: disabled persons, disabled children, disabled war veterans, World War II participants, combat veterans, and others.

The standard rate of finance a month per person increases annually. In 2019, it was a sum of RUB 861.80 - the cost of the social service for federal benefit holders unless, instead of the service, they opt for monetary compensation in the specified amount. In 2020, as per Order of the Government of the Russian Federation No. 1554 dated 30.11.2019 «Concerning Amendments to Order of the Government of the Russian Federation No. 864 dated December 29, 2004», the set standard rate was for the first time lower than in the previous year: RUB 860.6.

About 20 million Russians are entitled to drug reimbursement. 75% of them opt for money payments instead of subsidized drugs, and only 4.5 million benefit holders use their right to benefits.

A definitive list of subsidized drugs is annually revised and approved by the Government of the Russian Federation - the Ministry of Health and Social Development. From 2020, the Essential Drug Coverage list is added with 23 additional drugs: 22 foreign drugs for the treatment of diseases of endocrine system, cardiovascular diseases, psoriasis, systemic antifungals and antivirals, antineoplastic and immunosuppressant drugs, neuroleptics and drugs for the treatment of obstructive diseases, and 1 Russian drug (Netakimab) for the treatment of plaque psoriasis. Also, restrictions were removed for the prescription of Insulin Degludec for the treatment of diabetes by the medical board's decision.

The International Classification of Diseases (High-Cost ICD) program, launched in 2008, covered 7 codes and new drugs were added only for the defined groups. One of the recently emerging trends is to extend the list of diseases. In 2019, the program was added with 5 new diseases; in 2020, 2 new codes will be added: aplastic anemia, unspecified, and hereditary factor II (fibrinogen) deficiency, factor VII (labile factor) deficiency and factor X (Stuart-Prower factor) deficiency. So, the proposed budget for 2019-2021 envisaged increasing funding under the High-Cost ICD program by 12 billion roubles in view of its extension.

Extension of the ICD list increased also the list of drugs purchased under the High-Cost ICD program: from 2020, 3 more positions were added - imported Daratumumab for the treatment of chronic leukemia, Alemtuzumab for the treatment of multiple sclerosis, and Everolimus for the treatment after transplantation of organs or tissues. The list was also added with 9 drugs for the pathogenetic therapy of orphan diseases included in the program in 2019. Two of them are made in Russia and are used for the treatment of hemolytic-uremic syndrome and systemic onset juvenile arthritis (Eculizumab, Adalimumab), 9 foreign-made drugs for the treatment of systemic onset juvenile arthritis, mucopolysaccharidoses type I, II and VI (Laronidase, Idursulfase, Idursulfase beta, Galsulfase, Tocilizumab, Canakinumab, Etanercept).

The much-debated labelling system came into effect as of October 1, 2019 exactly for this group of drugs. Now all pharmacies dispensing drugs under the High-Cost ICD program register movements of drugs in the Chestny Znak Track & Trace System. Drugs of this category are supplied on the Russian market by 21 Russian manufacturers, 16 holders and marketing authorizations for foreign drugs and 16 wholesalers. Drugs under the 7 ICD Codes program are dispensed by 3 547 dispensaries.

The draft law envisages that in 2020 59.821billion roubles will be allocated for the High-Cost ICD program, 29.53 billion roubles - for drugs for persons living with HIV, and 22.54 billion roubles - for supplies under the National Vaccination Schedule. Provision of drugs for persons entitled to federal benefits is estimated to be worth 51.39 billion roubles, of which 37.75 billion roubles are subventions to the regions for social assistance in the form of benefits in kind - drugs for those social categories who chose to remain in the program instead of benefits monetization, 13.64 billion roubles are inter-budgetary transfers to the regions for ensuring equal access to drugs for benefit holders from different regions.

Drugs may be purchased at the expense of the federal as well as regional budgets. The regional program is governed by Order of the Government of the Russian Federation No. 890 dated July 30, 1994 «Concerning the State Support for the Development of the Medical Industry and Enhancement of Provision of the Population and Health Care Institutions with Medicines and Medical Products» and by regulatory and legal acts of the constituent entities of the Russian Federation - the budget and the regional public health development program. Constituent entities are autonomous in making lists of categories entitled to regional benefits. This program envisages that drugs are provided for free or at a 50% discount.

It is not a rare case when those entitled to regional benefits are also found on the lists of categories entitled to federal benefits. In this context, one of the objectives for building a drug reimbursement system is creating a single register of persons entitled to subsidized drugs. Russia does not yet have such a register though the President ordered to create one back in 2018. The register should be created and put into effect by the end of 2020.

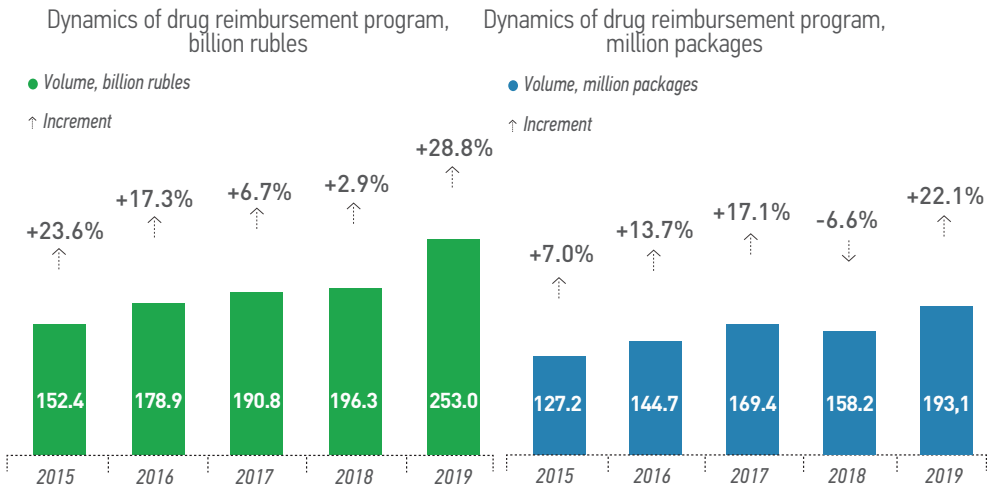


Figure 18

Drug Reimbursement Program dynamics, 2015-2019

According to the DSM Group's estimates, the scope of the regional program is comparable to that of the federal one. The sums spent in 2019 by the regions on purchasing drugs for benefit holders equaled the federal budget expenditure. It is explained also by the fact that the regions are responsible for providing drugs to patients suffering orphan diseases.

Today, there are 19 diseases on the list of life-threatening and chronic progressive orphan diseases that reduce life expectancy or cause disability. Provision of the population with drugs and specialized medical foods with respect to 17 of such diseases is the responsibility of authorities of the constituent entities of the Russian Federation. Escalating their purchases to the federal level is estimated to require additional 24 billion roubles from the budget.

In 2019, a total of 193.1 million drug packages worth 253.0 billion roubles were purchased for benefit-entitled social categories, which is more than in 2018 - by 28.8% in roubles and by 22.1% in packages. The analytical data show payments and supplies under contracts performed in 2019.

In 2019, 57.8 billion roubles were spent on the High-Cost ICD program, which is 27.3% more than in 2018, and around 4.0 million packages were sold, which is 5.4% less compared to 2018.

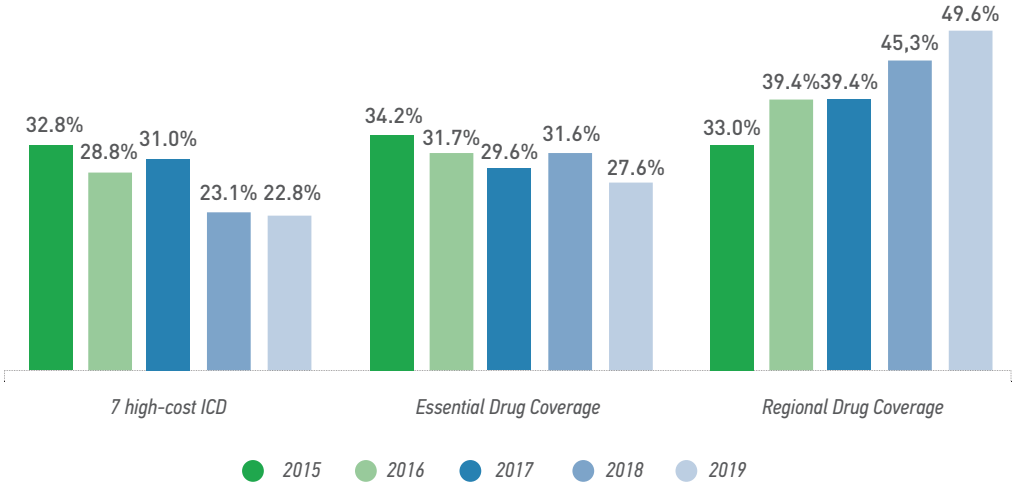
The volume of purchases grew in the rouble equivalent because in 2019 the High-Cost ICD program was extended to 12 ICD codes, and, in that context, the budget proposed for 2019-2021 envisaged an increase in the funding costs by 12 billion roubles. Yet, the volume of packages purchased under the High-Cost ICD sub-program decreased again. This is because federal purchases of drugs allow re-distributing remaining drugs among the constituent entities. It minimizes the risks of shortages of drugs or their write-off in the constituent entities. So, the large volumes of drugs purchased in 2018 were provided to benefit holders in 2019.

In 2019, 69.8 billion roubles were spent under the Essential Drug Coverage program, which is 12.3% more than a year earlier. Growth was observed also in volume terms, the number of purchased packages was 8.0% higher than in 2018 and the segment increased in the end to 82.9 million packages.

The scope of the regional benefits is comparable to that of the federal program. In 2019, drugs purchased were worth 125.4 billion roubles (+41.2% against 2018), which equals 106.2 million packages (+37.5%).

Figure 19

Proportion of costs under High-Cost ICD, Essential Drug Coverage and Regional Reimbursement programs in the total value of spending in the subsidized drug segment, 2015-2019



Imported/domestic drug ratio in drug reimbursement

In 2019, the share of domestic drugs in volume terms dropped by 0.5% (Fig. 21). Consumption of domestic drugs demonstrated positive dynamics (+21.5%), the growth in the volumes of imported drugs was even more notable (+24.1%). Costs in money on purchases of domestic drugs increased by 24.0%, on imported drugs - by 30.9%. As a result, the share of drugs of foreign manufacturers grew by 1.1%. The growth of the share of foreign drugs in the funding volume is observed only in the last two years; earlier, that segment was always characterized by a reverse trend of 'import substitution'.

In money terms, the ratio of domestic to imported drugs remained in favour of the latter. In 2019, 73% of the value volume fell within drugs of foreign origin, and only 27% was with domestic drugs.

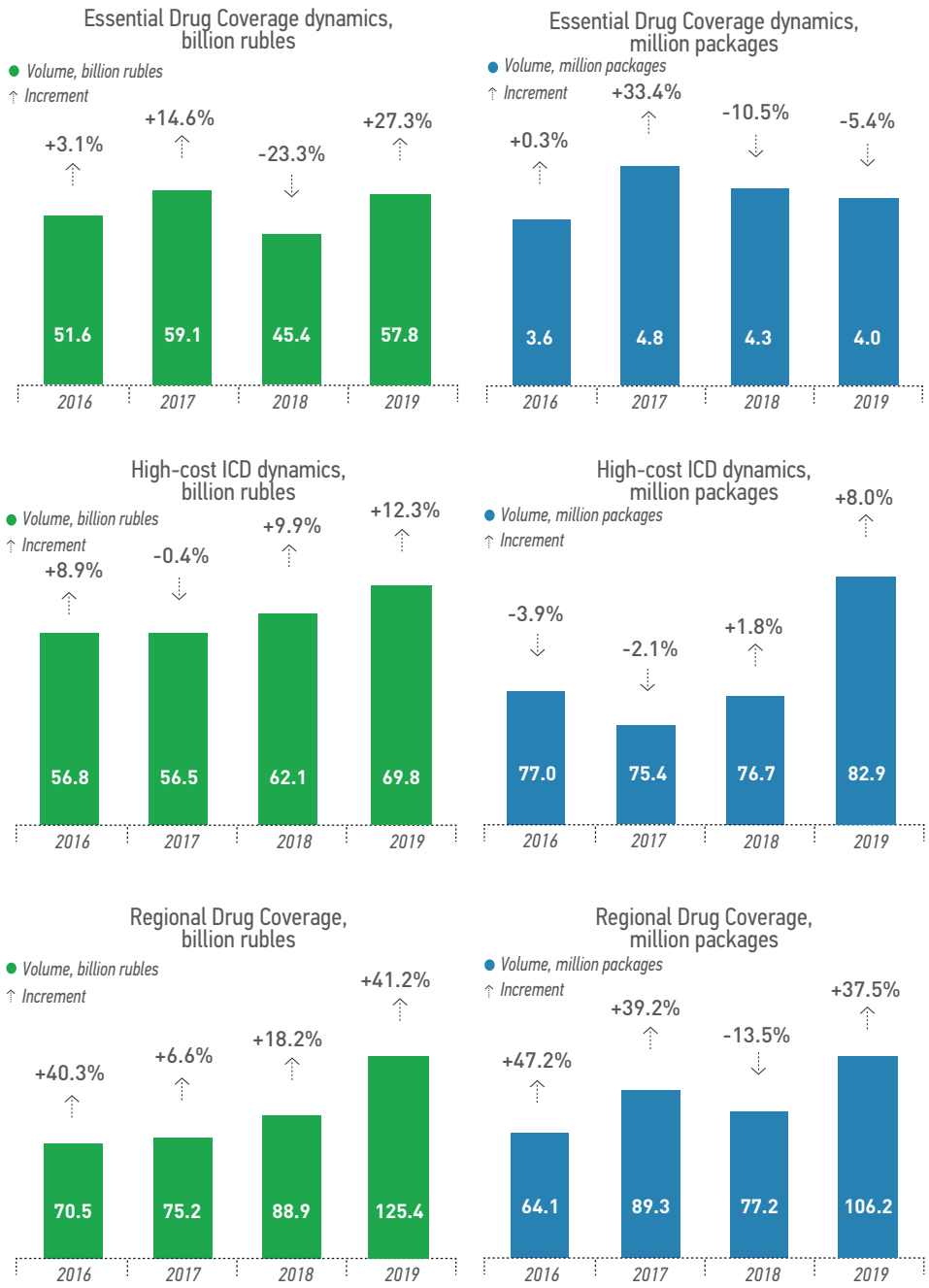


Figure 20

Dynamics of costs under reimbursement programs, 2015-2019

The import substitution trends were first seen for drugs that are available and purchased mainly under reimbursement programs. That is why 'localized' drugs account for the largest share in this segment.

68.9% of drugs manufactured in Russia are purchased through public procurement (+42.1% to domestic drugs); in packages, the share of such drugs is 19.2% higher and hits 76.3%. According to the data for 2019, the price of a 'localized' drug was at 2,869 roubles.

The ratio of sales of imported and domestic drugs under 12 ICD Codes, Essential Drug Coverage and Regional Drug Reimbursement programs is shown in Figure 23.

In terms of subsidized provision of drugs corresponding to high-cost ICD, the share of domestic drugs grew both in value (+1.2% to 32.3%) and in volume (+0.8% to 41.5%). This is owing, among other things, to the extended coverage of purchases of Russian drugs, from 25 brands (equivalent to 14 INNs) in 2018 to 32 brands (20 INNs) in 2019.

Figure 21

Imported/domestic drug sales ratio, 2019

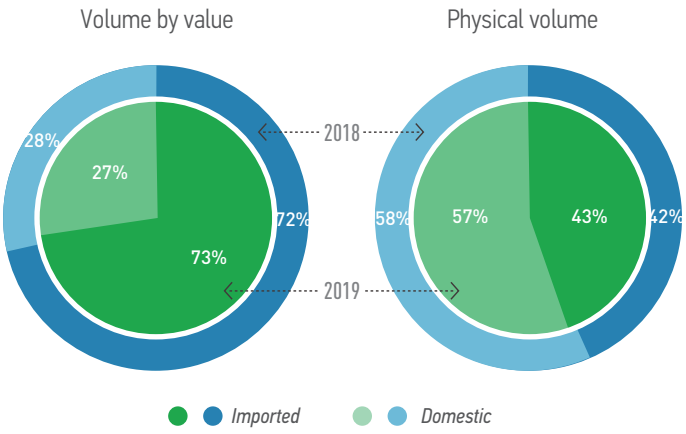
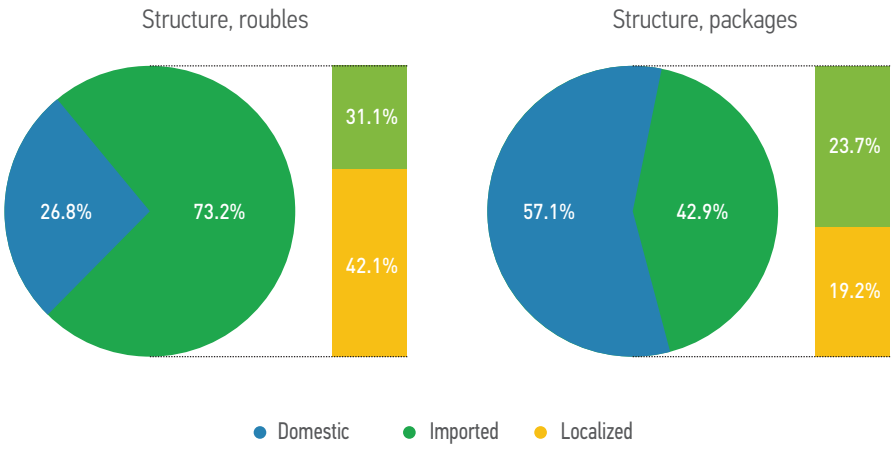


Figure 22

HCI segment structure, by origin, including localization



Under the Essential Drug Coverage program, the share of Russian drugs decreased to come to around 25.1% in money (against 26.4% in 2018). In packages, domestic drugs held about 64.2% of the market (compared to around 62.9% in 2018).

In regional benefit programs, imported drugs prevail in money (74.8%, with their share increasing), in packages Russian drugs account for 52.1%.

Below are the top 10 INNs (out of the top 100 by volume in roubles), with respect to which a noticeable shift from imported to Russian drugs was observed.

> In regional benefit programs, imported drugs prevail in money (74.8%, with their share increasing), in packages Russian drugs account for 52.1%.

Two active substances out of the top 10 (Sorafenib and Fingolimod) reflect a noticeable increase in the share of Russian drugs that in 2018 were already far ahead by purchase volumes within INNs.

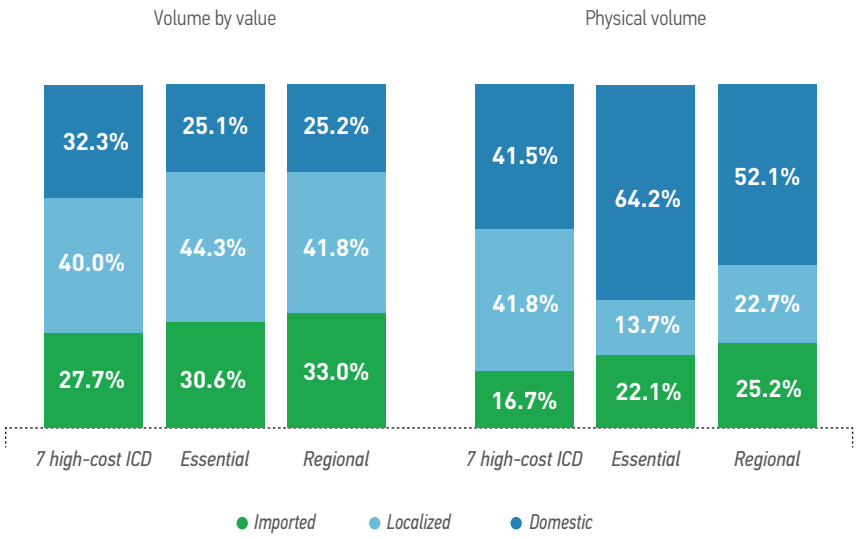


Figure 23

The ratio of sales of imported and domestic drugs under 12 ICD Codes, Essential Drug Coverage and Regional Drug Reimbursement programs

Table 8

Top 10 INNs in terms of import substitution, 2019

INN	Share of domestic drugs in roubles, %		Share growth, %	Leader in 2018 (manufacturer)	'Shift' drug in 2019 (manufacturer)
	2018	2019			
Teriflunomide	0.0%	81.0%	81.0%	Aubagio (Sanofi)	Femorix (Obninsk Chemical-Pharmaceutical Company); Teriflunomide (Biocad)
Imiglucerase	0.0%	66.6%	66.6%	Cerezyme (Sanofi)	Glurazyme Generium
Eculizumab	0.0%	54.4%	54.4%	Soliris (Alexion Pharma)	Elizaria Generium
Mycophenolate acid	0.0%	46.5%	46.5%	Myfortic (Novartis)	Felomika (Nanopharma Development)
Sorafenib	53.1%	95.6%	42.5%	Sorafenib (Nativa)	Sorafenib (Nativa)
Fingolimod	53.3%	87.5%	34.2%	Nescler (Miraxbiopharma)	Nescler (Miraxbiopharma); Modena (Pharmasyntez)
Fentanyl	3.2%	21.0%	17.7%	Fendivia (Takeda)	Fentanyl (Various manufac-turers)
Bosentan	40.6%	57.7%	17.1%	Tracleer (Johnson & Johnson)	Bosenex (Protek)
Infliximab	31.7%	47.6%	15.9%	Remicade (Merck & Co)	Infliximab (Biocad)
Adalimumab	0.0%	14.0%	14.0%	Humira (Abbvie)	Dalibra (Biocad)

Rx/OTC drugs ratio in drug reimbursement programs

Drug reimbursement programs offer mainly Rx drugs that are prescribed strictly according to indications. In 2019, Rx drugs accounted for 95.4% in value terms (-0.1% against 2018) and for 91.3% in volume terms (+0.8%).

> Drug reimbursement programs offer mainly Rx drugs that are prescribed strictly according to indications

Structure of sales of drugs under drug reimbursement programs (DRP) by ATC codes

The ratio of purchases in Russia under DRP by ATC codes, 1st level, for 2019 is shown in Table 9.

The ATC rating in terms of sales volumes under the DRP is quite stable. In value terms, the market is fairly concentrated: the first three ATC codes account for over 75% of the market.

Drugs under [L] Antineoplastic and Immunomodulating Agents remain the most funded category under the DRP. In 2019, around 43.2% of the total public funds were spent on their purchases. This is the most expensive category of drugs in the DRP: the weighted average per unit price is 8,805 roubles (the recently observed decrease in prices is due to the emergence of domestic generics). Costs on their purchases increased in roubles by 30.7% against 2018. In packages, volumes grew by 49.7%. In 2019, Celgene's Revlimid (INN-lenalidomide) remained the leader accounting for more than 7%, purchases of the immunosuppressive agent grew by 4.4%. Generium's domestic equivalent Elizaria and Alexion Pharma's original Soliris (INN-eculizumab) rank second and third. The drugs account for approximately 5% and 4% of the sales volumes in [L] by value.

Volumes of the second-ranking ATC code are less than half of those of the leader. In 2019, it is [A] Alimentary Tract and Metabolism (18.7% in roubles). Dispensed amounts exceed those recorded in the previous year by 29.2% in roubles and by 30.5% in packages. About 71.6% of this category belong to drugs used in diabetes ([A10]). In 2019, the leader in this sub-group in terms of value of sales was Sanofi's Toujeo SoloStar (INN-insulin glargine). Novo Nordisk's Levemir (INN-insuline detemir) and Novorapid (INN-insulin aspart) rank 2nd and 3rd, respectively.

The third-ranking is [B] Blood and Blood Forming Organs (13.3%). In 2019, [B] code demonstrated growth in volumes by 21.8% in value terms. In packages, purchases increased by 18.7%.

In 2019, there were no changes in the top five by ATC codes in the DRP structure compared to the previous year: the share in value grew by 1% to come to around 87.7%. Most of the growth was owing to [L] drugs sold mainly under regional

Table 9

Drug sales structure, by ATC codes, DRP market, 2019

ATC codes 1st level	Purchase value, mln roubles	Share in value terms, %	Purchase volume, mln packages	Share in volume terms, %
Antineoplastic and immunomodulating agents [L]	109 357.3	43.2%	12.4	6.4%
Alimentary tract and metabolism [A]	47 361.3	18.7%	60.4	31.3%
Blood and blood forming organs [B]	33 573.2	13.3%	10.6	5.5%
Antiinfectives for systemic use [J]	20 217.3	8.0%	12.4	6.4%
Nervous system [N]	11 322.9	4.5%	28.8	14.9%
Respiratory system [R]	9 224.3	3.6%	11.7	6.1%
Cardiovascular system [C]	6 210.8	2.5%	41.9	21.7%
Systemic hormonal preparations, excluding sex hormones [H]	5 311.4	2.1%	2.6	1.4%
Various [V]	4 549.1	1.8%	3.0	1.5%
Musculoskeletal system [M]	2 809.7	1.1%	4.8	2.5%
Non-ATC	1 830.5	0.7%	0.1	0.0%
Sensory organs [S]	646.5	0.3%	2.1	1.1%
Genitourinary system and sex hormones [G]	382.0	0.2%	1.5	0.8%
Dermatologicals [D]	141.6	0.1%	0.6	0.3%
Antiparasitic products, insecticides and repellents [P]	20.1	0.0%	0.1	0.1%

drug reimbursement and High-Cost ICD programs.

Let us see how much money is spent under the DRP for the treatment of main diseases groups. We correlated drugs with respective indications and ranked DRP costs by disease (Table 10).

At the end of 2019, the top-ranking are drugs used to treat malignant tumors since oncology was set as a priority area in the reporting year. The leader accounts for 24.4% of the value of the entire DRP segment. 56.5% of drugs are dispensed under the Regional Drug Reimbursement program.

Drugs used to treat immunologic diseases moved up to the second position in the sales rating. The highest cost growth rates in this group are observed in immunomodulatory and immunosuppressive drugs. Most of costs fall within the High-Cost ICD segment.

In 2019, the third-ranking are drugs used in diabetes, which were dispensed mainly on the regional level (65.0% in roubles).

Manufacturers in the DRP segment

Table 11 shows the top 20 manufacturers leading by the consumption volume in the DRP in 2019.

In 2019, drugs under the Drug Reimbursement Program were purchased from 720 manufacturers. Only 43 companies are involved in the High-Cost ICD program; 365 participate in the Essential Drug Coverage schemes; regionally subsidized drugs are purchased from 694 companies. This is due to the fact that lists of drugs under High-Cost ICD and Essential Drug Coverage programs are legislatively regulated whereas lists of regionally subsidized drugs are made according to the needs of certain benefit-entitled categories.

The rating is now altogether different. Only two companies managed to retain their positions. Ranks of the others changed. The top rated is Johnson&Johnson holding a 6.4% share thanks to the 56.7% increase

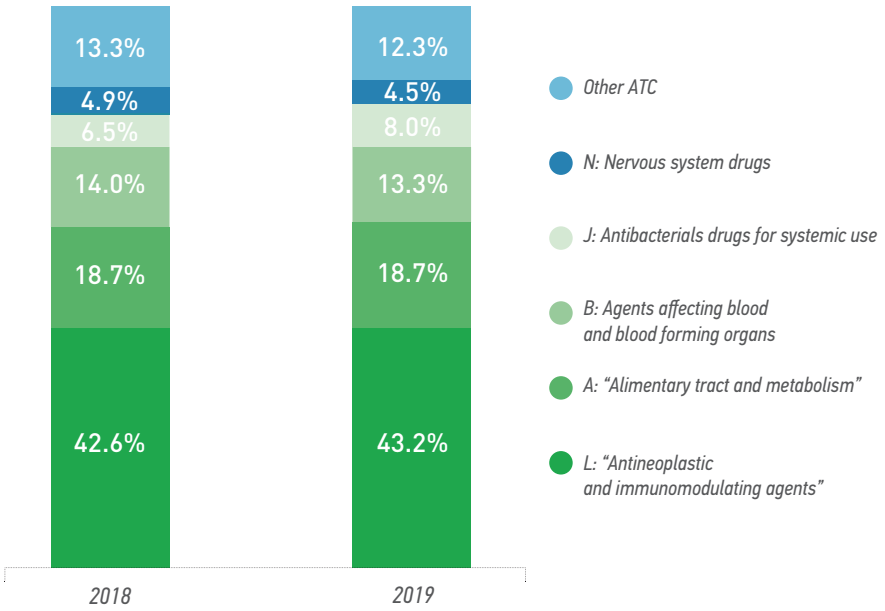


Figure 24

DRP sales ratio by ATC codes, 2019

Table 10

DRP costs ranking by disease, in value terms, 2019

Disease	Purchase volume, mln roubles	Growth, %	Share, %		
			High-Cost ICD	Essential Drug Coverage	Regional Drug Reimbursement
Oncological diseases	61 638	33.3%	10.2%	33.3%	56.5%
Immunologic diseases	47 720	27.6%	53.9%	14.4%	31.7%
Diabetes mellitus	34 686	21.3%	0.0%	35.0%	65.0%
Diseases of blood and blood forming organs	33 098	21.6%	54.9%	18.0%	27.1%
Diseases caused by various infectious agents	20 228	58.0%	0.0%	24.8%	75.2%
Gastrointestinal diseases	13 129	55.8%	48.1%	17.0%	35.0%
Nervous disorders	11 323	18.8%	0.0%	40.3%	59.7%
Respiratory diseases	9 224	11.0%	11.4%	37.1%	51.4%
Cardiovascular diseases	5 457	43.9%	0.0%	40.6%	59.4%
Hormonal disorders	5 311	1.3%	4.2%	50.7%	45.1%
Musculoskeletal disorders	2 810	13.1%	0.0%	46.2%	53.8%
Eye diseases	643	61.6%	0.0%	22.9%	77.1%
Skin diseases	142	16.3%	0.2%	26.7%	73.0%
Male and female reproductive disorders	114	-39.6%	0.0%	37.1%	62.9%
Other	7 437	33.1%	0.0%	34.3%	65.7%

Table 11

Top 20 drug manufacturers by DRP consumption, 2019

Rating 2019	Change against 2018	Manufacturer	Purchase volume, mln roubles	Growth, % 2019/2018	Share, % 2019
1	+2	Johnson & Johnson	**16 091**	**56.7%**	**6.4%**
2	-1	Sanofi	**14 847**	**6.7%**	**5.9%**
3	+2	Novartis	**13 003**	**41.1%**	**5.1%**
4	+6	Generium	**12 885**	**96.4%**	**5.1%**
5	-3	Biocad	**10 626**	**-10.7%**	**4.2%**
6	-2	Novo Nordisk	**10 181**	**9.6%**	**4.0%**
7	-1	Baxter	**9 967**	**20.9%**	**3.9%**
8	-1	Celgene	**9 306**	**15.3%**	**3.7%**
9	-	AstraZeneca	**9 097**	**18.1%**	**3.6%**
10	+3	Pfizer	**8 890**	**93.5%**	**3.5%**
11	-	F.Hoffmann-La Roche	**7 968**	**21.8%**	**3.1%**
12	-4	Nativa	**7 534**	**-3.0%**	**3.0%**
13	+5	GlaxoSmithKline	**7 306**	**113.4%**	**2.9%**
14	+3	Takeda	**6 567**	**87.6%**	**2.6%**
15	-1	Merck & Co	**6 099**	**46.2%**	**2.4%**
16	-4	Alexion Pharma	**4 749**	**-16.0%**	**1.9%**
17	-1	Abbvie	**4 573**	**19.7%**	**1.8%**
18	+2	Bayer	**3 850**	**53.9%**	**1.5%**
19	+3	Boehringer Ingelheim	**3 832**	**62.1%**	**1.5%**
20	-5	Octapharma	**3 762**	**-3.4%**	**1.5%**

Table 12

Top 20 drug manufacturers by purchase volumes in DRP segment under High-Cost ICD, Essential Drug Coverage and Regional Drug Reimbursement programs, 2019

2019 rating	High-Cost ICD		Essential Drug Coverage		Regional Drug Reimbursement	
	Manufacturer	Purchase volume, mln roubles	Manufacturer	Purchase volume, mln roubles	Manufacturer	Purchase volume, mln roubles
1	Generium	**9 122**	Johnson & Johnson	**5 882**	Sanofi	**9 271**
2	Baxter	**8 074**	Novartis	**5 051**	Novartis	**7 500**
3	Celgene	**7 965**	Sanofi	**4 349**	Johnson & Johnson	**7 478**
4	Biocad	**5 946**	Novo Nordisk	**3 933**	Novo Nordisk	**6 020**
5	Takeda	**3 475**	AstraZeneca	**3 625**	Pfizer	**5 819**
6	Octapharma	**3 401**	Pfizer	**3 070**	AstraZeneca	**5 472**
7	Johnson & Johnson	**2 731**	Nativa	**2 943**	GlaxoSmithKline	**5 451**
8	F.Hoffmann-La Roche	**2 034**	Biocad	**2 275**	Nativa	**4 516**
9	CSL Behring	**1 518**	F.Hoffmann-La Roche	**2 269**	Merck & Co	**3 863**
10	Alexion Pharma	**1 478**	GlaxoSmithKline	**1 855**	Generium	**3 763**
11	Dr.Reddy's	**1 471**	Boehringer Ingelheim	**1 601**	F.Hoffmann-La Roche	**3 665**
12	Catalent	**1 326**	Bayer	**1 553**	Alexion Pharma	**3 200**
13	Sanofi	**1 227**	Bristol-Myers Squibb	**1 449**	Abbvie	**2 867**
14	Abbvie	**1 180**	Merck & Co	**1 344**	Biocad	**2 405**
15	Astellas	**1 074**	Pharmstandard	**1 323**	Bayer	**2 297**
16	CinnaGen	**1 048**	Eli Lilly	**1 260**	Boehringer Ingelheim	**2 231**
17	Merck & Co	**892**	Sotex	**1 197**	Takeda	**2 180**
18	Obninsk Chemical-Pharmaceutical Company	**649**	Pharm-Sintez (Moscow)	**1 133**	Pharmstandard	**1 909**
19	Pharmasyntez	**457**	Fresenius	**1 092**	Eli Lilly	**1 875**
20	Novartis	**452**	Takeda	**912**	Bristol-Myers Squibb	**1 784**

(against 2018) in purchases of drugs from its portfolio. Most of the growth was on account of immunomodulator Plegridy and monoclonal antibodies Darzalex.

The last-year leader Sanofi moved down to rank second (5.9% of subsidized drugs): its sales volumes grew by 6.7% over the year. The increase in sales was, primarily, due to the increase in purchases of antineoplastic Caprelsa and Menactra vaccine.

Ranking third in 2019 is Novartis (5.1%). The increased purchases of antineoplastic Risarg and interleukin inhibitor Cosentyx moved the company two positions upwards. The manufacturer's overall sales volumes grew by 41.1%.

Russian Generium moved at once 6 positions up. Its sales noticeably grew - by 96.4%. The increase was owing to the appearance on the market of Elizaria (a cheaper equivalent of immunosuppressant Soliris), with the same INN-eculizumab, purchased under the 12 ICD Codes program.

At the end of 2019, thanks to the import substitution scheme there were three Russian manufacturers in the top 20 by value of sales volumes.

Table 12 shows the rating of manufacturers participating in the 12 ICD Codes, Essential Drug Coverage and Regional Drug Reimbursement programs.

Generium came out on top in the 12 ICD Codes program; top-rated in the Essential Drug Coverage and Regional Drug Reimbursement programs are Johnson&Johnson and Sanofi. There are more than 4 Russian manufacturers in each of the sub-programs.

Drugs in the DRP segment

Table 13 shows the top 20 brands leading by the purchase volume in the DRP in 2019.

In 2019, the top 20 brands accounted for 27.1% of the value volume, which is slightly less than in 2018.

The top rated by value is still Celgene's immunosuppressant Revlimid (+4.4% against 2018); the second in the rating is Sanofi's long-acting insulin analogue Toujeo SoloStar (+29.5%). The third in the top three is novel immunosuppressant Elizaria made by Russian Generium.

In 2019, there were only 4 new drugs in the rating: the highest positions were held by Pfizer's antineoplastic Ibrance (+88 positions) and GlaxoSmithKline's Votrient (+65) that demonstrated the maximum growth in purchase volumes (+371.9% and +265.2%, respectively).

The weighted average price in the top 20 brands was about 6,000 roubles/package. In 2019, the most expensive out of the top 20 drugs was immunosuppressant Soliris, its weighted average price is about 362 thousand roubles; the cheapest was anti-diabetic agent Novorapid (about 1.3 thousand roubles).

Most of the top 20 belong to [L] Antineoplastic and Immunomodulating Agents (11 brands). The second-ranking in this respect is [A] Alimentary Tract and Metabolism (5 brands). The third-ranking is [B] Blood and Blood Forming Organs (4 brands).

Most of the ranked brands are drugs dispensed under the 12 ICD Codes program (11 brands). Involvement in the High-Cost ICD program does not exclude regional

Table 13

Top 20 brands by DRP purchase value, 2019

2019 rating	Change against 2018	Brand	Manufacturer	Purchase volume, mln roubles	Growth, % 2019/2018	Share, % 2019
1	-	Revlimid	Celgene	**8 031**	**4.4%**	**3.2%**
2	+1	Toujeo SoloStar	Sanofi	**6 184**	**29.5%**	**2.4%**
3	new	Elizaria	Generium	**5 017**	**new**	**2,0%**
4	-2	Soliris	Alexion Pharma	**4 213**	**-23.8%**	**1.7%**
5	+2	Imbruvica	Johnson & Johnson	**4 101**	**38.3%**	**1.6%**
6	-2	Levemir	Novo Nordisk	**3 523**	**-1.4%**	**1.4%**
7	-1	Advate	Baxter	**3 445**	**13.7%**	**1.4%**
8	+23	Elaprase	Takeda	**3 385**	**183.8%**	**1.3%**
9	-	Novorapid	Novo Nordisk	**3 183**	**20.2%**	**1.3%**
10	-5	Acellbia	Biocad	**3 055**	**-6.5%**	**1.2%**
11	+3	Feiba	Baxter	**2 892**	**27.5%**	**1.1%**
12	-1	Afinitor	Novartis	**2 832**	**8.9%**	**1.1%**
13	+3	Tizabri	Johnson & Johnson	**2 643**	**39.9%**	**1.0%**
14	-6	Humira	Abbvie	**2 571**	**-9.9%**	**1.0%**
15	+88	Ibrance	Pfizer	**2 435**	**371.9%**	**1.0%**
16	-1	Coagil	Generium	**2 334**	**15.1%**	**0.9%**
17	+1	Humalog	Eli Lilly	**2 318**	**44.0%**	**0.9%**
18	+65	Votrient	GlaxoSmithKline	**2 217**	**265.2%**	**0.9%**
19	-	Enbrel	Pfizer	**2 137**	**36.5%**	**0.8%**
20	-7	Octofactor	Generium	**2 080**	**-14.7%**	**0.8%**

Table 14

Top 20 brands by DRP purchase volumes under High-Cost ICD, Essential Drug Coverage and Regional Drug Reimbursement programs, 2019

2019 rating	High-Cost ICD		Essential Drug Coverage		Regional Drug Reimbursement	
	Brand	Purchase volume, mln roubles	Brand	Purchase volume, mln roubles	Brand	Purchase volume, mln roubles
1	Revlimid	**7 965**	Toujeo SoloStar	**2 211**	Toujeo SoloStar	**3 973**
2	Advate	**3 445**	Imbruvica	**1 388**	Soliris	**2 735**
3	Elaprase	**3 205**	Afinitor	**1 374**	Imbruvica	**2 713**
4	Feiba	**2 811**	Novorapid	**1 351**	Elizaria	**2 629**
5	Acellbia	**2 797**	Levemir	**1 313**	Levemir	**2 210**
6	Tizabri	**2 642**	Ibrance	**962**	Votrient	**1 891**
7	Elizaria	**2 387**	Enbrel	**957**	Novorapid	**1 832**
8	Coagil	**2 256**	Plegridy	**952**	Nplate	**1 602**
9	Octofactor	**2 080**	Humalog	**928**	Ibrance	**1 474**
10	Infibeta	**1 658**	Xarelto	**924**	Afinitor	**1 458**
11	Octanat	**1 596**	Ketosteril	**896**	Humira	**1 391**
12	Soliris	**1 478**	Opdivo	**864**	Humalog	**1 390**
13	Reddytux	**1 471**	Eralfon	**852**	Tasigna	**1 311**
14	Vilate	**1 342**	Octreotide	**848**	Metformin	**1 289**
15	Naglazym	**1 326**	Ilaris	**787**	Lantus	**1 258**
16	Humira	**1 180**	Lantus	**753**	Sovaldi	**1 244**
17	Cinnovex	**1 048**	Iressa	**678**	Enbrel	**1 180**
18	Pulmozyme	**1 044**	Rinsulin	**659**	Galvus	**1 156**
19	Advagraf	**1 039**	Sovriad	**638**	Rinsulin	**1 148**
20	Immunate	**1 007**	Spiriva	**606**	Revolade	**1 062**

> High-Cost ICD purchase volumes in the high-price segment (above 50,000 roubles) notable increased: by 88.9%; packages purchased increased by 73.8%. It means that larger amounts of expensive innovative drugs are purchased for benefit-entitled social categories.

provision; sometimes, even more money is spent on regional benefits. An example of this is Elizaria (52% to 48% in favour of regional drug reimbursement) or Soliris (35% to 65%).

Drugs from the Essential Drug Coverage list are frequently dispensed in the same volumes also under regional benefits. That is why Essential Drug Coverage and Regional Drug Reimbursement ratings are very much alike.

DRP price segmentation

In 2019, the average per unit price under the DRP program increased over the year by 5.5% to come to around 1,310 roubles. In terms of sub-programs, the most expensive are High-Cost ICD drugs: one package is purchased by the state on average at the price of 14,352 roubles (+34.5% against 2018). In regionally subsidized programs, the price is 1,181 roubles (+2.6%). The cheapest are drugs purchased under the Essential Drug Coverage program: 842 roubles (+4.0%).

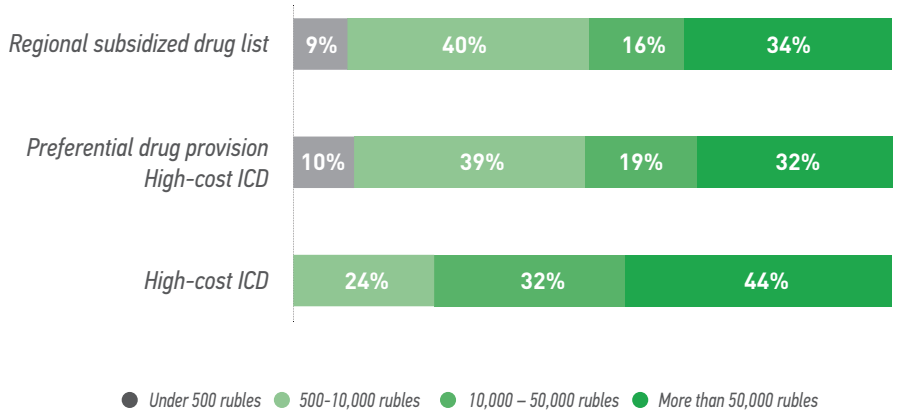
The structure of consumption of drugs under the DRP program is shown in Figure 25.

High-Cost ICD purchase volumes in the high-price segment (above 50,000 roubles) notable increased: by 88.9%; packages purchased increased by 73.8%. It means that larger amounts of expensive innovative drugs are purchased for benefit-entitled social categories.

The same trends are observed in other reimbursement/benefit programs. The share of expensive drugs increases as more funds were spent in 2019: 37.0% more in the Essential Drug Coverage segment, and 31.6% more in the regional segment on drugs priced over 50 thousand roubles.

Figure 25

DRP structure in value terms, by price segment, 2019



4. Volumes of purchases of drugs for needs of HCI

In the recent years Russia has seen positive dynamics in financing of health care institutions. In 2019, health expenditure accounted for 3.7% of GDP. In 2020, the figure will go up to 4.1%. Of course, it is a modest figure if compared to the global expenditure. For instance, the highest health expenditure is in the US - 16.9% of GDP (according to the data for 2019); Switzerland's health spending is 12.2%. France, Germany, Sweden and Japan allocate around 11% for health care.

Yet, more important is that health expenditure in Russia is growing. In absolute figures, the growth is fairly significant: from 2.7 trillion roubles in 2019 to 4.5 trillion roubles in 2020, which means a 67% increase in the budgetary allocations. In 2021 it is envisaged to spend 787.6 billion roubles, in 2022 - 788.1 billion roubles. All in all, during the three years to come it is planned to spend 2 trillion 423.2 billion roubles under the national program.

The key health care objectives cover, in the first place, facilitating access to medical care, reducing incidence and mortality rates and, as a result, improving life quality.

On June 6, 2019 Russia's President signed new Decree No. 254 to approve the health care development strategy until 2025. The strategy will be implemented in two stages:

- Stage 1. 2019-2020: developing legal, organizational and financial mechanisms to ensure smooth operation of the system. Staffing hospitals and supplying them with everything necessary.
- Stage 2. 2021-2025: developing new solutions to ensure sustainability of the health system.

From 2019 the «Health Development» national program is implemented under 8 federal projects:

- Development of the Primary Health Care System;
- Control of Cardiovascular Diseases;
- Fight against Oncology;
- Development of the Child Health System, in particular, Creation of an Advanced Infrastructure for Delivery of Health Care to Children;
- Supply of Health Care Institutions with Skilled Staff;
- Development of a Network of National Medical Research Centres and Implementation of Innovative Medical Technologies;

> Health expenditure in Russia is growing

- Creation of a Single Digital Environment in the Health Industry on the Basis of the Uniform State Health Information System (USHIS);

- Promotion of Exports of Medical Services.

According to Rosstat, at the beginning of 2019 the Russian health system comprised 5.3 thousand hospitals and 20.2 thousand outpatient clinics and facilities. Over 16 years, the number of hospitals decreased two-fold. Optimization caused shortages of bed capacities: the number of hospital beds decreased by 27.6% compared to 2003 (from 1,619.7 thousand to 1,172.8 thousand). All this reduced access to medical care, medications and drugs and triggered a reverse process. In 2013, the number of outpatient clinics, medical and obstetric centres and general practitioner's offices in rural areas started increasing: in just 6 years their number increased by 3.7 thousand.

But reduction in the number of hospital institutions led to reductions of medical staff. In 2019, the number of middle-grade medical staff decreased by 2.2% (to 1,491.4 thousand) whereas the number of doctors somewhat grew - by 0.9% to 703.7 thousand. Still, the system needs over 150 thousand medical workers.

In 2019, the outflow of healthcare workers was estimated at over 9 thousand medical workers. Among the mechanisms aimed at solving these problems are regional programs, target admission to higher education institutions, and other measures for supporting recent graduates. The federal «Skilled Staff» project under the «Health» national program envisages staffing primary medical care institutions throughout the country by 86% by 2021 and by 95-99% by 2024. So, the number of medical officers in Russia is expected to grow in 5 years almost by 10%. For the development of the health system in the regions it is envisaged to subsidize the implementation of the «District Doctor» program by annually allocating 6.6 billion roubles in 2020-2022. From 2019, medical students enrolled through target admission are required to work after graduation 3 years in municipal institutions on the basis of trilateral agreements. If students refuse to do so, they will have to pay a fine.

Medical staff needs to be increased also to reduce the augmented load due to an increased number of visits to health care institutions. Over 16 years, the number of visits to polyclinics increased from 3.6 million to 4.0 million a year, or, per 10 thousand - from 248 to 272. Rates of incidence in the basic disease types increased, too: from 106 thousand in 2000 to 115 thousand in 2018 (first-time diagnosed registered patients).

Digitization in the healthcare system dates back to 2011 when health care institutions started getting connected to the Uniform State Health Information System (USHIS). In 2019, Rostec was the only USHIS service provider. Among the performance targets of the «Health» national program is the connection by 2022 of at least 80% of all public medical institutions in 85 regions to USHIS and to the electronic document management system. By 2023 at the latest, at least 70% of medical institutions are required to implement the system of electronic prescriptions and drug reimbursement forms. At the moment, the regions are not uniform in the progress of the implementation of the 'roadmap' targets.

Another topical issue of today is the development of telemedicine healthcare services implying the attending doctor's remote observation of the patient's health after a physical visit (as per Order of the Ministry of Health of Russia No. 965n dated 30.11.2017 «Concerning the Approval of the Procedure for Medical Care with the Use of Telemedicine Technologies»). In 2018, around 37 thousand patients were under remote observation, over 189 thousand 'doctor-patient' consultations were held. The «My Health» super service is projected to be enhanced: among the options to be offered in 2020 are invitations for medical checkups, online registration, appointments on indications; among the options to be offered in 2021 are booking hospitalization, making VHI appointments, issue of digital policies, electronic certificates, etc.; the options to be offered in 2022 include medical certificates for driver's and firearms licenses, medical services marketplace, etc.

In 2020, Russia saw the enactment of new legislative acts. A priority area is modernization of the primary facilities, which implies not only refurbishment of hospitals but also construction, renovation and improvement of the entire medical infrastructure. About 550 billion roubles will be allocated from the federal budget. Medical workers (excluding emergency physicians) will be able to provide urgent medical care without obtaining the patient's consent, including care to criminals and persons with mental disorders. Salaries of medical workers will be increased. The list of expensive chemotherapeutic drugs has been extended, 18 new high-tech medical care (HTMC) methods have been introduced, duration of a return visit of the oncologist for suspected cancer will be reduced, doctors will be paid bonuses for detecting malignant tumors at early stages.

The topic of labelling, which will become mandatory from July 2020, pervades across the pharmaceutical market. In this context, all medical institutions are required to have special-purpose equipment.

The driver of the growth of the Russian pharmaceutical market in the reporting year was the state segment. One of the expenditure items in the overall health care spending is procurement of drugs for the needs of healthcare institutions (HCI). In 2019, HCI purchased 854.2 million packages of drugs worth 309.8 billion roubles in wholesale prices (the analytical data reflect payments and supplies under contracts performed in 2019). The volume of packages purchased decreased by 9.9%. Compared to 2018, expenditures of hospitals exceeded public spending by 21.3%.

The dynamics is so high despite the fact that at the beginning of 2019 the public procurement system had certain problems with auction bidding: almost 30% of drug procurement tenders from state institutions remained without bids. The majority of unsuccessful tenders were regional ones. Among failed purchases were those of cheap drugs, such as sodium chloride, dextrose, prednisolone and others, as well as expensive ones. For example, over 33% of auctions for procurement of insulins and antineoplastic drugs were never held. The cause why companies refused to take part in the public procurement was an

> The driver of the growth of the Russian pharmaceutical market in the reporting year was the state segment

unreasonably low guaranteed maximum contract price set by the rules that aimed, in the first place, at equalizing purchase prices throughout the country. The rules were adopted back in 2017 but took effect only in January 2019.

The customer of supplies was forced to calculate the starting contract price on the basis of the data from the Unified Structured Reference Manual of Medications, which needed further finalization and update. Suppliers refused to participate in tendering as they saw no chance of any potential profits. Besides the low price, the governmental customer requested very small supply volumes, which is again unprofitable for suppliers.

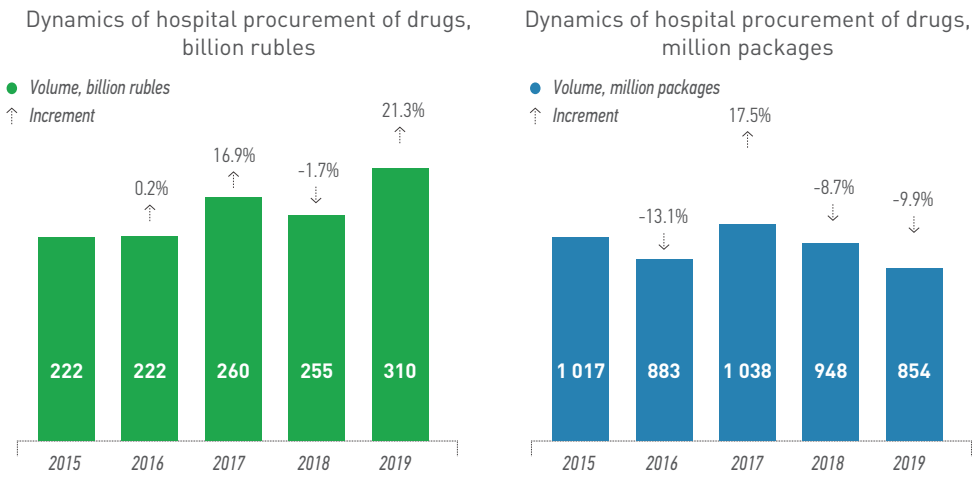
The growth of the hospital segment is, in the first place, on account of the increase in the purchases of expensive antineoplastic and immunomodulating agents (+105.7% in roubles and +27.8% in packages) within the framework of the implementation of the national oncology program. The federal «Fight against Oncology» project was launched in Russia in January 2019. The purpose of the project is to reduce mortality to 185 deaths per 100,000 population by 2024 (against 203 deaths in 2018). The project budgets funding for assistance to oncological patients in the amount of 750 billion roubles in 2019-2024. In particular, in 2019, 70 billion roubles were spent on fighting cancer, in 2020 it is projected to allocate 120 billion roubles, by 2024 the sum will be increased to 140 billion roubles.

As a result, ATC [L] pushed Antiinfectives for Systemic Use off the 1st position in the value rating. From 2019, expensive chemotherapeutics were funded by the Federal Compulsory Health Insurance Fund and the diagnosis waiting time was reduced by half. The key strategic objectives include timely (early) detection of malignant tumors, high-quality diagnosis and chemotherapy in home areas, creation of outpatient oncology centres, medical staff training and staffing.

Today, oncology is the second leading cause of death in Russia, after cardiovascular diseases. According to Rosstat, in 2019 cancer claimed 294 thousand victims.

Figure 26

Hospital purchase dynamics, 2015-2019



Let us note varying trends in the hospital purchases of drugs: one year purchase volumes grow, next year - they start dropping. It is accounted for by changes in and volumes of expenditures on certain drug groups, in the first place, infusion solutions. On the average, consumption rates in volume terms remain much the same, around 1 billion packages.

The upward trends in the structure of purchases in favour of drugs for the treatment of oncological diseases triggered a notable increase in the weighted average per unit price of drugs purchased for the needs of HCI. In 2019, the price was 363 roubles, which is 34.6% higher than a year earlier. Speaking about variation in prices, the hospital system is marked by deflation processes. In 2019, the price index for drugs purchased through tendering was negative, -3.3%. The weighted average prices for the most demanded drugs were observed to be decreasing too: 11 brands out of the top 20 were purchased at lower prices. The maximum decrease in price was demonstrated by Bayer's contrast agent Ultravist (INN-Iopromide): in 2019, it cost 71.8% less than in 2018.

> The increased spending on purchases of drugs is mainly due to the shift towards more innovative and, consequently, more expensive medicines

So, the increased spending on purchases of drugs is mainly due to the shift towards more innovative and, consequently, more expensive medicines.

All of the trends characteristic of 2019 derive from the growth of purchases of [L] code medicines. In the reporting year, the distribution of volumes in the HCI segment shifted towards foreign drugs. Over the year, the share of imported

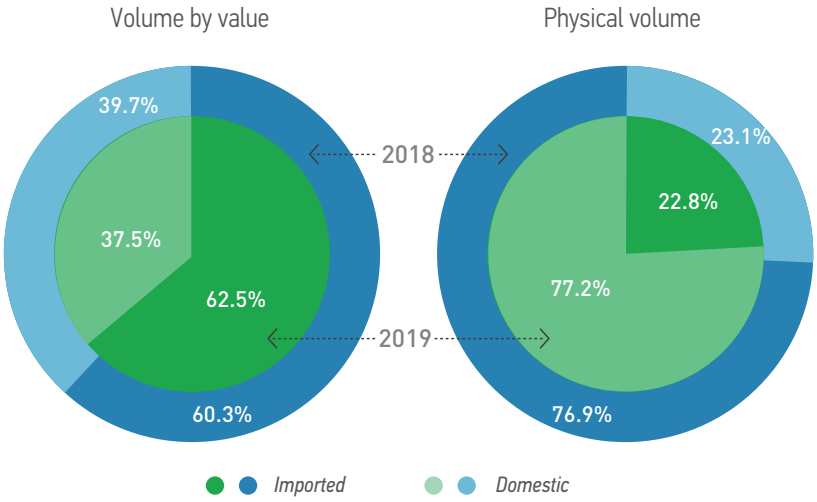


Figure 27

Структура сегмента ЛПУ по происхождению, 2018–2019 годы

drugs grew by 2.2% in roubles to come to 62.5% due to a more significant increase in sales volumes (+25.8% against +14.5% for domestic drugs). In volume terms, the market structure changed to slightly favour Russian drugs: their share rose from 76.9% in 2018 to 77.2% in 2019.

If compared to 2015, owing to the 'three is a crowd' principle the share of domestic drugs increased by 8.3% in value terms and by 7.5% in volume terms.

At the end of 2019, the weighted average per unit price of a foreign drug was 993 roubles, which is 41% higher than in 2018. The average price in the segment of Russian drugs increased by 26.7%, yet it is too far behind (more than five-fold) compared to imported drugs - 176 roubles/package.

In 2019, volumes of purchases of imported drugs grew by one fourth. High positive dynamics were observed in purchases of antineoplastic drugs (monoclonal antibodies) INN-Pembrolizumab (Keytruda brand; +755.3% against 2018), INN-Nivolumab (Opdivo; +547.7%), INN-Pertuzumab (Perjeta; +501.1%).

The increase in the sales of domestic drugs (+14.5% in roubles) was also on account of purchases of oncology medications INN-Bevacizumab (Avegra; +173.6% against 2018) and INN-Trastuzumab (Herticad; +120.4%).

Below are the top 10 INNs with a maximum rate of shift to domestic drugs out of the top 100 by purchase volumes (these INNs account for 65.9% of all hospital purchases in money).

In 2018, the INN rating was different. So, each year the import substitution trends cover more and more nomenclature items. Three INNs are found in the rating by the growth of the share of domestic drugs: in 2018, the best-seller among them was a Russian drug, the growth was accounted by the fact that several domestic drugs were added to the procurement list.

According to the data for 2019, Russian drugs exceed 90% in 698 INNs out of 2,063 INNs purchased by hospitals. And there are 916 INNs in which imported drugs prevail (accounting for over 90% in purchases); 46 of them are in the top 100 by volume. The most-widely used INNs represented only by imported drugs remain the Pneumococcal Vaccine and antineoplastic agents Nivolumab and Pembrolizumab: these three INNs account for 6.9% of hospital purchases.

Substitution of imports is growing not only because of the shift to domestic drugs but also on account of localization of foreign manufacturers in Russia. The latter notably changes the structure of drugs purchased for the needs of health care institutions.

To a larger extent, 'localization' is observed, of course, in money since foreign manufacturers are primarily in search of mechanisms for expensive drugs to be 'made in Russia'. In consequence, public procurement covers 68.8% of drugs made in Russia (+31.3% to domestic drugs) whereas in packages the proportion of such drugs increases only by 4.4% to come to 81.6%. According to the data for 2019, the price of a 'localized' drug was at 2,571 roubles.

Among the leading foreign manufacturers that are now making drugs in Russia are Merck (13.6%), F.Hoffmann-La Roche (11.1%) and Pfizer (10.5%). Most of the 'localized' drugs are antineoplastic agents and antiinfectives.

Table 15

Top 10 INNs in terms of import substitution, in value, 2019

Ranking	INN	Share of domestic drugs, roubles		Share growth, %%	Top-selling drug (manufacturer), 2018	'Shift-to' drug (manufacturer), 2019
		2018	2019			
1	Sorafenib	35.63%	84.52%	48.89%	Nexavar (Bayer)	Sorafenib (Nativa)
2	Sunitinib	21.70%	69.15%	47.46%	Sutent (Pfizer)	Sunitinib (Nativa)
3	Abiraterone	50.09%	89.39%	39.30%	Zytiga (Johnson & Johnson)	Abitera (Pharmasyntez)
4	Cefoperazone+ Sulbactam	20.83%	46.27%	25.45%	Bacperazone (Gepach International)	Bactsefort (Kraspharma)
5	Sevoflurane	2.39%	24.84%	22.45%	Sevorane (Abbott Laboratories)	Sevoflurane (Alvils; Medisorb)
6	Pemetrexed	48.17%	69.02%	20.85%	Pemetrexed (Nativa)	Verotrexed (Veropharm)
7	Ademetionine	61.43%	79.84%	18.41%	Heptor (Veropharm)	Samelix (Bacter)
8	Enoxaparin sodium	62.02%	80.35%	18.33%	Enixum (Sotex)	Enoxaparin sodium (Biocad)
9	Bendamustine	0.00%	17.99%	17.99%	Ribomustin (Astellas Pharma)	Rozustin (Protek)
10	Imipenem+ Cilastatin	12.00%	29.33%	17.33%	Cilapenem (Belmedpreparaty)	Imipenem + Cilastatin (Kraspharma)

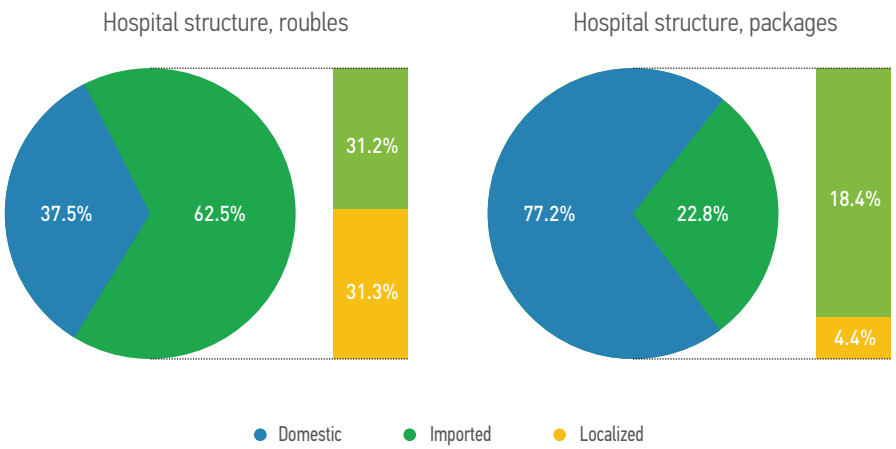


Figure 28

HCI segment structure, by origin, including localization

> In packages, as before the largest segment is that of drugs priced of up to 50 roubles: it accounts for 63.8%

The structure of HCI purchases by price segments is shown in Figure 29.

2019 saw significant changes in the price structure of purchases. All price categories except for the segment of drugs priced 'over 500 roubles' (+7.1% against 2018) demonstrated a decrease in the share by volumes of purchases of drugs for HCI.

In packages, as before the largest segment is that of drugs priced of up to 50 roubles: it accounts for 63.8%. In 2019, the share of this price range increased by 1.7% compared to 2018. As before, among the most purchased are INN-Sodium chloride drugs (39.2% of the physical volumes of drugs 'priced below 50 roubles').

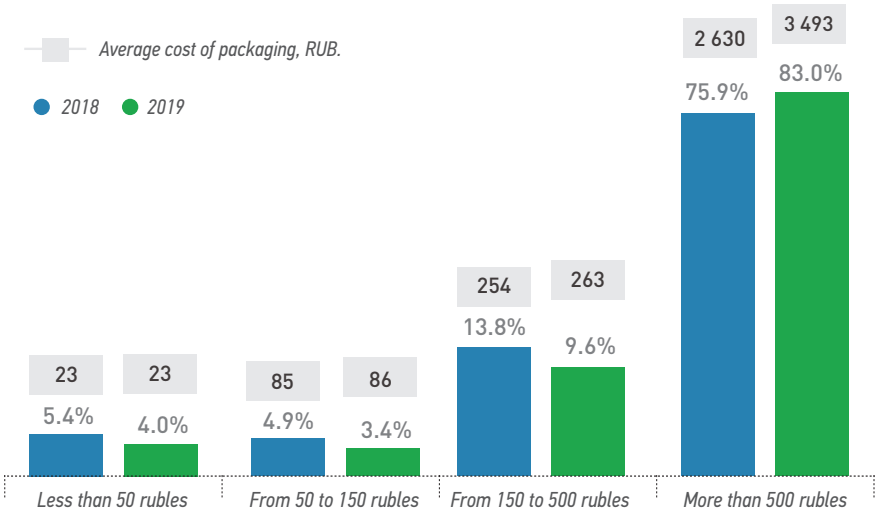
The highest share among imported drugs is held by drugs priced over 500 roubles: 92.3% (Figure 26). Among Russian drugs, the share of the price segments 'below 50 roubles' (8.8%), 'from 50 to 150 roubles' (6.7%) and 'from 150 to 500 roubles' (16.4%) is moderate; the highest sales volumes accounting for 68.2% are demonstrated also by the category 'priced over 500 roubles'. Notable is that compared to 2018 this figure rose by 7.7%.

In the segments where the price per unit is up to 500 roubles the difference between the weighted average price for imported and for domestic drugs is not so perceptible whereas in the largest segment of drugs 'priced over 500 roubles' the difference between domestic and imported drugs is still fairly marked: more than double.

The ratio of hospital purchases in Russia at the end of 2019, by ATC codes, 1st level, is shown in Table 16.

Figure 29

HCI segment structure, by price categories in value, 2018-2019



The rating of drugs in the HCI segment by ATC codes is much different from that on the commercial market. The rating for 2019 differs from the rating of the last year. The cause is the same - the increase in purchases of oncology-related drugs.

[L] Antineoplastic and Immunomodulating Agents came on top in the hospital purchases segment at the end of 2019 (a 34.03% share by value), thus demonstrating the highest increase in purchases by 105.7% (purchases of drugs in this category grow since 2013). The increase in the volumes of sales in [L] was mainly on account of the increased purchases in the largest sub-code [L01] Antineoplastic Agents (+125.4% in roubles), namely, the original imported drugs - Merck&Co's monoclonal antibodies Keytruda (+755.3%), Bristol-Myers Squibb's Opdivo (+547.7%) and F.Hoffmann-La Roche's Perjeta (+501.1%), that have no equivalents on the market. Also in volume terms, antineoplastic and immunomodulating agents demonstrate a noticeable increase: +27.8% (the only code out of 15 ATC).

In the last few years, [J] Antiinfectives for Systemic Use held the lead. However, in the reporting year, despite 11.1% sales growth, it lost the first position to [L]. This category demonstrates positive dynamics since 2012, mainly due to the increase in sales of vaccines [J07] (+19.6%), which in 2019 came in on top within [J]. The increase in purchases in [J07] Vaccines was on account of qHPV Vaccine Gardasil (+308.3%), influenza vaccine (split, inactivated) Flu-M (+215.4%) and others. In the reporting period, the novel medicine of 2018 - influenza vaccine Flu-M - got into the top 4 of purchased vaccines.

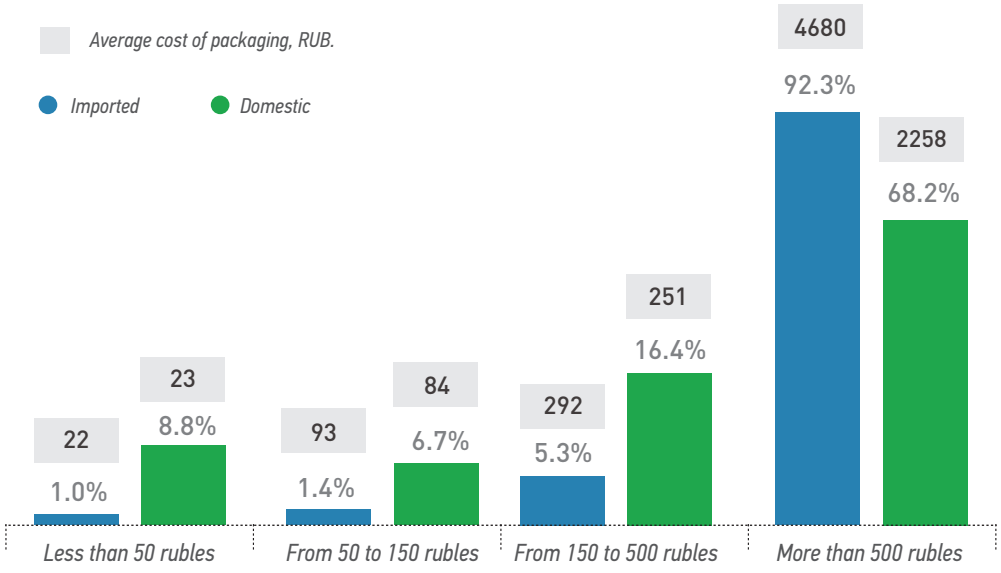


Figure 30

HCI segment structure by price categories for imported and domestic drugs, by value, 2019

Table 16

Hospital purchases structure, by ATC code, 2019

ATC code 1st level	Value, bln roubles	Share in value terms, %	Volume, mln packages	Share in volume terms, %
Antineoplastic and immunomodulating agents [L]	105.43	34.03%	15.21	1.78%
Antiinfectives for systemic use [J]	101.35	32.71%	239.87	28.08%
Blood and blood forming organs [B]	32.69	10.55%	302.41	35.40%
Nervous system [N]	16.68	5.38%	74.79	8.75%
Various [V]	13.21	4.26%	10.91	1.28%
Alimentary tract and metabolism [A]	11.18	3.61%	57.48	6.73%
Respiratory system [R]	4.79	1.55%	20.44	2.39%
Cardiovascular system [C]	4.72	1.52%	35.30	4.13%
Musculoskeletal system [M]	4.65	1.50%	17.81	2.09%
Sensory organs [S]	4.12	1.33%	4.65	0.54%
Systemic hormonal preparations, excluding sex hormones [H]	3.26	1.05%	11.93	1.40%
Non-ATC	2.88	0.93%	1.35	0.16%
Genitourinary system and sex hormones [G]	2.62	0.85%	3.29	0.38%
Dermatologicals [D]	2.21	0.71%	58.52	6.85%
Antiparasitic products, insecticides and repellents [P]	0.03	0.01%	0.30	0.04%

Table 17

Top 20 manufacturers in the HCI segment by value, 2019

Ranking 2019	Change against 2018	Manufacturer	Value, mln roubles 2019	Growth, % 2019/2018	Share, % 2019
1	+2	Biocad	**19 605.9**	**79.3%**	**6.3%**
2	+3	Merck	**18 627.5**	**85.2%**	**6.0%**
3	+12	F.Hoffmann-La Roche	**13 561.5**	**200.2%**	**4.4%**
4	-3	Pfizer	**13 122.2**	**14.0%**	**4.2%**
5	-3	Pharmasyntez	**12 201.6**	**8.6%**	**3.9%**
6	+2	Sanofi	**11 059.8**	**46.0%**	**3.6%**
7	+4	GlaxoSmithKline	**10 684.1**	**87.5%**	**3.4%**
8	-4	Microgen	**10 168.5**	**-2.1%**	**3.3%**
9	-3	Abbvie	**10 133.8**	**2.3%**	**3.3%**
10	-3	Johnson & Johnson	**8 988.1**	**7.0%**	**2.9%**
11	-2	Veropharm	**7 554.2**	**7.2%**	**2.4%**
12	-2	Novartis	**7 469.2**	**10.9%**	**2.4%**
13	-1	Bayer	**7 460.9**	**32.0%**	**2.4%**
14	-1	AstraZeneca	**7 384.1**	**45.5%**	**2.4%**
15	+18	Bristol-Myers Squibb	**7 201.3**	**331.2%**	**2.3%**
16	-2	Takeda	**4 566.4**	**-2.3%**	**1.5%**
17	+6	Baxter	**4 215.2**	**36.6%**	**1.4%**
18	+10	Nativa	**4 209.8**	**72.2%**	**1.4%**
19	-3	Pharmstandard	**4 129.3**	**16.4%**	**1.3%**
20	+4	Fresenius	**4 027.1**	**36.3%**	**1.3%**

[B] Blood and Blood Forming Organs (-4.8%) retained its third position by the volume of hospital purchases. The largest sub-group, as before, is [B05] Blood Substitutes and Perfusion Solutions, accounting for 44.6% of the category. Both in the rouble equivalent and in volume terms, the top purchased are INN-Sodium chloride based drugs.

The most urgent concern in today's medicine are cardiovascular diseases as heart and vascular diseases along with tumors are the leading cause of death. In 2019, the drop in the purchases of drugs under this category was more noticeable than in the other categories: purchases decreased by 31.3% in roubles; a drop in purchases in this category was observed also in 2018. As a result, over 2 years purchase volumes reduced double; the decrease in packages is also significant: by 36%.

Table 17 shows the rating of the top 20 manufacturers in the HCI segment at the end of 2019; it is different compared to 2018, by manufacturers as well as by positions. The top 3 manufacturers are companies with a high proportion of drugs for the treatment of oncological diseases.

The leader of 2019 is Russian Biocad. In the hospital segment the company's sales grew by 79.3%, owing to the increase in purchases of antineoplastic agents Avegra (+174.3%) and Herticad (+120.4%). These two drugs account for 64.6% of Biocad's hospital portfolio. All in all, HCI purchased 33 brands that substitute for foreign-made equivalents under the import substitution program.

Merck moved up to rank second (+85.2%). The company supplies 73 drug brands to hospitals. The most demanded are antineoplastic Keytruda (a 34.0% share in roubles) and antiretroviral Isentress (23.3%). In 2019, hospitals started buying four new drugs: Zepatier for the treatment of chronic hepatitis C, M-M-R II vaccine against measles, mumps and rubella, antibiotic Ertapenem J, and vasodilator Proglycem not registered in Russia.

The year-end third is F.Hoffmann-La Roche (+200.2%), one of those that demonstrated the most significant growth in the top 20. The company's hospital portfolio includes 41 brands. 12 of F.Hoffmann-La Roche's basic drugs belong to [L] code and account for 95.2% of the corporation's purchases.

There are six domestic manufacturers in the top 20. Almost all of them demonstrated high positive dynamics. Among the best performing are Biocad (+79.3% in roubles and +2 positions in the rating) and Nativa (+72.2% and +10 positions), both focused on import substitution.

Among foreign manufacturers, most positions upwards (+18) were gained by Bristol-Myers Squibb, with a 331.2% increase in purchases. The company's growth was owing to cancer drug Opdivo (+547.7%).

Compared to 2018, a drop in purchases of the ranked manufacturers was observed only for two companies: Japanese Takeda (-2.3%) and Russian Microgen (-2.1%) specializing in the development of vaccines against socially dangerous infections.

Table 18 shows the top 20 brands in the HCI segment at the end of 2019. The top 20 brands account for 29.3% of hospital purchases, which is 5% higher than in the previous year.

The rating changed much: in 2019, only one drug (Bayer's contrast agent Ultravist) retained its position of 2018. Pfizer's

pneumococcal vaccine Prevenar, purchased under the National Vaccination Schedule and for social categories subject to a higher risk of pneumococcal infection (i.e. for patients with immunity deficiency, oncological diseases, chronic CVD, prematurely born babies, etc.), moved up to rank 1st (+4.7%)

The second from the top is Russian Microgen's Sovigripp (-5.7%) recommended for influenza vaccination of the population.

Bristol-Myers Squibb's anti-cancer drug Opdivo (547.7%) moved over the year 32 positions upwards in the brand rating owing to a 547.7% increase in purchased volumes.

Most of the brands in the rating are antiinfectives for systemic use (9 names); anti-cancer drugs and immunomodulators (8 names), which demonstrated remarkable dynamics against the previous year and had a major impact on all the changes in the hospital segment of the Russian pharmaceutical market. In 2019, seven drugs were out of the rating.

Besides expensive imported drugs, the top 20 include also Russian cheap rehydrating agent Sodium Chloride (-9.0%). In packages, Sodium Chloride is the all-time leader accounting for ¼ of all purchases in the hospital segment. And the second-ranking position is more than 20% behind it. About 40 manufacturers sell on the market drugs under this brand. Let us note that the 2019 leader is Grotex that replaced the former leader Escom.

Table 18

Top 20 brands in the HCI segment by value, 2019

Ranking 2019	Change against 2018	Brand	Value, mln roubles 2019	Growth, % 2019/2018	Share, % 2019
1	+1	Prevenar	**7 286.0**	**4.7%**	**2.4%**
2	-1	Sovigripp	**6 744.6**	**-5.7%**	**2.2%**
3	+32	Opdivo	**6 672.9**	**547.7%**	**2.2%**
4	+3	Herticad	**6 463.9**	**120.4%**	**2.1%**
5	+58	Keytruda	**6 330.2**	**755.3%**	**2.0%**
6	+4	Avegra	**6 202.4**	**174.3%**	**2.0%**
7	-4	Sodium Chloride	**5 716.4**	**-9.0%**	**1.8%**
8	-4	Kaletra	**5 632.1**	**-5.1%**	**1.8%**
9	+5	Tivicay	**4 621.6**	**131.8%**	**1.5%**
10	+50	Perjeta	**4 509.3**	**501.1%**	**1.5%**
11	-6	Isentress	**4 346.4**	**39.4%**	**1.4%**
12	+1	Pentaxim	**4 193.6**	**94.5%**	**1.4%**
13	+18	Flu-M	**3 391.5**	**215.4%**	**1.1%**
14	+59	Kadcyla	**3 179.8**	**378.4%**	**1.0%**
15	-8	Intelence	**2 977.8**	**27.2%**	**1.0%**
16	-8	Eviplera	**2 661.2**	**14.8%**	**0.9%**
17	-6	Diaskintest	**2 341.9**	**6.8%**	**0.8%**
18	-	Ultravist	**2 259.8**	**33.1%**	**0.7%**
19	+2	Erbitux	**2 208.6**	**66.7%**	**0.7%**
20	+33	Faslodex	**2 178.3**	**166.2%**	**0.7%**

5. Dietary Supplements

Dietary Supplements (DS) are one of the trade items at the territory of the Eurasian Economic Union provided they have passed the necessary conformity assessment procedures, set by the Technical Regulations of the Customs Union. Customs Union Technical Regulations «On Safety of Food Products» provides for a conformity assessment by way of DS state registration. Data on DS state registration are entered into the Unified Register of State Registration Certificates and can be found on a search server at the following addresses: http://www.eurasiancommission.org and http://fp.crc.ru (Russian part). Thus, this information is publicly available.

DS may be sold only through pharmacies, specialized dietetic food stores, grocery stores (specialized aisles, sections, kiosks). Retail sale of DS at the customer's house, through a distibutor network (via distributors) is not allowed and is considered illegal.

Online sales hold a special place among sales channels. Although online sales can offer some benefits for the market participants, both the seller and the buyer, there is a number of critical issues that require proper regulation of online sales. On the one hand, there is a risk of increase in adulterated products turnover, it applies in particular to foreign online market places. On the other hand, it leads to unfair competition and violation of rights of manufacturers who are required to certify their products in Russia.

iHerb, an online store of beauty and health products, can be used as an example. During the last year the Union of DS Manufacturers, a Self-Regulatory organization, initiated several inspections of supplements sold through the American website, these inspections resulted in detection of products with substances, ingredient dosages and medicinal products that are banned or not registered in the territory of the Russian Federation. iHerb blocked the order option for the supplements in question prior to a court decision. Moreover, in November 2019 iHerb opened its first office in Russia: lawyers then said that it was necessary to handle lawsuits more efficiently, economists - that it will simplify the wholesale trade development.

By the way, the Russian market is of high priority for iHerb: according to SimilarWeb data, it accounts for almost 22% of the market place traffic. The customers who are used to iHerb are looking for the ways to continue ordering imported DS in the future. For example, there are websites similar to iHerb: MyProtein, eVitamins, MyVitamins, etc.

It's next to impossible to get hold of and limit operation of foreign websites in Russia without clear applicable legislation. Domestic companies are discriminated

> Online sales hold a special place among sales channels

against in this area too. This happened to Fitomarket online portal owned by Evalar. In November 2019 Roskomnadzor (the Federal Service for Supervision of Communications, Information Technology and Mass Media) blocked this online store because the website featured information on sale of products for kids, which, according to the oversight authority, violated the current legislation. Moreover, despite the fact that this webpage was promptly deleted from the website, the online market place was fully blocked for a certain period of time. The company believes that the website idle time losses amount to 50 mln roubles a day.

Simplified procedure of DS registration sometimes works in favor of dishonest manufacurers. In contrast to drugs, DS may contain impurities, not reported in the state registration certificate and left due to insufficient purification. Therefore, while inspecting supplements' quality and safety Rospotrebnadzor (the Federal Service for Oversight of Consumer Protection and Welfare) pays special attention to risks associated with the turnover of adulterated products containing active ingredients not reported during the state registration. Primary focus is still on DS intended for erectile dysfunction treatment. As a result of conducted inspections the following adulterated supplements were detected::

- Sayma, manufactured by Chgin Yuan Tkhan bioengineering company, LLC, PRC. Drug substances (Vardenafil, Tadalafil) were found in this product.

- Vuka Vuka, produced by Vitamer, LLC, Russia. 5-phosphodiesterase inhibitor (Tadalafil) was detected as an ingredient of this DS. Nizhpharm JSC (part of Stada CIS) owns marketing rights for Vuka Vuka DS in Russia and the CIS.

Naturally, in 2019 Rospotrebnadzor suggested introducing mandatory labelling for biologically active dietary supplements, drinking water and sports nutrition. Center for Development of Innovative Technologies (CDIT), which is in charge of the labelling program, stated that the agency is technically ready for DS labelling, if Minpromtorg (Ministry of Industry and Trade) considers labelling necessary.

Rospotrebnadzor also came forward with an initiative to prohibit DS names that sound similar to drug names, which can confuse pharmacy customers. By the results of 2019, DS with names identical to certain medicines amounted to 195 brands, which equals 7% of the total range of supplements sold by pharmacies. As for turnover, these products hold a significant share - 22.6%. The most famous and diverse are Vitrum, Doppelhertz, Complivit, etc.

It's worth noting that sales of DS with the name resembling the above-mentioned drugs' names are higher than those of drugs themselves. It is partly due to conversion of certain medicines into supplements by manufacturers. This DS market trend emerged due to introduction of mandatory labelling for drugs: some drug manufacturers are reregistering their products as supplements in order to avoid the labelling requirement. It primarily concerns vitamins.

Thus, in 2019 dietary supplements retail sales volume equalled 324 mln packages to the amount of about 63.4 billion roubles (in retail prices). Within a year the DS market capacity grew by 19% in roubles and by 2% in packages. In autumn, the DS market experienced a significant increase. It was associated with return of market growth in packages. In winter and spring,

positive dynamics in value was provided for by the price factor, which was among other things linked to changes in the customer profile. DS market grows thanks to well-off people leading healthy lifestyle that implies expensive vitamins intake. Thanks to this segment pharmacies' revenue from DS sales increased by 22%.

Pharmacies reduced markup for this group of products to keep prices competitive and to attract customers: at the end of 2019 the DS markup was 35.6%, compared to 2018 the markup has decreased by 2.5%, and compared to 2015 this value witnessed an even more considerable decrease - by 6.8%.

In the second half of 2019 the DS market showed notable positive results due to sharp demand increase and price factors impact. When analyzing monthly dynamics of dietary supplements sales volumes, it's worth mentioning that the greatest sales growth rate happened during the autumn months: November (+43.5% in roubles and +212% in packages) and October (+42.8% and +23.1% respectively). However, in March the market dropped by 2.6% in roubles and by 21.0% in packages against the same period of the previous year.

On average, in 2019 one package of DS cost 196 roubles (retail price), which is 16.1% more than in the previous year. The main factor in such dynamics was change in the customer preferences. The DS weighted average price in pharmacies' wholesale prices amounts to roughly 144 roubles.

Customers switched to more expensive supplements and it had a significant impact on the sales structure by price categories. A considerable sales growth was witnessed by high-price segment (+36.3% in roubles, +33.4% in packages). As a result, the DS market structure has changed giving predominance to supplements costing more than 500 roubles, the share of this supplement group grew by 6.0% in value and by 2.4% in kind. Therefore, expensive dietary supplements turned out to be the most profitable for pharmacies (46.5% in roubles). The first 5 places in the sales volume ranking are taken by multivitamins. An important share (24.4%) is held by supplements from the «300-500 roubles» category.

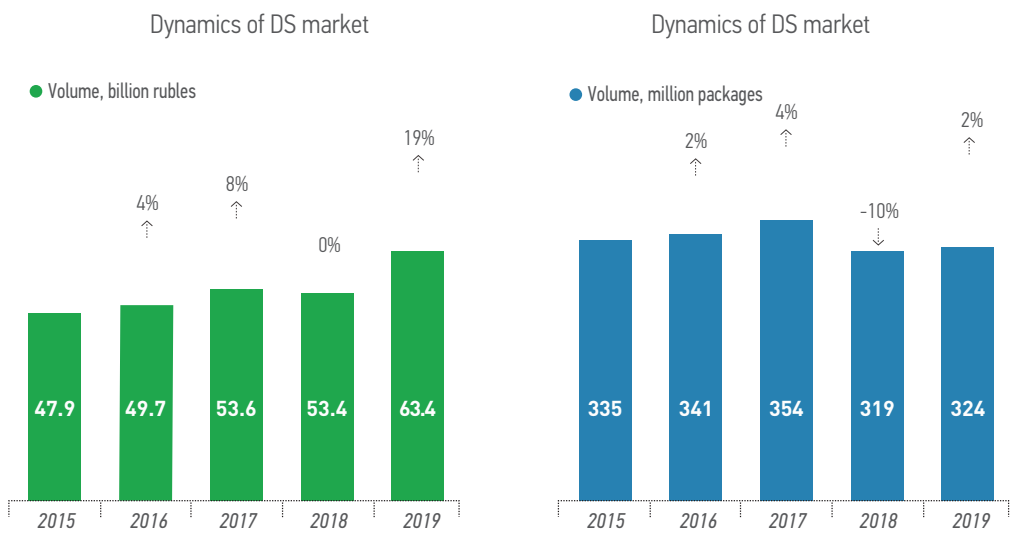


Figure 31

Dynamics of DS Pharmacy Sales in Russia

Cheap supplements are still the most highly demanded by Russian customers, despite the sales volume drop by 5.2% in roubles and by 7.2% in packages. At the same time, in 2019 the share of products priced below 50 roubles shrank by 4.3% and amounted to 42.4% of sold supplement packages. Due to low value in roubles, their volume does not exceed 5.0% (-1.2% in comparison with 2018). Delicious Hematogen and Ascorbic acid hold half of the sales volume in packages of the «below 50 roubles» segment.

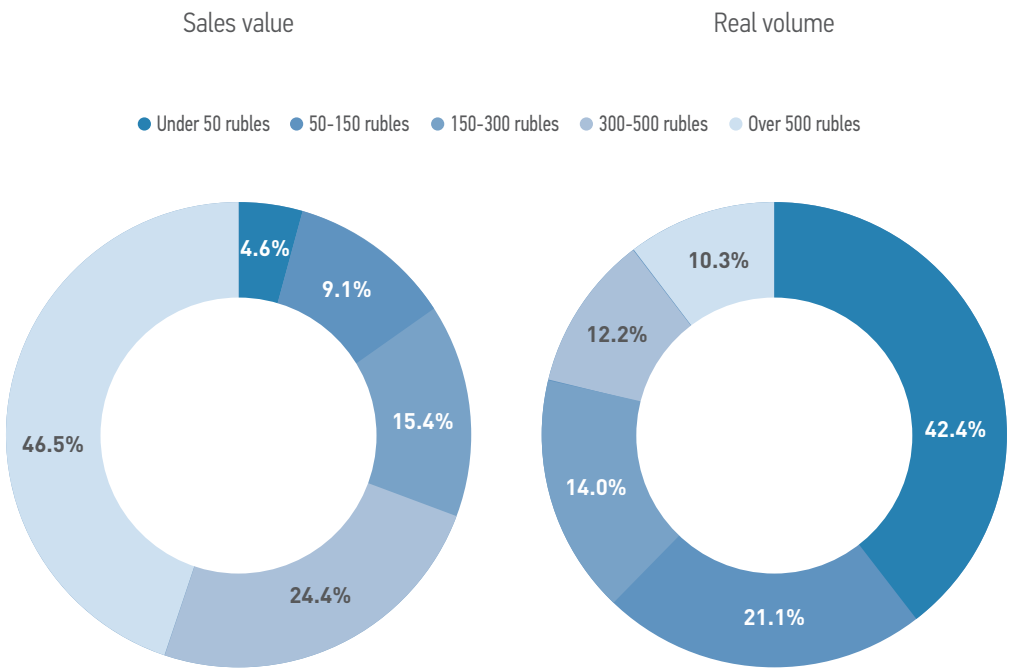
DS price dynamics was analyzed using Laspeyres price index. It is obvious that the inflation factor caused less weighted average price growth than in 2018. In 2019 DS prices in roubles increased by 2.3%, that is lower than the country's inflation rate and is three times lower than the previous year rate.

DS are marketed by manufacturers as nutritional supplements aimed at prevention of various diseases. The existing Official Classifier is not very effective for DS market assessment, since different DS used for prevention of the same conditions are found in different sections of the classifier. Therefore DSM Group analysts have developed a DS classifier that reflects the present day realities of the DS market more accurately. This DS classifier contains 17 chapters, most of which have the 2nd sublevel, and some - the 3rd.

Multipurpose supplements of group [V] «DS affecting the whole body» (30.8% share in roubles) are traditionally the most in-demand on the market. Compared to 2018 sales volume of this DS group grew by 22.1%. The principal DS brands in group [V] are: Solgar (share in the group sales - 13.0% in roubles), Solgar Vitamin and Herb and Femibion (7.4%) manufactured by Dr. Reddy's.

Figure 32

DS Sales Structure by Price Segments in 2019



That being said, during the last several years the once popular products, such as DS for weight loss or for male libido have not been in high demand. This is due to the fact that such products are now available not only through pharmacies but in almost any grocery store.

The second place is taken by group [A], DS affecting the digestive system (21.2%), which experienced sales growth by 14.7%. The most popular products in this group are Fitolax (13.9%), by Evalar, a domestic manufacturer, and Maxilac (10.4%) by Alium.

The third place goes to group [G], DS affecting the reproductive system (10.1%), which also showed positive sales dynamics: +7.8%. The leaders of this group are Vuka Vuka (5.1% share) by Stada, foreign manufacturer, and Indinol (4.5%) by Mirax Biopharma.

Sixteen groups demonstrated positive dynamics. The greatest growth rate was witnessed by the following groups: [I] DS supporting the immune system function (+62.1%) - Echinacea Biokor Complex (+4,001.7%) and Vito Plus (+926.9%); [M] DS used for treatment of skeletal conditions (+49.3%) - sales of Artroveron and Arstiga, used for maintaining healthy joints function have increased by 5,604.2% and 3,662.9% respectively; [J] DS used to treat conditions caused by bacteria, viruses and fungi (+42.7%) - sales volume of Lysolor, a novel DS against sore throat manufactured by Acino, in 2019 amounted to 43.6 mln roubles.

> DSM Group analysts have developed a DS classifier that reflects the present day realities of the DS market more accurately

The only group that experienced a sales drop was group [W] - DS for slimming and cleansing - by 1.3%. Sales volumes of the weight loss product line, namely Modelform and Reduxin Lite supplement, provoking decrease of body fat percentage, in 2019 reduced by 18,1% and by 18.0% respectively.

Figure 33

Change in DS prices on the Russian pharmacy market

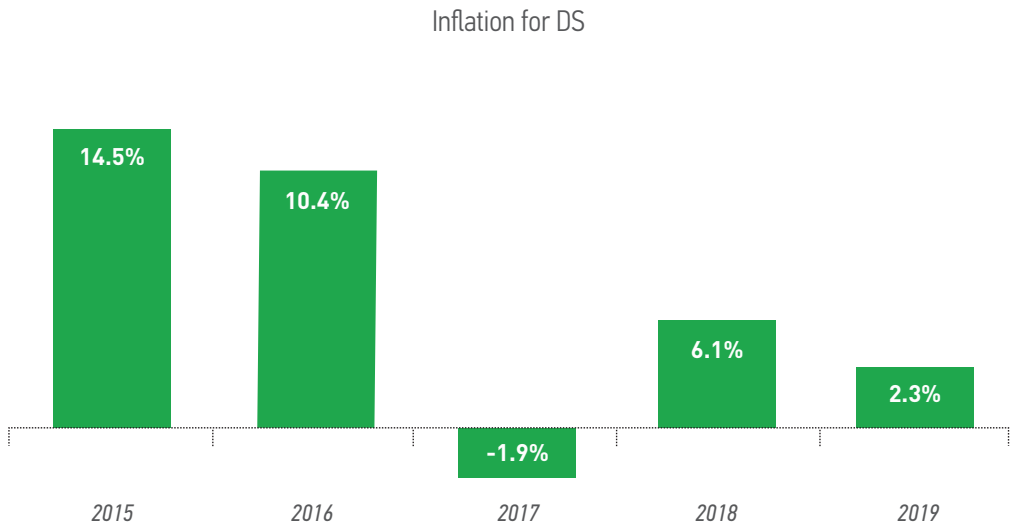


Table 19

Sales rating according to the DS classifier chapters

Ranking 2019	Change	Group	Value, mln roubles 2019	Growth, % 2019 / 2018	Share, % 2019
1	-	DS affecting the whole body [V]	**19 542.9**	**22.1%**	**30.8%**
2	-	DS affecting the digestive system [A]	**13 465.3**	**14.7%**	**21.2%**
3	-	DS affecting the reproductive system [G]	**6 378.9**	**7.8%**	**10.1%**
4	-	DS affecting the central nervous system function [N]	**6 344.7**	**23.8%**	**10.0%**
5	-	DS supporting cardiovascular system functions [C]	**2 863.2**	**14.9%**	**4.5%**
6	+1	DS used for treatment of skeletal system conditions [M]	**2 641.8**	**49.3%**	**4.2%**
7	-1	Slimming and cleansing DS [W]	**2 248.4**	**-1.3%**	**3.5%**
8	-	DS for treatment of various skin and hair conditions [D]	**2 030.9**	**25.4%**	**3.2%**
9	-	DS affecting sensory organs [S]	**1 780.0**	**14.5%**	**2.8%**
10	-	DS for treatment of respiratory organs conditions [R]	**1 662.0**	**15.1%**	**2.6%**
11	-	DS affecting hematopoietic system [B]	**1 449.2**	**23.1%**	**2.3%**
12	+1	DS used in case of poisoning and intoxication [T]	**774.7**	**32.4%**	**1.2%**
13	-1	DS affecting the urinary system [U]	**771.8**	**15.0%**	**1.2%**
14	-	DS affecting the endocrine glands function [H]	**648.9**	**23.7%**	**1.0%**
15	-	DS supporting the immune system function [I]	**587.2**	**62.1%**	**0.9%**
16	+1	DS used to treat conditions caused by bacteria, viruses and fungi [J]	**100.7**	**42.7%**	**0.2%**
17	-1	DS used for treatment and prevention of oncology conditions (except reproductive system tumors) [O]	**89.9**	**6.9%**	**0.1%**

TOP-20 DS brands, leading in sales volumes on the Russian market

In 2019 pharmacies' shelves had 2,674 various DS brands by 999 manufacturers, 268 new items appeared on the market in the course of the year. Formely, new brands were constantly launched on the DS market and thanks to successful marketing could instantly get high ranking positions, but now, due to decrease in the consumer purchasing power and due to more rigorous state oversight of DS advertising, this process has slowed down, and launching of novel products has become extremely difficult. Nutrof, manufactured by Spectrum Thea Pharmaceuticals, a product for maintaining eye health and protection against free radicals has become the most successful new product and according to the year results was ranked the 103rd (sales volume - 134.4 mln roubles).

In the TOP-20 rating of brands leading in sales volumes in value terms, a number of significant changes happened. The first five leaders managed to keep their positions from the previous year. The first place traditionally goes to Solgar, supplements product line, affecting both the whole body and separate body systems (6.2% share in roubles). The second place is taken by Doppelhertz, vitamin and mineral supplements (3.1%). The last of the three leaders is Fitolax (2.9%), a DS with laxative effect.

The dominant positive changes include sales growth of the following brands: Anti-Age (+133.6%; +19 places) by Evalar, a domestic manufacturer, Vitrum (+124.8%; +11 places) by Takeda, a Japanese corporation, and Nature's Bounty (+103.2%; +10 places) by the same-name company, among negative tendencies - -31.6% of Normobact by Polpharma, a Polish company.

> "In 2019 pharmacies' shelves had 2,674 various DS brands by 999 manufacturers, 268 new items appeared on the market in the course of the year"

Evalar has kept the strongest represention in the brands' rating - it holds 6 positions, their share equals 9.4% (-0.6% compared to 2018).

Out of the brands following TOP-20, Detrimax, a DS affecting calcium and phosphate metabolism, produced by Unipharm, an American company, (+445.2%) and Elevit (+146.6%), a product affecting the female reproductive system, by Bayer, a German company can be singled out.

In contrast to the drug market, the DS market is dominated by products manufactured in Russia. Domestic DS hold 52.5% of the sales volume in value and 81.2% in kind. Market structure in packages has shifted towards Russian DS (+0.5%) due to sales growth by 2.8%. Foreign manufacturers of DS witnessed decrease in dynamics by 0.2%. Weighted average price for imported DS experienced a more significant growth than that of domestic brands (+23.6% against +11.6%), as a result the imported DS share increased by 1.8% in roubles. When looking at absolute indices, the sales volume increased for both foreign companies - by 23.3% and for domestic ones - by 14.7%.

Table 20

TOP-20 DS brands in Russia in 2019

Ranking 2019	Change	Brand	Value, mln roubles 2019	Growth, % 2019 / 2018	Share, % 2019
1	-	Solgar	**3 932.3**	**55.2%**	**6.2%**
2	-	Doppelhertz	**1 933.2**	**2.3%**	**3.1%**
3	-	Fitolax	**1 868.6**	**12.0%**	**2.9%**
4	-	Femibion	**1 454.7**	**1.6%**	**2.3%**
5	-	Maxilac	**1 400.7**	**17.7%**	**2.2%**
6	+11	Vitrum	**1 343.7**	**124.8%**	**2.1%**
7	+4	Bac-Set	**1 198.5**	**42.5%**	**1.9%**
8	-2	Turboslim	**1 122.1**	**-4.6%**	**1.8%**
9	-2	Evalar Glycine	**992.3**	**2.6%**	**1.6%**
10	-2	Complivit	**961.7**	**0.1%**	**1.5%**
11	+10	Nature's Bounty	**931.8**	**103.2%**	**1.5%**
12	+2	Formula Spokoistviya	**928.0**	**35.2%**	**1.5%**
13	-	Supradyn	**896.6**	**30.2%**	**1.4%**
14	-2	Hematogen	**866.1**	**5.7%**	**1.4%**
15	-6	Vitamishki	**810.4**	**-14.5%**	**1.3%**
16	-1	Ovesol	**684.4**	**2.5%**	**1.1%**
17	+19	Anti-Age	**677.3**	**133.6%**	**1.1%**
18	-8	Normobact	**621.1**	**-31.6%**	**1.0%**
19	-1	Evalar	**617.0**	**9.5%**	**1.0%**
20	-4	Alphavit	**599.4**	**-3.4%**	**0.9%**

In 2019 an average domestic DS price per package equalled 127 roubles (+11.6% compared to 2018), which is approximately 4 times lower than an imported product price per package. At the same period the imported DS price per package was 495 roubles on average - weighted average price grew by 23.6%.

The leaders among foreign DS manufacturers are USA (30.8%), Germany (20.0%) and Japan (7.5%). The most popular American DS are Solgar Vitamin and Herb (Solgar product line) products. Quessier Pharma (Doppelhertz DS line) and Stada (Bactistatin and Vuka Vuka) head the list of German manufacturers. Takeda (Vitrum DS) and Fine (Fine) are the leaders among Japanese manufacturers.

TOP-20 DS manufacturers, leading in sales volumes on the Russian market

DS manufacturers' concentration on the pharmacy market is quite high - TOP-20 of companies hold 63.7% of the market. Manufacturers rating has undergone significant changes. Not all the top three companies managed to keep their 2018 positions.

Figure 34

Structure of domestic and imported DS sales volumes.

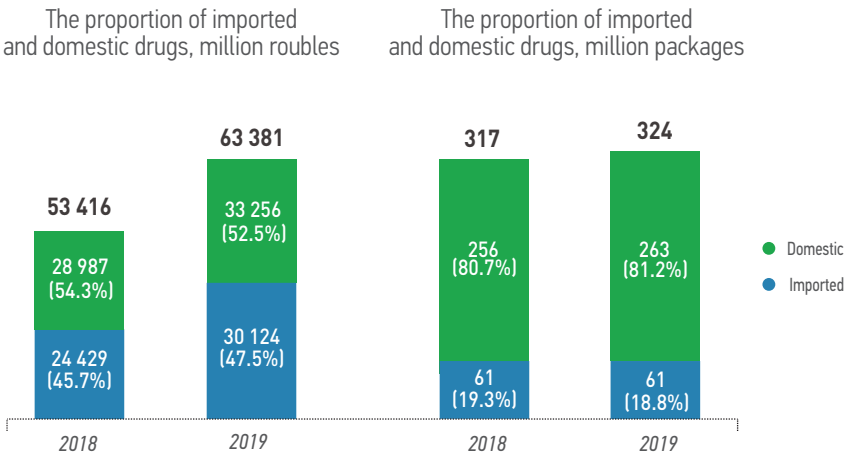


Figure 35

Structure of domestic and imported DS sales volumes by countries in 2019

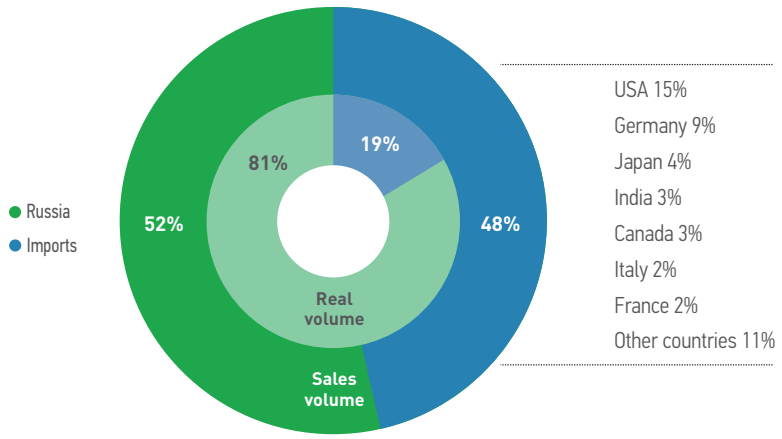


Table 21

TOP-20 DS manufacturers in Russia in 2019

Ranking 2019	Change	Company	Value, mln roubles 2019	Growth, % 2019 / 2018	Share, % 2019
1	-	Evalar	**10 835.4**	**10.8%**	**17.1%**
2	+1	Solgar Vitamin and Herb	**3 932.3**	**55.2%**	**6.2%**
3	-1	PharmaMed	**3 221.1**	**12.3%**	**5.1%**
4	+2	Acvion	**2 252.2**	**35.1%**	**3.6%**
5	-	OTCpharm	**1 973.3**	**6.4%**	**3.1%**
6	-2	Queisser Pharma	**1 942.1**	**2.7%**	**3.1%**
7	+5	Takeda	**1 807.9**	**71.8%**	**2.9%**
8	-1	Stada	**1 708.9**	**6.0%**	**2.7%**
9	-1	Dr.Reddy's	**1 628.4**	**1.4%**	**2.6%**
10	-1	Bausch Health	**1 617.9**	**4.7%**	**2.6%**
11	-1	Alium	**1 401.0**	**17.8%**	**2.2%**
12	+2	Bayer	**1 198.6**	**45.7%**	**1.9%**
13	+5	Kvadrat-C	**1 110.1**	**81.3%**	**1.8%**
14	-1	Recordati	**938.5**	**-7.5%**	**1.5%**
15	+6	Nature's Bounty	**931.8**	**103.2%**	**1.5%**
16	-5	Polpharma	**878.0**	**-21.7%**	**1.4%**
17	-1	Pharm-Pro	**793.3**	**4.3%**	**1.3%**
18	-1	B-Min	**766.1**	**15.5%**	**1.2%**
19	-4	Diod	**765.0**	**-1.3%**	**1.2%**
20	+2	Biokor	**658.4**	**44.9%**	**1.0%**

For many years, Evalar, a Russian company, has remained the market leader. In 2019 it witnessed a sales volume increase by 10.8%. Anti-Age (+133.6%) product line, represented by new generation products with an anti-age effect from within the body, Formula Spokoistviya (+35.2%), a sedative product, and Evalar Bio (+34.8%) herbal teas are responsible for the brand's positive dynamics. At the same time, the sales volumes of Turboslim, line of slimming products, and Hepatrin dietary supplement, used to treat liver and gallbladder conditions, have shrunk by 4.6% and 3.0% respectively. At the present moment Evalar portfolio features 276 various DS trade names, divided into 75 product lines under one brand. Every year the company launches new products: for instance, in 2019 about 13 new DS (factoring in dosage, purpose and form of the product) appeared on the pharmacy shelves. The most successful new product is Evalar Vitamin C fizzy tablets 1000 mg 3.5 g No. 20, a supplement with vitamin C for boosting the immune system - the sales exceeded 3.7 mln roubles.

In 2019 Fitomarket Evalar digital platform started to operate at full capacity, which was a milestone event for the company. Besides, Evalar is expanding its own pharmacy chain: today it comprises 153 pharmacies in major Russian cities (according to the company's website).

On July 12, 2019 Evalar, a pharmaceutical company, opened new production facilities aimed at manufacturing of plant-based medicinal products (production capacity of 1 billion tablets and capsules a year) in Biysk, Altai krai. Current investment volume exceeded 2 billion roubles (project's overall appraised value is 5 billion roubles), funding was provided by the company itself.

Opening of a new production facility for manufacture of products from synthetic raw materials is scheduled for 2020. Commissioning of facilities dedicated solely to production of medicinal products with the projected capacity of 2 billion tablets and capsules a year will allow Evalar to increase the production volumes more than 1.5 times.

Due to 55.2% sales growth, Solgar Vitamin and Herb, an American manufacturer, moved to the second place replacing Pharmamed. The company has only one brand - Solgar, which incorporates a whole product line of dietary supplements with a wide range of applications: from DS for the digestive system support to supplements affecting the central nervous system functions. Sales volumes of the company's ten major products have increased. Solgar Magnesium Citrate (+139.0%) and Solgar Gentle Iron, high absorption iron (+131.8%) witnessed the greatest sales volume growth.

The third place is occupied by PharmaMed (+12.3%), a Canadian pharmaceutical company, with its key product - Bac-Set supplement (share in the manufacturer's sales volume is 37.2%) intended for restoring and maintaining healthy intestinal microbiome. All other corporation's brands, except for Bac-Set (+42.5%), Phytomucil laxative (+30.2%), Spermactin Forte (+11.4%) for promoting sperm production, and Lady's formula (+2.2%) women's vitamins, witnessed a drop in sales. The company's sales dynamics was primarily shaped by increased competition in the kids' gummy vitamins segment. For example, the sales volumes of Kids Formula, multivitamins for kids, shrank by 51.3%.

Nature's Bounty demonstrated high growth rates (+103.2%). The main Nature's Bounty revenue was made by Nature's Bounty Hydrolyzed Collagen with Vitamin C (11.2% share in the brand's sales) intended for maintaining skin elasticity and youthfulness. The greatest growth rate was shown by Nature's Bounty ABC Plus with Greens (+312.8%), a balanced multivitamin and mineral supplement, enriched with algae, intended for the whole body cleansing.

The second place by the growth rate is taken by Kvadrat-C, a Russian company (+81.3%). This manufacturer has a modest product line - 29 brands, with Fermentozim (+1,646.3%), a supplement formulated with pancreatin and biotin and used to improve digestion, and Vitamir (+203.3%), a line of multivitamins, being mainly behind this growth.

in 2019 Biokor (+44.9%) became the TOP-20 «newcomer». The greatest positive dynamics was demonstrated by Echinacea Biokor Complex (+4,001.7%), a supplement promoting general health and boosting the immune system, a source of selenium, vitamins C and E, and Pustyrnik-Biokor (+189.8%), intended for improving cardiovascular and nervous systems' functions.

6. Cosmetics

Range of products offered by pharmacies is not limited to drugs and dietary supplements, which represent the main types of merchandise sold by pharmacies. Cosmetics are a kind of goods that attracts customers and makes profit for the place selling it.

Cosmetic products allow the pharmacy to make extra money, since there are no markup limits set by law for this kind of goods, as opposed to the list of Vital and Essential Drugs. Moreover, due to fierce competition, pharmacy chains have to lower markups for the items not included in the list. Cosmetics remain one of the groups for which the markup stays virtually the same: at the beginning of 2016 the markup equalled 41.4%, while at the end of 2019 - 39.5%.

Therefore, despite the general decrease in cosmetics sales, every year pharmacies expand the range of cosmetic products offered by them, this expansion is achieved by both adoption of new brands and broadening of the exiting product lines. Some cosmetics brands are sold only through pharmacy chains, which makes these products exclusive. In 2019 Russian pharmacies sold products of 1 728 different cosmetics brands, more than 15 thousand full names. Furthermore, manufacturers have offered more than 120 new brands to the customer. Sales leaders were Sensaderm (an innovative line of emollients with a complex of Omega 3•6•9, designed for dry, irritated, atopic skin of adults, kids and newborns) and Gentlemen's Tonic (cosmetic products for men, intended for facial skin care, hair, beard and moustache care). The above mentioned brands were included into the TOP-300 according to the sales volumes in value terms, since their sales in the fiscal year exceeded 16 million roubles.

Interestingly, there is a change in the profile of a customer who frequents a pharmacy to buy cosmetics. Trust in the pharmacy institutions stays the same, and cosmetics enjoy customers' trust by association. Certainly, the cosmetics product range has different sale channels. There are examples when manufacturers launched their products on the pharmacy market, but eventually expanded to other market segments and now their products are sold by the major retail chains. Besides, in the current market conditions online resources are becoming increasingly popular, and cosmetics sales via this channel are not banned, in contrast with drug sales. For example, Librederm has a website with the same name, where you can buy products and have them delivered right to your door. Vichy, La Roche-Posay and other companies have similar websites. The companies collaborate with major market-places (wildberries.ru, ozon.ru), where one can buy their products. Therefore, it's not surprising that web sales of perfumes and cosmetics enjoy the fastest growth - in the previous year it was 23% both by value and volume (according to GfK data).

Due to these trends, cosmetics sales through pharmacies do not witness a significant increase, but in view of the general cosmetics market sales results, they do look quite positive. Russian cosmetics and perfume market has been

experiencing decline second year in a row. From July 2018 to June 2019 sales have declined by 1.6% in volume and by 2.1% in value compared to the same period of the previous year.

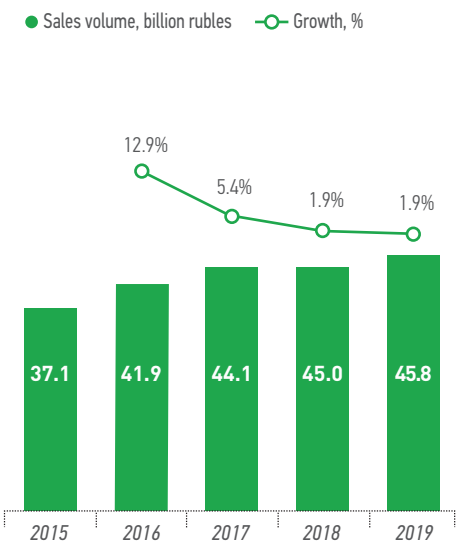
According to 2019 results, pharmacy cosmetics sales share is the third-largest (after medications and dietary supplements) in the pharmacy sales structure. In 2019 the pharmacy cosmetics market capacity has increased by 1.9% in value and has shrunk by 3.8% in kind in comparison with 2018. Thus, the volume of cosmetics sales via pharmacies amounted to 185.2 million packages at a price of 45.8 billion roubles. Market growth rates are gradually slowing down, with negative dynamics in packages, which brought volumes back at the level lower than that of 2015. This is due to the fact that customers are switching to other channels, and pharmacy chains are reluctant to decrease the cosmetics markup.

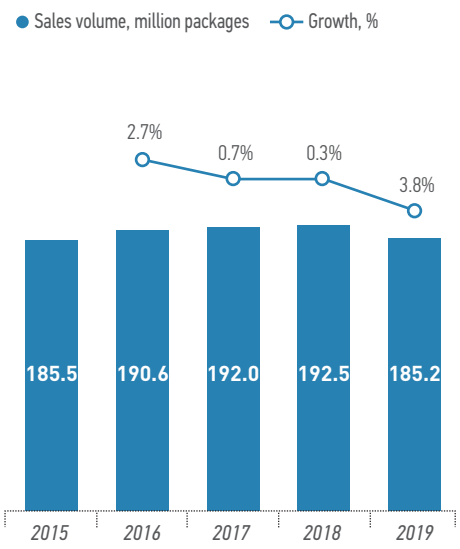
As per the monthly data analysis, cosmetics sales volumes in roubles started to increase in the second half of the year in comparison with 2018. The most profitable period for the market was autumn - sales increased by 9.7% in roubles and by 3.6% in kind. In autumn and winter demand for products for dry and irritated skin increases, also it is time of the highest demand for cosmetic procedures. The most significant drop occurred in May (-7.7% in roubles and -12.0 in packages). During summer months the product range usually features a lot of products with SPF, in 2019 though their sales did not witness the traditionally high growth rate due to a high number of rainy days and no long stretches of hot weather.

> Russian cosmetics and perfume market has been experiencing decline second year in a row

Figure 36

Pharmacy Cosmetics Sales Volumes Growth in Russia





Cosmetic products can be divided into different categories according to their price, purpose and form. DSM Group conducted an analysis and suggested its own classification of cosmetic products according to their purpose, action and price. Cosmetic products sold through pharmacy chains were divided into 3 groups by analysts:

Active (medicinal) cosmetics are used for treatment and prevention of certain diseases and contain various biologically active substances (this category includes «Sofya» (creams and balms), «Boro plus» (creams), etc.);

Selective (premium and luxury) cosmetics are characterized by availability of specialized product lines, clearly distinguished between each other and intended for a certain skin or hair state. As a rule, such types of cosmetics are sold mainly through pharmacies (Librederm, La Roche-Posay, Vichy, etc.);

Mass-market cosmetics - affordable cosmetics, intended for skin, hair and nail care and sold both through pharmacies and other points of sale (for example, Johnsons, Garnier, Nivea, etc.).

Active (medicinal) cosmetics account for half the sales volume of all cosmetics and plays a major role in the dynamics of the pharmacy cosmetics market as a whole: +2.8% in roubles and -3.4% in packages. Compared to 2018, its capacity grew by 0.5% in value terms and by 0.3% in kind. In a year, pharmacies sold more than 800 brands of medicinal cosmetics from 443 manufacturers (4 272 full names). This segment enjoys the highest demand thanks to affordable price policy and to positioning of the product items at the borderline between medicinal and non-medicinal products.

Selective cosmetics market share decreased from 36.1% to 35.5% in roubles. Premium cosmetics market share in kind is significantly smaller - 10.2%, but negative growth was the most prominent - 5.6% within a year. For the most part, Librederm (-18.3% in roubles) and Vichy (-5.1%) are responsible for such dynamics. Positioning of selective cosmetics as pharmacy cosmetics ceases to be relevant - target

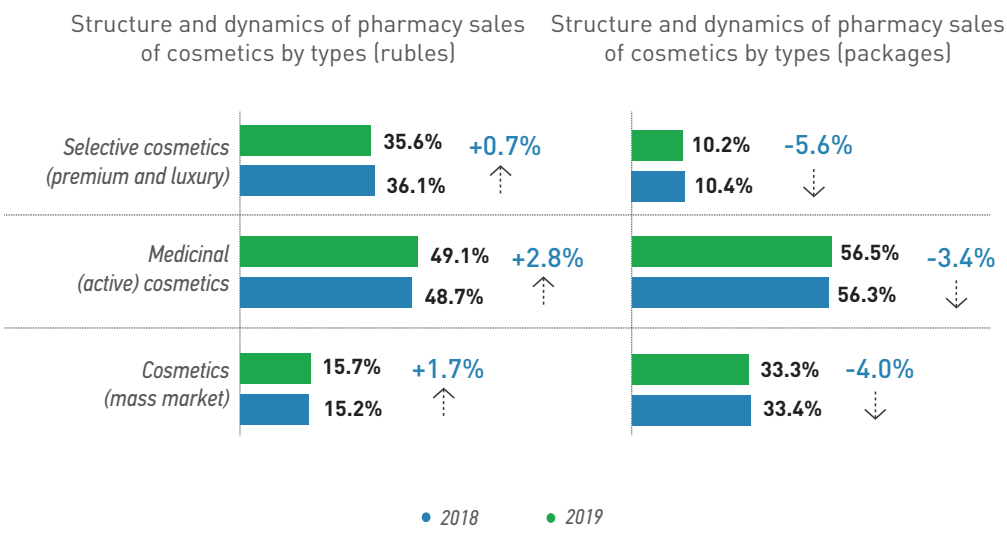


Figure 37

Structure of sales via pharmacies depending on the type of the cosmetic product

> Positioning of selective cosmetics as pharmacy cosmetics ceases to be relevant - target customers gradually switch to online channels

customers gradually switch to online channels. Manufacturers themselves foster this trend, starting to work with major online stores. Besides, due to high price, this market segment is vulnerable to decrease in the consumer purchasing power and is dependent on import.

Pharmacies do not constitute the main promotion channels for mass-market cosmetics. However, this subsegment accounts for 33.3% of market in kind and is popular among consumers, since it is represented by quite affordable products. That is why mass market cosmetics share amounts to 15.2%.

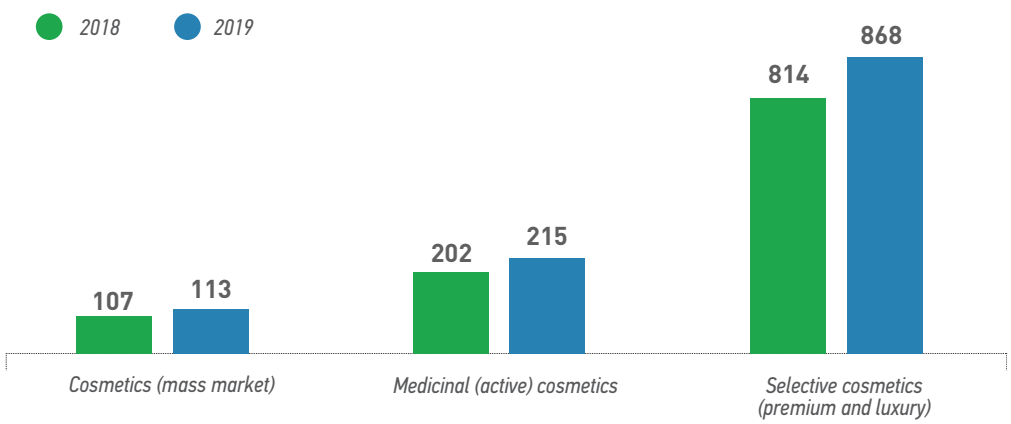
Pharmacy cosmetics have only one downside - higher price in comparison with regular care products. However, there are manufacturers that target a broader customer group and offer products in the mid-price segment. In 2019 the average price of a cosmetic product in retail pharmacy prices was 248 roubles per package. Compared to 2018 the price has increased by 5.9%. If we look at the market, segment by segment, we can see that prices in all the categories have increased. Price of one package of active cosmetics has become more expensive by 6.5%, premium products and mass market products prices have grown by 6.7% and 6.0% respectively.

Pharmacies offer their clients a wide range of cosmetic products in various forms and with different intended purposes. Multi-purpose cosmetics are the most in-demand (its share of the sales volume in packages was 34.6%). This is not surprising, as medicinal cosmetics brands hold more than half the market of the universal cosmetic products structure. In roubles, multi-purpose cosmetic products are also the ones that have the heaviest weight - 19.2%.

Face care products (-5.6% in packages) and multi-purpose products (-4.6%) demonstrated the greatest slowdown rate among all the cosmetics groups. In terms of value, face care products also witnessed the maximum drop in the sales volume

Figure 38

Weighted average price of a cosmetic product in pharmacies



(-2.4%). Meanwhile, sales of hair and scalp care products and body care products increased by 6.5% and 5.7% respectively.

The largest share in cosmetics structure according to age criterion is taken by cosmetics intended for all age groups (78.7% of sales volume in value and 79.3% in kind). The second place goes to the cosmetics for babies and children (from 0 to 14 years): 8.8% in value and 15.2% in kind. The third place is taken by cosmetics for young adults (older than 25), with the market share of 5.8% in value. There is a preponderance of high-priced premium and luxury cosmetics in this category - 78.9% of volume in roubles in this category belongs to selective cosmetics. The majority of products for middle age (after 45) are in the high price range, selective cosmetics hold 72.6% of the sales volume in value. Segment of cosmetic products for late adults (after 60) demonstrate the biggest slowdown in value terms (-69.1%) as a result of decline in demand for premium brands: luxury brands share in the late adulthood category has decreased from 16.0% to 3.2% in packages.

Russian cosmetics are more in demand on the pharmacy market than imported brands, domestic cosmetic products sales share is more than 74.0% in kind. When analyzing sales volumes in roubles, it should be noted than the market is almost divided in half, but imported cosmetics prevail slightly (about 52.8 % of sales).

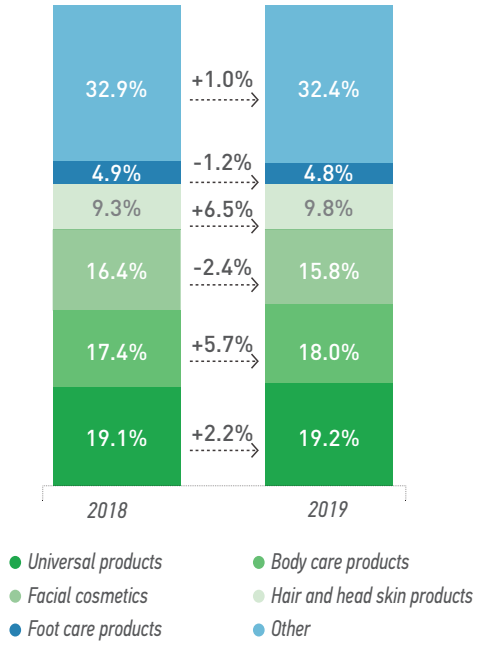
Within segments the ratio of domestic and imported cosmetics differ significantly.

In 2019 premium cosmetics were mostly represented by imported cosmetic products, which hold 80% of the market in roubles and 59% in packages. Librederm, a domestic brand, has 99.5% of domestic selective cosmetic sales in roubles.

Medicinal (active) cosmetics segment is, on the contrary, mostly represented by Russian brands, that lead both in value (66%) and in kind (81%).

In the mass market segment the domestic cosmetics share has shrunk in value in comparison with the previous year and amounted to 51%. The main domestic

Structure of pharmacy sales of cosmetics by types (rubles)



Structure of pharmacy sales of cosmetics by types (packages)

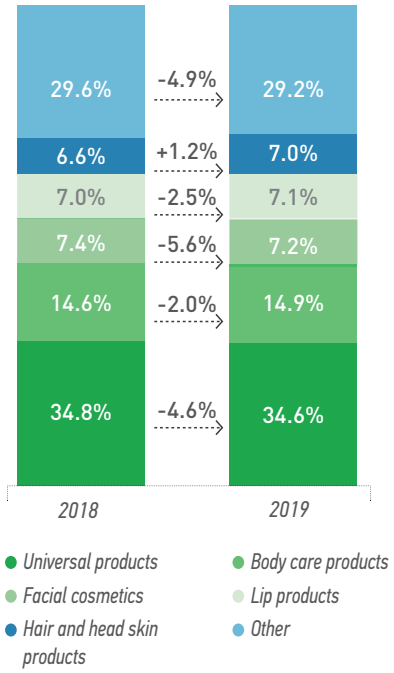


Figure 39

Cosmetics Structure According to its Intended Purpose in 2019

> Russian cosmetics are more in demand on the pharmacy market than imported brands

brands are: Detskiy krem, Kora and Moyo Solnyshko, which together occupy 22.7% of the market in roubles.

Selective cosmetics

In 2019 pharmacies sold 18.8 million packages of premium cosmetic products for around 16.3 billion roubles (in retail prices). In comparison with 2018, sales have increased by 0.7% in roubles but have decreased by 5.6% in kind. Selective brands rating is quite stable. The majority of leading brands have shown positive dynamics compared to 2018.

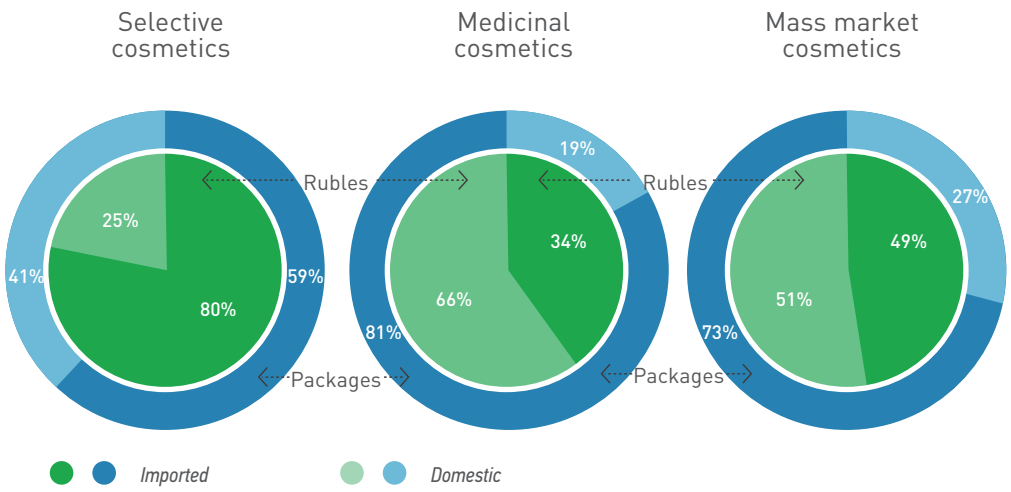
In 2019 La Roche-Posay, a French brand, moved to the first place, due to sales growth by 10.1%. La Roche-Posay cosmetic products, formulated with thermal water, are specifically designed for problem skin, therefore 37.3% of the brand sales are made by Effaclar product line (product line designed for oily and problem skin care) and Lipikar (face products against irritation and itching).

Librederm, a Russian brand, moved to the second place in the selective cosmetics category rating: the brand's market share shrank from 23.8% to 19.9% in the segment's value volume as a result of the sales drop by 16% compared to 2018. However, Librederm has 40.7% of sales volume in packages, therefore Librederm may be considered now the most popular brand of selective cosmetics among pharmacy customers. Its product line incorporates about 280 full product names, among them face care products have the largest share (51.0% in roubles).

Besides the fact that in 2019 sales volumes of Vichy cosmetic products (3rd place) decreased by 0.1%, SKU numbers of the brand assortment were reduced by 80 positions. All in all, pharmacies have sold about 360 full names of Vichy brand, the average price equalled 1,346 roubles. About 33.0% in value terms are taken by face care products, Vichy product line also has a rich assortment of body care (17.9%), hair and scalp care (11.6%) products.

Figure 40

Pharmacy cosmetics sales shares depending on the type of cosmetic product in 2019



All the brands have kept their positions on the market except the leaders and Ducray and Klorane brands, which switched places as a result of the oppositely directed dynamics.

In 2019 six leading brands of selective cosmetics stood out as the ones with sales increase in roubles. Bioderma brand demonstrated the greatest growth rate (+16.2%). Within this brand, Atoderm (+37.1%) for dry, very dry, sensitive and atopic skin, Cicabio (+34.4%) for healing of damaged skin and Hydrabio (+29.2%) for dehydrated, sensitive skin product lines accounted for the most active growth. The brand key product line - Sensibio (40.5% share) for sensitive skin - also showed sales increase by 10.8%.

Medicinal cosmetics

Manufacturers market active cosmetics as products that not only solve aesthetic problems, but also have therapeutic properties. This group of cosmetic products dominates pharmacy market. Luxury cosmetics mainly target facial skin problems, while medicinal cosmetics have a wider range of indications for use. The major part of sales of this assortment group belongs to the products used for treatment of strains, bruises, inflammation of joints (12.3% share in roubles), for various skin conditions and injuries - cuts, bruises, cracked skin, burns (8.3%), for skin prone to allergic reactions (8.1%).

TOP-10 brands account for 27.0% of active cosmetics sales, which is significantly lower than in the selective brands segment (92.0%). This is partly due to the fact that selective cosmetics products lines are very wide and are aimed at solving a large variety of problems. An active cosmetics brand is usually promoted as a product meant for addressing one specific problem. Thus, this category is quite diverse: pharmacy shelves accommodate more than 800 brands of medicinal cosmetics.

Only the items in the lowest part of the rating experienced change in their positions. The first place among medicinal cosmetic products is taken by Loshadinaya sila, despite the sales decline by 4.0%. Body care products, used for treatment of

Table 22

Top-10 of selective cosmetics brands in 2019

Rating	Changes in rating	Brand	Sales volume, mln. roubles	Share, %	Growth, % 2019/2018
1	+1	La Roche-Posay	**4 111.2**	**25.2%**	**10.1%**
2	-1	Librederm	**3 245.8**	**19.9%**	**-16.0%**
3	-	Vichy	**3 202.3**	**19.6%**	**-0.1%**
4	-	Avene	**1 304.5**	**8.0%**	**-1.8%**
5	-	Bioderma	**1 113.8**	**6.8%**	**16.2%**
6	-	Uriage	**789.4**	**4.8%**	**13.1%**
7	-	Mustela	**430.5**	**2.6%**	**3.1%**
8	-	Filorga	**322.0**	**2.0%**	**0.3%**
9	+1	Ducray	**278.5**	**1.7%**	**7.8%**
10	-1	Klorane	**233.2**	**1.4%**	**-11.0%**

strains, bruises and joint conditions account for about 48.4% of the brand's sales volume in roubles.

The second place goes to Lactacyd (-2.1%), a line of products for daily intimate hygiene, formulated with natural lactic acid, which helps to restore and maintain healthy microbiome of the intimate zone. The product line already includes about 20 items. Lactacyd delicate mousse for daily intimate hygiene (-39.8%) and Lactacyd Pharma soothing product for intimate hygiene against redness/irritation/itching (-16.7%) are responsible for the brand's negative dynamics. However, Lactacyd Pharma antibacterial product for intimate hygiene 250 ml, one of the popular products, grew in value volume by 7%.

Allerana is a cosmetic product developed for hair and scalp care. Therefore 67.9% of products manufactured under this brand are shampoos. Despite the negative dynamics, Alerana managed to keep the third place (-1.3%).

Pedikulen products intended for treatment of head lice witnessed the largest growth rate (+7.6%) and took the 10th place in the 2019 rating. The main contributors to the brand's growth were Pedikulen Ultra Shampoo 1000 ml No.1, a shampoo in a big package (+33.8%) and Pedikulen Ultra kit (spray 150 ml +comb+magnifying glass) 150 ml No. 1 (+15.0%).

One of the negative developments was sales decrease of Sofya brand by 10.6%. The principal share in the brand's sales is held by the products used to treat varicose veins (61.3% share in roubles), strains, bruises, joint inflammation (36.2%).

In recent years Cetaphil (+27.0%), Lipobase (+24.1%) and Zinovit (+11.0%) brands demonstrate high growth rates. If this dynamics stay the same, in 2020 we will

Table 23

TOP-10 brands of active (medicinal) cosmetics in 2019.

Rating	Changes in rating	Brand	Sales volume, mln. roubles	Share, %	Growth, % 2019/2018
1	-	Loshadinaya sila	**1 170.9**	**5.2%**	**-4.0%**
2	-	Lactacyd	**741.6**	**3.3%**	**-2.1%**
3	-	Alerana	**697.5**	**3.1%**	**-1.3%**
4	-	911 Your Emergency Service	**683.7**	**3.0%**	**0.2%**
5	-	Emolium	**549.1**	**2.4%**	**-3.3%**
6	-	Boro Plus	**527.3**	**2.3%**	**1.7%**
7	-	Dry Dry	**460.8**	**2.0%**	**-2.7%**
8	+1	Micostop	**441.0**	**2.0%**	**-2.0%**
9	-1	Sofya	**402.1**	**1.8%**	**-10.6%**
10	-	Pedikulen	**401.8**	**1.8%**	**7.6%**

see them in TOP-10 of active cosmetics brands.

Mass-market cosmetics

Multi-purpose cosmetics constitute 32.2% of mass-market cosmetics and are mainly intended for cleansing (15.8%).

There are considerably more changes in the mass-market cosmetics rating than in other groups. Only the leader managed to keep the previous year position. The first place traditionally goes to Johnson children cosmetics (7.3% share in roubles). The 2nd and 3rd places are taken by domestic brands - Detskyi krem (4.2%) and Dr. Organic (4.2%).

Seven out of ten brands holding the key positions had negative dynamics. The greatest sales drop in roubles during the reporting period was experienced by Froresan brand (-16.8%) cosmetic products. The main product lines of this cosmetics brand witnessed decrease in pharmacy sales: sales of Floresan Repeinik (20.4% share in roubles) formulated with herbal extracts of burdock, pepper, nettle and hops in order to specifically prevent and reduce excess hair loss, to promote hair growth and scalp health, decreased by 9.2%; Floresan Fitness Body products (19.0%), providing comprehensive body care, intended to fight signs of cellulite and prevent this condition, have dropped by 15.3%; sales of Floresan natural soap (17.0%), a natural Taiga soap for body and hair care in shower and sauna, have reduced by 5.8%.

Positive changes are associated with two brands: Dr. Organic (+84.5%) products with organic ingredients and EVO (+31.5%), a specialized product line for restoring and maintaining skin health.

”There are considerably more changes in the mass-market cosmetics rating than in other groups“

A distinctive feature of the ranking of mass-market cosmetics sold through pharmacies is a large number of brands intended for children. 26.9% of the sales volume is taken by the category of cosmetics intended for babies and children (from 0 to 14 years). Three children's brands were included into the rating in 2019, they are the principal players in this category (they produce 55.5% of cosmetics for children, sold through pharmacies).

Table 24

TOP-10 brands of mass-market cosmetics in 2019.

Rating	Changes in rating	Brand	Sales volume, mln. roubles	Share, %	Growth, % 2019/2018
1	-	Johnsons	**507.7**	**7.3%**	**-14.3%**
2	+1	Detskiy krem	**292.9**	**4.2%**	**-3.3%**
3	+6	Dr.Organic	**289.5**	**4.2%**	**84.5%**
4	-2	Kora	**279.4**	**4.0%**	**-11.2%**
5	-1	Umnaya Emal	**244.8**	**3.5%**	**-11.6%**
6	+1	Moyo Solnyshko	**238.3**	**3.4%**	**0.6%**
7	-1	Nivea	**235.6**	**3.4%**	**-13.0%**
8	-3	Floresan	**227.0**	**3.3%**	**-16.8%**
9	-1	Neutrogena	**207.9**	**3.0%**	**-5.8%**
10	+1	EVO	**181.0**	**2.6%**	**31.5%**

7. Drug imports

Pharmaceuticals rank 4th among all commodities imported into Russia, following mechanical equipment, electrical machinery and ground transport vehicles.

In this context, particular importance in the development of the pharmaceutical industry is attached to substitution of imported drugs, inter alia, through localization of their production. In the course of the implementation of the «Pharma-2020» strategy, Russia has set up about a dozen pharmaceutical clusters for the localization of global leaders such as Novartis, Pfizer, Teva, AstraZeneca and others. The «Pharma-2030» strategy focuses already on the export potential: by 2030, exports of domestic drugs are expected to have grown to $3.8 billion. Yet, there are a number of factors retarding the development of the Russian pharmaceutical industry: lack of investments in innovations and innovative solutions in product portfolios and non-conformity of manufacturing processes and clinical trials to the international standards.

- Even so, Russian companies set upon projects for entering the international target markets:

- In September 2019, bio-tech company Biocad and Chinese Shanghai Pharmaceuticals agreed to cooperate in developing and launching on China's market at least six drugs, in particular, for the treatment of oncological and severe autoimmune diseases - lung cancer, breast cancer and psoriasis;

- Russian Geropharm and Venezuelan Espromed Bio made an agreement on producing insulins from Russian substances. Geropharm has already started supplying to Venezuela genetically engineered human insulins;

- At the beginning of December 2019, R-Pharm Group opened in Baku a pharmaceutical manufacturing facility, having invested $30 million. The plant will produce antineoplastic, antifungal and antiviral drugs, in particular, for the treatment of HIV infection and hepatitis, medications for the treatment of nervous, musculoskeletal and respiratory disorders, antibiotics, diabetes drugs and other medicines.

In 2019, the government passed several draft laws to facilitate access of certain drug groups to the Russian market.

For example, at the end of December 2019, they signed a law to allow imports to Russia of batches of unregistered drugs prescribed for patients by the medical board's decision.

The impossibility of using officially unregistered drugs in therapy was given full publicity after the law enforcement

> Particular importance in the development of the pharmaceutical industry is attached to substitution of imported drugs, inter alia, through localization of their production

agencies started detaining disabled children's mothers who had ordered such drugs abroad. In light of that, 26,128 million roubles were allocated from the government reserve fund to buy for children foreign-made drugs unregistered in Russia (over 11,000 packages): in October, Russia received Frisium and in November - Diazepam.

In 2020, 8,475 packages of unregistered drugs are expected to be supplied: 22 million roubles are allocated from the budget for this purpose. Drugs will be purchased by the Moscow Endocrine Plant. It is allowed to import psychotropic medications for children with pain syndrome and convulsive disorders, in particular, epilepsy.

The list covers the following drugs (with indications of dosage forms):

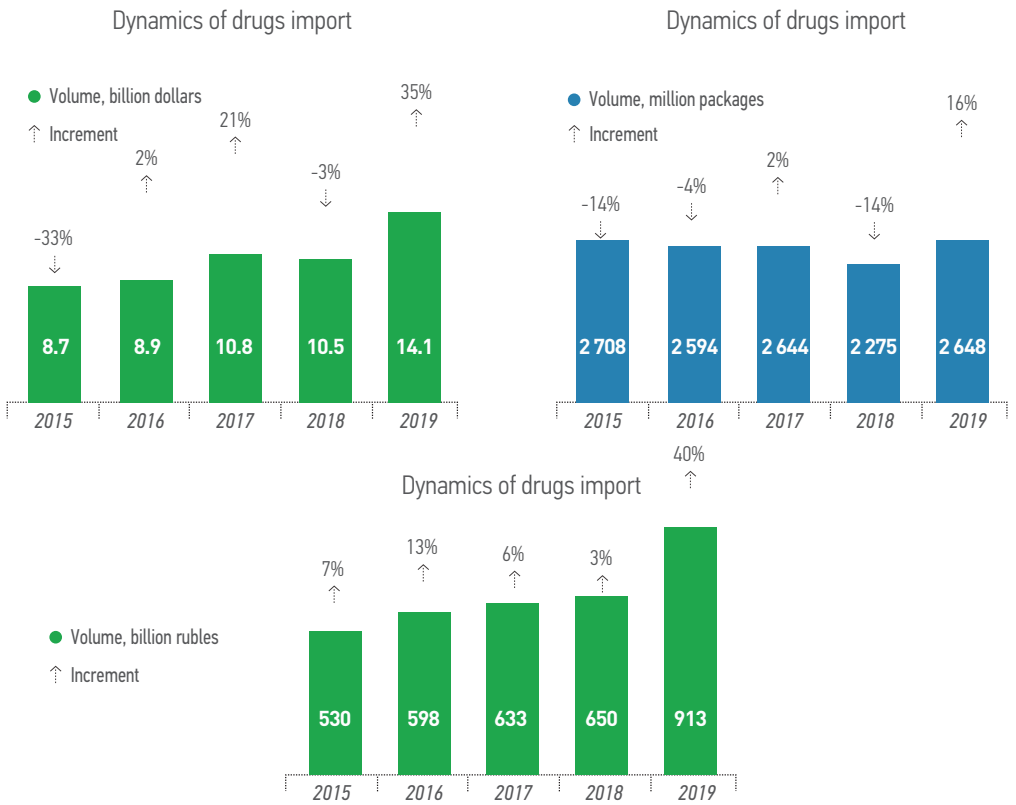
The list covers the following drugs (with indications of dosage forms):

- Diazepam (rectal solution);
- Midazolam (oromucosal solution);
- Clobazam (tablets and capsules);
- Lorazepam (ampoule solution);
- Phenobarbital (elixir and solution for injection).

Besides, at the end of the year the Government of the Russian Federation passed a law to introduce compulsory licensing of drugs, aimed at protecting human life and health in case of emergency. Amendments to the Civil Code allow authorizing Russian pharmaceutical companies to manufacture foreign vital and essential drugs where required for national defense and security or in case of threats to human life and health. For example, if a foreign manufacturer refuses to supply such drugs to Russia or overprices them. Then, the developer will get a compensation.

Figure 41

Volume of drug imports



Drug imports

The dynamics of imports in 2019 interrupted the negative volume trends that had existed on the market for the last few years. Drug imports increased by 16%: from 2.28 billion packages in 2018 to 2.65 billion packages in 2019. The increase in imports is due to the steps taken by foreign manufacturers to get ready for the introduction of compulsory labelling of drugs. The labelling requirements were expected to take effect as of January 1, 2020. So, starting from August, imported volumes were much higher than in the similar period last year, though in the first six months no upsurge of imports had been observed.

The highest figures were seen in October and November 2019 (+54% and +98% compared to the similar period last year). In December, when it was clear that the timeframes were likely to be rescheduled, manufacturers became less active and the dynamics went back to negative.

In dollars, volumes of imported drugs in 2019 were worth 14.1 billion dollars, which is 35% higher than in 2017. In value, volumes of imported drugs expressed in roubles also demonstrate positive dynamics from year to year: in 2019, they grew by 40%.

Table 25 shows shares of various groups of importers of drugs to Russia.

As can be seen from Table 17, in 2019 around 80% of drug imports fall within representative offices of foreign manufacturers. Compared to 2018, this importer group demonstrates the highest growth of supplies - by 41%.

Distribution companies still stay second; yet, volumes in this importer group have been steadily falling in the last years. And positive dynamics in money terms (+26%) does not contribute to the growth of their share.

In 2019, dynamics demonstrated by domestic drug manufacturers was relatively moderate and their share fell to 5.7% (in the imports structure). The major importer among domestic drug manufacturers is Pharmstandard with a 46% share. Second comes Nizhpharm with a 17% share. The third is Akrikhin with a 10% share. The fact that domestic manufacturers act also as importers is due to import substitution processes: localization of foreign-made drugs or, as is the case with Nizhpharm and Akrikhin, transfer of production to domestic sites after becoming members of an international corporation.

Table 25

Share of various groups of importers of drugs to Russia in drug imports volume

Importers	Share to imports volume, %				Growth, dollars
	2016	2017	2018	2019	2019/2018
Distribution companies	**13.9%**	**9.7%**	**9.2%**	**8.7%**	**+26%**
Representative offices of foreign companies	**74.1%**	**76.9%**	**76.3%**	**79.7%**	**+41%**
Direct import companies	**5.1%**	**7.0%**	**7.5%**	**6.0%**	**+7%**
Domestic drug manufacturers	**6.9%**	**6.3%**	**7.0%**	**5.7%**	**+9%**

Positive dynamics is demonstrated also by the importer segment of Direct Import Companies. The major player in this segment is Pharmimex, with a 41% share. Then comes Orfe, with a 20% share.

Table 26 shows the top 10 representative offices of foreign manufacturers by volumes of imports in 2019.

In 2019, the «Representative Offices of Foreign Manufacturers» grew in dollar terms by 41% and demonstrated higher concentration as compared to 2018. All companies demonstrate positive dynamics: the lowest rate is observed for Sanofi: +14%, the highest - for Bristol-Myers Squibb: +298%.

As in the previous years, Novartis with a 8.9% share remains the leader in the «Representative Offices of Foreign Manufacturers» category of importers. Sanofi's representation traditionally ranks second. In 2019, the manufacturer's volumes of imports also grew, but due to the lowest rates of positive dynamics its share shrank by 1.5%. The third in the reporting year is Pfizer's representative office, its drug imports increased by 74%.

Astellas is one of those that also demonstrated high growth (+154%). Abbott dropped by around 7%, most likely due to switching supplies over to Veropharm, which is now part of Abbott.

Table 26

Top 10 representative offices of foreign manufacturers by imports volume

Рейтинг	Representative offices of foreign manufacturers	Share in imports of the «Representative Offices» category, %		Growth against 2018, dollars
		2018	2019	
1	Novartis	**9.2%**	**8.9%**	**37%**
2	Sanofi	**8.0%**	**6.5%**	**14%**
3	Pfizer	**4.8%**	**6.0%**	**74%**
4	Bayer	**5.2%**	**5.7%**	**54%**
5	Johnson & Johnson	**5.1%**	**5.2%**	**43%**
6	Bristol-Myers Squibb	**1.3%**	**3.6%**	**298%**
7	Astellas Pharma	**2.0%**	**3.6%**	**154%**
8	Boehringer Ingelheim	**3.7%**	**3.5%**	**33%**
9	Teva	**4.1%**	**3.4%**	**16%**
10	AstraZeneca	**2.5%**	**3.1%**	**74%**
	Total:	**45.8%**	**49.4%**	

From among those that are not in the top 10, let us mention representative offices of Roche and Alvogen: both demonstrated a significant increase in imports (by 200% each).

Negatives dynamics was recorded only in 7 companies. The others were gearing up for the introduction of labelling and made vast stocks at warehouses in Russia.

Table 27 shows the top 10 distributors by volumes of drug imports to Russia.

In 2019, ten largest import distributors held 88% of the total imports in the «Distribution Companies» category.

As can be seen from Table 27, in 2019 the largest distributor by imports volume in the «Distribution Companies» category is R-Pharm, with a 36% share. The company increased imports 2.5 times, in particular, due to the distributor's active participation in the public procurement. Then come Protek, Puls and Katren, which are the leaders on the pharmaceutical market, though volumes of their independent drug imports are decreasing.

> In 2019, ten largest import distributors held 88% of the total imports in the «Distribution Companies» category

Once again positive dynamics is demonstrated by Grand Capital that has again improved its position in the rating (from the 6th to the 5th position).

Table 27

Top 10 distributors by volume of drug imports

Ranking	Distributor	Share in imports of the «Distribution Companies» category, %		Growth against 2018, dollars
		2018	2019	
1	R-Pharm	**18.2%**	**36.2%**	**151%**
2	Protek	**22.7%**	**17.5%**	**-3%**
3	Puls	**15.6%**	**12.1%**	**-3%**
4	Katren	**14.8%**	**8.3%**	**-29%**
5	Grand Capital	**3.1%**	**3.2%**	**33%**
6	Pharmcomplect	**3.2%**	**2.8%**	**8%**
7	Euroservice	**3.0%**	**2.6%**	**8%**
8	Magnit	**2.7%**	**2.1%**	**-2%**
9	Dominanta Service	**1.3%**	**1.9%**	**89%**
10	BSS	**0.9%**	**1.5%**	**111%**
	Total:	**85.5%**	**88.2%**	

Table 28

Top 20 manufacturers by volume of drug imports to Russia (by all importer categories).

Ranking		Manufacturer	Value imports share, %		Growth against 2018, dollars
2018	2019		2018	2019	
2	1	Novartis	**5.6%**	**5.3%**	**31%**
1	2	Sanofi	**6.1%**	**5.0%**	**14%**
6	3	Celgene	**3.5%**	**5.0%**	**101%**
3	4	Bayer	**3.9%**	**4.3%**	**54%**
4	5	Glaxosmithkline	**3.6%**	**4.2%**	**61%**
10	6	Merck	**3.1%**	**4.1%**	**85%**
11	7	Pfizer	**3.0%**	**4.0%**	**88%**
5	8	Johnson & Johnson	**3.6%**	**3.6%**	**37%**
15	9	F.Hoffmann-La Roche	**2.3%**	**3.6%**	**116%**
20	10	Astellas	**1.4%**	**2.7%**	**164%**
8	11	Teva	**3.2%**	**2.7%**	**17%**
16	12	Astrazeneca	**2.1%**	**2.6%**	**70%**
25	13	Bristol-Myers Squibb	**1.1%**	**2.6%**	**216%**
7	14	Takeda	**3.4%**	**2.4%**	**-2%**
14	15	Boehringer Ingelheim	**2.3%**	**2.2%**	**31%**
12	16	Berlin-Chemie	**2.8%**	**2.2%**	**6%**
13	17	Gedeon Richter	**2.7%**	**1.9%**	**-1%**
9	18	ABBOTT	**3.1%**	**1.9%**	**-16%**
17	19	Baxter	**2.0%**	**1.6%**	**15%**
18	20	Dr.Reddy's Laboratories	**1.9%**	**1.4%**	**-2%**
		Total:	**60.7%**	**63,3%**	

Table 28 shows the top 20 manufacturers by volume of drug imports to Russia (by all importer categories).

In 2019, by volume of imports to Russia 20 largest drug manufacturers held 63%. The largest manufacturers by volume of drug imports to Russia are Novartis and Sanofi. Celgene ranks third, moving up from the sixth position. High imports growth rates are demonstrated also by F.Hoffmann-La Roche, Astellas, and Bristol-Myers Squibb.

Imports of substances

Pharmaceutical substances are a key success factor for drug manufacturers. Today, not many companies in Russia produce pharmaceutical raw materials. But it is one of the key issues in terms of drug safety. That is why the «Pharma-2030» industry development strategy has been developed in view of special importance of production of substances. The strategy focuses on ramping up domestic production of raw materials in order to supply the domestic industry with sufficient quantities. Moreover, production should be augmented so as to be able to establish active exports of substances to the global market.

The general trend among domestic companies is heading for development and production of their own substances. Pharmsyntez will invest 200 million dollars in the pharmaceutical substance production facilities, projected to be launched in 2021. In autumn 2019, Infamed K opened a plant for the production of pharmaceutical raw materials for its drugs. Geropharm, Biocad, Nativa - these are just a few moving towards full-cycle drug production. The government considers boosting public procurement preferences for those who manufacture drugs in Russia, from substance to finished product.

So far, most of the drugs manufactured in Russia are made from imported substances. Domestic companies produce only 15% of required substances, which is hardly sufficient for their own needs.

In 2019, imports of substances amounted to around 16.6 million kg. In value terms, it equals about 1,810 million dollars, or 118 billion roubles.

Supplies of pharmaceutical substances are growing by all indicators. In tons, supplies for only 2019 were 16% more than for the similar period of 2018. In roubles, the growth is more noticeable: 38%. So, one of the drivers for the growth of value is the price factor, as in the previous years. On the average, the price of the ingredients supplied grew by 9%. Value varies within a much wider range, though. If we analyze the most demanded substances, the price, for instance, for metformin grew by 22% in roubles, for acetylsalicylic acid - by 19%; contrarily, the price for ascorbic acid decreased almost double (by 52%).

In 2019, supplies came from 43 countries. The Russian market of pharmaceutical substances is characterized by a high level of concentration. The top 10 hold 88% in value and nearly 95% in tons.

Chinese substances prevail in both terms (20 and 50 percent, respectively). In money, China pushed off from the leading position substances supplied from France. Notable is that in the last years the volume share of substances from China was shrinking (from 66% in 2015) giving way to pharmaceutical ingredients from India (India's share grew from 13.7% in 2015 to 21.8% in 2019).

> The government considers boosting public procurement preferences for those who manufacture drugs in Russia, from substance to finished product

In 2019, almost all the countries out of the top 10 demonstrated positive dynamics. Negative dynamics in money was observed only for substances from Italy.

The highest growth was in supplies of pharmaceutical ingredients from Japan (due to supplies of dolutegravir for GlaxoSmithKline) and the Netherlands (due to supplies of dydrogesterone for Veropharm).

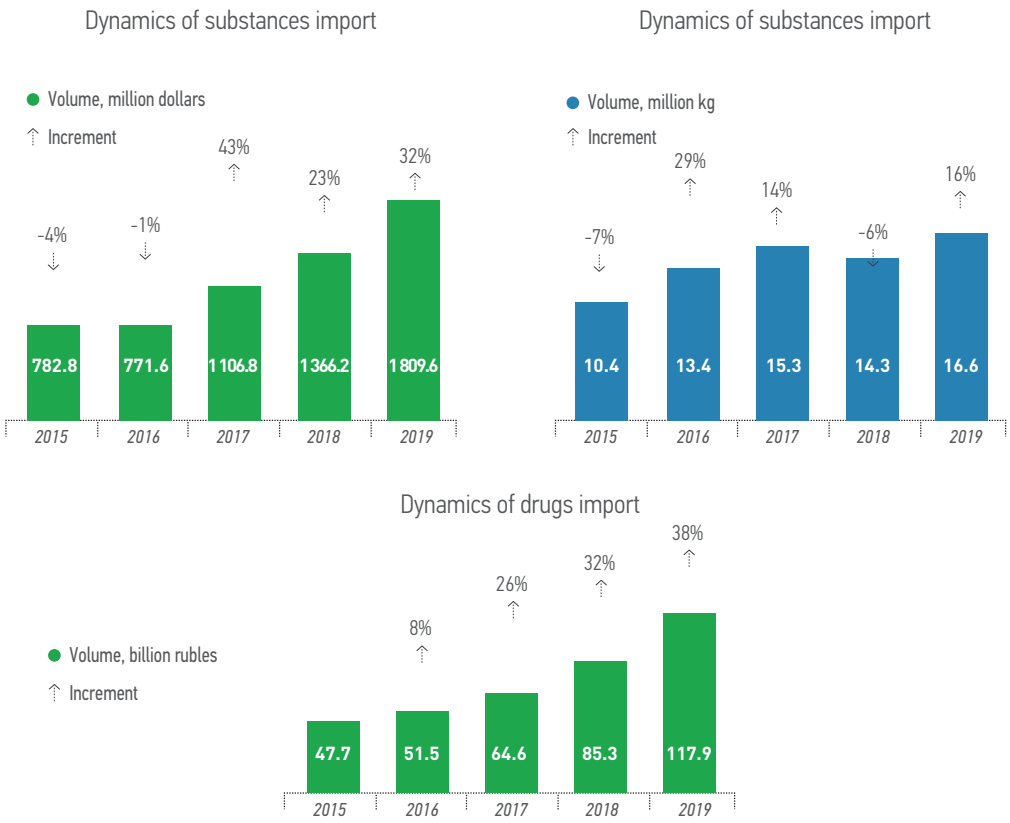
In 2019, no supplies were made from Saudi Arabia and Singapore. Among the new importing countries are Argentina, Finland, Bosnia and Herzegovina.

Nearly 800 various substance names were imported in 2019, 20 names more than in 2018. The top three substances in value are: insulin (9.0%), perindopril (4.1%) and dolutegravir (3.3%). In tons, the leaders are: metformin (15.5%), acetylsalicylic acid (7.5%) and paracetamol (6.5%).

The new positions that had been never imported to Russia since 2015 were:

Figure 42

Dynamics of substances import



- Lopinavir+ritonavir: 20.2 tons were imported for Abbvie for localization of home-made Kaletra in Russia;

- Dicyandiamide: 36 tons were supplied for Consultmedpharm (dicyandiamide is used in the industrial manufacturing of pharmaceutical products such as guanidine, guanidine nitrate, metformin, hydrochloride and phenformin);

- Euphylline: 10.3 tons were supplied for Consultmedpharm and Medtechpharm.

Among the leading recipients of substances in money terms are foreign companies that already have their own production sites in Russia: KRKA, Servie, and Sanofi. In tons, most pharmaceutical ingredients are supplied for Russian companies: Pharmstandard, Ozon and Velpharm.

Pharmaceutical substances are raw materials for finished pharmaceutical products. The national policy of supporting domestic manufacturers will, for one thing, increase supplies of raw materials for domestic production and, in a long-term outlook, given development of own sites for the production of pharmaceutical ingredients, will reduce dependence on imports.

> In 2019, imports of substances amounted to around 16.6 million kg. In value terms, it equals about 1,810 million dollars, or 118 billion roubles

Table 29

Top 10 countries of origin of substances

Ranking	Country	Volume, mln roubles	Share, roubles	Growth, 2019/2018
1	CHINA	**23 581.8**	**20.0%**	**41.1%**
2	FRANCE	**20 160.1**	**17.1%**	**14.3%**
3	INDIA	**12 334.4**	**10.5%**	**36.4%**
4	SWITZERLAND	**10 866.6**	**9.2%**	**137.9%**
5	SLOVENIA	**9 821.0**	**8.3%**	**30.2%**
6	GERMANY	**9 500.6**	**8.1%**	**49.0%**
7	IRELAND	**5 687.1**	**4.8%**	**12.1%**
8	JAPAN	**4 697.6**	**4.0%**	**393.1%**
9	ITALY	**3 601.2**	**3.1%**	**-17.0%**
10	NETHERLANDS	**3 315.1**	**2.8%**	**312.4%**

Ranking	Country	Volume, thousand kg	Share, kg	Growth, 11M 2019/2018
1	CHINA	**8 336.1**	**50.4%**	**4.2%**
2	INDIA	**3 604.5**	**21.8%**	**52.2%**
3	FRANCE	**1 720.8**	**10.4%**	**-0.3%**
4	GERMANY	**921.2**	**5.6%**	**50.1%**
5	HUNGARY	**349.3**	**2.1%**	**11.2%**
6	SLOVENIA	**230.8**	**1.4%**	**16.8%**
7	SPAIN	**188.8**	**1.1%**	**77.8%**
8	ITALY	**158.6**	**1.0%**	**19.9%**
9	USA	**127.5**	**0.8%**	**-14.6%**
10	CZECH REPUBLIC	**122.7**	**0.7%**	**36.4%**

Table 30

Top 10 substance names imported to Russia

Ranking	INN	Volume, mln roubles	Share, roubles	Growth, 11M 2019/2018
1	INSULIN	**10 586.7**	**9.0%**	**63.0%**
2	PERINDOPRIL	**4 782.6**	**4.1%**	**12.1%**
3	DOLUTEGRAVIR	**3 902.0**	**3.3%**	**825.1%**
4	RIVAROXABAN	**3 484.6**	**3.0%**	**92.0%**
5	URSODEOXYCHOLIC ACID	**3 129.5**	**2.7%**	**311.3%**
6	OSIMERTINIB	**3 024.3**	**2.6%**	**new**
7	RALTEGRAVIR	**2 946.0**	**2.5%**	**31.0%**
8	METFORMIN	**2 762.8**	**2.3%**	**96.2%**
9	LOSARTAN	**2 638.7**	**2.2%**	**29.5%**
10	VILDAGLIPTIN	**2 509.8**	**2.1%**	**62.0%**

Ranking	Country	Volume, thousand kg	Share, kg	Growth, 11M 2019/2018
1	METFORMIN	**2 561.1**	**15.5%**	**60.8%**
2	ACETYLSALICYLIC ACID	**1 245.6**	**7.5%**	**-24.5%**
3	PARACETAMOL	**1 078.5**	**6.5%**	**-35.5%**
4	OMEPRAZOLE	**709.4**	**4.3%**	**98.6%**
5	SORBITOL	**504.4**	**3.0%**	**-30.4%**
6	ASCORBIC ACID	**494.3**	**3.0%**	**-21.2%**
7	METAMIZOLE SODIUM	**459.8**	**2.8%**	**18.1%**
8	GLYCINE	**417.1**	**2.5%**	**335.0%**
9	SILICON DIOXIDE	**335.0**	**2.0%**	**45.8%**
10	CALCIUM GLUCONATE	**254.1**	**1.5%**	**24.1%**

8. Pharmacy Chains

The key topics discussed in the pharmacy market in 2019 remained the same as a year before. But their tension and influence on the development of players in the retail segment increased dramatically. Afterwards, the year 2019 may be called the last year in the development cycle of traditional retail. Expected changes will result in transformation of the current situation and mutual relations among all players of the commodity distribution chain.

The main momentous event that will impact the market in 2020 is the introduction of mandatory labelling for drugs from the middle of 2020. Of course, it is a topical issue not only for pharmacies, but also for distributors and manufacturers. A retail outlet will have to take some actions which will enable a pharmacy to continue operation after the 1st of July. First of all, it is necessary to register in the «Chestny znak" (Fair label) system. As of early March, about 57.5 thousand registered participants were listed on the official website of the state system of labeling and tracing in the section of drugs. Among them are wholesale companies, manufacturers, medical institutions, and pharmacies. Thus, taking into account all pharmacy outlets operating in Russia, it turns out that about 20% of pharmacies have not even started the first stage of «labeling». Moreover, there are also the following steps to be taken, which are more time-consuming and cost-intensive: buying a scanner, upgrading the information system, and, of course, training the employees.

Therefore, it is not surprising that the introduction of this system was postponed, and this is what pharmacies were trying to achieve in 2019. At the end of December 2019, Federal Law 462-FZ was signed, according to which the mandatory labeling of all drugs is postponed from January 1, 2020 to July 1, 2020.

It should be noted that the introduction of mandatory labeling of drugs will also put into effect the system of fines for selling unlabeled products. For example, the fine for companies may range from 50 to 100 thousand roubles, while for officials — from 5 to 10 thousand roubles. In addition, unlabeled goods will be subject to seizure. This is something to be aware of and, of course, keep in mind when planning the entire transition process to selling labeled products.

The introduction of the labeling system simultaneously brings changes to the tax accounting of retail outlets: when selling such goods it is impossible to apply special tax treatments, and pharmacies will have to switch from the Single Tax on Imputed Earnings to the other tax systems — general or simplified. Both are less profitable for pharmacies. It should be noted that the Single Tax on Imputed Earnings was mainly used by single outlets or small chains.

Relevant pharmacy organizations are trying to lobby for an extension of the preferential tax treatment, but this goes against the provisions of the law on labeling. At the regional level, the authorities support the participants at their own discretion. For example, the Primorsky Krai established a reduced tax rate of 1% for 2020 with the application of the simplified tax system (STS)

for entrepreneurs selling medications (the standard rate is 6%). A similar decision was made in Zabaykalsky Krai (the Transbaikal region).

Changes in the tax burden can be critical for most participants. So in summer we may see a «barrage» of pharmacy closures. But it is unlikely to noticeably change the number of available outlets. However, the concentration of major players can increase significantly: the vacant space will go to larger companies that are successfully developing through the opening of new pharmacies.

These are already real market changes that will affect every retailer. There are a number of other projects that are still under discussion. But their impact on participants and even on the overall market growth can be much stronger than the introduction of labels.

Surprisingly, legislators believe that regulating pharmacy business is not enough. Therefore, proposals for regulating «every small thing» are constantly being made. For example, to start monitoring prices and markups for all medicines, not only those on the VED list. And the price rise would only be allowed once a quarter. The strangest thing is that the prices would be set by pharmacies. Thus, if shelf prices were fixed for three months, any changes in the pricing policy of a manufacturer or distributor would put a burden on the pharmacy and would affect its profitability.

In addition, the Federal Law «On Circulation of Medicines» is going to be rewritten along the lines of the law «On Trade». Lawmakers propose to introduce the concept of «a pharmacy chain» and to separate the concept of non-profit pharmacy organizations from for-profit ones. The former will help further regulate the market and limit the number of retail outlets that a pharmacy chain may have: one proposal is to limit the share of chains to 3% of the market in the country as a whole and to 20% in one region. This would make it harder for large chains both to enter new regions and to develop, and some would have to reduce a big number of existing outlets. According to the 2019 data, 10 chains have a national share of above 3%. With a regional limitation, outlets would have to be closed in 25 regions where there are chains whose share exceeds the proposed figure. Non-pharmacy retailers now have a 25% share limit. But even with such a bar, there are 16 regions in Russia where the share of pharmacy chains exceeds this threshold. It should be noted that these are mostly remote regions of the Far Eastern Federal District or regions with a high proportion of state pharmacies.

Of course, it will be possible to circumvent this law, but for this purpose consolidated businesses will have to be divided into different legal entities. There is experience of this kind in the market though, so the adoption of this initiative will not be as painful as the development of the idea to limit or even ban marketing contracts. In the original proposal, the threshold figure for marketing payments is no more than 5%. For large chains that work directly

” Legislators believe that regulating pharmacy business is not enough. Therefore, proposals for regulating «every small thing» are constantly being made. “

with manufacturers and for pharmaceutical associations it would be a very serious loss, as now these bonuses are significantly higher than the proposed level. Restricting pharmacy bonuses would also lead to higher prices — pharmacies take these bonuses into account when setting prices, so the availability of drugs to the public may shrink.

There are many more proposals: to limit the display of foreign drugs, to fix the markup for each INN, to make pharmacists first recommend the cheapest products from the INN range, to revive mobile pharmacy outlets, etc. This is all that market participants, including non-profit organizations, will have to «work» with so that traditional pharmacies can continue to exist, carrying out a social responsibility mission while remaining a commercially profitable enterprise.

In early 2020, there were 63,950 pharmacy retail outlets, which is 2.4% higher than in 2018 (approximately 62,400 pharmacies). In 2019 the pharmacy market capacity was 1,283 billion roubles. (+4.2% as compared to the previous year).

It should be noted that only the retail link of the supply chain continues consolidating. The total number of TOP-20 chains grew by 13% in 2019 as compared to the same period of 2018. The share of the TOP-20 was 63%, which is 5% higher than in 2018. The Figure shows that the concentration is mainly due to the companies ranking 5th to 10th, which resulted in the growth of the TOP-10 share by 20%. But the share of the TOP-3 increased by only 2% (1% per year) as compared to 2017.

Figure 44 shows the growth of turnover and number of outlets in the top 20 pharmacy chains in 2016-2019.

It should be noted that the growth of both the number of outlets combined in the TOP-20 companies and their total revenues is slowing down. If before 2018 the composition growth was in double digits, in 2019 the TOP-20 include 31.1 thousand pharmacies, which is only 8% more than in 2018. The increase in total turnover also declined, almost by three times in the last three years from 35% to 13%. In the 2019 rating, already 11 chains have more than 1 000 outlets.

Figure 43

Concentration of TOP-20 Pharmacy Chains

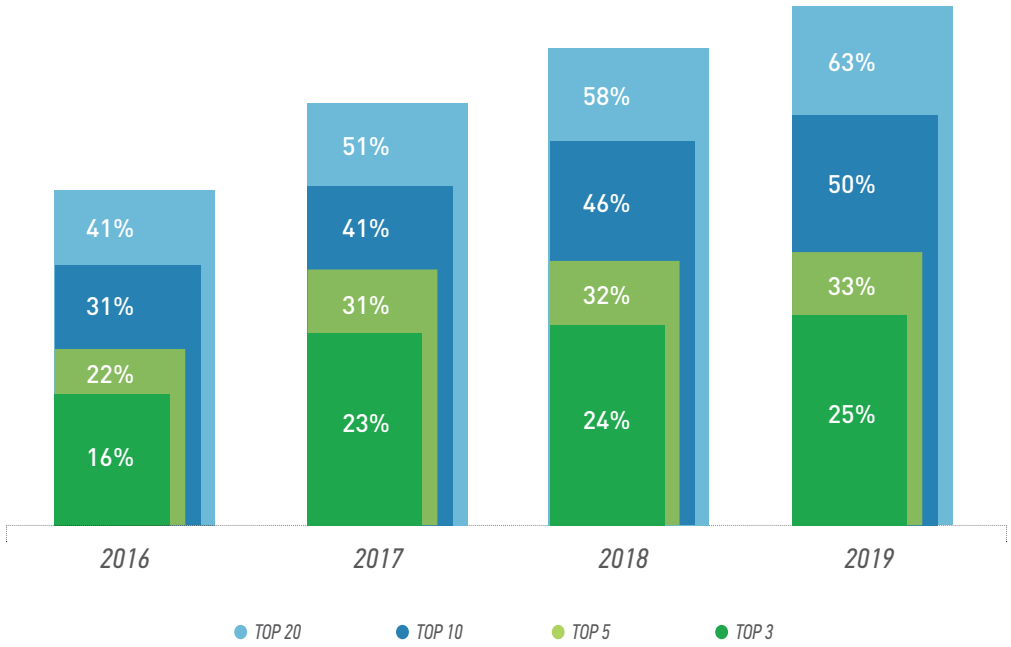


Table 31 shows the rating of pharmacy chains in the for-profit sector with quantitative and monetary measures of development in 2019.

The leading players of the market have not changed as compared to last year. However, the companies below TOP-5 are actively moving in the rating, which is due to different policies of pharmacy chains development. Higher gains are obtained by those who continue to grow through buying competitors.

The leader among traditional pharmacy chains is «Rigla», which at the end of the year grew by more than 400 outlets and took 6.3% of the market. The chain is developing, among other things, through the acquisition of local players. For example, in 2019 the following transactions were announced: repurchase of a part of shares of Nizhny Novgorod-based «Pharmacy No. 313», purchase of Ryazan-based company «Spray»; some outlets of the Irkutsk-based chain «Selesta», Kaliningrad-based «Formula Zdorovya» (Health Formula) and Vladimir-based «ABC» were transferred to «Rigla». As early as 2020, the federal pharmacy chain will have 45 «EuroPharma» outlets in Murmansk and the Murmansk Region. The transaction has the format of the assignment of lease.

> The leading players of the market have not changed as compared to last year. However, the companies below TOP-5 are actively moving in the rating, which is due to different policies of pharmacy chains development

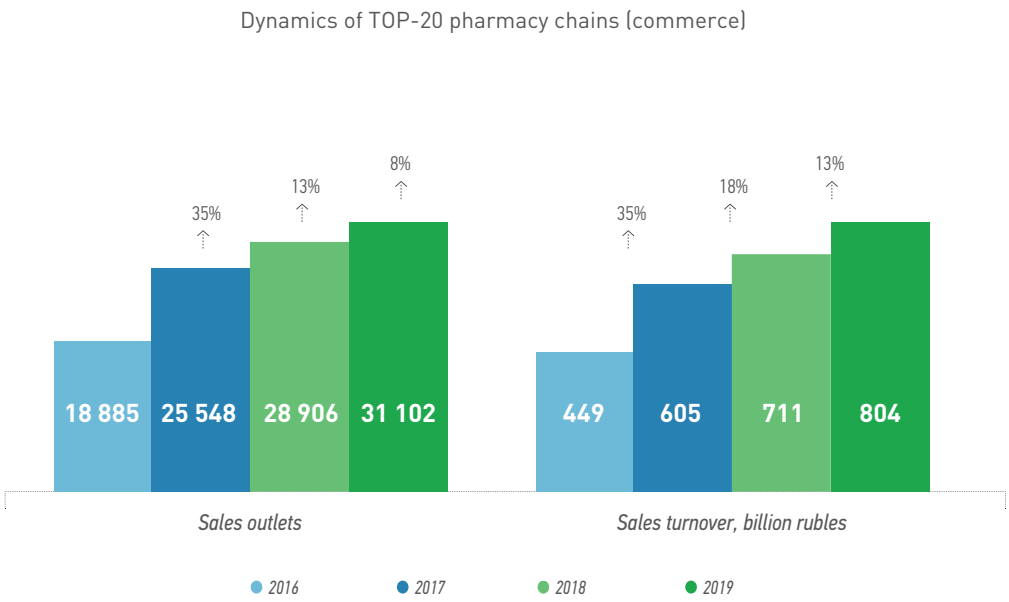


Figure 44

Dynamics of Growth in the Sales Turnover and Number of Outlets of TOP-20 Pharmacy Chains

Table 31

Ranking of Pharmacy Associations by Sales Turnover in 2019

Ranking 2019	Pharmacy chains	Number of outlets	Value, billion roubles	Turnover increase compared to 2018	Share in commercial segment, 2019
1	ACHA	9 345	179.9	11.0%	14.0%
2	Rigla	2 846	81.0	16.7%	6.3%
3	Erkapharm group	1 168	65.0	0.1%	5.1%
4	Pharmacy chain 36.6	1 402	52.3	3.5%	4.1%
5	Implosia	3 065	48.2	-1.8%	3.8%
6	IRIS	1 621	44.5	9.6%	3.5%
7	Neo-pharm	736	44.2	26.9%	3.4%
8	Vita (Samara)	1 742	42.7	31.6%	3.3%
9	Planeta zdorovya	1 760	41.0	14.9%	3.2%
10	April	1 479	39.1	26.0%	3.1%
11	Pharmland	1 265	30.2	20.6%	2.4%
12	Pharmaimpex	694	22.1	19.3%	1.7%
13	Melodiya zdorovya	874	20.9	62.0%	1.6%
14	Apteka-Timer	903	19.2	12.0%	1.5%
15	36.7C&Maxavit	597	17.1	10.8%	1.3%
16	Zdorov.ru	82	15.2	37.0%	1.2%
17	Pharmaceut+	507	12.1	-5.9%	0.9%
18	IDEA	211	10.0	2.8%	0.8%
19	Gubernskiye apteki	297	9.6	22.6%	0.7%
20	Nevis	508	9.1	2.7%	0.7%
21	Peterburgskiye apteki	86	7.2	-11.3%	0.6%
22	Zdorovye (Ust'-Labinsk)	169	6.7	17.3%	0.5%
23	Antey	346	6.5	25.7%	0.5%
24	Pharmeconom	149	6.3	16.0%	0.5%
25	Aptechnye traditsii	317	6.3	73.0%	0.5%
26	Aloe	230	6.1	-11.6%	0.5%
27	Monastyrev.rf	53	5.8	-2.5%	0.5%
28	Edelweiss	199	5.7	15.0%	0.4%
-	Mega Pharm	512	5.5	-47.0%	0.4%
29	Volgopharm (Volgograd)	157	5.2	3.0%	0.4%
30	Magnit	1 159	5.1	new	0.4%
	Ranking of Marketing Associations				
	Pharmmarket.ru	6 975	111.0	387.0%	8.7%
	ProApteka	5 794	81.9	23.8%	6.4%
	MFO	4 441	69.5	55.1%	5.4%
	Sozvezdiye	3 213	26.5	63.1%	2.1%
	PharmHub Platform	1 273	21.6	18.0%	1.7%
	AliancePharma	1 062	19.2	6.7%	1.5%
	Vesna	1 648	18.4	18.8%	1.4%
	Remote Order Services				
	Apteka.ru	17 096	34.2	171.0%	2.7%
	E-apteka	712	5.1	24.0%	0.4%
	Zdravcity	15 150	2.5	287.7%	0.2%

«Apteka ot sklada» (Pharmacy from a warehouse) increased due to such chains as «Avicenna» (Irkutsk, 21 pharmacies), «Pharmacies 36 and 6 & Zhiveya» (Irkutsk, 96 pharmacies), «Ripharm» (Chelyabinsk, 50 pharmacies). «Pharmland» grew through the acquisition of the Chelyabinsk-based chain «Doctor Alvik» (56 pharmacies). «Melodiya Zdorovya» bought the St. Petersburg-based pharmacy chain «Udachniye» (23 outlets). The Krasnodar-based chain «April» acquired 23 «Lora Plus» pharmacies and the «Eskulap» chain from Naberezhnye Chelny (21 pharmacies) on assignment of lease. In 2019 «Imploziya» (Implosion) had several transactions: «Lubimaya Apteka» (Yekaterinburg, 7 pharmacies), «Zhabina» (Novoshahtinsk, 12 outlets), «Dobriy Doctor» (Bratsk, 12 outlets), «Oreol» (Orenburg, 14 pharmacies), 17 outlets of «Bonum» (Saratov).

It should be noted that in the past it was mainly national networks that entered different regions through acquisitions, or regional participants acquired companies in their own or a neighboring region. Therefore, one of the unexpected deals in 2019 was the purchase of the pharmacy chain «Pharmastar» (93 pharmacies), a member of the «Severnaya Zvezda» Group, by the Kursk-based chain «Aptechniye Traditsii» which as a result entered the Moscow market.

The Far Eastern pharmacy chain «Monastyrev.rf» is developing due to organic growth, including the expansion to new regions. In November 2019 the company entered the Moscow market, opening 2 outlets in stores «VkusVill». «Monastyrev.rf» is planning to open a total of over 100 outlets in Moscow in 2020.

The first place in the rating still belongs to «ASNA», which includes more than 9.3 thousand outlets. «ASNA» unites independent organizations with a single pricing policy, promotional campaigns, discount programs, etc., which makes it a single structure in the eyes of manufacturers. According to the 2019 results, the share of «ASNA» grew to 14%.

In 2020, «ASNA» will become a group of companies, whose main lines of business will be working with manufacturers in terms of marketing, developing its own logistics and expanding the franchising project. 7 warehouses have been opened as partnerships with logistics companies in different regions of Russia, two more will be launched soon in St. Petersburg and Moscow.

Integrating pharmacies into an association is not limited to Russia. Today, «ASNA» offices have been opened in Belarus, Kyrgyzstan, Kazakhstan, Tajikistan and Uzbekistan. «ASNA» is planning to register its own trademark in European countries in 2020 in order to promote products through global marketplaces. It is also planning to open a branch office in Vietnam and develop relations with distributors in Southeast Asia.

«ASNA» is also trying out new formats: in December 2019, a multi-format retail outlet was launched — an area of 60-80 square meters houses food, household chemicals from natural and organic components, a parcel terminal, a coffee shop and a pharmacy.

The development of store brands (own brands) on the pharmacy market began long ago. But prescription medications are not yet available in any chain. «Erkapharm», which ranks third in the rating, wants to be the first to do it. The

group will have 38 own brands. In 2020, the group will start selling 150 prescription and non-prescription drugs, including antibiotics. It is planning to launch its own-brand drugs in all categories of drugs by the end of 2021. Now products under its own brand bring «Erkapharm» 10% of its revenue. The plan is to increase it to 20% in two years, partly by wholesaling to other chains.

In addition to the development of the own-brand project, which will increase profitability, «Erkapharm» is testing another service that is not yet present on the pharmacy market: in several outlets of the chain «Samson-Pharma», which are part of «Erkapharm» Group, it launched the first POS financing service on the pharmacy market in cooperation with MTS Bank. Buyers are offered maximum 300 thousand roubles for the period of up to one year at 23% per annum. «Samson-Pharma» expects that the financing will bring the chain up to 10% of additional revenue in 2020.

New formats are also being tried by the «36.6» pharmacy chain, which announced the opening of physicians' offices in pharmacies in summer 2019. The doctor will perform an examination and issue prescriptions on site. Three offices should work in Moscow pharmacies of the chain. Seeing the doctor at these offices will be fee-paying.

The rating of pharmacy chains is changing. Only last year we wrote about the active development of the chain «Mega Pharm». Today is the last time we see this company in the rating. Although, according to the year-end results, the company got into the TOP-30 with its turnover, we show it without a number. In January 2020, the chain ceased to exist. It specialized in cooperations with food retailers: together with X5 Retail Group, it opened pharmacies under the brands «A-Mega» and «Da, zdorov!», in partnership with «Azbuka Vkusa» — «Azbuka Life».

At the same time the project of another retailer — «Magnit» — is actively developing. At the end of the year the chain already had over 1 150 outlets with a market share of 0.4%. At the beginning of 2019, it was planning to open many more outlets — about 2 000 pharmacies. In November, «Magnit» made the pharmacy business a separate division. The new division «Magnit Pharma» includes the pharmaceutical distributor «Magnit Pharma», which was formed as a result of «SIA Groups» integration, and all «Magnit Pharmacy» outlets.

The interaction of a pharmacy with a food retailer is a familiar story for the market. All we have to do is watch partners change at one time or another. For example, X5 Retail Group (the chains «Pyatyorochka», «Perekrestok» and «Karusel») made an agreement with «Interregional Retail Pharmaceutical Company (MRPC)» to open 450 pharmacy outlets in X5 stores within 4 years. «Doctor Stoletov» will enter «Azbuka Vkusa». «Azbuka Vkusa» has changed its partner for developing pharmacy outlets in its supermarkets. The retailer that worked with «Mega Pharm» has agreed to open «Doctor Stoletov» pharmacies, which are developed by «Erkapharm» group, in its stores.

Regional chains are also cooperating with food retailers. «Gubernskiye Apteki» outlets will be opened at the checkout areas of «Komandor» food stores and in vacant areas of the retail chain on a leasehold basis. «Komandor» has about 50 stores where different pharmaceutical operators

already work, including 5 pharmacies of the chain «Melodiya Zdorovya», with which the «Komandor» company began cooperation in spring 2019.

One of the global changes in the pharmacy market will happen when the sale of medications is permitted online. With regard to over-the-counter drugs, the law on distance selling may come into effect on July 1, 2020. Online sale of prescription drugs should be allowed from 2022, as only by that time will the system of electronic prescriptions be operational in most health facilities.

The market has been waiting for this document for a long time. Pharmacy chains are actively preparing for the changes — they are testing services and delivery agents, solving problems with warehouses and logistics. Traditional retailers will have to compete with other sales channels, such as aggregators and marketplaces, which are planning to develop their own pharmacy businesses as well as partnerships with existing pharmacy chains.

For example, ASNA is developing cooperation with online platforms such as Wildberries, OZON and «Beru». However, the total revenue from sales of goods through marketplaces is now less than 0.1%. Moreover, the interests of partners are limited to the regions of Moscow and St. Petersburg. The pharmacy chain «Rigla» has become a partner of «Vse Apteki», an online service for ordering drugs and beauty and health products, in the Moscow region.

The «Pharmacy Chain 36.6» has started making home deliveries. At the moment, the site for courier delivery offers more than 3 000 products allowed to be sold remotely by the Russian legislation: perfumes and cosmetics, medical equipment (tonometers, nebulizers, etc.), hygiene products, nursing and newborn care items.

Both Russian and Chinese marketplaces are preparing for lifting the ban on online drug sales. Aliexpress has announced its plans to start trading in drugs after the law is passed. Russia will be the first country where Aliexpress is planning to launch its pharmaceutical project. Both manufacturers and distributors will be able to sell drugs through the marketplace. No drugs are being sold on this marketplace either in China or in any other country of the world.

Wildberries has entered into a supply agreement with the pharmaceutical distributor «Protek» (the agreement covers non-pharmaceutical products). Ozon is selling drugs with pilot delivery. For this purpose, the online retailer has obtained a license to conduct pharmaceutical activities and is opening its own pharmacy outlets. Marketplace «Beru.ru» is also in the process of obtaining retail and wholesale pharmaceutical licenses.

Also, one of the active players may become «Russian Post», which is preparing to start selling drugs with delivery in 2020. For this purpose, the company has obtained a retail license for pharmaceutical products to start delivering medications through its branches. «Russian Post» currently has 42 thousand offices in Russia, most of them, 30 thousand offices, are located in rural areas; moreover, there are 10 thousand communities in the country which have no other state infrastructure than the post. In autumn 2019, the first pharmacies were opened in the «Russian Post» offices.

> 2020 will be a critical year for pharmacy retailers. There are too many expectations, too many limitations, and too many changes. All these can fundamentally change the layout of the major players on the pharmacy market

The 2019 growth in the turnover of remote order services is high: in 2019, the service «Apteka.ru» increased its volume by 171%, «ZdravCity» — by 288%. On the whole, the share of internet orders with subsequent delivery in the pharmacy is still about 4% of the pharmacy segment capacity.

2020 will be a critical year for pharmacy retailers. There are too many expectations, too many limitations, and too many changes. All these can fundamentally change the layout of the major players on the pharmacy market.

9. Distributors

According to the State Statistics Committee, the wholesale turnover in Russia in 2019 was 31.5 trillion roubles, which is 7.4% higher than in 2018. The figures are noticeably higher than the increase in the retail trade turnover (+2.6%). The share of companies engaged in wholesale trade in pharmaceutical products and medical devices in this volume is 7.6%. Thus, their total figure was 2.4 trillion roubles, which is 12% higher than in the same period of the previous year. As a result, we can see that companies engaged in the wholesale trade in pharmaceutical products and medical devices are growing faster than the market as a whole.

One of the reasons for the growth is additional government funding for the purchase of medicines through various programs, which led to an increase in the share of the state segment in the overall structure of the pharmaceutical market. In recent years, pharmacies and pharmacy chains have turned into the main development channel for the largest medicine distributors. Therefore, companies that supply products to hospitals and provide medications to benefit-entitled categories of citizens have been able to grow at a more significant rate. Those companies that are engaged mostly in pharmaceutical retail have to grow at a rate equal to or higher than the growth of the market as a whole in order to maintain the market share. Solving such a task is becoming more and more difficult each year. As a result, we are once again talking about concentration reduction in the distribution chain.

The volume of the Russian pharmaceutical market in distributor prices was 1,547 billion roubles, which is 10.4% higher than in 2018.

At the end of 2019, the total share of the 10 largest distributors on the pharmaceutical market was 71.4%. As compared to 2018, this figure decreased: the drop in the concentration was -0.9%. Since 2015, the share of the TOP-10 has fallen by 10% from 82% of the market in 2015. To a greater extent, the negative concentration is due to a decrease in the share of the top three.

Naturally, the activities of wholesale companies also depend on their own development strategy. The slow growth was caused by the decisions taken by the key players back in 2018. To protect themselves financially, wholesalers had to change their relationship with pharmacy chains — distributors began to demand additional guarantees of repayment of receivables from pharmacies (insurance or bank guarantees).

Tightening the relationship between distributors and pharmacy chains initially resulted in losses of customers. Thus, «Protek» lost 5% of its customers when its credit policy changed. As early as 2018, in order to reduce bad debts, «Katren» published a register of unscrupulous counterparties indicating the amount of debt and penalties imposed by the court. The public announcement of debtors continued in

> ” The volume of the Russian pharmaceutical market in distributor prices was 1,547 billion roubles, which is 10.4% higher than in 2018 “

> Tightening the relationship between distributors and pharmacy chains initially resulted in losses of customers

2019. One of the widely discussed moments was debt collection from six Moscow networks that are part of ASNA.

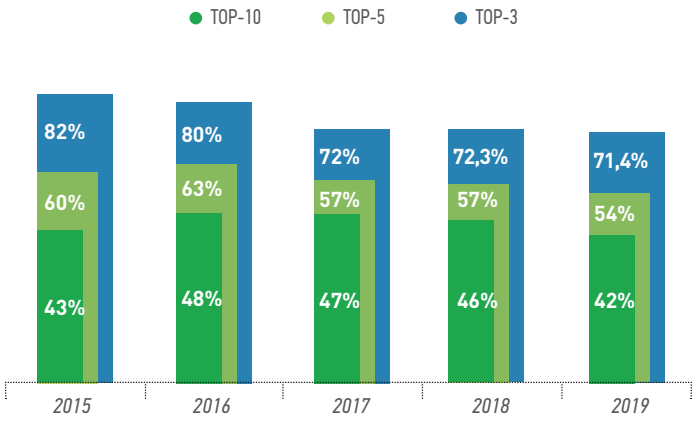
Changes are not only driven by internal factors — trends in related areas also determine the path for development. First of all, we are talking about digitalization of the industry and populization of virtual lines of business. But if previously the interaction was within the pharmaceutical segment, now the possibility of cooperation with players in other markets is under wide consideration.

At the end of September 2019, the distributor «Protek» and the online retailer «Wildberries» signed a partnership agreement for the delivery of goods to the online store. The official website of the online store has the «Medicines» section now. It currently contains information about how to order antiseptics, dietary supplements and disinfectants for plumbing fixtures, i.e. all those products that are not registered as medicines.

Distributors' own projects for online booking and ordering pharmacy products in 2019 were gaining popularity among the population. For example, the service «Apteka.ru», which is owned by «Katren», had sales of 34.2 billion roubles at the end of the year, which is 2.7 times higher than in 2018. This revenue figure is already comparable to the turnover of pharmacy chains that rank last in the TOP-10 rating. The share of the service «Apteka.ru» was 2.7% of the pharmacy market capacity. In twelve months, site visitors placed over 21.7 million orders and the number of regular users exceeded 10 million people. According to the independent international agency SimilarWeb, which analyzes the activity of Internet users around the world, Apteka.ru has consistently been the first in the ranking of pharmaceutical sites in Russia for the fifth year in a row and is one of the five largest pharmacy sites in the world.

Figure 45

Concentration in the Distribution Segment



The internet portal for ordering medicine and health products «ZdravCity», which is part of the «Protec» holding, has grown even stronger — almost 4 times. However, this resource is younger and so far its turnover is only 2.5 billion roubles. But judging by the number of connected pharmacies, the difference between the sites is not large («Apteka.ru» has 17.1 thousand outlets, «ZdravCity» — 15.2 thousand).

As part of these projects, distributors are preparing for medicines being allowed to be sold online, and they also have a guaranteed distribution channel under current conditions.

According to the 2019 results, «Protek» is leading the distributors' rating, just as it was the year before, with a 14.8% share. The above external reasons led to its decrease of 1.2%. Still, the company showed a 2% increase in sales. In 2018, the distributor's turnover fell by 7%. Thus, the company's revenue was below the 2017 level (241.9 billion roubles).

Even so, «Protek» is investing in its development, including the renovation of warehousing facilities. For example, the pharmaceutical distributor will invest 1.5 billion roubles in a new logistics hub

Table 32

Top 15 Distributors on the Pharmaceutical Market

Ranking	Distributor	Volume, in billion roubles	Increase, %	Share, %
1	Protek	**229.3**	**2%**	**14.8%**
2	Puls	**221.8**	**8%**	**14.3%**
3	Katren	**206.7**	**-5%**	**13.3%**
4	R-Pharm	**94.0**	**43%**	**6.1%**
5	Pharmcomplect	**91.9**	**15%**	**5.9%**
6	Grand Capital	**71.5**	**25%**	**4.6%**
7	BSS	**57.8**	**10%**	**3.7%**
8	Profit-med	**48.9**	**13%**	**3.2%**
9	G.D.P.	**43.7**	**8%**	**2.8%**
10	«Asfadis» Association	**41.7**	**6%**	**2.7%**
11	Pharmimex	**38.0**	**41%**	**2.5%**
12	Biotec	**33.7**	**87%**	**2.2%**
13	Avesta Pharmaceuticals	**32.8**	**30%**	**2.1%**
14	Magnit Pharma	**30.7**	**-23%**	**2.0%**
15	Irwin 2	**28.1**	**31%**	**1.8%**

in Tatarstan, which is scheduled to be launched in the fourth quarter of 2021. The area of the new logistics center will be 15.5 thousand square meters.

The second spot in the 2019 ranking belongs to «Puls». This is an expected result, as, according to the results of the 2nd half of 2018, the wholesaler already took the 2nd place, ahead of «Katren». This was achieved through a balanced strategy of expansion into the regions, automation of warehouses, as well as the refusal to develop its own pharmacy chain, so that retailers do not perceive the company as a competitor. «Puls» chose to create and develop a marketing association. More than 3 thousand pharmacies are currently integrated into the union «Sozvezdiye», the growth by 2018 was almost 2 times.

Modernization of «Puls's» logistics capacity is a planned work, which continued in 2019. In August the regional company «Puls Yaroslavl» started working on the premises of a new warehouse complex. A new logistics center was launched in Yekaterinburg in January 2020.

Looking at the ratings of previous years, we can see that in 2010 (10 years ago!) the company was only the 8th with a share of 2.5%. During this time, «Protek» has only doubled its turnover, while «Puls» has increased it by 16.5 times. It should be noted that in the interim ratings of 2019 «Puls» even rose to the first spot. The company's high growth rate over the past years made it a leader in early 2019. Therefore, the question of who will lead the rating in 2020 remains open.

The third spot of the ranking was occupied by the distributor «Katren» whose turnover reduced by 5% — the only one of the TOP-3. Therefore, the share fell most noticeably — by 2.1% to 13.4%. «Katren» is also investing in the construction of logistics hubs. Construction of a new warehouse worth 680 million roubles began in Novosibirsk. The complex will have a capacity of up to 240,000 positions per day and will allow the service for searching and ordering pharmacy products «Apteka.ru» to expand its presence in the Novosibirsk, Tomsk and Kemerovo regions, as well as the Altai Krai region and Yakutia. The launch is planned for December 2020.

It should be noted that previously players were only leaving the rating, now the trend is reversed.

For example, for several years the company «G.D.P.» (the wholesale division of the «Pharmacy Chain 36.6») was supplying only its own pharmacies. In 2019, the company's area of operation expanded; it extended its involvement not only with other chains, but also in the state segment. As a result, the distributor took 2.8% of the market. The company is planning to become one of the Top 5 largest pharmaceutical distributors of the country within three years.

In July 2019, the Association of Distributors «Asfadis» was established, which included 7 regional companies: «Asti» LLC, «Asti Plus» LLC, «AccentMed» LLC, «Alenpharma» LLC, «Don Hospital» LLC, «Lesan Pharma» LLC, «FK Avikon» LLC. As a result, the share of the associated distributors was 2.7%, and the company entered the TOP-10.

The focus on the state segment allowed «Irwin 2» to increase both the number and volume of auctions won in 2019, leading to a 31% increase in sales compared to 2018. This was due to growth of medical devices and equipment in the segment, as well as

active development in the regions. Over the past year, the distributor has opened 4 new offices in Irkutsk, Novosibirsk, Saratov and Nizhny Novgorod.

«Biotec» is also actively returning the lost positions, demonstrating one of the highest market growths. This is due to an increase in the product range as well as additional focus on the pharmacy market. «Biotec» also launched production of nutraceuticals, vitamin and mineral supplements, protein-carbohydrate complexes, etc. The production unit of the company also started to make products for dietetic therapeutic and dietetic preventive nutrition — ingredients for preparing ready-made meals in medical facilities and care-giving institutions.

The companies below the 6th place are demonstrating a high growth. «Grand Capital» has a firm grip on the 6th place in the standings with a 25% increase. The company «Avesta Pharmaceuticals» has been showing a high growth rate in recent years. Both companies were included in the TOP 50 fast-growing companies of the year according to RBC: «Avesta» ranked 29th, «Grand Capital» — 32nd. Besides them, only two other pharmacy chains («Neopharm» — 28th position and «Vita Samara» — 44th position) are present in the rating under the category «Medicine and Pharmacies».

There are few companies in the 2019 rating that show a downward trend. One of them is the distributor «SIA». The trend is caused by the development strategy of the new owner of the wholesaler — refusal to cooperate with external clients in pharmacy retail and switching to own pharmacy business and development of «Magnit» pharmacies. The large storage facilities are also used to supply non-drug range to its own shops «Magnit Cosmetics». At the end of the year, «Magnit» made the pharmacy business a separate division. The new division «Magnit Pharma» includes the pharmaceutical distributor «Magnit Pharma», which was formed as a result of «SIA Groups» integration, and all «Magnit Pharmacy» outlets. Thus, another new name has appeared in the rating.

The trend to diversify the business continues at the wholesale level. And sometimes it leads to interesting decisions. The pharmaceutical company «BSS» intends to supply reagents for laboratory research in immunochemistry, biochemistry, hematology, hemostasis, urine analysis, as well as products for microbiological laboratories. «BSS», which in 2019 earned 8.2 billion roubles on the market of government contracts for medical supplies, primarily considers its regular consumers — medical institutions of St. Petersburg, the Leningrad region and the Moscow region — to be its prospective clients. The new line of business is called «BSS-Lab».

An active player on the market of government contracts and a drug manufacturer, «R-pharm» will start selling Japanese cosmetics. The company «R-Pharm Cosmetics» was incorporated for this purpose. Through the new company, «R-Pharm» will sell dietary supplements, shampoos and cosmetics in Russia. These will be products of Fujifilm and other Japanese companies. There are also plans to sell products from the vitamin line which is produced at «R-Pharm's» plant in Germany.

Modern technology and digitalization can lead to a complete transformation of a distributor into a logistics operator. That's what the company «Santens» is doing.

In the summer of 2019, an agreement was concluded between the «Santens» Group, X5 Retail Group and the internet-store «Perekrestok-online», which stipulated the establishment of an online pharmacy «Apteka.perekrestok.ru». The plan was to create an online platform where pharmaceutical manufacturers could present their products and offer them directly to the consumer. The buyer would order the necessary drugs directly from the manufacturer, and pick them up at one of the pharmacy distribution points. Opening 1 400 pharmacy pick-up points was planned as part of the chain development. «Santens» was supposed to transport drugs from the manufacturer to the platform.

However, in early 2020 the project was put on hold. This may be partly due to the fact that the logistics operator «Santens» is developing its own project «PharmaSpace». The cloud solution «PharmaSpace» is designed to establish direct contractual relations between manufacturers and Russian pharmacy chains. The platform will provide the manufacturer and the retailer with an opportunity to quickly and transparently trace agreements on turnover, marketing contracts, fiscal audited reports and direct logistics.

10. Manufacturing

In 2019, just as the entire market the manufacturing segment was gearing up for the key event - the introduction as of January 1, 2020 of compulsory labelling of drugs. While the other market participants focus on how to arrange sales of such drugs, manufacturers have to deal also with how to legally and properly release labelled packages into circulation.

Until recently, the length of the crypto-code 'tail' remained the major issue. The Data Matrix format code on each package of a labelled product helps tracking its movement from the manufacturer to the buyer or, in case of medical institutions, to the patient. The issue was brought to a close only in the second half of 2019. The Government of the Russian Federation resolved that the crypto-code on labelling is to consist of 44 characters (the last days of August 2019 brought amendments to Order of the Government of the Russian Federation No. 1556 «Concerning the Approval of the Regulations on the System of Monitoring Movements of Medicinal Products for Human Use»). Earlier, labelled data had been expected to comprise as many as 119 characters, which was going to affect the quality of printing and recognition of data in the system and, in some cases, made it difficult to find enough space for the code and crypto-signature on the drug package. Another amendment allows coding the package by any means that guarantees inseparability of the code, without any reference to the manufacturing line. Inseparability implies that the code cannot be removed without damaging the package. No reference to the manufacturing line is important for companies with small production volumes; now, they can have packages coded in printing houses.

Across the market, the overall preparedness for sales of labelled drugs from January 1, 2020, was highly questionable. So it was just to be expected that the labelling system would be ordered to be introduced on a stage-by-stage basis - the respective order was signed on December 31, 2019.

The Government of the Russian Federation itemized the process of the integration of the system for digital labelling and drug tracking by stages:

- from January 1 to February 29, 2020, inclusive, all drug market participants are required to get registered in the labelling system;
- before February 15, medical institutions (hospitals, polyclinics, other facilities licensed to engage in medical activities) that have not yet placed with the System Operator withdrawal recorder requests (requests for a device recording withdrawal of a drug) are required to do so;
- before May 1, drug market participants (manufacturers and importers) are required to file emission recorder requests;
- as of July 1, it is prohibited to manufacture and import unlabelled drugs and it is mandatory for all market participants to report data on transactions with labelled drugs to the labelling system;

> The market offers a solution that, in the ideal case, could make Russia a country with the cheapest drugs.

- unlabelled drugs, transactions with which started before July 1, are allowed to be sold until the date of expiry;
- drug manufacturers that are already integrated in the system and are ready to start labelling drugs from January 1 will get digital codes for no fee until July 1.

So, the new effective date of compulsory labelling is July 1, 2020. But is it final? Previously, each time new drug control regulations were proposed, their timeframes were often rescheduled. The more so that not all drug manufacturers, let alone pharmacies and distributors, have been registered in the Chestny Znak track & trace system. As on February 5, 2020, the drug labelling system covers 6,872 drug names, which is 72.4% of the drugs that, according to Roszdravnadzor (the Federal Service for Supervision in Healthcare), were in circulation in Russia in 2018 and 2019.

Introduction of compulsory labelling is one of the factors that may trigger a rise in prices for drugs as costs are made up not only of the digital code fees but also of expenses on the installation of special-purpose equipment for transmission of data to the unified system and on the modification of manufacturing lines for coding. Yet, the market offers a solution that, in the ideal case, could make Russia a country with the cheapest drugs.

It is about a new procedure for pricing drugs from the VED list. The maximum sale prices are expected to be set according to this procedure in 2020. The maximum sale prices will be determined on the basis of the lowest price effective in one of 11 reference countries (including, inter alia, France, Romania and Belgium) or in the country of origin of the drug. Once the minimum price of an original drug is determined, the Ministry of Health will set the price for each of its generics by applying a decreasing coefficient. FAS will be authorized to demand pharmaceutical companies to once again reduce the price within 30 days if the drug price falls in any of the reference countries. The new pricing procedure will not apply to VEDs priced less than 100 roubles per package, vaccines, narcotic and psychotropic drugs made in the EAEU countries.

Another major issue, debates over which continued in 2019, was interchangeability. The issue translated into Federal Law No. 475-FZ dated 27.12.2019 «Concerning Amendments to the Federal Law «Concerning Circulation of Medicines» and the Federal Law «Concerning Amendments to the Federal Law «Concerning Circulation of Medicines», which changed the procedure for determining interchangeability of drugs. Primarily, the amendments were aimed at translating the existing medical practices to the legal environment and equalizing the quality of marketing authorization files for each drug so as to remove doubts about the quality, effectiveness and safety of drugs on the domestic market.

For the determination of interchangeability of drugs, the law re-introduces the notion of the 'original drug' and offers new terms, such as, for instance, 'therapeutic

equivalence of drugs' and 'bioequivalence of drugs'. It also modifies the meaning of a reference drug and a generic.

The law suggests making a list of interchangeable drugs to group medicines accordingly. The list will be made by the expert agency «The Scientific Centre for Expert Evaluation of Medicinal Products» of the Ministry of Health of Russia. A list of interchangeable drugs for two drug categories will be drafted by July 1, 2020. These two categories are reference and generic drugs, whose marketing authorization files contain findings of studies of bioequivalence or therapeutic equivalence in relation to a reference drug. Interchangeability will not be determined for herbal and homeopathic medicines.

The introduction of new rules to marketing authorization files can also increase market prices or make drugs disappear from corporate portfolios. Pharmaceutical manufacturers of generics are concerned about having to spend on additional expert evaluations of drugs from the low-cost segment of VEDs that were registered in the market many years ago. Bioequivalence studies that cost 10 million roubles will not just make production unprofitable, they can also lead to disappearance of drugs from the market.

So far, the market has not seen any notable trends towards a less favourable product mix. On the contrary, many production sites were announced and launched in 2019. These new production sites will not only contribute to substitution of imports but also promote the production of innovative drugs in Russia.

2020 will summarize the efforts undertaken under the «Pharma-2020» strategy; one of its digitized parameters is the share of drugs made in Russia. The wheels were set in motion already several years ago but foreign manufacturers are still in search of mechanisms and possibilities for the localization of their drugs on Russian sites in order to be able to take part in public tenders on an equal footing with Russian plants.

Foreign manufacturers are ready to pay for that: according to AIPM (Association of International Pharmaceutical Manufacturers), over a 10-year period more than 1 trillion roubles have been invested in the Russian pharmaceutical production.

Several new localization projects emerged in 2019:

- In Saint Petersburg, Bayer localized production of a contrast agent used in the diagnostic CT imaging, on the basis of Russian Polysan's facilities. Ultravist (INN-Iopromide) was the first original contrast agent localized in Russia.

- Biocad Pharmaceutical Company for the first time localized production of a foreign drug at its facilities. At Biocad's Moscow-based plant, Takeda completed localization of the manufacturing of Advate (INN-Octocog alfa) used in the treatment of patients with hemophilia A.

- Servier's pharmaceutical plant started full-cycle manufacturing of Tivicay (INN-Dolutegravir) used in the anti-HIV therapy in combination with other antiretroviral drugs. The project was implemented by joint effort of ViiV Healthcare, GSK and Servier.

- Pharmaceutical manufacturer Gilead Sciences announced extending its cooperation with Russian Pharmstandard in localization of drugs used to treat socially significant diseases. Capacities of

Table 33 *Key production sites launched on the Russian pharmaceutical market in 2019*

Initiator	Region	Description	Capacity	Investments
Besins Healthcare Rus LLC	Novosyolki Industrial Park, Yaroslavl	Plant for the manufacture of hormonal drug Utrogestan (INN-Progesterone). The drug is widely used in obstetrics and gynecology and is on the VED list	5 million packages a year	500 mln roubles
PE Obolenskoe JSC (Sistema JSFC)	Obolensk, Moscow Oblast	New pharmaceutical plant for the manufacture of drugs used in the treatment of gastrointestinal disorders, cardiovascular diseases, musculoskeletal disorders, nervous disorders, antibiotics and several other drugs in solid dosage forms. Part of the output is planned to be exported overseas	120 million packages, 1.6 billion tables, 120 million capsules, and 15 million sachets a year	3 bln roubles
Evalar CJSC	Biysk, Altai Krai	Manufacturing complex for the manufacture of natural herbal medicinal products. Another production facility for the manufacture of medicinal products made of synthetic raw materials is scheduled to be opened in 2020	2 billion tablets and capsules a year	5 bln roubles
Biosintez PJSC (Sun Pharma)	Penza	Facilities for the manufacture of solid oral dosage forms. Most of the drugs are VEDs	2 billion tablets a year	Over 800 mln roubles
Severnaya Zvezda NPJSC	Nizino, Leningrad Oblast	Production site for the manufacture of 12 products, mainly, cardiac medications	24-36 million packages of tablets a year The new site has doubled the output from 25 million to 50 million packages a year	2 bln roubles
Fort LLC	Yaltunovo, Ryazan Oblast	Full-cycle manufacture of latest-generation influenza tetravaccine Ultrix Quadri in accordance with GMP standards. The drug will be released in pre-filled syringes and will be sold both on the Russian and overseas markets	Up to 50 million dosages a year	Total investments in the new complex project are worth 9.3 bln roubles

Petrovax Pharm	Podolsk, Moscow Oblast	New production facilities with 2 lines for the manufacture of substances, solid, semi-solid and liquid finished dosage forms. Facilities are built in accordance with the international and Russian GMP requirements	By 2020, capacities will increase 2.5 times for pharmaceutical substances, 7 times - for tablets, and 4 times - for suppositories	Over 1 bln roubles
Veropharm LLC (Abbott)	Volginsky, Petushinsky District, Vladimir Oblast	Two new manufacturing lines for the production of sterile injection drugs from the VED list, used in anesthesiology and intensive therapy, oncology, hematology, neurology, cardiology and gastroenterology. The new lines include ampoule production facilities and a new freeze dryer	Over 50 million ampoules and vials a year	500 mln roubles
Polysan Scientific & Technological Pharmaceutical Company LLC	Saint Petersburg	Construction of a new facility for full-cycle manufacturing of drugs, designed in accordance with the international GMP standards. The manufacturing lines of the new facility will produce home-made drugs. Full-cycle manufacturing of heart disease drug Xarelto has been launched within the framework of Polysan's cooperation with Bayer	300 million tablets a year (two-shift production) - 550 million tables (three-shift production Monday to Sunday)	Over 4.5 bln roubles
WERTEKS JSC	Saint Petersburg	Fully commissioned innovative production facilities. In 2019, Phase II facilities put into operation new development laboratories and a high-rack storage warehouse. Partial operation of Phase III pharmaceutical production facilities.	At full capacity, the output can exceed 200 million packages a year (Phase III)	Around 7.3 bln roubles (Phase II: 500 mln roubles; Phase III: 2.4 bln roubles)

> Foreign manufacturers are ready to pay: according to AIPM (Association of International Pharmaceutical Manufacturers), over a 10-year period more than 1 trillion roubles have been invested in the Russian pharmaceutical production.

the Russian plant will be used to produce finished dosage forms for the treatment of hepatitis C (Sovaldi, Epclusa) and HIV (Biktarvy, in the process of registration in Russia). The schedule also envisages commencement of localization of anti-HIV Genvoya and of Vemlidy and Harvoni (also in the process of registration in Russia) used in the treatment of hepatitis B and C, respectively.

– Within the SPIC framework, Sanofi announced launching full-cycle pharmaceutical manufacturing of basal insulin Toujeo SoloStar at the Sanofi-Aventis Vostok plant in Oryol Oblast. This will facilitate access to the innovative drug for Russian patients with diabetes and contribute to security of its supplies to the Russian market.

– At the Nanolek plant in Kirov, German Merck localized full-cycle (from substance to package) manufacturing of Concor used in the treatment of cardiovascular diseases. This will fully cover the demand on the Russian market. The funds invested in the manufacturing were worth 1 billion roubles; the target output when the plant starts operating at full capacity in 2021 will be 650-700 million tablets.

Another mechanism promoting, inter alia, substitution of imports is Special Investment Contract (SPIC). Over three years, 40 contracts worth more than 1 trillion roubles have been signed across all industry sectors. Businesses invest money in the development of technologies in Russia and, in return, the Russian government guarantees to them a stable environment for their operations and tax preferences. Both Russian and foreign companies may sign SPICs. In 2017, two international manufacturers - Sanofi and AstraZeneca signed SPICs with the Russian government. Sanofi offered to intensify localization of production of insulins, and AstraZeneca offered 10 socially significant drugs; in return, the government promised that the drug would be regarded as Russian even before the launch of full-cycle production and guaranteed tax preferences. However, SPIC does not guarantee absolute protection: a year later, by order of the Federal Antimonopoly Service, AstraZeneca had to reduce prices for several drugs, including SPIC listed ones.

In 2019, the government approved SPIC-related legislative amendments. Now, investors will be selected on a competitive basis and the maximum contract term is extended to 20 years. Amendments have been made to the Federal Law «Concerning the Industrial Policy in the Russian Federation», the Budgetary and Tax Codes. According to the legislative amendments, the SPIC mechanism remains available until the end of 2030.

Within the framework of this project, in 2019 ActiComp signed a SPIC for the construction of a plant. Acting under the SPIC, the

company will be granted tax preferences during the construction and operation of the plant of pharmaceutical substances in Pushkino worth 2.5 billion roubles. It is the 1st SPIC for the production of substances; earlier, such contracts were signed only for the manufacturing of already finished dosage forms.

Another SPIC has been approved for Generium, for the construction of a plant of biologic drugs used in the therapy of rare hereditary, genetic, cardiovascular and pulmonary diseases, expected to substitute imported drugs on the Russian market.

The national «Pharma-2020» program envisages that in 2020 the target indicator of the share of home-made drugs in the total consumption in money terms should come to 50%. Given the annual revision of the VED list and the current share of domestic drugs in the total consumption, the targets are not yet fully implemented so far, that is why the Ministry of Industry and Trade of Russia suggests postponing implementation timeframes until 2024.

From year to year, the share of domestic drugs is steadily increasing. Of course, localization and import substitution are the drivers of the growth of the consumption of drugs manufactured in Russia.

The share of imported medicines continues decreasing. At the end of the year, imported drugs accounted for 70.0% in money, and for 39.5% in packages. In value, the share of domestic drugs was 0.4% higher than in 2018. The share of domestic drugs grows on account of the commercial segment; growth in the public procurement sector is, contrarily, on account of the increase in the volumes supplied by foreign manufacturers under the national «Oncology» program and allocation of additional funding for high-cost ICD, where most of the drugs are still foreign-made.

Owing to localized drugs, one of the «Pharma-2020» targets has been implemented, namely, the share of home-made drugs in the total consumption by value. At the end of 2019, foreign companies sold in money around 21% of such drugs. All in all, domestic and localized drugs accounted for 51.4%, and for 67% in packages, domestic drugs only 6.5% ahead. Foreign companies focus on the localization of expensive drugs purchased through public procurement.

85% of drug manufacturers in Russia are foreign companies. There are three Russian manufacturers in the top 20: OTCpharm, Pharmstandard and Biocad.

The rating of 2019 is characterized by numerous shifts. As for the ranked companies, there is only one change. ASTELLAS is no longer in the rating, it lost the 20th position to F.Hoffmann-La Roche. Only 3 companies retained their positions compared to 2018. In 2019, the top 20 manufacturers hold in aggregate a 47.1% share.

The top three of 2019 remained the same as in 2018. Sanofi ranks first, being 0.5% ahead. The share of sales in the retail segment remains prevailing for the company (around 60% of turnovers are pharmacy sales).

> ” In 2019, the government approved SPIC-related legislative amendments “

The second-ranking is Novartis, which in 2019 completed spin-off of Alcon specializing in ophthalmic products. Also Novartis' share is high owing to pharmacy sales (64%). The third in the top is Bayer, closely behind the second position. Public procurement accounts only for 20% of the manufacturer's sales.

7 manufacturers out of the top 20 are notably represented in the public procurement (over 50%). Biocad, holding a 97% share, is concentrated mainly on the state segment.

In manufacturers falling off the rating, the most significant changes were observed for: Generium (+14 positions, ranks 27th) and Bristol-Myers Squibb (+18 positions, ranks 31st). These manufacturers improved their market positions by increasing sales in the state segment of the pharmaceutical market.

Figure 46

Consumption structure by origin, 2019

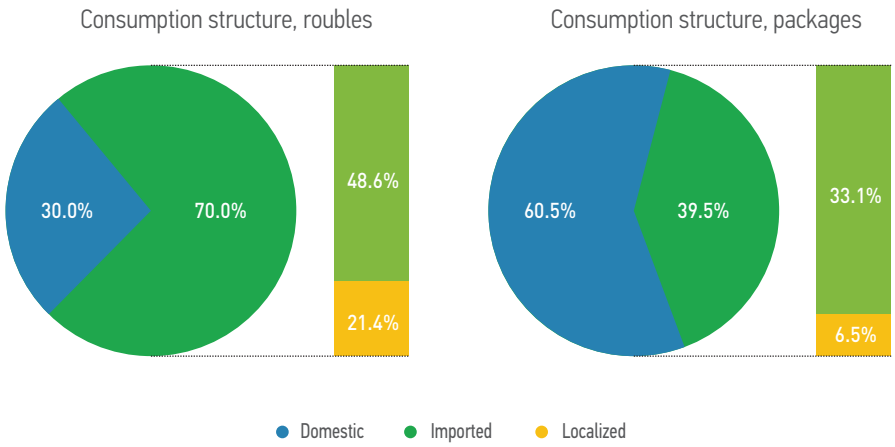


Table 34

Pharma-2020 Strategy implementation

Indicator	Actual, 2019		Target	
	Domestic	Domestic + localized	2018	2020
Share of domestic drugs in VEDs (SKU)	57%	65%	90%	90%
Share of domestic drugs in VEDs (volume, roubles)	33.9%	59.7%	90%	90%
Share of domestic drugs in total consumption in money	30.0%	51.4%	43%	50%
Share of domestically manufactured drugs by the nomenclature of the list of strategically important drugs	53.3%	81.5%	90%	90%

Table 35

Top 20 manufacturers by sales volumes on the Russian pharmaceutical market in 2018

2019 rating	Change	Manufacturer	Value, mln roubles	Value growth	Share
1	-	Sanofi	**64 812.5**	**1.9%**	**4.1%**
2	1	Novartis	**57 622.1**	**10.2%**	**3.6%**
3	-1	Bayer	**56 100.7**	**5.5%**	**3.5%**
4	3	Glaxosmithkline	**46 907.7**	**30.4%**	**3.0%**
5	-1	Johnson & Johnson	**46 531.1**	**14.3%**	**2.9%**
6	5	Merck	**42 142.5**	**42.3%**	**2.7%**
7	-3	Abbott	**41 905.5**	**0.1%**	**2.6%**
8	2	Pfizer	**39 834.0**	**21.4%**	**2.5%**
9	-3	Teva	**38 206.1**	**-4.3%**	**2.4%**
10	-1	OTCpharm	**35 094.3**	**0.4%**	**2.2%**
11	-	Takeda	**35 013.9**	**10.9%**	**2.2%**
12	-5	Servier	**34 885.6**	**-3.2%**	**2.2%**
13	6	Biocad	**31 269.3**	**30.1%**	**2.0%**
14	-1	KRKA	**31 200.4**	**10.9%**	**2.0%**
15	3	Astrazeneca	**28 379.9**	**15.9%**	**1.8%**
16	-1	Berlin-Chemie	**28 163.2**	**1.1%**	**1.8%**
17	-	Pharmstandard	**27 644.2**	**7.2%**	**1.7%**
18	-4	Gedeon Richter	**27 174.0**	**-3.0%**	**1.7%**
19	-4	Stada	**26 502.4**	**-2.9%**	**1.7%**
20	6	F.Hoffmann-La Roche	**24 680.0**	**75.6%**	**1.6%**