

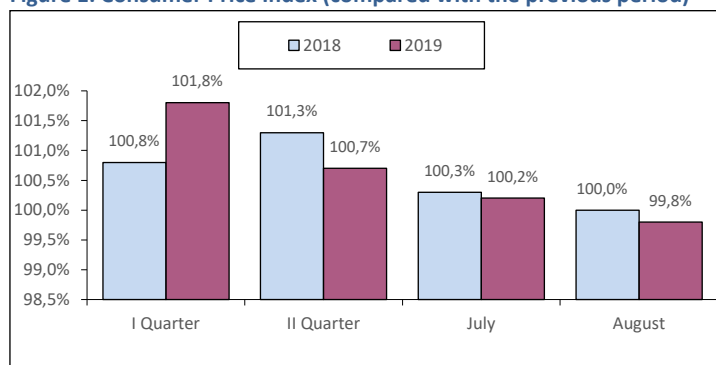
MACROECONOMIC INDICES

Inflation

According to Federal State Statistics Service's data, the Consumer Price Index was estimated as 99.8% in August of 2019 as compared to July, 102.4% as compared to December of 2018.

In July of 2019, Industrial Producer Price Index (for goods intended for sale on the domestic market) was 99.4%, whereas in the month-earlier period it had amounted to 97.3%. The index accounted for 97.4% against December of 2017.

Figure 1. Consumer Price Index (compared with the previous period)



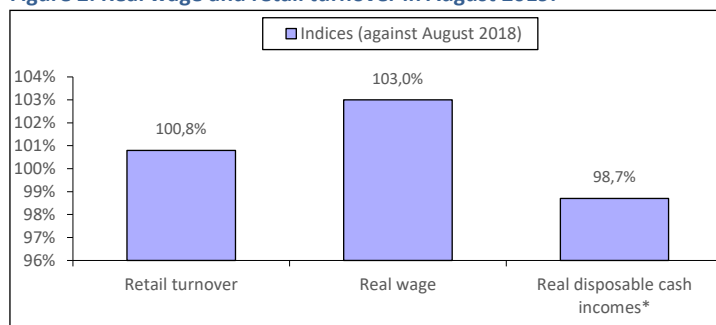
Living standard

According to Federal State Statistics Service's data, in August of 2019 a gross monthly average wage of corporate employees was RUB 45,100 (USD 688.23). It increased by 107.4% compared to the same period in the previous year, and by 97% compared to the previous period. In August of 2019, the real gross wage accounted for 103.0% as compared to August of 2018, and 97.2% against the prior period. According to estimates¹, in the first half of 2019 real disposable cash incomes decreased by 1.3% compared to the same period of the previous year (Fig. 2).

Retail turnover

In August of 2019, the retail turnover was equal to RUB 2,886.3 bil. or 100.8% (in comparable prices) against the level of the same period of the previous year, in January-August of 2019 - RUB 21,383.0 bil. or 101.5% (Fig. 2).

Figure 2. Real wage and retail turnover in August 2019.



* I half of 2019 vs I half of 2018

Industrial Production

According to Federal State Statistics Service's data, in August of 2019 Industrial Production Index accounted for 102.9% compared to the same period in the previous year, and 102.6% in January-August of 2019.

According to Federal State Statistics Service's data, Industrial Production Index for drugs and medical products accounted for 120.3% in August of 2019 compared to the same period of 2018, and 117.4% as compared to January-August of 2018.

Domestic production

Table 1 provides the top 10 domestic pharmaceutical manufacturers according to their volumes of sales in all segments of the market based on the results for August 2019.

Table 1. The top ten Russian chemical and pharmaceutical manufacturers by sales, August 2019

| Rank | Manufacturer | RUB mil. |
|------|-----------------|----------|
| 1 | Biocad | 2183.1 |
| 2 | Otcpharm | 1918.9 |
| 3 | Microgen | 1828.3 |
| 4 | Pharmasyntez | 1463.8 |
| 5 | Pharmstandart | 1062.6 |
| 6 | Generium | 962.1 |
| 7 | Veropharm | 957.2 |
| 8 | Stada | 926.9 |
| 9 | Akrikhin Pharma | 819.9 |
| 10 | Valenta | 778.9 |

Source - Remedium according to IQVIA data

Table 2 provides pharmacy sales data from 10 regions of the Russian Federation. Sales (in terms of roubles) decreased in all regions in July 2019, compared to the previous month. The most accentuated reduction was observed in Krasnoyarsk Krai (-13%), the least one in Moscow (-1%). The largest sales growth was observed in the Krasnodar Krai (+ 18%), the lowest - in the Voronezh region (+ 4%).

Table 2. Pharmacy sales in the regions, 2019

| Region | Pharmacy sales, \$ mil. (wholesale prices) | | | Growth gain, % (roubles) | | |
|--------------------|--|-----------|-----------|--------------------------|-------------|--------------|
| | May 2019 | June 2019 | July 2019 | May/April 19 | June/May 19 | July/June 19 |
| Moscow | 155.5 | 146.7 | 147.3 | -14% | -7% | -1% |
| St. Petersburg | 57.7 | 56.3 | 56.1 | -11% | -3% | -2% |
| Krasnodar Krai | 29.8 | 31.4 | 37.8 | -11% | 5% | 18% |
| Krasnoyarsk Krai | 26.3 | 28.0 | 24.7 | -11% | 6% | -13% |
| Tatarstan | 16.6 | 15.3 | 16.9 | -16% | -9% | 9% |
| Rostov Region | 19.6 | 18.7 | 20.6 | -13% | -6% | 9% |
| Novosibirsk Region | 20.3 | 18.7 | 18.0 | -8% | -8% | -5% |
| Voronezh Region | 11.4 | 10.9 | 11.5 | -10% | -6% | 4% |
| Perm | 7.5 | 7.6 | 6.9 | 9% | -0.3% | -10% |
| Tyumen | 6.4 | 6.0 | 6.5 | -7% | -6% | 7% |

Advertising

The largest advertisers and pharmaceutical brand names highly publicized in mass media (TV, radio, press, outdoor advertising) are shown in Tables 3 & 4.

Table 3. The top five advertisers in mass media in August 2019

| Rank | Company* | Quantity of broadcasts |
|------|-------------------------|------------------------|
| 1 | Otcpharm | 10,833 |
| 2 | GSK Consumer Healthcare | 9,042 |
| 3 | Berlin-Chemie/Menarini | 7,611 |
| 4 | Sandoz | 6,887 |
| 5 | Sanofi | 6,379 |

Source - Remedium according to Mediascope's data

Table 4. The top five brand names in mass media in August, 2019

| Rank | Brand* | Quantity of broadcasts |
|------|------------|------------------------|
| 1 | Cystone | 3,823 |
| 2 | Exoderil | 3,393 |
| 3 | Cycloferon | 3,210 |
| 4 | Voltaren | 2,936 |
| 5 | Evalar | 2,380 |

Source - Remedium according to Mediascope's data

* Only products registered with State Register of Medicines were considered

¹ Due to switching of Federal State Statistics Service to the updated methodology for calculating real disposable cash incomes of the population, the data will be published once a quarter.

STATE REIMBURSEMENT PROGRAM (DLO) IN THE RUSSIAN FEDERATION: 2019 FIRST SIX MONTHS RESULTS

According to DLO in RF™, the drugs supplies under the Federal Program amounted to RUB 78.467 bil. based on the results for the first six months of 2019 (USD 1.206 bil.) in contractual prices². The sector volume increased by 44% in terms of roubles, and 33% - in terms of dollars as compared to the same period of the previous year. Scope of supplies in pack terms increased by 16% to 50.434 mil. packs. The average cost of an FPP pack through the DLO program was USD 23.92 in contractual prices (a year ago it was USD 20.76).

Due to 2.1-fold increase in supplies, SHIRE³ became the leader of DLO segment based on the results for the first half of 2019 (Table 1). It displaced a slightly less dynamic CELGENE (+ 80%) one rank down. In addition to the leader, five more manufacturers rose in the ranks. GENERIUM (+ 67%), JOHNSON & JOHNSON (+ 43%), NOVARTIS (+ 58%), OCTAPHARMA (+ 65%) and ROCHE (+ 60%) moved up to ranks three, five, seven, nine and ten, respectively. On top of that, the latter broke into the ranks of the top 10 ranking for the first time. The remaining manufacturers showed high growth rates, but they lagged behind the rates of the segment as a whole. Therefore, the manufacturers BIOCAD (+ 35%) and SANOFI (+ 9%) moved down to ranks four and five, while NOVO NORDISK (+ 23%) held its previous rank eight. The total share of the top ten drug manufacturers under DLO Programme expanded from 52.3% to 56.5%.

Table 1. The top 10 drug manufacturers for DLO

| Rank in the top ten | | Manufacturer* | Share in total DLO, % | |
|---------------------|-------------|-------------------|-----------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | 4 | SHIRE | 9.4 | 6.4 |
| 2 | 1 | CELGENE | 9.1 | 7.3 |
| 3 | 5 | GENERIUM ZAO RF | 6.7 | 5.8 |
| 4 | 3 | BIOCAD RF | 6.0 | 6.4 |
| 5 | 6 | JOHNSON & JOHNSON | 5.3 | 5.3 |
| 6 | 2 | SANOFI | 4.9 | 6.5 |
| 7 | 9 | NOVARTIS | 4.3 | 3.9 |
| 8 | 8 | NOVO NORDISK | 3.8 | 4.4 |
| 9 | 10 | OCTAPHARMA | 3.6 | 3.1 |
| 10 | 11 | ROCHE | 3.3 | 3.0 |
| Total | | | 56.5 | 52.3 |

*AIPM members are in bold

Three newcomers broke into the ranks of the top ten brands ranking: ELAPRASE (21-fold growth in supplies), OCTANATE (57-fold growth in supplies) and SOLIRIS (5.6-fold growth) moved up to ranks four, eight and nine (Table 2). The brands TYSABRI (+42%), FEIBA (2.2-fold growth), TOUJEO SOLOSTAR (+77%) and ADVATE (+50%) moved up to the higher ranks. At the same time, ACELLBIA (-4%) and OCTOFACTOR (-16%), in contrast, moved down to ranks six and ten. REVLIMIDE (+80%) held and reinforced rank number one in the top ten. The cumulative share of the top 10 under increased by 4.6 to 27.8%.

Table 2. The top ten brands in DLO

| Rank in the top ten | | Brand | Share in total DLO volume, % | |
|---------------------|-------------|-----------------|------------------------------|-------------|
| 3 mon. 2019 | 3 mon. 2018 | | 3 mon. 2019 | 3 mon. 2018 |
| 1 | 1 | REVLIMIDE | 8.8 | 7.0 |
| 2 | 3 | TYSABRI | 2.9 | 2.9 |
| 3 | 7 | FEIBA | 2.7 | 1.8 |
| 4 | 41 | ELAPRASE | 2.4 | 0.2 |
| 5 | 6 | TOUJEO SOLOSTAR | 2.2 | 1.8 |
| 6 | 2 | ACELLBIA | 2.1 | 3.1 |
| 7 | 8 | ADVATE | 1.8 | 1.7 |
| 8 | 11 | OCTANATE | 1.7 | 1.6 |
| 9 | 38 | SOLIRIS | 1.6 | 0.4 |
| 10 | 4 | OCTOFACTOR | 1.6 | 2.7 |
| Total | | | 27.8 | 23.2 |

LENALIDOMIDE (+81%) remained the leader of the top 10 INNs and group names ranking (Table 3). INSULIN GLARGINE and NATALIZUMAB (+42% each) also held their own in the ranking. Four names managed to rise in the ranks. FACTOR VIII (+44%) and FACTOR VIII INHIBITOR BYPASSING FRACTION (2.2-fold growth) moved up two ranks, coming in at ranks two and eight. The newcomers ECULIZUMAB (11-fold growth) and IDURSULFASE (21-fold growth) broke into the ranks of the top ten, coming in at numbers three and nine. At the same time, they moved RITUXIMAB (-2%) and INTERFERON BETA-1B (+67%) down one rank. Due to 24% reduction in purchases, INTERFERON BETA-1A moved down from rank two to seven. In total, the top ten INN and grouping names accumulated 33.8% of the regional market, whereas in the year-earlier period they accounted for 29.8%

Table 3. The top 10 INNs and grouping names in DLO

| Rank in the top ten | | INNs/Grouping Names | Share in total DLO, % | |
|---------------------|-------------|---------------------|-----------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | 1 | LENALIDOMIDE | 8.8 | 7.0 |
| 2 | 4 | FACTOR VIII | 3.1 | 3.1 |

² From 2008 until now, data on DLO have been provided as information about shipments in contractual prices: prices at which the government will reimburse moneys to the distributor.

| Rank in the top ten | | INNs/Grouping Names | Share in total DLO, % | |
|---------------------|-------------|--|-----------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | 6 mon. 2019 | 6 mon. 2018 |
| 3 | 43 | ECULIZUMAB | 3.1 | 0.4 |
| 4 | 3 | RITUXIMAB | 3.1 | 4.5 |
| 5 | 5 | INSULIN GLARGINE | 2.9 | 3.0 |
| 6 | 6 | NATALIZUMAB | 2.9 | 2.9 |
| 7 | 2 | INTERFERON BETA-1A | 2.7 | 5.1 |
| 8 | 10 | FACTOR VIII INHIBITOR BYPASSING FRACTION | 2.7 | 1.8 |
| 9 | 46 | IDURSULFASE | 2.4 | 0.2 |
| 10 | 9 | INTERFERON BETA-1B | 2.1 | 1.8 |
| Total | | | 33.8 | 29.8 |

L04 Immunosuppressants (+79%) continued to remain the leading ATC group in the DLO market (Table 4). B02 Antihemorrhagics (+44%) moved up to rank two, whereas L01 Antineoplastic agents (+26%), which used to hold that rank earlier, moved down to rank three. A10 Drugs used in diabetes (+26%) and L03 Immunostimulants (+15%) held their previous ranks four and five in the ranking. Due to 3-fold growth in purchases, A16 Other alimentary tract and metabolism products, and 4-fold growth in purchases of - J05 Antivirals for systemic use moved up to ranks six and eight, respectively. Note that the latter became the only newcomer of the top-10. At the same time, the groups R03 Drugs for obstructive airway diseases (+7%), L02 Endocrine therapy (+12%) and B03 Anti-anemic preparations (+4%) moved down to ranks seven and two bottom ranks. The total share of the top 10 increased from 84.5% to 86.9%.

Table 4. The top ten ATC group in DLO

| Rank | | ATC code | ATC group | Share in total DLO, % | |
|-------------|-------------|----------|--|-----------------------|-------------|
| 3 mon. 2019 | 3 mon. 2018 | | | 3 mon. 2019 | 3 mon. 2018 |
| 1 | 1 | L04 | IMMUNOSUPPRESSANTS | 23.6 | 18.9 |
| 2 | 3 | B02 | ANTIHEMORRHAGICS | 16.1 | 16.1 |
| 3 | 2 | L01 | ANTINEOPLASTIC AGENTS | 15.4 | 17.6 |
| 4 | 4 | A10 | DRUGS USED IN DIABETES | 10.1 | 11.5 |
| 5 | 5 | L03 | IMMUNOSTIMULANTS | 6.7 | 8.4 |
| 6 | 8 | A16 | OTHER ALIMENTARY TRACT AND METABOLISM PRODUCTS | 6.3 | 2.6 |
| 7 | 6 | R03 | DRUGS FOR OBSTRUCTIVE AIRWAY DISEASES | 2.5 | 3.4 |
| 8 | 14 | J05 | ANTIVIRALS FOR SYSTEMIC USE | 2.4 | 0.9 |
| 9 | 7 | L02 | ENDOCRINE THERAPY | 2.2 | 2.8 |
| 10 | 9 | B03 | ANTI-ANEMIC PREPARATIONS | 1.7 | 2.3 |
| Total | | | | 86.9 | 84.5 |

Data on supplies under the DLO program in the ten top regions of Russia are presented in Table 5. Moscow showed the largest purchases, which share increased and exceeded a quarter of all purchases under the program. The Moscow region held its previous rank two and the Krasnodar Krai moved up to rank three, having displaced St. Petersburg down one rank. Note that all ten top regions showed increase in purchases under the DLO program. In total, they accumulated 52.7% of the DLO market.

Table 5. The top ten regions by sales in DLO

| Rank | | Region | Share in total DLO volume, % | |
|-------------|-------------|--------------------------|------------------------------|-------------|
| 3 mon. 2019 | 3 mon. 2018 | | 3 mon. 2019 | 3 mon. 2018 |
| 1 | 1 | Москва | 26.8 | 23.2 |
| 2 | 2 | Moscow Region | 4.6 | 5.9 |
| 3 | 4 | Krasnodar Region | 3.1 | 2.8 |
| 4 | 3 | Saint Petersburg | 3.1 | 4.0 |
| 5 | 7 | North Caucasian FD, Rest | 3.0 | 2.4 |
| 6 | 5 | Tatarstan Republic | 2.9 | 2.6 |
| 7 | 6 | Rostov Region | 2.4 | 2.5 |
| 8 | 11 | Sverdlovsk Region | 2.4 | 1.9 |
| 9 | 9 | Novosibirsk Region | 2.2 | 2.1 |
| 10 | 14 | Krasnoyarsk Region | 2.2 | 1.8 |
| Total | | | 52.7 | 49.3 |

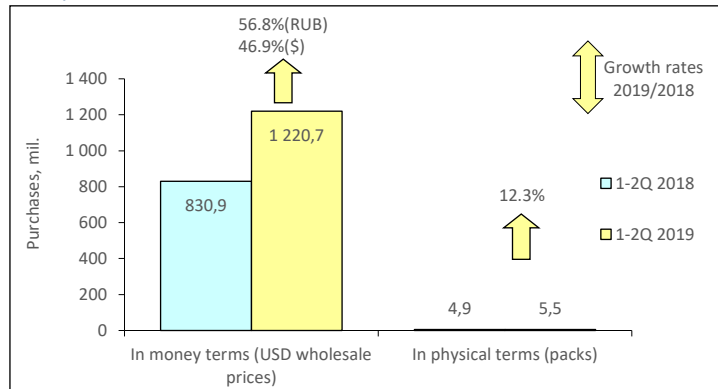
Conclusion. Based on the results of the first half of 2019, DLO segment amounted to RUB 78.467 bil. (USD 1.206 bil.) at contractual prices, which was 44% in terms of roubles and 33% in terms of dollars more than in the same period of 2018. In pack terms, the supplies increased by 16% to 50.434 mil packs. The average price of an FPP pack under the DLO program increased as compared to the previous year (USD 23.92 vs. USD 20.76).

³Hereinafter, unless otherwise stated, growth gains are stated in the rouble equivalent or national currency.

COST-INTENSIVE NOSOLOGIES (VZN) PROGRAM, 1-2 Q, 2019

In the first half of 2019, purchases under an expanded list of nosologies continued (8 new INNs were included in the VZN program for the treatment of three diseases: hemolytic-uremic syndrome, mucopolysaccharidosis type I, II and VI, and systemic-onset juvenile arthritis. The inclusion of new drugs and a low level of purchases in 1-2 quarters of 2019 spiralled figures in 1-2 quarters of 2019. Based on the results for the first half of 2019, the purchases under VZN Program in physical terms (packs) increased by 56.8% (Fig. 1) in terms of national currency and by 46.9% in terms of dollars compared with the same period of the previous year (Fig. 1). The purchase volume amounted to RUB 79427.8 mil. or USD 1220.78 mil.

Figure 1. Purchases trend under the VZN Program in 1-2 Q 2019 against 1-2 Q, 2018



The groups of drugs to treat haemophilia (44%), oncohematological drugs (37%) and drugs to treat multiple sclerosis (27%) showed the largest increase in purchases in terms of rubles (among comparable "old" groups of nosologies) as compared to the same period of the previous year. The sales of these groups in terms of packs also increased proportionally to the value parameters. The share of "new" nosology groups in the overall procurement pattern amounted to 7.8% (based on the results of Q1 - 18%), which resulted in reduction of the shares of "traditional" groups. The group of drugs to treat haemophilia remained the leader of the procurement rating, oncohematological drugs moved up to rank two, displacing the drugs to treat multiple sclerosis down to rank three.

Table 1. Supplies pattern under the VZN Program

| Nosologies | INN | Share in total VZN supplies (RUB), % | |
|--|--|--------------------------------------|-------------|
| | | 1-2Q 2019 | 1-2Q 2018 |
| Haemophilia | | 15.1 | 16.5 |
| | FACTOR VON WILLEBRAND*FACTOR VIII | 3.1 | 3.4 |
| | FACTOR VIII | 3.1 | 3.2 |
| | FACTOR VIII INHIBITOR BYPASSING FRACTION | 2.7 | 1.8 |
| | OCTOCOG ALFA | 1.8 | 1.9 |
| | MOROCTOCOG ALFA | 1.6 | 2.9 |
| | EPTACOG ALFA (ACTIVATED) | 1.5 | 1.9 |
| | FACTOR IX | 1.2 | 1.2 |
| | NONACOG ALFA | 0.2 | 0.2 |
| Oncohematology | | 12.6 | 14.4 |
| | LENALIDOMIDE | 8.7 | 7.5 |
| | RITUXIMAB | 2.8 | 4.6 |
| | BORTEZOMIB | 0.7 | 1.2 |
| | IMATINIB | 0.2 | 0.7 |
| | FLUDARABINE | 0.2 | 0.3 |
| Sclerosis Multiplex | | 10.3 | 12.7 |
| | NATALIZUMAB | 2.8 | 3.1 |
| | INTERFERON BETA-1A | 2.7 | 5.5 |
| | INTERFERON BETA-1B | 2.1 | 2.0 |
| | TERIFLUNOMIDE | 1.1 | 0.9 |
| | GLATIRAMER ACETATE | 1.0 | 1.2 |
| | PEGINTERFERON BETA-1A | 0.6 | 0.0 |
| Mucopolysaccharidosis type I, II and VI | | 4.1 | |
| | IDURSULFASE | 2.2 | |
| | GALSULFASE | 1.2 | |
| | LARONIDASE | 0.7 | |
| Hemolytic-uremic syndrome | | 2.4 | |
| | ECULIZUMAB | 2.4 | |
| Transplantology | | 2.0 | 2.9 |
| | TACROLIMUS | 1.3 | 1.6 |
| | MYCOPHENOLIC ACID | 0.5 | 1.2 |
| | CICLOSPORIN | 0.1 | 0.1 |
| | MYCOPHENOLATE MOFETIL | 0.0 | 0.1 |
| Systemic-onset juvenile arthritis | | 1.3 | |
| | CANAKINUMAB | 0.8 | |
| | TOCILIZUMAB | 0.5 | |
| | ETANERCEPT | 0.0 | |
| | ADALIMUMAB | 0.0 | |

| Nosologies | INN | Share in total VZN supplies (RUB), % | |
|---------------------------|--------------------|--------------------------------------|------------|
| | | 1-2Q 2019 | 1-2Q 2018 |
| Gaucher disease | | 1.3 | 2.0 |
| | IMIGLUCERASE | 1.0 | 1.5 |
| | VELAGLUCERASE ALFA | 0.3 | 0.5 |
| Mucoviscidosis | | 0.8 | 1.2 |
| | DORNASE ALFA | 0.8 | 1.2 |
| Pituitary dwarfism | | 0.2 | 0.3 |
| | SOMATROPIN | 0.2 | 0.3 |

According to the results for 6 months of 2019, the original drug Revlimid (INN Lenalidomide) Celgene (81% increase in value terms) held its previous rank number one by value purchases in the trade names ranking, the localized drug to treat multiple sclerosis TIZABRI (INN Natalizumab) JOHNSON & JOHNSON (+42%) moved up to rank two in the rating, the localized drug Feiba (INN FACTOR VIII INHIBITOR BYPASSING FRACTION) Shire moved up to rank three from 8 due to 128% increase in purchases. The newcomer Elapraz (INN Idursulfase), drug to treat mucopolysaccharidosis, broke into the top ten ranking, coming in at rank four. The purchases of Acellbia (INN Rituximab) Biocad decreased by 3.5%, as a result of which it moved down to rank five from two in the ranking.

Table 2. Top ten brand names by purchases under the VZN Program

| Rank | Brand | Share in total VZN supplies, % | |
|-------|------------|--------------------------------|-----------|
| | | 1-2Q 2019 | 1-2Q 2018 |
| 1 | REVLIMIDE | 8.7 | 7.5 |
| 2 | TYSABRI | 2.8 | 3.1 |
| 3 | FEIBA | 2.7 | 1.8 |
| 4 | ELAPRASE | 2.1 | |
| 5 | ACELLBIA | 1.9 | 3.2 |
| 6 | ADVATE | 1.8 | 1.9 |
| 7 | OCTANATE | 1.7 | 1.7 |
| 8 | OCTOFACTOR | 1.6 | 2.9 |
| 9 | INFIBETA | 1.5 | 1.4 |
| 10 | COAGIL-VII | 1.3 | 1.8 |
| Total | | 26.1 | 27.7 |

Due to 113% increase in sales and inclusion of Elaprase in the VZN program, Shire headed the drug manufacturers rating (Table 3). Celgene, which sales increased by 81% compared to the first half of 2018, moved up to rank two. The companies Generium (+64%), Biocad (+53%) and Octapharma (+66%) held their own in the manufacturers ranking. Due to introduction of new nosologies and new drugs in the list, Rohe (Actemra INN Tocilizumab to treat juvenile arthritis with systemic onset) and Catalent Pack.Ltd (Naglazim INN Galsulfase to treat mucopolysaccharidosis) entered the top ten manufacturers ranking.

In total, the drugs of foreign manufacturers prevailed in the top brands ranking (Table 2). A total share of the top 10 brand names has reduced insignificantly, and a share of the top ten manufacturers has slightly increased as compared to the same period of the previous year (Table 2 and 3).

Table 3. Top ten manufacturers by purchases under the VZN Program

| Rank in the top ten | Manufacturer* | Share in total VZN supplies, % | |
|---------------------|-------------------------------|--------------------------------|-----------|
| | | 1-2Q 2019 | 1-2Q 2018 |
| 1 | SHIRE* | 8.8 | 6.5 |
| 2 | CELGENE | 8.7 | 7.5 |
| 3 | GENERIUM ZAO RF | 6.5 | 6.2 |
| 4 | BIOCAD RF | 4.5 | 4.6 |
| 5 | OCTAPHARMA | 3.5 | 3.3 |
| 6 | JOHNSON & JOHNSON* | 2.9 | 3.2 |
| 7 | CSL BEHRING GMBH | 1.6 | 1.8 |
| 8 | ROCHE* | 1.6 | 1.5 |
| 9 | CATALENT PACK.LTD | 1.2 | 0.0 |
| 10 | ASTELLAS PHARMA* | 1.1 | 1.2 |
| Total | | 40.5 | 39.2 |

*AIPM members are in bold

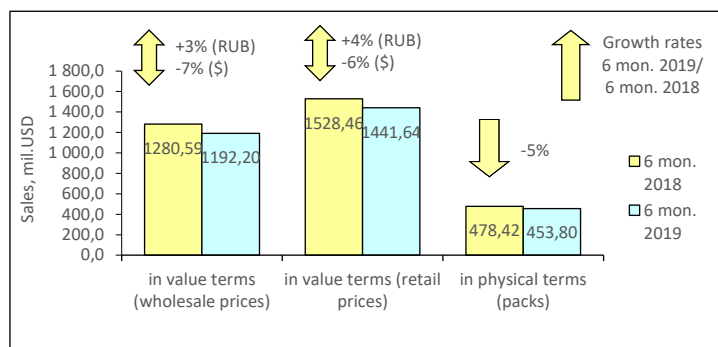
Conclusion. The drugs added to the VZN program (8 INNs) were purchased for the first time in the first half of 2019. This resulted in a significant increase in the indicators as compared to the same period of the previous year (along with a low level of purchases in 1-2 Q 2018). Adding new INNs brought about changes in the purchases pattern. The share of domestic drugs and the share of localized products (the final manufacturing stages) in value terms reduced from 28% to 27% and from 58% to 50%. The share of imported drugs increased from 13% to 23%.

CFD PHARMACY MARKET (WITHOUT MOSCOW): 2019 FIRST SIX MONTHS RESULTS

According to Federal State Statistics Service, as of January 1, 2019 the estimated population of the Central Federal District (without Moscow) was 26.763 mil., which accounted for 18.2% of the total Russian Federation population. According to Federal State Statistics Service's data, the average wage in the CFD (inc. Moscow) was RUB 58,832 based on the results for the first half of 2019 (USD 900.54), which was 27% higher than the average wage in Russia (RUB 46210).

According to the results of the Retail Audit of Finished Pharma Products (FPP) in Russian Federation™, at the end of January-June of 2019 the sales of drugs in physical terms in the CFD (excl. Moscow) saw a 5% decrease to 453.805 mil. packs. In money terms, the market saw a 3% increase in terms of roubles, and 7% decrease in terms of dollars. At the same time, the market volume reached RUB 77.883 bil. (USD 1.192 bil.) at wholesale prices (Fig.1). The region market share accounted for 19.9% of the Russian pharmacy retail sales. The average cost of a pack has not virtually changed compared to the same period in 2018: USD 3.18 vs. USD 3.19 in retail prices. At the end of the first half of 2019, the average amount spent by the residents of the region for the drugs in pharmacies amounted to USD 53.87.

Figure 1. Pharmacy market of CFD (without Moscow) for 6 months of 2018 – 6 months 2019



Based on the results for the first six months of 2019, the manufacturers BAYER (+2%) and SANOFI (+1%) managed to hold their leading positions in the pharmacy market of the Central Federal District (without Moscow) (Table 1). The manufacturer SERVIER (+2%) moved up to rank three from four, displacing TEVA (-8%) down one rank. The manufacturers KRKA (+19%), GLAXOSMITHKLINE (+3%) and ABBOTT (+6%) also moved to the higher ranks, coming in at numbers five, seven and ten respectively. Note that the latter became the only newcomer of the top-10. At the same time, OTCPHARM (-14%) and SANDOZ (-4%), in contrast, reduced their sales and moved down to ranks eight and ten, respectively. The manufacturer BERLIN-CHEMIE/MENARINI (+1%) held its previous rank six. The consolidated share of the top 10 reduced from 34.8% to 34.1%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank in the top ten | | Manufacturer* | Share in total pharmacy sales, % | |
|---------------------|-------------|-------------------------------|----------------------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | 1 | BAYER | 4.9 | 4.9 |
| 2 | 2 | SANOFI | 4.3 | 4.4 |
| 3 | 4 | SERVIER | 3.8 | 3.8 |
| 4 | 3 | TEVA | 3.7 | 4.1 |
| 5 | 7 | KRKA | 3.4 | 3.0 |
| 6 | 6 | BERLIN-CHEMIE/MENARINI | 3.1 | 3.2 |
| 7 | 9 | GLAXOSMITHKLINE | 2.8 | 2.8 |
| 8 | 5 | OTCPHARM | 2.8 | 3.3 |
| 9 | 12 | ABBOTT | 2.6 | 2.6 |
| 10 | 8 | SANDOZ | 2.6 | 2.8 |
| Total | | | 34.1 | 34.8 |

*AIPM members are in bold

The top ten brands ranking as well as the previous ranking didn't change its leaders: XARELTO (+34%) and DETRALEX (+1%) held their previous leading positions (Table 2). The shifts took place in the lower part of the top ten. The brands CONCOR (+2%), NUROFEN (+11%), CARDIOMAGNYL (-5%), PENTALGIN (-6%) and KAGOCEL (+1%) moved up one rank, coming in at numbers three, five and seven to nine, respectively. The only newcomer of the top ten ranking MIRAMISTIN (+9%) broke into the ranks of the top ten, coming in at rank ten. Two brands, in contrast, moved down to the lower ranks. They were MEXIDOL (-11%) and ACTOVEGIN (-4%). The total share of the top 10 brands increased from 7.1% to 7.3%.

Table 2. The top ten brands by pharmacy sales

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|-------------|----------|----------------------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | 1 | XARELTO | 1.2 | 0.9 |
| 2 | 2 | DETRALEX | 0.8 | 0.8 |
| 3 | 4 | CONCOR | 0.8 | 0.8 |
| 4 | 3 | MEXIDOL | 0.8 | 0.8 |

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|-------------|--------------|----------------------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | 6 mon. 2019 | 6 mon. 2018 |
| 5 | 6 | NUROFEN | 0.7 | 0.7 |
| 6 | 5 | ACTOVEGIN | 0.7 | 0.7 |
| 7 | 8 | CARDIOMAGNYL | 0.6 | 0.7 |
| 8 | 9 | PENTALGIN | 0.6 | 0.6 |
| 9 | 10 | KAGOCEL | 0.6 | 0.6 |
| 10 | 12 | MIRAMISTIN | 0.5 | 0.5 |
| Total | | | 7.3 | 7.1 |

Two newcomers broke into the ranks of the top ten INN and grouping names ranking (Table 3). DICLOFENAC (+16%) and ATORVASTATIN (+20%) moved up to two bottom ranks of the top ten ranking. Note, that in addition, another INN moved up to the higher rank: RIVAROXABAN (+41%) moved up to rank two from eight. At the same time, the composition DIOSMIN*HESPERIDIN (+2%), and INN NIMESULIDE (+7%), PANCREATIN (+9%) and ETHYLMETHYLHYDROXY-PYRIDINE (0%) moved down one rank. INN IBUPROFEN (+4%) moved down two ranks. XYLOMETAZOLINE (-0.3%) held its previous rank one, and BISOPROLOL (+9%) held its previous rank four. The cumulative share of the top 10 under review increased by 0.6 to 11%.

Table 3. The top 10 INNs and grouping names by pharmacy sales

| Rank | | INNs/Grouping Names | Share in total pharmacy sales, % | |
|-------------|-------------|-----------------------------|----------------------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | 1 | XYLOMETAZOLINE | 1.7 | 1.8 |
| 2 | 8 | RIVAROXABAN | 1.2 | 0.9 |
| 3 | 2 | DIOSMIN*HESPERIDIN | 1.2 | 1.2 |
| 4 | 4 | BISOPROLOL | 1.2 | 1.1 |
| 5 | 3 | IBUPROFEN | 1.1 | 1.1 |
| 6 | 5 | NIMESULIDE | 1.1 | 1.0 |
| 7 | 6 | PANCREATIN | 1.0 | 1.0 |
| 8 | 7 | ETHYLMETHYLHYDROXY-PYRIDINE | 0.9 | 0.9 |
| 9 | 11 | DICLOFENAC | 0.8 | 0.7 |
| 10 | 14 | ATORVASTATIN | 0.8 | 0.7 |
| Total | | | 11.0 | 10.4 |

C09 Agents acting on the renin-angiotensin system (+16%) and M01 Anti-inflammatory and antirheumatic products (+5%) remained the best-selling groups in the region market (Table 4). B01Anticoagulants (+12%) moved up to rank three, having displaced R01 Nasal preparations (+2%) down one rank. Similar shifts took place in the lower part of the ranking. At the same time, G03 Sex hormones and C05 Vasoprotectives, which showed a 25-fold growth in sales, moved up one rank, coming in at numbers five and seven, having displaced J01 Antibacterials for systemic use (-3%) and N02 Analgesics (-6%) one rank down. The newcomers N06 Psychoanaleptics (+7%) and A07 Antidiarrheals, intestinal anti-inflammatory and antiinfective agents (-2%) rounded out the top ten ranking. In total, the top ten ATC groups accumulated 37% of the regional market, whereas in the year-earlier period they accounted for 36.6%.

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------------|-------------|----------|--|----------------------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | 1 | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 5.7 | 5.0 |
| 2 | 2 | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 5.1 | 5.0 |
| 3 | 4 | B01 | ANTITHROMBOTIC AGENTS | 4.0 | 3.6 |
| 4 | 3 | R01 | NASAL PREPARATIONS | 3.8 | 3.8 |
| 5 | 6 | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 3.4 | 3.4 |
| 6 | 5 | J01 | ANTIBACTERIALS FOR SYST USE | 3.3 | 3.6 |
| 7 | 8 | C05 | VASOPROTECTIVES | 3.1 | 3.1 |
| 8 | 7 | N02 | ANALGESICS | 3.0 | 3.3 |
| 9 | 12 | N06 | PSYCHOANALEPTICS | 2.8 | 2.7 |
| 10 | 11 | A07 | ANTI-DIARR., INTEST. ANTI-INFL./ANTIINFECT. AGENTS | 2.8 | 2.9 |
| Total | | | | 37.0 | 36.6 |

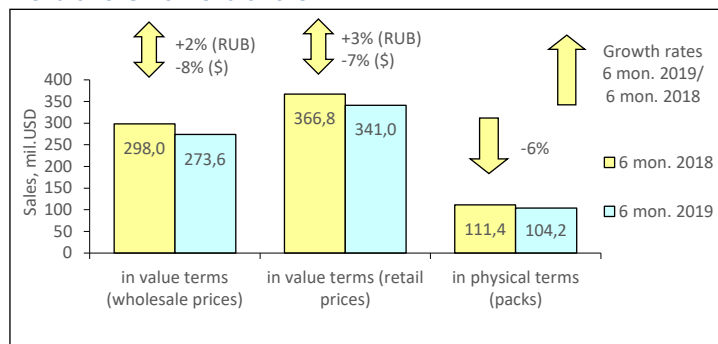
Conclusion. At the end of January-June 2019, the pharmacy market of the CFD (without Moscow) reached RUB 94.171 bil. (USD 1.442 bil.), which was 4% more in terms of roubles and 6% less in terms of dollars than in the same period of 2018. In pack terms, the market reduced by 5% and amounted to 453.805 mil. packs. The average cost of FPP pack in the regional pharmacies based on the results for six months of 2019 was USD 3.18, which was virtually the same as in the year-earlier period (USD 3.19), but less than the national average (USD 3.36). The expenses of the regional residents for purchase of OTC drugs in the pharmacies were lower than the national average (USD 53.87 vs. USD 58.67).

NWFD PHARMACY MARKET (WITHOUT SAINT PETERSBURG): 2019 FIRST SIX MONTHS RESULTS

According to Federal State Statistics Service, as of January 1, 2019 the estimated population of the North-Western Federal District (without St. Petersburg) was 8.588 mil., which accounted for 5.9% of the total Russian Federation population. According to Federal State Statistics Service's data, in January-June of 2019 the average wage in the NWFD (inc. St. Petersburg) was RUB 51,438 (USD 787.36), which was 11% higher than the average wage in Russia (RUB 46210).

According to the results of the Retail Audit of Finished Pharma Products (FPP) in Russian Federation™, at the end of the first six months of 2019 the sales of drugs in physical terms in the NWFD (without St. Petersburg) saw a 6% decrease to 104.225 mil. packs. In money terms, the market saw a 2% increase in terms of roubles, and 8% decrease in terms of dollars. At the same time, the volume of the market achieved RUB 17.882 bil. (USD 273.640 mil.) in wholesale prices (Fig. 1). The region's share was 4.7% of the Russian retail pharmacy sales. The average cost of an OTC pack slightly decreased as compared to the same period of the previous year (USD 3.29) and reached USD 3.27 at retail prices. In January-June of 2019, the average amount spent by the residents of the region for the drugs in pharmacies amounted to USD 39.71.

Figure 1. The NWFD (without Petersburg) pharmacy market) for 6 months 2018 – 6 months 2019



According to the results for the first six months of 2019, the top four manufacturers of the top ten rating of the pharmacy market of the NWFD (without St. Petersburg) remained unchanged (Table 1). BAYER (+0.1%), SANOFI (-1%), SERVIER (-6%) and TEVA (-5%) held their previous top ranks in the top ten ranking. Some shifts took place in the lower part of the top ten ranking, as a result of which three manufacturers rose in the ranks. The most dynamic among the leading manufacturers KRKA (+21%) moved up to rank five from eight. At the same time, it displaced three manufacturers OTCPHARM (-6%), GEDEON RICHTER (-5%) and SANDOZ (-3%) one rank down. GLAXOSMITHKLINE (+4%) and BERLIN-CHEMIE/MENARINI (+3%) moved up one rank, coming in at numbers nine and ten. Note that the latter broke into the ranks of the top 10 ranking for the first time. The consolidated share of the top 10 reduced from 37.6% to 36.8%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank in the top ten | | Manufacturer* | Share in total pharmacy sales, % | |
|---------------------|-------------|-------------------------------|----------------------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | 1 | BAYER | 5.0 | 5.0 |
| 2 | 2 | SANOFI | 4.6 | 4.7 |
| 3 | 3 | SERVIER | 4.1 | 4.4 |
| 4 | 4 | TEVA | 3.8 | 4.0 |
| 5 | 8 | KRKA | 3.6 | 3.1 |
| 6 | 5 | OTCPHARM | 3.6 | 3.9 |
| 7 | 6 | GEDEON RICHTER | 3.6 | 3.8 |
| 8 | 7 | SANDOZ | 3.3 | 3.4 |
| 9 | 10 | GLAXOSMITHKLINE | 2.7 | 2.7 |
| 10 | 11 | BERLIN-CHEMIE/MENARINI | 2.6 | 2.6 |
| Total | | | 36.8 | 37.6 |

*AIPM members are in bold

One newcomer broke into the ranks of the top ten brands ranking: ESSENTIALE (+18%) moved up to rank six from 11 (Table 2). In addition, three more brands moved up to the higher ranks. Due to a 37% increase in sales, one of them, XARELTO, moved up to rank one from six. The less dynamic KAGOCEL (+12%) and PENTALGIN (+6) moved up two and one rank respectively, coming in at numbers three and nine. Another brand has shown positive growth rates. LORISTA (+ 11%) held its previous rank eight. The remaining five representatives of the "top ten", on the contrary, reduced sales and fell in the ranks. NUROFEN (-3%), CONCOR (-6%), DETRALEX (-12%), CARDIOMAGNYL (-4%) and INGAVIRIN (-17%) moved down to ranks two, four, five, seven and ten respectively. The total share of the top 10 brands increased by 0.2 p.p. and accounted for 7.5%.

Table 2. The top ten brands by pharmacy sales

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|-------------|---------|----------------------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | 6 | XARELTO | 1.0 | 0.7 |

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|-------------|--------------|----------------------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | 6 mon. 2019 | 6 mon. 2018 |
| 2 | 1 | NUROFEN | 0.9 | 1.0 |
| 3 | 5 | KAGOCEL | 0.8 | 0.7 |
| 4 | 3 | CONCOR | 0.8 | 0.8 |
| 5 | 2 | DETRALEX | 0.8 | 0.9 |
| 6 | 11 | ESSENTIALE | 0.7 | 0.6 |
| 7 | 4 | CARDIOMAGNYL | 0.7 | 0.7 |
| 8 | 8 | LORISTA | 0.7 | 0.6 |
| 9 | 10 | PENTALGIN | 0.6 | 0.6 |
| 10 | 7 | INGAVIRIN | 0.6 | 0.7 |
| Total | | | 7.5 | 7.3 |

Despite the numerous shifts in the previous ranking, half of the top 10 INN and group names held their own in the ranking (Table 3). Its leaders remained unchanged: INN XYLOMETAZOLINE (-4%) and IBUPROFEN (-1%), the combination DIOSMIN * HESPERIDIN (-3%) and INN BISOPROLOL (+ 3%) held their previous top four ranks. PANCREATIN (+ 15%) retained its previous rank six. The newcomers RIVAROXABAN (+ 37%), ATORVASTATIN (+ 25%) and DICLOFENAC (+ 12%) broke into the ranks of the top ten ranking, coming in at numbers five, eight and ten, respectively. At the same time, the less dynamic NIMESULIDE (+ 4%) and LOSARTAN (+ 8%), in contrast, moved down two ranks, coming in at numbers seven and nine. In total, the top ten INN and group names ranking accumulated 10.7% of sales, whereas in the year-earlier period they accounted for 10,1%

Table 3. The top 10 INNs and grouping names by pharmacy sales

| Rank | | INNs/Grouping Names | Share in total pharmacy sales, % | |
|-------------|-------------|----------------------|----------------------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | 1 | XYLOMETAZOLINE | 1.5 | 1.6 |
| 2 | 2 | IBUPROFEN | 1.4 | 1.4 |
| 3 | 3 | DIOSMIN * HESPERIDIN | 1.2 | 1.3 |
| 4 | 4 | BISOPROLOL | 1.2 | 1.1 |
| 5 | 14 | RIVAROXABAN | 1.0 | 0.7 |
| 6 | 6 | PANCREATIN | 1.0 | 0.8 |
| 7 | 5 | NIMESULIDE | 0.9 | 0.9 |
| 8 | 12 | ATORVASTATIN | 0.9 | 0.7 |
| 9 | 7 | LOSARTAN | 0.8 | 0.8 |
| 10 | 11 | DICLOFENAC | 0.8 | 0.7 |
| Total | | | 10.7 | 10.1 |

The top four groups in the top ten ATC group rating didn't change either (Table 4). These are C09 Agents acting on the renin-angiotensin system (+ 10%), M01 Anti-inflammatory and anti-rheumatic drugs and G03 Sex hormones (+ 2% each), and R01 Nasal preparations (-0.1%). The groups B01 Anticoagulants (+ 8%) and J01 Antibacterial drugs for systemic use (-2%) moved up to ranks five and six; J05 Antivirals for systemic use (+ 3%) moved up from rank nine to ten. R05 Cough and cold preparations (-8%), N02 Analgesics (-5%) and C05 Vasoprotectives (-3%) showed pronounced negative growth rates and fell to the lower positions seven, eight and ten. In total, the top ten ATC groups accumulated 38.3% of the retail market, whereas in the year-earlier period they accounted for 38.5%.

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------------|-------------|----------|---|----------------------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | 1 | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 5.8 | 5.3 |
| 2 | 2 | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 5.1 | 5.1 |
| 3 | 3 | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 4.0 | 4.0 |
| 4 | 4 | R01 | NASAL PREPARATIONS | 3.6 | 3.7 |
| 5 | 8 | B01 | ANTITHROMBOTIC AGENTS | 3.5 | 3.3 |
| 6 | 7 | J01 | ANTIBACTERIALS FOR SYST USE | 3.4 | 3.5 |
| 7 | 5 | R05 | COUGH AND COLD PREPARATIONS | 3.3 | 3.7 |
| 8 | 6 | N02 | ANALGESICS | 3.3 | 3.6 |
| 9 | 10 | J05 | ANTIVIRALS FOR SYSTEMIC USE | 3.2 | 3.2 |
| 10 | 9 | C05 | VASOPROTECTIVES | 3.1 | 3.2 |
| Total | | | | 38.3 | 38.5 |

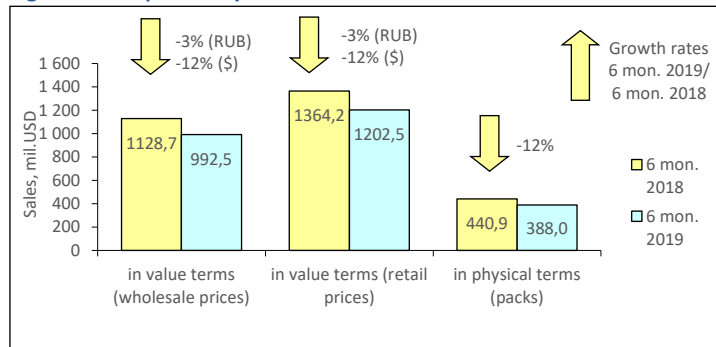
Conclusion. On the basis of the results for the first half of 2019, the pharmacy market of NWFD (without St. Petersburg) brought in RUB 22.282 bil. (USD 340.997 mil.), which was 3% more in terms of roubles and 7% less in terms of dollars than in the same period of 2018. In pack terms, the market reduced by 6% and amounted to 104.225 mil. packs. The average cost of FPP pack in the regional pharmacies based on the results for January-June of 2019 was USD 3.27, which was a bit lower than the indicator in 2018. (USD 3.29) and the national average (USD 3.36). The expenditures of the district residents for the purchase of drugs in the pharmacies were also lower than the national average (USD 39.71) versus USD 58.67).

VFD PHARMACY MARKET: 2019 FIRST SIX MONTHS RESULTS

According to Federal State Statistics Service, as of January 1, 2019 the estimated population of the Volga Federal District was 29.397 mil., which accounted for 20.0% of the total Russian Federation population. According to Federal State Statistics Service's data, in January-June of 2019 the average wage in the VFD was RUB 33,272 (USD 509.29), which was 28% lower than the average wage in Russia (RUB 46,210).

According to the results of the Retail Audit of Finished Pharma Products (FPP) in Russian Federation™, at the end of the first six months of 2019 the pharmacy market of VFD in physical terms saw a 12% decrease to 387,980 mil. packs (Fig. 1) In wholesale prices, the market declined both in rouble terms (-3%) and in dollar terms (-12%) and amounted to RUB 64.856 bil. (USD 992.506 mil.). The region's share of the total pharmacy sales in Russia accounted for 16.6%. The average cost of an OTC drug in the pharmacies of the Volga Federal District based on the results of the first half of 2019 virtually unchanged as compared to a year earlier period (USD 3.09) and was equal to USD 3.10. The average expenses of the district residents for the purchase of medicines in pharmacies amounted to USD 40.91.

Figure 1. PFD pharmacy market for 6 months of 2018 – 6 months 2019



The top 10 manufacturers of the retail market of the Volga Federal District in January-June 2019 didn't change in composition (Table 1). Its leaders did not change either: the manufacturers SANOFI (-5%), BAYER (-3%), OTCPHARM (-9%) and TEVA (-6%) retained their top positions despite the reduction in sales. Note that the manufacturers rounding out the "top ten" also showed the negative growth rates. At the same time, TAKEDA (-0.2%) moved up one rank, to number nine, while SANDOZ (-6%), ABBOTT and BERLIN-CHEMIE/MENARINI (-4% each) lost one rank each. SERVIER, which showed almost zero growth rates, also went down one rank (+0.3%). It was displaced by the most dynamic company among the leaders, KRKA (+23%), which moved up to rank five from eight. The total share of the top 10 increased from 32.1% to 32.4%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank in the top ten | Manufacturer* | Share in total pharmacy sales, % | |
|---------------------|-------------------------------|----------------------------------|-------------|
| | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | SANOFI | 4.2 | 4.3 |
| 2 | BAYER | 4.1 | 4.1 |
| 3 | OTCPHARM | 3.5 | 3.7 |
| 4 | TEVA | 3.4 | 3.5 |
| 5 | KRKA | 3.3 | 2.6 |
| 6 | SERVIER | 3.2 | 3.1 |
| 7 | SANDOZ | 2.8 | 2.9 |
| 8 | ABBOTT | 2.8 | 2.8 |
| 9 | TAKEDA | 2.7 | 2.6 |
| 10 | BERLIN-CHEMIE/MENARINI | 2.6 | 2.6 |
| Total | | 32.4 | 32.1 |

*AIPM members are in bold

One newcomer broke into the ranks of the top ten brands ranking: Due to 32% sales growth, XARELTO move up to rank three from 11 (Table 2). In addition, only one more brand, DETRALEX (+4%), showed positive growth rates and moved up to rank eight from ten. The other brands from the top ten ranking reduced their sales. However, this did not prevent two of them from moving up to the higher ranks: KAGOCEL (-13%) and CONCOR (-6%) moved up to ranks four and five. The leaders of the top 10 ACTOVEGIN (-7%) and MEXIDOL (-5%), as well as PENTALGIN (-7%) placed at rank six held their own in the ranking. The brands NUROFEN (-17%), CARDIOMAGNYL (-11%) and ESSENTIALE (-10%) moved down to ranks seven, nine and ten, respectively. The total share of the top 10 brands reduced from 6.3% to 6.1%.

Table 2. The top ten brands by pharmacy sales

| Rank in the top ten | Brand | Share in total pharmacy sales, % | |
|---------------------|-----------|----------------------------------|-------------|
| | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | ACTOVEGIN | 0.7 | 0.8 |
| 2 | MEXIDOL | 0.7 | 0.7 |
| 3 | XARELTO | 0.7 | 0.5 |
| 4 | KAGOCEL | 0.6 | 0.7 |
| 5 | CONCOR | 0.6 | 0.6 |
| 6 | PENTALGIN | 0.6 | 0.6 |
| 7 | NUROFEN | 0.6 | 0.7 |

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|-------------|--------------|----------------------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | 6 mon. 2019 | 6 mon. 2018 |
| 8 | 10 | DETRALEX | 0.6 | 0.5 |
| 9 | 8 | CARDIOMAGNYL | 0.5 | 0.6 |
| 10 | 9 | ESSENTIALE | 0.5 | 0.6 |
| Total | | | 6.1 | 6.3 |

Almost all representatives of the ranking of leading INN and group names showed negative dynamics (Table 3). Among them is the leader of the top ten XYLOMETAZOLINE (-15%). PANCREATIN (-4%), ETHYLMETHYLHYDROXYPYRIDINE (-7%) and BLOOD (-9%) also kept their previous ranks three, six and seven. IBUPROFEN (-5%) and NIMESULIDE (-6%) moved down to the lower positions. INN BISOPROLOL (-1%) and the combination DIOSMIN * HESPERIDIN (-3%) reduced sales insignificantly, which allowed them to move up to ranks two and four. ROSUVASTATIN (+14%) and RIVAROXABAN (+32%) also showed positive growth rates and rose in the ranks. On top of that, the latter broke into the ranks of the top 10 ranking for the first time. The consolidated share of the top 10 reduced from 9.4% to 9.2%.

Table 3. The top 10 INNs and grouping names by pharmacy sales

| Rank | INNs/Grouping Names | Share in total pharmacy sales, % | |
|-------|----------------------------|----------------------------------|-------------|
| | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | XYLOMETAZOLINE | 1.2 | 1.4 |
| 2 | BISOPROLOL | 1.0 | 1.0 |
| 3 | PANCREATIN | 1.0 | 1.0 |
| 4 | DIOSMIN*HESPERIDIN | 1.0 | 1.0 |
| 5 | IBUPROFEN | 1.0 | 1.1 |
| 6 | ETHYLMETHYLHYDROXYPYRIDINE | 0.9 | 0.9 |
| 7 | BLOOD | 0.8 | 0.9 |
| 8 | ROSUVASTATIN | 0.8 | 0.7 |
| 9 | NIMESULIDE | 0.7 | 0.8 |
| 10 | RIVAROXABAN | 0.7 | 0.5 |
| Total | | 9.2 | 9.4 |

In contrast to the above top tens, the top ten ATC groups ranking changed its leader for C09 Agents acting on the renin-angiotensin system (+11%), which moved up from rank two to one (Table 4). The positive dynamics of half of the top ten ATC groups has become one more difference of this rating. In addition to the leader, the groups G03 Sex hormones (+0.5%), B01 Anticoagulants (+8%), N06 Psychoanaleptics (+3%) and S01 Ophthalmologicals (+4%) moved up to ranks three, five, six and nine respectively. On top of that, the latter became the only newcomer of the top 10 ranking. At the same time, M01 Anti-inflammatory and anti-rheumatic drugs (-1%), J01 Antibacterials for systemic use (-11%), J05 Antivirals for systemic use (-19%), R01 Nasal preparations (-11%) and R05 Cough and cold preparations (-15%), on the contrary, decreased their sales and fell in the ranks. In total, the top ten ATC groups accumulated 36.1% of the regional market, which is the same as in the year-earlier period.

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------|----------|---|----------------------------------|-------------|
| | | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 5.4 | 4.7 |
| 2 | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 5.1 | 5.0 |
| 3 | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 3.7 | 3.6 |
| 4 | J01 | ANTIBACTERIALS FOR SYST USE | 3.6 | 3.9 |
| 5 | B01 | ANTITHROMBOTIC AGENTS | 3.4 | 3.0 |
| 6 | N06 | PSYCHOANALEPTICS | 3.1 | 2.9 |
| 7 | J05 | ANTIVIRALS FOR SYSTEMIC USE | 3.0 | 3.6 |
| 8 | R01 | NASAL PREPARATIONS | 3.0 | 3.3 |
| 9 | S01 | OPHTHALMOLOGICALS | 3.0 | 2.8 |
| 10 | R05 | COUGH AND COLD PREPARATIONS | 2.9 | 3.3 |
| Total | | | 36.1 | 36.1 |

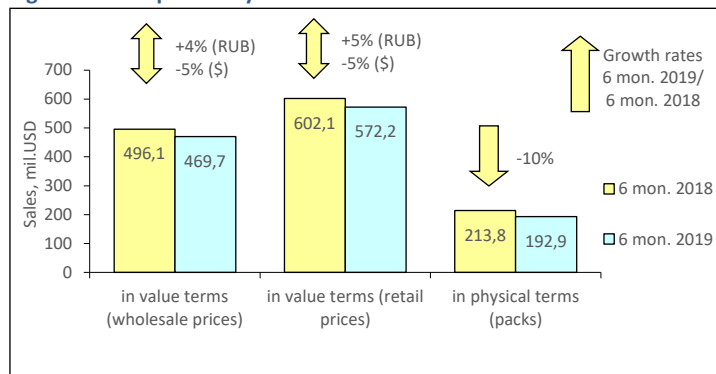
Conclusion. According to the results of the first six months of 2019 the pharmaceutical market of the Volga Federal District was estimated at RUB 78.564 bil. (USD 1.203 bil.) at retail prices. At the same time, its dynamics was negative both in rouble terms (-3%) and in dollar terms (-12%). In physical terms, the sales decreased by 12% to 387.980 mil. packs, compared to the same period in 2018. The average cost of an OTC pack in January-June 2019 amounted to USD 3.10 and has changed little, if at all, compared to a year earlier period (USD 3.09), but was lower than the national average (USD 3.36). The average expenses of the regional residents for purchase of OTC drugs in pharmacies were also lower than the national average (USD 40.91 vs. USD 58.67).

SoFD PHARMACY MARKET: 2019 FIRST SIX MONTHS RESULTS

According to Federal State Statistics Service, as of January 1, 2019 the estimated population of the Southern Federal District was 16.455 mil., which accounted for 11.2% of the total Russian Federation population. According to Federal State Statistics Service's data, in January-June of 2019 the average wage in the SoFD was RUB 33,093 (USD 506.55), which was 28% lower than the average wage in Russia (RUB 46,210).

According to the results of the Retail Audit of Over-the-Counter Drugs (OTC) in Russian Federation™, at the end of the first half of 2019 the sales of OTC drugs in physical terms in the pharmacies of the SoFD saw a 10% decrease to 192.891 mil. packs. In money terms, the market showed positive growth rates both in terms of roubles (+4%) and negative in terms of dollars (-5%) and reached RUB 30.686 bil. (USD 469.711 mil.) at wholesale prices (Fig. 1). The regional market share accounted for 7.9% of the Russian pharmacy sales. The average cost of a FPP pack increased as compared to a year earlier period (USD 2.82) and reached USD 2.91 at retail prices. For the first six months of 2019, the average amount spent by residents of the SoFD for drugs in the pharmacies amounted to USD 34.78.

Figure 1. SoFD pharmacy market for 6 months of 2018 – 6 months 2019



Most of the top 10 manufacturers ranking in the market of the Southern Federal District held their own in the first six months of 2019 (Table 1). Among them are the leaders BAYER (-4%), SANOFI (+3%), TEVA (-10%) and SERVIER (+6%). ABBOTT (+8%) and STADA (-1%) held their previous ranks eight and nine. The Russian manufacturer OTCPHARM (-3%) moved down from rank five to seven, giving way to BERLIN-CHEMIE/MENARINI (+5%) and SANDOZ (+3%). The only newcomer of the top ten ranking GEDEON RICHTER (+1%) broke into the ranks of the top ten, coming in at rank ten. In total, the top ten manufacturers accumulated 32.7% of the market, whereas in the same period of the last year they accounted for 34%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank in the top ten | 6 mon. 2019 | 6 mon. 2018 | Manufacturer* | Share in total pharmacy sales, % | |
|---------------------|-------------|-------------|-------------------------------|----------------------------------|-------------|
| | | | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | 1 | 1 | BAYER | 4.8 | 5.2 |
| 2 | 2 | 2 | SANOFI | 4.0 | 4.0 |
| 3 | 3 | 3 | TEVA | 3.4 | 4.0 |
| 4 | 4 | 4 | SERVIER | 3.4 | 3.3 |
| 5 | 6 | 6 | BERLIN-CHEMIE/MENARINI | 3.2 | 3.1 |
| 6 | 7 | 7 | SANDOZ | 3.0 | 3.1 |
| 7 | 5 | 5 | OTCPHARM | 2.9 | 3.2 |
| 8 | 8 | 8 | ABBOTT | 2.9 | 2.7 |
| 9 | 9 | 9 | STADA | 2.6 | 2.7 |
| 10 | 11 | 11 | GEDEON RICHTER | 2.6 | 2.7 |
| Total | | | | 32.7 | 34.0 |

*AIPM members are in bold

Two newcomers broke into the ranks of the top ten brands ranking in the regional market: ESSENTIALE (+13%) and PENTALGIN (+8%) moved up to ranks nine and ten (Table 2). In addition, ACTOVEGIN (+6%), XARELTO (+46%) and INGAVIRIN (+14%) placed at ranks one, two and seven, moved up to the higher ranks. At the same time, they displaced the less dynamic NUROFEN (+3%) two ranks down, to number three. THERAFLEX (-12%), which reduced its sales, moved down from rank three to eight. DETRALEX (+10%), MEXIDOL (+18%) and CONCOR (+11%) held their previous ranks from four through six. The total share of the top ten brands has expanded: 6.4% versus 6.0% in a year earlier period.

Table 2. The top ten brands by pharmacy sales

| Rank in the top ten | 6 mon. 2019 | 6 mon. 2018 | Brand | Share in total pharmacy sales, % | |
|---------------------|-------------|-------------|------------|----------------------------------|-------------|
| | | | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | 2 | 2 | ACTOVEGIN | 0.8 | 0.8 |
| 2 | 7 | 7 | XARELTO | 0.8 | 0.5 |
| 3 | 1 | 1 | NUROFEN | 0.7 | 0.8 |
| 4 | 4 | 4 | DETRALEX | 0.7 | 0.6 |
| 5 | 5 | 5 | MEXIDOL | 0.6 | 0.6 |
| 6 | 6 | 6 | CONCOR | 0.6 | 0.6 |
| 7 | 9 | 9 | INGAVIRIN | 0.6 | 0.5 |
| 8 | 3 | 3 | THERAFLEX | 0.6 | 0.7 |
| 9 | 14 | 14 | ESSENTIALE | 0.6 | 0.5 |

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|-------------|-----------|----------------------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | 6 mon. 2019 | 6 mon. 2018 |
| 10 | 11 | PENTALGIN | 0.5 | 0.5 |
| Total | | | 6.4 | 6.0 |

XYLOMETAZOLINE held its previous rank number one in the top 10 INN and grouping names ranking, although its sales decreased by 7% (Table 3). The other nine INNs of the top ten rating showed growth in sales, and three of them, just as the leader, held their own in the ranking. These are BISOPROLOL (+17%), BLOOD (+5%) and ROSUVASTATIN (+18%), which held ranks six through eight. INN PANCREATIN (+8%), the combination DIOSMIN * HESPERIDIN (+16%) and the newcomer of the top ten RIVAROXABAN (+46%) moved up to ranks two, four and nine. They displaced down INN IBUPROFEN and NIMESULIDE (+1% each), as well as DICLOFENAC (+13%). The total share of the top ten was 10.1%, while in 2018 it accounted for 9.7%.

Table 3. The top 10 INNs and grouping names by pharmacy sales

| Rank | 6 mon. 2019 | 6 mon. 2018 | INNs/Grouping Names | Share in total pharmacy sales, % | |
|-------|-------------|-------------|---------------------|----------------------------------|-------------|
| | | | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | 1 | 1 | XYLOMETAZOLINE | 1.6 | 1.8 |
| 2 | 4 | 4 | PANCREATIN | 1.1 | 1.1 |
| 3 | 2 | 2 | IBUPROFEN | 1.1 | 1.1 |
| 4 | 5 | 5 | DIOSMIN*HESPERIDIN | 1.0 | 0.9 |
| 5 | 3 | 3 | NIMESULIDE | 1.0 | 1.1 |
| 6 | 6 | 6 | BISOPROLOL | 1.0 | 0.9 |
| 7 | 7 | 7 | BLOOD | 0.9 | 0.8 |
| 8 | 8 | 8 | ROSUVASTATIN | 0.8 | 0.7 |
| 9 | 19 | 19 | RIVAROXABAN | 0.8 | 0.5 |
| 10 | 9 | 9 | DICLOFENAC | 0.8 | 0.7 |
| Total | | | | 10.1 | 9.7 |

The groups M01 Anti-inflammatory and antirheumatic products (+3%) and C09 Agents acting on the rennin-angiotensin system (+21%) held their previous two top ranks in the top ten ATC groups (Table 4). Some shifts took place in the lower part of the top ten ranking, as a result of which six brands rose in the ranks. J01 Antibacterials for systemic use (-1%), G03 Sex hormones (+3%) and J05 Antivirals for systemic use (+11%) moved up one rank, coming in at number three, four and seven. Group B01 Anticoagulants (+24%) moved up from rank ten to six, and the newcomers C05 Vasoprotectives (+9%) and N06 Psychoanaleptics (+8%) moved up to ranks nine and ten respectively. R01 Nasal preparations (-5%) and N02 Analgesics (-6%) reduced sales and moved down to ranks five and eighth, respectively. The total share of the top 10 ATC groups increased by 0.6 p.p. to 35.6%.

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | 6 mon. 2019 | 6 mon. 2018 | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------|-------------|-------------|----------|---|----------------------------------|-------------|
| | | | | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | 1 | 1 | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 5.2 | 5.3 |
| 2 | 2 | 2 | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 4.5 | 3.9 |
| 3 | 4 | 4 | J01 | ANTIBACTERIALS FOR SYST USE | 3.6 | 3.7 |
| 4 | 5 | 5 | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 3.5 | 3.6 |
| 5 | 3 | 3 | R01 | NASAL PREPARATIONS | 3.4 | 3.8 |
| 6 | 10 | 10 | B01 | ANTITHROMBOTIC AGENTS | 3.4 | 2.9 |
| 7 | 8 | 8 | J05 | ANTIVIRALS FOR SYSTEMIC USE | 3.1 | 2.9 |
| 8 | 6 | 6 | N02 | ANALGESICS | 3.1 | 3.4 |
| 9 | 11 | 11 | C05 | VASOPROTECTIVES | 2.9 | 2.8 |
| 10 | 12 | 12 | N06 | PSYCHOANALEPTICS | 2.9 | 2.8 |
| Total | | | | | 35.6 | 35.0 |

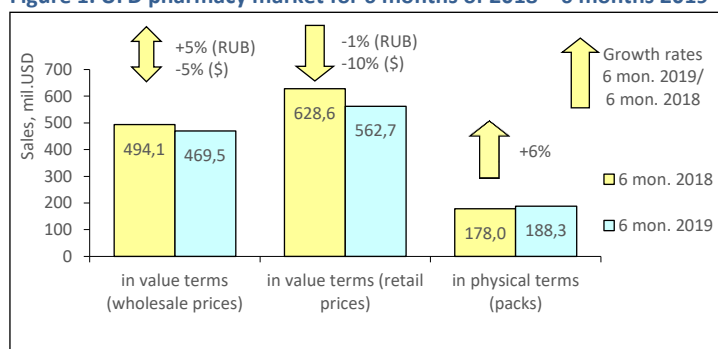
Conclusion. At the end of January-June 2019, the pharmacy market of the SoFD amounted to RUB 37.376 bil. (USD 572.220 bil.) at retail prices. Sales increased by 5% in terms of roubles, and, on the contrary, decreased by 5% in terms of dollars. In pack terms, the market reduced by 10% and amounted to 192.891 mil. packs. The average cost of FPP pack in the regional pharmacies was USD 2.97, which was higher than in the year-earlier period (USD 2.82), but less than the national average (USD 3.36). The average expenses of the Southern Federal District residents for the purchase of drugs in pharmacies in the first half of 2019 were also less than the national average (USD 34.78 versus USD 58.67).

UFD PHARMACY MARKET: 2019 FIRST SIX MONTHS RESULTS

According to Federal State Statistics Service, as of January 1, 2019 the estimated population of the Ural Federal District was 12.350 mil., which accounted for 8.4% of the total Russian Federation population. According to Federal State Statistics Service's data, in January-June of 2019 the average wage in the UFD was RUB 50,245 (USD 769.10), which was 9% higher than the average wage in Russia (RUB 46,210).

According to the results of the Retail Audit of Over-the-Counter Drugs (OTC) in Russian Federation™, at the end of the first six months of 2019 the sales of OTC drugs in natural terms in the pharmacies of UFD saw a 6% decrease to 188.252 mil. packs. In money terms, the market showed positive growth rates in terms of roubles (+5%) and negative in terms of dollars (-5%) and reached RUB 30.682 bil. (USD 469.533 mil.) at wholesale prices (Fig. 1). The regional retail sales share accounted for 7.8% of the Russian pharmacy sales. In January-June of 2019, the average cost of a finished pharma product (FPP) pack at retail prices amounted to USD 2.99 vs. USD 3.53 in the year earlier period. In the analyzed period, the average amount spent by the UFD residents for drugs in the pharmacies amounted to USD 45.56.

Figure 1. UFD pharmacy market for 6 months of 2018 – 6 months 2019



Despite the decline in sales, BAYER (-9%) and SANOFI (-5%) continued to remain the leaders of the retail market of the Ural Federal District in the first half of 2019. (Table 1). Also, ABBOTT (+ 0.4%) held its own in the ranking. Due to outperformance rates, manufacturers TEVA (+ 19%), SANDOZ (+ 15%) and KRKA (+ 46%) moved up to ranks three, five and six, respectively. On top of that, the latter became the only newcomer of the top 10 ranking. The other four manufacturers of the top-tens, on the contrary, fell in the ranks. OTCPHARM (-2%) moved down one rank, to number four, while GEDEON RICHTER (-3%), SERVIER (+ 2%) and STADA (-3%) lost two ranks each, moving down to ranks seven, eight and ten in the Top 10. The total share of the top 10 drug manufacturers reduced by 0.5 p.p. to 33.0%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank in the top ten | | Manufacturer* | Share in total pharmacy sales, % | |
|---------------------|-------------|-----------------------|----------------------------------|-------------|
| 3 mon. 2019 | 3 mon. 2018 | | 3 mon. 2019 | 3 mon. 2018 |
| 1 | 1 | BAYER | 4.3 | 5.0 |
| 2 | 2 | SANOFI | 4.3 | 4.8 |
| 3 | 4 | TEVA | 3.9 | 3.4 |
| 4 | 3 | OTCPHARM | 3.5 | 3.7 |
| 5 | 7 | SANDOZ | 3.1 | 2.8 |
| 6 | 14 | KRKA | 2.9 | 2.1 |
| 7 | 5 | GEDEON RICHTER | 2.9 | 3.2 |
| 8 | 6 | SERVIER | 2.8 | 2.9 |
| 9 | 9 | ABBOTT | 2.7 | 2.8 |
| 10 | 8 | STADA | 2.6 | 2.8 |
| Total | | | 33.0 | 33.5 |

*AIPM members are in bold

NUROFEN (+ 3%) became the best-selling brand in the analysed period and moved up to rank number one from three due to positive growth rates (Table 2). Two more brands of the top ten showed sales growth. XARELTO moved up to rank seven (+ 1%) and the newcomer LORISTA (+ 22%) broke into the ranks of the top ten. Most of the rating participants showed a decrease in sales. However, two of them, DETRALEX (-5%) and LOZAP (-6%), managed to move up to the higher ranks three and five. Four brands with pronounced negative growth rates, in contrast, fell in the ranks. Among them are the former leader INGAVIRIN (-24%), which moved up to rank two, as well as ESSENTIALE (-29%), ACTOVEGIN (-16%) and CARDIOMAGNYL (-21%), which moved down to ranks six, eight and ten, respectively. And only KAGOCEL (-21%) held its previous rank four. The cumulative share of the top 10 decreased by 1 p.p. to 5.4%.

Table 2. The top ten brands by pharmacy sales

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|-------------|------------|----------------------------------|-------------|
| 3 mon. 2019 | 3 mon. 2018 | | 3 mon. 2019 | 3 mon. 2018 |
| 1 | 3 | NUROFEN | 0.7 | 0.7 |
| 2 | 1 | INGAVIRIN | 0.6 | 0.8 |
| 3 | 7 | DETRALEX | 0.6 | 0.6 |
| 4 | 4 | KAGOCEL | 0.5 | 0.7 |
| 5 | 9 | LOZAP | 0.5 | 0.6 |
| 6 | 2 | ESSENTIALE | 0.5 | 0.8 |

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|-------------|--------------|----------------------------------|-------------|
| 3 mon. 2019 | 3 mon. 2018 | | 3 mon. 2019 | 3 mon. 2018 |
| 7 | 10 | XARELTO | 0.5 | 0.5 |
| 8 | 6 | ACTOVEGIN | 0.5 | 0.6 |
| 9 | 20 | LORISTA | 0.5 | 0.4 |
| 10 | 8 | CARDIOMAGNYL | 0.4 | 0.6 |
| Total | | | 5.4 | 6.4 |

Only top five INNs from the top ten INN and grouping names held its own in the ranking (Table 3). These are XYLOMETAZOLINE (-8%), IBUPROFEN (+ 4%), DIOSMIN * HESPERIDIN (+ 0.5%), PANCREATIN (+ 5%) and ROSUVASTATIN (+ 1%). Some shifts took place in the lower part of the top 10, moreover all the other INNs rose in the ranks. BISOPROLOL (+ 16%) moved up to rank six from ten, and NIMESULIDE (-9%) from nine to eight. The newcomers DICLOFENAC (+ 32%), LOSARTAN (+ 13%) and ATORVASTATIN (+ 26%) broke into the ranks of the top ten, coming in at numbers seven and two bottom ranks. The cumulative share of the top 10 didn't virtually change and accounted for 8.9%.

Table 3. The top 10 INNs and grouping names by pharmacy sales

| Rank | | INNs/Grouping Names | Share in total pharmacy sales, % | |
|-------------|-------------|---------------------|----------------------------------|-------------|
| 6 mon. 2019 | 6 mon. 2018 | | 6 mon. 2019 | 6 mon. 2018 |
| 1 | 1 | XYLOMETAZOLINE | 1.4 | 1.6 |
| 2 | 2 | IBUPROFEN | 1.1 | 1.1 |
| 3 | 3 | DIOSMIN*HESPERIDIN | 1.0 | 1.0 |
| 4 | 4 | PANCREATIN | 1.0 | 1.0 |
| 5 | 5 | ROSUVASTATIN | 0.8 | 0.9 |
| 6 | 10 | BISOPROLOL | 0.8 | 0.8 |
| 7 | 19 | DICLOFENAC | 0.7 | 0.6 |
| 8 | 9 | NIMESULIDE | 0.7 | 0.8 |
| 9 | 15 | LOSARTAN | 0.7 | 0.6 |
| 10 | 22 | ATORVASTATIN | 0.7 | 0.5 |
| Total | | | 8.9 | 8.9 |

One newcomer broke into the ranks of the top 10 ATC groups ranking: G04 Urologicals (+ 5%) moved up to rank nine from 11 (Table 4). In addition, groups C09 Agents acting on the rennin-angiotensin system (+ 24%), R05 Cough and cold preparations (+ 1%) and N02 Analgesics (-0.2%) moved up one rank, coming in at numbers one, seven and eight, respectively. Group J01 Antibacterials for systemic use (+ 8%) improved their position by three points, moving up to rank four. At the same time, A11 Vitamins (+ 11%) moved one point down, and J05 Antivirals for systemic use (-13%) moved down two ranks. G03 Sex hormones (-1%), R01 Nasal preparations and B01 Anticoagulants (-7% each) held their own in the ranking. In total, the top ten ATC groups accumulated 35.9% of the regional market, whereas in the year-earlier period they accounted for 36.9%.

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------------|-------------|----------|---|----------------------------------|-------------|
| 3 mon. 2019 | 3 mon. 2018 | | | 3 mon. 2019 | 3 mon. 2018 |
| 1 | 2 | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 4.9 | 4.2 |
| 2 | 1 | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 4.9 | 4.6 |
| 3 | 3 | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 3.9 | 4.2 |
| 4 | 7 | J01 | ANTIBACTERIALS FOR SYST USE | 3.6 | 3.5 |
| 5 | 5 | R01 | NASAL PREPARATIONS | 3.4 | 3.9 |
| 6 | 4 | J05 | ANTIVIRALS FOR SYSTEMIC USE | 3.3 | 4.0 |
| 7 | 8 | R05 | COUGH AND COLD PREPARATIONS | 3.3 | 3.4 |
| 8 | 9 | N02 | ANALGESICS | 3.1 | 3.2 |
| 9 | 11 | G04 | UROLOGICALS | 2.8 | 2.8 |
| 10 | 10 | B01 | ANTITHROMBOTIC AGENTS | 2.7 | 3.1 |
| Total | | | | 35.9 | 36.9 |

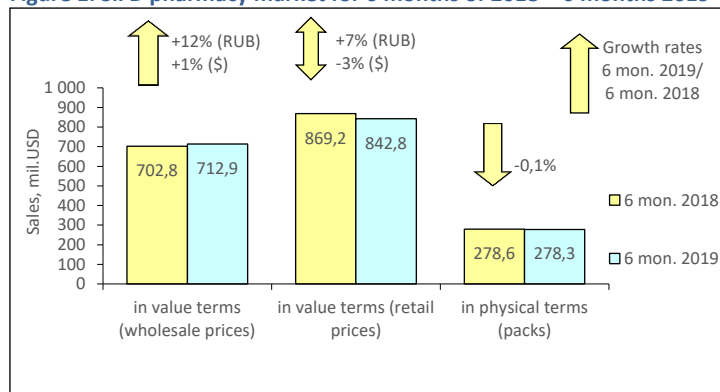
Conclusion. On the basis of the results for the first half of 2019, the pharmacy market of the UFD brought in RUB 36.766 bil. (USD 562.651 bil.) at retail prices. Sales declined both in terms of roubles (-1%) and in terms of dollars (-10%). In pack terms, the market also showed negative growth rates (+6%) and achieved 188.252 bil. packs. The average cost of FPP pack in the district pharmacies based on the results for January-June of 2019 was USD 2.99, which was lower than in the year-earlier period (USD 3.53) and the national average (USD 3.36). The average expenses of the UFD residents for purchase of OTC drugs in pharmacies were also lower than the national average (USD 45.56 vs. USD 58.67).

SIFD PHARMACY MARKET: 2019 FIRST SIX MONTHS RESULTS

According to Federal State Statistics Service, as of January 1, 2019 the estimated population of the Siberian Federal District was 17.173 mil., which accounted for 11.7% of the total Russian Federation population. According to Federal State Statistics Service's data, in January-June of 2019 the average wage in the UFD was RUB 40,008 (USD 612.40), which was 13% lower than the average wage in Russia (RUB 46,210).

According to the results of the Retail Audit of Finished Pharma Products (FPP) in Russian Federation™, at the end of the first half of 2019 the pharmacy market of SiFD in physical terms did not change (-0.1%) to 278,321 mil. packs (Fig. 1) In wholesale prices, the market declined both in rouble terms (+12%) and in dollar terms (+1%) and amounted to RUB 46.567 bil. (USD 712.931 mil.). The district's share in the pharmacy market profile in Russia was 11.7% of the total pharmacy sales. Based on the results for January-June of 2019, the average price of FPP pack in the SiFD pharmacies was USD 3.03, whereas in the year-earlier period its price was USD – 3.12. The average expenses of residents of the Siberian Federal District for the purchase of FPP in the pharmacies during this period were USD 49.08.

Figure 1. SiFD pharmacy market for 6 months of 2018 – 6 months 2019



According to the results of the first six months of 2019, BAYER (+ 11%), SANOFI (+ 10%), TEVA (-2%) and SERVIER (+ 10%) held the top four ranks in the top 10 manufacturers in the pharmacy market of the Siberian Federal District (Table 1). OTCPHARM (+ 6%) and GEDEON RICHTER (+ 9%) also held their own in the ranking. Due to outperformance rates, KRKA (+ 27%) and ABBOTT (+ 14%) moved up to ranks five and nine. At the same time, they displaced SANDOZ (-2%) and STADA (+ 5%) to the lower ranks seven and ten. The total share of the top ten manufacturers reduced by over 1 p.p. and accounted for 33.2%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank in the top ten | Manufacturer* | Share in total pharmacy sales, % | |
|---------------------|-----------------------|----------------------------------|-------------|
| | | 3 mon. 2019 | 3 mon. 2018 |
| 1 | BAYER | 4.7 | 4.7 |
| 2 | SANOFI | 4.2 | 4.3 |
| 3 | TEVA | 3.7 | 4.2 |
| 4 | SERVIER | 3.6 | 3.6 |
| 5 | KRKA | 3.2 | 2.8 |
| 6 | OTCPHARM | 3.1 | 3.3 |
| 7 | SANDOZ | 2.9 | 3.4 |
| 8 | GEDEON RICHTER | 2.7 | 2.8 |
| 9 | ABBOTT | 2.7 | 2.7 |
| 10 | STADA | 2.5 | 2.7 |
| Total | | 33.2 | 34.3 |

*AIPM members are in bold

The top ten brands ranking changed its leader: the most dynamic brand XARELTO (+ 70%) moved up to rank one from 13 (Table 2). DETRALEX (+ 18%) and LORISTA (+ 17%) also rose in the ranks, moving up to numbers two and four. At the same time, the former leaders LOZAP (+ 6%) and CARDIOMAGNYL (+ 1%) dropped down from the top two ranks to three and six. CONCOR (+ 3%) and ACTOVEGIN (+ 8%) lost three ranks each, moving down to ranks seven and ten. Three ATC groups of the top ten held their own in the ranking. They were NUROFEN (+10%), PENTALGIN (+13%) and MEXIDOL (+14%). In total, the top ten brands accumulated 6.3% of sales, whereas in the year-earlier period they accounted for 6.1%.

Table 2. The top ten brands by pharmacy sales

| Rank in the top ten | Brand | Share in total pharmacy sales, % | |
|---------------------|--------------|----------------------------------|-------------|
| | | 3 mon. 2019 | 3 mon. 2018 |
| 1 | XARELTO | 0.7 | 0.5 |
| 2 | DETRALEX | 0.7 | 0.7 |
| 3 | LOZAP | 0.7 | 0.7 |
| 4 | LORISTA | 0.6 | 0.6 |
| 5 | NUROFEN | 0.6 | 0.6 |
| 6 | CARDIOMAGNYL | 0.6 | 0.7 |
| 7 | CONCOR | 0.6 | 0.7 |
| 8 | PENTALGIN | 0.6 | 0.6 |
| 9 | MEXIDOL | 0.6 | 0.6 |

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|-------------|-----------|----------------------------------|-------------|
| 3 mon. 2019 | 3 mon. 2018 | | 3 mon. 2019 | 3 mon. 2018 |
| 10 | 7 | ACTOVEGIN | 0.6 | 0.6 |
| Total | | | 6.3 | 6.1 |

The top ten INNs and grouping names ranking showed high stability - six of its INNs held their own in the ranking (Table. 3). These are XYLOMETAZOLINE (+ 0.4%), IBUPROFEN (+ 10%), BISOPROLOL (+ 13%), DIOSMIN * HESPERIDIN (+ 11%), PANCREATIN (+ 16%) and NIMESULIDE (+ 12%) placed at the top six ranks. The shifts took place in the lower part of the top ten. The more dynamic LOSARTAN (+ 13%) and the newcomer ATORVASTATIN (+ 30%) moved up to ranks seven and nine, displacing ROSUVASTATIN (+ 9%) and LOSARTAN * HYDROCHLOROTHIAZIDE (+ 14%) one rank down. The cumulative share of the top 10 didn't change and accounted for 9.3%.

Table 3. The top 10 INNs and grouping names by pharmacy sales

| Rank | INNs/Grouping Names | Share in total pharmacy sales, % | |
|-------|------------------------------|----------------------------------|-------------|
| | | 3 mon. 2019 | 3 mon. 2018 |
| 1 | XYLOMETAZOLINE | 1.4 | 1.6 |
| 2 | IBUPROFEN | 1.1 | 1.1 |
| 3 | BISOPROLOL | 1.1 | 1.0 |
| 4 | DIOSMIN*HESPERIDIN | 1.0 | 1.0 |
| 5 | PANCREATIN | 0.9 | 0.8 |
| 6 | NIMESULIDE | 0.8 | 0.8 |
| 7 | LOSARTAN | 0.8 | 0.8 |
| 8 | ROSUVASTATIN | 0.8 | 0.8 |
| 9 | ATORVASTATIN | 0.7 | 0.6 |
| 10 | LOSARTAN*HYDROCHLOROTHIAZIDE | 0.7 | 0.7 |
| Total | | 9.3 | 9.3 |

The top four groups in the top ten ATC group rating didn't change either (Table 4). At the same time, groups C09 Agents acting on the rennin-angiotensin system (+ 20%), M01 Anti-inflammatory and antirheumatic products (+ 15%) and G03 Sex hormones (+ 14%) not only hold, but also strengthened their position due to the outperformance rates. Despite lagging growth rates, R01 Nasal preparations (+ 3%) held its previous rank four. J01 Antibacterials for systemic use (+8%), B01 Anticoagulants (+23%) and J05 Antivirals for systemic use (+12%) moved up to ranks five, seven and nine. At the same time, they displaced N02 Analgesics (+ 2%), R05 Cough and cold preparations, and G04 Urologicals (+ 7% each) down one rank. In total, the top - ten ATC groups accumulated 36.5%, which is a bit lower than in the year-earlier period (36.7%).

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------|----------|---|----------------------------------|-------------|
| | | | 3 mon. 2019 | 3 mon. 2018 |
| 1 | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 5.3 | 4.9 |
| 2 | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 4.9 | 4.8 |
| 3 | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 4.4 | 4.3 |
| 4 | R01 | NASAL PREPARATIONS | 3.4 | 3.6 |
| 5 | J01 | ANTIBACTERIALS FOR SYST USE | 3.3 | 3.5 |
| 6 | N02 | ANALGESICS | 3.3 | 3.6 |
| 7 | B01 | ANTITHROMBOTIC AGENTS | 3.3 | 3.0 |
| 8 | R05 | COUGH AND COLD PREPARATIONS | 3.0 | 3.2 |
| 9 | J05 | ANTIVIRALS FOR SYSTEMIC USE | 2.9 | 2.9 |
| 10 | G04 | UROLOGICALS | 2.8 | 2.9 |
| Total | | | 36.5 | 36.7 |

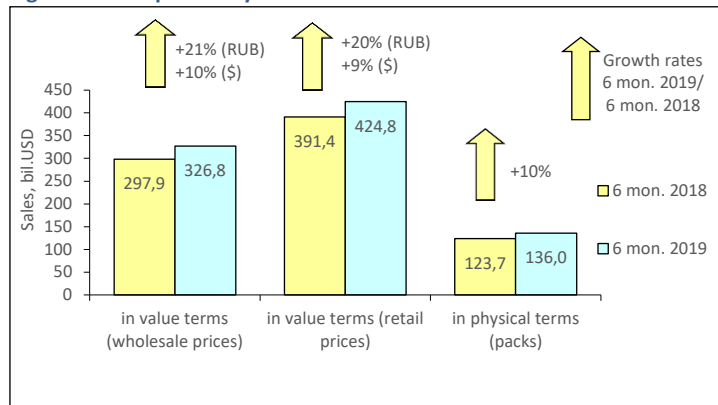
Conclusion. According to the results of the first six months of 2019, the pharmaceutical market of the Siberia Federal District was estimated at RUB 55.047 bil. (USD 842.805 mil.) at final consumption prices. At the same time, the market dynamics was positive (+ 7%) in rouble terms, and negative (-3%) in dollar terms. In physical terms, sales did not virtually change (-0.1%) and amounted to 278.321 mil. packs. The average price of an FPP pack has decreased compared to the previous year (USD 3.03 versus USD 3.12) and continues to be lower than the average Russian price of an FPP drug (USD 3.36). The average expenses of the regional residents for purchase of OTC drugs in pharmacies were also lower than the national average (USD 49.08 vs. USD 58.67).

FEFD PHARMACY MARKET: 2019 FIRST SIX MONTHS RESULTS

According to Federal State Statistics Service, as of January 1, 2019 the estimated population of the Far East Federal District was 8.189 mil., which accounted for 5.6% of the total Russian Federation population. According to Federal State Statistics Service's data, in January-June of 2019 the average wage in the FEFD was RUB 54,274 (USD 830.77), which was 17% higher than the average wage in Russia (RUB 46,210).

According to the results of the Retail Audit of Over-the-Counter Drugs (OTC) in Russian Federation™, at the end of the first six months of 2019 the sales of OTC drugs in natural terms in the pharmacies of FEFD saw a 10% decrease to 136.005 mil. packs. In money terms, the market increased by 21% in rouble terms and by 10% in dollar terms and reached RUB 21.368 bil. (USD 326.824 bil.) at wholesale prices (Fig. 1). The district's share accounted for 5.9% of total Russian sales at retail prices. The average price of a pack increased as compared to the previous year and reached USD 3.12 (versus USD 3.16). In January-June of 2019, the average amount spent by the residents of the region for the drugs in pharmacies amounted to USD 51.87.

Figure 1. FEFD pharmacy market for 6 months of 2018 – 6 months 2019



BAYER (+ 10%) and SANOFI (+ 16%) continued to remain the leaders of the top ten manufacturers ranking in the retail market of the Far Eastern Federal District in the first half of 2019. (Tab. 1). Some shifts took place in the lower part of the top ten ranking, as a result of which four manufacturers rose in the ranks. These are KRKA (+ 36%) and TEVA (+ 21%), which moved up to ranks three and four, and GLAXOSMITHKLINE (+ 33%), which moved up to rank eight, and the newcomer TAKEDA (+ 21%), which broke into the top ten ranking. At the same time, GEDEON RICHTER (+ 14%), SERVIER (+ 10%), SANDOZ (+ 23%) and OTCPHARM (+ 12%) moved down to the lower ranks, from rank five through seven and nine. The total share of the top 10 drug manufacturers reduced from 34.2% to 33.4%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank in the top ten | 3 mon. 2019 | 3 mon. 2018 | Manufacturer* | Share in total pharmacy sales, % | |
|---------------------|-------------|-------------|------------------------|----------------------------------|-------------|
| | | | | 3 mon. 2019 | 3 mon. 2018 |
| 1 | 1 | 1 | BAYER | 4.5 | 5.0 |
| 2 | 2 | 2 | SANOFI | 3.6 | 3.8 |
| 3 | 8 | 3 | KRKA | 3.5 | 3.1 |
| 4 | 5 | 4 | TEVA | 3.4 | 3.5 |
| 5 | 4 | 5 | GEDEON RICHTER | 3.4 | 3.6 |
| 6 | 3 | 6 | SERVIER | 3.3 | 3.6 |
| 7 | 6 | 7 | SANDOZ | 3.3 | 3.2 |
| 8 | 9 | 8 | GLAXOSMITHKLINE | 2.9 | 2.7 |
| 9 | 7 | 9 | OTCPHARM | 2.9 | 3.1 |
| 10 | 11 | 10 | TAKEDA | 2.6 | 2.6 |
| Total | | | | 33.4 | 34.2 |

*AIPM members are in bold

The most dynamic among brands KAGOCEL (+ 65%) became the leader of the top ten brands rankings (Tab. 2). It displaced the former leaders NUROFEN (+ 11%), INGAVIRIN (+ 27%) and CARDIOMAGNYL (+ 25%) one rank down. LORISTA (+ 36%), MIRAMISTIN (+ 45%) and THERAFLU (+ 50%) moved up to ranks five through seven. On top of that, the latter broke into the ranks of the top 10 ranking for the first time. XARELTO (+22%) held its previous rank eight. CONCOR (+7%) and DETRALEX (+14%) moved down to ranks nine and ten. The aggregate share of the top-10 expended from 6.9% to 7.3%.

Table 2. The top ten brands by pharmacy sales

| Rank in the top ten | 3 mon. 2019 | 3 mon. 2018 | Brand | Share in total pharmacy sales, % | |
|---------------------|-------------|-------------|--------------|----------------------------------|-------------|
| | | | | 3 mon. 2019 | 3 mon. 2018 |
| 1 | 6 | 12 | KAGOCEL | 0.9 | 0.7 |
| 2 | 1 | 1 | NUROFEN | 0.9 | 0.9 |
| 3 | 2 | 3 | INGAVIRIN | 0.8 | 0.8 |
| 4 | 3 | 4 | CARDIOMAGNYL | 0.8 | 0.7 |
| 5 | 7 | 5 | LORISTA | 0.7 | 0.7 |
| 6 | 10 | 6 | MIRAMISTIN | 0.7 | 0.6 |
| 7 | 13 | 7 | THERAFLU | 0.7 | 0.5 |
| 8 | 8 | 8 | XARELTO | 0.7 | 0.7 |
| 9 | 4 | 9 | CONCOR | 0.6 | 0.7 |

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|-------------|----------|----------------------------------|-------------|
| 3 mon. 2019 | 3 mon. 2018 | | 3 mon. 2019 | 3 mon. 2018 |
| 10 | 9 | DETRALEX | 0.6 | 0.6 |
| Total | | | 7.3 | 6.9 |

One newcomer broke into the ranks of the top ten INN and grouping names ranking: KAGOCEL (+65%) moved up to rank five from 12 (Table 3). In addition, only PANCREATIN (+25%) moved up to the higher rank. At the same time, INNS BISOPROLOL (+ 15%), IMIDAZOLYL ETHANAMIDE PENTANDIOIC ACID and the combination ACETYSALICYLIC ACID * MAGNESIUM (+ 27% each) lost one rank each, while DIOSMIN * HESPERIDIN (+14%) moved down from rank four to seven. The leaders of the ranking XYLOMETAZOLINE (+ 28%) and IBUPROFEN (+ 13%), as well as NIMESULIDE (+ 22%) and AMOXICILLIN * CLAVULANIC ACID (+ 32%), placed at ranks six and ten held their own in the ranking. The total share of the top 10 increased from 9.8% to 10.1%.

Table 3. The top 10 INNs and grouping names by pharmacy sales

| Rank | 3 mon. 2019 | 3 mon. 2018 | INNs/Grouping Names | Share in total pharmacy sales, % | |
|-------|-------------|-------------|--|----------------------------------|-------------|
| | | | | 3 mon. 2019 | 3 mon. 2018 |
| 1 | 1 | 1 | XYLOMETAZOLINE | 1.9 | 1.8 |
| 2 | 2 | 2 | IBUPROFEN | 1.4 | 1.5 |
| 3 | 5 | 3 | PANCREATIN | 0.9 | 0.9 |
| 4 | 3 | 4 | BISOPROLOL | 0.9 | 1.0 |
| 5 | 12 | 5 | KAGOCEL | 0.9 | 0.7 |
| 6 | 6 | 6 | NIMESULIDE | 0.9 | 0.9 |
| 7 | 4 | 7 | DIOSMIN*HESPERIDIN | 0.9 | 0.9 |
| 8 | 7 | 8 | IMIDAZOLYL ETHANAMIDE PENTANDIOIC ACID | 0.8 | 0.8 |
| 9 | 8 | 9 | ACETYSALICYLIC ACID*MAGNESIUM | 0.8 | 0.7 |
| 10 | 10 | 10 | AMOXICILLIN*CLAVULANIC ACID | 0.8 | 0.7 |
| Total | | | | 10.1 | 9.8 |

The groups M01 Anti-inflammatory and antirheumatic products (+17%) and C09 Agents acting on the rennin-angiotensin system (+30%) remained the best selling groups in the region market (Table 4). R01 Nasal preparations (+ 28%) and J05 Antivirals for systemic use (+ 42%) were ranked third and fourth by sales. J01 Antibacterials for systemic use (+32%) held their previous rank five. Due to lagging behind the growth rates, the group G03 Sex hormones (+ 10%) moved down from rank three to six. The growth rates of the remaining ATC groups, on the contrary, were outstripping. At the same time, groups R05 Cough and cold preparations (+ 26%), B01 Anticoagulants and A07 Antidiarrheal, intestinal anti-inflammatory and antinflection drugs (+ 25% each) moved up to ranks seven, nine and ten, respectively. At the same time, N02 Analgesics (+ 22%) lost one rank each and moved down to rank eight. The cumulative share of the top 10 under review increased by 1 p.p. to 37.4%.

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | 3 mon. 2019 | 3 mon. 2018 | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------|-------------|-------------|----------|---|----------------------------------|-------------|
| | | | | | 3 mon. 2019 | 3 mon. 2018 |
| 1 | 1 | 1 | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 4.8 | 4.9 |
| 2 | 2 | 2 | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 4.6 | 4.3 |
| 3 | 4 | 3 | R01 | NASAL PREPARATIONS | 4.1 | 3.9 |
| 4 | 6 | 4 | J05 | ANTIVIRALS FOR SYSTEMIC USE | 3.9 | 3.3 |
| 5 | 5 | 5 | J01 | ANTIBACTERIALS FOR SYST USE | 3.8 | 3.6 |
| 6 | 3 | 6 | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 3.7 | 4.1 |
| 7 | 8 | 7 | R05 | COUGH AND COLD PREPARATIONS | 3.4 | 3.3 |
| 8 | 7 | 8 | N02 | ANALGESICS | 3.3 | 3.3 |
| 9 | 10 | 9 | B01 | ANTITHROMBOTIC AGENTS | 3.0 | 2.9 |
| 10 | 12 | 10 | A07 | ANTIDIARR.,INTEST. ANTI-INFL./ANTIINFECT. AGENTS | 2.8 | 2.7 |
| Total | | | | | 37.4 | 36.4 |

Conclusion. On the basis of the results for the first half of 2019, the pharmacy market of the FEFD brought in RUB 27.780 bil. (USD 424.777 mil.), which was 20% in terms of roubles and 9% in terms of dollars more than in the same period of 2018. In pack terms, the market also demonstrated positive growth rates (+10%) and achieved 136.005 mil. packs. The average price of FPP pack in the FEFD pharmacies based on the results for January-June of 2019 was USD 3.12, (in the year-earlier period USD 3.316), which was less than the national average (USD 3.36). The expenses of the regional residents for purchase of drugs in the pharmacies were lower than the national average (USD 51.87 vs. USD 58.67).