

MACROECONOMIC INDICES

Inflation

According to Federal State Statistics Service's data, the Consumer Price Index was estimated as 100.3% in February 2020 compared to the previous month and 100.7% compared to December of the previous year. In February of 2020, Industrial Producer Price Index (for goods intended for sale on the domestic market) was 99.5%, whereas in the month-earlier period it had amounted to 100.9%. The index accounted for 100.5% against December of 2019.

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



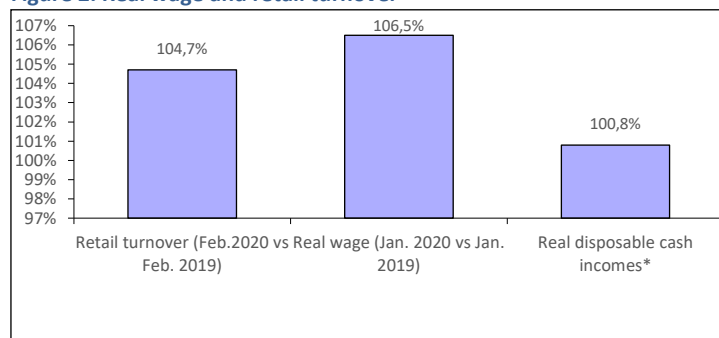
Living standard

In January of 2020, a gross monthly average wage of corporate employees reached RUB 46674¹ (USD 755.49), and increased by 109.1% compared to January 2019, and 74.8% compared to the previous period. In January 2020, the real gross wage accounted for 106.5% as compared to January 2019, and 74.5% against the prior period. According to estimates², real disposable cash incomes increased by 0.8% in 2019 compared to 2018 (Fig. 2).

Retail turnover

In February 2020, the retail turnover was equal to RUB 2,619.8 bil. or 104.7% (in comparable prices) against the level of the same period of the previous year, and RUB 5,252.5 bil. or 103.7% in January - February 2020 (Fig. 2).

Figure 2. Real wage and retail turnover



* 2019 vs 2018

Industrial Production

According to Federal State Statistics Service's data, Industrial Production Index accounted for 103.3% in February 2020 compared to the same period in the previous year, and 102.2% in January-February 2020. According to Federal State Statistics Service's data, Industrial Production Index of drugs and medical products for human use accounted for 117.4% in February 2020 compared to the relevant period of 2019, and 110.1% in January-February vs. January-February 2019.

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 February 2020.

Table 1. The top ten Russian chemical and pharmaceutical manufacturers by sales volume in February 2020

| Rank | Manufacturer | RUB mil. |
|------|----------------|----------|
| 1 | Otcpharm | 2570.0 |
| 2 | Biocad | 2048.7 |
| 3 | Generium | 1502.2 |
| 4 | Valenta | 1252.6 |
| 5 | Pharmstandart | 1216.3 |
| 6 | Stada | 1065.3 |
| 7 | Materia Medica | 854.1 |
| 8 | Akrihin | 791.7 |
| 9 | Vertex | 818.9 |
| 10 | Sotex | 746.3 |

Source - Remedium according to IQVIA data

Table 2 provides pharmacy sales data from 10 regions of the Russian Federation. Sales (in terms of roubles) reduced in all regions in January 2020 compared to the previous month. The highest growth was observed in Moscow (-32%), the lowest one in Novosibirsk Region (-0.1%).

Table 2. Pharmacy sales in the regions, 2019-2020

| Region | Pharmacy sales, \$ mil. (wholesale prices) | | | Growth gain, % (roubles) | | |
|--------------------|--|---------------|--------------|--------------------------|----------------------|------------------------|
| | November 2019 | December 2019 | January 2020 | November/October 19 | December/November 19 | January 20/December 19 |
| Moscow | 184.3 | 228.5 | 159.3 | -1% | 22% | -32% |
| St. Petersburg | 60.3 | 73.0 | 63.6 | -5% | 19% | -15% |
| Krasnodar Krai | 33.0 | 40.2 | 39.0 | -11% | 20% | -5% |
| Krasnoyarsk Krai | 27.2 | 33.1 | 29.5 | -5% | 20% | -13% |
| Tatarstan | 16.8 | 18.8 | 16.5 | -14% | 10% | -14% |
| Rostov Region | 19.9 | 24.3 | 23.2 | -10% | 20% | -6% |
| Novosibirsk Region | 17.2 | 18.6 | 18.9 | -15% | 6% | -0.1% |
| Voronezh Region | 11.8 | 14.1 | 11.6 | -7% | 18% | -19% |
| Perm | 5.9 | 5.7 | 5.8 | -19% | -4% | -1% |
| Tyumen | 5.1 | 6.5 | 6.0 | -24% | 26% | -9% |

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. Top five advertisers in mass media in February 2020

| Rank | Company* | Quantity of broadcasts |
|------|-------------------------|------------------------|
| 1 | Otcpharm | 11,707 |
| 2 | Sandoz | 10,308 |
| 3 | Berlin-Chemie/Menarini | 10,259 |
| 4 | Sanofi | 9,209 |
| 5 | GSK Consumer Healthcare | 8,847 |

Source - Remedium according to Mediascope's data

Table 4. Top five brand names in mass media in February 2020

| Rank | Brand* | Quantity of broadcasts |
|------|-------------|------------------------|
| 1 | Evalar | 5,535 |
| 2 | Linex | 3,943 |
| 3 | Polyoxidoni | 3,662 |
| 4 | Miramistin | 2,997 |
| 5 | Tantum | 2,567 |

Source - Remedium according to Mediascope's data

* Only products registered with State Register of Medicines were considered

¹ Starting with the report "Information on the socio-economic situation of the Russian Federation" (January-September 2019), the indicators of nominal and real accrued wages of corporate employees will be published only after receiving reporting data. Preliminary estimates will not be presented.

² 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 RESULTS

According to DLO in RF™, the drugs supplies under the Federal Program amounted to RUB 126.481 bil. based on the results for 2019 (USD 1.956 bil.) in contractual prices³. The sector volume increased by 20% in terms of roubles, and 17% - in terms of dollars as compared to 2018. Scope of supplies in pack terms increased by 8% to 86.024 mil. packs. The average cost of a FPP pack through the DLO program was USD 22.74 in contractual prices (a year ago it was USD 20.96).

TAKEDA held and, due to 48% increase in supplies⁴, strengthened its leading positions in the DLO segment in 2019 (Table 1). In addition to the leader, GENERIUM (+ 59%), JOHNSON & JOHNSON (+ 63%) and NOVARTIS (+ 52%), also demonstrated high growth rates, moving up to ranks two, four and six, respectively. NOVO NORDISK (+ 1%) managed to move one point up, while ROCHE (+ 10%) moved up to rank nine from 11 and became the only newcomer of the Top 10. Displaced by a more dynamic manufacturer, CELGENE (+ 6%) dropped one rank down to rank three. BIOCAD (-1%) and SANOFI (-12%), which showed negative growth rates, moved down to the lower ranks. As before, OCTAPHARMA (-6%) rounded out the top ten rating. The total share of the top 10 drug manufacturers within DLO Program expanded from 54.7% to 55.6%.

Table 1. The top 10 drug manufacturers for DLO

| Rank in the top ten | | Manufacturer* | Share in total DLO volume, % | |
|---------------------|------|-------------------|------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 1 | 1 | TAKEDA | 9.9 | 8.0 |
| 2 | 5 | GENERIUM ZAO RF | 7.3 | 5.6 |
| 3 | 2 | CELGENE | 6.7 | 7.6 |
| 4 | 6 | JOHNSON & JOHNSON | 6.7 | 4.9 |
| 5 | 3 | BIOCAD RF | 6.1 | 7.4 |
| 6 | 8 | NOVARTIS | 5.1 | 4.0 |
| 7 | 4 | SANOFI | 4.4 | 6.0 |
| 8 | 9 | NOVO NORDISK | 3.3 | 4.0 |
| 9 | 11 | ROCHE | 3.3 | 3.6 |
| 10 | 10 | OCTAPHARMA | 2.8 | 3.6 |
| Total | | | 55.6 | 54.7 |

*AIPM members are in bold

The leader of the top ten brands rating did not change either: despite its low sales rates and reduction of the market share, REVLIMIDE (+3%) held its own rank one (Table 2). ADVATE (+ 13%) also showed lagging growth, moving up to rank two from three. ACELLBIA (-8%), which had been previously placed at that rank, moved down to rank four, due to negative growth rates. COAGIL-VII (+ 15%) and OCTOFACTOR (-15%) also moved down to the lower part of the ranking from ranks six and four. On the contrary, TYSABRI (+ 41%), as well as the newcomers ELAPRASE (14-fold increase in supplies) and ELIZARIA showed high growth rates and rating progress, moving up to ranks six, three and seven, respectively. FEIBA (+ 21%) and TOUJEO SOLOSTAR (+ 35%) held their previous ranks five and eight. The total share of the top ten increased by 2 p.p. up to 25%.

Table 2. The top 10 Brands in DLO segment

| Rank in the top ten | | Brand | Share in total DLO volume, % | |
|---------------------|------|-----------------|------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 1 | 1 | REVLIMIDE | 6.2 | 7.3 |
| 2 | 3 | ADVATE | 2.7 | 2.9 |
| 3 | 39 | ELAPRASE | 2.5 | 0.4 |
| 4 | 2 | ACELLBIA | 2.2 | 2.9 |
| 5 | 5 | FEIBA | 2.2 | 2.1 |
| 6 | 7 | TYSABRI | 2.1 | 1.8 |
| 7 | N/A | ELIZARIA | 1.9 | |
| 8 | 8 | TOUJEO SOLOSTAR | 1.9 | 1.7 |
| 9 | 6 | COAGIL-VII | 1.8 | 1.9 |
| 10 | 4 | OCTOFACTOR | 1.6 | 2.3 |
| Total | | | 25.0 | 23.1 |

LENALIDOMIDE (+3%) and RITUXIMAB (+1%) held their previous leading ranks in the top ten INN and group names ranking (Table 3). In addition to them, INSULIN GLARGINE (+6%) and FACTOR VIII INHIBITOR BYPASSING FRACTION (+21%) also held their own in the ranking. Three INNs of the Top ten ranking managed to move up to the higher ranks. The newcomers ECULIZUMAB (5-fold growth) and IDURSULFASE (8-fold growth), as well as OCTOCOG ALFA (+13%) broke into the ranks of the top ten, coming in at numbers three through five, respectively. INNs INTERFERON BETA-1A (-1%), INTERFERON BETA-1A (-29%) and FACTOR VIII*FACTOR VON WILLEBRAND (0%) moved down to the lower part of the top ten ranking, due to negative growth rates in the former and zero growth rates in the latter. In total, ten INNs and group names accounted for 29.6% of the market against 29.8% in the year-earlier period.

Table 3. The top ten INN and group names in DLO segment

| Rank in the top ten | | INNs/Grouping Names | Share in total DLO volume, % | |
|---------------------|------|---------------------|------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 1 | 1 | LENALIDOMIDE | 6.2 | 7.3 |
| 2 | 2 | RITUXIMAB | 3.6 | 4.3 |
| 3 | 34 | ECULIZUMAB | 3.0 | 0.7 |

³ 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 volume, % | |
|---------------------|------|--|------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 4 | 5 | OCTOCOG ALFA | 2.7 | 2.9 |
| 5 | 42 | IDURSULFASE | 2.5 | 0.4 |
| 6 | 6 | INSULIN GLARGINE | 2.5 | 2.8 |
| 7 | 4 | FACTOR VIII | 2.4 | 2.9 |
| 8 | 3 | INTERFERON BETA-1A | 2.3 | 3.9 |
| 9 | 9 | FACTOR VIII INHIBITOR BYPASSING FRACTION | 2.2 | 2.1 |
| 10 | 7 | FACTOR VIII*FACTOR VON WILLEBRAND | 2.2 | 2.6 |
| Total | | | 29.6 | 29.8 |

L04 Immunosuppressants (+ 35%), L01 Antineoplastic agents (+17%), B02 Antihemorrhagics (+ 6%), A10 Drugs used in diabetes (+5%) and L03 Immunostimulants (+2%) continued to remain the leading ATC groups in the DLO market, though the former two switched ranks with each other (Table 4). Groups A16 Other alimentary tract and metabolism products and J05 Antivirals for systemic use, which purchases increased 3.1 and 2.3 times, respectively, moved up to ranks six and seven. Pay attention that the latter has become the only newcomer of the top 10 ranking. At the same time, R03 Drugs for the treatment of obstructive airways diseases (-2%), L02 Endocrine therapy and B03 Anti-anemic preparations (-5% in both) moved down to the bottom three ranks in the top ten. The total share of the top 10 increased from 83.8% to 84.4%.

Table 4. The top ten ATC groups in DLO segment

| Rank | | ATC code | ATC group | Share in total DLO volume, % | |
|-------|------|----------|--|------------------------------|------|
| 2019 | 2018 | | | 2019 | 2018 |
| 1 | 2 | L04 | IMMUNOSUPPRESSANTS | 19.9 | 17.7 |
| 2 | 1 | L01 | ANTINEOPLASTIC AGENTS | 18.1 | 18.6 |
| 3 | 3 | B02 | ANTHEMORRHAGICS | 15.2 | 17.2 |
| 4 | 4 | A10 | DRUGS USED IN DIABETES | 9.2 | 10.5 |
| 5 | 5 | L03 | IMMUNOSTIMULANTS | 6.0 | 7.1 |
| 6 | 9 | A16 | OTHER ALIMENTARY TRACT AND METABOLISM PRODUCTS | 5.6 | 2.2 |
| 7 | 11 | J05 | ANTIVIRALS FOR SYSTEMIC USE | 3.5 | 1.8 |
| 8 | 6 | R03 | DRUGS FOR OBSTRUCTIVE AIRWAY DISEASES | 2.6 | 3.2 |
| 9 | 7 | L02 | ENDOCRINE THERAPY | 2.3 | 3.0 |
| 10 | 8 | B03 | ANTI-ANEMIC PREPARATIONS | 1.9 | 2.5 |
| Total | | | | 84.4 | 83.8 |

Data on supplies to the top ten regions of Russia under State Reimbursement Program (DLO) are shown in Table 5. The Moscow market continued to demonstrate the largest volumes of purchases and the highest growth rates. At the same time, its share increased and reached 34% of all purchases under the program. Moscow region and St. Petersburg were still ranked second and third, but their shares declined. The remarkable thing is that 9 top regions demonstrated the growth in purchases under the DLO program. Moscow region became the sole exception (-7%). In total, the top ten ATC groups accumulated 56.5% of the DLO market, whereas in the year-earlier period they accounted for 52.5%.

Table 5. The top ten regions by sales in DLO segment

| Rank | | Region | Share in total DLO volume, % | |
|-------|------|--------------------|------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 1 | 1 | Moscow | 34.1 | 29.0 |
| 2 | 2 | Moscow Region | 4.1 | 5.2 |
| 3 | 3 | Saint Petersburg | 3.6 | 3.9 |
| 4 | 6 | Tatarstan Republic | 2.5 | 2.1 |
| 5 | 4 | Sverdlovsk Region | 2.4 | 2.5 |
| 6 | 5 | Krasnodar Krai | 2.4 | 2.5 |
| 7 | 9 | Novosibirsk Region | 2.0 | 1.9 |
| 8 | 8 | Rostov Region | 1.9 | 1.9 |
| 9 | 7 | Tyumen Region | 1.9 | 2.0 |
| 10 | 17 | Chelyabinsk Region | 1.8 | 1.5 |
| Total | | | 56.5 | 52.5 |

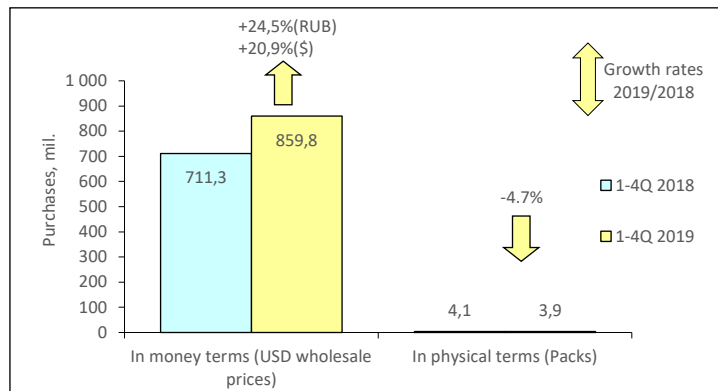
Conclusion. Based on the results for 2019, the DLO segment brought in RUB 126.481 bil. (USD 1.956 bil.) in contractual prices, which is by 20% in terms of roubles and by 17% in terms of dollars more than in 2018. In pack terms, the supplies under the program increased by 8% to 86.024 mil. packs. The average cost of FPP included in the DLO Programme increased as compared to the last year (USD 22.74 vs. USD 20.96).

⁴ Hereinafter, unless otherwise stated, growth gains are stated in the rouble equivalent or national currency.

COST-INTENSIVE NOSOLOGIES (VZN) PROGRAM, 1-4 Q 2019

Five orphan diseases – hemolytic-uremic syndrome, systemic-onset juvenile idiopathic arthritis, mucopolysaccharidosis of types I, II and VI were included into the list of high-cost nosologies (VZN) in 2019. In total, the purchases of drugs to treat these diseases accounted for 19.7% of the total cost of the program. In 2019, supplies under the VZN drug support program in value terms increased by 20.9% to USD 860 mil. (RUB 55.7 bil.). In terms of packs, VZN purchases decreased by 4.7% (3.9 mil. packs). Purchases for all previously included nosological segments in total increased by only 4.3% compared to 2018. Thus, a 16% increase of the cost of the program was determined by the inclusion of new nosologies.

Figure 1. Purchases trend under the VZN Program in 1-4 Q 2019 vs 1-4 Q 2018



The purchases of drugs for the treatment of haemophilia in 2019 did not change much compared to the previous year (+ 4.4%) (Tab. 1). Weighted average price increased by 8.3%. The nosological segment's share in the supply profile under the WZN program in value terms amounted to 38.5%. Purchases of a drug group to treat multiple sclerosis in value terms increased by 24% compared with the previous year. Purchases of a drug group to treat hematologic diseases in 2019 decreased by about 2% in value terms, the group's share in the supply profile under the program amounted to 23.5% (Tab. 1). In pack terms, the purchases decreased by 28%, which resulted in 36% increase of VWAP. Supplies of immunosuppressants used in transplantology increased by 10.6%, the share in the VZN segment profile accounted for 3.5% (Table 1). In physical terms, the growth rates were approximately similar, as a result of which the VWAP for a pack almost did not change.

Table 1. Supplies pattern under the VZN Program

| Nosologies | INN | Share in total VZN supplies (RUB), % | |
|--|---|--------------------------------------|-------------|
| | | 1-4Q 2019 | 1-4Q 2018 |
| Haemophilia | | 32.3 | 38.5 |
| | OCTOCO ALFA | 6.2 | 6.8 |
| | FACTOR VIII*FACTOR VON WILLEBRAND | 5.5 | 6.8 |
| | FACTOR VIII | 5.4 | 6.8 |
| | FACTOR VIII INHIBITOR BY-PASSING FRACTION | 4.8 | 4.9 |
| | EPTACO ALFA (ACTIVATED) | 4.4 | 4.7 |
| | MOROCTOCO ALFA | 3.7 | 5.5 |
| | FACTOR IX | 1.9 | 2.8 |
| | NONACO ALFA | 0.3 | 0.2 |
| Oncohematology | | 23.5 | 29.8 |
| | LENALIDOMIDE | 14.1 | 17.1 |
| | RITUXIMAB | 7.7 | 9.5 |
| | BORTEZOMIB | 1.2 | 1.8 |
| | IMATINIB | 0.4 | 1.0 |
| | FLUDARABINE | 0.3 | 0.4 |
| Sclerosis Multiplex | | 20.0 | 22.1 |
| | INTERFERON BETA-1A | 5.2 | 9.2 |
| | NATALIZUMAB | 4.7 | 4.2 |
| | INTERFERON BETA-1B | 4.3 | 4.4 |
| | TERIFLUNOMIDE | 2.5 | 2.1 |
| | PEGINTERFERON BETA-1A | 1.7 | 0.0 |
| | GLATIRAMER ACETATE | 1.6 | 2.4 |
| Mucopolysaccharidosis type I, II and VI | | 8.9 | 0.0 |
| | IDURSULFASE | 5.4 | 0.0 |
| | GALSULFASE | 2.3 | 0.0 |
| | LARONIDASE | 1.1 | 0.0 |
| | IDURSULFASE BETA | 0.1 | 0.0 |
| Hemolytic-uremic syndrome | | 5.3 | 0.0 |
| | ECULIZUMAB | 5.3 | 0.0 |
| Transplantology | | 3.5 | 3.9 |
| | TACROLIMUS | 2.1 | 2.1 |
| | MYCOPHENOLIC ACID | 1.2 | 1.5 |
| | CICLOSPORIN | 0.2 | 0.2 |
| | MYCOPHENOLATE MOFETIL | 0.1 | 0.1 |
| Mucoviscidosis | | 2.3 | 2.8 |
| | DORNASE ALFA | 2.3 | 2.8 |
| Systemic-onset juvenile arthritis | | 2.1 | 0.0 |
| | CANAKINUMAB | 1.2 | 0.0 |

| Nosologies | INN | Share in total VZN supplies (RUB), % | |
|---------------------------|--------------------|--------------------------------------|------------|
| | | 1-4Q 2019 | 1-4Q 2018 |
| | TOCILIZUMAB | 0.8 | 0.0 |
| | ETANERCEPT | 0.1 | 0.0 |
| | ADALIMUMAB | 0.0 | 0.0 |
| Gaucher disease | | 2.0 | 2.4 |
| | IMIGLUCERASE | 1.5 | 1.9 |
| | VELAGLUCERASE ALFA | 0.5 | 0.6 |
| Pituitary dwarfism | | 0.3 | 0.4 |
| | SOMATROPIN | 0.3 | 0.4 |

In 2019, the main ratings significantly changed due to the inclusion of new nosologies in the WZN program. Takeda (which included Shire) took a lead among manufacturing companies. Takeda's sales grew 1.5 times, and its share in the VZN segment profile increased from 16% to 20%. The top ten trade names in 2019 included three Takeda drugs - the recombinant blood factor VIII Advate, Elaprase to treat mucopolysaccharidosis II and a drug to treat cystic fibrosis Vpriv (moved to ranks two to four) (Table 2). The former leader of WZN program, Celgene, moved only to rank three in the top ten ranking in 2019. The company presents Revlimid (Lenalidomide), which still topped the trade name rating, accounting for 14% of the total purchases under the program (Tab. 2). Johnson & Johnson, which sales almost doubled, stands out among other foreign companies that make up the top 10 ranking. The success was largely due to an increase in the sales of Tizabri to treat multiple sclerosis (72% of all sales of the company), which moved up to rank 5 from 7 in the trade names ranking.

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

| Rank | Rank | | Brand | Share in total VZN supplies, % | |
|-------|-----------|-----------|------------|--------------------------------|-----------|
| | 1-4Q 2019 | 1-4Q 2018 | | 1-4Q 2019 | 1-4Q 2018 |
| 1 | 1 | 1 | REVLIMIDE | 14.1 | 17.1 |
| 2 | 2 | 2 | ADVATE | 6.2 | 6.8 |
| 3 | 3 | 3 | ELAPRASE | 5.4 | 6.8 |
| 4 | 5 | 5 | FEIBA | 4.8 | 4.9 |
| 5 | 7 | 7 | TYSABRI | 4.7 | 4.2 |
| 6 | 3 | 3 | ACELLBIA | 4.7 | 6.3 |
| 7 | 6 | 6 | COAGIL-VII | 4.0 | 4.4 |
| 8 | 4 | 4 | OCTOFACTOR | 3.7 | 5.5 |
| 9 | | | ELIZARIA | 3.5 | |
| 10 | 10 | 10 | INFIBETA | 3.0 | 3.0 |
| Total | | | | 54.0 | 59.1 |

In 2019, Roche improved its positions in the top ten ranking (rank seven), which included the orphan drug to treat juvenile arthritis - Actemra (Tocilizumab) into its purchases profile. Bioglan Ireland, the manufacturer of the drug to treat type VI mucopolysaccharidosis Naglazim (Galsulfase) moved up to rank ten in the ranking. The Russian company Genierum (affiliated with Pharmstandard) made a significant progress in 2019 and due 50% increase in sales moved up to rank two in the manufacturers ranking (16% of all supplies) (Table 3). The top 10 trade names included four drugs of this company - blood factors Coagil VII and Octofactor, a drug to treat atypical haemolytic uremic Elisaria syndrome (Solaris biosimilar), an Infibet to treat multiple sclerosis (ranks seven-ten). Biocad held its rank 4 in the ranking, but its share decreased from 11.6% to 9.8% (Tab. 2). Acellbia (Rituximab), the main drug of the company, accounted for 48% of all its sales and moved down from rank two to three in the trade names ranking (Table 2). Among other Russian companies, Valenta has the highest rating in terms of supplies under the VZN program (rank 17, 1.2%), which introduced the biosimilar Femorix (Teriflunomide) to the market.

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

| Rank | Rank | | Manufacturer* | Share in total VZN supplies, % | |
|-------|-----------|-----------|------------------------------|--------------------------------|-----------|
| | 1-4Q 2019 | 1-4Q 2018 | | 1-4Q 2019 | 1-4Q 2018 |
| 1 | 2 | 2 | TAKEDA | 20.1 | 16.0 |
| 2 | 3 | 3 | GENERIUM ZAO RF | 16.0 | 13.1 |
| 3 | 1 | 1 | CELGENE | 14.1 | 17.1 |
| 4 | 4 | 4 | BIOCAD RF | 9.8 | 11.6 |
| 5 | 6 | 6 | JOHNSON & JOHNSON | 6.5 | 4.3 |
| 6 | 5 | 5 | OCTAPARMA | 6.1 | 8.3 |
| 7 | 8 | 8 | ROCHE | 3.1 | 3.4 |
| 8 | 9 | 9 | CSL BEHRING GMBH | 2.7 | 3.3 |
| 9 | 10 | 10 | DR REDDYS LAB | 2.6 | 2.6 |
| 10 | | | BIOMARIN IRELAND | 2.3 | |
| Total | | | | 83.1 | 84.0 |

*AIPM members are in bold

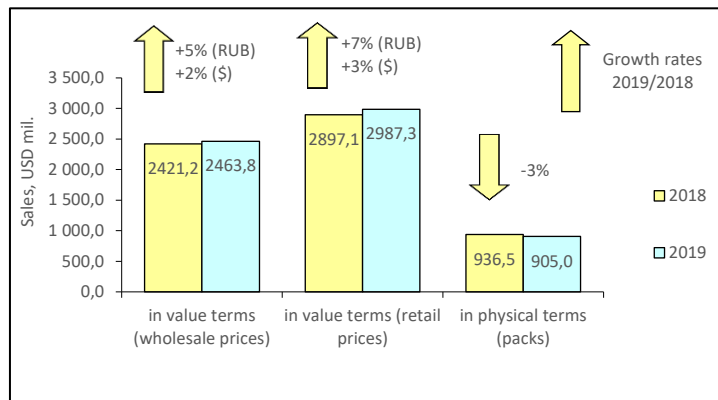
Conclusion. The drugs added to the VZN program (8 INNs) were purchased for the first time in 2019. This resulted in a significant increase in purchases in value terms with a slight decrease in volume, which indicates a significant decrease in average prices in the segment (the VWAP decreased by 26% by the end of 2019).

CFD PHARMACY MARKET (WITHOUT MOSCOW): 2019 RESULTS

According to Federal State Statistics Service, as of January 1, 2019 estimated population of the Central Federal District (CFD) (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, based on the results for 2019, the average wage in the CFD (with Moscow) was RUB 60480 (USD 934.20), which was 27% higher than the average wage in Russia (RUB 47468).

According to the results of the Retail Audit of Finished Pharmaceutical Products (FPP) in Russian Federation™, at year-end 2019r the sales of drugs in physical terms in the Central Federal District saw a 3% decrease to 904.983 mil. packs. In money terms, the market saw a 5% increase in terms of roubles and 2% in terms of dollars. At the same time, the market volume reached RUB 159.413 bil. (USD 2.464 bil.) at wholesale prices (Fig.1). The region market share accounted for 20.2% of the Russian pharmacy retail sales. An average cost of a pack grew as compared to 2018: USD 3.30 vs. USD 3.09 in retail prices. At the end of 2019, the average amount spent by the residents of the region for FPPs in the pharmacies amounted to USD 111.62.

Figure 1. CFD (without Moscow) pharmacy market in 2018 – 2019



At the end of 2019, the top ten manufacturers on the pharmacy market of the Central Federal District (CFD) (without Moscow) held their own in the ranking (Table 1). On top of that, most of its drug manufacturers held their own in the ranking. BAYER (+ 6%) and SANOFI (-0.5%) held the leadership. Also, BERLIN-CHEMIE/MENARINI (+ 6%) and GLAXOSMITHKLINE (+ 7%), SANDOZ (+ 5%) and GEDEON RICHTER (+ 3%) rounding out the top ten held their own in the ranking. Two drug manufacturers rose in the ranks. SERVIER (+2%) moved one rank up, coming in at number three, whereas the less dynamic KRKA (+21%) moved up from rank seven to five. At the same time, they displaced TEVA (-4%) and OTCPHARM (-2%) down. The consolidated share of the top 10 reduced from 34.4% to 34.0%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank in the top ten | | Manufacturer* | Share in total pharmacy sales, % | |
|---------------------|------|-------------------------------|----------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 1 | 1 | BAYER | 4.7 | 4.7 |
| 2 | 2 | SANOFI | 4.1 | 4.3 |
| 3 | 4 | SERVIER | 3.6 | 3.7 |
| 4 | 3 | TEVA | 3.6 | 4.0 |
| 5 | 7 | KRKA | 3.5 | 3.1 |
| 6 | 6 | BERLIN-CHEMIE/MENARINI | 3.2 | 3.2 |
| 7 | 5 | OTCPHARM | 3.1 | 3.3 |
| 8 | 8 | GLAXOSMITHKLINE | 2.8 | 2.8 |
| 9 | 9 | SANDOZ | 2.7 | 2.7 |
| 10 | 10 | GEDEON RICHTER | 2.6 | 2.7 |
| Total | | | 34.0 | 34.4 |

*AIPM members are in bold

The leading three brands of the top ten held their own in the ranking: the brands XARELTO (+31%), MEXIDOL (+5%) and CONCOR (+4%) maintained and the former brand even reinforced their positions (Table 2). NUROFEN (+ 14%) moved up to rank fourth from sixth, displacing the less dynamic DETRALEX (+ 2%) and ACTOVEGIN lowering sales (-7%) down. Due to the outperformance, PENTALGIN (+ 7%) climbed to a higher rank seven. The only new brand of the top 10 MIRAMISTIN (+ 4%) broke into the ranks of the top ten, coming in at number nine. The brands CARDIOMAGNYL (-6%) and KAGOCEL (-9%) moved down to ranks eight and ten, due to reduction in sales. The total share of the top 10 brands did not change and accounted for 7.3%.

Table 2. The top ten brands by pharmacy sales

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|------|--------------|----------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 1 | 1 | XARELTO | 1.2 | 1.0 |
| 2 | 2 | MEXIDOL | 0.8 | 0.8 |
| 3 | 3 | CONCOR | 0.8 | 0.8 |
| 4 | 6 | NUROFEN | 0.8 | 0.7 |
| 5 | 4 | DETRALEX | 0.8 | 0.8 |
| 6 | 5 | ACTOVEGIN | 0.6 | 0.7 |
| 7 | 10 | PENTALGIN | 0.6 | 0.6 |
| 8 | 7 | CARDIOMAGNYL | 0.6 | 0.7 |

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|------|------------|----------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 9 | 11 | MIRAMISTIN | 0.6 | 0.6 |
| 10 | 9 | KAGOCEL | 0.5 | 0.6 |
| Total | | | 7.3 | 7.3 |

The top INN and group names leader managed to hold its own in the ranking: XYLOMETAZOLINE (+4%) maintained its previous rank number one (table 3). The drug BISOPROLOL (+11%), PANCREATIN (+9%) and ETHYLMETHYLHYDROXYPPYRIDINE (+4%) also held their previous ranks three, seven and eight. Due to high growth rates, RIVAROXABAN (+31%), DICLOFENAC (+16%) и ATORVASTATIN (+20%) moved up to ranks two and two bottom ranks. Note that the latter two broke INNs broke into the ranks of the top 10 for the first time. At the same time, composition DIOSMIN*HESPERIDIN (+5%), INN IBUPROFEN (+4%) and NIMESULIDE (+8%) moved one rank down, coming in at numbers four through six, respectively. The cumulative share of the top 10 under review increased by 0.5 to 11.0%.

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

| Rank | | INNs/Grouping Names | Share in total pharmacy sales, % | |
|-------|------|-----------------------------|----------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 1 | 1 | XYLOMETAZOLINE | 1.8 | 1.8 |
| 2 | 6 | RIVAROXABAN | 1.2 | 1.0 |
| 3 | 3 | BISOPROLOL | 1.2 | 1.1 |
| 4 | 2 | DIOSMIN*HESPERIDIN | 1.1 | 1.2 |
| 5 | 4 | IBUPROFEN | 1.1 | 1.1 |
| 6 | 5 | NIMESULIDE | 1.1 | 1.0 |
| 7 | 7 | PANCREATIN | 1.0 | 1.0 |
| 8 | 8 | ETHYLMETHYLHYDROXYPPYRIDINE | 0.9 | 0.9 |
| 9 | 11 | DICLOFENAC | 0.8 | 0.7 |
| 10 | 13 | ATORVASTATIN | 0.8 | 0.7 |
| Total | | | 11.0 | 10.5 |

C09 Agents acting on the rennin-angiotensin system (+20%) and M01 Anti-inflammatory and antirheumatic products (+8%) continued showing the largest sales on the regional market among the top ATC groups (Table 4). N02 Analgesics and R05 Cough and cold preparations (+2% each) also held their own in the ranking. Three drug manufacturers moved up one rank. B01 Anticoagulants (+13%), J01 Antibacterials for systemic use (+4%) and C05 Vasoprotectors (+3%) moved up to ranks three, five and eight. At the same time, R01 Nasal preparations (+ 6%), G03 Sex hormones (+ 1%) and A07 Antidiarrheal, intestinal anti-inflammatory and antimicrobial agents (-1%), on the contrary, moved one rank down. In total, the top ten ATC groups accumulated 37.5% of the regional market, whereas in the year-earlier period they accounted for 37.0%.

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------|------|----------|---|----------------------------------|------|
| 2019 | 2018 | | | 2019 | 2018 |
| 1 | 1 | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 5.8 | 5.1 |
| 2 | 2 | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 5.2 | 5.1 |
| 3 | 4 | B01 | ANTITHROMBOTIC AGENTS | 4.1 | 3.8 |
| 4 | 3 | R01 | NASAL PREPARATIONS | 3.9 | 3.8 |
| 5 | 6 | J01 | ANTIBACTERIALS FOR SYST USE | 3.4 | 3.4 |
| 6 | 5 | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 3.4 | 3.5 |
| 7 | 7 | N02 | ANALGESICS | 3.3 | 3.4 |
| 8 | 9 | C05 | VASOPROTECTIVES | 2.9 | 3.0 |
| 9 | 8 | A07 | ANTIIDIARR.,INTEST. ANTIINFL./ANTIINFECT. AGENTS | 2.9 | 3.0 |
| 10 | 10 | R05 | COUGH AND COLD PREPARATIONS | 2.8 | 2.9 |
| Total | | | | 37.6 | 37.1 |

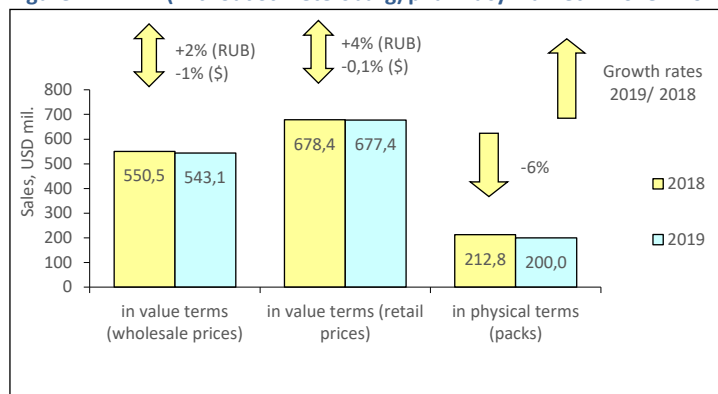
Conclusion. Based on the results for 2019, the retail pharmacy market of CFD (without Moscow) brought in RUB 193.275 bil. (USD 2.987 bil.), which was 7% in terms of roubles and 3% in terms of dollars more than in the same period of 2018. In pack terms, the market reduced by 3% and amounted to 904.983 mil. packs. The average cost of an FPP pack in the district pharmacies in 2019 was USD 3.30, which was more than the last year figures (USD 3.09), but less than average figures in the country (USD 3.47). The average medicine expenses of the region residents were higher than the national average expenses in Russia (USD 111.62 vs. USD 100.62).

NWFD (EXCLUS. OF SAINT PETERSBURG) PHARMACY MARKET: 2019 RESULTS

According to Federal State Statistics Service, as of January 1, 2019 estimated population of the North-Western Federal District (NWFD) (excl. of 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, based on the results for 2019 the average wage in the NWFD (without St. Petersburg) was RUB 52,649 (USD 813.24), which was 11% higher than the average wage in Russia (RUB 47,468).

According to the results of the Retail Audit of Finished Pharma Products (FPP) in the Russian Federation™, at year-end 2019 FPPs in physical terms in pharmacies of NWFD (without St. Petersburg) saw a 6% decrease to 199.980 mil. packs. In money terms, the market saw a 2% increase in terms of roubles and 1% decrease in terms of dollars. At the same time, the volume of the market achieved RUB 35.154 bil. (USD 550.080 mil.) at wholesale prices (Fig. 1). The share of the region accounted for 4.6% of the Russian retail pharmacy sales. The average cost of an FPP pack in the pharmacies increased as compared to a year earlier period (USD 3.19) and reached USD 3.39 at retail prices. In 2019, average amount spent by the region residents for FPPs in the pharmacies amounted to USD 78.88.

Figure 1. NWFD (without St. Petersburg) pharmacy market in 2018 – 2019



At the end of 2019, the top four manufacturers on the pharmacy market of the North-Western Federal District (NWFD) (excl. of St. Petersburg) held its own in the ranking (Table 1). BAYER (+3%), SANOFI (-4%), SERVIER and OTCPHARM (-1% in both) held their previous top ranks in the ranking. The most dynamic among the top ten drug manufacturers KRKA (+22%) moved up to rank five from eight. At the same time, it displaced three manufacturers with negative growth rates one rank down. TEVA (-5%), GEDEON RICHTER and SANDOZ (-4% in both). GLAXOSMITHKLINE (+3%) and BERLIN-CHEMIE/MENARINI (+5%) rounding out the top ten ranking increased their sales in the analysed period. Moreover, the first held its previous rank nine, and the second became the only newcomer of the top 10 ranking. The total share of the top 10 brands reduced: 36,7% vs 37,3% a year-earlier.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank in the top ten | Manufacturer* | Share in total pharmacy sales, % | |
|---------------------|-------------------------------|----------------------------------|------|
| | | 2019 | 2018 |
| 1 | BAYER | 4.9 | 4.9 |
| 2 | SANOFI | 4.2 | 4.5 |
| 3 | SERVIER | 4.1 | 4.3 |
| 4 | OTCPHARM | 3.9 | 4.0 |
| 5 | KRKA | 3.8 | 3.2 |
| 6 | TEVA | 3.6 | 3.9 |
| 7 | GEDEON RICHTER | 3.6 | 3.8 |
| 8 | SANDOZ | 3.2 | 3.4 |
| 9 | GLAXOSMITHKLINE | 2.7 | 2.7 |
| 10 | BERLIN-CHEMIE/MENARINI | 2.7 | 2.6 |
| Total | | 36.7 | 37.3 |

*AIPM members are in bold

Two newcomers broke into the ranks of the top ten brands (Table 2). They were ELIQUIS (+46%) and PENTALGIN (+10%), coming in at numbers 8 and 9. The other two brands also rose in the ranks. XARELTO continued to show high growth rates - its sales for the first 2019 grew by 38%, which allowed it to move up from rank five to one. LORISTA showing a 13% increase in sales moved to rank six from eight. At the same time, NUROFEN (+ 4%), which was the leader earlier, moved down one rank, while DETRALEX (-9%), KAGOCEL (-5%) and CARDIOMAGNYL (-11%) reduced their sales and moved down to ranks four, five and seven. Brands CONCOR (-2%) and ESSENTIALE (+ 7%) held their previous ranks three and the last one. The total share of the top ten brands ranking increased by 0.3 p.p. and achieved 7.5%.

Table 2. The top ten brands by pharmacy sales

| Rank in the top ten | Brand | Share in total pharmacy sales, % | |
|---------------------|----------|----------------------------------|------|
| | | 2019 | 2018 |
| 1 | XARELTO | 1.1 | 0.8 |
| 2 | NUROFEN | 0.9 | 0.9 |
| 3 | CONCOR | 0.8 | 0.8 |
| 4 | DETRALEX | 0.8 | 0.8 |

| Rank in the top ten | Brand | Share in total pharmacy sales, % | |
|---------------------|--------------|----------------------------------|------|
| | | 2019 | 2018 |
| 5 | KAGOCEL | 0.7 | 0.8 |
| 6 | LORISTA | 0.7 | 0.6 |
| 7 | CARDIOMAGNYL | 0.7 | 0.8 |
| 8 | ELIQUIS | 0.6 | 0.5 |
| 9 | PENTALGIN | 0.6 | 0.6 |
| 10 | ESSENTIALE | 0.6 | 0.6 |
| Total | | 7.5 | 7.2 |

Despite the change of leader mentioned in the rating above, XYLOMETAZOLINE (-2%) and IBUPROFEN (+1%) held their previous top two ranks (Table 3). LOSARTAN (+12%) held its previous rank nine. Note that almost all of remaining INNs showed outperformance rates, but only four of them rose in the ranks. So, BISOPROLOL (+ 6%) moved up to rank three from four, and RIVAROXABAN (+ 38%) to rank five from eight. On top of that, the latter displaced INNs NIMESULIDE (+6%) and PANCREATIN (+10%) one rank down. The newcomers ATORVASTATIN (+26%) and DICLOFENAC (+12%) broke into the ranks of the top ten, moving up to numbers eight and ten. The composition DIOSMIN*HESPERIDIN (-3%) reduced its sales and moved down to rank four. In total, ten INNs and group names accounted for 10.9% against 10.3% in the year-earlier period.

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

| Rank | INNs/Grouping Names | Share in total pharmacy sales, % | |
|-------|---------------------|----------------------------------|------|
| | | 2019 | 2018 |
| 1 | XYLOMETAZOLINE | 1.6 | 1.6 |
| 2 | IBUPROFEN | 1.3 | 1.4 |
| 3 | BISOPROLOL | 1.2 | 1.1 |
| 4 | DIOSMIN*HESPERIDIN | 1.2 | 1.2 |
| 5 | RIVAROXABAN | 1.1 | 0.8 |
| 6 | NIMESULIDE | 1.0 | 0.9 |
| 7 | PANCREATIN | 1.0 | 0.9 |
| 8 | ATORVASTATIN | 0.9 | 0.7 |
| 9 | LOSARTAN | 0.9 | 0.8 |
| 10 | DICLOFENAC | 0.8 | 0.7 |
| Total | | 10.9 | 10.3 |

The top three ATC groups – best-selling drugs in the region pharmacies – managed to hold their leading positions (Table 4). Those were C09 Agents acting on the rennin-angiotensin system (+15%), M01 Anti-inflammatory and antirheumatic products (+5%) and G03 Sex hormones (+2%). B01 Anticoagulants (+10%) moved up to rank four from seven, displacing R01 Nasal preparations (-1%) down one rank. J05 Antivirals for systemic use (+2%) moved up one rank, coming in at number nine. The other four brands of the top ten showed the negative growth rates. At the same time, two of them, N02 Analgesics (-1%) and J01 Antibacterials for systemic use (-0.3%), managed to hold ranks six and eight. The groups R05 Cough and cold preparations (-5%) and C05 Vasoprotectors (-2%) moved down to ranks seven and 10, respectively. In total, the top ten ATC groups accumulated 38.7%, whereas the year-earlier period they accounted for 38.4%.

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------|----------|---|----------------------------------|------|
| | | | 2019 | 2018 |
| 1 | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 6.0 | 5.4 |
| 2 | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 5.2 | 5.1 |
| 3 | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 4.1 | 4.1 |
| 4 | B01 | ANTITHROMBOTIC AGENTS | 3.7 | 3.5 |
| 5 | R01 | NASAL PREPARATIONS | 3.7 | 3.7 |
| 6 | N02 | ANALGESICS | 3.4 | 3.5 |
| 7 | R05 | COUGH AND COLD PREPARATIONS | 3.3 | 3.6 |
| 8 | J01 | ANTIBACTERIALS FOR SYST USE | 3.3 | 3.4 |
| 9 | J05 | ANTIVIRALS FOR SYSTEMIC USE | 3.0 | 3.1 |
| 10 | C05 | VASOPROTECTIVES | 3.0 | 3.1 |
| Total | | | 38.7 | 38.4 |

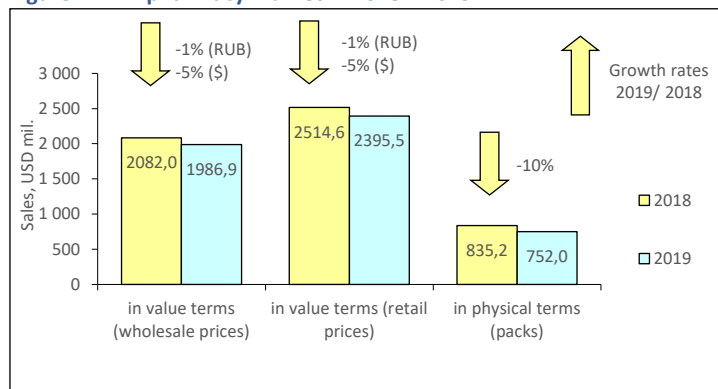
Conclusion. In 2019, the pharmacy market of the NWFD (without St Petersburg) brought in RUB 43.850 bil. (USD 677.433 mil.), which was 4% more in terms of roubles and 0.1% less in terms of dollars than in the same period of 2018. In pack terms, the market reduced by 6% and amounted to 199.980 mil. packs. According to the results for 2019, the average cost of an FPP pack in the regional pharmacies was USD 3.39, which was higher than the 2018 indicator (USE 3.19), but less than the average across the country (USD 3.47). The medicine expenses of the district residents were lower than the national average expenses in Russia (USD 78.88 vs USD 100.62)

VFD PHARMACY MARKET: 2019 RESULTS

According to Federal State Statistics Service, as of January 1, 2019 estimated population of the Volga Federal District (VFD. 29.397 mil., which accounted for 20.0% of the total Russian Federation population. According to Federal State Statistics Service's data, in 2019 the average wage in the VFD was RUB 34395 (USD 531.28), which was 28% lower than the national average wage in Russia (RUB 47468).

According to the results of the Retail Audit of OTC drugs in Russian Federation™, in 2019 the pharmacy market of VFD in pack terms reduced by 10% to 751.995 mil. packs as compared to the last year (Fig. 1) In wholesale prices, the market reduced in terms of roubles (-1%) and in terms of dollars (-5%) and reached RUB 128.620 bil. (USD 1.987 bil.). A region's share in the total pharmacy sales in Russia accounted for 16.2%. Based on the results for 2019, the average cost of FPP in the VFD pharmacies increased compared with the year-earlier period (USD 3.01) and was equal to USD 3.19. The average per capita expenses for purchase of drugs in the pharmacies were estimated at USD 81.49.

Figure 1. VFD pharmacy market in 2018 – 2019



At the end of 2019, most manufacturers from the top ten manufacturers on the Volga federal district market, as well as the overall regional market, showed negative growth rates. (Table 1). Among them are SANOFI (-7%), which has held its leadership, and TAKEDA (-0.1%) and GEDEON RICHTER (-3%), which rounded out the "top ten" ranking. Four more manufacturers downgraded their ranking due to reduction in sales. These were OTCPHARM (-5%), TEVA (-6%), SANDOZ (-4%) and ABBOTT (-5%), which moved down to ranks three, five, seven and eight, respectively. SERVIER (+0.1%), which also showed nearly zero dynamics, lost one rating position. And only BAYER (+2%) and KRKA (+19%) showed ranking progress, moving up to ranks two and four. The total share of the top 10 brands didn't virtually change and accounted for 32.2%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank in the top ten | Manufacturer* | Share in total pharmacy sales, % | |
|---------------------|----------------|----------------------------------|------|
| | | 2019 | 2018 |
| 1 | SANOFI | 4.0 | 4.3 |
| 2 | BAYER | 4.0 | 3.9 |
| 3 | OTCPHARM | 3.8 | 4.0 |
| 4 | KRKA | 3.3 | 2.8 |
| 5 | TEVA | 3.2 | 3.4 |
| 6 | SERVIER | 3.1 | 3.0 |
| 7 | SANDOZ | 2.8 | 2.9 |
| 8 | ABBOTT | 2.7 | 2.8 |
| 9 | TAKEDA | 2.6 | 2.6 |
| 10 | GEDEON RICHTER | 2.6 | 2.6 |
| Total | | 32.2 | 32.3 |

*AIPM members are in bold

In contrast to the previous one, newcomers broke into the ranks of the top ten ranking (Table 2). There were two of them: DETRALEX (+4%) moved up to rank eight from 11, and LOZAP (-2%) moved up to rank ten from twelve. Apart from them, another three names of the top ten showed growth in sales. Due to 33% growth in sales, XARELTO moved up to rank one from nine. PENTALGIN (-0.1%) and CONCOR (-1%) moved up one rank, despite the reduction in sales. This became possible, due to the fact that NUROFEN (-12%) and KAGOCEL (-13%), which previously were placed at ranks three and four, lost three rating points each due to pronounced negative growth rates. ACTOVEGIN (-9%) and CARDIOMAGNYL (-7%) moved two ranks down, coming in at numbers three and nine. And only MEXIDOL brand (+3%) continued holding rank two. The total share of ten leading brands did not change and amounted to 6.2%

Table 2. The top ten brands by pharmacy sales

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

| Rank in the top ten | Brand | Share in total pharmacy sales, % | |
|---------------------|--------------|----------------------------------|------|
| | | 2019 | 2018 |
| 8 | DETRALEX | 0.6 | 0.5 |
| 9 | CARDIOMAGNYL | 0.6 | 0.6 |
| 10 | LOZAP | 0.5 | 0.5 |
| Total | | 6.2 | 6.2 |

Three INNs held their own in the top ten INN and group names ranking (Table 3). They were the leader of top ten XYLOMETAZOLINE (-10%), as well as PANCREATIN (-2%) and ETHYLMETHYLHYDROXYPYRIDINE (+1%) placed at ranks three and six. Five from the remaining top ten INNs rose in the ranks. At the same time, four of them, BISOPROLOL (+4%), DIOSMIN * HESPERIDIN (-3%), NIMESULIDE (-2%) and ROSUVASTATIN (+12%) moved one point up, coming in at numbers two, four, seven and eight, respectively. The only new brand of the top 10 RIVAROXABAN (+33%) broke into the ranks of the top ten, coming in at number ten. Two INNs IBUPROFEN (-11%) and BLOOD (-10%) moved down to the lower ranks. The total share of the top 10 remained unchanged 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, % | |
|-------|----------------------------|----------------------------------|------|
| | | 2019 | 2018 |
| 1 | XYLOMETAZOLINE | 1.3 | 1.4 |
| 2 | BISOPROLOL | 1.1 | 1.0 |
| 3 | PANCREATIN | 1.0 | 1.1 |
| 4 | DIOSMIN*HESPERIDIN | 1.0 | 1.0 |
| 5 | IBUPROFEN | 1.0 | 1.1 |
| 6 | ETHYLMETHYLHYDROXYPYRIDINE | 0.9 | 0.9 |
| 7 | NIMESULIDE | 0.8 | 0.8 |
| 8 | BLOOD | 0.8 | 0.9 |
| 9 | ROSUVASTATIN | 0.8 | 0.7 |
| 10 | RIVAROXABAN | 0.8 | 0.6 |
| Total | | 9.3 | 9.3 |

C09 Agents acting on the rennin-angiotensin system (+14%) became the best-selling and dynamic group in the regional market based on the results for the year (Table 4). At the same time, M01 anti-inflammatory and antirheumatic drugs (+1%) moved down to rank two. G03 Sex hormones (-0.2%), which showed almost zero growth rates, moved up to rank three from four, while J01 Antibacterials for systemic use (-4%), which had been previously placed at that position, moved down to rank four because of more pronounced negative growth rates. B01 Anticoagulants (+8%), N06 Psychoanaleptics (+1%) and the only new ATC group of the top 10 ranking S01 Ophthalmologicals (+4%) demonstrating positive growth rates moved up to ranks five, seven and eight. At the same time, N02 Analgesics (-8%) and R05 Cough and cold preparations (-4%), on the contrary, dropped to the bottom two ranks. As before, ATC group R01 Nasal preparations (-7%) held its previous rank six. In total, the top ten ATC groups accumulated 36.6% of sales, whereas in the year-earlier period 35.8%.

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------|----------|---|----------------------------------|------|
| | | | 2019 | 2018 |
| 1 | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 5.5 | 4.8 |
| 2 | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 5.2 | 5.1 |
| 3 | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 3.7 | 3.7 |
| 4 | J01 | ANTIBACTERIALS FOR SYST USE | 3.6 | 3.7 |
| 5 | B01 | ANTITHROMBOTIC AGENTS | 3.4 | 3.1 |
| 6 | R01 | NASAL PREPARATIONS | 3.2 | 3.3 |
| 7 | N06 | PSYCHOANALEPTICS | 3.1 | 3.0 |
| 8 | S01 | OPHTHALMOLOGICALS | 3.0 | 2.9 |
| 9 | N02 | ANALGESICS | 3.0 | 3.2 |
| 10 | R05 | COUGH AND COLD PREPARATIONS | 3.0 | 3.1 |
| Total | | | 36.6 | 35.8 |

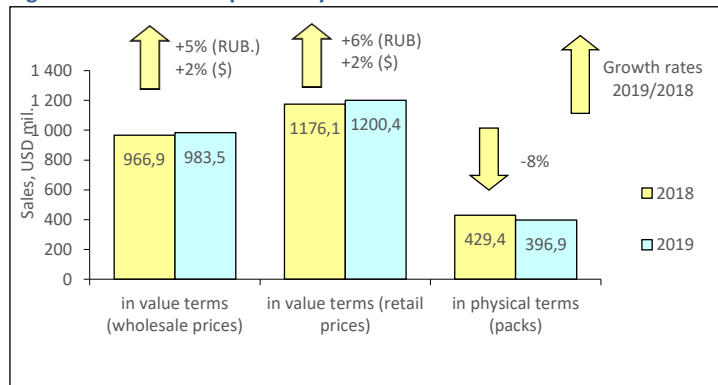
Conclusion. At the end of 2019, the pharmacy market in VFD was estimated at RUB 155.067 bil. (USD 2.395 bil.) in retail prices. At the same time, the market behaviour was positive both in rouble (-1%) and dollar (-5%) terms. In physical terms, the sales reduced by 10% and amounted to 751.995 mil. packs as compared to 2018. The average cost of OTC pack based on the results for 2019 was USD 3.19. which was higher compared to the same period a year ago (USD 3.01) but lower the national average across Russia (USD 3.47). Per capita expenses of the district residents for purchase of medicines in the pharmacies were also lower than the national average figures (USD 81.49 vs. USD 100.62).

SoFD PHARMACY MARKET: 2019 RESULTS

According to Federal State Statistics Service, as of January 1, 2019 estimated population of the Southern Federal District (SoFD) was 16.455 mil., which accounted for 11.2% of the total Russian Federation population. According to Federal State Statistics Service's data, in 2019 the average wage in the Southern FD was RUB 34268 (USD 529.32), which was 28% lower than the national average wage in Russia (RUB 47468).

According to the results of the Retail Audit of FPP (Finished Pharmaceutical Products) in Russian Federation™, at the end of 2019 the sales of drugs in physical terms in the Southern Federal District saw an 8% increase to 396.893 mil. packs. In money terms, the market showed positive growth rates (+5%) both in rouble terms, and in dollar terms (+2%), and reached RUB 63.638 bil. (USD 983.518 mil.) in wholesale prices (Fig. 1). The city market share accounted for 8.1% of the pharmacy sales in Russia. The average cost of an OTC pack increased as compared to a year earlier period (USD 2.74) and reached USD 3.02 at retail prices. In 2019, the average amount spent by residents of the SoFD for drugs amounted to USD 72.95.

Figure 1. Southern FD pharmacy market in 2018 – 2019



In 2019, BAYER held its leading position in the top 10 manufacturers ranking in the market of the Southern Federal District despite 1% reduction in sales (Table 1). The other three manufacturers also kept their positions unchanged: SANOFI and BERLIN-CHEMIE/MENARINI (+3% in both), as well as SANDOZ (+1%) continued holding ranks two, six and seven, respectively. Three manufacturers from the top 10 rose in the ranks. SERVIER (+7%) moved up to rank three from five, whereas ABBOTT (+12%) and GEDEON RICHTER (+4%) moved one rank up, coming in at ranks eight and ten, respectively. On top of that, the latter became the only newcomer of the top 10 ranking. At the same time, the manufacturers TEVA (-10%), OTCPHARM (-4%) and GLAXOSMITHKLINE (-2%) reduced their sales and moved down to the lower ranks five, six and nine. In total, top ten manufacturers accumulated 32.2% of the market, whereas in the year-earlier period they accounted for 33.6%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank in the top ten | Manufacturer* | Share in total pharmacy sales, % | |
|---------------------|-------------------------------|----------------------------------|------|
| | | 2019 | 2018 |
| 1 | BAYER | 4.7 | 4.9 |
| 2 | SANOFI | 3.9 | 3.9 |
| 3 | SERVIER | 3.3 | 3.2 |
| 4 | TEVA | 3.2 | 3.8 |
| 5 | OTCPHARM | 3.1 | 3.4 |
| 6 | BERLIN-CHEMIE/MENARINI | 3.0 | 3.1 |
| 7 | SANDOZ | 2.9 | 3.1 |
| 8 | ABBOTT | 2.9 | 2.7 |
| 9 | GLAXOSMITHKLINE | 2.6 | 2.8 |
| 10 | GEDEON RICHTER | 2.6 | 2.6 |
| Total | | 32.2 | 33.6 |

*AIPM members are in bold

Two newcomers CONCOR (+14%) and PENTALGIN (+8%) broke into the top 10 brands ranking on the regional market, coming in at numbers six and nine (Table 2). Apart from the newcomers, the other three brands from the top ten moved up to yet higher ranks. The most dynamic of them, XARELTO (+60%) headed the top-10, displacing NUROFEN (+%) and ACTOVEGIN (+7%) one rank down. MEXIDOL (+24%) moved up to rank four from ten, and INGAVIRIN (+5%) moved up to rank seven from eight. The brands THERAFLEX и THERAFLU, in contrast, reduced their sales by 10% and moved down to ranks eight and ten. And only DETRALEX (+12%) held its previous rank five. The total share of the top ten brands increased by 0.3 p.p. and accounted for 6.4%.

Table 2. The top ten brands by pharmacy sales

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

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|------|-----------|----------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 9 | 13 | PENTALGIN | 0.5 | 0.5 |
| 10 | 4 | THERAFLU | 0.5 | 0.6 |
| Total | | | 6.4 | 6.1 |

XYLOMETAZOLINE held its rank number one in the top ten INN and group names ranking, though its sales reduced by 9% (Table 3). IBUPROFEN (-4%) also showed negative growth rates, however it lost one rank and moved down to rank three. The remaining eight ATC groups of the "top ten" increased sales. The newcomer of the top ten ranking INN RIVAROXABAN (+60%) showed the highest growth in sales, coming in at rank seven from 20. At the same time, it displaced BLOOD (+6%) and ROSUVASTATIN (+17%) down one rank. In contrast, PANCREATIN (+8%) moved up one rank, to number two. NIMESULIDE (+2%), DIOSMIN*HESPERIDIN (+20%), BISOPROLOL (+21%) and ETHYLMETHYLHYDROXYPYRIDINE (+20%) held their previous ranks four through six and the last rank, respectively. The total share of the top ten accounted for 10.1%, whereas in 2018 it was 9.7%.

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

| Rank | INNs/Grouping Names | Share in total pharmacy sales, % | |
|-------|----------------------------|----------------------------------|------|
| | | 2019 | 2018 |
| 1 | XYLOMETAZOLINE | 1.7 | 1.9 |
| 2 | PANCREATIN | 1.1 | 1.1 |
| 3 | IBUPROFEN | 1.0 | 1.1 |
| 4 | NIMESULIDE | 1.0 | 1.1 |
| 5 | DIOSMIN*HESPERIDIN | 1.0 | 0.9 |
| 6 | BISOPROLOL | 1.0 | 0.9 |
| 7 | RIVAROXABAN | 0.8 | 0.6 |
| 8 | BLOOD | 0.8 | 0.8 |
| 9 | ROSUVASTATIN | 0.8 | 0.7 |
| 10 | ETHYLMETHYLHYDROXYPYRIDINE | 0.8 | 0.7 |
| Total | | 10.1 | 9.7 |

The top ten ATC groups ranking did not change its leader either. As before, M01 Antiinflammatory and antirheumatic products (+4%) maintained its previous rank one (Table 4). In addition, J05 Antivirals for systemic use (+2%) held their previous rank eight. The ranks of the remaining top ten ATC groups changed, and four of them rose in the ranks. C09 Agents acting on the rennin-angiotensin system (+28%) moved up to rank two, displacing R01 Nasal preparations (-3%) down. G03 Sex hormones (+9%) moved up to rank four from six, and B01 Anticoagulants (+31%) to rank six from ten. The newcomer N06 Psychoanaleptics (+12%) broke into the ranks of the top ten, coming in at number ten of the ranking. The less dynamic J01 Antibacterials for systemic use (-7%) and N02 Analgesics (-7%) that reduced their sales, and A07 Antidiarrheals, intestinal anti-inflammatory/anti-infective agents (-8%), in contrast, moved down to the lower ranks five, seven and nine respectively. The total share of the top ten ATC groups increased from 35.8% to 36.2%.

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------|----------|---|----------------------------------|------|
| | | | 2019 | 2018 |
| 1 | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 5.2 | 5.3 |
| 2 | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 4.6 | 3.7 |
| 3 | R01 | NASAL PREPARATIONS | 3.7 | 4.0 |
| 4 | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 3.6 | 3.5 |
| 5 | J01 | ANTIBACTERIALS FOR SYST USE | 3.6 | 3.7 |
| 6 | B01 | ANTITHROMBOTIC AGENTS | 3.5 | 2.9 |
| 7 | N02 | ANALGESICS | 3.2 | 3.6 |
| 8 | J05 | ANTIVIRALS FOR SYSTEMIC USE | 3.1 | 3.2 |
| 9 | A07 | ANTIDIARR.,INTEST. ANTI-INFL./ANTIINFECT. AGENTS | 2.9 | 3.4 |
| 10 | N06 | PSYCHOANALEPTICS | 2.8 | 2.7 |
| Total | | | 36.2 | 35.8 |

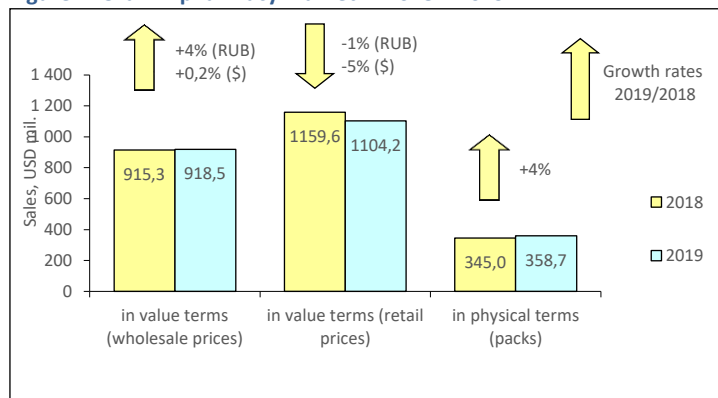
Conclusion. Based on the results for 2019, the retail pharmacy market of the SoFD brought in RUB 77.666 bil. (USD 1. 200 bil.) in retail prices. The sales increased 6% in terms of roubles and 2% in terms of dollars. In pack terms, the market reduced by 8% and amounted to 396.893 mil. packs. The average cost of an FPP pack in the district pharmacies was USD 3.02, which was higher than the previous year figures (USD 2.74), but lower than national average (USD 3.47). At the end of 2019, the average expenses of the SoFD residents for medications in the pharmacies were also lower than the national average (USD 72.95 vs. USD 100.62).

UFD PHARMACY MARKET: 2019 RESULTS

According to Federal State Statistics Service, as of January 1, 2019 estimated population of the Ural Federal District (UFD) was 12.350 mil., which accounted for 8.4% of the total Russian Federation population. According to Federal State Statistics Service's data, in 2019 the average wage in the Ural FD was RUB 50788 (USD 784.49), which was 7% higher than the average wage in Russia (RUB 47468).

According to the results of the Retail Audit of Over-the-Counter Drugs (OTC) in Russian Federation™, at the end of 2019 the sales of OTC drugs in physical terms in pharmacies of UFD saw a 4% increase to 358.735 mil. packs. In money terms, the OTC drugs market showed positive growth rates (+4%) in rouble terms, nearly zero (+0.2%) in dollar terms and reached RUB 59.447 bil. (USD 918.548 mil.) at wholesale prices (Fig. 1). The regional retail sales share accounted for 7.5% of all pharmacy sales in Russia. The average retail cost of an FPP pack in 2019 was USD 3.08 against USD 3.36 in the year-earlier period. In the analysed period, the average amount spent by residents of the UFD for drugs amounted to USD 89.41.

Figure 1. Ural FD pharmacy market in 2018 – 2019



BAYER and SANOFI hold the top lines in the top 10 manufacturers rating in the retail market of the Ural Federal District based on the results for 2019, despite a 10% reduction in sales in both (Table 1). Note that another four manufacturers, which fell in the ranks, also showed negative growth rates. OTCPHARM (-3%), GEDEON RICHTER (-5%), SERVIER (-1%) and STADA (-5%) moved down to ranks four, six, eight and the last rank, respectively. The other four representatives, on the contrary, showed high sales growth rates and rose in the ranks. TEVA (+16%) moved one rank up, coming in at number three, while SANDOZ (+15%) moved two ranks up, coming in at number five. The newcomers KRKA (+33%) and GLAXOSMITHKLINE (+18%) broke into the ranks of the top ten, moving up to numbers seven and nine, respectively. The total share of the top 10 drug manufacturers reduced from 33.2% to 32.5%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank in the top ten | | Manufacturer* | Share in total pharmacy sales, % | |
|---------------------|------|------------------------|----------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 1 | 1 | BAYER | 4.1 | 4.8 |
| 2 | 2 | SANOFI | 4.1 | 4.7 |
| 3 | 4 | TEVA | 3.8 | 3.4 |
| 4 | 3 | OTCPHARM | 3.6 | 3.9 |
| 5 | 7 | SANDOZ | 3.1 | 2.9 |
| 6 | 5 | GEDEON RICHTER | 2.9 | 3.2 |
| 7 | 14 | KRKA | 2.9 | 2.3 |
| 8 | 6 | SERVIER | 2.7 | 2.9 |
| 9 | 13 | GLAXOSMITHKLINE | 2.7 | 2.4 |
| 10 | 8 | STADA | 2.6 | 2.8 |
| Total | | | 32.5 | 33.2 |

*AIPM members are in bold

NUROFEN (+12%) and XARELTO (+6%) became the bestselling brands in 2019, which due to their outperformance rates, move up to the top two ranks (Tab. 2). In addition to them, one more brand LORISTA (+16%), which became the only newcomer of the top ten, also showed growth in sales. The other seven brand names from the ranking saw a reduction in sales. On the brighter note, two of them, DETRALEX (-7%) and LOZAP (-9%) managed to move to the higher ranks four and six. Five brands with the pronounced negative growth rates, in contrast, fell in the ranks. Among them are the former leader INGAVIRIN (-26%), which moved down to rank three, and KAGOCEL (-21%), ESSENTIALE (-37%), ACTOVEGIN (-24%) and CARDIOMAGNYL (-2%), which moved down to the bottom three ranks, respectively. The cumulative share of the top-ten reduced by 1 p.p. to 5.2%.

Table 2. The top ten brands by pharmacy sales

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|------|-----------|----------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 1 | 3 | NUROFEN | 0.8 | 0.7 |
| 2 | 10 | XARELTO | 0.6 | 0.5 |
| 3 | 1 | INGAVIRIN | 0.5 | 0.8 |
| 4 | 7 | DETRALEX | 0.5 | 0.6 |
| 5 | 4 | KAGOCEL | 0.5 | 0.7 |
| 6 | 9 | LOZAP | 0.5 | 0.6 |
| 7 | 19 | LORISTA | 0.5 | 0.4 |

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|------|--------------|----------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 8 | 2 | ESSENTIALE | 0.4 | 0.7 |
| 9 | 6 | ACTOVEGIN | 0.4 | 0.6 |
| 10 | 8 | CARDIOMAGNYL | 0.4 | 0.6 |
| Total | | | 5.2 | 6.2 |

XYLOMETAZOLINE (-3%), IBUPROFEN (+10%), DIOSMIN*HESPERIDIN (-0,1%) and PANCREATIN (+4%) remained the leaders of the top ten INN and group names ranking (Table 3). BISOPROLOL (+14%) moved up to rank five from ten, displacing ROSUVASTATIN (-1%) one rank down. NIMESULIDE (-2%) moved up to rank seven from eight despite its negative growth rates. The newcomers DICLOFENAC (+31%), LOSARTAN (+13%) and ATORVASTATIN (+25%) broke into the ranks of the top ten, coming in at the bottom three ranks. The cumulative share of the top 10 increased from 8.9% to 9.1%.

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

| Rank | | INNs/Grouping Names | Share in total pharmacy sales, % | |
|-------|------|---------------------|----------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 1 | 1 | XYLOMETAZOLINE | 1.5 | 1.6 |
| 2 | 2 | IBUPROFEN | 1.1 | 1.1 |
| 3 | 3 | DIOSMIN*HESPERIDIN | 1.0 | 1.0 |
| 4 | 4 | PANCREATIN | 0.9 | 0.9 |
| 5 | 10 | BISOPROLOL | 0.8 | 0.8 |
| 6 | 5 | ROSUVASTATIN | 0.8 | 0.9 |
| 7 | 8 | NIMESULIDE | 0.8 | 0.8 |
| 8 | 18 | DICLOFENAC | 0.7 | 0.6 |
| 9 | 15 | LOSARTAN | 0.7 | 0.6 |
| 10 | 22 | ATORVASTATIN | 0.7 | 0.6 |
| Total | | | 9.1 | 8.9 |

The top ten ATC groups ranking did not change its leaders either. As before, M01 Anti-inflammatory and antirheumatic products (+13%), C09 Agents acting on the renin-angiotensin system (+21%), G03 Sex hormones (-4%) and R01 Nasal preparations (-1%) held the top four ranks in the ranking (Table 4). The shifts took place in the lower part of the top ten. At the same time, due to a 13% decrease in sales, the J05 Antivirals for systemic use moved down from rank five to eight. Vitamins (-23%) that showed even more pronounced negative growth rates dropped outside of the top ten ranking. This allowed the groups J01 Antibacterials for systemic use (+8%), R05 Cough and cold preparations and N02 Analgesics (+3% in both) to move two ranks up, from five through seven, respectively. The only newcomer G04 Urologicals (+4%) moved up to rank nine. B01 Anticoagulants (-6%) held its previous rank ten. In total, the top ten ATC groups accumulated 36.4% of the regional market, whereas in the year-earlier period they accounted for 36,7%.

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------|------|----------|---|----------------------------------|------|
| 2019 | 2018 | | | 2019 | 2018 |
| 1 | 1 | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 5.1 | 4.7 |
| 2 | 2 | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 5.0 | 4.3 |
| 3 | 3 | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 3.9 | 4.2 |
| 4 | 4 | R01 | NASAL PREPARATIONS | 3.6 | 3.8 |
| 5 | 7 | J01 | ANTIBACTERIALS FOR SYST USE | 3.6 | 3.5 |
| 6 | 8 | R05 | COUGH AND COLD PREPARATIONS | 3.4 | 3.5 |
| 7 | 9 | N02 | ANALGESICS | 3.2 | 3.2 |
| 8 | 5 | J05 | ANTIVIRALS FOR SYSTEMIC USE | 3.2 | 3.8 |
| 9 | 11 | G04 | UROLOGICALS | 2.8 | 2.8 |
| 10 | 10 | B01 | ANTITHROMBOTIC AGENTS | 2.8 | 3.1 |
| Total | | | | 36.4 | 36.7 |

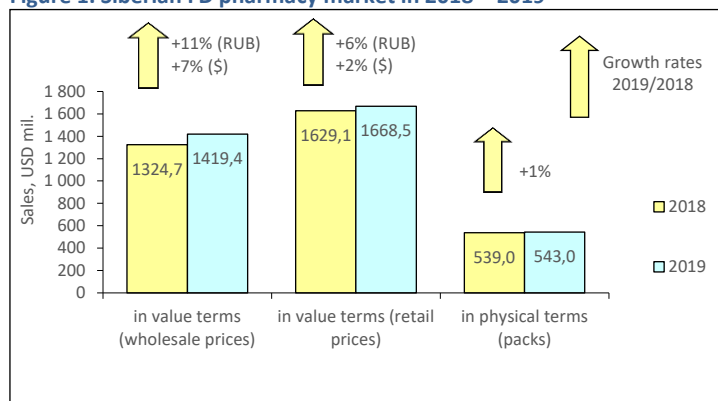
Conclusion. Based on the results for 2019, the retail pharmacy market of the Ural Federal District brought in RUB 71.460 bil. (USD 1.104 bil.) in retail prices. The regional sales reduced both in rouble terms (-1%) and in dollar terms (-5%). In pack terms, the market also showed positive growth rates (+4%) and achieved 358.735 mil. packs. At the end of 2019, the average cost of an FPP pack in the district pharmacies was USD 3.08, which was higher than the last year figures (USD 3.36) and the national average (USD 3.47). Per capita expenses of the UFD residents for purchase of medicines in the pharmacies were also lower the national average figures (USD 89.41 vs. USD 100.62).

SIFD PHARMACY MARKET: 2019 RESULTS

According to Federal State Statistics Service, as of January 1, 2019 estimated population of the Siberian Federal District (SiFD. 17.173 mil., which accounted for 11.7% of the total Russian Federation population. According to Federal State Statistics Service's data, in 2019 the average wage in the Siberian FD was RUB 40880 (USD 631.45), which was 14% lower than the national average wage in Russia (RUB 47468).

According to the results of the Retail Audit of FPP drugs in Russian Federation™, in 2018 the SiFD pharmacy market volume in physical terms increased by 1% to 542.979 mil. packs (Fig. 1) In wholesale prices, the market also showed the positive performance both in terms of roubles (+11%) and in terms of dollars (+7%) and reached 91.870 bil. roubles (USD 1.419 bil.). The district's share accounted for 11.4% of the total pharmacy sales in the Russian pharmacy market pattern. Based on the results for 2019, the average cost of FPP pack in the SiFD pharmacies was USD 3.07, whereas in the year-earlier period its cost was USD 3.02. In this period, per capita expenses of the SFD residents for purchase of medicines in pharmacies amounted to USD 97.16.

Figure 1. Siberian FD pharmacy market in 2018 – 2019



Based on the results for 2019, most of the top ten drug manufacturers in the Siberian Federal District market held their own in the ranking (Table 1). Among them were the top drug manufacturers BAYER (+12%), SANOFI (+6%), TEVA (-2%), SERVIER (+8%) and OTCPHARM (+7%). GEDEON RICHTER (+8%) and ABBOTT (+9%) also held their previous ranks eight and nine. The most dynamic among the leaders KRKA (+ 23%) moved up to rank six, displacing SANDOZ (+ 2%) down. The only newcomer GLAXOSMITHKLINE (+ +9%) broke into the ranks of the top ten, coming in at number ten. The total share of the top 10 drug manufacturers reduced by almost 1 p.p. and accounted for 33.0%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank in the top ten | | Manufacturer* | Share in total pharmacy sales, % | |
|---------------------|------|------------------------|----------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 1 | 1 | BAYER | 4.5 | 4.5 |
| 2 | 2 | SANOFI | 4.1 | 4.3 |
| 3 | 3 | TEVA | 3.5 | 4.0 |
| 4 | 4 | SERVIER | 3.5 | 3.6 |
| 5 | 5 | OTCPHARM | 3.4 | 3.5 |
| 6 | 7 | KRKA | 3.2 | 2.9 |
| 7 | 6 | SANDOZ | 2.9 | 3.2 |
| 8 | 8 | GEDEON RICHTER | 2.8 | 2.8 |
| 9 | 9 | ABBOTT | 2.7 | 2.7 |
| 10 | 11 | GLAXOSMITHKLINE | 2.5 | 2.5 |
| Total | | | 33.0 | 33.9 |

*AIPM members are in bold

The top-10 ATC groups ranking did not change in composition; however numerous shifts took place in it (Table 2). The top ten ranking changed its leader: due to 52% growth in sales, XARELTO moved up to rank one from ten. In addition to the leader, another three brands showed high growth rates. DETRALEX (+11%), LORISTA (+16%) and NUROFEN (+13%) moved one rank up, coming in at numbers two, four and five. At the same time, the less dynamic LOZAP and CONCOR (+ 6% each), ACTOVEGIN (+ 5%), as well as CARDIOMAGNYL (-1%), which reduced its sales, moved down to ranks three, six, ten and seven, respectively. As before, the brands PENTALGIN (+14%) and MEXIDOL (+15%) held their previous ranks eight and nine. In total, top ten brands accumulated 6.3% of sales.

Table 2. The top ten brands by pharmacy sales

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|------|--------------|----------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 1 | 10 | XARELTO | 0.7 | 0.5 |
| 2 | 3 | DETRALEX | 0.7 | 0.7 |
| 3 | 1 | LOZAP | 0.7 | 0.7 |
| 4 | 5 | LORISTA | 0.7 | 0.6 |
| 5 | 6 | NUROFEN | 0.6 | 0.6 |
| 6 | 4 | CONCOR | 0.6 | 0.6 |
| 7 | 2 | CARDIOMAGNYL | 0.6 | 0.7 |
| 8 | 8 | PENTALGIN | 0.6 | 0.6 |
| 9 | 9 | MEXIDOL | 0.6 | 0.6 |

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|------|-----------|----------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 10 | 7 | ACTOVEGIN | 0.6 | 0.6 |
| Total | | | 6.3 | 6.2 |

The top ten INNs and grouping names ranking showed high stability: six of the top ten INNs held their own in the ranking (Table 3). Among them is the rating leader XYLOMETAZOLINE (+2%). The composition DIOSMIN*HESPERIDIN (+9%) and INN NIMESULIDE (+12%) and PANCREATIN (+12%), LOSARTAN (+18%) и ROSUVASTATIN (+12%) held their previous ranks from four through eight, respectively. Three of four other INNs of the top ten INNs ranking demonstrated outperformance and rose in the ranks. BISOPROLOL (+16%) moved up to rank two from three, and the newcomers of the top ten ATORVASTATIN (+28%) and RIVAROXABAN (+52%) moved up to two bottom ranks of the top ten ranking. And only one drug, IBUPROFEN (+7%) moved down to the lower rank three. The cumulative share of the top-ten increased by 0.2 p.p. and achieved 9.3%.

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

| Rank | | INNs/Grouping Names | Share in total pharmacy sales, % | |
|-------|------|---------------------|----------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 1 | 1 | XYLOMETAZOLINE | 1.5 | 1.6 |
| 2 | 3 | BISOPROLOL | 1.1 | 1.0 |
| 3 | 2 | IBUPROFEN | 1.1 | 1.1 |
| 4 | 4 | DIOSMIN*HESPERIDIN | 1.0 | 1.0 |
| 5 | 5 | NIMESULIDE | 0.8 | 0.9 |
| 6 | 6 | PANCREATIN | 0.8 | 0.8 |
| 7 | 7 | LOSARTAN | 0.8 | 0.8 |
| 8 | 8 | ROSUVASTATIN | 0.8 | 0.8 |
| 9 | 13 | ATORVASTATIN | 0.8 | 0.7 |
| 10 | 23 | RIVAROXABAN | 0.7 | 0.5 |
| Total | | | 9.3 | 9.1 |

The top ten ATC groups rating also showed high stability, half of INNs from the ranking did not change their positions (Tab. 4). Among them were C09 Agents acting on the rennin-angiotensin system (+21%), M01 Anti-inflammatory and antirheumatic products (+14%) and G03 Sex hormones (+10%). R05 Cough and cold preparations and G04 Urologicals (+ 7% each) held their previous ranks eight and nine. Three ATC groups moved down to the higher ranks. N02 Analgesics (+ 5%) and B01 Anticoagulants (+ 21%) moved one rank up, coming in at numbers four and six, displacing R01 Nasal preparations (+ 5%) and J01 Antibacterials for systemic use (+8%) one rank down. The newcomers S01Ophthalmologicals (+15%) broke into the ranks of the top ten, moving up to rank ten. In total, the top ten ATC - groups accumulated 36.9%, whereas the year-earlier period they accounted for 36.7%.

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------|------|----------|---|----------------------------------|------|
| 2019 | 2018 | | | 2019 | 2018 |
| 1 | 1 | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 5.4 | 5.0 |
| 2 | 2 | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 5.1 | 4.9 |
| 3 | 3 | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 4.4 | 4.5 |
| 4 | 5 | N02 | ANALGESICS | 3.4 | 3.6 |
| 5 | 4 | R01 | NASAL PREPARATIONS | 3.4 | 3.6 |
| 6 | 7 | B01 | ANTITHROMBOTIC AGENTS | 3.4 | 3.1 |
| 7 | 6 | J01 | ANTIBACTERIALS FOR SYST USE | 3.3 | 3.4 |
| 8 | 8 | R05 | COUGH AND COLD PREPARATIONS | 3.0 | 3.1 |
| 9 | 9 | G04 | UROLOGICALS | 2.8 | 2.9 |
| 10 | 12 | S01 | OPHTHALMOLOGICALS | 2.8 | 2.7 |
| Total | | | | 36.9 | 36.7 |

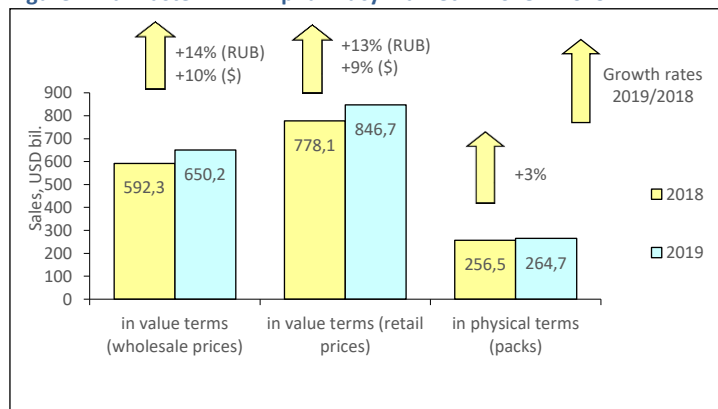
Conclusion. At the year-end 2019, the pharmacy market in the Siberian Federal District was estimated at RUB 107.992 bil. (USD 1.668 bil.) at final consumer prices. At the same time, the market behaviour was positive both in rouble (+6%) and dollar (+2%) terms. In natural terms, the sales increased by 1% and amounted to 542.979 mil. packs. The average cost of an FPP pack slightly increased as compared to a year earlier (USD 3.07 vs. USD 3.02) but continued to be lower than the national FPP price average in Russia (USD 3.47). Per capita expenses of the district residents for purchase of medicines in the pharmacies were also lower than the national average figures (USD 97.16 vs. USD 100.62).

FEFD PHARMACY MARKET: 2019 RESULTS

According to Federal State Statistics Service, as of January 1, 2019 estimated population of the Far Eastern Federal District (FEFD. 8.189 mil., which accounted for 5.6% of the total Russian Federation population. According to Federal State Statistics Service's data, based on the results for 2019 the average wage in the Far Eastern FD was RUB 56,069 (USD 866.06), which was 18% higher than the average wage in Russia (RUB 47468).

According to the results of the Retail Audit of Finished Pharma Products in Russian Federation™, at year-end 2019 the sales of drugs in physical terms in the pharmacies of the FEFD saw a 3% increase to 264.739 mil. packs. In value terms, the OTC drugs market increased by 14% in rouble terms and by 10% in dollar terms and reached RUB 42.103 bil. (USD 650.224 mil.) in wholesale prices (Fig. 1). The district's share reached 5.7% of the all-Russia sales in retail prices. The average cost of a pack increased as compared to a year earlier period and reached USD 3.20 (vs. USD 3.03). At the end of 2019, the average amount spent by the FEFD residents for drugs in the pharmacies amounted to USD 103.40.

Figure 1. Far Eastern FD FD pharmacy market in 2018 – 2019



BAYER (+11%) continued to remain the leading manufacturer of the top ten manufacturers ranking in the retail market of FEFD based on the results for 2019 (Table 1). KRKA (+ 34%), which managed to move to this rank from eight due to a quarter sales growth, was ranked second. TEVA (+ 15%) and the newcomer TAKEDA (+ 12%), which entered the top 10 ranking for the first time, moved up to ranks four and ten, respectively. Due to lagging behind the growth rates, four manufacturers, SANOFI (+ 4%), GEDEON RICHTER (+ 6%), SERVIER (+ 7%) and OTCPHARM (+ 9%), fell in the ranks, moving down to ranks three, five, six and eight. SANDOZ (+12%) and GLAXOSMITHKLINE held their previous ranks seven and nine. The aggregate share of the top-10 reduced from 34.0% to 33.4%.

Table 1. The top ten drug manufacturers by pharmacy sales

| Rank in the top ten | 2019 | 2018 | Manufacturer* | Share in total pharmacy sales, % | |
|---------------------|------|------|------------------------|----------------------------------|------|
| | | | | 2019 | 2018 |
| 1 | 1 | | BAYER | 4.5 | 4.6 |
| 2 | 8 | | KRKA | 3.5 | 3.2 |
| 3 | 2 | | SANOFI | 3.5 | 3.8 |
| 4 | 5 | | TEVA | 3.4 | 3.4 |
| 5 | 3 | | GEDEON RICHTER | 3.4 | 3.6 |
| 6 | 4 | | SERVIER | 3.3 | 3.5 |
| 7 | 7 | | SANDOZ | 3.2 | 3.2 |
| 8 | 6 | | OTCPHARM | 3.1 | 3.3 |
| 9 | 9 | | GLAXOSMITHKLINE | 3.0 | 2.8 |
| 10 | 12 | | TAKEDA | 2.5 | 2.6 |
| Total | | | | 33.4 | 34.0 |

*AIPM members are in bold

Only the leader of the top ten INN and group names ranking NUROFEN (+11%) held its own in the ranking (Table 2). Some shifts took place in the lower part of the top ten brand ranking, as a result of which seven brands rose in the ranks. Therefore, the brands KAGOCEL and INGAVIRIN (+ 19% each), XARELTO (+ 28%) and LORISTA (+ 21%) moved up to ranks two through five, respectively. THERAFLU (+ 28%) moved up from rank ten to seven, MIRAMISTIN (+ 18%) from rank nine to ten and DETRALEX (+ 14%) from rank 11 to ten. Two brands with low growth rates CARDIOMAGNYL (+7%) and CONCOR (+4%) moved down to ranks six and nine, respectively. The aggregate share of the top-10 expanded from 7.1% to 7.3%.

Table 2. The top ten brands by pharmacy sales

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

| Rank in the top ten | | Brand | Share in total pharmacy sales, % | |
|---------------------|------|----------|----------------------------------|------|
| 2019 | 2018 | | 2019 | 2018 |
| 10 | 11 | DETRALEX | 0.6 | 0.6 |
| Total | | | 7.3 | 7.1 |

The distribution of ranks between the INNs of the higher part of the top ten INN and group ranking remained the same: XYLOMETAZOLINE (+ 15%), IBUPROFEN (+ 6%), BISOPROLOL and PANCREATIN (+ 13% each) held their previous four ranks (Table 3). Apart from that, two shifts took place in the top-10 ranking. NIMESULIDE (+15%) moved up to rank five from six, displacing the less dynamic composition DIOSMIN*HESPERIDIN (+13%) down one rank. The combination ACETYLSALICYLIC ACID * MAGNESIUM (+ 9%) also moved down to a lower rank due to lagging behind the growth rates. INNs KAGOCEL, SILDENAFIL and IMIDAZOLYL ETHANAMIDE PENTANDIOIC ACID showed not only the same sales growth (+ 19%), but also simultaneously moved one rank up, coming in at numbers seven through nine, respectively. The total share of the top-10 ranking remained unchanged and accounted for 9.9%

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

| Rank | 2019 | 2018 | INNs/Grouping Names | Share in total pharmacy sales, % | |
|-------|------|------|--|----------------------------------|------|
| | | | | 2019 | 2018 |
| 1 | 1 | | XYLOMETAZOLINE | 1.8 | 1.8 |
| 2 | 2 | | IBUPROFEN | 1.3 | 1.4 |
| 3 | 3 | | BISOPROLOL | 1.0 | 1.0 |
| 4 | 4 | | PANCREATIN | 0.9 | 0.9 |
| 5 | 6 | | NIMESULIDE | 0.9 | 0.9 |
| 6 | 5 | | DIOSMIN*HESPERIDIN | 0.9 | 0.9 |
| 7 | 8 | | KAGOCEL | 0.8 | 0.8 |
| 8 | 9 | | SILDENAFIL | 0.8 | 0.7 |
| 9 | 10 | | IMIDAZOLYL ETHANAMIDE PENTANDIOIC ACID | 0.8 | 0.7 |
| 10 | 7 | | ACETYLSALICYLIC ACID*MAGNESIUM | 0.7 | 0.8 |
| Total | | | | 9.9 | 9.9 |

M01 Anti-inflammatory and antirheumatic products (+11%) and C09 Agents acting on the rennin-angiotensin system (+27%) remained the best-selling ATC groups in the regional market (Table 4). Only B01 Anticoagulants (+ 21%) held its own in the top ten ranking. G03 Sex hormones (+ 3%) showed low growth rates, moving down to rank five, skipping ahead R01 Nasal preparations (+ 15%) and J01 Antibacterials for systemic use (+ 16%). J05 Antivirals for systemic use (+23%) moved up to rank six from eight, displacing R05 Cough and cold preparations (+13%) one rank down. The only newcomer A07 Antidiarrheals, intestinal anti-inflammatory/anti-infective agents (+13%) broke into the ranks of the top ten, coming in at number ten. The total share of the top ten under review increased by 0.5 p.p. and achieved 37.3%.

Table 4. The top ten ATC Groups by pharmacy sales

| Rank | 2019 | 2018 | ATC code | ATC group | Share in total pharmacy sales, % | |
|-------|------|------|----------|---|----------------------------------|------|
| | | | | | 2019 | 2018 |
| 1 | 1 | | M01 | ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS | 4.8 | 4.9 |
| 2 | 2 | | C09 | AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM | 4.8 | 4.3 |
| 3 | 4 | | R01 | NASAL PREPARATIONS | 4.1 | 4.0 |
| 4 | 5 | | J01 | ANTIBACTERIALS FOR SYST USE | 3.7 | 3.6 |
| 5 | 3 | | G03 | SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM | 3.7 | 4.1 |
| 6 | 8 | | J05 | ANTIVIRALS FOR SYSTEMIC USE | 3.6 | 3.3 |
| 7 | 6 | | N02 | ANALGESICS | 3.3 | 3.4 |
| 8 | 7 | | R05 | COUGH AND COLD PREPARATIONS | 3.3 | 3.4 |
| 9 | 9 | | B01 | ANTITHROMBOTIC AGENTS | 3.1 | 2.9 |
| 10 | 11 | | A07 | ANTIARR.,INTEST. ANTI-INFL./ANTIINFECT. AGENTS | 2.8 | 2.8 |
| Total | | | | | 37.3 | 36.8 |

Conclusion. Based on the results for 2019, the retail market of the Far Eastern Federal District brought in RUB 54.826 bil. (USD 846.743 mil.), which was by 13% in terms of roubles and 9% in terms of dollars more than in 2018. In pack terms, the market also showed positive growth rates (+3%) and achieved 264.739 mil. packs. At the end of 2019, the average cost of a pack in the FEFD pharmacies was USD 3.20, (in a year-earlier period - USD 3.03), which was lower than the national average (USD 3.47). The average medicine expenses of the district residents were higher than the national average expenses in Russia (103.40 USD vs. 100.62 USD).