Smorodintsev Research Institute of Influenza

NATIONAL WEEKLY INFLUENZA BULLETIN OF THE RUSSIAN FEDERATION

week 20 of 2025 (12.05.25 - 18.05.25)

Summary

Influenza and ARI incidence data. Influenza and other ARI activity in Russia increased in comparison with previous week. The nationwide ILI and ARI morbidity level (40.1 per 10 000 of population) was lower than national baseline (89.9) by 55.4%.

Etiology of ILI & ARI. Among 7184 patients investigation 476 (**6.6%**) respiratory samples were positive for influenza, including 57 cases of unsubtyped influenza A in 10 cities, 55 cases of influenza A(H1N1)pdm09 in 17 cities, 24 cases of influenza A(H3N2) in 8 cities and 340 cases of influenza B in 31 cities.

23 influenza viruses were isolated on MDCK cell culture, including 3 cases of influenza A(H1N1)pdm09 in Saint-Petersburg, 4 cases of influenza A(H3N2) in Saint-Petersburg and 16 cases of influenza B in Novosibirsk (2), Saint-Petersburg (14). Since the beginning of the season 943 influenza viruses, including: 424 A(H1N1)pdm09 viruses, 39 - A(H3N2) and 480 influenza B viruses.

Antigenic characterization. Since the beginning of the season 467 influenza have been antigenically characterized by the NICs, including: 246 influenza A(H1N1)pdm09, 25 influenza A(H3N2) and 196 influenza B viruses. 244 A(H1N1)pdm09 viruses were similar to the reference strain A/Victoria/4897/22 recommended in the vaccines for the Northern Hemisphere countries for the 2024-2025 season, 2 A(H1N1)pdm09 strain reacted to a 1:8 homologous titer with serum to the vaccine strain. 24 A(H3N2) strain were similar to the vaccine strain A/Thailand/8/22, one interacted to 1:8 homologous titer with serum to the A/Thailand/8/22 vaccine strain. 194 influenza B viruses were similar to the vaccine strain B/Austria/1359417/2021, 2 strains were drift variants and reacted to 1:8 homologous titer with serum to the vaccine strain.

Genetic analysis. Sequencing of 386 influenza A(H1N1)pdm09 viruses of the season 2024-2025 showed that all of them fell within clade 6B.1A.5a.2a, subclade C.1.9. 12 influenza A(H3N2) viruses belonged to clade 3c.2a1b.2a.2a.3a.1 (vaccine virus A/Thailand/8/2022-like), subclade J.2. 63 influenza B strains belonged to Victoria lineage, subclade V1A.3a.2 (B/Austria/1359417/2021-like). By genotypic testing all 461 influenza A and B viruses were susceptible to oseltamivir and zanamivir.

Susceptibility to antivirals. Since the beginning of the season 2024-2025, the sensitivity of 446 influenza viruses to neuraminidase inhibitors (oseltamivir, zanamivir) were studied in NIC Saint-Petersburg, including: 254 A(H1N1)pdm09 influenza viruses, 10 A(H3N2) influenza viruses and 182 influenza B viruses. All studied viruses were sensitive to neuraminidase inhibitors.

ARVI detections. The overall proportion of respiratory samples tested positive for other ARVI (PIV, ADV, RSV, RhV, CoV, MPV, BoV) was estimated in total as **20.9%** (PCR).

In sentinel surveillance system clinical samples from 28 SARI patients were investigated by rRT-PCR for influenza, among them 2 (**7.1%**) cases of influenza A(H1N1)pdm09 were recognized. Among 28 SARI patients no positive cases of coronavirus SARS-CoV-2 recognized. Among 28 SARI samples 7 (**25.0%**) cases positive for ARVI were detected, including: 1 case of RSV, 3 cases of RhV, 2 cases of CoV and 1 case of MPV infection.

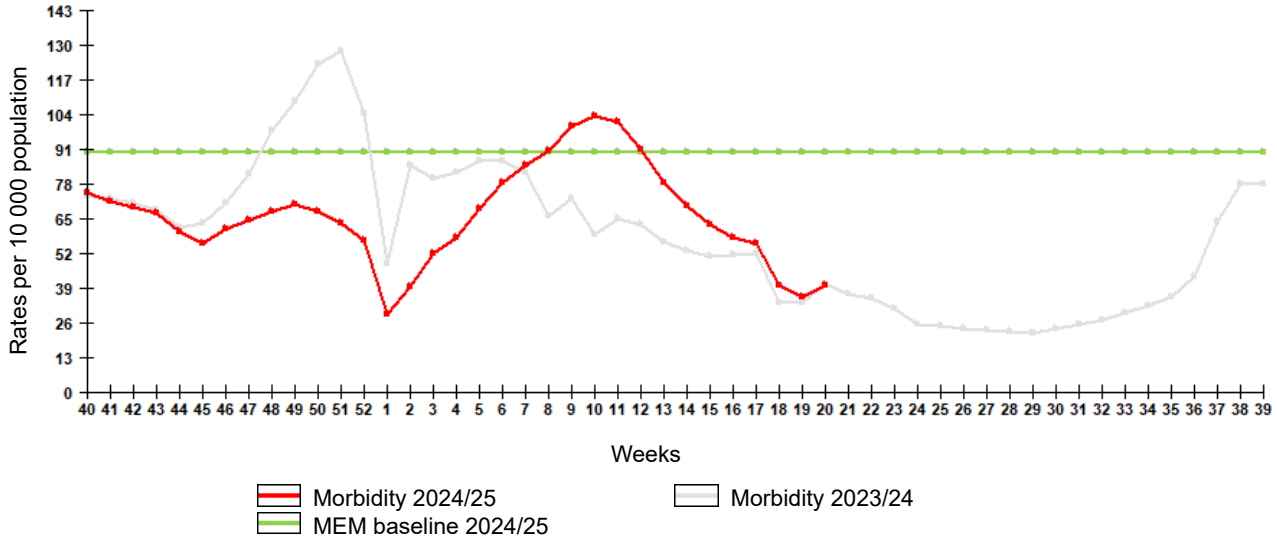
Clinical samples from 10 ILI/ARI patients were investigated no positive cases of influenza were recognized. Among 10 ILI/ARI samples 1 (**10.0%**) case of RSV infection was detected. Among 10 ILI/ARI patients no positive cases of coronavirus SARS-CoV-2 recognized.

COVID-19. The Federal Operational Headquarters for Combating the Novel Coronavirus Infection has discontinued the publication of weekly COVID-19 morbidity reports starting from epidemiological week 12. This decision is due to the stabilization of the epidemiological situation regarding COVID-19 and the transition of the virus to the category of seasonal respiratory infections.

According to the data obtained by NIC in Saint-Petersburg totally 7638 clinical samples were PCR investigated in last week. Among them coronavirus SARS-CoV-2 detected in 46 (**0.6%**) cases.

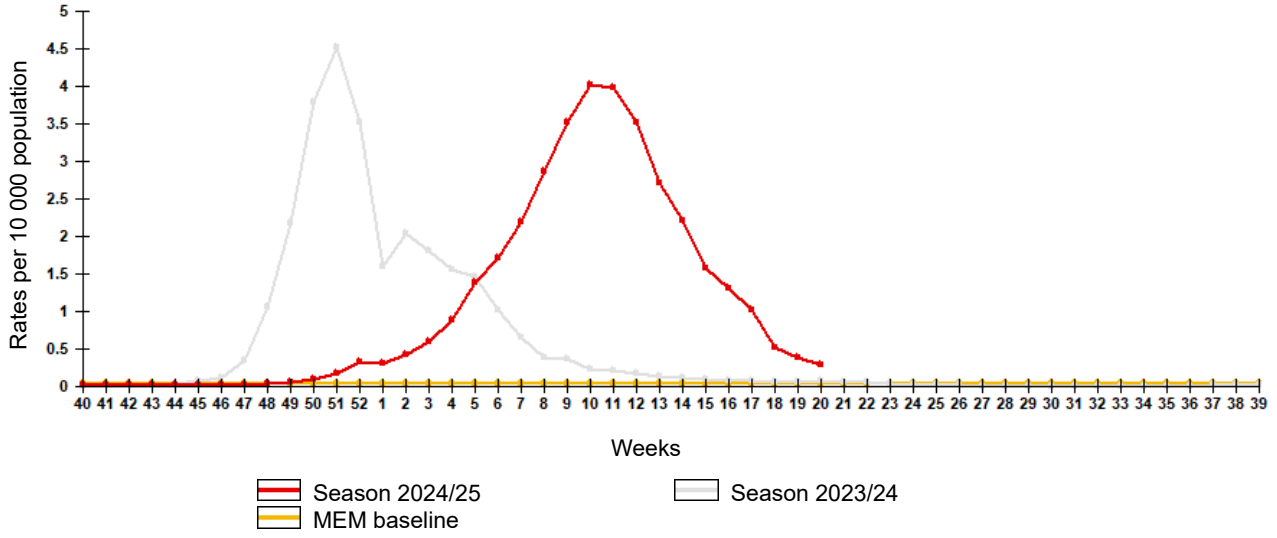
Influenza and ARI morbidity data

Fig. 1. Influenza and ARVI morbidity in 61 cities under surveillance in Russia, seasons 2023/24 and 2024/25



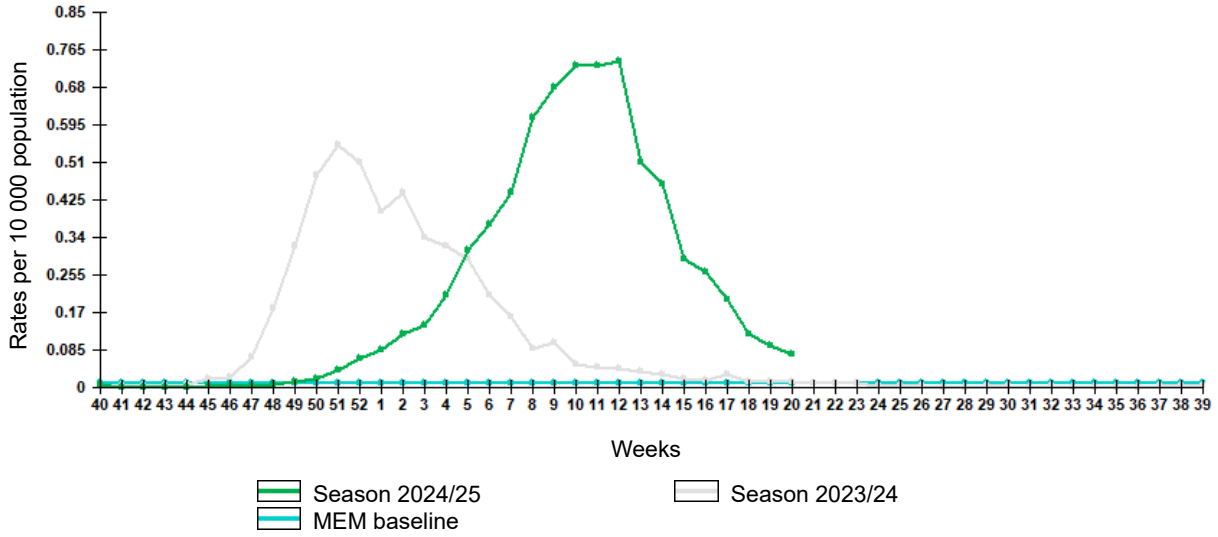
Epidemiological data showed increased of influenza and other ARI activity in Russia in comparison with previous week. The nationwide ILI and ARI morbidity level (40.1 per 10 000 of population) was lower than national baseline (89.9) by 55.4%.

Fig. 2. Comparative data on incidence rate of clinically diagnosed influenza, seasons 2023/24 and 2024/25



Incidence rate of clinically diagnosed influenza decreased comparing to previous week and amounted to 0.29 per 10 000 of population, it was higher than pre-epidemic MEM baseline (0.040).

Fig. 3. Comparison of hospitalization rate with clinical diagnosis of influenza, seasons 2023/24 and 2024/25



Hospitalization rate of clinically diagnosed influenza decreased comparing to previous week and amounted to 0.076 per 10 000 of population, it was higher than pre-epidemic MEM baseline (0.010).

Influenza and ARVI laboratory testing results

Cumulative results of influenza laboratory diagnosis by rRT-PCR were submitted by 46 RBLs and two WHO NICs. According to these data as a result of 7184 patients investigation 476 (**6.6%**) respiratory samples were positive for influenza, including 57 cases of unsubtyped influenza A in 10 cities, 55 cases of influenza A(H1N1)pdm09 in 17 cities, 24 cases of influenza A(H3N2) in 8 cities and 340 cases of influenza B in 31 cities.

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Fig. 4. Geographic distribution of RT-PCR detected influenza viruses in cities under surveillance in Russia, week 20 of 2025

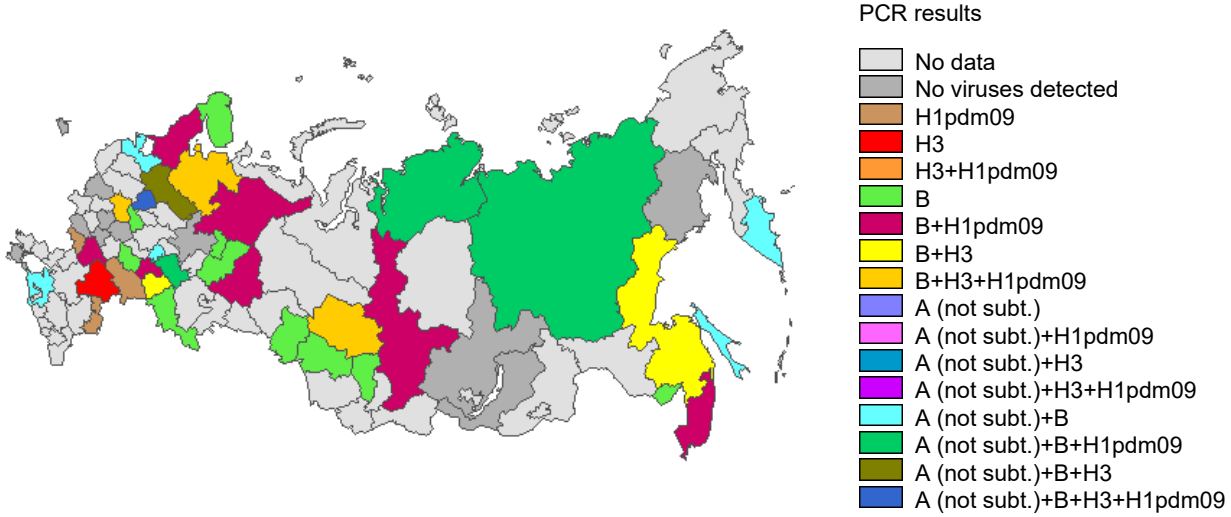


Fig. 5. Monitoring of influenza viruses detection by RT-PCR in Russia, season 2024/25

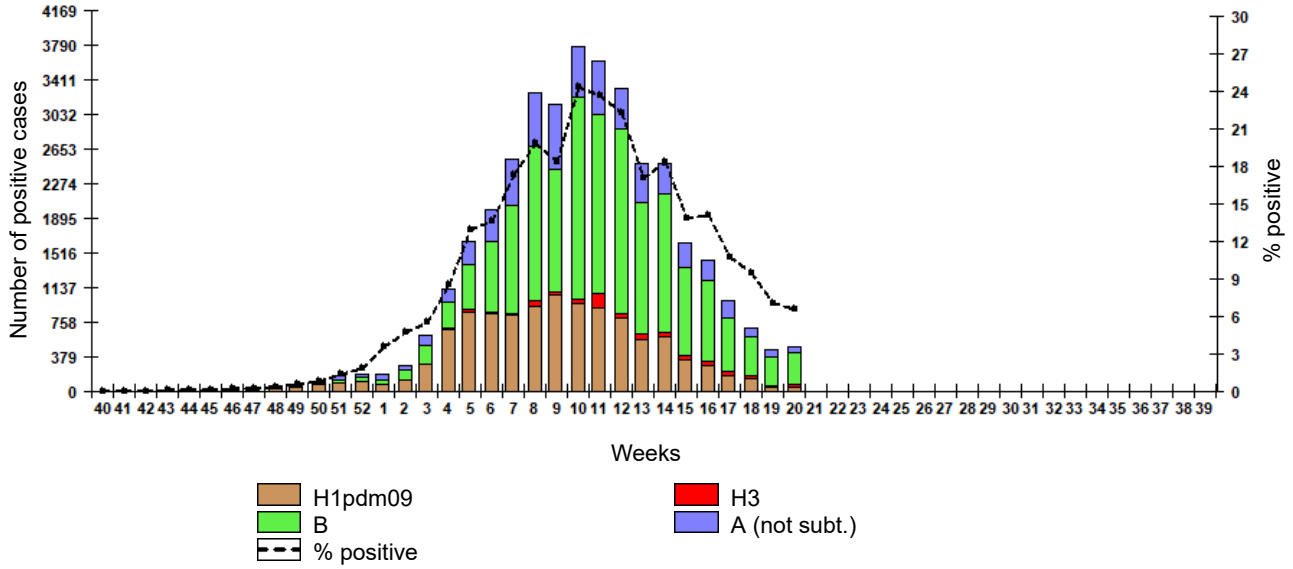
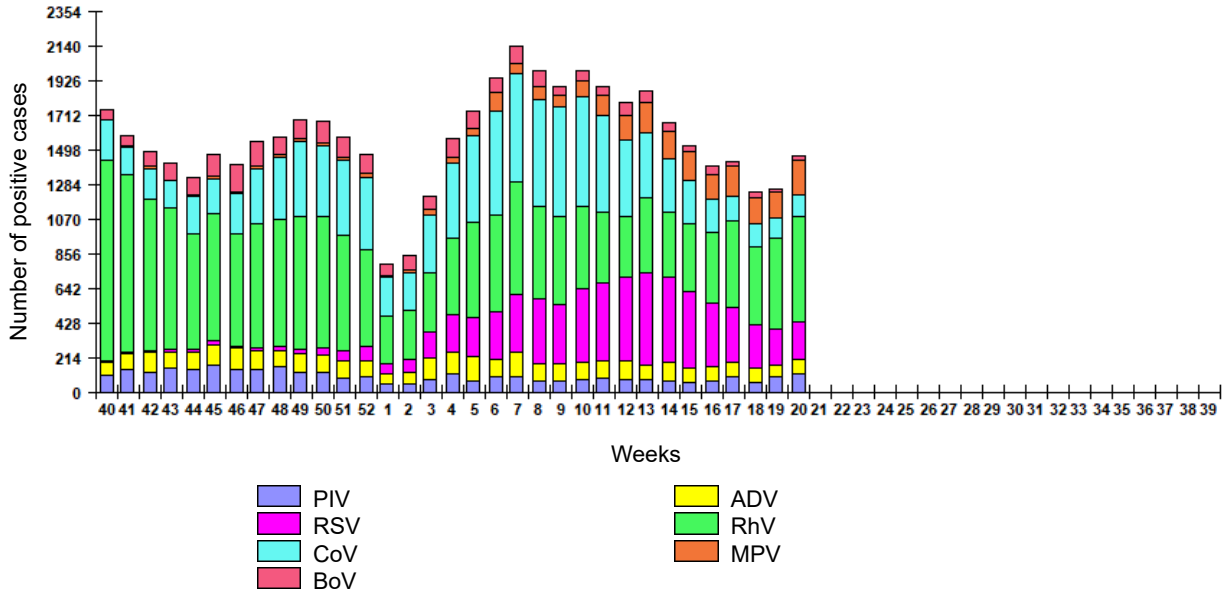


Fig. 6. Monitoring of ARVI detection by RT-PCR in Russia, season 2024/25



ARVI detections. The overall proportion of respiratory samples tested positive for other ARVI (PIV, ADV, RSV, RhV, CoV, MPV, BoV) estimated as **20.9%** of investigated samples by PCR.

Fig. 7. Monitoring of influenza viruses isolation in Russia, season 2024/25

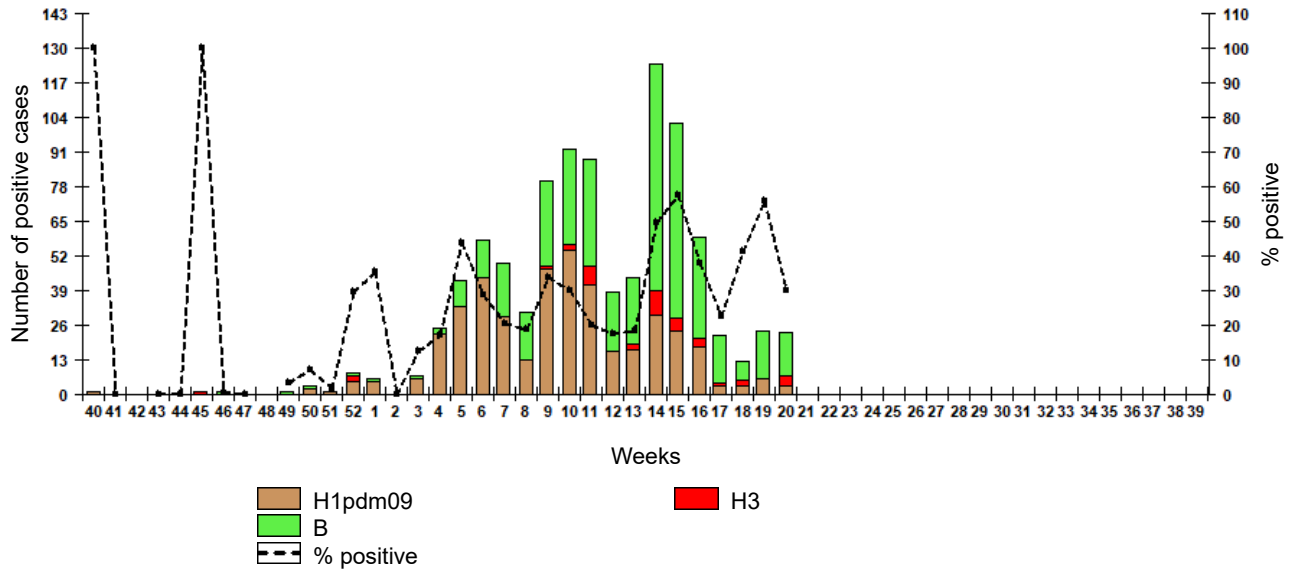
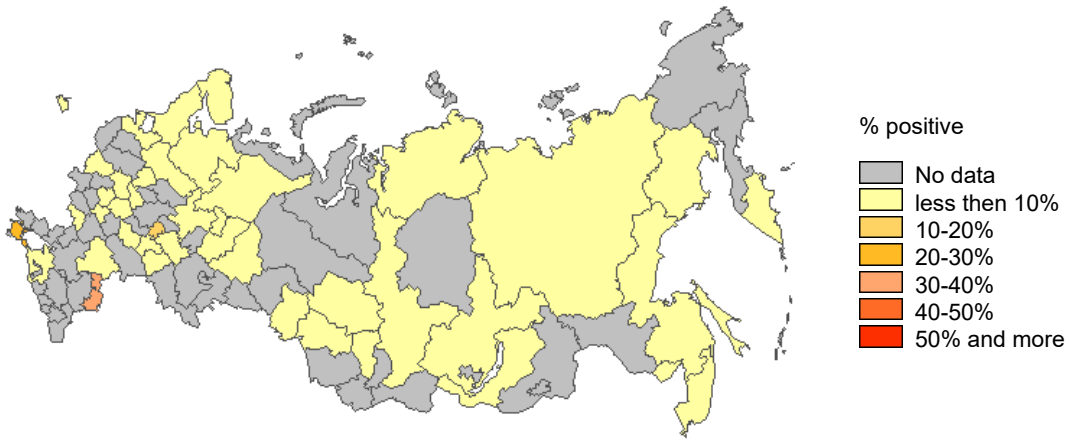


Table 1. Results of influenza and other ARVI detection by RT-PCR in Russia, week 20 of 2025

	Number of specimens / number of positive cases	**% positive**
Influenza		
Number of specimens tested for influenza	*7184*	-
Influenza A (not subt.)	*57*	*0,8%*
Influenza A(H1)pdm09	*55*	*0,8%*
Influenza A(H3)	*24*	*0,3%*
Influenza B	*340*	*4,7%*
All influenza	*476*	*6,6%*
Other ARVI		
Number of specimens tested for ARVI	*6963*	-
PIV	*114*	*1,6%*
ADV	*89*	*1,3%*
RSV	*233*	*3,3%*
RhV	*648*	*9,3%*
CoV	*130*	*1,9%*
MPV	*212*	*3,0%*
BoV	*27*	*0,4%*
All ARVI	*1453*	*20,9%*
SARS-CoV-2 (COVID-19)		
Number of specimens tested for SARS-CoV-2	*7638*	-
SARS-CoV-2	*46*	*0,6%*

Fig. 8. Results of PCR detections of SARS-CoV-2 in Russia



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According to the data obtained by NIC in Saint-Petersburg totally 7638 clinical samples were PCR investigated in last week. Among them coronavirus SARS-CoV-2 detected in 46 (**0.6%**) cases.

Table 2. Results of influenza viruses isolation in Russia, week 20 of 2025

	Number of specimens / number of viruses	**% isolated viruses**
Number of specimens	*77*	-
Influenza A(H1)pdm09	*3*	*3,9%*
Influenza A(H3)	*4*	*5,2%*
Influenza B	*16*	*20,8%*
All influenza	*23*	*29,9%*

Sentinel influenza surveillance

Clinical samples from 28 SARI patients were investigated by rRT-PCR for influenza, among them 2 (**7.1%**) cases of influenza A(H1N1)pdm09 were recognized. Among 28 SARI patients no positive cases of coronavirus SARS-CoV-2 recognized. Among 28 SARI samples 7 (**25.0%**) cases positive for ARVI were detected, including: 1 case of RSV, 3 cases of RhV, 2 cases of CoV and 1 case of MPV infection.

Among 10 ILI/ARI patients no positive cases of influenza were recognized. Among 10 ILI/ARI samples 1 (**10.0%**) case of RSV infection was detected. Among 10 ILI/ARI patients no positive cases of coronavirus SARS-CoV-2 recognized.

Fig. 9. Monitoring of influenza viruses detection by RT-PCR among SARI patients in sentinel hospitals, season 2024/25

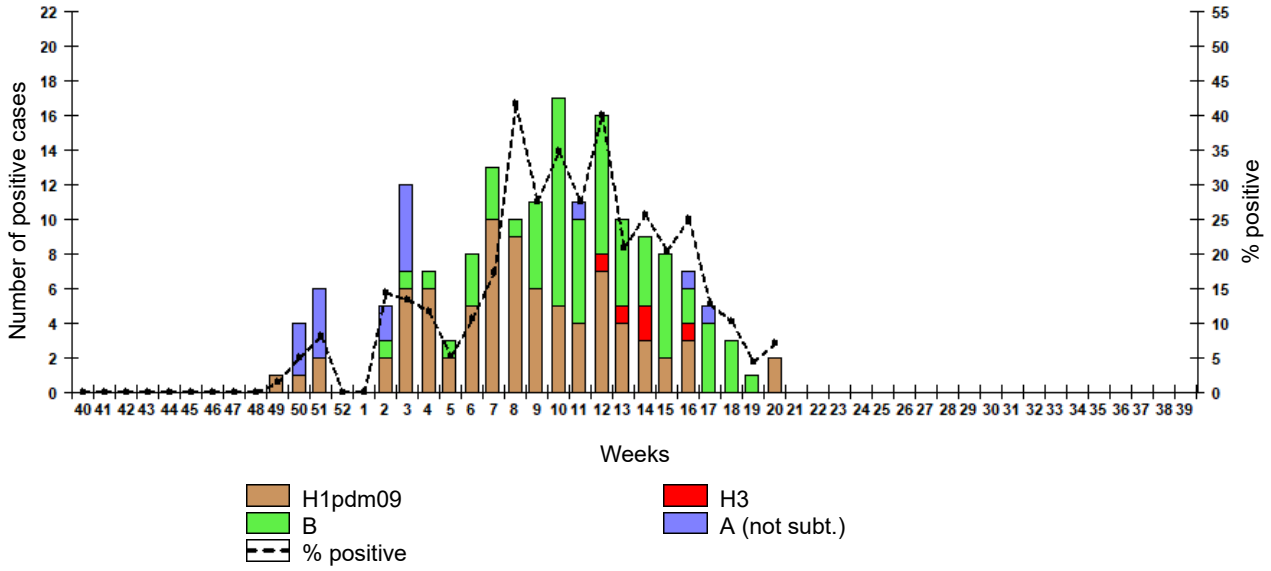

Fig. 10. Monitoring of influenza viruses detection by RT-PCR among ILI/ARI patients in sentinel polyclinics, season 2024/25

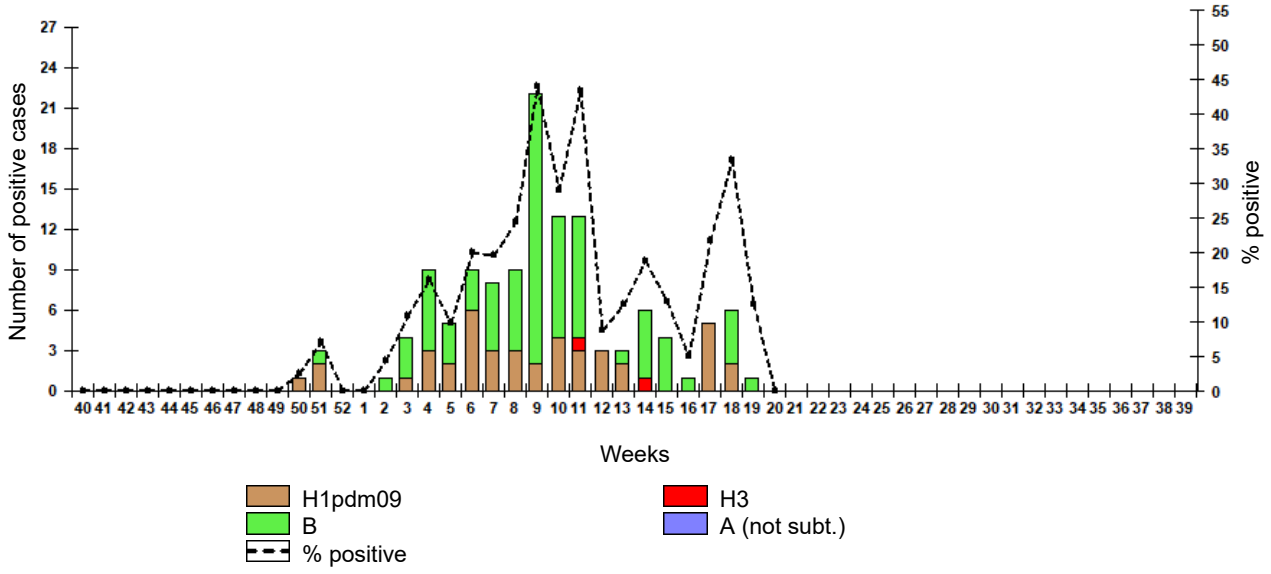

Fig. 11. Monitoring of ARVI detection by RT-PCR among SARI patients in sentinel hospitals, season 2024/25

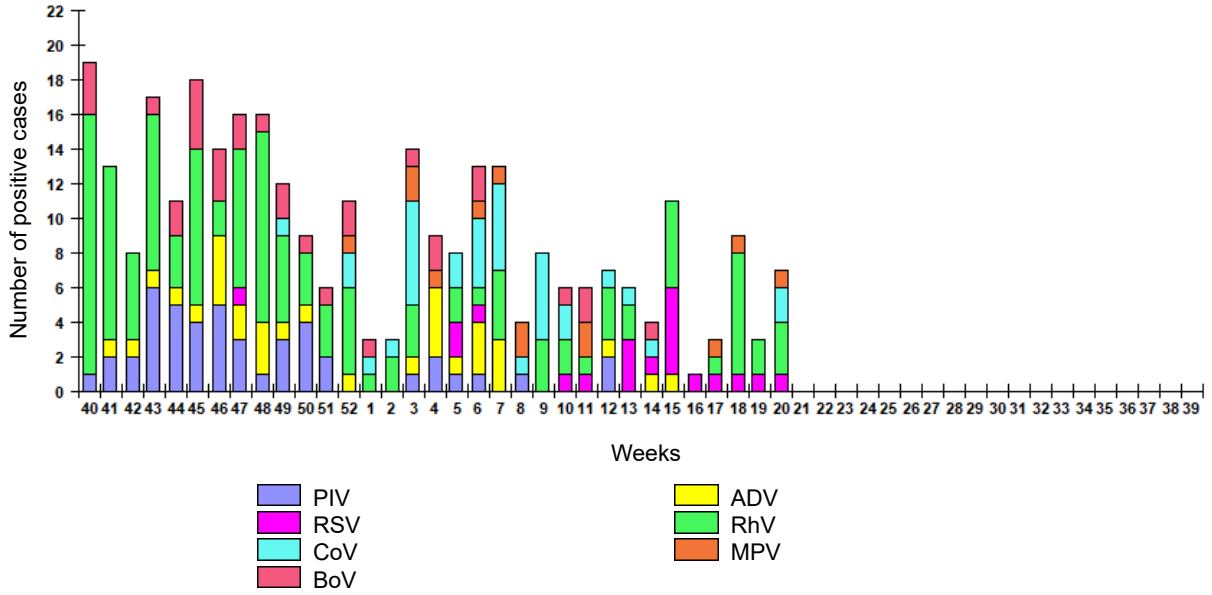

Fig. 12. Monitoring of ARVI detection by RT-PCR among ILI/ARI patients in sentinel polyclinics, season 2024/25