

## NATIONAL WEEKLY INFLUENZA BULLETIN OF THE RUSSIAN FEDERATION

*week 5 of 2025 (27.01.25 - 02.02.25)*

### 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 (68.7 per 10 000 of population) was lower than national baseline (89.9) by 23.6%.

**Etiology of ILI & ARI.** Among 12039 patients investigation 1532 (12.7%) respiratory samples were positive for influenza, including 245 cases of unsubtype influenza A in 10 cities, 777 cases of influenza A(H1N1)pdm09 in 41 cities, 24 cases of influenza A(H3N2) in 7 cities and 486 cases of influenza B in 37 cities.

40 influenza viruses were isolated on MDCK cell culture, including 30 cases of influenza A(H1N1)pdm09 in Astrakhan (2), Vladimir (4), Yekaterinburg (1), Kaliningrad (1), Moscow (2), Novosibirsk (4), Orenburg (2), Samara (2), Saint-Petersburg (6), Stavropol (4), Ulan-Ude (2) and 10 cases of influenza B in Astrakhan (1), Moscow (1), Samara (2), Saint-Petersburg (1), Stavropol (4), and Yaroslavl (1). Since the beginning of the season 92 influenza viruses, including: 71 A(H1N1)pdm09 viruses, 3 - A(H3N2) and 18 influenza B viruses.

**Antigenic characterization.** Since the beginning of the season 40 influenza have been antigenically characterized by the NICs, including: 30 influenza A(H1N1)pdm09, 2 influenza A(H3N2) and 8 influenza B viruses. 29 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, one A(H1N1)pdm09 strain reacted to a 1:8 homologous titer with serum to the vaccine strain. One A(H3N2) strain was similar to the vaccine strain A/Thailand/8/22, the other interacted to 1:8 homologous titer with serum to the A/Thailand/8/22 vaccine strain. All 8 influenza B viruses were similar to vaccine strain B/Austria/1359417/2021.

**Genetic analysis.** Since the beginning of the season 2023-2024, sequencing of 6 A(H1N1)pdm09 influenza isolates, 1779 influenza viruses and isolates from primary clinical materials from patients and 50 B influenza isolates were performed. According to phylogenetic analysis, 6 A(H1N1)pdm09 influenza isolates were assigned to genetic clade 6B.1A.5a.2a and similar to the vaccine strain A/Victoria/2570/2019, 1762 influenza A(H3N2) viruses were assigned to genetic clade 3C.2a1b.2a.2a.3a.1 and similar to the reference strain A/Thailand/08/2022, 16 viruses were assigned to genetic clade 2a.3b and similar to the reference virus A/Sydney/732/2022 and 1 strain - assigned to clade 3C.2a.1b.2a.2a.2a.3b and similar to the reference virus A/Sydney/732/2022. 50 B influenza isolates were assigned to genetic subclade V1A.3a.2 and similar to the vaccine strain B/Austria/1359417/2021. All viruses were sensitive to neuraminidase inhibitors (oseltamivir, zanamivir).

**Susceptibility to antivirals.** Since the beginning of the season 2024-2025, the sensitivity of 40 influenza viruses to neuraminidase inhibitors (oseltamivir, zanamivir) was studied in NIC Saint-Petersburg, including: 31 A(H1N1)pdm09 influenza viruses, 2 A(H3N2) influenza viruses and 7 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 14.5% (PCR).

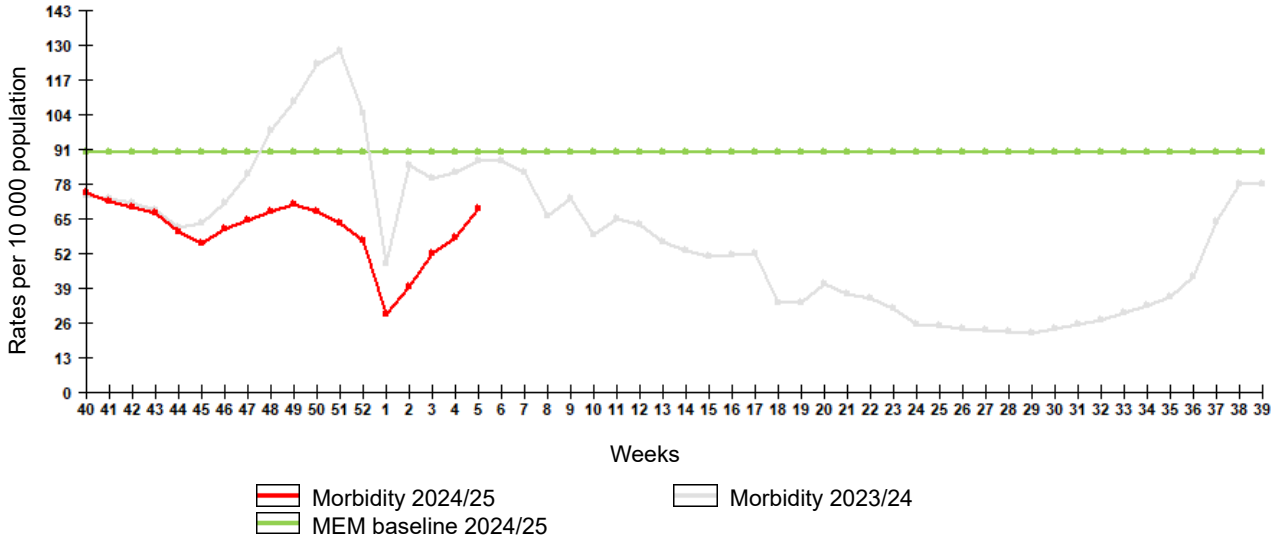
**In sentinel surveillance system** clinical samples from 23 SARI patients were investigated by rRT-PCR for influenza, among them 3 (13.0%) case of influenza A(H1N1)pdm09 were recognized. Among 23 SARI patients no positive cases of coronavirus SARS-CoV-2 recognized. Among 23 SARI samples 1 (4.3%) case positive of RhV infection were detected.

Clinical samples from 42 ILI/ARI patients were investigated by rRT-PCR for influenza, among them 3 (7.1%) cases of influenza were recognized, including 2 cases of A(H1N1)pdm09 and 1 case of influenza B. Among 21 ILI/ARI samples 1 (4.8%) case positive of CoV infection was detected. Among 42 ILI/ARI patients no positive cases of coronavirus SARS-CoV-2 recognized.

**COVID-19.** Totally 24 893 662 cases and 404 355 deaths associated with COVID-19 were registered in Russia including 7985 cases and 20 deaths in week 05. According to the data obtained by NIC in Saint-Petersburg totally 12977 clinical samples were PCR investigated in last week. Among them coronavirus SARS-CoV-2 detected in 284 (2.2%) cases.

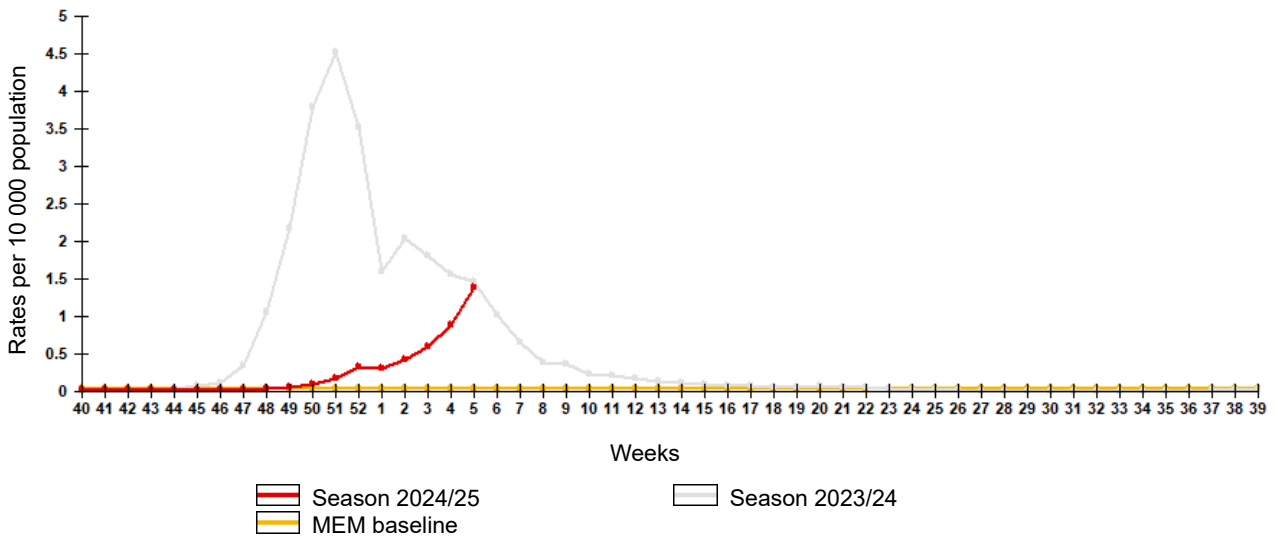
# Influenza and ARI morbidity data

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



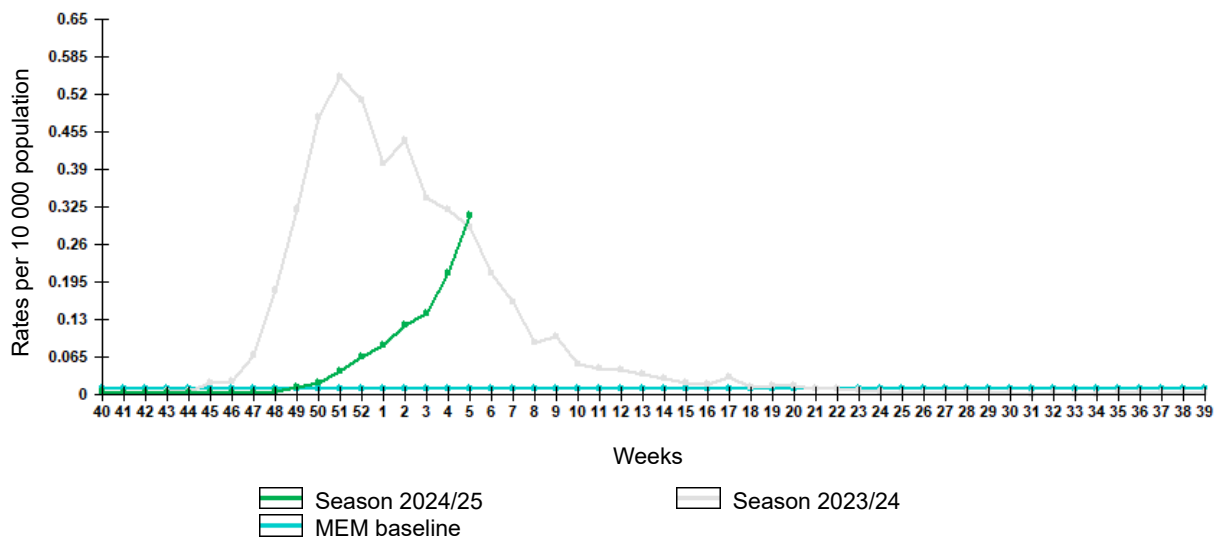
Epidemiological data showed increase of influenza and other ARI activity in Russia in comparison with previous week. The nationwide ILI and ARI morbidity level (68.7 per 10 000 of population) was lower than national baseline (89.9) by 23.6%.

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



Incidence rate of clinically diagnosed influenza increased comparing to previous week and amounted to 1.38 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 increased comparing to previous week and amounted to 0.31 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 48 RBLs and two WHO NICs. According to these data as a result of 12039 patients investigation 1532 (12.7%) respiratory samples were positive for influenza, including 245 cases of unsubtype influenza A in 10 cities, 777 cases of influenza A(H1N1)pdm09 in 41 cities, 24 cases of influenza A(H3N2) in 7 cities and 486 cases of influenza B in 37 cities.

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Fig. 4. Geographic distribution of RT-PCR detected influenza viruses in cities under surveillance in Russia, week 5 of 2025

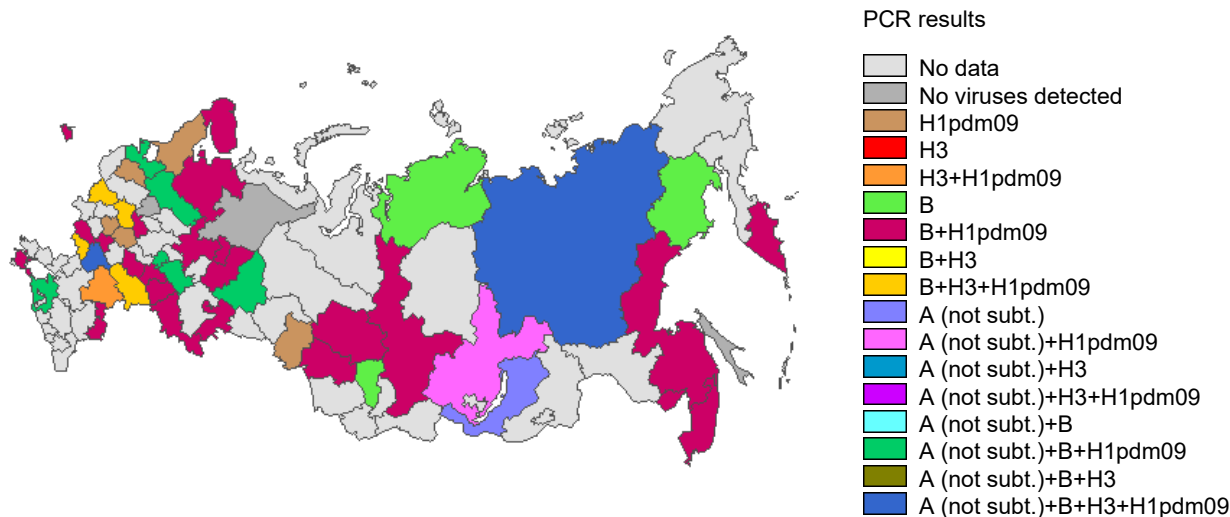


Fig. 5. Monitoring of influenza viruses detection by RT-PCR in Russia, season 2024/25

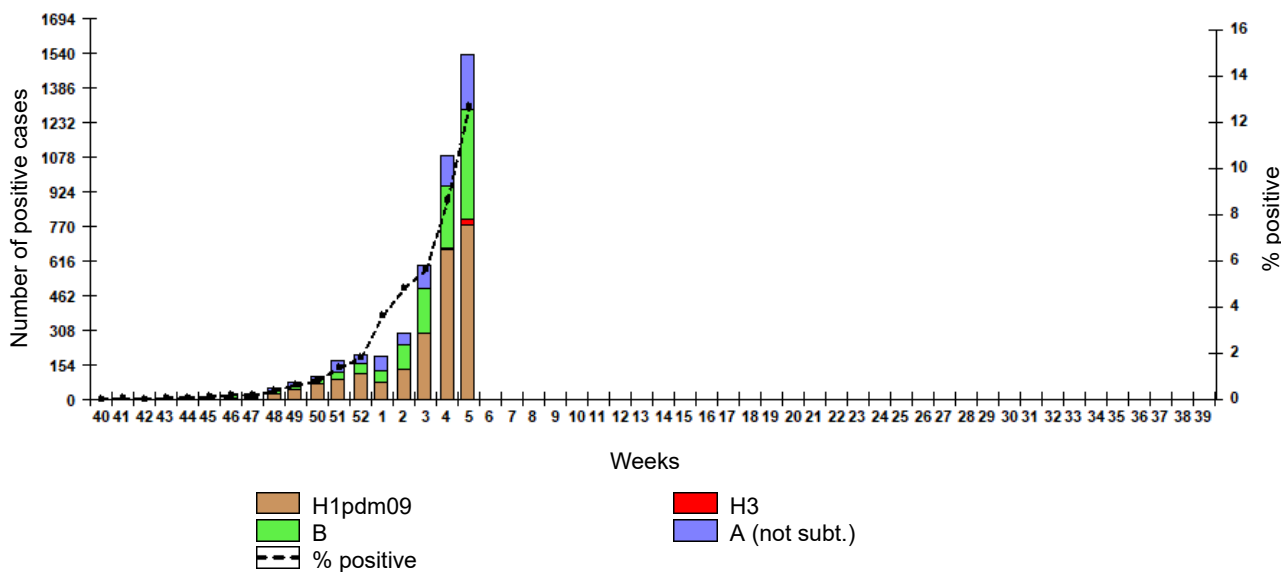
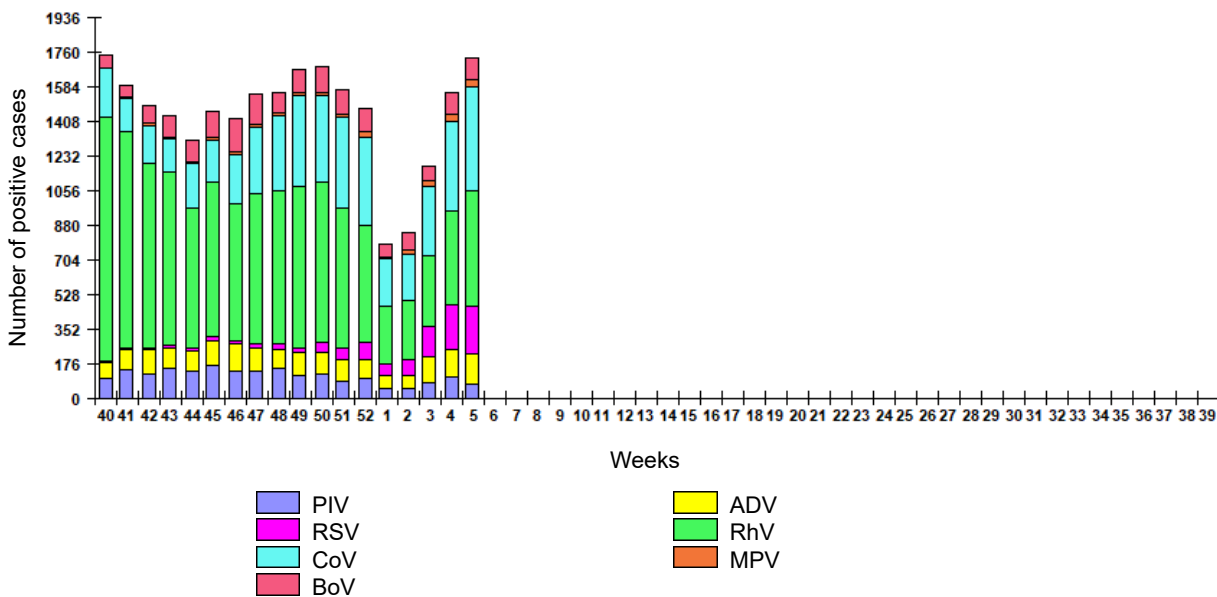


Fig. 6. Monitoring of ARVI detection by RT-PCR in Russia, season 2024/25



**ARVI detections.** The overall proportion of respiratory samples tested positive for other ARVI (PIV, ADV, RSV, RhV, CoV, MPV, BoV) estimated as **14.5%** of investigated samples by PCR.

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

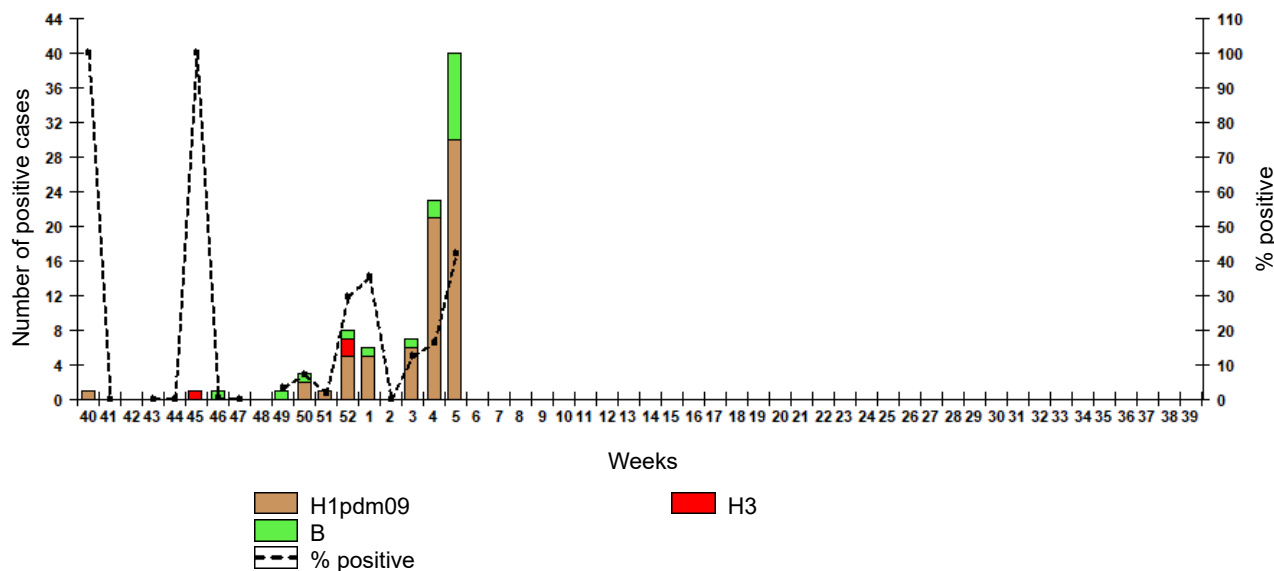
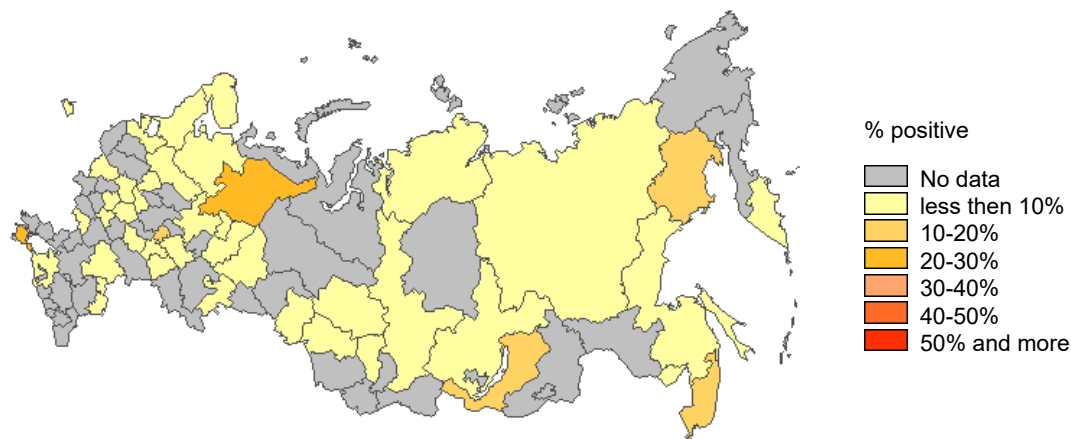


Table 1. Results of influenza and other ARVI detection by RT-PCR in Russia, week 5 of 2025

	Number of specimens / number of positive cases	% positive
<u>Influenza</u>		
Number of specimens tested for influenza	12039	-
Influenza A (not subt.)	245	2,0%
Influenza A(H1)pdm09	777	6,5%
Influenza A(H3)	24	0,2%
Influenza B	486	4,0%
All influenza	1532	12,7%
<u>Other ARVI</u>		
Number of specimens tested for ARVI	11931	-
PIV	75	0,6%
ADV	153	1,3%
RSV	240	2,0%
RhV	587	4,9%
CoV	529	4,4%
MPV	38	0,3%
BoV	110	0,9%
All ARVI	1732	14,5%
<u>SARS-CoV-2 (COVID-19)</u>		
Number of specimens tested for SARS-CoV-2	12977	-
SARS-CoV-2	284	2,2%

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



**COVID-19.** Totally 24 893 662 cases and 404 355 deaths associated with COVID-19 were registered in Russia including 7985 cases and 20 deaths in week 05. According to the data obtained by NIC in Saint-Petersburg totally 12977 clinical samples were PCR investigated in last week. Among them coronavirus SARS-CoV-2 detected in 284 (2.2%) cases.

Table 2. Results of influenza viruses isolation in Russia, week 5 of 2025

	Number of specimens / number of viruses	% isolated viruses
Number of specimens	95	-
Influenza A(H1)pdm09	30	31,6%
Influenza A(H3)	0	0,0%
Influenza B	10	10,5%
All influenza	40	42,1%

## Sentinel influenza surveillance

Clinical samples from 23 SARI patients were investigated by rRT-PCR for influenza, among them 3 (13.0%) case of influenza A(H1N1)pdm09 were recognized. Among 23 SARI patients no positive cases of coronavirus SARS-CoV-2 recognized. Among 23 SARI samples 1 (4.3%) case positive of RhV infection was detected.

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

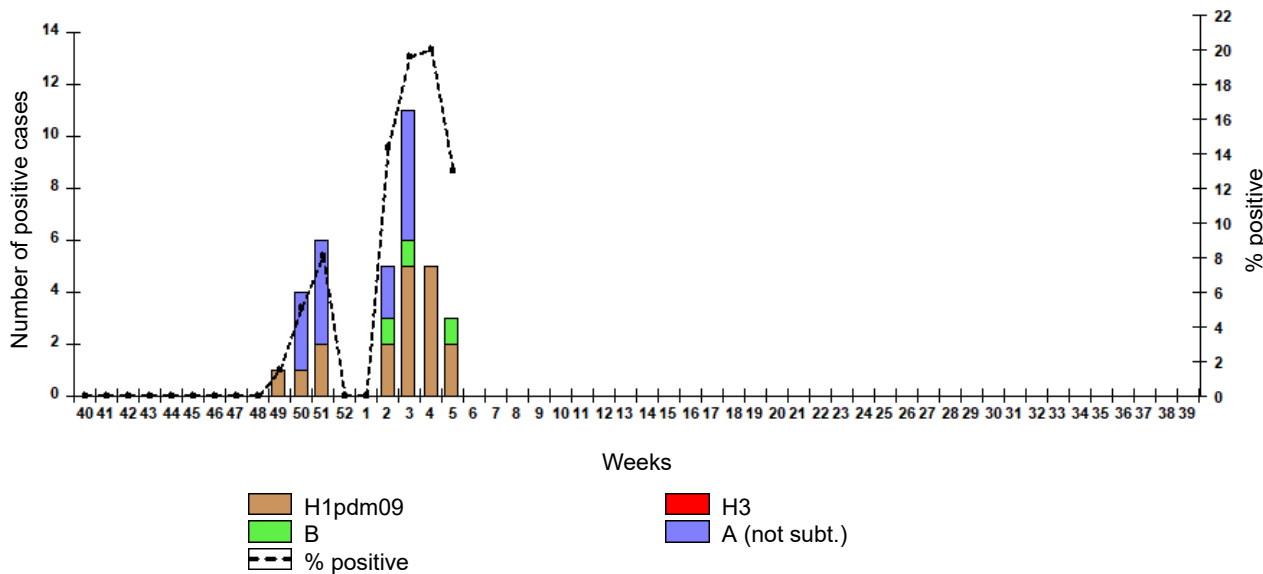


Fig. 10. Monitoring of influenza viruses detection by RT-PCR among ILI/ARI patients in sentinel polyclinics, season 2024/25

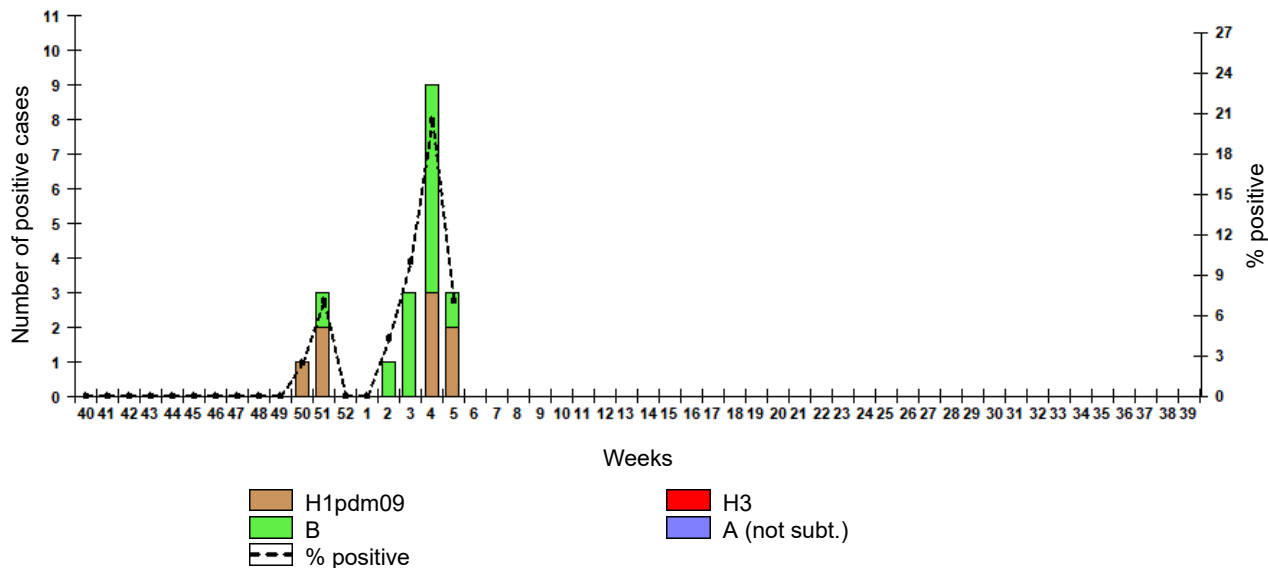


Fig. 11. Monitoring of ARVI detection by RT-PCR among SARI patients in sentinel hospitals, season 2024/25

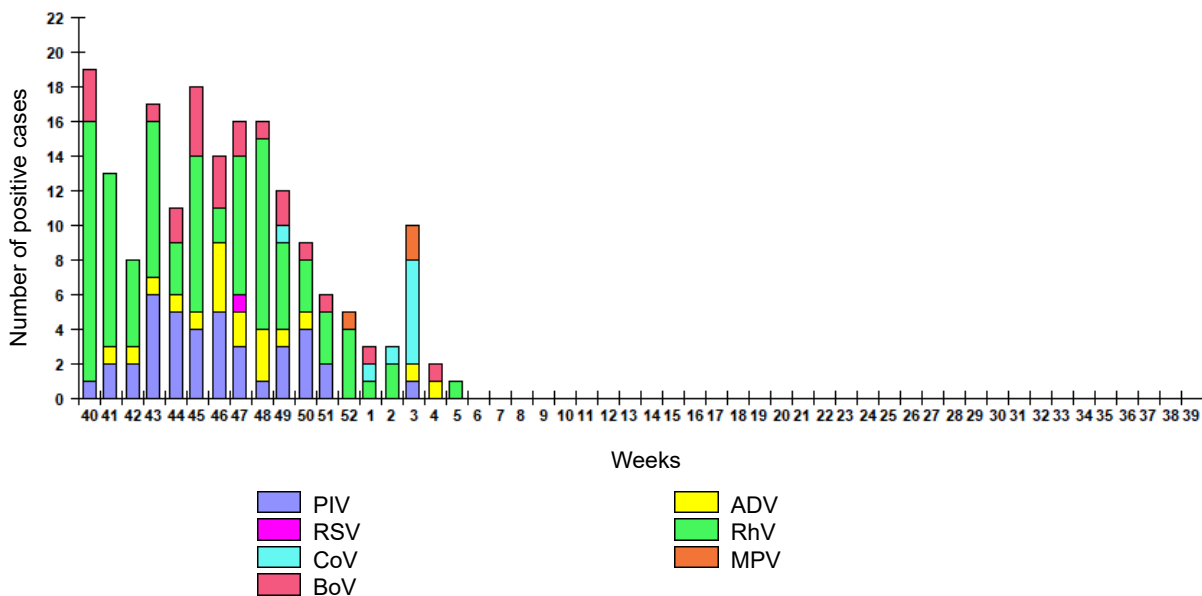


Fig. 12. Monitoring of ARVI detection by RT-PCR among ILI/ARI patients in sentinel polyclinics, season 2024/25

