

## NATIONAL WEEKLY INFLUENZA BULLETIN OF THE RUSSIAN FEDERATION

*week 3 of 2025 (13.01.25 - 19.01.25)*

### 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 (52.2 per 10 000 of population) was lower than national baseline (89.9) by 41.9%.

**Etiology of ILI & ARI.** Among 10760 patients investigation 599 (5.6%) respiratory samples were positive for influenza, including 103 cases of unsubtype influenza A in 11 cities, 294 cases of influenza A(H1N1)pdm09 in 43 cities, 2 cases of influenza A(H3N2) in 2 cities and 200 cases of influenza B in 24 cities.

7 influenza viruses were isolated on MDCK cell culture, including 6 cases of influenza A(H1N1)pdm09 in Astrakhan (1), Krasnodar (3), Saint-Petersburg (2) and 1 case of influenza B in Samara. Since the beginning of the season 29 influenza viruses, including: 19 A(H1N1)pdm09 viruses, 3 - A(H3N2) and 7 influenza B viruses.

**Antigenic characterization.** Since the beginning of the season 12 influenza have been antigenically characterized by the NICs, including: 9 influenza A(H1N1)pdm09, 1 influenza A(H3N2) and 2 influenza B viruses. 8 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 interacted to 1:8 homologous titer with serum to vaccine strain A/Thailand/8/22. 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 7 influenza viruses to neuraminidase inhibitors (oseltamivir, zanamivir) was studied in NIC Saint-Petersburg, including: 3 A(H1N1)pdm09 influenza viruses, 1 A(H3N2) influenza virus and 3 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 11.2% (PCR).

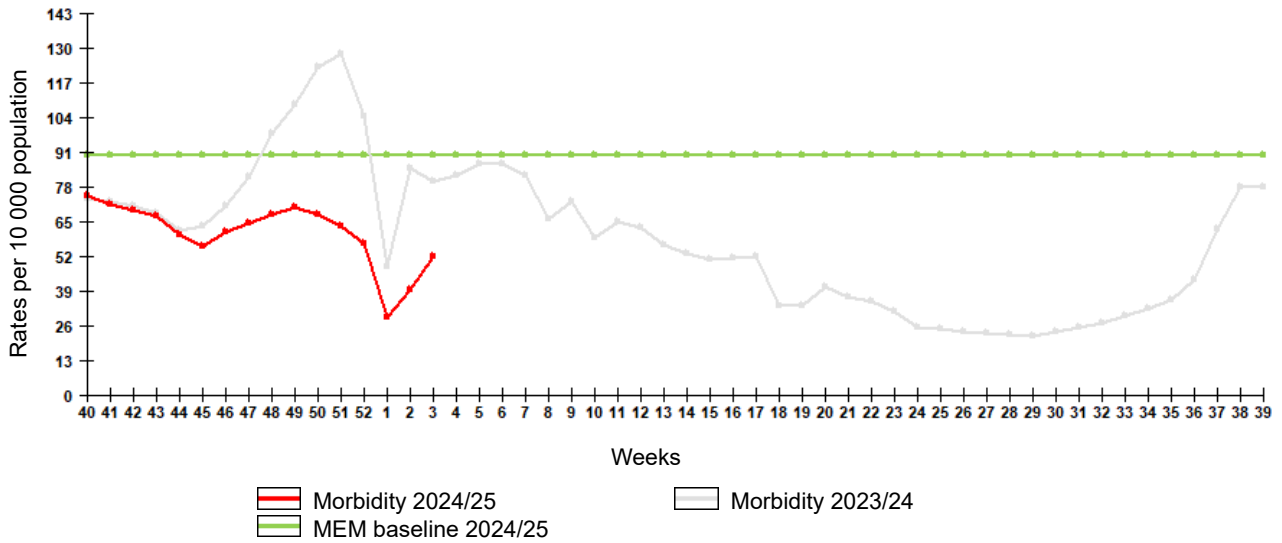
**In sentinel surveillance system** clinical samples from 42 SARI patients were investigated by rRT-PCR for influenza, among them 1 (2.4%) case of influenza A(H1N1)pdm09 was recognized. Among 42 SARI patients no positive cases of coronavirus SARS-CoV-2 recognized. Among 42 SARI samples 10 (23.8%) cases positive for ARVI were detected including: 1 case of PIV, 1 case of ADV, 6 cases of CoV and 2 cases of MPV infection.

Clinical samples from 30 ILI/ARI patients were investigated by rRT-PCR for influenza, among them 3 (10.0%) case of influenza B were recognized. Among 18 ILI/ARI samples 5 (27.8%) cases positive for ARVI detected, including: 1 case of PIV, 2 cases of RhV, 1 case of CoV and 1 case of MPV infection. Among 30 ILI/ARI patients no positive cases of coronavirus SARS-CoV-2 recognized.

**COVID-19.** Totally 24 877 276 cases and 404 314 deaths associated with COVID-19 were registered in Russia including 10 025 cases and 43 deaths in week 03. According to the data obtained by NIC in Saint-Petersburg totally 11011 clinical samples were PCR investigated in last week. Among them coronavirus SARS-CoV-2 detected in 288 (2.6%) cases.

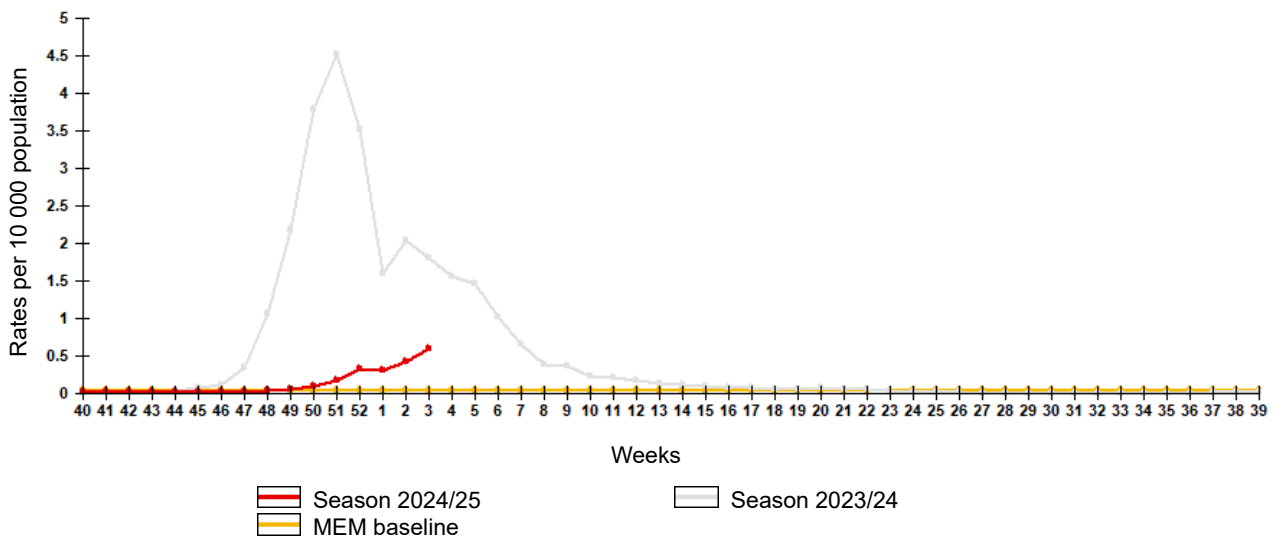
# Influenza and ARI morbidity data

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



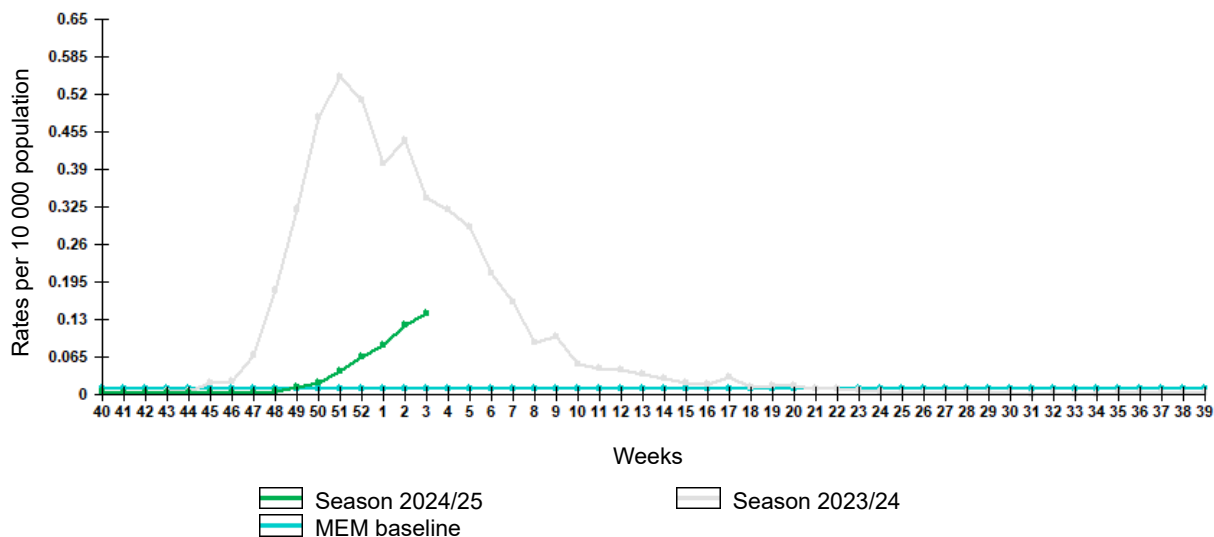
Epidemiological data showed increase of influenza and other ARI activity in Russia in comparison with previous week. The nationwide ILI and ARI morbidity level (52.2 per 10 000 of population) was lower than national baseline (89.9) by 41.9%.

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 0.6 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 0.14 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 49 RBLs and two WHO NICs. According to these data as a result of 10760 patients investigation 599 (5.6%) respiratory samples were positive for influenza, including 103 cases of untyped influenza A in 11 cities, 294 cases of influenza A(H1N1)pdm09 in 43 cities, 2 cases of influenza A(H3N2) in 2 cities and 200 cases of influenza B in 24 cities.

7 influenza viruses were isolated on MDCK cell culture, including 6 cases of influenza A(H1N1)pdm09 in Astrakhan (1), Krasnodar (3), Saint-Petersburg (2) and 1 case of influenza B in Samara. Since the beginning of the season 29 influenza viruses, including: 19 A(H1N1)pdm09 viruses, 3 - A(H3N2) and 7 influenza B viruses.

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Fig. 4. Geographic distribution of RT-PCR detected influenza viruses in cities under surveillance in Russia, week 3 of 2025

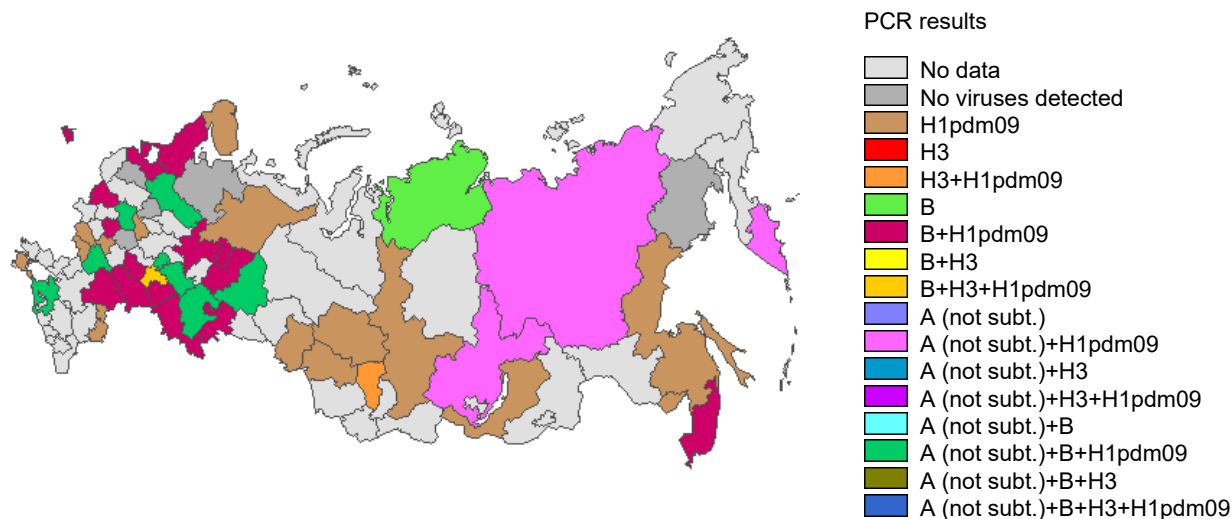


Fig. 5. Monitoring of influenza viruses detection by RT-PCR in Russia, season 2024/25

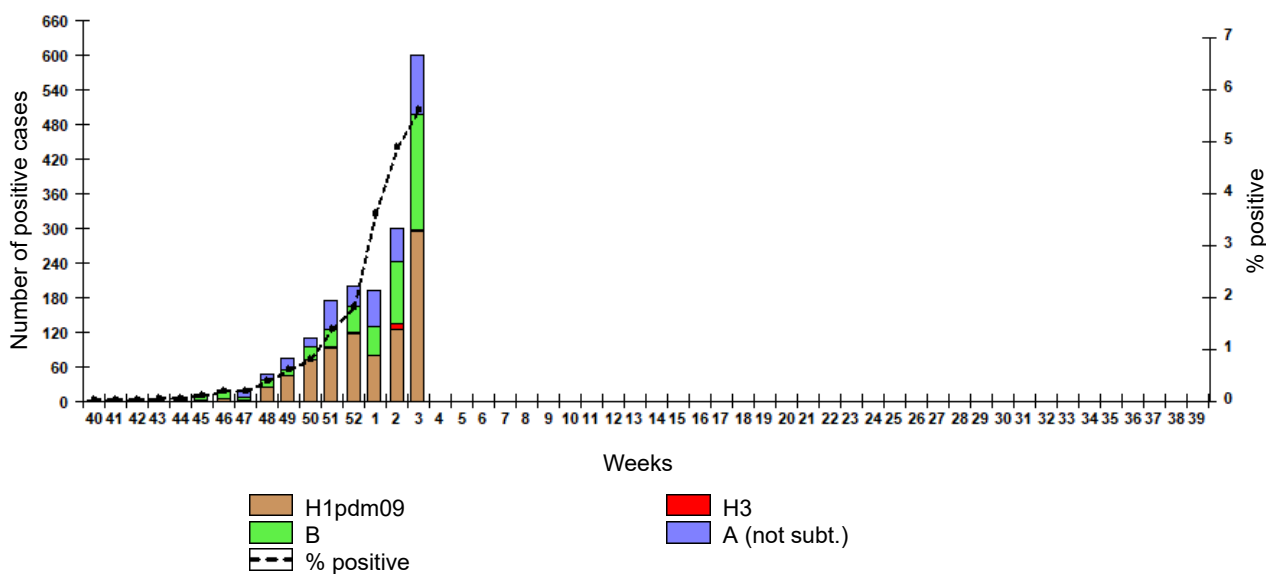
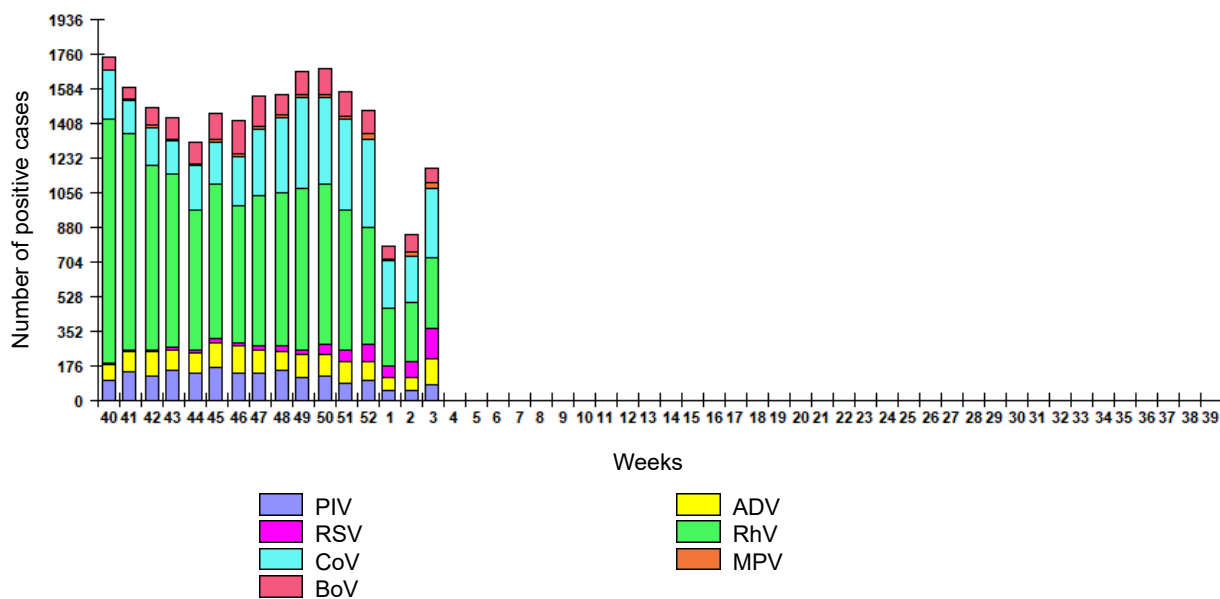


Fig. 6. Monitoring of ARVI detection by RT-PCR in Russia, season 2024/25



**ARVI detections.** The overall proportion of respiratory samples tested positive for other ARVI (PIV, ADV, RSV, RhV, CoV, MPV, BoV) estimated as **11.2%** of investigated samples by PCR.

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

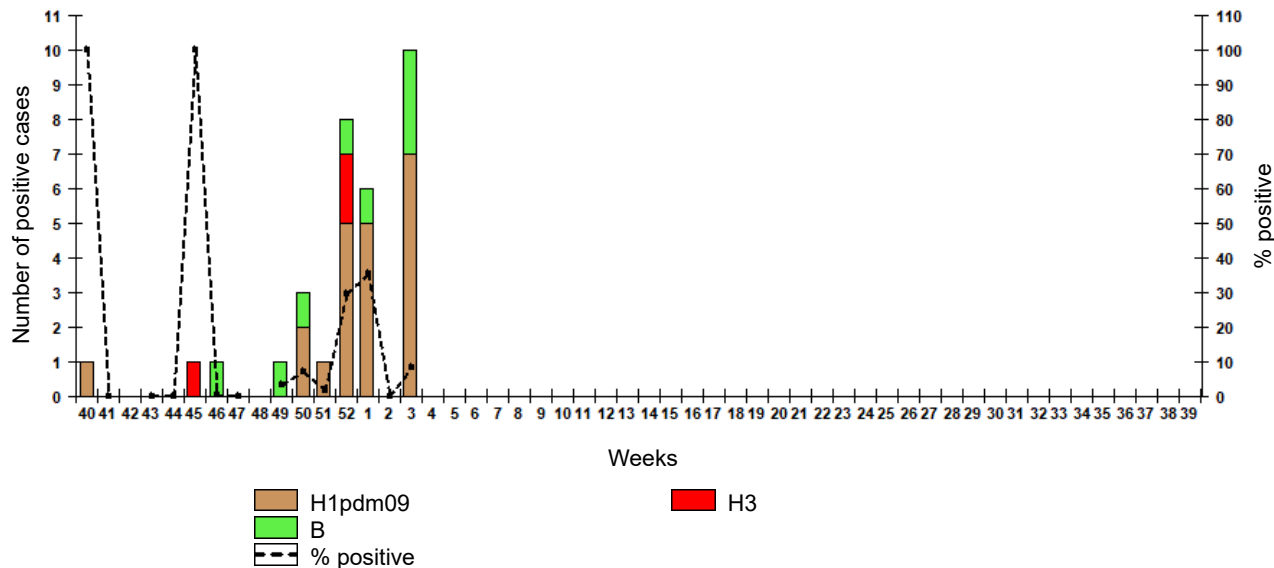


Table 1. Results of influenza and other ARVI detection by RT-PCR in Russia, week 3 of 2025

	Number of specimens / number of positive cases	% positive
<u>Influenza</u>		
Number of specimens tested for influenza	10760	-
Influenza A (not subt.)	103	1,0%
Influenza A(H1)pdm09	294	2,7%
Influenza A(H3)	2	0,02%
Influenza B	200	1,9%
All influenza	599	5,6%
<u>Other ARVI</u>		
Number of specimens tested for ARVI	10672	-
PIV	81	0,8%
ADV	132	1,2%
RSV	157	1,5%
RhV	361	3,4%
CoV	351	3,3%
MPV	32	0,3%
BoV	77	0,7%
All ARVI	1191	11,2%
<u>SARS-CoV-2 (COVID-19)</u>		
Number of specimens tested for SARS-CoV-2	11011	-
SARS-CoV-2	288	2,6%

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



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Table 2. Results of influenza viruses isolation in Russia, week 3 of 2025

	Number of specimens / number of viruses	% isolated viruses
Number of specimens	121	-
Influenza A(H1)pdm09	7	5,8%
Influenza A(H3)	0	0,0%
Influenza B	3	2,5%
All influenza	10	8,3%

## Sentinel influenza surveillance

Clinical samples from 42 SARI patients were investigated by rRT-PCR for influenza, among them 1 (2.4%) case of influenza A(H1N1)pdm09 was recognized. Among 42 SARI patients no positive cases of coronavirus SARS-CoV-2 recognized. Among 42 SARI samples 10 (23.8%) cases positive for ARVI were detected including: 1 case of PIV, 1 case of ADV, 6 cases of CoV and 2 cases of MPV infection.

Clinical samples from 30 ILI/ARI patients were investigated by rRT-PCR for influenza, among them 3 (10.0%) case of influenza B were recognized. Among 18 ILI/ARI samples 5 (27.8%) cases positive for ARVI detected, including: 1 case of PIV, 2 cases of RhV, 1 case of CoV and 1 case of MPV infection. Among 30 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

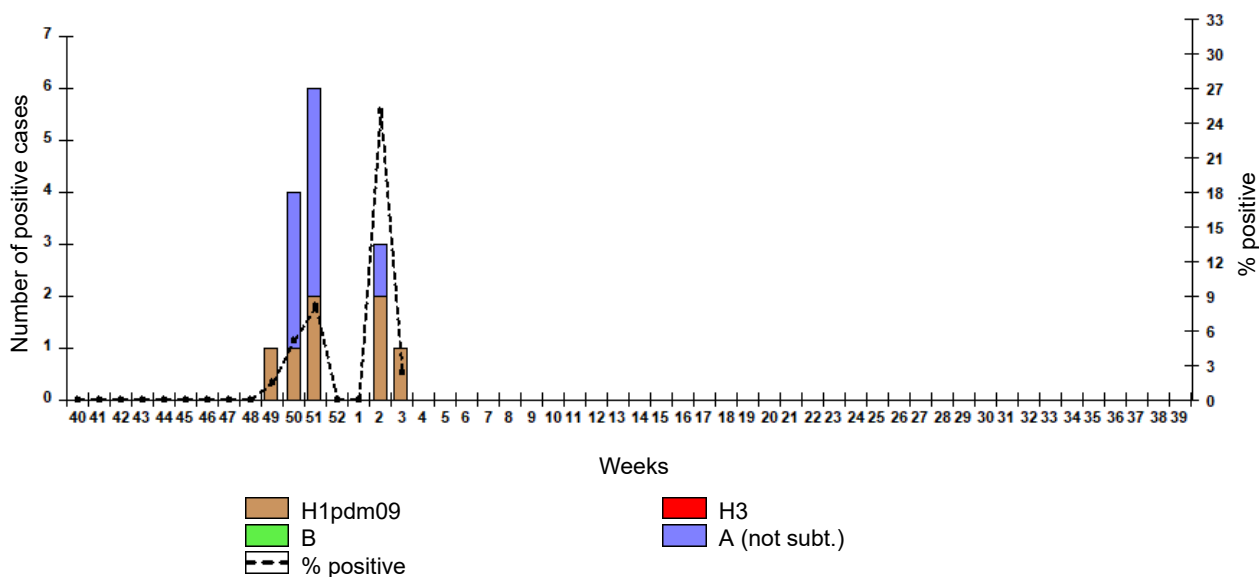


Fig. 10. Monitoring of influenza viruses detection by RT-PCR among ILI/ARI patients in sentinel polyclinics, season 2024/25

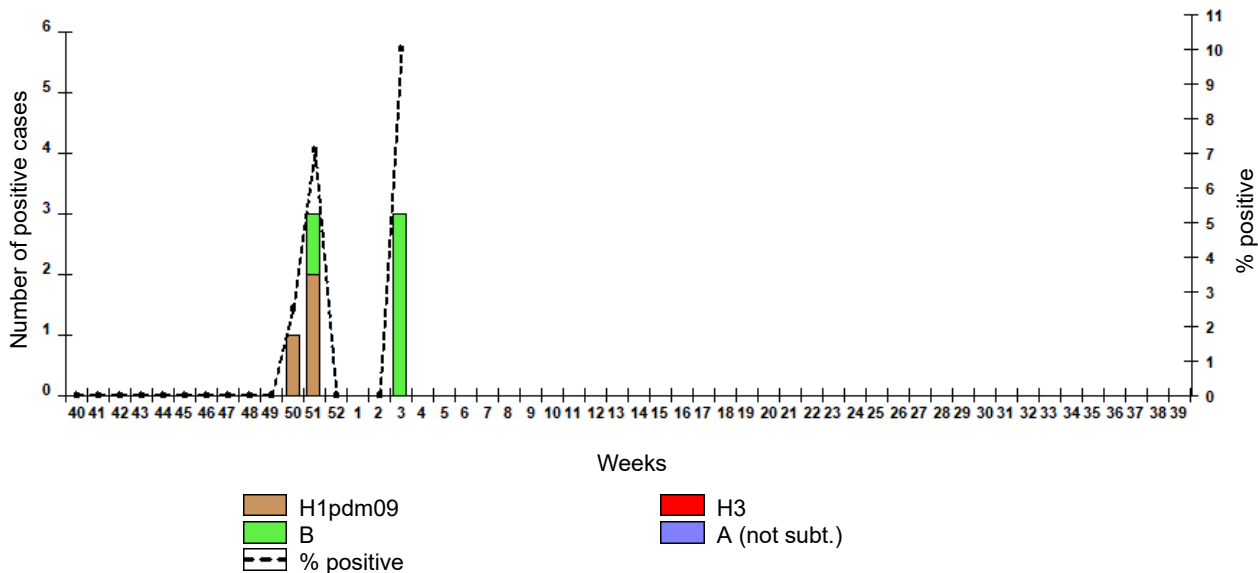


Fig. 11. Monitoring of ARVI detection by RT-PCR among SARI patients in sentinel hospitals, season 2024/25

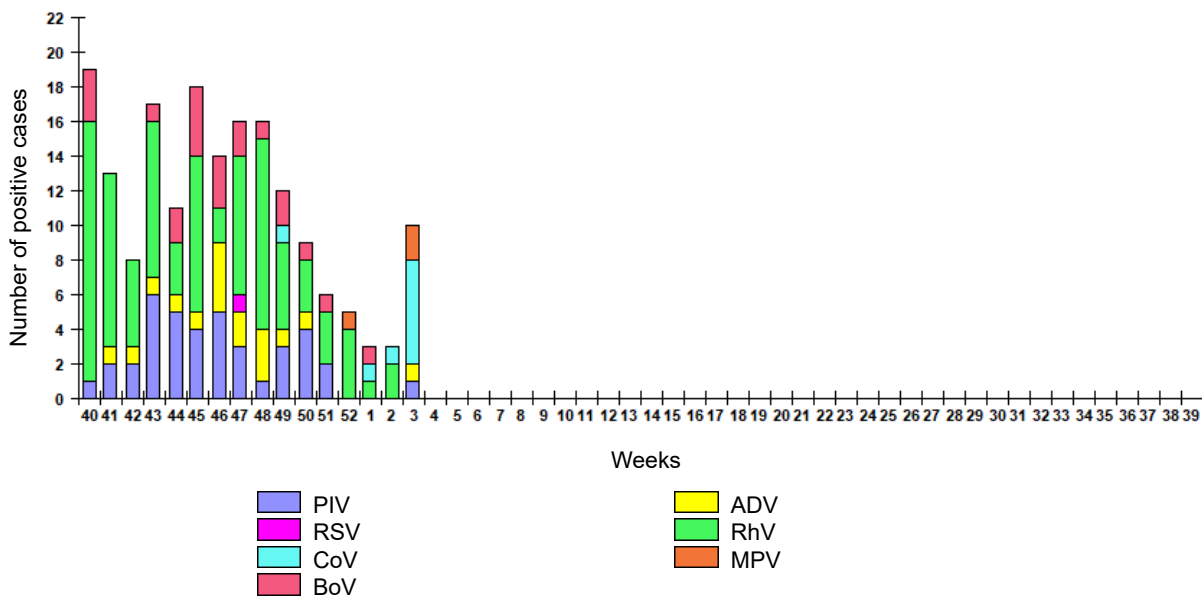


Fig. 12. Monitoring of ARVI detection by RT-PCR among ILI/ARI patients in sentinel polyclinics, season 2024/25

