

Sentinel Surveillance Network

The Sentinel Surveillance aims to monitor circulating respiratory viruses, from traditional ones like influenza to more recent ones like SARS-CoV-2, and hence underpin public health actions. The Sentinel Network is a group of general practitioners and paediatricians spread across the country. They report the weekly number of patients showing symptoms suggestive of acute respiratory infection (ARI) and influenza-like illness (ILI), and those patients are then sampled and tested for a panel of respiratory viruses. The circulation of respiratory viruses in the Northern Hemisphere is generally monitored by seasons that range from week 40 to week 20. The period between weeks 20 and 40 is usually called inter-season.

Clinical results

In week 2026/10, consultations for acute respiratory infections (ARI) decreased to below 10%, while ILI rates remained stable at around 2.5%. Overall respiratory consultations have nearly halved over the past four weeks, indicating a decline of seasonal activity. Similar patterns are being observed in other European countries, with an overall decrease in respiratory viral circulation.

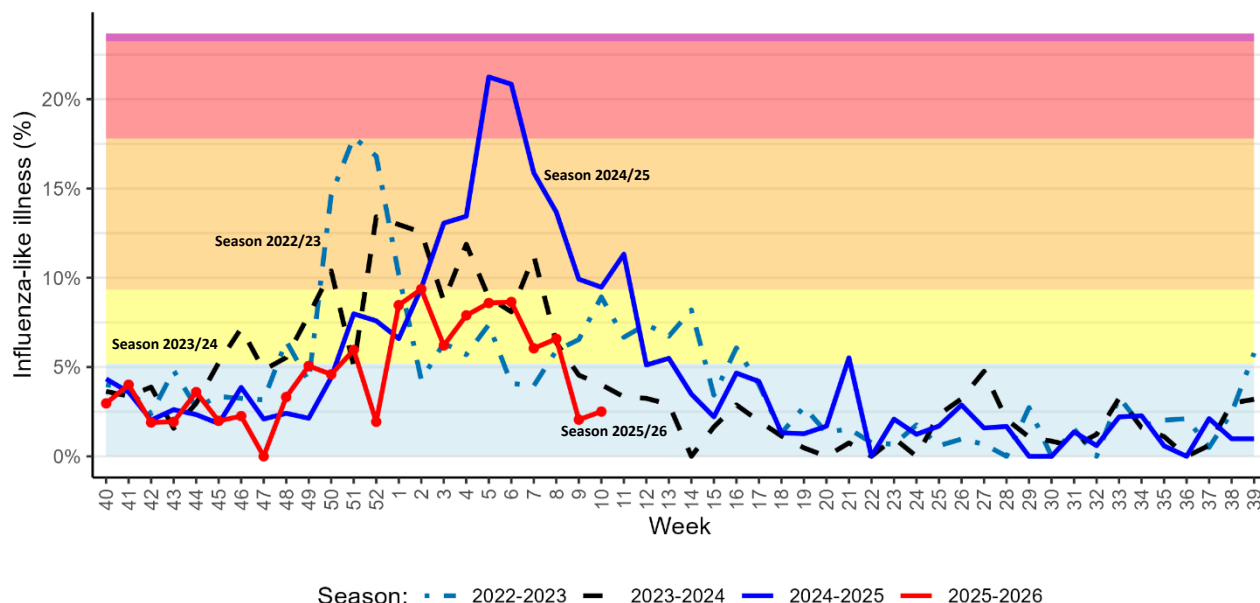
Historical trends in ILI consultations are presented in figure 2, and a detailed summary of the ARI and ILI case counts for the past four weeks is provided in table 1.

Table 1. Syndromic surveillance over the last 4 weeks

Week	ARI		ILI		Total consultations
	N	%	N	%	
2026/07	44	15.66	17	6.05	281
2026/08	37	16.23	15	6.58	228
2026/09	38	13.01	6	2.05	292
2026/10	27	9.68	7	2.51	279

ARI: Acute Respiratory Infections; ILI: Influenza-like Illness.

Figure 1. Percentage of patients with Influenza-like illness over the last three seasons and 2025-2026 (red) Background colours according to intensity of circulation: baseline, low, medium, high, very high.



Laboratory results

During week 2026/10, the LNS received 54 sentinel specimens. Of these, 44.4% (N=24) were from children under 5 years of age, followed by 29.6% (N=16) from adults aged 18 to 64 years. Children aged 5 to 17 years accounted for 22.2% (N=12), while patients aged ≥ 65 years represented 3.7% (N=2). Overall, 66.0% (N=35) of samples were from female and 34.0% (N=18) were from male patients.

Respiratory viruses were detected in 39 (72.2%) of the 54 sentinel samples. The predominant pathogen was **human rhinovirus (30.2%)**, followed by **metapneumovirus (17.0%)** and **adenovirus (13.2%)**.

Metapneumovirus increased from 6.9% in week 2026/07 to 17.0% in week 2026/10, affecting all age-groups below 65 years, with the highest proportion detected in young children.

Over the past four weeks, **influenza A** decreased markedly from 19.8% (2026/07) to **7.4%** (2026/10). During the last two weeks (2026/09-10), 15 new influenza A cases were identified across all age-groups below 65 years. Of these, 40.0% were detected in school-aged children (5 to 17 years), followed by children under 5 years (33.3%) and adults < 65 years (26.7%). Among the 15 influenza cases, 14 (93.3%) were subtyped: 71.4% (N=10) were A(H3) and 28.6% (N=4) were A(H1)pdm09 (Figure 5 and 6).

RSV activity remained stable at around **7.5%** during weeks 2026/09-10, with 8 new RSV cases identified across all age-groups. Of these, 7 were subtyped: 85.7% (N=6) were RSV-B and 14.3% (N=1) RSV-A.

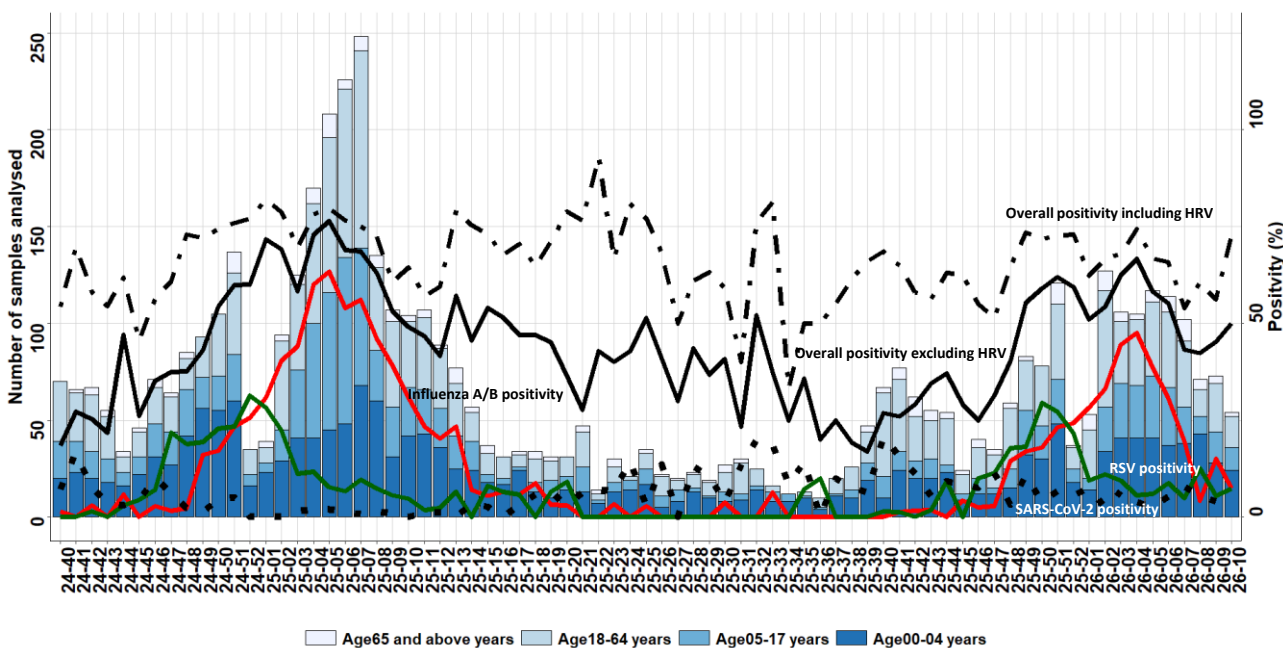
SARS-CoV-2 positivity remained stable at **5.6%**, indicating continued very low circulation within the sentinel network.

Over the past two weeks, human rhinovirus was detected across all age groups, while adenovirus was primarily identified in children under 5 years of age. An overview of the circulating viral pathogens in the sentinel network in Luxembourg during the current and previous (inter)- season is presented in figure 2, 3 and table 2.

Table 2. Distribution of respiratory viruses detected within the Sentinel Network during the past 4 weeks compared to previous season; Total N detected during season 2025/26 and previous season; Results from last weeks are not all yet consolidated.

Virus	Season 2025/26					Season 2024/25		
	Positivity Rate in %							
	W07	W08	W09	W10	Total N (%)	W09	W10	Total N (%)
Human rhinovirus	18.8	23.9	13.7	30.2	407 (23.8)	15.9	25.0	720 (24.8)
Metapneumovirus	6.9	11.3	11.0	17.0	95 (5.5)	6.5	7.7	157 (5.4)
Adenovirus	7.9	9.9	9.6	13.2	103 (6.0)	4.7	9.6	203 (7.0)
Respiratory syncytial virus	5.0	12.7	5.5	7.5	180 (10.5)	5.6	4.8	287 (9.9)
Influenzavirus A	19.8	4.2	15.1	7.4	352 (20.5)	19.6	16.3	502 (17.2)
Parainfluenzavirus	3.0	5.6	1.4	5.7	58 (3.4)	0.0	1.0	99 (3.4)
SARS-CoV-2	7.8	5.6	4.1	5.6	119 (6.9)	0.9	0.0	80 (2.7)
Influenzavirus B	0.0	0.0	0.0	0.0	0 (0.0)	19.6	14.4	404 (13.9)

Figure 2. Presents number of sentinel samples received per week by age-group (weeks 2024/40 to 2026/10) including overall sample positivity- including human rhinovirus (HRV, dot-dash line), excluding HRV (black line), SARS-CoV-2 (dotted line), influenza **combined** (red) and RSV (green); Secondary axis corresponds to positivity; Results from last weeks are not all yet consolidated.



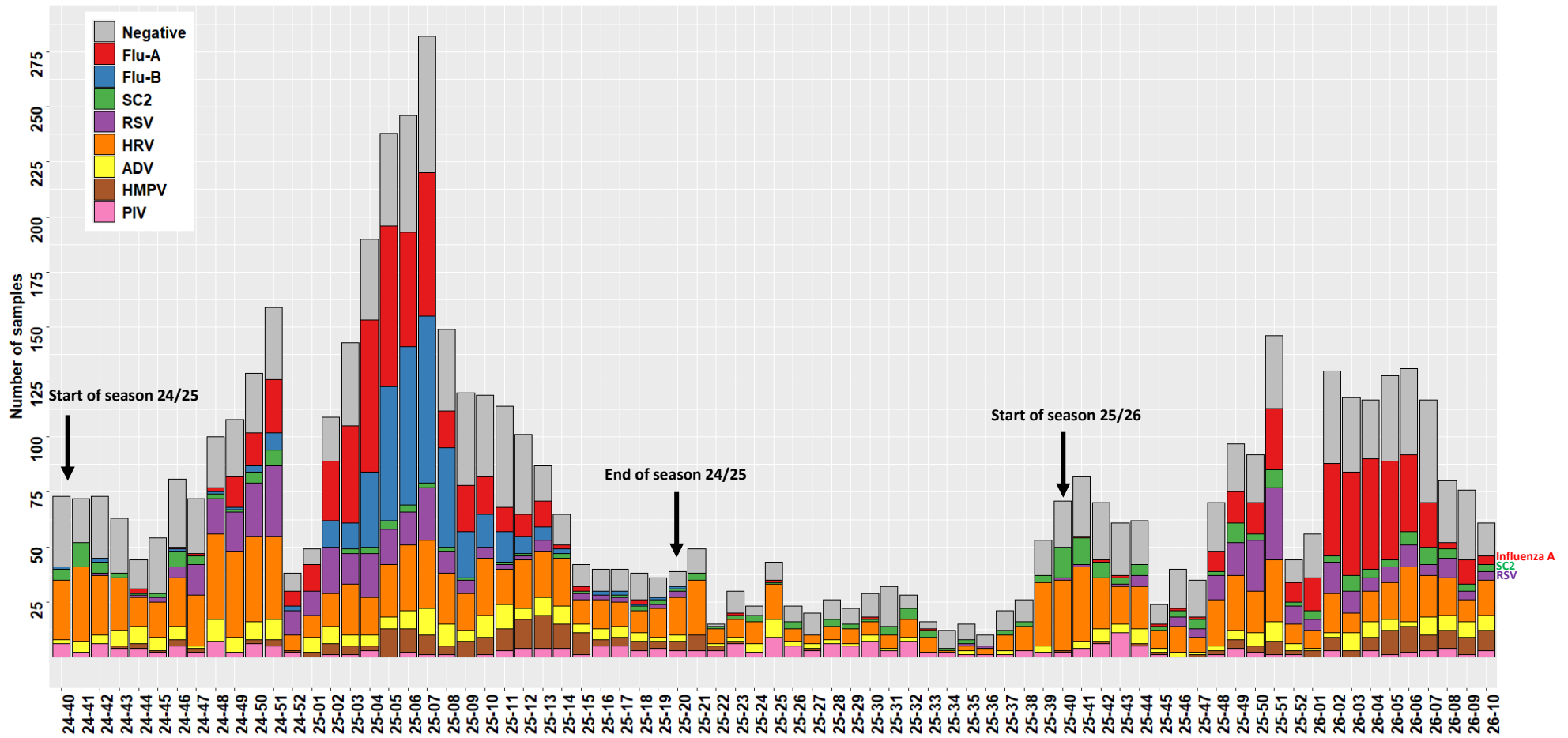


Figure 3. Circulation of respiratory viruses detected within the Sentinel Network by calendar week (seasons 24/25 and 25/26). FLU-A: influenza A; FLU-B: influenza B; PIV: parainfluenza virus; RSV: respiratory syncytial virus; ADV: adenovirus; HMPV: metapneumovirus; HRV: human rhinovirus; SC2: SARS-CoV-2; Results from last weeks are not all yet consolidated.

Figure 4. Number of RSV cases detected in different age-groups (N=180) from 2025/40 to 2026/10

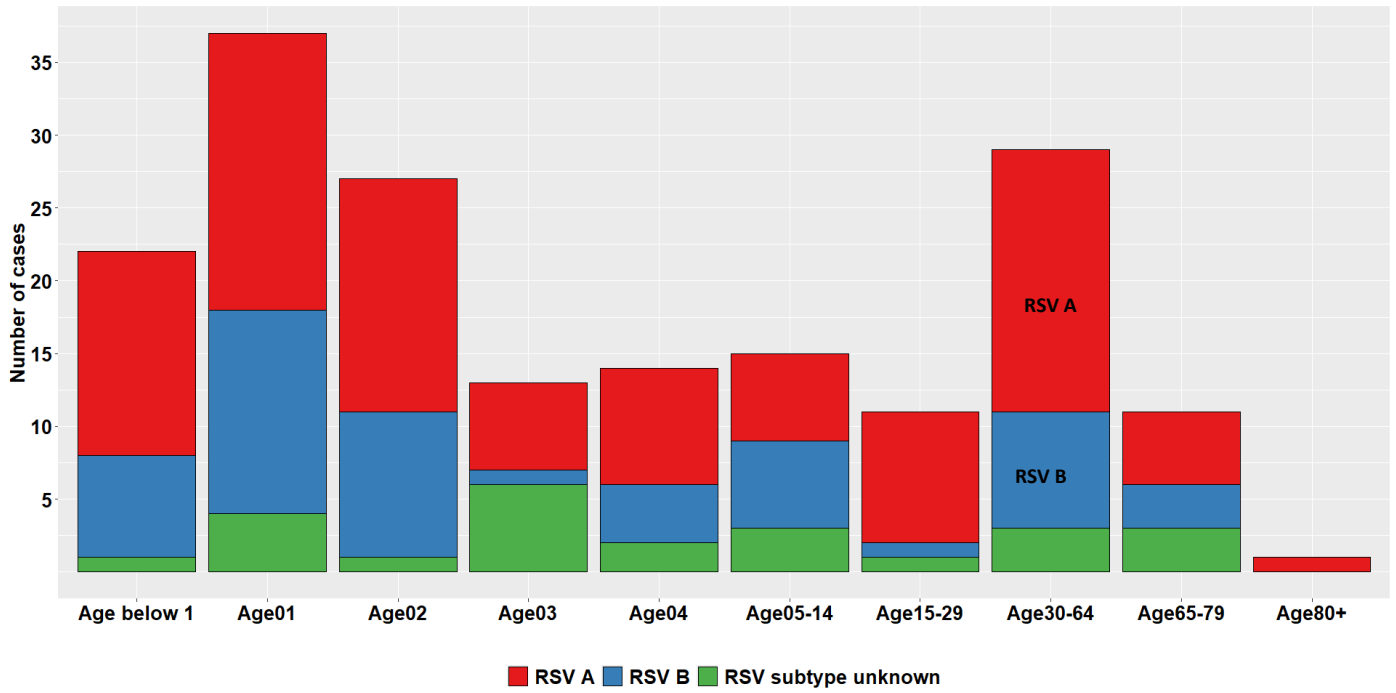


Figure 5. Influenza cases by age group: comparison of 2025/40-2026/10 (N=352) vs. 2026/09-10 (N=15); AH3 and AH1pdm09 percentages in brackets; blue-subtyping pending

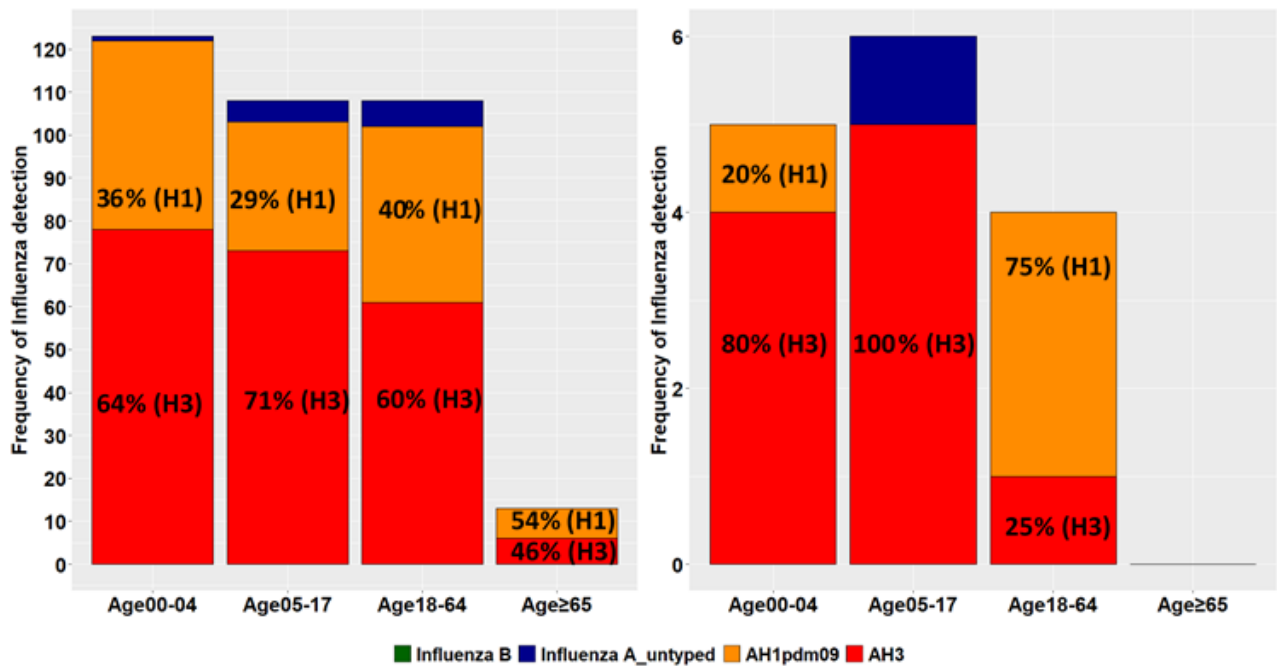
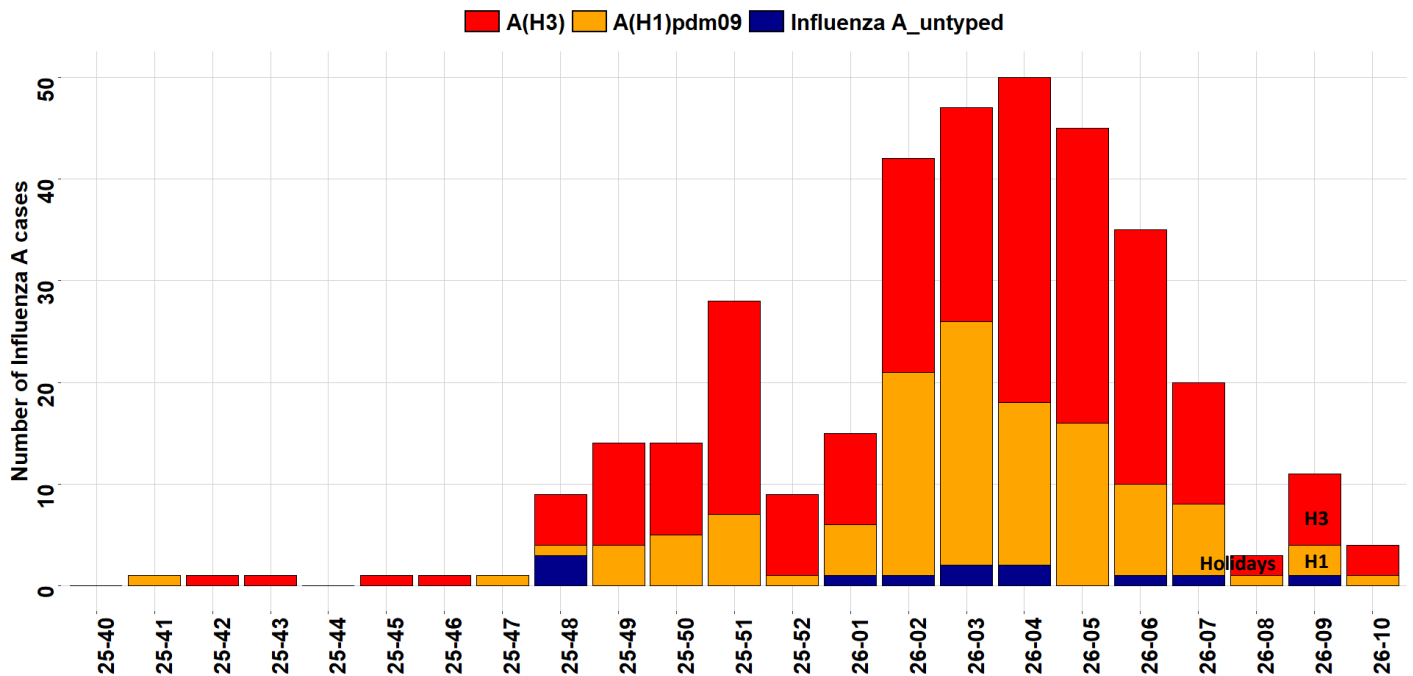


Figure 6. Overall influenza A detection by week and subtype: N=352cases with 340 (96.6%) subtyped; 218 (64.1%) A(H3) and 122 cases (35.9%) as A(H1)pdm09



References

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