

# Respiratory Viruses in Luxembourg (ReViLux)

## Sentinel Network Report -Week 14

### Summary of Sentinel Network activities

At the end of week **2025/14**, the sentinel network detected a baseline activity, based on **3.5%** of consultations being associated with influenza-like illness. Among the specimens collected by the sentinel network over the last week, the percentage of positive tests for **Human rhinovirus** was **38.6%**, **19.3%** for **Metapneumovirus** and **14.0%** for **Adenovirus**, while the Influenza positivity rate fell below 10%, SARS-CoV-2 activity increased slightly (3.5%) and RSV activity was not detected.

In total, this season (24/25) 2,713 samples were received with 895 Influenza positive samples (397 Influenza B and 498 Influenza A). So far, 475 of the 498 Influenza A samples (95.4%) have been subtyped. Hundred and ninety seven (41.5%) Influenza A samples have been subtyped as A(H1)pdm09 and 278 (58.5%) samples as A(H3) virus. Among the sequenced samples (N=164), for A(H1N1)pdm09, clade 5a.2a was predominant (98%), all A(H3N2) viruses belong to clade 2a.3a.1 and all B viruses to clade B/Victoria V1A.3a.2.

Syndromic surveillance over the last 4 weeks (Table 1)

Week	ARI		ILI		Total consultations
	N	%	N	%	
2025/11	36	11.32	36	11.32	318
2025/12	70	16.28	22	5.12	430
2025/13	51	15.55	18	5.49	328
2025/14	56	15.01	13	3.49	373

*ARI: Acute Respiratory Infections; ILI: Influenza-Like Illness.*

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## 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 north hemisphere is generally monitored by seasons that go from week 40 to week 20. The period between weeks 20 and 40 is usually called inter-season.

### Clinical results

Last week (**end of week 2025/14**), **3.5%** of the consultations were reported as ILI, representing a baseline activity for Luxembourg, according to ECDC and the Moving Epidemic Method. During weeks 2025/12 and 2025/13, ILI rates decreased and, for the first time in 2025, ILI rates returned to baseline level.

The history of ILI consultations is displayed in figure 1, and a detailed summary of the number of ARI and ILI cases during the last four weeks is included in table 1.

### Laboratory results

In week 2025/14, **Human rhinovirus (38.6%)** was the most prevalent virus circulating, followed by **Metapneumovirus (19.3%)** and **Adenovirus (14.0%)**. Overall, the combined positivity rates for Influenza A and B decreased compared to previous week, while SARS-CoV-2 activity increased slightly (3.5%) but remained below 5% within the sentinel network. An overview of the circulating viral pathogens during the current and previous inter- season is displayed in figure 2 and table 2.

Over the last week (2025/14), RSV was not detected within the network. So far this season (24/25), two hundred and seventy five RSV cases have been detected, including ninety nine RSV-A cases and hundred and thirty nine RSV-B cases. Approximately, 55% of cases were aged 1 and 4 years (figure 3).

In total, 2713 sentinel samples have been analysed with more than 60% of samples belonging to age-group below 18 years (figure 4) and with 52% of female.

Over the past 2 weeks, Human rhinovirus and Metapneumovirus were detected in all age-groups, while Adenovirus and Parainfluenzavirus were detected predominantly in children.

Over the last 4 weeks, about 75% of all co-infections (N=30) were detected primarily in children below 5 years and 16% in children aged between 5 and 18 years. The most commonly identified combination was Human rhinovirus with Adenovirus. So far this season, ten patients were co-infected with Influenza A and B.

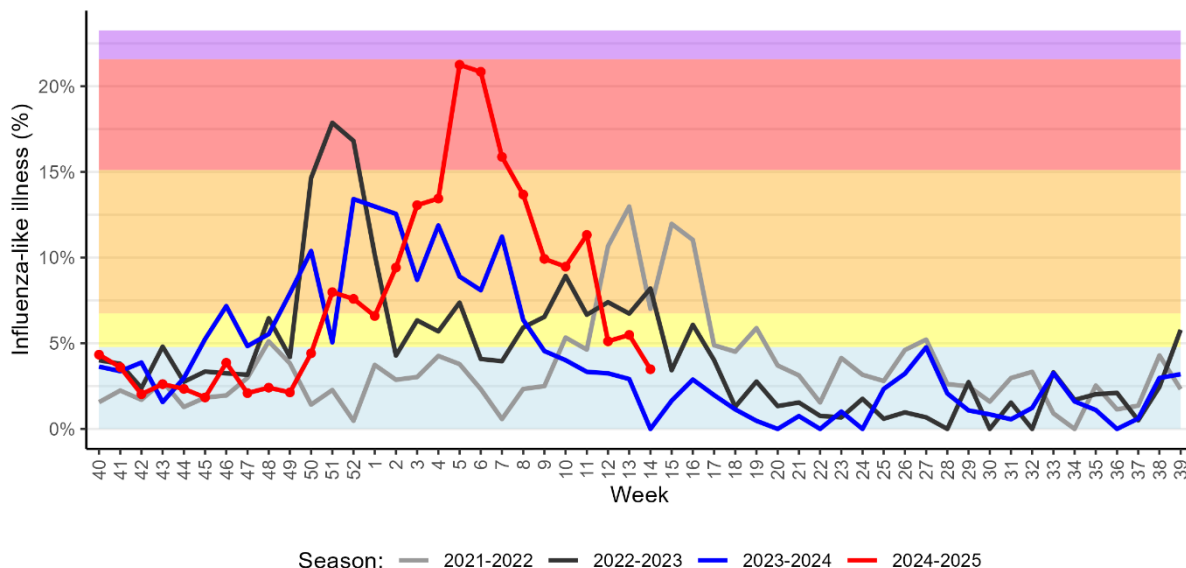


Figure 1. Percentage of patients with Influenza-like illness over the last three seasons  
Background colours according to intensity of circulation: baseline, low, medium, high, very high.

Table 2. Distribution of respiratory viruses detected within the Sentinel Network previous 4 weeks compared to previous year. Data for week 2025/14 not yet completely consolidated

Virus	Season 2024/25					Season 2023/24	
	Positivity Rate in %					W14	Total N (%)
	W11	W12	W13	W14	Total N (%)		
Human rhinovirus	15.0	24.7	26.3	38.6	644 (23.9)	46.7	572 (24.9)
Metapneumovirus	9.3	14.6	18.4	19.3	128 (4.7)	30.0	125 (5.4)
Adenovirus	10.3	5.6	9.2	14.0	179 (6.6)	13.3	125 (5.4)
Parainfluenzavirus	2.8	4.5	5.3	7.0	78 (2.9)	6.7	77 (3.4)
Influenzavirus A	10.3	11.2	15.8	3.5	498 (18.4)	3.3	388 (16.5)
Influenzavirus B	13.1	9.0	7.9	3.5	397 (14.6)	3.3	12 (0.5)
SARS-CoV-2	0.9	1.1	0.0	3.5	73 (2.7)	0.0	227 (9.7)
Respiratory syncytial virus	1.9	2.2	6.6	0.0	275 (10.2)	3.3	212 (9.2)

Co-detection counted once for each virus detected & N- total number of detection during season

Circulation of common viral respiratory pathogens in sentinel network (seasons 23/24 and 24/25)

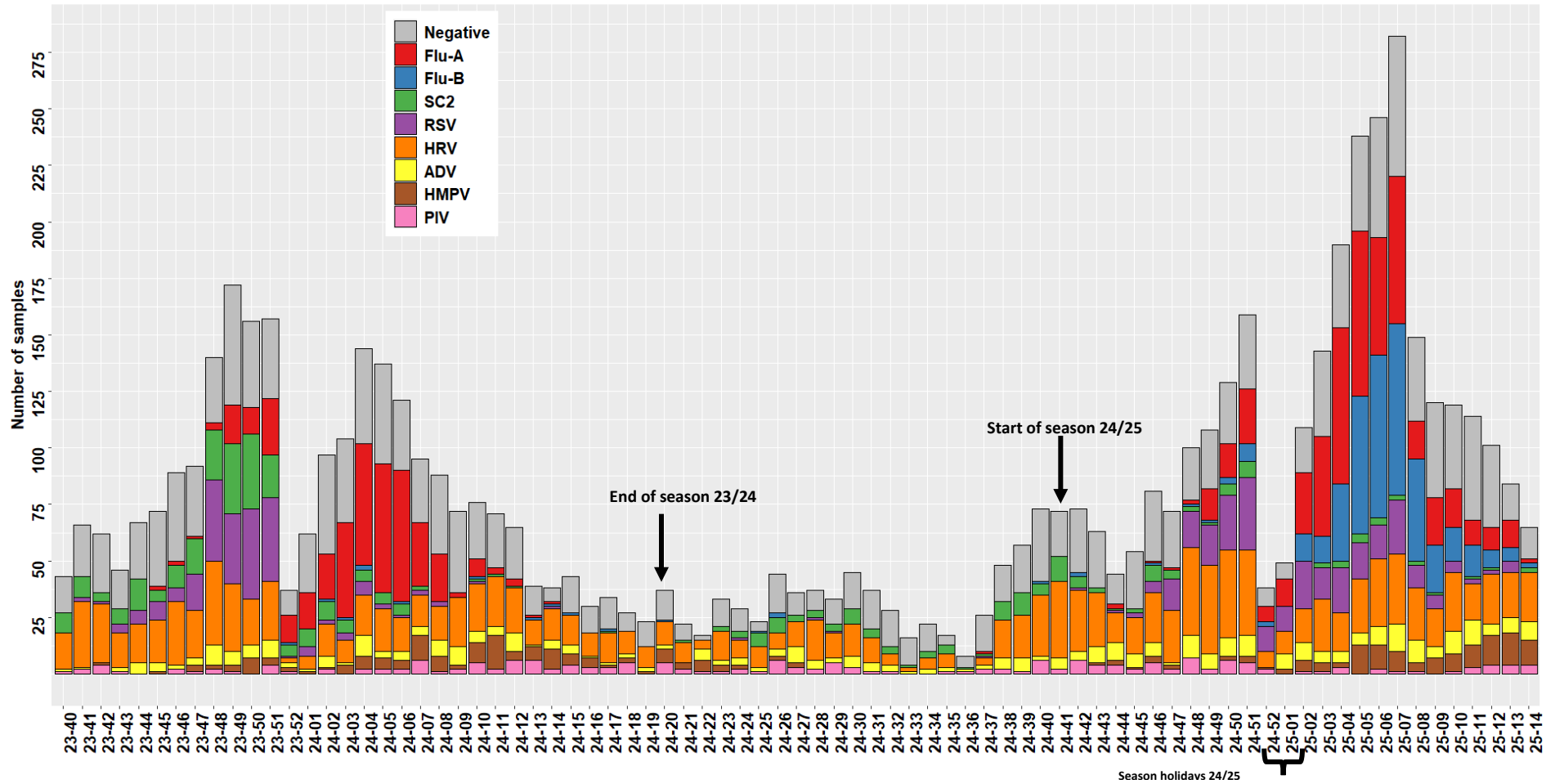


Figure 2. Distribution of respiratory viruses detected within the Sentinel Network by calendar week. Results from last weeks are not all yet consolidated.  
 FLU-A: Influenzavirus A; FLU-B: Influenzavirus B; PIV: Parainfluenzavirus; RSV: Respiratory syncytial virus; ADV: Adenovirus; MPV: Metapneumovirus; HRV: Human rhinovirus; SC2: SARS-CoV-2.

Figure 3. Displays RSV cases according to different age groups with highest impact among the 1 years old. Data for week 2025/14 not yet completely consolidated

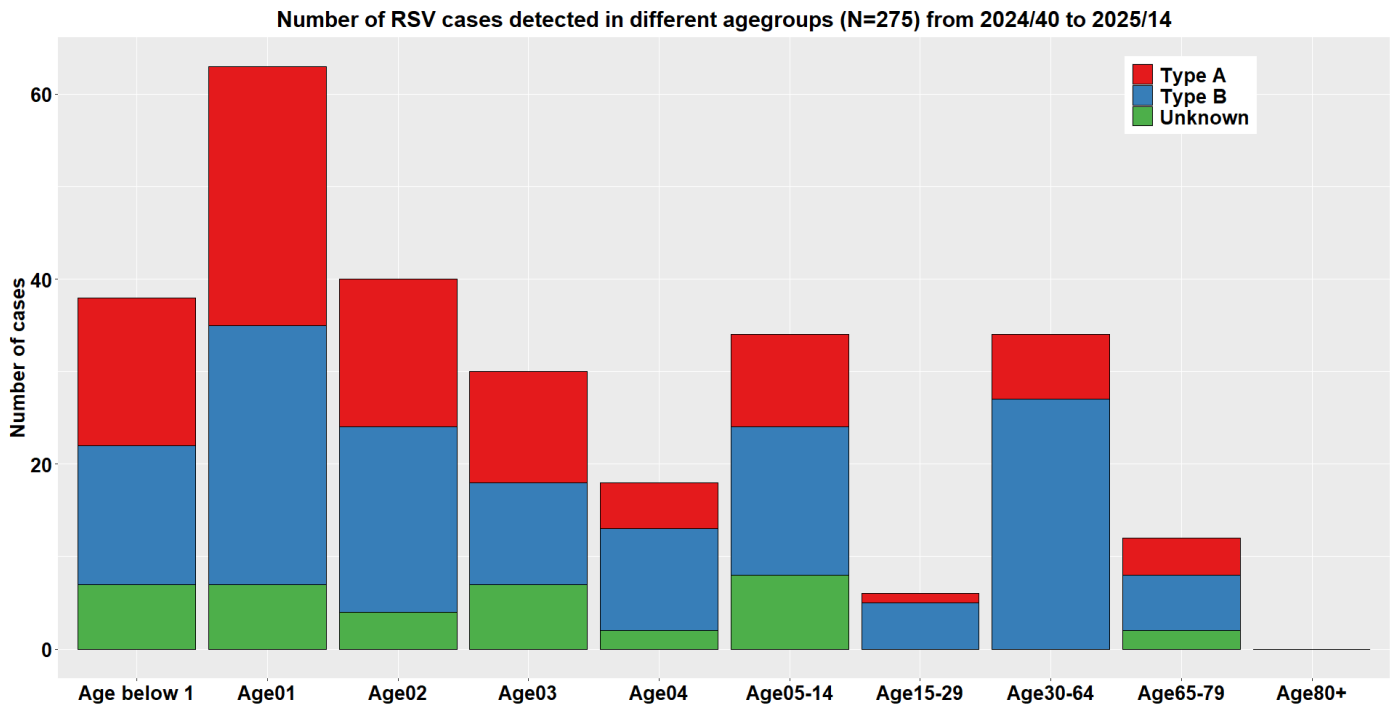


Figure 4. Displays number of sentinel samples received per week by age-group including overall sample positivity including Human rhinovirus (HRV, dotted line), excluding HRV (black line) and Influenza **combined** (red). Secondary axis corresponds to positivity

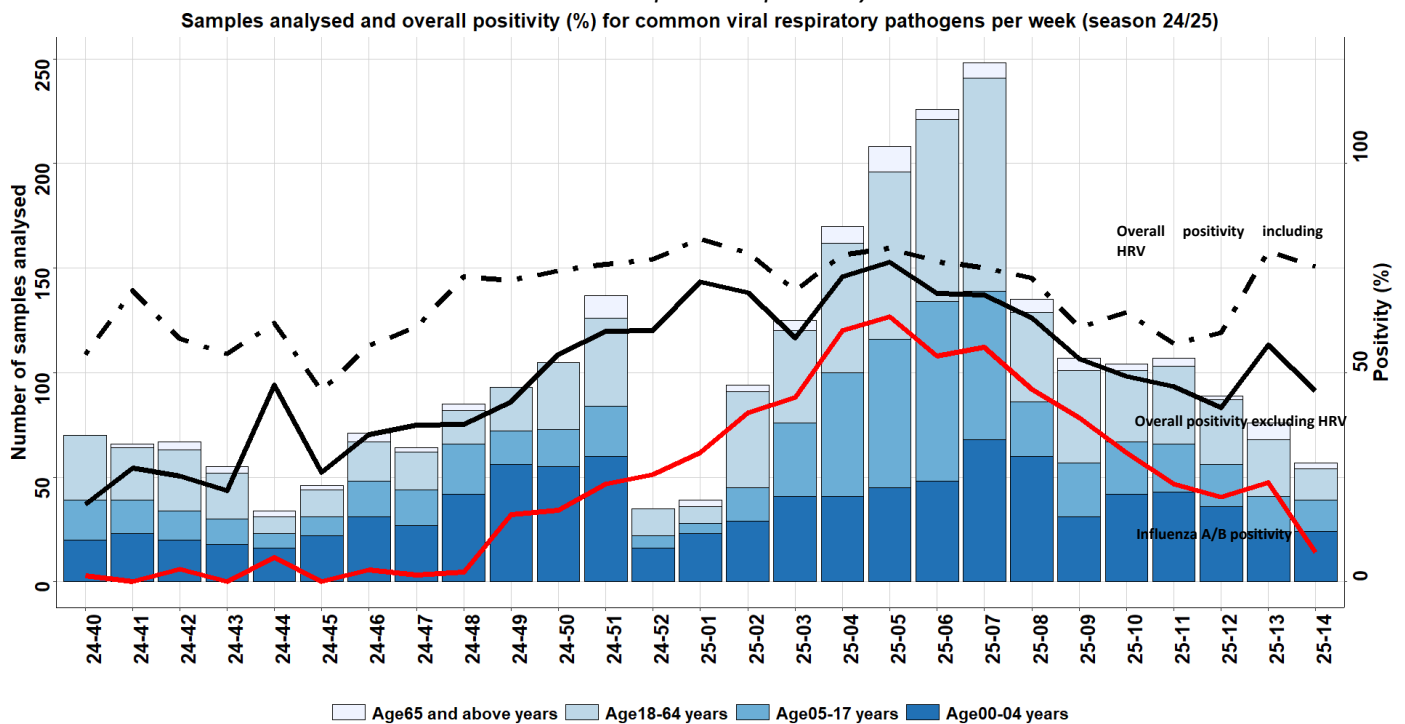
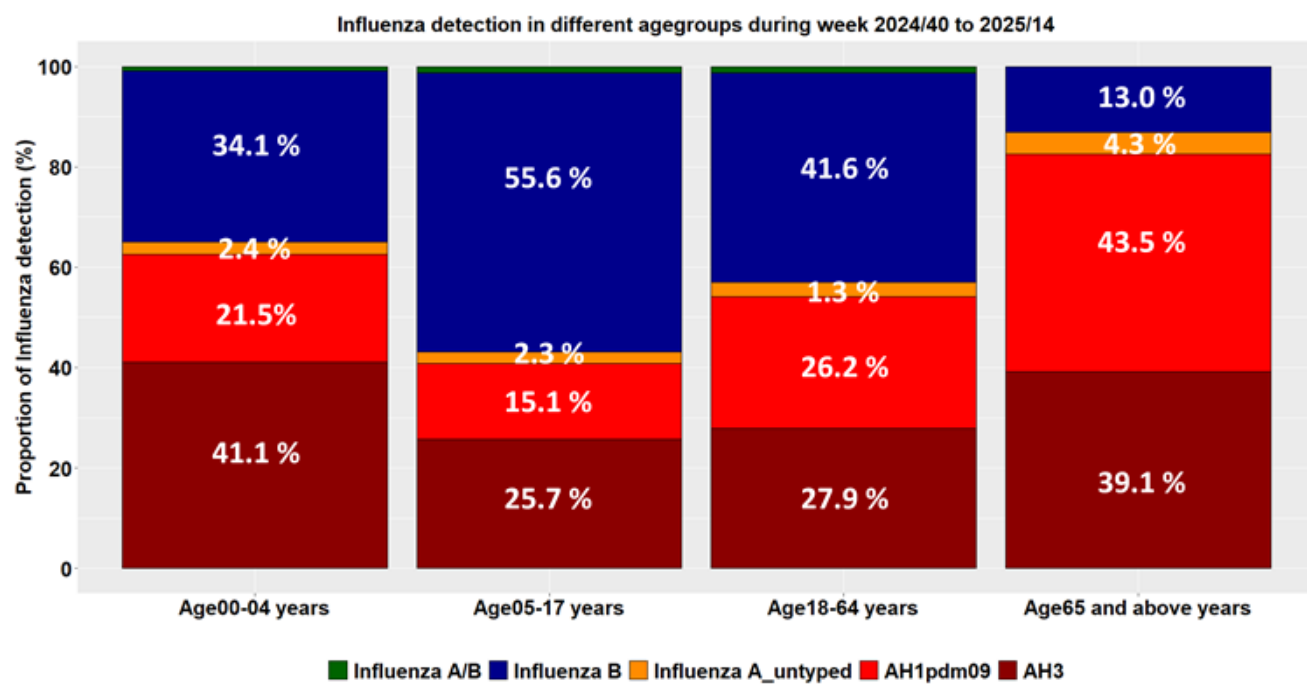


Figure 5. Displays detection of Influenza subtypes by age-group. Data for week 2025/14 not yet completely consolidated



## Influenza sequencing results

A total of 164 (18.1%) influenza viruses from the 24/25 season were sequenced. All samples were collected between weeks 2024/40 to 2025/08. Of the sequenced influenza viruses, 50 belong to the subtype A(H1)pdm09, 54 to the subtype A(H3) and 58 viruses to the B/Victoria lineage. In accordance with WHO guidelines, viruses were assigned to reference viruses and corresponding clades and subclades. Among influenza A(H1N1)pdm09, clade 5a.2a was predominant (98%) while circulation of clade 5a.2a.1 was very low. The most common subclade was C.1.9.3 (78%). A(H3N2) viruses belong to clade 2a.3a.1, of which 87% were J.2, followed by J.2.1 (11%). All sequenced influenza B viruses belong to clade B/Victoria V1A.3a.2 clade, with 43 % being subclade C.5.7, 29 % C.5.6 and 27% C.5.1. Two A(H3N2) isolates expressed a mutation (I38M) associated with reduced susceptibility to baloxavir marboxil.

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