

# Respiratory Viruses in Luxembourg (ReViLux)

## Sentinel Network Report -Week 04

### Summary of Sentinel Network activities

At the end of week **2025/04**, the sentinel network detected a medium epidemic activity, based on **13.5%** 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 **Influenza A** was **40.6%**, **20.0%** for **Influenza B** and **11.8%** for **RSV**, while **SARS-CoV-2** activity was at a very low level (1.8%).

In total, this season (24/25) 1,356 samples were received with 295 Influenza positive samples (77 Influenza B and 218 Influenza A). So far, 194 of the 218 Influenza A samples (89.0%) have been subtyped. Ninety four (48.5%) Influenza A samples have been subtyped as A(H1)pdm9 and 100 (51.5%) samples as A(H3) virus. Additionally, Influenza B positivity doubled from 9.6% (2024/03) to 20.0% and combined with Influenza A, indicating a mix of subtypes spread across the country.

RSV continues to circulate at around 12% with 51.2 % of subtype A and 48.8% subtype B cases.

Syndromic surveillance over the last 4 weeks (Table 1)

Week	ARI		ILI		Total consultations
	N	%	N	%	
2025/01	45	24.73	12	6.59	182
2025/02	33	10.71	29	9.42	308
2025/03	73	12.54	76	13.06	582
2025/04	95	15.97	80	13.45	595

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

## 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 (**2025/04**), **13.5%** of the consultations were reported as ILI, representing a medium epidemic activity for Luxembourg, according to ECDC and the Moving Epidemic Method. Over the past 4 weeks, the network has reported rates above 6.5%, indicating increased activity.

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

Over the last week, the most frequently detected viruses (according to positivity rates) were **Influenza A (40.6%)**, followed by **Influenza B (20.0%)** and **RSV (11.8%)**. During week 2025/04, Influenza B increased sharply to 20.0%, while SARS-CoV-2 activity remained at very low level. More than 60% of the Influenza B cases identified this week were in children and adolescents (5-18 years), while 18% were in children under 5 years old and 20% in adults.

RSV activity remained above 10% in week 2025/04, increasing slightly from 11.2% to 11.8%. So far this season (24/25), hundred ninety RSV cases have been detected, including eighty three RSV-A and seventy nine RSV-B. Approximately, 60% of cases were aged 1 and 4 years (figure 3).

In total, 1356 sentinel samples have been analysed with more than 60% of samples belonging to age-group below 18 years and with 51% of female cases. Over the past week, 36.5% of samples were from adults over 18 years old and 5% from adults above 65 years old (figure 4).

Over the past 2 weeks, Influenza A was detected in all age-groups, while Adenovirus and Metapneumovirus were detected predominantly in children. Over the last 2 weeks, about 63% of all co-infections (N=35) were detected primarily in children below 5 years. The most commonly identified combination was RSV with Influenza A, followed by Human rhinovirus and RSV. So far this season, four patients were co-infected with Influenza A and B.

An overview of the circulating viral pathogens during the current and previous inter- season is displayed in Figure 2 and Table 2.

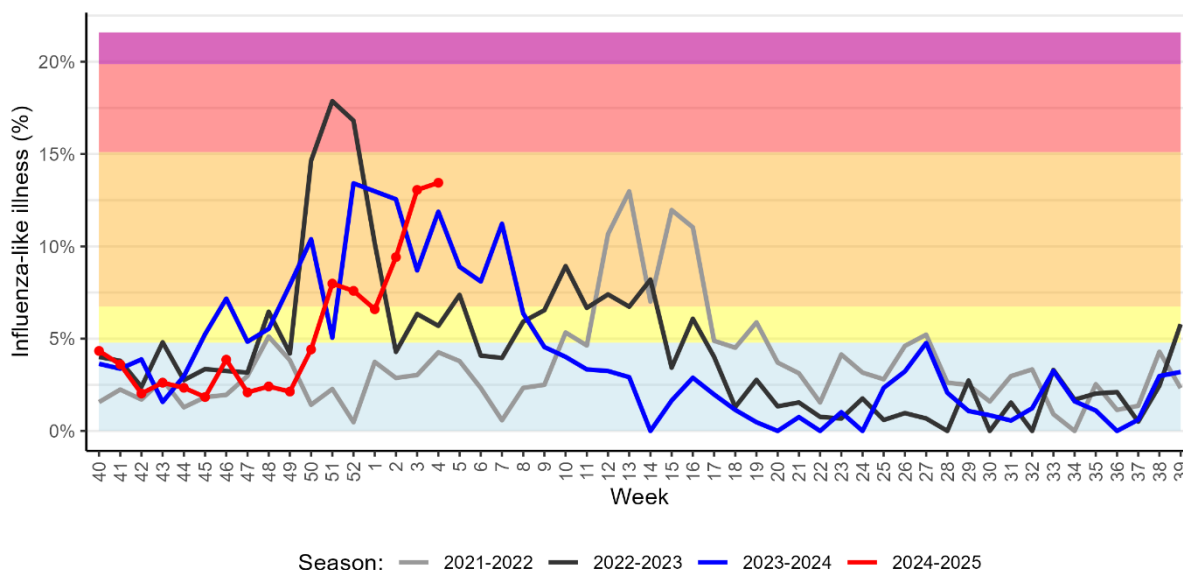


Figure 1. Percentage of patients with influenza-like illness over the last three seasons  
Background colours according to intensity of circulation: baseline, low, medium, high, very high.

Table 2. Distribution of respiratory viruses detected within the Sentinel Network previous 4 weeks compared to previous year. Data for week 2025/04 not yet completely consolidated

Virus	Season 2024/25					Season 2023/24	
	Positivity Rate in %					W04	Total N (%)
	W01	W02	W03	W04	Total N (%)		
Influenzavirus A	30.8	28.7	35.2	40.6	218 (16.1)	40.6	388 (16.5)
Influenzavirus B	0.0	12.8	9.6	20.0	77 (5.7)	1.5	12 (0.5)
Respiratory syncytial virus	28.2	22.3	11.2	11.8	190 (14.1)	4.7	212 (9.2)
Human rhinovirus	26.3	16.1	18.5	10.0	413 (30.7)	14.1	572 (24.9)
Adenovirus	18.4	8.6	4.0	2.9	98 (7.3)	7.0	125 (5.4)
SARS-CoV-2	0.0	0.0	1.6	1.8	57 (4.2)	3.8	227 (9.7)
Parainfluenzavirus	0.0	1.1	0.8	1.8	58 (4.3)	1.6	77 (3.4)
Metapneumovirus	5.3	5.4	3.2	1.2	28 (2.1)	4.7	125 (5.4)

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

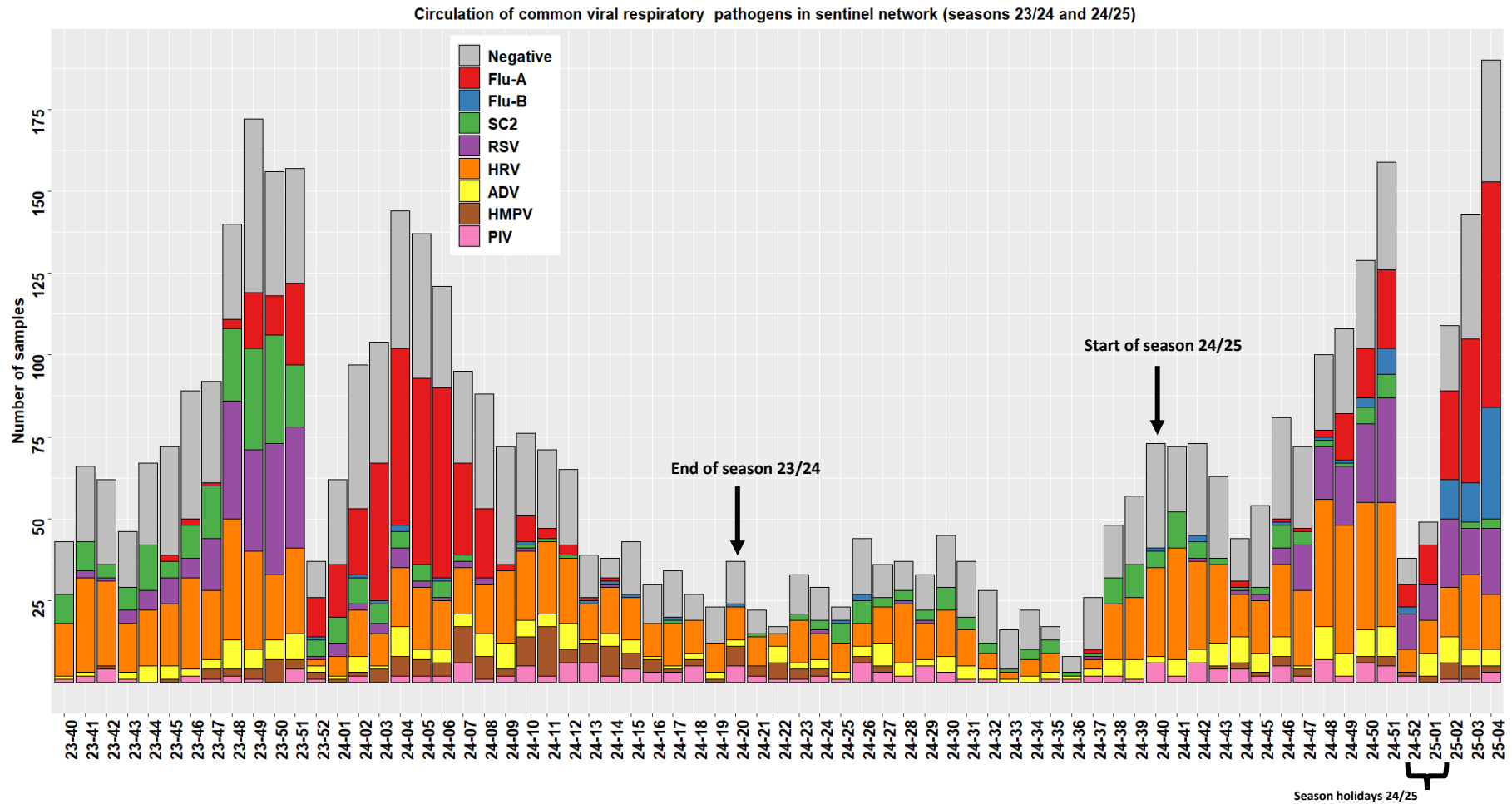


Figure 2. Distribution of respiratory viruses detected within the Sentinel Network, by calendar week. Results from last weeks are not all yet consolidated. FLU-A: Influenzavirus A; FLU-B: Influenzavirus B; PIV: Parainfluenzavirus; RSV: Respiratory syncytial virus; ADV: Adenovirus; MPV: Metapneumovirus;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

Figure 3. Displays RSV cases according to different age groups with highest impact among the 1-4 years old. Data for week 2025/04 not yet completely consolidated

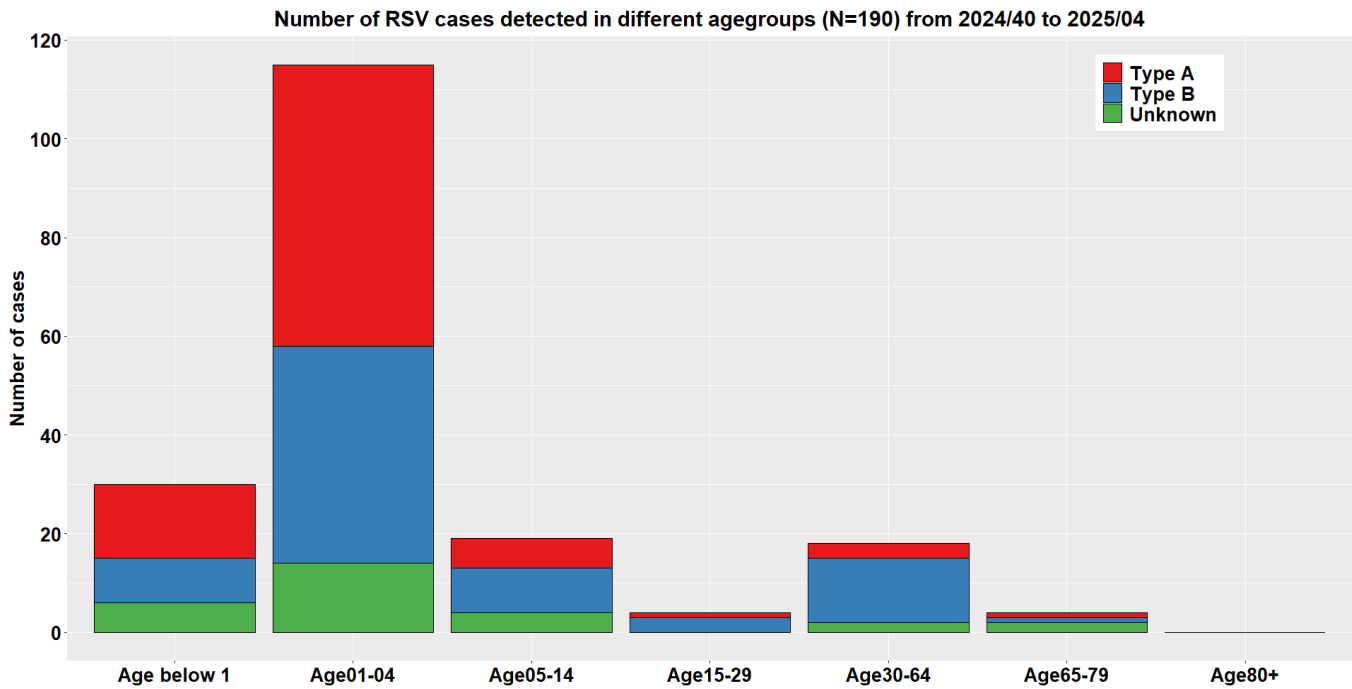
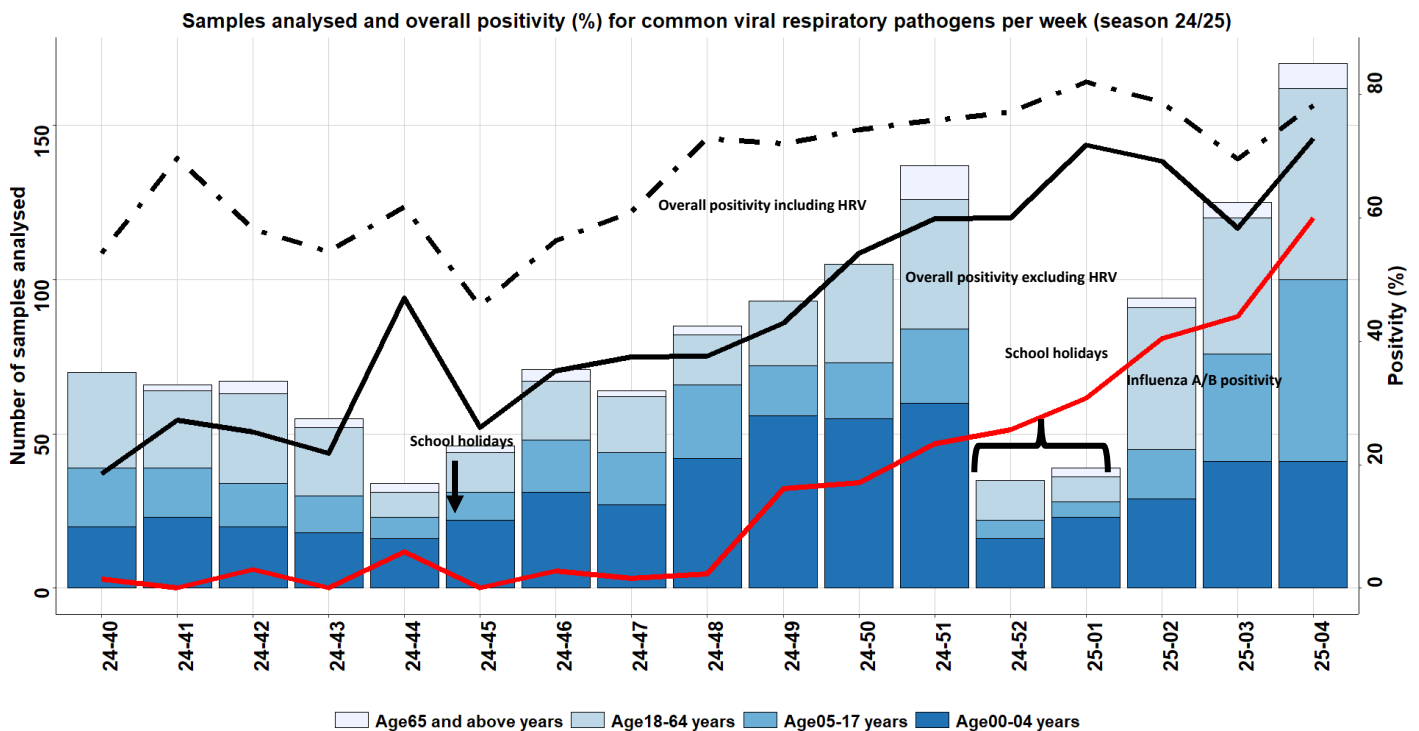


Figure 4. Displays number of sentinel samples received per week by age-group including overall sample positivity including Human rhinovirus (HRV, dotted line), excluding HRV (black line) and Influenza (red). Secondary axis corresponds to positivity



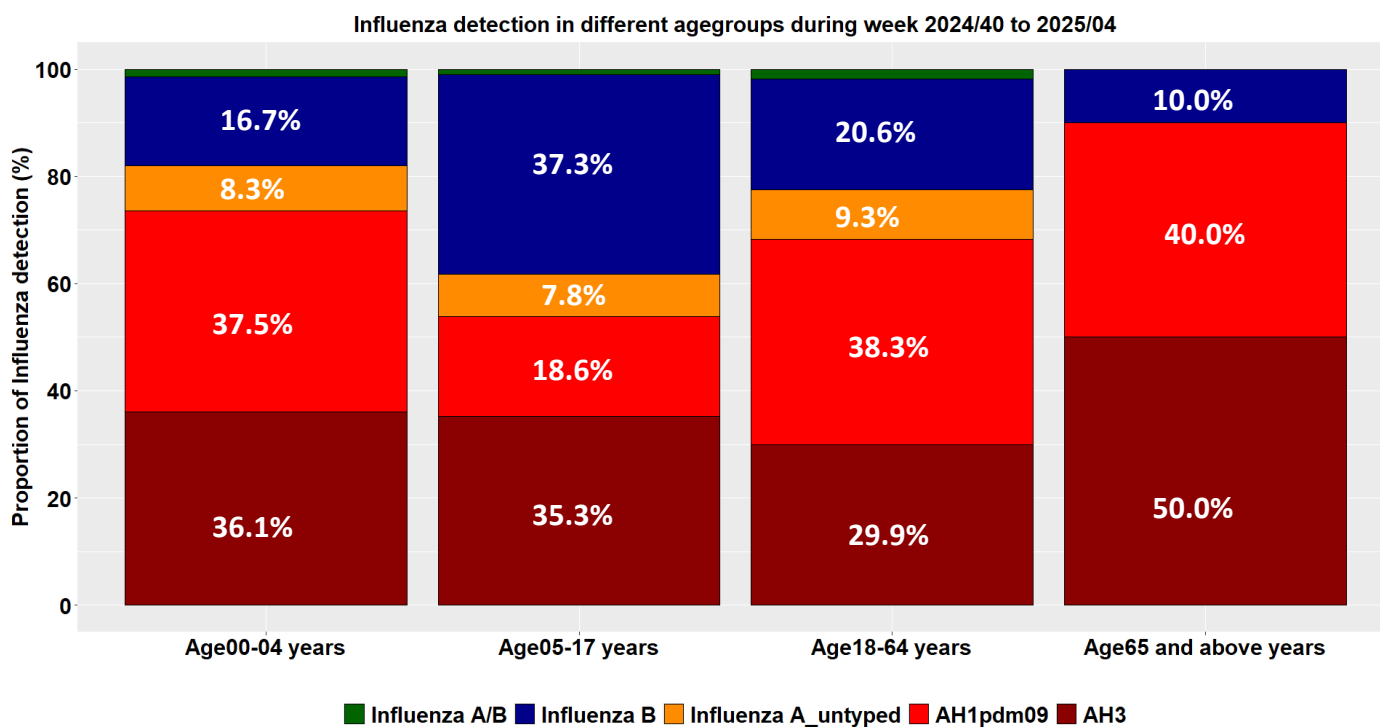


Figure 5. Displays detection of Influenza subtypes by age-group. Data for week 2025/04 not yet completely consolidated

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