Respiratory Viruses in Luxembourg (ReViLux)

Sentinel Network Report -Week 42

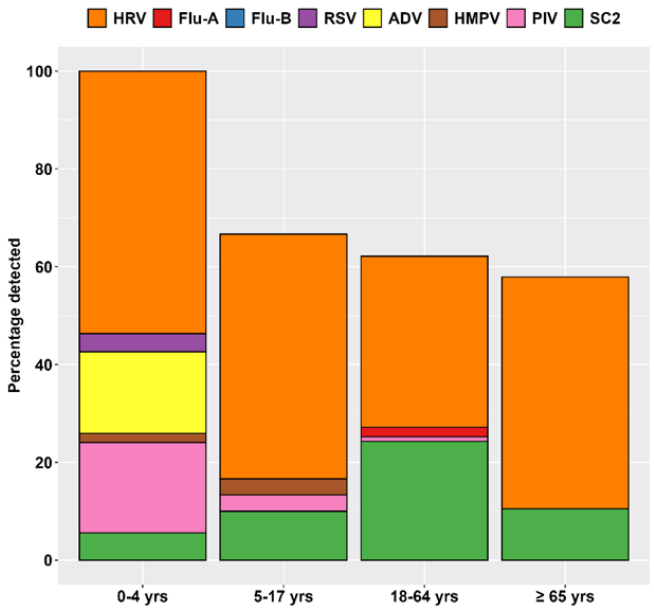
Summary of Sentinel Network activities

At the end of week (2025/42), the sentinel network detected a baseline epidemic activity with increasing trend, based on **1.9%** of consultations being associated with influenza-like illness.

Among the specimens collected by the sentinel network during the last week (**2025/42**), the percentage of positive tests for **human rhinovirus** was **37.1%**, followed by **SARS-CoV-2 (11.3%),** while low level circulation of **influenza A (1.6%)** was detected.

Summary of detected respiratory viruses among all tested samples by age-group (weeks 2025/40-42)

- **Human rhinovirus was dominant in all age-groups.**
- **SARS-CoV-2 was detected in all age-groups- particularly in adults (18-64 years of age).**
- **Low level of influenza A mainly detected in adults (18-64 years).**
- **Adenovirus only detected in children below 5 years.**
- **83% of parainfluenza cases detected in children below 5 years.**
- **93% of all co-infections were detected primarily in children below 5 years. The most commonly identified combination was human rhinovirus with adenovirus**



FLU-A: influenzavirus A; FLU-B: influenzavirus B; PIV:parainfluenzavirus; RSV: respiratory syncytial virus; ADV: adenovirus; HMPV: metapneumovirus; HRV: human rhinovirus; SC2: SARS-CoV-2; yrs- years

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

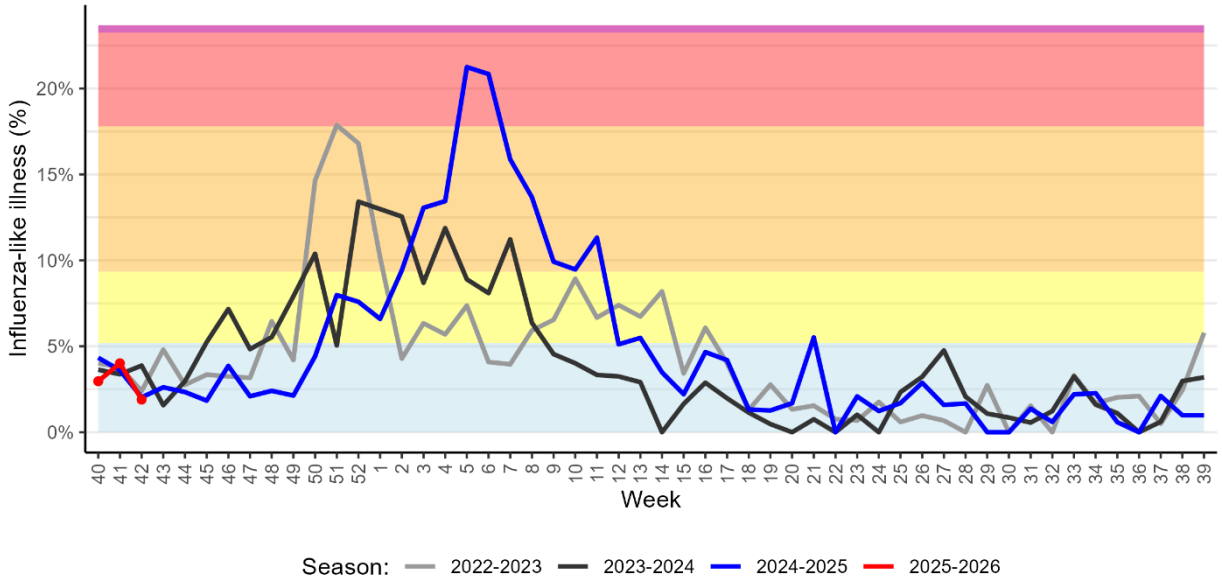
Last week **(end of week 2025/42)**, **1.9%** of the consultations were reported as ILI, representing a baseline activity for Luxembourg, according to ECDC and the Moving Epidemic Method. ARI rates have increased slightly over the past three weeks, while ILI rates reduced from 4.0 (2025/41) to 1.9 (2025/42). Similar trends have been observed in previous seasons. The history of ILI consultations is displayed in figure 2, and a detailed summary of the number of ARI and ILI cases during the last four weeks is included in table 1.

Table 1. Syndromic surveillance over the last 4 weeks

Week	ARI		ILI		Total consultations
	N	%	N	%	
2025/39	31	10.16	3	0.98	305
2025/40	54	14.56	11	2.96	371
2025/41	59	15.78	15	4.01	374
2025/42	77	16.24	9	1.90	474

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 (2025/42), the LNS received 62 samples with a median age of 25 years (range: 0-93 years). Overall, 51.6% (N=32) were female and 48.4% (N=30) male patients. Symptoms were only reported in 52% (N=32) of patients, of whom 75% (N=24) reported fever and 56% (N=18) systemic symptoms such as headaches or muscle aches in addition to respiratory symptoms. Furthermore, influenza vaccine records were available in 22 cases (35%), of which approximately 9% reporting vaccination during the previous season. RSV vaccination records were available for 92% of children under 2 years of age (N = 12), of whom 36% (N=4) had been vaccinated with long acting monoclonal antibodies. In addition, one infant was protected through maternal vaccination.

In week 2025/42, the LNS identified respiratory viruses in a total of 36 (58.1%) of the 62 sentinel samples, mainly **human rhinovirus (37.1%)**, followed by **SARS-CoV-2 (11.3%)**, **Adenovirus (9.7%)** and **parainfluenza (9.7%)**. Furthermore, the sentinel network detected low level **influenza A** circulation **(1.6%)**. Human rhinovirus has been detected in all age-groups, while adenovirus has been detected only in children below 5 years if 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.

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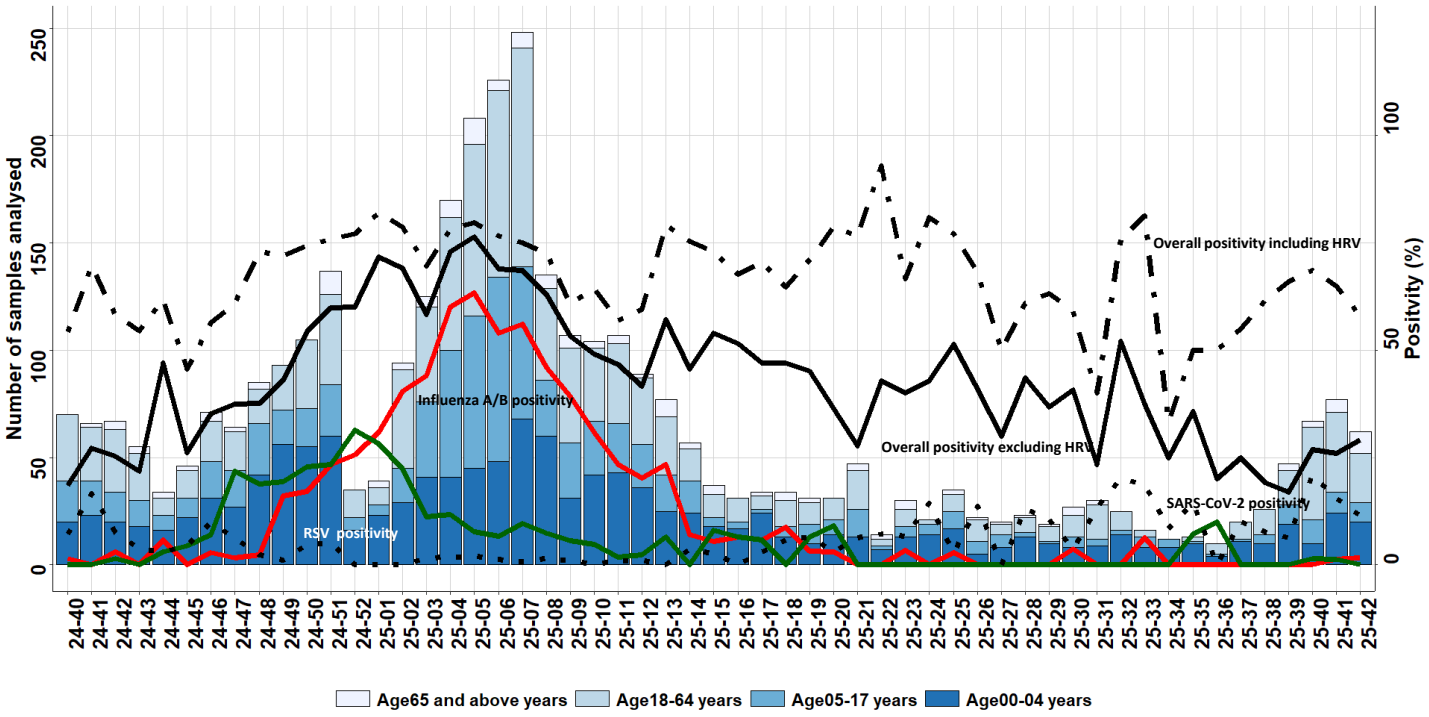
Table 2. Distribution of respiratory viruses detected within the Sentinel Network during the past 3 weeks compared to previous season; Total N detected during season 2025/26 and previous season

Virus	Season 2025/26				Season 2024/25		
	Positivity Rate in %						
	W40	W41	W42	Total N (%)	W41	W42	Total N (%)
Human rhinovirus	47.8	44.2	37.1	89 (43.2)	52.3	40.3	720 (24.8)
SARS-CoV-2	20.9	15.6	11.3	33 (16.0)	16.7	7.5	80 (2.7)
Adenovirus	0.0	3.9	9.7	9 (4.4)	7.7	6.0	203 (7.0)
Parainfluenzavirus	3.0	5.2	9.7	12 (5.8)	3.1	9.0	99 (3.4)
Influenzavirus A	0.0	1.3	1.6	2 (1.0)	0.0	0.0	502 (17.2)
Metapneumovirus	1.5	0.0	1.6	2 (1.0)	0.0	0.0	157 (5.4)
Respiratory syncytial virus	1.5	1.3	0.0	2 (1.0)	0.0	1.5	287 (9.9)
Influenzavirus B	0.0	0.0	0.0	0 (0.0)	0.0	3.0	404 (13.9)

*Figure 2. Presents number of sentinel samples received per week by age-group (weeks 2024/40 to 2025/42) 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*



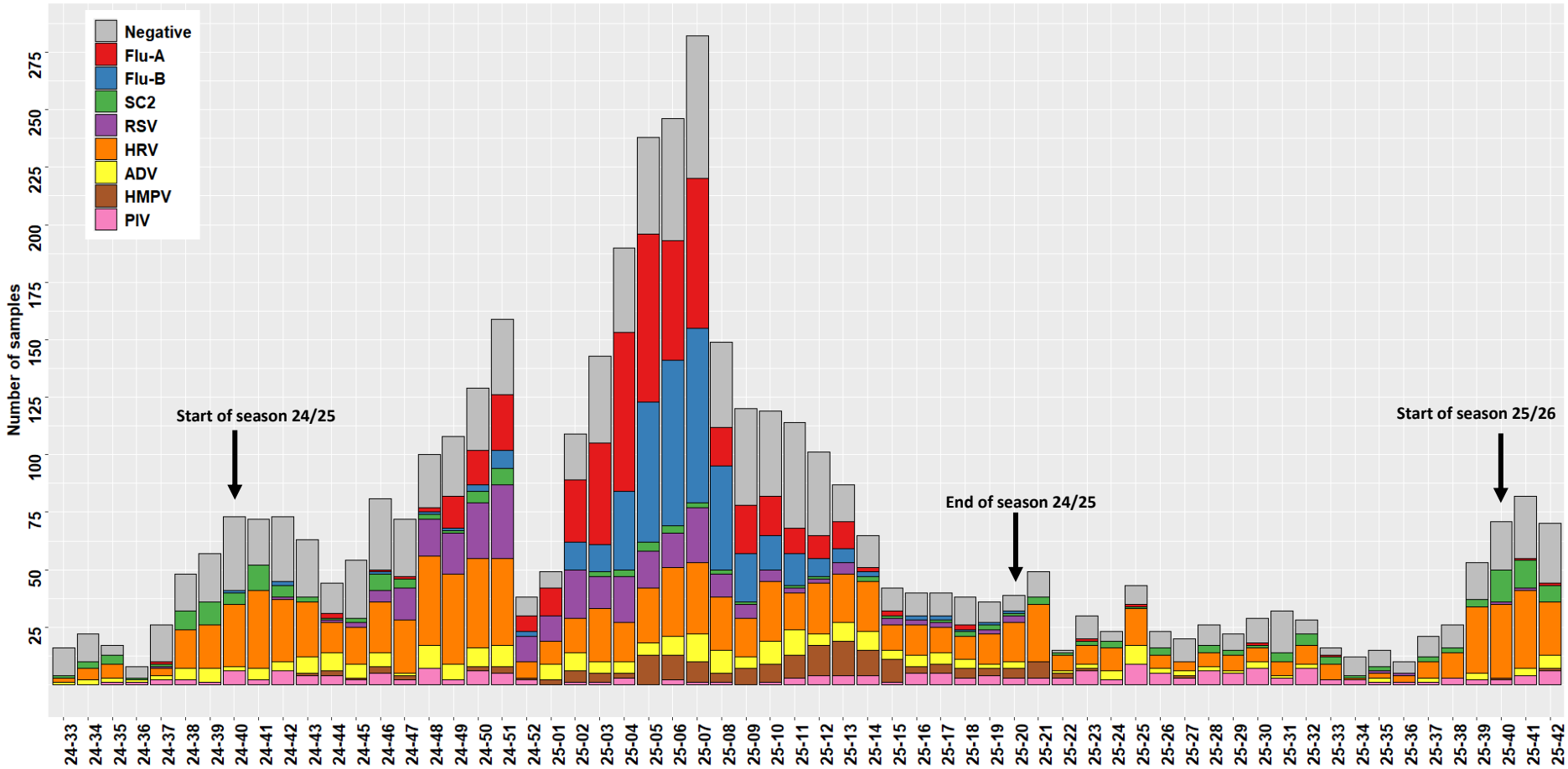


Figure 3. Circulation of respiratory viruses detected within the Sentinel Network by calendar week (seasons 24/25 and 25/26). FLU-A: influenzavirus A; FLU-B: influenzavirus B; PIV:parainfluenzavirus; RSV: respiratory syncytial virus; ADV: adenovirus; HMPV: metapneumovirus; HRV: human rhinovirus; SC2: SARS-CoV-2.

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