

Respiratory Viruses in Luxembourg (ReViLux)

Sentinel Week 43

Summary

At the end of **week 2024/43**, the sentinel network detected a baseline epidemic activity, based on **2.6%** of the 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 **44.9%**, followed by **14.3%** for **Adenovirus** and **8.2%** for **Parainfluenza**. SARS-CoV-2 detections continue to decline slowly within the sentinel network.

No new cases of Influenza B and RSV were detected during week 2024/43. In EU/EEA countries Influenza and RSV remain to circulate at low levels.

Syndromic surveillance over the last 4 weeks (Table 1)

Week	ARI		ILI		Total consultations
	N	%	N	%	
2024/40	59	17.05	15	4.34	346
2024/41	81	22.44	13	3.60	361
2024/42	82	20.81	8	2.03	394
2024/43	22	14.38	4	2.61	153

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

Sentinel Surveillance Network

The Sentinel Surveillance aims at monitoring the 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 2024/43**), **2.6%** of the consultations were reported as ILI, representing a baseline epidemic activity for Luxembourg, according to ECDC and the Moving Epidemic Method. Over the past few weeks baseline ILI rates have been observed. Similar levels have been observed during previous season at this time of the year. 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

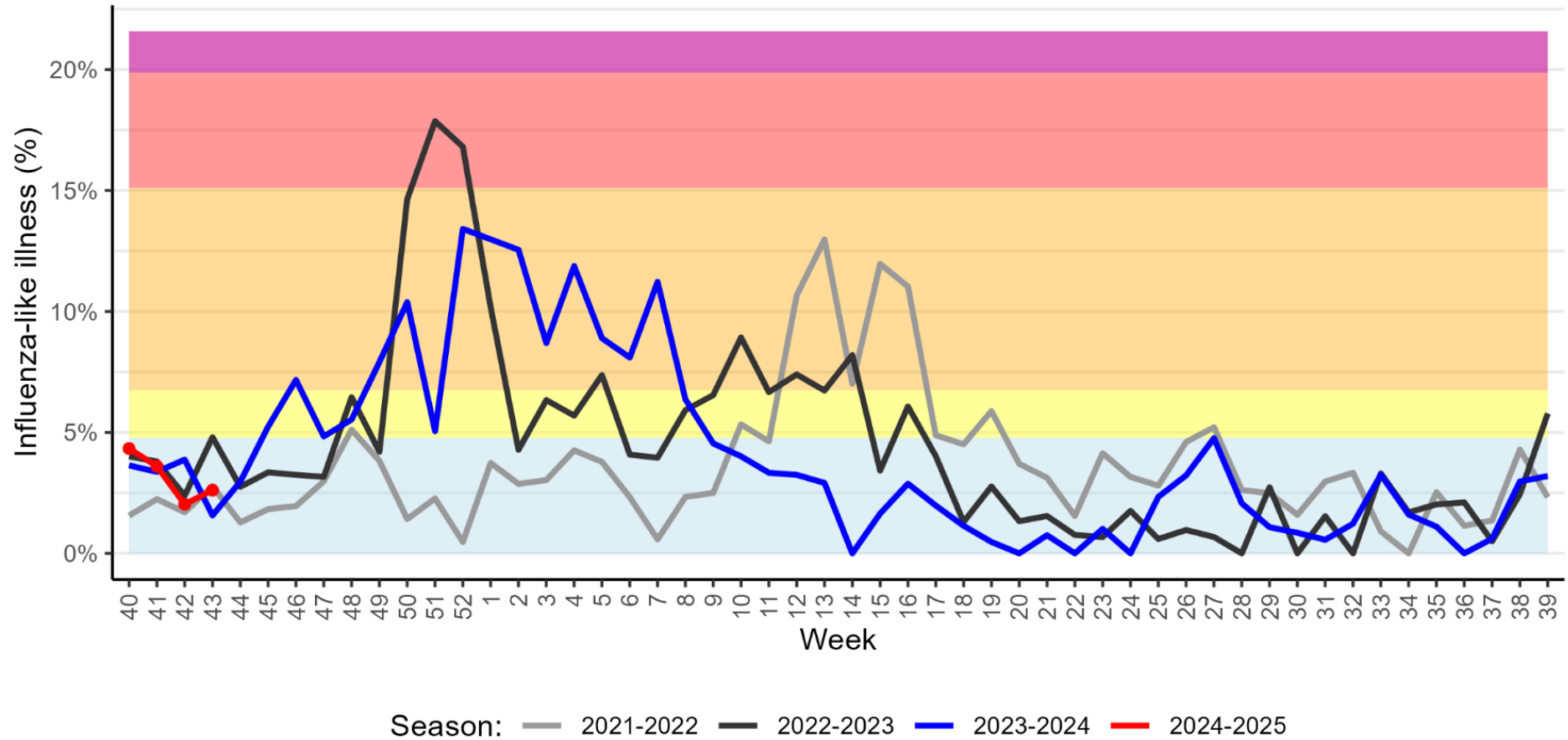
Over the last week, the most frequently detected viruses (according to positivity rates) were **Human rhinovirus (44.9%)**, followed by **Adenovirus (14.3%)** and **Parainfluenza (8.2%)**. A decrease in SARS-CoV-2 circulation was detected, but no other cases of Influenza or RSV.

Table 2. Distribution of respiratory viruses detected within the Sentinel Network over the last 4 weeks compared to previous year.

Virus	Season 2024/25				Season 2023/24
	Positivity Rate in %				
	W40	W41	W42	W43	W43
Human rhinovirus	38.6	52.3	40.3	44.9	34.9
Adenovirus	2.9	7.7	6.0	14.3	4.7
Parainfluenzavirus	8.6	3.1	9.0	8.2	2.3
SARS-CoV-2	7.1	16.7	7.5	3.6	16.3
Metapneumovirus	0.0	0.0	0.0	2.0	0.0
Influenzavirus B	1.4	0.0	3.0	0.0	0.0
Respiratory syncytial virus	0.0	0.0	1.5	0.0	9.3
Influenzavirus A	0.0	0.0	0.0	0.0	0.0

**Co-detection counted once for each virus detected. All data is provisional as possibility of reporting delays.*

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.

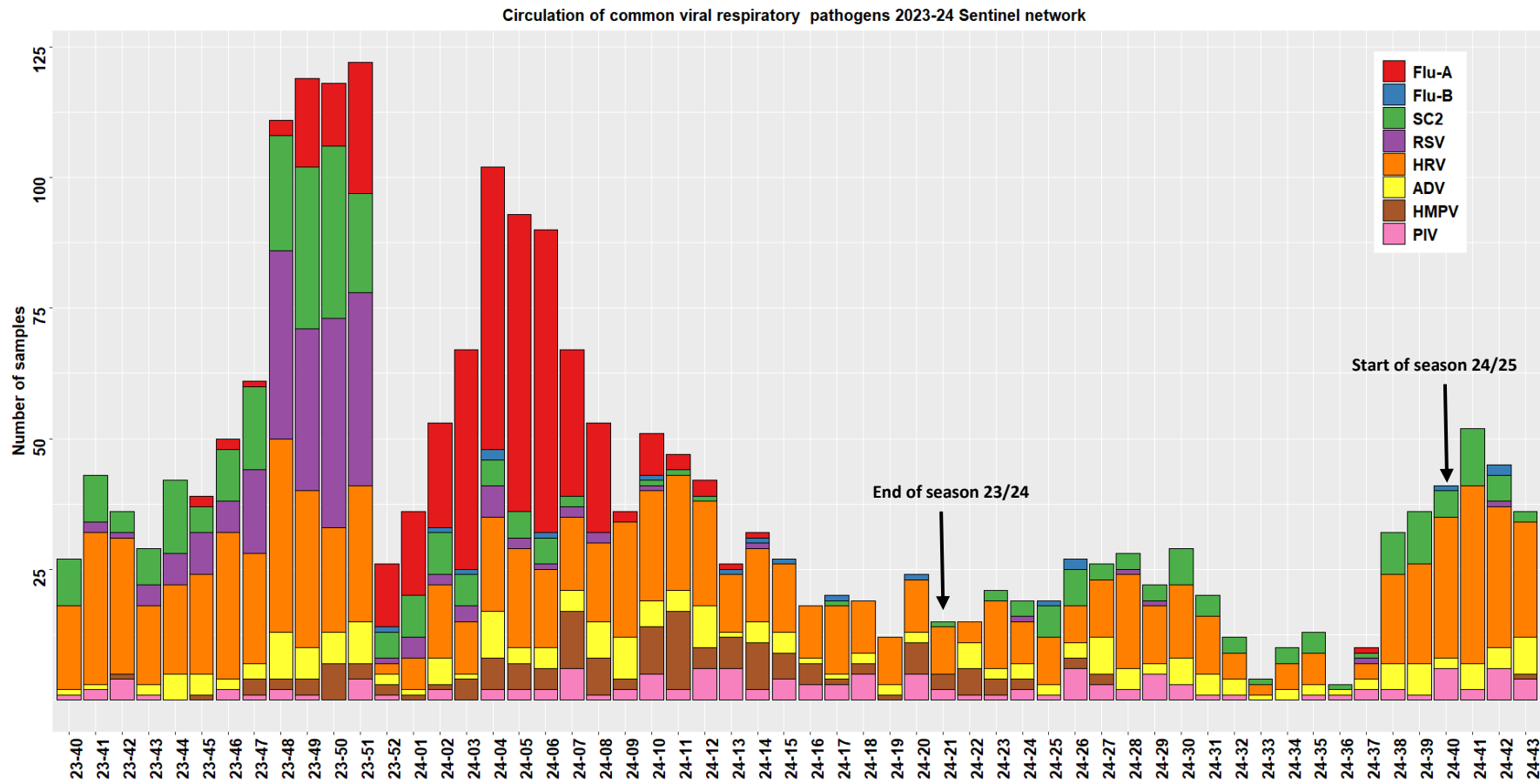


Figure 2. Distribution of respiratory viruses detected within the Sentinel Network, by calendar week. Results from last weeks are not yet consolidated.
 FLU-A: influenza A; FLU-B: influenza B; PIV: parainfluenza virus; RSV: respiratory syncytial virus; ADV: adenovirus; MPV: metapneumovirus; HRV: human rhinovirus; SC2: SARS-CoV-2.

References

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