Respiratory Viruses in Luxembourg (ReViLux)

Sentinel Network Report -Week 06

Summary of Sentinel Network activities

At the end of week **2025/06**, the sentinel network detected a high epidemic activity, based on **20.8%** 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 B** was **31.6%**, **23.1%** for **Influenza A** and **6.7%** for **RSV**, while **SARS-CoV-2** activity was at a very low level (1.3%).

In total, this season (24/25) 1,789 samples were received with 552 Influenza positive samples (209 Influenza B and 343 Influenza A). So far, 315 of the 343 Influenza A samples (91.8%) have been subtyped. Hundred and forty one (44.8%) Influenza A samples have been subtyped as A(H1)pdm09 and 174 (55.2%) samples as A(H3) virus. Additionally, Influenza B positivity increased slightly from 29.3% (2024/04) to 31.6% and combined with Influenza A, indicating a mix of subtypes spread across the country.

RSV continues to circulate at around 7% with 46.9% of subtype A and 53.1% subtype B cases.

Syndromic surveillance over the last 4 weeks (Table 1)

Week	ARI		ILI		Total consultations
	N	%	N	%	
2025/03	73	12.54	76	13.06	582
2025/04	95	15.97	80	13.45	595
2025/05	85	15.57	116	21.25	546
2025/06	84	15.36	114	20.84	547

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 **(2025/06)**, **20.8%** of the consultations were reported as ILI, representing a high epidemic activity for Luxembourg, according to ECDC and the Moving Epidemic Method. Over the past two weeks ILI rates have been above 20%, indicating significant respiratory virus activity within Luxembourg.

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 B (31.6%)**, followed by **Influenza A (23.1%)** and **RSV (6.7%)**. During week 2025/06, Influenza B increased slightly to above 30%, Influenza A decreased to 23%, while SARS-CoV-2 activity remained at very low level. Overall Influenza positivity decreased from 63.5% (2025/05) to 53.8% (2025/06) due to decreased Influenza A activity in the network (table 2 and figure 4). An overview of the circulating viral pathogens during the current and previous inter- season is displayed in Figure 2 and Table 2.

Nearly 55% of the Influenza B cases identified this week were in children and adolescents (5-18 years), while 10% were in children under 5 years old and 35% in adults.

RSV activity remained stable at around 7% (2025/06). So far this season (24/25), two hundred and twenty one RSV cases have been detected, including ninety RSV-A and hundred and two RSV-B. Approximately, 55% of cases were aged 1 and 4 years (figure 3).

In total, 1789 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, 38% of samples were from adults over 18 years old and 2% from adults above 65 years old (figure 4).

Over the past 2 weeks, Influenza A and B were detected in all age-groups, while Adenovirus was detected predominantly in children. Over the last 2 weeks, about 40% of all co-infections (N=49) were detected primarily in children below 5 years, 38% in children aged between 5 and 18 years and 22% in adults. The most commonly identified combination was Human rhinovirus with Influenza A, followed by Human rhinovirus and Influenza B. So far this season, eight patients were co-infected with Influenza A and B.

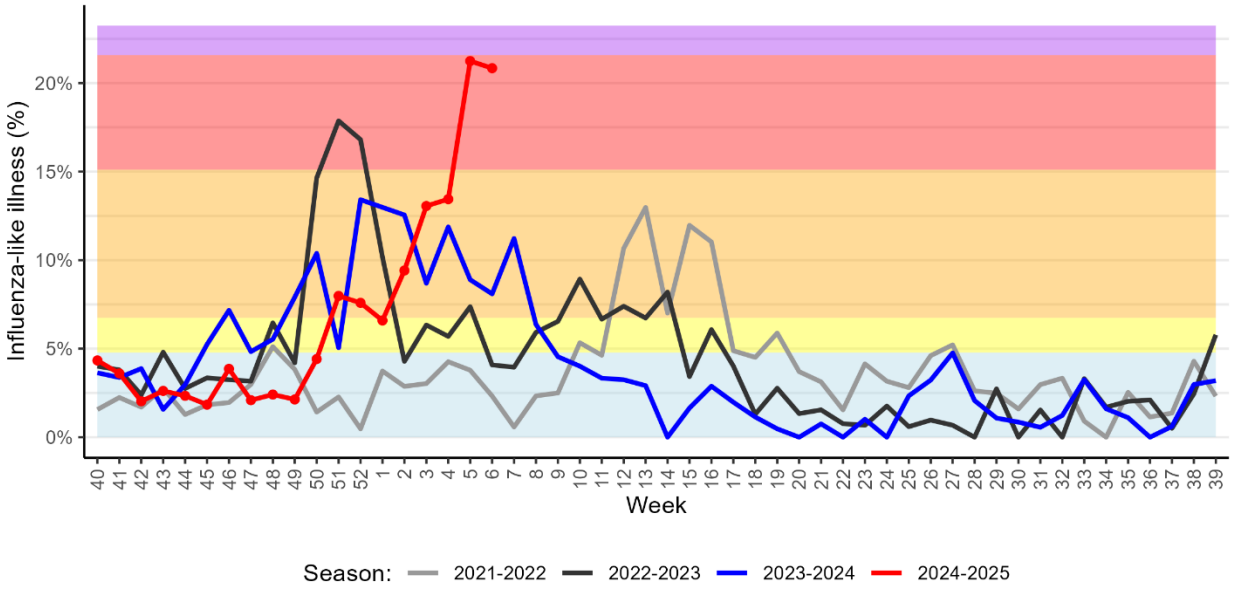

Figure 1. Percentage of patients with influenza-like illness over the last three seasons
Background colours according to intensity of circulation: baseline, low, medium, high, very high.

Table 2. Distribution of respiratory viruses detected within the Sentinel Network previous 4 weeks compared to previous year. Data for week 2025/06 not yet completely consolidated

Virus	Season 2024/25					Season 2023/24	
	Positivity Rate in %						
	W03	**W04**	**W05**	**W06**	**Total N (%)**	**W06**	**Total N (%)**
Influenzavirus B	9.6	20.0	29.3	31.6	209 (11.7)	0.9	12 (0.5)
Influenzavirus A	35.2	40.6	35.1	23.1	343 (19.2)	52.7	388 (16.5)
Human rhinovirus	18.5	10.0	11.5	12.9	466 (26.2)	14.2	572 (24.9)
Respiratory syncytial virus	11.2	11.8	7.7	6.7	221 (12.4)	0.9	212 (9.2)
Metapneumovirus	3.2	1.2	6.3	4.9	52 (2.9)	3.8	125 (5.4)
Adenovirus	4.0	2.9	2.4	3.6	111 (6.2)	3.8	125 (5.4)
SARS-CoV-2	1.6	1.8	1.9	1.3	64 (3.6)	4.5	227 (9.7)
Parainfluenzavirus	0.8	1.8	0.0	0.9	60 (3.4)	1.9	77 (3.4)

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

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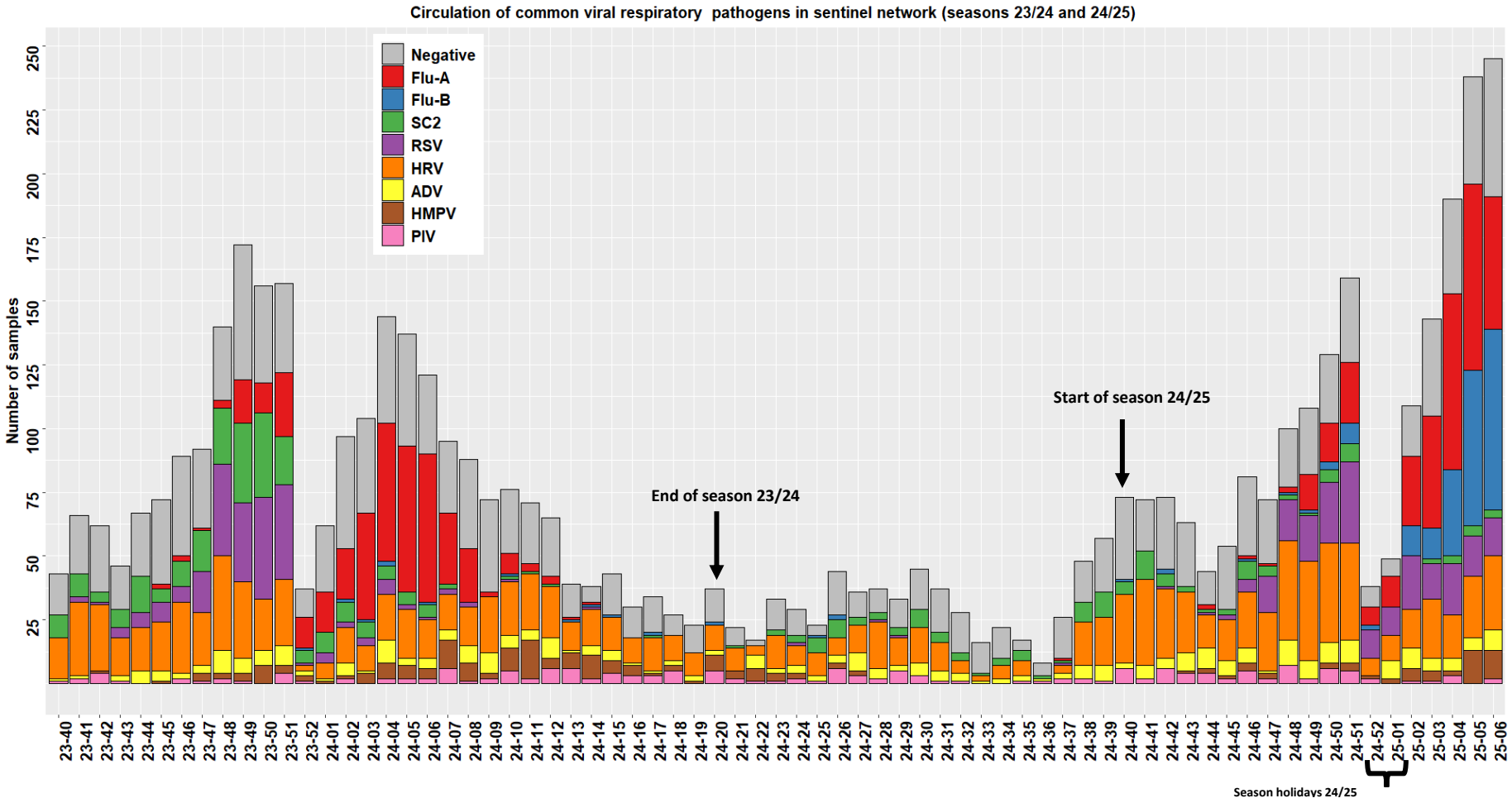

Figure 2. Distribution of respiratory viruses detected within the Sentinel Network, by calendar week. Results from last weeks are not all yet consolidated.
FLU-A: Influenzavirus A; FLU-B: Influenzavirus B; PIV:Parainfluenzavirus; RSV: Respiratory syncytial virus; ADV: Adenovirus; MPV: Metapneumovirus;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

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Figure 3. Displays RSV cases according to different age groups with highest impact among the 1-4 years old. Data for week 2025/06 not yet completely consolidated

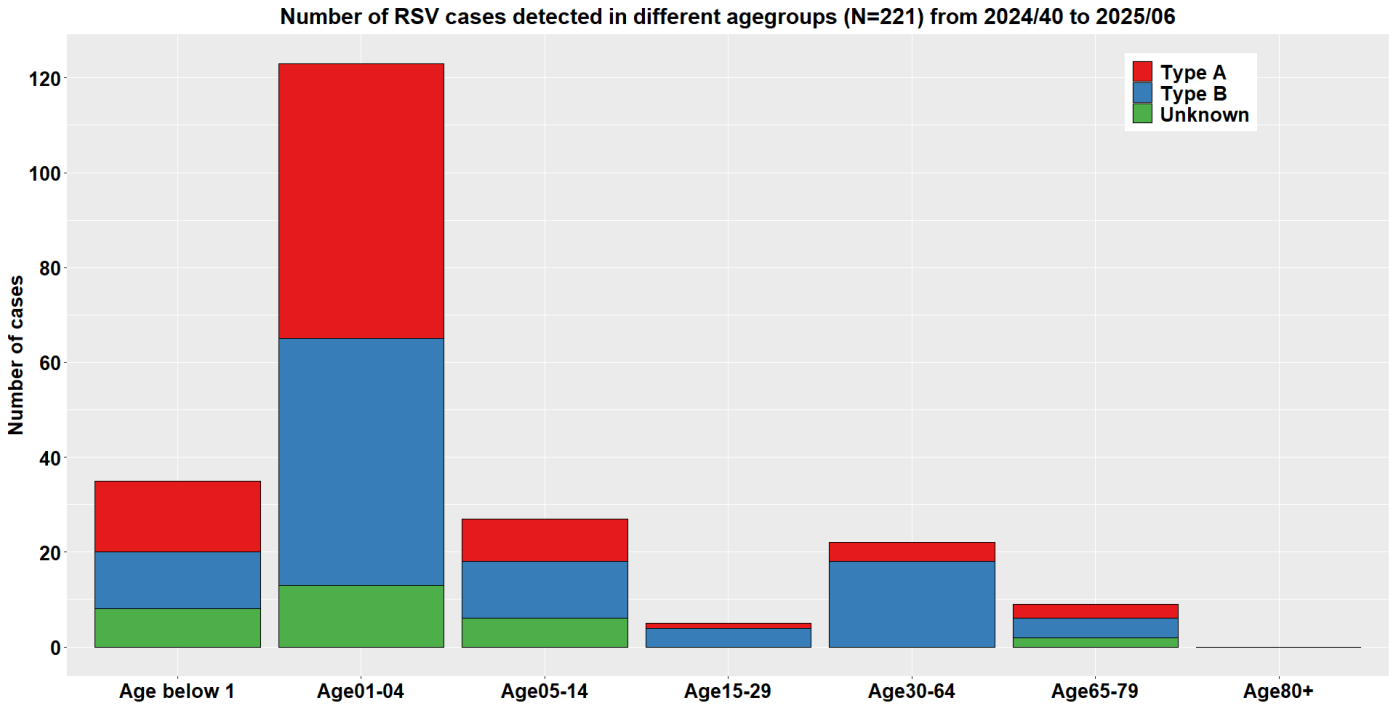
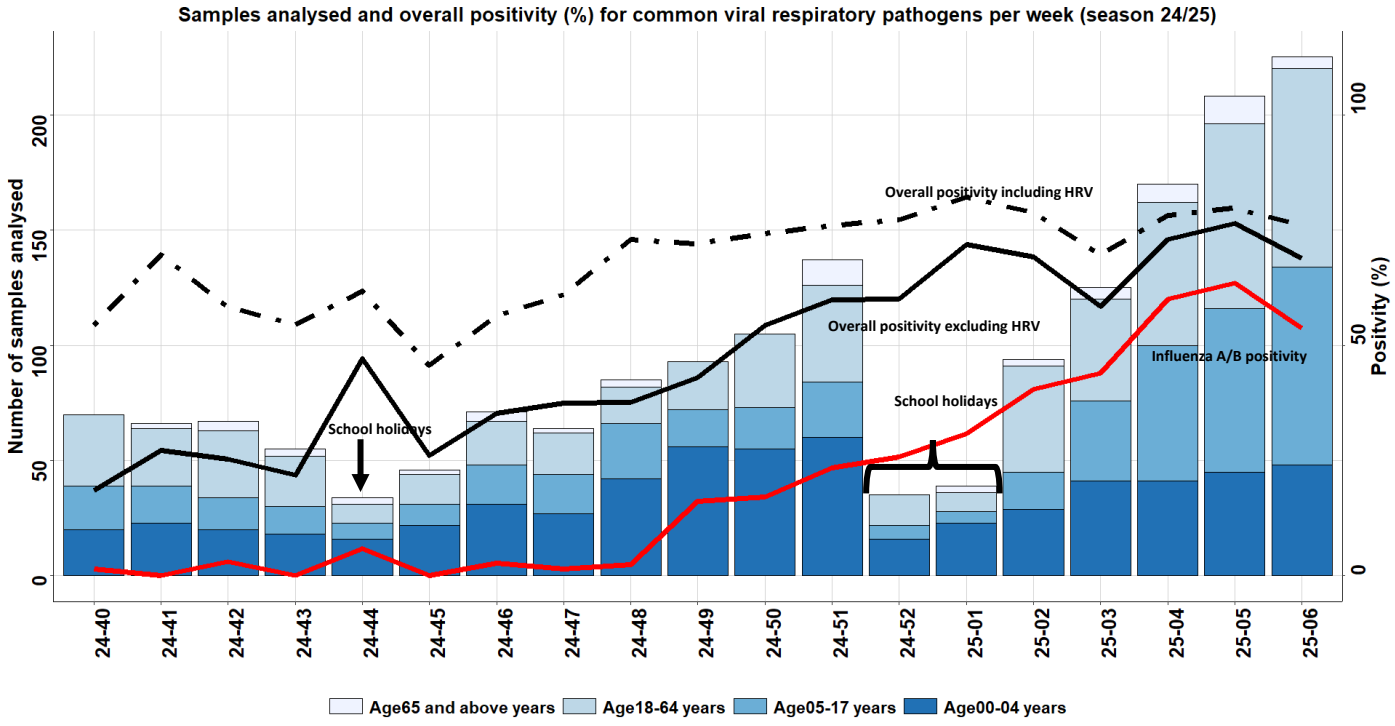


Figure 4. Displays number of sentinel samples received per week by age-group including overall sample positivity including Human rhinovirus (HRV, dotted line), excluding HRV (black line) and Influenza (red). Secondary axis corresponds to positivity



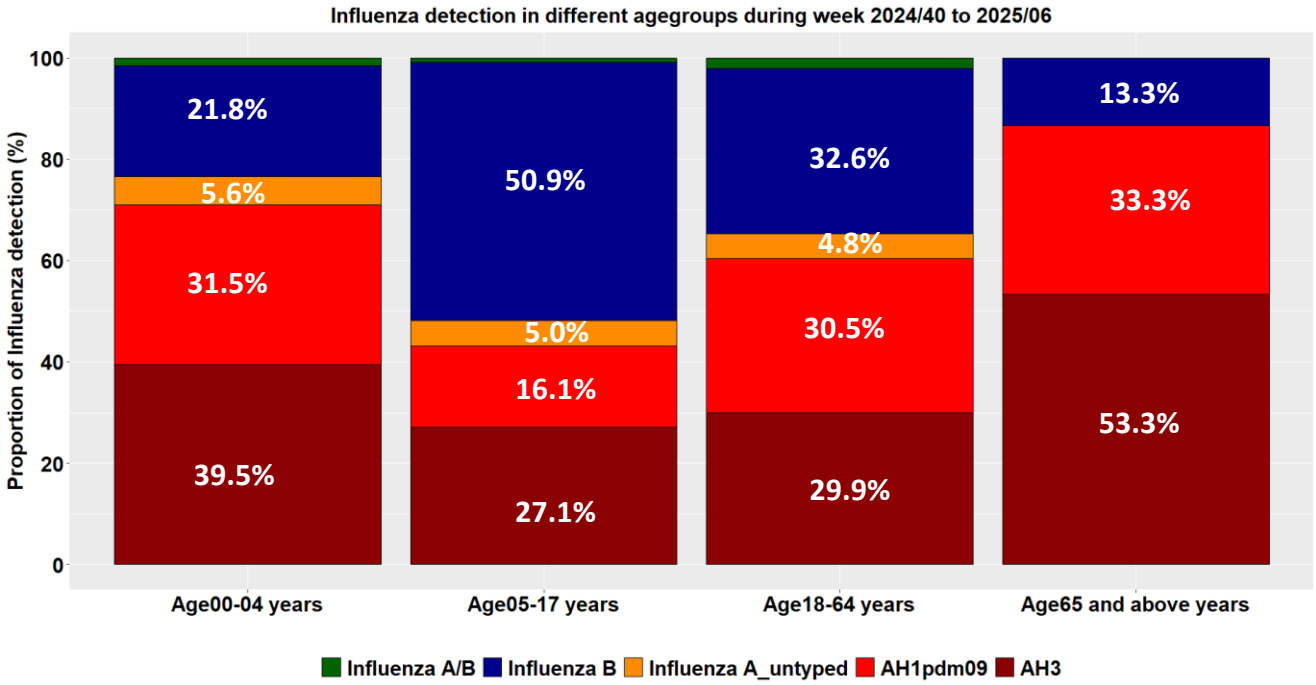


Figure 5. Displays detection of Influenza subtypes by age-group. Data for week 2025/06 not yet completely consolidated

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