

Respiratory Viruses in Luxembourg (ReViLux)

Sentinel Network Report -Week 48

Summary of Sentinel Network activities

In week **2025/48**, consultations for acute respiratory infections (**ARI**) remained stable at **15.9%** and influenza-like illness activity (**ILI, 3.3%**) also remained within ECDC-defined baseline levels.

In week 2025/48, the LNS processed 59 sentinel specimen, with adults aged 18-64 years representing the largest proportion (52.5%). Respiratory viruses were detected in 62.7% of samples, dominated by **human rhinovirus (35.6%)**, followed by **RSV (16.9%)** and **influenza A (15.3%)**. RSV activity continues to rise, with 26 confirmed cases this season- mostly RSV-A (65%). Influenza A showed a sharp increase from <5% in week 2025/47 to 15.3% in week 2025/48, primarily A(H3), with most cases occurring in adults. SARS-CoV-2 detections remains low and decreased to below 5%.

Influenza Vaccination Coverage

The sentinel network routinely monitors annual influenza vaccination coverage. During the current season, data were collected from 473 samples (100%), and vaccination status was available for 331 cases (70%). Among these, approximately 10% reported receiving the vaccine, although the timing of vaccination was not consistently documented.

In Luxembourg, influenza vaccination is recommended for the following groups:

- Infants under 6 months with co-morbidities
- Children aged 2-17 years
- Adults, including:
 - Individuals \geq 65 years
 - Pregnant women
 - Persons in regular contact with vulnerable individuals (e.g. healthcare professionals)

The sentinel network does not collect data on risk factors, but vaccination coverage can be stratified by age-group (see table 3).

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

During weeks 2025/45-48, the proportion of consultations for acute respiratory infections (ARI) increased from 10.3% in week 2025/45 to 15.9% in week 2025/48, but remained stable over the past two weeks. In addition, influenza-like illness (ILI) activity continues to remain within baseline levels, as defined by the European Centre for Disease Prevention and Control and the Moving Epidemic Method.

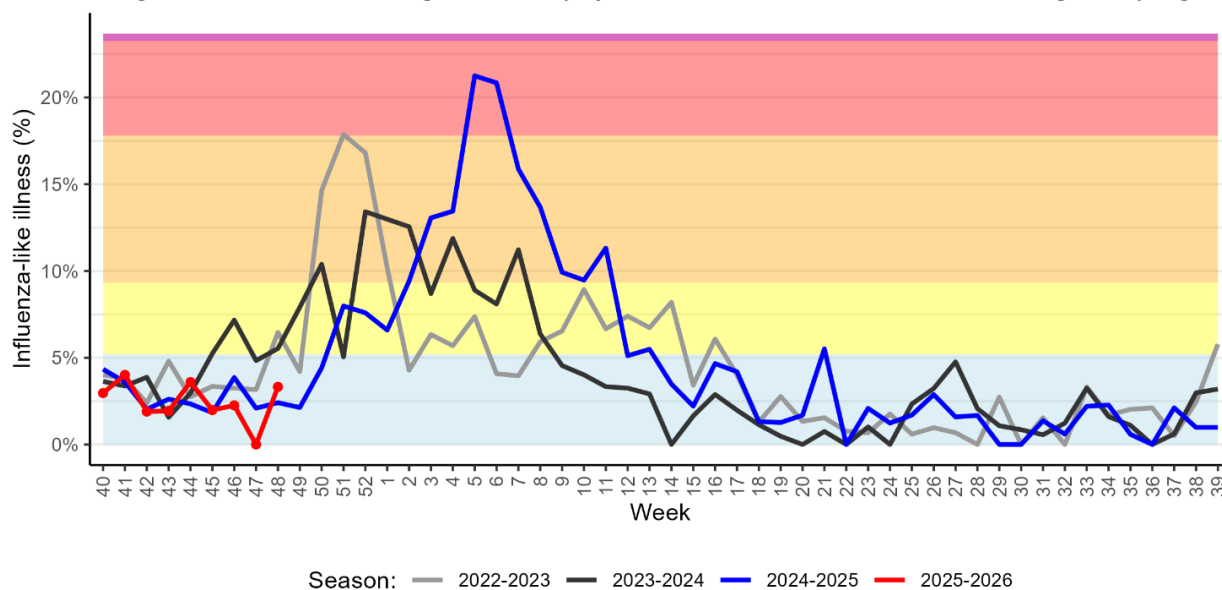
Similar patterns-excluding the most recent week- have been observed in previous seasons. Historical trends in ILI consultations are presented in figure 2, and a detailed summary of the ARI and ILI case counts for the past four weeks is provided in table 1.

Table 1. Syndromic surveillance over the last 4 weeks

Week	ARI		ILI		Total consultations
	N	%	N	%	
2025/45	26	10.32	5	1.98	252
2025/46	48	13.52	8	2.25	355
2025/47*	18	16.51	0	0.00	109
2025/48	43	15.87	9	3.32	271

*ARI: Acute Respiratory Infections; ILI: Influenza-like Illness. *Results from only 5 doctors*

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 2025/48, the LNS received **59 sentinel specimens**. Adults aged 18 to 64 years accounted for the largest proportion (**52.5%, N=31**), followed by children under 5 years (**25.4%, N=15**). Children aged 5-17 years represented **17.0% (N=10)**, while older adults (≥ 65 years) comprised **5.1% (N=3)** of the sampled population. Overall, **57.6% (N=34)** of samples were from female patients and **42.4% (N=25)** from male patients.

Respiratory viruses were detected in **37 of 59 samples (62.7%)**. The predominant pathogen was **human rhinovirus (35.6%)**, followed by **RSV (16.9%)** and **influenza A (15.3%)**. Over the preceding two weeks, **RSV** and **influenza A** positivity exceeded **15%**, whereas **SARS-CoV-2** detection declined to **below 5%**.

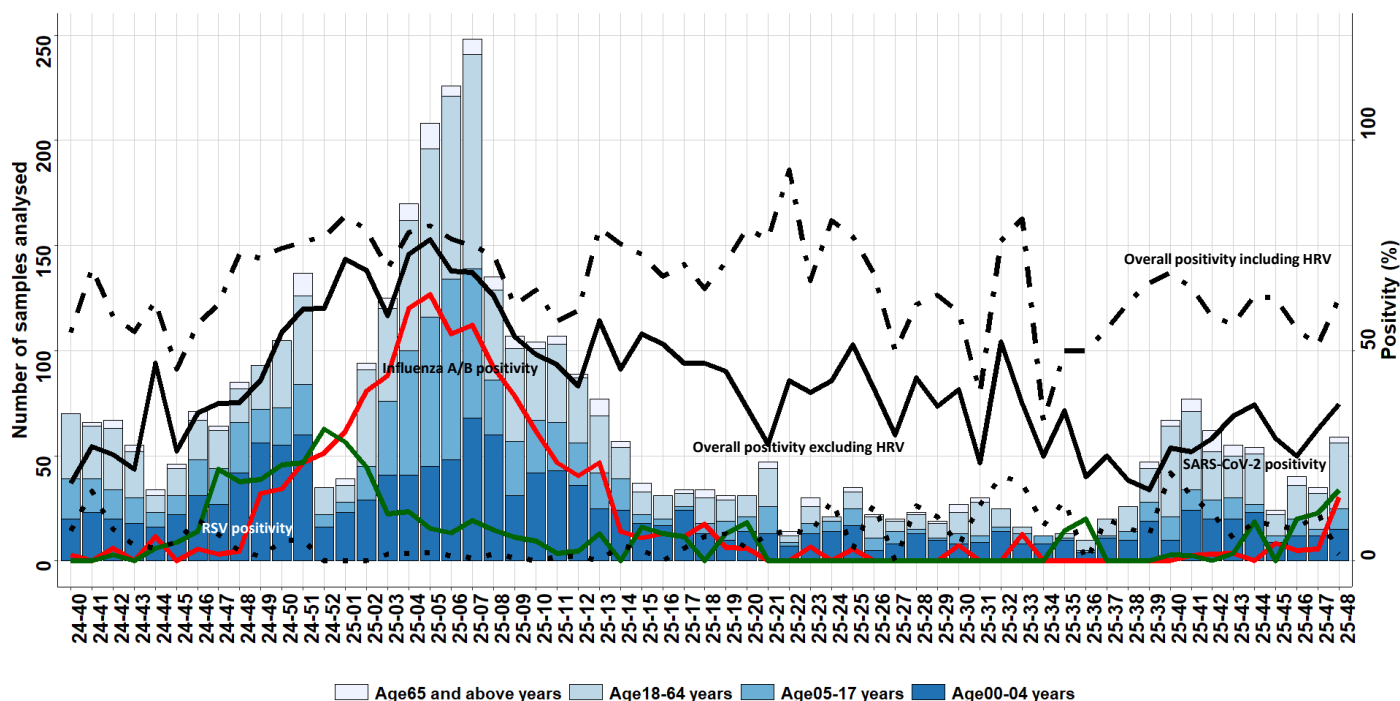
Since the start of the season (25/26), **twenty six RSV cases** have been confirmed. Subtyping identified **RSV-A** in **15 cases (65.2%)** and **RSV-B** in **8 cases (34.8%)**. Approximately **27% of RSV infections occurred in children < 2 years**, while **42%** were reported in **adults aged 18 to 64 years** (figure 4).

Influenza A activity increased sharply from **<5%** in week **2025/47** to **15.3%** in week **2025/48**. Among **15 detected cases**, **66.7 (N=6)** were subtyped as **A(H3)** and **33.3% (N=3)** as **A(H1)pdm09**. Subtyping is still pending for **6 cases**. Slightly more than **50% of influenza A cases occurred in adults aged 18 to 64 years**, followed by **33%** in children **aged 5 to 17 years** (figure 5). 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.

Table 2. Distribution of respiratory viruses detected within the Sentinel Network during the past 4 weeks compared to previous season; Total N detected during season 2025/26 and previous season; Results from last weeks are not all yet consolidated.

Virus	Season 2025/26					Season 2024/25		
	Positivity Rate in %					Positivity Rate in %		
	W45	W46	W47	W48	Total N (%)	W47	W48	Total N (%)
Human rhinovirus	34.8	30.0	20.0	35.6	173 (36.7)	36.5	45.9	720 (24.8)
Respiratory syncytial virus	0.0	10.0	11.4	16.9	26 (5.5)	22.2	18.8	287 (9.9)
Influenzavirus A	4.2	2.5	2.9	15.3	15 (3.2)	1.6	2.4	502 (17.2)
Adenovirus	8.7	5.0	2.9	3.4	27 (5.7)	1.6	11.8	203 (7.0)
Metapneumovirus	1.9	4.3	0.0	2.9	7 (1.5)	3.2	0.0	157 (5.4)
SARS-CoV-2	8.3	7.5	11.4	1.7	51 (10.8)	6.3	2.4	80 (2.7)
Parainfluenzavirus	4.3	0.0	0.0	1.7	30 (6.4)	3.2	8.2	99 (3.4)
Influenzavirus B	0.0	0.0	0.0	0.0	0 (0.0)	0.0	1.2	404 (13.9)

Figure 2. Presents number of sentinel samples received per week by age-group (weeks 2024/40 to 2025/48) 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; Results from last weeks are not all yet consolidated.



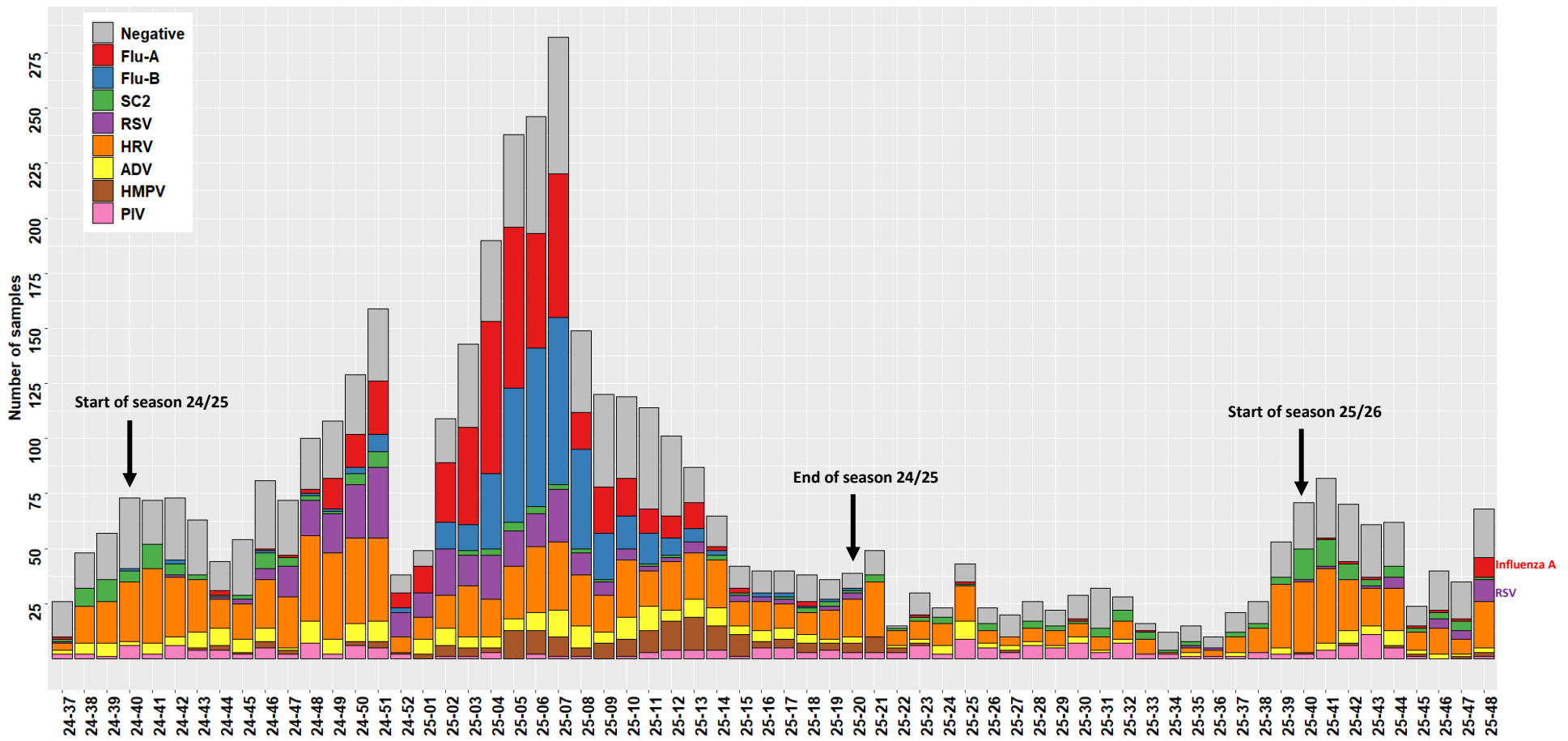


Figure 3. Circulation of respiratory viruses detected within the Sentinel Network by calendar week (seasons 24/25 and 25/26). FLU-A: influenza virus A; FLU-B: influenza virus B; PIV: parainfluenza virus; RSV: respiratory syncytial virus; ADV: adenovirus; HMPV: metapneumovirus; HRV: human rhinovirus; SC2: SARS-CoV-2; Results from last weeks are not all yet consolidated.

Figure 4. Number of RSV cases detected in different age-groups (N=26) from 2025/40 to 2025/48

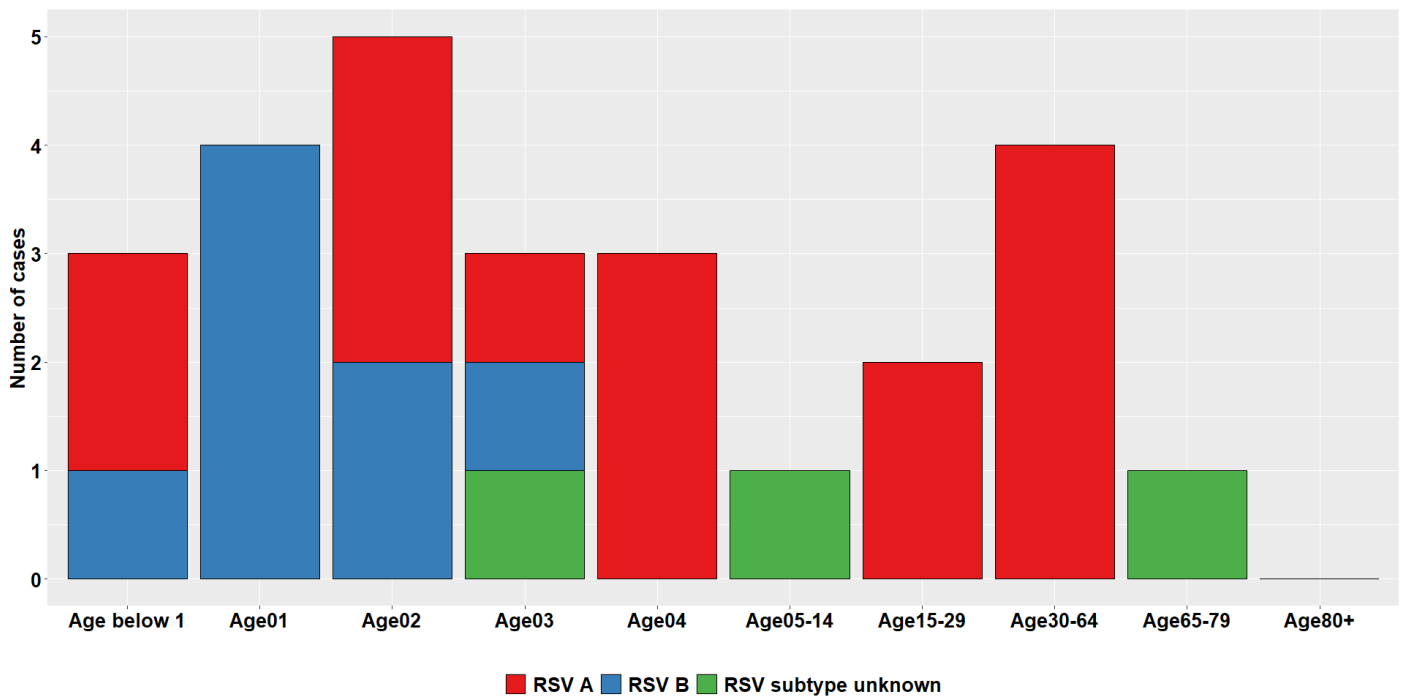


Figure 5. Number of Influenza cases detected in different age-groups (N=15) from 2025/40 to 2025/48; not all samples have yet been subtyped

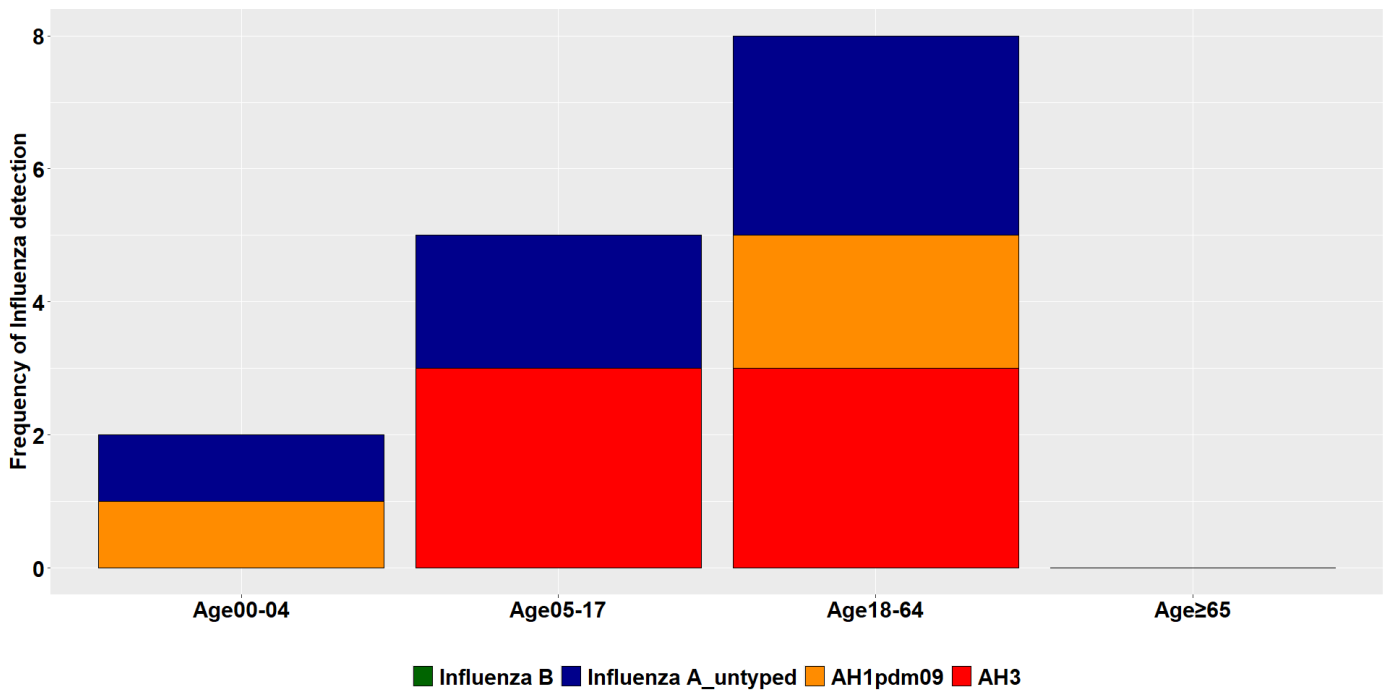


Table 3. Influenza Vaccination Status by age-group (season 25/26); Missing data indicated; in some cases, the timing of vaccination was not specified, making it challenging to determine whether vaccination occurred during this season or a previous season

Vaccinated	2-17 years (N=121)	≥ 65 years (N=39)
Unknown	17 (14.0%)	20 (51.3%)
Vaccinated	1 (0.8%)	12 (30.8%)
Not yet vaccinated	103 (85.1%)	7 (17.9%)

References

Conseil Supérieur des Maladies Infectieuses (CSMI). Recommandations pour la vaccination contre la grippe saisonnière chez les enfants et adolescents – Mise à jour octobre 2025. Luxembourg: Ministère de la Santé 2025, Retrieved 26 November 2025, <https://santesecu.public.lu/dam-assets/fr/espace-professionnel/recommandations/conseil-maladies-infectieuses/grippe-saisonniere/20251007-recommandation-vaccination-universelle-grippe-enfants-maj2025-vf.pdf>

European Centre for Disease Prevention and Control. European Respiratory Virus Surveillance Summary (ERVISS), 2025, Week 46, Retrieved 02 December 2025, <https://erviss.org/>

European Centre for Disease Prevention and Control. Communicable Disease Threats Report Week, Retrieved 02 December 2025, <https://www.ecdc.europa.eu/en/publications-data/communicable-disease-threats-report-15-21-november-2025-week-47>

European Centre for Disease Prevention and Control. Threat Assessment Brief: Assessing the risk of influenza for the EU/EEA in the context of increasing circulation of A(H3N2) subclade K, Retrieved 02 December 2025, <https://www.ecdc.europa.eu/en/publications-data/threat-assessment-brief-assessing-risk-influenza-november-2025>

World Health Organization. Global Influenza Programme. Retrieved 02 December 2025, <https://www.who.int/tools/flunet>