Bulletin English version

Santé publique France

Acute respiratory infections

Week 15 (8 to 14 April 2024). Publication date: 17 April 2024

NATIONAL EDITION

Review of the 2023–2024 season on 16 April 2024

Key points

Acute respiratory infections (ARI)

- Season characterised by two successive peaks: in late December, linked to the bronchiolitis epidemic and COVID-19, and in late January, due to the influenza epidemic.
- Impact on healthcare provision in general practice and hospitals lower than for the 2022–2023 season

Influenza

- Epidemic of expected duration lasting from late December to late February, in total 10 weeks
- Moderate scale and intensity in general practice:
  - 1.5 million consultations for influenza-like illness (Sentinelles network)
  - Influenza-like illness accounted for 18% of SOS Médecins consultations at the peak of the epidemic in late January (W05-2024)
- Moderate severity, with 14,000 hospitalisations after a visit to the emergency department
- Circulation of A(H1N1)$_{pdm09}$ viruses dominated
- Vaccination coverage estimated at 47.1% among at-risk individuals targeted for vaccination, and 54.0% among people aged 65 and over, lower than in 2022–2023

Bronchiolitis

- Epidemic came early in mainland France, starting in mid-October (W42-2023), 4 weeks earlier than usual, and ending in early January (W01-2024)
- Epidemic of expected duration, in total 12 weeks
- Proportion of hospitalisations for bronchiolitis out of all hospitalisations after a visit to the emergency department in children under 2: 44.3% at the peak of the epidemic in late November (W48-2023)
- Intensity comparable to that of epidemics prior to the emergence of COVID-19. Lower intensity than last season (2022–2023 season), which was particularly high
- An immunisation campaign using the monoclonal antibody nirsevimab (Beyfortus®), a preventive treatment for RSV infections in infants, was organised from mid-September 2023.

COVID-19

- Dynamics and intensity of epidemic waves comparable to those of 2022–2023
- Increase in indicators from July 2023 with two peaks, in September and December. Decline since mid-December, indicators at low levels since mid-February
- Greatest proportion of hospitalisations in December (3.3% in W50-2023)
- Circulation dominated by JN.1 variant since late November 2023
- Vaccination coverage estimated at 30.2% among people aged 65 and over by the end of the vaccination campaign from October 2023 to February 2024.

Situation update

Acute respiratory infections (ARI)

Two successive peaks in acute lower respiratory tract infection (ALRTI) were observed during the 2023–2024 season.

The first peak, recorded in late December (W52), was linked to the bronchiolitis epidemic and COVID-19. The highest proportion of SOS Médecins consultations for ALRTI was 22% and the highest proportion of hospitalisations for ALRTI post-emergency department visit was 14%.

During the second peak, which was associated with the influenza epidemic and occurred in late January (W04), the proportion of SOS Médecins consultations for ALRTI and the proportion of hospitalisations post-emergency department visit for ALRTI reached 27% and 11% respectively.

The impact of acute respiratory infections (ARI) in general practice and in hospitals remained lower than that observed during the 2022–2023 season, which was characterised by intense co-circulation of SARS-CoV-2, RSV and influenza viruses, with a major impact on the healthcare system lasting several weeks.

Influenza

In mainland France, the 2023–2024 influenza epidemic began in late December (W51), peaked at the end of January/beginning of February (W05) and ended in late February (W08), making a total duration of 10 weeks. The Provence-Alpes-Côte d'Azur region was the first to enter the epidemic phase in W49, and was gradually followed by the other regions. In week 3, all regions were experiencing an epidemic. From late February (W09), the regions gradually moved into the post-epidemic phase, and all had returned to the inter-epidemic phase by late March (W13) (Appendix).

The duration of the epidemic is comparable to the average influenza epidemic duration since the 2011–2012 season. The epidemic was mainly caused by A(H1N1)$_{pdm09}$ viruses. The circulating A(H1N1)$_{pdm09}$ viruses characterised were antigenically and genetically close to the vaccine strain present in the 2023–2024 northern hemisphere vaccine (A/Victoria/4897/2022 clade 5a.2a.1).

According to data from the Sentinelles network, the scale of the epidemic was moderate in general practice, with an estimated 1,540,000 consultations for influenza-like illness. According to SOS Médecins data, the impact of influenza in general practice was also moderate for all ages combined and in all age groups. Unlike the 2022–2023 season, when the epidemic was severe [1], the level of intensity remained moderate across all age groups.

In hospitals, data on emergency department visits and hospitalisations post-ED visit due to influenza/influenza-like illness indicated a moderate impact from the overall epidemic. However, the proportion of hospitalisations following an emergency department visit reached the high intensity threshold for all ages combined during W05 and W06. This was driven by 15–64 year-olds, and in this age group the high intensity threshold was exceeded for 3 consecutive weeks (from W04 to W6).

Among reports of severe cases of influenza admitted to intensive care, 89% were aged 18 and over. The vast majority were infected with a type A virus. Of the cases for which vaccination status was provided (62%), 79% had not been vaccinated against influenza.

A moderate number of reports of episodes of acute respiratory infections in long-term care facilities, including care homes for the elderly, have been made via the Ministry of Health and Prevention's national reporting portal. Episodes due to influenza had become the majority by mid-January. The number of episodes reported remained stable over the following weeks, then fell from mid to late February (W07).

[1] Influenza surveillance teams. Influenza surveillance in France, 2022–2023 season. Bulletin épidémiologique hebdomadaire 2023;(19):382-97.http://beh.santepubliquefrance.fr/beh/2023/19/2023_19_1.html

Finally, data from the electronic certification of deaths indicates a high proportion of influenza among deaths from all causes around the peak of the epidemic in W06. However, this proportion was lower than that reached during the peak of the 2022–2023 epidemic and that of 2018–2019.

By the end of the influenza vaccination campaign, estimated vaccination coverage on 29 February 2024 remained insufficient: 47.1% among people at risk targeted by the vaccination, 54.0% among people aged 65 and over and 25.4% among people under 65 at risk of severe influenza. These figures were lower than for the 2022–2023 season.

In the French overseas departments and regions, as is most often the case, the characteristics of the influenza epidemics were different. In Réunion, the epidemic was dominated by circulation of A(H3N2) viruses, and it began in early September (W36) and ended in early November (W44). In Mayotte, the influenza epidemic occurred between November (W44) and December (W51), with A(H3N2) viruses dominating circulation. In French Guiana, the epidemic occurred at the usual time, from mid-December (W50) to late February (W09). In contrast, the epidemic lasted longer in Guadeloupe (from late December W51 to mid-March W12), and in Martinique it started later (from early January W02 to mid-March W12).

Bronchiolitis and RSV infections

The 2023–2024 bronchiolitis epidemic in mainland France began in mid-October (W42). The epidemic peaked at the end of November (W48) and ended at the beginning of January (W1). Taking the years preceding the emergence of COVID-19 (2015-2020 seasons) as a reference, the start of the 2023–2024 epidemic was early, 4 weeks earlier than the average usually observed, and its duration of 12 weeks was equivalent to the average usually observed [1].

In terms of its regional spread, the epidemic began in the Paris region, Guadeloupe and Martinique in early October (W40), in Brittany, Pays de la Loire and French Guiana in W41, then in Normandy in W42, Centre-Val de Loire and Grand Est in W43, Bourgogne-Franche-Comté, Hauts-de-France, Nouvelle-Aquitaine and Occitanie in W44, Auvergne-Rhône-Alpes and Provence Alpes Côte d'Azur in W46, Corsica in W49, Mayotte in W51 and Réunion in W52. Brittany was the first region to enter the post-epidemic phase at the end of December (W52), followed by the other regions of the north-west the following week. As is usually the case, the epidemic occurred later in Mayotte (Appendix).

The intensity of the 2023–2024 epidemic was broadly comparable to that of the reference epidemics. It was of lower intensity than the 2022–2023 season, which was remarkable for its very high intensity, higher than any epidemic in the last 10 years [2]. The proportion of hospitalisations for bronchiolitis in children under 2 after an emergency department visit remained at levels comparable to those seen in the reference seasons.

Analyses carried out among infants under 3 months of age show an impact in terms of emergency department visits and hospitalisations post-ED visit comparable to those in the years preceding the emergence of COVID-19 and lower than those for the 2022–2023 season. On the other hand, in infants aged 3 months and over, the impact observed is greater than that seen in the data prior to the emergence of SARS-CoV-2 and is close to that seen in the 2022–2023 season, although still lower.

The effect of the nirsevimab immunisation campaign and its real world efficacy are currently being evaluated.

Pilot surveillance of bronchiolitis cases (all viruses combined) admitted to volunteer paediatric intensive care units was set up for the 2023–2024 season. It showed the significance of RSV infections in this population. RSV was involved in 69% of cases admitted to intensive care (alone or co-infection). In adults, 61% of severe cases of RSV infection admitted to intensive care were aged 65 and over.

[1] Vaux. S et al. Bronchiolitis epidemics in France during the SARS-CoV-2 pandemic: The 2020–2021 and 2021–2022 seasons. Infectious Diseases Now, 2022, 52(6), pp. 374–378.

[2] Santé publique France. Bulletin épidémiologique bronchiolite. Bilan de la surveillance 2022-2023. [Bronchiolitis epidemiological bulletin. Surveillance report 2022–2023.] 19 July 2023. [French only.]

Of the 5,738 episodes of ARI clusters occurring in long-term care facilities and reported via the Ministry of Health and Prevention's national reporting portal, 56 (1%) were attributable to RSV only.

COVID-19

In 2023–2024, nationally COVID-19 monitoring indicators rose from early July to reach an initial peak in mid-September, followed by a second peak in early December. A decline was observed from mid-December onwards, before returning to low levels in February. The dynamics and intensity of COVID-19 activity peaks were comparable to those observed in 2022–2023.

In the regions of mainland France, the rates of emergency department visits were highest at the peak in early December 2023 (W49) in Grand Est, Bourgogne-Franche-Comté and Provence-Alpes Côte d'Azur, lowest in the Paris region and Normandy, and intermediate in the other regions. Since February (W7), these rates have fallen to low levels in all regions.

During the first peak (mid-September 2023), the situation was characterised by the circulation of different sub-lineages of the Omicron variant, the most frequently detected variant being EG.5. During the second peak (early December), different sub-lineages of the Omicron variant were also circulating, with the BA.2.86 variant being detected most often, mainly its JN.1 sub-lineage.

In general practice, the proportion of SOS Médecins consultations due to suspected COVID-19 was 6.4% during the first peak in W38 and 4.7% during the second peak in W49 (*vs* 4.9% in W40-2022 and 4.0% in W48-2022). At the end of 2023, use of emergency care in general practice was comparable to that observed at the end of 2022, and this applied across all age groups.

In hospitals, the data on emergency department visits and hospitalisations post-ED visits due to COVID-19 were comparable to those for 2022–2023. COVID-19 accounted for 1.1% of emergency department visits for all ages combined at the peak in W36 and 1.6% at the peak in W49 (*vs* 1.5% in W41-2022 and 1.6% in W50-2022). The proportion of hospitalisations following an emergency department visit peaked in early October in W40 (2.2% *vs* 3.6% in W41-2022) and in early December in W50 (3.3% *vs* 4.1% in W50-2022). These hospitalisations were mainly among people aged 65 and over.

Among reports of serious cases of COVID-19 admitted to intensive care since W40, 63% were aged 65 or over and 31% between 18 and 64. Of the cases for which the vaccination status was provided (48%), 93% had not been vaccinated against COVID-19 within the past 6 months.

Episodes of acute respiratory infections in long-term care facilities linked to COVID-19 were mainly attributable to COVID-19. COVID-19 remained predominant until the end of December (W52), with two peaks in early October and early December. Since mid-January, the number of episodes linked to COVID-19 has fallen to low levels.

Monitoring of the presence of SARS-CoV-2 in wastewater showed that viral circulation was spread over approximately 14-16 weeks (from W45-2023 to W07/W09-2024) and peaked in W50-2023 at a level close to that of the winter of 2022–2023.

Since W40-2023, of the 155,785 deaths reported on electronic death certificates from all causes, 5,635 deaths have been reported with mention of COVID-19 (3.6%), with 95% aged 65 or over.

Following the vaccination campaign, which ran from October 2023 to February 2024, 4,368,409 people aged 65 and over had received a dose of COVID-19 vaccine, representing vaccination coverage of 30.2% (21.6% of 65–69 year-olds, 27.5% of 70–74 year-olds, 36.0% of 75–79 year-olds and 36.9% of those aged 80 and over).

A new vaccination campaign against COVID-19 began on 15 April 2024, targeting the most vulnerable groups (people aged 80 and over, immunocompromised people and residents of nursing homes and long-term care facilities). These people are entitled to receive a dose of vaccine from 3 months after the last injection or infection with SARS-CoV-2.

This is the last ARI bulletin of the winter surveillance season. However, surveillance of ARIs is ongoing, and in the event of any significant outbreaks, particularly of COVID-19, specific updates may be published.

About this bulletin

This weekly bulletin provides key syndromic and virological indicators for acute respiratory infections (ARI) with an overview of recent epidemiological trends in the French territories (mainland and overseas). Santé publique France, the French public health agency, produces these indicators to help monitor COVID-19, influenza and bronchiolitis on a grouped or specific basis, and to better estimate their burden and impact on the healthcare system. The English version is an extract from the *Bulletin des infections respiratoires aiguës*, which contains further indicators, graphs and analysis based on data gathered through France's integrated ARI surveillance system.

Partners

Santé publique France acknowledges the large public health network that contributes to the surveillance of acute respiratory infections: healthcare professionals working in private practice and hospitals, emergency departments, hospital and private biology laboratories, learned societies for infectious diseases, resuscitation and emergency medicine, CNAM, INSERM, and INSEE.

For more information (French only)

Integrated ARI surveillance
Surveillance of influenza, bronchiolitis and COVID-19
SurSaUD® syndromic surveillance
Surveillance in long term care facilities
Surveillance in general practice: Sentinelles network (INSERM - Sorbonne University)
Virological surveillance(National Reference Centre for Viral Respiratory Infections)
Genomic surveillance: Variant risk analysis
Regional trends: see Regional Bulletins
Open data indicators: Géodes, data.gouv.fr

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