Last update: 02/04/2026

METADATA – RESPIRATORY INFECTIONS

Description	Several indicators are considered: - **Weekly number of new general practitioner (GP) consultations for Influenza like illness (ILI) and other acute respiratory infections (ARI):** The number of GP consultations for ILI and other ARI per 100,000 inhabitants each week. - **Number of new patients hospitalized for Severe Acute Respiratory Infection (SARI)**: The number of patients hospitalized for SARI per 100,000 inhabitants each week. - **Weekly number of new GP consultations for ILI caused by influenza**: The number of weekly GP consultations in which influenza was confirmed, per 100,000 inhabitants each week. - **Seasonal number of new GP consultations for ILI caused by influenza**: The total number of seasonal GP consultations in which influenza was confirmed, per 100,000 inhabitants each season. - **Weekly number of new confirmed and suspected COVID-19 infections**: The number of newly confirmed and suspected COVID-19 infections, per 100,000 inhabitants each week. - **Weekly number of respiratory syncytial virus (RSV)-positive samples**: The number of weekly laboratory samples testing positive for RSV, each week. - **Number of new patients hospitalized for Severe Acute Respiratory Infection (SARI) testing positive for influenza or SARS-CoV-2**: The number of patients hospitalized for SARI who test positive for influenza, or COVID-19. - **Weekly number of new hospitalized SARI patients with confirmed RSV:** The number of children hospitalized for SAR who test positive for RSV, each week.
Rationale	1. **ILI:** The thresholds defining the start and end of influenza epidemic periods have been determined since the 2019–2020 season based on historical data on influenza new cases in Belgium. These are estimated using the **number of new general practitioner (GP) consultations for influenza-like symptoms** and the **proportion of laboratory-confirmed influenza infections** among respiratory samples. Except during the 2020–2021 season (due to the COVID-19 pandemic), **seasonal influenza epidemics occur each year in Europe and the rest of the Northern Hemisphere**, typically between **November and April**, most often starting in **late December**. These epidemics may vary in size and severity, with an impact on health systems and society that is highly variable and unpredictable from year to year. It is estimated that the **average duration of a seasonal influenza epidemic is 6 to 12 weeks**, and that **up to 20% of the population** becomes infected with seasonal influenza each year. **2. COVID-19:** Discovered in December 2019 in Wuhan Province, China, SARS-CoV-2 (Severe Acute Respiratory Syndrome Coronavirus 2) is the virus responsible for COVID-19 (Coronavirus Infectious Disease 2019), an infectious illness that led to a global pandemic starting in March 2020. SARS-CoV-2 is a highly contagious virus, transmitted primarily through airborne particles (respiratory droplets or aerosols) or through direct contact of these droplets with the eyes, mouth, or nose. Its transmissibility and incubation period vary depending on the circulating variant and individual immunity. The severity of COVID-19 symptoms also depends on

	the variant responsible for the infection. Some cases are asymptomatic, mild, or moderate and do not require medical care. During the 2020–2021 season, and to a lesser extent during 2021–2022, public health measures were implemented to prevent the spread of SARS-CoV-2. These measures also impacted the circulation of other respiratory pathogens, leading to a reduced number of new respiratory infections. The COVID-19 pandemic officially ended when the WHO declared in May 2023 that COVID-19 was no longer a public health emergency of international concern. The end of the COVID-19 emergency during the seasons presented here led to changes in SARS-CoV-2 testing criteria. 3. **RSV:** RSV is a negative-sense single-stranded RNA virus belonging to the *Paramyxoviridae* family and classified among the pneumoviruses. Two antigenic subgroups circulate: RSV type A and RSV type B. RSV is one of the most common causes of infection in early childhood and can be dangerous in infants. It can also cause acute respiratory tract infections in individuals of all ages. In particular, this infection can be critical for older adults and/or immunocompromised individuals and/or those undergoing biotherapy and/or with underlying comorbidities. In 2023, the European Union approved the first RSV vaccine suitable for protecting infants up to six months of age as well as two vaccines for older adults. In Belgium, as in other temperate regions of the Northern Hemisphere, RSV transmission is seasonal, typically occurring between October and March, with peaks most often observed in winter, particularly during December and January. However, RSV epidemics can vary in duration and intensity from year to year. RSV is highly contagious, and human-to-human transmission frequently occurs through airborne droplets, including saliva, sneezing, coughing, breathing, and speaking, as well as through hand-to-nose-eye contact.
Primary Data source	- Sciensano, network of sentinel general practionner - Sciensano, network of sentinel hospital - Sciensano, network of sentinel laboratory - RSVPed
Indicator source	Sciensano's Unit of Epidemiology of Infectious Diseases
Periodicity	Weekly for ILI,COVID-19 and RSV Annual report at the end of the season
Calculation, technical definitions and limitations	The monitoring of acute respiratory infections is coordinated by Sciensano and relies on several sentinel surveillance networks, including general practitioner and laboratory networks. These sentinel networks (except for sentinel laboratories) collect cases based on a clinical case definition, which is determined by the presence of specific symptoms. Each week, these networks report on the number of new Influenza-Like Illness (ILI) and Severe Acute Respiratory Infection (SARI) episodes. However, these symptoms are non-specific and can be caused by a variety of pathogens, making it impossible to determine the exact cause based solely on clinical presentation. Therefore, syndromic surveillance of ILI and SARI must be complemented by virological surveillance. Virological surveillance helps assess the circulation of seasonal influenza, SARS-CoV-2, and RSV. In Belgium, the surveillance tools for Influenza-Like Illness (ILI), SARS-CoV-2, Respiratory Syncytial Virus (RSV), and Severe Acute Respiratory Infections (SARI) include: • The **National Sentinel Network of General Practitioners**: these GPs report weekly data on infectious and non-infectious diseases, including the number of consultations for ILI and other acute respiratory infections (ARI). They also collect respiratory samples from selected patients, which are analyzed by the NRC for a range of respiratory viruses. • The **Sentinel Hospital Network (BELSARI-NET):** this network monitors SARI cases across several Belgian hospitals. Due to the COVID-19

	pandemic, SARI surveillance was interrupted in March 2020 and gradually resumed in January 2021. However, until November 13, 2023, participation remained partial, with most hospitals limiting their involvement to certain weekdays. • The **Sentinel Laboratory Network (Epilabo):** this network provides core epidemiological data on infectious diseases across Belgium and its regions. • The **General Practitioner Barometer:** Initially focused on COVID-19 syndromic surveillance in GP practices until October 2024, it has now been replaced by a broader version—the Infectious Disease Barometer. • **COVID-19 Test and Case Surveillance:** based on data reported to Sciensano through the healthdata.be platform, this includes PCR and antigen tests performed in laboratories, as well as rapid antigen tests conducted by healthcare professionals such as GPs and pharmacists. Detailed results are available via Sciensano's Epistat dashboard.. • **COVID-19 Hospital Surveillance**: during the pandemic, this consisted of two components: - Surge Capacity Survey (SCS): monitoring hospital capacity. - Clinical Hospital Survey (CHS): tracking clinical data from hospitalized COVID-19 patients. **Limitations:** The weekly number of new cases for influenza, from the network of vigilance physicians, exhibit fluctuations because they are calculated based on a subset of general practitioner consultations for influenza-like illness—specifically, only those that are tested for influenza. Trends based solely on these indicators should be interpreted with caution; however, when combined with other data sources, such as syndromic surveillance by sentinel physicians, a similar timing of influenza waves can be observed for the 2023–2024 and 2024–2025 seasons. Given the changes introduced to the SARI surveillance system in 2023—including improved coverage, data quality, and reporting timeliness—comparisons between the 2023–2024 and 2024-2025 seasons and previous years should be interpreted with caution. To compare the age-specific number of new cases of acute respiratory infections, it is important to take into account the age distribution of the general population. The 0–4 age group represents 5% of the population, the 5–14 age group 11%, the 15–64 age group 64%, and those aged 65 and over account for 20%.
International comparability	*Availability*: An indicator of trend in ILI, COVID-19, RSV and SARI sentinel consultations in the country compared to the previous week, as well as an indicator of influenza, COVID-19, RSV severity are provided by the European countries members of the European Influenza Surveillance Network (EISN), coordinated by ECDC. Indicator of sentinel ILI, COVID-19, RSV and SARI surveillance, and severity are also provided at the international level by the World Health Organization Global Influenza Surveillance and Response System (GISRS) that collect data from the National Influenza Centres of each country member. *Comparability*: since methods of collecting and reporting data may vary in function of the countries, comparability may be hampered.

References

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