Flu News Europe
Joint ECDC–WHO/Europe weekly influenza update

# Weekly influenza overview

## Week 05/2021 (01 February–07 February 2021)

- Influenza activity remained at interseasonal levels.
- Of 1 307 specimens tested for influenza in week 05/2021, from patients presenting with ILI or ARI symptoms to sentinel primary healthcare sites, 8 were positive for an influenza virus.
- Influenza viruses were detected sporadically from non-sentinel sources (such as hospitals, schools, primary care facilities not involved in sentinel surveillance, or nursing homes and other institutions). Both influenza type A and type B viruses were detected.
- There were 2 hospitalized laboratory-confirmed influenza cases reported for week 05/2021.
- The influenza epidemic in the European Region has usually reached its peak by this point in the year but, despite widespread and regular testing for influenza, reported influenza activity still remains at a very low level, likely due to the impact of the various public health and social measures implemented to reduce transmission of SARS-CoV-2.
- The COVID-19 pandemic has affected healthcare seeking behaviours, healthcare provision, and testing practices and capacities in countries and areas of the European Region, which have negatively impacted on the reporting of influenza epidemiologic and virologic data during the 2020-2021 season. Due to the COVID-19 pandemic, the influenza data we present will need to be interpreted with caution, notably in terms of seasonal patterns.

## Other news

The World Health Organization categorized COVID-19 as a pandemic on 11 March 2020. For more information about the situation in the WHO European Region visit:

- WHO website: https://www.who.int/emergencies/diseases/novel-coronavirus-2019
- ECDC website: https://www.ecdc.europa.eu/en/novel-coronavirus-china

# Qualitative indicators

Of 40 countries and areas that reported on the intensity of activity indicator, 36 reported baseline levels, and 4 (Azerbaijan, Estonia, Serbia and Slovakia) reported low intensity for week 05/2021 (Fig. 1).

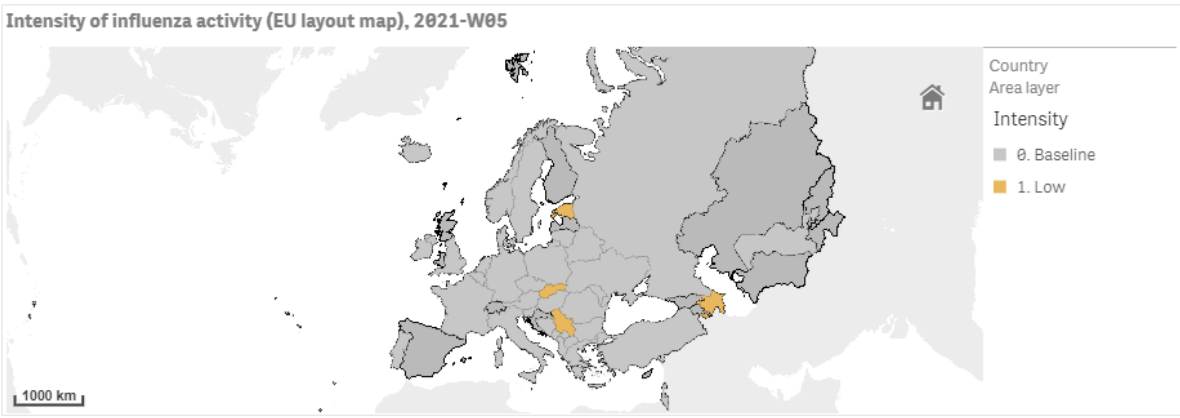
Of 41 countries and areas that reported on geographic spread, 36 reported no activity and 5

(Azerbaijan, Portugal, Slovakia, Ukraine and United Kingdom (England)) reported sporadic spread for week 05/2021 (Fig. 2).

**Please note:**

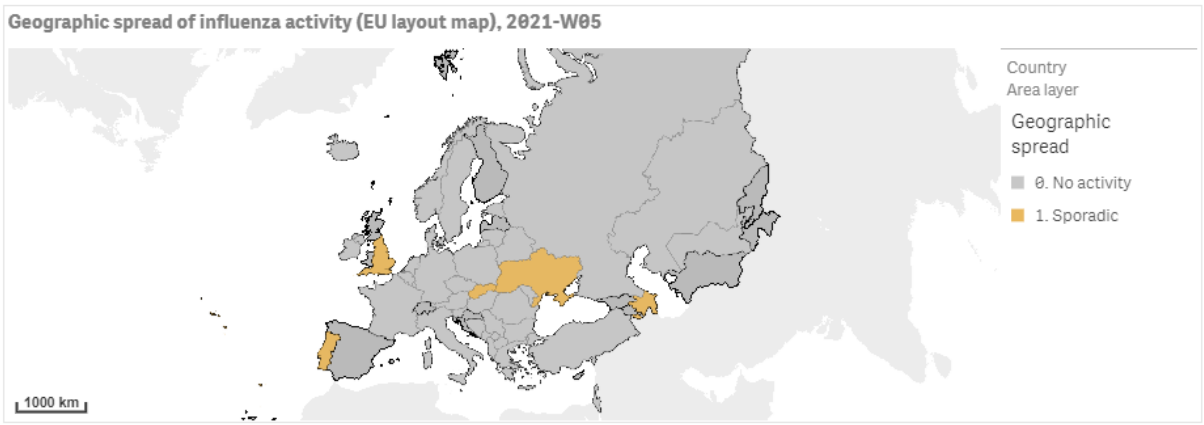
1. Assessment of the intensity of activity indicator includes consideration of ILI or ARI rates. These ILI or ARI rates might be driven by respiratory infections other than influenza, including SARS-CoV-2, leading to observed increases in the absence of influenza detections.
2. Assessment of intensity and geographic spread indicators includes consideration of sentinel and non-sentinel influenza virus detection data. Non-sentinel influenza virus detections, often higher, might translate into reporting of elevated geographic spread even in the absence of sentinel detections.

## Fig. 1. Intensity in the European Region, week 05/2021






## Fig. 2. Geographic spread in the European Region, week 05/2021



For interactive maps of influenza intensity and geographic spread, see the Flu News Europe website.

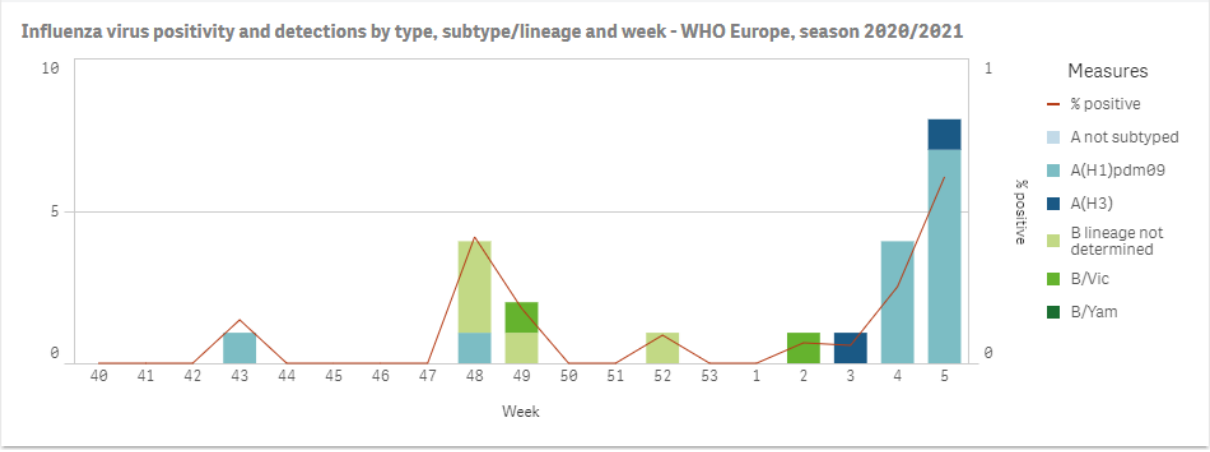
## 2020-2021 season overview

- For the Region as a whole, influenza activity has been at baseline level since the start of the season.
- In total, 627 specimens have tested positive for influenza viruses, 22 from sentinel sources and 605 from non-sentinel sources, with type A (both subtypes) and type B (both lineages) viruses being detected.
- Since the start of the season, few hospitalized laboratory-confirmed influenza cases have been reported: 11 from ICUs (all infected with type A viruses); 9 (8 type A viruses and 1 type B) in wards outside ICUs with 1 fatality; and 10 from severe acute respiratory infection (SARI)-based surveillance (3 infected with type B viruses and 7 with type A).
- WHO has published recommendations for the composition of influenza vaccines to be used in the 2020–2021 northern hemisphere season.

## Influenza positivity

As of week 05/2021, for the European Region, influenza virus positivity in sentinel specimens remained below the epidemic threshold, which is set at 10% (Fig. 3.).

### Fig. 3. Influenza virus detections in sentinel-source specimens by type and subtype, and week for weeks 40/2020-05/2021




## External data sources

**Mortality monitoring:** Overall pooled estimates of all-cause mortality for 27 countries or areas participating in the EuroMOMO project showed a substantial increase in excess all-cause mortality.

This excess mortality was driven by a very substantial excess mortality in some countries and areas, while others saw normal mortality levels.

Increased excess all-cause mortality was seen primarily among persons aged 45 years and older.

# Primary care data

## Viruses detected in sentinel-source specimens (ILI and ARI)

For week 05/2021, 8 (0.6%) of 1 307 sentinel specimens tested for influenza viruses were positive. Since the start of the season, of 21 173 sentinel-source specimens that have been tested for influenza viruses, 22 were positive 15 type A and 7 type B viruses (Figure 3 and Table 1).

Details of the distribution of viruses detected in non-sentinel-source specimens are presented in the Virus characteristics section.

### Table 1. Influenza virus detections in sentinel-source specimens by type and subtype for week 05/2021 and cumulatively for the influenza season 2020-2021

| | Current Week (05) | | Influenza Season 2020-2021 | |
|---|---|---|---|---|
| **Virus type and subtype** | **Number** | **%[a]** | **Number** | **%[a]** |
| **Influenza A** | **8** | **100** | **15** | **68.2** |
| A(H1)pdm09 | 7 | 87.5 | 13 | 86.7 |
| A(H3) | 1 | 12.5 | 2 | 13.3 |
| A not subtyped | 0 | - | 0 | - |
| **Influenza B** | **0** | **0** | **7** | **31.8** |
| B/Victoria lineage | 0 | - | 2 | 100.0 |
| B/Yamagata lineage | 0 | - | 0 | - |
| Unknown lineage | 0 | - | 5 | - |
| **Total detections (total tested)** | **8 (1 307)** | **<1** | **22 (21 173)** | **<1** |

[a] For influenza type percentage calculations, the denominator is total detections; for subtype and lineage, it is total influenza A subtyped and total influenza B lineage determined, respectively; for total detections, it is total tested.

# External data sources

Influenzanet collects weekly data on symptoms in the general community from different participating countries across the EU/EEA. For week 05/2021, data reported from 8 countries representing between 511 and 13 033 active participants were included, for a total of 40 170 participants.

**ILI activity:** France, Germany, Italy, Portugal, Switzerland and UK have reported between 0 and 5 cases per 1 000 active participants and Denmark and the Netherlands have reported between 5 and 10 cases per 1 000 active participants. Activity is low (below the first quartile of historical data for this week).

**COVID-19 activity:** Portugal has reported between 15 and 20 possible cases per 1 000 weekly participants, France and Italy have reported between 20 and 25 possible cases per 1 000 weekly participants, UK has reported between 25 and 30 possible cases per 1 000 weekly

participants, Switzerland has reported between 30 and 35 possible cases per 1 000 weekly participants and the Netherlands has reported between 45 and 50 possible cases per 1 000 weekly participants.

## Hospital surveillance

A subset of countries and areas monitor severe disease related to influenza virus infection by surveillance of 1) hospitalized laboratory-confirmed influenza cases in ICUs or other wards, or 2) severe acute respiratory infection (SARI; mainly in the eastern part of the Region).

### Laboratory-confirmed hospitalized cases

1.1) Hospitalized laboratory-confirmed influenza cases – ICUs

No hospitalized laboratory-confirmed influenza cases in ICUs were reported for week 05/2021.

Since the start of the season, there have been 11 hospitalized laboratory-confirmed influenza cases in ICUs (all infected with type A viruses) reported by Ukraine (n = 2) and the UK (n = 9). At the time of the latest reports all cases were non-fatal.

1.2) Hospitalized laboratory-confirmed influenza cases – other wards

There were 2 laboratory-confirmed influenza cases in wards outside ICUs reported from Ukraine for week 05/2021.

Since the start of the season, there have been 9 laboratory-confirmed influenza cases (8 type A viruses and 1 type B) in wards outside ICUs reported: 4 cases were in children between 0-4 years old, 4 cases were in patients aged 15-64 years, and 1 case (influenza type B), which was fatal, in a patient over 65 years old. Seven of the 8 influenza type A virus cases were subtyped as A(H1)pdm09.

### Severe acute respiratory infection (SARI)-based hospital surveillance

For week 05/2021, 1 365 SARI cases were reported by 12 countries or areas. Of 396 specimens tested for influenza viruses, 2 (0.5%) were positive.

For the season to date, 13 countries and areas (Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kosovo (in accordance with UN Security Council resolution 1244 (1999)), Republic of Moldova, Russian Federation, Serbia, Ukraine and Uzbekistan) have reported 23 124 SARI cases and 7 079 were tested for influenza viruses. Ten specimens from Ukraine have tested positive to date (7 were type A viruses and 3 were type B).

## Virus characteristics

Details of the distribution of viruses detected in sentinel-source specimens can be found in the Primary care data section.

## Non-sentinel virologic data

For week 05/2021, 31 of 26 847 non-sentinel specimens (from sources such as hospitals, schools, primary care facilities not involved in sentinel surveillance, or nursing homes and other institutions) tested positive for an influenza virus: 22 were type A and 9 were type B (Table 2. Influenza virus detections in non-sentinel source specimens by type and subtype, week 05/2021 and cumulatively for the influenza season 2020-2021).

Since the beginning of the season, 605 of 315 981 non-sentinel specimens tested positive for influenza viruses; 302 (49.9%) were type A and 303 (50.1%) type B. Of 59 subtyped A viruses, 26 (44.1%) were A(H1)pdm09 and 33 (55.9%) were A(H3). Of 303 type B viruses, only 6 were ascribed to a lineage: 5 B/Victoria and 1 B/Yamagata.

### Table 2. Influenza virus detections in non-sentinel source specimens by type and subtype, week 05/2021 and cumulatively for the influenza season 2020-2021

| | Current Week (05) | | Influenza Season 2020-2021 | |
|---|---|---|---|---|
| **Virus type and subtype** | **Number** | **%[a]** | **Number** | **%[a]** |
| **Influenza A** | **22** | **71** | **302** | **49.9** |
| A(H1)pdm09 | 8 | 100 | 26 | 44.1 |
| A(H3) | 0 | 0 | 33 | 55.9 |
| A not subtyped | 14 | - | 243 | - |
| **Influenza B** | **9** | **29** | **303** | **50.1** |
| B/Victoria lineage | 0 | - | 5 | 83.3 |
| B/Yamagata lineage | 0 | - | 1 | 16.7 |
| Unknown lineage | 9 | - | 297 | - |
| **Total detections (total tested)** | 31 (26 847) | - | 605 (315 981) | - |

[a] For type percentage calculations, the denominator is total detections; for subtype and lineage, it is total influenza A subtyped and total influenza B lineage determined, respectively; as not all countries have a true non-sentinel testing denominator, no percentage calculations for total tested are shown.

## Genetic characterization

Since week 40/2020, 4 viruses have been characterized genetically:

- 3 type A: 2 influenza A(H3), 1 attributed to the HA subgroup 3C.2a1b + T131K-A, represented by A/Slovenia/1637/2020 and 1 attributed to the HA subgroup 3C.2a1b + T135K-A, represented by A/Denmark/3264/2019, and 1 A(H1)pdm09 attributed to the group 6B.1A5A + 187V/A represented by A/Guangdong-Maonan/SWL1536/2019.
- 1 type B: B(Vic)-lineage clade 1A (d162-164) represented by B/Washington/02/2019

Note: It is essential that reporting laboratories submit any data they have generated to GISAID (and thereby TESSy) as soon as possible, together with sharing influenza-positive samples with WHO CC, London for more detailed characterization.

ECDC published the December virus characterisation report that describes the available data from viruses circulating recently including the season 2019-20. At that point, no antigenic data

relating to viruses detected in the course of the 2020-2021 influenza season had been generated and the report was based on an analysis of seasonal influenza HA sequenced most recently and submitted to GISAID. The following text is repeated from the Summary text of this report with minor modification. Previously published influenza virus characterization reports are also available on the ECDC website.

## Antiviral susceptibility of seasonal influenza viruses

Since the beginning of the season, 2 influenza viruses have been tested for susceptibility to neuraminidase inhibitors: 1 influenza A(H3) virus that showed normal inhibition (NI) to both oseltamivir and zanamivir and 1 type B/Vic virus that showed NI to oseltamivir.

## Vaccine

**Available vaccines in Europe**

https://www.ecdc.europa.eu/en/seasonal-influenza/prevention-and-control/vaccines/types-of-seasonal-influenza-vaccine

### Vaccine composition

On 28 February 2020, WHO published recommendations for the components of influenza vaccines for use in the **2020–2021 northern hemisphere influenza season**.

**Egg-based vaccines** should contain the following:

- an A/Guangdong-Maonan/SWL1536/2019 (H1N1)pdm09-like virus (Clade 6B.1A5A);
- an A/Hong Kong/2671/2019 (H3N2)-like virus (Clade 3C.2a1b+T135K-B);
- a B/Washington/02/2019 (B/Victoria lineage)-like virus (Clade 1A(Δ3)B); and
- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus (Clade 3).

**Cell- or recombinant-based vaccines** should contain the following:

- an A/Hawaii/70/2019 (H1N1)pdm09-like virus (Clade 6B.1A5A);
- an A/Hong Kong/45/2019 (H3N2)-like virus (Clade 3C.2a1b+T135K-B);
- a B/Washington/02/2019 (B/Victoria lineage)-like virus (Clade 1A(Δ3)B); and
- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus (Clade 3).

It is recommended that the influenza B virus component of **both trivalent vaccine types** for use in the 2020–2021 northern hemisphere influenza season should be a B/Washington/02/2019-like virus of the B/Victoria-lineage.

The full report and Frequently Asked Questions for the 28 February 2020 decision are available on the WHO website.

Based on WHO published recommendations on 25 September 2020, the composition of influenza vaccines for use in the **2021 southern hemisphere influenza season** will contain the following:

**Egg-based Vaccines**

- an A/Victoria/2570/2019 (H1N1)pdm09-like virus;
- an A/Hong Kong/2671/2019 (H3N2)-like virus;
- a B/Washington/02/2019 (B/Victoria lineage)-like virus; and
- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus.

**Cell- or recombinant-based Vaccines**

- an A/Wisconsin/588/2019 (H1N1)pdm09-like virus;
- an A/Hong Kong/45/2019 (H3N2)-like virus;
- a B/Washington/02/2019 (B/Victoria lineage)-like virus; and
- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus.

It is recommended that the influenza B virus component of **both trivalent vaccine types** for use in the 2021 southern hemisphere influenza season should be a B/Washington/02/2019-like virus of the B/Victoria-lineage.

The full report is published here.

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Maps and commentary do not represent a statement on the legal or border status of the countries and territories shown.

All data are up to date on the day of publication. Past this date, however, published data should not be used for longitudinal comparisons, as countries retrospectively update their databases.

The WHO Regional Office for Europe is responsible for the accuracy of the Russian translation.

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