

Weekly influenza overview

Week 07/2021 (15 February–21 February 2021)

- Influenza activity remained at interseasonal levels.
- Of 996 specimens tested for influenza viruses in week 07/2021, from patients presenting with ILI or ARI symptoms to sentinel primary healthcare sites, 2 were positive.
- 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 no hospitalized laboratory-confirmed influenza cases reported for week 07/2021.
- 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>

Avian influenza A(H5N8), Russian Federation

On 18 February 2021, the Russian Federation reported to WHO seven laboratory-confirmed human asymptomatic cases of avian influenza A(H5N8) in poultry workers. The cases were detected in December 2020. To date, there is no indication of human-to-human transmission. The potential risk for human health is considered to be low.

ECDC threat assessment: <https://www.ecdc.europa.eu/en/publications-data/threat-assessment-first-human-cases-avian-influenza-h5n8>

WHO Disease Outbreak News: <https://www.who.int/csr/don/26-feb-2021-influenza-a-russian-federation/en/>

Qualitative indicators

Of 35 countries and areas that reported on the intensity of influenza activity indicator, 33 reported baseline levels, and 2 (Azerbaijan and Slovakia) reported low intensity for week 07/2021 (Fig. 1).

Of 36 countries and areas that reported on geographic spread, 32 reported no activity and 4 (Azerbaijan, Slovakia, United Kingdom (England and Scotland)) reported sporadic spread for week 07/2021 (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 07/2021

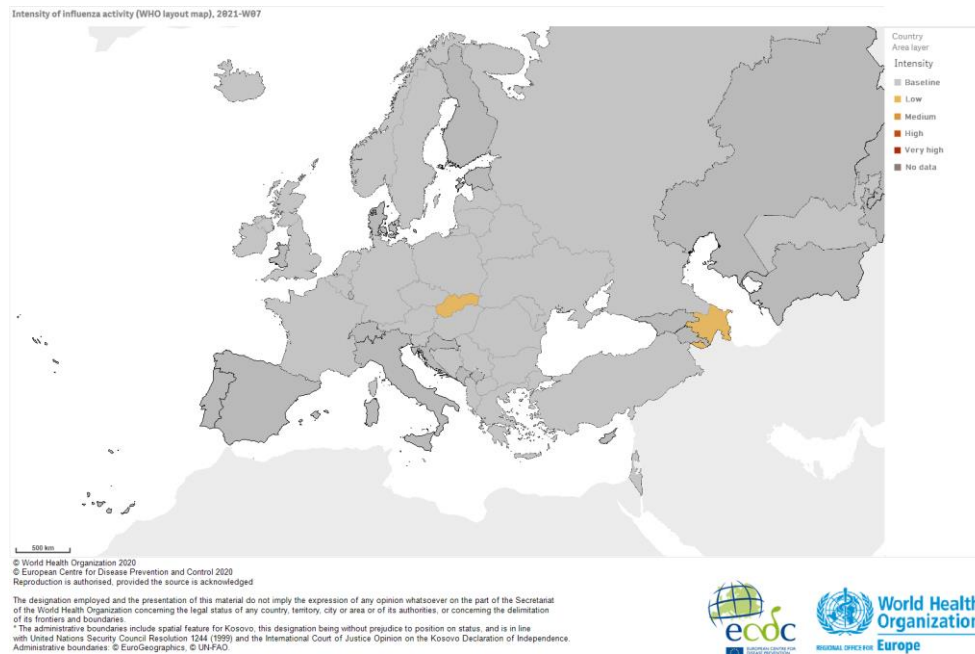
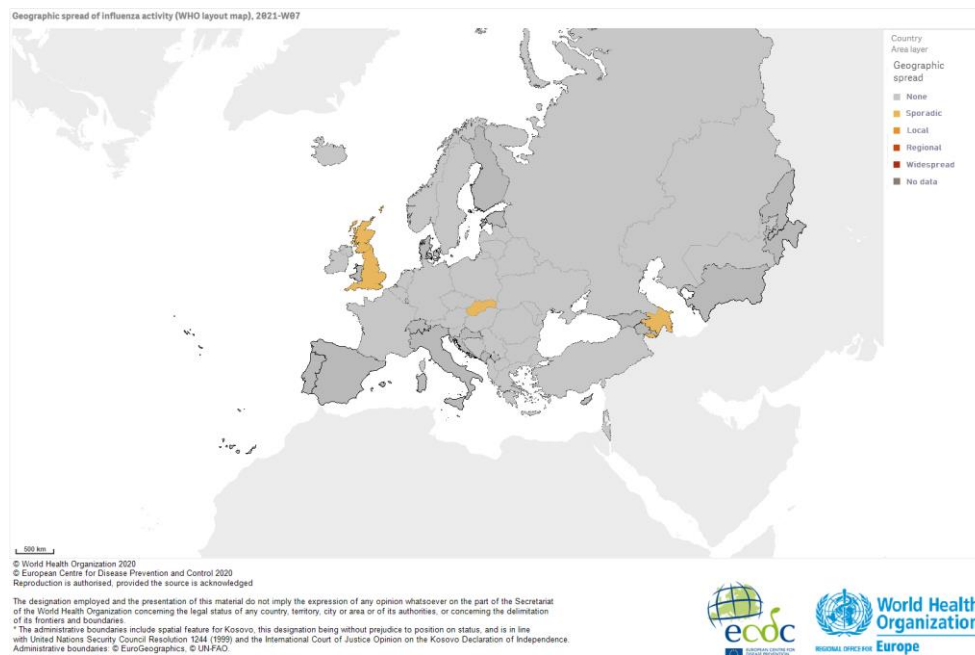


Fig. 2. Geographic spread in the European Region, week 07/2021



For interactive maps of influenza intensity and geographic spread, see the [Flu News Europe website](#).

2020-2021 season overview

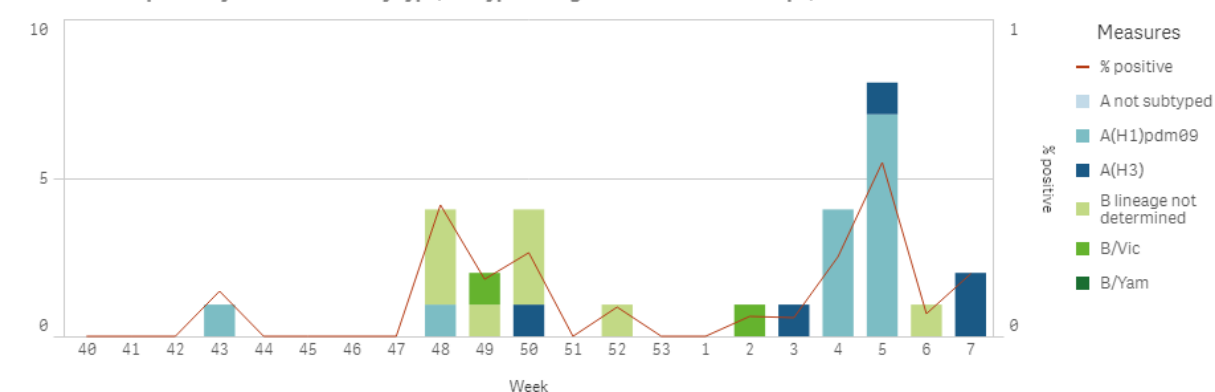
- For the Region as a whole, influenza activity has been at baseline level since the start of the season.
- In total, 694 specimens have tested positive for influenza viruses, 29 from sentinel sources and 665 from non-sentinel sources, with type A (both subtypes) and type B (both lineages) viruses being 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); 8 (all type A viruses) in wards outside ICUs; and 10 from severe acute respiratory infection (SARI)-based surveillance (7 infected with type A viruses and 3 with type B).
- 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 07/2021, 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 40/2020-07/2021

Influenza virus positivity and detections by type, subtype/lineage and week - WHO Europe, season 2020/2021



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External data sources

Mortality monitoring: Overall pooled estimates of all-cause mortality for 27 countries or areas participating in the [EuroMOMO](#) project showed decreasing

excess all-cause mortality after a period with high levels of excess mortality among the participating European countries.

Primary care data

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

For week 07/2021, 2 of 996 sentinel specimens tested for influenza viruses were positive. Since the start of the season, of 23 757 sentinel-source specimens that have been tested for influenza viruses, 29 were positive (18 type A and 11 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 07/2021 and cumulatively for the influenza season 2020-2021

Virus type and subtype	Current Week (07)		Influenza Season 2020-2021	
	Number	% ^a	Number	% ^a
Influenza A	2	100	18	62.1
A(H1)pdm09	0	0	13	72.2
A(H3)	2	100	5	27.8
A not subtyped	0	-	0	-
Influenza B	0	0	11	37.9
B/Victoria lineage	0	-	2	100
B/Yamagata lineage	0	-	0	0
Unknown lineage	0	-	9	-
Total detections (total tested)	2 (996)	0.2	29 (23 757)	0.1

^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 07/2021, data reported from 8 countries representing between 489 and 12 901 active participants per country were included, for a total of 39 369 participants.

ILI activity: Denmark, France, Germany, Italy and Portugal have reported between 0 and 5 cases per 1 000 active participants, the Netherlands and UK have reported between 5 and 10 cases per 1 000 active participants and Switzerland has reported between 10 and 15 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 10 and 15 possible cases per 1 000 weekly participants, France has reported between 15 and 20 possible cases per 1 000 weekly participants, Italy has 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, the Netherlands has reported between 50 and 55 possible cases per 1 000 weekly participants and Switzerland has reported between 55 and 60 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 07/2021.

Since the start of the season, there have been 11 hospitalized laboratory-confirmed influenza cases in ICUs (all infected with type A viruses; one was subtyped and A(H1)pdm09) 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

No laboratory-confirmed influenza cases in wards outside ICUs were reported for week 07/2021.

Since the start of the season, there have been 8 laboratory-confirmed influenza cases (all were type A viruses) in wards outside ICUs reported by Ukraine: 4 cases were in children between 0-4 years old and 4 cases were in patients aged 15-64 years. Seven of the 8 influenza type A virus cases were subtyped and all were A(H1)pdm09.

Severe acute respiratory infection (SARI)-based hospital surveillance

For week 07/2021, 1 489 SARI cases were reported by 10 countries or areas. Of 423 specimens tested for influenza viruses, none 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 26 488 SARI cases and 7 960 were tested for influenza viruses. Ten specimens from Ukraine have tested positive to date (7 were A(H1N1)pdm09 viruses and 3 were type B no lineage ascribed).

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 07/2021, 31 of 29 953 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: 16 were type A and 15 were type B (Table 2). Table 2. Influenza virus detections in non-sentinel source specimens by type and subtype, week 07/2021 and cumulatively for the influenza season 2020-2021

Since the beginning of the season, 665 of 393 149 non-sentinel specimens tested positive for influenza viruses; 335 (50.4%) were type A and 330 (49.6%) type B. Of 64 subtyped A viruses, 27 (42.2%) were A(H1N1)pdm09 and 37 (57.8%) were A(H3N2). Of 330 type B viruses, only 7 were ascribed to a lineage: 6 B/Victoria and 1 B/Yamagata.

Table 2. Influenza virus detections in non-sentinel source specimens by type and subtype, week 07/2021 and cumulatively for the influenza season 2020-2021

Virus type and subtype	Current Week (07)		Influenza Season 2020-2021	
	Number	% ^a	Number	% ^a
Influenza A	16	51.6	335	50.4
A(H1)pdm09	1	100	27	42.2
A(H3)	0	0	37	57.8
A not subtyped	15	-	271	-
Influenza B	15	48.4	330	49.6
B/Victoria lineage	0	-	6	85.7
B/Yamagata lineage	0	-	1	14.3
Unknown lineage	15	-	323	-
Total detections (total tested)	31 (29 953)	-	665 (393 149)	-

^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, 11 viruses have been characterized genetically:

- 5 type A: 4 influenza A(H3) with 2 attributed to the HA subgroup 3C.2a1b + T131K-A, represented by A/Slovenia/1637/2020, 1 attributed to the HA subgroup 3C.2a1b + T135K-A, represented by A/Denmark/3264/2019 and 1 attributed to the HA subgroup 3C.2a1b+T135K-B represented by A/Hong Kong/2671/2019); and 1 A(H1)pdm09 attributed to the group 6B.1A5A + 187V/A represented by A/Guangdong-Maonan/SWL1536/2019.
- 6 type B: 2 B(Vic)-lineage clade 1A (d162-164) represented by B/Washington/02/2019 and 4 B(Vic) that were not assigned to any clade.

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. This and previously published influenza virus characterization reports are available on the [ECDC website](#).

Antiviral susceptibility of seasonal influenza viruses

Since the beginning of the season, 4 influenza viruses have been tested for susceptibility to neuraminidase inhibitors: two influenza A(H3) viruses and 2 influenza B/Victoria viruses for which sequence analysis indicated normal inhibition by both oseltamivir and zanamivir.

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+187A);
- 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(Δ 3)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+187A);
- 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(Δ 3)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.

Suggested citation:

European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Flu News Europe, Joint ECDC–WHO weekly influenza update, week 07/2021.

Tables and figures should be referenced:

European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Flu News Europe, Joint ECDC–WHO weekly influenza update, week 07/2021.

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