

Weekly influenza overview

Week 50/2020 (7 December–13 December 2020)

- Influenza activity remained at interseasonal levels.
- None of 1 291 sentinel specimens tested for influenza viruses in week 50 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 for week 50/2020.
- The novel coronavirus disease 2019 (COVID-19) pandemic has affected healthcare presentations and testing capacities of countries and areas in the Region, which negatively impacted reporting of influenza epidemiologic and virologic data during the 2019-2020 season. Influenza activity continues to be low this season. As the COVID-19 pandemic continues, the influenza data presented for the 2020-2021 season needs to be interpreted with caution, notably in terms of seasonal patterns.

Other news

Please note: Over the holiday period the Flu News Europe schedule will change slightly with the next bulletin being published on Tuesday 29 December and subsequently on Friday 8 January.

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 36 countries and areas that reported on the intensity of activity indicator, 31 reported activity at baseline levels, and 5 (Azerbaijan, Lithuania, Serbia, Slovakia, and the United Kingdom (England)) reported low intensity for week 50/2020 (Fig. 1).

Of 36 countries and areas that reported on geographic spread, 30 reported no activity and 6 reported sporadic spread (in eastern, northern and western areas) for week 50/2020 (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 50/2020

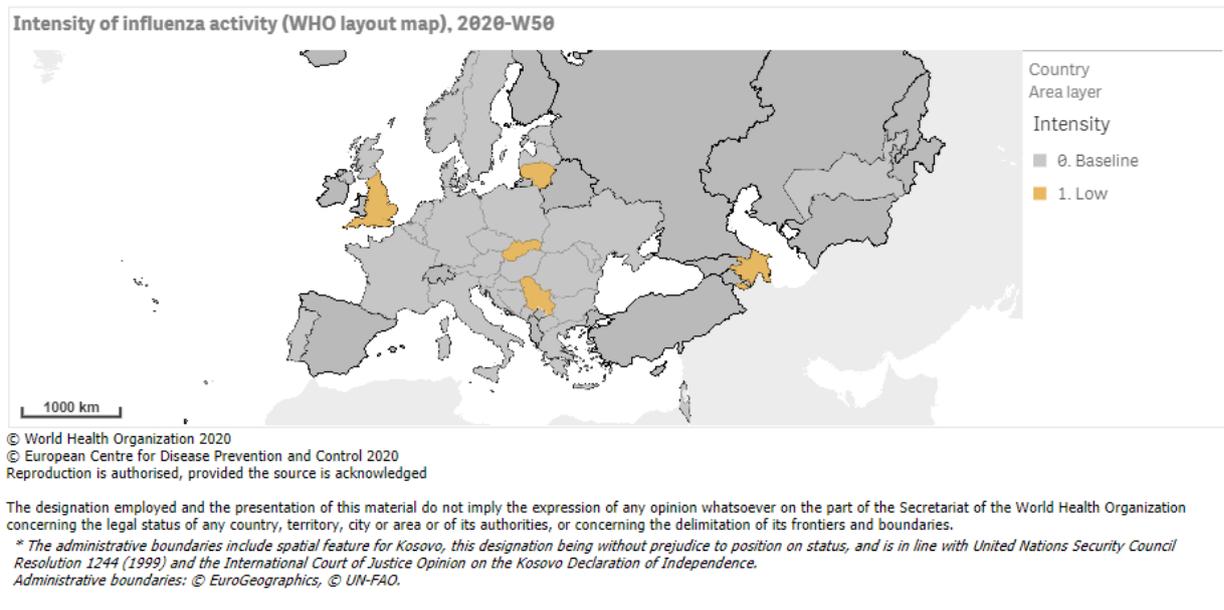
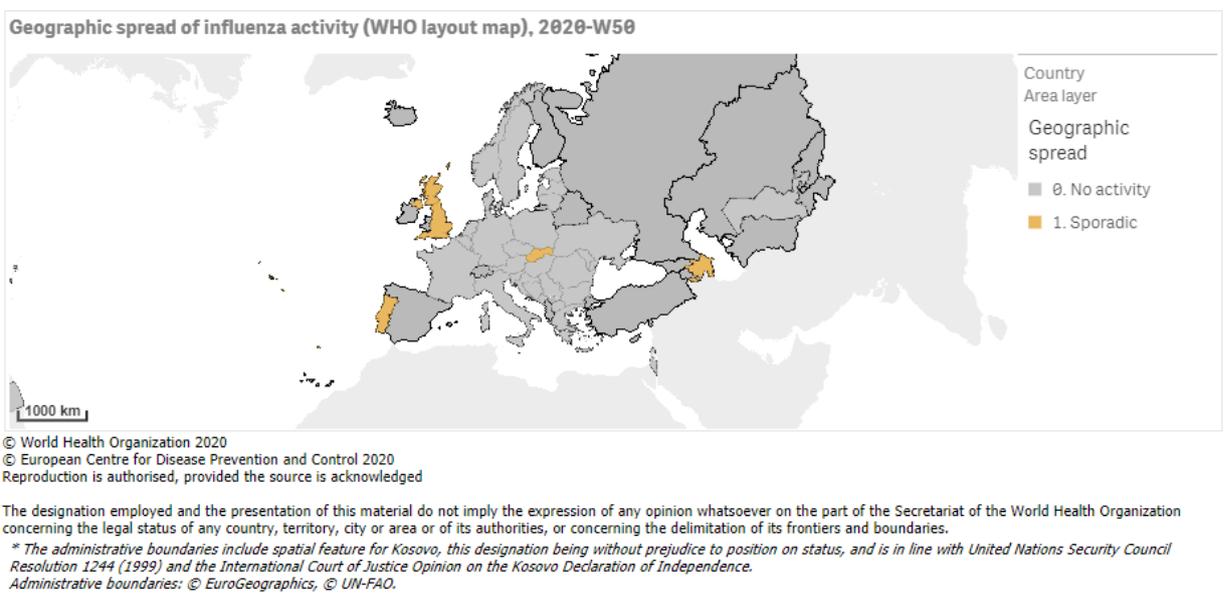


Fig. 2. Geographic spread in the European Region, week 50/2020



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

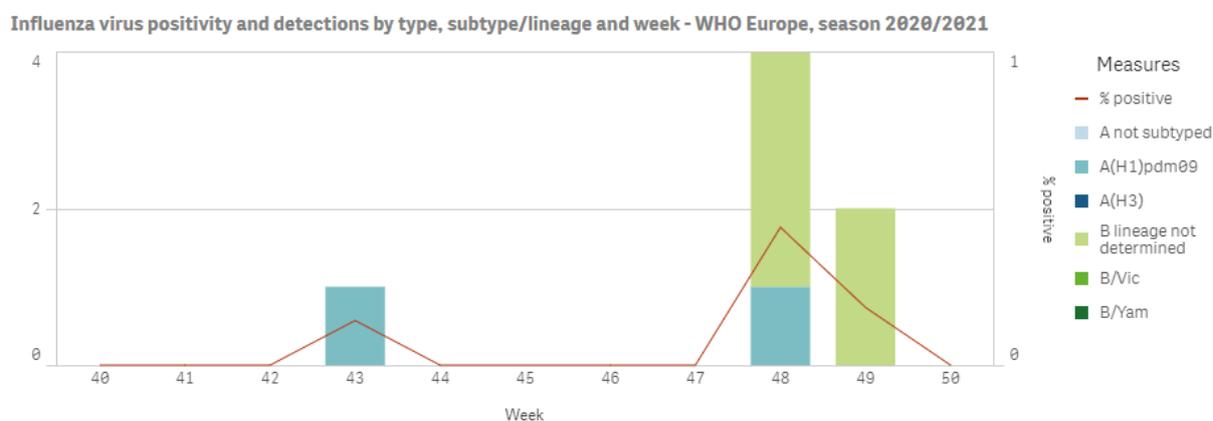
2020-2021 season overview

- For the Region as a whole, influenza activity has been at baseline level since the start of the season.
- In total, 374 specimens have tested positive for influenza viruses, 7 from sentinel sources and 367 from non-sentinel sources, with A(H1)pdm09, A(H3) and type B viruses detected.
- Since the start of the season, few hospitalized laboratory-confirmed influenza cases have been reported: 10 from ICUs (9 infected with type A viruses and 1 with type B); 3 cases (all type B viruses) in wards outside ICUs with 1 fatality; and four from severe acute respiratory infection (SARI)-based surveillance (3 infected with type B viruses and 1 with type A).
- WHO has published [recommendations](#) for the composition of influenza vaccines to be used in the 2020–2021 northern hemisphere season. Based on these recommendations, the influenza A(H1N1)pdm09, A(H3N2) and B/Victoria-lineage virus components should be updated compared to the 2019–2020 influenza vaccine.

Influenza positivity

As of week 50/2020, 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 40-50/2020



External data sources

Mortality monitoring: Overall pooled estimates of all-cause mortality for 26 countries and areas participating in the [EuroMOMO](#) project showed a substantial increase in excess all-cause mortality, coinciding with a reported increase in COVID-19 cases in several countries.

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 50/2020, of 1 291 sentinel specimens tested for influenza viruses, none were positive. Since the start of the season, of 10 103 sentinel-source specimens that have been tested for influenza viruses, seven were positive: 2 type A and 5 type B viruses (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 50/2020 and cumulatively for the influenza season 2020-2021

Virus type and subtype	Current Week (50)		Influenza Season 2020-2021	
	Number	% ^a	Number	% ^a
Influenza A	0	-	2	28.6
A(H1)pdm09	0	-	2	100
A(H3)	0	-	0	-
A not subtyped	0	-	0	-
Influenza B	0	-	5	71.4
B/Victoria lineage	0	-	0	-
B/Yamagata lineage	0	-	0	-
Unknown lineage	0	-	5	-
Total detections (total tested)	0 (1 291)	-	7 (10 103)	<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 50/2020, data reported from 8 countries representing between 65 and 7,999 active participants were included, for a total of 26,395 participants.

ILI activity: France, Portugal, Spain and Switzerland have reported between 0 and 5 cases per 1 000 active participants, Italy has reported between 5 and 10 cases per 1 000 active participants and Denmark 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: France and Italy have reported between 20 and 25 possible cases per 1 000 weekly participants, Portugal and UK have reported between 25 and 30 possible cases per 1 000 weekly participants, Spain has reported between 30 and 35 possible cases per 1 000 weekly participants and Switzerland has reported between 75 and 80 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; countries and areas mostly in the eastern part of the Region).

Laboratory-confirmed hospitalized cases

1.1) Hospitalized laboratory-confirmed influenza cases – ICUs

There were no hospitalized laboratory-confirmed influenza cases in ICUs reported for week 50/2020.

Since the start of the season, there have been 10 hospitalized laboratory-confirmed influenza cases in ICUs (9 infected with type A viruses and 1 with type B) reported by Ukraine (n = 2) and the UK (n = 8). At the time of the latest reports all cases were non-fatal.

1.2) Hospitalized laboratory-confirmed influenza cases – other wards

There were no laboratory-confirmed influenza cases in wards outside ICUs reported for week 50/2020.

Since the start of the season, there have been three laboratory-confirmed influenza cases (all type B viruses) in wards outside ICUs reported: two cases were in patients aged 15-64 years (both from Czechia) and 1 case, which was fatal, in a patient over 65 years old (from Ukraine).

Severe acute respiratory infection (SARI)-based hospital surveillance

For week 50/2020, specimens from 108 SARI cases reported from seven countries or areas were tested for influenza viruses. All were negative.

For the season to date, 11 countries and areas (Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Republic of Moldova, Russian Federation, Serbia, Ukraine and Uzbekistan) have reported 7 752 SARI cases and 1 142 were tested for influenza viruses. Just the four specimens from Ukraine, in week 48/2020, were positive to date (3 were type B viruses and 1 was type A).

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 50/2020, 29 specimens from non-sentinel 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: 14 type A and 15 type B viruses (Table 2. Influenza virus detections in non-sentinel source specimens by type and subtype, week

50/2020 and cumulatively for the influenza season 2020-2021). The majority of virus detections (69%; 20/29) were reported from the UK (England 18, Northern Ireland 1 and Scotland 1).

Since the beginning of the season, 367 of 130 155 non-sentinel specimens tested positive for influenza viruses; 187 (51%) were type A and 180 (49%) type B. Thirty-five of the type A viruses were subtyped: 27 (77.1%) as A(H3) and 8 (22.9%) as A(H1)pdm09. Of 180 type B viruses, only 2 were ascribed to a lineage both B/Victoria.

Table 2. Influenza virus detections in non-sentinel source specimens by type and subtype, week 50/2020 and cumulatively for the influenza season 2020-2021

Virus type and subtype	Current Week (50)		Influenza Season 2020-2021	
	Number	% ^a	Number	% ^a
Influenza A	14	48.3	187	51
A(H1)pdm09	0	-	8	22.9
A(H3)	0	-	27	77.1
A not subtyped	14	-	152	-
Influenza B	15	51.7	180	49
B/Victoria lineage	0	-	2	100
B/Yamagata lineage	0	-	0	0
Unknown lineage	15	-	178	-
Total detections (total tested)	29 (16 903)	-	367 (130 155)	-

^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

No virus characterization data for viruses detected in weeks 40-50/2020 have been reported.

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.

A summary or genetic characterisation data relating to the 2019/20 season has been reported in [Flu News Europe reports for weeks 40-49/2020](#).

Antiviral susceptibility of seasonal influenza viruses

For week 50/2020 and since the beginning of the season, no influenza viruses were tested for susceptibility to neuraminidase inhibitors.

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(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);
- 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](#).

This weekly update was prepared by an editorial team at the European Centre for Disease Prevention and Control (Cornelia Adlhoch, Lisa Ferland, Favelle Lamb, Piotr Kramarz, and Angeliki Melidou) and the WHO Regional Office for Europe (Piers Mook, Richard Pebody and Miriam Sneiderman). It was reviewed by experts from the network (Adam Meijer, National Institute for Public Health and the Environment (RIVM), the Netherlands); Rod Daniels and John McCauley, WHO Collaborating Centre for Reference and Research on Influenza, Francis Crick Institute, United Kingdom.

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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