

Weekly influenza overview

Week 53/2020 (28 December 2020–03 January 2021)

- Influenza activity remained at interseasonal levels.
- Of 619 specimens tested for influenza in week 53/2020, from patients presenting with ILI or ARI symptoms to sentinel primary healthcare sites, none 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 no hospitalized laboratory-confirmed influenza cases for week 53/2020.
- 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

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

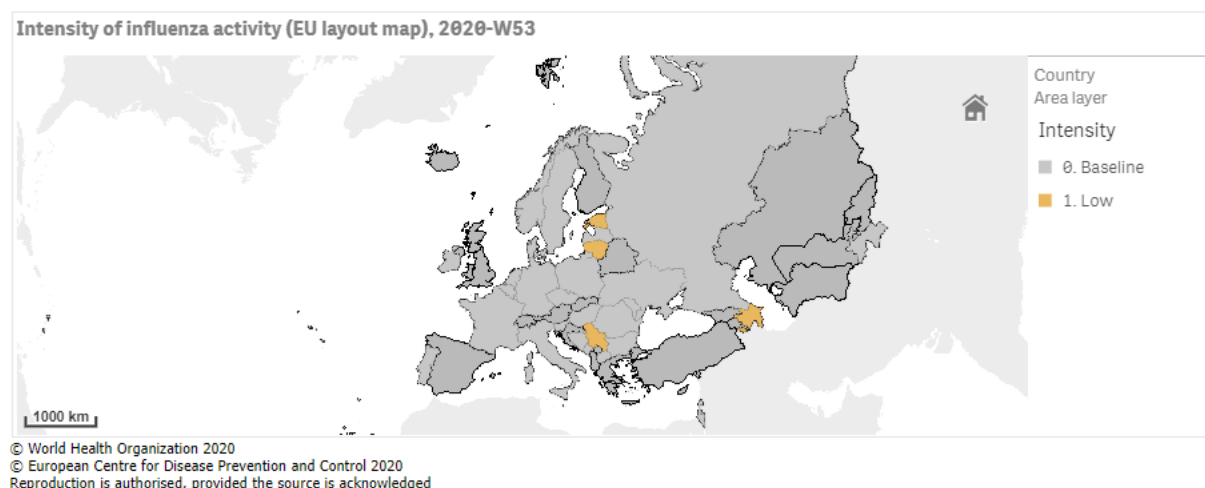
Of 31 countries and areas that reported on the intensity of activity indicator, 27 reported activity at baseline levels, and 4 (Azerbaijan, Estonia, Lithuania and Serbia) reported low intensity for week 53/2020 (Fig. 1).

Of 31 countries and areas that reported on geographic spread, 27 reported no activity and 4 (Azerbaijan, Denmark, Lithuania and Portugal) reported sporadic spread for week 53/2020 (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.

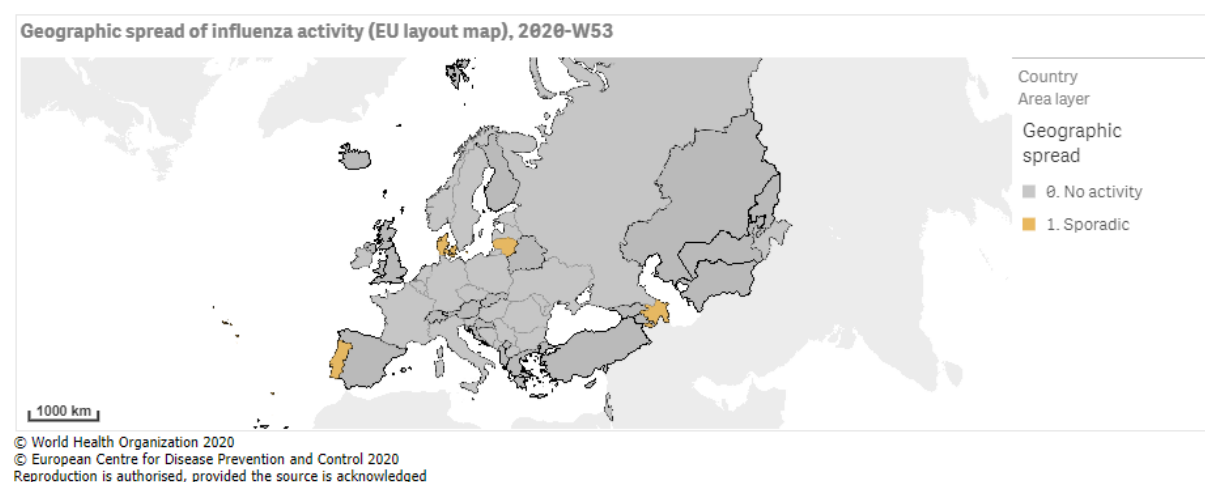
Fig. 1. Intensity in the European Region, week 53/2020



The designation employed and the presentation of this material do not imply the expression of any opinion whatsoever on the part of the Secretariat of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries.

* The administrative boundaries include spatial feature for Kosovo, this designation being without prejudice to position on status, and is in line with United Nations Security Council Resolution 1244 (1999) and the International Court of Justice Opinion on the Kosovo Declaration of Independence.
Administrative boundaries: © EuroGeographics, © UN-FAO.

Fig. 2. Geographic spread in the European Region, week 53/2020



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

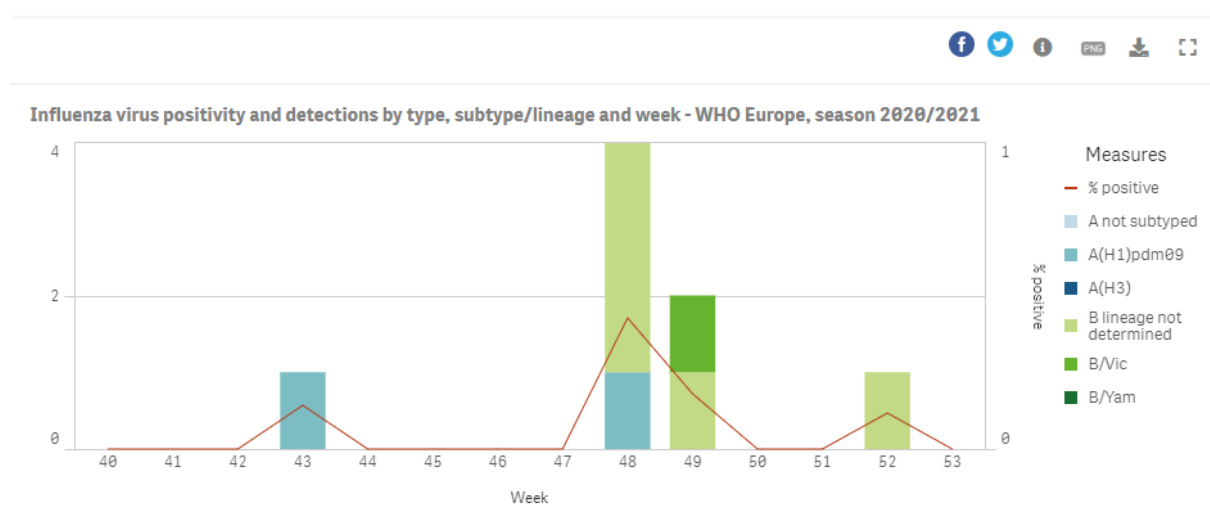
2020–2021 season overview

- For the Region as a whole, influenza activity has been at baseline level since the start of the season.
- In total, 415 specimens have tested positive for influenza viruses, 8 from sentinel sources and 407 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 53/2020, 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 40–53/2020



External data sources

Mortality monitoring: Overall pooled estimates of all-cause mortality for 25 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 53/2020, of 619 sentinel specimens tested for influenza viruses, none were positive. Since the start of the season, of 12 999 sentinel-source specimens that have been tested for influenza viruses, 8 were positive: 2 type A and 6 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 53/2020 and cumulatively for the influenza season 2020-2021

Virus type and subtype	Current Week (53)		Influenza Season 2020-2021	
	Number	% ^a	Number	% ^a
Influenza A	0	-	2	25.0
A(H1)pdm09	0	-	2	100
A(H3)	0	-	0	-
A not subtyped	0	-	0	-
Influenza B	0	-	6	75.0
B/Victoria lineage	0	-	1	100
B/Yamagata lineage	0	-	0	-
Unknown lineage	0	-	5	-
Total detections (total tested)	0 (619)	-	8 (12 999)	<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 53/2020, data reported from 8 countries representing between 59 and 7 962 active participants were included, for a total of 27 069 participants.

ILI activity: France, Germany, Italy, Portugal and Spain reported between 0 and 5 cases per 1 000 active participants, Denmark and the UK reported between 5 and 10 cases per 1 000 active participants and Switzerland 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 reported between 10 and 15 possible cases per 1 000 weekly participants, France reported between 15 and 20 possible cases per 1 000 weekly participants, Italy reported between 20 and 25 possible cases per 1 000 weekly participants, Switzerland reported between 25 and 30 possible cases per 1 000 weekly participants, the UK reported between 45 and 50 possible cases per 1 000 weekly participants and Spain reported between 85 and 90 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

There were no hospitalized laboratory-confirmed influenza cases in ICUs reported for week 53/2020.

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 53/2020.

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 Ukraine) and 1 case, which was fatal, in a patient over 65 years old (from Czechia).

Severe acute respiratory infection (SARI)-based hospital surveillance

For week 53/2020, 260 SARI cases were reported by 5 countries or areas. Of 14 specimens tested for influenza viruses, none were positive.

For the season to date, 12 countries and areas (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 10 404 SARI cases and 1 448 were tested for influenza viruses. Just four specimens from Ukraine, in week 48/2020, have tested 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 53/2020, 3 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: 2 were type A and 1 was type B (Table 2. Influenza virus detections in non-sentinel source specimens by type and subtype, week 53/2020 and cumulatively for the influenza season 2020-2021).

Since the beginning of the season, 407 of 185 251 non-sentinel specimens tested positive for influenza viruses; 204 (50.1%) were type A and 203 (49.9%) type B. Of 40 subtyped A viruses, 10 (25.0%) were A(H1)pdm09 and 30 (75.0%) were A(H3). Of 203 type B viruses, only 4 were ascribed to a lineage: 3 B/Victoria and 1 B/Yamagata.

Table 2. Influenza virus detections in non-sentinel source specimens by type and subtype, week 53/2020 and cumulatively for the influenza season 2020-2021

Virus type and subtype	Current Week (53)		Influenza Season 2020-2021	
	Number	% ^a	Number	% ^a
Influenza A	2	66.7	204	50.1
A(H1)pdm09	0	-	10	25.0
A(H3)	0	-	30	75.0
A not subtyped	2	-	164	-
Influenza B	1	33.3	203	49.9
B/Victoria lineage	0	-	3	75.0
B/Yamagata lineage	0	-	1	25.0
Unknown lineage	1	-	199	-
Total detections (total tested)	3 (11 342)	-	407 (185 251)	-

^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 40-53/2020 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 of genetic characterisation data relating to the 2019/20 season can be found in the Flu News Europe report for [week 20/2020](#).

Antiviral susceptibility of seasonal influenza viruses

For week 53/2020 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(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](#).

This weekly update was prepared by an editorial team at the European Centre for Disease Prevention and Control (Cornelia Adlhoch, Lisa Ferland, Favelle Lamb, Andrew Amato-Gauci 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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