Summary

Week 44/2021 (1 – 7 November 2021)

- Influenza activity was low throughout the European Region.
- Of the 924 specimens tested for influenza viruses in week 44/2021, from patients presenting with ILI or ARI symptoms to sentinel primary healthcare sites, two were positive for influenza type A viruses.
- Hospitalized laboratory confirmed influenza cases were reported from intensive care units (1 type B virus) and from SARI cases (18 A(H3) and one type B 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.
- During week 44/2021, there was one hospitalized laboratory-confirmed influenza case from an ICU and no further cases in wards outside of ICUs.

2021-2022 season overview

- For the Region as a whole, influenza activity has been at baseline level with sporadic detections, mostly of A(H3) viruses.
- During the influenza Vaccine Composition Meeting for the southern hemisphere 2022 season, held in September 2021, WHO recommended updating of the A(H3N2) and the B/Victoria-lineage components. The full report can be found here.

Other news

On 30 January 2020, following the recommendations of the Emergency Committee, the WHO Director General declared that the SARS-CoV-2 outbreak constituted a Public Health Emergency of International Concern (PHEIC). 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

For week 44/2021, of 37 countries and areas reporting on intensity of influenza activity, 32 reported baseline activity and 5 (Azerbaijan, Kyrgyzstan, Slovakia, Turkey and Kosovo (in accordance with UN Security Council Resolution 1244 (1999)) reported low intensity (Fig. 1).

Of 37 countries and areas reporting on geographic spread, 22 reported baseline activity, 14 reported sporadic spread and 1 (Kyrgyzstan) reported regional spread (Fig. 2).

Figure 1. Intensity in the European Region, week 44/2021

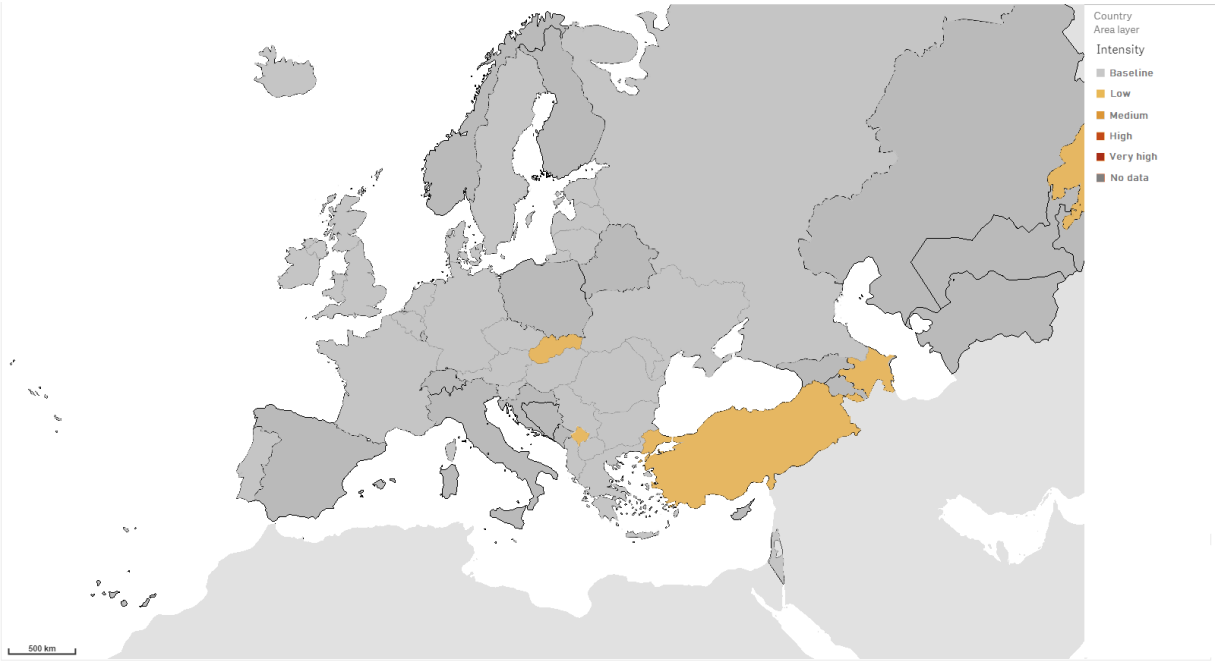
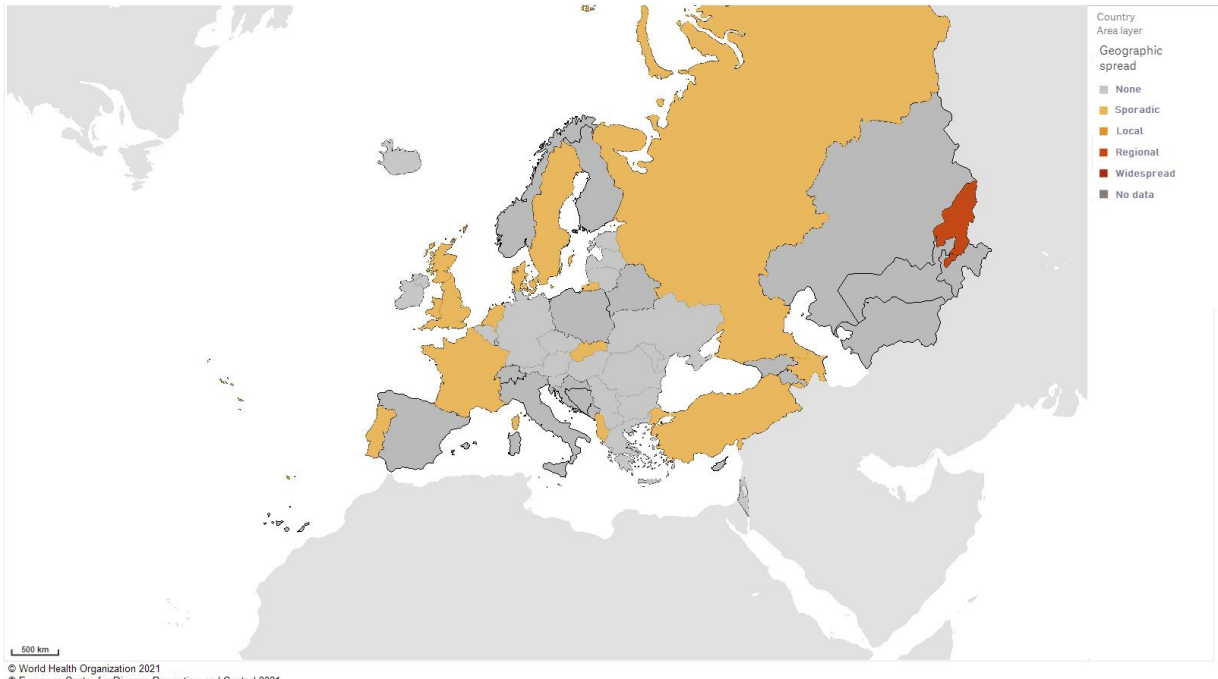


Figure 2. Geographic spread in the European Region, week 44/2021



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

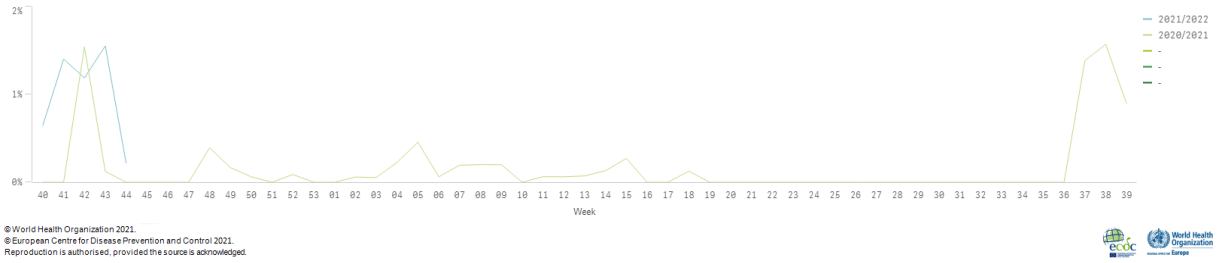
Please note:

- 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 virus, including SARS-CoV-2, leading to observed increases in the absence of influenza virus detections.
- 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.

Influenza positivity

For the European Region, influenza virus positivity in sentinel specimens remained below the epidemic threshold, which is set at 10% (Figure 3).

Figure 3. Influenza positivity in sentinel-source specimens by week, WHO Europe



External data sources

Mortality monitoring:

Data from 25 European countries or subnational regions was reported to EuroMOMO during week 44/2021. Overall pooled estimates of all-cause mortality for the participating European countries showed a low level of excess mortality, likely associated with the current COVID-19 circulation in the region. Ukraine is experiencing a rapid increase in excess mortality, which could be due to the increased level of COVID-19 infections in Ukraine. Please refer to the EuroMOMO project for additional information.

Primary care data

Syndromic surveillance data

Of those Member States in which thresholds for ILI activity are defined, countries in eastern (n=3; Azerbaijan, Kyrgyzstan, Ukraine), northern (n=2; Denmark, Estonia), southern (n=2; Serbia, Turkey) and western (n=2; Austria, Belgium) areas of the European Region reported activity above baseline levels.

Of those Member States and areas in which thresholds for ARI activity are defined, countries in eastern (n=1; Kyrgyzstan), and northern (n=2; Estonia, Latvia) areas of the European Region reported activity above baseline levels.

Please note:

1. Assessment of the syndromic surveillance data of ILI or ARI rates might be driven by respiratory infections other than influenza virus, including SARS-CoV-2, leading to observed increases in the absence of influenza virus detections. The thresholds mentioned are related to the MEM method and relates to historical ILI/ARI data.

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

For week 44/2021, 2 of 924 sentinel specimens tested positive for an influenza virus; both were type A and the one subtyped was A(H3N2) (Fig. 4 and Table 1). Of 17 countries or areas across the region that each tested at least 10 sentinel specimens in week 44/2021, none reported a rate of influenza virus detections above 10%.

For the season to date, 51 (1%) of 4 978 sentinel specimens tested positive for an influenza virus. More influenza type A (n=48, 94%) than type B (n=3, 6%) viruses have been detected. Of 47 subtyped A viruses, all were A(H3N2). No influenza type B viruses were ascribed to a lineage (Fig. 3 and Table 1).

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

Figure 4. Influenza virus detections in sentinel source specimens by type and subtype, by week, to week 44/2021 of the 2021-22 season

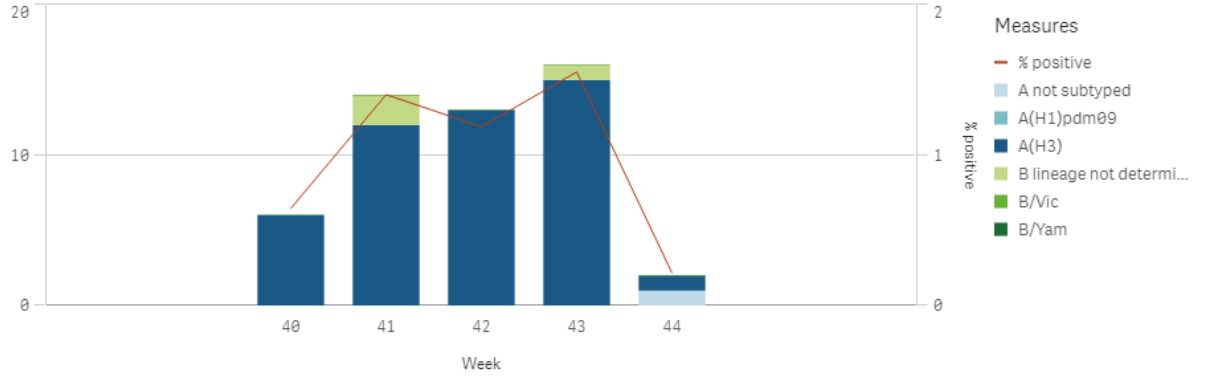


Table 1. Influenza virus detections in sentinel source specimens by type and subtype for week 44/2021 and cumulatively for the season

Sentinel	Current Week (44)		Season 2021-2022	
Virus type and subtype	Number	%[a]	Number	%[a]
Influenza A	**2**	**100**	**48**	**94.1**
A(H1)pdm09	0	0	0	0
A(H3)	1	100	47	100
A not subtyped	1	-	1	-
Influenza B	**0**	**0.0**	**3**	**5.9**
B/Victoria lineage	0	0	0	0
B/Yamagata lineage	0	0	0	0
Unknown lineage	0	-	3	-
Total detections (total tested)	**2 (924)**	**0.2**	**51 (4 978)**	**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. Please refer to the website for additional information for this week.

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

For week 44/2021, one laboratory-confirmed influenza case was reported from an ICU (from United Kingdom (England)). The patient was infected with influenza B virus, but lineage was not ascribed (Figures 5 and 6).

Since week 40/2021, there have been 8 influenza type A viruses and 1 influenza type B virus detected. Of 2 subtyped influenza A viruses, both were A(H1N1)pdm09. No influenza B viruses were ascribed to a lineage. Of 3 cases with known age, 2 were 0-4 years old and 1 was 65 years or older.

Figure 5. Number of laboratory-confirmed hospitalized cases in intensive care units (ICU) by week of reporting, WHO Europe, season 2021/2022

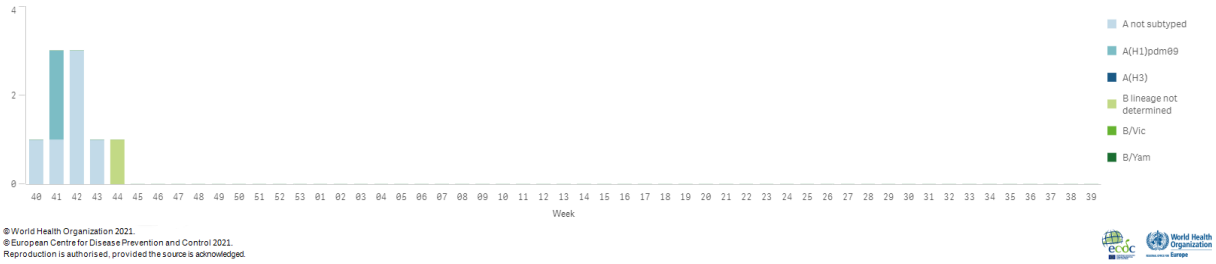


Figure 6. Distribution of virus types, subtypes/lineages by age group in intensive care units (ICU), WHO Europe, season 2021/2022

1.2) Hospitalized laboratory-confirmed influenza cases – other wards

There were no reports of hospitalized laboratory-confirmed influenza cases in other wards during week 44/2021 (Figures 7 and 8).

Since week 40/2021, there has been 1 influenza type A virus and no influenza type B viruses detected. The influenza A virus was not ascribed to a subtype. The 1 case with known age, was 0-4 years old.

Figure 7. Number of laboratory-confirmed hospitalized cases in wards other than intensive care units (non-ICU) by week of reporting, WHO Europe, season 2021/2022

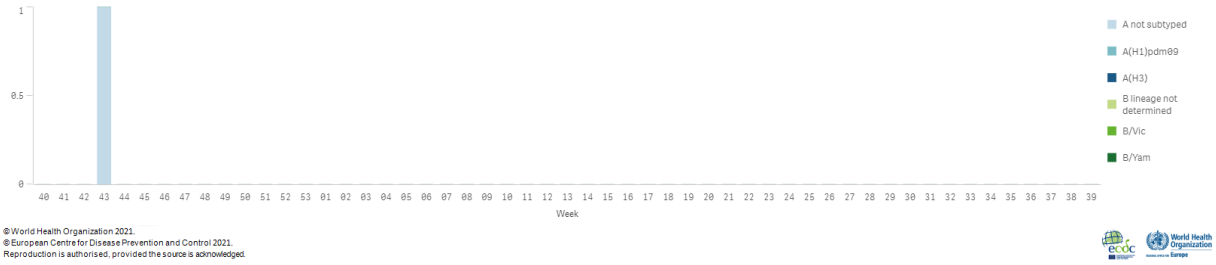


Figure 8. Distribution of virus types, subtypes/lineages by age group in wards other than intensive care units (non-ICU), WHO Europe, season 2021/2022

Severe acute respiratory infection (SARI)-based hospital surveillance

For week 44/2021, 3 579 SARI cases were reported by 13 Member States or areas (Albania, Azerbaijan, Germany, Kyrgyzstan, Lithuania, Malta, Montenegro, Republic of Moldova, Russian Federation, Serbia, Spain, Turkey and Ukraine). Of 274 specimens tested for influenza viruses, 7% (n=19) were positive. Of these, influenza type A viruses (95%, n=18) were detected more frequently than influenza type B viruses (5%, n=1) (Figure 9).

For the season, 20 588 SARI cases were reported by 21 Member States or areas (Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Germany, Kazakhstan, Kosovo, Kyrgyzstan, Lithuania, Malta, Montenegro, Republic of Moldova, Russian Federation, Serbia, Spain, Tajikistan, Turkey,

Ukraine and Uzbekistan). For SARI cases testing positive for influenza virus since week 40/2021, type A viruses have been the most common (n=71, 99%). Of the 69 influenza type A infected cases for which subtyping was performed, none were infected by A(H1N1)pdm09 viruses and all were infected by A(H3N2) viruses. Only one case was positive for type B but the lineage was not determined (Figure 10).

Figure 9. Number of severe acute respiratory infection (SARI) cases (bar) and positivity for influenza and COVID-19 (point/line) by week of reporting, WHO Europe, season 2021/2022

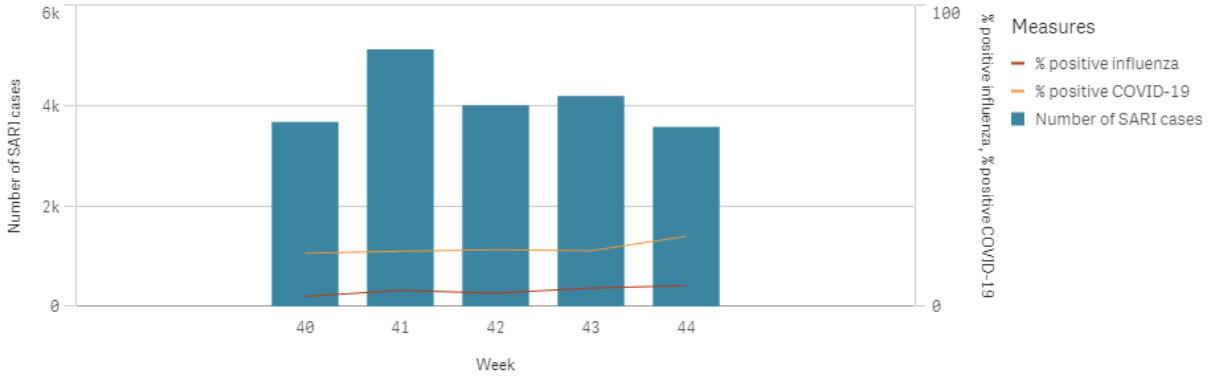
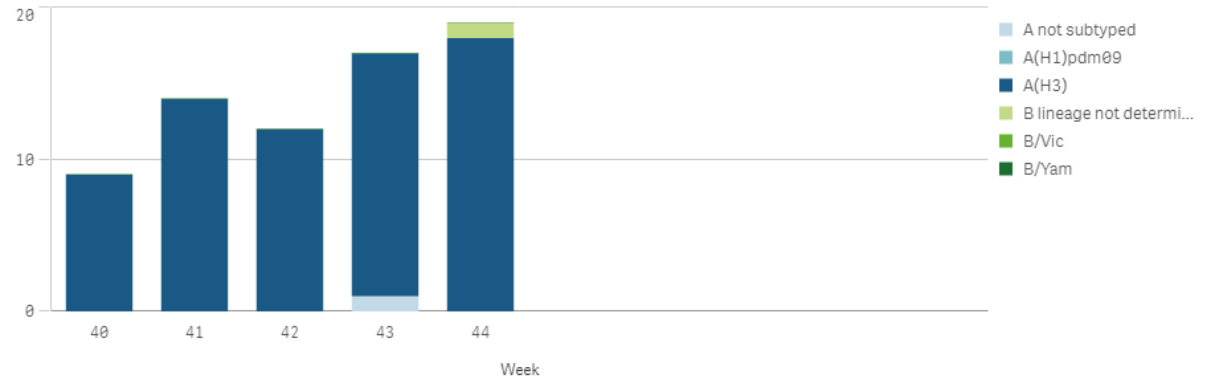


Figure 10. Influenza detections by virus type, subtype/lineage from severe acute respiratory infection (SARI), WHO Europe, season 2021/2022



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 44/2021, 295 of 53 295 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 influenza viruses; 87% were type A and 13% were type B. Of 192 subtyped A viruses, 2% were A(H1N1)pdm09 and 98% were A(H3N2). No B viruses were ascribed to a lineage (Figure 11 and Table 2).

For the season to date, more influenza type A (n=778, 85%) than type B (n=136, 15%) viruses have been detected. Of 554 subtyped A viruses, 19 (3%) were A(H1N1)pdm09 and 535 (97%) were A(H3N2). All type B viruses were reported without a lineage ascribed (Figure 11 and Table 2).

Figure 11. Influenza detections by type, subtype/lineage and week, WHO Europe, season 2021/2022

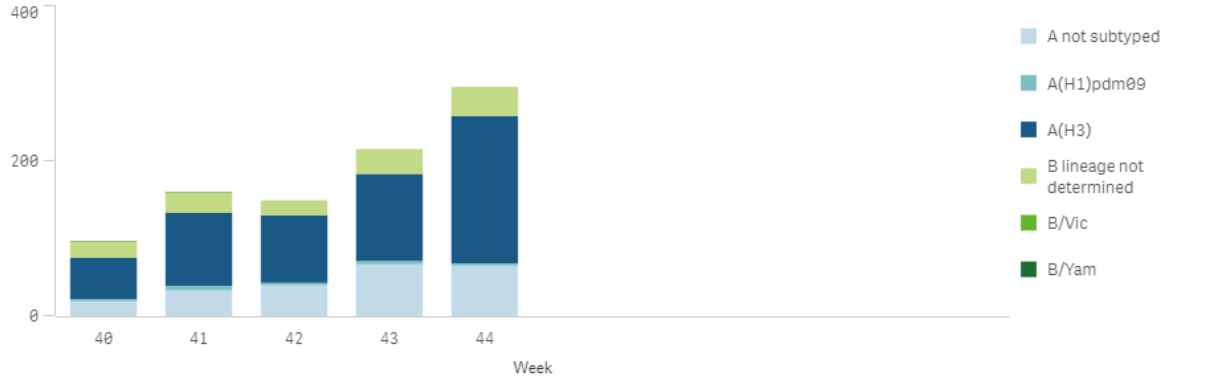


Table 2. Influenza virus detections in non-sentinel source specimens by type and subtype, week 44/2021 and cumulative for the season

	Current Week (44)		Season 2021-2022	
Virus type and subtype	**Number**	**%[a]**	**Number**	**%[a]**
Influenza A	**257**	**87.1**	**778**	**85.7**
A(H1)pdm09	3	1.6	19	3.4
A(H3)	189	98.4	535	96.6
A not subtyped	65	-	224	-
Influenza B	**38**	**12.9**	**136**	**14.9**
B/Victoria lineage	0	0	0	0
B/Yamagata lineage	0	0	0	0
Unknown lineage	38	-	136	-
Total detections (total tested)	**295 (53 295)**	**-**	**914 (223 771)**	**-**

[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 characterisation

Up to week 44/2021, 41 A(H3) viruses had been characterised genetically, all of which belonged to clade 3C.2a1b.2a.2. One A(H1) virus was characterised genetically during week 44, without clade assignment.

ECDC published the September virus characterisation report that describes the available data from circulating viruses collected after 31 August 2020. This and previously published influenza virus characterization reports are available on the ECDC website.

Antiviral susceptibility of seasonal influenza viruses

Up to week 44/2021, 41 A(H3) viruses were assessed for susceptibility to neuraminidase inhibitors and no amino acid substitutions previously associated with reduced susceptibility were identified.

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 24 September 2021, WHO published recommendations for the components of influenza vaccines for use in the 2022 southern hemisphere influenza season:

Egg-based Vaccines

- an A/Victoria/2570/2019 (H1N1)pdm09-like virus;
- an A/Darwin/9/2021 (H3N2)-like virus;
- a B/Austria/1359417/2021 (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/Darwin/6/2021 (H3N2)-like virus;
- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus; and
- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus.

It is recommended that **trivalent influenza vaccines** for use in the 2022 southern hemisphere influenza season contain the following:

Egg-based vaccines

- an A/Victoria/2570/2019 (H1N1)pdm09-like virus;
- an A/Darwin/9/2021 (H3N2)-like virus; and
- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus.

Cell- or Recombinant-based vaccines

- an A/Wisconsin/588/2019 (H1N1)pdm09-like virus;
- an A/Darwin/6/2021 (H3N2)-like virus; and
- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus

The full report is published here.

On 26 February 2021, WHO published recommendations for the components of influenza vaccines for use in the 2021-2022 northern hemisphere influenza season:

Egg-based Vaccines

- an A/Victoria/2570/2019 (H1N1)pdm09-like virus;
- an A/Cambodia/e0826360/2020 (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/Cambodia/e0826360/2020 (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 was recommended that the influenza B virus component of **both trivalent vaccine types** for use in the 2021–2022 northern hemisphere influenza season should be a B/Washington/02/2019-like virus of the B/Victoria-lineage.

This weekly update was prepared by an editorial team at the European Centre for Disease Prevention and Control (Cornelia Adlhoch, Carlos Carvalho, Nishi Dave, and Pasi Penttinen) and the WHO Regional Office for Europe (Margaux Meslé, Piers Mook and Richard Pebody).

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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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