

## Summary

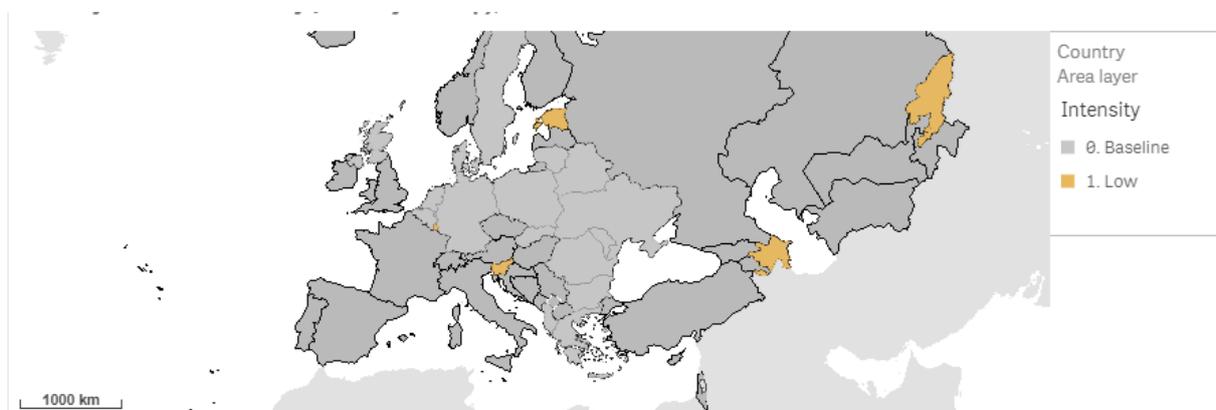
### Weeks 21-25/2022 (23 May-20 June 2022)

- Influenza activity remained at inter-seasonal levels.
- Estonia, Finland, Germany, Netherlands, Portugal and Sweden reported widespread activity and Finland, Georgia and Kazakhstan reported medium influenza intensity.
- Display of data will be updated on a monthly basis during the interseason period (weeks 21-39).

## Qualitative indicators

Information on countries and areas reporting on intensity of activity and geographic spread for this week can be seen in Figures 1 and 2, respectively.

**Figure 1. Intensity of influenza activity in the European Region, week 25/2022**

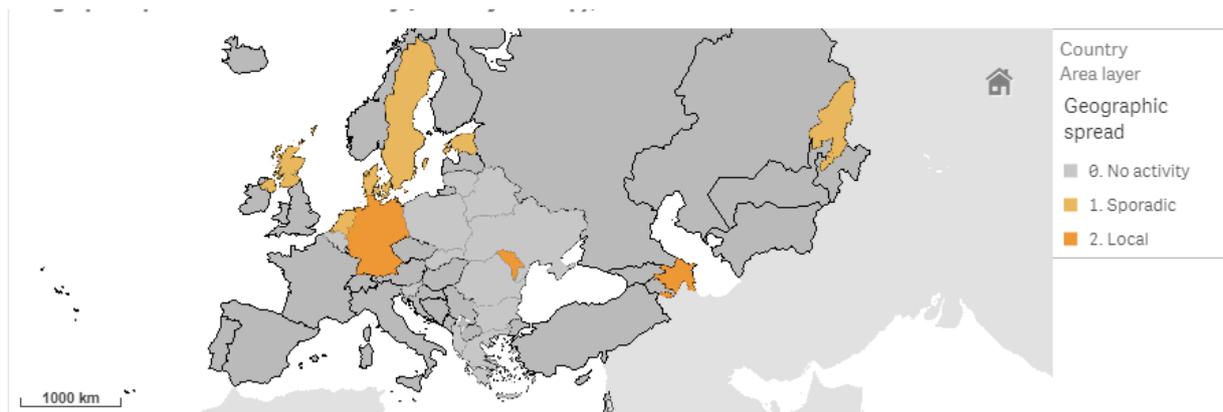


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\* The administrative boundaries include spatial feature for Kosovo, this designation being without prejudice to position on status, and is in line with United Nations Security Council Resolution 1244 (1999) and the International Court of Justice Opinion on the Kosovo Declaration of Independence.  
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**Figure 2. Geographic spread of influenza viruses in the European Region, week 25/2022**



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

**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 virus detections. Countries should be aware of the potential for out-of-season increases in non-SARS-CoV-2 viruses as public health measures are relaxed over the summer months.
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.

## 2021-2022 season overview

- For the Region as a whole, influenza activity reached levels well above those observed in the 2020/21 season.
- Influenza activity, based on sentinel primary care specimens from patients presenting with ILI or ARI symptoms, first peaked in week 52/2021 (reaching 19% positivity), declining thereafter until week 4/2022, when it increased again reaching a plateau phase (25-30% positivity) between weeks 10 and 15/2022 (this represented late activity compared to most previous seasons) followed by a subsequent 8-week decline to 10% in week 20/2022.
- Different timings, epidemiological situations and levels of influenza activity in countries across the Region were observed over the course of the season, with A(H3) viruses being dominant in all countries.
- During the influenza Vaccine Composition Meeting for the southern hemisphere 2022 season, held in September 2021, WHO recommended updating of the A(H3) and the B/Victoria-lineage components. The full report can be found [here](#).
- Vaccination remains the best protective measure for prevention of influenza. With increased circulation of influenza virus clinicians should consider early antiviral treatment of patients in at-risk groups with influenza virus infection, according to local guidance, to prevent severe outcomes. Viruses analyzed so far have remained susceptible to neuraminidase inhibitors and baloxavir marboxil.

## Other news

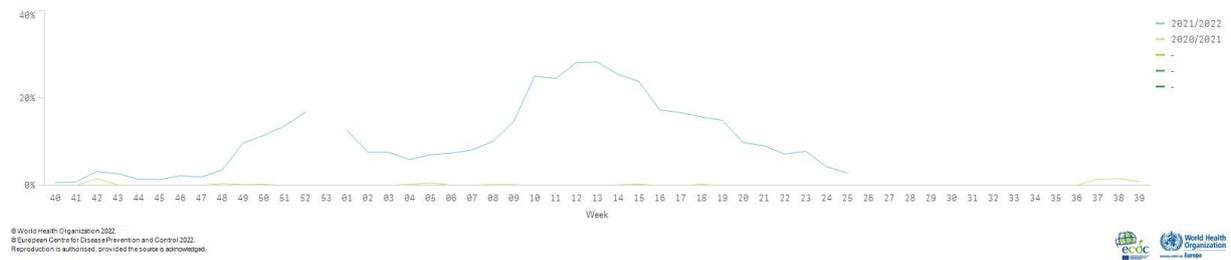
For more information about the SARS-CoV-2 situation in the WHO European Region visit:

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

## Influenza positivity

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

**Figure 3. Influenza virus positivity in sentinel-source specimens by week, WHO European Region, and for weeks 40/2021-25/2022**



## External data sources

**Mortality monitoring:** Please refer to the [EuroMOMO](#) project for additional information.

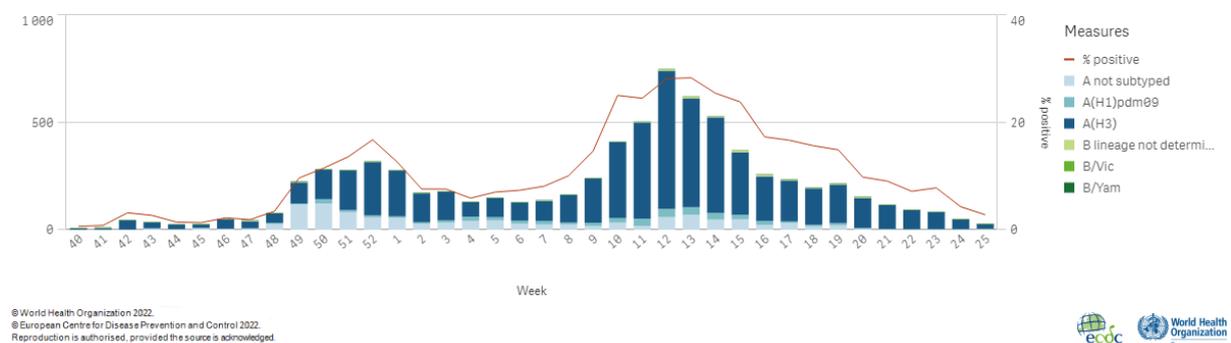
## Primary care data

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

Please refer to respective Table 1 and Figure 4, respectively, for additional information on sentinel specimens tested for influenza viruses for these weeks.

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, season 2021/2022**



**Table 1. Influenza virus detections in sentinel-source specimens by type and subtype for week 25/2022 and cumulatively for the season**

Virus type and subtype	Current Week (25)		Weeks 40/2021 - 25/2022	
	Number	% <sup>a</sup>	Number	% <sup>a</sup>
<b>Influenza A</b>	<b>28</b>	100	<b>7 514</b>	<b>98.6</b>
A(H1)pdm09	2	8	395	6.2
A(H3)	23	92	5 993	93.8
A not subtyped	3	-	1 126	-
<b>Influenza B</b>	<b>0</b>	<b>0</b>	<b>107</b>	<b>1.4</b>
B/Victoria lineage	0	-	19	100
B/Yamagata lineage	0	-	0	0.0
Unknown lineage	0	-	88	-
<b>Total detections (total tested)</b>	<b>28 (1 002)</b>	<b>2.8</b>	<b>7 621 (67 452)</b>	<b>11.3</b>

<sup>a</sup> 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 these weeks.

## Hospital surveillance

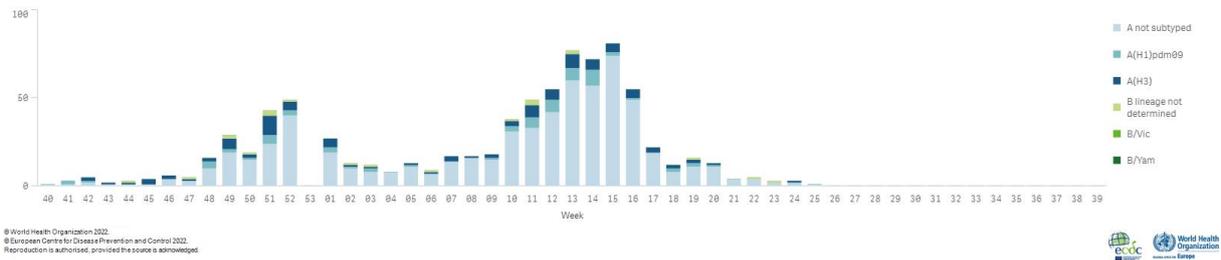
A subset of countries and areas monitor severe disease related to influenza virus infection by surveillance of 1) hospitalized laboratory-confirmed influenza cases in ICUs or other wards, or 2) severe acute respiratory infection (SARI; mainly in the eastern part of the Region).

## Laboratory-confirmed hospitalized cases

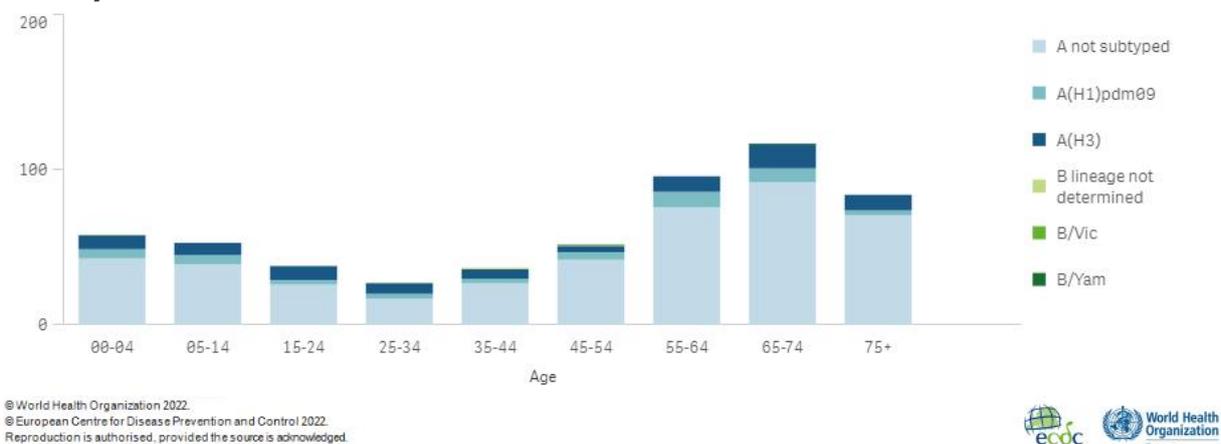
### 1.1) Hospitalized laboratory-confirmed influenza cases – ICUs

Please refer to the respective Figures 5 and 6, respectively, below for more information for these weeks.

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



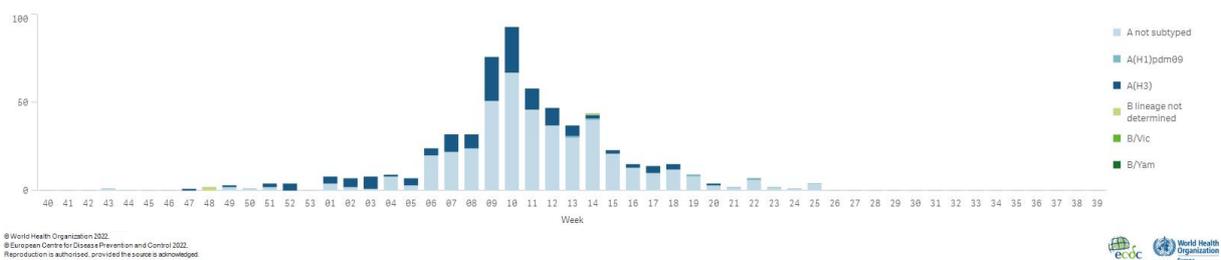
**Figure 6. Distribution of influenza virus types, subtypes/lineages by age group in intensive care units (ICU), WHO European Region, season 2021/2022**



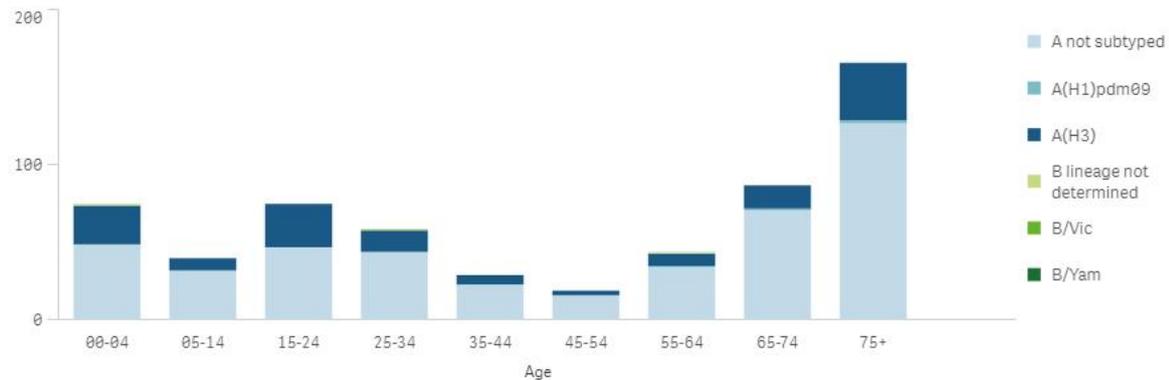
**1.2) Hospitalized laboratory-confirmed influenza cases – other wards**

Please refer to the respective Figures 7 and 8, respectively, for more information for this week.

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



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



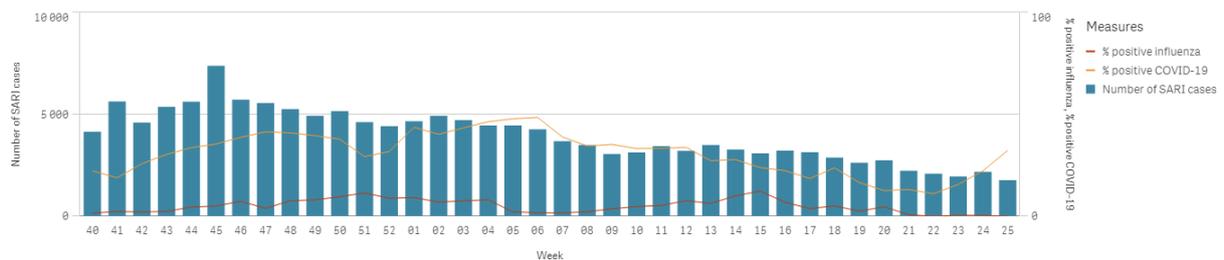
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## Severe acute respiratory infection (SARI)-based hospital surveillance

Please refer to Figures 9 and 10, respectively, for more information for this week.

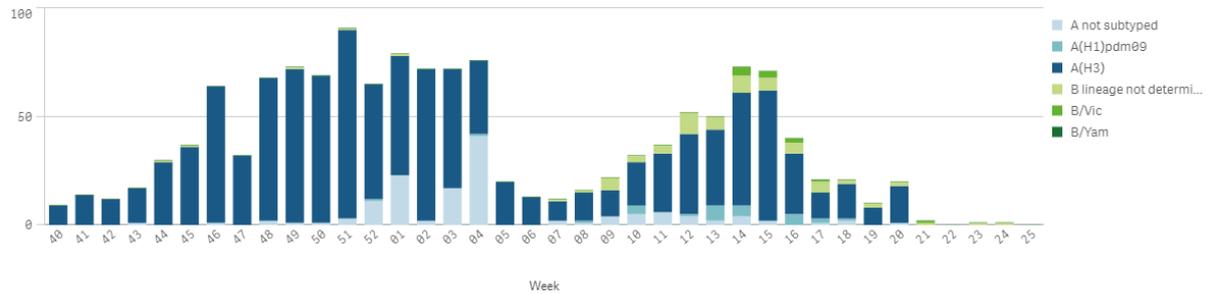
**Figure 9. Number of severe acute respiratory infection (SARI) cases (bar) and positivity for influenza virus and SARS-CoV-2 (line) by week, WHO European Region, season 2021/2022**



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



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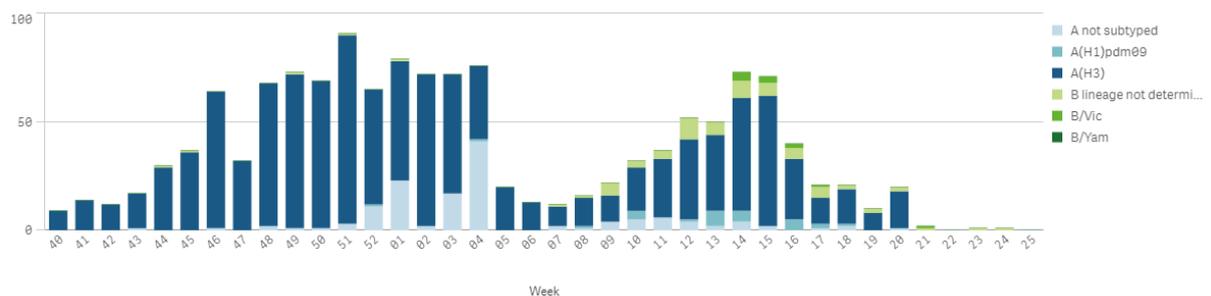
## Virus characteristics

Details of the distribution of viruses detected in sentinel-source specimens can be found in the [Primary care data](#) section.

## Non-sentinel virologic data

Please refer to Figure 11 and Table 2, respectively, for additional information on non-sentinel specimens tested for influenza viruses for these weeks.

**Figure 11. Influenza virus detections by type, subtype/lineage and week, non-sentinel sources, WHO European Region, season 2021/2022**



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**Table 2. Influenza virus detections in non-sentinel source specimens by type and subtype, week 25/2022 and cumulative for the season**

Virus type and subtype	Current Week (25)		Weeks 40/2021-25/2022	
	Number	% <sup>a</sup>	Number	% <sup>a</sup>
<b>Influenza A</b>	<b>221</b>	<b>93.6</b>	<b>128 380</b>	<b>98.2</b>
A(H1)pdm09	5	7.4	2 563	8.2
A(H3)	63	92.6	28 629	91.8
A not subtyped	153	-	97 188	-
<b>Influenza B</b>	<b>15</b>	<b>6.4</b>	<b>2 351</b>	<b>1.8</b>
B/Victoria lineage	0	-	104	98.1
B/Yamagata lineage	0	-	2	1.9
Unknown lineage	15	100	2 245	-
<b>Total detections (total tested)</b>	<b>236 (28 207)</b>	<b>0.8</b>	<b>130 731 (2 779 488)</b>	<b>4.7</b>

<sup>a</sup> 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

Please refer to Table 3 for additional information on viruses that have been characterised genetically.

**Table 3. Number of influenza viruses attributed to genetic groups, cumulative for the influenza weeks 40/2021-25/2022**

	Number of influenza viruses attributed to genetic groups 2021/2022
<b>Total</b>	<b>4 477</b>
<b>Influenza A</b>	<b>4 392</b>
<b>A(H1)pdm09</b>	<b>349</b>
A(H1)pdm09_NOClade *	1
A/Guangdong-Maonan/SWL1536/2019(H1N1)pdm09_6B.1A.5a.1	321
A/India/Pun-NIV312851/2021(H1N1)pdm09_6B.1A.5a.2	8
A/Victoria/2570/2019(H1N1)pdm09_6B.1A.5a.2	19
<b>A(H3)</b>	<b>4 043</b>
A/Bangladesh/4005/2020(H3)_3C.2a1b.2a.2	4 024
A/Cambodia/e0826360/2020(H3)_3C.2a1b.2a.1	1
A/Denmark/3264/2019(H3N2)_3C.2a1b.1a	18
<b>Influenza B</b>	<b>85</b>
<b>B/Vic</b>	<b>78</b>
B/Austria/1359417/2021(Victoria lineage_1A.3a.2)	48
B/Victoria_NOClade *	1
B/Washington/02/2019(Victoria lineage_1A.3)	28
B/Vic_SubgroupNotListed *	1
<b>B/Yam</b>	<b>7</b>
B/Phuket/3073/2013(Yamagata lineage_3)	4
B/Yamagata_NOClade *	3

\* No Clade: not attributed to a pre-defined clade and SubgroupNotListed: attributed to recognised group in current guidance but not listed here

ECDC published the [March](#) virus characterization report that describes the available data from circulating viruses this influenza season: currently type A influenza virus circulation was dominating over type B, due mainly to A(H3) viruses. Vaccination remains the best protective measure for prevention of influenza. However, based on post-infection ferret antisera data, the predominant A(H3N2) viruses in circulation are not well recognized by antisera raised against viruses genetically and antigenically similar to the vaccine virus, indicating antigenic diversity. Therefore, it is possible that the A(H3) vaccine component may induce less good recognition of the prevalent A(H3) viruses, although [preliminary VE data](#) indicates a still moderate level of protection against laboratory confirmed infection. Clinicians should therefore consider early antiviral treatment of at-risk groups with influenza infection, according to local guidance, to prevent severe outcomes.

## Antiviral susceptibility of seasonal influenza viruses

Between weeks 21 and 25/2022, 5 viruses were assessed for susceptibility to neuraminidase inhibitors and 5 were assessed for susceptibility to baloxavir marboxil. Phenotypically and genotypically, no markers associated with reduced susceptibility were identified.

## Vaccine

Recently published results from a controlled, randomised trial in UK concluded that concomitant vaccination with one of two SARS-CoV-2 vaccines (ChAdOx1 or BNT162b2) plus an age-appropriate influenza vaccine raised no safety concerns and preserves [antibody responses](#) to both vaccines.

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)02329-1/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02329-1/fulltext)

**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;
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- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus

The full report is published [here](#).

**On 25 February 2022, WHO published [recommendations](#) for the components of influenza vaccines for use in the 2022-2023 northern hemisphere influenza season:**

The WHO recommends that quadrivalent vaccines for use in the 2022-2023 influenza season in the northern hemisphere contain the following:

### **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.

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- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus.

The WHO recommends that trivalent vaccines for use in the 2022-2023 influenza season in the northern hemisphere contain the following:

### **Egg-based Vaccines**

- an A/Victoria/2570/2019 (H1N1)pdm09-like virus;
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- an A/Wisconsin/588/2019 (H1N1)pdm09-like virus;
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- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus

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