

# Summary

## Week 42/2021 (18 – 24 October 2021)

- Influenza activity was low throughout the European Region, though Croatia and Kyrgyzstan experienced early influenza activity related to A(H3) circulation.
- Influenza viruses were detected sporadically in specimens from persons with respiratory illness presenting to medical care.
- Both influenza A and B type viruses were detected, with A(H3) subtype predominating.
- Type A virus infection was reported for two patients in intensive care units. Twelve patients with SARI in hospital settings were infected with A(H3) viruses.

## 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

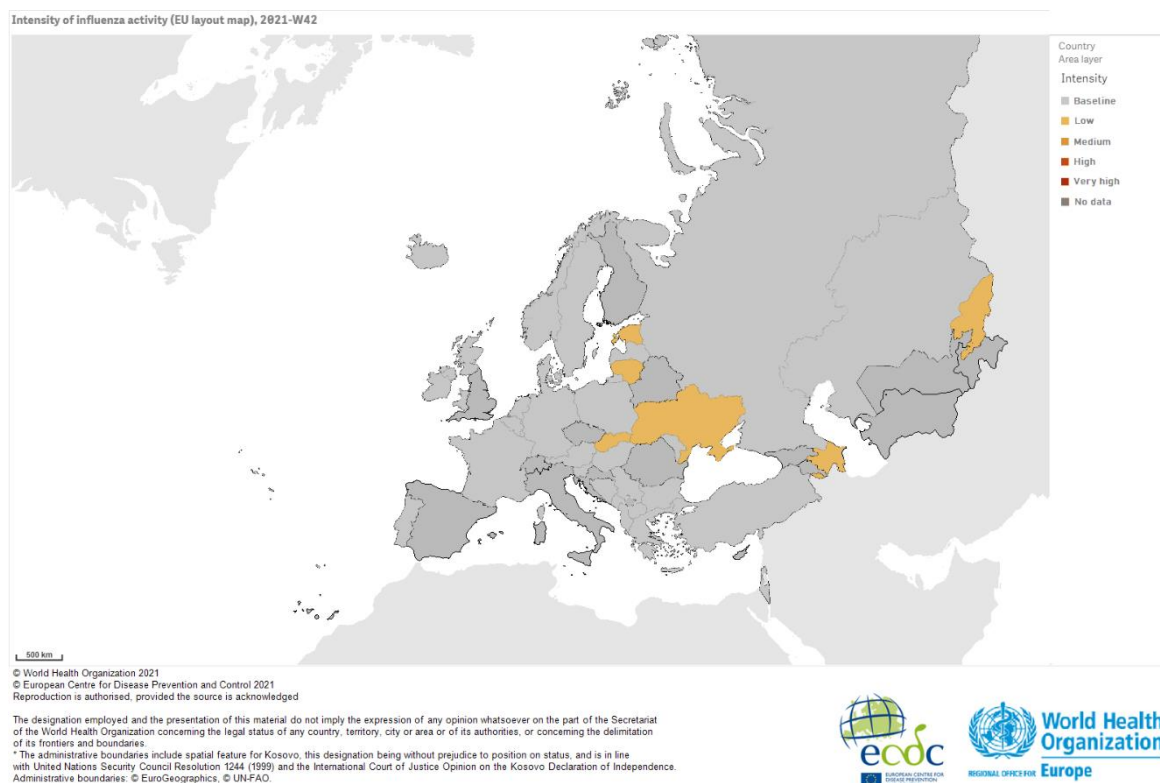
**On 30 January 2020, following the recommendations of the Emergency Committee, the WHO Director General declared that the SARS-CoV-2 outbreak constituted a Public Health Emergency of International Concern (PHEIC).** For more information about the situation in the WHO European Region visit:

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

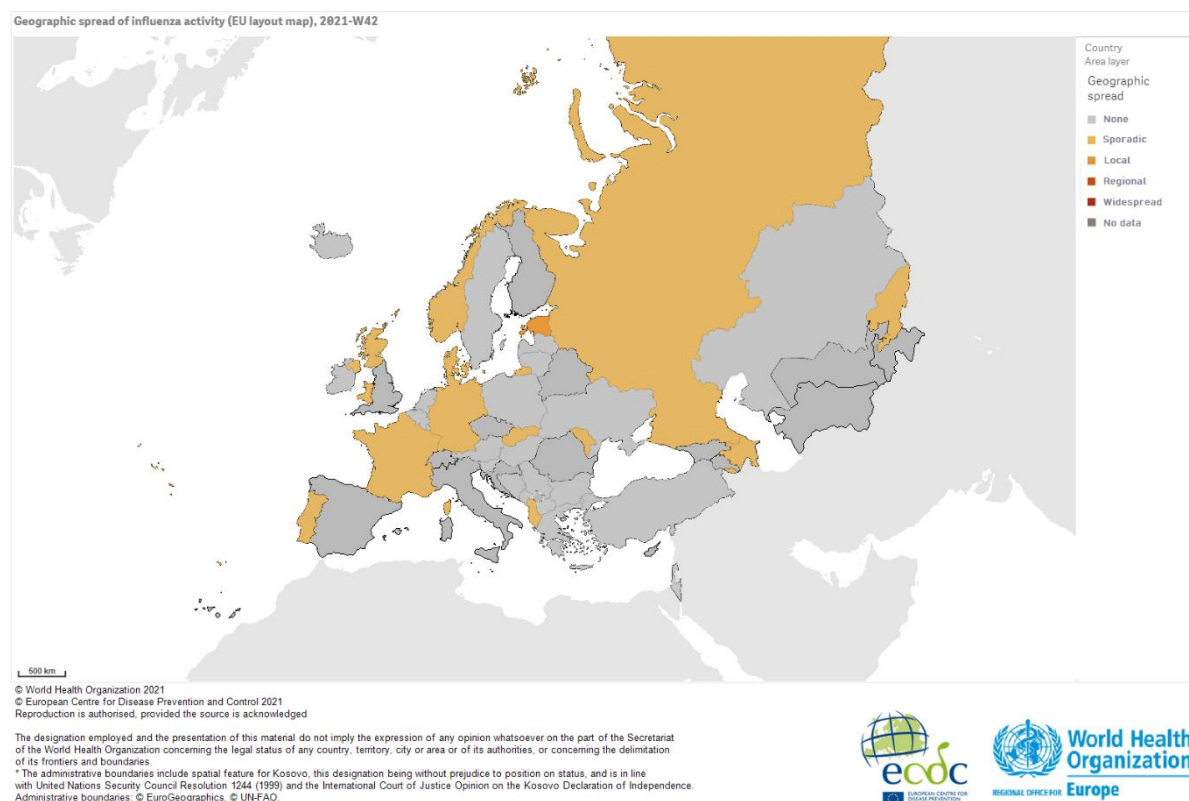
## Qualitative indicators

For week 42/2021, of 37 countries and areas reporting on intensity of influenza activity, all reported baseline or low intensity (Fig. 1). Of 37 Member States and areas reporting on geographic spread, all except one (Estonia, where local spread was reported), reported no or sporadic activity (Fig. 2).

**Figure 1. Intensity in the European Region, week 42/2021**



**Figure 2. Geographic spread in the European Region, week 42/2021**



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

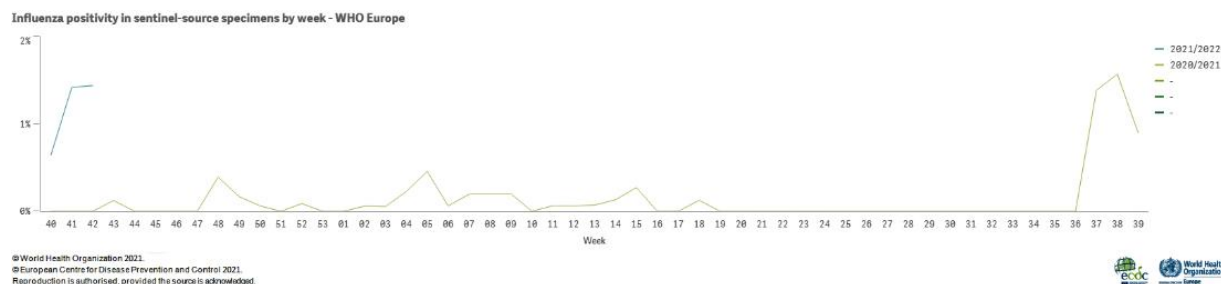
### **Please note:**

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

## 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 26 European countries or subnational regions was reported to EuroMOMO during this week. Overall pooled estimates of all-cause mortality for the participating European countries showed a low level of excess mortality. 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, Kazakhstan, Kyrgyzstan), 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=4; Kazakhstan, Kyrgyzstan, Russian Federation, Ukraine), 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)

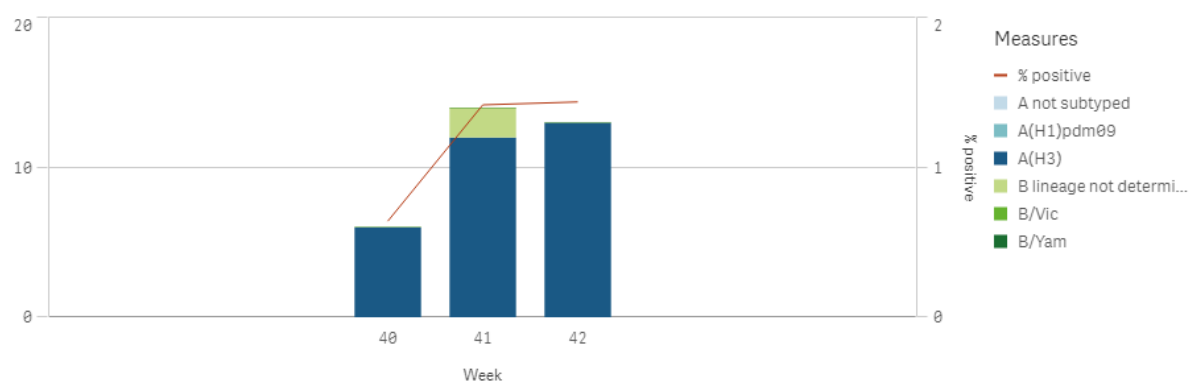
For week 42/2021, 13 of 904 (1%) sentinel specimens tested positive for an influenza virus; all were of subtype A(H3) (Fig. 4 and Table 1). Of 20 countries or areas across the region that each tested at least 10 sentinel specimens in week 42/2021, one reported a rate of influenza virus detections above 10%: Kyrgyzstan (41%).

For the season, 33 out of 2 826 (1%) sentinel specimens tested positive for influenza virus, 31 subtyped as A(H3) and two typed as influenza B.

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, for week 42/2021

Influenza virus positivity and detections by type, subtype/lineage and week - WHO Europe, season 2021/2022



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**Table 1. Influenza virus detections in sentinel source specimens by type and subtype for week 42/2021 and cumulatively for the season**

Sentinel	Current Week (42)		Season 2021-2022	
Virus type and subtype	Number	% <sup>a</sup>	Number	% <sup>a</sup>
<b>Influenza A</b>	<b>13</b>	<b>100</b>	<b>31</b>	<b>93.9</b>
A(H1)pdm09	0	0	0	0
A(H3)	13	100	31	100
A not subtyped	0	-	0	-
<b>Influenza B</b>	<b>0</b>	<b>0.0</b>	<b>2</b>	<b>6.1</b>
B/Victoria lineage	0	0	0	0
B/Yamagata lineage	0	0	0	0
Unknown lineage	0	-	2	-
<b>Total detections (total tested)</b>	<b>13 (904)</b>	<b>1.4</b>	<b>33 (2 826)</b>	<b>1.2</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 this week.

## Hospital surveillance

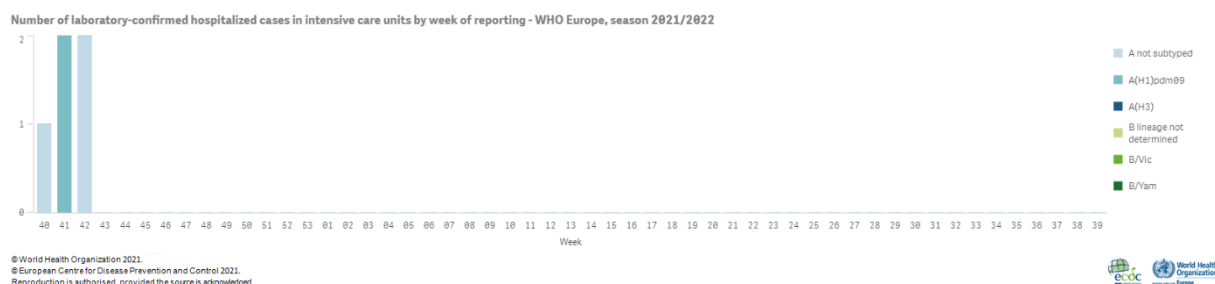
A subset of countries and areas monitor severe disease related to influenza virus infection by surveillance of 1) hospitalized laboratory-confirmed influenza cases in ICUs or other wards, or 2) severe acute respiratory infection (SARI; mainly in the eastern part of the Region).

## Laboratory-confirmed hospitalized cases

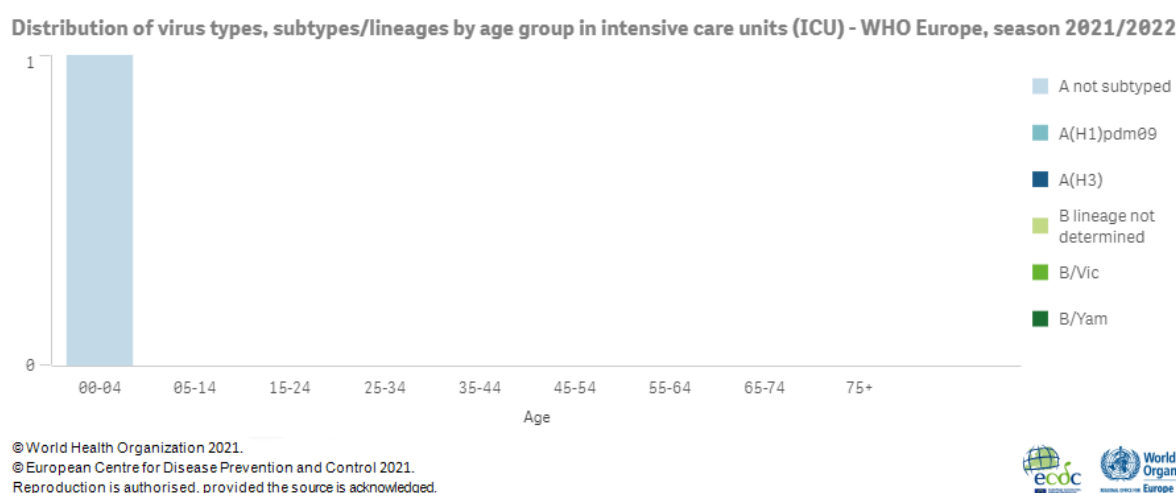
### 1.1) Hospitalized laboratory-confirmed influenza cases – ICUs

For week 42/2021, two laboratory-confirmed influenza cases were reported from ICUs (one in France, one in the United Kingdom - England). Both were influenza virus type A, not subtyped (Figures 5 and 6).

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



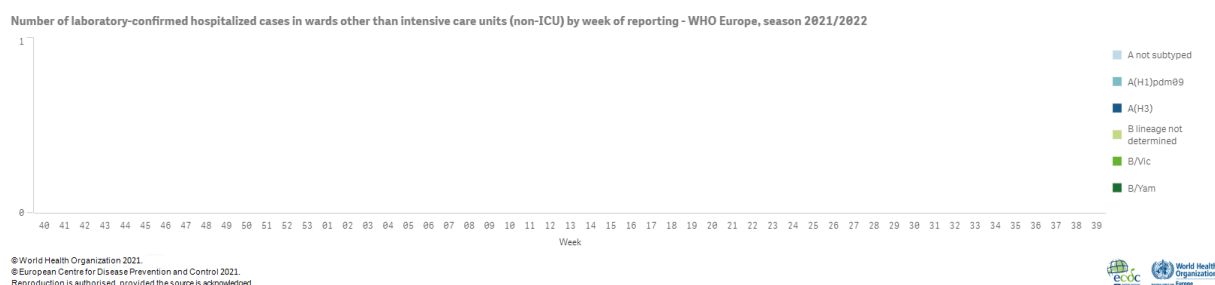
**Figure 6. Distribution of virus types, subtypes/lineages by age group in intensive care units (ICU), WHO Europe, season 2021/2022**



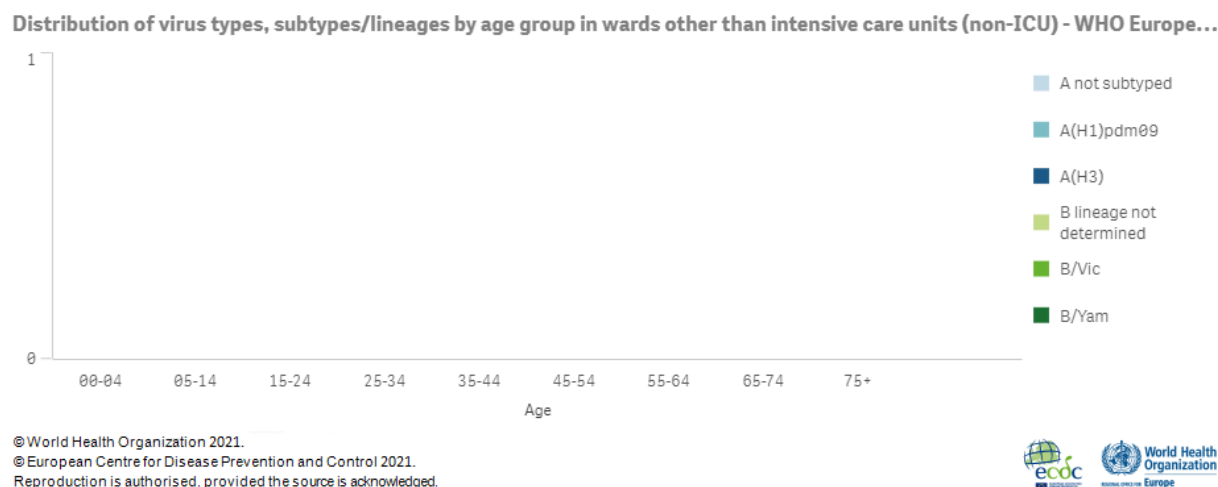
## 1.2) Hospitalized laboratory-confirmed influenza cases – other wards

For week 42/2021, no laboratory-confirmed influenza cases from other wards were reported (Figures 7 and 8).

**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

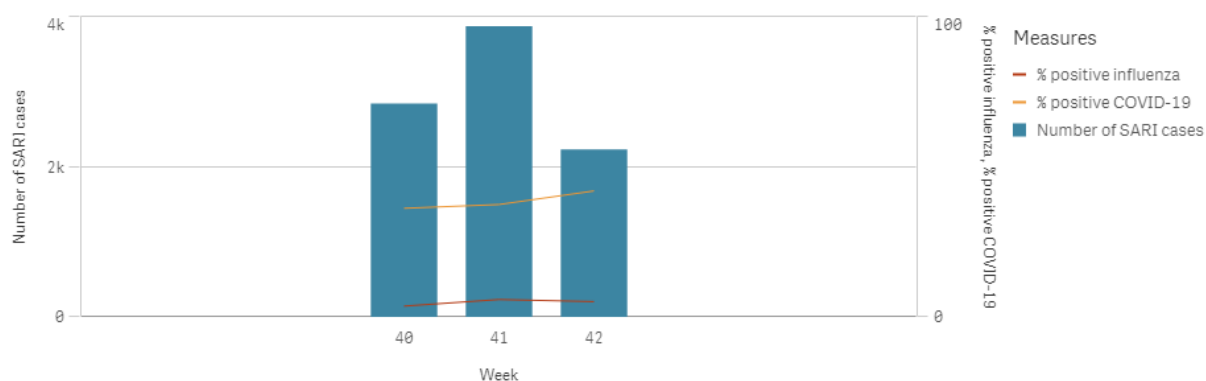
For week 42/2021, 2 233 SARI cases were reported by 11 Member States or areas (Albania, Kazakhstan, Kyrgyzstan, Montenegro, Republic of Moldova, Russian Federation, Serbia, Spain, Turkey, Ukraine, Uzbekistan). Of 232 SARI cases tested for influenza virus, 12 were positive for A(H3) (10 in Kyrgyzstan, one in Russian Federation, one in Uzbekistan) (Figure 9).

For the season, 8 957 SARI cases were reported by 16 Member States or areas (Albania, Armenia, Belarus, Georgia, Kazakhstan, Kosovo, Kyrgyzstan, Malta, Montenegro, Republic of Moldova, Russian Federation, Serbia, Spain, Turkey, Ukraine, Uzbekistan). Of 693 SARI cases tested for influenza virus, 35 were positive for A(H3) (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**



Number of severe acute respiratory infection (SARI) cases (bar) and positivity for influenza and COVID-19 (line) by week of r...

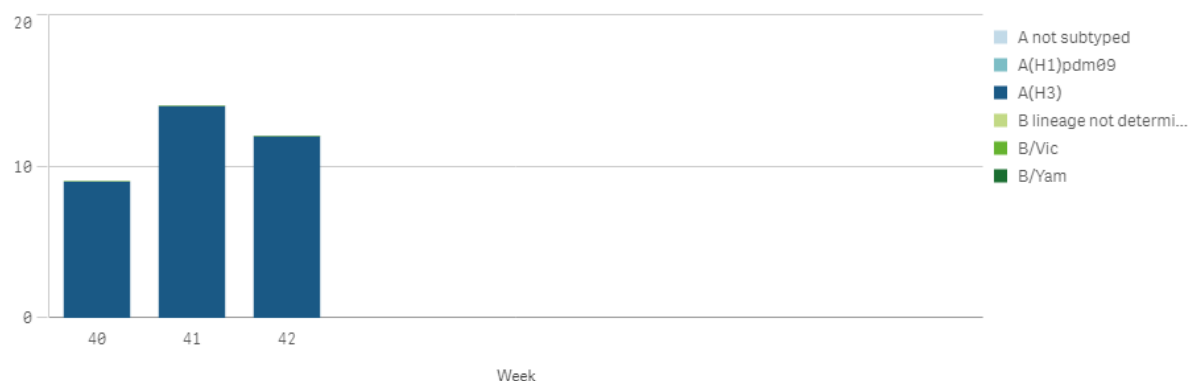


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**Figure 10. Influenza detections by virus type, subtype/lineage from acute severe acute respiratory infection (SARI), WHO Europe, season 2021/2022**

Influenza detections by virus type, subtype/lineage from severe acute respiratory infection (SARI) surveillance in hospitals - ...



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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

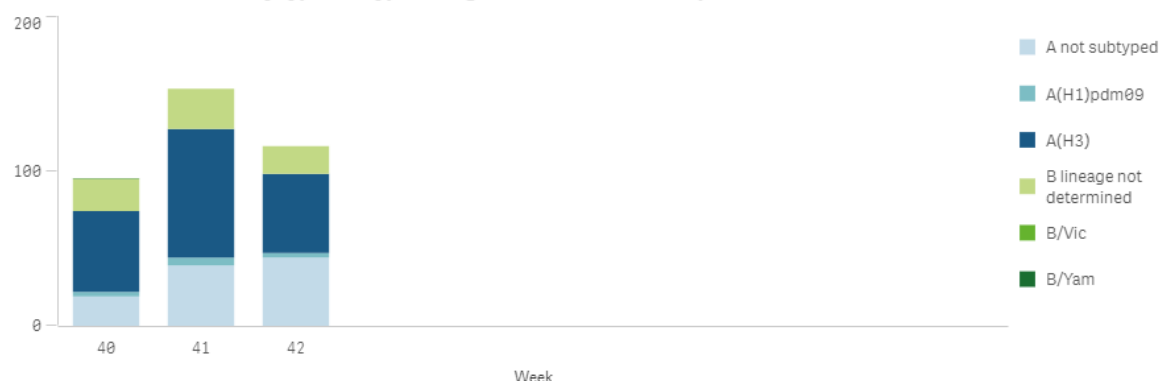
For week 42/2021, 116 of 42 208 specimens from non-sentinel sources (such as hospitals, schools, primary care facilities not involved in sentinel surveillance, or nursing homes and other institutions) tested positive for influenza viruses; 84% were type A and 16% were type B. Of 54 A viruses subtyped, 94% were A(H3), and no B viruses were ascribed to a lineage (Figure 11 and Table 2).

For the season, 364 of 121 218 specimens tested positive for influenza viruses; 82% were type A and 18% were type B. Of the subtyped influenza A viruses

94% were A(H3) (Figure 11 and Table 2). Croatia reported 19% influenza-positivity for non-sentinel specimens.

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

Influenza virus detections by type, subtype/lineage and week - WHO Europe, season 2021/2022



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**Table 2. Influenza virus detections in non-sentinel source specimens by type and subtype, week 42/2021 and cumulative for the season**

Virus type and subtype	Current Week (42)		Season 2021-2022	
	Number	% <sup>a</sup>	Number	% <sup>a</sup>
<b>Influenza A</b>	<b>98</b>	<b>84</b>	<b>299</b>	<b>82</b>
A(H1)pdm09	3	6	11	6
A(H3)	51	94	186	94
A not subtyped	44	-	102	-
<b>Influenza B</b>	<b>18</b>	<b>16</b>	<b>65</b>	<b>18</b>
B/Victoria lineage	0	0	0	0
B/Yamagata lineage	0	0	0	0
Unknown lineage	18	-	65	-
<b>Total detections (total tested)</b>	<b>116 (42 208)</b>	<b>-</b>	<b>364 (121 218)</b>	<b>-</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

Up to week 42/2021, four A(H3) viruses had been characterised genetically, all of which belonged to clade 3C.2a1b.2a2 and were reported in the category 'AH3 attributed to recognised group in current guidance but not listed here'. One

A(H1)pdm09 virus was characterised genetically during week 42, 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 42/2021, four 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).

External reviewers are: Rod Daniels, WHO Collaborating Centre for Reference and Research on Influenza, Francis Crick Institute (United Kingdom) and Adam Meijer, National Institute for Public Health and the Environment (the Netherlands),

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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