

Summary

Week 43/2021 (25 – 31 October 2021)

- Influenza activity was low throughout the European Region, though Uzbekistan reported medium intensity activity.
- Influenza viruses were detected sporadically in specimens from persons with respiratory illness presenting to medical care.
- Only influenza A viruses were detected, with the A(H3) subtype predominating.
- Type A virus infection was reported for one patient in intensive care units. Sixteen patients with SARI (8%) in hospital settings were infected with A(H3) viruses.
- Type A virus infection was reported for six patients in other hospital wards, all were infected with type A viruses (no lineage ascribed).

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 43/2021, of 39 countries and areas reporting on intensity of influenza activity, 31 reported baseline (across the region), 7 reported low (across the region) and 1 reported medium (Uzbekistan) intensity (Fig. 1). Of 37 Member States and areas reporting on geographic spread, all reported no or sporadic activity, except one (Uzbekistan), which reported regional spread (Fig. 2).

Figure 1. Intensity in the European Region, week 43/2021

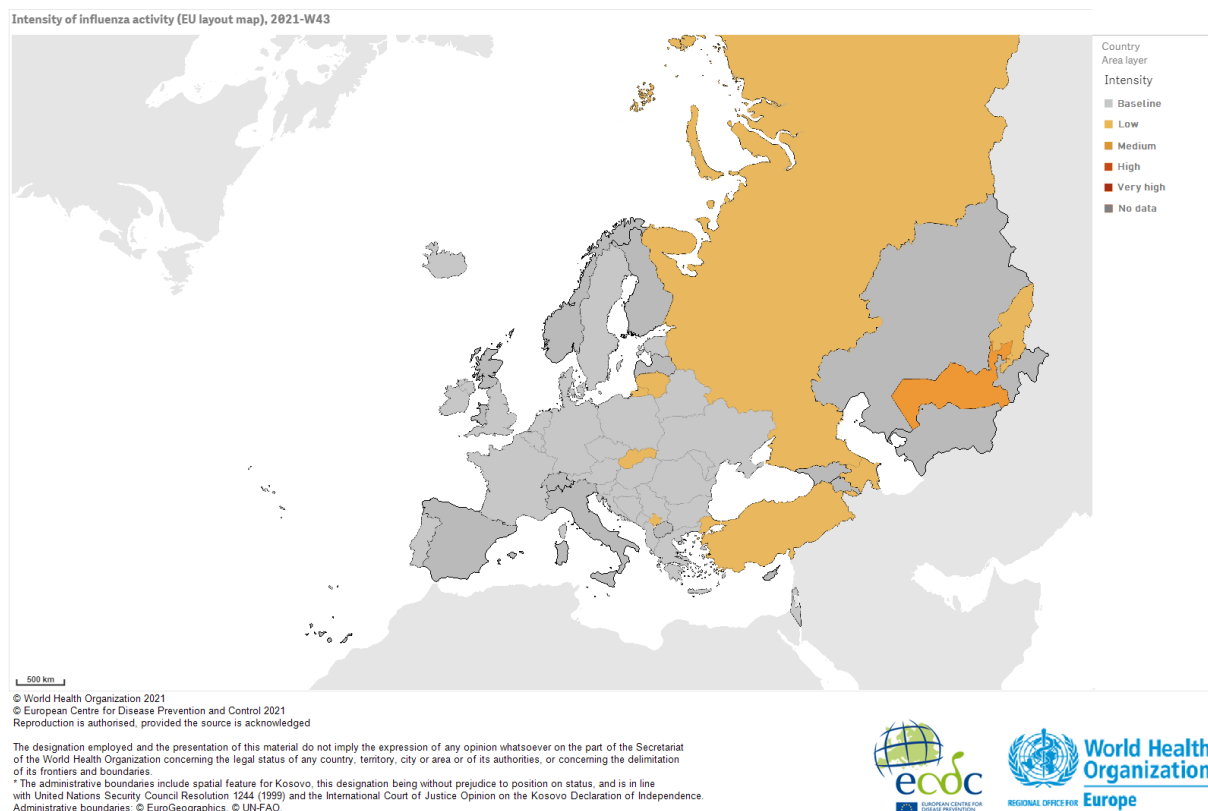
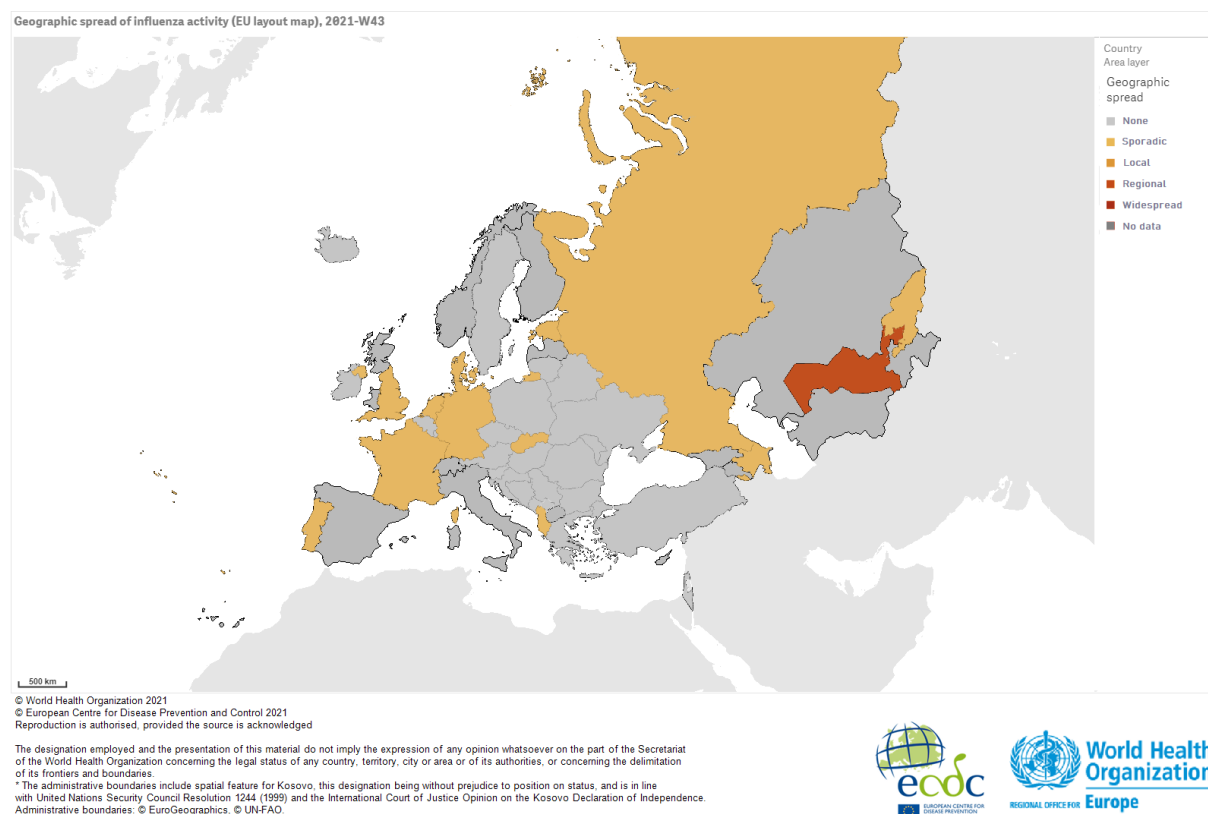


Figure 2. Geographic spread in the European Region, week 43/2021



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

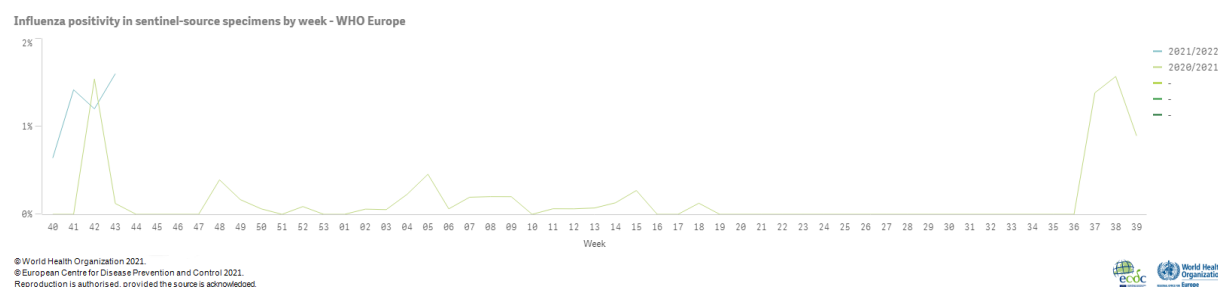
Please note:

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 25 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, Kyrgyzstan, Russian Federation), northern (n=1; Estonia), southern (n=2; Serbia, Turkey) and western (n=3; Austria, Belgium, Luxembourg) 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=5; Belarus, Kyrgyzstan, Russian Federation, Ukraine, Uzbekistan), and northern (n=1; Estonia) 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)

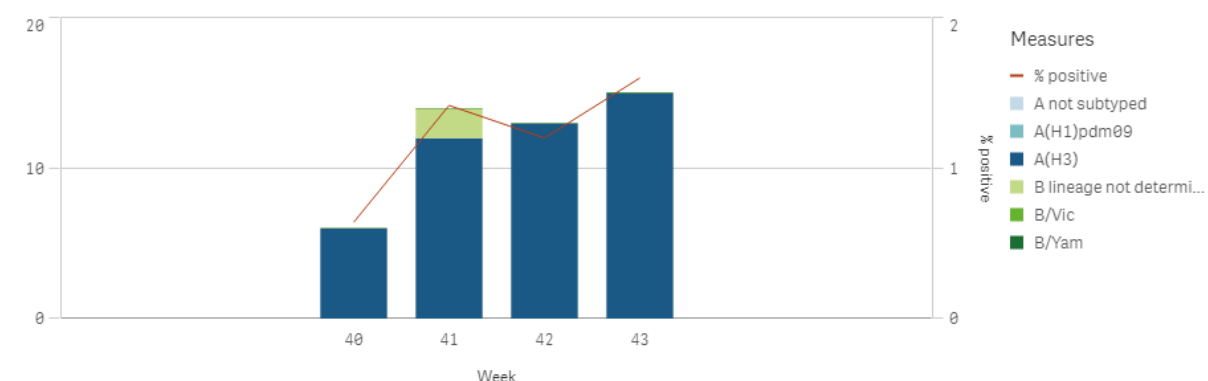
For week 43/2021, 15 of 937 (2%) sentinel specimens tested positive for an influenza virus; all were of subtype A(H3) (Fig. 4 and Table 1). Of 19 countries or areas across the region that each tested at least 10 sentinel specimens in week 43/2021, one reported a rate of influenza virus detections above 10%: Kyrgyzstan (42%).

For the season, 48 out of 3 941 (1%) sentinel specimens tested positive for influenza virus, 46 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, by week 43/2021 of the 2021-22 season

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 43/2021 and cumulatively for the season

Sentinel	Current Week (43)		Season 2021-2022	
Virus type and subtype	Number	% ^a	Number	% ^a
Influenza A	15	100	46	95.8
A(H1)pdm09	0	0	0	0
A(H3)	15	100	46	100
A not subtyped	0	-	0	-
Influenza B	0	0.0	2	4.2
B/Victoria lineage	0	0	0	0
B/Yamagata lineage	0	0	0	0
Unknown lineage	0	-	2	-
Total detections (total tested)	15 (937)	1.6	48 (3 941)	1.2

^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 43/2021, one laboratory-confirmed influenza case was reported from ICUs (in Sweden). This sample was influenza A, not subtyped (Figures 5 and 6).

Since week 40/2021, there have been 8 influenza type A viruses and no influenza type B viruses detected. Of 2 subtyped influenza A viruses, both were A(H1N1)pdm09. Of 3 cases with known age, 66.7% were 0-4 years old and 33.3% were 65 years and older.

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

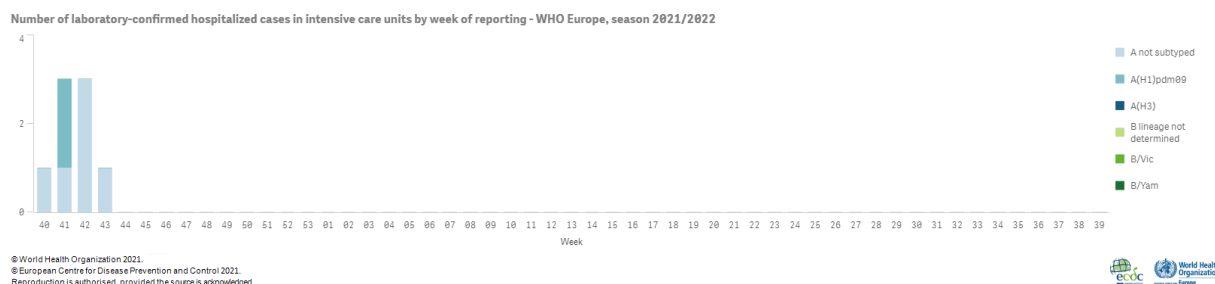
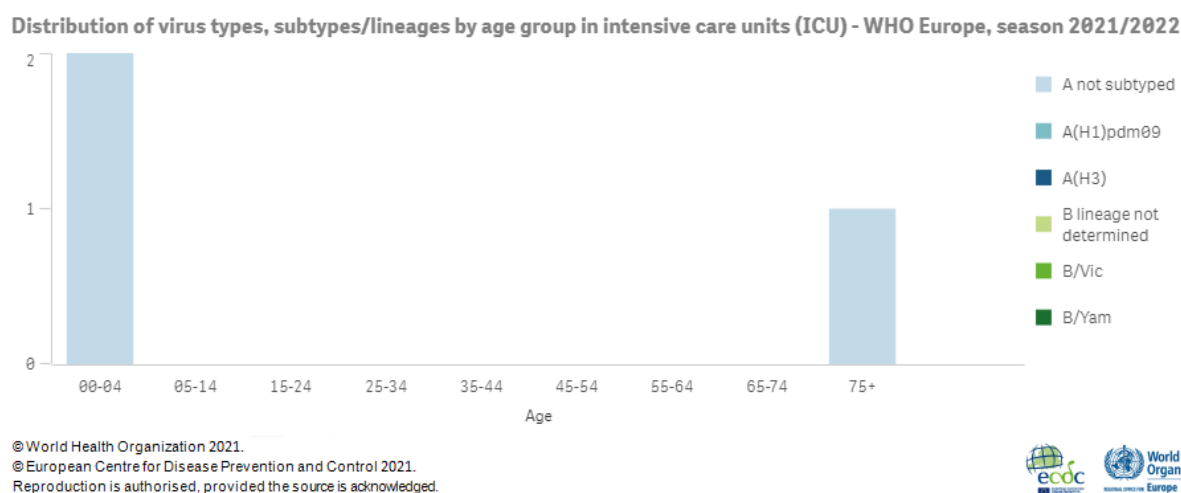


Figure 6. Distribution of virus types, subtypes/lineages by age group in intensive care units (ICU), WHO Europe, season 2021/2022



1.2) Hospitalized laboratory-confirmed influenza cases – other wards

Among laboratory-confirmed influenza cases reported in wards other than ICUs in week 43/2021 (n = 6), all were type A viruses (Figures 7 and 8).

Since week 40/2021, there have been 6 influenza type A viruses and no influenza type B viruses detected. No influenza A viruses were ascribed to a lineage. Of 6 cases with known age, 83.3% were 15-64 years old and 16.7% were 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

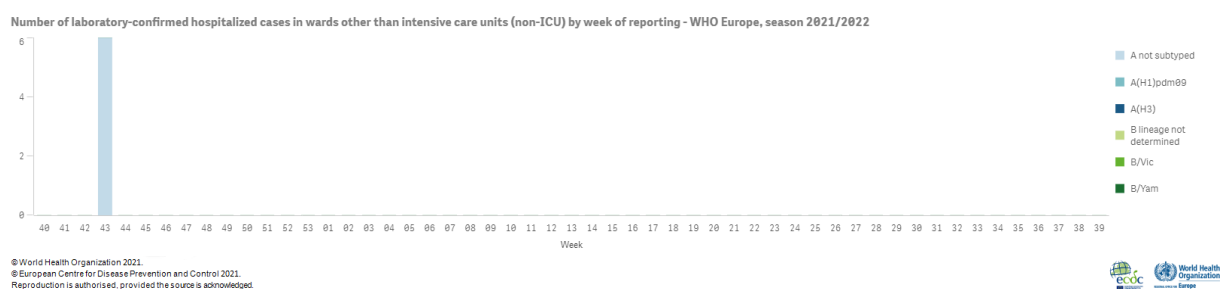
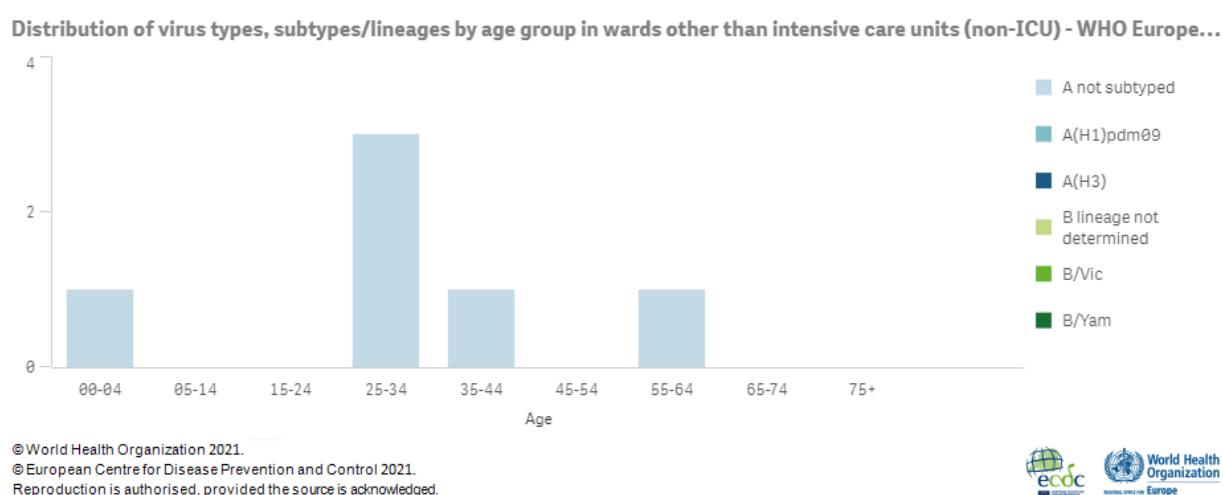


Figure 8. Distribution of virus types, subtypes/lineages by age group in wards other than intensive care units (non-ICU), WHO Europe, season 2021/2022



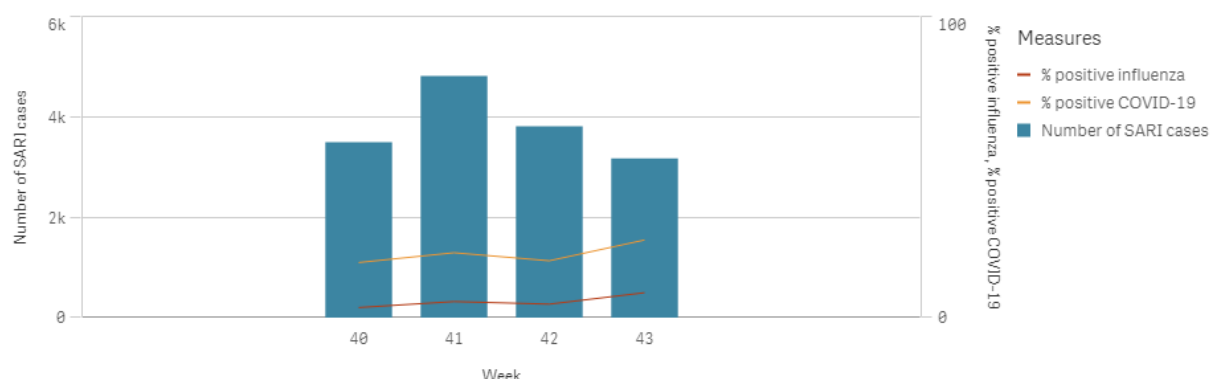
Severe acute respiratory infection (SARI)-based hospital surveillance

For week 43/2021, 3 178 SARI cases were reported by 15 Member States or areas (Albania, Azerbaijan, Belarus, Bosnia and Herzegovina, Germany, Kyrgyzstan, Lithuania, Malta, Montenegro, Republic of Moldova, Russian Federation, Serbia, Spain, Ukraine, Uzbekistan). Of 205 SARI cases tested for influenza virus, 16 (8%) were positive for A(H3) (15 in Kyrgyzstan, one in Uzbekistan) (Figure 9).

For the season, 15 321 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, Uzbekistan). Of 1 002 SARI cases tested for influenza virus, 51 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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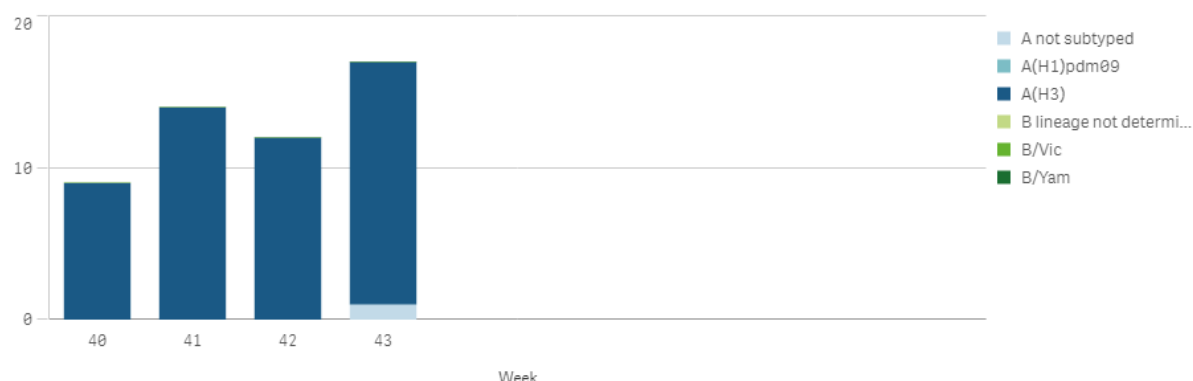
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Figure 10. Influenza detections by virus type, subtype/lineage from severe acute respiratory infection (SARI), WHO Europe, season 2021/2022

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

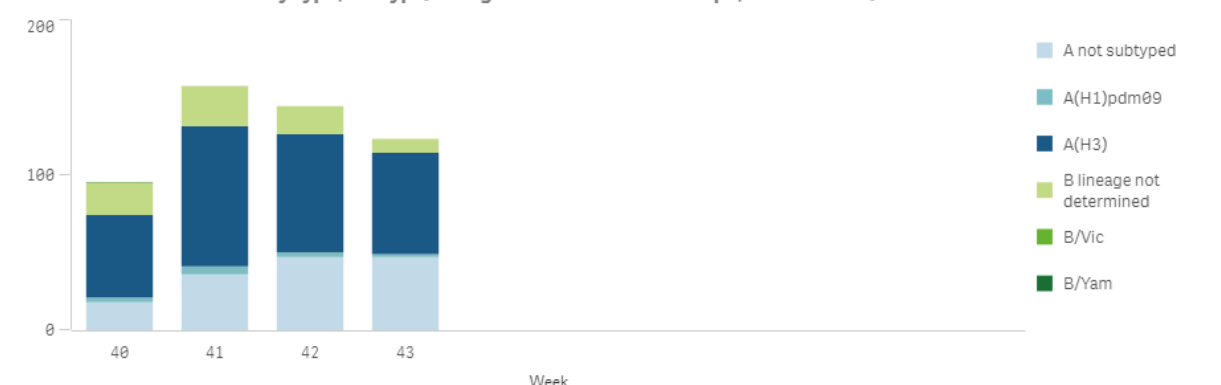
For week 43/2021, 123 of 32 013 specimens from non-sentinel sources (such as hospitals, schools, primary care facilities not involved in sentinel surveillance, or nursing homes and other institutions) tested positive for influenza viruses; 93%

were type A and 7% were type B. Of 67 A viruses subtyped, 97% were A(H3), and no B viruses were ascribed to a lineage (Figure 11 and Table 2).

For the season, 519 of 155 991 specimens tested positive for influenza viruses; 86% were type A and 14% were type B. Of the subtyped influenza A viruses 96% were A(H3) (Figure 11 and Table 2).

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 43/2021 and cumulative for the season

Virus type and subtype	Current Week (43)		Season 2021-2022	
	Number	% ^a	Number	% ^a
Influenza A	114	92.7	445	85.7
A(H1)pdm09	2	3	13	4.4
A(H3)	65	97	284	95.6
A not subtyped	47	-	148	-
Influenza B	9	7.3	74	14.3
B/Victoria lineage	0	0	0	0
B/Yamagata lineage	0	0	0	0
Unknown lineage	9	-	74	-
Total detections (total tested)	123 (32 013)	-	519 (155 991)	-

^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 43/2021, 31 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) virus was characterised genetically during week 43, 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 43/2021, 31 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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