

Summary

Week 5/2022 (31 January – 6 February 2022)

- Albania, Estonia, Kazakhstan, Norway and Ukraine reported widespread influenza activity and/or at least medium influenza intensity.
- 8% of all sentinel primary care specimens from patients presenting with ILI or ARI symptoms tested positive for an influenza virus.
- Seven countries reported seasonal influenza activity at or above 10% positivity in sentinel primary care: Slovenia (36%), Hungary (34%), France (33%), Israel (31%), Luxembourg (16%), Serbia (13%) and Switzerland (10%).
- Both influenza type A and type B viruses were detected, with A(H3) viruses being dominant across all monitoring systems.
- Hospitalized cases with confirmed influenza virus infection were reported from intensive care units (3 type A viruses), other wards (3 type A viruses) and SARI surveillance (9 type A viruses).

2021-2022 season overview

- For the Region as a whole influenza activity started to increase in week 49/2021, with different levels of activity observed between the countries and areas of the Region, and a general dominance of A(H3) viruses though some countries reported both A(H3) and A(H1)pdm09 viruses, e.g. France.
- To date this season, the highest percentage positivity of influenza viruses in sentinel primary care specimens from patients presenting with ILI or ARI symptoms was 20% in week 52/2021.
- 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](#).
- 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 information about the SARS-CoV-2 situation in the WHO European Region visit:

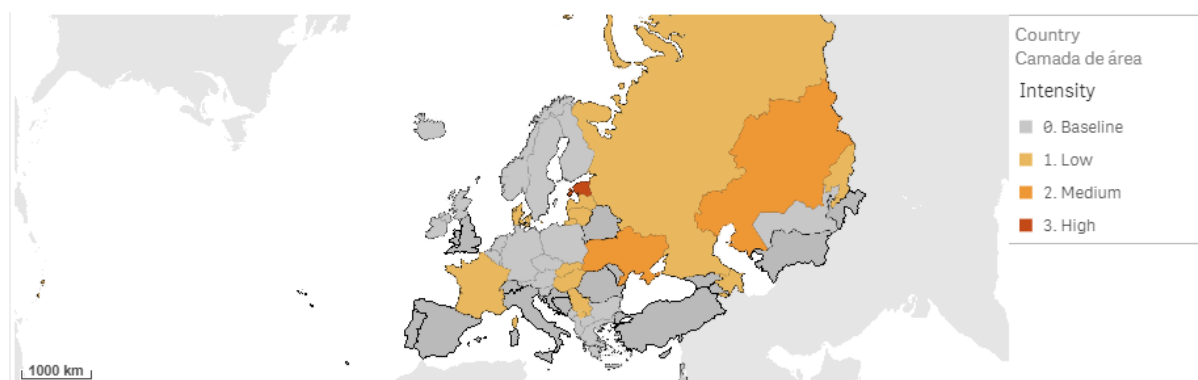
- WHO website: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- ECDC website: <https://www.ecdc.europa.eu/en/novel-coronavirus-china>

Qualitative indicators

For week 5/2022, of 37 countries and areas reporting on intensity of influenza activity, 23 reported baseline-intensity (across the Region), 11 low-intensity (across the Region), 2 medium-intensity (Kazakhstan and Ukraine) and 1 high-intensity (Estonia) (Fig. 1).

Of 37 countries and areas reporting on geographic spread of influenza viruses, 9 reported no activity (across the Region), 15 sporadic spread (across the Region), 5 local spread (Germany, North Macedonia, Russian Federation, Serbia and Slovakia), 5 regional spread (France, Hungary, Kosovo (in accordance with UN Security Council Resolution 1244 (1999)), Kyrgyzstan and Ukraine) and 3 widespread activity (Albania, Estonia and Norway) (Fig. 2).

Figure 1. Intensity of influenza activity in the European Region, week 5/2022

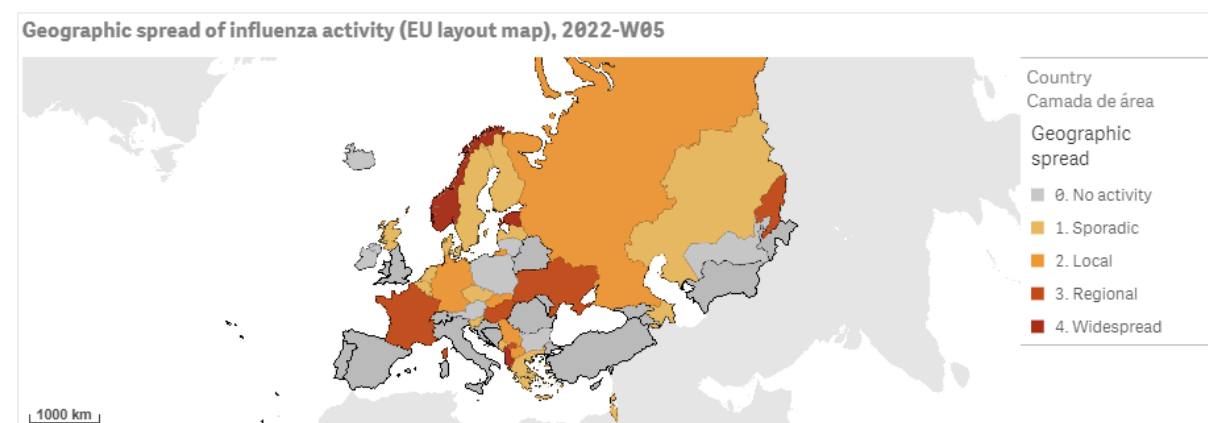


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Figure 2. Geographic spread of influenza viruses in the European Region, week 5/2022



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

Please note:

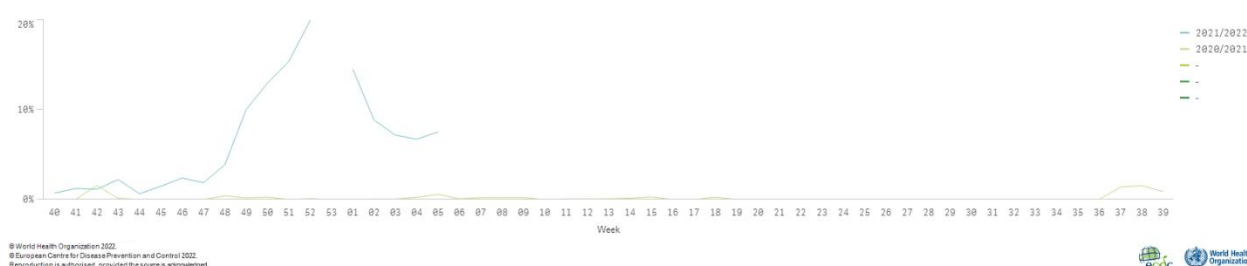
- Assessment of the intensity of activity indicator includes consideration of ILI or ARI rates. These ILI or ARI rates might be driven by respiratory infections other than influenza virus, including SARS-CoV-2, leading to observed increases in the absence of influenza virus detections.
- Assessment of 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 primary care specimens was 8%, having fallen below the Regional epidemic threshold which is set at 10% (Fig. 3).

Figure 3. Influenza virus positivity in sentinel-source specimens by week, WHO European Region, seasons 2020/2021 and 2021/2022



External data sources

Mortality monitoring:

Overall pooled EuroMOMO estimates of all-cause mortality for the participating European countries showed a substantial elevated excess mortality over the recent month. The excess was mainly among the elderly (65 years or older), but also among older adults (45 to 64 years of age). Data from 26 European countries or subnational regions were included in the week's pooled analysis of all-cause mortality.

The full EuroMOMO report can be found here: <https://www.euromomo.eu/>.

Primary care data

Syndromic surveillance data

Of the countries and areas in which thresholds for ILI activity are defined, countries in eastern (n=2; Azerbaijan and Ukraine), northern (n=2; Denmark and Estonia), southern (n=1; Serbia) and western (n=5; Austria, Belgium, Hungary, Luxembourg and Switzerland) areas of the European Region reported activity above baseline levels.

Of the countries and areas in which thresholds for ARI activity are defined, countries in eastern (n=3; Kazakhstan, Kyrgyzstan and Russian Federation), northern (n=3; Estonia, Latvia and Lithuania), southern (n=1; Albania) and western (n=1; Slovakia) areas of the European Region reported activity above baseline levels.

Please note:

- 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 Moving Epidemic Method (MEM) and based on historic ILI/ARI data.

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

For week 5/2022, 87 (8%) of 1 157 sentinel specimens tested positive for an influenza virus; 86 (99%) were type A and 1 was type B. Of 63 subtyped A viruses, 89% were A(H3) and 11% A(H1)pdm09 (Fig. 4 and Table 1). Of 23 countries or areas across the Region that each tested at least 10 sentinel specimens in week 05/2022, 7 reported rates of influenza virus detections at or above 10% (median 31%; range 10% - 36%): Slovenia (36%), Hungary (34%), France (33%), Israel (31%), Luxembourg (16%), Serbia (13%) and Switzerland (10%).

For the season to date, 2 150 (7%) of 30 627 sentinel specimens tested positive for an influenza virus. More influenza type A (n=2 121, 99%) than type B (n=29, 1%) viruses have been detected. Of 1 495 subtyped A viruses, 1 399 (94%) were A(H3) and 96 (6%) were A(H1)pdm09. Of 5 influenza type B viruses ascribed to a lineage, all were B/Victoria (83% of type B viruses were reported without a lineage) (Fig. 4 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 positivity and detections by type, subtype/lineage – sentinel sources, WHO European Region, season 2021/22

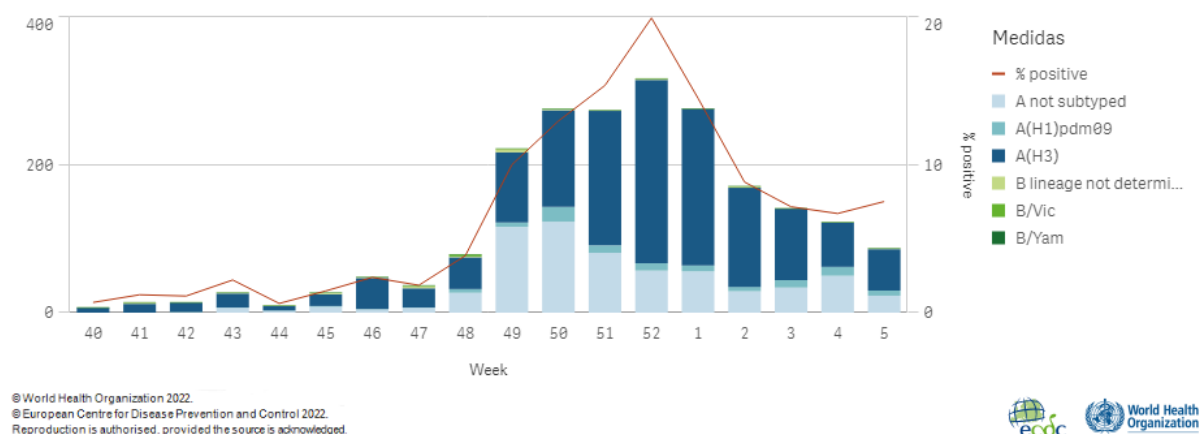


Table 1. Influenza virus detections in sentinel source specimens by type and subtype for week 5/2022 and cumulatively for the season

Sentinel	Current Week (5)		Season 2021-2022	
Virus type and subtype	Number	% ^a	Number	% ^a
Influenza A	86	98.9	2 121	98.7
A(H1)pdm09	7	11.1	96	6.4
A(H3)	56	88.9	1399	93.6
A not subtyped	23	-	626	-
Influenza B	1	1.1	29	1.3
B/Victoria lineage	0	-	5	100
B/Yamagata lineage	0	-	0	0
Unknown lineage	1	-	24	-
Total detections (total tested)	87 (1 157)	7.5	2 150 (30 627)	7

^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](https://influenzanet.eu/) 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 week 5/2022.

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 5/2022, 3 laboratory-confirmed influenza cases were reported from ICU wards (in United Kingdom (England)). The patients were infected with influenza A viruses, but subtypes were not ascribed (Fig. 5 and 6).

Since week 40/2021, more influenza type A (n=225, 95.3%) than type B (n=11, 4.7%) viruses were detected. Of 64 subtyped influenza A viruses, 38% were A(H1)pdm09 and 62% were A(H3). No influenza B viruses were ascribed to a lineage. Of 179 cases with known age, 81 were 15-64 years old, 50 were 65 years and older, 28 were 0-4 years old and 20 were 5-14 years old.

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

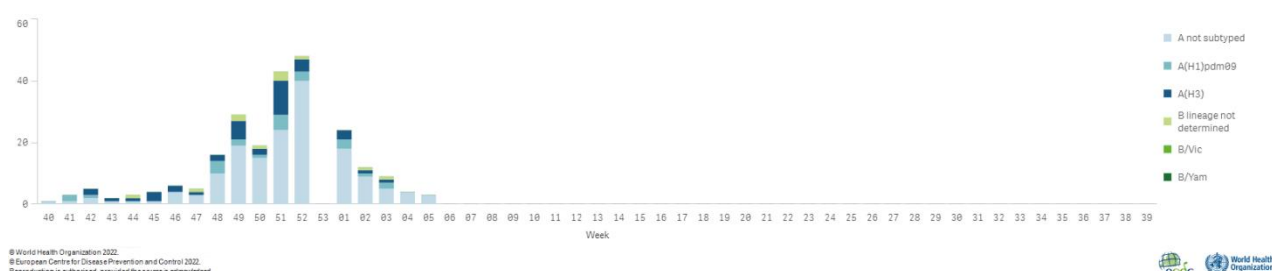
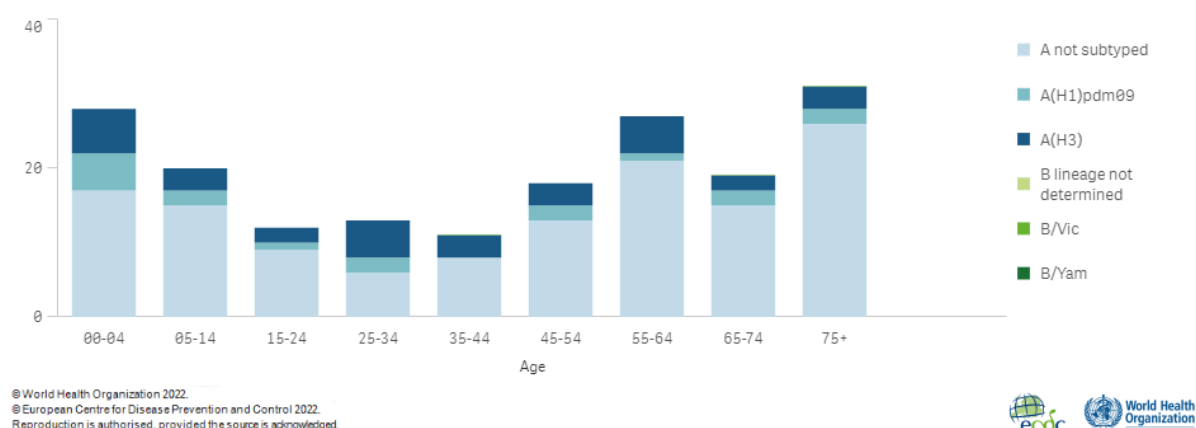


Figure 6. Distribution of influenza virus types, subtypes/lineages by age group in intensive care units (ICU), WHO European Region, season 2021/2022



1.2) Hospitalized laboratory-confirmed influenza cases – other wards

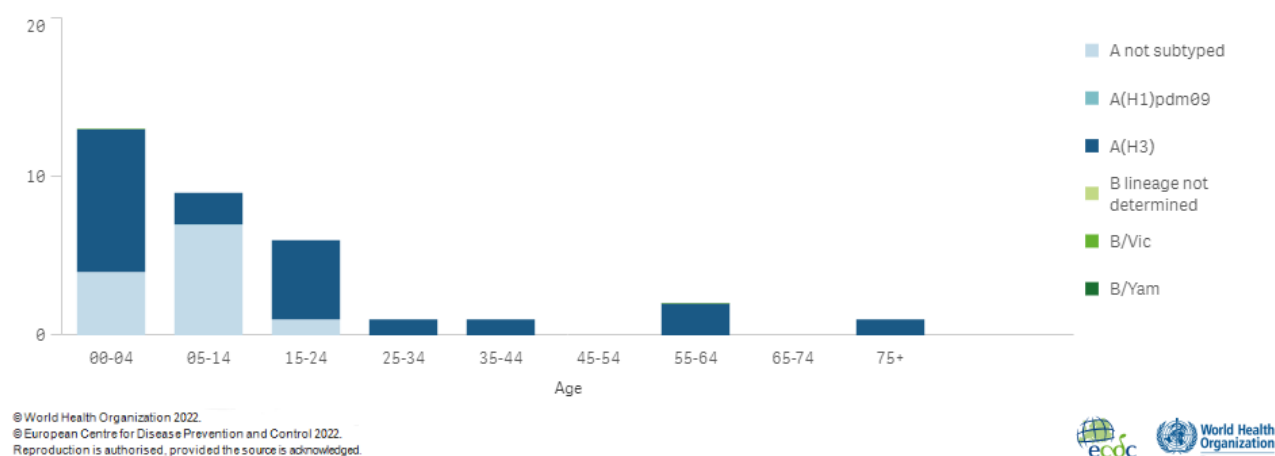
For week 5/2022, 3 laboratory-confirmed influenza cases were reported from other wards (in Ukraine). Only influenza type A viruses were detected (Fig. 7 and 8).

Since week 40/2021, 33 cases have been identified, all infected with influenza type A viruses. Of 21 subtyped viruses, all were A(H3). The 33 patients fell in four age-groups: 13 were 0-4 years old, 10 were 15-64 years old, 9 were 5-14 years old and 1 was 65 years and older.

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



Severe acute respiratory infection (SARI)-based hospital surveillance

For week 5/2022, 2 762 SARI cases were reported by 11 countries or areas (Albania, Germany, Kazakhstan, Kyrgyzstan, Lithuania, Malta, Russian Federation, Serbia, Spain, Ukraine and Uzbekistan). Of 491 specimens tested for influenza viruses, 2% (n=9) were positive, all of which were type A (Fig. 9 and Fig. 10). The highest positivity rate for influenza viruses was reported by Lithuania (11%).

For the season, 84 122 SARI cases were reported by 19 countries or areas (Albania, Armenia, Belarus, Georgia, Germany, Kazakhstan, Kyrgyzstan, Lithuania, Malta, Montenegro, North Macedonia, Republic of Moldova, Russian Federation, Serbia, Spain, Turkey, Ukraine, Uzbekistan and Kosovo (in accordance with Security Council resolution 1244 (1999)). For SARI cases testing positive for influenza virus since week 40/2021, type A viruses have been the most common (n=863, 99%). For 760 cases where influenza virus subtyping was performed, all were infected by A(H3) viruses. Of the 5 influenza B viruses detected, none were ascribed to a lineage (Fig. 10).

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

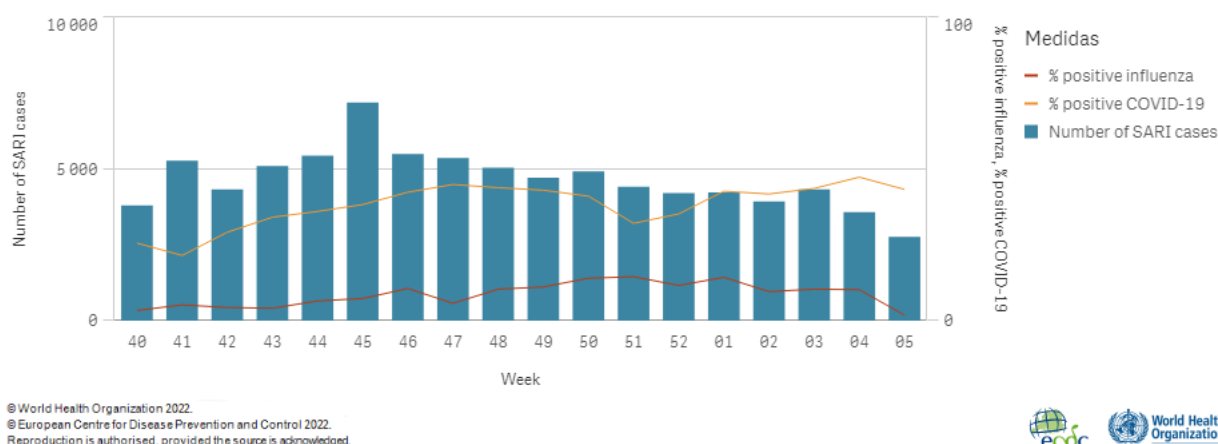
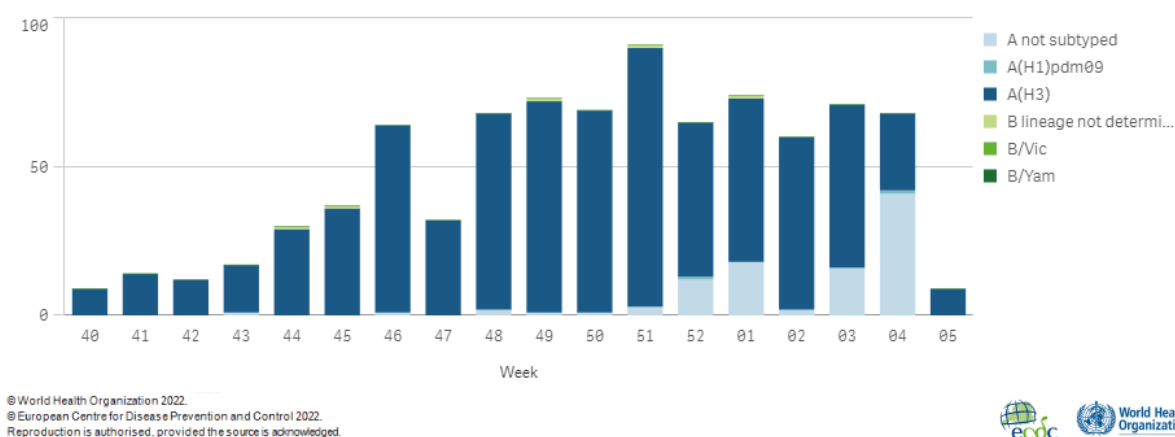


Figure 10. Influenza virus detections by type, subtype/lineage from severe acute respiratory infection (SARI), WHO European Region, season 2021/2022



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 5/2022, 1 182 of 90 363 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; 1 150 (97%) were type A and 32 (3%) were type B. Of 325 subtyped A viruses, 283 (87%) were A(H3) and 42 (13%) were A(H1)pdm09. No B viruses were ascribed to a lineage (Fig. 11 and Table 2).

For the season to date, more influenza type A (n=32 975, 96%) than type B (n=1 405, 4%) viruses have been detected. Of 12 460 subtyped A viruses, 11 756 (94%) were A(H3) and 704 (6%) were A(H1)pdm09. Of 8 influenza type B viruses ascribed to a lineage, all were B/Victoria (99% of type B viruses were reported without a lineage) (Fig. 11 and Table 2).

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

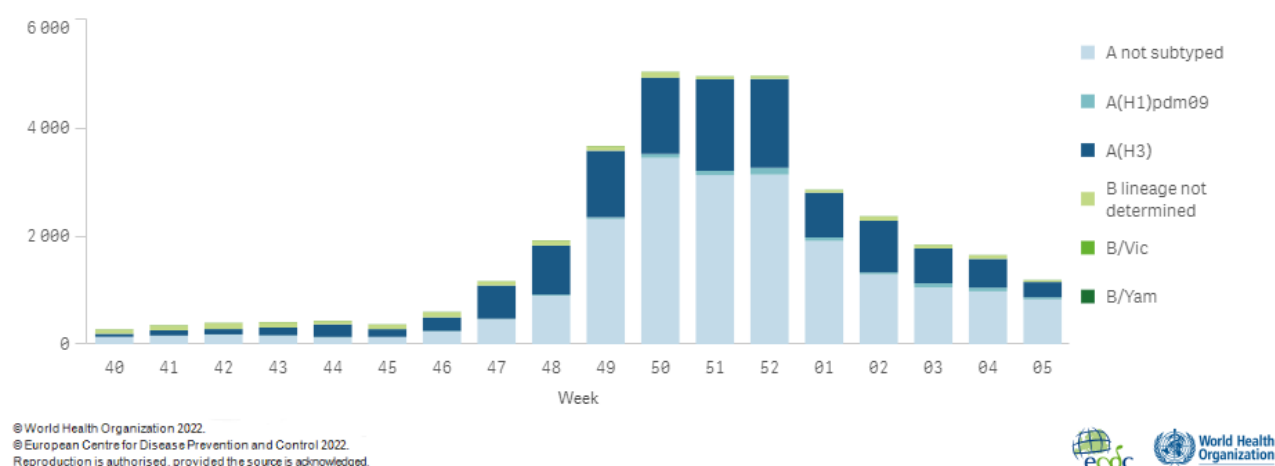


Table 2. Influenza virus detections in non-sentinel source specimens by type and subtype, week 5/2022 and cumulative for the season

Virus type and subtype	Current Week (5)		Season 2021-2022	
	Number	% ^a	Number	% ^a
Influenza A	1 150	97.3	32 975	95.9
A(H1)pdm09	42	12.9	704	5.7
A(H3)	283	87.1	11 756	94.3
A not subtyped	825	-	20 515	-
Influenza B	32	2.7	1 405	4.1
B/Victoria lineage	0	-	8	100
B/Yamagata lineage	0	-	0	0
Unknown lineage	32	-	1397	-
Total detections (total tested)	1 182 (90 363)		34 380 (1 358 697)	

^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

Up to week 5/2022, 664 A(H3) viruses had been characterized genetically, 658 of which were attributed to clade 3C.2a1b.2a.2 and 6 to clade 3C.2a1b.1a. Thirty-two A(H1)pdm09 viruses were characterized genetically, of which 25 were attributed to clade 6B.1A.5a.1 and 6 to clade 6B.1A.5a.2. Up to week 5/2022, six B/Victoria viruses were characterized genetically, 1 belonging to clade V1A.3 and 5 to clade V1A.3a.2.

Table 3. Number of influenza viruses attributed to genetic groups, cumulative for the season - WHO Europe*

	Number of influenza viruses attributed to genetic groups 2021/2022
Total	702
Influenza A	696
A(H1)pdm09	32
A/Guangdong-Maonan/SWL1536/2019(H1N1)pdm09_6B.1A.5a.1	25
A/India/Pun-NIV312851/2021(H1N1)pdm09_6B.1A.5a.2	6
A/Victoria/2570/2019(H1N1)pdm09	1
A(H3)	664
A/Bangladesh/4005/2020(H3)_3C.2a1b.2a.2	658
A/Denmark/3264/2019(H3N2)_3C.2a1b+T135K-A	6
Influenza B	6
B/Vic	6
B/Austria/1359417/2021(Victoria lineage_1A.3a.2)	5
B/Washington/02/2019(Victoria lineage_1A.3)	1

* The table contains data from the case based INFLANTIVIR record type

ECDC published the [December](#) virus characterization report: Currently type A influenza virus circulation is dominating over type B, due mainly to A(H3) viruses. Vaccination remains the best protective measure for prevention of influenza. However, the predominant H3N2 viruses in circulation are not well recognised by post-infection ferret antisera raised against viruses genetically and antigenically similar to the vaccine virus, indicating antigenic diversity. It is feasible that the A(H3) vaccine component may induce less good recognition of the prevalent A(H3) viruses. Clinicians should therefore consider early antiviral treatment of at-risk groups with influenza infection, according to local guidance, to prevent severe outcomes. This and previously published influenza virus characterization reports are available on the [ECDC website](#).

Antiviral susceptibility of seasonal influenza viruses

Up to week 5/2022, 774 viruses were assessed for susceptibility to neuraminidase inhibitors (516 A(H3), 26 A(H1)pdm09 and 1 B virus genotypically and 226 A(H3), 2 A(H1) and 3 B viruses phenotypically), and 341 viruses were assessed for susceptibility to baloxavir marboxil (320 A(H3), 20 A(H1)pdm09 and 1 B virus genotypically). Phenotypically no viruses with reduced susceptibility were identified and genotypically no markers associated with reduced susceptibility were identified.

Vaccine

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 preserved [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;
- 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.

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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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