

Summary

Week 12/2022 (21 – 27 March 2022)

- 14 of 39 countries across the Region reported widespread influenza activity.
- The percentage of all sentinel primary care specimens from patients presenting with ILI or ARI symptoms that tested positive for an influenza virus have remained at similar levels, around 26%, for the last three weeks.
- Countries, mostly in the western-central part of the Region, reported seasonal influenza activity above 50% positivity in sentinel primary care: Serbia (69%), Netherlands (67%), Denmark (63%), Slovenia (62%), France (58%), Belgium (57%), Hungary (57%) and Luxembourg (54%).
- Both influenza type A and type B viruses were detected with A(H3) viruses being dominant across all monitoring systems.
- A(H3) viruses were most frequently detected in patients hospitalized with confirmed influenza virus infection.

2021-2022 season overview

- For the Region as a whole influenza activity has increased and remains well above what was seen in 2020-2021 but is still at lower levels compared to seasons prior to the COVID-19 pandemic.
- Influenza activity, based on sentinel primary care specimens from patients presenting with ILI or ARI symptoms, first peaked in week 52/2021 (when it reached 20% positivity), declining thereafter until week 4/2022 and reaching a plateau phase (26-27%) since week 10/2022.
- Different levels of activity have been observed between the countries and areas of the Region, with a dominance of A(H3) viruses in most countries.

- During the influenza Vaccine Composition Meeting for the northern hemisphere 2022/23 season, held in February 2022, WHO recommended updating of the A(H3N2) and the B/Victoria-lineage components. The full report can be found [here](#).
- [Preliminary results](#) of 2021-2022 seasonal influenza vaccine effectiveness (VE) estimates from the United States showed that VE against medically attended outpatient acute respiratory infection associated with A(H3N2), the dominant influenza virus in circulation, was 16% (95% CI = -16% to 39%).
- The European I-MOVE network estimated influenza VE using a multicenter test-negative design among symptomatic patients presenting at primary care between October 2021 and March 2022. Preliminary influenza VE against influenza A among seven study sites and among all ages was 36% (95%CI: 13–53) and 41% (95%CI: 15–59) among those aged 18–64 years. All-age VE against influenza A(H3N2) was 35% (95%CI: 6–54) and 37% (95%CI: 3–59) among those aged 18–64 years. There were too few influenza-positive cases among other age groups to allow VE estimations.
- In [Sweden](#), the vaccine effectiveness against laboratory-confirmed influenza was estimated to be 47% for individuals over 65 years of age.
- According to preliminary data in mainland [France](#), the VE was estimated to be 50% (95% CI: 14-71) against all circulating influenza viruses, 77% (95% CI: 36-92) for A(H1N1)pdm09 and 31% (95% CI: -29-64) for A(H3N2).
- With increased circulation of influenza viruses clinicians should consider early antiviral treatment of patients in at-risk groups with influenza virus infection, according to local guidance, to prevent severe outcomes. The majority of 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 12/2022, of 38 countries and areas reporting on intensity of influenza activity, 17 reported baseline-intensity (across the Region) and 13 reported low-intensity (across the Region), 5 reported medium-intensity (Belgium, Estonia, France, Georgia and Romania), 2 reported high-intensity (Bulgaria and Denmark) and 1 reported very high-intensity (Luxembourg) (Fig. 1).

Of 39 countries and areas reporting on geographic spread of influenza viruses, 7 reported no activity (Armenia, Croatia, Kosovo* (in accordance with UN Security Council Resolution 1244 (1999)), North Macedonia, Poland, Ukraine and Uzbekistan), 6 reported sporadic spread (Azerbaijan, Czechia, Lithuania, Russian Federation, United Kingdom (Northern Ireland) and United Kingdom (Wales)), 6 reported local spread (Austria, Germany, Malta, Romania, Slovakia and Sweden), 6 reported regional spread (Bulgaria, Greece, Kyrgyzstan, Latvia, Republic of Moldova and Serbia) and 14 reported widespread activity (across the Region) (Fig. 2).

Figure 1. Intensity of influenza activity in the European Region, week 12/2022

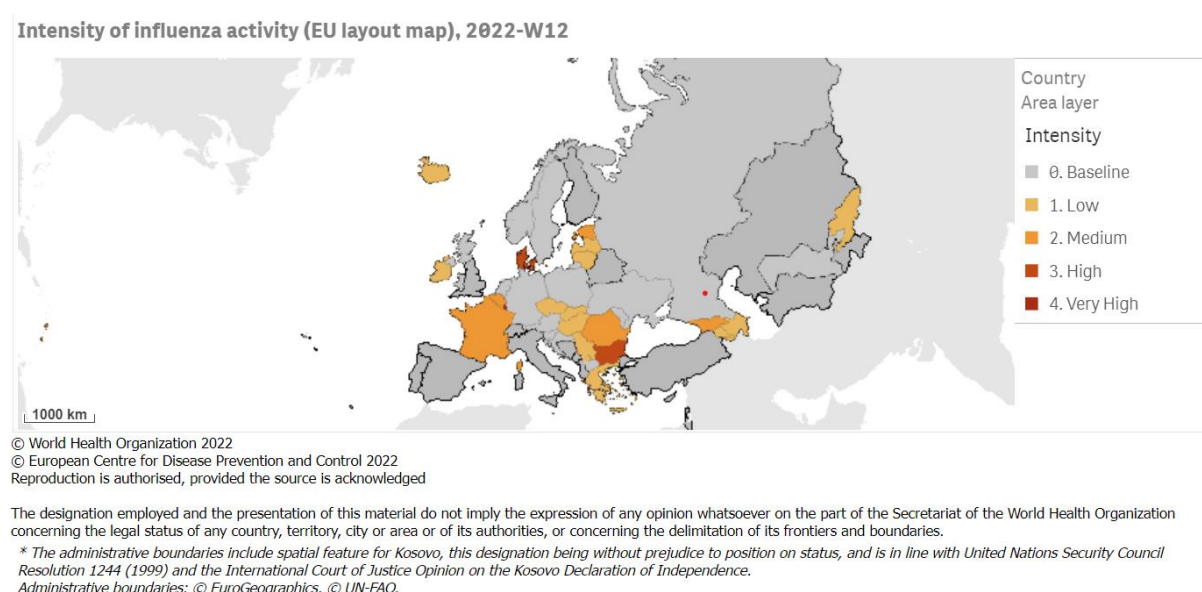
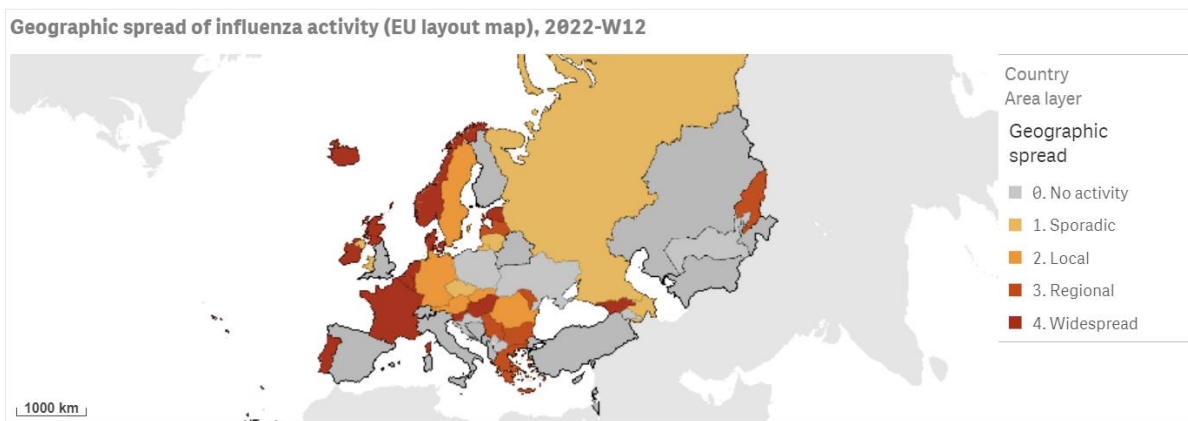


Figure 2. Geographic spread of influenza viruses in the European Region, week 12/2022



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

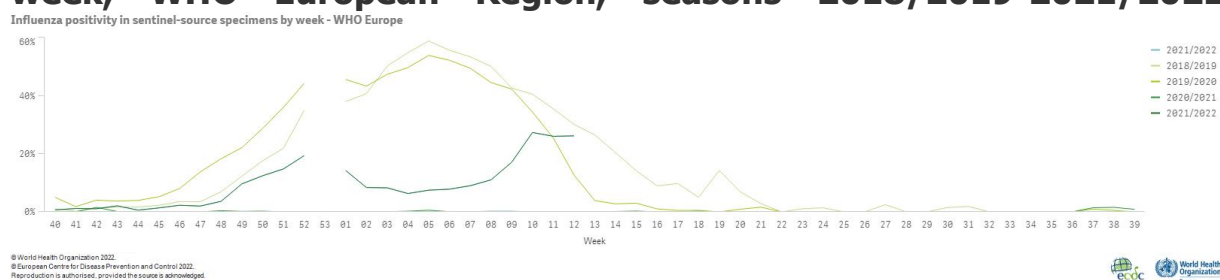
Please note:

- 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 remained around 26% for the third consecutive week, well above the epidemic threshold which is set at 10% (Fig. 3).

Figure 3. Influenza virus positivity in sentinel-source specimens by week, WHO European Region, seasons 2018/2019-2021/2022



External data sources

Mortality monitoring: Week 12/2022 overall pooled EuroMOMO estimates of all-cause mortality for the participating European countries showed signs of decreasing excess mortality among the elderly (65 years or older) and among older adults (45 to 64 years of age). Data from 26 European countries or subnational regions were included in this 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 Georgia), northern (n=5; Denmark, Estonia, Iceland, Ireland and Latvia), southern (n=3; Croatia, Romania and 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 northern (n=2; Estonia and Latvia) and southern (n=2; Bulgaria and Romania) 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)

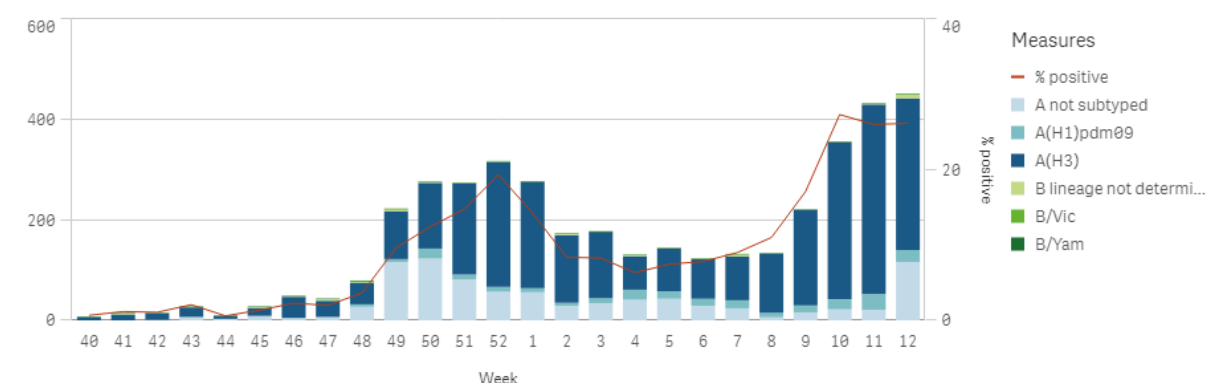
For week 12/2022, 451 (26%) of 1 724 sentinel specimens tested positive for an influenza virus; 442 (98%) were type A and 9 (2%) were type B. Of 326 subtyped A viruses, 93% were A(H3) and 7% A(H1)pdm09. The 2 type B viruses ascribed to a lineage were B/Victoria (Fig. 4 and Table 1). Of 29 countries or areas across the Region that each tested at least 10 sentinel specimens in week 12/2022, 13 reported a rate of influenza virus detections at or above 30%: Serbia (69%), Netherlands (67%), Denmark (63%), Slovenia (62%), France (58%), Belgium (57%), Hungary (57%), Luxembourg (54%), Switzerland (39%), Norway (34%), Italy (34%), Portugal (30%) and Poland (30%).

For the season to date, 4 105 (9%) of 43 374 sentinel specimens tested positive for an influenza virus. More influenza type A (n=4 056, 99%) than type B (n=49, 1%) viruses have been detected. Of 3 185 subtyped A viruses, 2 945 (92%) were A(H3) and 240 (8%) were A(H1)pdm09. Of 8 influenza type B viruses ascribed to a lineage, all were B/Victoria (84% 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

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 12/2022 and cumulatively for the season

| Sentinel | Current Week (12) | Season 2021-2022 |
|----------|-------------------|------------------|
|----------|-------------------|------------------|

| Virus type and subtype | Number | %^a | Number | %^a |
|--|--------------------|----------------------|-----------------------|----------------------|
| Influenza A | 442 | 98 | 4 056 | 98.8 |
| A(H1)pdm09 | 24 | 7.4 | 240 | 7.5 |
| A(H3) | 302 | 92.6 | 2 945 | 92.5 |
| A not subtyped | 116 | - | 871 | - |
| Influenza B | 9 | 2 | 49 | 1.2 |
| B/Victoria lineage | 2 | 100 | 8 | 100 |
| B/Yamagata lineage | 0 | - | 0 | 0 |
| Unknown lineage | 7 | - | 41 | - |
| Total detections (total tested) | 451 (1 724) | 26.2 | 4 105 (43 374) | 9.5 |

^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 week 12/2022.

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 (Czechia, France, Ireland, Sweden and the UK (England)) or other wards (Czechia, Ireland and Ukraine), 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 12/2022, 11 laboratory-confirmed influenza cases were reported from ICU wards (in Sweden and United Kingdom (England)). Only influenza A viruses (n=11) were detected (Fig. 5 and 6).

Since week 40/2021, more influenza type A (n=371, 95.9%) than type B (n=16, 4.1%) viruses were detected. Of 88 subtyped influenza A viruses, 39% were A(H1)pdm09 and 61% were A(H3). No influenza B viruses were ascribed to a lineage. Of 281 cases with known age, 132 were 15-64 years old, 84 were 65 years and older, 38 were 0-4 years old and 27 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

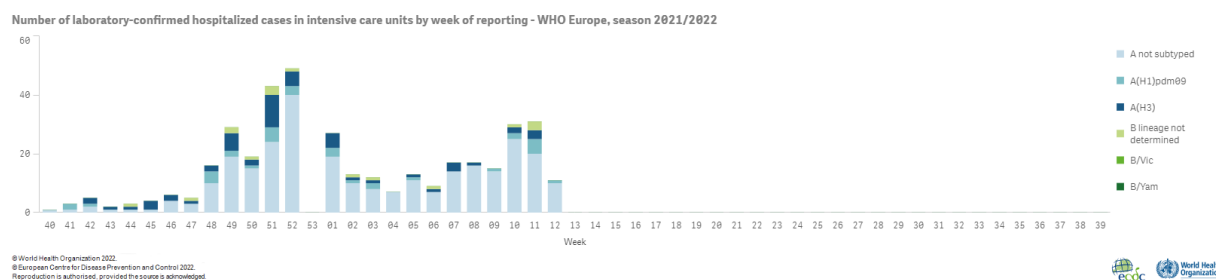
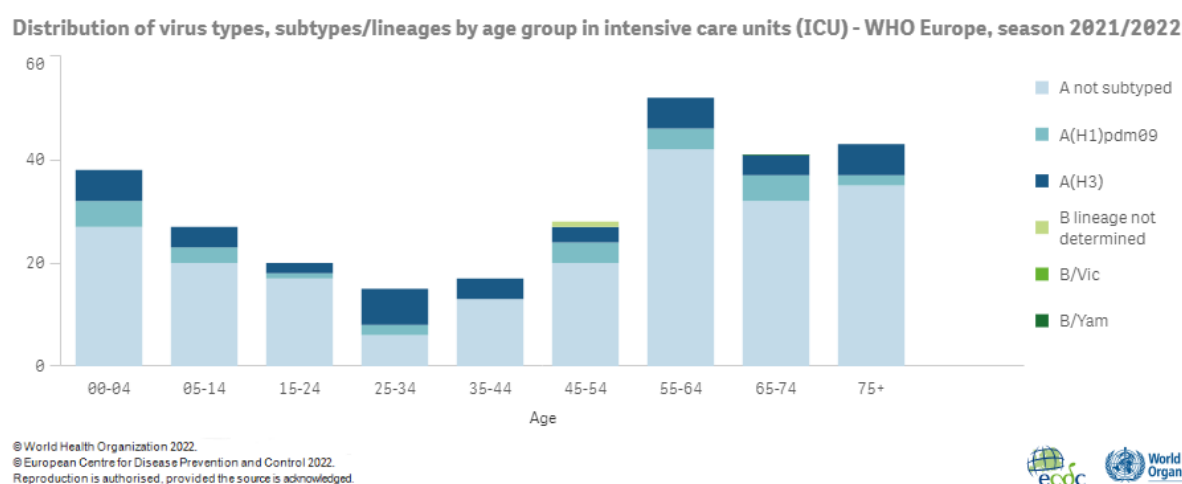


Figure 6. Distribution of influenza virus types, subtypes/lineages by age group in intensive care units (ICU), WHO European Region, season 2021/2022



1.2) Hospitalized laboratory-confirmed influenza cases – other wards

For week 12/2022, 18 laboratory-confirmed influenza cases were reported from other wards (Ireland). Only influenza type A viruses were detected, of which 1 was subtyped as A(H3) (Fig. 7 and 8).

Since week 40/2021, 335 influenza type A viruses and 2 influenza type B viruses were detected. Of 85 subtyped influenza A viruses, all were A(H3). The 337 cases with known age fell in 4 age groups: 140 were 65 years and older, 129 were 15-64 years old, 46 were 0-4 years old and 22 were 5-14 years old.

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

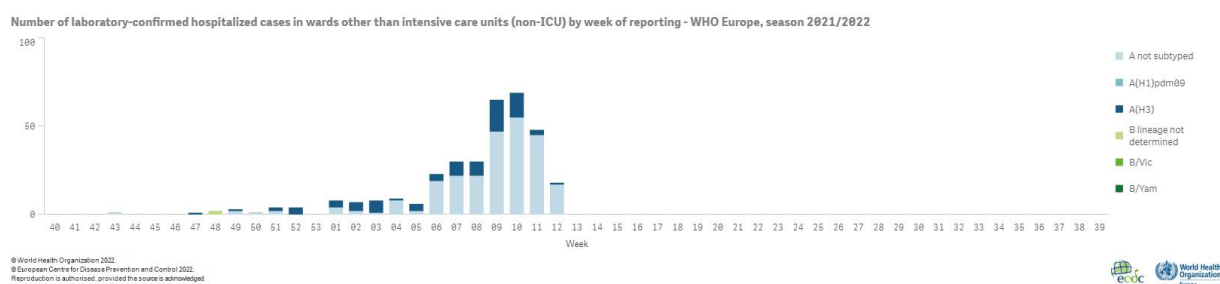
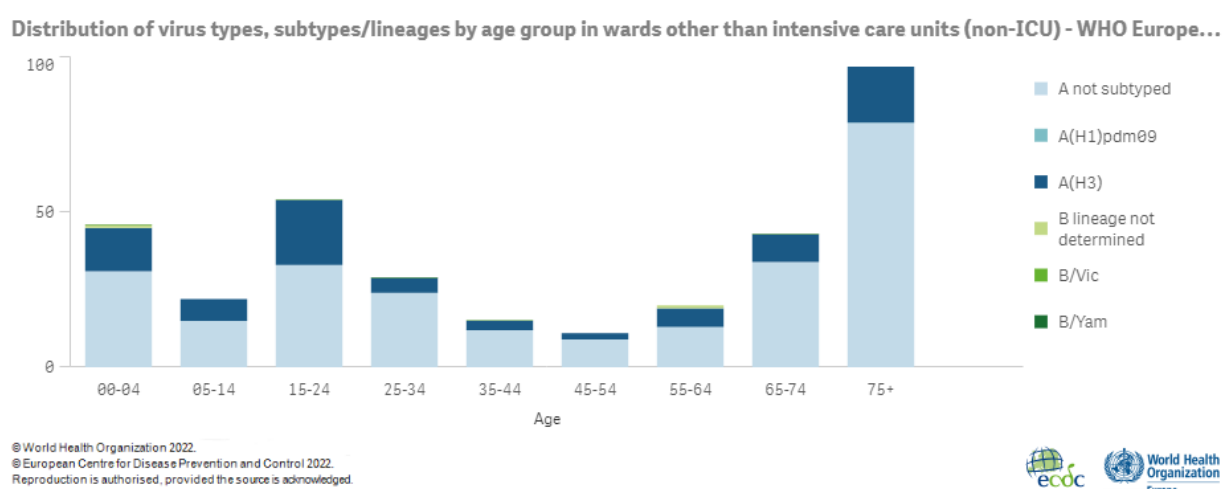


Figure 8. Distribution of influenza virus types, subtypes/lineages by age group in wards other than intensive care units (non-ICU), WHO European Region, season 2021/2022



Severe acute respiratory infection (SARI)-based hospital surveillance

For week 12/2022, 1 913 SARI cases were reported by 12 countries or areas (Albania, Armenia, Germany, Kyrgyzstan, Lithuania, Malta, Republic of Moldova, Russian Federation, Serbia, Spain, Ukraine and Uzbekistan). Of 263 specimens tested for influenza viruses, 14% (n=36) were positive. Of these, influenza type A viruses (n=26, 72%) were detected more frequently than influenza type B viruses (n=10, 28%) (Fig. 9 and Fig. 10). The highest positivity rates for influenza virus detections were reported by Lithuania (64%) and Serbia (61%).

For the season, 109 333 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=986, 97%). For 865 cases where influenza virus subtyping was performed, 862 (99.7%) were infected by A(H3) viruses and 3 (0.3%) were infected by A(H1)pdm09 viruses. Of the 3 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

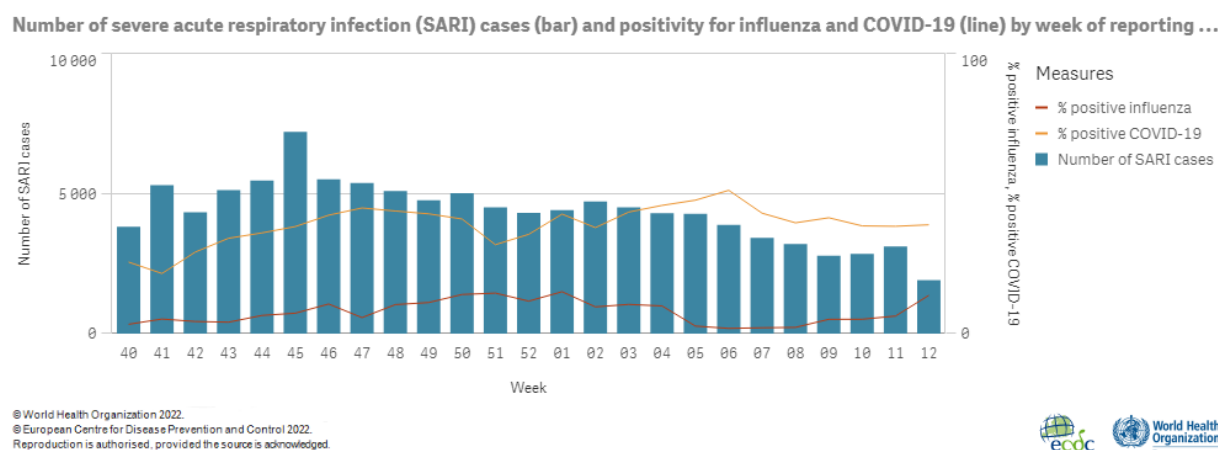
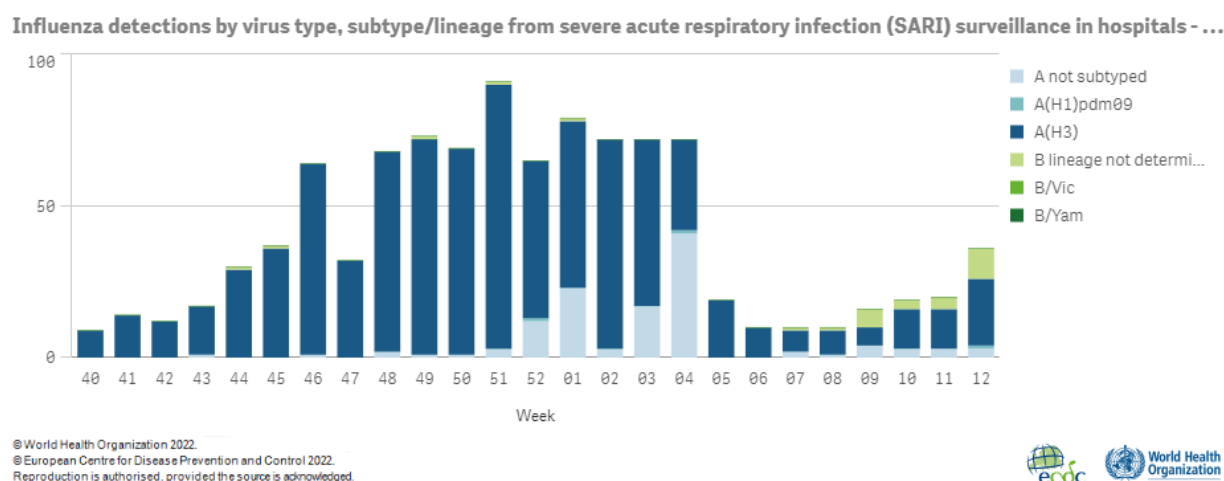


Figure 10. Influenza virus detections by type, subtype/lineage from severe acute respiratory infection (SARI), WHO European Region, season 2021/2022



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 12/2022, 10 615 of 76 312 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; 10 567 (>99%) were type A and 48 (<1%) were type B. Of 1 012 subtyped A viruses, 956 (94%) were A(H3) and 56 (6%) were A(H1)pdm09. The 3 type B viruses ascribed to a lineage were B/Victoria (Fig. 11 and Table 2).

For the season to date, more influenza type A (n=72 243, 98%) than type B (n=1 650, 2%) viruses have been detected. Of 19 597 subtyped A viruses, 18 131 (92%) were A(H3) and 1 466 (8%) were A(H1)pdm09. Of 20 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

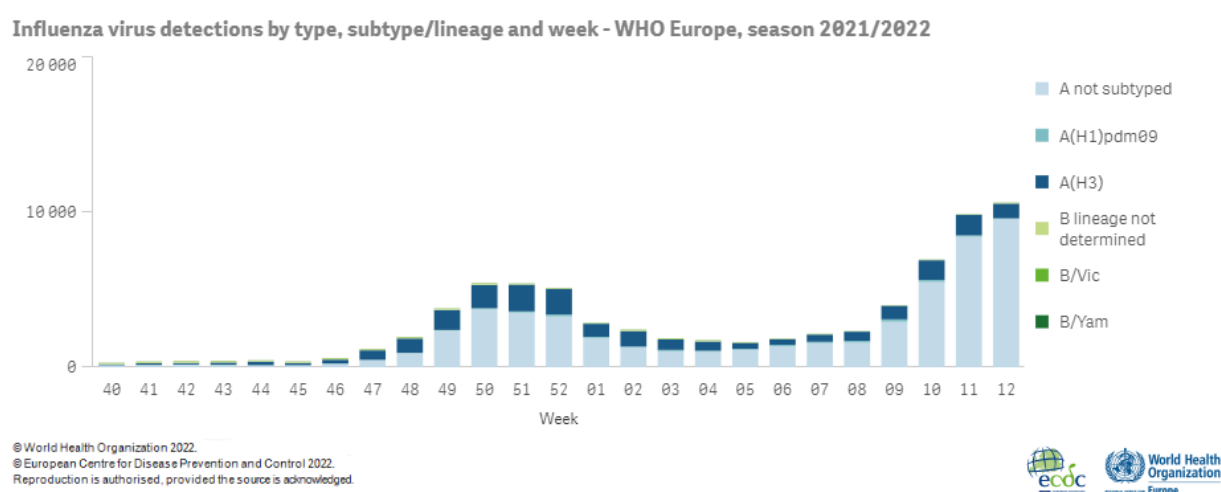


Table 2. Influenza virus detections in non-sentinel source specimens by type and subtype, week 12/2022 and cumulative for the season

| Virus type and subtype | Current Week (12) | | Season 2021-2022 | |
|------------------------|-------------------|----------------|------------------|----------------|
| | Number | % ^a | Number | % ^a |
| Influenza A | 10 567 | 99.5 | 72 243 | 97.8 |
| A(H1)pdm09 | 56 | 5.6 | 1 466 | 7.6 |
| A(H3) | 956 | 94.4 | 18 131 | 92.4 |
| A not subtyped | 9 555 | - | 52 646 | - |
| Influenza B | 48 | 0.5 | 1 650 | 2.2 |
| B/Victoria lineage | 3 | 100 | 20 | 100 |
| B/Yamagata lineage | 0 | - | 0 | 0 |
| Unknown lineage | 45 | - | 1 630 | - |

| | | | | |
|--|----------------------------|-------------|-------------------------------|------------|
| Total detections (total tested) | 10 615 (76 312) | 13.9 | 73 893 (2 027 689) | 3.6 |
|--|----------------------------|-------------|-------------------------------|------------|

^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

Of the 128 genetically characterized A(H1)pdm09 viruses up to week 12/2022, the majority (109; 85.2%) belonged to clade 6B.1A.5a.1, represented by A/Guangdong-Maonan/SWL1536/2019. Only a few viruses belonged to clade 6B.1A.5a.2: 7 (5.5%) were represented by A/India/Pun-NIV312851/2021 and 4 (3.1%) were represented by A/Victoria/2570/2019, the virus component for the 2021/22 and 2022/23 northern hemisphere vaccines.

Among the A(H3) viruses characterized up to week 12, 1 496 were attributed to a clade. The majority 1 486 (99.3%) belonged to clade 3C.2a1b.2a.2, represented by the A/Darwin/9/2021 component of 2022/23 northern hemisphere vaccines. Only 10 (0.7%) viruses fell into clade 3C.2a1b.2a.1.

Up to week 12/2022, 11 B Victoria viruses were characterized. 8 of the viruses belonged to clade V1A.3a.2, represented by B/Austria/1359417/2021, the recommended vaccine virus strain for the 2022/23 northern hemisphere influenza season. 2 of the viruses fell into clade V1A.3, represented by B/Washington/02/2019, the recommended vaccine virus strain for the 2021/22 northern hemisphere influenza season.

Seven viruses were characterized as B/Yamagata, however, the possibility that they were derived from live attenuated influenza vaccine (LAIV) could not be excluded.

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

| Number of influenza viruses attributed to genetic groups, cumulative for the season - WHO Europe | |
|--|--|
| <div>Virus Type</div> <div>Virus Subtype</div> <div>Genetic charact...</div> | <div>Number of influenza viruses attributed to genetic groups</div> <div>2021/2022</div> |
| Total | 1 642 |
| Influenza A | 1 624 |
| A(H1)pdm09 | 128 |
| A(H1)pdm09_NOClade * | 1 |
| A(H1)pdm09_SubgroupNotListed * | 7 |
| A/Guangdong-Maonan/SWL1536/2019(H1N1)pdm09_6B.1A.5a.1 | 109 |
| A/India/Pun-NIV312851/2021(H1N1)pdm09_6B.1A.5a.2 | 7 |
| A/Victoria/2570/2019(H1N1)pdm09_6B.1A.5a.2 | 4 |
| A(H3) | 1 496 |
| A/Bangladesh/4005/2020(H3)_3C.2a1b.2a.2 | 1 486 |
| A/Cambodia/e0826360/2020(H3)_3C.2a1b.2a.1 | 1 |
| A/Denmark/3264/2019(H3N2)_3C.2a1b.1a | 9 |
| Influenza B | 18 |
| B/Vic | 11 |
| B/Austria/1359417/2021(Victoria lineage_1A.3a.2) | 8 |
| B/Victoria_NOClade * | 1 |
| B/Washington/02/2019(Victoria lineage_1A.3) | 2 |
| B/Yam | 7 |
| 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 [February](#) virus characterization report that describes the available data from circulating viruses this influenza season: 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, 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. 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 12/2022, 1 440 viruses were assessed for susceptibility to neuraminidase inhibitors (980 A(H3), 109 A(H1)pdm09 and 3 B viruses genotypically and 325 A(H3), 11 A(H1)pdm09 and 12 B viruses phenotypically), and 860 viruses were assessed for susceptibility to baloxavir marboxil (762 A(H3), 95 A(H1)pdm09 and 3 B viruses genotypically). Phenotypically, no viruses with reduced susceptibility were identified and genotypically 2 A(H3) viruses with reduced susceptibility to baloxavir marboxil were identified.

Vaccine effectiveness

[Preliminary results](#) of 2021-2022 seasonal influenza vaccine effectiveness (VE) estimates from the United States showed that VE against medically attended outpatient acute respiratory infection associated with influenza A(H3N2) virus was 16% (95% CI = -16% to 39%), this was interpreted to show that “influenza vaccination did not reduce the risk for outpatient medically attended illness with influenza A(H3N2) viruses that predominated so far this season.”

The European I-MOVE network estimated influenza VE using a multicentre test-negative design among symptomatic patients presenting at primary care level between October 2021 and March 2022. Preliminary influenza VE against influenza A among seven study sites and among all ages was 36% (95%CI: 13–53) and 41% (95%CI: 15–59) among those aged 18–64 years. All-age VE against influenza A(H3N2) was 35% (95%CI: 6–54) and 37% (95%CI: 3–59) among those aged 18–64 years. There were too few influenza-positive cases among other age groups to allow VE estimations.

In [Sweden](#), the VE against laboratory-confirmed influenza was estimated to be 47% for individuals over 65 years of age.

According to [preliminary data in mainland France](#), the VE was estimated to be 50% (95% CI: 14-71) against all circulating influenza viruses, 77% (95% CI: 36-92) for A(H1N1)pdm09 and 31% (95% CI: -29-64) for A(H3N2).

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:

The WHO recommends that quadrivalent vaccines for use in the 2022 influenza season in the southern 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.

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 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.

Cell culture- 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.

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

Cell culture- 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

Disclaimer:

** 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.*

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).

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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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