Flu News Europe

Joint ECDC–WHO/Europe weekly influenza update

Summary

Week 48/2018 (26 November–2 December 2018)

- Influenza activity was low throughout the European Region.
- Influenza viruses were detected sporadically in specimens from persons with respiratory illness presenting to medical care.
- The majority of influenza virus detections were influenza A in sentinel, non-sentinel and hospitalized cases.
- For week 48/2018, data from the 22 Member States and areas reporting to the EuroMOMO project indicated all-cause mortality to be at expected levels for this time of year.

2018–2019 season overview

As of week 48/2018, influenza activity has been low in the European Region.

Primary care data

Syndromic surveillance data

Of those Member States and areas for which thresholds for influenza-like illness (ILI) activity are defined, all reported activities within their respective baseline levels.

Of those Member States and areas for which thresholds for acute respiratory infection (ARI) activity are defined, countries in the eastern (n=1; Kyrgyzstan), northern (n=1; Lithuania) and western (n=1; Belgium) parts of the region reported activities above their respective baseline levels.

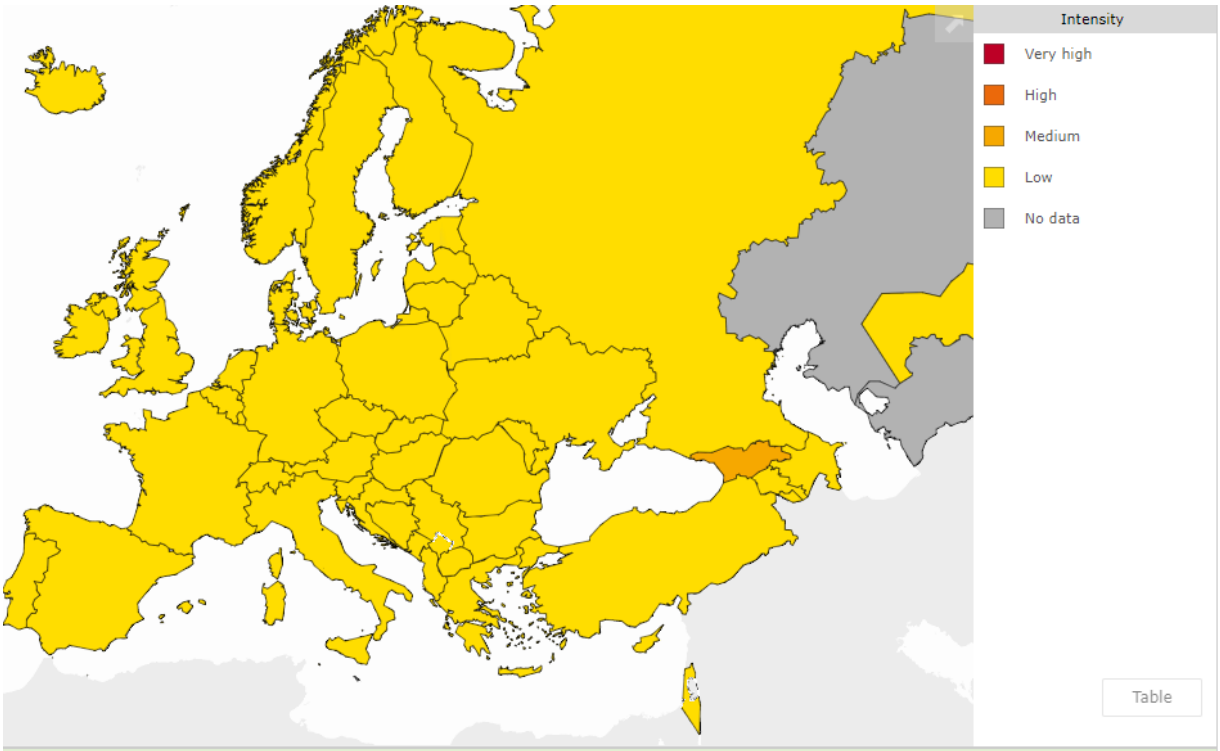
Influenza activity

Of 50 Member States and areas reporting on intensity, 49 reported low (across the region) and 1 (Georgia) reported medium intensity for week 48/2018 (Fig. 1).

Of 50 Member States and areas reporting on geographic spread, 23 reported no activity (across the region), 25 reported sporadic cases (across the region) and 2 reported regional spread (Georgia and Sweden) (See Fig. 2).

Maps of qualitative indicators in the European Region

Fig. 1. Intensity in the European Region, week 48/2018

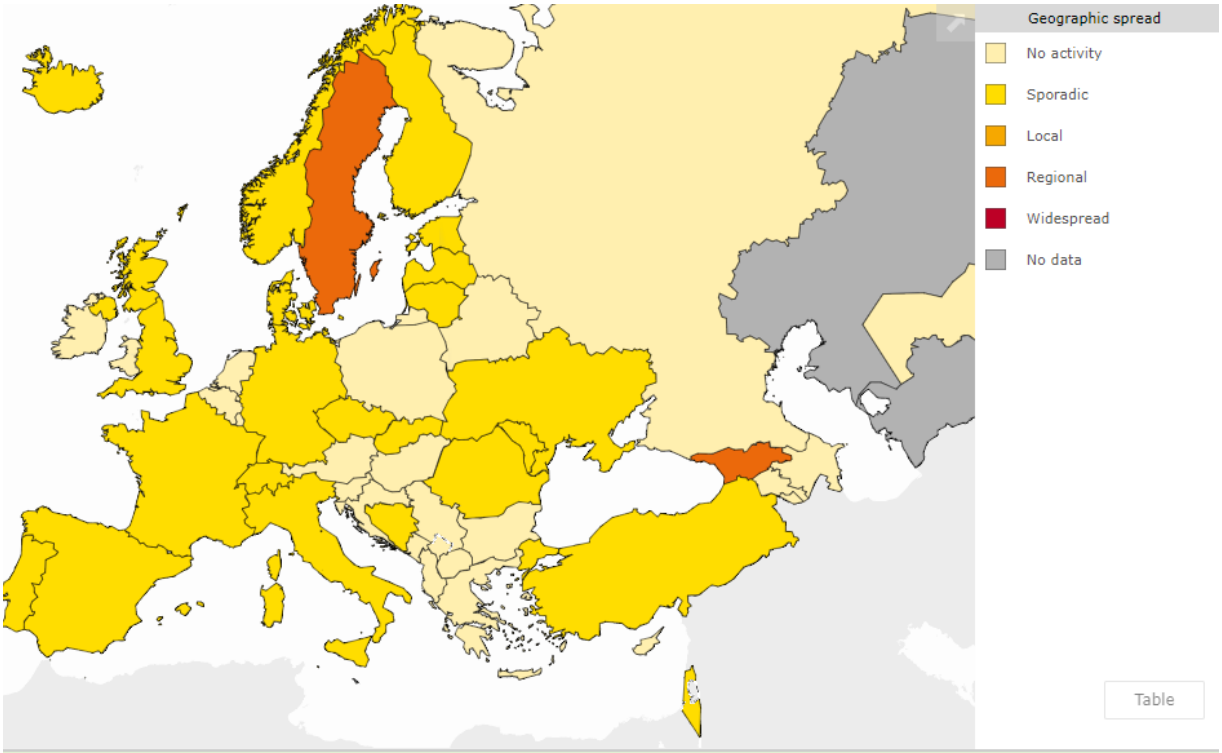


Map disclaimer

The designation employed and the presentation of this material do not imply the expression of any opinion whatsoever on the part of the Secretariat of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries.

** The administrative boundaries include spatial feature for Kosovo, this designation being without prejudice to position on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.*
Administrative boundaries: © EuroGeographics, © UN-FAO.

Fig. 2. Geographic spread in the European Region, week 48/2018



For interactive maps of influenza intensity and geographic spread, see the Flu News Europe website.

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

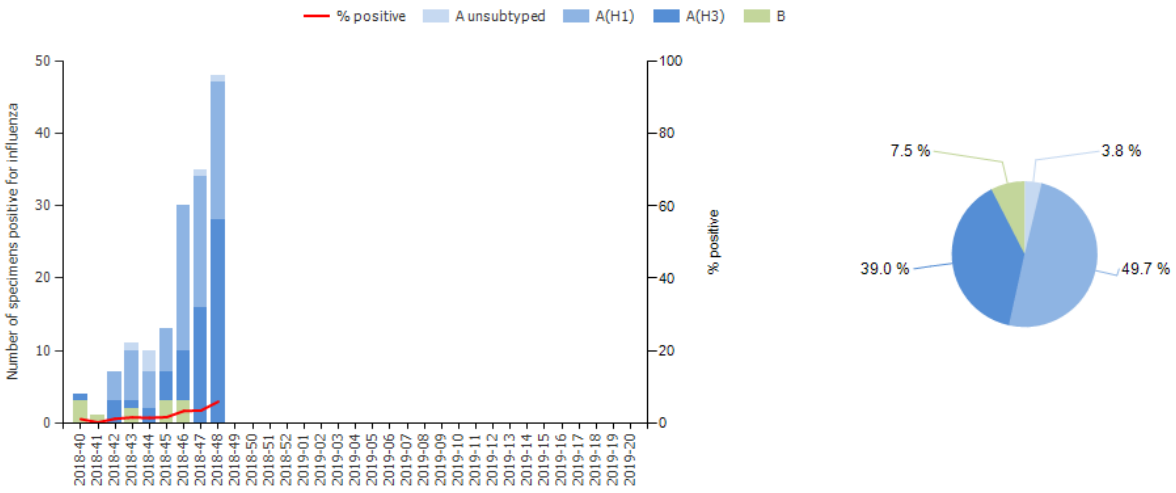
For week 48/2018, 48 (6%) of 799 sentinel specimens tested positive for an influenza virus; all were type A. Of 47 subtyped A viruses, 19 (40.4%) were A(H1N1)pdm09 and 28 (59.6%) were A(H3N2) (Fig. 3 and Table 1).

Of 21 Member States or areas across the region that each tested at least 10 sentinel specimens in week 48/2018, 4 reported a rate of influenza virus detections above 10%: Kyrgyzstan (45.5%), Lithuania (27.8%), France (16.7%) and Switzerland (11.8%).

For the season to date, much more influenza type A (n=147, 92.5%) than type B viruses (n=12, 7.5%) have been detected. Of 141 subtyped A viruses, 79 (56%) were A(H1N1)pdm09 and 62 (44%) were A(H3N2). Of 5 influenza type B viruses ascribed to a lineage, 4 were B/Yamagata and 1 was B/Victoria (7 influenza type B viruses were reported without a lineage) (Fig. 3 and Table 1).

Details of the distribution of viruses detected in non-sentinel-source specimens can be found in the Virus characteristics section.

Fig. 3. Influenza virus detections in sentinel-source specimens by type and subtype, by week and cumulatively [a]



[a] Pie chart shows cumulative data for this period.

Table 1. Influenza virus detections in sentinel-source specimens by type and subtype, week 48/2018 and cumulatively.

	Current Week		Season 2018–2019	
Virus type and subtype	**Number**	**%[a]**	**Number**	**%[a]**
Influenza A	**48**	**100.0**	**147**	**92.5**
A(H1N1)pdm09	19	40.4	79	56.0
A(H3N2)	28	59.6	62	44.0
A not subtyped	1	-	6	-
Influenza B	**0**	**0**	**12**	**7.5**
B/Victoria lineage	0	-	1	20.0
B/Yamagata lineage	0	-	4	80.0
Unknown lineage	0	-	7	-
Total detections (total tested)	**48 (799)**	**6.0**	**159 (6 128)**	**2.6**

[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.

Severity

A subset of Member States and areas monitors severe disease related to influenza virus infection by surveillance of 1) hospitalized laboratory-confirmed influenza cases in ICUs (12 Member States or areas), or other wards (8 Member States or areas), or 2) severe acute respiratory infections (SARI; 17 Member States or areas).

1.1) Hospitalized laboratory-confirmed influenza cases – ICUs

From 21 laboratory-confirmed influenza cases reported in ICUs for week 48/2018, only influenza type A viruses were detected.

Since week 40/2018, much more influenza type A (n=93, 91.2%) than type B viruses (n=9, 8.8%) were detected. Of 43 subtyped influenza A viruses, 41 (95.3%) were A(H1N1)pdm09 and 2 (4.7%) were A(H3N2). No influenza type B viruses were ascribed to a lineage. Of 26 cases with known age, the majority were 15–64 years old (46.2%) or 65 years and older (42.3%).

1.2) Hospitalized laboratory-confirmed influenza cases – other wards

Among laboratory-confirmed influenza cases reported in wards other than ICUs for week 48/2018 (n=10), influenza type A viruses (n=9, 90%) were detected much more frequently than influenza type B viruses (n=1, 10%).

Since week 40/2018, much more influenza type A (n=94, 89.5%) than type B viruses (n=11, 10.5%) were detected. Of 23 subtyped influenza A viruses, 19 (82.6%) were A(H1N1)pdm09 and 4 (17.4%) were A(H3N2). No influenza B viruses were ascribed to a lineage. Of 105 cases with known age, the majority (57.1%) were 15–64 years old.

2. SARI surveillance

For week 48/2018, 578 SARI cases were reported by 13 Member States or areas. Of 206 specimens tested for influenza viruses, 9 (4.4%) were positive. All of the detected viruses were of influenza type A.

Of 7 071 SARI cases reported since week 40/2018, 7 059 had a recorded age and the majority (68.2%) were 0–4 years old. For SARI cases testing positive for influenza virus since week 40/2018 (n=31), type A viruses have been the most common. Only 1 influenza type B virus was detected. Of the 28 influenza type A infected cases for which subtyping was performed, 26 (92.9%) were infected by A(H1N1)pdm09 viruses and 2 (7.1%) were infected by A(H3N2) viruses. The influenza type B virus was not ascribed to a lineage.

Mortality monitoring

For week 48/2018, the EuroMOMO project received data from 22 Member States or areas that were included in pooled analyses. Overall, the pooled estimates of all-cause mortality showed expected levels for this time of year in the participating countries.

Virus characteristics

Details of the distribution of viruses detected in sentinel-source specimens can be found in the Primary care data section.

Viruses detected in non-sentinel source specimens

For week 48/2018, 455 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; 428 (94.1%) were type A and 27 (5.9%) were type B. Of 98 subtyped A viruses, 64 (65.3%) were A(H1N1)pdm09 and 34 (34.7%) were A(H3N2) (Table 2).

For the season to date, much more influenza type A (n=1716, 90.2%) than type B viruses (n=186, 9.8%) have been detected. Of 676 subtyped A viruses, 438 (64.8%) were A(H1N1)pdm09 and 238 (35.2%) were A(H3N2). Of 6 influenza type B viruses ascribed to a lineage, all were B/Yamagata (96.8% type B viruses were reported without a lineage) (Table 2).

Table 2. Influenza virus detections in non-sentinel source specimens by type and subtype, week 48/2018 and cumulatively

	Current Week		Season 2018–2019	
Virus type and subtype	**Number**	**%[a]**	**Number**	**%[a]**
Influenza A	**428**	**94.1**	**1 716**	**90.2**
A(H1N1)pdm09	64	65.3	438	64.8
A(H3N2)	34	34.7	238	35.2
A not subtyped	330	-	1 040	-
Influenza B	**27**	**5.9**	**186**	**9.8**
B/Victoria lineage	0	-	0	0.0
B/Yamagata lineage	0	-	6	100.0
Unknown lineage	27	-	180	-
Total detections (total tested)	**455 (15 317)**	**-**	**1 902 (112 647)**	**-**

[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

Since week 40/2018, genetic characterizations of 65 viruses were reported: 48 were A(H1N1)pdm09 viruses belonging to the A/Michigan/45/2015 (6B.1) clade; 16 were A(H3) viruses, with 15 belonging to the A/Singapore-16-0019/2016 (3C.2a1b) clade and 1 attributed to a subgroup not listed; and 1 B/Yamagata lineage virus was characterized as belonging to the B/Phuket/3073/2013 clade. The latest characterization data are summarized in the ECDC summary report for September.

For more information on virus characterizations for EU/EEA countries, see earlier WHO CC London Influenza virus characterisation reports.

The recommended composition of the trivalent influenza vaccine for the northern hemisphere 2018–2019 season included an A/Michigan/45/2015 (H1N1)pdm09-like virus, an A/Singapore/INFIMH-16-0019/2016 (H3N2)-like virus and a B/Colorado/06/2017-like virus (B/Victoria lineage). For quadrivalent vaccines, a B/Phuket/3073/2013-like virus (B/Yamagata lineage) was recommended. The full report can be found here.

On 27 September 2018, WHO announced the recommended vaccine composition for the southern hemisphere 2019 season. The recommendations matched the A(H1N1)pdm09 and B components for the 2018–2019 northern hemisphere season, but the A(H3N2) component was changed for egg-based vaccines. The full report can be found here. A comment by ECDC can be seen here.

Antiviral susceptibility testing

53 A(H1N1)pdm09 viruses and 4 A(H3N2) viruses with collection dates in weeks 40–48/2018 have been tested for susceptibility to neuraminidase inhibitors. None showed evidence of reduced susceptibility to the inhibitors.

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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.

Suggested citation:

European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Flu News Europe, Joint ECDC–WHO weekly influenza update, week 48/2018.

Tables and figures should be referenced:

European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Flu News Europe, Joint ECDC–WHO weekly influenza update, week 48/2018.