

## Summary

### Week 46/2018 (12–18 November 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.
- Both influenza A and B type viruses were detected, but in low numbers.
- For week 46/2018, data from the 24 Member States and areas reporting to the [EuroMOMO](#) project indicated all-cause excess mortality to be at expected levels for this time of the year.

### 2018–2019 season overview

As is usual for this time of year, influenza activity is low in the European Region.

## Primary care data

### Syndromic surveillance data

All Member States and areas reported influenza-like illness (ILI) activity within baseline levels (of those Member States in which thresholds are defined).

All Member States and areas reported acute respiratory infection (ARI) activity within baseline levels (of those Member States in which thresholds are defined).

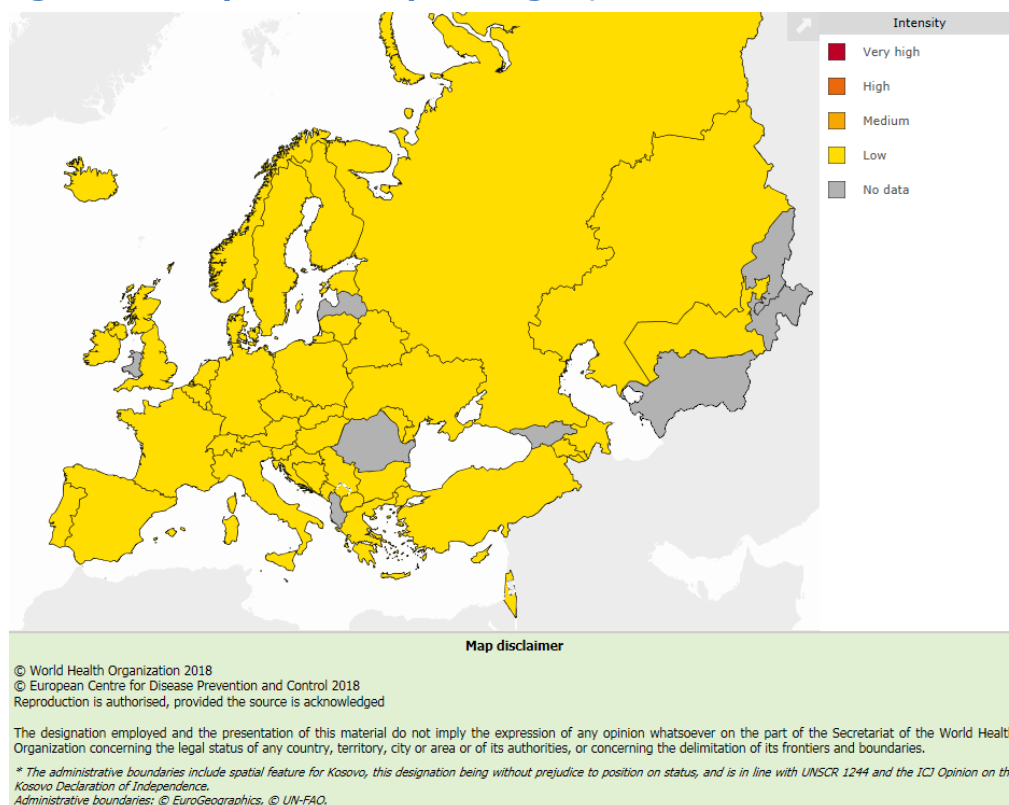
## Influenza activity

All 46 Member States and areas reporting on intensity reported low levels for week 46/2018 (see Fig. 1), indicating that influenza activity was within baseline levels.

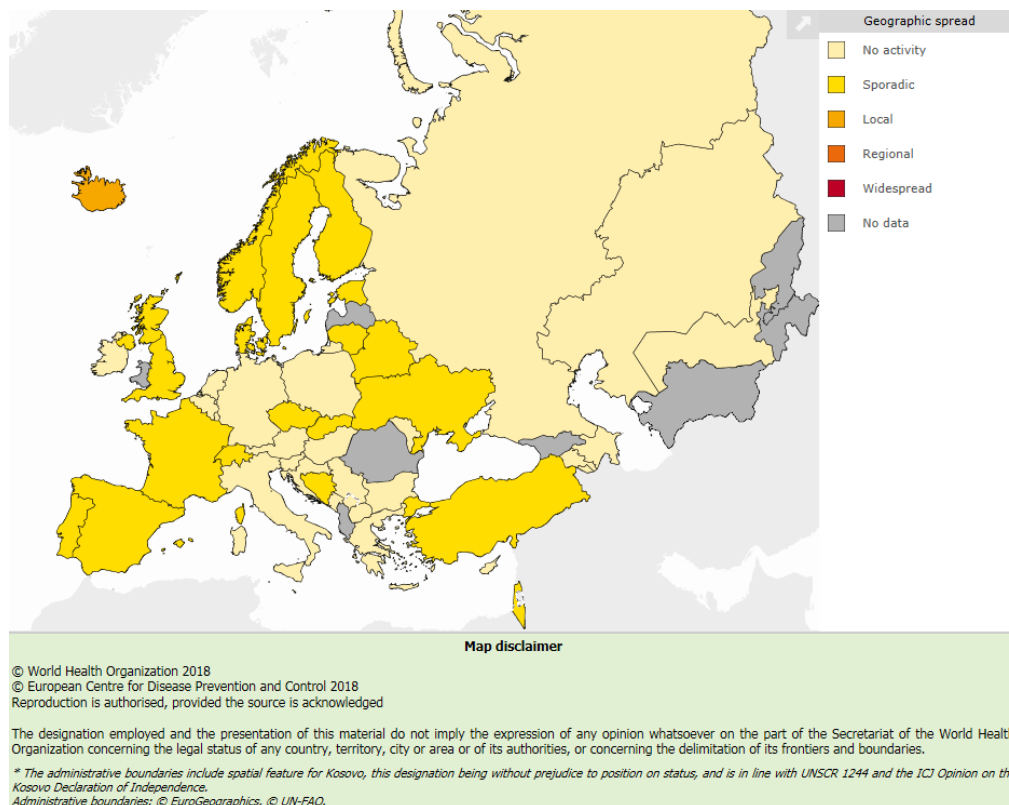
Of the 46 Member States and areas reporting on geographic spread, 24 reported no activity (across the region), 21 reported sporadic spread (across the region) and 1 (Iceland) reported local spread (see Fig. 2).

## Maps of qualitative indicators in the European Region

**Fig. 1. Intensity in the European Region, week 46/2018**



**Fig. 2. Geographic spread in the European Region, week 46/2018**



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

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

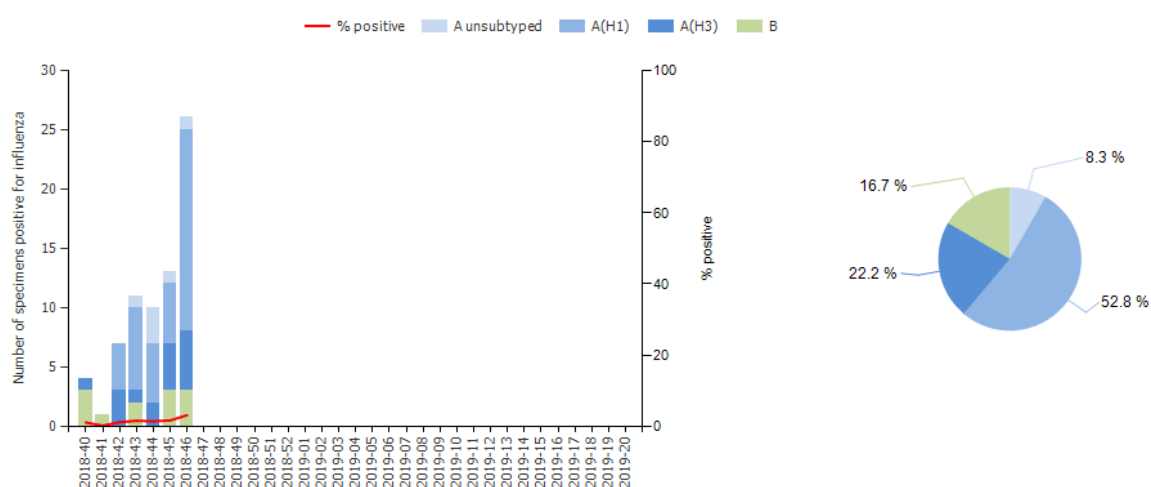
For week 46/2018, 26 (3.2%) of 808 sentinel specimens tested positive for influenza viruses: 23 were type A and 3 were type B viruses. Of the 22 type A viruses subtyped, 17 were A(H1N1)pdm09 and 5 were A(H3N2) (Fig. 3 and Table 1).

Of 19 Member States or areas across the region that each tested at least 10 sentinel specimens in week 46/2018, 3 reported rates of influenza virus detections above 10%: Israel (18.2%), Italy (11.1%) and Kyrgyzstan (30%).

For the season to date, a higher proportion of influenza type A ( $n = 60$ , 83.3%) than type B ( $n = 12$ , 16.7%) viruses has been detected. Of 54 type A viruses subtyped, 38 (70.4%) were A(H1N1)pdm09 and 16 (29.6%) were A(H3N2). Of 4 influenza type B viruses ascribed to a lineage, 3 were B/Yamagata and 1 was B/Victoria (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<sup>a</sup>**



<sup>a</sup> Pie chart shows cumulative data for this period.

**Table 1. Influenza virus detections in sentinel-source specimens by type and subtype, week 46/2018 and cumulatively.**

Virus type and subtype	Current Week		Season 2018–2019	
	Number	% <sup>a</sup>	Number	% <sup>a</sup>
<b>Influenza A</b>	<b>23</b>	<b>88.5</b>	<b>60</b>	<b>83.3</b>
A(H1N1)pdm09	17	77.3	38	70.4
A(H3N2)	5	22.7	16	29.6
A not subtyped	1	-	6	-
<b>Influenza B</b>	<b>3</b>	<b>11.5</b>	<b>12</b>	<b>16.7</b>
B/Victoria lineage			1	25
B/Yamagata lineage	1	100	3	75
Unknown lineage	2	-	8	-
<b>Total detections (total tested)</b>	<b>26 (808)</b>	<b>3.2</b>	<b>72 (4231)</b>	<b>1.7</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.

## 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

Among laboratory-confirmed influenza cases reported in ICUs for week 46/2018 (n = 9), all were infected with influenza type A viruses.

43 cases have been reported since week 40/2018. The proportion of cases infected with influenza type A viruses (90.7%) was greater than the proportion of cases infected with influenza type B viruses (9.3%). Of 19 subtyped influenza A viruses, all were A(H1N1)pdm09. No influenza B viruses were ascribed to a lineage. Of 5 cases with known age, 4 were in the 65 years and older age group and 1 was in the 15-64 years age group.

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

Among laboratory-confirmed influenza cases reported in wards other than ICUs for week 46/2018 (n = 9), all were infected with influenza type A viruses.

59 cases have been reported since week 40/2018. The proportion of cases infected with influenza type A viruses (89.8%) was greater than the proportion of cases infected with influenza type B viruses (10.2%). Of 16 subtyped influenza A viruses, 75.0% were A(H1N1)pdm09 and 25.0% A(H3N2). No influenza B viruses were ascribed to a lineage. Of 59 cases with known age, 8 (13.6%) were in the 0-14 age group, 35 (59.3%) were in the 15-64 years age group, and 16 (27.1%) were in the 65 years and older age group.

## 2. SARI surveillance

For week 46/2018, 778 SARI cases were reported by 11 countries. In total, 120 specimens were tested for influenza viruses and only 1 was positive.

Of 5 244 SARI cases reported since week 40/2018, 5 233 had a recorded age and, of these, 66.6% were 0-4 years old and 17.3% were 15-64 years old. For SARI cases testing positive for influenza viruses since week 40/2018 (n=3), all were type A viruses (1 A not subtyped, 1 A(H1N1)pdm09 and 1 A(H3N2)).

## **Mortality monitoring**

For week 46/2018, the [EuroMOMO](#) project received data from 24 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 46/2018, 271 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: 252 (93%) were type A and 19 (7%) were type B viruses (Table 2). Of the 62 influenza A viruses that were subtyped, 46 (74.2%) were A(H1N1)pdm09 and 16 (25.8%) were A(H3N2). None of the influenza B viruses were assigned to a lineage.

**Table 2. Influenza virus detections in non-sentinel source specimens by type and subtype, week 46/2018 and cumulatively**

Virus type and subtype	Current Week		Season 2018–2019	
	Number	% <sup>a</sup>	Number	% <sup>a</sup>
<b>Influenza A</b>	<b>252</b>	<b>93</b>	<b>934</b>	<b>88.3</b>
A(H1N1)pdm09	46	74.2	242	61.7
A(H3N2)	16	25.8	150	38.3
A not subtyped	190	-	542	-
<b>Influenza B</b>	<b>19</b>	<b>7</b>	<b>124</b>	<b>11.7</b>
B/Victoria lineage	0	-	0	0.0
B/Yamagata lineage	0	-	3	100.0
Unknown lineage	19	-	121	-
<b>Total detections (total tested)</b>	<b>271 (13419)</b>	<b>-</b>	<b>1058 (80276)</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 characterization

Since week 40/2018, genetic characterizations of 42 viruses were reported. 26 were A(H1N1)pdm09 viruses belonging to the A/Michigan/45/2015 (6B.1) clade, 15 were A(H3) viruses belonging to the A/Singapore-16-0019/2016 (3C.2a1b) clade, and 1 was B/Yamagata 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

28 A(H1N1)pdm09 viruses and 3 A(H3N2) viruses with collection dates in weeks 40–46/2018 have been tested for susceptibility to neuraminidase inhibitors. None showed evidence of reduced susceptibility to the inhibitors.

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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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