

## Summary

### Week 44/2017 (30 October–5 November 2017)

- Intensity of influenza activity in Europe remained at a low level, although sporadic detections or local spread were reported by 40% of the reporting countries.
- Overall, 1% of sentinel specimens tested positive for influenza virus.
- Data from the 14 countries or regions reporting to the EuroMOMO project indicated that all-cause mortality was at low levels, as expected for this time of the year.
- Additional information on global influenza activity is available from [WHO's biweekly global updates](#).

### 2017/18 season overview

- Since week 40/2017, few influenza viruses have been detected in sentinel and non-sentinel specimens.
- Of the viruses subtyped or assigned to a lineage, for detections in both sentinel or non-sentinel surveillance systems, most were identified as A(H3N2) or B/Yamagata viruses. For the northern hemisphere season the A(H3N2) vaccine component is the same as that used in 2015–2016 and only the quadrivalent vaccine contains a B/Yamagata component; both were recommended to be changed for the trivalent vaccine to be used in the next southern hemisphere season. See also the [ECDC summary report for September](#) and the [ECDC commentary](#).

## Primary care data

### Influenza activity

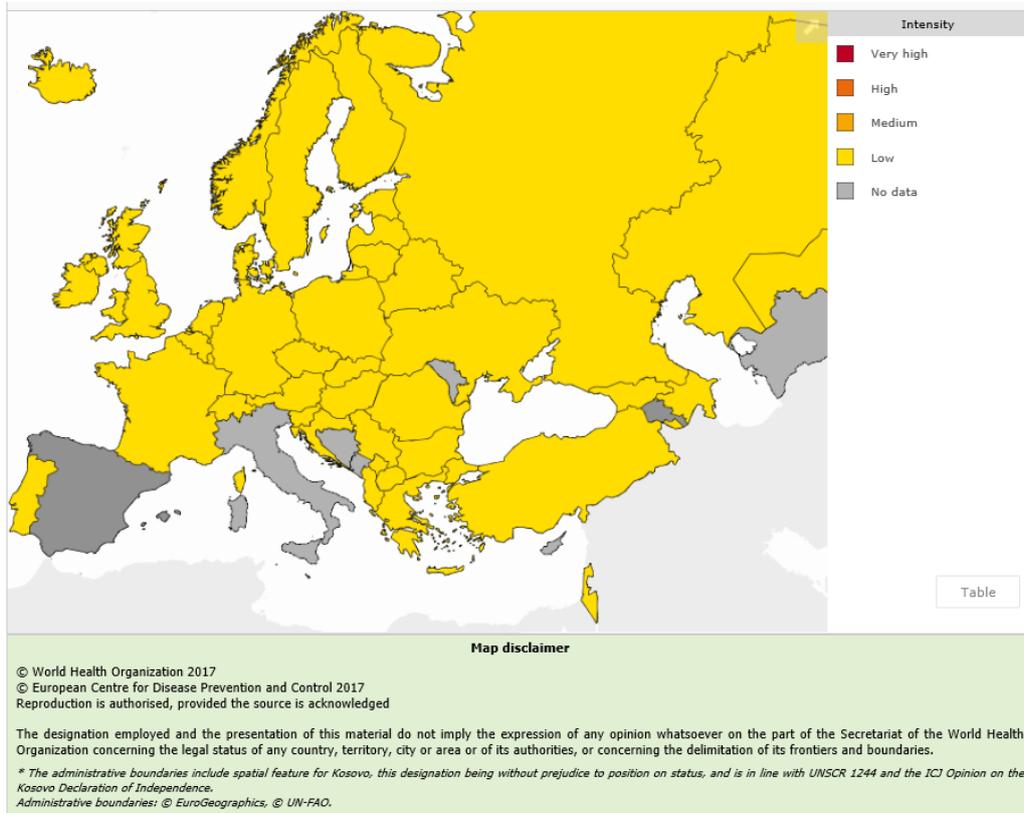
For week 44/2017, low intensity of influenza activity was reported by all of the 42 reporting countries (Fig. 1).

No geographic spread was reported by 26 of the 43 reporting countries, while sporadic cases or local geographic spread was reported by 17 countries (Fig. 2).

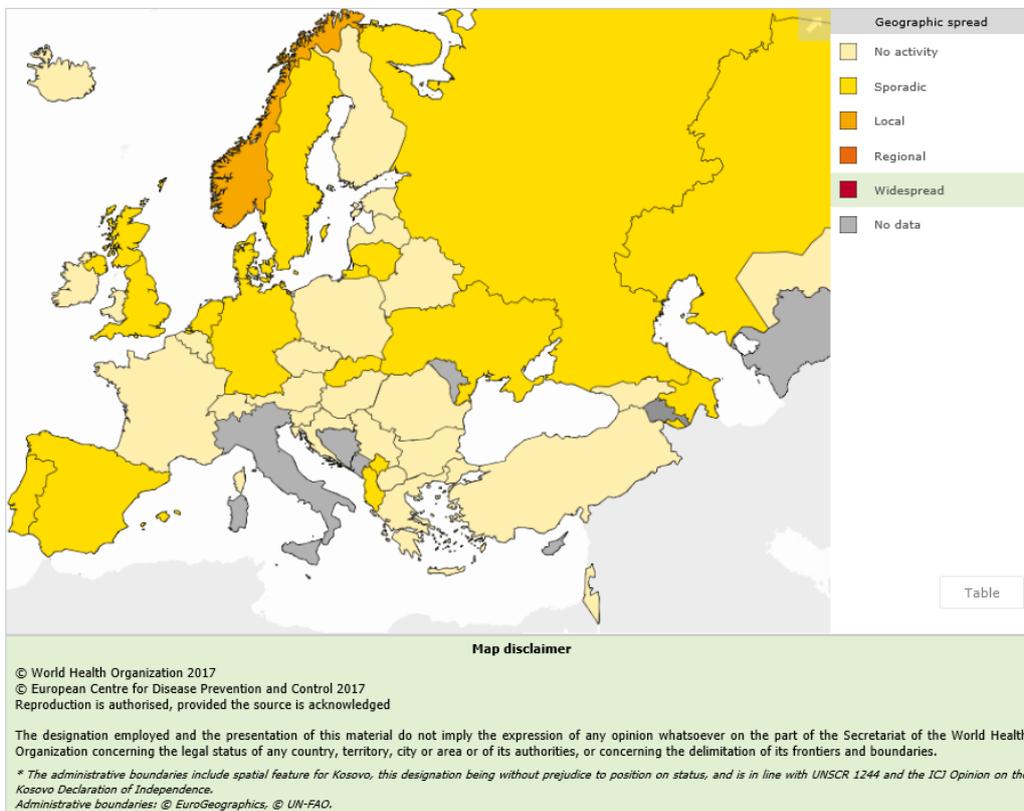
Based on syndromic surveillance data for influenza-like illness (ILI) or acute respiratory infection (ARI), all countries are below their respective epidemic thresholds for influenza activity.

## Maps of qualitative indicators in the European Region

**Fig. 1 Intensity in the European Region, week 44/2017**



**Fig. 2 Geographic spread in the European Region, week 44/2017**



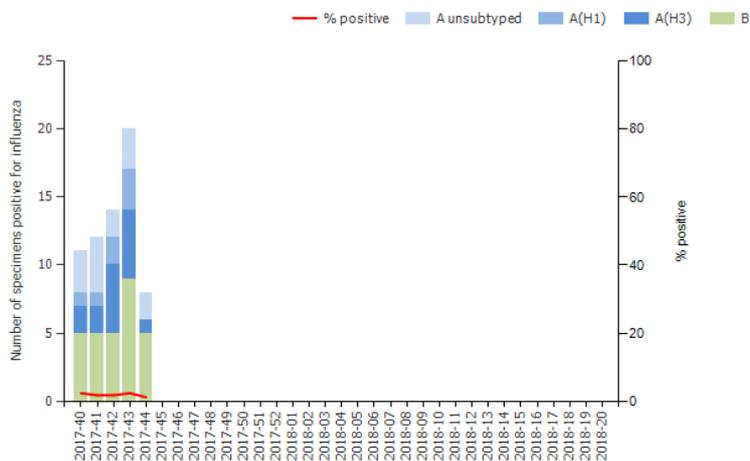
For interactive maps of influenza intensity and geographic spread, please see the Flu News Europe [website](#).

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

For week 44/2017, 8 (1%) of 643 sentinel specimens tested positive for influenza viruses: 2 unsubtyped A viruses, 1 A(H3N2), 1 B/Yamagata lineage and 4 B viruses not ascribed to a lineage (**Error! Not a valid bookmark self-reference.** and Table 1).

Since week 40/2017, 58% of detected viruses (n=65) were type A and 42% type B. Of subtyped A viruses (n=22), two thirds were A(H3N2). Of the 11 B viruses ascribed to a lineage, 10 were B/Yamagata (Table 1).

**Fig. 3 Influenza virus detections in sentinel-source specimens by type and subtype, by week**



**Table 1. Influenza virus detections in sentinel-source specimens by type and subtype, week 44/2017 and cumulatively**

Virus type and subtype	Current Week		Season 2017-2018	
	Number	% <sup>a</sup>	Number	% <sup>a</sup>
<b>Influenza A</b>	<b>3</b>	<b>37.5</b>	<b>36</b>	<b>57.7</b>
A(H1N1)pdm09	0		7	31.8
A(H3N2)	1	100	15	68.2
A not subtyped	2		14	
<b>Influenza B</b>	<b>5</b>	<b>62.5</b>	<b>29</b>	<b>42.3</b>
B/Victoria lineage	0		1	9.1
B/Yamagata lineage	1	100	10	90.9
Unknown lineage	4		18	
<b>Total detections (total tested)</b>	<b>8 (643)</b>	<b>1.2</b>	<b>65 (3 313)</b>	<b>2.0</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

Since week 40/2017, 5 countries have reported laboratory-confirmed hospitalized influenza cases in intensive care units (ICU) or other wards: 22 cases in ICU (18 in the United Kingdom, 3 Spain and 1 in the Czech Republic) and 29 in other wards (18 in Ireland, 7 in Denmark, 2 each in the Czech Republic and Spain). Of 22 cases in ICU, 16 (73%) were infected with type A viruses (4 A(H1N1)pdm09, 3 A(H3N2), 9 A untyped) and 6 (27%) with type B viruses. A similar picture was observed in other wards: of 29 patients, 21 (72%) were infected with influenza A (10 A untyped, 5 A(H1N1)pdm09, 6 A(H3N2)) and 8 (28%) with influenza B viruses.

For week 44/2017, 596 cases of severe acute respiratory infections (SARI) were reported from 10 countries. Two of 190 tested specimens were influenza virus positive, both for type B virus. Since week 40/2017, 3 238 cases of SARI were reported by 13 countries conducting sentinel SARI surveillance. Of the 863 specimens tested for influenza viruses, 6 were positive for influenza virus, 3 from Tajikistan (1 A untyped, 2 type B) and 3 from Kazakhstan (1 A(H3N2) and 2 type B).

## Mortality monitoring

Data from 14 countries or regions reporting to the [EuroMOMO](#) project were received for week 44/2017 and included in the pooled analyses of excess all-cause mortality. All-cause mortality was within normal ranges in the past few weeks as expected for this time of year.

## Virus characteristics

### Viruses detected in non-sentinel-source specimens

For week 44/2017, 138 specimens from non-sentinel sources (such as hospitals, schools, non-sentinel primary care facilities, nursing homes and other institutions) tested positive for influenza viruses. Of these, 74% were type A and 26% type B viruses (**Error! Not a valid bookmark self-reference.**). The majority of viruses from non-sentinel specimens were not subtyped or assigned to a lineage.

**Table 2. Influenza virus detections in non-sentinel-source specimens by type and subtype, week 44/2017 and cumulatively**

Virus type and subtype	Current Week		Season 2017-2018	
	Number	% <sup>a</sup>	Number	% <sup>a</sup>
<b>Influenza A</b>	<b>102</b>	<b>73.9</b>	<b>443</b>	<b>72.0</b>
A(H1N1)pdm09	7	30.4	34	18.8
A(H3N2)	16	69.6	147	81.2
A not subtyped	79		262	
<b>Influenza B</b>	<b>36</b>	<b>26.1</b>	<b>172</b>	<b>28.0</b>
B/Victoria lineage	0		1	13
B/Yamagata lineage	0		7	87
Unknown lineage	36		164	
<b>Total detections (total tested)</b>	<b>138 (10 273*)</b>		<b>615 (48 762*)</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; as not all countries have a true non-sentinel testing denominator, no percentage calculations for total tested are shown. \* Not all countries provide numbers of totally tested specimens.

### Genetic characterization

For week 44/2017, no genetic characterizations were reported. The latest characterization data are summarised in the [ECDC summary report for September](#).

The recommended composition of trivalent influenza vaccines for the 2017–2018 season in the [Northern Hemisphere](#) includes an A/Michigan/45/2015 (H1N1)pdm09-like virus; an A/Hong Kong/4801/2014 (H3N2)-like virus; and a B/Brisbane/60/2008-like virus (B/Victoria lineage). For quadrivalent vaccines, a B/Phuket/3073/2013-like virus (B/Yamagata lineage) was recommended.

On 28 September 2017, WHO recommended two changes, compared to the current trivalent vaccine recommended for the [2017–2018 northern hemisphere](#) influenza season, in trivalent vaccine composition for the 2018 season in the [southern hemisphere](#). The recommendations matched the A(H1N1)pdm09 component for the 2017–2018 northern hemisphere season, but the A(H3N2) component was changed to an A/Singapore/INFIMH-16-0019/2016 (H3N2)-like virus and the B component was switched to a B/Yamagata-lineage virus. These changes were made due to the emergence of numerous genetic subclades of A(H3N2) viruses, none of which showed significant antigenic drift compared to the vaccine component, and reports of [low vaccine effectiveness](#) against these viruses, while for type B viruses, the B/Yamagata

lineage predominated by a large margin in the course of the 2017 southern hemisphere season. See also the [ECDC commentary](#).

### **Antiviral susceptibility testing**

No viruses with collection dates in weeks 40–44/2017 have been reported being tested for antiviral susceptibility.

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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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