

## Summary

### Week 45/2016 (7–13 November 2016)

- Activity remained low in the region, with few specimens testing positive for influenza viruses (3% of sentinel specimens), and is at a level similar to that observed for the same period in recent seasons. Increased activity was reported from countries in Northern Europe.
- Since week 40/2016, influenza A viruses have predominated, with most of those subtyped being A(H3N2).

### Country report (the Netherlands)

On 5 November, a nine-year old girl was diagnosed with an A(H1N1)v swine flu infection (Eurasian avian lineage). She became ill on 26 October, a few days after close contact with swine, and her symptoms were respiratory insufficiency for which she received extra corporal membrane oxygenation (ECMO) treatment. After confirmation of influenza virus type A infection, oseltamivir treatment was started; the virus was susceptible to oseltamivir and zanamivir. The patient recovered fully and most contacts of the patient developed no symptoms, and those that did tested negative for influenza A virus.

## Primary care data

### Influenza activity

Influenza activity is at baseline levels in all 41 countries that submitted epidemiological data, all of whom reported low intensity (Fig. 1). Of the 19 countries reporting on geographic spread, one (Finland), two and 16 reported regional, local and sporadic spread, respectively. Countries in Northern Europe are experiencing increasing influenza activity (Fig. 2).

Twenty countries reported influenza virus positive specimens from sentinel and/or non-sentinel sources in week 45/2016. Of the 19 countries reporting regional/local/sporadic geographic spread, only nine reported virus detections.

## Interactive map of qualitative indicators and dominant virus type

Fig. 1. Intensity in the European Region, week 45/2016

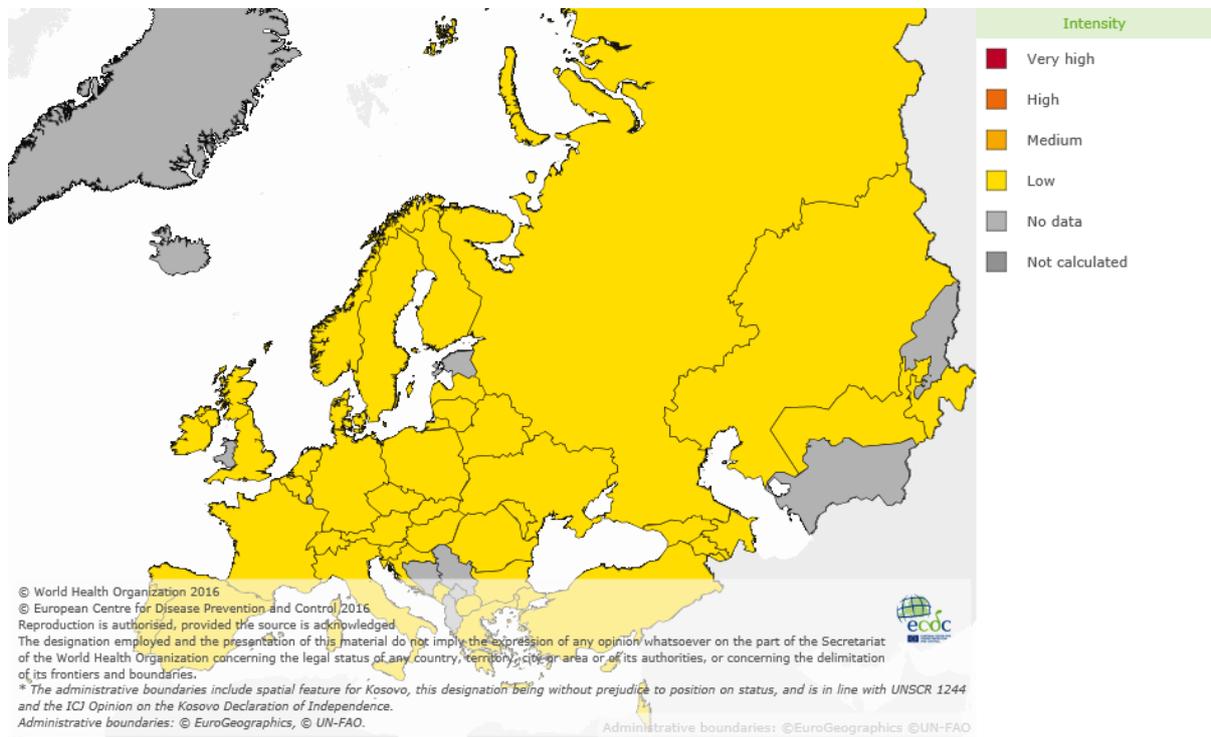
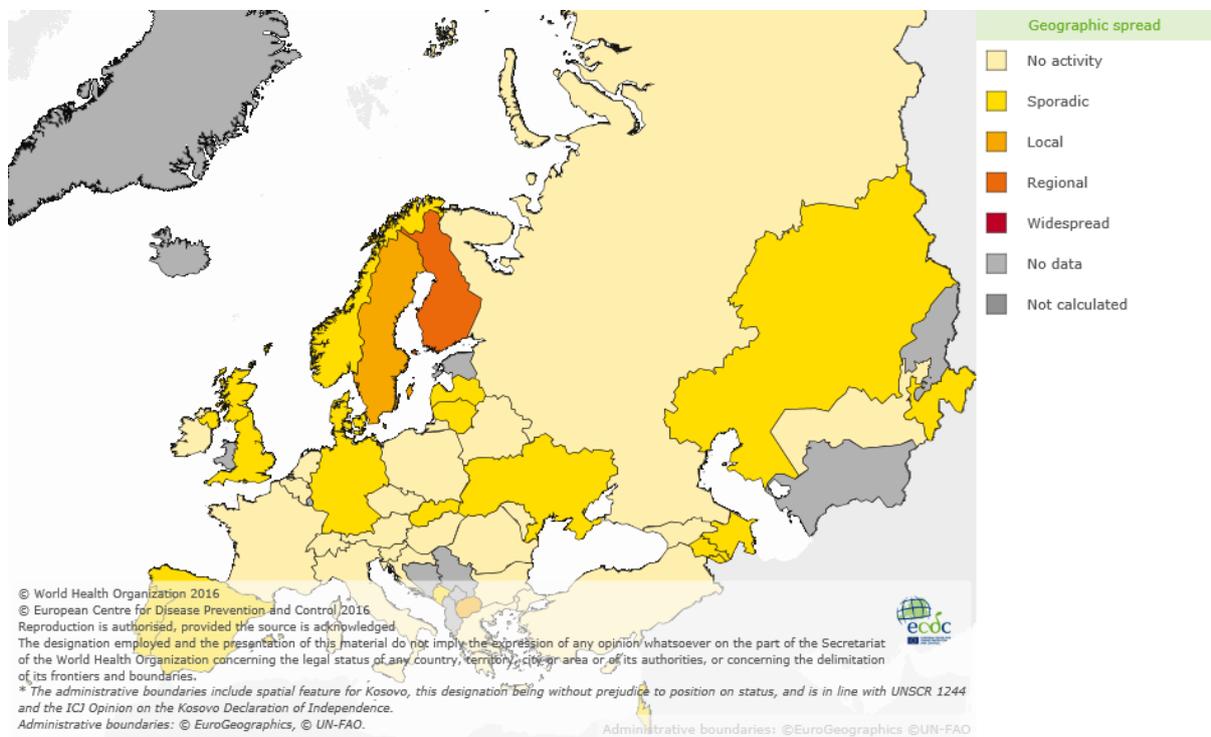


Fig. 2. Geographic spread in the European Region, week 45/2016



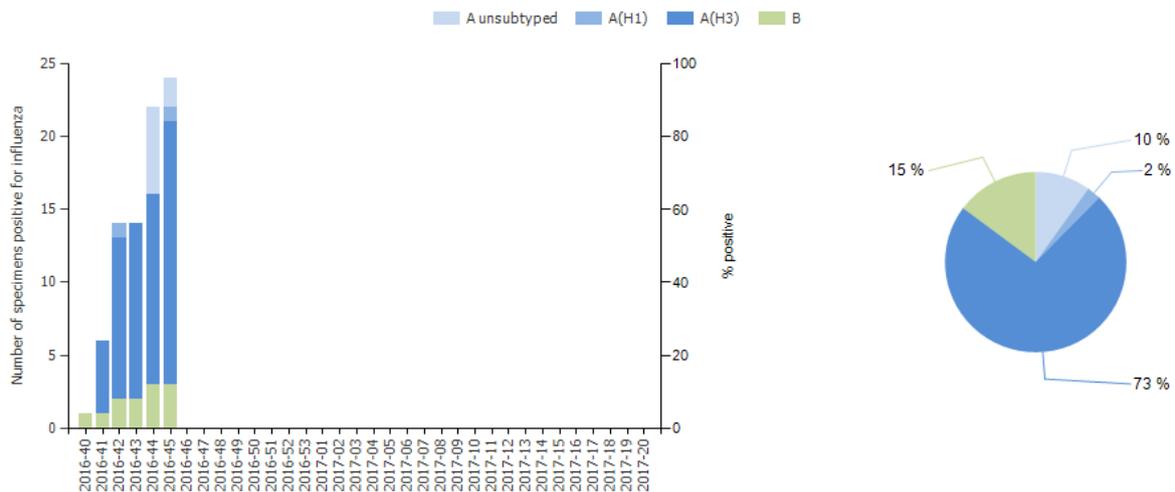
For interactive maps of influenza intensity and geographic spread, please see the Flu News Europe [web site](#).

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

For week 45/2016, 24 of 753 sentinel specimens tested (3%) were positive for influenza virus (Table 1). Of these, 21 (88%) were type A and three were type B. All, but one of the subtyped influenza A viruses were A(H3N2). France, Kyrgyzstan and the United Kingdom (England) reported positivity rates higher than 10% for influenza virus among 10 or more specimens tested.

Similar distributions of types and subtypes have been observed since week 40/2016; with the majority (84%) of detected and subtyped viruses being influenza A(H3N2) (Fig. 3; Table 1). The lineage of only one virus of the 13 influenza B viruses has been determined, it being B/Victoria.

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



**Table 1. Influenza virus detections in sentinel-source specimens by type and subtype, week 45/2016 and cumulatively**

Virus type and subtype	Number of detections	
	Current Week	Season 2016-2017
<b>Influenza A</b>	<b>21</b>	<b>69</b>
A(H1N1)pdm09	1	2
A(H3N2)	18	59
A not subtyped	2	8
<b>Influenza B</b>	<b>3</b>	<b>13</b>
B/Victoria lineage	0	1
B/Yamagata lineage	0	0
Unknown lineage	3	12
<b>Total detections (total tested)</b>	<b>24 (753)</b>	<b>82 (4 443)</b>

## Severity

For week 45/2016, of those countries, territories and regions that conduct surveillance based on hospitalized laboratory-confirmed influenza cases in intensive care units (ICU) or other wards, Ireland reported one case due to influenza A virus infection in other ward. Since week 40/2016 Spain, Ireland and the UK have reported six cases in other wards due to influenza A virus infection and two in ICU, one case each with influenza A and B virus infection.

For week 45/2016, of those countries, territories and regions that conduct surveillance based on sentinel severe acute respiratory infections (SARI), Armenia reported 11 influenza virus-positive cases subtyped as A(H3N2).

## Mortality monitoring

Pooled analysis of data from the 19 countries or regions reporting to the [EuroMOMO](#) project indicated that all-cause mortality was within the normal range during recent weeks.

## Viruses detected in non-sentinel-source specimens

For week 45/2016, 207 specimens from non-sentinel sources (such as hospitals, schools, non-sentinel primary care units, nursing homes and other care institutions) tested positive for influenza viruses (Table 2). Similar to the previous week, 93% were type A and 7% type B, with 83% of the subtyped influenza A viruses being A(H3N2).

Similar distributions of types and subtypes have been observed since week 40/2016 (Table 2). The distribution of viruses is comparable to the sentinel surveillance data with 90% type A and 10% type B viruses. For the majority of viruses no subtype or lineage was determined; however, 87% of the subtyped influenza A viruses were A(H3N2). Of three type B viruses ascribed to a lineage, two were B/Yamagata lineage and one B/Victoria.

**Table 2. Influenza viruses detected in non-sentinel-source specimens, by virus (sub)type, week 45/2016 and cumulatively**

Virus type and subtype	Number of detections	
	Current Week	Season 2016-2017
<b>Influenza A</b>	<b>193</b>	<b>638</b>
A(H1N1)pdm09	6	25
A(H3N2)	29	172
A not subtyped	158	441
<b>Influenza B</b>	<b>14</b>	<b>70</b>
B/Victoria lineage	0	1
B/Yamagata lineage	0	2
Unknown lineage	14	67
<b>Total detections (total tested*)</b>	<b>207 (8 703)</b>	<b>708 (50 381)</b>

\* Not all countries have a true non-sentinel testing denominator and these figures are likely to be an underestimate.

## Virus characteristics

### Genetic characterization

The new genetic reporting categories for the 2016-2017 season are available and reporting of genetic characterization data will commence in week 46.

The ECDC summary report for [September 2016](#) provides detailed genetic and antigenic analyses of viruses collected between January and June 2016.

The recommended composition of trivalent influenza vaccines for the 2016-2017 season in the [northern hemisphere](#) is for inclusion of an A/California/7/2009 (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) virus is recommended. The recommended influenza A(H1N1)pdm09 component of the 2017 [southern hemisphere](#) influenza vaccine is an A/Michigan/45/2015 (H1N1)pdm09-like virus, the first update since A(H1N1)pdm09 viruses emerged in 2009.

## Antiviral susceptibility testing

Reporting of antiviral susceptibility data will commence when test results become available.

*This weekly update was prepared by an editorial team at the European Centre for Disease Prevention and Control (Cornelia Adlhoch, Eeva Broberg, René Snacken) and the WHO Regional Office for Europe (Caroline Brown, Piers Mook, Dmitriy Pereyaslov and Tamara Meerhoff, Temporary Advisor to WHO). It was reviewed by country experts (AnnaSara Carnahan, Public Health Agency, Sweden; Veronica Eder, National Public Health Center, Republic of Moldova), and by experts from the network (Adam Meijer, National Institute for Public Health and the Environment (RIVM), the Netherlands; Rod Daniels and John McCauley, WHO Collaborating Centre for Reference and Research on Influenza, Francis Crick Institute, United Kingdom; Tyra Grove Krause, Statens Serum Institut and EuroMOMO network, Denmark).*

*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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