Flu News Europe

Joint ECDC–WHO/Europe weekly influenza update

Summary

Week 40/2017 (2-9 October 2017)

- This is the first weekly report for the 2017-2018 influenza season.
- Low influenza activity was reported by all 36 reporting countries.
- Influenza viruses were detected sporadically both in sentinel and non-sentinel specimens, including hospitalised patients, with both influenza A and B type viruses being detected.
- For week 40/2017, data from the 20 countries or regions reporting to the EuroMOMO project indicated all-cause mortality at expected levels for this time of the year.
- Additional information on global influenza activity is available from WHO's biweekly global updates.

2017/18 season overview

- As is usual for this time of year, influenza activity is low in the European Region.
- Due to the diversity of A(H3N2) influenza viruses that circulated during the 2017 Southern Hemisphere season, WHO recently recommended a change of the A(H3N2) component for inclusion in seasonal influenza vaccines for use in the 2018 southern hemisphere influenza season. In addition, the influenza B lineage in trivalent vaccines was changed (to a B/Yamagata-lineage virus), compared to the vaccine component (a B/Victoria-lineage virus) recommended for 2017-2018 northern hemisphere influenza seasons. See also the ECDC summary report for July and the ECDC commentary.
- A report on the antigenic and genetic characteristics of zoonotic influenza viruses and development of candidate vaccine viruses for pandemic preparedness is available here.

Primary care data

Influenza activity

For week 40/2017, 36 countries reported epidemiological data. All reporting countries reported low intensity of influenza activity (Fig. 1), indicating that influenza activity is at baseline levels.

Across the Region, all countries reported sporadic cases or no activity (Fig. 2).

Maps of qualitative indicators in the European Region

Fig. 1 Intensity in the European Region, week 40/2017

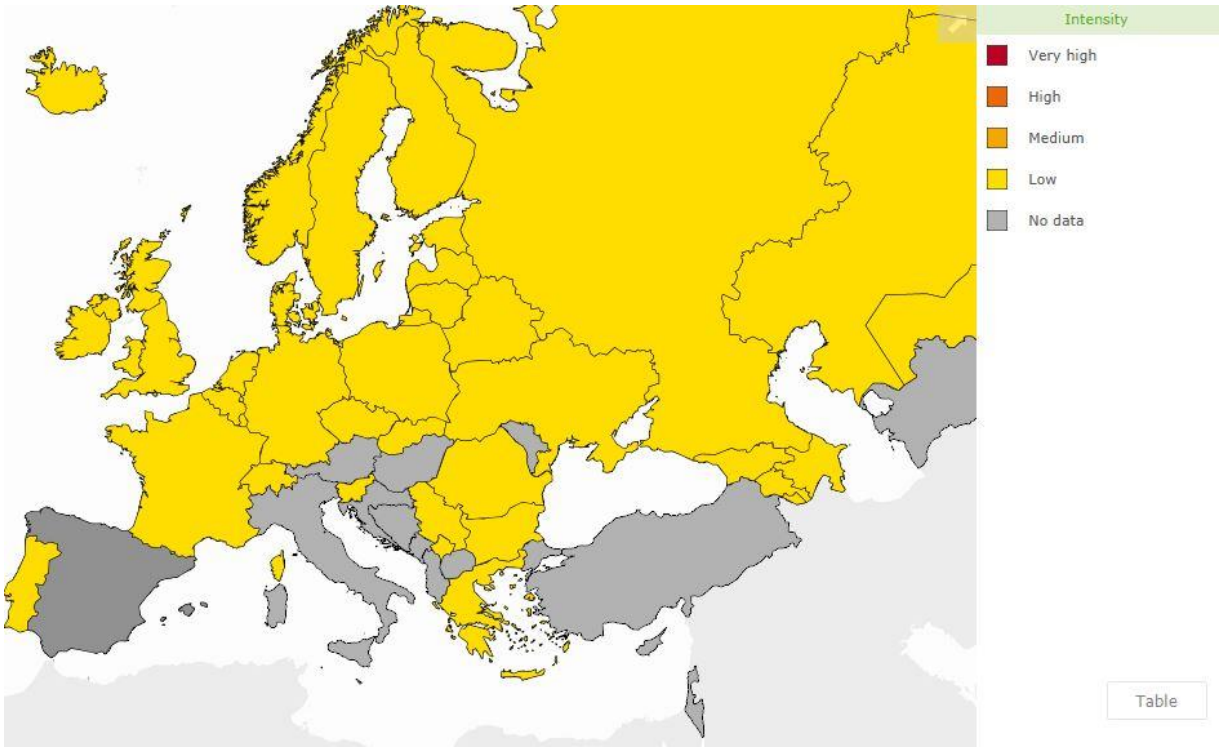
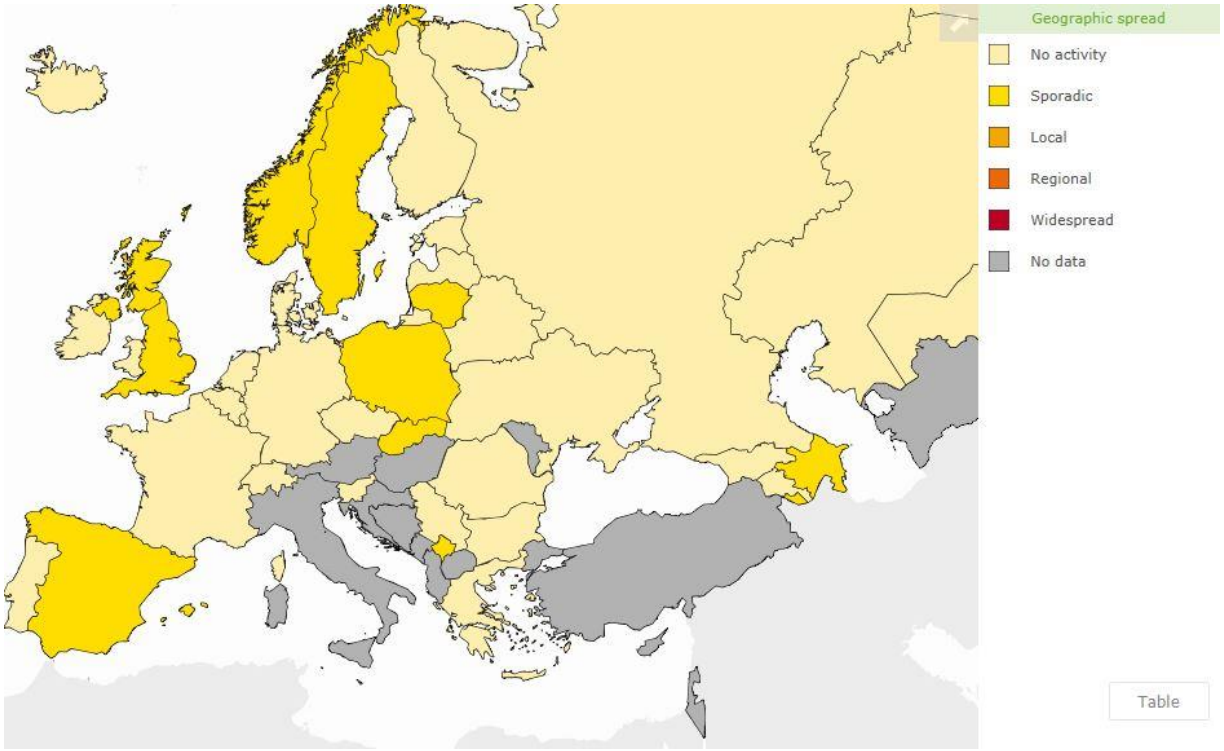


Fig. 2 Geographic spread in the European Region, week 40/2017



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 40/2017, 5 (2%) of 318 sentinel specimens tested positive for influenza viruses. One influenza A un-subtyped, one A(H3N2) and three B/Yamagata-lineage viruses were detected (Fig. 3 and Table 1).

Fig. 3 Influenza virus detections in sentinel-source specimens by type and subtype, week 40/2017

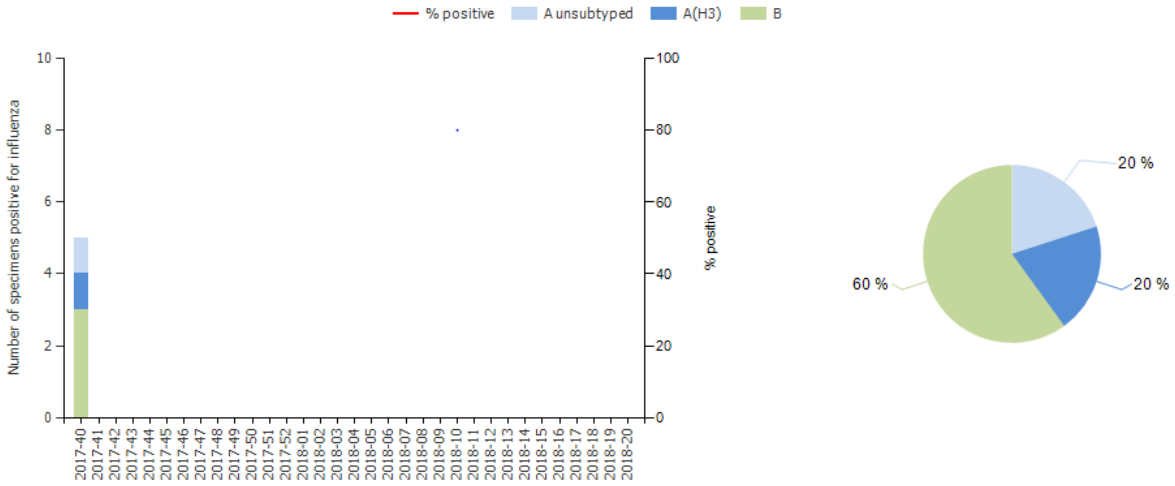


Table 1. Influenza virus detections in sentinel-source specimens by type and subtype, week 40/2017

Virus type and subtype	Week 40/2017	
	Number	%[a]
Influenza A	**2**	**40**
A(H1N1)pdm09	0	0
A(H3N2)	1	100
A not subtyped	1	-
Influenza B	**3**	**60**
B/Victoria lineage	0	0
B/Yamagata lineage	3	100
Unknown lineage	0	-
Total detections / Total tested	**5 / 318**	**2**

[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

Four influenza-infected cases were reported by countries that conduct surveillance based on SARI or hospitalized laboratory-confirmed influenza cases in intensive care units or other wards: 2 in Ireland (both type B) from other wards, and 2 in the United Kingdom (both A type un-subtyped) from intensive care units.

For week 40/2017, of 118 specimens tested by countries reporting data on severe acute respiratory infection (SARI), none were positive for influenza virus.

Mortality monitoring

Data from 20 countries or regions reporting to the EuroMOMO project were received for week 40/2017 and included in the pooled analyses of excess all-cause mortality. Levels of all-cause mortality were at expected levels for this time of year in the participating European countries.

Virus characteristics

Viruses detected in non-sentinel-source specimens

For week 40/2017, 6 411 specimens from non-sentinel sources were tested (such as hospitals, schools, non-sentinel primary care facilities, nursing homes and other institutions), of which 59 were positive for influenza viruses (Fig. 4, Table 2). Of the 59 detections, there were 48 type A and 11 type B viruses. Both influenza A(H1N1)pdm09 and A(H3N2) subtypes were detected (Table 1). For 2 B viruses the lineage was determined as B/Yamagata (Table 2).

Fig. 4 Influenza virus detections in non-sentinel-source specimens by type and subtype, week 40/2017

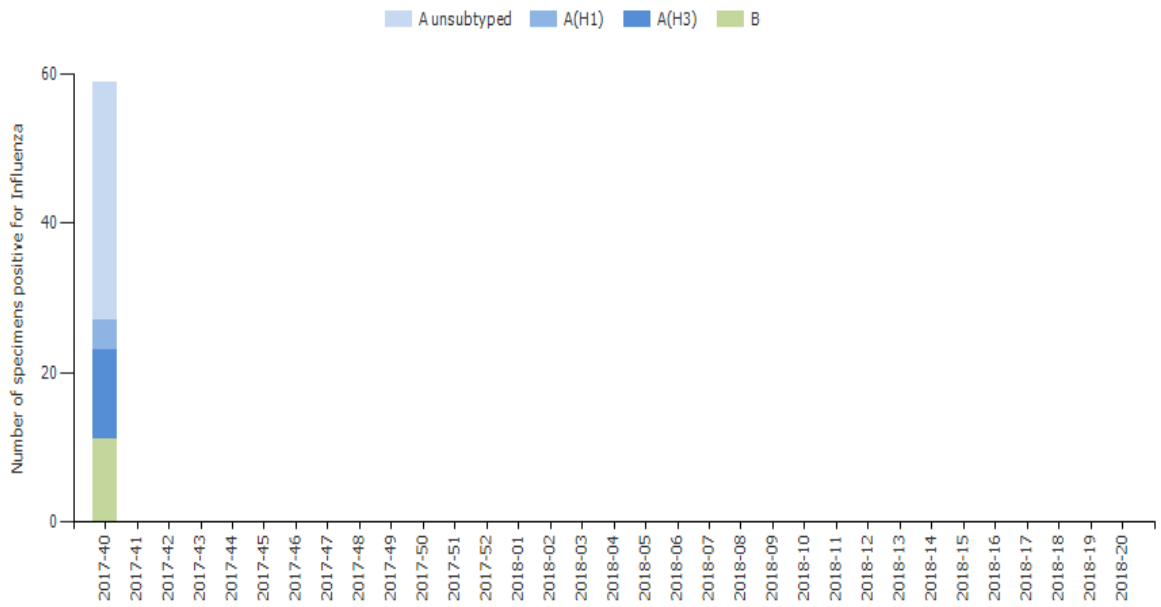


Table 2. Influenza virus detections in non-sentinel-source specimens by type and subtype, week 40/2017

Virus type and subtype	Week 40/2017	
	Number	%[a]
Influenza A	**48**	**81**
A(H1N1)pdm09	4	25
A(H3N2)	12	75
A not subtyped	32	-
Influenza B	**11**	**19**
B/Victoria lineage	0	0
B/Yamagata lineage	2	100
Unknown lineage	9	-
Total detections / Total tested	**59 / 6 411**	**-**

[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; as not all countries have a true non-sentinel testing denominator, no percentage calculations for total tested are shown.

Genetic characterization

For week 40/2017, no genetic characterizations have been reported. The latest characterization data are summarised in the ECDC summary report for July.

The recommended composition of trivalent influenza vaccines for the 2017–2018 season in the northern hemisphere included 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 announced the recommended 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 and the type B component in trivalent vaccines was switched to a B/Yamagata-lineage virus.

Antiviral susceptibility testing

No viruses with collection dates in week 40/2017 have been tested for antiviral susceptibility.

This weekly update was prepared by an editorial team at the European Centre for Disease Prevention and Control (Cornelia Adlhoch, Eeva Broberg, René Snacken, Pasi Penttinen) 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 (Raquel Guiomar, Instituto Nacional de Saúde Doutor Ricardo Jorge, Portugal; Vladimir Mikic, Institute of Public Health, The former Yugoslav Republic of Macedonia) 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).

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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