

## Summary

### Week 42/2017 (16-22 October 2017)

- Of the 40 countries reporting on influenza activity, 39 reported low intensity, while Malta reported medium intensity.
- Only 14 sentinel specimens tested positive for influenza. Two thirds of detected viruses were type A and one third type B. Overall, 3% of sentinel specimens were positive for influenza virus.
- Data from the 19 countries or regions reporting to the EuroMOMO project indicated all-cause mortality to be 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

- Since week 40/2017, low numbers of influenza viruses have been detected in sentinel specimens but, of all typed viruses, the proportion of type A viruses has been increasing and reached 64% in week 42/2017.
- Due to the diversity of A(H3N2) influenza viruses that circulated during the 2017 Southern Hemisphere season and reports of [low vaccine effectiveness](#) (17% against A(H3N2) overall), 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 season. See also the ECDC [summary report for September](#) and the [ECDC commentary](#).
- A report on the antigenic and genetic characteristics of zoonotic influenza viruses and development of candidate vaccine viruses developed for potential use in human vaccines is available [here](#).

## Primary care data

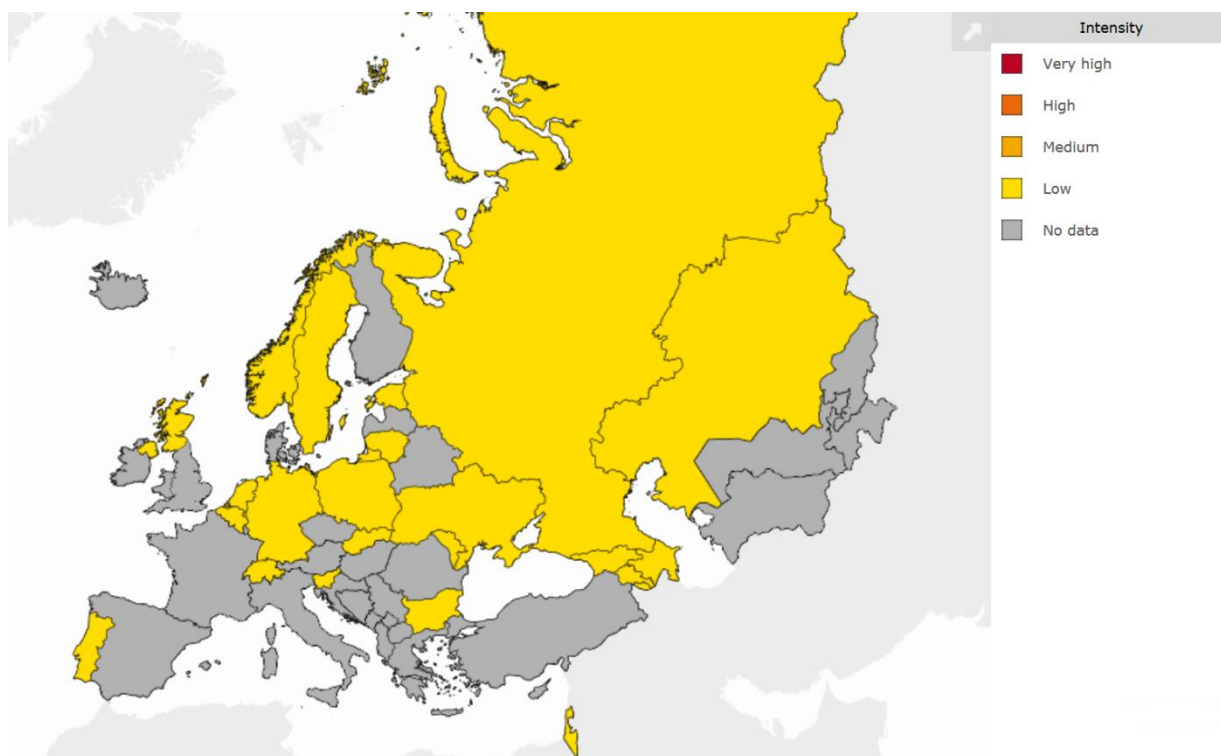
### Influenza activity

For week 42/2017, low intensity of influenza activity was reported by 39 reporting countries while Malta reported medium intensity (Fig. 1).

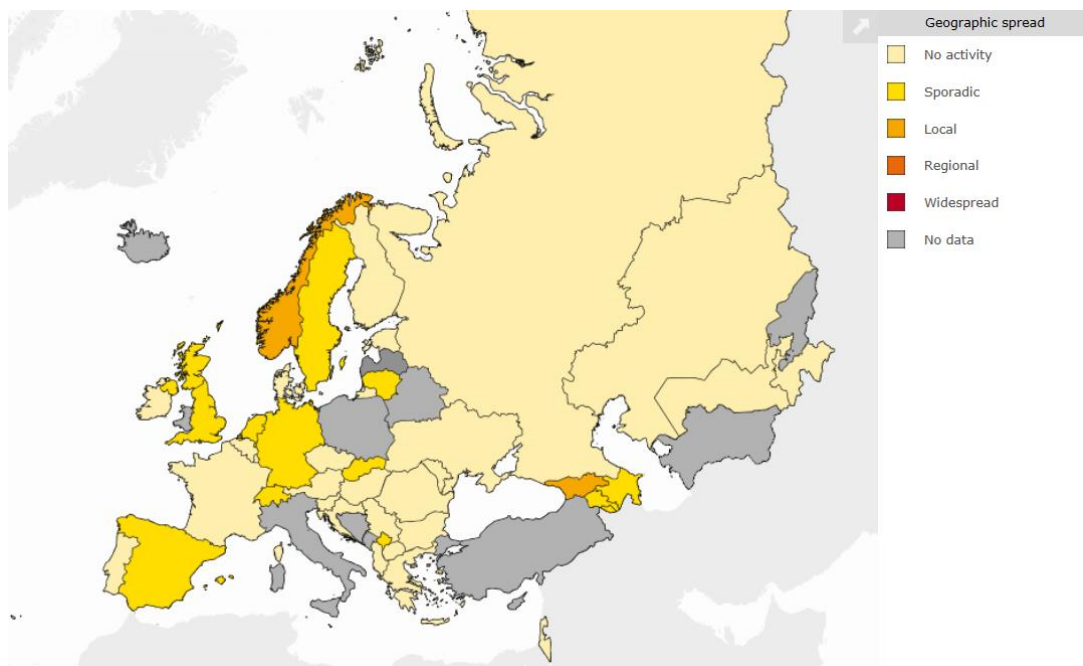
No geographic spread was reported by 26 countries, while sporadic or local geographic spread was reported by 16 countries (Fig. 2).

## Maps of qualitative indicators in the European Region

**Fig. 1 Intensity in the European Region, week 42/2017**



**Fig. 2 Geographic spread in the European Region, week 42/2017**



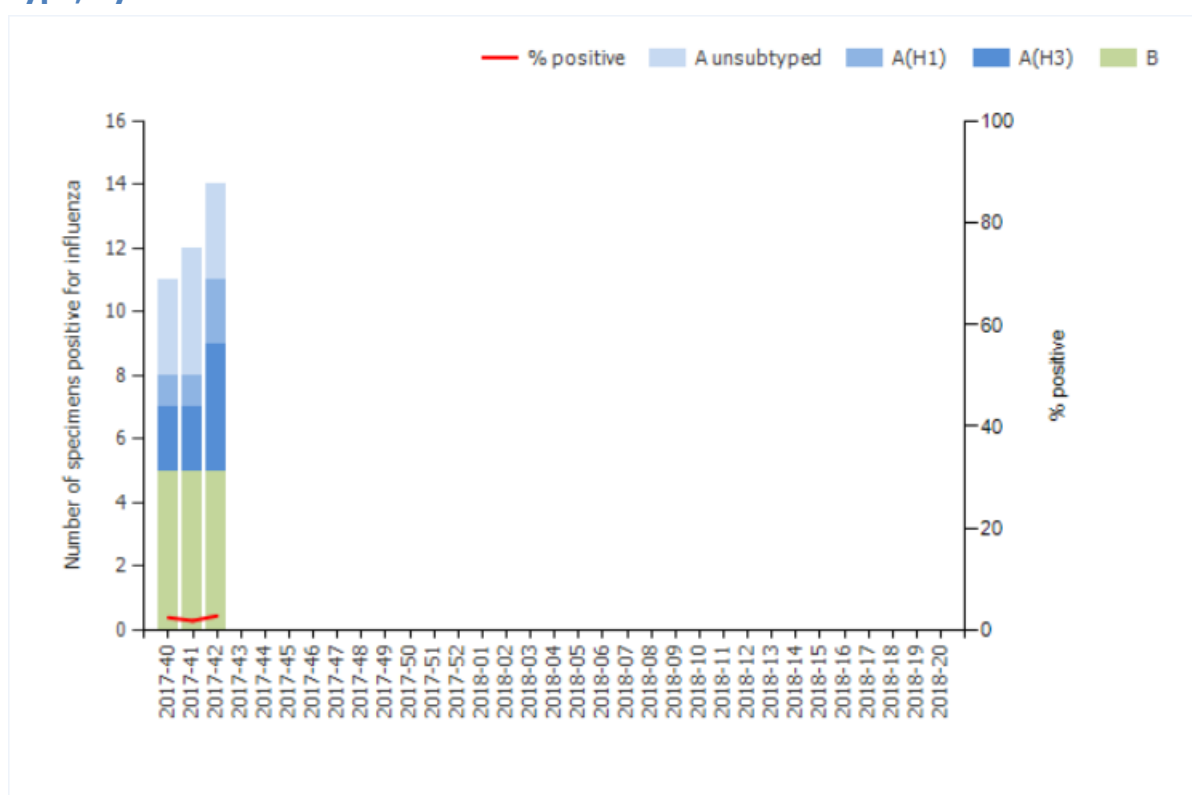
For interactive maps of influenza intensity and geographic spread, please see the Flu News Europe [website](#).

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

For week 42/2017, 14 (3%) of 500 sentinel specimens tested positive for influenza viruses: 3 unsubtyped A viruses, 4 A(H3N2), 2 A(H1N1)pdm09, 4 B/Yamagata lineage and 1 B virus not ascribed to a lineage (Fig. 3 and Table 1).

Since week 40/2017, 59% of detected viruses were type A and 41% type B. Of subtyped A viruses (n=12), two thirds were A(H3N2) and of B viruses ascribed to a lineage, all 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 42/2017 and cumulatively**

Virus type and subtype	Current Week		Season 2017-2018	
	Number	% <sup>a</sup>	Number	% <sup>a</sup>
<b>Influenza A</b>	<b>9</b>	<b>64.3</b>	<b>22</b>	<b>59.5</b>
A(H1N1)pdm09	2	33.3	4	33.3
A(H3N2)	4	66.7	8	66.7
A not subtyped	3	-	10	-
<b>Influenza B</b>	<b>5</b>	<b>35.7</b>	<b>15</b>	<b>40.5</b>
B/Yamagata lineage	4	100	9	100
Unknown lineage	1	-	6	-
<b>Total detections (total tested)</b>	<b>14 (500)</b>	<b>2.8</b>	<b>37 (1 590)</b>	<b>2.3</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, 21 influenza virus-infected cases were reported by three countries that conduct surveillance of hospitalized laboratory-confirmed influenza cases in intensive care units or other wards: 8 cases in ICU in the United Kingdom, 11 in Ireland and 2 in the Czech Republic from other wards. Of these 21 cases, 16 (76%) were found to be infected with type A viruses and 5 (24%) with type B viruses. Of subtyped A viruses, 5 (71%) were A(H1N1)pdm09 and 2 (29%) were A(H3N2) viruses.

For week 42/2017, 624 sentinel severe acute respiratory infections (SARI) were reported by 10 countries. All 139 specimens tested from these cases were negative for influenza virus. Since week 40/2017, of 1 838 SARI cases reported, 444 were tested for influenza viruses and 3 were positive (2 type B and 1 type A).

## Mortality monitoring

Data from 19 countries or regions reporting to the [EuroMOMO](#) project were received for week 42/2017 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 42/2017, 8 563 specimens from non-sentinel sources were tested (such as hospitals, schools, non-sentinel primary care facilities, nursing homes and other institutions), of which 79 were positive for influenza viruses. Of these 79 detections, two thirds were type

A and one third type B viruses (Table 2). Among subtyped A viruses (n=20), the vast majority (95%) were A(H3N2) viruses.

**Table 2. Influenza virus detections in non-sentinel-source specimens by type and subtype, week 42/2017 and cumulatively**

Virus type and subtype	Current Week		Season 2017-2018	
	Number	% <sup>a</sup>	Number	% <sup>a</sup>
<b>Influenza A</b>	<b>52</b>	<b>65.8</b>	<b>231</b>	<b>71.5</b>
A(H1N1)pdm09	1	5.0	14	13.5
A(H3N2)	19	95.0	90	86.5
A not subtyped	32	-	127	-
<b>Influenza B</b>	<b>27</b>	<b>34.2</b>	<b>92</b>	<b>28.5</b>
B/Yamagata lineage			4	100
Unknown lineage	27	-	88	-
<b>Total detections (total tested)</b>	<b>79 (8 563)</b>	<b>-</b>	<b>323 (26 553)</b>	<b>-</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

## Genetic characterization

For week 42/2017, no genetic characterizations have been 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 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 weeks 40–42/2017 have been 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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