

Summary

Week 45/2018 (5–11 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 in low numbers.
- For week 45/2018, data from the 22 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 has been low since the start of the season in the European Region.

Primary care data

Syndromic surveillance data

For week 45/2018, of those Member States for which thresholds for influenza-like illness (ILI) activity are defined, only Turkey reported ILI activity above its baseline level.

Of those Member States and areas for which thresholds for acute respiratory infection (ARI) activity are defined, all reported activities are within baseline levels.

Influenza activity

All 48 Member States and areas reporting on intensity reported low intensity for week 45/2018 (see Fig. 1), indicating that influenza activity was within baseline levels.

Of the 47 Member States and areas reporting on geographic spread, 27 reported no activity (across the region), 18 reported sporadic spread (in northern, southern, and western areas), 1 reported local spread (Georgia) and 1 (Iceland) reported regional spread (see Fig. 2).

Maps of qualitative indicators in the European Region

Fig. 1. Intensity in the European Region, week 45/2018

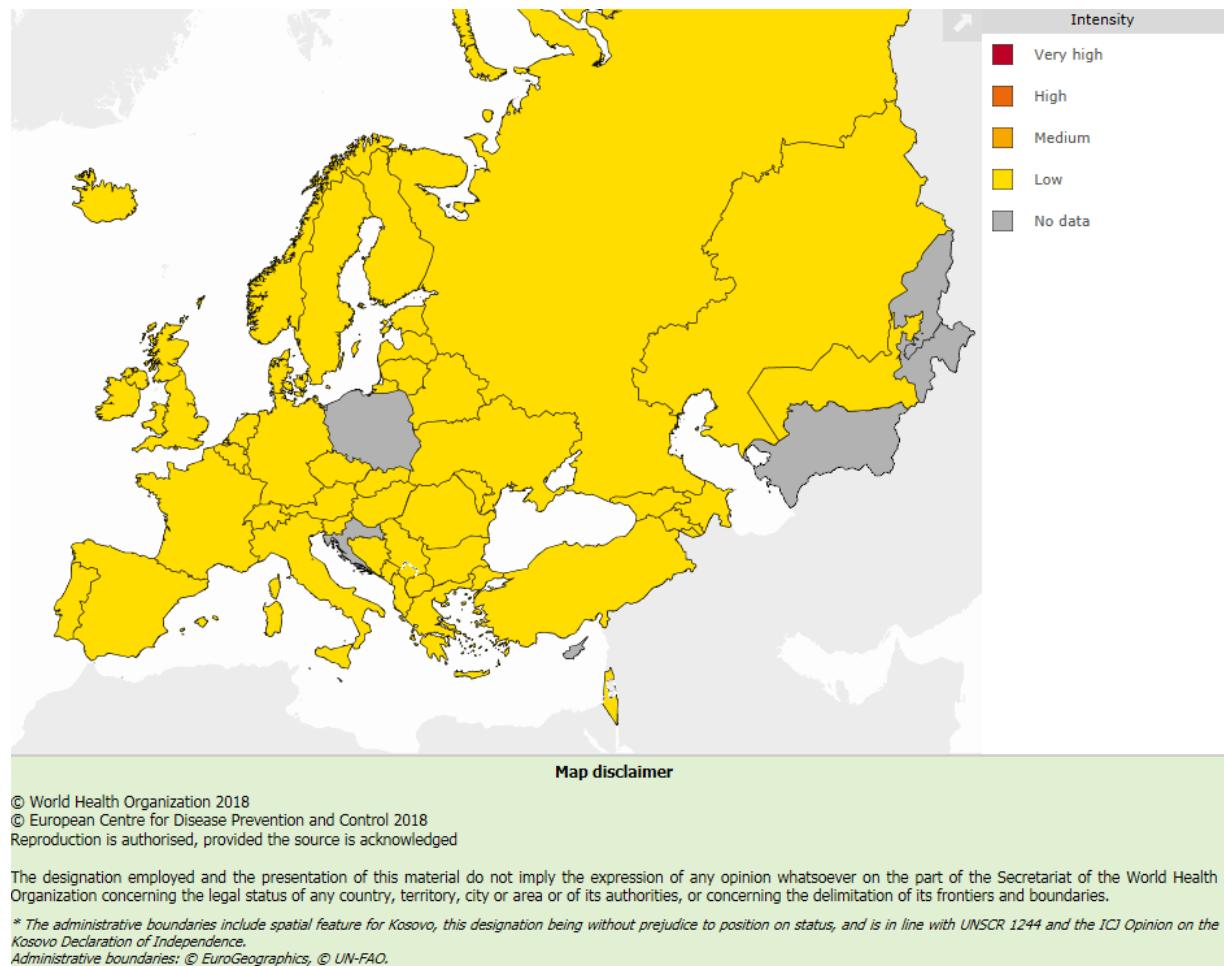
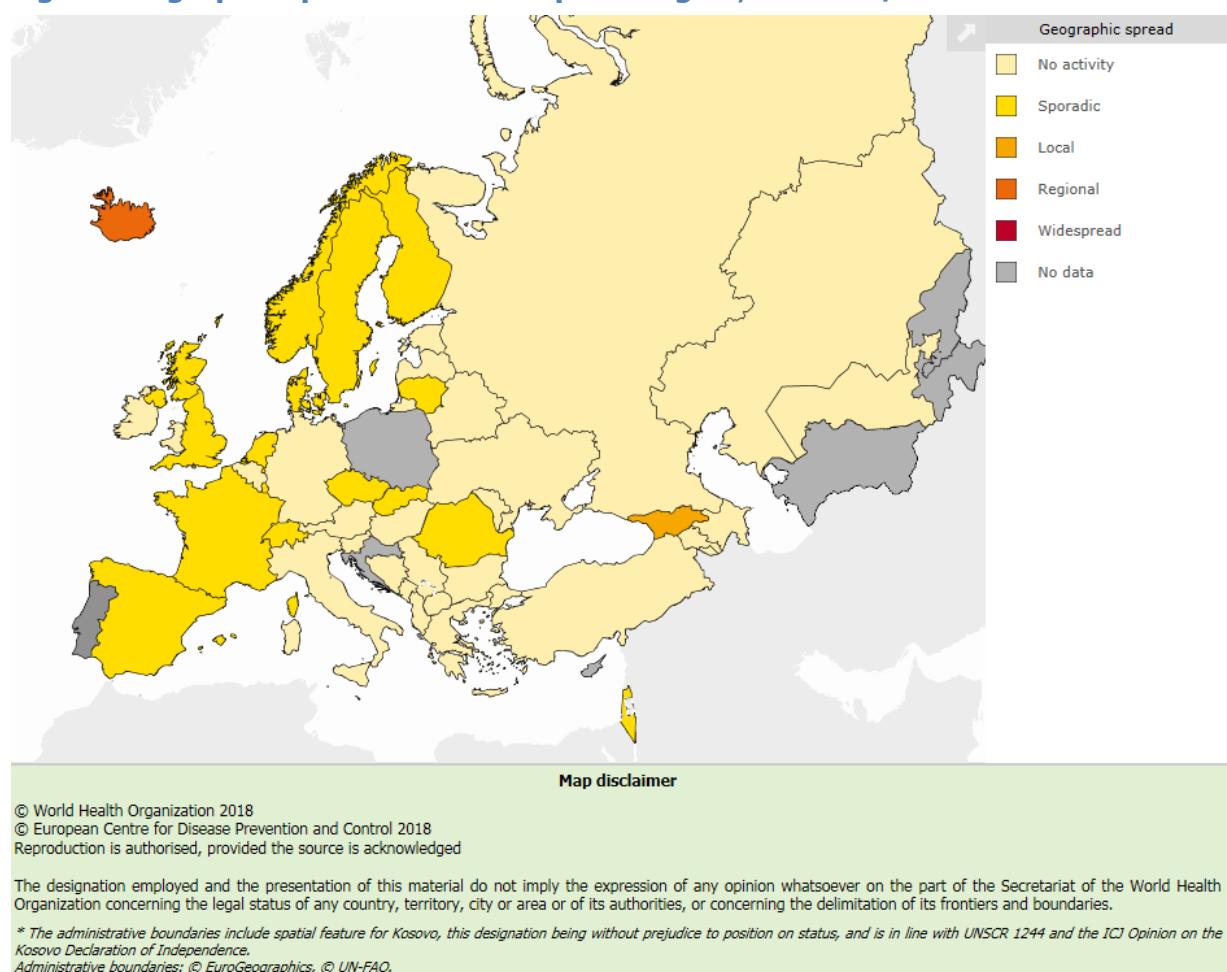


Fig. 2. Geographic spread in the European Region, week 45/2018



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

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

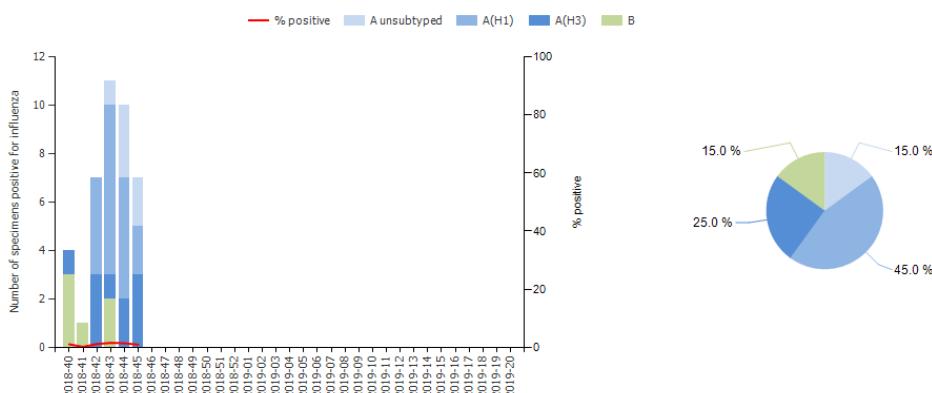
For week 45/2018, 7 (1%) of 681 sentinel specimens tested positive for influenza viruses. All 7 were type A viruses and of the 5 subtyped, 2 were A(H1N1)pdm09 and 3 were A(H3N2) (Fig. 3 and Table 1).

Of 15 Member States or areas across the region that each tested at least 10 sentinel specimens in week 45/2018, none reported a rate of influenza virus detections above 10%.

For the season to date, more influenza type A ($n = 34$, 85%) than type B ($n = 6$, 15%) viruses have been detected. Of 28 subtyped A viruses, 18 (64.3%) were A(H1N1)pdm09 and 10 (35.7%) were A(H3N2). Of 2 influenza type B viruses ascribed to a lineage, both were B/Yamagata (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^a



^a Pie chart shows cumulative data for this period.

Table 1. Influenza virus detections in sentinel-source specimens by type and subtype, week 45/2018 and cumulatively.

	Current Week		Season 2018–2019	
Virus type and subtype	Number	% ^a	Number	% ^a
Influenza A	7	100.0	34	85.0
A(H1N1)pdm09	2	40.0	18	64.3
A(H3N2)	3	60.0	10	35.7
A not subtyped	2	-	6	-
Influenza B	0	0.0	6	15.0
B/Victoria lineage	0	-		
B/Yamagata lineage	0		2	100
Unknown lineage	0	-	4	-
Total detections (total tested)	7 (681)	1.0	40 (3 334)	1.2

^aFor 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 45/2018 (n = 12), 11 were infected with influenza type A and 1 with influenza type B.

Since week 40/2018, 26 cases (87%) have been reported with influenza type A and 4 (13%) with influenza type B infections. Viruses in 14 influenza A cases were subtyped, all were A(H1N1)pdm09. Virus lineage was not determined for any influenza B case.

1.2) Hospitalized laboratory-confirmed influenza cases – other wards

Among laboratory-confirmed influenza cases reported in wards other than ICUs for week 45/2018 (n = 15), there were 13 with influenza type A and 2 with influenza type B virus infection.

Since week 40/2018, 36 cases (86%) have been reported with influenza type A and 6 (14%) with influenza type B infections. Viruses in 13 influenza A cases were subtyped: 10 were A(H1N1)pdm09 and 3 A(H3N2). Virus lineage was not determined for any influenza B case.

2. SARI surveillance

For week 45/2018, 658 SARI cases were reported by 12 countries. Of 148 specimens tested for influenza viruses, none were positive.

Of 3 942 SARI cases reported since week 40/2018, 3 937 had age reported and, of these, 63% were 0–4 years old and 13% were 15–64 years old. Since week 40/2018, only 1 SARI case has tested positive for influenza virus and it was subtype A(H1N1)pdm09.

Mortality monitoring

For week 45/2018, the [EuroMOMO](#) project received data from 22 Member States or regions 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 45/2018, 210 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: 185 (88.1%) were type A and 25 (11.9%) were type B viruses (Table 2). Of the 56 influenza A viruses that were subtyped, 34 (60.7%) were A(H1N1)pdm09 and 22 (39.3%) 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 45/2018 and cumulatively

Virus type and subtype	Current Week		Season 2018–2019	
	Number	% ^a	Number	% ^a
Influenza A	185	88.1	645	86.2
A(H1N1)pdm09	34	60.7	170	59.1
A(H3N2)	22	39.3	118	40.9
A not subtyped	129	-	357	-
Influenza B	25	11.9	103	13.8
B/Victoria lineage	0	-	0	0.0
B/Yamagata lineage	0	-	3	100.0
Unknown lineage	25	-	100	-
Total detections (total tested)	210 (11 667)	-	748 (65 344)	-

^a 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, 19 virus genetic characterizations were reported. 14 were A(H1N1)pdm09 viruses belonging to the A/Michigan/45/2015 (6B.1) clade and 5 were A(H3) viruses belonging to the A/Singapore-16-0019/2016 (3C.2a1) 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

14 A(H1N1)pdm09 viruses and 3 A(H3N2) viruses with collection dates in weeks 40–45/2018 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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