Influenza-like illness

Continued decrease in influenza activity in general practice

Sentinel physicians monitor the number of ILI seen in consultations (defined by sudden fever > 39°C (>102°F) with myalgia and respiratory signs).

Clinical monitoring: in metropolitan France, last week (2019w10), the incidence rate of influenza-like illness seen in general practice was estimated at 89 cases per 100,000 inhabitants (95% CI [77 ; 101]), corresponding to 58,000 new cases. The incidence rate was decreasing for the fourth consecutive week.

At the regional level, the highest incidence rates were noted in: Provence-Alpes-Côte d'Azur (173 cases per 100,000 inhabitants, 95% CI [101 ; 245]), Hauts-de-France (115, 95% CI [67 ; 163]) and Grand Est (96, 95% CI [53 ; 139]) *(the regional data are presented at the end of this newsletter)*.

Regarding the cases reported last week, the median age was 36 years (5 months to 89 years). Males accounted for 49% of the cases. These cases showed no particular sign of severity: There were no hospitalized cases reported for influenza-like illness last week.

Vaccine effectiveness: According to the first data collected by the Sentinel physicians, the effectiveness of influenza vaccine against all influenza viruses is estimated at: 48% (IC95% [16 ; 68]) among people aged 65 and above, and 49% (IC95% [18 ; 68]) among people under 65 with complications risk factors. If we focus at the vaccine effectiveness (VE) by virus, VE among all people at risk of complications is 66% (IC95% [42 ; 80]) against the virus A(H1N1)pdm09 and 34% (IC95% [5 ; 55]) against A(H3N2) virus. These estimates will be refined in the coming weeks.

Virological monitoring: since week 2018s40, date of start of monitoring, 2,157 samples were swabbed by Sentinelles network practitioners (1,588 by general practitionners and 569 by pediatricians), and 2,156 samples have been tested.

Last week 73 samples were realized and tested. Among them, 32 (43.8%) were positive for one influenza virus. The positivity rate was significantly lower than the previous week.

The influenza viruses detected along the season were distributed as follows:
- 394 (18.3%) A(H1N1)pdm09 virus,
- 740 (34.3%) A(H3N2) virus,
- 23 (1.1%) A unsubtyped virus,
- 0 (0.0%) B/Victoria lineage virus,
- 0 (0.0%) B/Yamagata lineage virus,
- 0 (0.0%) B unknown lineage virus.

Two co-infections of influenza viruses A(H1N1)pdm09 and A(H3N2) were observed over the entire virological surveillance period.

Regarding the other respiratory viruses, 206 swabs were positive (9.6%) for the rhinovirus (hRV), 161 (7.5%) positive for the respiratory syncytial virus (RSV), and 65 (3.0%) positive for the metapneumovirus (hMPV). Last week, there was a low circulation of these three viruses.

The samples were analyzed by the CNR (Coordinating center: Institut Pasteur - Paris, associated center: Hospices civils de Lyon), and the laboratory of Virology at the University of Corsica.

Forecast: according to the forecast models based on historical data, and on medication deliveries *(IQVIA research partnership)*. The ILI activity should continue its decrease this week (2019w11) *(see the graph hereafter)*.

In order to have a global vision of the situation in metropolitan France, all available data on winter respiratory infections are analysed jointly by Santé publique France, the National Respiratory Viruses Reference Center and the Sentinelles network.
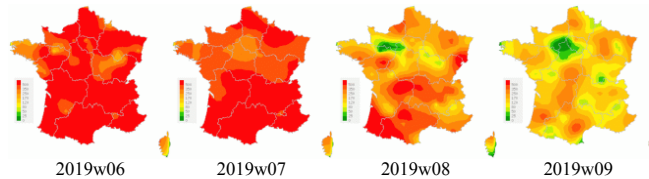
In view of all this information, the conclusions for the last week (2019w10) are:
− **Continued decrease in influenza activity**
− **5 regions in post-epidemic stage: Corsica, Grand-Est, Hauts-de-France, Ile-de-France and Normandy, the others still in epidemic activity**
− **Approximately 7,200 deaths attributable to influenza since the start of surveillance and until week 08**
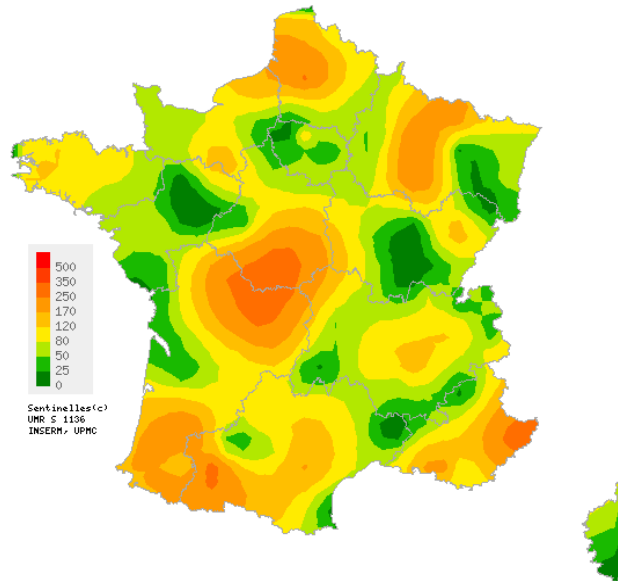
Santé publique France weekly influenza report (in french)
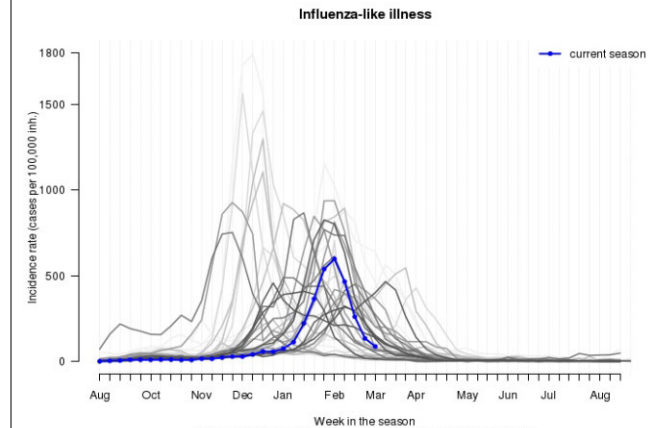*More information about influenza-like illness Sentinelles surveillance*
Information about Sentinelles network statistical methods (in french)
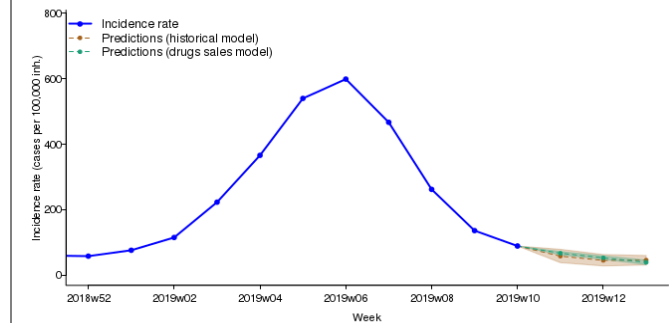

2019w06 2019w07 2019w08 2019w09

Consolidated data for the last 4 weeks

Map of spatial data interpolation based on influenza-like illness incidence rates at the « departement » (NUTS 3) level (per 100,000 inhabitants), Sentinelles general practitioners, 2019w10
Maps available at http://www.sentiweb.fr

Incidence rate of influenza-like llness since 1984 (per 100,000 inhabitants), Sentinelles general practitioners.
In Blue: season 2018-19/ In gray: seasons from 1984-85 to 2017-18
(the clearer the curve the older the data)

Predicted incidence rate for the next three weeks based on a forecast model on historical data and on drug sales
Sentinelles general practitioners

Acute diarrhea

2019w06   2019w07   2019w08   2019w09

Consolidated data for the last 4 weeks

Moderate activity
in general practice

Sentinel physicians monitor the number of acute diarrhea seen in consultations (defined by recent acute diarrhea (at least 3 daily watery or nearly so stools, dating less than 14 days, motivating consultation).
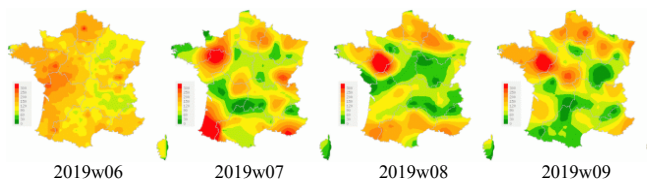
Clinical monitoring: in metropolitan France, last week (2019w10), the incidence rate of acute diarrhea seen in general practice was estimated at 129 cases per 100,000 inhabitants (95% CI [114 ; 144]), below the epidemic threshold (151 cases per 100,000).

At the regional level, the highest incidence rates were noted in: Pays de la Loire (419 cases per 100,000 inhabitants, 95% CI [26 ; 812]), Provence-Alpes-Côte d'Azur (238, 95% CI [150 ; 326]) and Hauts-de-France (170, 95% CI [105 ; 235]) *(the regional data are presented at the end of this newsletter).*
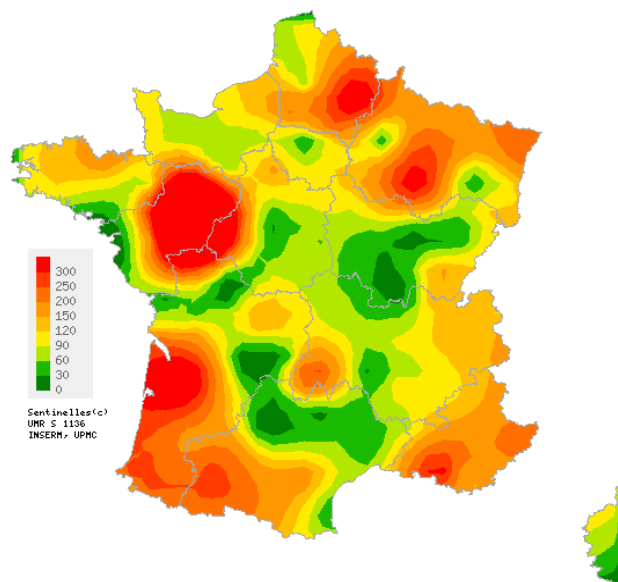
Regarding the cases reported last week, the median age was 25 years (1 months to 85 years). Males accounted for 53% of the cases. These cases showed no particular sign of severity: the percentage of hospitalization was estimated at 0.4% (95% CI [0.0 ; 1.2]).

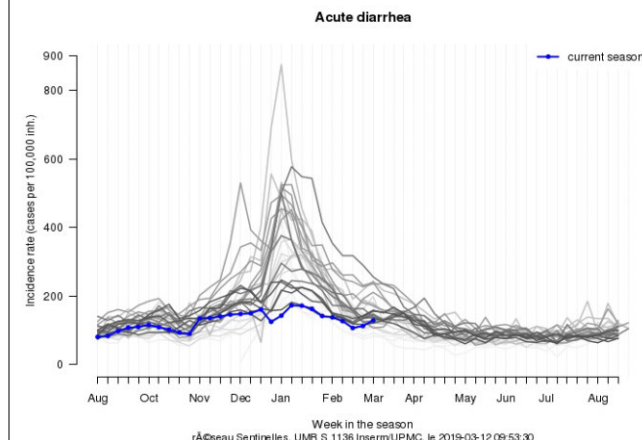*More information about acute diarrhea Sentinelles surveillance*
Information about Sentinelles network statistical methods (in french)

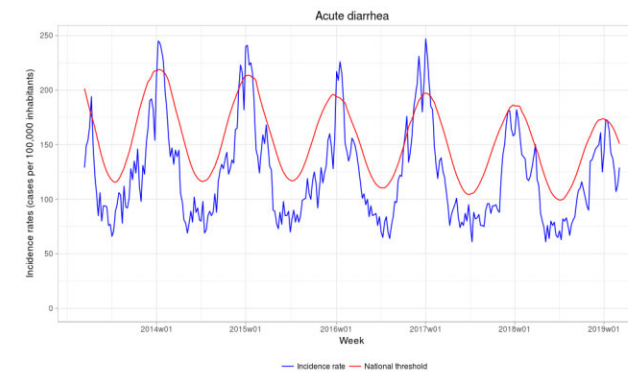Sentinelles(c)
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Map of spatial data interpolation
based on acute diarrhea incidence rates
at the « departement » (NUTS 3) level (per 100,000 inhabitants),
Sentinelles general practitioners, 2019w10
Maps available at http://www.sentiweb.fr

Incidence rate of acute diarrhea since 1990 (per 100,000 inhabitants),
Sentinelles general practitioners.
In Blue : season 2018-19 / In gray: seasons from 1990-91 to 2017-18
(the clearer the curve the older the data)

Incidence rate in blue,
epidemic threshold in red calculated by a periodic regression model
(per 100,000 inhabitants), Acute diarrhea , Sentinelles general practitioners
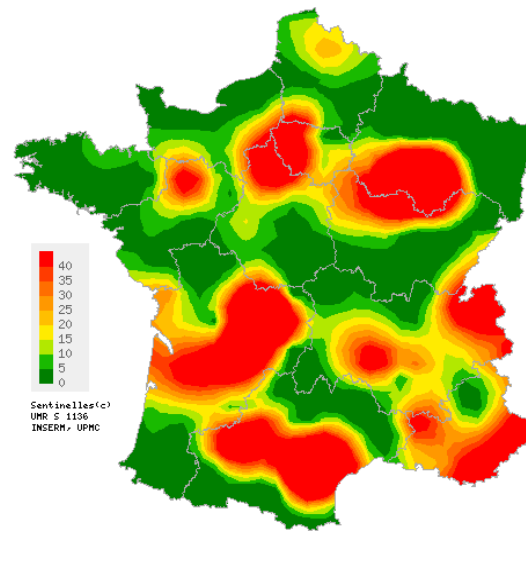
Chickenpox

Moderate activity in general practice

In metropolitan France, last week (2019w10), the incidence rate of Chickenpox seen in general practice was estimated at 25 cases per 100,000 inhabitants (95% CI [18 ; 32]).
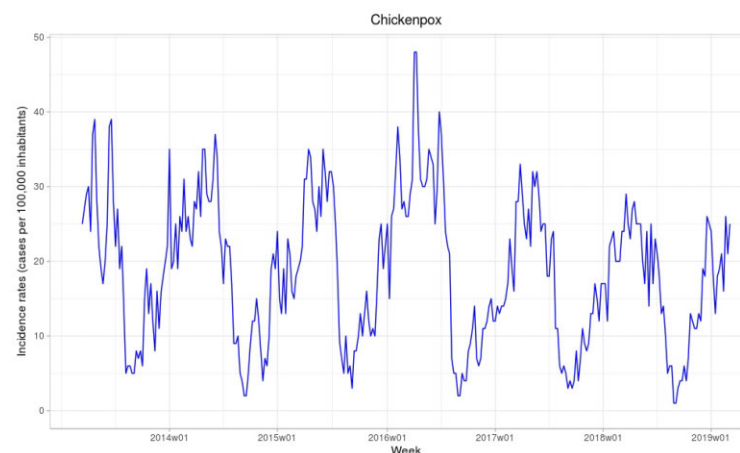
Six regional clusters were noted, **high** in Provence-Alpes-Côte d'Azur (40 cases per 100,000 inhabitants, 95% CI [4 ; 76]) and **moderate** in Nouvelle-Aquitaine (37, 95% CI [7 ; 67]), Occitanie (27, 95% CI [5 ; 49]), Ile-de-France (27, 95% CI [7 ; 47]), Corse (26, 95% CI [0 ; 63]) and Centre-Val de Loire (26, 95% CI [9 ; 43]). *(the regional data are presented at the end of this report).*

More information about this surveillance

Information about Sentinelles network statistical methods (in french)

Map of spatial data interpolation based on chickenpox incidence rates at the « departement » (NUTS 3) level (per 100 000 inhabitants), Sentinelles general practitioners, 2019w10
Maps available at http://www.sentiweb.fr

Chickenpox incidence rate
(per 100,000 inhabitants), Sentinelles general practitioners

National incidence rates (per 100,000 inhabitants) over the past 3 weeks	2019w10 (non consolidated) Incidence rate estimation [95% confidence interval]	2019w09 Incidence rate estimation [95% confidence interval]	2019w08 Incidence rate estimation [95% confidence interval]
INFLUENZA-LIKE ILLNESS	89 [77 ; 101]	136 [122 ; 150]	262 [243 ; 281]
ACUTE DIARRHEA	129 [114 ; 144]	113 [101 ; 125]	107 [95 ; 119]
CHICKENPOX	25 [18 ; 32]	21 [16 ; 26]	26 [20 ; 32]

Table 1 : Incidence rates* estimation with 95% confidence interval, for each indicator, in France, over the past 3 weeks.

Regional incidence rates for week 2019w10 (per 100,000 inhabitants)	INFLUENZA-LIKE ILLNESS Incidence rate estimation [95% confidence interval]	ACUTE DIARRHEA Incidence rate estimation [95% confidence interval]	CHICKENPOX Incidence rate estimation [95% confidence interval]
Auvergne-Rhône-Alpes	88 [59 ; 117]	102 [69 ; 135]	19 [5 ; 33]
Bourgogne-Franche-Comté	51 [0 ; 102]	40 [11 ; 69]	7 [0 ; 15]
Bretagne	88 [44 ; 132]	105 [59 ; 151]	2 [0 ; 7]
Centre-Val de Loire	75 [39 ; 111]	115 [72 ; 158]	26 [9 ; 43]
Corse	69 [9 ; 129]	97 [26 ; 168]	26 [0 ; 63]
Grand Est	96 [53 ; 139]	165 [108 ; 222]	11 [0 ; 23]
Hauts-de-France	115 [67 ; 163]	170 [105 ; 235]	17 [0 ; 34]
Ile-de-France	52 [24 ; 80]	48 [25 ; 71]	27 [7 ; 47]
Normandie	83 [26 ; 140]	99 [40 ; 158]	5 [0 ; 15]
Nouvelle-Aquitaine	93 [38 ; 148]	166 [95 ; 237]	37 [7 ; 67]
Occitanie	61 [28 ; 94]	73 [38 ; 108]	27 [5 ; 49]
Pays de la Loire	38 [11 ; 65]	419 [26 ; 812]	8 [0 ; 21]
Provence-Alpes-Côte d'Azur	173 [101 ; 245]	238 [150 ; 326]	40 [4 ; 76]

Table 2 : Incidence rates* estimation with 95% confidence interval, for each indicator, for each French region, for week 2019w10.

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* Incidence rates estimate are calculated on the activity of general practitioners.