



Sentinelles





Sentinelles network report from 03/06/2019, n° 2019w09 (data from 02/25/2019 to 03/03/2019)

Influenza-like illness

Epidemic Activity in general practice declining

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 (2019w09), the incidence rate of influenza-like illness seen in general practice was estimated at 156 cases per 100,000 inhabitants (95% CI [138; 174]), corresponding to 103,000 new cases.

At the regional level, the highest incidence rates were noted in: Grand Est (222 cases per 100,000 inhabitants, 95% CI [160; 284]), Auvergne-Rhône-Alpes (200, 95% CI [143; 257]) and Bretagne (179, 95% CI [102; 256]) (the regional data are presented at the end of this

Regarding the cases reported last week, the median age was 33 years (3 months to 90 years). Males accounted for 50% of the cases. These cases showed no particular sign of severity: the percentage of hospitalization was estimated at 0.9% (95% CI [0.0; 1.9]).

Vaccine effectiveness: According to the first data collected by the Sentinel physicians, the effectiveness of influenza vaccine against all influenza viruses is estimated at: 47% (IC95% [12:68]) among people aged 65 and above, and 47% (IC95% [14:68]) 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 68% (IC95% [44; 82]) against the virus A(H1N1)pdm09 and 26% (IC95% [-8; 50]) against A(H3N2) virus. These estimates will be refined in the coming weeks.

Virological monitoring: since week 2018w40, date of start of monitoring, 2,070 samples were swabbed by Sentinelles network practitioners (1,527 by general practitionners and 543 by pediatricians), and 2,069 samples have been tested.

Last week 109 samples were realized and tested. Among them, 61 (56 %) were positive for one influenza virus. Among them, 61 (56 %) were positive for at least one influenza virus. The positivity rate was significantly lower than the previous week.

The influenza viruses detected along the season were distributed as follows:

- 384 (18.6%) A(H1N1)pdm09 virus,
- 697 (33.7%) A(H3N2) virus.
- 35 (1.7%) 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, 199 swabs were positive (9.6%) for the rhinovirus (hRV), 159 (7.7%) positive for the respiratory syncytial virus (RSV), and 60 (2.9%) 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.

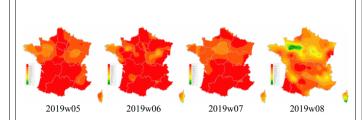
Forecast: according to the forecast models based on historical data, and on medication deliveries (IOVIA research partnership). The ILI activity should continue its decrease this week (2019w10) (see the graph hereafter).

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.

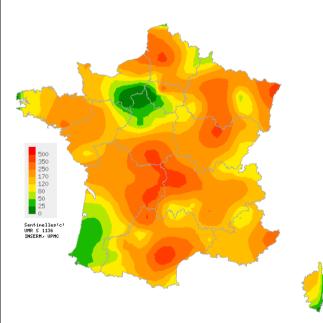
In view of all this information, the conclusions for the last week (2019w09) are:

- Influenza activity continues its sharp decrease
- All regions remain however still in epidemic activity in Metropolitan France
- Approximately 5,700 deaths attributable to influenza since the start of surveillance and until week 07

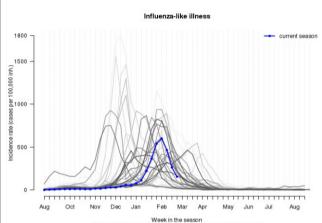
Santé publique France weekly influenza report (in french) More information about influenza-like illness Sentinelles surveillance Information about Sentinelles network statistical methods (in french)



Consolidated data for the last 4 weeks

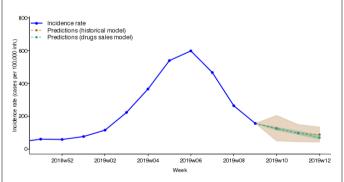


Map of spatial data interpolation based on influenza-like illness incidence rates at the « departement » (NUTS 3) level (per 100,000 inhabitants), Sentinelles general practitioners, 2019w09 Maps available at http://www.sentiweb.fr



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





Sentinelles





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Acute diarrhea

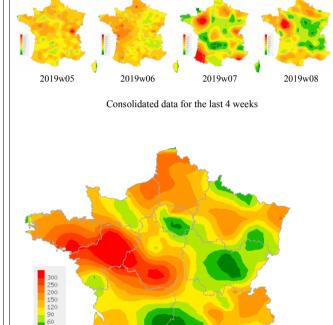
Moderate activity in general practice

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).

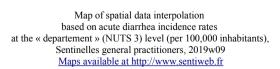
Clinical monitoring: in metropolitan France, last week (2019w09), the incidence rate of acute diarrhea seen in general practice was estimated at 129 cases per 100,000 inhabitants (95% CI [113; 145]), **below** the epidemic threshold (155 cases per 100,000).

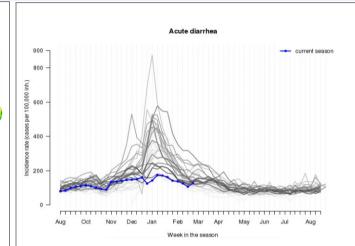
At the regional level, the highest incidence rates were noted in: Pays de la Loire (247 cases per 100,000 inhabitants, 95% CI [114; 380]), Bretagne (226, 95% CI [140; 312]) and Hauts-de-France (187, 95% CI [119; 255]) (the regional data are presented at the end of this newsletter).

Regarding the cases reported last week, the median age was 28 years (1 months to 92 years). Males accounted for 49% of the cases. These cases showed no particular sign of severity: the percentage of hospitalization was estimated at 0.7% (95% CI [0.0; 1.7]) (see the graph hereafter).



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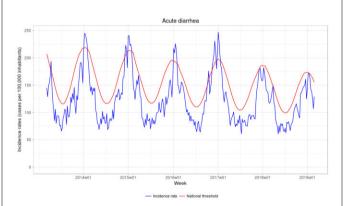




Incidence rate of acute diarrhea since 1990 (per 100,000 inhabitants),
Sentinelles general practitioners.

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

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





Sentinelles





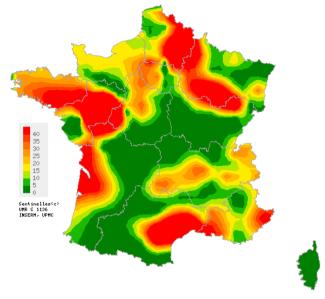
Sentinelles network report from 03/06/2019, n° 2019w09 (data from 02/25/2019 to 03/03/2019)

Chickenpox

Moderate activity in general practice

In metropolitan France, last week (2019w09), the incidence rate of Chickenpox seen in general practice was estimated at 25 cases per 100,000 inhabitants (95% CI [18; 32]).

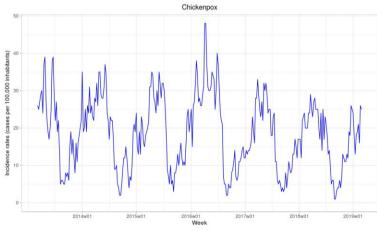
Six regional clusters were noted, high in Pays de la Loire (72 cases per 100,000 inhabitants, 95% CI [0; 170]) and Bretagne (41, 95% CI [4; 78]) and moderate in Hauts-de-France (39, 95% CI [4; 74]), Occitanie (30, 95% CI [5; 55]), Provence-Alpes-Côte d'Azur (29, 95% CI [0; 61]) and Ile-de-France (22, 95% CI [1; 43]) (the regional data are presented at the end of this report).



Map of spatial data interpolation based on chickenpox incidence rates at the « departement » (NUTS 3) level (per 100 000 inhabitants),

Sentinelles general practitioners, 2019w09

Maps available at http://www.sentiweb.fr



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

<u>More information about this surveillance</u> <u>Information about Sentinelles network statistical methods (in french)</u>

National incidence rates (per 100,000 inhabitants) over the past 3 weeks	2019w09 (non consolidated)	2019w08	2019w07
	Incidence rate estimation [95% confidence interval]	Incidence rate estimation [95% confidence interval]	Incidence rate estimation [95% confidence interval]
INFLUENZA-LIKE ILLNESS	156 [138 ; 174]	264 [244 ; 284]	467 [443 ; 491]
ACUTE DIARRHEA	129 [113 ; 145]	107 [95 ; 119]	126 [113 ; 139]
CHICKENPOX	25 [18 ; 32]	26 [20 ; 32]	16 [12 ; 20]

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

Regional incidence rates for week 2019w09 (per 100,000 inhabitants)	INFLUENZA-LIKE ILLNESS	ACUTE DIARRHEA	CHICKENPOX
	Incidence rate estimation [95% confidence interval]	Incidence rate estimation [95% confidence interval]	Incidence rate estimation [95% confidence interval]
Auvergne-Rhône-Alpes	200 [143 ; 257]	123 [86 ; 160]	14 [3 ; 25]
Bourgogne-Franche-Comté	149 [43 ; 255]	34 [0 ; 70]	7 [0 ; 16]
Bretagne	179 [102 ; 256]	226 [140 ; 312]	41 [4 ; 78]
Centre-Val de Loire	95 [56 ; 134]	158 [107 ; 209]	14 [0 ; 29]
Corse	144 [55 ; 233]	140 [51 ; 229]	0 [0 ; 0]
Grand Est	222 [160 ; 284]	122 [77 ; 167]	18 [5 ; 31]
Hauts-de-France	170 [103 ; 237]	187 [119 ; 255]	39 [4 ; 74]
lle-de-France	120 [69 ; 171]	66 [29 ; 103]	22 [1 ; 43]
Normandie	120 [54 ; 186]	151 [79 ; 223]	18 [0 ; 40]
Nouvelle-Aquitaine	93 [42 ; 144]	64 [21 ; 107]	19 [0 ; 40]
Occitanie	163 [105 ; 221]	58 [25 ; 91]	30 [5 ; 55]
Pays de la Loire	150 [63 ; 237]	247 [114 ; 380]	72 [0 ; 170]
Provence-Alpes-Côte d'Azur	173 [95 ; 251]	126 [58 ; 194]	29 [0 ; 61]

Table 2: Incidence rates* estimation with 95% confidence interval, for each indicator, for each French region, for week 2019w09.

Réseau Sentinelles

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The "Réseau Sentinelles" or Sentinelles Network (a.k.a. French Communicable Diseases Computer Network) is a network of 1,434 physicians working throughout the metropolitan regions of France including 610 involved in the clinical surveillance activity (493 general practitioners and 117 pediatricians) enabling the achievement of weekly newsletters. This network is developped within an agreement between Inserm.

Sorbonne Université and Santé publique France.

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Bretagne		Jennifer Morice
Grand Est		Caroline Guerrisi

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