

Sentinelles network report from 03/20/2019, n° 2019w11 (data from 03/11/2019 to 03/17/2019)

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 (2019w11), the incidence rate of influenza-like illness seen in general practice was estimated at 53 cases per 100,000 inhabitants (95% CI [44 ; 62]), corresponding to 35,000 new cases. The incidence rate was decreasing for the fifth consecutive week.

At the regional level, the highest incidence rates were noted in: Bretagne (96 cases per 100,000 inhabitants, 95% CI [53 ; 139]), Grand Est (74, 95% CI [37 ; 111]) and Corse (70, 95% CI [15 ; 125]) (the regional data are presented at the end of this newsletter).

Regarding the cases reported last week, the median age was 30 years (1 month to 89 years). Males accounted for 47% of the cases. These cases showed no particular sign of severity: the percentage of hospitalization was estimated at 1.0% (95% CI [0.0 ; 2.8]).

Vaccine effectiveness: According to the first data collected by the Sentinel physicians, the effectiveness of influenza vaccine against all influenza viruses is estimated at: 44% (IC95% [10 ; 66]) among people aged 65 and above, and 49% (IC95% [19 ; 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 67% (IC95% [42 ; 81]) against the virus A(H1N1)pdm09 and 31% (IC95% [1 ; 52]) against A(H3N2) virus. These estimates will be refined in the coming weeks.

Virological monitoring: since week 2018s40, date of start of monitoring, 2,238 samples were swabbed by Sentinelles network practitioners (1,652 by general practitioners and 586 by pediatricians), and 2,235 samples have been tested.

Last week 69 samples were realized and tested. Among them, 34 (49.3%) were positive for at least one influenza virus. The positivity rate was slightly higher than the previous week. The influenza viruses detected along the season were distributed as follows:

- 401 (17.9%) A(H1N1)pdm09 virus,
- 769 (34.4%) A(H3N2) virus,
- 25 (1.1%) A unsubtype 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, 212 swabs were positive (9.5%) for the rhinovirus (hRV), 162 (7.2%) positive for the respiratory syncytial virus (RSV), and 74 (3.3%) 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 (2019w12) (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.

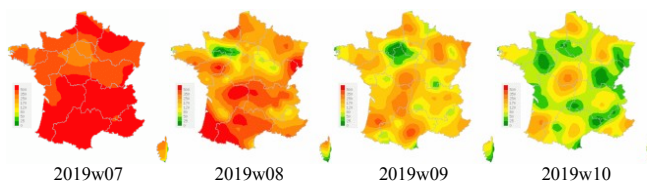
In view of all this information, the conclusions for the last week (2019w11) are:

- Clear decrease in all influenza indicators
- End of the epidemic in 3 regions: Bourgogne-Franche-Comté, Corsica and Ile-de-France ; the other metropolitan regions are in post-epidemic phase
- Approximately 7,200 deaths attributable to influenza since the start of surveillance and until week 09

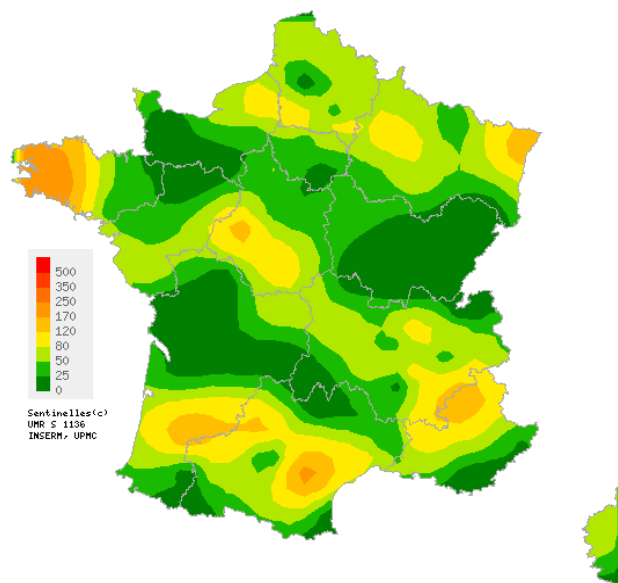
[Santé publique France weekly influenza report \(in french\).](#)

[More information about influenza-like illness. Sentinelles surveillance.](#)

[Information about Sentinelles network statistical methods \(in french\).](#)



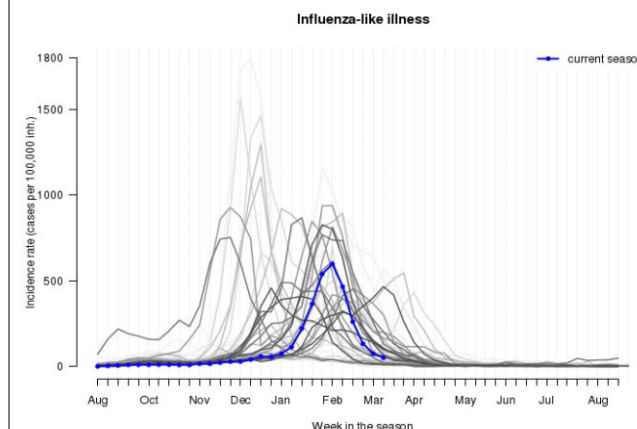
Consolidated data for the last 4 weeks



Map of spatial data interpolation based on influenza-like illness incidence rates at the « département » (NUTS 3) level (per 100,000 inhabitants),

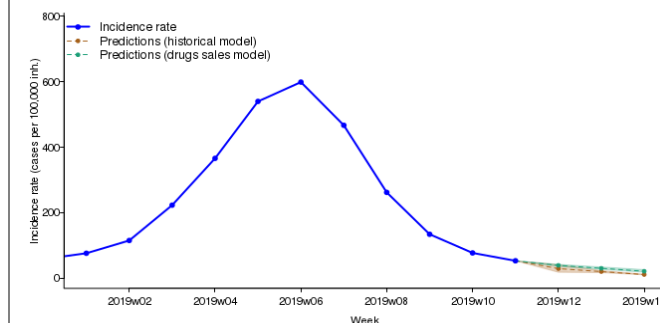
Sentinelles general practitioners, 2019w11

[Maps available at http://www.sentiweb.fr](http://www.sentiweb.fr)



Incidence rate of influenza-like illness 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

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Acute diarrhea

Moderate to high 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).

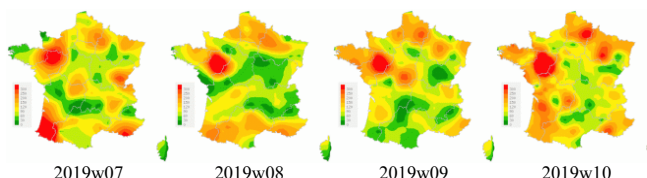
Clinical monitoring: in metropolitan France, last week (2019w11), the incidence rate of acute diarrhea seen in general practice was estimated at 150 cases per 100,000 inhabitants (95% CI [134 ; 166]), slightly **above** the epidemic threshold (147 cases per 100,000). However, the incidence rate should consolidate below the epidemic threshold once all data will be available.

At the regional level, the highest incidence rates were noted in: Grand Est (241 cases per 100,000 inhabitants, 95% CI [175 ; 307]), Hauts-de-France (182, 95% CI [124 ; 240]) and Pays de la Loire (168, 95% CI [112 ; 224]) (the regional data are presented at the end of this newsletter).

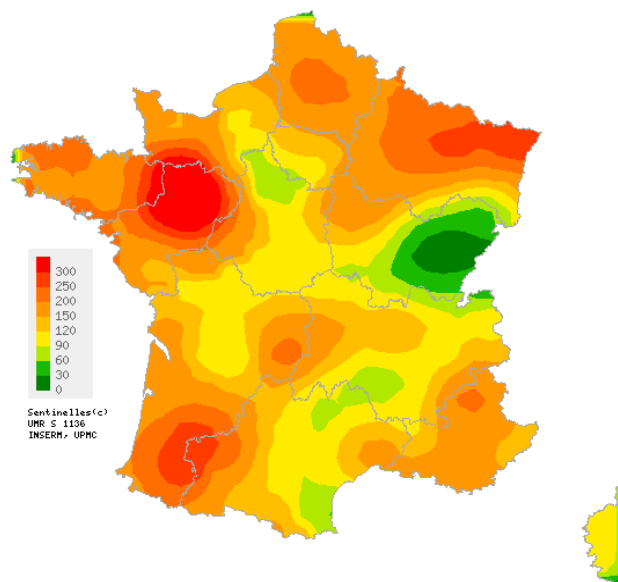
Regarding the cases reported last week, the median age was 20 years (1 month to 89 years). Males accounted for 47% of the cases. These cases showed no particular sign of severity: the percentage of hospitalization was estimated at 1.0% (95% CI [0.0 ; 2.2]).

[More information about acute diarrhea Sentinelles surveillance](#)

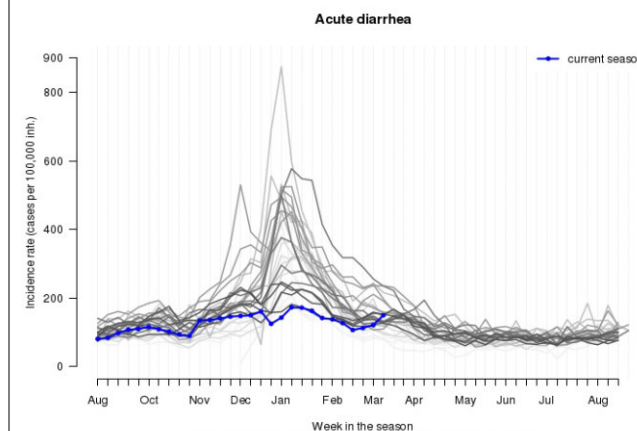
[Information about Sentinelles network statistical methods \(in french\)](#)



Consolidated data for the last 4 weeks

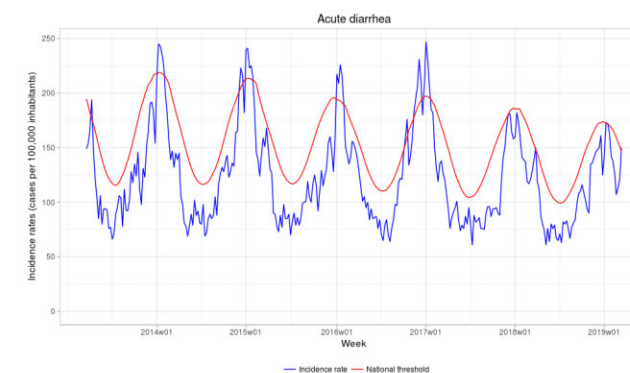


Map of spatial data interpolation based on acute diarrhea incidence rates at the « département » (NUTS 3) level (per 100,000 inhabitants), Sentinelles general practitioners, 2019w11
[Maps available at http://www.sentiweb.fr](http://www.sentiweb.fr)



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

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Chickenpox

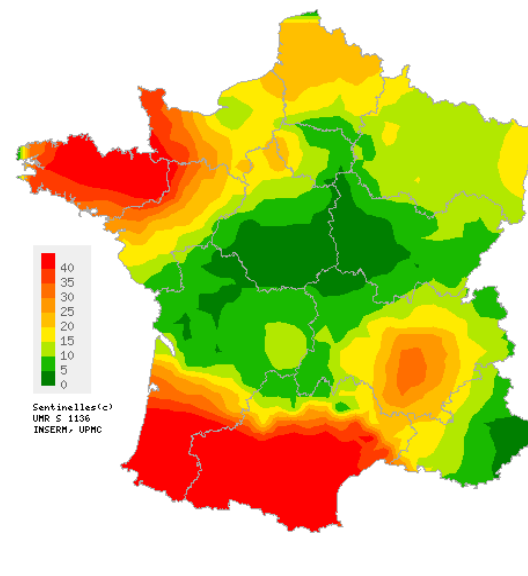
Moderate activity in general practice

In metropolitan France, last week (2019w11), the incidence rate of Chickenpox seen in general practice was estimated at 21 cases per 100,000 inhabitants (95% CI [15 ; 27]).

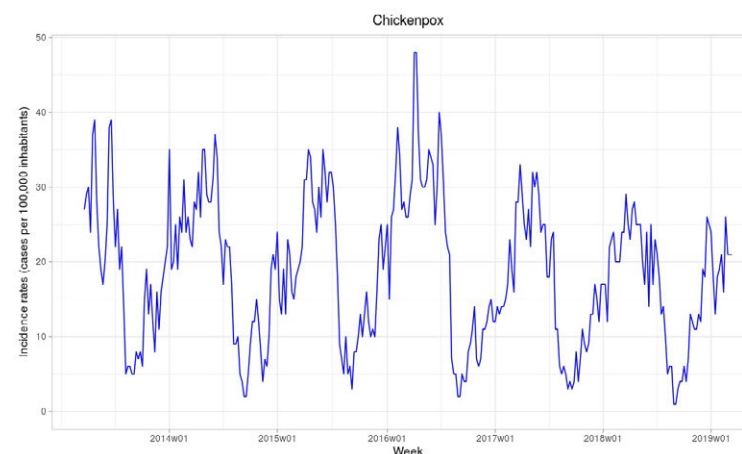
Three regional clusters were noted, **high** in Bretagne (59 cases per 100,000 inhabitants, 95% CI [24 ; 94]) and Occitanie (40, 95% CI [12 ; 68]) and **moderate** in Nouvelle-Aquitaine (24, 95% CI [0 ; 54]).
(the regional data are presented at the end of this report).

[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 « département » (NUTS 3) level (per 100 000 inhabitants),
Sentinelles general practitioners, 2019w11
[Maps available at http://www.sentiweb.fr](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	2019w11 (non consolidated)	2019w10	2019w09
	Incidence rate estimation [95% confidence interval]	Incidence rate estimation [95% confidence interval]	Incidence rate estimation [95% confidence interval]
INFLUENZA-LIKE ILLNESS	53 [44 ; 62]	77 [67 ; 87]	134 [121 ; 147]
ACUTE DIARRHEA	150 [134 ; 166]	121 [108 ; 134]	113 [101 ; 125]
CHICKENPOX	21 [15 ; 27]	21 [16 ; 26]	21 [16 ; 26]

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

Regional incidence rates for week 2019w11 (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	55 [26 ; 84]	112 [68 ; 156]	17 [5 ; 29]
Bourgogne-Franche-Comté	9 [0 ; 25]	58 [0 ; 116]	3 [0 ; 11]
Bretagne	96 [53 ; 139]	157 [94 ; 220]	59 [24 ; 94]
Centre-Val de Loire	68 [33 ; 103]	82 [44 ; 120]	12 [1 ; 23]
Corse	70 [15 ; 125]	89 [27 ; 151]	0 [0 ; 0]
Grand Est	74 [37 ; 111]	241 [175 ; 307]	16 [0 ; 32]
Hauts-de-France	63 [30 ; 96]	182 [124 ; 240]	19 [0 ; 39]
Ile-de-France	35 [13 ; 57]	108 [68 ; 148]	7 [0 ; 15]
Normandie	54 [10 ; 98]	96 [53 ; 139]	10 [0 ; 20]
Nouvelle-Aquitaine	22 [3 ; 41]	164 [92 ; 236]	24 [0 ; 54]
Occitanie	44 [16 ; 72]	105 [66 ; 144]	40 [12 ; 68]
Pays de la Loire	29 [6 ; 52]	168 [112 ; 224]	10 [0 ; 24]
Provence-Alpes-Côte d'Azur	43 [5 ; 81]	151 [71 ; 231]	8 [0 ; 28]

Table 2 : Incidence rates* estimation with 95% confidence interval, for each indicator, for each French region, for week 2019w11.

<p align="center">Réseau Sentinelles Inserm - Sorbonne Université UMR-S 1136 Institut Pierre Louis d'Epidémiologie et de Santé Publique (IPLESP) Sorbonne-Université, site Saint-Antoine 27, rue Chaligny / 75571 Paris cedex 12 Phone. : 01 44 73 84 35 / Fax : 01 44 73 84 54 Email : sentinelles@upmc.fr</p> <p><i>The " Réseau Sentinelles " or Sentinelles Network (a.k.a. French Communicable Diseases Computer Network) is a network of 1,431 physicians working throughout the metropolitan regions of France including 609 involved in the clinical surveillance activity (492 general practitioners and 117 pediatricians) enabling the achievement of weekly newsletters. This network is developed within an agreement between Inserm, Sorbonne Université and Santé publique France.</i></p> <p>Head of RS: Thomas Hanslik Deputy head of RS: Thierry Blanchon Monitoring managers: Louise Rossignol Information systems, biostatistics: Corentin Hervé, Titouan Launay, Cécile Souty, Clément Turbelin, Ana Vilcu Publication: Yves Dorléans</p>		
Regional branch	Head of network	Regional manager
Auvergne-Rhône-Alpes / Bourgogne-Franche-Comté	Marianne Sarazin	Caroline Liotard
Centre Val de Loire / Pays de la Loire / Hauts-de-France	Thierry Prazuck	Charly Kengne-Kuetché Mathieu Rivière
Ile-de-France	Mathilde François	Lucie Fournier
Méditerranée : Corse / Provence-Alpes-Côte d'Azur	Jean-Pierre Amoros Alessandra Falchi	Shirley Masse Natacha Villechenaud
Sud-Ouest : Nouvelle-Aquitaine / Occitanie	Louise Rossignol Thierry Blanchon (no regional branch)	Marion Debin
Normandie		Laetitia Vaillant
Bretagne		Jennifer Morice
Grand Est		Caroline Guerrisi

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