

Sentinelles network report from 02/20/2019, n° 2019w07 (data from 02/11/2019 to 02/17/2019)

## Influenza-like illness

### Epidemic Activity in general practice decrease of the influenza activity

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 (2019w07), the incidence rate of influenza-like illness seen in general practice was estimated at 461 cases per 100,000 inhabitants (95% CI [431 ; 491]), corresponding to 303,000 new cases, decreasing compared to the previous week.

**At the regional level,** the highest incidence rates were noted in: Auvergne-Rhône-Alpes (745 cases per 100,000 inhabitants, 95% CI [662 ; 828]), Nouvelle-Aquitaine (614, 95% CI [470 ; 758]) and Occitanie (586, 95% CI [493 ; 679]) (the regional data are presented at the end of this newsletter).

**Regarding the cases reported** last week, the median age was 27 years (5 months to 96 years). Males accounted for 46% of the cases. These cases showed no particular sign of severity: the percentage of hospitalization was estimated at 0.6% (95% CI [0.2 ; 1.1]).

**Vaccine effectiveness:** According to the first data collected by the Sentinel physicians, the effectiveness of influenza vaccine against all influenza viruses is estimated at: 49% (IC95% [10 ; 71]) among people aged 65 and above, and 33% (IC95% [-19 ; 62]) 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 65% (IC95% [33 ; 82]) against the virus A(H1N1)pdm09 and 21% (IC95% [-23 ; 49]) against A(H3N2) virus. These estimates will be refined in the coming weeks.

**Virological monitoring:** since week 2018s40, date of start of monitoring, 1,798 samples were swabbed by Sentinelles network practitioners (1,320 by general practitioners and 478 by pediatricians), and 1,792 samples have been tested.

Last week 174 samples were realized and tested. Among them, 127 (73.0%) were positive for one influenza virus. The positivity rate was slightly decreasing last week.

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

- 322 (18.0%) A(H1N1)pdm09 virus,
- 574 (32.0%) A(H3N2) virus,
- 43 (2.4%) A untyped virus,
- 0 (0.0%) B/Victoria lineage virus,
- 0 (0.0%) B/Yamagata lineage virus,
- 0 (0.0%) B unknown lineage virus.

No influenza A and B viruses co-infections has been observed over the entire virological surveillance period.

Regarding the other respiratory viruses, 183 (10.3%) were positive for the rhinovirus (hRV), 154 (8.7%) positive for the respiratory syncytial virus (RSV), and 50 (2.8%) 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 (2019w08) (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.

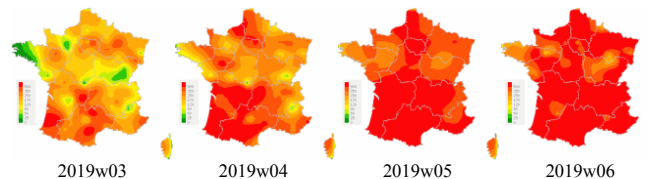
**In view of all this information, the conclusions for the last week (2019w07) are:**

- Peak probably reached in the majority of the regions of metropolitan France
- Large contribution of influenza viruses among hospitalizations
- Major circulation of A(H3N2) virus
- Approximately 2,800 deaths attributable to influenza since the start of surveillance and until week 05

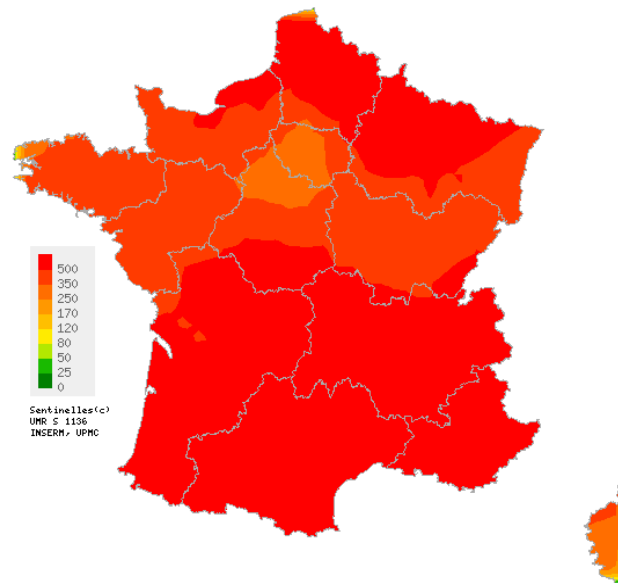
[Santé publique France weekly influenza report \(in french\)](#)

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

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



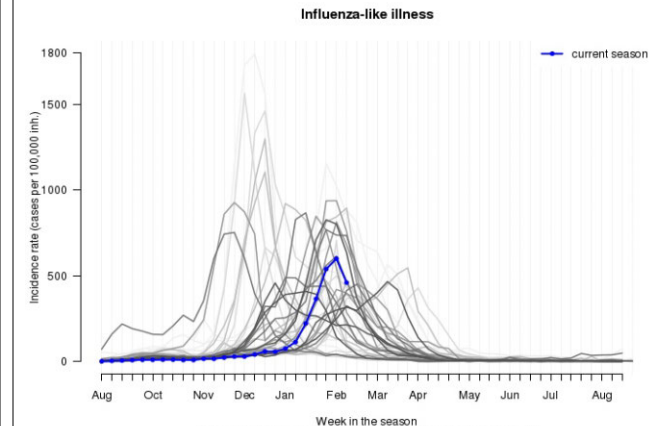
Consolidated data for the last 4 weeks



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

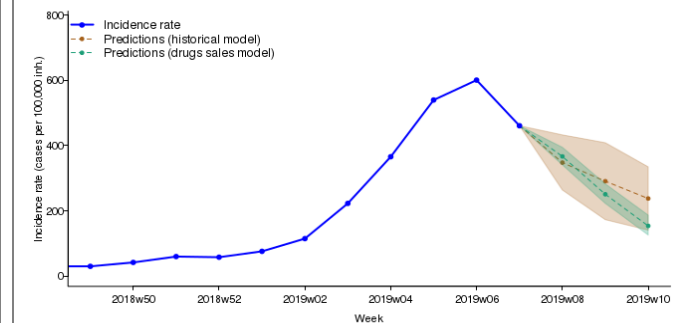
Sentinelles general practitioners, 2019w07

Maps available at <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 (2019w07), the incidence rate of acute diarrhea seen in general practice was estimated at 140 cases per 100,000 inhabitants (95% CI [124 ; 156]), **below** the epidemic threshold (163 cases per 100,000).

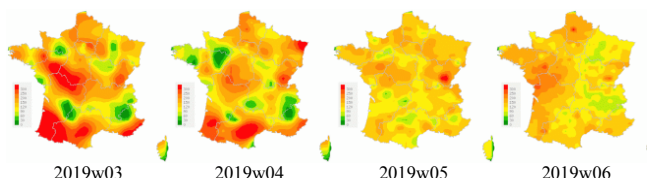
**At the regional level,** the highest incidence rates were noted in: Provence-Alpes-Côte d'Azur (200 cases per 100,000 inhabitants, 95% CI [113 ; 287]), Nouvelle-Aquitaine (167, 95% CI [94 ; 240]), Grand Est (158, 95% CI [108 ; 208]) and Bretagne (158, 95% CI [77 ; 239]) libellé bulletin seul: (the regional data are presented at the end of this newsletter).

**Regarding the cases** reported last week, the median age was 24 years (2 months to 2 years). Males accounted for 50% of the cases. These cases showed no particular sign of severity: the percentage of hospitalization was estimated at 0.4% (95% CI [0.0 ; 1.1]).

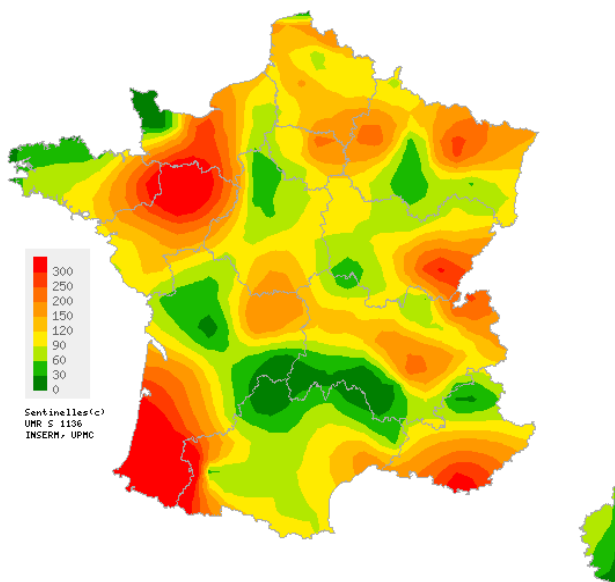
**Forecast:** According to the forecast model based on historical data, the level of activity of acute diarrhea should remain stable and close to the epidemic threshold in the upcoming weeks.

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

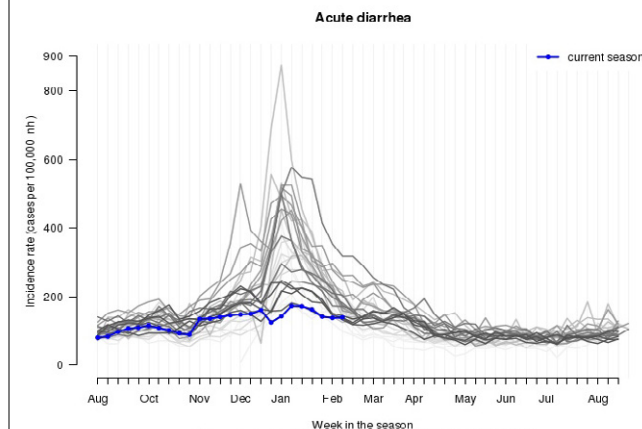
[Information about Sentinelles network statistical methods \(in french\)](#)



Consolidated data for the last 4 weeks

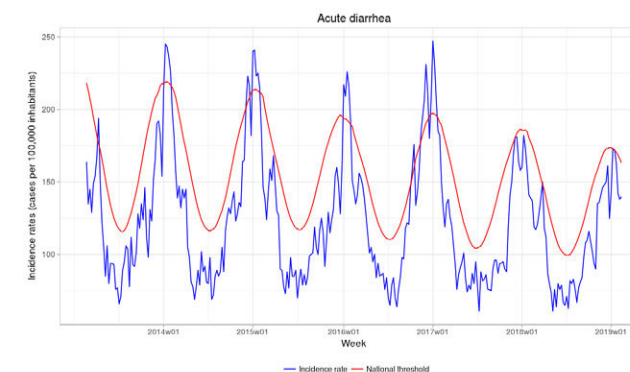


Map of spatial data interpolation  
based on acute diarrhea incidence rates  
at the « département » (NUTS 3) level (per 100,000 inhabitants),  
Sentinelles general practitioners, 2019w07  
[Maps available at http://www.sentiweb.fr](http://www.sentiweb.fr)



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

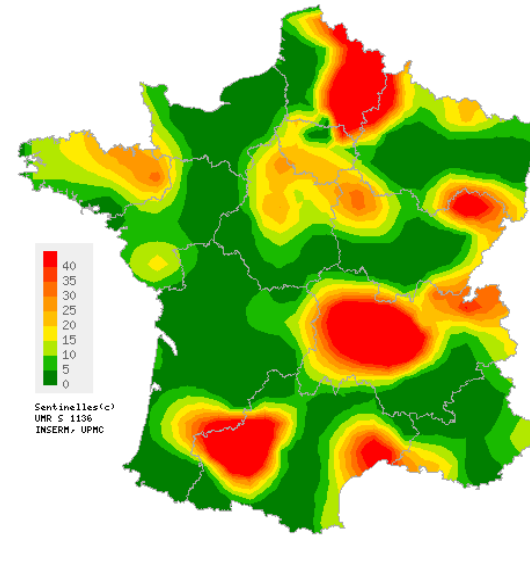
### Low to moderate activity in general practice

**In metropolitan France**, last week (2019w07), the incidence rate of Chickenpox seen in general practice was estimated at 16 cases per 100,000 inhabitants (95% CI [11 ; 21]).

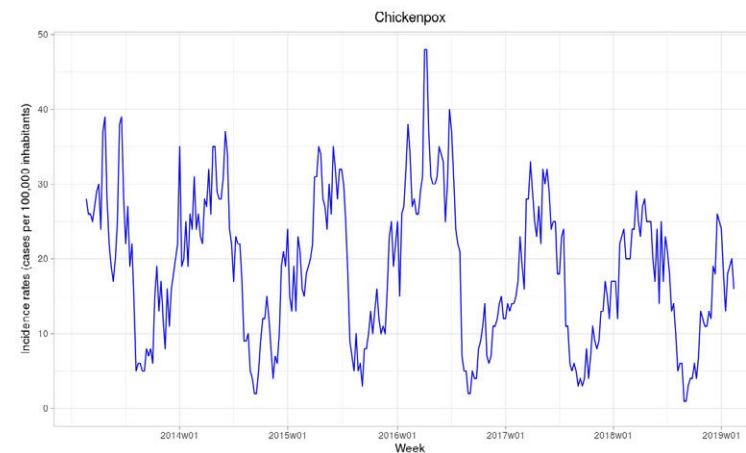
**Three moderate regional clusters** were noted in Hauts-de-France (36, 95% CI [3 ; 69]), Auvergne-Rhône-Alpes (31, 95% CI [15 ; 47]) and Occitanie (23, 95% CI [6 ; 40]) (the regional data are presented at the end of this report).

[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, 2019w07  
[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	2019w07 (non consolidated)	2019w06	2019w05
	Incidence rate estimation [95% confidence interval]	Incidence rate estimation [95% confidence interval]	Incidence rate estimation [95% confidence interval]
INFLUENZA-LIKE ILLNESS	461 [431 ; 491]	601 [574 ; 628]	540 [515 ; 565]
ACUTE DIARRHEA	140 [124 ; 156]	138 [125 ; 151]	142 [129 ; 155]
CHICKENPOX	16 [11 ; 21]	20 [15 ; 25]	19 [15 ; 23]

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

Regional incidence rates for week 2019w07 (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	745 [662 ; 828]	133 [98 ; 168]	31 [15 ; 47]
Bourgogne-Franche-Comté	364 [255 ; 473]	116 [47 ; 185]	12 [0 ; 27]
Bretagne	397 [279 ; 515]	158 [77 ; 239]	19 [0 ; 45]
Centre-Val de Loire	317 [242 ; 392]	71 [35 ; 107]	13 [0 ; 28]
Corse	363 [252 ; 474]	74 [24 ; 124]	3 [0 ; 13]
Grand Est	524 [431 ; 617]	158 [108 ; 208]	6 [0 ; 16]
Hauts-de-France	555 [439 ; 671]	138 [81 ; 195]	36 [3 ; 69]
Ile-de-France	292 [231 ; 353]	125 [83 ; 167]	10 [1 ; 19]
Normandie	536 [399 ; 673]	106 [49 ; 163]	0 [0 ; 0]
Nouvelle-Aquitaine	614 [470 ; 758]	167 [94 ; 240]	3 [0 ; 9]
Occitanie	586 [493 ; 679]	79 [46 ; 112]	23 [6 ; 40]
Pays de la Loire	283 [196 ; 370]	111 [58 ; 164]	6 [0 ; 19]
Provence-Alpes-Côte d'Azur	556 [421 ; 691]	200 [113 ; 287]	11 [0 ; 31]

Table 2 : Incidence rates\* estimation with 95% confidence interval, for each indicator, for each French region, for week 2019w07.

<p align="center"><b>Réseau Sentinelles</b>  <b>Inserm - Sorbonne Université UMR-S 1136</b>  <b>Institut Pierre Louis d'Epidémiologie et de Santé Publique (IPLESP)</b>  <b>Sorbonne-Université, site Saint-Antoine</b>  <b>27, rue Chaligny / 75571 Paris cedex 12</b>  Phone : 01 44 73 84 35 / Fax : 01 44 73 84 54  Email : <a href="mailto:sentinelles@upmc.fr">sentinelles@upmc.fr</a></p> <p><i>The " Réseau Sentinelles " or Sentinelles Network (a.k.a. French Communicable Diseases Computer Network) is a network of 1,430 physicians working throughout the metropolitan regions of France including 608 involved in the clinical surveillance activity (491 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><b>Head of RS:</b> Thomas Hanslik  <b>Deputy head of RS:</b> Thierry Blanchon  <b>Monitoring managers:</b> Louise Rossignol  <b>Information systems, biostatistics:</b> Corentin Hervé, Titouan Launay, Cécile Souty, Clément Turbelin, Ana Vilcu  <b>Publication:</b> 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.