Acute diarrhea

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).

<u>Clinical monitoring:</u> **in metropolitan France**, last week (2019w02), the incidence rate of acute diarrhea seen in general practice was estimated at 191 cases per 100,000 inhabitants (95% CI [173 ; 209]), **above** the epidemic threshold level (173 cases per 100,000).

The activity of acute diarrhea is increasing. The non-consolidate incidence rate for 2019w02 is above the epidemic threshold. However, it could be estimated under the epidemic threshold once all data will be transmitted by the Sentinelles practioners. It is necessary to observe two consecutive weeks above the threshold to confirm the onset of the gastroenteritis epidemic.
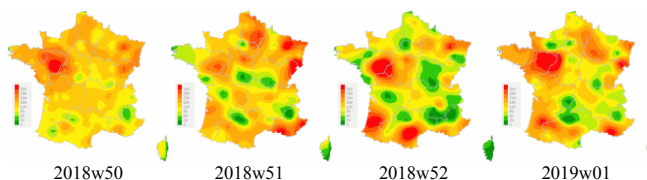
At the regional level, the highest incidence rates were noted in: Provence-Alpes-Côte d'Azur (288 cases per 100,000 inhabitants, 95% CI [202 ; 374]), Grand Est (269, 95% CI [195 ; 343]) and Normandie (238, 95% CI [156 ; 320]) *(the regional data are presented at the end of this newsletter)*.

Regarding the cases reported last week, the median age was 28 years (2 months to 2 years). Males accounted for 53% of the cases. These cases showed no particular sign of severity: the percentage of hospitalization was estimated at 0.7% (95% CI [0.0 ; 1.5]).
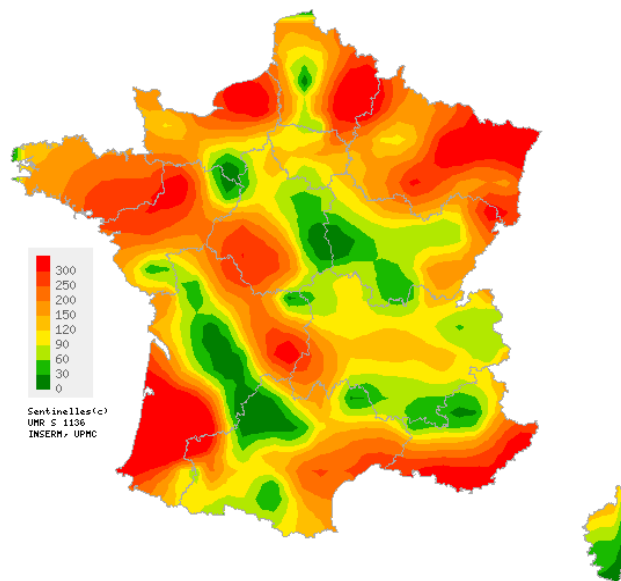
<u>Forecast:</u> according to the forecast model based on historical data, the activity level of acute diarrhea could remain stable or increase slightly in the upcoming weeks *(see the graph hereafter).*

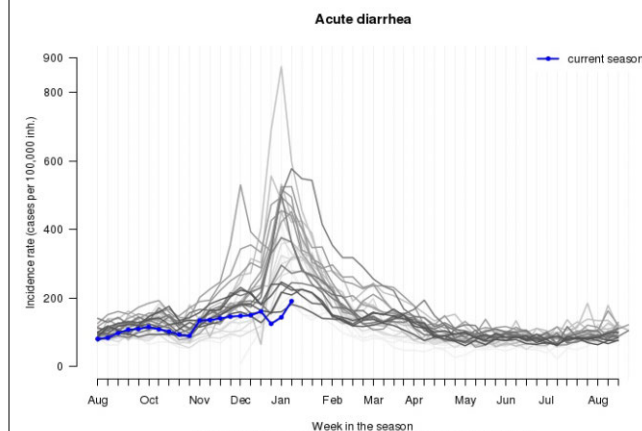*More information about acute diarrhea Sentinelles surveillance*

Information about Sentinelles network statistical methods (in french)

2018w50   2018w51   2018w52   2019w01
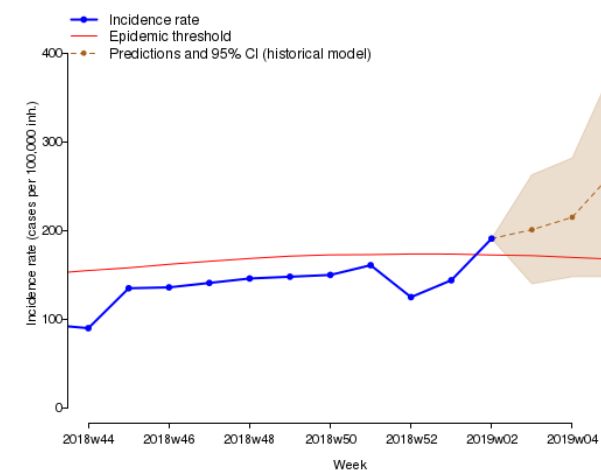
Consolidated data for the last 4 weeks

Map of spatial data interpolation
based on acute diarrhea incidence rates
at the « departement » (NUTS 3) level (per 100,000 inhabitants),
Sentinelles general practitioners, 2019w02
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)

Predicted acute diarrhea incidence rate for the next three weeks
based on a forecast model on historical data
Sentinelles general practitioners

Influenza-like illness

Moderate to high 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).

<u>Clinical monitoring:</u> **in metropolitan France**, last week (2019w02), the incidence rate of influenza-like illness seen in general practice was estimated at 123 cases per 100,000 inhabitants (95% CI [109 ; 137]).

At the regional level, the highest incidence rates were reported in: Ile-de-France (176 cases per 100,000 inhabitants, 95% CI [127 ; 225]), Occitanie (173, 95% CI [116 ; 230]) and Provence-Alpes-Côte d'Azur (171, 95% CI [106 ; 236]) *(the regional data are presented at the end of this newsletter).*

The Sentinelles data are now integrated into an epidemic detection tool for influenza developed by 'Santé publique France', combining information from primary care and hospital emergencies.

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 (2019w02) are:
- Increase of the influenza activity;
- Eight regions in epidemic phase and 5 regions in pre-epidemic phase in metropolitan France;
- Predominant circulation of the influenza type A viruses;
- Slight increase of the vaccine coverage among at risk people compared

<u>Virological monitoring:</u> since week 2018w40, date of start of monitoring, 713 samples were swabbed by the Sentinelles network practitioners (477 by general practitionners and 236 by pediatricians). Among all the samples tested (n=711), 150 (21,1%) were positive for an influenza virus.

Last week, 87 samples were tested. Among them, 51 (58,6%) were positive for an influenza virus. The positivity rate has increased this week.

The viruses of type A(H3N2) et A(H1N1)pdm09 were circulating. The influenza viruses detected since the beginning of their monitoring were distributed as follows:
- 52   (7.3%) A(H1N1)pdm09 virus,
- 79 (11.1%) A(H3N2) virus,
- 19   (2.7%) A unsubtyped virus,
- 0   (0.0%) B/Victoria lineage virus,
- 0   (0.0%) B/Yamagata lineage virus,
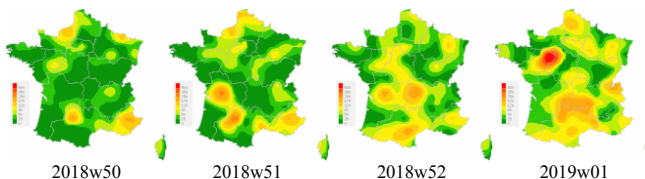- 0   (0.0%) B unknown lineage virus.

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

Regarding the other respiratory viruses, since the beginning of their monitoring, 127 swabs (17.8%) were positive for the rhinovirus (hRV), 109 (15.7%) for the respiratory syncytial virus(RSV), and 24 (3.5%) for the metapneumovirus (hMPV).
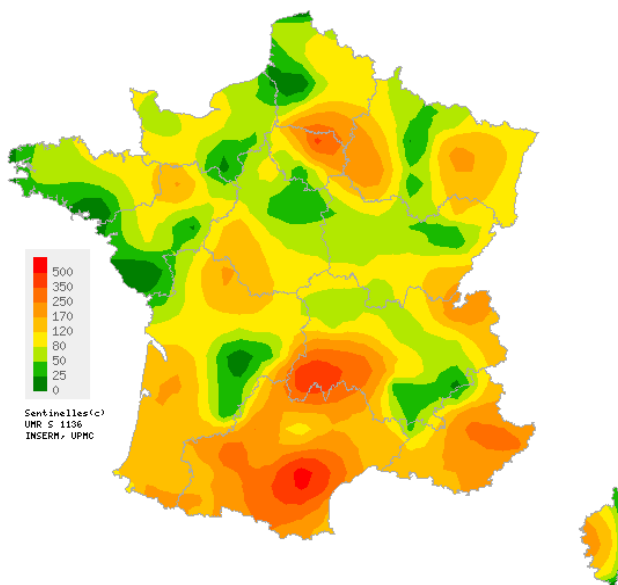The samples were analyzed by the CNR (Coordinating center: Institut Pasteur - Paris, associated center: Hospices civils de Lyon), and the laboratory of Virology at the University of Corsica.

<u>Forecast:</u> according to the forecast models based on historical data and on medication deliveries (IQVIA research partnership), the activity of ILI should continue to increase in the upcoming weeks (see the graph hereafter).
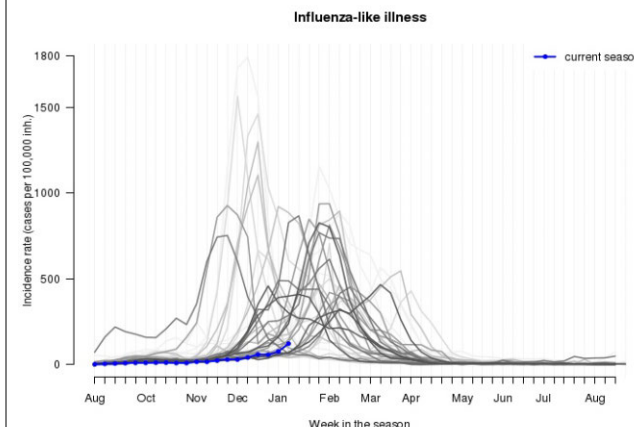
Santé publique France weekly influenza report (in french)
More information about influenza-like illness Sentinelles surveillance
Information about Sentinelles network statistical methods (in french)

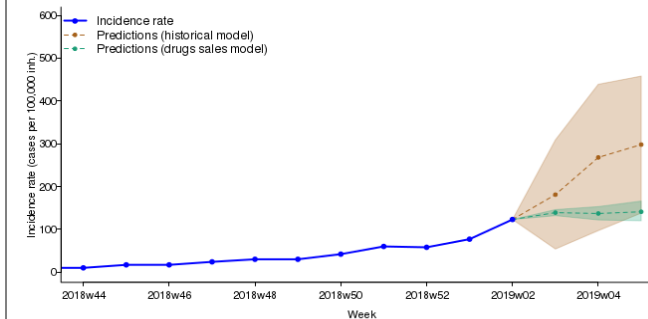2018w50   2018w51   2018w52   2019w01

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, 2019w02
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
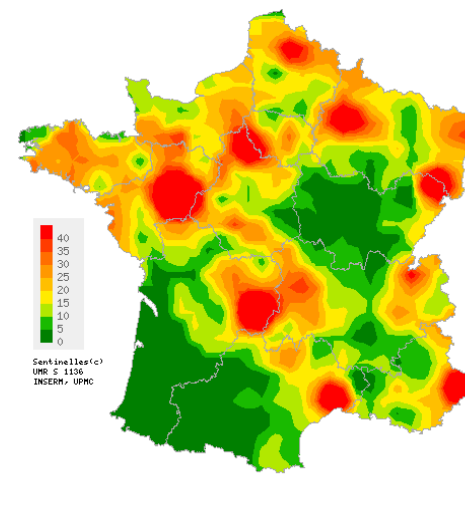
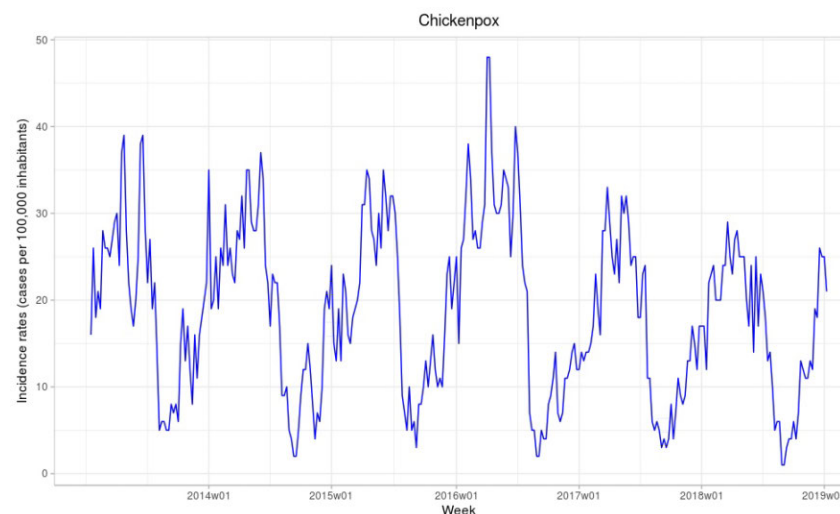## Chickenpox

Moderate activity in general practice

In metropolitan France, last week (2019w02), the incidence rate of Chickenpox seen in general practice was estimated at 21 cases per 100,000 inhabitants (95% CI [15 ; 27]).

Seven regional clusters were noted, **high** in Pays de la Loire (52 cases per 100,000 inhabitants, 95% CI [0 ; 144]) and **moderate** in Hauts-de-France (29, 95% CI [6 ; 52]), Centre-Val de Loire (24, 95% CI [8 ; 40]), Provence-Alpes-Côte d'Azur (24, 95% CI [5 ; 43]), Occitanie (23, 95% CI [5 ; 41]), Grand Est (22, 95% CI [1 ; 43]) and Corse (22, 95% CI [0 ; 52]) *(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, 2019w02
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	2019w02 (non consolidated)	2019w01	2018w52
	Incidence rate estimation [95% confidence interval]	Incidence rate estimation [95% confidence interval]	Incidence rate estimation [95% confidence interval]
INFLUENZA-LIKE ILLNESS	123 [109 ; 137]	77 [67 ; 87]	58 [48 ; 68]
ACUTE DIARRHEA	191 [173 ; 209]	144 [129 ; 159]	125 [110 ; 140]
CHICKENPOX	21 [15 ; 27]	25 [19 ; 31]	25 [18 ; 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 2019w02 (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	105 [75 ; 135]	117 [85 ; 149]	18 [5 ; 31]
Bourgogne-Franche-Comté	46 [13 ; 79]	79 [33 ; 125]	5 [0 ; 15]
Bretagne	66 [26 ; 106]	234 [155 ; 313]	6 [0 ; 16]
Centre-Val de Loire	82 [44 ; 120]	149 [97 ; 201]	24 [8 ; 40]
Corse	127 [53 ; 201]	117 [47 ; 187]	22 [0 ; 52]
Grand Est	118 [73 ; 163]	269 [195 ; 343]	22 [1 ; 43]
Hauts-de-France	81 [39 ; 123]	181 [114 ; 248]	29 [6 ; 52]
Ile-de-France	176 [127 ; 225]	138 [96 ; 180]	17 [3 ; 31]
Normandie	68 [31 ; 105]	238 [156 ; 320]	18 [0 ; 39]
Nouvelle-Aquitaine	88 [42 ; 134]	171 [112 ; 230]	7 [0 ; 18]
Occitanie	173 [116 ; 230]	164 [108 ; 220]	23 [5 ; 41]
Pays de la Loire	54 [22 ; 86]	180 [76 ; 284]	52 [0 ; 144]
Provence-Alpes-Côte d'Azur	171 [106 ; 236]	288 [202 ; 374]	24 [5 ; 43]

Table 2 : Incidence rates* estimation with 95% confidence interval, for each indicator, for each French region, for week 2019w02.

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