Sentinelles network report from 01/30/2019, n° 2019w04 (data from 01/21/2019 to 01/27/2019)

Influenza-like illness

Epidemic 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 (2019w04), the incidence rate of influenza-like illness seen in general practice was estimated at 339 cases per 100,000 inhabitants (95% CI [315 ; 363]), in increase from the previous week.

At the regional level, the highest incidence rates were noted in: Occitanie (466 cases per 100,000 inhabitants, 95% CI [383 ; 549]), Corse (422, 95% CI [296 ; 548]) and Provence-Alpes-Côte d'Azur (418, 95% CI [305 ; 531]) *(the regional data are presented at the end of this newsletter).*

Regarding the cases reported last week, the median age was 25 years (2 months to 90 years). Males accounted for 50% of the cases. These cases showed noparticular sign of severity: the percentage of hospitalization was estimated at 0.5% (95% CI [0.0 ; 1.0]).

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 (2019w04) are:
- **Strong increase in influenza activity in metropolitan France**
- **All metropolitan regions in epidemic phase**
- **High proportion of influenza among hospitalizations**
- **Circulation of both A(H1N1)pdm09 and A(H3N2) viruses**

Virological monitoring: since week 2018s40, date of start of monitoring, 1,075 samples were swabbed by Sentinelles network practitioners (754 by general practitionners and 321 by pediatricians), and 1,074 samples have been tested. Among all the samples tested, 288 (36.1%) were positive for an influenza virus. Last week, 153 samples were tested. Among them, 109 (71.2%) were positive for an influenza virus. The positivity rate was still increasing last week. The A(H3N2) et A(H1N1)pdm09 flu viruses were still predominant last week.

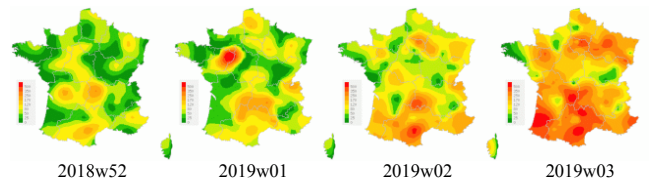The influenza viruses detected along the season were distributed as follows:
- 146 (13.6%) A(H1N1)pdm09 virus,
- 197 (18.3%) A(H3N2) virus,
- 45 (4.2%) A unsubtyped virus,
- 0 (0.0%) B/Victoria lineage virus,
- 0 (0.0%) B/Yamagata lineage virus,
- 0 (0.0%) B unknown lineage virus.

No influenza A and B viruses co-infections has been observed over the entire virological surveillance period.
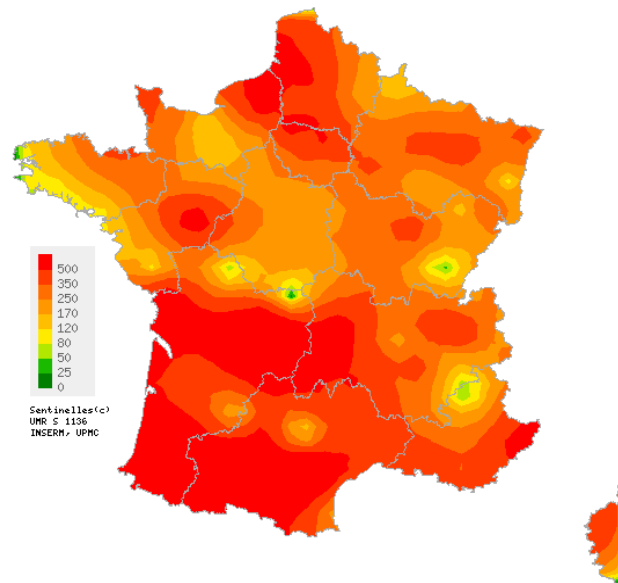
Regarding the other respiratory viruses, since the beginning of their monitoring, 146 swabs (14.0%) were positive for the rhinovirus (hRV), 134 (12.5%) for the respiratory syncytial virus (RSV), and 37 (3.4%) for the metapneumovirus (hMPV). Last week, there was a low circulation of these three viruses.

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 forecast models indicate that the ILI activity should continue to rise this week (2019w05) and reach its peak.
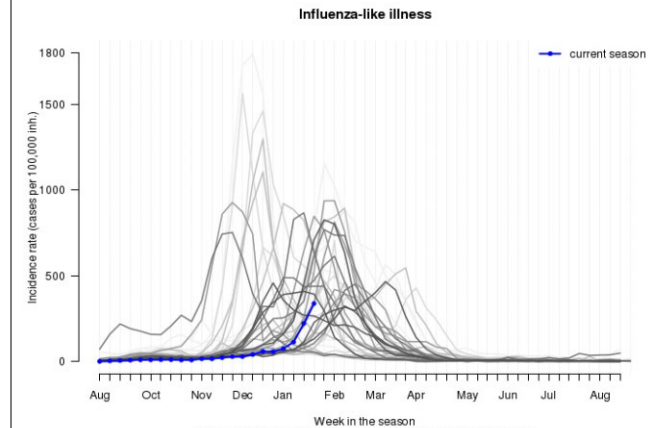
Santé publique France weekly influenza report (in french)
More information about influenza-like illness Sentinelles surveillance
Information about Sentinelles network statistical methods (in french)

2018w52 | 2019w01 | 2019w02 | 2019w03

Consolidated data for the last 4 weeks

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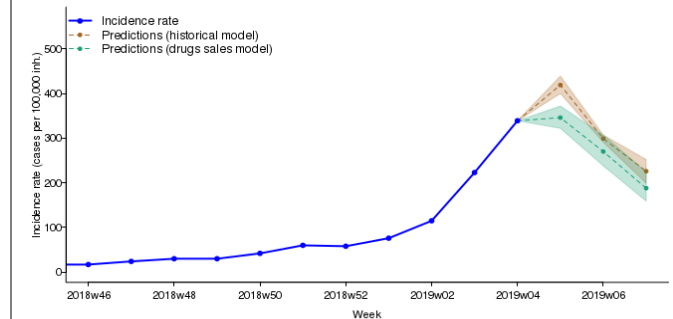Map of spatial data interpolation based on influenza-like illness incidence rates at the « departement » (NUTS 3) level (per 100,000 inhabitants), Sentinelles general practitioners, 2019w04
Maps available at http://www.sentiweb.fr

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

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).
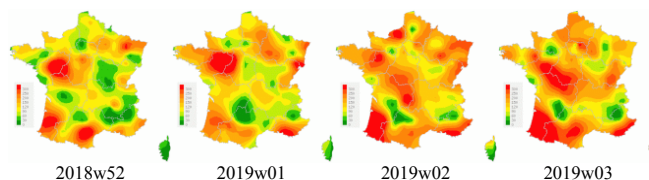
Clinical monitoring: in metropolitan France, last week (2019w04), the incidence rate of acute diarrhea seen in general practice was estimated at 176 cases per 100,000 inhabitants (95% CI [159 ; 193]), corresponding to 116,000 new cases. This incidence rate slightly exceeds the epidemic threshold (170 cases per 100,000 inhabitants) for the third consecutive week.

At the regional level, the highest incidence rates were noted in: Provence-Alpes-Côte d'Azur (258 cases per 100,000 inhabitants, 95% CI [167 ; 349]), Grand Est (222, 95% CI [160 ; 284]) and Hauts-de-France (217, 95% CI [156 ; 278]) *(the regional data are presented at the end of this newsletter).*
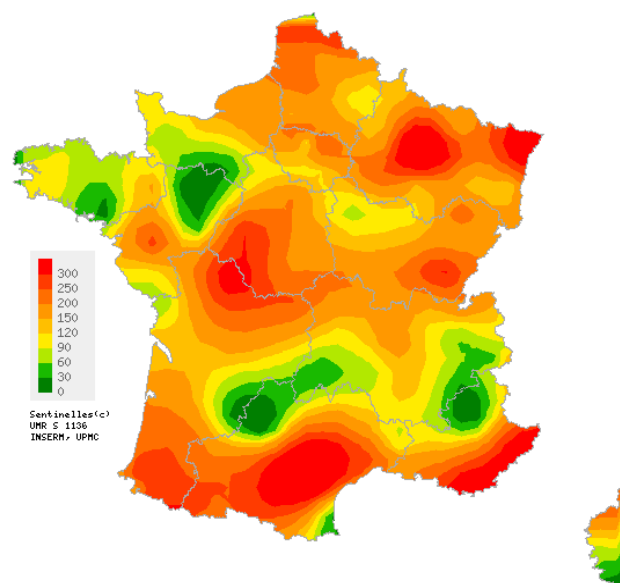
Regarding the cases reported last week, the median age was 24 years (1 month to 96 years). Males accounted for 48% of the cases. These cases showed no particular sign of severity: the percentage of hospitalization was estimated at 0.3% (95% CI [0.0 ; 0.8]).

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 *(see the graph hereafter).*
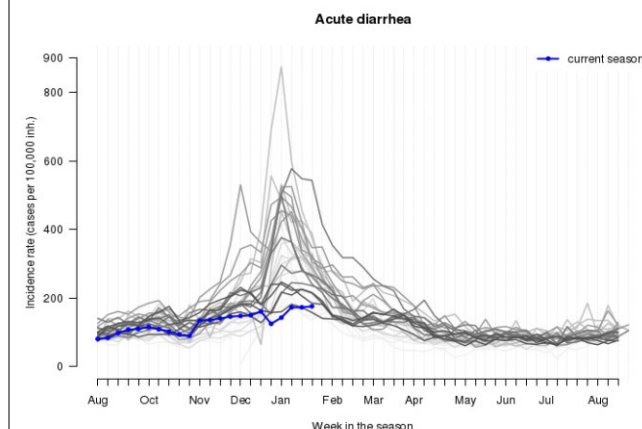
More information about acute diarrhea Sentinelles surveillance
Information about Sentinelles network statistical methods (in french)

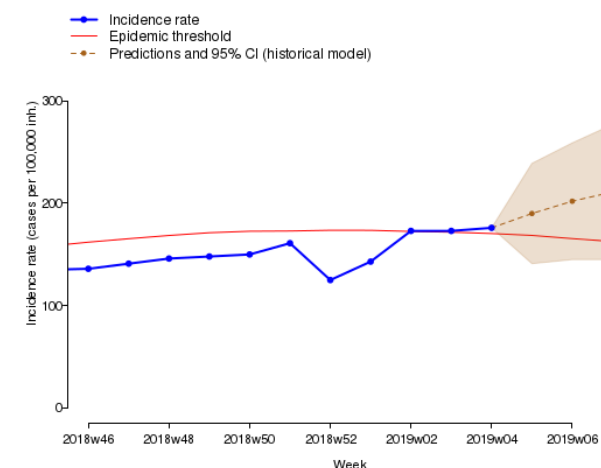2018w52 2019w01 2019w02 2019w03

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, 2019w04
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
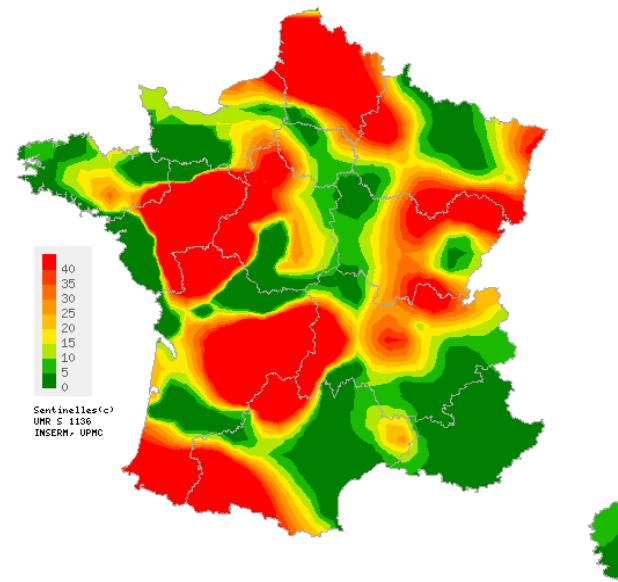Sentinelles general practitioners

Chickenpox

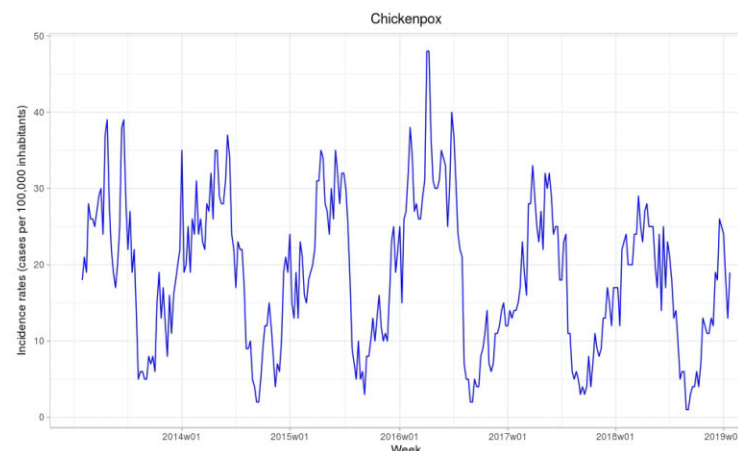### Moderate activity in general practice

In metropolitan France, last week (2019w04), the incidence rate of Chickenpox seen in general practice was estimated at 19 cases per 100,000 inhabitants (95% CI [14 ; 24]).

Six regional clusters were noted, **high** in Pays de la Loire (281 cases per 100,000 inhabitants, 95% CI [0 ; 671]) and Hauts-de-France (51, 95% CI [21 ; 81]) and **moderate** in Nouvelle-Aquitaine (29, 95% CI [6 ; 52]), Centre-Val de Loire (26, 95% CI [7 ; 45]), Bourgogne-Franche-Comté (20, 95% CI [1 ; 39]) and Auvergne-Rhône-Alpes (20, 95% CI [8 ; 32]) *(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, 2019w04
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	2019w04 (non consolidated)	2019w03	2019w02
	Incidence rate estimation [95% confidence interval]	Incidence rate estimation [95% confidence interval]	Incidence rate estimation [95% confidence interval]
INFLUENZA-LIKE ILLNESS	339 [315 ; 363]	223 [206 ; 240]	115 [103 ; 127]
ACUTE DIARRHEA	176 [159 ; 193]	173 [158 ; 188]	173 [158 ; 188]
CHICKENPOX	19 [14 ; 24]	13 [9 ; 17]	18 [13 ; 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 2019w04 (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	341 [289 ; 393]	132 [99 ; 165]	20 [8 ; 32]
Bourgogne-Franche-Comté	190 [124 ; 256]	118 [64 ; 172]	20 [1 ; 39]
Bretagne	229 [154 ; 304]	93 [44 ; 142]	16 [0 ; 34]
Centre-Val de Loire	219 [161 ; 277]	190 [134 ; 246]	26 [7 ; 45]
Corse	422 [296 ; 548]	197 [106 ; 288]	6 [0 ; 21]
Grand Est	287 [219 ; 355]	222 [160 ; 284]	17 [1 ; 33]
Hauts-de-France	353 [277 ; 429]	217 [156 ; 278]	51 [21 ; 81]
Ile-de-France	396 [320 ; 472]	148 [100 ; 196]	5 [0 ; 13]
Normandie	360 [257 ; 463]	142 [83 ; 201]	10 [0 ; 21]
Nouvelle-Aquitaine	325 [245 ; 405]	115 [68 ; 162]	29 [6 ; 52]
Occitanie	466 [383 ; 549]	196 [140 ; 252]	12 [0 ; 24]
Pays de la Loire	270 [0 ; 551]	130 [80 ; 180]	281 [0 ; 671]
Provence-Alpes-Côte d'Azur	418 [305 ; 531]	258 [167 ; 349]	0 [0 ; 0]

Table 2 : Incidence rates* estimation with 95% confidence interval, for each indicator, for each French region, for week 2019w04.

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