INFLUENZA-LIKE ILLNESS
Low 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, the incidence rate of influenza-like illness seen in general practice was estimated at 20 cases per 100,000 inhabitants (95% CI [13 ; 27]), **below** the epidemic threshold (80 cases per 100,000) [1] (see the graphe hereafter).

At the regional level, the highest incidence rates were reported in: Ile-de-France (54 cases per 100,000 inhabitants, 95% CI [0 ; 115]), Nord-Pas-de-Calais (52, 95% CI [6 ; 98]) and Languedoc-Roussillon (42, 95% CI [0 ; 88]).

Results for 2015-2016 influenza epidemic : the epidemic was late this season, lasting 11 weeks from January 25th to April 10th 2016 (week 2016w04 to 2016w14; pick reached at week 2016w11), and of moderate size (within this period 2,258,000 people had consulted their general practitioner for influenza-like illness - 95% CI [2,209,000 ; 2,306,000]).

Regarding the cases reported, during the 11 weeks of epidemic, the median age was 20 years (3 months to 101 years). Males accounted for 49% of the cases. These cases showed no particular sign of severity: the percentage of hospitalization was estimated at 0.3% (95% CI [0.2 ; 0.4] %).

Virological monitoring: since week 2015w40, date of start of monitoring, 4,019 samples were collected by Sentinelles network practitioners (2,496 by general practitionners and 1,523 by pediatricians). Among them, 2,118 influenza viruses have been identified, distributed as follows :
- 573 (14.3%) A(H1N1)pdm09 virus,
- 22 (0.5%) A(H3N2) virus,
- 24 (0.6) A unsubtyped virus,
- 1,476 (36.8%) B/Victoria lineage virus,
- 13 (0.3%) B/Yamagata lineage virus,
- 31 (0.8%) B unknown lineage virus.

Overall, 21 influenza A and B viruses co-infections have been observed.

The samples were analyzed by the CNR (National Reference Centers) of influenzae viruses (CC Paris, CA Lyon), and the laboratory of Virology at the University of Corsica.

Forecast: according to the forecast model based on historical data [2] and medication deliveries (IMS-Health research partnership) [3], influenza-like illness activity should continue to decline in the upcoming weeks (see the graph hereafter).

More information about this surveillance
Information about the statistical methods

[1] Costagliola D, et al. A routine tool for detection and assessment of epidemics of influenza-like syndromes in France. Am J Public Health. 1991;81(1):97-9.
[2] Viboud C, et al. Prediction of the spread of influenza epidemics by the method of analogues. Am J Epidemiol. 2003 Nov 15;158(10):996-1006.
[3] Vergu E, et al. Medication sales and syndromi c surveillance, France. Emerg Infect Dis. 2006. 12(3):416-21.
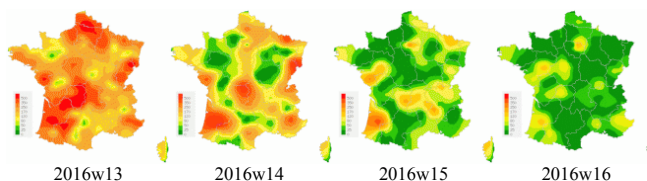
2016w13   2016w14   2016w15   2016w16

Consolidated data for the last 4 weeks
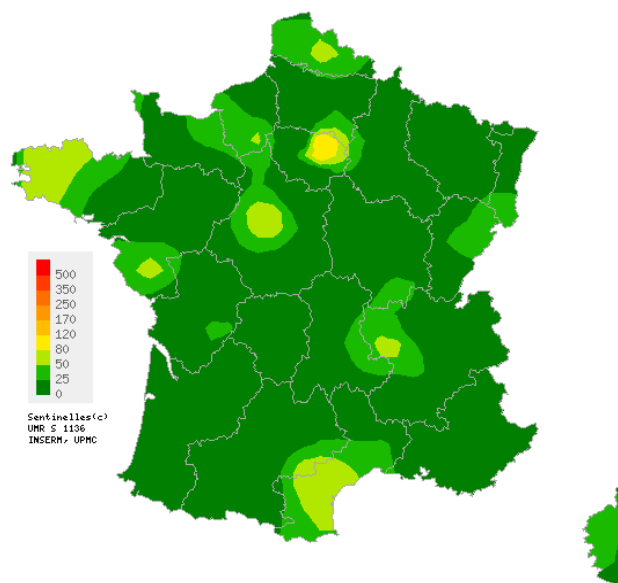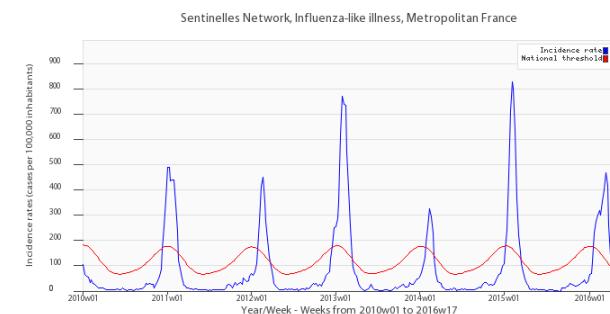

Map of spatial data interpolation based on Influenza-like illness incidence rates at the « departement » (NUTS 3) level (per 100 000 inhabitants), Sentinelles general practitioners, 2016w17
Maps available at http://www.sentiweb.fr

Influenza-like illness incidence rate in blue, epidemic threshold in red calculated by a periodic regression model [1] (per 100 000 inhabitants), Sentinelles general practitioners
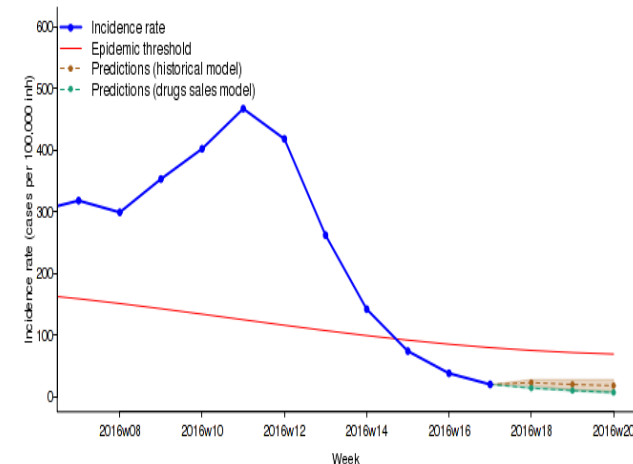
Predicted incidence rate for the next three weeks based on a forecast model on historical data [2] and on drug sales [3] Sentinelles general practitioners

Acute Diarrhea

ACUTE DIARRHEA
Moderate activity

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).

In metropolitan France, last week, the incidence rate of acute diarrhea seen in general practice was estimated at 113 cases per 100,000 inhabitants, 95% CI [94 ; 132], **below** the epidemic threshold (139 cases per 100,000) [1].

At the regional level, the highest incidence rates were noted in: Pays-de-la-Loire (260 cases per 100,000 inhabitants, 95% CI [72 ; 448]), Nord-Pas-de-Calais (239, 95% CI [137 ; 341]), Poitou-Charentes (239, 95% CI [0 ; 505]) and Languedoc-Roussillon (150, 95% CI [62 ; 238]) *(the regional data are presented at the end of this newsletter).*
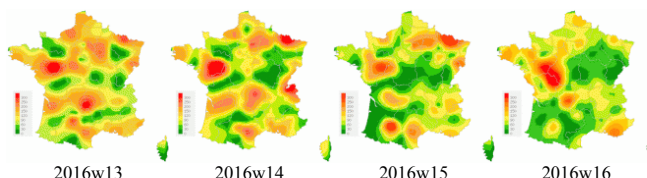
Forecast: according to the forecast model based on historical data [2], the level of activity of acute diarrhea should remain stable in the upcoming weeks *(see the graph hereafter)*.

More information about this surveillance
Information about the statistical methods

[1] Costagliola D, et al. A routine tool for detection and assessment of epidemics of influenza-like syndromes in France. Am J Public Health. 1991;81(1):97-9.
[2] Viboud C, et al. Prediction of the spread of influenza epidemics by the method of analogues. Am J Epidemiol. 2003 Nov 15;158(10):996-1006.
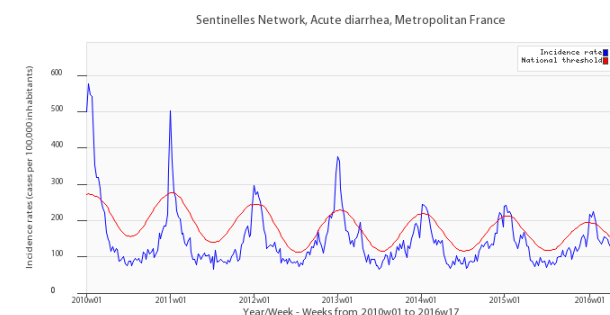
2016w13 2016w14 2016w15 2016w16

Consolidated data for the last 4 weeks
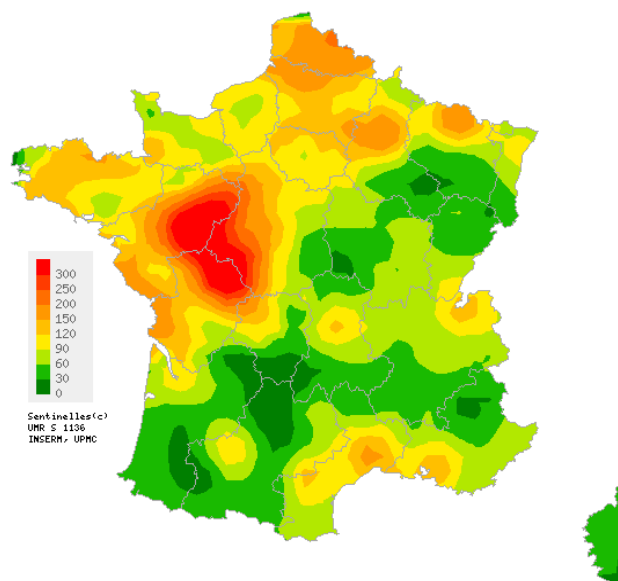

Map of spatial data interpolation
based on acute diarrhea incidence rates
at the « departement » (NUTS 3) level (per 100 000 inhabitants),
Sentinelles general practitioners, 2016w17
Maps available at http://www.sentiweb.fr

Sentinelles Network, Acute diarrhea, Metropolitan France

Acute diarrhea incidence rate in blue,
epidemic threshold in red calculated by a periodic regression model [1]
(per 100 000 inhabitants), Sentinelles general practitioners
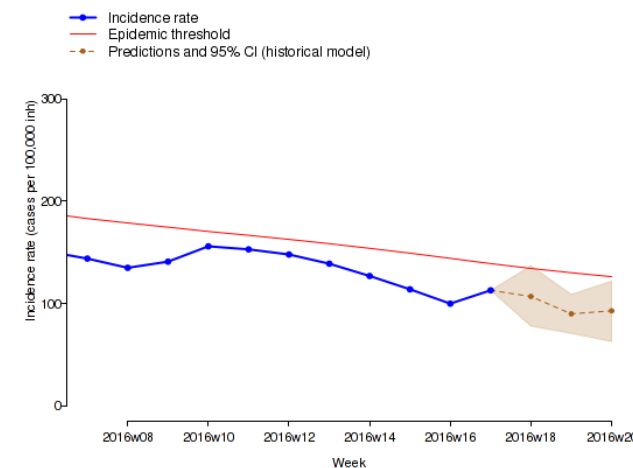
Predicted acute diarrhea incidence rate for the next three weeks
based on a forecast model on historical data [2]
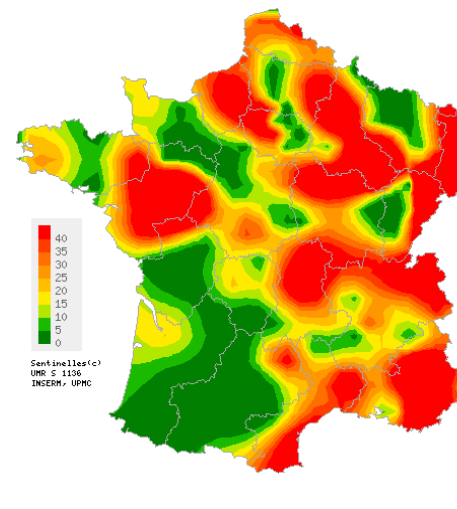Sentinelles general practitioners

CHICKENPOX
High activity

In metropolitan France, last week, the incidence rate of Chickenpox seen in general practice was estimated at 34 cases per 100,000 inhabitants (95% CI [24 ; 44]).

Thirteen regional clusters were reported, **high** in Alsace (75 cases per 100,000 inhabitants, 95% CI [0 ; 151]), Champagne-Ardenne (65, 95% CI [0 ; 169]), Haute-Normandie (62, 95% CI [0 ; 151]), Pays-de-la-Loire (61, 95% CI [0 ; 149]), Auvergne (50, 95% CI [0 ; 113]) and Languedoc-Roussillon (43, 95% CI [0 ; 89]) and **moderate** in Nord-Pas-de-Calais (35, 95% CI [0 ; 75]), Bourgogne (31, 95% CI [0 ; 79]), Rhône-Alpes (31, 95% CI [6 ; 56]), Ile-de-France (30, 95% CI [3 ; 57]), Provence-Alpes-Côte-d'Azur (24, 95% CI [0 ; 54]), Bretagne (24, 95% CI [0 ; 60]) and Franche-Comté (23, 95% CI [0 ; 103]). *
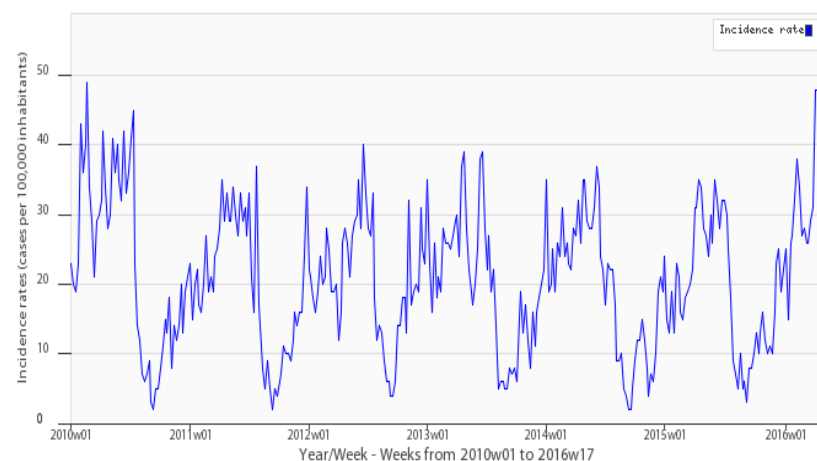
More information about this surveillance

* 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, 2016w17

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	2016w17 (non consolidated)	2016w16	2016w15
	Incidence rate estimation [95% confidence interval]	Incidence rate estimation [95% confidence interval]	Incidence rate estimation [95% confidence interval]
INFLUENZA-LIKE ILLNESS	20 [13 ; 27]	38 [29 ; 47]	74 [61 ; 87]
ACUTE DIARRHEA	113 [94 ; 132]	100 [86 ; 114]	114 [98 ; 130]
CHICKENPOX	34 [24 ; 44]	37 [29 ; 45]	48 [38 ; 58]

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

Regional incidence rates for week 2016w17 (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]
Alsace	6 [0 ; 20]	102 [14 ; 190]	75 [0 ; 151]
Aquitaine	0 [0 ; 0]	73 [0 ; 149]	11 [0 ; 40]
Auvergne	14 [0 ; 44]	103 [6 ; 200]	50 [0 ; 113]
Basse-Normandie	26 [0 ; 62]	65 [6 ; 124]	6 [0 ; 28]
Bourgogne	15 [0 ; 58]	83 [0 ; 173]	31 [0 ; 79]
Bretagne	27 [0 ; 61]	91 [28 ; 154]	24 [0 ; 60]
Centre	25 [0 ; 51]	108 [56 ; 160]	16 [0 ; 35]
Champagne-Ardenne	0 [0 ; 0]	143 [49 ; 237]	65 [0 ; 169]
Corse	39 [0 ; 81]	34 [0 ; 72]	7 [0 ; 24]
Franche-Comté	23 [0 ; 87]	40 [0 ; 84]	23 [0 ; 103]
Haute-Normandie	21 [0 ; 51]	80 [0 ; 170]	62 [0 ; 151]
Ile-de-France	54 [0 ; 115]	106 [5 ; 207]	30 [3 ; 57]
Languedoc-Roussillon	42 [0 ; 88]	150 [62 ; 238]	43 [0 ; 89]
Limousin	9 [0 ; 35]	80 [1 ; 159]	14 [0 ; 46]
Lorraine	8 [0 ; 32]	139 [14 ; 264]	0 [0 ; 0]
Midi-Pyrénées	0 [0 ; 0]	27 [1 ; 53]	5 [0 ; 16]
Nord-Pas-de-Calais	52 [6 ; 98]	239 [137 ; 341]	35 [0 ; 75]
Pays-de-la-Loire	19 [0 ; 48]	260 [72 ; 448]	61 [0 ; 149]
Picardie	0 [0 ; 0]	98 [0 ; 248]	17 [0 ; 74]
Poitou-Charentes	7 [0 ; 26]	239 [0 ; 505]	0 [0 ; 0]
Provence-Alpes-Côte-d'Azur	0 [0 ; 0]	123 [22 ; 224]	24 [0 ; 54]
Rhône-Alpes	11 [0 ; 22]	82 [42 ; 122]	31 [6 ; 56]

Table 2 : Incidence rates* estimation with 95% confidence interval, for each indicator, for each French regions, for week 2016w17.

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