

This article is an early release of information from Inform'ACTION No. 31, which will be published very soon.

Influenza A (H1N1) pdm in French Polynesia Assessment of epidemiological situation as at 21 October 2009

Method

Influenza surveillance in French Polynesia (FP) is currently based on:

- the number of patients presenting with influenza-like illnesses, as reported by doctors in the sentinel network;
- the number of visits to various hospital emergency units by patients with influenza-like illnesses (LI);
- virological surveillance since week 29 by typing of specimens from hospitalised patients or severe cases;
- specific surveillance of cases hospitalised for influenza, introduced in week 34 (hospitalised case report form and medical information service reports to the main hospital, 'CHPf');
- the number of prescriptions for Tamiflu and masks, based on prescriptions recovered from the health department's 'Pharmapro'.

All these data are collected by the 'Bureau de veille sanitaire' (Health Watch Office) of the Health Department. A weekly epidemiological influenza surveillance bulletin has been issued since week 35 (see annex).

The first confirmed case of Influenza A (H1N1) 2009 in French Polynesia (FP) was imported from the United States and was reported in a tourist arriving at Tahiti airport on 2 June, based on fever detection by a heat-sensitive camera. The first cluster was detected in young French Polynesians returning from language-learning visits to countries with high endemicity (New Zealand, in particular). Community circulation was identified in week 31. The peak of the epidemic was reached in week 34, three weeks after the start of viral circulation in the population in week 31 and one week after the start of the new school year. A rapid reduction in the number of cases was observed over the four following weeks and the end of the epidemic was confirmed in week 39.

The case definitions adopted for FP are:

- Suspected case: acute respiratory syndrome with sudden onset of associated general signs – fever > 38° or muscle aches or fatigue, and respiratory signs – cough or dyspnoea.
- Confirmed case: suspected case biologically confirmed with Influenza A PCR (M) and PCR H1v positive.

Results

The estimate of the total number of consultations for influenza-like illnesses in FP during the epidemic is based on specific daily reports from public health facilities and subdivisions, weekly hospital emergency data, weekly reports from the sentinel doctor network, electronic posting by the Polynesian electronic information network (RISP) from linked facilities, and extrapolation from data on consultations for influenza-like illnesses by private physicians.

The total number of consultations for influenza-like illnesses from the start of week 31 to the end of week 39 was some 35 000 cases, representing an aggregate attack rate for the whole country of around 13%.

An estimate of the number of actual cases of influenza, taking into account an under-reporting rate of 30%, implies a true total of 45 000 cases of influenza-like illness, or an attack rate of 17%.

The highest attack rates were reported from Moorea-Maiao (25%), the Australs (22%) and the Leeward Islands (18%). The rate at the time of the peak week was 5%.

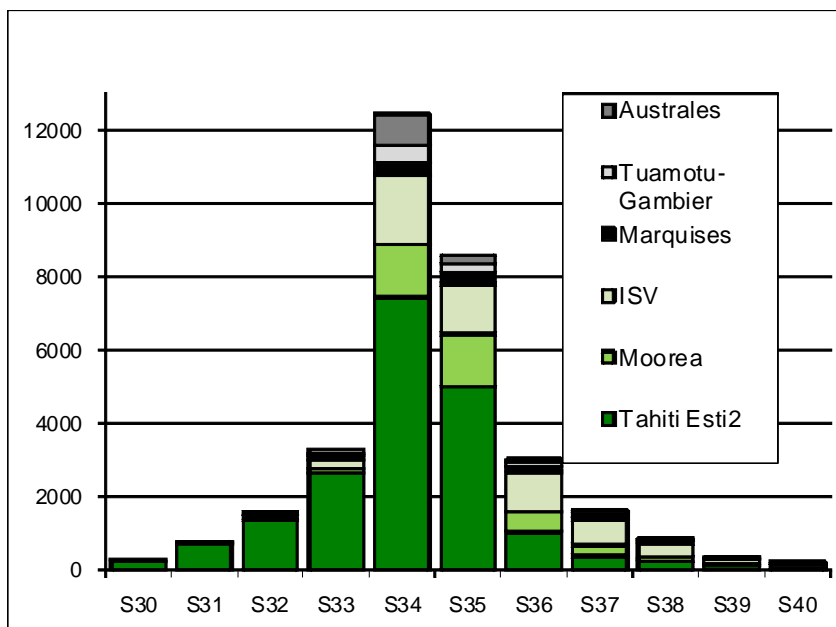


Figure 1. Consultations for influenza-like illnesses aggregated by week, for the island groups of French Polynesia, 2009.

Overall, from week 31 to 39, the positive virology rate for A (H1N1) 2009 from all the specimens taken was 49%, with a maximum of 66% in week 33.

Altogether, from week 19 to week 42, 472 cases were investigated by the Health Watch Office. Of these, 185 were confirmed as being virus A (H1N1) 2009 pdm .

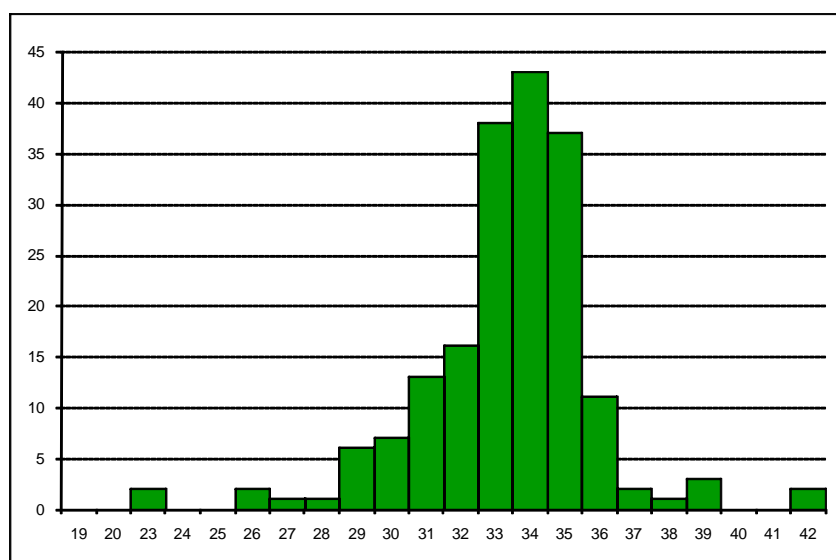


Figure 2. Weekly distribution of cases of Influenza A (H1N1) 2009 pdm (n=185).

* pdm stands for pandemic.

The male/female ratio was 0.34 (47 men, 138 women).

Half of the confirmed cases were under 24 years of age. The mean age was 28.8 years (min = 1.5 months; max = 76 years).

The distribution of confirmed cases by geographical place of residence was as follows: Tahiti, 134; Moorea, 17; Raiatea, 11; Huahine, 1; Marquesas, 1; Australs: 1, unknown: 20.

The initial clinical signs reported in confirmed cases for which information is available (n=142) were as follows:

	Number of cases	%
Cough	129	91
Fever	122	86
Fatigue	79	56
Muscle aches	55	39
Dyspnoea	52	37

Two-thirds of cases presented with a combination of coughing and fever.

Among confirmed cases for which information is available (n = 94), the distribution of risk factors was as follows:

	Number of cases	%
Pregnancy	21	22
Chronic respiratory disease	14	15
Diabetes	9	9
Immunity deficit	2	2
Chronic heart disease	8	8
Cancer	0	0
Neurological disorder	1	1
Morbid obesity	7	7

A total of 144 patients were hospitalised and confirmed as carrying the A (H1N1) 2009 pdm virus. The number of patients hospitalised in high-dependency (resuscitation) or intensive-care units was 13.

The number of fatalities reported in patients carrying the A (H1N1) virus was 7, with an average age of 37 years (extremes: 1.5 months - 73 years). Four of these cases (2 women aged 24 and 32 years, and 2 men aged 73 and 61 years) presented with underlying risk factors. A 1½ month old infant and a pregnant woman also died. The last fatality was a 45-year-old man with no known risk factor.

Conclusion

Overall, FP experienced a first epidemic wave lasting nine weeks, with a very high and narrow peak, and an overall attack rate of influenza-like illnesses estimated at 17%. The vast majority of severe forms of influenza and deaths occurred in patients showing conventional risk factors (chronic respiratory or heart diseases), or in pregnant women.

Low noise virus circulation seems to be continuing at present and could still threaten the majority of the non-vaccinated population. It is vital therefore to maintain active surveillance, particularly in the form of a virological sentinel network.

Update produced by the 'Bureau de veille sanitaire', with the help of the services, subdivisions and health facilities of the Health Department, Institut Louis Malardé, 'CHPf' medical information service and physicians in the sentinel network.

We also thank the doctors working in hospitals and clinics and in the private sector, and the pharmacists participating in this surveillance activity, together with the education department.

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Influenza surveillance in French Polynesia

Weekly epidemiological update – Situation in Week 41

For the past 3 weeks, the situation in French Polynesia (FP) has been characterised by a stabilisation in the number of consultations for influenza-like illness at private practitioners' surgeries and at the emergency department of the 'CHPF' (main hospital) or at the various special medical centres.

According to the surveillance data, the outbreak is over. There has been no circulation of the seasonal virus since Week 26.

Please advise us of any unusual increase in the number of syndromes appearing in your patient load. We must remain watchful.

