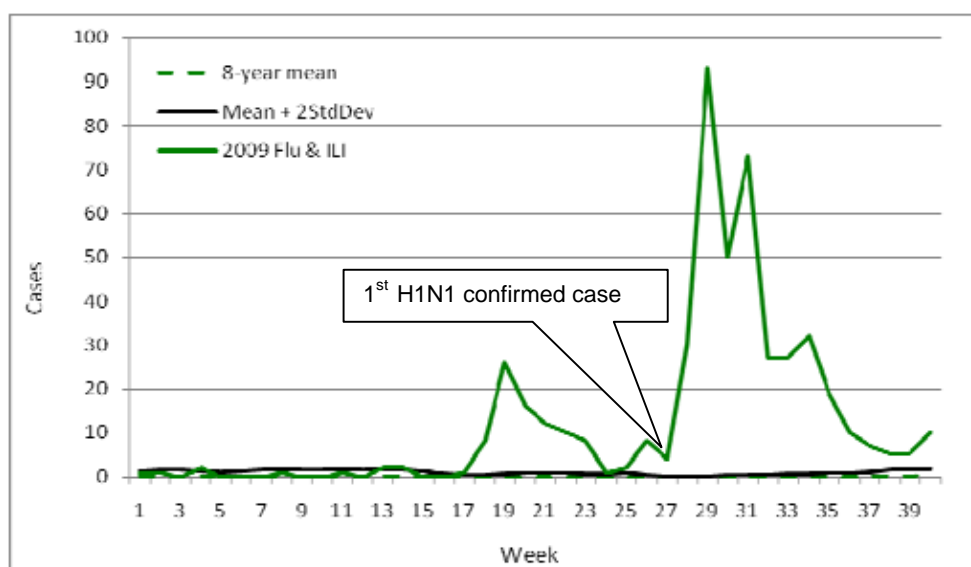


This article is an early release of information from Inform'ACTION No. 31, which will be published very soon.

Influenza H1N1 on Guam

Guam confirmed its first case of influenza H1N1 on 1 July 2009. This patient was a US Department of Defense employee and Guam resident who developed symptoms after returning from the US mainland where she had attended a conference in Texas. At the same time (week 27), the number of influenza and flu-like illnesses seen at Guam Memorial Hospital Emergency Department dramatically increased during two weeks (Figure 1). The main spike of the epidemic occurred in week 29 in July 2009, which was then followed by a second spike in week 31. The first local fatality that occurred during the initial spike raised awareness and changed care seeking behaviour in the community, resulting in more cases presenting at health facilities and possibly causing the second spike.

Figure 1: Influenza and flu-like illnesses seen at Guam Memorial Hospital Emergency Department by week, 2009



As of 17 October, Guam has had 326 confirmed cases of influenza H1N1; of those, 171 were positive for rapid influenza antigen, 70 were negative and the rest were either not tested or 'unknown' (see Table 2).

The sex ratio of confirmed males to females is 1.3 (184 males, 142 females) (see Table 1).

Sixty-seven per cent of confirmed cases were in people under 25 (see Table 3).

Table 1: Influenza H1N1 confirmed cases by gender, weeks 1–41, 2009 (cumulative: 214 civilian and 112 military cases)

Gender	Total
Male	184
Female	142
Total	326

Table 2: Rapid tests performed for influenza H1N1 confirmed cases, weeks 1–41, 2009

Rapid test	No.
Positive	171
Negative	70
Not tested	28
Unknown	57
Total	326

Table 3: Influenza H1N1 confirmed and hospitalised cases by age group, weeks 1–41, 2009

Age group	Total	Hospitalised	Deaths
< 1	23	12	0
1–4	51	8	0
5–14	75	6	1
15–24	68	3	0
25–49	91	11	1
50–64	14	6	0
65+	4	1	0
Unknown	0	0	0
Total	326	47	2

Hospitalisations

A large percentage of hospitalisations for H1N1 were among very young patients: 26 per cent were in the < 1 year age group and 17 per cent were in the 1–4 age years group.

Co-morbidities in the hospitalised patients have included:

- asthma,
- heart disease,
- diabetes,
- kidney failure, and
- neuro-developmental problems.

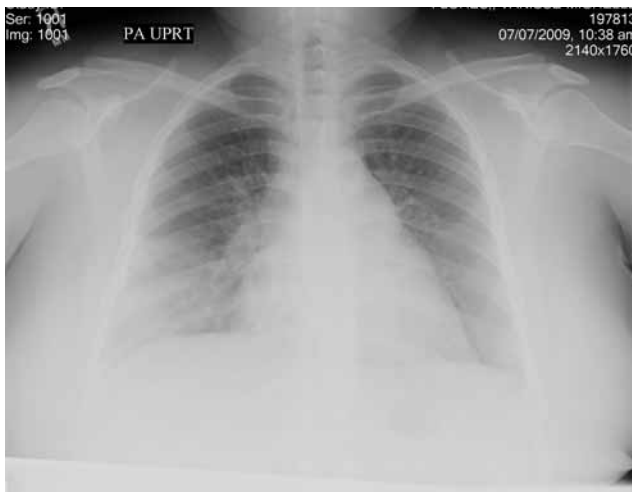
Fatality cases

The first fatality associated with H1N1 on Guam occurred on 11 July in a 26-year-old female who had underlying rheumatic heart disease. The second fatality, which occurred on 29 August, was an 13-year-old child who had severe neuro-developmental problems (cerebral palsy, severe scoliosis, etc.).

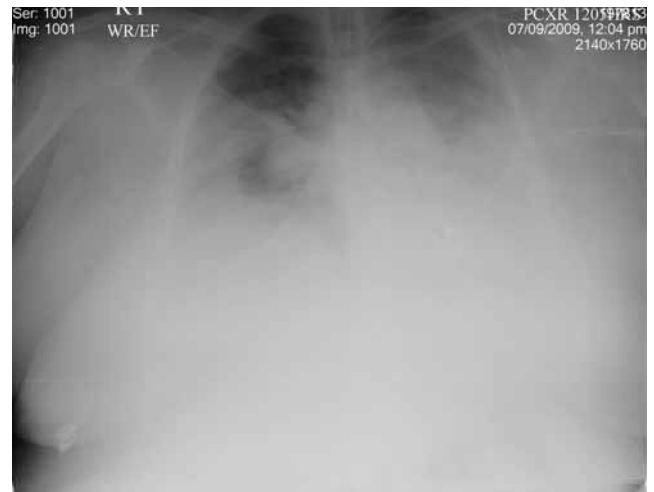
The rapid influenza antigen test was negative on the first fatality but positive on the second.

As of 30 September, all hospitalisations for H1N1-related complications (45 in total) had bilateral diffuse pneumonia suggestive of primary viral pneumonia. The two patients who died had rapidly progressive bilateral pneumonia progressing to ARDS (acute respiratory distress syndrome) and multi-system failure. There have been no documented secondary bacterial pneumonias in any of the H1N1 patients who have been hospitalised.

Initial X-ray of a fatality case.



Follow up X-ray two days later.



Challenges

Surveillance activities have been very difficult as they are extremely resource intensive and have created a severe degree of stress within the health department, which was already cash-strapped and faced with human resource shortages.

A major challenge for us on Guam has been dealing with both the media and the families of the patients who have died of complications from H1N1. The media wanted personal information relating to the expired individuals to be released and preventing this was a big challenge for us. The information was eventually acquired from other sources and the families of the expired individuals felt that they had become the subject of discrimination because of the community's fear of H1N1.

Despite all of the educational efforts that were being conducted by the health department, it appeared that many people, including some media representatives as well as the general public, were not getting sufficient accurate information regarding H1N1.

Annakutty Mathew

Medical Director

Department of Public Health and Social Services (DPHSS), Guam

Email: anna.mathew@dphss.guam.gov

and

Robert L Haddock

Epidemiologist

DPHSS, Guam

Email: robhad@yahoo.com

