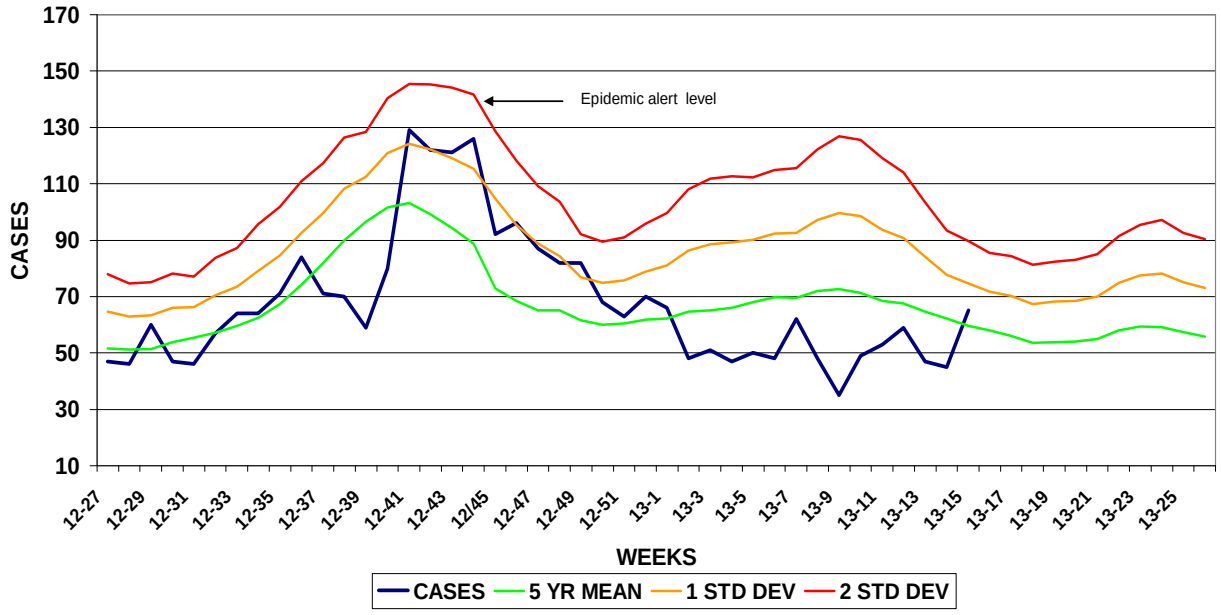
INFECTION CONTROL DEPARTMENT
GUAM MEMORIAL HOSPITAL AUTHORITY

GUAM EPIDEMIOLOGY NEWSLETTER

REPORT FOR WEEK ENDING: 4/13/2013 (Reporting week 2013-15)

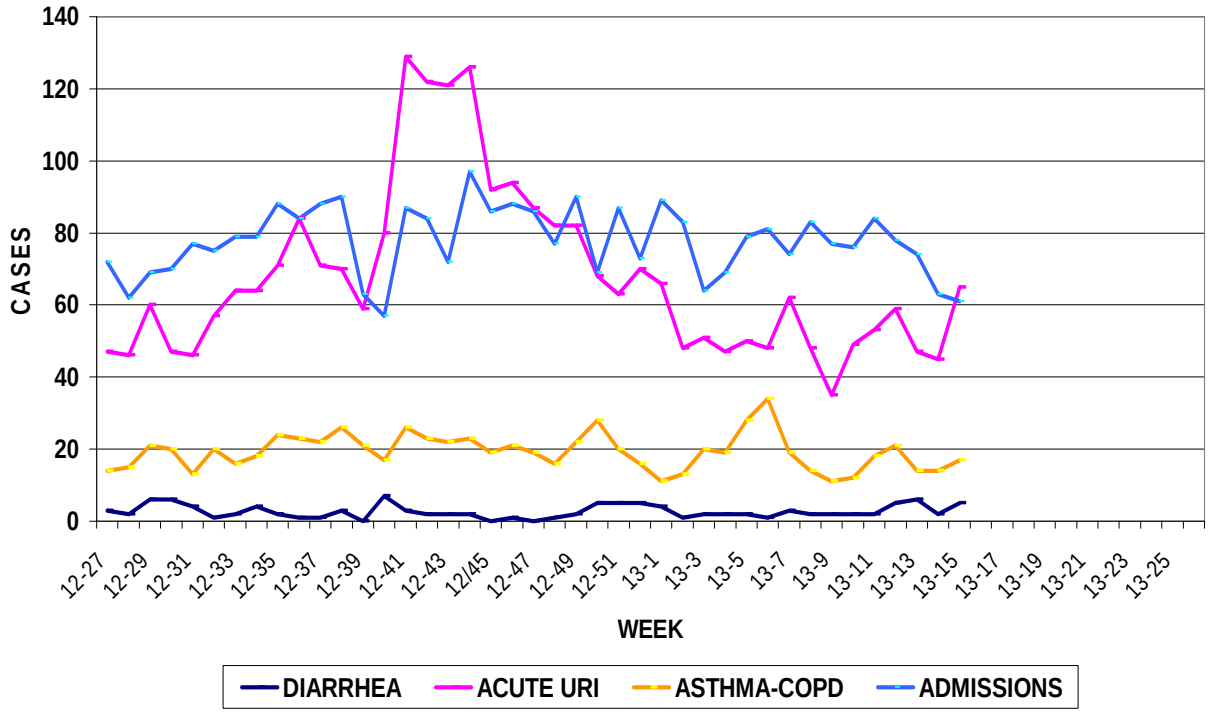
GUAM REPORTS

GUAM ACUTE RESPIRATORY INFECTION SURVEILLANCE 2012-13;
GMHA-EMERGENCY DEPARTMENT PATIENTS BY WEEK SEEN



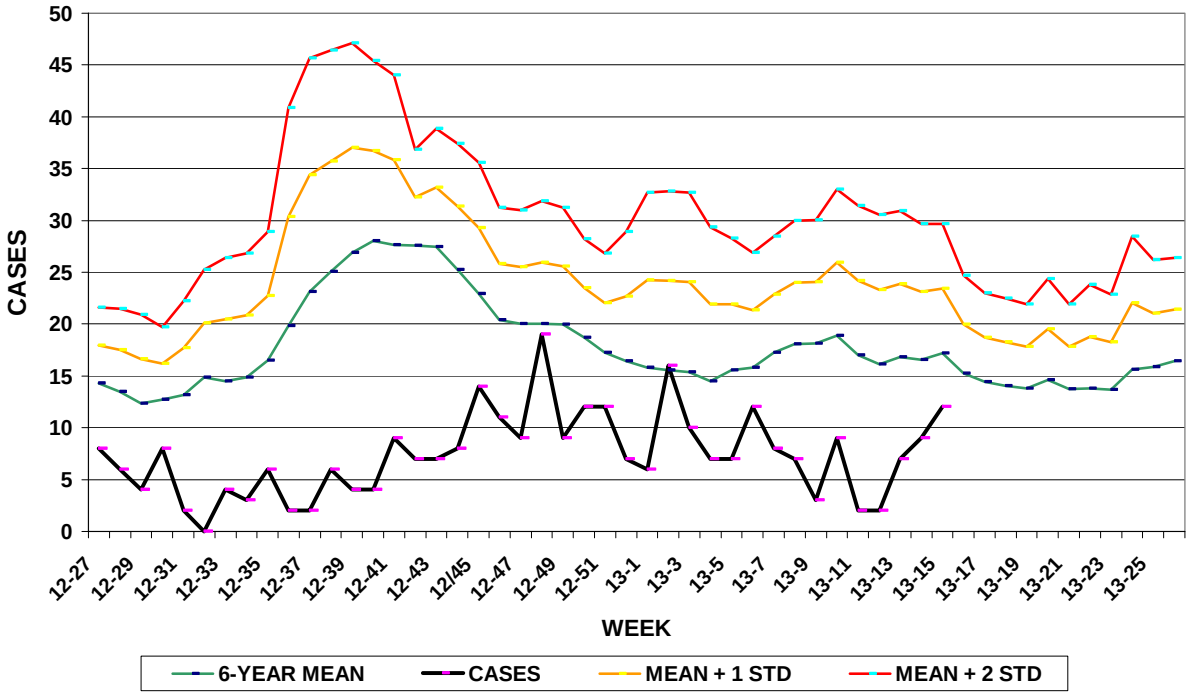
GUAM SYNDROMIC DISEASE SURVEILLANCE

GMHA-ED PATIENT DIAGNOSES BY WEEK, 2012-2013



MEDICAL RECORDS AND INFECTION CONTROL DEPARTMENTS
GUAM MEMORIAL HOSPITAL AUTHORITY

HOSPITAL INPATIENT DISCHARGES WITH A DIAGNOSIS OF PNEUMONIA BY WEEK DISCHARGED, 2012-2013



GUAM SENTINEL PHYSICIAN INFLUENZA SURVEILLANCE

REPORTS OF INFLUENZA OR INFLUENZA-LIKE ILLNESSES
RECEIVED FOR THE WEEK ENDING 4/13/2013

No activity – No cases reported by sentinel physicians

(ACTIVITY LEVELS: No activity, Sporadic, Local, Regional, Widespread)

Foreign Quarantine & Enteric Diseases Section
Bureau of Communicable Disease Control
Guam Department of Public Health & Social Services

H1N1 INFLUENZA SURVEILLANCE, WEEK 15, 2013

NO CASES OF H1N1 REPORTED FOR WEEK 15

Cumulative 2013: 0 civilian & 0 military cases

INFECTION CONTROL DEPARTMENT
GUAM MEMORIAL HOSPITAL AUTHORITY

HOSPITALIZATIONS FOR INFLUENZA A or B BY AGE AND MORBIDITY REPORTING WEEK, 2013

WEEK

AGE	6	7	8	9	10	11	12	13	14	15	TOTAL
0-4								1			1
5-18											
19-24											
25-49											
50-64											
65+											
TOTAL	0	0	0	0	0	0	0	1	0	0	1(A)

INFECTION CONTROL DEPARTMENT
GUAM MEMORIAL HOSPITAL AUTHORITY

GMHA-EMERGENCY DEPARTMENT CLINICAL DIAGNOSES OF INFLUENZA OR FLU-SYNDROME BY WEEK AND PATIENT'S VILLAGE OF RESIDENCE, 2013

(Villages listed geographically from northern-most to southern-most)

	WEEK											
VILLAGE	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**TOTAL**	**2013 RATE**
Yigo	1	0	1	0	1	1	1	0	0	0	8	38.35
Dededo	2	2	0	0	5	1	3	2	0	5	27	59.30
Tamuning	0	2	0	0	0	0	1	2	0	1	8	39.63
Barrigada	0	0	1	0	0	0	0	0	0	0	3	53.55
Mangilao	1	1	2	0	0	1	0	0	1	0	10	63.48
M-T-M	0	0	1	0	1	0	1	1	0	1	5	70.23
Hagatna	0	0	0	0	0	1	0	0	0	0	2	76.86
Agaña Hts	0	1	0	0	0	1	0	0	0	0	2	53.08
Sinajana	0	0	0	0	0	1	0	0	1	0	2	79.55
Chalan Pago-Ordot	0	1	0	0	0	0	0	0	0	0	1	14.10
Asan-Maina	0	0	0	0	0	0	0	0	0	0	0	0.00
Piti	0	0	0	0	0	0	0	0	0	0	0	0.00
Santa Rita	1	0	0	0	0	0	0	0	0	0	2	35.34
Agat	0	0	0	0	1	0	0	0	0	0	1	21.30
Yona	0	0	0	0	0	0	0	2	0	0	5	77.17
Talofofo	0	0	0	0	0	0	1	0	0	0	1	33.32
Inarajan	0	0	0	0	0	0	0	0	0	0	0	0.00
Merizo	0	0	0	0	0	0	0	0	0	0	0	0.00
Umatac	0	0	0	0	0	0	0	0	0	0	0	0.00
Tourist	0	0	0	0	0	0	0	0	0	0	1	
Unknown	0	0	0	0	0	0	0	0	0	0	0	
TOTAL	5	7	5	0	8	6	7	7	2	7	78	48.53

NOTE: Rate = cases per 100,000 population for the specified period.

GUAM ANIMAL DISEASE (ZOONOSES) REPORTS

REPORTS RECEIVED FOR THE WEEK ENDING 4/13/2013

None reported

Bureau of Communicable Disease Control
Guam Department of Public Health & Social Services

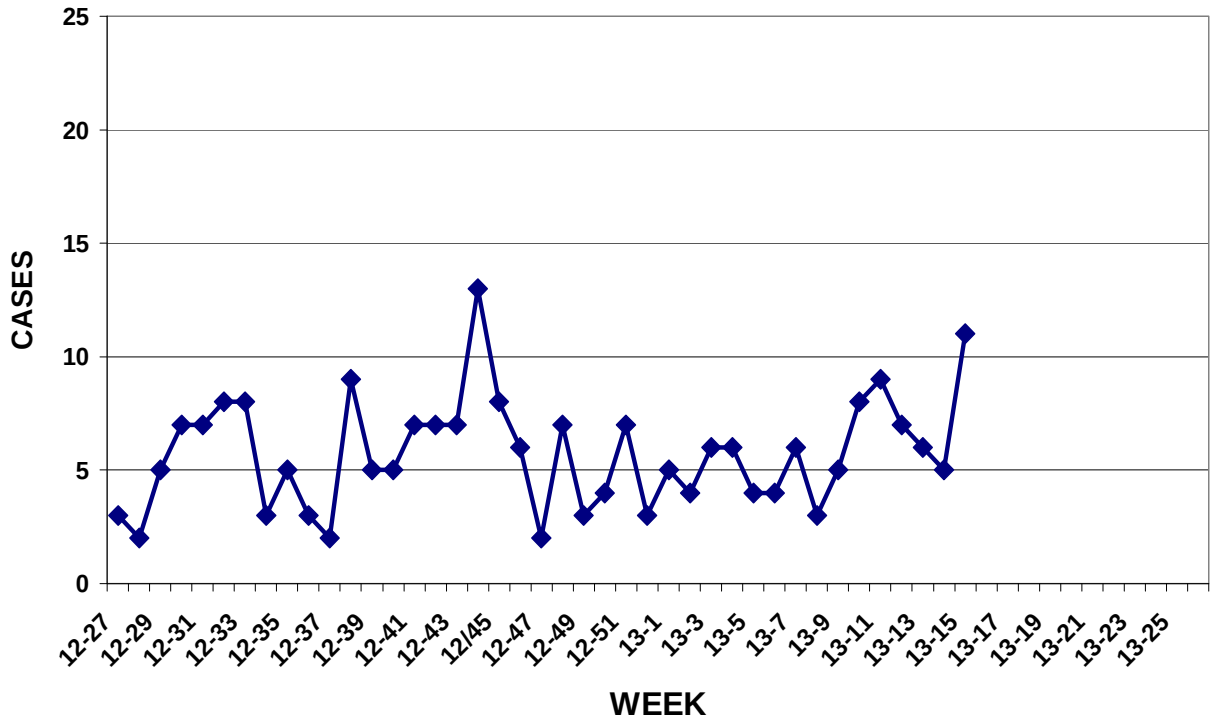
ISLAND-WIDE COMMUNICABLE DISEASE REPORT

REPORTS RECEIVED FOR THE WEEK ENDING 4/13/2013

Chickenpox	2
Chlamydia trachomatis	35
Clostridium difficile	2
Conjunctivitis	10
E. coli MDR	1
Hand, foot, and mouth disease	1
Hepatitis B	1
Hepatitis C	3
HPV	4
Influenza – not typed	1
Influenza A	1
Klebsiella pneumoniae MDR	2
Meningitis, viral	1
MRSA	8
Scabies	7
Scarlet fever	3
Shigella flexneri	1
Scombroid fish poisoning	1
Streptococcal sore throat	2 9
Tuberculosis	1

PREVENTIVE MEDICINE DEPARTMENT
U.S. NAVAL HOSPITAL GUAM

PNEUMONIA CASES SEEN IN GUAM MILITARY TREATMENT FACILITIES BY WEEK REPORTED, 2012-2013



H7N9 NEWS

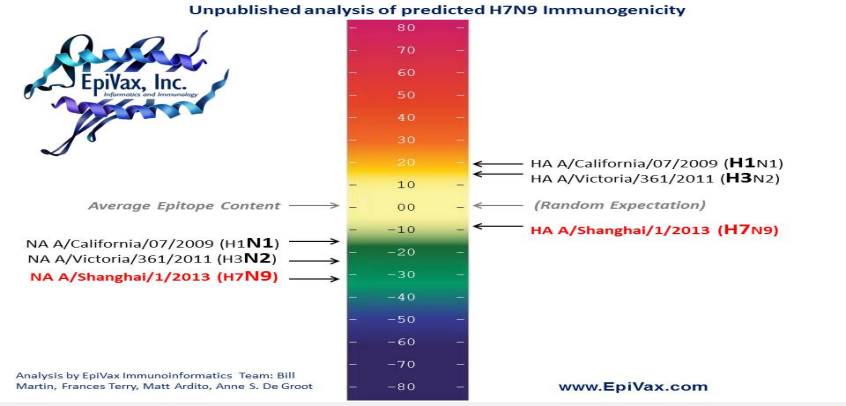
The bioinformatics team at EpiVax, Inc.© has examined the H7N9 (Shanghai 2013) sequence and found an unusually low number of T cell epitopes (the part of an antigen that is recognized by the immune system. They predict that it will be difficult to make effective vaccines and low cost diagnostics for the newly emerging virus suggesting that the new H7N9 may be a "stealth" virus that is able to fly under the immune system's radar. Should the H7N9 virus adapt itself for human-to-human transmission, it has serious potential for rapid expansion on a global scale.

The H7N9 (Shanghai 2013) protein that is usually incorporated in vaccines known as HA (hemagglutinin) has fewer immune-stimulating T cell epitopes than many previously circulating strains of flu. T cell epitopes have to be present in order for B cells to make high affinity and high titer antibodies. If antibody response is low, the virus could be transmitted faster and it may be harder to make effective vaccines.

Low T cell epitope content generally means that it is harder to make high-affinity antibodies, the type that are used to make low-cost diagnostic tests like ELISAs. While one rapid test for flu (based on PCR) is available, lacking a low cost rapid test, it could be harder to efficiently screen the expanding numbers of individuals that have already been exposed to active H7N9 cases.

The analysis done by the EpiVax team of expert vaccine designers is consistent with reports by the CDC that previous H7 vaccines for similar viruses had low immunogenicity. Last season's H3N2 was also predicted by EpiVax to have low immunogenicity, and epidemiological evidence of outbreaks among H3N2-vaccinated individuals confirms that prediction. Unless it is engineered for higher immunogenicity, a vaccine against H7N2 may have similar low efficacy as was seen with H3N2.

Experts in Japan report that the virus contains a signature that suggests transmission in mammals, and may also have some resistance to Tamiflu. An epitope-based or epitope-adjuvanted vaccine might be more effective in this situation than one based only on the low immunogenicity HA. EpiVax has already evaluated the new H7N9 sequences and designed an epitope-based vaccine that could overcome this problem.



Unpublished analysis of predicted H7N9 Immunogenicity. Analysis by EpiVax Immunoinformatics Team: Bill Martin, Frances Terry, Matt Ardito, Anne S. De Groot.

Source: http://www.epivax.com