

2010-11 Influenza Season, as of  
 4 March 2011

# U.S. Army Influenza Activity Report

Questions or comments:  
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*An integrated summary of findings from epidemiological reporting systems, Army Medical Center laboratory results, and sentinel, population and hospital-based surveillance systems.*

## Vaccine and Antiviral Resistance

### Influenza Vaccine

Circulating strains from DoD and civilian populations are well-matched to the 2010-11 vaccine.

(Reference USAFSAM, CDC)

During well-matched years, clinical trials have shown effectiveness of the influenza vaccine to be between 70-90% among health adults.

(Reference: CDC)

### Antiviral Resistance

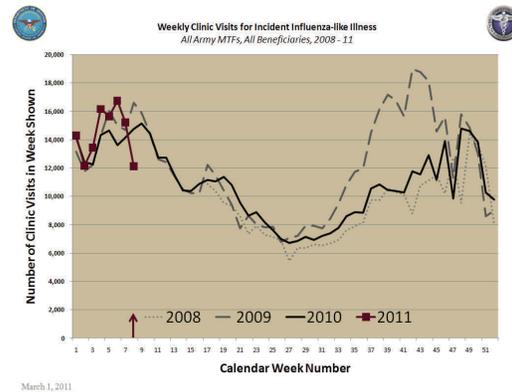
CDC antiviral testing indicates that all circulating influenza continue to be sensitive to neuraminidase inhibitors oseltamivir and zanamivir. DoD antiviral testing, using a genetic marker detection technique, also found that no 2009 H1N1 specimens indicated resistance to oseltamivir.

(Reference CDC, USAFSAM)

## Influenza-like Illness (ILI) activity

Clinical visits for ILI are gathered by the Armed Forces Health Surveillance Center from ESSENCE. As of 1 March.

For the week ending 26 February, visits for ILI across Army MTFs continued to decrease (20.3%) from the previous week, and remained at or below the usual range across the major geographic regions. Click graph below for a view of visits among all Army MTFs and see pages 2-3 by region.

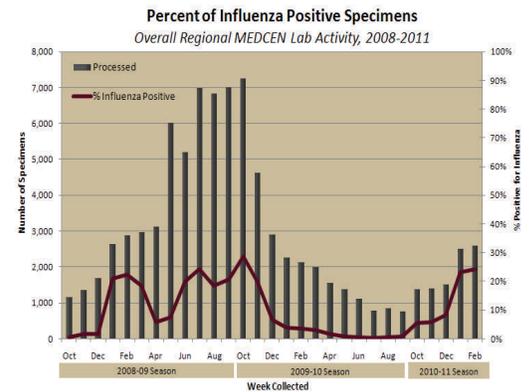


March 1, 2011

## Army Regional Lab activity

Data reflect major regional Medical Center lab activity (TAMC, LRMCM, EAMC, WRAMC, MAMC, and BAMC).

The number of specimens submitted for a respiratory test slightly increased (3.7%) from January to February. The percentage of positive influenza results increased from 23.1% in January to 24.3% in February. Click graph below and see pages 2-3 for an overview by MEDCEN lab.



## Resources

To access, double-click titles

### Surveillance Programs

- DoD Influenza-like Illness (AFHSC)
- Sentinel-based (USAFSAM)
- Population-based (NHRC)
- European Region (PHCR-E/LRMC)
- Acute Respiratory Disease (PHC)
- MHS Lab-based (NMCPHC)

### Related Links

- Pandemic Influenza Watchboard
- AFHSC
- CDC Influenza Update
- Historical Army Influenza reports

## Surveillance Activity Reports

For detailed information on the surveillance programs, see "Resources" section.

### MHS Lab-based surveillance (DoD beneficiaries)

Week ending 26 Feb: Highest frequency of influenza cases across DoD occurred at Ft Hood (n=19), Ft Sam Houston (n=10), and Ft Wainwright (n=10). Overall, Ft Hood has had the most influenza cases (n=496) this season. As of 1 March.

### Sentinel-based surveillance (DoD beneficiaries)

6-19 Feb: 47.2% of 267 specimens collected were positive for influenza. Influenza viruses account for 33% of total season results (71% A, 29% B). USAFSAM further reported:

Influenza A (n=483)			Influenza B (n=78)		
Subtype	No.	(%)	Lineage	No.	(%)
A/H1N1	97	(20.0)	B/Victoria	8	(10.3)
A/pH1	84	(17.4)	B/Vernagata	1	(1.3)
A/pending	2	(0.4)	B/pending	69	(88.4)

Of influenza-positive patients with vaccine history, 53% (102 of 192) of influenza A cases were immunized (vaccinated >=14 days prior to illness) and 39% (32 of 82) of influenza B cases were immunized. As of 1 March.

### Population-based surveillance (Recruits)

Week ending 26 Feb: Febrile respiratory illness rate is at or below expected value at Army recruit sites. This season, 102 Army recruits enrolled in this surveillance program were positive with influenza (89 A/pH1, 7 A/H3, 6 B). There are no new lab results at this time. As of 3 Mar.

### Acute Respiratory Disease surveillance (Recruits)

Week ending 26 Feb: Strep/ARD surveillance index increased from the previous week at Ft Leonard Wood (ARD cases = 17, Strep = 1). As of 2 March.

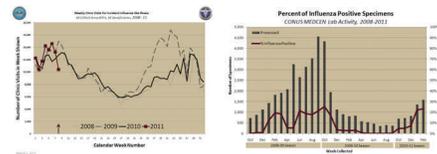
### Pneumonia and Influenza-associated Mortality

2010-11 season: 1 death on 20 Feb reported by Ft Jackson was attributed to influenza A. The Army patient was vaccinated >14 days. A DoD effort is in place to review circulating strains and vaccine efficacy.

# Regional Army Respiratory Activity: Syndromic (ILI) and Lab-Confirmed

## CONUS Major Regional MEDCEN Lab Activity

- **ILI:** For the week ending 26 February, patient visits for ILI continued to decrease (21.4%) from the previous week among Army MTFs in CONUS.
- **Lab Activity:** The number of patients having a respiratory test at a CONUS MEDCEN laboratory increased 23.5% from January to February.



Double-click images to expand.

### • Brooke Army Medical Center (BAMC) Lab, TX

#### - 2010-11 season: Respiratory Testing

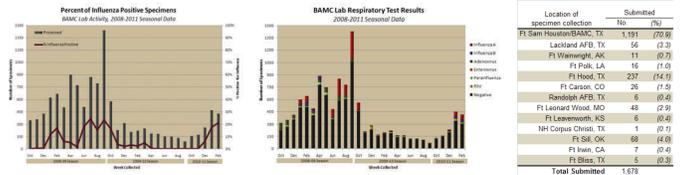
The number of specimens submitted for a respiratory test decreased 9.2% from January to February. Ft Sam Houston/BAMC accounted for the majority (86.4%) of submissions in February and this season (70.9%, n=1,191).

#### - Patients with Influenza:

The majority (77.8%, n=70) of patients were dependents (74% children, 26% spouse), followed by 8.8% (n=8) active duty, 10.0% (n=9) retirees, 1.1% (n=1) Army National Guard, 1.1% (n=1) Army Reserve, and 1.1% (n=1) other. The majority (88.8%) of the patients with influenza sought care at MTFs on Ft Sam Houston or BAMC.

#### - Results

The percentage of positive respiratory results slightly increased from 27.5% in January to 28.4% in February, more specifically, positive influenza results increased from 17.5% to 21.1%.



### • Eisenhower Army Medical Center (EAMC) Lab, GA

#### - 2010-11 season: Respiratory Testing

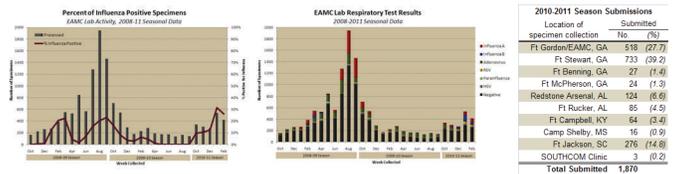
The number of specimens submitted for a respiratory test decreased 22.6% from January to February. Ft. Stewart, GA accounted for the majority (33.3%) of submissions in February and this season (39.2%, n=733). Testing for Ft. Gordon/EAMC accounted for 27.7% (n=518) of total respiratory tests this season.

#### - Patients with Influenza:

The majority (66.1%) of influenza-positive patients seeking care in February were dependents (83% children, 17% spouse), followed by 25.7% (n=28) active duty, 4.6% (n=5) retirees, 1.8% (n=2) Reserve, and 1.8% (n=2) Nat'l Guard.

#### - Results

The percentage of positive respiratory results decreased from 44.9% in January to 38.1% in February, more specifically, positive influenza results decreased from 31.5% to 26.1%.



### • Madigan Army Medical Center (MAMC) Lab, WA

#### - 2010-11 season: Respiratory Testing

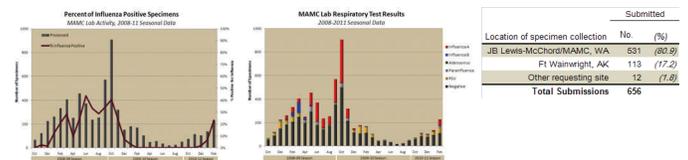
The number of specimens submitted for a respiratory test increased 67.1% from January to February. Joint Base Lewis-McChord/MAMC accounted for the majority (75.5%) of submissions in February and this season (93.7%, n=531).

#### - Patients with Influenza:

The majority (79.2%, n=42) of influenza-positive patients seeking care in February were dependents (67% children, 33% spouse), followed by 11.3% (n=6) active duty, 7.5% (n=4) retirees, and 1.8% (n=1) civilian.

#### - Results

The percentage of positive respiratory results increased from 31.4% in January to 51.9% in February, more specifically, positive influenza results increased from 6.5% to 23.1%. Influenza isolates characterized this season include A/pH1 (n=24) and A/H3 (n=29).



### • Walter Reed Army Medical Center (WRAMC) Lab, WA

#### - 2010-11 season: Respiratory Testing

The number of specimens submitted for a respiratory test increased 147% from January to February. WRAMC accounted for the majority (67.6%) of submissions in February and this season (66.2%, n=773).

#### - Patients with Influenza:

The majority (60.5%, n=69) of influenza-positive patients seeking care in February were dependents (80% children, 20% spouse), followed by 18.4% (n=21) retirees, 11.4% (n=13) active duty, 3.5% (n=4) Nat'l Guard, 1.7% (n=2) Reserve, and 3.5% (n=4) other. WRAMC provided care to 56.2% (n=64) of these patients.

#### - Results

The percentage of positive respiratory results increased from 22.3% in January to 29.2% in February, more specifically, positive influenza results increased from 17.5% to 22.6%. Influenza isolates characterized this season include A/pH1 (n=4) and A/H3 (n=3).

