

2010-11 Influenza Season, as of
 16 February 2011

U.S. Army Influenza Activity Report

Questions or comments:
influenza.surveillance@amedd.army.mil

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 trails have shown effectiveness of the vaccine to be between 70-90% among health adults.

(Reference: CDC)

Antiviral Resistance

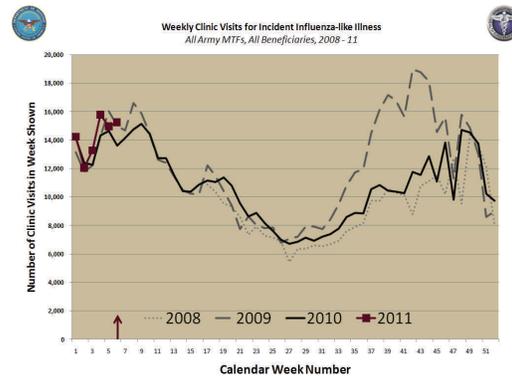
CDC antiviral testing indicates that all subtypes of influenza continue to be sensitive to neuraminidase inhibitors oseltamivir and zanamivir. DoD antiviral testing, using a genetic marker detection technique, also found that no 2009 H1N1 specimens indicated resistance to oseltamivir.

(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 8 February.

For the week ending 12 February, visits for ILI across Army MTFs **slightly increased** (1.9%) from the previous week, remaining in the range of visits for the same time period in previous years. Click graph below for an overview of visits among all Army MTFs and [page 2](#) for an overview by region.

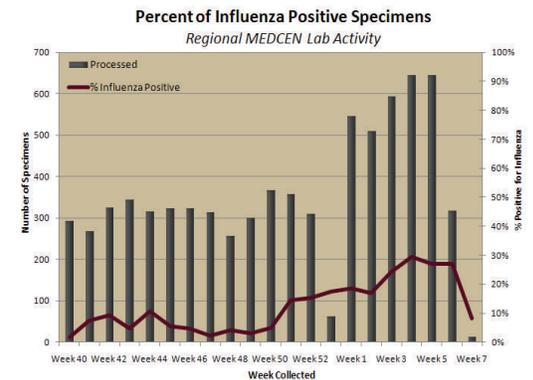


February 15, 2011

Army Regional Lab activity

Data reflect all major regional MEDCEN labs (TAMC, LRMC, EAMC, WRAMC, MAMC, and BAMC).

An average of 62 patients per week had a specimen tested for a respiratory virus at one of the major regional Army MEDCEN labs. Of the total 7,421 specimens tested, 14.5% (n=1,075) were positive for influenza. Click graph below and see [pages 2-3](#) for a detailed overview by region and MEDCEN lab.



Resources

To access, double-click titles

Surveillance Programs

- DoD Influenza-like Illness (AFHSC)
- Sentinel-based (USAFSAM)
- Population-based (NHRC)
- Region-based (PHC-EUR/LRMC)
- Acute Respiratory Disease (PHC)
- DoD MHS Lab Surveillance (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 Report (DoD beneficiaries)

Week ending 5 Feb: The highest frequency of influenza cases across DoD occurred at Ft Hood (n=95) and Ft Sam Houston (n=27). Overall, Ft Hood has had the most influenza cases (n=333) this season. * As of 9 Feb.

*Data include rapid antigen results.

Sentinel-based surveillance (DoD beneficiaries)

Influenza viruses account for 26% of total season results (70% A, 30% B). USAFSAM further reported:

Influenza A (n=183)			Influenza B (n=78)		
Subtype	No.	(%)	Lineage	No.	(%)
A/H3	97	(53.0)	B/Victoria	8	(10.2)
A/pH1	84	(45.9)	B/Yamagata	1	(1.2)
A/pending	2	(1.1)	B/pending	69	(88.4)

Among influenza cases with vaccine history, 51% (71 of 138) of influenza A cases were immunized (vaccinated >= 14 days), and 26% (14 of 52) of influenza B cases were immunized. As of 16 Feb.

Population-based surveillance (Recruits)

Week ending 5 Feb: The febrile respiratory illness (FRI) rate changed from substantially elevated to moderately elevated at Ft Leonard Wood.

This season, 48 Army recruits have been positive with influenza (38 A/pH1, 6 A/H3, 4 B). Of these, 79% (n=38) were collected from 11-27 Jan. At least 5 Army recruits were vaccinated >14 days.

Recent A/pH1 original specimens and grown virus have been shared with CDC and USAFSAM, respectively. As of 10 Feb.

Acute Respiratory Disease (ARD) surveillance

Strep/ARD surveillance index (SASI)* increased at 2 sites: Ft Knox (10.56) and Ft Jackson (2.36).

As of 16 Feb.

*SASI has proven to be a reliable predictor of serious strep-related morbidity, especially acute rheumatic fever.

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

CONUS Major Regional MEDCEN Lab Activity

Double-click images to the right of the paragraphs to expand.

- **ILI:** For the week ending 12 February, patient visits for ILI slightly increased (2.1%) from the previous week.



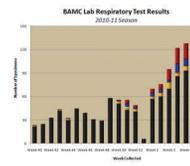
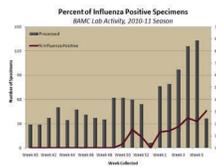
• Brooke Army Medical Center (BAMC), TX

- 2010-11 season: Respiratory Testing

An average of 57 patients a week had a specimen tested. Of the 1,130 patients tested this season, 21.9% (n=248) were positive, more specifically, 11.1% (n=125) were positive for influenza (67% A, 33% B).

- Patients with Influenza:

The majority (79.2%, n=99) of patients were dependents (72% children, 28% spouse), followed by 12.8% (n=16) active duty, 5.6% (n=7) retirees, 1.6% (n=2) Army National Guard, and 0.8% (n=1) Army Reserve. The majority (95.2%) of the patients sought care at MTFs on Ft Sam Houston and/or BAMC.



Location of specimen collection	Submitted No.	(%)
Ft Sam Houston/BAMC, TX	780	(69.0)
Lackland AFB, TX	40	(3.5)
FL Williamsburg, AK	3	(0.3)
Ft Polk, LA	13	(1.2)
Ft Hood, TX	153	(13.5)
Ft Carson, CO	13	(1.2)
Randolph AFB, TX	6	(0.5)
Ft Leonard Wood, MO	64	(5.7)
St. Elizabeth, KS	5	(0.4)
NH Corpus Christi, TX	1	(0.1)
Ft Sill, OK	45	(4.0)
Ft Irwin, CA	5	(0.4)
Ft Bliss, TX	1	(0.1)

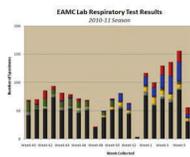
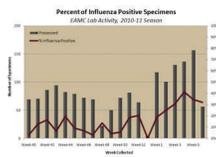
• Eisenhower Army Medical Center (EAMC), GA

- 2010-11 season: Respiratory Testing

An average of 78 patients a week had a specimen tested. Of the 1,609 patients tested this season, 36.4% (n=586) were positive, more specifically, 19.4% (n=313) were positive for influenza (49% A, 51% B).

- Patients with Influenza:

The majority (77.3%, n=242) were dependents (82% children, 18% spouse), followed by 13.1% (n=41) active duty, 5.4% (n=17) AR Nat'l Guard, 1.6% (n=5) AR Reserve, and 2.5% (n=8) retirees. Patients seeking care at Ft. Stewart accounted for 40.6% (n=127) of cases.



Location of specimen collection	Submitted No.	(%)
Ft Gordon/EAMC, GA	439	(27.3)
Ft Stewart, GA	640	(39.8)
Ft Benning, GA	29	(1.2)
Ft McPherson, GA	17	(1.1)
Redstone Arsenal, AL	96	(6.0)
Ft Rucker, AL	66	(4.1)
Ft Campbell, KY	53	(3.3)
Camp Shelby, MS	15	(0.9)
Ft Jackson, SC	260	(16.2)
SOUTHCOM Clinic	3	(0.2)

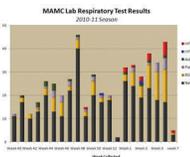
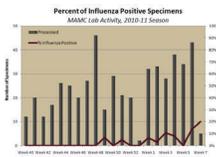
• Madigan Army Medical Center (MAMC), WA

- 2010-11 season: Respiratory Testing

An average of 25 patients a week had a specimen tested. Of the 505 patients tested this season, 29.7% (n=150) were positive, more specifically, 3.5% (n=18) were positive for influenza (89% A, 11% B). Characterized isolates: A/pH1 (n=7) and A/H3 (n=7).

- Patients with Influenza:

The majority (83.3%, n=15) were dependents (47% children, 53% spouse), followed by 11.1% (n=2) AF retirees, and 5.6% (n=1) AF active duty. Two of the 10 patients sought care at Ft. Wainwright, AK, while the remainder were MTFs on Joint Base Lewis-McChord.



Location of specimen collection	Submitted No.	(%)
JB Lewis-McChord/MAMC, WA	437	(86.5)
Ft Wainwright, AK	68	(13.5)

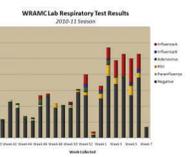
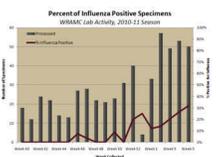
• Walter Reed Army Medical Center (WRAMC), WA

- 2010-11 season: Respiratory Testing

An average of 30 patients a week had a specimen tested. Of the 601 patients tested this season, 22.8% (n=137) were positive, more specifically, 12.9% (n=78) were positive for influenza (90% A, 10% B). Characterized isolates: A/pH1 (n=4) and A/H3 (n=3).

- Patients with Influenza:

The majority (62.8%, n=49) were dependents (45% children, 18% spouse), followed by 37.2% (n=29) active duty members. All patients with positive influenza results sought care in clinics or the hospital at Walter Reed.



Location of specimen collection	Submitted No.	(%)
Walter Reed	281	(46.8)
Other submitting site	315	(52.4)

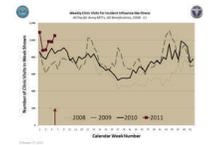
Regional Army Respiratory Activity: Syndromic (ILI) and Lab-Confirmed

OCONUS Activity

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Pacific

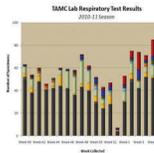
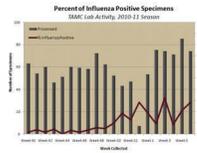
- **ILI:** For the week ending 12 February, patient visits for ILI increased (7.4%) from the previous week.



• Tripler Army Medical Center (TAMC), HI

- 2010-11 season: Respiratory Testing

An average of 58 patients a week had a specimen tested. Of the 1,166 patients tested, 34.3% (n=400) were positive, more specifically, 10.7% (n=125) were positive for influenza (68% A, 32% B). Characterized isolates: A/pH1 (n=3), B/Victoria (n=1).



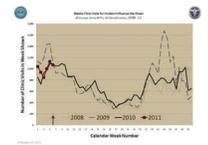
Location of specimen collection	Submitted	
	No.	(%)
Tripler AMC	1085	(92.1)
Brian Allgood ACH, S.K	15	(1.3)
NH Guam, Guam	6	(0.5)
Joint Base Pearl Harbor Hickam	60	(5.1)

- Patients with Influenza:

The majority (76%, n=94) were dependents (64% children, 36% spouse), followed by 8.0% (n=10) active duty, 3.2% (n=4) retirees, 1.6% (n=2) VA beneficiaries, and 1.6% (n=2) civilians. Three of the 98 patients sought care in South Korea (BAACH), while the remainder sought care in HI.

Europe

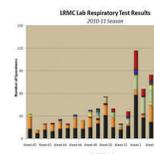
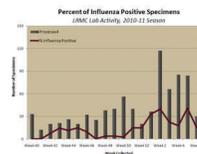
- **ILI:** For the week ending 12 February, patient visits for ILI decreased (5.4%) from the previous week.



• Landstuhl Army Medical Center (LRMC), Germany

- 2010-11 season: Respiratory Testing

An average of 43 patients a week had a specimen tested. Of the 801 patients tested, 56.3% (n=451) were positive, more specifically, 12.8% (n=103) were positive with influenza (78% A, 22% B). Characterized isolates: A/pH1 (n=63) and A/H3 (n=8).



Location of specimen collection	Submitted	
	No.	(%)
Landstuhl, Germany	212	(26.5)
Bamberg, Germany	2	(0.2)
Blaumhader, Germany	35	(4.4)
Coleman Barracks, Germany	17	(2.1)
Gellerkirchen, Germany	5	(0.6)
Heidelberg, Germany	205	(25.8)
Illeshem, Germany	1	(0.1)
Kattlach, Germany	4	(0.5)
Kleber, Germany	3	(0.4)
Lakenheath AB, England	85	(10.6)
Manheim, Germany	25	(3.1)
Ramstein AB, Germany	25	(3.1)
Scheidegg, Germany	8	(1.0)
Spangdahlem, Germany	4	(0.5)
Stuttgart, Germany	5	(0.6)
Wiesbaden, Germany	3	(0.4)
Aviano AB, Italy	7	(0.9)
NH Naples, Italy	49	(6.1)
NH Sigonella, Italy	11	(1.4)
Vicenza, Italy	2	(0.2)
Brussels, Belgium	2	(0.2)
Shap, Belgium	24	(3.0)
NH Rota, Spain	34	(4.2)
Incirk AB, Turkey	24	(3.0)
Irbil, Iraq	1	(0.1)
Kuwait	3	(0.4)
Afghanistan	1	(0.1)

- Patients with Influenza:

The majority (65.0%, n=67) were dependents (67% child, 33% spouse), followed by 26.2.7% (n=27) active duty, 0.9% (n=1) reserve, and 10.3% (n=8) employees and/or their family members.

- *Note: Respiratory viruses identified by Luminex technology.*

Centers for Disease Control and Prevention

Retrieved on 16 Feb.

- **Nationwide**, during Week 5 (30 Jan - 5 Feb), 4.6% of reported patient visits were due to ILI, which was above the national baseline of 2.5%. Of the specimens tested by collaborating labs and reported to CDC, 31.7% were positive for influenza. See CDC's [FluView](#) for more information.

- **Global Influenza Activity** (as reported by [Global Alert and Response](#)). An increase in influenza activity is reported in North America, notably in the United States, with a slight increase of A(H1N1) 2009 compared to previous weeks. Influenza activity is increasing on the European continent, particularly in the central, south, and eastern part. Activity, mainly due to A(H1N1) 2009, is increasing in several countries in southern Asia. Some countries in northern Asia are seeing an increase in A(H1N1) 2009 activity and some are seeing an increase in ILI activity. Other tropical areas are reporting very little influenza circulation. Activity in most of northern Africa and the Middle East has peaked recently and is declining.

- The majority of the viruses characterized from North America and Europe are closely related to the vaccine viruses for the current seasonal vaccines. As of 11 Feb.