DEPARTMENT OF DEFENSE
Seasonal Influenza Surveillance Summary

04 April 2014

Northern Command
Electronic Surveillance:
- The percent of outpatient encounters due to influenza-like illness (ILI) or pneumonia and influenza (P&I) both continued to decrease and was below baseline in week 13 (23 March – 29 March 2014) for service members and dependents.
- ILI and P&I activity continued to decline among vaccinated and unvaccinated service members in week 13.
Laboratory Surveillance:
- Febrile Respiratory Illness rates at all basic training centers are at or below expected values. There were 3 cases of A/H1 during week 13 (all 3 from CGTC Cape May).
- For week 12 (16 March – 22 March 2014), there were 8 flu positive lab results for service members (3 A/H1, 1 A/H3, 4 A not subtyped) and 14 for dependents (3 A/H1, 1A/H3, 4 A not subtyped, 6 B). For week 13, there were 6 flu positive lab results for service members (4 A/H1, 2 A/H3) and 10 for dependents (1 A/H1, 1 A/H3, 5 A not subtyped, 3 B) (Figure 1).
- For this season, among service members the percent positive of lab tested samples is 4.0%.
RMEs: (None to report)

Southern Command
Laboratory Surveillance:
- Among local nationals in Peru in week 13, 11 samples were tested and 7 tested positive for flu (3 A/H1, 4 B).
RMEs: (None to report)

Central Command
Electronic Surveillance:
- The percent of encounters that were ILI or P&I related increased slightly this week, but remained below baseline (Figure 1).
RMEs: (None to report)

Africa Command
Laboratory Surveillance:
- Among local nationals in Cameroon in week 13, 6 samples were tested and 2 were flu positive (2 B).
RMEs: (None to report)

European Command
Electronic Surveillance:
- The percent of outpatient encounters due to ILI or P&I decreased or remained stable this week for service members and dependents.
- Among service members during week 13, ILI and P&I activity decreased.
Laboratory Surveillance:
- For week 12, there was 1 flu positive result for service members (1 A not subtyped) and 10 positive results reported for dependents (2 A/H1, 3 A/H3, 5 A not subtyped). For week 13, there were 2 flu positive results for service members (1 A/H3, 1 A not subtyped) and 2 positive results for dependents (1 A/H3, 1 A not subtyped) (Figure 2).
- For this season, among service members the percent positive of lab tested samples is 13.1%. Among dependents, the percent positive of lab tested samples is 7.9%.
RMEs: (None to report)

Pacific Command
Electronic Surveillance:
- The percent of outpatient encounters due to ILI or P&I decreased or remained stable in week 13 for service members and dependents.
- ILI and P&I activity continued to decrease in week 13.
Laboratory Surveillance:
- For week 12, there were 2 flu positive lab results for service members (1 A/H3, 1 A not subtyped) and 8 flu positive results for dependents (2 A not subtyped, 6 B). For week 13, there were 3 flu positive lab result for service members (3 A not subtyped) and 6 positive flu results reported for dependents (1 A/H1, 3 A not subtyped, 2 B) (Figure 3).
- For this season, among service members the percent positive of lab tested samples is 14.6%. Among dependents, the percent positive of lab tested samples is 9.7%.
- Among local nationals and embassy employees since 29 Sept 2013, 48 collection sites in 12 countries collected a total of 2226 specimens from patients with ILI symptoms. The majority of specimens were collected in Thailand (47.8%).
RMEs: (None to report)

Immunization Coverage*

<table>
<thead>
<tr>
<th>(Active Component)</th>
<th>DoD</th>
<th>ARMY</th>
<th>MARINES</th>
<th>NAVY</th>
<th>COAST GUARD</th>
<th>AIR FORCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seasonal Influenza Vaccine</td>
<td>96%</td>
<td>97%</td>
<td>93%</td>
<td>93%</td>
<td>97%</td>
<td>99%</td>
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</tbody>
</table>

Sources: DoD ALL-MILVAX, ARMY-MEDPROS, MARINES-MRRS, NAVY-MRRS, COAST GUARD-MRRS, AIRFORCE-AFCITA
*As of 19 Feb 2014

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The Following Graphs were produced by the AHFSC Epidemiology and Analysis Division. Disparities between these graphs and analyses described above can be attributed to time lag in data acquisition and/or programming differences.

Figure 1. NORTHCOM

Figure 1a. Incidence Rate of P&I and ILI among Active Duty Service Members

![Figure 1a](image)

Figure 1b. Percent of All Outpatient Visits with an ILI Diagnosis: Service Members and Other Beneficiaries Presented Separately

![Figure 1b](image)
Figure 1c. Percent of All Outpatient Visits with a P&I Diagnosis: Service Members and Other Beneficiaries Presented Separately

NORTHCOM Service Members, 2013-2014 and previous 2 Influenza Seasons

NORTHCOM Other Beneficiaries, 2013-2014 and previous 2 Influenza Seasons

Data Source: Defense Medical Surveillance System
Report Date: Apr 2, 2014
Figure 1d. Influenza Positive Tests Reported in Health Level 7 data: Service Members and Other Beneficiaries Presented Separately
Figure 2. EUCOM
Figure 2a. Incidence Rate of P&I and ILI among Active Duty Service Members

Figure 2b. Percent of All Outpatient Visits with an ILI Diagnosis: Service Members and Other Beneficiaries Presented Separately
Figure 2c. Percent of All Outpatient Visits with a P&I Diagnosis: Service Members and Other Beneficiaries Presented Separately

EUCOM Service Members, 2013-2014 and previous 2 Influenza Seasons

Data Source: Defense Medical Surveillance System
Report Date: Apr 2, 2014

EUCOM Other Beneficiaries, 2013-2014 and previous 2 Influenza Seasons

Data Source: Defense Medical Surveillance System
Report Date: Apr 2, 2014
Figure 2d. Influenza Positive Tests Reported in Health Level 7 data: Service Members and Other Beneficiaries Presented Separately
Figure 3. PACOM
Figure 3a. Incidence Rate of P&I and ILI among Active Duty Service Members

Figure 3b. Percent of All Outpatient Visits with an ILI Diagnosis: Service Members and Other Beneficiaries Presented Separately
Figure 3c. Percent of All Outpatient Visits with a P&I Diagnosis: Service Members and Other Beneficiaries Presented Separately

PACOM Service Members, 2013-2014 and previous 2 Influenza Seasons

PACOM Other Beneficiaries, 2013-2014 and previous 2 Influenza Seasons

Data Source: Defense Medical Surveillance System
Report Date: Apr 2, 2014
Figure 3d. Influenza Positive Tests Reported in Health Level 7 data: Service Members and Other Beneficiaries Presented Separately

Influenza Positive Tests Reported to AFHSC, PACOM Service Members, 2013-2014 Influenza Season

Influenza Positive Tests Reported to AFHSC, PACOM Beneficiaries, 2013-2014 Influenza Season
Figure 4. CENTCOM

Figure 4a: Percent of All TMDS Encounters with an ILI Diagnosis

![Graph showing the percentage of All TMDS Encounters with an ILI Diagnosis for CENTCOM Service Members, 2013-2014 and previous 2 Influenza Seasons. The graph compares the percentage of cases with ILI over time, showing trends from 2011-2012 to 2013-2014.]

Data Source: The site’s Medical Data Store (TMDSS)
Report Date: Apr 2, 2014

Figure 4b: Percent of All TMDS Encounters with a P&I Diagnosis

![Graph showing the percentage of All TMDS Encounters with a P&I Diagnosis for CENTCOM Service Members, 2013-2014 and previous 2 Influenza Seasons. The graph compares the percentage of cases with P&I over time, showing trends from 2011-2012 to 2013-2014.]

Data Source: The site’s Medical Data Store (TMDSS)
Report Date: Apr 2, 2014
Description:

Figures are stratified by Combatant Commands (COCOM). For NORTHCOM, EUCOM, and PACOM, several figures are presented. The first 5 figures present the weekly data on ILI and P&I events. These figures give an overview of the influenza season by incidence and all outpatient visits. This data can give a broad view of the pattern and severity of the season and allow the reader to compare seasonal patterns with previous years and between the U.S. and international regions. The last 2 figures present the Health Level 7 (HL-7) laboratory data for the DoD. These figures provides the number of influenza laboratory tests (influenza PCR or viral culture tests only) performed each week and the proportion and serotype of influenza positive tests.

Incidence of Influenza:

Each week the incidence rates of ILI and P&I are calculated for active component service members. The numerator comprises the sum of new events occurring during the week of interest. The denominator comprises the total number of persons at risk for that week. Rates are stratified by seasonal influenza vaccination status at the start of the week. Service members vaccinated against influenza at least 14 days prior to the start of the week are included in the vaccinated group. (Figure 1)

Percentage of Outpatient Visits Associated with Influenza:

The percentage of all outpatient visits that have an ILI or P&I diagnosis is calculated each week for (1) all service members, regardless of component and (2) all other DoD beneficiaries. Current proportions are graphed against the baseline** and data for the two prior influenza seasons for comparison.

Laboratory Tests for Influenza (HL-7):

Each week the total number of influenza laboratory tests (PCR or viral culture only) performed and the proportion and serotype of influenza positive tests is calculated for (1) all service members, regardless of component and (2) all other DoD beneficiaries.

CENTCOM Medical Encounters (Theater Medical Data Store -TMDS):

The percentage of all medical encounters reported in TMDS that have an ILI or P&I diagnosis is calculated each week for service members (regardless of component) deployed to CENTCOM. Current proportions are graphed against the baseline** and data for the two prior influenza seasons for comparison.

(All data are preliminary and subject to change as updated data is received)

Background:

AFHSC maintains the Defense Medical Surveillance System (DMSS) which is a database containing up-to-date and historical data on medical encounters, vaccinations, and personnel and demographic data about service members from all military services. Using ICD-9 codes from hospitalization and outpatient encounters, influenza vaccination data, and laboratory data contained within the DMSS, AFHSC produces weekly summaries of respiratory illness activity among military health system beneficiaries by COCOM. Two primary outcomes are used for this surveillance: Influenza-like Illness (ILI) and Pneumonia and Influenza (P&I). ILI is defined as a health care encounter that resulted in a diagnostic (ICD-9) code of 79.99, 382.9, 460, 461.9, 465.8, 465.9, 466.0, 486, 487.0, 487.1, 487.8, 488, 490, 780.6, or 786.2. P&I is defined as an ICD-9 code of 480-488.

**The COCOM specific baseline is the percentage of outpatient visits (or medical encounters for CENTCOM) for ILI or P&I during non-influenza weeks (weeks 22-39) over the past 3 years plus two standard deviations.