



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 dependents⁶.
- ILI and P&I activity continued to decline among vaccinated and unvaccinated service members in week 13⁶.

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)⁵.
- 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)^{1,6}.
- For this season, among service members the percent positive of lab tested samples is 6.1%. Among dependents, the percent positive of lab tested samples is 4.0%⁶.

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)⁸.

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 4)⁶.

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)⁷.

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 dependents⁶.
- Among service members during week 13, ILI and P&I activity decreased^{3,6}.

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)^{3,6}.
- 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%⁶.

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 dependents⁶.
- ILI and P&I activity continued to decrease in week 13⁶.

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)^{1,6}.
- 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%⁶.
- 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%). As of 01 April 2014, of the 2142 specimens tested, 622 (29%) tested positive (166 A/H1, 151 A/H3, 304 Flu B, 1 A&B coinfection)².

RMEs: (None to report)

¹USAFSAM; ²AFRIMS; ³PHCR-E; ⁴AIPH; ⁵NHRC; ⁶AFHSC; ⁷USAMRU-K; ⁸NAMRU-6.

Immunization Coverage*						
(Active Component)	DoD	ARMY	MARINES	NAVY	COAST GUARD	AIR FORCE
Seasonal Influenza Vaccine	96%	97%	93%	94%	97%	99%

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

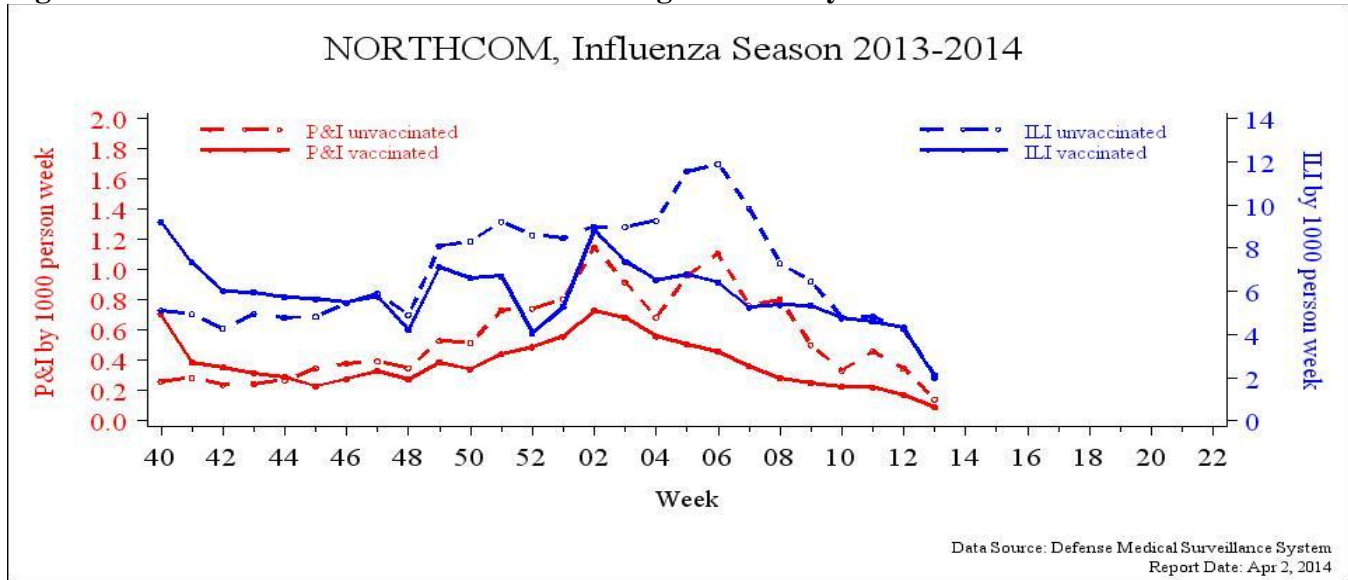


Figure 1b. Percent of All Outpatient Visits with an ILI Diagnosis: Service Members and Other Beneficiaries Presented Separately

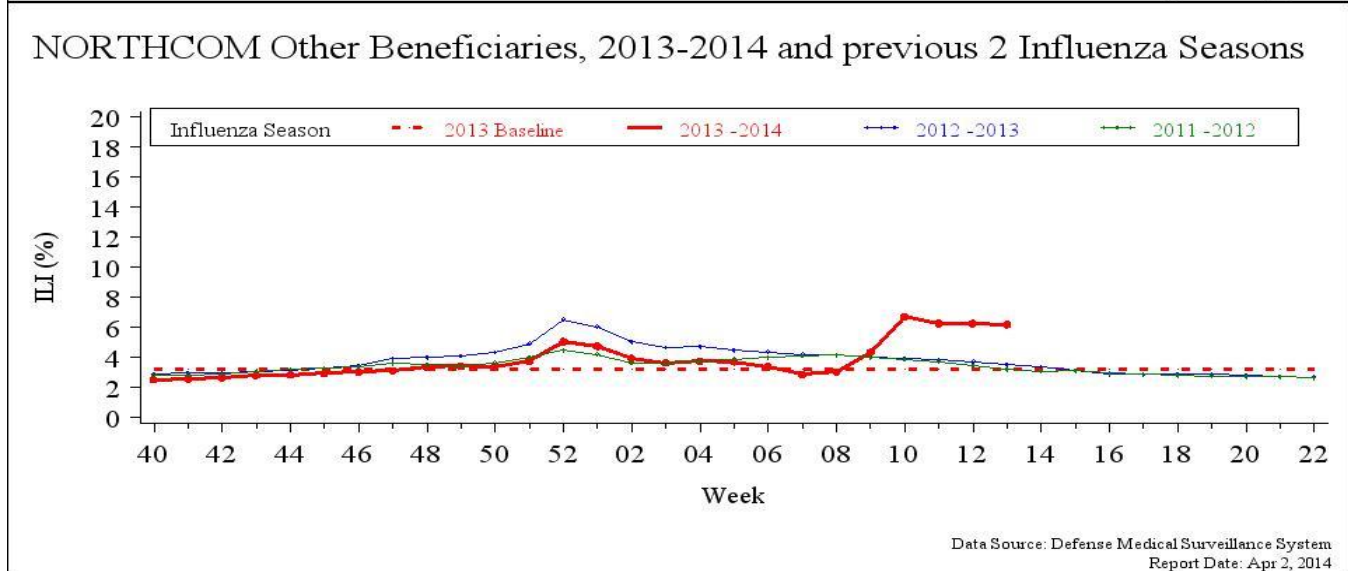
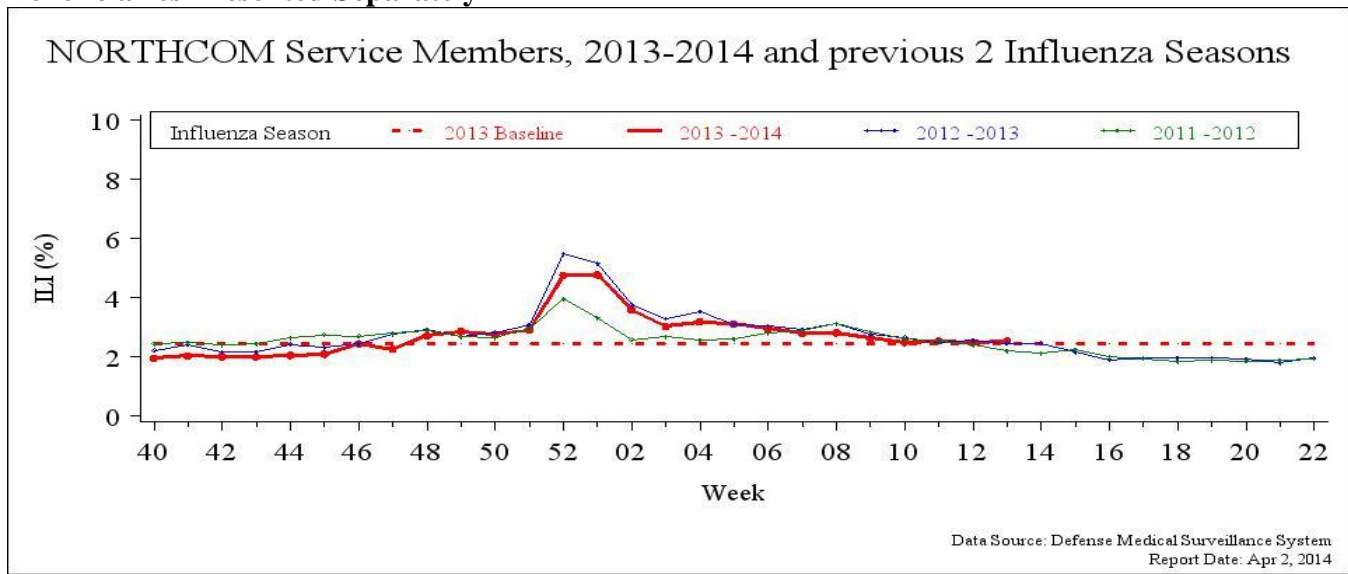


Figure 1c. Percent of All Outpatient Visits with a P&I Diagnosis: Service Members and Other Beneficiaries Presented Separately

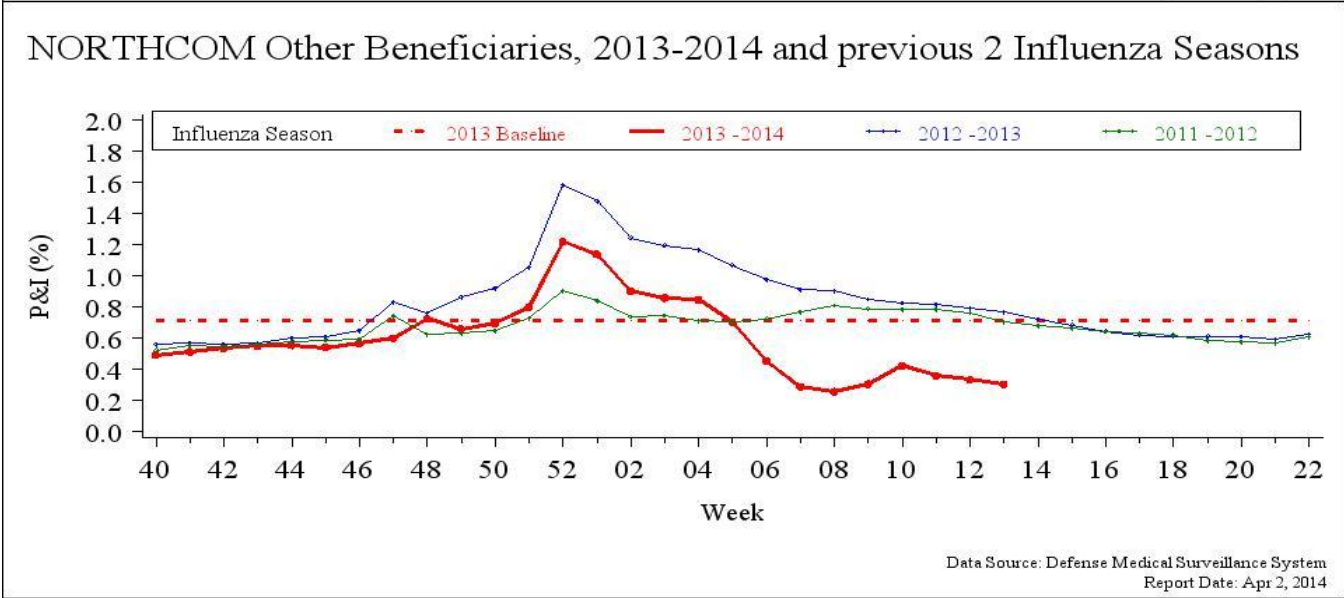
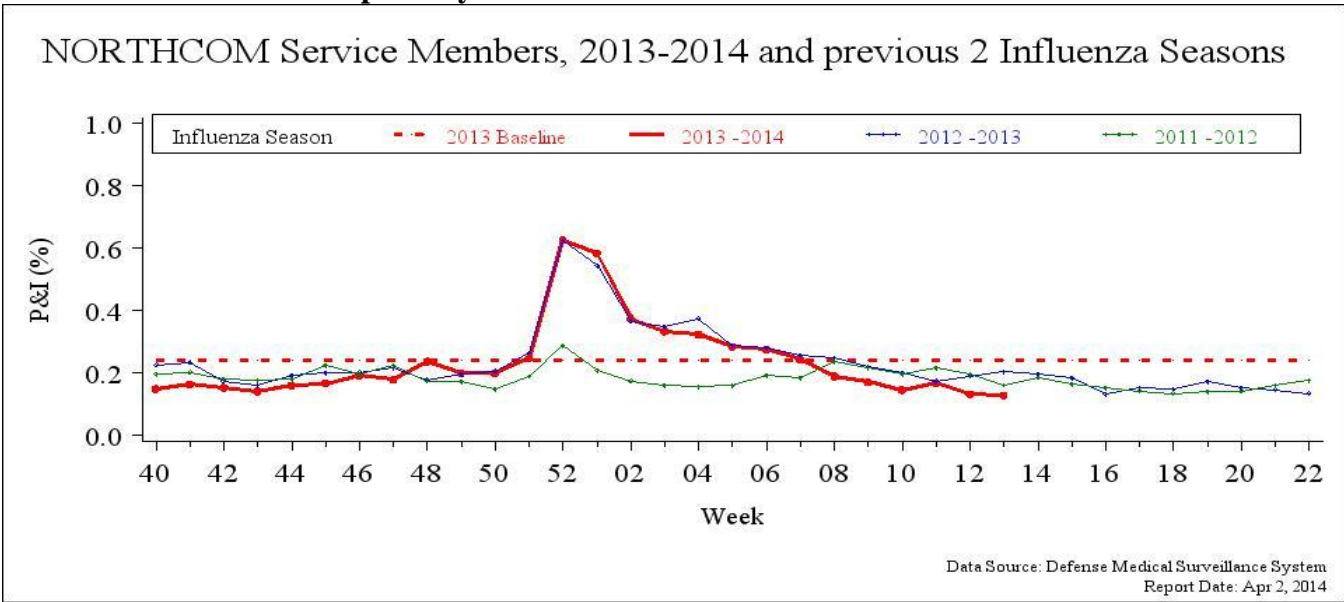


Figure 1d. Influenza Positive Tests Reported in Health Level 7 data: Service Members and Other Beneficiaries Presented Separately

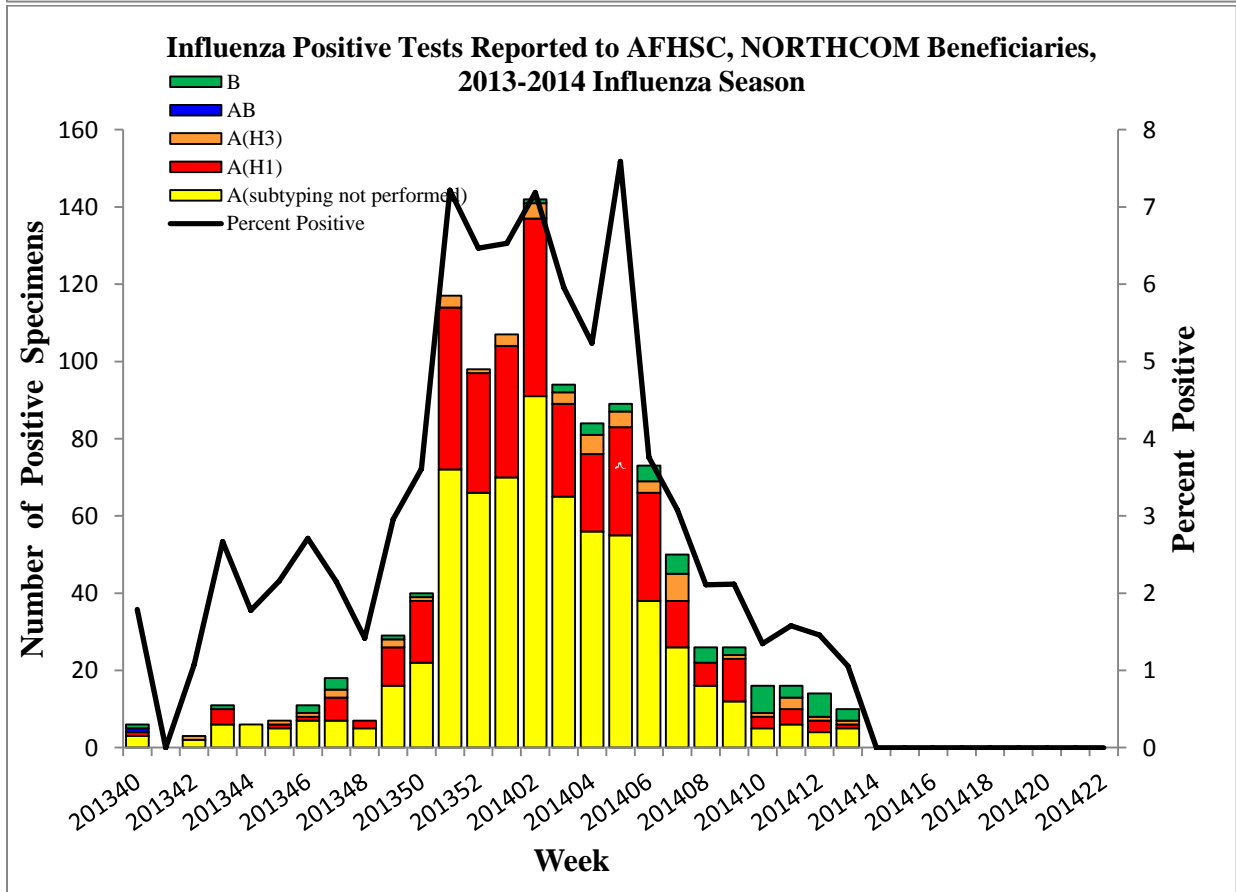
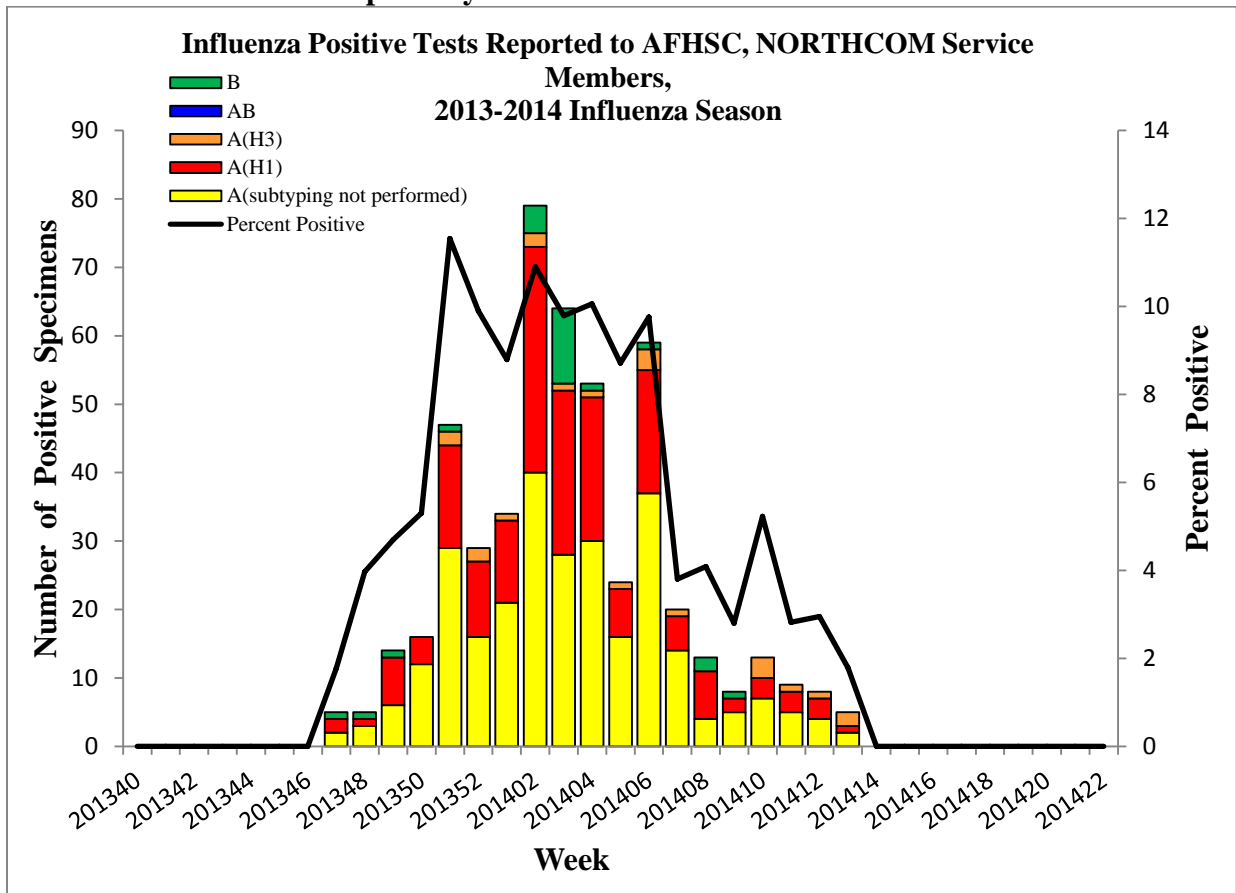


Figure 2. EUCOM

Figure 2a. Incidence Rate of P&I and ILI among Active Duty Service Members

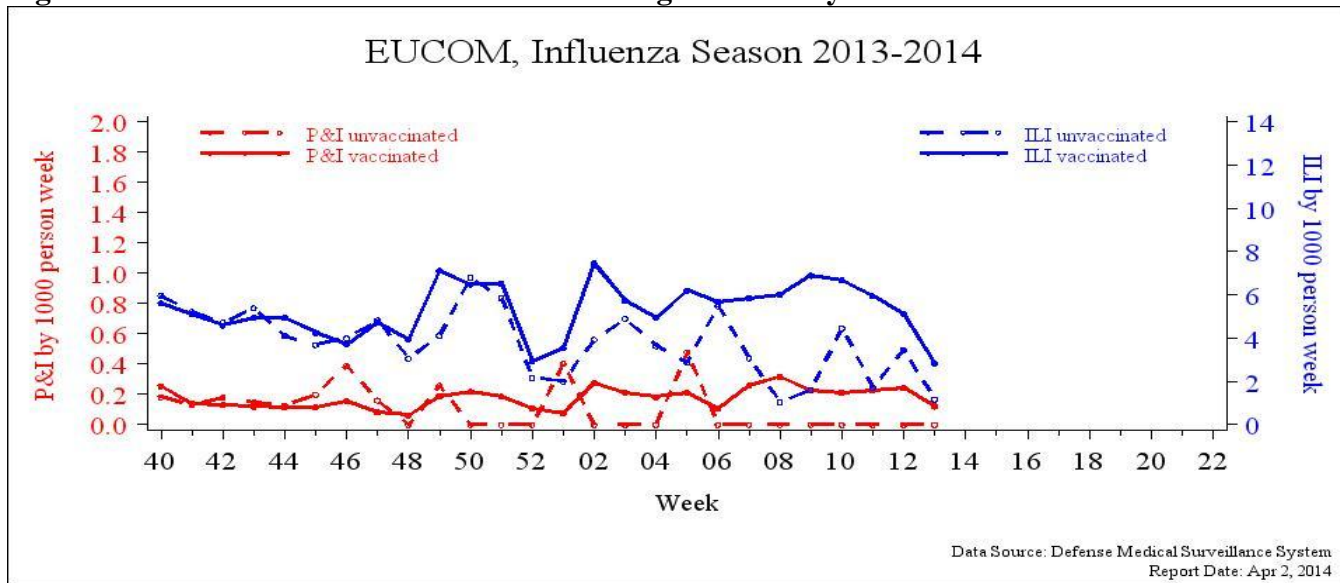


Figure 2b. Percent of All Outpatient Visits with an ILI Diagnosis: Service Members and Other Beneficiaries Presented Separately

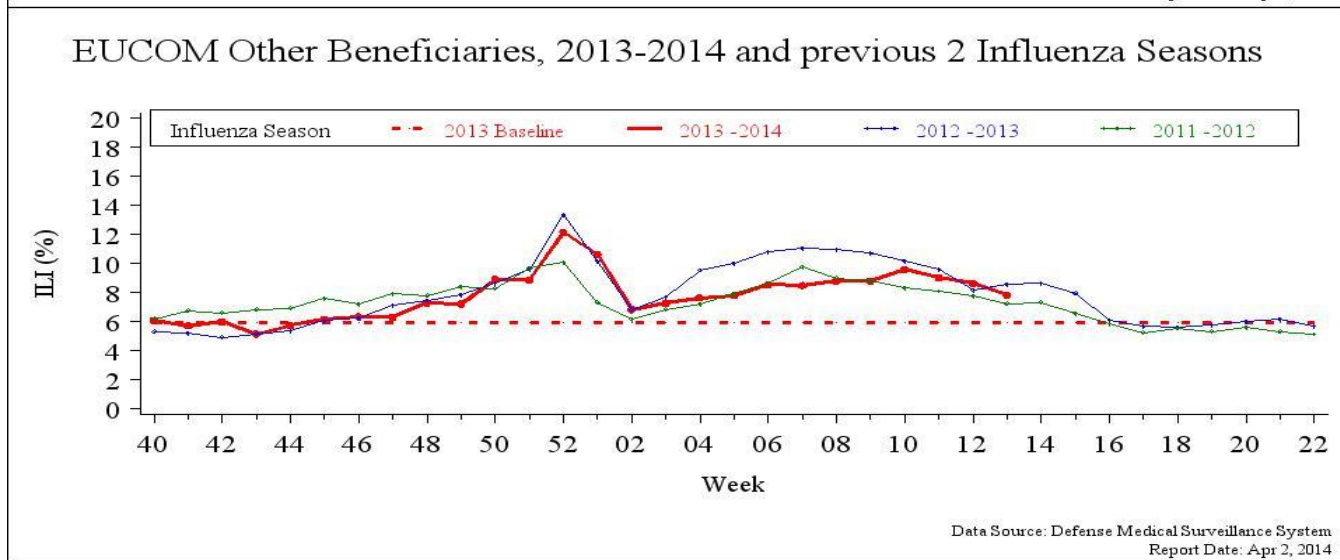
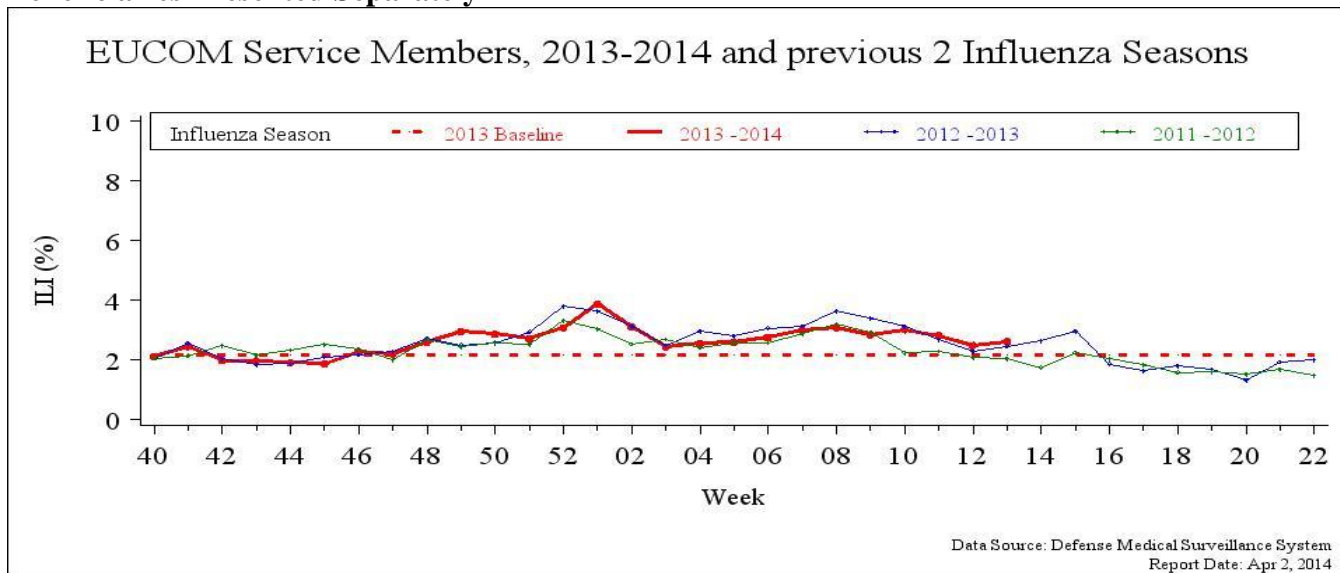


Figure 2c. Percent of All Outpatient Visits with a P&I Diagnosis: Service Members and Other Beneficiaries Presented Separately

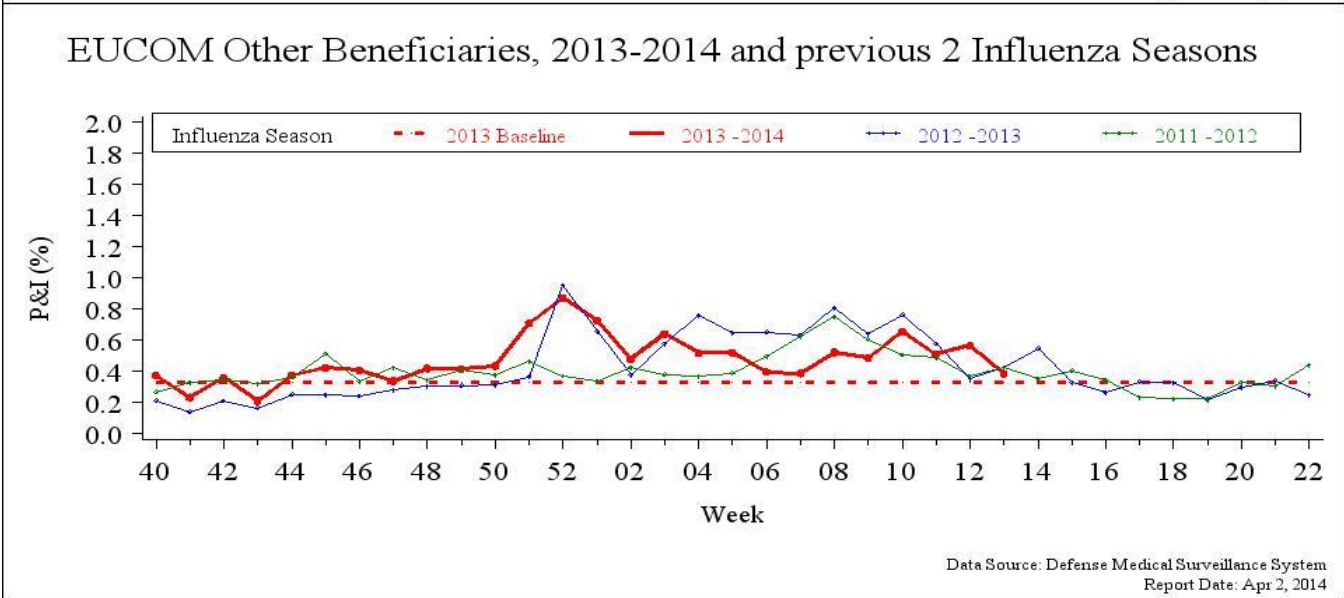
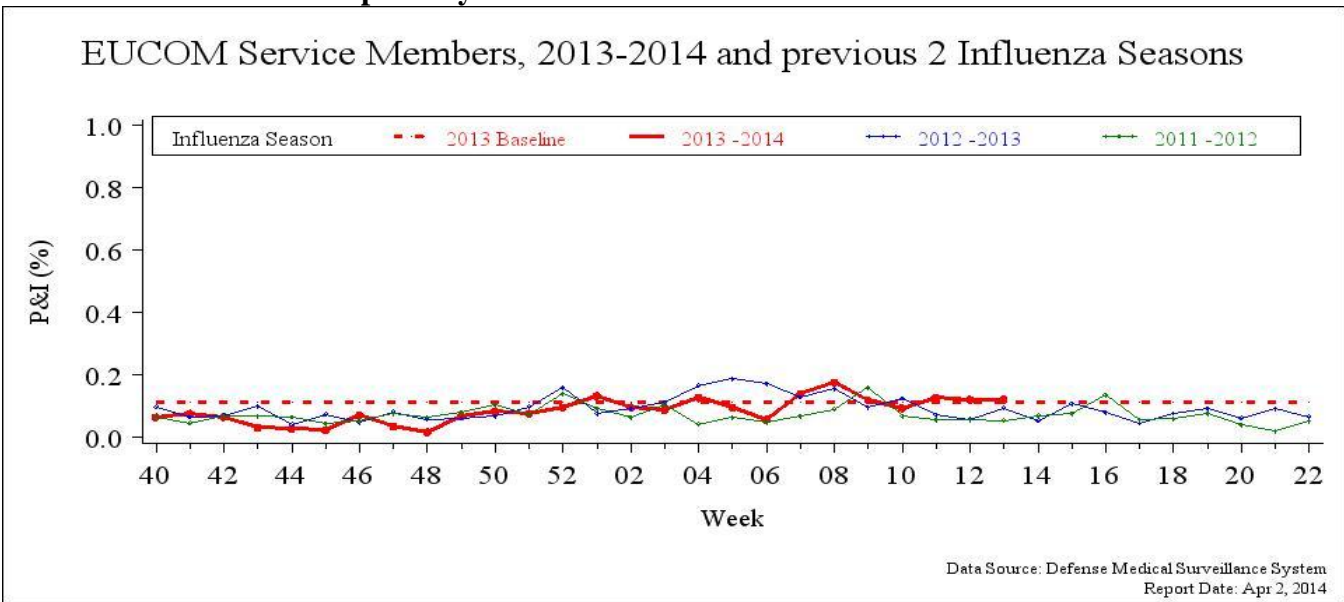


Figure 2d. Influenza Positive Tests Reported in Health Level 7 data: Service Members and Other Beneficiaries Presented Separately

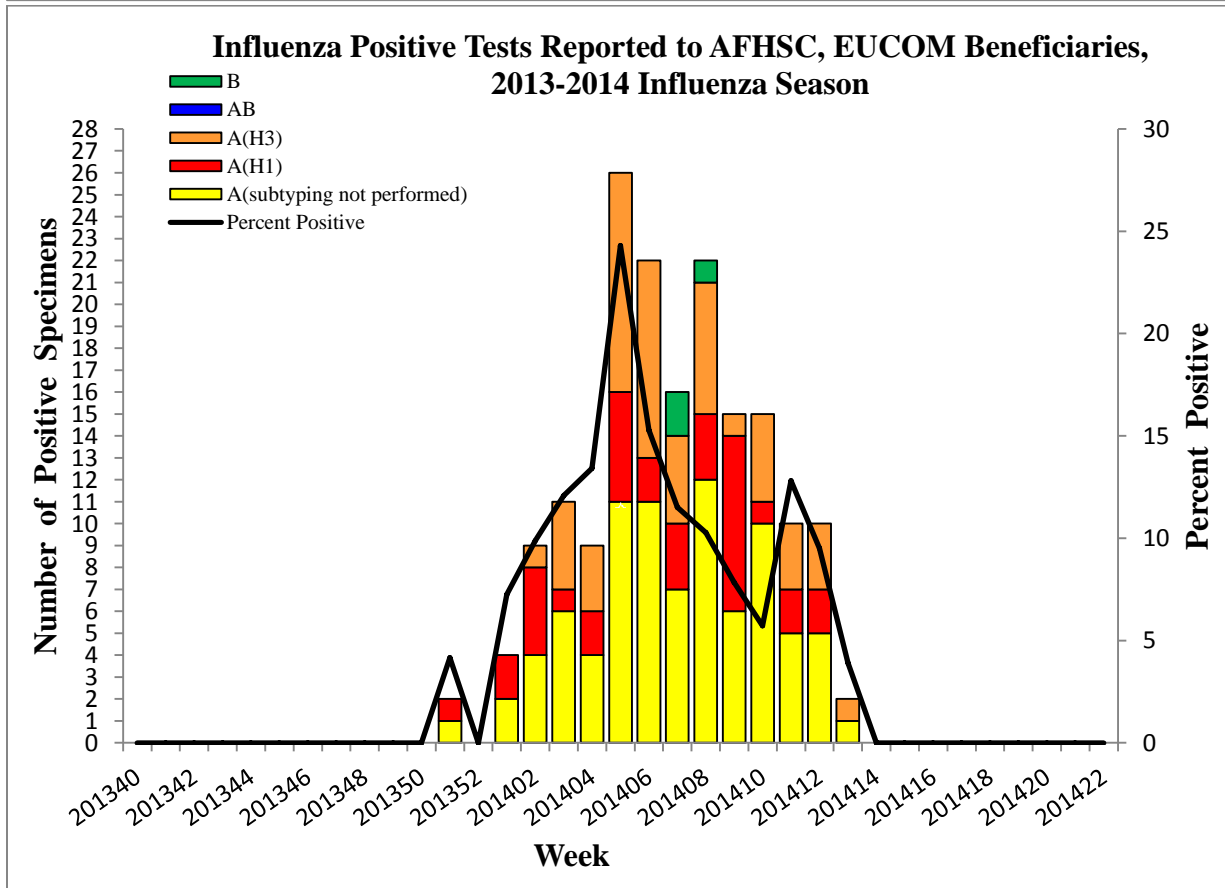
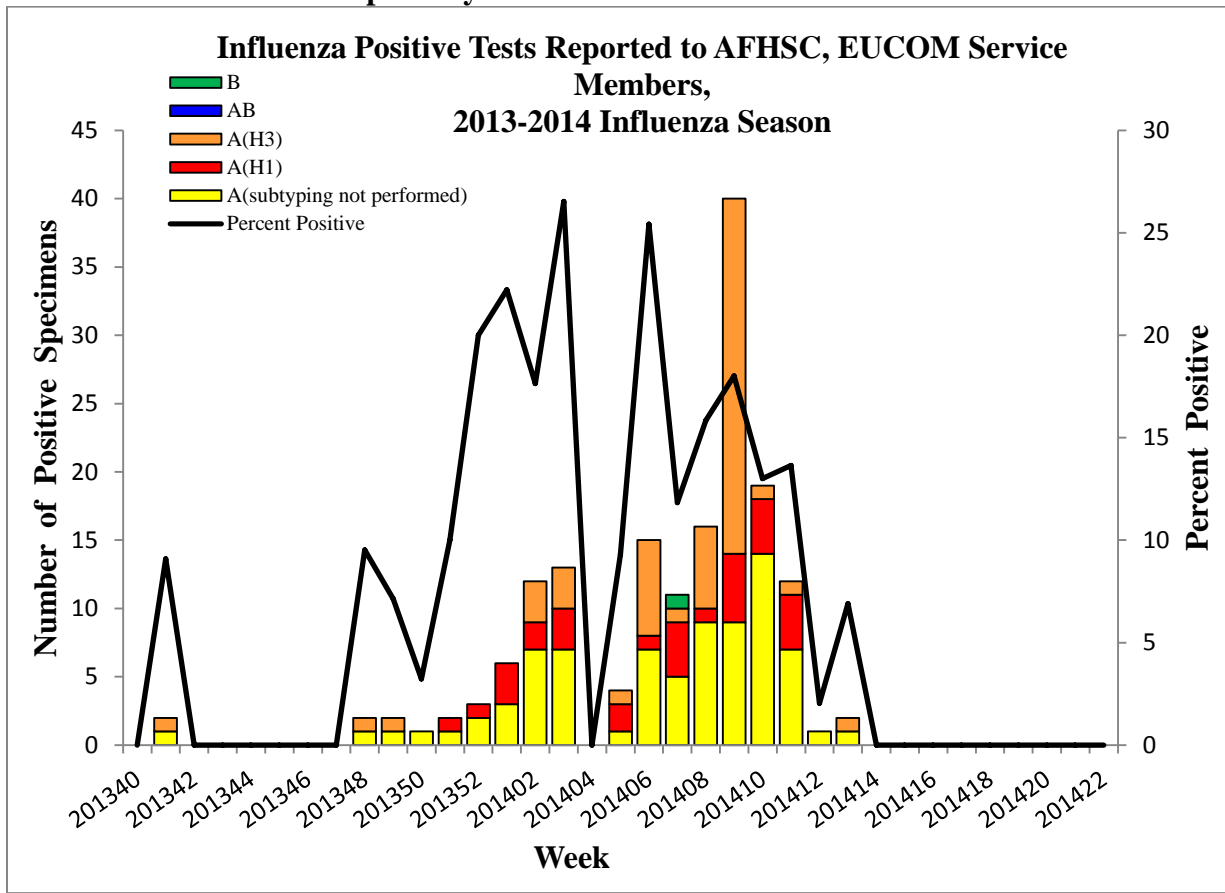


Figure 3. PACOM

Figure 3a. Incidence Rate of P&I and ILI among Active Duty Service Members

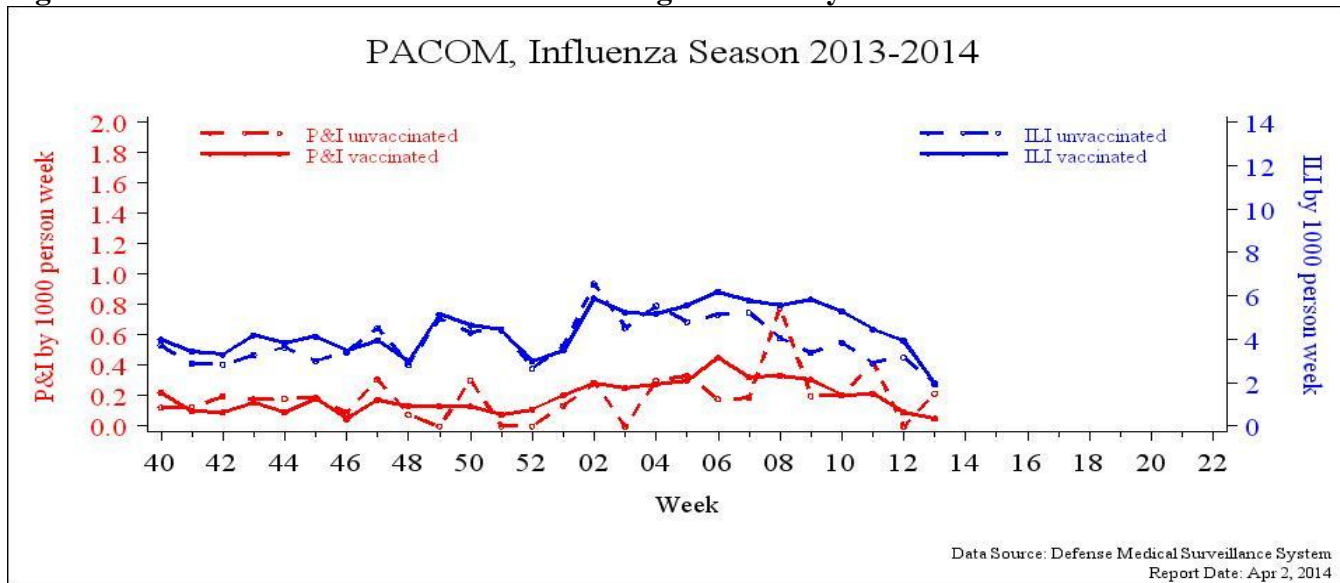


Figure 3b. Percent of All Outpatient Visits with an ILI Diagnosis: Service Members and Other Beneficiaries Presented Separately

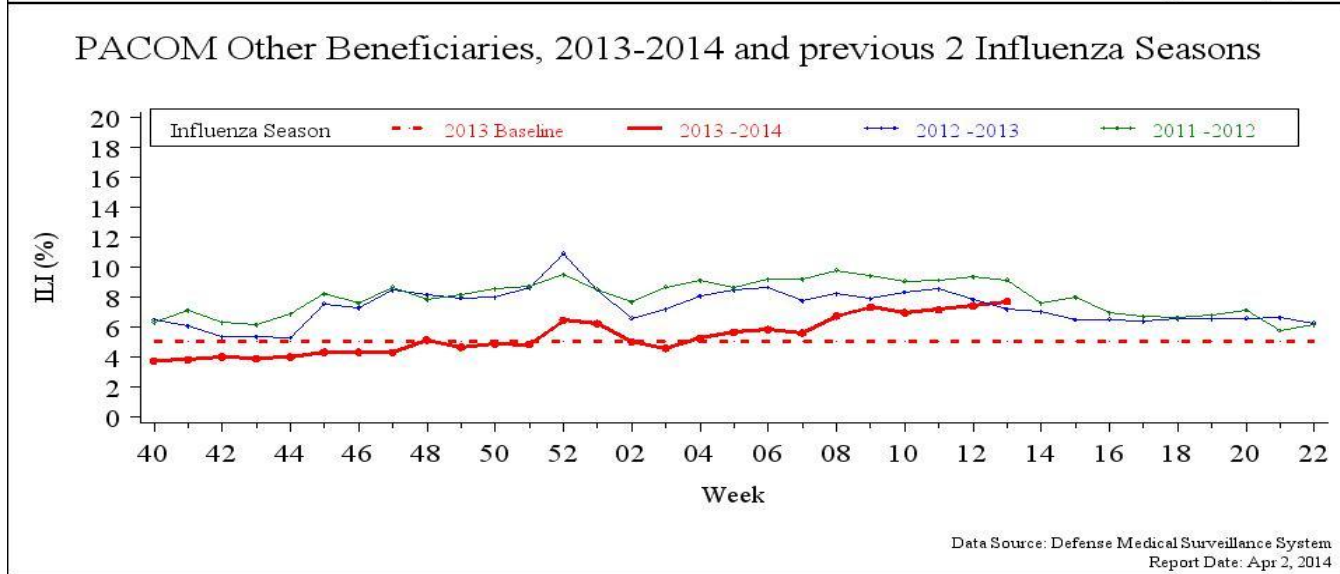
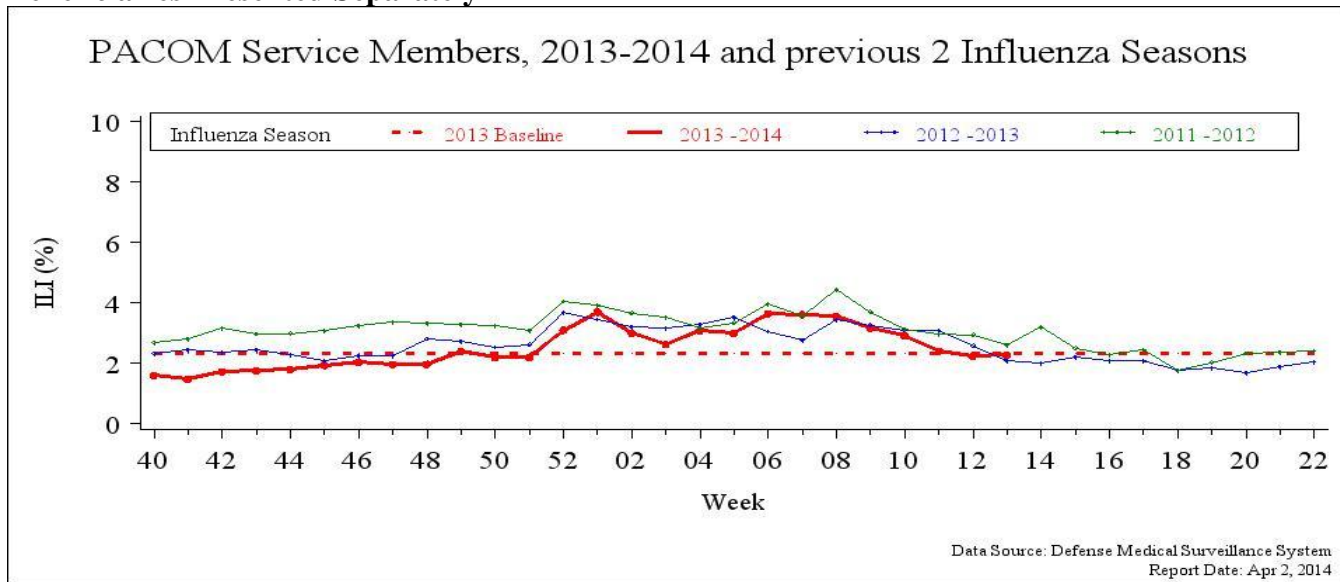


Figure 3c. Percent of All Outpatient Visits with a P&I Diagnosis: Service Members and Other Beneficiaries Presented Separately

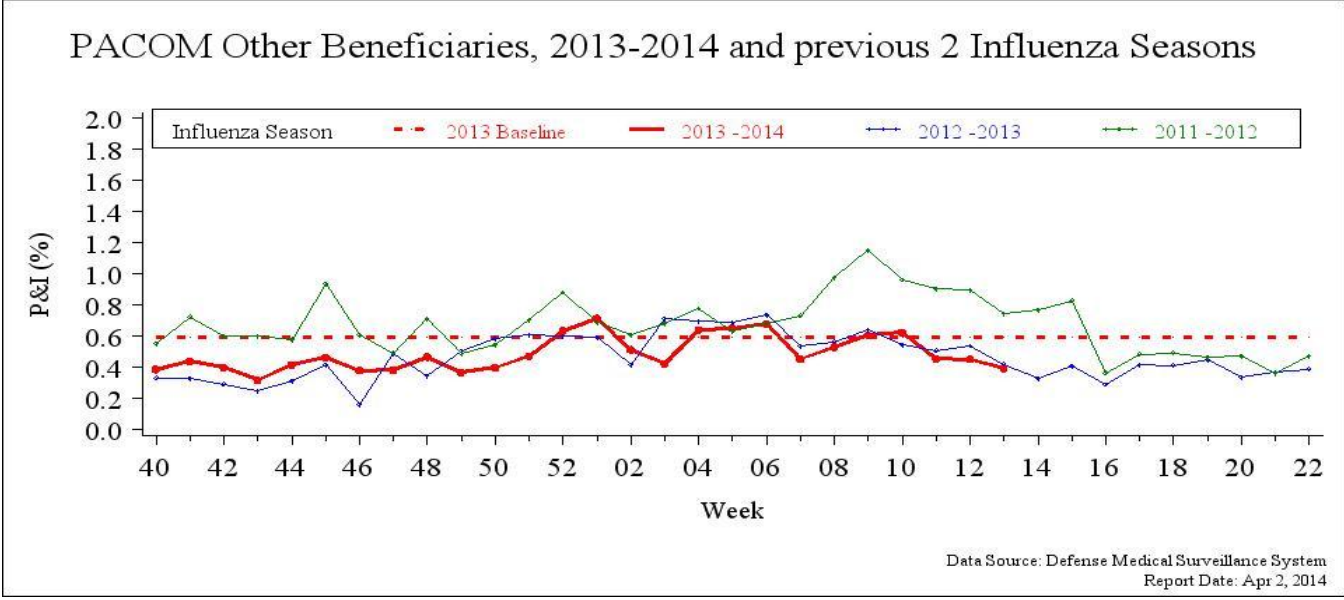
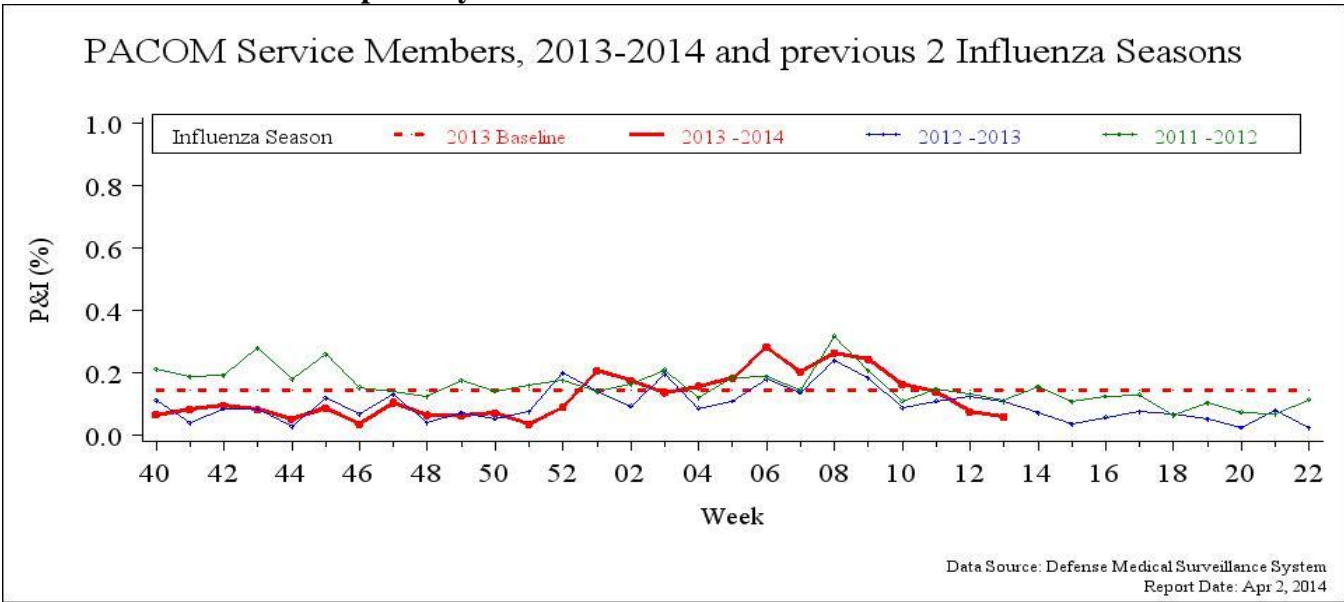


Figure 3d. Influenza Positive Tests Reported in Health Level 7 data: Service Members and Other Beneficiaries Presented Separately

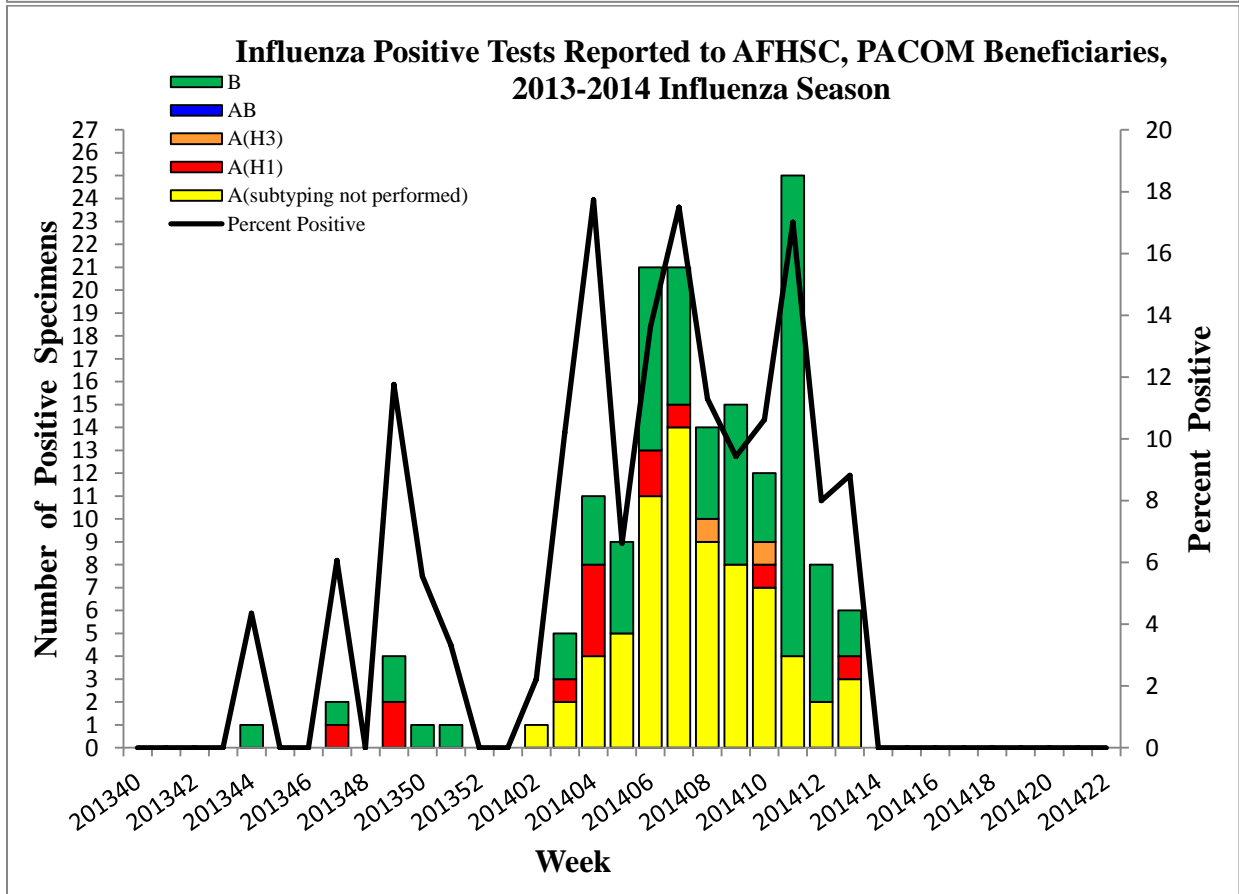
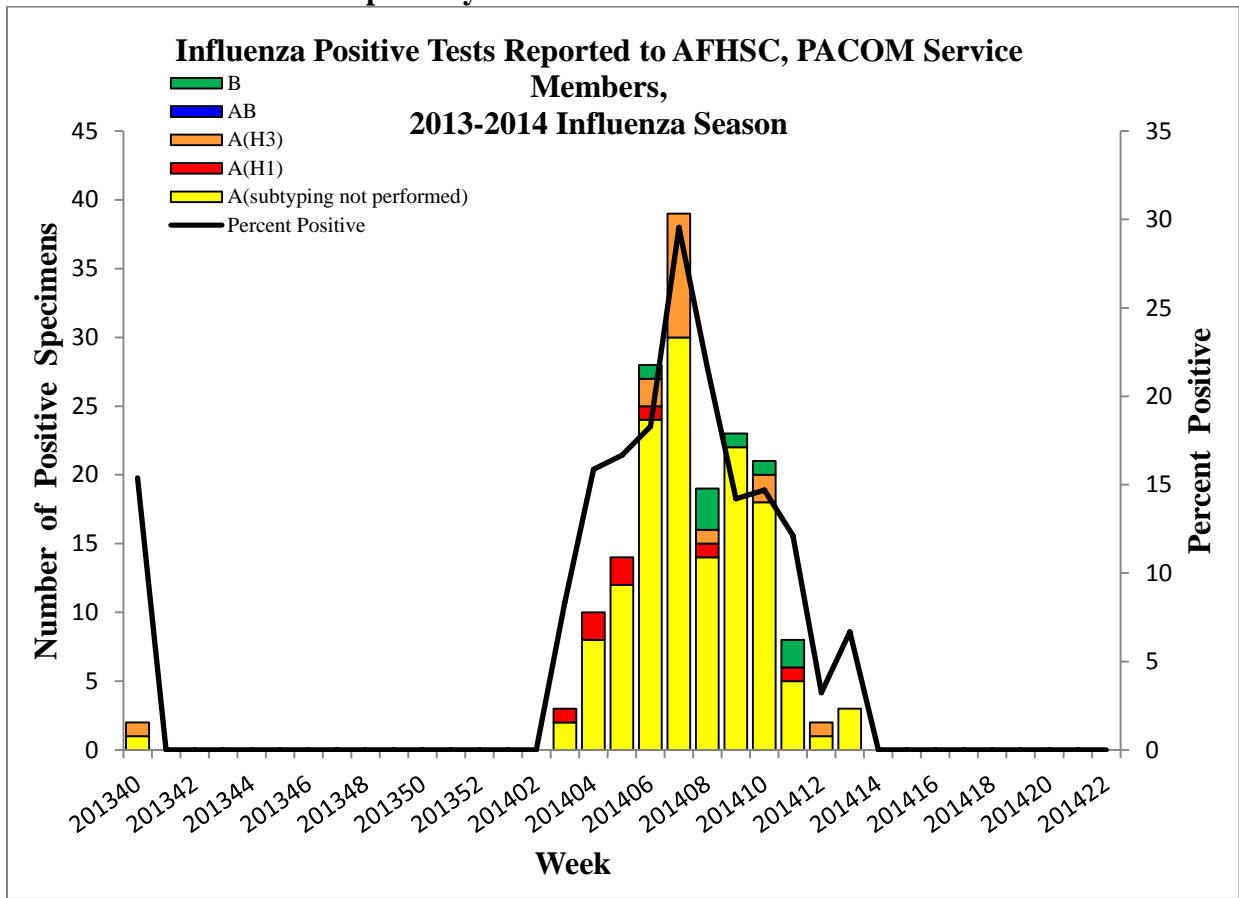


Figure 4. CENTCOM

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

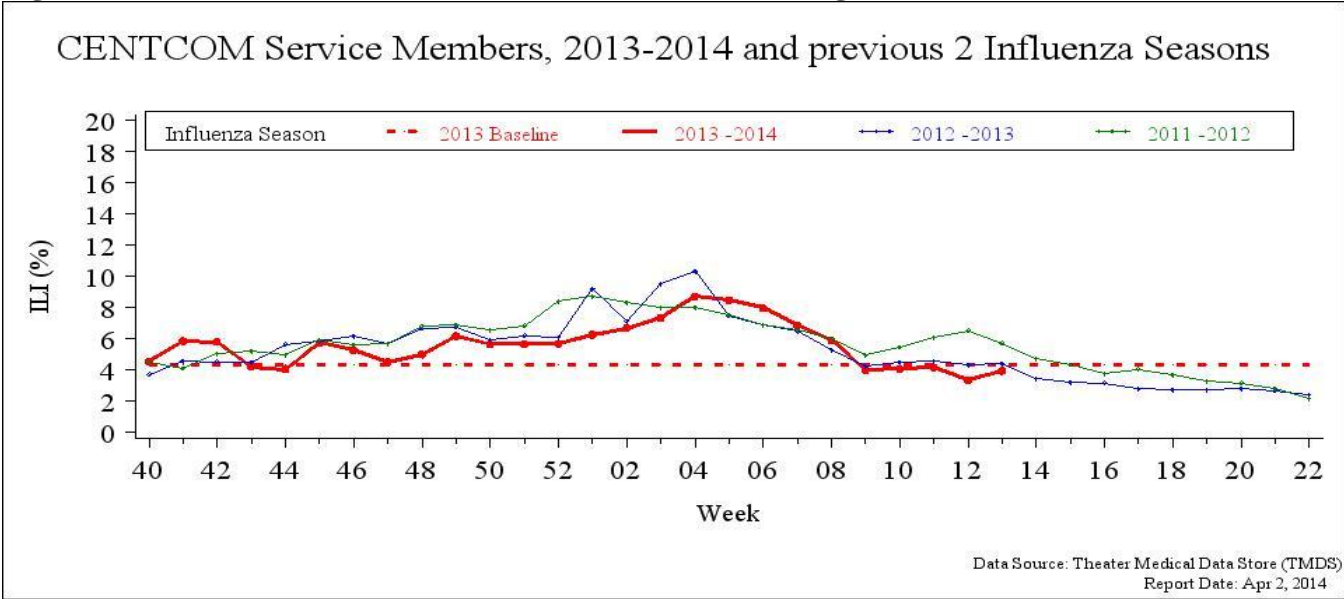
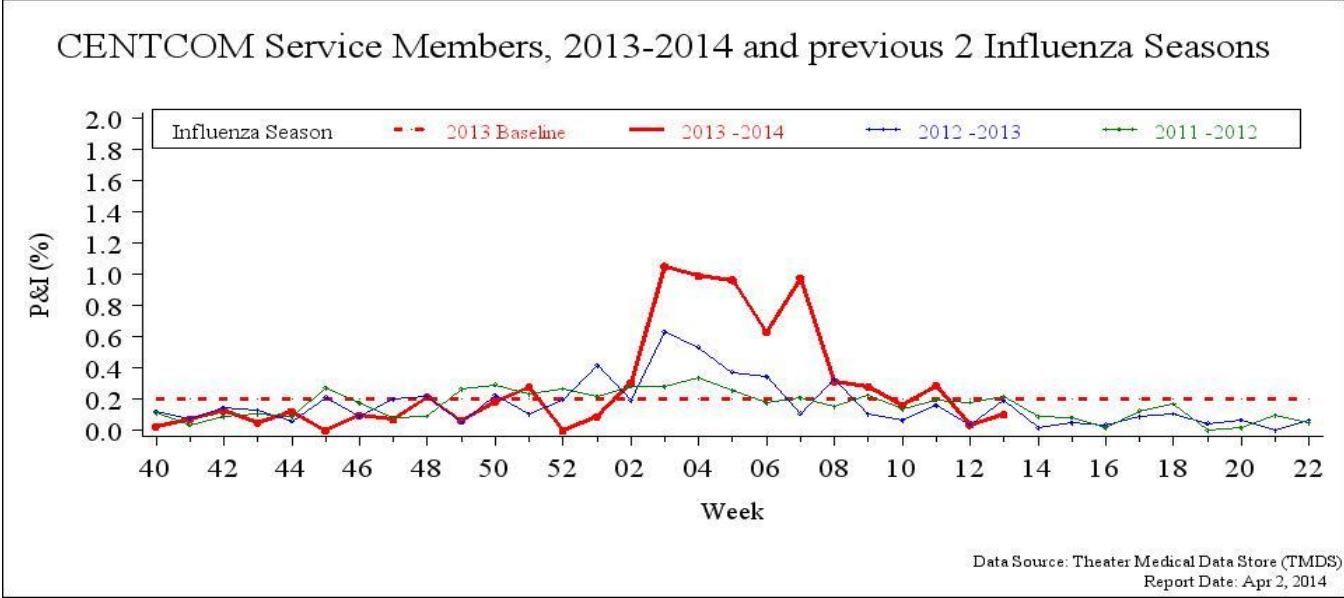


Figure 4b: Percent of All TMDS Encounters with a P&I Diagnosis



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.