



DEPARTMENT OF DEFENSE (AFHSB) Seasonal Influenza Surveillance Summary

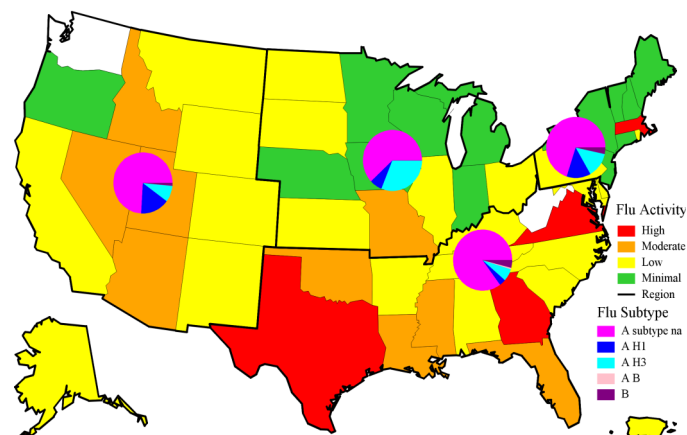
Northern Command -- Week 07 (10 February 2019— 16 February 2019)



In NORTHCOM during week 07

- ◆ Influenza activity increased in many states. Activity continued to range from minimal to high (Texas, Georgia, Virginia, and Massachusetts).
- ◆ The percentage of outpatient visits due to ILI increased and was above baseline and previous seasons.
- ◆ The percentage of positive lab tests continued to increase to 23.3% for service members and remained stable at 32.3% for other beneficiaries for week 07.
- ◆ Overall, among typed influenza A specimens, influenza A/H1N1 continued to predominate. However, A/H3N2 accounted for one-third of typed influenza A specimens.
- ◆ Eleven influenza hospitalizations (RMEs) were reported among service members (3) and other beneficiaries (8) for week 07. (Season totals: 26 Service members and 145 other beneficiaries)

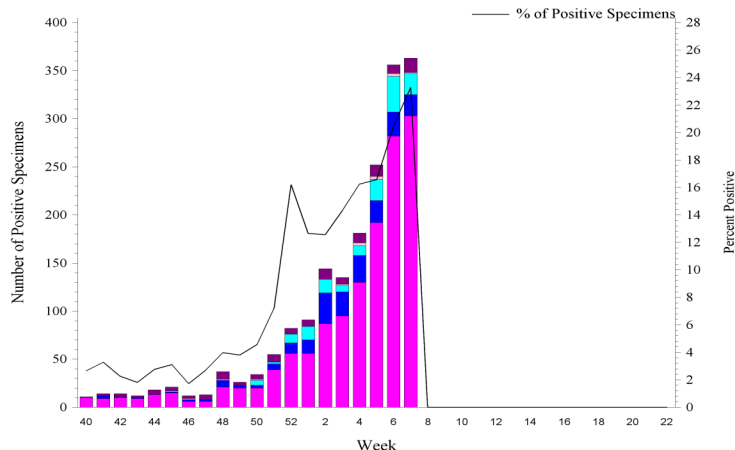
NORTHCOM Service Members, Influenza Activity and Virus Subtype, During the Last 2 Weeks



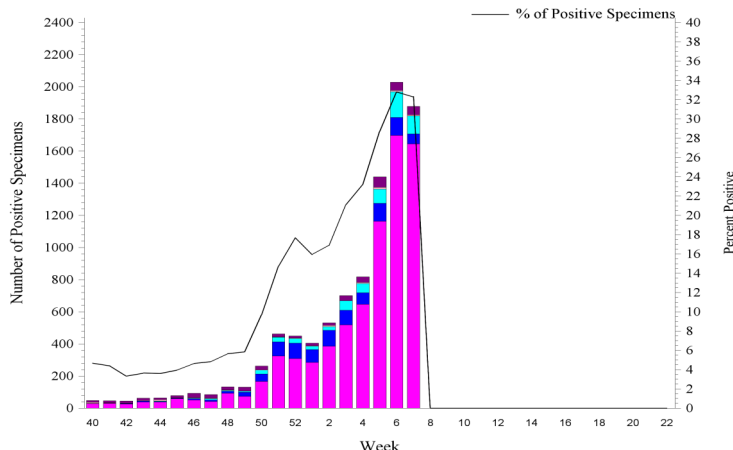
2018 – 2019 NORTHCOM Season Totals

	A/H1N1	A/H3N2	A/Untyped	Flu B	AB	Overall % Positive
Service Members	209	143	1379	126	14	11.01
Dependents	929	629	7622	495	86	17.70

NORTHCOM Service Members, Influenza Positive Specimens Reported to AFHSB

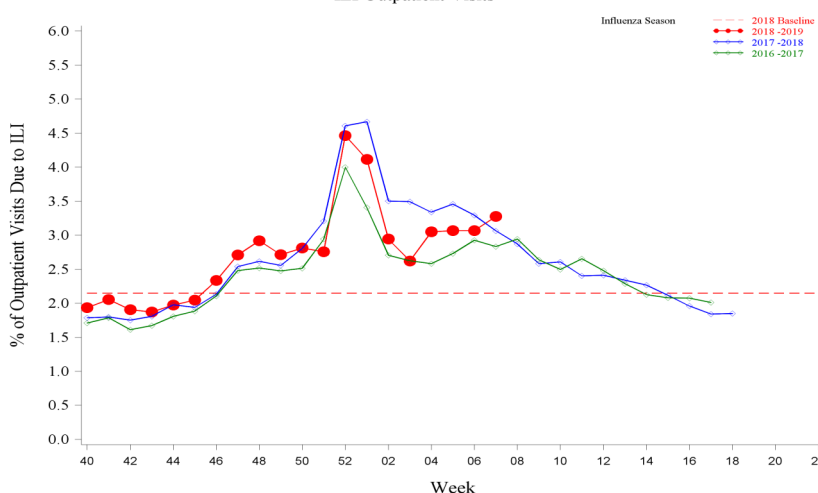


NORTHCOM Beneficiaries, Influenza Positive Specimens Reported to AFHSB



Disclaimer: Medical data from Military Treatment Facilities that are using MHS GENESIS are not available in DMSS. This includes Naval Hospital Oak Harbor, Naval Hospital Bremerton, Air Force Medical Services Fairchild, and Madigan Army Medical Center. Therefore, individuals who are expected to seek care at one of these facilities are currently being removed from the study population as we will not capture their medical encounters.

NORTHCOM Service Members, 2018-2019 and Previous 2 Influenza Seasons ILI Outpatient Visits

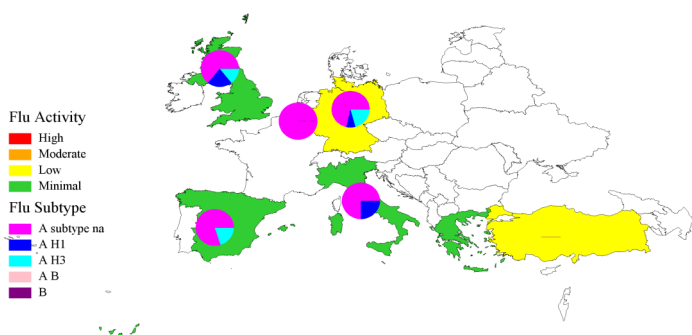


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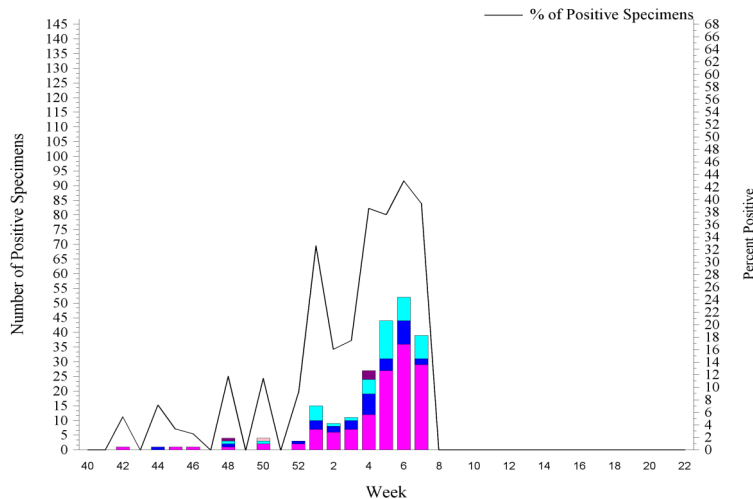
**European Command -- Week 07****In EUCOM during week 07**

- ◆ Influenza activity was minimal across EUCOM, with the exception of Germany and Turkey which had low activity.
- ◆ The percentage of outpatient visits due to ILI decrease and was above baseline and similar to previous seasons.
- ◆ The percentage of positive lab tests remained high, but decreased to 39.4% for service members and 55.1% for other beneficiaries for week 07.
- ◆ Among typed influenza A specimens, similar frequencies of influenza A/H1N1 (42%) and A/H3N2 (58%) were seen in EUCOM.
- ◆ Two influenza hospitalizations (RMEs) were reported among a service member (1) and an other beneficiary (1) for week 07. (Season totals: 10 Service members and 27 other beneficiaries)

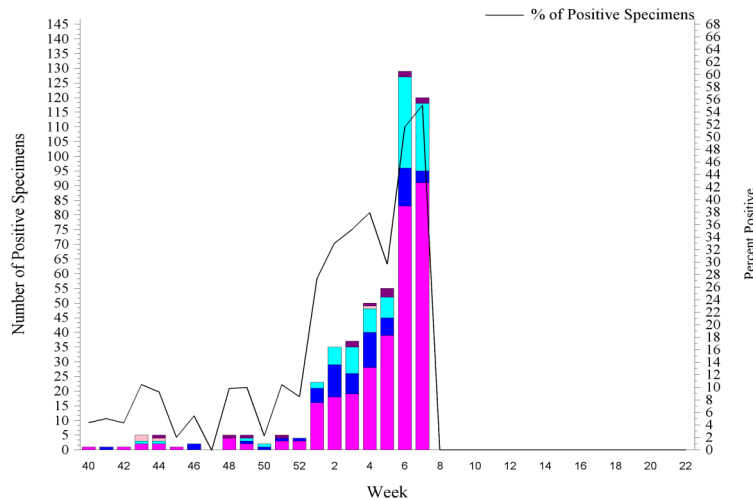
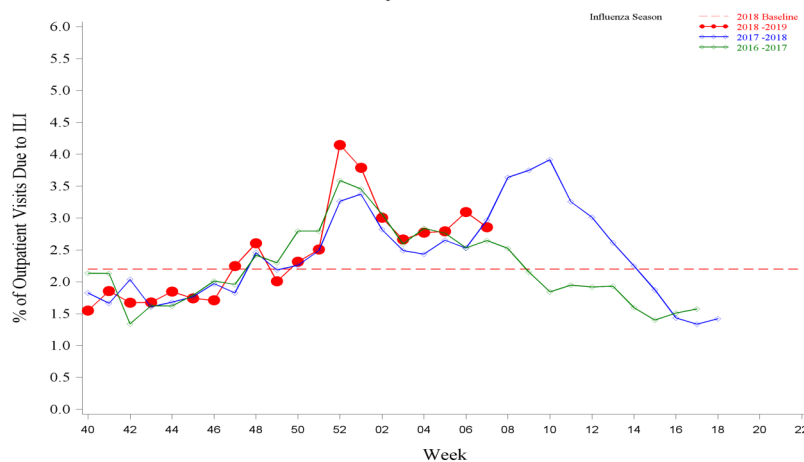
EUCOM Service Members, Influenza Activity and Virus Subtype, During the Last 2 Weeks



EUCOM Service Members, Influenza Positive Specimens Reported to AFHSB



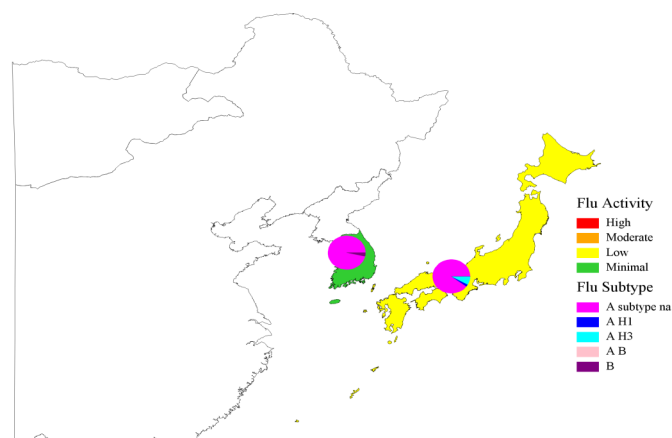
EUCOM Beneficiaries, Influenza Positive Specimens Reported to AFHSB

**EUCOM Service Members, 2018-2019 and Previous 2 Influenza Seasons**
ILI Outpatient Visits**2018-2019 EUCOM Season Totals**

	A/H1N1	A/H3N2	A/Untyped	Influenza B	AB	Overall % Positive
Service Members	32	43	132	4	1	22.97
Dependents	65	90	313	14	4	29.19

**Indo-Pacific Command -- Week 07****In PACOM during week 07**

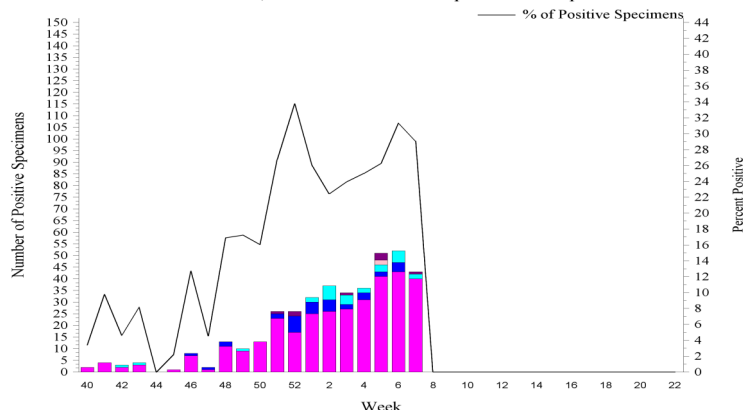
- ◆ Influenza activity remained low in Japan and minimal in the Republic of Korea, Guam, and Hawaii.
- ◆ The percentage of outpatient visits due to ILI continued to decrease and was at baseline and below previous seasons.
- ◆ The percentage of positive lab tests remained high, but decreased to 29.1% for service members and 24.5% for other beneficiaries during week 07.
- ◆ Among typed influenza A specimens, influenza A/H1N1 has predominated in PACOM.
- ◆ No influenza hospitalizations (RMEs) were reported for week 07. (Season totals: 2 Service member and 12 other beneficiaries)

PACOM Service Members, Influenza Activity and Virus Subtype, During the Last 2 Weeks
South Korea and Japan**PACOM: Guam and Hawaii Influenza Activity and HL7 Test Positive (MAP: SM+BN, 2 wks)**

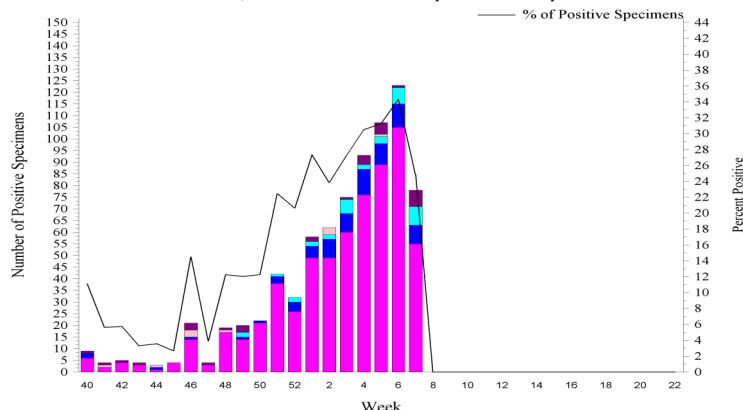
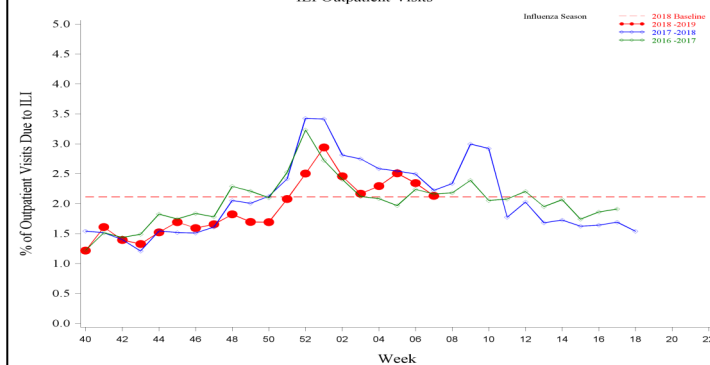
Area Name	Influenza Activity	HL7 Type				
		A(H1)	A(H3)	A Untyped	B	AB
Guam	Minimal	0	0	5	3	0
Hawaii*	Minimal	21	11	39	4	0

*Hawaii HL7 Type counts may include samples received from Guam, but tested in Hawaii

PACOM Service Members, Influenza Positive Specimens Reported to AFHSB



PACOM Beneficiaries, Influenza Positive Specimens Reported to AFHSB

**PACOM Service Members, 2018-2019 and Previous 2 Influenza Seasons**
ILI Outpatient Visits**2018-2019 PACOM Season Totals**

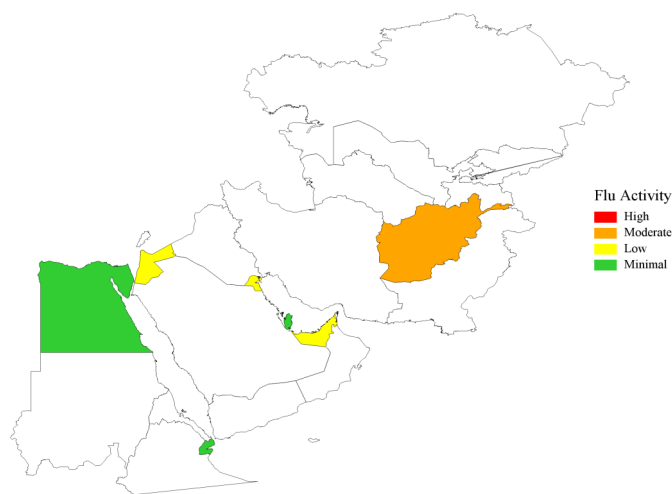
	A/H1N1	A/H3N2	A/Untyped	Flu B	Flu AB	Overall % Positive
Service Members	34	27	326	8	2	20.89
Dependents	72	35	636	32	10	20.94

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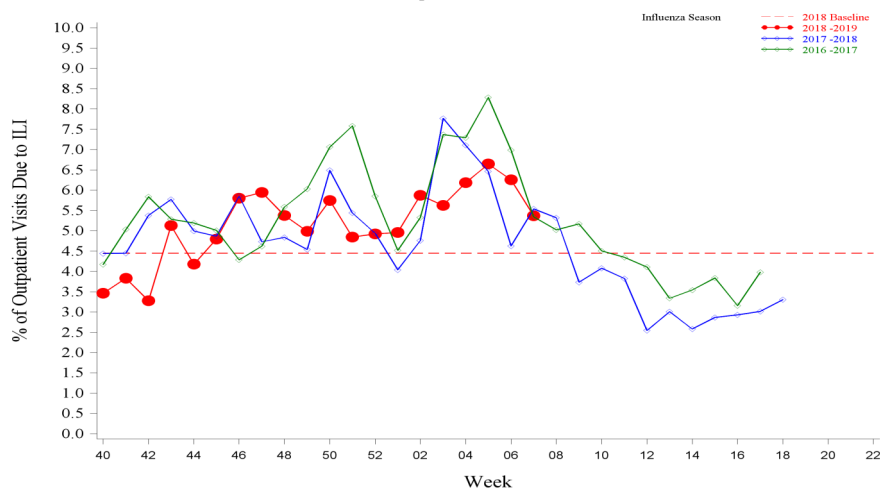
**Central and Africa Command -- Week 07****In CENTCOM and AFRICOM during week 07**

- ◆ Influenza activity decreased in Afghanistan, Jordan, and Kuwait and remained minimal in other CENTCOM countries with available data.
- ◆ The overall percentage of outpatient visits due to ILI continued to decrease, but remained above baseline and similar to previous seasons.
- ◆ In Afghanistan, influenza activity decreased to moderate and the percentage of outpatient visits due to ILI decreased to 4.0%.
- ◆ In Kuwait, influenza activity decreased to low and the percentage of outpatient visits due to ILI was 6.7%.
- ◆ In Djibouti, influenza activity remained minimal. The percentage of outpatient visits due to ILI remained stable at 1.4% for week 07.
- ◆ No influenza hospitalizations (RMEs) were reported for week 07. (Season totals: 0 Service members)

CENTCOM, Influenza Activity, During the Last 2 Weeks



CENTCOM Service Members, 2018-2019 and Previous 2 Influenza Seasons ILI Outpatient Visits

**Southern Command -- Week 07****In SOUTHCOM during week 07**

- ◆ Influenza activity in Honduras was minimal for week 07. The percentage of outpatient visits due to ILI increased to 3.8% for week 07.
- ◆ Influenza activity remained minimal in Cuba for week 07. The percentage of outpatient visits due to ILI increased to 3.7% for service members and 2.9% for other beneficiaries.

2018-2019 Cuba Season Totals

	A/H1N1	A/H3N2	A/Untyped	Flu B	Flu AB	Total Tested
Service Members	0	0	0	0	0	13
Dependents	0	0	1	1	0	13

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Description:

Maps, figures and tables are stratified by Combatant Commands (CCMD). The map provides a measure of influenza activity by state or country within each CCMD for the past two weeks for service members. Influenza activity is defined by the percentage of outpatient visits associated with an Influenza-like Illness (ILI) for each week compared to baseline levels of influenza activity. Additionally, a pie graph by US region or country is generated to display the distribution of influenza types and subtype identified from positive laboratory tests for the past two weeks combined.

Influenza activity: Percentage of Outpatient Visits Associated with ILI:

The percentage of all outpatient visits for ILI is calculated each week for all service members, regardless of component. These data are presented as a map of the past two weeks' activity and a figure to display the entire season's data compared to the two prior seasons and baseline. For the map, the activity level compares the mean reported percent of visits due to ILI for the past two weeks to the mean reported percent of visits due to ILI during baseline weeks. Baseline weeks are defined as non-influenza weeks (weeks 22-39) over the past 3 years.

There are four activity levels reported on each map. The activity level corresponds to the number of standard deviations (SD) below, at or above the mean for the current week compared to the mean of the baseline weeks. Activity levels are classified as minimal, low, moderate, and high. Minimal activity corresponds to an influenza percentage that is less than 2 SD above the mean. Low activity corresponds to an influenza percentage that is equal to or greater than 2 SD above the mean, but less than 4 SD above the mean. Moderate activity corresponds to an influenza percentage that is equal to or greater than 4 SD above the mean, but less than 6 SD above the mean. High activity corresponds to an influenza percentage that is equal to or greater than 6 SD above the mean.

Influenza Positive Specimens:

Lab results from PCR, viral culture, and rapid influenza assays are reported. Although the inclusion of rapid tests may underestimate the weekly and cumulative percent positive estimates due to false negatives, visibility of the positive rapid results provides valuable information for this surveillance report. Influenza types/subtypes are categorized as influenza A not subtyped (A subtype na), influenza A/H1 (A H1), influenza A/H3 (A H3), influenza A and B co-infection (A B), and influenza B (B).

Map: Each US region or country with available data contains a pie chart that displays the distribution of influenza types and subtypes for that area for the past two weeks combined. Two weeks of data are combined instead of using just the current week's data due to delays in reporting of laboratory results.

Figure and Table: Each week, using the total number of influenza laboratory tests performed and the positive test results, the proportions positive for each serotype of influenza are calculated for service members and dependents separately.

Data Sources and Case Definitions:

Medical encounter and demographic data from the Armed Forces Health Surveillance Branch's (AFHSB) Defense Medical Surveillance System (DMSS) are used to generate this report. In addition, health-level 7 (HL-7) format laboratory data is provided by the Navy and Marine Corps Public Health Center (NMCPHC) EpiData Center Division. For the past seasons and baseline calculations, ICD-9 codes from outpatient encounters are used to identify influenza activity. The outcome of influenza activity based on ICD-9 codes is defined using the combined codes for ILI (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). For the current season, ICD-10 codes from outpatient encounters are used to identify influenza activity. The outcome of influenza activity based on ICD-10 codes is defined using the combined codes for ILI (B97.89, H66.9, H66.90, H66.91, H66.92, H66.93, J00, J01.9, J01.90, J06.9, J09, J09.X, J09.X1, J09.X2, J09.X3, J09.X9, J10, J10.0, J10.00, J10.01, J10.08, J10.1, J10.2, J10.8, J10.81, J10.82, J10.83, J10.89, J11, J11.0, J11.00, J11.08, J11.1, J11.2, J11.8, J11.81, J11.82, J11.83, J11.89, J12.89, J12.9, J18, J18.1, J18.8, J18.9, J20.9, J40, R05, R50.9). An individual can only be counted as a case once per week.

NORTHCOM Regions:

The regions on the NORTHCOM map (bold, black outlines) are defined using the four US Census regions, with the exception of Hawaii and Guam which are a part of PACOM. *Northeast:* Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, Pennsylvania, Puerto Rico, and the U.S. Virgin Islands. *South:* Delaware, the District of Columbia, Maryland, Virginia, West Virginia, Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Arkansas, Louisiana, Texas, and Oklahoma. *Midwest:* Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin, Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota. *West:* New Mexico, Colorado, Montana, Utah, Wyoming, Arizona, California, Nevada, Alaska, Idaho, Oregon, and Washington.

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