DEPARTMENT OF DEFENSE (AFHSB)

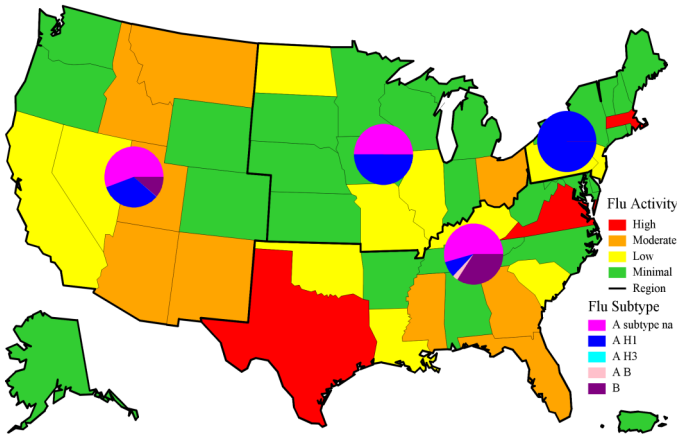
Seasonal Influenza Surveillance Summary

Northern Command -- Week 48 (25 November—December 1, 2018)

In NORTHCOM during week 48

- Influenza activity continued to increase throughout the US and ranged from minimal to high depending on the state. Texas, Virginia, and Massachusetts all has high activity levels.
- The percentage of outpatient visits due to ILI continued to increase and remained above baseline and previous seasons.
- The percentage of positive lab tests increase to 4.5% for service members and 5.9% for other beneficiaries for week 48.
- Among typed influenza A specimens, influenza A/H1N1 continued to predominate.
- One influenza hospitalization (RMEs) was reported among an other beneficiaries for week 48. (Season totals: 0 Service members and 16 other beneficiaries).

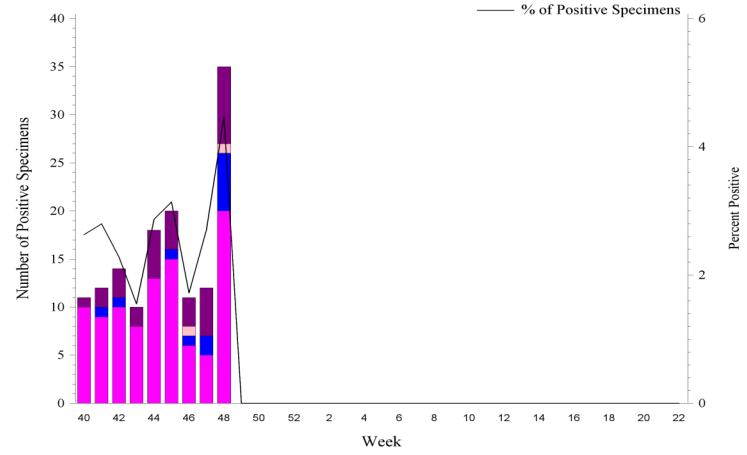
NORTHCOM Service Members, Influenza Activity and Virus Subtype,During the Last 2 Weeks



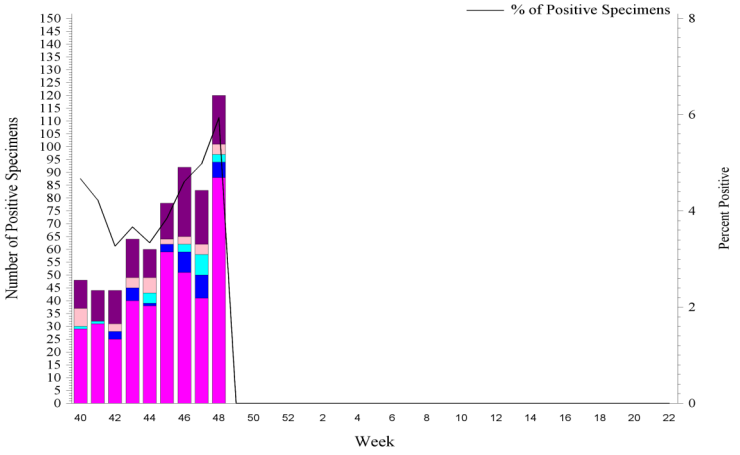
2018 – 2019 NORTHCOM Season Totals

	A/H1N1	A/H3N2	A/Untyped	Flu B	AB	Overall % Positive
Service Members	12	0	96	33	2	2.73
Dependents	35	20	402	143	33	4.32

NORTHCOM Service Members, Influenza Positive Specimens Reported to AFHSB

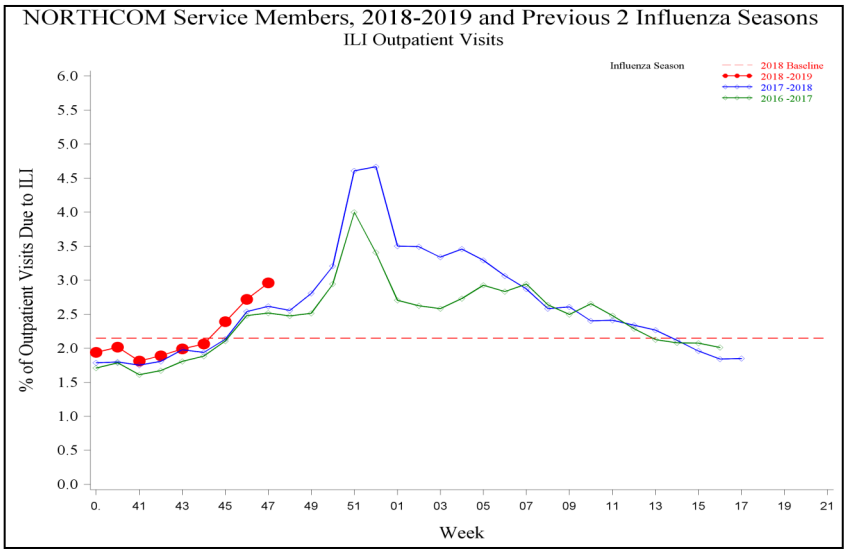


NORTHCOM Beneficiaries, Influenza Positive Specimens Reported to AFHSB



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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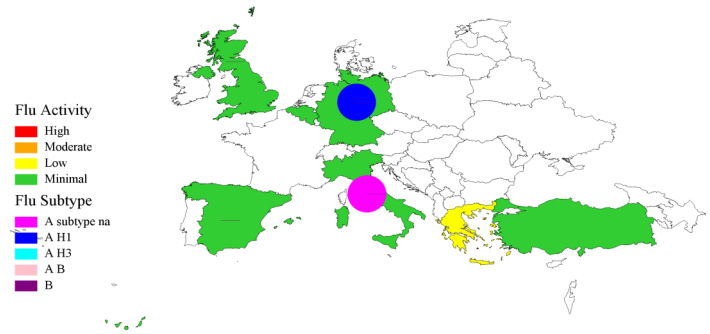
European Command -- Week 48

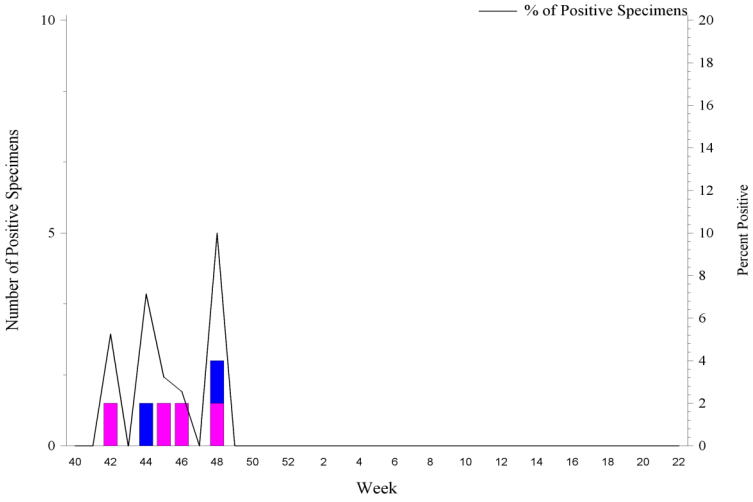
In EUCOM during week 48

- Influenza activity remained minimal for EUCOM, except for Greece which had low activity.
- The percentage of outpatient visits continued to increase and was above baseline and previous seasons.
- The percentage of positive lab tests increased to 10.0% for service members and 14.7% for other beneficiaries for week 48.
- No influenza hospitalizations (RMEs) were reported for week 48. (Season totals: 0 Service members and 0 other beneficiaries)

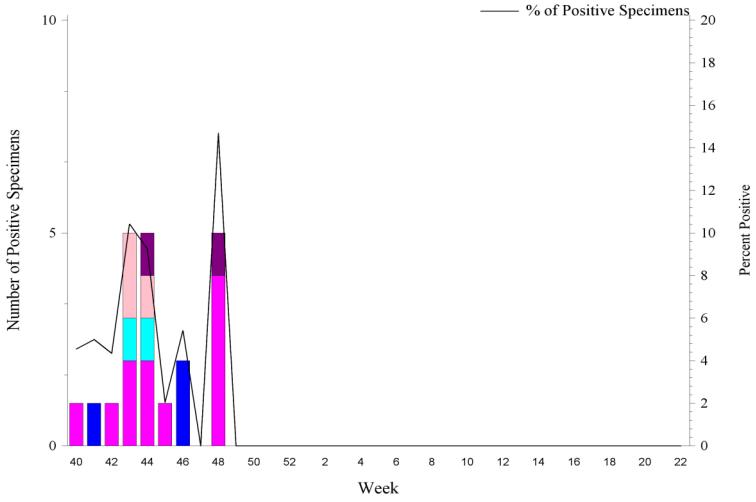
EUCOM Service Members, Influenza Activity and Virus Subtype,During the Last 2 Weeks



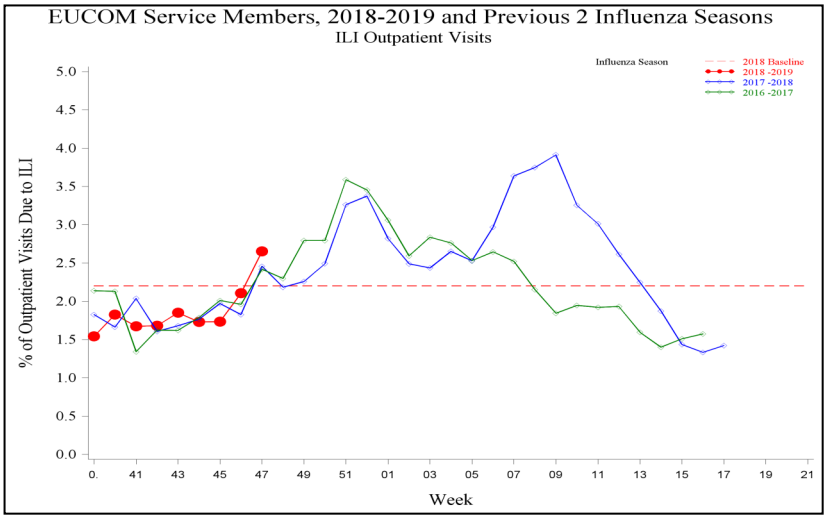
EUCOM Service Members, Influenza Positive Specimens Reported to AFHSB



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	2	0	4	0	0	2.76
Dependents	3	2	11	2	3	6.40

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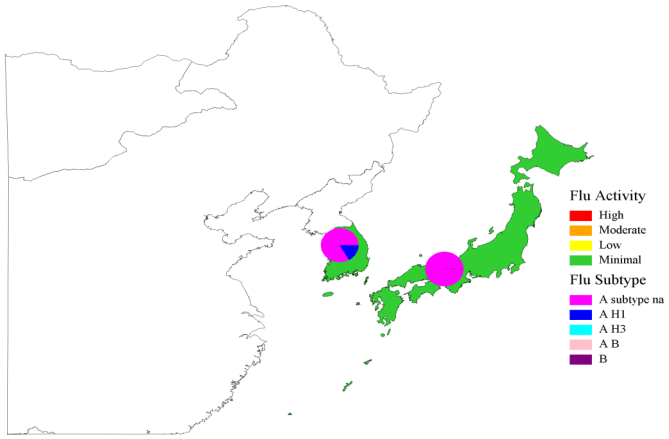
Indo-Pacific Command -- Week 48

In PACOM during week 48

- Influenza activity remained minimal across PACOM.
- The percentage of outpatient visits due to ILI increased slightly, but remained below baseline and similar to previous seasons.
- The percentage of positive lab tests increased to 17.2% for service members and 13.3% for other beneficiaries during week 48.
- No influenza hospitalization (RMEs) were reported among service members or other beneficiary for week 48. (Season totals: 1 Service member and 4 other beneficiaries)

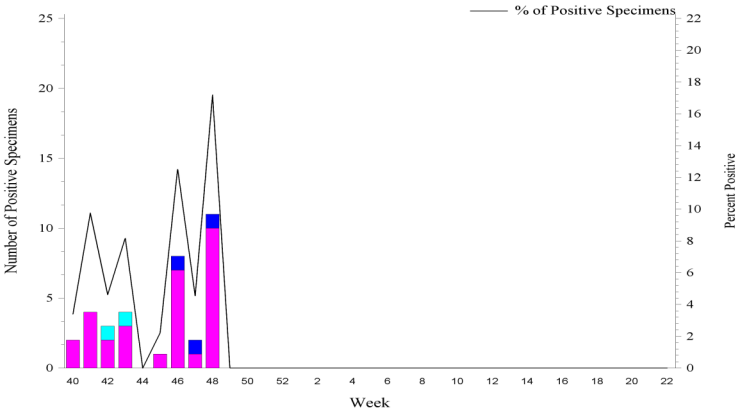
PACOM Service Members, Influenza Activity and Virus Subtype,During the Last 2 Weeks
South Korea and Japan



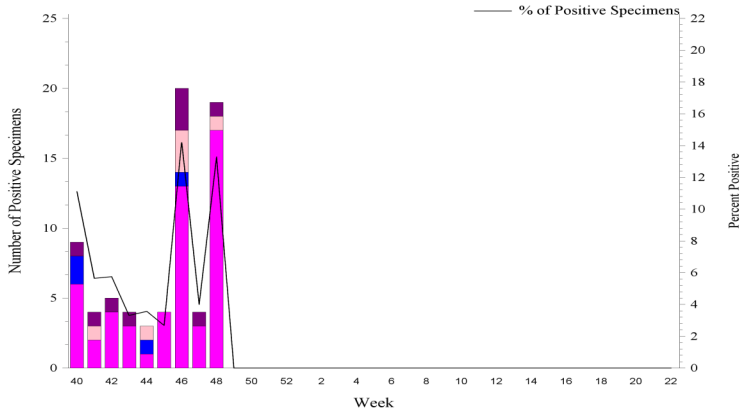
PACOM: Guam and Hawaii Influenza Activity and HL7 Test Positive (MAP: SM+BN, 2 wks)						
Area Name	**Influenza Activity**	**HL7 Type**				
		A(H1)	**A(H3)**	**A Untyped**	**B**	**AB**
Guam	Minimal	0	0	6	1	0
Hawaii*	Minimal	0	0	4	1	0

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

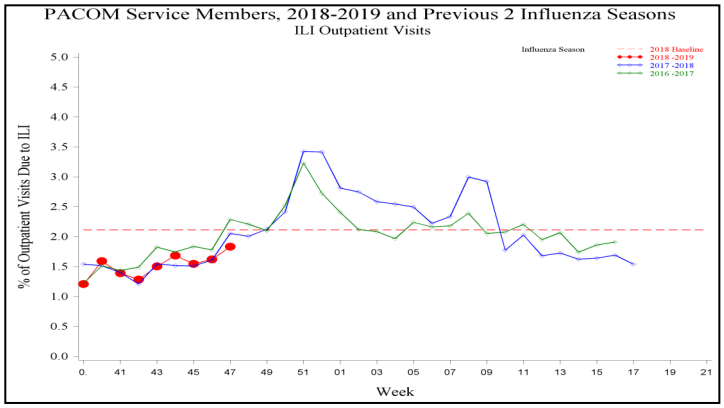
PACOM Service Members, Influenza Positive Specimens Reported to AFHSB



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	3	2	30	0	0	7.10
Dependents	4	0	53	9	6	7.37

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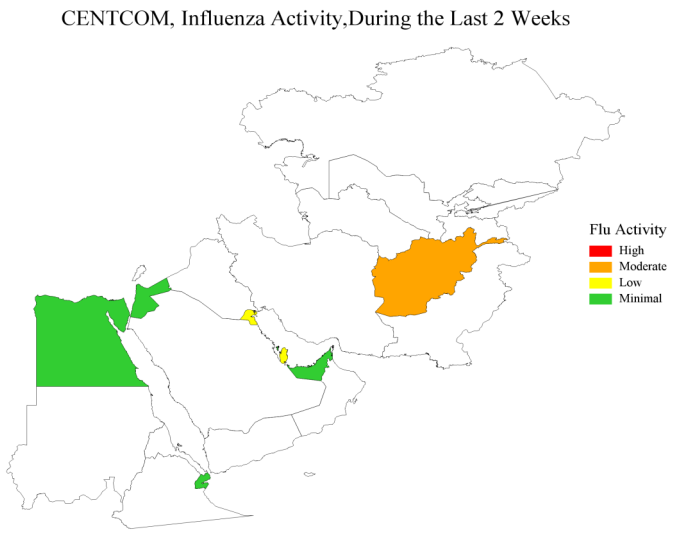
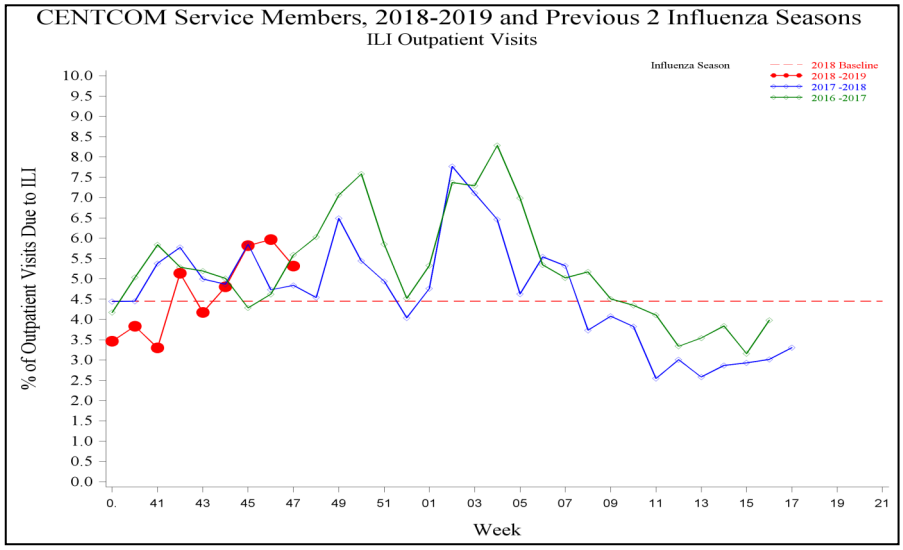
Central and Africa Command -- Week 48

In CENTCOM and AFRICOM during week 48

- Influenza activity ranged from minimal to moderate in CENTCOM locations with available data.
- The overall percentage of outpatient visits due to ILI decreased and was above baseline, but similar to previous seasons.
- In Afghanistan, influenza activity decreased to moderate and the percentage of outpatient visits due to ILI was 4.1%, lower than previous weeks.
- In Djibouti, influenza activity was minimal and the percentage of outpatient visits due to ILI was 1.5%, lower than previous weeks.
- No influenza hospitalizations (RMEs) were reported for week 48. (Season totals: 0 Service members)





Southern Command -- Week 48

In SOUTHCOM during week 48

- Influenza activity was minimal in Honduras for week 48. The percentage of outpatient visits due to ILI was 0.0%, lower than previous weeks.
- Influenza activity was low in Cuba for week 48. The percentage of outpatient visits due to ILI was 1.9% for service members and 7.1% 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	4
Dependents	0	0	0	1	0	4

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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)