



# DEPARTMENT OF DEFENSE (AFHSB) Seasonal Influenza Surveillance Summary

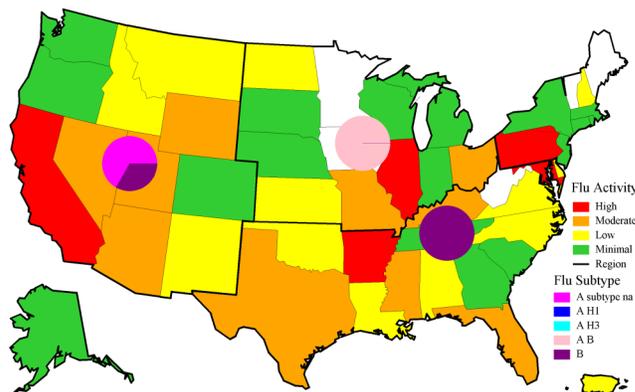


## Northern Command -- Week 52 (27 Dec 2015—02 Jan 2016)

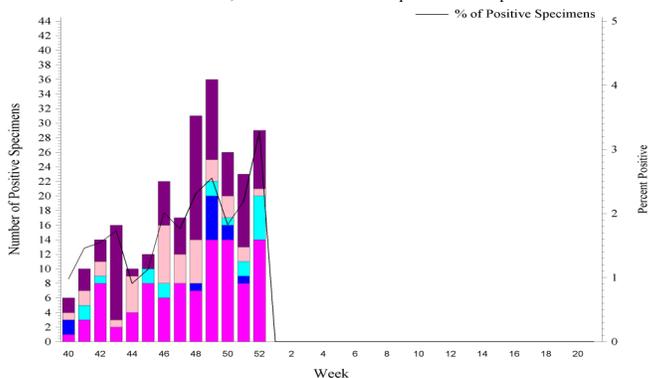
In NORTHCOM during week 52<sup>1,2</sup>

- ◆ Influenza activity was moderate to high in some states.
- ◆ The percentage of outpatient visits due to ILI increased substantially over the past 2 weeks, but remained below previous seasons.
- ◆ Flu A and B viruses continued to both circulate.
- ◆ The percentage of positive lab tests for week 52 was 2.1% for service members and 3.3% for beneficiaries.
- ◆ One influenza hospitalization (RME) among a vaccinated service member was reported for week 50.

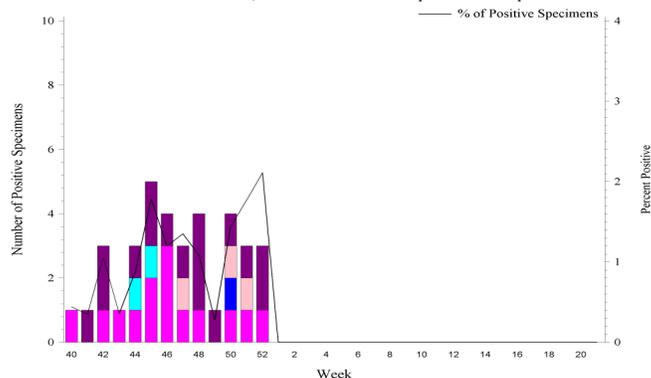
NORTHCOM Service Members, Influenza Activity and Virus Subtype, During the Last 2 Weeks



NORTHCOM Beneficiaries, Influenza Positive Specimens Reported to AFHSB



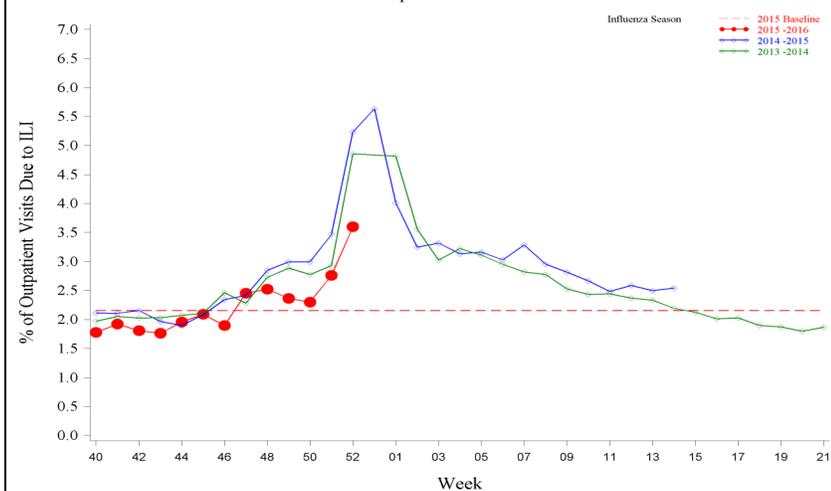
NORTHCOM Service Members, Influenza Positive Specimens Reported to AFHSB



2015 – 2016 NORTHCOM Season Totals<sup>1,2</sup>

	A/H1N1	A/H3N2	A/Untyped	Flu B	AB	Overall % Positive
Service Members	1	2	14	16	3	1.01
Dependents	12	18	97	87	38	1.87

NORTHCOM Service Members, 2015-2016 and Previous 2 Influenza Seasons ILI Outpatient Visits



- ◆ NHRC laboratory-confirmed influenza cases, US Military Basic Trainees: As of Week 52

	Week 52 <sup>3</sup>				2015 – 2016 Recruit Season Totals <sup>3</sup>				No. Tested
	A/H1N1	A/H3N2	A/unsubtyped	Flu B	A/H1N1	A/H3N2	A/unsubtyped	Flu B	
Ft Benning									64
Ft Jackson									51
Ft Leonard Wood									43
NRTC Great Lakes									18
Lackland AFB									16
MCRD Parris Island									29
MCRD San Diego		5				5			100
CGTC Cape May						3			17
<b>Total</b>	0	5	0	0	0	3	0	0	338

<sup>1</sup>AFHSB, <sup>2</sup>USAFSAM, <sup>3</sup>NHRC, <sup>4</sup>LRMC, <sup>5</sup>PHCR-E, <sup>6</sup>AFRIMS, <sup>7</sup>NMRC-A, <sup>8</sup>USAMRU-K, <sup>9</sup>NAMRU-3, <sup>10</sup>NAMRU-6

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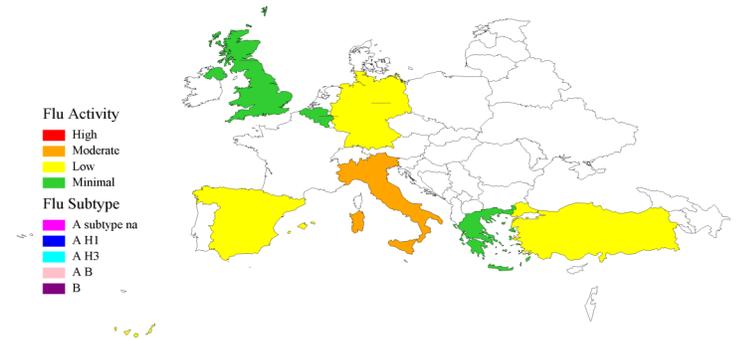


### European Command -- Week 52

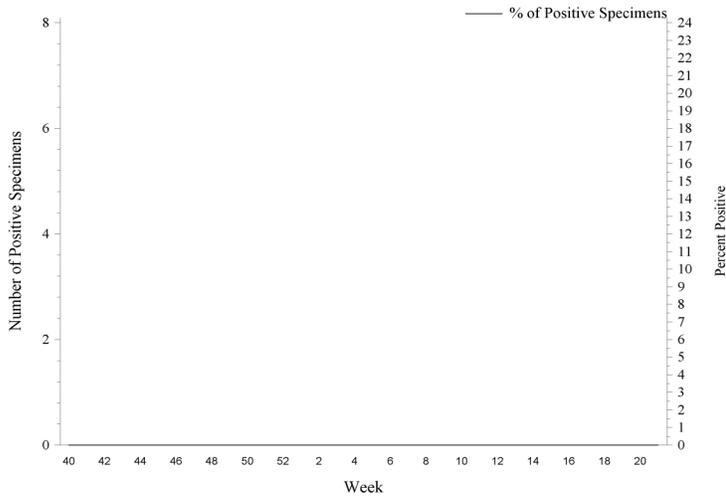
In EUCOM during week 52<sup>4,5</sup>

- ◆ Influenza activity increased to low in many countries and moderate in Italy.
- ◆ The percentage of outpatient visits due to ILI increased above baseline, but remained below previous seasons.
- ◆ Three influenza positive lab tests among beneficiaries occurred during week 52 (A/H1, A untyped, and B)
- ◆ The percentage of positive lab tests for week 52 was 0% for service members and 18.8% for beneficiaries.

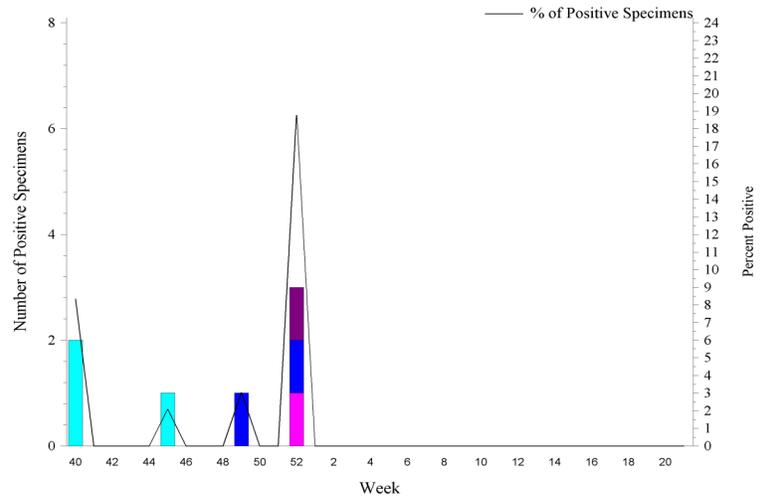
EUCOM Service Members, Influenza Activity and Virus Subtype, During the Last 2 Weeks



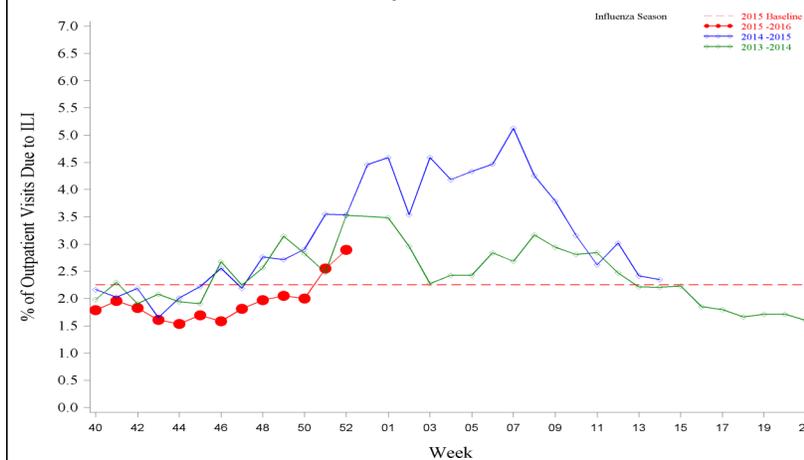
EUCOM Service Members, Influenza Positive Specimens Reported to AFHSB



EUCOM Beneficiaries, Influenza Positive Specimens Reported to AFHSB



EUCOM Service Members, 2015-2016 and Previous 2 Influenza Seasons ILI Outpatient Visits



2015-2016 EUCOM Season Totals <sup>1,4,5</sup>						
	A/H1N1	A/H3N2	A/Untyped	Influenza B	AB	Overall % Positive
Service Members	0	0	0	0	0	0.0
Dependents	2	3	1	1	0	1.53

<sup>1</sup>AFHSB, <sup>2</sup>USAFSAM, <sup>3</sup>NHRC, <sup>4</sup>LRMC, <sup>5</sup>PHCR-E, <sup>6</sup>AFRIMS, <sup>7</sup>NMRC-A, <sup>8</sup>USAMRU-K, <sup>9</sup>NAMRU-3, <sup>10</sup>NAMRU-6

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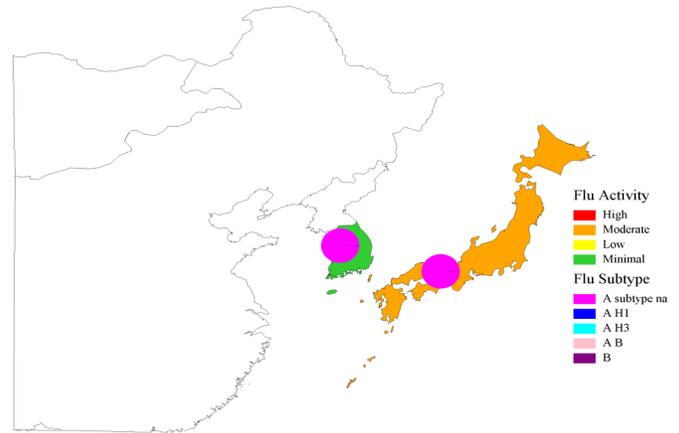


### Pacific Command -- Week 52

In PACOM during week 52<sup>1,6,7</sup>

- ◆ Moderate influenza activity was seen for Japan and Hawaii during the last two weeks.
- ◆ The percentage of outpatient visits due to ILI continued to increase, but remained below previous seasons.
- ◆ Four positive lab tests (3 A untyped and 1 B) were reported for week 52.
- ◆ The percentage of positive lab tests for week 52 was 6.3% for service members and 8.3% for beneficiaries.
- ◆ One influenza hospitalization (RME) among an unvaccinated service member was reported for week 50.

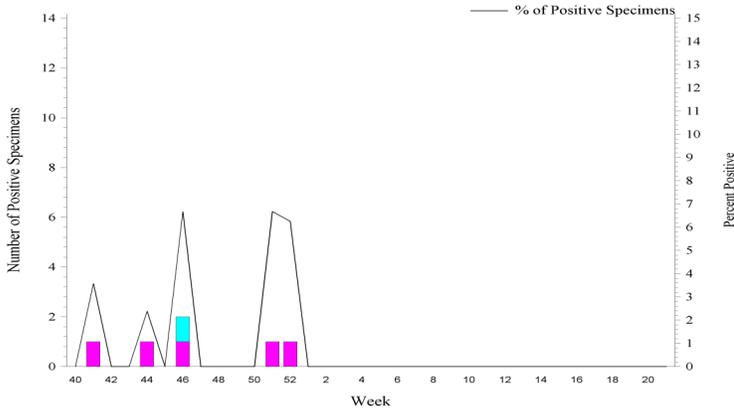
PACOM Service Members, Influenza Activity and Virus Subtype, During the Last 2 Weeks South Korea and Japan



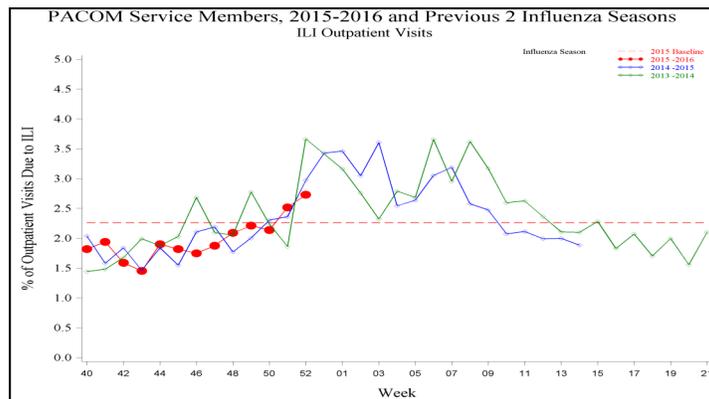
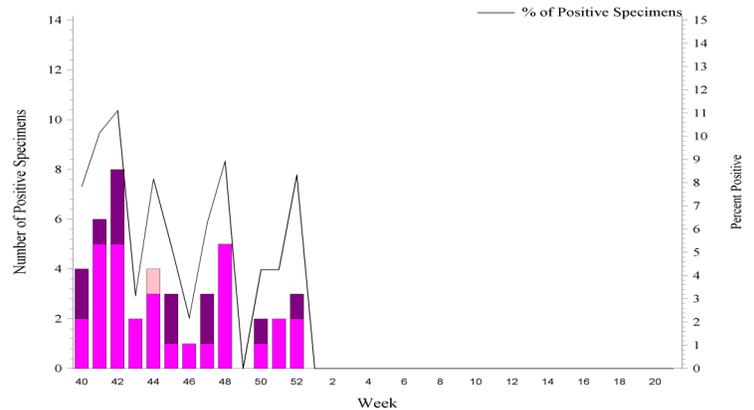
PACOM: Guam and Hawaii Influenza Activity and HL7 Test Positive (MAP: SM+BN, 2 wks)						
Area Name	Influenza Activity	HL7 Type				
		A(H1)	A(H3)	A Untyped	B	AB
Guam	Minimal	0	0	0	0	0
Hawaii*	Moderate	0	0	1	1	0

\*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



2015-2016 PACOM Season Totals <sup>1,6,7</sup>						
	A/H1N1	A/H3N2	A/Untyped	Flu B	Flu AB	Overall % Positive
Service Members	0	1	5	0	0	1.78
Dependents	0	0	30	12	1	6.22

<sup>1</sup>AFHSB, <sup>2</sup>USAFSAM, <sup>3</sup>NHRC, <sup>4</sup>LRMC, <sup>5</sup>PHCR-E, <sup>6</sup>AFRIMS, <sup>7</sup>NMRC-A, <sup>8</sup>USAMRU-K, <sup>9</sup>NAMRU-3, <sup>10</sup>NAMRU-6

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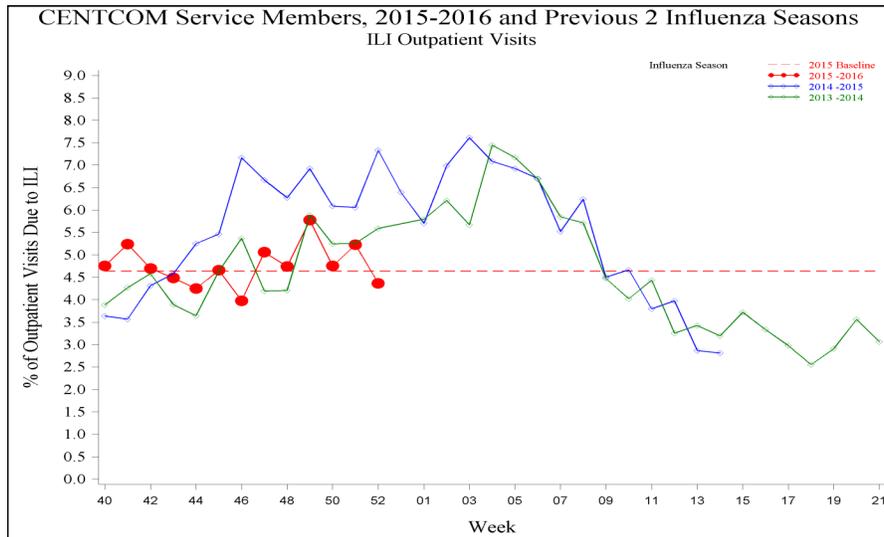
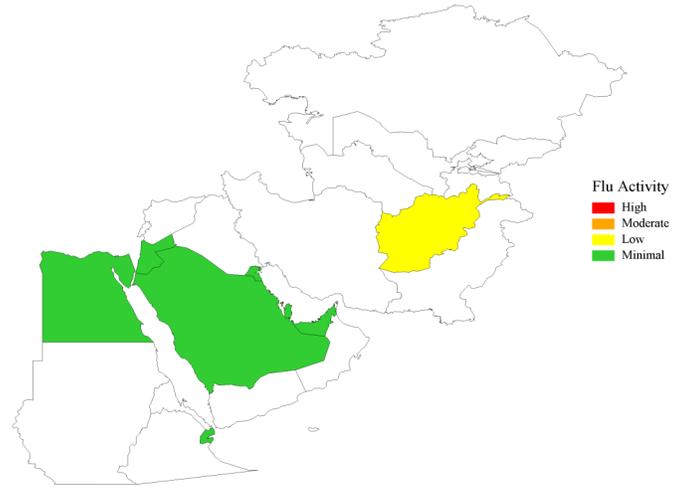


### Central and Africa Commands -- Week 52

In CENTCOM and AFRICOM during week 52<sup>1,8,9</sup>

- ◆ Influenza activity remained minimal in CENTCOM and AFRICOM, with the exception of Afghanistan which had low activity.
- ◆ The percentage of outpatient visits due to ILI decreased below baseline and previous seasons during week 52.

CENTCOM, Influenza Activity, During the Last 2 Weeks



### Southern Command -- Week 52

In SOUTHCOM during week 52<sup>10</sup>

- ◆ Influenza activity in Honduras was minimal based on DMSS data.

<sup>1</sup>AFHSB, <sup>2</sup>USAFSAM, <sup>3</sup>NHRC, <sup>4</sup>LRMC, <sup>5</sup>PHCR-E, <sup>6</sup>AFRIMS, <sup>7</sup>NMRC-A, <sup>8</sup>USAMRU-K, <sup>9</sup>NAMRU-3, <sup>10</sup>NAMRU-6

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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.

<sup>1</sup>AFHSB, <sup>2</sup>USAFSAM, <sup>3</sup>NHRC, <sup>4</sup>LRMC, <sup>5</sup>PHCR-E, <sup>6</sup>AFRIMS, <sup>7</sup>NMRC-A, <sup>8</sup>USAMRU-K, <sup>9</sup>NAMRU-3, <sup>10</sup>NAMRU-6

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