DEPARTMENT OF DEFENSE (AFHSB)
## Seasonal Influenza Surveillance Summary

Northern Command -- Week 52 (24 Dec 2017—30 Dec 2017)

In NORTHCOM during week 52

♦ Influenza activity continued to increase with the majority of states experiencing moderate to high activity.

♦ The percentage of outpatient visits due to ILI increased and remained above baseline and previous seasons.

♦ The percentage of positive lab tests remained high, but relatively stable at 21.0% for service members and 28.6% for other beneficiaries for week 52.

♦ Among influenza A specimens that were subtyped, the majority continued to be A/H3N2.

♦ One service member and fourteen other beneficiary influenza hospitalizations (RMEs) were reported during weeks 51 and 52.
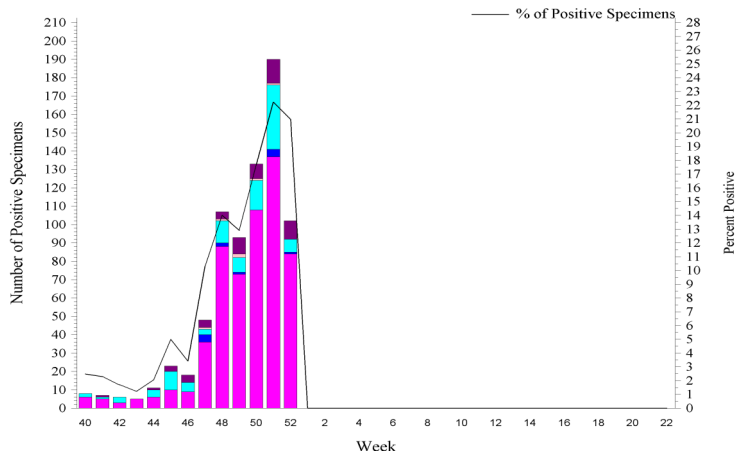
NORTHCOM Service Members, Influenza Activity and Virus Subtype, During the Last 2 Weeks
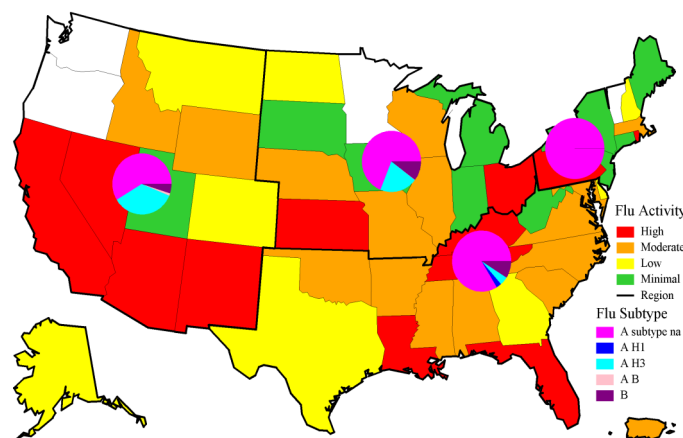
2017 – 2018 NORTHCOM Season Totals						
	A/H1N1	A/H3N2	A/Untyped	Flu B	AB	Overall % Positive
Service Members	12	106	570	57	6	10.81
Dependents	39	504	3258	917	83	16.75

NORTHCOM Service Members, Influenza Positive Specimens Reported to AFHSB

NORTHCOM Beneficiaries, Influenza Positive Specimens Reported to AFHSB
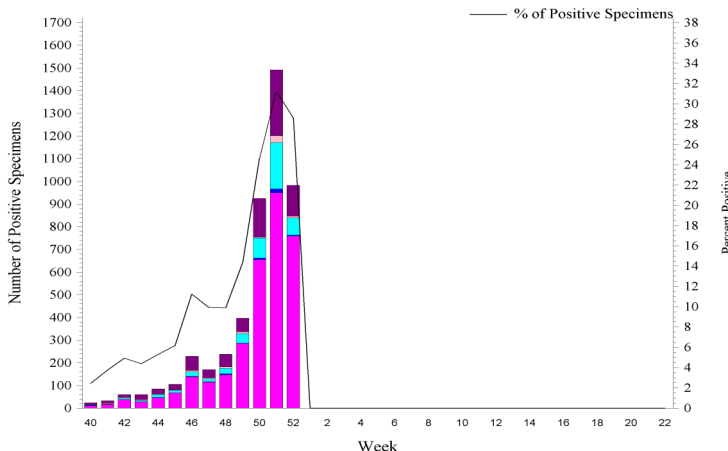
Disclaimer: Medical data from Military Treatment Facilities that are using MHS GENESIS are not available in DMSS. This includes Naval Hospital Oak Harbor, Naval Hospital Bremerton, Air Force Medical Services Fairchild, and Madigan Army Medical Center. Therefore, individuals who are expected to seek care at one of these facilities are currently being removed from the study population as we will not capture their medical encounters.
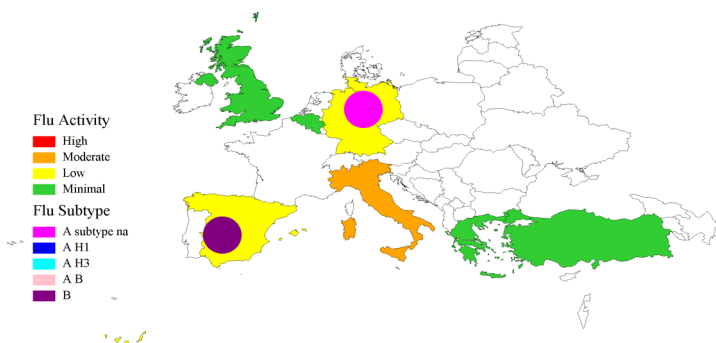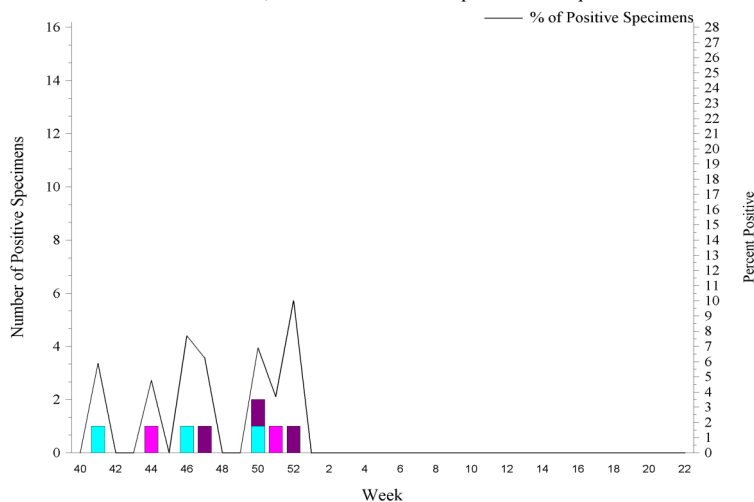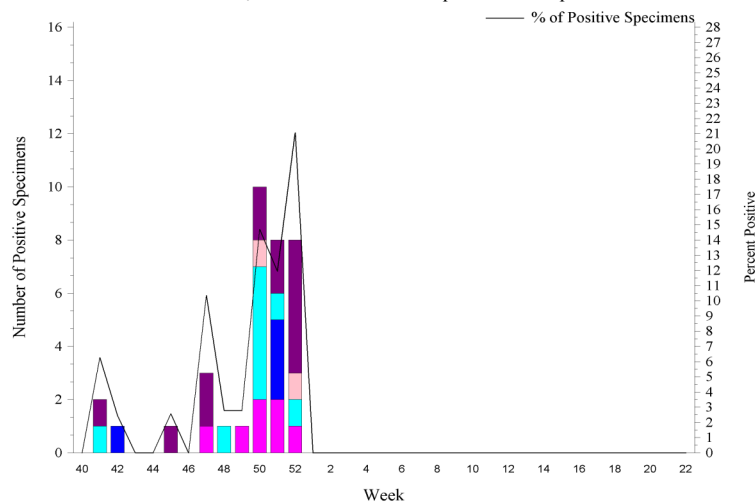
NORTHCOM Service Members, 2017-2018 and Previous 2 Influenza Seasons
ILI Outpatient Visits
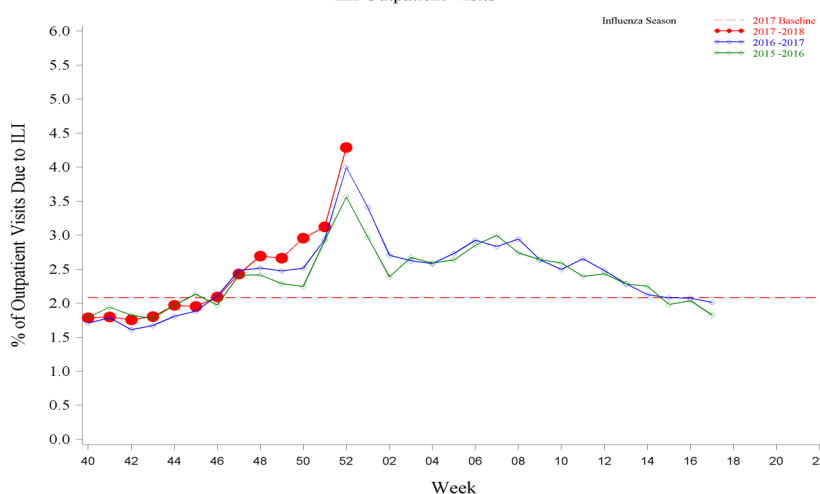
For inquiries or comments please contact *dha.ncr.health-surv.mbx.afhs-commcenter@mail.mil*

European Command -- Week 52

In EUCOM during week 52

♦ Influenza activity in EUCOM increased and ranged from minimal to moderate depending on the country.

♦ The percentage of outpatient visits due to ILI increased and remained above baseline and similar to previous seasons.

♦ The percentage of positive lab tests more than doubled to 10.0% for service members and 21.0% for other beneficiaries during week 52.

♦ One beneficiary influenza hospitalization (RMEs) was reported during week 52 in EUCOM.

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

Flu Activity
- High
- Moderate
- Low
- Minimal

Flu Subtype
- A subtype na
- A H1
- A H3
- A B
- B

EUCOM Service Members, Influenza Positive Specimens Reported to AFHSB

EUCOM Beneficiaries, Influenza Positive Specimens Reported to AFHSB

EUCOM Service Members, 2017-2018 and Previous 2 Influenza Seasons
ILI Outpatient Visits

Influenza Season
- 2017 Baseline
- 2017 -2018
- 2016 -2017
- 2015 -2016
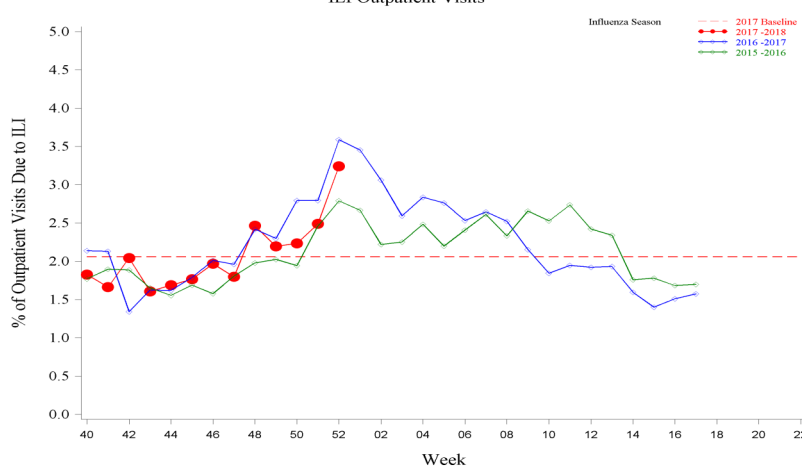
2017-2018 EUCOM Season Totals						
	A/H1N1	A/H3N2	A/Untyped	Influenza B	AB	Overall % Positive
Service Members	0	3	2	3	0	3.38
Dependents	4	9	7	13	2	7.07

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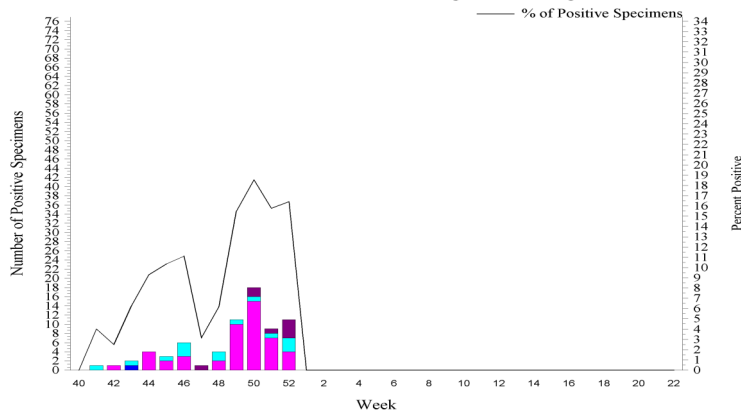
Pacific Command -- Week 52

In PACOM during week 52

♦ Influenza activity increased throughout PACOM and was high in Hawaii.

♦ The percentage of outpatient visits due to ILI increased above baseline and previous seasons.

♦ The percentage of positive lab tests remained high, but relatively stable at 16.4% for service members and 24.5% for other beneficiaries.

♦ Among influenza A specimens that were subtyped, the majority continued to be A/H3N2.

♦ No influenza hospitalizations (RMEs) were report in PACOM during week 52.

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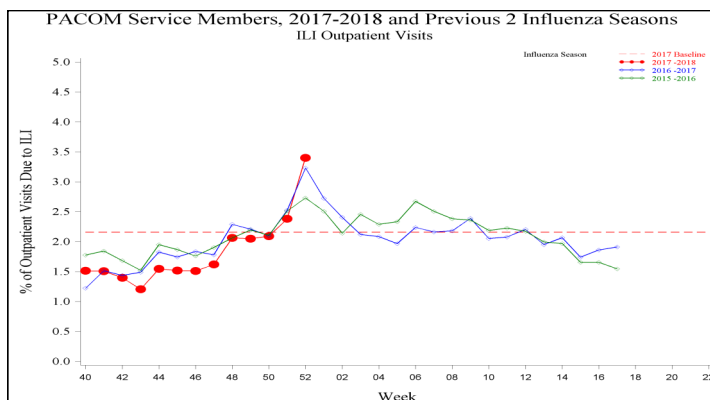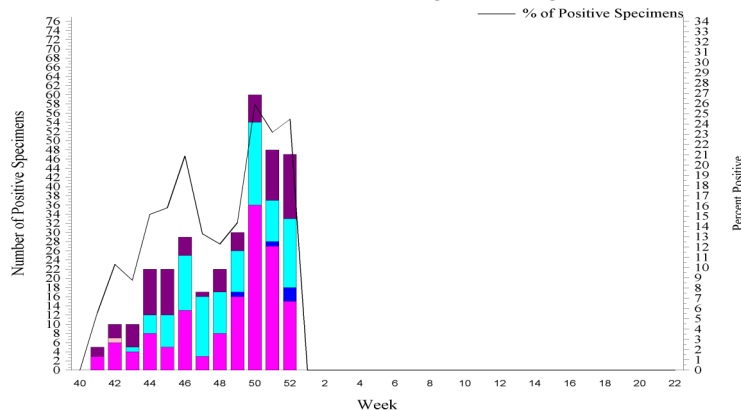South Korea and Japan

Flu Activity
- High
- Moderate
- Low
- Minimal

Flu Subtype
- A subtype na
- A H1
- A H3
- A B
- B
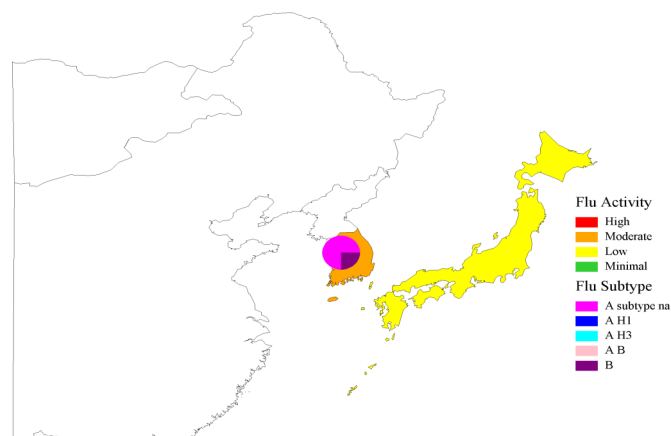
PACOM: Guam and Hawaii Influenza Activity and HL7 Test Positive (MAP: SM+BN, 2 wks)						
Area Name	Influenza Activity	HL7 Type				
		A(H1)	A(H3)	A Untyped	B	AB
Guam	Minimal	0	0	2	0	0
Hawaii*	High	4	28	28	9	0
*Hawaii HL7 Type counts may include samples received from Guam, but tested in Hawaii						

PACOM Service Members, Influenza Positive Specimens Reported to AFHSB

PACOM Beneficiaries, Influenza Positive Specimens Reported to AFHSB

PACOM Service Members, 2017-2018 and Previous 2 Influenza Seasons
ILI Outpatient Visits

Influenza Season
- 2017 Baseline
- 2017 -2018
- 2016 -2017
- 2015 -2016

2017-2018 PACOM Season Totals						
	A/H1N1	A/H3N2	A/Untyped	Flu B	Flu AB	Overall % Positive
Service Members	1	14	48	8	0	11.04
Dependents	5	97	144	75	1	16.55

For inquiries or comments please contact dha.ncr.health-surv.mbx.afhs-commcenter@mail.mil

Central Command -- Week 52

In CENTCOM during week 52

♦ Since week 48, TMDS data has not been sent to AFHSB. Therefore, the CENTCOM map and figure are not presented as the data will be incomplete.

Southern Command -- Week 52

In SOUTHCOM during week 52

♦ Since week 48, TMDS data has not been sent to AFHSB. Therefore, SOUTHCOM data is incomplete and will not be provided.

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)