Cumulative Results

Locations	68
Collected	537
Tested	490

Influenza A	**20**
A(H1N1)pdm09	2
A(H3N2)	17
A(H3N2) & Rhino/Enterovirus	1

Influenza B*	**4**
B	4

Other Respiratory Pathogens	**231**
Adenovirus	5
Coronavirus	6
Human Metapneumovirus	7
Mycoplasma pneumoniae	11
Parainfluenza	43
RSV	9
Rhinovirus/Enterovirus	130
Non-influenza Viral Coinfections	19
Non-influenza Bacterial Coinfections	1
-C. pneumo coinfections *(1)*	

No Pathogen Detected	**235**

Results are preliminary and may change as more results are finalized.
*Influenza B lineages and specimens submitted for sequencing only will be reported in the periodic molecular sequencing reports.

Respiratory Highlights
22 October - 4 November 2017 (Surveillance Weeks 43 & 44)

- During 22 October - 4 November 2017, a total of 216 specimens were collected and received from 55 locations. Results were finalized for 174 specimens from 52 locations. During Week 43, three influenza A(H3N2) were detected. During Week 44, three influenza A(H3N2) and one influenza B were detected. The influenza percent positive for Week 43 was approximately 3% and during Week 44 was approximately 6%.

- The Nebraska Department of Health and Human Services reported one case of variant flu virus (H3N2v) on 4 November 2017. The patient reported no contact with swine during the week preceding illness onset. However, a member of the same household did report exposure to swine. This variant case was the first reported in Nebraska. The CDC has reported 61 cases of H3N2v so far in 2017. (ProMED, Influenza (31): USA (Nebraska), Swine Origin, H3N2v).

- Influenza cases began increasing this season around weeks 40 and 41 which is consistent with last season. There has been an increase in rhino/enterovirus and parainfluenza for respiratory pathogen surveillance.

Table of Contents

88ABW-2015-5508 and PA email guidance dated 10 November 2015.

Table 1. Finalized results by region and location for specimens collected during Weeks 43 & 44

Region*		A(H3N2)	B	Adenovirus	Coronavirus	hMNV	M. pneumoniae	Parainfluenza	RSV	Rhinovirus/Enterovirus	Adeno & hMNV & RSV	Adeno & Para	Adeno & Rhino/Entero	hMNV & Para	Para & Rhino/Entero	RSV & Rhino/Entero	No Pathogen	Total
EUCOM	Landstuhl RMC, Germany	-	-	-	-	1	-	-	-	1	1	-	-	-	-	-	8	11
	RAF Lakenheath, England	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
	Ramstein AB, Germany	-	-	-	-	1	-	2	-	2	-	-	-	1	-	1	-	7
	SHAPE, Belgium	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	3	4
	Spangdahlem AB, Germany	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
	USAG Baumholder, Germany	-	-	-	-	1	-	-	-	2	-	-	-	-	-	-	5	8
	USAG Grafenwoehr, Germany	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	USAG Stuttgart, Germany	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	USAG Wiesbaden, Germany	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	2	3
PACOM	Eielson AFB, AK	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
	JB Elmendorf-Richardson, AK	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
	Kunsan AB, South Korea	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
	Misawa AB, Japan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	NH Okinawa, Japan	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
	Yokota AB, Japan	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Region 1	USCG Academy, CT	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Region 2	Ft Drum, NY	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	2
	USMA - West Point, NY	-	-	-	-	-	-	1	4	-	-	-	-	-	-	-	5	10
Region 3	Dover AFB, DE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	JB Andrews, MD	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	2	3
	JB Langley-Eustis, VA	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	2	5
Region 4	Eglin AFB, FL	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	2
	Ft Bragg, NC	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	3
	Hurlburt Field, FL	-	-	-	1	-	-	-	-	1	-	1	-	-	-	-	1	4
	Keesler AFB, MS	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	1	3
	Moody AFB, GA	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	NH Beaufort, SC	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	Robins AFB, GA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	Seymour Johnson AFB, NC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	Shaw AFB, SC	-	-	-	-	-	-	4	1	2	-	-	-	-	-	-	3	10
Region 5	Scott AFB, IL	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	Wright-Patterson AFB, OH	-	-	-	-	1	1	2	-	4	-	1	-	-	-	-	14	23
Region 6	Altus AFB, OK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Barksdale AFB, LA	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
	Cannon AFB, NM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Laughlin AFB, TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Little Rock AFB, AR	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2
	Sheppard AFB, TX	-	-	-	2	1	-	-	1	2	-	-	-	-	-	-	6	12
	Tinker AFB, OK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Region 7	Offutt AFB, NE	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2	3
Region 8	Ellsworth AFB, SD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	FE Warren AFB, WY	-	-	-	-	-	-	2	-	1	-	-	-	-	-	-	2	5
	Hill AFB, UT	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
	Minot AFB, ND	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	2	4
	Peterson AFB, CO	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
	USAF Academy, CO	-	-	-	2	-	-	-	-	-	-	-	-	-	1	-	3	6
Region 9	Davis-Monthan AFB, AZ	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	1	3
	Luke AFB, AZ	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3
	Nellis AFB, NV	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	2
Region 10	CGS North Bend, OR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Fairchild AFB, WA	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	1	3
	NH Bremerton, WA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3
Total		6	1	2	5	7	4	17	4	38	1	1	1	1	2	1	83	174

CONUS locations are based on Health & Human Services regions. Other locations are defined by COCOM.

88ABW-2015-5508 and PA email guidance dated 10 November 2015.

Cumulative Laboratory Results

Link to cumulative results by region and location: https://gumbo2.wpafb.af.mil/epi-consult/influenza/LabResultsChart.cfm

Graph 1. Percent influenza positive by week: 2016-2017 surveillance year and through Week 44 of the 2017-2018 surveillance year
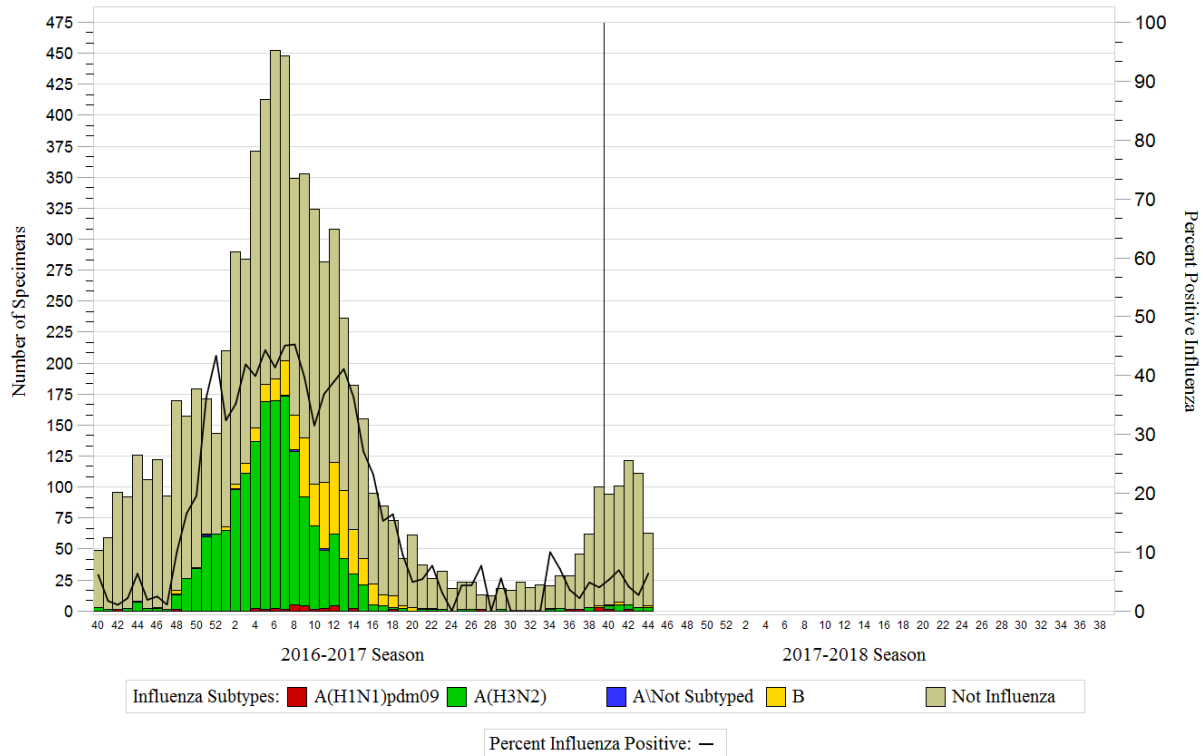
Note: Dual influenza coinfections are excluded from this graph.

Graph 2. Other positive respiratory pathogens for the 2017-2018 surveillance year through Week 44

88ABW-2015-5508 and PA email guidance dated 10 November 2015.

3
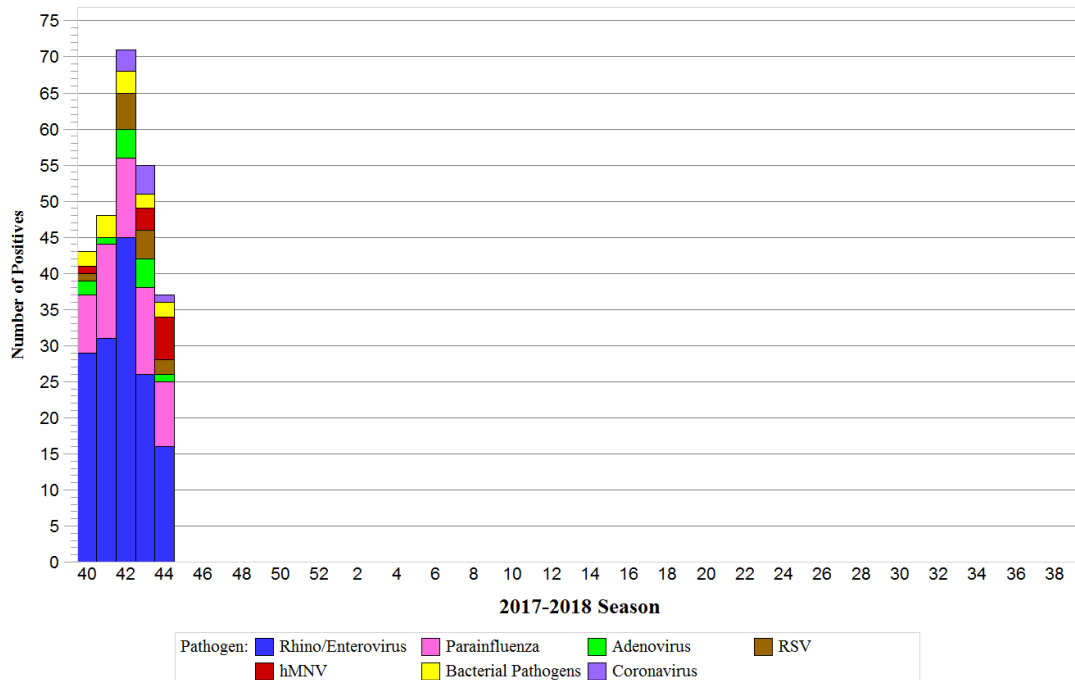
Graph 3. Vaccination status by beneficiary type for the 2017-2018 surveillance year through Week 44
(excluding 'Other' beneficiary type)
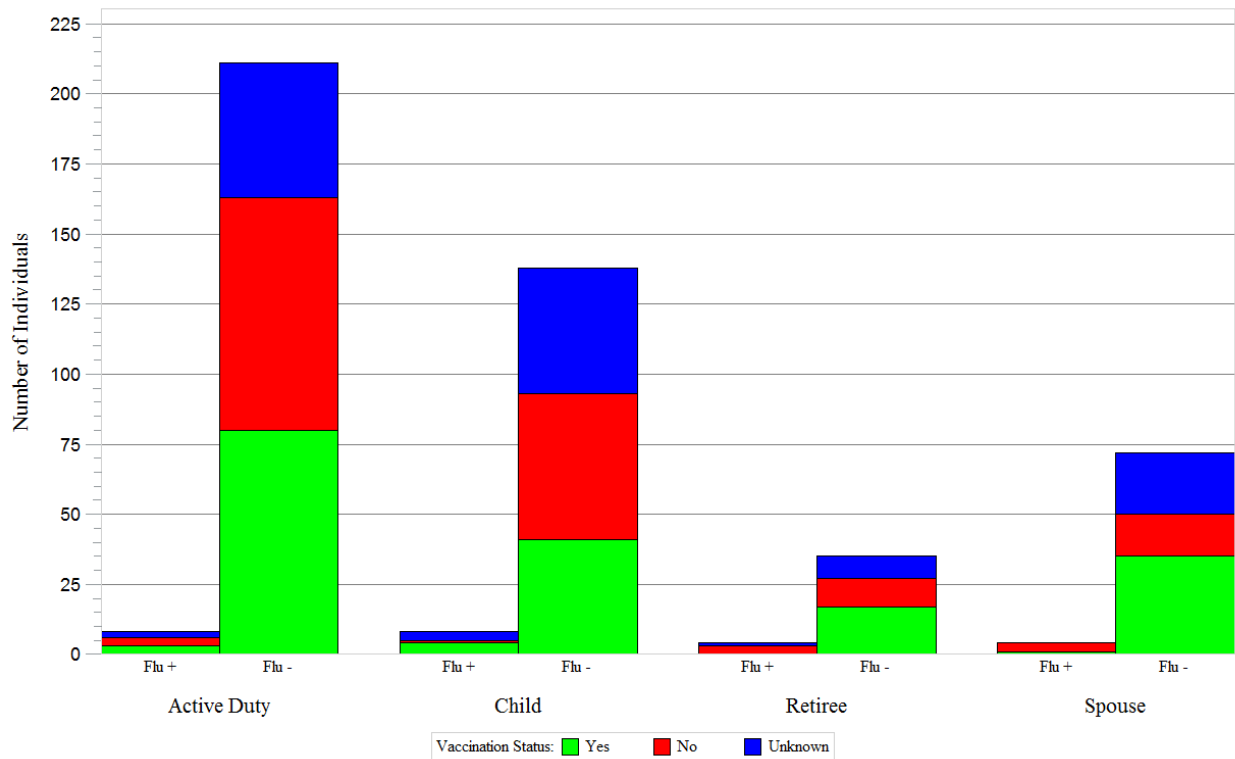
Table 2. ILI by age group for the 2017-2018 surveillance year through Week 44

Age Group	Frequency	Percent
0-5	104	21.22
6-9	20	4.08
10-17	28	5.71
18-24	105	21.43
25-44	163	33.27
45-64	41	8.37
65+	29	5.92

Graph 4. ILI by beneficiary status for the 2017-2018 surveillance year through Week 44

Demographic Summary

Of 490 ILI cases, 219 are service members (44.7%), 146 are children (29.8%), 76 are spouses (15.5%), and 49 are retirees and other beneficiaries (10.0%). The median age of ILI cases with known age (n=490) is 24 (range 0, 88).

Map 1. Influenza subtypes and activity level by U.S. region for the 2017-2018 surveillance year through Week 44

Region 10 (n=11)
Region 8 (n=18)
Region 1 (n=1)
Region 5 (n=24)
Region 2 (n=12)
Region 9 (n=8)
Region 7 (n=3)
Region 3 (n=9)
Region 6 (n=19)
Region 4 (n=28)
AK
HI
PR

HI - Region 9
AK - Region 10

PR - Region 2
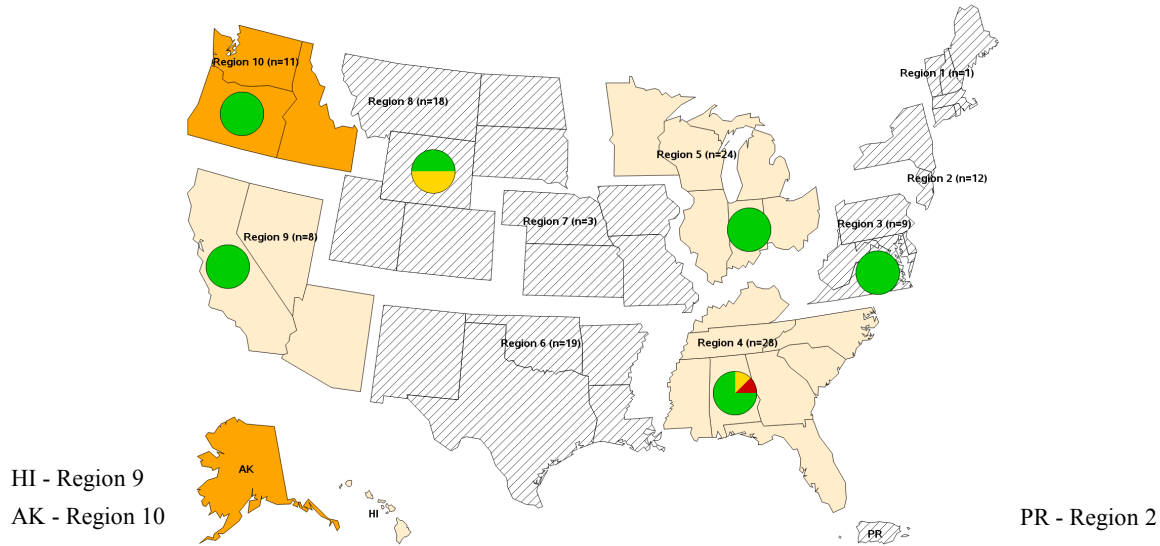
Map 2. Influenza subtypes and activity level by country for the 2017-2018 surveillance year through Week 44 (Pacific)
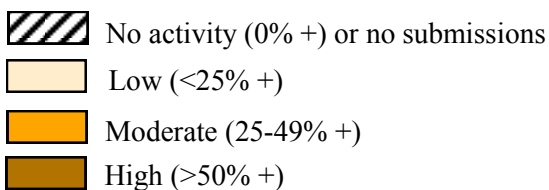

South Korea (n=1)
Japan (n=3)
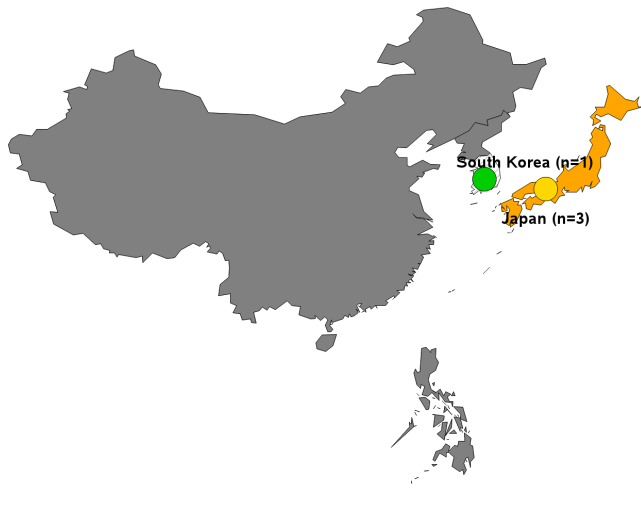
Map 3. Influenza subtypes and activity level by country for the 2017-2018 surveillance year through Week 44 (Europe)

England (n=1)
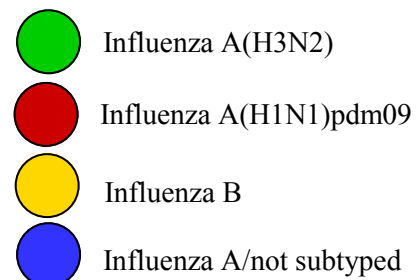Germany (n=20)
Turkey (n=0)
Spain (n=0)
Italy (n=0)
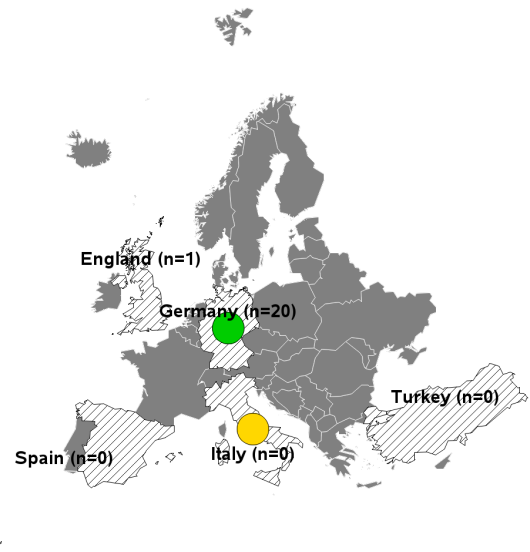
Note - Countries shaded in gray do not contain sentinel sites and are only displayed for geographical perspective.

Legend

Influenza Activity - Past 2 weeks

(n = # of submissions)

No activity (0% +) or no submissions

Low (<25% +)

Moderate (25-49% +)

High (>50% +)

Influenza Results - Cumulative

Influenza A(H3N2)

Influenza A(H1N1)pdm09

Influenza B

Influenza A/not subtyped

88ABW-2015-5508 and PA email guidance dated 10 November 2015.

USAF School of Aerospace Medicine & Defense Health Agency	# DoD Global Respiratory Pathogen Surveillance Program

Background

The DoD-wide program was established by the Global Emerging Infections Surveillance and Response System (GEIS) in 1997. The surveillance network includes the Defense Health Agency/Armed Forces Health Surveillance Branch—Air Force Satellite Cell (DHA/AFHSB-AF) and U.S. Air Force School of Aerospace Medicine (USAFSAM) (sentinel site respiratory surveillance), the Naval Health Research Center (recruit and shipboard population-based respiratory surveillance), the Naval Medical Research Unit (NAMRU-3) in Cairo, Egypt, the Naval Medical Research Unit (NAMRU-2) in Phnom Penh, Cambodia, the Armed Forces Research Institute of Medical Sciences (AFRIMS) in Bangkok, Thailand, the Naval Medical Research Unit (NAMRU-6) in Lima, Peru, and the United States Army Medical Research Unit-Kenya (USAMRU-K) located in Nairobi, Kenya. This work is supported by the Air Force and GEIS Operations, a Division of the Armed Forces Health Surveillance Branch (AFHSB).

Sentinel Site Surveillance

In 1976, the U.S. Air Force Medical Service began conducting routine, global, laboratory-based, influenza surveillance. Air Force efforts expanded to DoD-wide in 1997. DHA/AFHSB-AF and USAFSAM manages the surveillance program that includes global surveillance among DoD beneficiaries at 79 sentinel sites (including deployed locations) and many non-sentinel sites (please see map below). Collaborating partner laboratories include five DoD overseas medical research laboratories (AFRIMS, NAMRU-2, NAMRU-3, NAMRU-6, USAMRD-K) who collect specimens from local residents in surrounding countries that may not otherwise be covered in existing surveillance efforts. Additionally, the Naval Health Research Center (NHRC) in San Diego, CA collects specimens from DoD recruit training centers and conducts surveillance along the Mexico border.

Landstuhl Regional Medical Center (LRMC) and Tripler Army Medical Center (TAMC) assist the program by processing DoD specimens for the EUCOM region and the State of Hawaii, respectively. EUCOM respiratory data is obtained from LRMC and incorporated into our weekly report. This process seeks to provide more timely results and efficient transport of specimens.

Available on our website (listed below) is a list of previous weekly surveillance reports, program information (including an educational briefing and instruction pamphlets for clinic staff), and a dashboard containing respiratory data for our sentinel sites.
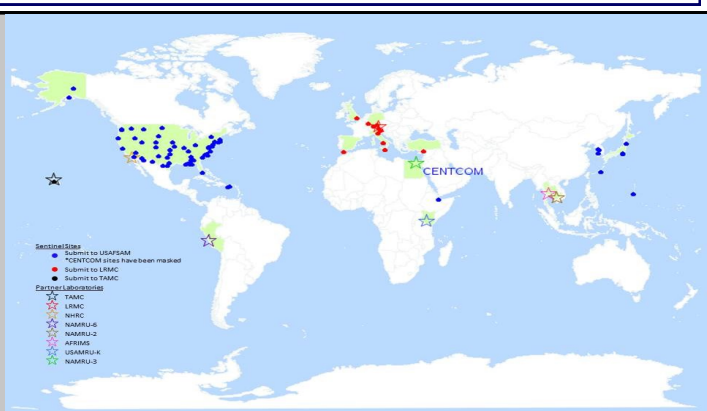
Errata:
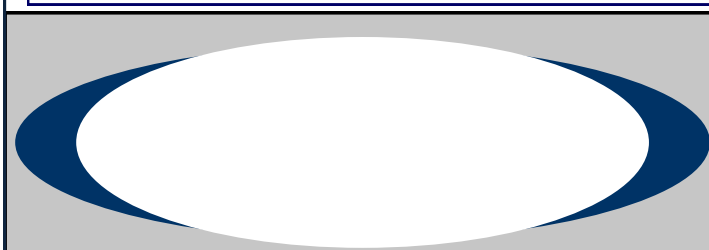
For Public Health Services
937-938-3196; DSN 798-3196

For Laboratory Services
937-938-4140; DSN 798-4140

USAFSAM.PHRFlu@us.af.mil

Collaborating Partners

In addition to all participating DoD military sentinel sites, collaborating laboratories and medical centers (described above) may be further understood by reviewing the sites' website. Click on the sites' icon to be directed to their webpage.

88ABW-2015-5508 and PA email guidance dated 10 November 2015.