



Cumulative Results

Locations	79
Collected	3,617
Tested	3,440

Influenza A 1076

A(H1N1)pdm09	13
A(H3N2)	1058
A(H3N2) & Influenza B	3
A(H3N2) & RSV	1
A/not subtyped & Rhino/Enterovirus	1

Influenza B* 146

B	145
B & Human Metapneumovirus &	1

Other Respiratory Pathogens 805

Adenovirus	52
<i>Bordetella pertussis</i>	0
<i>Chlamydophila pneumoniae</i>	3
Coronavirus	96
Human Metapneumovirus	45
<i>Mycoplasma pneumoniae</i>	33
Parainfluenza	129
RSV	151
Rhino/Enterovirus	190
Non-influenza Viral Coinfections	98
Non-influenza Bacterial Coinfections	8
-M. pneumo coinfections (8)	

Respiratory Highlights

19 February - 4 March 2017 (Surveillance Weeks 8 & 9)

- During 19 February - 4 March 2017, a total of 508 specimens were collected from 49 locations. Results were finalized for 380 specimens from 46 locations. During Week 8, four influenza A(H1N1)pdm09, 109 influenza A(H3N2), one influenza A(H3N2) & influenza B, and 21 influenza B viruses were identified. During Week 9, three influenza A(H1N1)pdm09, 57 influenza A(H3N2), one influenza A(H3N2) & influenza B, and 38 influenza B viruses were identified. Approximately 50% of specimens tested positive for influenza during Week 8. Approximately 43% of specimens tested positive for influenza during Week 9. The influenza percent positive for the season is approximately 35%.
- According to the CDC, influenza activity has continued to remain elevated in the United States. 4.8% of reported outpatient visits were due to influenza-like illness which is above the current national baseline of 2.2%. Six influenza-associated pediatric deaths have been reported. (CDC, [FluView Report Week 8](#), cited 8 March 2017).

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Results are preliminary and may change as more results are finalized.

*Influenza B lineages will be reported in the periodic molecular sequencing reports.

DoD Global, Laboratory-Based, Influenza Surveillance Program

Table 1. Results by region and location for specimens collected during Weeks 8 & 9

Region*		A(H1N1)pdm09	A(H3N2)	A(H3N2) & B	B	Adenovirus	Coronavirus	hMNV	M. pneumoniae	Parainfluenza	RSV	Rhinovirus/Enterovirus	Adeno & Corona	Adeno & Para	Adeno & Rhino/Enterovirus	Corona & hMNV	Corona & RSV	Corona & Rhino/Enterovirus	hMNV & RSV	Para & Rhino/Enterovirus	RSV & Rhino/Enterovirus	No Pathogen	Total
PACOM		JR Marianas - Andersen AFB, Guam	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Yokota AB, Japan		-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
Region 2		Ft Drum, NY	1	4	-	9	-	2	-	-	-	-	-	-	1	-	1	-	1	-	-	3	22
JB McGuire-Dix-Lakehurst, NJ		-	8	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	2	12
USMA - West Point, NY		-	6	-	3	-	-	1	-	1	2	-	-	-	-	-	-	-	-	-	-	8	21
Region 3		Dover AFB, DE	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2
JB Anacostia-Bolling, DC		-	4	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	
JB Andrews, MD		1	3	-	6	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	13
JB Langley-Eustis, VA		2	43	1	5	-	-	-	-	2	-	1	-	-	-	-	-	-	-	-	-	14	68
NCRM - Walter Reed NMMC, MD		-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Region 4		Columbus AFB, MS	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Eglin AFB, FL		-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4
Ft Bragg, NC		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Hurlburt Field, FL		-	5	-	1	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2	10
JB Charleston (AF), SC		-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Keesler AFB, MS		-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
MacDill AFB, FL		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Maxwell AFB, AL		-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Moody AFB, GA		-	6	-	2	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	5
NH Camp Lejeune, NC		-	-	1	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	4
Robins AFB, GA		-	3	-	3	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	8
Seymour Johnson AFB, NC		1	7	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	10
Shaw AFB, SC		-	6	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Tyndall AFB, FL		-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4

(Cont'd on page 3)

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

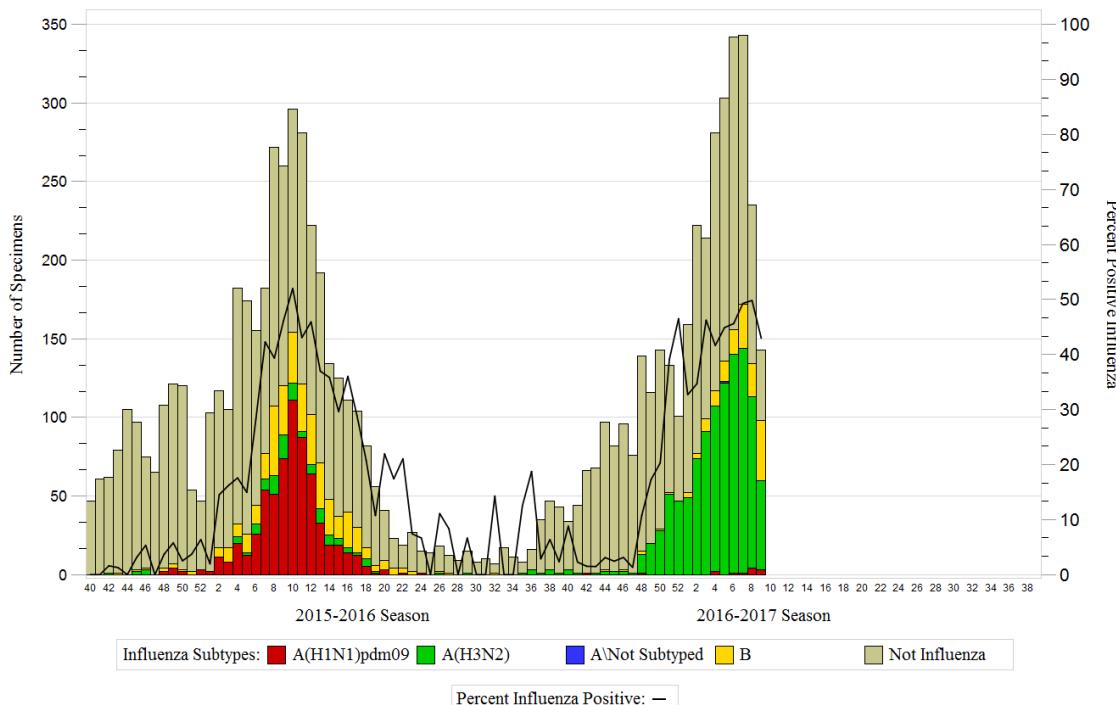
Table 1. Results by region and location for specimens collected during Weeks 8 & 9
(Cont'd from page 2)

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

DoD Global, Laboratory-Based, Influenza Surveillance Program

Laboratory Results - Cumulative for Season

Graph 1. Percent influenza positive by week: 2015-2016 surveillance year and through Week 9 of the 2016-2017 surveillance year



Note: Dual influenza coinfections are excluded from this graph. Specimens with pending results are used in the denominator to calculate percent positive, but are not displayed in the graph.

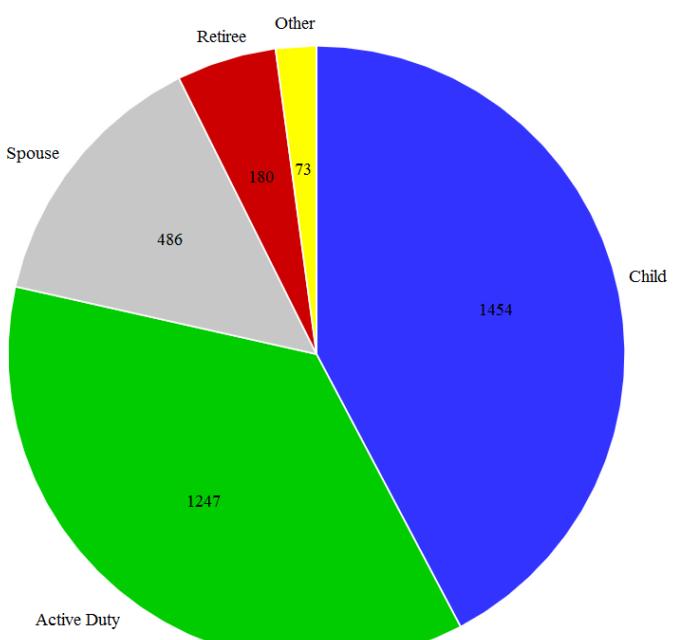
Table 2. ILI by age group for the 2016-2017 surveillance year through Week 9

Age Group	Frequency	Percent
0-5	776	22.56
6-9	273	7.94
10-17	408	11.86
18-24	505	14.68
25-44	1075	31.25
45-64	320	9.30
65+	83	2.41

Demographic Summary

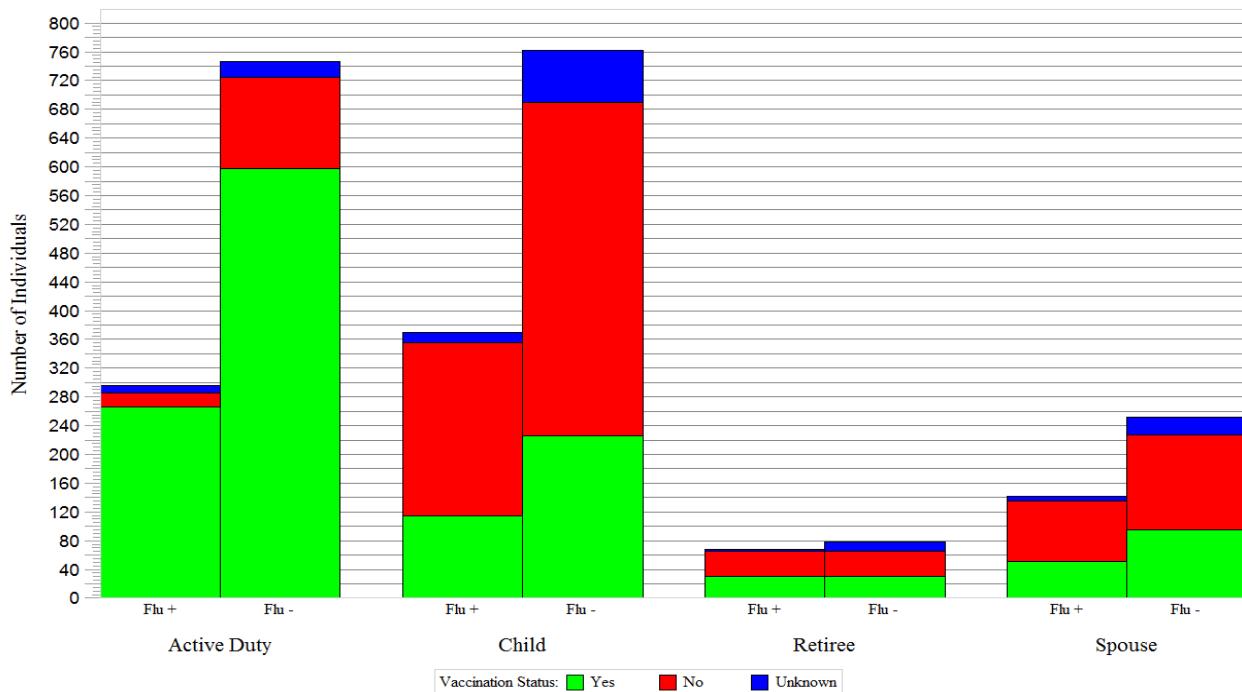
Of 3,440 ILI cases, 1,247 (36.3%) are service members, 1,454 (42.3%) are children, 486 (14.1%) are spouses, and 253 (7.3%) are retirees and other beneficiaries. The median age of ILI cases with known age (n=3,440) is 21 (range 0, 96).

Graph 2. ILI by beneficiary status for the 2016-2017 surveillance year through Week 9



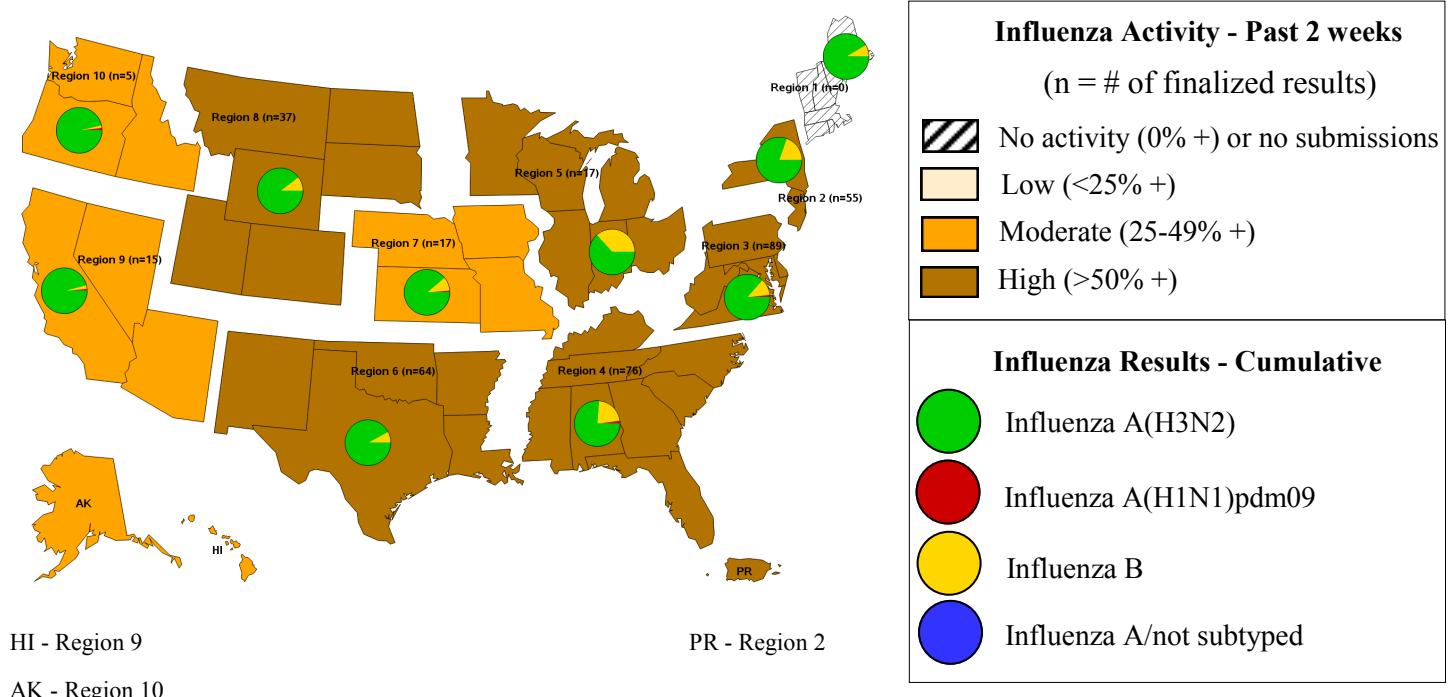
DoD Global, Laboratory-Based, Influenza Surveillance Program

Graph 3. Vaccination status by beneficiary type for the 2016-2017 surveillance year through Week 7*



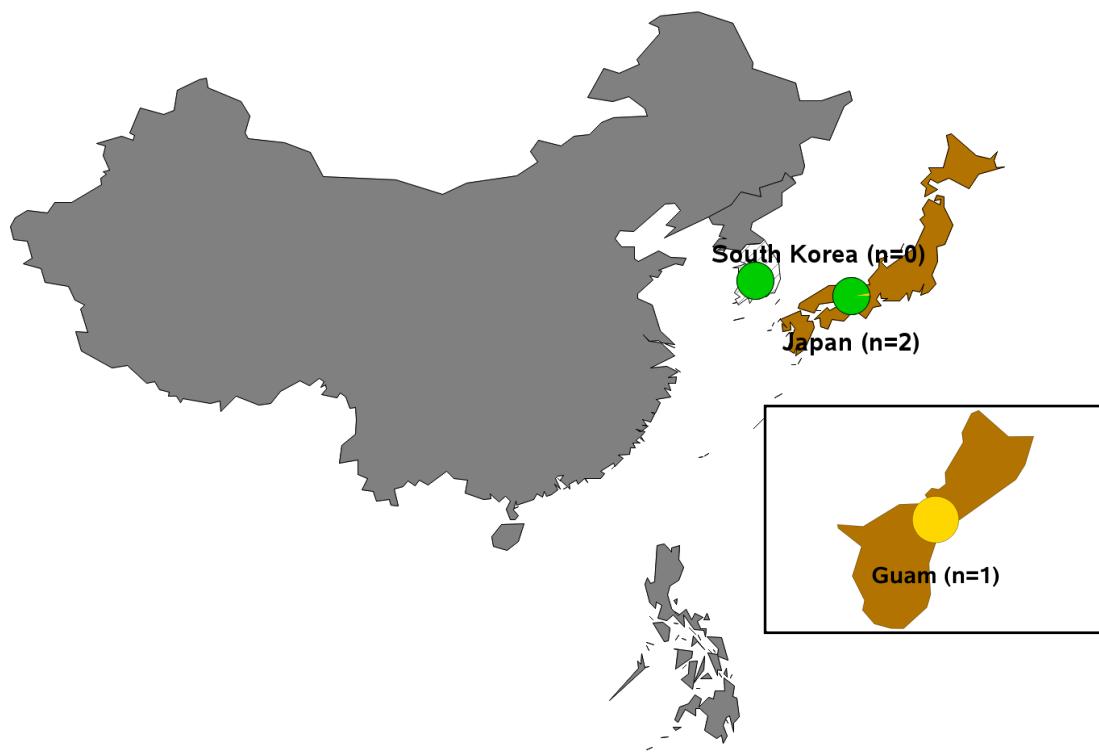
*Vaccination Status by beneficiary type for Week 9 was not available at time of publication.

Map 1. Influenza subtypes and activity level by U.S. region for the 2016-2017 surveillance year through Week 9



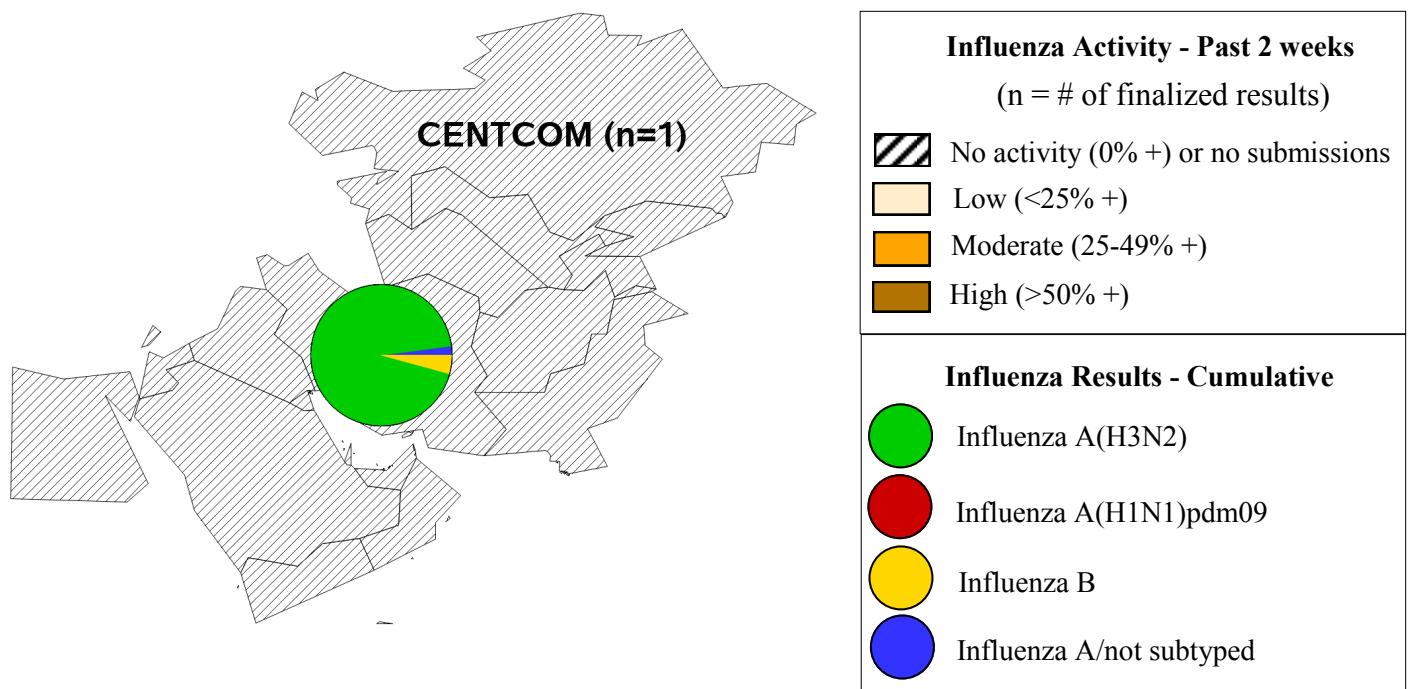
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Map 2. Influenza subtypes and activity level by country for the 2016-2017 surveillance year through Week 9 (Pacific)



Note - Countries shaded in gray do not contain sentinel sites and are only displayed for geographical perspective.

Map 3. Influenza subtypes and activity level for CENTCOM for the 2016-2017 surveillance year through Week 9



Note - Specimens for CENTCOM were tested at USAFSAM or Landstuhl Regional Medical Center (LRMC).

DoD Global, Laboratory-Based, Influenza Surveillance Program

Laboratory Results—Through Current Surveillance Week 9

Table 3. Cumulative results by region and location for specimens collected during the 2016-2017 surveillance year

Region*		A(H1N1)pdm09	A(H3N2)	A/not subtyped & Rhino/Enter o	A(H3N2) & B	A(H3N2) & RSV	B	B & hMNV & Rhino/Enter o	Adenovirus	C. pneumoniae	Coronavirus	hMNV	M. pneumoniae	Parainfluenza	RSV	Rhinovirus/Enterovirus	Non-Influenza Viral Coinfection	Non-Influenza Bacterial Coinfection	No Pathogen	Total
Deployed		- 3	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	7	12	
Country 1, Location A		- 6	-	-	-	-	1	-	-	-	1	-	-	-	1	-	1	5	15	
Country 1, Location B		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
Country 1, Location D		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Country 2, Location A		- 31	1	-	-	1	-	-	-	6	-	-	-	-	6	2	-	12	59	
EUCOM		Incirlik AB, Turkey	- 1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2	4
PACOM		CFA Okinawa, Japan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	
Eielson AFB, AK		-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	5	6	
JB Elmendorf-Richardson, AK		- 1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	3	5	
JR M arianas - Andersen AFB, Guam		-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	1	3	
Kadena AB, Japan		- 4	-	-	-	-	-	-	-	-	1	-	3	-	2	-	1	20	31	
Kunsan AB, South Korea		- 2	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	1	5	
Misawa AB, Japan		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
Osan AB, South Korea		- 4	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	7	12	
Tripler AM C, HI		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
Yokota AB, Japan		- 29	-	-	-	1	-	1	-	3	1	2	-	2	7	4	-	51	101	
Region 1		Hanscom AFB, MA	- 2	-	-	-	-	-	-	-	-	1	2	-	-	1	-	2	8	
USCG Academy, CT		- 9	-	-	-	1	-	-	-	1	1	1	-	-	3	-	2	5	23	
Region 2		CGAS Borinquen, PR	- 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Ft Drum, NY		1 15	-	-	-	29	-	5	1	3	8	1	6	7	1	5	-	31	113	
JB McGuire-Dix-Lakehurst, NJ		- 43	-	-	-	-	2	-	6	7	2	7	5	9	5	-	64	150		
USMA - West Point, NY		- 86	-	-	-	6	-	10	-	5	4	1	6	12	6	4	-	111	251	
Region 3		Dover AFB, DE	- 9	-	-	-	-	2	-	1	-	1	-	1	1	-	-	28	43	
JB Anacostia-Bolling, DC		- 12	-	-	-	2	-	-	-	-	-	-	-	-	1	-	-	-	15	
JB Andrews, MD		1 20	-	-	-	9	-	-	2	1	-	2	2	1	2	-	34	74		
JB Langley-Eustis, VA		2 98	-	2	-	8	-	-	3	3	2	6	19	26	9	-	118	296		
NCRM - Walter Reed NM MC, MD		- 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2		
NM C Portsmouth, VA		-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	3		
US Naval Academy, MD		- 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1		
Region 4		Columbus AFB, MS	- 5	-	-	-	1	-	-	1	-	-	-	-	1	-	-	13	21	
Eglin AFB, FL		- 10	-	-	-	3	-	3	-	1	-	1	-	5	9	3	-	23	58	
Ft Bragg, NC		1 7	-	-	-	4	-	-	1	-	1	3	2	6	4	3	26	58		
Ft Campbell, KY		1 15	-	-	-	2	1	2	-	1	-	1	-	3	-	4	-	11	40	
Hurlburt Field, FL		- 14	-	-	-	1	-	1	-	1	-	1	1	1	-	-	12	32		
JB Charleston (AF), SC		- 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	11		
Keesler AFB, MS		-	-	-	-	-	-	-	-	-	-	-	-	1	2	2	1	9	15	
MacDill AFB, FL		-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	5	6		
Maxwell AFB, AL		- 6	-	-	-	1	-	-	-	-	-	-	1	-	1	-	-	10	19	
Moody AFB, GA		- 22	-	-	-	6	-	1	-	1	1	-	5	6	5	8	1	39	95	
NH Beaufort, SC		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2		
NH Camp Lejeune, NC		- 1	-	1	-	-	-	-	-	-	-	1	-	-	1	-	6	10		
NH Jacksonville, FL		- 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3		
Patrick AFB, FL		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1		
Robins AFB, GA		- 18	-	-	-	7	-	-	-	-	2	-	3	1	-	-	16	47		
Seymour Johnson AFB, NC		2 14	-	-	-	1	-	2	-	-	1	1	2	1	-	-	9	33		
Shaw AFB, SC		- 19	-	-	-	12	-	1	-	5	1	1	3	1	3	-	-	30	76	
Tyndall AFB, FL		- 2	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	4		
Region 5		Scott AFB, IL	- 3	-	-	-	1	-	-	-	1	2	1	1	-	1	7	17		
Wright-Patterson AFB, OH		- 9	-	-	-	6	-	-	-	1	1	1	-	1	2	-	22	43		

(Cont'd on page 8)

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

DoD Global, Laboratory-Based, Influenza Surveillance Program

Laboratory Results—Through Current Surveillance Week 9

Table 3. Cumulative results by region and location for specimens collected during the 2016-2017 surveillance year
(Cont'd from page 7)

Region*		A(H1N1)pdm09	A(I3N2)	A/not subtyped & Rhino/Enterov	A(I3N2) & B	A(I3N2) & RSV	B	B & hMNV & Rhino/Enterov	Adenovirus	C. pneumoniae	Coronavirus	M. pneumoniae	Parainfluenza	RSV	Rhinovirus/Enterovirus	Nor-Influenza Viral Coinfection	Nor-Influenza Bacterial Coinfection	No Pathogen	Total	
Region 6	Altus AFB, OK	-	7	-	-	-	-	-	1	-	1	1	-	-	5	5	3	-	32	55
	Barksdale AFB, LA	-	-	-	-	-	-	-	1	-	-	-	2	-	1	-	-	-	7	11
	Cannon AFB, NM	-	11	-	-	-	-	-	-	-	1	-	1	1	-	3	1	-	20	38
	Ft Polk, LA	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	3
	JBSA Lackland, TX	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
	Laughlin AFB, TX	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2	4
	Little Rock AFB, AR	-	8	-	-	-	-	-	-	1	-	-	-	-	-	-	-	5	14	
	Sheppard AFB, TX	-	59	-	-	3	-	-	8	2	-	6	2	8	-	-	60	148		
	Tinker AFB, OK	1	86	-	-	1	11	-	2	-	8	1	1	5	5	6	4	-	97	228
	Vance AFB, OK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12
Region 7	McConnell AFB, KS	-	24	-	-	3	-	-	4	-	1	3	3	5	2	-	23	68		
	Offutt AFB, NE	1	31	-	-	3	-	1	-	4	1	-	1	1	5	1	-	39	88	
Region 8	Ellsworth AFB, SD	-	12	-	-	2	-	-	3	-	3	-	3	-	3	-	-	23	46	
	FE Warren AFB, WY	-	32	-	-	2	-	3	-	3	-	2	2	6	3	-	-	35	88	
	Hill AFB, UT	-	27	-	-	1	-	-	2	-	-	5	3	4	1	-	30	73		
	Malmstrom AFB, MT	-	7	-	-	2	-	-	-	-	1	-	-	1	-	-	7	18		
	Minot AFB, ND	-	21	-	-	3	-	-	1	1	1	-	2	3	2	-	17	51		
	Peterson AFB, CO	-	19	-	-	4	-	-	3	-	1	9	3	4	-	20	63			
	USAF Academy, CO	-	1	-	-	-	-	-	-	1	-	1	1	-	-	2	6			
Region 9	Beale AFB, CA	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5		
	Davis-Monthan AFB, AZ	-	11	-	-	-	-	-	-	-	-	5	1	4	5	-	20	46		
	Edwards AFB, CA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2		
	Luke AFB, AZ	-	-	-	-	-	-	1	-	2	-	-	2	-	1	-	7	13		
	Nellis AFB, NV	1	3	-	-	2	-	3	-	1	-	4	3	5	7	-	22	51		
	Travis AFB, CA	-	53	-	-	-	-	-	1	4	4	-	6	11	12	3	-	35	129	
	Vandenberg AFB, CA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4		
Region 10	CGS North Bend, OR	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4	
	Fairchild AFB, WA	2	15	-	-	1	-	2	-	3	-	-	4	2	4	-	-	40	73	
	JB Lewis-McChord, WA	-	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	3	
	Mt Home AFB, ID	-	22	-	-	-	-	1	1	1	-	1	23	11	12	4	-	66	142	
	NH Bremerton, WA	-	66	-	-	1	-	6	-	3	-	2	7	7	5	4	-	23	124	
Total		13	1058	1	3	1	145	1	52	3	96	45	33	129	151	190	98	8	1413	3440

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

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 over 95 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, USAMRU-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. 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.

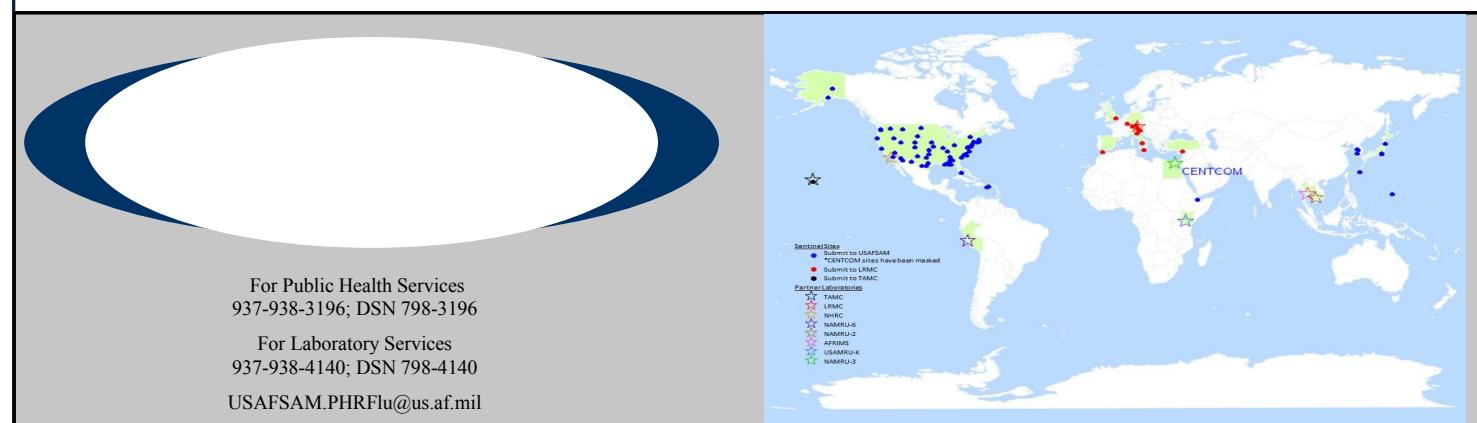
Errata:

For Public Health Services
937-938-3196; DSN 798-3196
For Laboratory Services
937-938-4140; DSN 798-4140
USAFSAM.PHRFlu@us.af.mil

Sentinel Sites
● Submit to USAFSAM
● Submit to CENTCOM sites have been masked
● Submit to LRMC
● Submit to TAMC

Participating Centers

★ TAMC
★ LRMC
★ NHRC
★ NAMRU-6
★ NAMRU-2
★ AFRIMS
★ USAMRU-K
★ NAMRU-3



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.

