



Cumulative Results

Locations	70
Collected	1,500
Tested	1,411

Influenza A 51

A(H1N1)pdm09	41
A(H1N1)pdm09 & Parainfluenza	1
A(H3N2)	9
A/not subtyped	0

Influenza B* 29

B	29
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Other Respiratory Pathogens 466

Adenovirus	74
<i>Bordetella pertussis</i>	1
<i>Chlamydomphila pneumoniae</i>	0
Coronavirus	45
Human Metapneumovirus	17
<i>Mycoplasma pneumoniae</i>	34
Parainfluenza	72
RSV	57
Rhino/Enterovirus	109
Non-influenza Viral Coinfections	45
Non-influenza Bacterial Coinfections	12
-C. pneumo coinfections (2)	
-C. pneumo & M. pneumo (1)	
-M. pneumo coinfections (6)	
-B. pertussis coinfections (3)	

Lab data are current as of 1 February 2016. Results are preliminary and may change as more results are received.
*Influenza B lineages will be reported in the periodic molecular sequencing reports.

Respiratory Highlights

17 - 30 January 2016 (Surveillance Weeks 3 & 4)

- During 17 - 30 January, a total of 223 specimens were collected and received from 46 locations. Results were finalized for 152 specimens from 40 locations. Eight influenza A(H1N1)pdm09 and nine influenza B viruses were identified during Week 3. During Week 4, ten influenza A(H1N1)pdm09, three influenza A(H3N2) and three influenza B viruses were identified.
- During Week 3 (17 - 23 January 2016), influenza activity increased slightly in the United States. **Viral Surveillance:** The most frequently identified influenza virus type reported by public health laboratories during Week 3 was influenza A, with influenza A(H1N1)pdm09 viruses predominating. **Pneumonia and Influenza (P&I) Mortality:** The proportion of deaths attributed to P&I was below their system-specific epidemic threshold. **Influenza-Associated Hospitalizations:** A cumulative rate for the season of 2.1 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 2.2%, which is above the national baseline of 2.1%. **Geographic Spread of Influenza:** The geographic spread of influenza in four states was reported as widespread; Puerto Rico and 14 states reported regional activity; Guam and 12 states reported local activity; and the District of Columbia, the U.S. Virgin Islands and 20 states reported sporadic activity (CDC FluView Summary, Cited 2 February 2016).

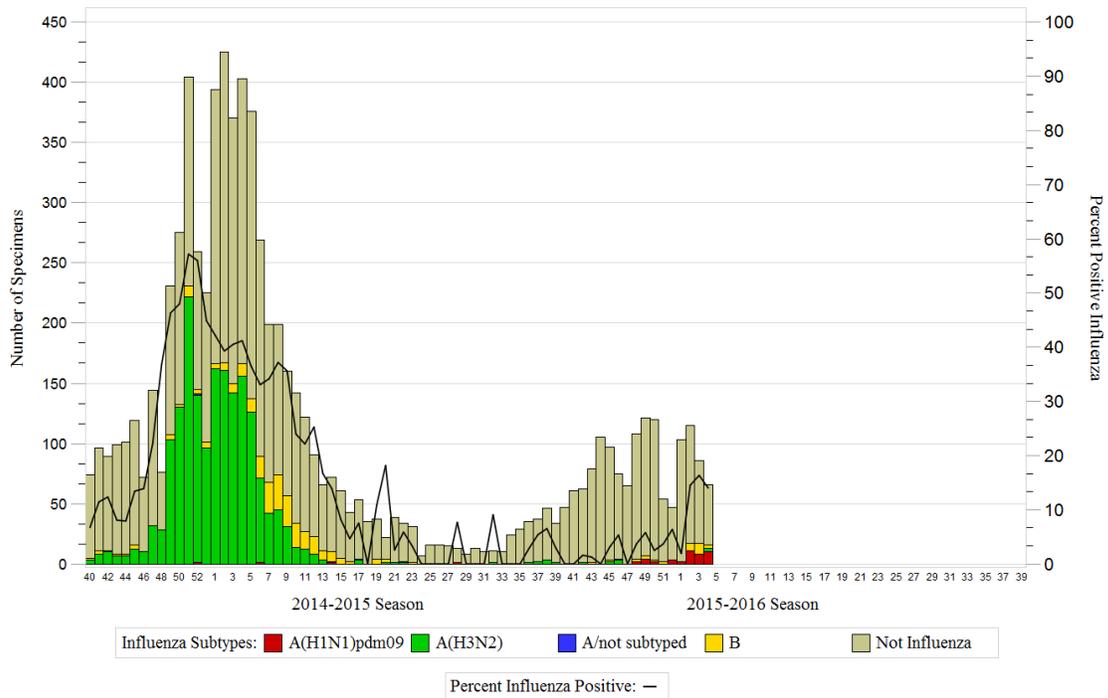
Table 1. Results by region and location for specimens collected during Weeks 3 & 4

Region*	A(H1N1)pdm09	A(H3N2)	B	Adenovirus	Coronavirus	IBMVV	M. pneumoniae	Parainfluenza	RSV	Rhino/Enterovirus	Adeno & RSV	Adeno & RSV & Rhino/Enterovirus	Corona & RSV	Corona & Rhino/Enterovirus	M. pneumoniae & Rhino/Enterovirus	No Pathogen	Total
Region*																	
PACOM																	
Kadena AB, Japan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Misawa AB, Japan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Yokota AB, Japan	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	3
Region 1																	
Hanscom AFB, MA	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	5
Region 2																	
JB McGuire-Dix-Lakehurst, NJ	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2
USMA - West Point, NY	-	-	-	1	3	5	-	2	2	1	-	-	-	-	-	-	15
Region 3																	
Dover AFB, DE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
JB Andrews, MD	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	2
JB Langley-Eustis, VA	-	-	-	-	2	-	-	-	2	1	-	-	-	-	-	-	8
NMC Portsmouth, VA	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Region 4																	
Columbus AFB, MS	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	3
Eglin AFB, FL	1	-	-	1	-	1	-	1	1	-	-	-	-	-	-	-	11
Ft Bragg, NC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Hurlburt Field, FL	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	2
Maxwell AFB, AL	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	3
Moody AFB, GA	-	-	2	-	-	-	-	-	1	-	1	-	-	-	-	-	6
NH Jacksonville, FL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Robins AFB, GA	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	2
Seymour Johnson AFB, NC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Shaw AFB, SC	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Region 5																	
Scott AFB, IL	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Region 6																	
Altus AFB, OK	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	3
Barksdale AFB, LA	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Cannon AFB, NM	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	3
Laughlin AFB, TX	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Little Rock AFB, AR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Sheppard AFB, TX	-	-	-	1	-	-	-	-	1	-	1	-	-	-	-	-	6
Tinker AFB, OK	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	2
Region 7																	
McConnell AFB, KS	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	4
Offutt AFB, NE	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Region 8																	
Ellsworth AFB, SD	3	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	6
EE Warren AFB, WY	-	-	-	1	-	-	-	-	3	-	-	-	-	-	-	-	4
Hill AFB, UT	3	-	1	-	1	-	-	-	2	-	-	-	-	-	-	-	12
Minot AFB, ND	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Peterson AFB, CO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
USAF Academy, CO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Region 9																	
Davis-Monthan AFB, AZ	-	1	-	2	-	-	-	-	-	1	-	-	-	-	-	-	4
Nellis AFB, NV	2	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	5
Travis AFB, CA	3	1	-	-	1	-	1	1	-	-	-	-	-	-	-	-	8
Region 10																	
NH Bremerton, WA	4	-	7	-	-	-	-	-	-	-	1	-	-	-	-	-	12
Total	18	3	12	7	15	8	3	4	15	13	1	1	3	1	1	47	152

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

Laboratory Results - Cumulative for Season

Graph 1. Percent influenza positive by week: 2014-2015 surveillance year and through Week 4 of the 2015-2016 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.

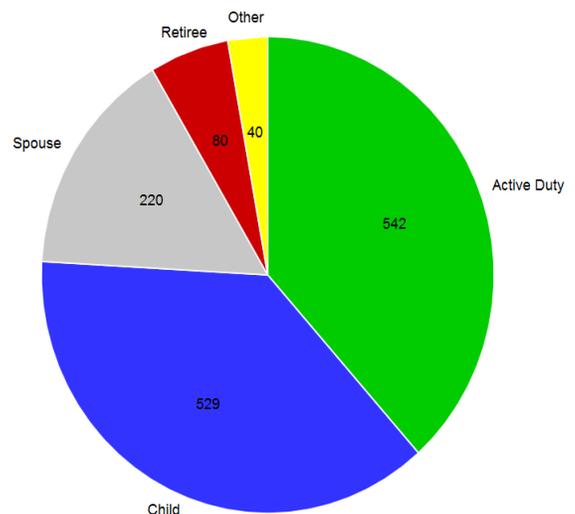
Table 2. ILI by age group for the 2015-2016 surveillance year through Week 4

Age Group	Frequency	Percent
0-5	335	23.74
6-9	76	5.39
10-17	120	8.50
18-24	239	16.94
25-44	467	33.10
45-64	135	9.57
65+	39	2.76

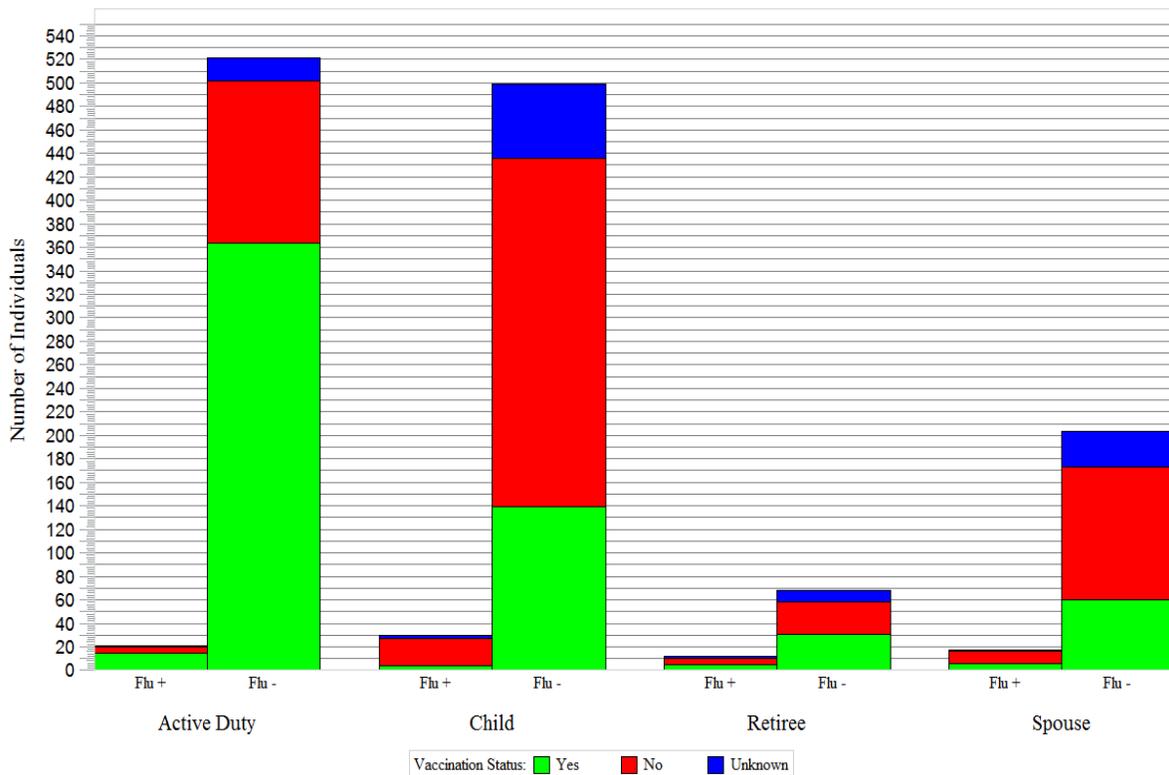
Demographic Summary

Of 1,411 ILI cases, 542 are service members (38.4%), 529 are children (37.5%), 220 are spouses (15.6%), and 120 (8.5%) are retirees and other beneficiaries. The median age of ILI cases with known age (n=1,411) is 23 (range 0, 93).

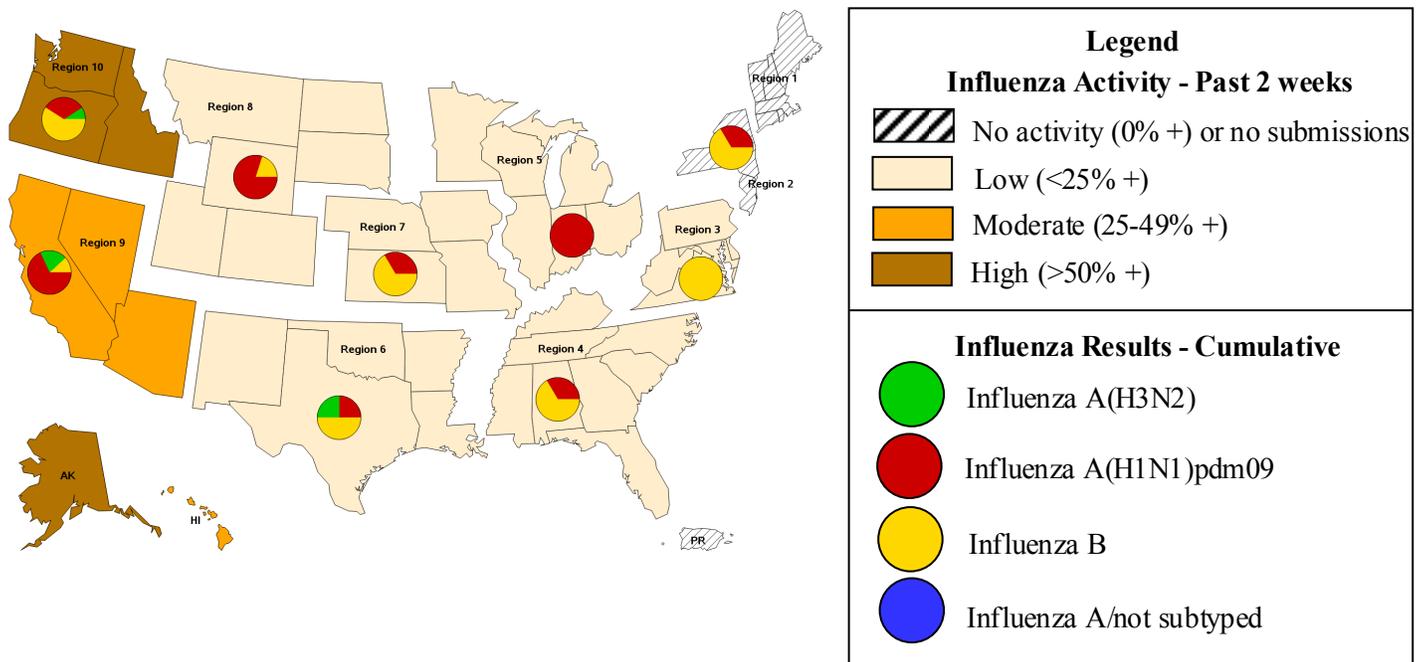
Graph 2. ILI by beneficiary status for the 2015-2016 surveillance year through Week 4



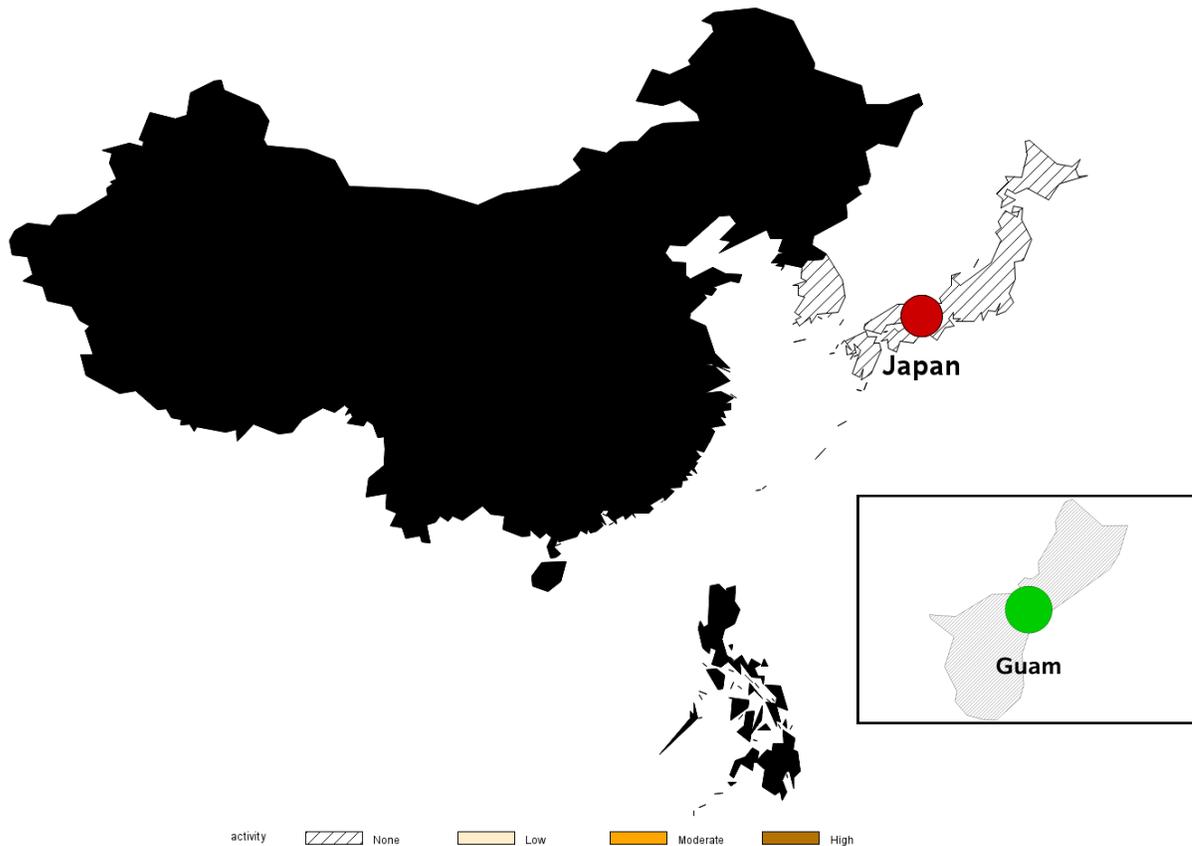
Graph 3. Vaccination status by beneficiary type for the 2015-2016 surveillance year through Week 4



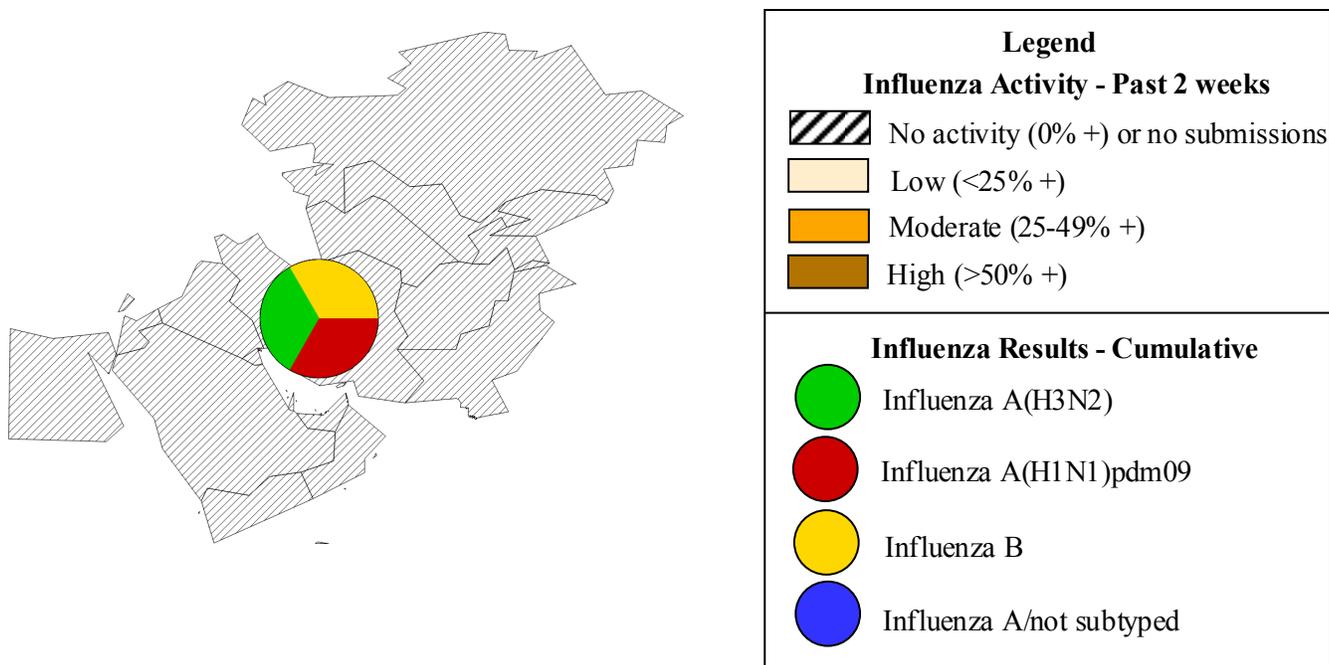
Map 1. Influenza subtypes and activity level by region for the 2015-2016 surveillance year through Week 4



Map 2. Influenza subtypes and activity level by country for the 2015-2016 surveillance year through Week 4 (Pacific)



Map 3. Influenza subtypes and activity level for CENTCOM for the 2015-2016 surveillance year through Week 4



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 4

Table 3. Cumulative results by region and location for specimens collected during the 2015-2016 surveillance year

Region*		A(H1N1)pdm09	A(H3N2)	A(H1N1)pdm09 & Para	B	Adenovirus	B. pertussis	Coronavirus	hMPV	M. pneumoniae	Parainfluenza	RSV	Rhinovirus/Enterovirus	Non-Influenza Viral Confection	Non-Influenza Bacterial Confection	No Pathogen	Total	
Deployed	Country 2, Location A	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
PACOM	CFA Okinawa, Japan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
	Eielson AFB, AK	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
	JB Elmendorf-Richardson, AK	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2	
	JR Marianas - Andersen AFB, Guam	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
	Kadena AB, Japan	-	-	-	-	-	-	1	-	2	-	-	2	-	-	-	11	
	Misawa AB, Japan	-	-	-	-	-	-	-	-	-	-	-	1	3	-	-	4	
	Osan AB, South Korea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
	Yokota AB, Japan	3	-	-	-	2	-	-	-	1	1	2	-	1	-	-	15	
Region 1	Hanscom AFB, MA	-	-	-	3	-	-	-	-	-	2	-	2	-	-	-	15	
	NHCNE Newport, RI	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	6	
	USCG Academy, CT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
Region 2	Ft Drum, NY	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	3	
	JB McGuire-Dix-Lakehurst, NJ	-	-	-	1	-	-	-	-	2	-	-	4	1	-	-	12	
	USMA - West Point, NY	-	-	1	2	8	-	5	5	2	3	4	2	2	2	-	52	
Region 3	Dover AFB, DE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	
	JB Anacostia-Bolling, DC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
	JB Andrews, MD	-	-	-	1	-	-	-	-	1	-	-	1	-	-	-	3	
	JB Langley-Eustis, VA	-	-	-	5	-	4	-	-	3	8	3	1	-	-	-	10	
	NCRM - Walter Reed NMMC, MD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
	NMC Portsmouth, VA	-	-	1	4	-	1	-	5	1	1	2	-	1	-	-	14	
Region 4	CGS Mobile, AL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
	Columbus AFB, MS	-	-	-	1	-	-	-	-	-	1	2	-	-	-	-	14	
	Eglin AFB, FL	2	-	-	5	-	-	1	-	4	3	4	-	-	-	-	26	
	Ft Bragg, NC	-	-	-	2	-	1	1	1	-	3	-	-	1	-	-	19	
	Ft Campbell, KY	-	-	-	-	1	-	-	2	-	3	-	-	-	-	-	15	
	Hurlburt Field, FL	-	-	-	-	-	-	-	1	-	-	-	2	-	-	-	12	
	Keesler AFB, MS	-	-	-	-	-	-	-	1	-	-	2	-	-	-	-	21	
	MacDill AFB, FL	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	1	
	Maxwell AFB, AL	-	-	-	3	-	-	-	-	1	2	2	1	-	-	-	26	
	Moody AFB, GA	-	-	4	5	-	1	1	2	2	4	7	3	-	-	-	16	
	NH Beaufort, SC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
	NH Camp Lejeune, NC	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	4	
	NH Jacksonville, FL	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	6	
	Robins AFB, GA	-	-	-	-	-	-	-	2	1	1	-	-	-	-	-	8	
	Seymour Johnson AFB, NC	-	-	-	2	-	1	-	-	-	-	2	1	1	1	9	16	
	Shaw AFB, SC	-	-	-	-	-	2	-	3	-	-	4	1	1	8	19		
	Tyndall AFB, FL	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	3	
	Region 5	Scott AFB, IL	1	-	-	2	-	-	-	-	1	-	-	-	-	-	-	16
		Wright-Patterson AFB, OH	-	-	-	1	-	-	-	-	-	-	3	-	-	-	-	3
		Altus AFB, OK	-	-	-	3	-	2	-	-	2	-	2	3	-	-	-	30
Region 6	Barksdale AFB, LA	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	3	
	Cannon AFB, NM	-	-	-	1	-	2	-	-	-	-	2	-	-	-	-	14	
	Laughlin AFB, TX	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	2	
	Little Rock AFB, AR	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	10	
	Sheppard AFB, TX	1	-	-	2	3	-	2	1	3	1	1	6	3	-	-	47	
	Tinker AFB, OK	-	-	-	2	-	1	-	1	5	4	4	5	1	-	-	25	
	Vance AFB, OK	-	-	-	1	-	-	-	-	1	-	1	-	-	-	-	29	
	Ft Leavenworth, KS	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	9	
	McConnell AFB, KS	-	-	-	1	-	1	-	2	2	-	7	-	1	-	-	27	
	Offutt AFB, NE	1	-	-	1	2	-	-	-	3	-	1	-	-	-	-	30	
Region 8	Ellsworth AFB, SD	3	-	-	1	-	1	1	1	5	-	-	2	-	-	-	19	
	EE Warren AFB, WY	-	-	-	-	1	2	-	-	3	4	2	1	-	-	-	17	
	Hill AFB, UT	4	-	2	1	-	-	3	1	-	1	8	-	1	-	-	40	
	Malmstrom AFB, MT	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	
	Minot AFB, ND	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-	4	
	Peterson AFB, CO	-	-	-	1	-	3	-	-	-	-	1	2	-	-	-	19	
	USAF Academy, CO	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	10	
	Davis-Monthan AFB, AZ	-	1	-	-	-	3	-	-	-	-	1	-	-	-	-	9	
Region 9	Edwards AFB, CA	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	6	
	Luke AFB, AZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	
	NH Twentynine Palms, CA	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
	Nellis AFB, NV	12	2	-	2	6	-	3	-	-	7	3	6	6	-	-	46	
	Travis AFB, CA	4	2	-	1	2	-	2	4	1	5	3	7	3	-	-	29	
	USCG Island Alameda, CA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
	Vandenberg AFB, CA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	
	Fairchild AFB, WA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
Region 10	JB Lewis-McChord, WA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
	Mt Home AFB, ID	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	
	NH Bremerton, WA	7	1	-	13	3	-	2	-	1	10	4	7	5	1	-	36	
	Total	41	9	1	29	74	1	45	17	34	72	57	109	45	12	865	1411	

*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 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-6 (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 the Division of Global Emerging Infections Surveillance and Response System (GEIS) Operations, a Division of the Armed Forces Health Surveillance Center (AFHSC).

Sentinel Site Surveillance at USAFSAM

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. USAFSAM manages the surveillance program that includes global surveillance among DoD beneficiaries at over 80 sentinel sites (including deployed locations) and many non-sentinel sites (please see map on the left). Unique sentinel sites include three DoD overseas medical research laboratories (AFRIMS, NAMRU-6, USAMRU-K) and the US Army Public Health Command Region South (PHCR-S). These sites collect specimens from local residents in surrounding countries that may not otherwise be covered in existing surveillance efforts.

Since the 2006-2007 season, Landstuhl Regional Medical Center (LRMC) has served EUCOM as a USAFSAM contributing laboratory. The initiative seeks to provide more timely results and efficient transport of specimens.

For an expanded view of this report, visit our website. Also available on the website is a list of previous weekly surveillance reports, program information (including an educational briefing and instruction pamphlets for clinic staff), and an overview of historical data. Please visit the AFHSC/GEIS website for an overview of influenza surveillance at all collaborating organizations.

Errata:

[DoD Global, Laboratory-Based,
Influenza Surveillance Program
https://gumbo2.wpafb.af.mil/
epi-consult/influenza/index.cfm](https://gumbo2.wpafb.af.mil/epi-consult/influenza/index.cfm)

For Public Health Services
937-938-3196; DSN 798-3196

For Laboratory Services
937-938-3163; DSN 798-3163



Collaborating Partners

In addition to all participating DoD military sentinel sites, several collaborating partners (described above) may be further understood by reviewing the partner's website.

