



**Cumulative Results**

Locations	96
Collected	10,421
Tested	10,277

**Influenza A 2,475**

A(H1N1)pdm09	496
A(H1N1)pdm09 Coinfection	44
A(H1N1)pdm09 & A(H3N2)	3
A(H1N1)pdm09 & B	8
A(H3N2)	1,713
A(H3N2) Coinfection	180
A(H3N2) & B	9
A/not subtyped	19
A/not subtyped Coinfection	3

**Influenza B\* 1,314**

B	1,213
B & Coinfection	101

**Other Respiratory Pathogens 3,172**

Adenovirus	110
<i>Chlamydomphila pneumoniae</i>	16
Coronavirus	614
Human Bocavirus	23
Human Metapneumovirus	360
<i>Mycoplasma pneumoniae</i>	38
Parainfluenza	167
RSV	519
Rhinovirus/Enterovirus	933
Non-influenza Viral Coinfections	382
Non-influenza Bacterial Coinfections	10
-C. pneumo coinfections (3)	
-M. pneumo coinfections (7)	

**No Pathogen Detected 3,316**

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**

18– 31 March 2018 (Surveillance Weeks 12 & 13)

- During 18 - 31 March 2018, a total of 528 specimens were collected and received from 54 locations. Results were finalized for 486 specimens from 52 locations. The percent influenza positive for Weeks 12 and 13 were 35% and 31%, respectively. The influenza percent positive for the season is approximately 37%.

Surveillance Week	A(H1N1)pdm09	A(H3N2)	A/not subtyped	B	A(H3N2) & Adeno	A(H3N2) & Corona	A(H3N2) & Corona & HBoV	A(H3N2) & hMPV	A(H3N2) & Rhino/Enterov	B & Rhino/Enterov	Total
<b>Week 12</b>	10	57	1	34	0	2	0	1	1	2	108
<b>Week 13</b>	10	23	0	19	1	0	1	0	1	1	56
<b>Total</b>	20	80	1	53	1	2	1	1	2	3	164

- According to the CDC, A human infection with influenza A(H1N2) virus was reported in the Netherlands on 22 March 2018. This virus may have resulted from a reassortment between influenza A(H1N1)pdm09 and influenza A(H3N2) viruses that are currently circulating. The individual that was infected only experienced mild illness and has fully recovered. There has been no other detection of this virus and enhanced surveillance has taken place in the area. ([CDC Flu News & Spotlights](#), cited 4 April 2018).

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# DoD Global Respiratory Pathogen Surveillance Program

**Table 1.** Finalized results by region and location for specimens collected during Weeks 12 & 13

Region*		A(H1N1)pdm09	A(H3N2)	A/not subtyped	B	A(H3N2) & Adeno	A(H3N2) & Corona	A(H3N2) & Corona & HBoV	A(H3N2) & hMPV	A(H3N2) & Rhino/Enterovirus	B & Rhino/Enterovirus	Adenovirus	C. pneumoniae	Coronavirus	HBoV	hMPV	M. pneumoniae	Parainfluenza	RSV	Rhinovirus/Enterovirus	Non-Influenza Viral Coinfection	No Pathogen	Total	
EUCOM	Landstuhl RM C, Germany	2	8	1	2	-	-	-	1	-	1	-	3	-	1	-	-	-	1	-	-	10	30	
	NSA Naples, Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	
	RAF Lakenheath, England	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	2	
	Ramstein AB, Germany	-	7	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	1	1	5	15
	USAG Baumholder, Germany	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1	-	3
	USAG Grafenwoehr, Germany	-	9	-	-	-	-	-	1	-	-	-	1	1	-	-	-	-	-	-	-	-	3	15
	USAG Stuttgart, Germany	-	1	-	2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	2	-	1	7
	USAG Wiesbaden, Germany	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2
	Vilseck AHC, Germany	-	24	-	5	-	1	-	-	-	-	-	-	4	-	1	-	-	-	-	-	2	11	48
PACOM	JR Marianas - Andersen AFB, Guam	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Kadena AB, Japan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Yokota AB, Japan	3	-	-	5	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	5	14
Region 2	Ft Drum, NY	1	3	-	4	-	-	-	-	-	-	1	-	-	3	-	-	-	-	8	-	7	27	
	JB McGuire-Dix-Lakehurst, NJ	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	
	USM A - West Point, NY	1	3	-	2	-	-	-	-	-	1	-	-	-	5	1	-	-	-	3	1	11	28	
Region 3	Dover AFB, DE	1	-	-	2	-	-	-	-	-	1	-	-	-	4	-	-	-	-	2	1	4	15	
	JB Andrews, MD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	
	JB Langley-Eustis, VA	2	2	-	5	-	-	-	-	1	1	-	-	-	1	-	-	-	-	5	2	7	26	
Region 4	Eglin AFB, FL	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	5	
	Ft Campbell, KY	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2	
	Hurlburt Field, FL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	2	
	JB Charleston (AF), SC	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	
	Moody AFB, GA	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	1	-	1	4	
	NH Camp Lejeune, NC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
	Robins AFB, GA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	
	Seymour Johnson AFB, NC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	5	7	
Shaw AFB, SC	1	-	-	2	-	-	-	-	-	1	-	-	-	-	1	-	-	1	-	-	2	8		

Cont'd on page 3

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

# DoD Global Respiratory Pathogen Surveillance Program

**Table 1.** Finalized results by region and location for specimens collected during Weeks 12 & 13  
*Cont'd from page 2*

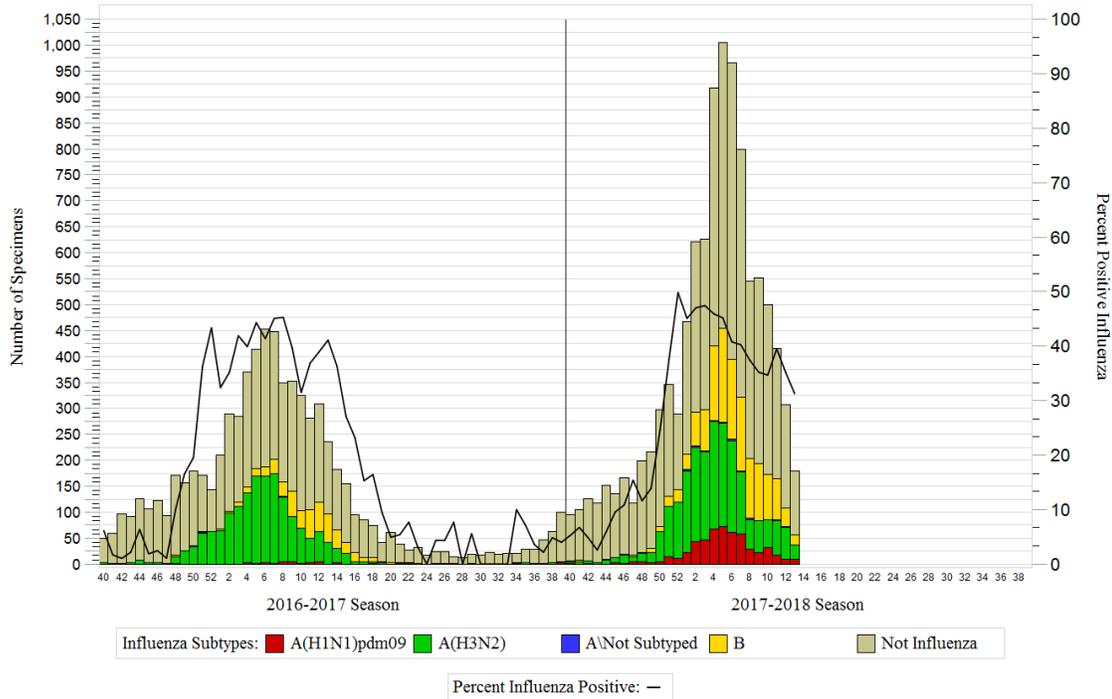
Region*		A(H1N1)pdm09	A(H3N2)	A/not subtyped	B	A(H3N2) & Adeno	A(H3N2) & Corona	A(H3N2) & Corona & HBoV	A(H3N2) & hMPV	A(H3N2) & Rhino/Enter	B & Rhino/Enter	Adenovirus	C. pneumoniae	Coronavirus	HBoV	hMPV	M. pneumoniae	Parainfluenza	RSV	Rhinovirus/Enterovirus	Non-Influenza Viral Coinfection	No Pathogen	Total	
Region 5	Scott AFB, IL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	
	Wright-Patterson AFB, OH	6	7	-	8	1	-	1	1	-	-	-	-	-	-	8	-	1	5	15	-	-	26	79
Region 6	Altus AFB, OK	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	1	-	3	1	5	12	
	Cannon AFB, NM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
	JBSA Lackland, TX	-	1	-	2	-	-	-	-	-	-	-	-	-	-	2	-	1	-	3	1	1	11	
	Kirtland AFB, NM	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2
	Laughlin AFB, TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	3	5
	Little Rock AFB, AR	-	-	-	1	-	-	-	-	-	-	1	-	-	-	2	-	-	-	1	-	-	3	8
	Sheppard AFB, TX	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	3	1	-	-	2	8
	Tinker AFB, OK	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	2	-	1	-	3	2	6	16
	Vance AFB, OK	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3
	Region 7	M cConnell AFB, KS	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2
Offutt AFB, NE		-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2	-	-	2	5
Region 8	Ellsworth AFB, SD	2	4	-	1	-	-	-	-	1	-	-	-	-	-	2	-	-	3	2	1	9	25	
	FE Warren AFB, WY	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	2
	Hill AFB, UT	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	2	4
	Minot AFB, ND	-	4	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	2	9
	Peterson AFB, CO	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	USAF Academy, CO	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	6
Region 9	Davis-Monthan AFB, AZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	2
	Luke AFB, AZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Nellis AFB, NV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Travis AFB, CA	-	-	-	1	-	-	-	-	-	-	1	-	1	-	1	-	-	-	-	-	-	1	5
Region 10	Fairchild AFB, WA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	1	-	-	1	4
	Mountain Home AFB, ID	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	
<b>Total</b>		20	80	1	53	1	2	1	1	2	3	8	2	13	1	43	1	6	17	61	16	154	486	

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

## Cumulative Laboratory Results

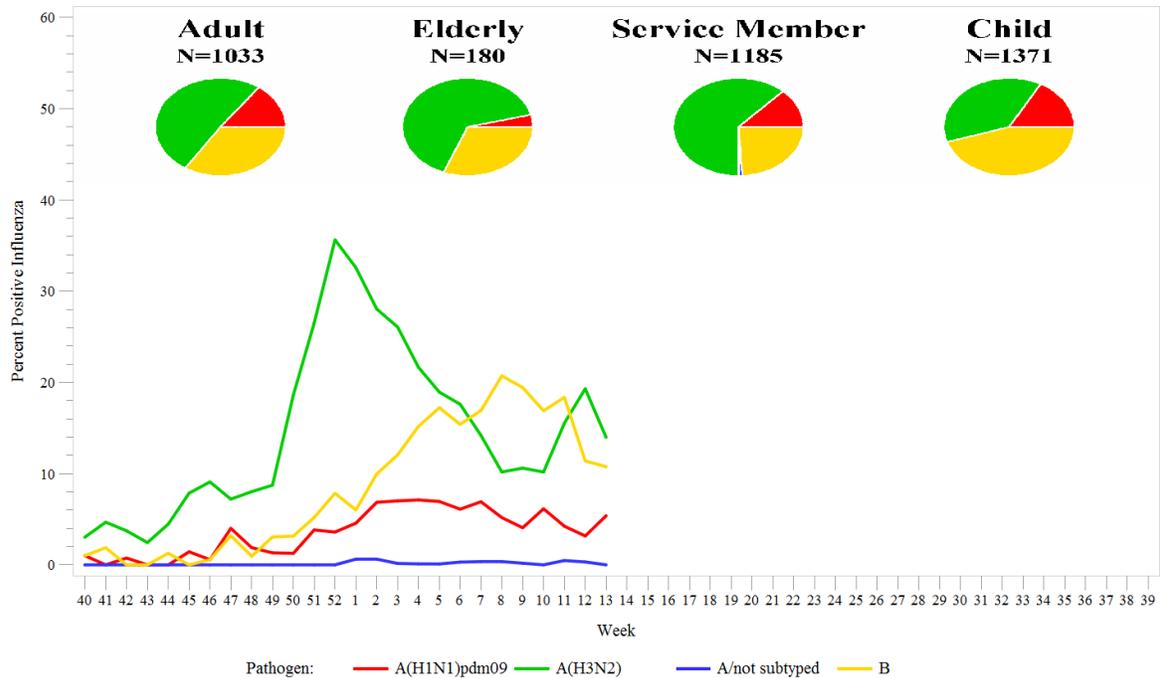
[Link to cumulative results by region and location:](#)

**Graph 1.** Percent influenza positive by week: 2016-2017 surveillance year and through Week 13 of the 2017-2018 surveillance year



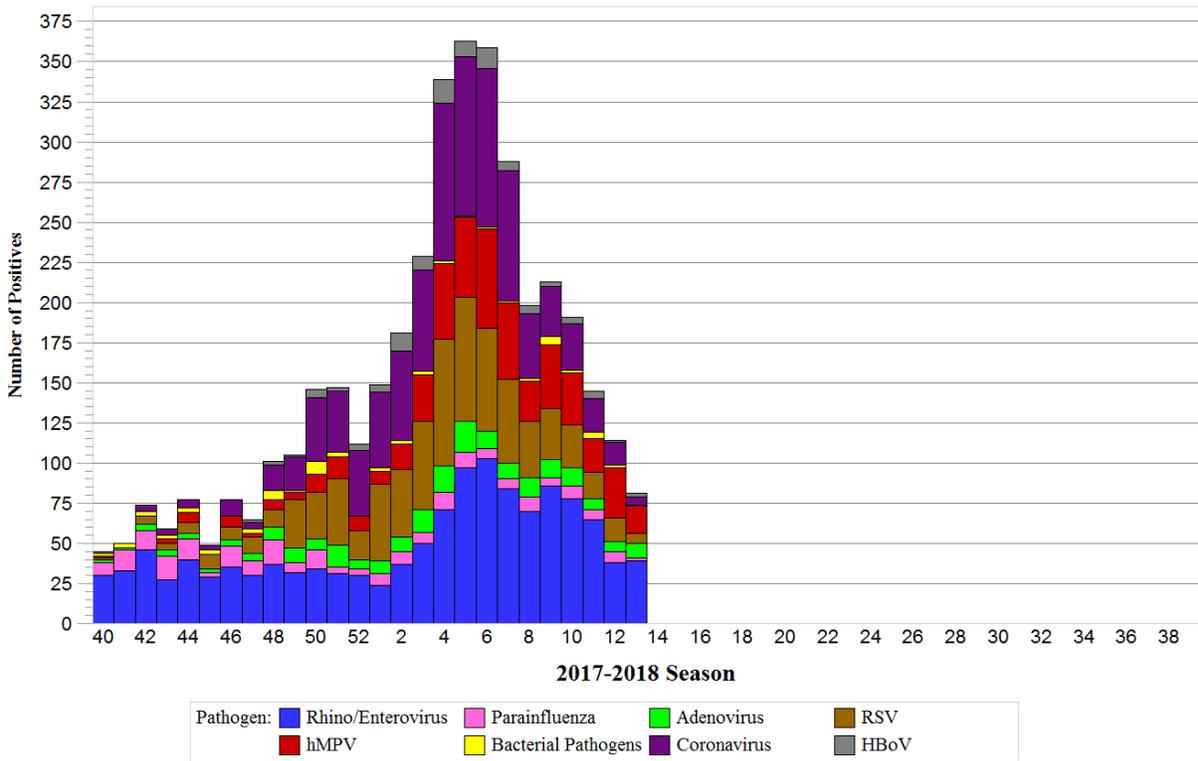
Note: Dual influenza coinfections are excluded from this graph.

**Graph 2.** Percent positive for influenza through ILI trends by subtype and beneficiary status through Week 13 of the 2017-2018 surveillance year

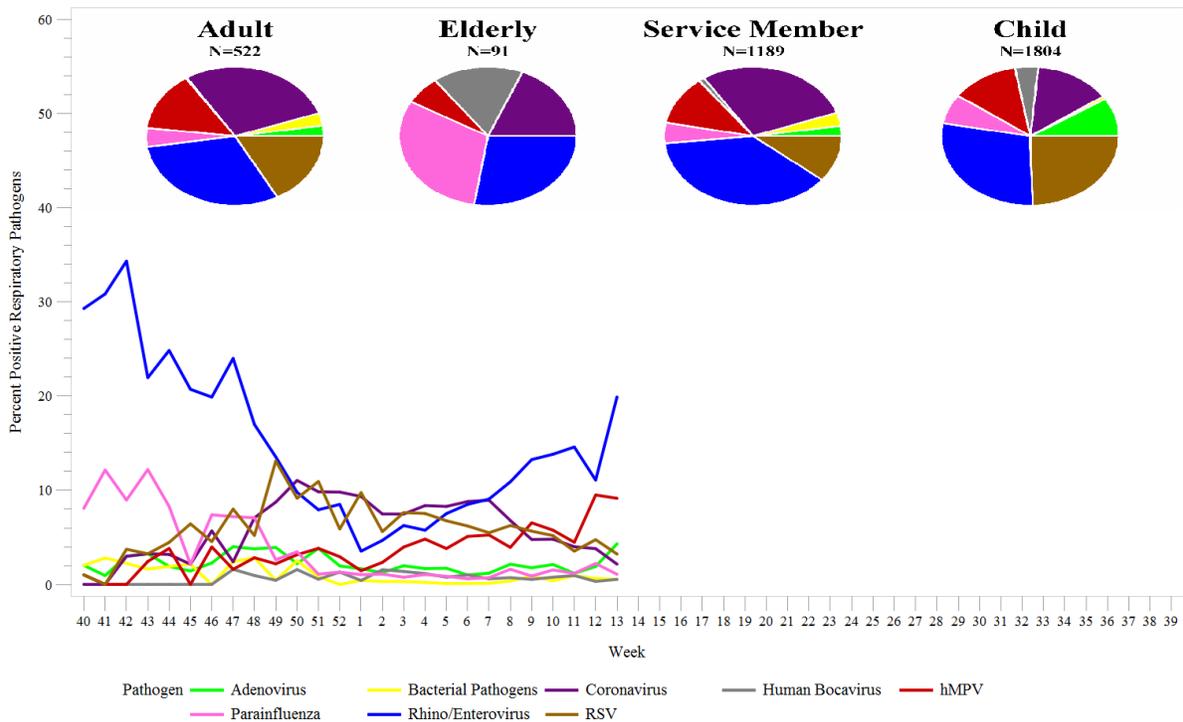


Note: Dual influenza coinfections are excluded from this graph.

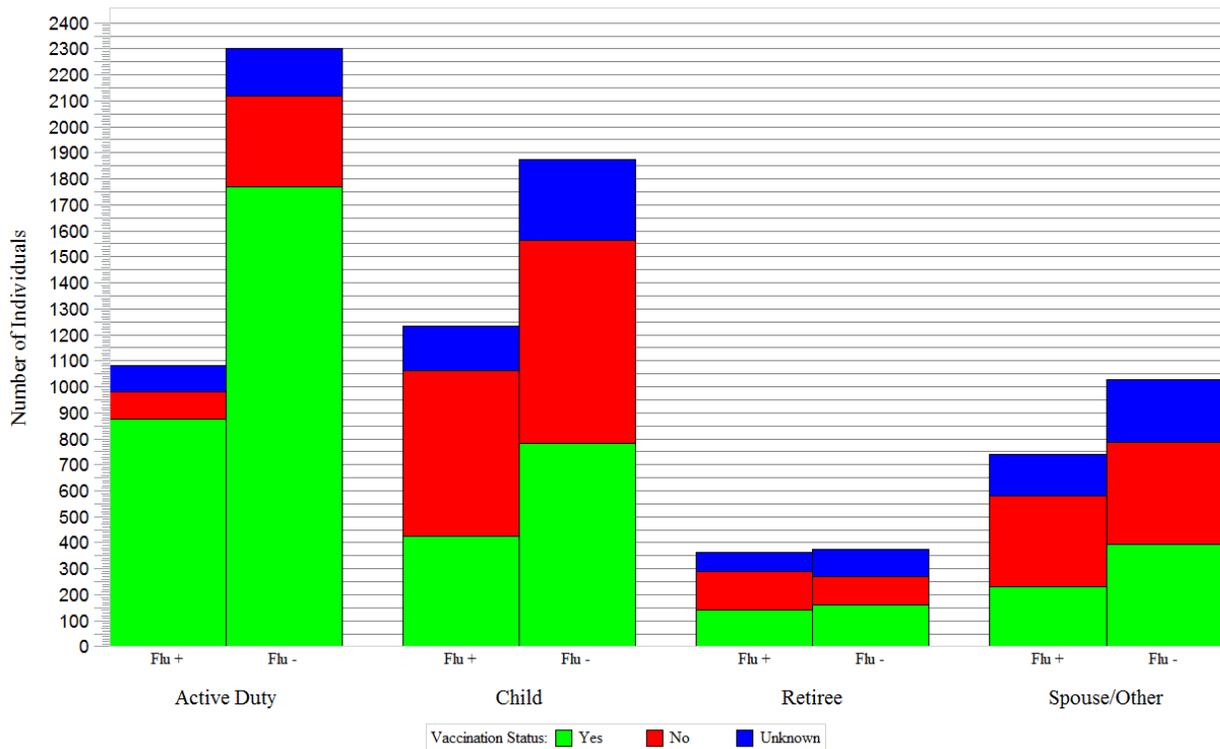
**Graph 3. Other positive respiratory pathogens through Week 13 of the 2017-2018 surveillance year**



**Graph 4. Percent positive for respiratory pathogens through ILI trends by week and beneficiary status through Week 13 of the 2017-2018 surveillance year**



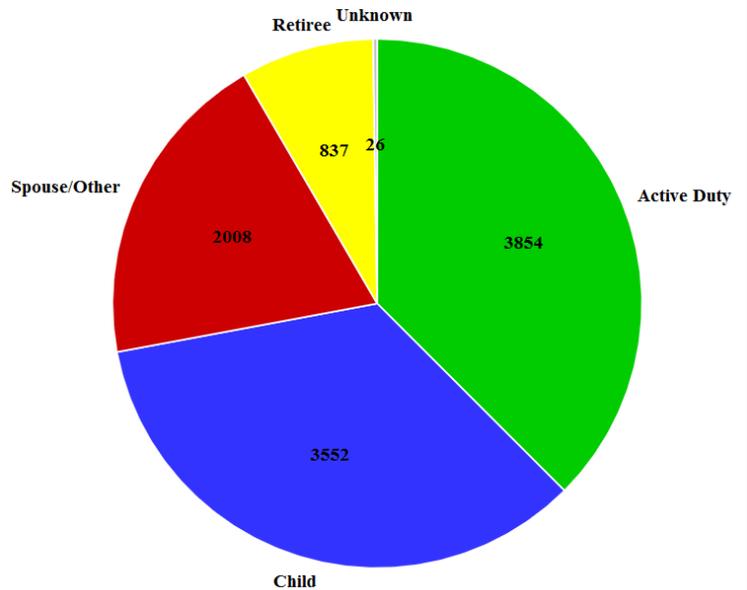
**Graph 5.** Vaccination status by beneficiary type through Week 13 of the 2017-2018 surveillance year (excluding 'Unknown' beneficiary type)



**Table 2.** ILI by age group through Week 13 of the 2017-2018 surveillance year

Age Group	Frequency	Percent
0-5	2016	19.62
6-9	705	6.86
10-17	902	8.78
18-24	1527	14.86
25-44	3304	32.15
45-64	1326	12.90
65+	497	4.84

**Graph 6.** ILI by beneficiary status through Week 13 of the 2017-2018 surveillance year

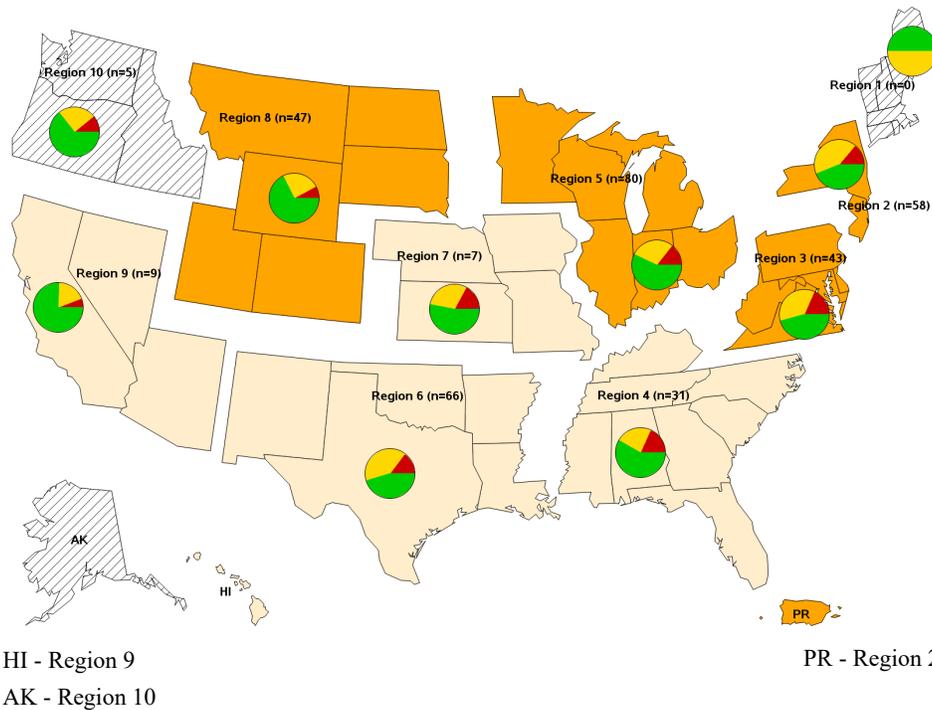


### Demographic Summary

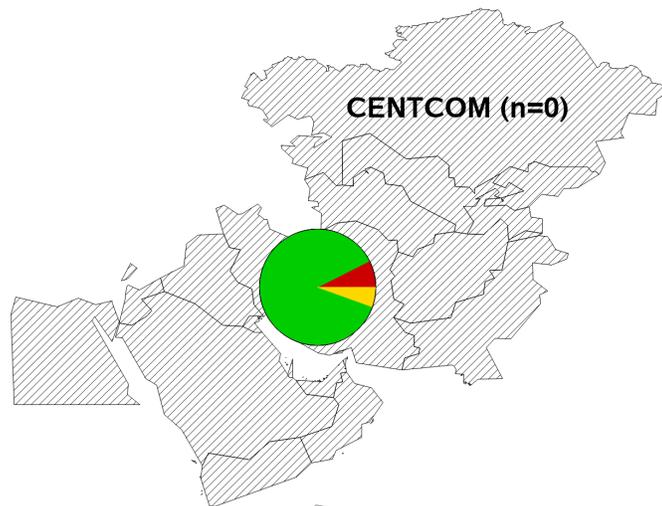
Of 10,277 ILI cases, 3,854 are service members (37.5%), 3,552 are children (34.6%), 2,008 are spouse/other beneficiaries (19.5%), 837 are retirees (8.1%), and 26 are unknown (0.3%). The median age of ILI cases with known age (n=10,277) is 24 (range 0, 98).

# DoD Global Respiratory Pathogen Surveillance Program

**Map 1.** Influenza subtypes and activity level by U.S. region through Week 13 of the 2017-2018 surveillance year



**Map 2.** Influenza subtypes and activity level for CENTCOM through Week 13 of the 2017-2018 surveillance year



## Legend

### Influenza Activity - Past 2 weeks (n = # of submissions)

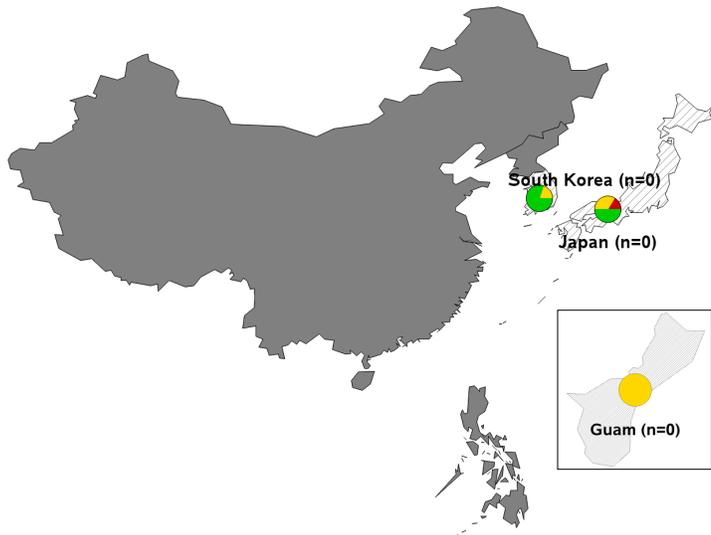
-  No activity (0%+) or no submissions
-  Low (<25%+)
-  Moderate (25-49%+)
-  High (>50%+)

### Influenza Results - Cumulative

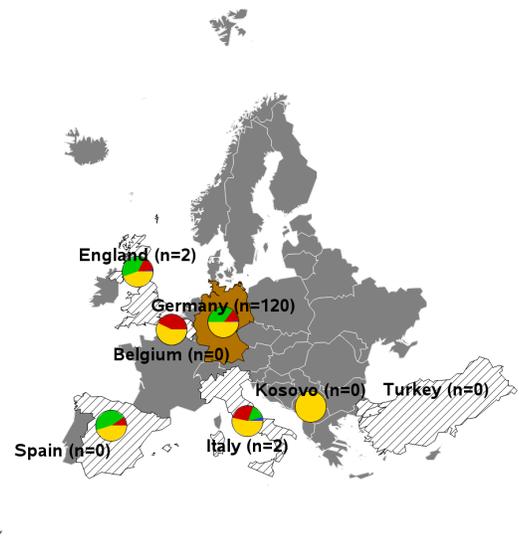
-  Influenza A(H3N2)
-  Influenza A(H1N1)pdm09
-  Influenza B
-  Influenza A/not subtyped

# DoD Global Respiratory Pathogen Surveillance Program

**Map 3.** Influenza subtypes and activity level by country through Week 13 of the 2017-2018 surveillance year (Pacific)



**Map 4.** Influenza subtypes and activity level by country through Week 13 of the 2017-2018 surveillance year (Europe)



Note - Countries shaded in gray do not contain submitting 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

**Table 3.** Cumulative specimens submitted for sequencing only by location through Week 13 of the 2017-2018 surveillance year

Location	Number Received	Number Tested
Aviano AB, Italy	6	1
Brian Allgood ACH, South Korea	184	0
Camp Bondsteel, Kosovo	1	0
Ft Bliss, TX	6	0
Ft Bragg, NC	1	0
Ft Hood, TX	6	3
Keesler AFB, MS	277	118
Landstuhl RMC, Germany	93	8
NAS Sigonella, Italy	16	0
NAVSTA Rota, Spain	13	1
NCRM - Walter Reed NMMC, MD	12	2
NMC Portsmouth, VA	8	0
NSA Naples, Italy	49	0
Nellis AFB, NV	1	1
RAF Lakenheath, England	34	5
Ramstein AB, Germany	26	3
SAMMC, TX	848	76
SHAPE, Belgium	3	1
Spangdahlem AB, Germany	1	0
Tripler AMC, HI	28	3
USA G Baumholder, Germany	4	1
USA G Grafenwoehr, Germany	12	0
USA G Hohenfels, Germany	1	0
USA G Kaiserslautern, Germany	7	0
USA G Stuttgart, Germany	30	4
USA G Vicenza, Italy	32	0
USA G Wiesbaden, Germany	31	1
Vilseck AHC, Germany	14	0
<b>Total</b>	<b>1744</b>	<b>228</b>

# 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).

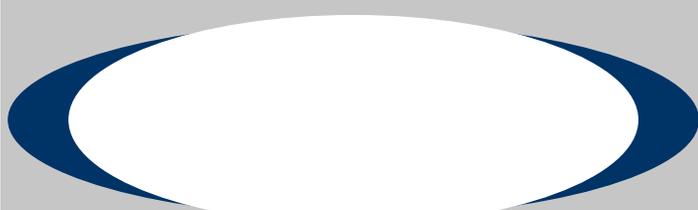
## Sentinel Site Surveillance

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, 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.

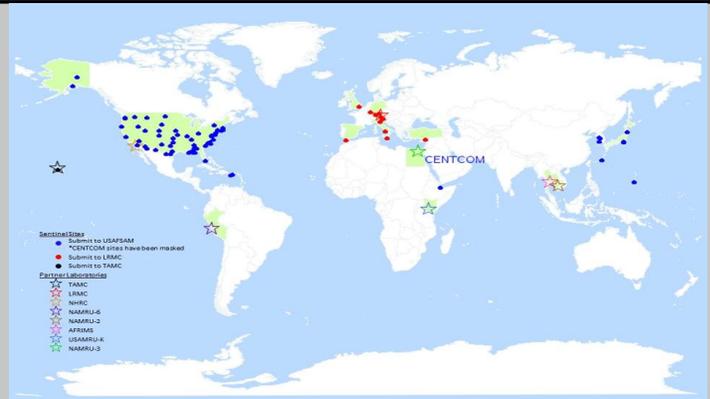
Landstuhl Regional Medical Center (LRMC) and Tripler Army Medical Center (TAMC) assist the program by processing DoD specimens for the EUCOM region and the State of Hawaii, respectively. EUCOM respiratory data is obtained from LRMC and incorporated into our weekly report. This process seeks to provide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

