



Cumulative Results

Locations	88
Collected	2,156
Tested	2,101

Influenza A 303

A(H1N1)pdm09	29
A(H1N1)pdm09 Coinfection	4
A(H3N2)	256
A(H3N2) Coinfection	13
A(H3N2) & B	1

Influenza B* 52

B	47
B & Coinfection	5

Other Respiratory Pathogens 864

Adenovirus	35
<i>Chlamydomphila pneumoniae</i>	5
Coronavirus	107
Human Bocavirus	3
Human Metapneumovirus	42
<i>Mycoplasma pneumoniae</i>	25
Parainfluenza	95
RSV	114
Rhinovirus/Enterovirus	332
Non-influenza Viral Coinfections	99
Non-influenza Bacterial Coinfections	7
-C. pneumo coinfections (2)	
-M. pneumo coinfections (5)	

No Pathogen Detected 882

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

17 - 30 December 2017 (Surveillance Weeks 51 & 52)

- During 17-30 December 2017, a total of 434 specimens were collected and received from 58 locations. Results were finalized for 396 specimens from 57 locations. During Week 51, there were 115 influenza viruses detected: 88 influenza A(H3N2) (including two coinfections), 11 influenza A(H1N1)pdm09, and 16 influenza B (including two coinfections). During Week 51, the influenza percent positive was approximately 38%. During Week 52, there were 44 influenza viruses detected: 35 influenza A(H3N2) (including two coinfections), two influenza A(H1N1)pdm09 (including one coinfection), and seven influenza B viruses (including one coinfection). The influenza percent positive was approximately 49% during Week 52. The influenza percent positive for the season is 17%.
- According to the CDC FluView, influenza activity sharply increased during Week 52 in the U.S. with influenza A(H3) remaining the predominant virus type. There was one influenza-associated pediatric death. The proportion of outpatient Influenza-Like Illness (ILI) visits was 5.8%, continuing to exceed the national baseline of 2.2%. All 10 of the Health and Human Services regions reported ILI at or above region-specific baseline levels. New York City and twenty-six states experienced high ILI activity. (CDC, [FluView Report Week 52](#), cited 5 January 2018).

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DoD Global Respiratory Pathogen Surveillance Program

Table 1. Finalized results by region and location for specimens collected during Weeks 51 & 52

Region*		A(H1N1)pdm09	A(H3N2)	A(H1N1)pdm09 & Corona	A(H3N2) & Corona	A(H3N2) & RSV	A(H3N2) & Rhino/Entero	B	B & Corona	B & Rhino/Entero	Adenovirus	Coronavirus	M. pneumoniae	Parainfluenza	RSV	Rhinovirus/Enterovirus	Adeno & Para & Rhino/Entero	Adeno & RSV	Adeno & Rhino/Entero	Corona & Para	Corona & RSV	Corona & RSV & Rhino/Entero	HBoV & RSV & Rhino/Entero	hMPV	hMPV & RSV	hMPV & Rhino/Entero	RSV & Rhino/Entero	No Pathogen	Total
EUCOM	Landstuhl RM C, Germany	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	5	6
	NAVSTA Rota, Spain	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	1	-	-	-	-	1	-	-	-	-	2	6
	RAF Lakenheath, England	-	1	-	-	-	-	2	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	4	11
	Ramstein AB, Germany	-	-	-	-	-	-	-	-	1	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	1	-	5	9
	Spangdahlem AB, Germany	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3
	USAG Baumholder, Germany	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2
	USAG Grafenwoehr, Germany	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2	4
	USAG Stuttgart, Germany	-	-	-	-	-	-	-	-	-	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	2	5
	USAG Wiesbaden, Germany	-	1	-	-	-	-	-	-	-	-	2	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	3	7
	Vilseck AHC, Germany	3	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
PACOM	Misawa AB, Japan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Osan AB, South Korea	-	-	-	-	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	3
	Tripler AMC, HI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2	3	
	Yokota AB, Japan	-	-	-	-	-	1	-	-	-	1	-	-	-	1	2	-	-	-	-	-	-	-	1	-	-	-	6	
Region 2	Ft Drum, NY	-	-	-	-	-	-	-	-	-	1	-	-	-	2	1	-	1	-	1	-	-	-	1	-	-	-	2	9
	JB McGuire-Dix-Lakehurst, NJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	
	USMA - West Point, NY	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	8
Region 3	Dover AFB, DE	-	2	-	-	-	-	-	-	-	1	-	-	-	1	1	-	1	-	-	-	-	-	1	-	-	-	5	12
	JB Andrews, MD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	JB Langley-Eustis, VA	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2	4	
	NCRM - Walter Reed NM M C, MD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
Region 4	Eglin AFB, FL	1	11	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	-	2	18	
	Ft Bragg, NC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	
	Ft Campbell, KY	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	Hurlburt Field, FL	-	8	1	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	1	-	1	1	14	
	Keesler AFB, MS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	
	Maxwell AFB, AL	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
	Moody AFB, GA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	
	NH Beaufort, SC	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	2	5	
	NH Jacksonville, FL	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	2	
	Robins AFB, GA	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2
	Seymour Johnson AFB, NC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
	Shaw AFB, SC	-	3	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	5

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 51 & 52
Cont'd from page 2

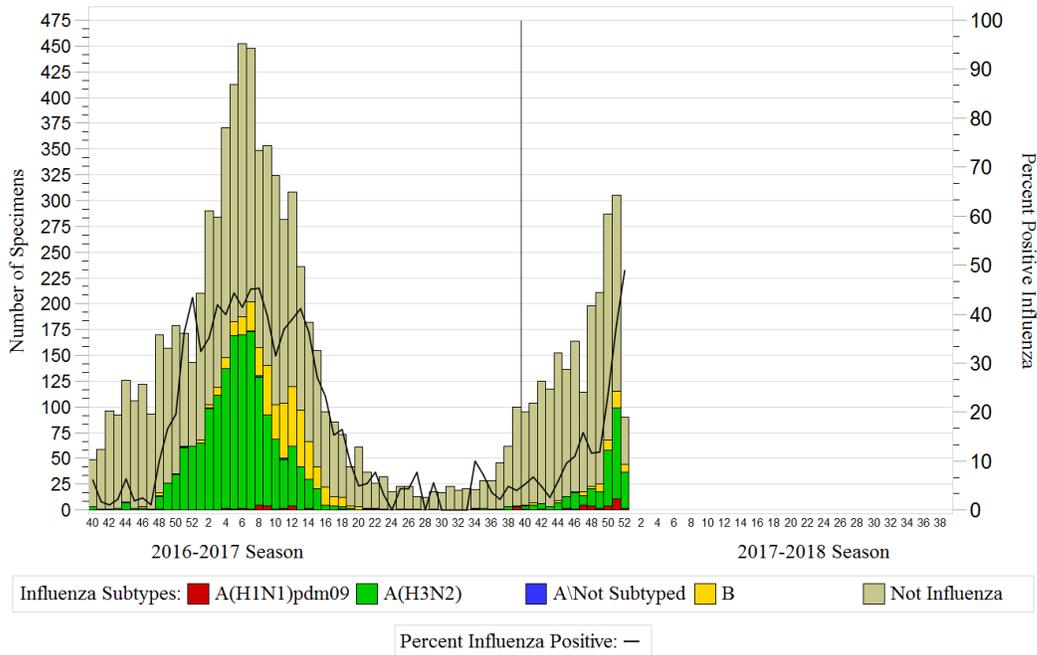
Region*		A(H1N1)pdm09	A(H3N2)	A(H1N1)pdm09 & Corona	A(H3N2) & Corona	A(H3N2) & RSV	A(H3N2) & Rhino/Entero	B	B & Corona	B & Rhino/Entero	Adenovirus	Coronavirus	M. pneumoniae	Parainfluenza	RSV	Rhinovirus/Enterovirus	Adeno & Para & Rhino/Entero	Adeno & RSV	Adeno & Rhino/Entero	Corona & Para	Corona & RSV	Corona & RSV & Rhino/Entero	HBoV & RSV & Rhino/Entero	hMPV	hMPV & RSV	hMPV & Rhino/Entero	RSV & Rhino/Entero	No Pathogen	Total	
Region 5	Scott AFB, IL	1	4	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	6	13	
	Wright-Patterson AFB, OH	-	42	-	1	-	1	10	-	2	1	8	1	-	6	4	-	-	-	-	1	-	-	1	-	1	-	24	103	
Region 6	Altus AFB, OK	-	5	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	
	Kirtland AFB, NM	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
	Laughlin AFB, TX	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2
	Little Rock AFB, AR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	Sheppard AFB, TX	-	1	-	-	-	-	2	-	-	-	2	-	2	1	-	-	-	-	-	-	-	-	-	1	-	-	3	12	
	Tinker AFB, OK	6	3	-	-	-	-	-	-	1	3	-	2	-	2	-	-	-	1	-	-	-	-	1	1	-	-	2	20	
	Vance AFB, OK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	3	5	
Region 7	McConnell AFB, KS	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
	Offutt AFB, NE	-	2	-	-	-	-	-	-	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
Region 8	Ellsworth AFB, SD	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	
	FE Warren AFB, WY	-	-	-	-	-	2	-	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	
	Hill AFB, UT	-	2	-	-	-	1	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
	Malmstrom AFB, MT	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
	Minot AFB, ND	-	4	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	6	
	Peterson AFB, CO	-	2	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
	USAF Academy, CO	-	2	-	-	-	-	-	-	-	-	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	4	
Region 9	Davis-Monthan AFB, AZ	-	4	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	6	
	Luke AFB, AZ	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
	Nellis AFB, NV	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	
	Travis AFB, CA	-	8	-	-	-	1	-	-	1	2	-	2	-	2	-	-	-	-	-	-	-	-	1	-	-	6	21		
Region 10	Fairchild AFB, WA	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
	Mc Home AFB, ID	-	1	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	6		
Total		12	119	1	1	1	2	20	1	2	10	34	3	3	30	23	1	3	1	1	2	2	2	11	1	2	3	104	395	

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

Cumulative Laboratory Results

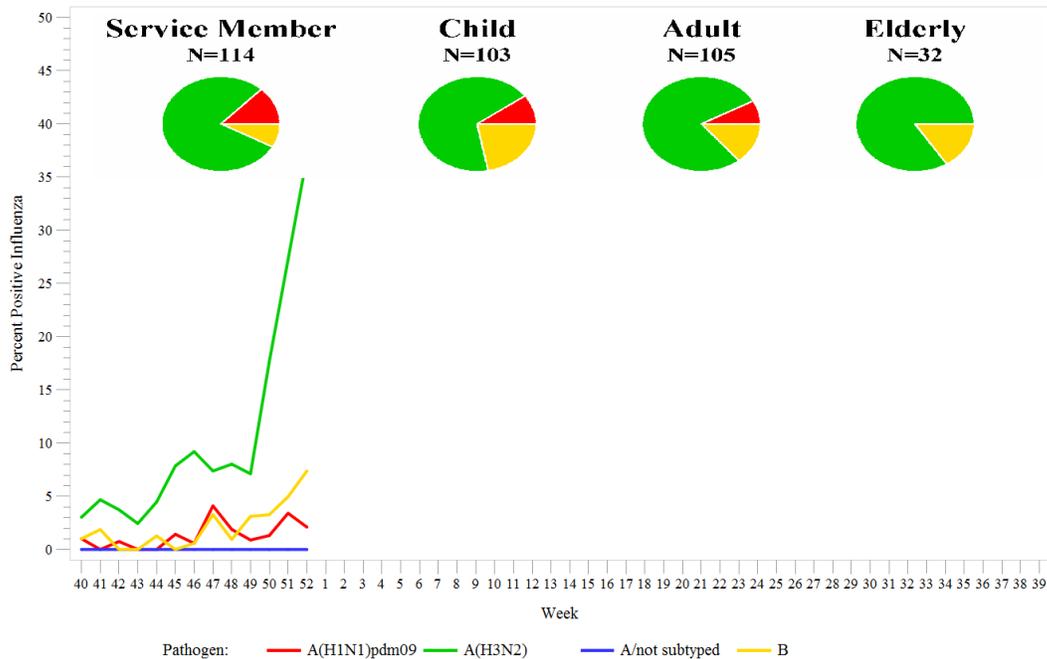
[Link to cumulative results by region and location:](#)

Graph 1. Percent influenza positive by week: 2016-2017 surveillance year and through Week 52 of the 2017-2018 surveillance year

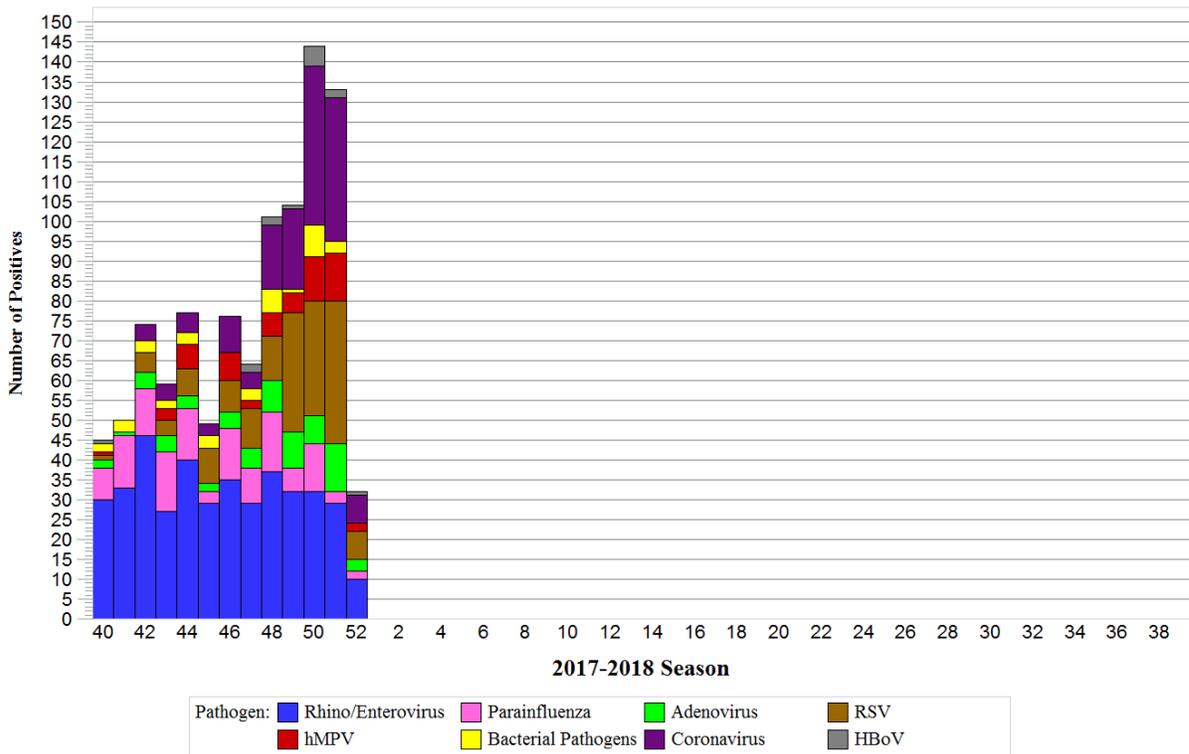


Note: Dual influenza coinfections are excluded from this graph.

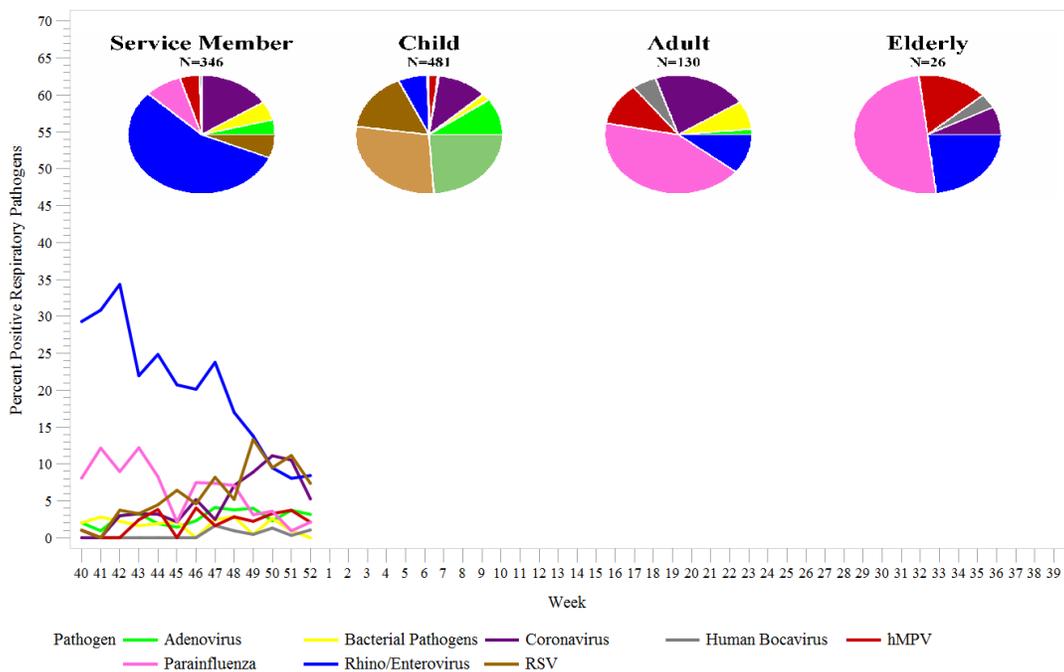
Graph 2. Percent positive for influenza through ILI trends by subtype and beneficiary status through Week 52 of the 2017-2018 surveillance year



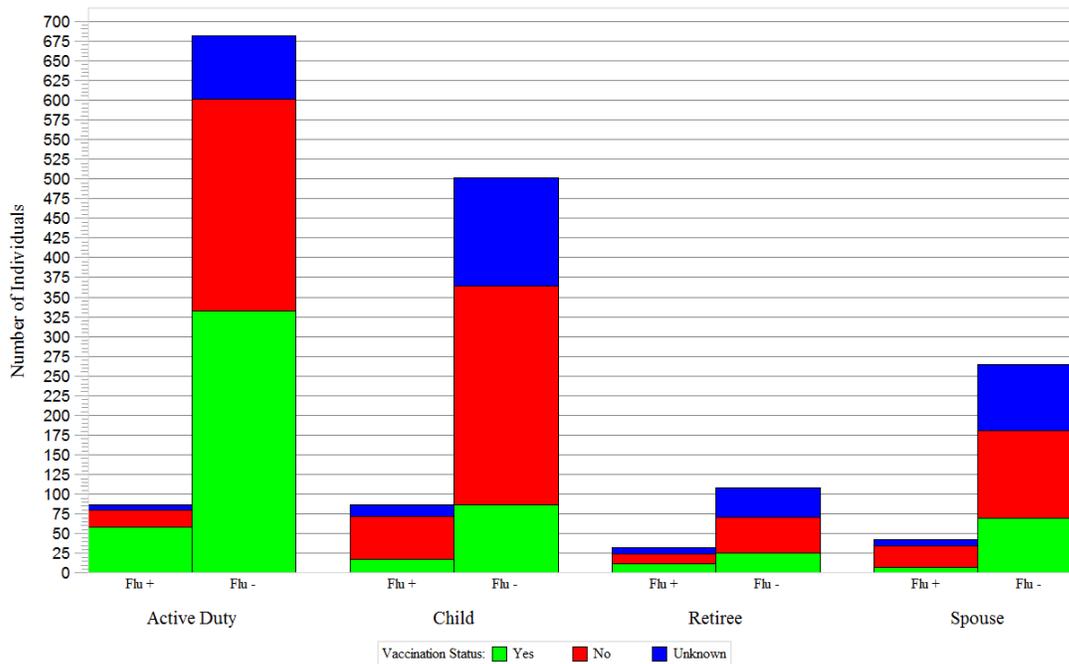
Graph 3. Other positive respiratory pathogens for the 2017-2018 surveillance year through Week 52



Graph 4. Percent positive for respiratory pathogens through ILI trends by week and beneficiary status through Week 52 of the 2017-2018 surveillance year



Graph 5. Vaccination status by beneficiary type for the 2017-2018 surveillance year through Week 51 (excluding 'Other' beneficiary type)

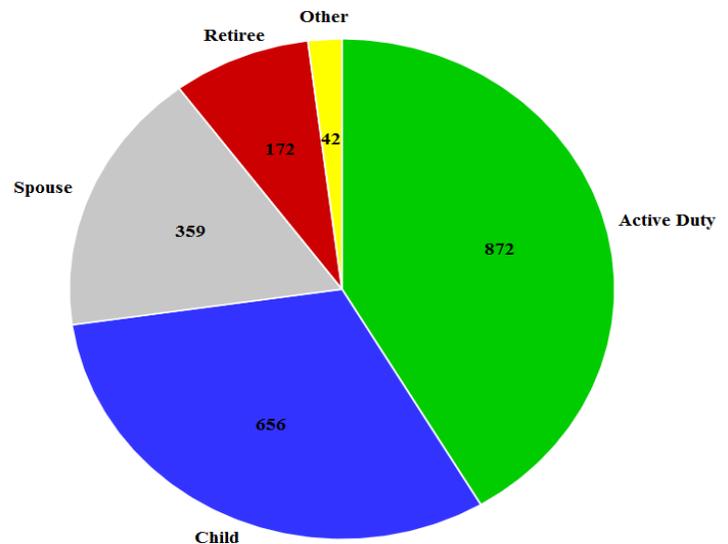


Note: Data could not be pulled for Week 52.

Table 2. ILI by age group for the 2017-2018 surveillance year through Week 52

Age Group	Frequency	Percent
0-5	415	19.75
6-9	110	5.24
10-17	152	7.23
18-24	334	15.90
25-44	722	34.36
45-64	242	11.52
65+	126	6.00

Graph 6. ILI by beneficiary status for the 2017-2018 surveillance year through Week 52

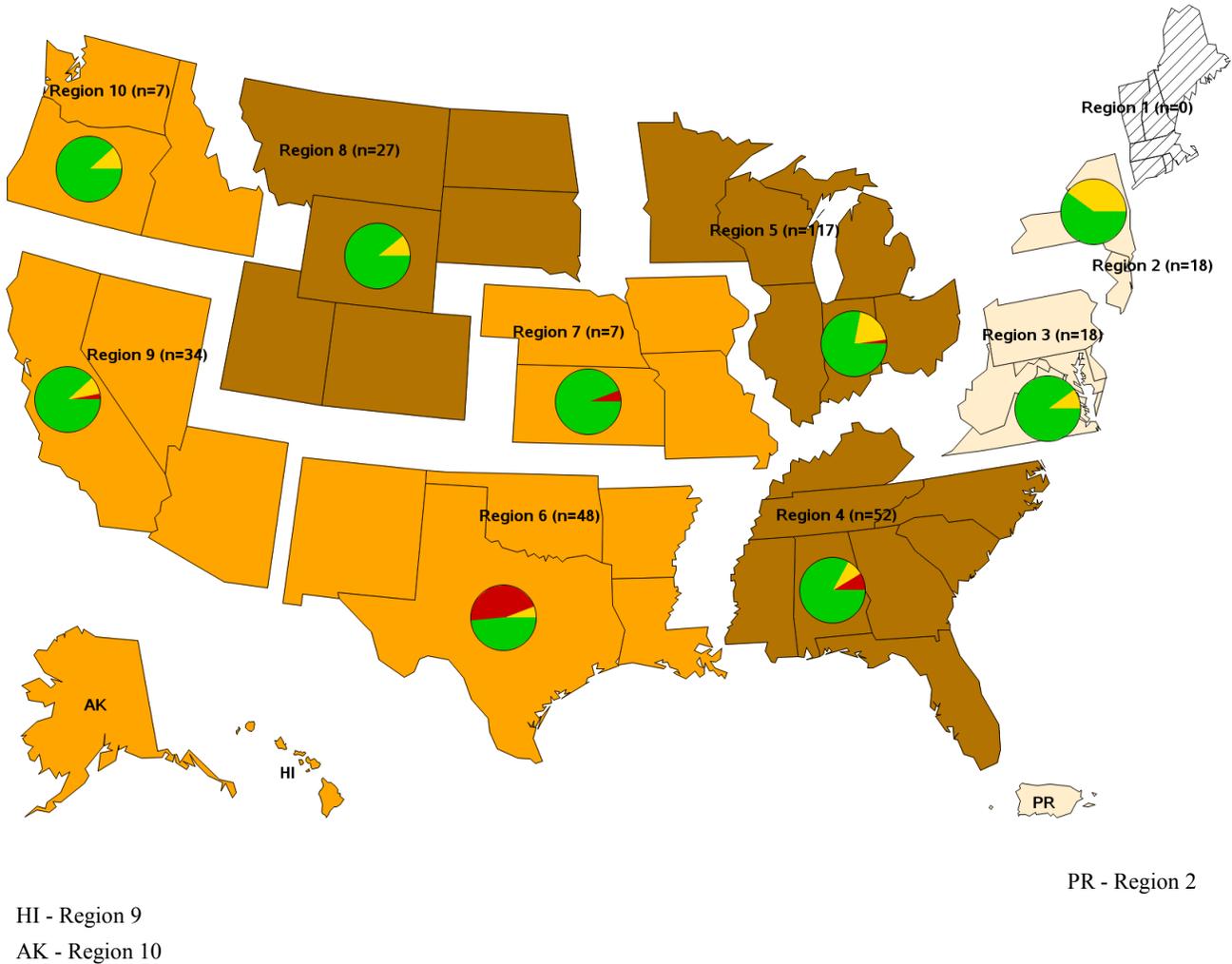


Demographic Summary

Of 2,101 ILI cases, 872 are service members (41.5%), 656 are children (31.2%), 359 are spouses (17.1%), and 214 are retirees and other beneficiaries (10.2%). The median age of ILI cases with known age (n=2,101) is 25 (range 0, 98).

DoD Global Respiratory Pathogen Surveillance Program

Map 1. Influenza subtypes and activity level by U.S. region for the 2017-2018 surveillance year through Week 52



Legend

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

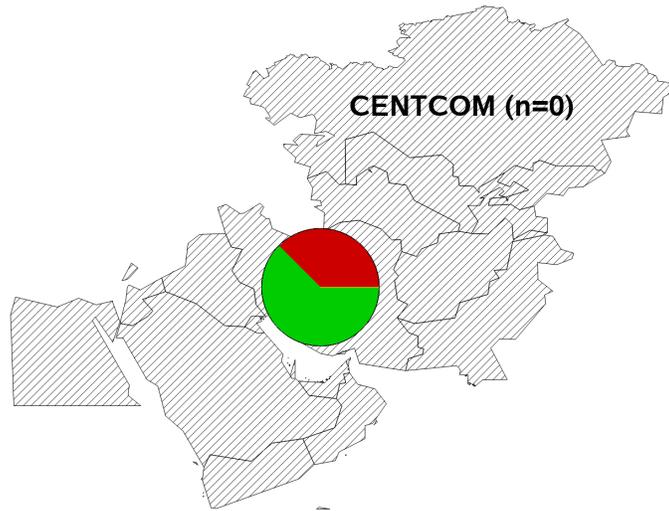
- No activity (0%+) or no submissions
- Low (<25%+)
- Moderate (25-49%+)
- High (>50%+)

Influenza Results - Cumulative

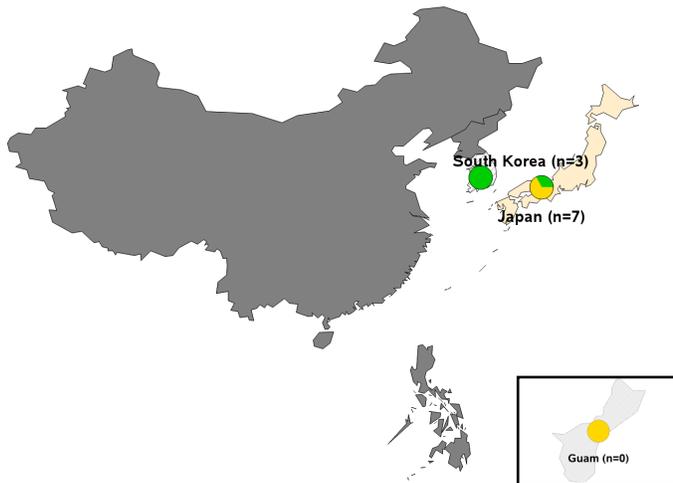
- Influenza A(H3N2)
- Influenza A(H1N1)pdm09
- Influenza B
- Influenza A/not subtyped

DoD Global Respiratory Pathogen Surveillance Program

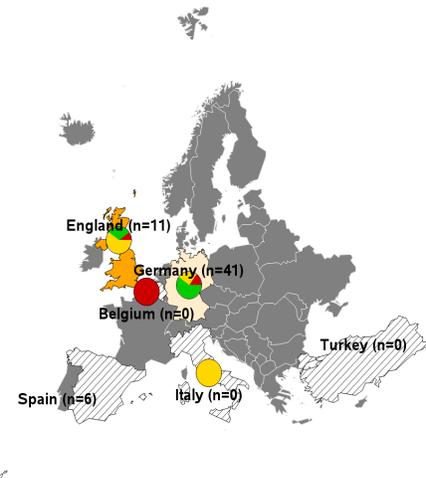
Map 2. Influenza subtypes and activity level for CENTCOM for the 2017-2018 surveillance year through Week 52



Map 3. Influenza subtypes and activity level by country for the 2017-2018 surveillance year through Week 52 (Pacific)



Map 4. Influenza subtypes and activity level by country for the 2017-2018 surveillance year through Week 52 (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

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.

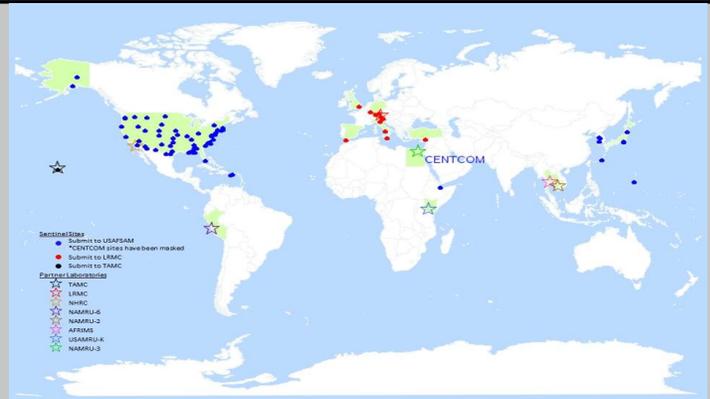
Errata:



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.

