

DoD Global, Laboratory-Based, Influenza Surveillance Program



USAF School of Aerospace Medicine

2014 - 2015

Cumulative Results

Locations	71
Collected	1806
Tested	1510



Respiratory Highlights

14 December - 27 December 2014 (Surveillance Weeks 51 & 52)

- During 14 December - 27 December 2014, a total of 428 specimens were collected and received from 49 locations. Results were finalized for 202 specimens from 39 locations. During Week 51, the laboratory identified 156 influenza A(H3N2), two A/not subtyped and seven influenza B. During Week 52, seven influenza A(H3N2) were identified. See Table 1 below for results of other respiratory viruses identified during Weeks 51 & 52.
- The National Health and Family Planning Commission (NHFPC) of China notified the World Health Organization (WHO) of one laboratory-confirmed case of human infection with avian influenza A(H5N6) virus. The patient is a 58 year old male from Guangzhou city, Guangdong Province who developed symptoms on 4 December 2014. He was admitted to the hospital on 9 December 2014 and is now in critical condition. The patient had a history of exposure to live poultry. The Chinese Government has taken surveillance and control measures, and the WHO continues to closely monitor the H5N6 situation and conduct risk assessment. ([WHO Update](#)), cited 30 December 2014).

Table 1. Results by region and location for specimens collected and finalized during Weeks 51 & 52

Region*		A(H3N2)	A/not subtyped	B	Adenovirus	Coronavirus	Parainfluenza	RSV	Rhinovirus/Enterovirus	Adeno & Rhino/Entero	Corona & RSV	Corona & Rhino/Entero	RSV & Rhino/Entero	No Pathogen	Total
PACOM	CFA Okinawa, Japan	-	-	-	1	-	-	-	-	-	-	-	-	-	1
	Yokota AB, Japan	2	-	-	1	-	-	-	-	-	-	-	-	-	3
Region 1	NHCNE Newport, RI	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Region 2	Ft Drum, NY	2	-	-	-	-	-	-	-	-	-	-	-	-	2
	JB McGuire-Dix-Lakehurst, NJ	3	-	-	-	-	-	-	2	-	-	-	-	-	5
	USMA - West Point, NY	1	-	-	1	-	-	-	-	-	-	-	-	2	4
Region 3	CG Base Portsmouth, VA	1	-	-	-	-	-	-	-	-	-	-	-	-	1
	Dover AFB, DE	6	-	-	-	-	-	-	-	-	-	-	-	-	6
	JB Langley-Eustis, VA	3	-	-	-	-	-	-	-	-	-	-	-	-	3
Region 4	CGS Mobile, AL	4	-	-	-	-	-	-	-	-	-	-	-	-	4
	Columbus AFB, MS	1	-	-	-	-	-	-	-	-	-	-	1	2	2
	Eglin AFB, FL	1	-	-	-	-	-	-	-	-	-	-	-	-	1
	Ft Campbell, KY	3	-	1	-	-	-	-	-	-	-	-	-	-	4
	Hurlburt Field, FL	2	-	-	-	-	-	-	-	-	-	-	-	-	2
	Keesler AFB, MS	1	-	-	-	-	-	-	-	-	-	-	-	-	1
	Maxwell AFB, AL	4	-	3	-	-	-	1	-	-	-	-	-	2	10
	Moody AFB, GA	4	1	1	-	-	-	-	-	-	-	-	-	-	6
	NH Camp Lejeune, NC	9	-	-	-	-	-	-	1	-	-	-	-	-	10
	Robins AFB, GA	7	1	-	-	-	-	-	-	-	-	-	-	-	8
	Seymour Johnson AFB, NC	4	-	-	-	-	-	-	-	-	-	-	-	-	4
	Tyndall AFB, FL	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Region 5	Scott AFB, IL	6	-	-	-	-	1	-	-	-	-	-	-	1	8
	Wright-Patterson AFB, OH	2	-	-	-	-	-	-	-	-	-	-	-	-	2
Region 6	Altus AFB, OK	1	-	-	2	-	-	-	-	-	-	-	-	-	3
	Barksdale AFB, LA	5	-	-	-	-	-	-	-	-	-	-	-	-	5
	Sheppard AFB, TX	19	-	-	2	-	-	1	-	-	-	1	1	2	26
	Tinker AFB, OK	16	-	1	-	-	-	-	-	-	-	-	-	-	17
Region 7	McConnell AFB, KS	1	-	-	-	-	-	-	-	-	-	-	-	-	1
	Offutt AFB, NE	9	-	-	-	-	1	-	-	-	-	-	-	1	11
Region 8	Ellsworth AFB, SD	1	-	-	-	-	-	-	-	-	-	-	-	-	1
	FE Warren AFB, WY	7	-	-	-	-	-	-	-	-	-	-	-	-	7
	Hill AFB, UT	9	-	1	-	-	-	-	-	-	-	-	-	-	10
	Peterson AFB, CO	14	-	-	-	-	-	-	-	-	-	-	-	-	14
Region 9	Davis-Monthan AFB, AZ	1	-	-	-	-	-	-	-	-	-	-	-	-	1
	Edwards AFB, CA	1	-	-	-	-	-	-	-	-	-	-	-	-	1
	Nellis AFB, NV	3	-	-	-	-	-	-	-	-	-	-	-	-	3
	Travis AFB, CA	1	-	-	-	1	2	-	-	-	-	-	-	-	4
Region 10	Mt Home AFB, ID	1	-	-	-	-	1	-	-	-	-	-	-	-	2
	NH Bremerton, WA	7	-	-	-	-	-	-	-	-	-	-	-	-	7
Total		163	2	7	4	3	3	5	2	1	1	1	1	9	202

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

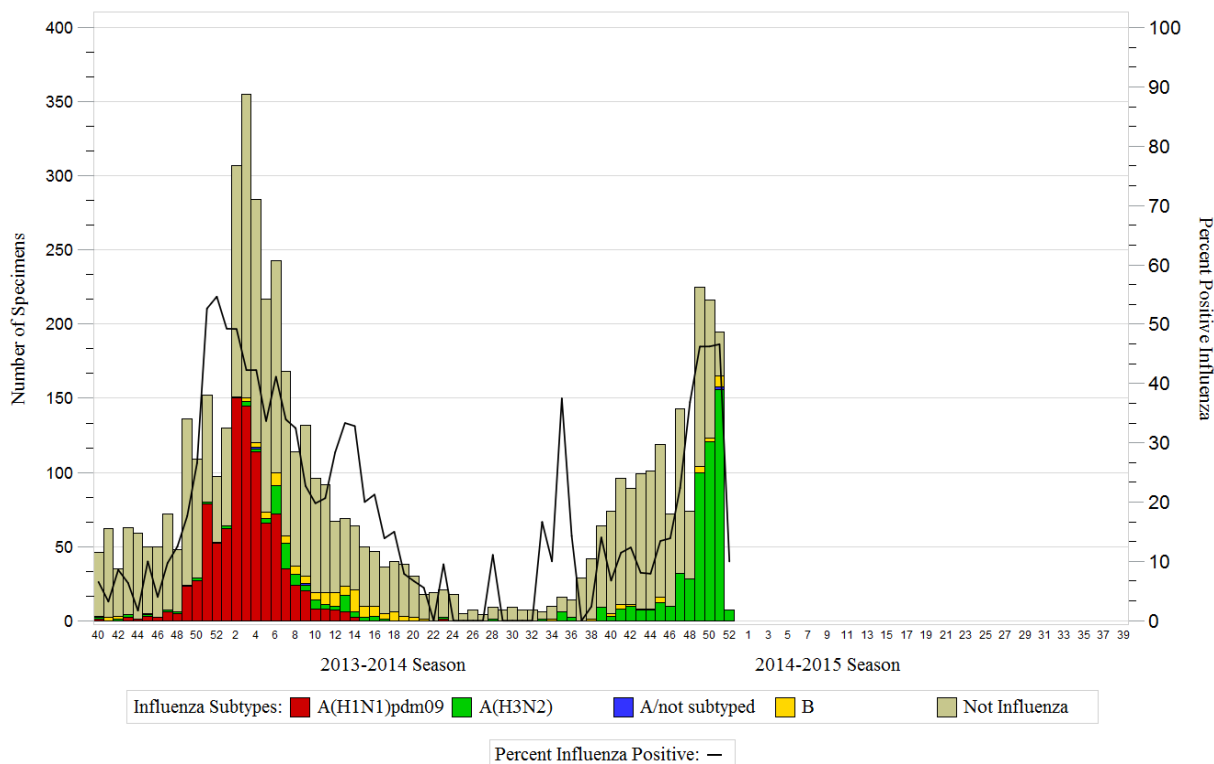
Lab data are current as of 29 December 2014. Results are preliminary and may change as more results are received.

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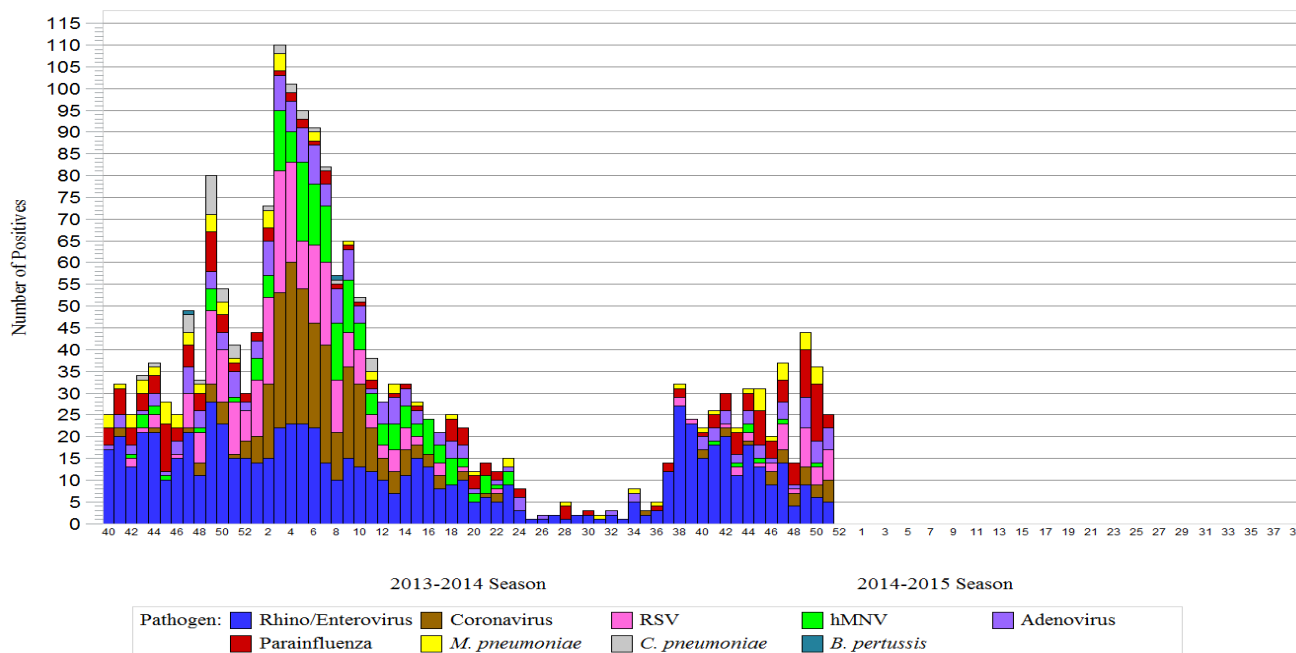
Laboratory Results - Cumulative for Season

Graph 1. Percent influenza positive by week: 2013-2014 surveillance year and through Week 52 of the 2014-2015 surveillance year



Note: One specimen positive for influenza A(H3N2)v has been excluded from the graph during the 2013-2014 season.

Graph 2. Other respiratory pathogen results by week: 2013-2014 surveillance year and through Week 52 of the 2014-2015 surveillance year



Note: Due to change in protocol between the surveillance years 2013-2014 and 2014-2015, a direct comparison between the years cannot be made.

Graph 3. Vaccination status by beneficiary type for the 2014-2015 surveillance year through Week 52

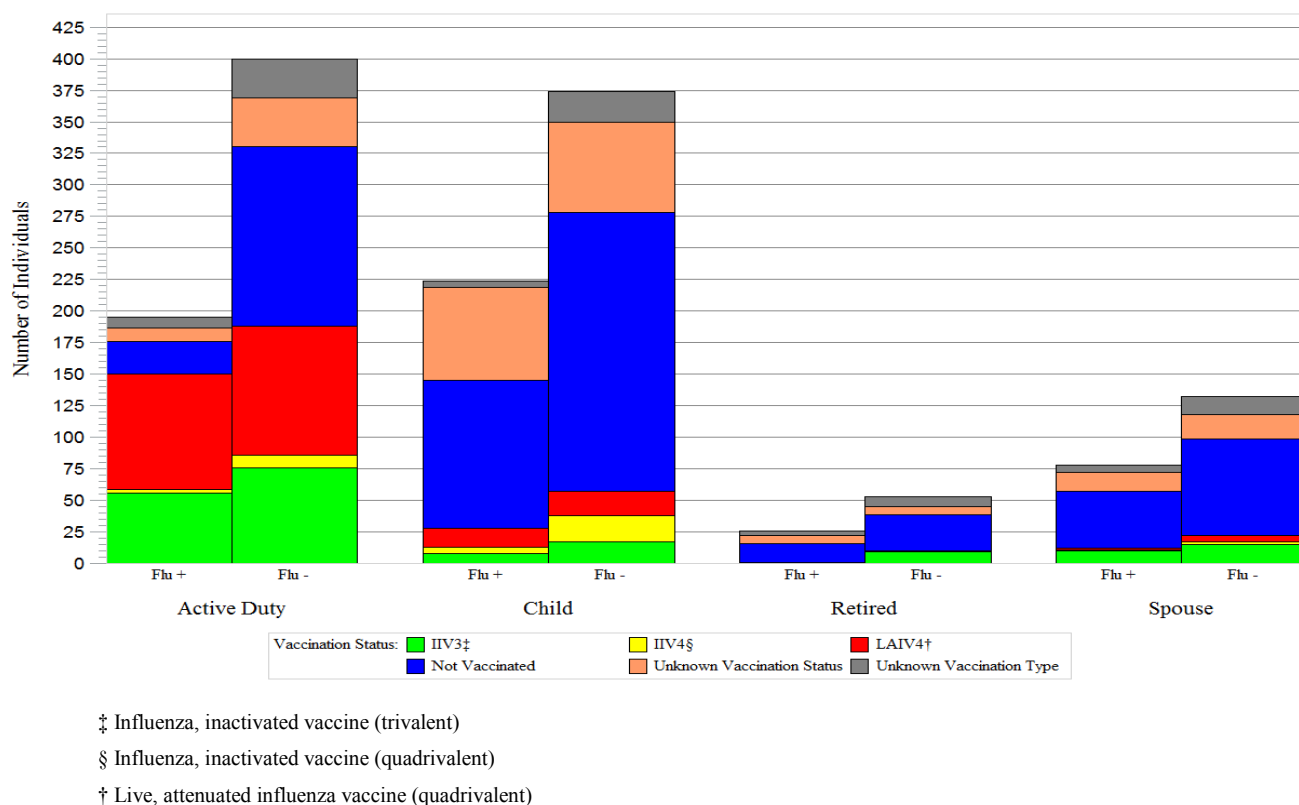


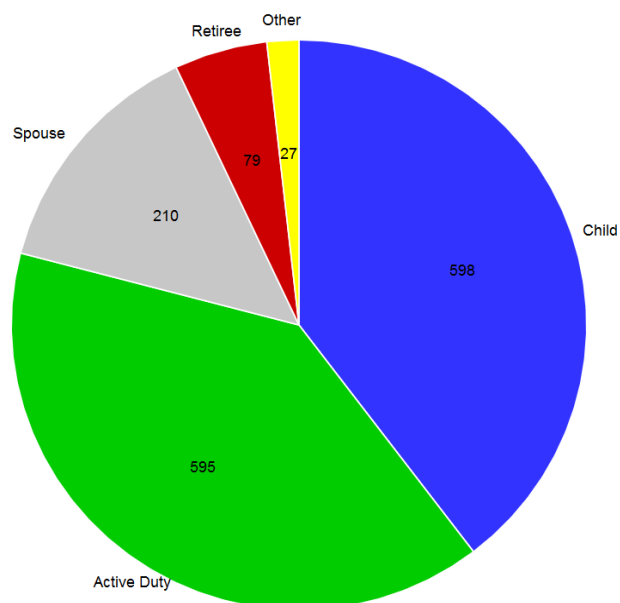
Table 2.
ILI by age group for the 2014-2015

Age Group	Frequency	Percent
0-5	299	19.8
6-9	132	8.74
10-17	168	11.13
18-24	220	14.57
25-44	524	34.7
45-64	131	8.68
65+	36	2.38

Demographic Summary

Of 1,510 ILI cases, 595 are service members (39.4%), 598 are children (39.6%), 210 (13.9%) are spouses, and 106 (7%) are retirees & other beneficiaries. There are no unknown beneficiary types. The median age of ILI cases with known age (n=1,510) is 23.0 (range 0, 94) and 599 (39.7%) of these specimens are from ILI cases less than 18 years of age.

Graph 4. ILI by beneficiary status for the 2014-2015 surveillance year through Week 52



Laboratory Results—Through Current Surveillance Week 52

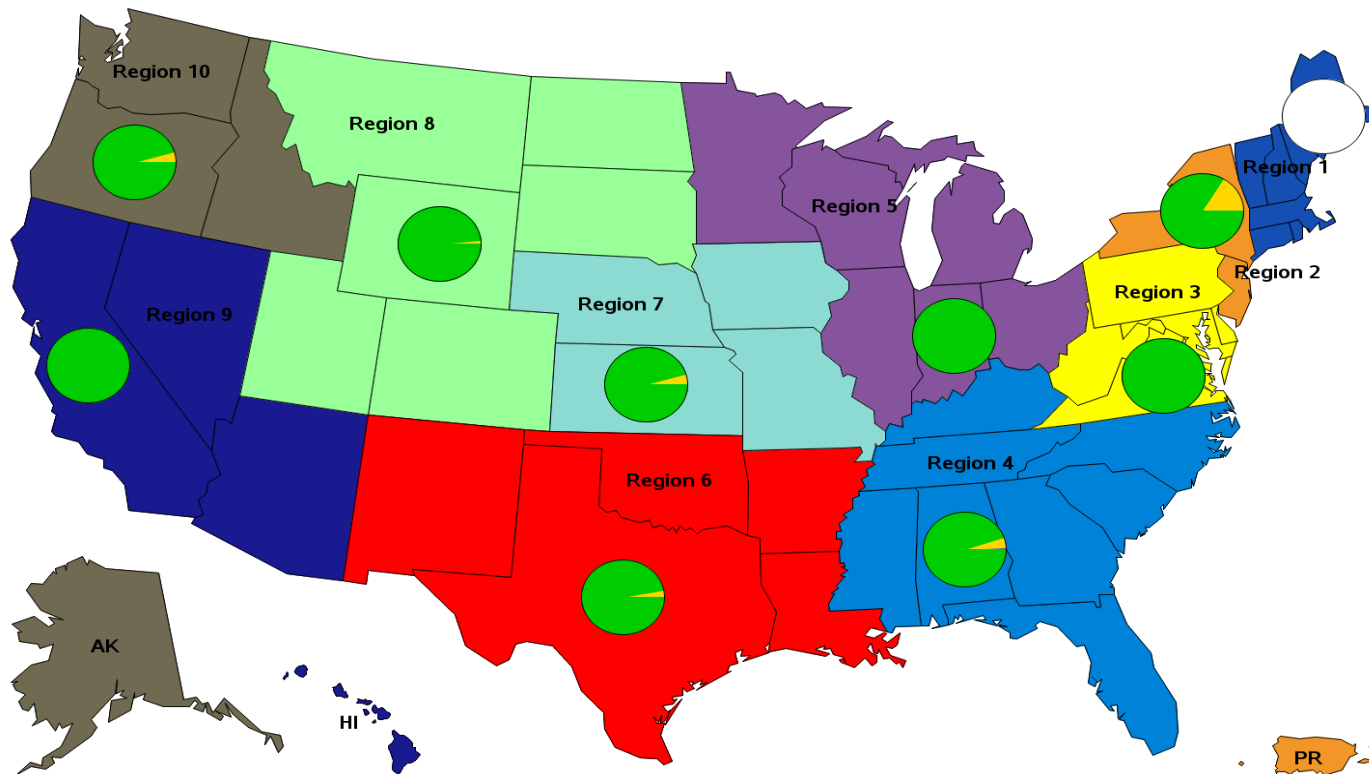
Table 3. Cumulative results by region and location for specimens collected during the 2014-2015 surveillance year

		A(H3N2)	A/not subtyped	B	B/Yamagata	B & Rhino/Entero	Adenovirus	Coronavirus	hMPV	M. pneumoniae	Parainfluenza	RSV	Rhinovirus/Enterovirus	Non-Influenza Co-Infection	No Pathogen	Total	
Region*																	
Deployed	Country 1, Location B	16	-	-	-	-	-	2	-	-	-	-	-	-	33	51	
	Country 2, Location A	1	-	-	-	-	-	-	-	-	-	-	1	-	11	13	
PACOM	CFA Okinawa, Japan	-	-	-	-	-	2	-	-	-	-	-	-	2	-	11	
	Eielson AFB, AK	2	-	1	-	-	2	-	-	-	-	-	1	-	5	11	
	JB Elmendorf-Richardson, AK	7	-	-	-	-	-	-	-	-	-	-	-	-	4	11	
	JR Marianas - Andersen AFB, Guam	9	-	3	2	-	1	-	3	-	1	2	3	1	13	38	
	Kadena AB, Japan	-	-	-	-	-	-	-	-	-	-	-	1	-	2	3	
	Misawa AB, Japan	-	-	-	-	-	-	-	-	-	-	-	2	-	3	5	
	Osan AB, South Korea	1	-	-	-	-	-	-	-	-	-	-	-	-	3	4	
	Yokota AB, Japan	4	-	-	-	-	1	-	-	-	-	-	-	1	3	9	
	Hanscom AFB, MA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4
Region 1	NHCNE Newport, RI	-	-	-	-	-	-	-	-	-	-	-	1	1	8	10	
	USCG Academy, CT	-	-	-	-	-	-	-	-	-	1	-	1	-	3	5	
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Region 2	Ft Drum, NY	4	-	3	-	-	1	-	-	1	2	-	7	5	25	48	
	JB McGuire-Dix-Lakehurst, NJ	7	-	-	-	-	-	-	-	-	-	-	2	-	2	11	
	USMA - West Point, NY	4	-	-	-	-	-	4	-	3	1	1	6	1	31	51	
Region 3	CG Base Portsmouth, VA	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
	Dover AFB, DE	6	-	-	-	-	-	-	-	-	1	-	-	-	1	8	
	JB Andrews, MD	-	-	-	-	-	-	-	-	-	-	-	2	-	3	5	
	JB Langley-Eustis, VA	4	-	-	-	-	1	-	-	-	1	-	-	1	6	13	
	NCRM - Ft Belvoir CH, VA	-	-	-	-	-	1	-	-	-	1	-	4	1	4	11	
	NCRM - Walter Reed NMMC, MD	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Region 4	NMC Portsmouth, VA	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
	CGS Mobile, AL	4	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
	Columbus AFB, MS	2	-	-	-	-	-	-	-	-	-	-	-	-	9	11	
	Eglin AFB, FL	4	-	-	-	-	-	-	-	1	-	1	1	1	14	22	
	Ft Bragg, NC	14	-	-	-	-	1	-	1	-	2	6	-	-	12	36	
	Ft Campbell, KY	6	-	1	-	-	-	-	-	2	1	2	-	-	5	17	
	Hurlburt Field, FL	11	-	-	-	-	-	-	-	-	-	-	3	1	7	22	
	JB Charleston (AF), SC	4	-	-	-	-	-	-	-	-	-	-	-	-	1	5	
	JB Charleston (Navy), SC	-	-	-	-	-	-	-	1	-	-	-	2	-	1	4	
	Keesler AFB, MS	5	-	1	-	-	2	-	-	-	-	1	1	2	10	22	
	MacDill AFB, FL	-	-	-	-	-	-	-	-	-	-	-	-	-	6	6	
	Maxwell AFB, AL	23	-	3	-	-	-	-	-	-	1	1	4	-	22	54	
	Moody AFB, GA	43	1	3	-	-	2	5	1	1	5	1	7	2	18	89	
	NH Beaufort, SC	-	-	-	-	-	-	-	-	-	1	-	2	1	2	6	
	NH Camp Lejeune, NC	57	-	-	-	-	-	-	-	-	-	-	1	2	4	64	
	NH Jacksonville, FL	1	-	-	-	-	1	-	1	-	-	-	4	1	-	8	
	Robins AFB, GA	17	1	-	-	-	-	-	-	-	-	-	-	-	15	33	
	Seymour Johnson AFB, NC	7	-	-	-	-	-	-	-	-	1	1	4	-	7	20	
	Shaw AFB, SC	1	-	-	-	-	-	-	-	-	-	-	-	1	-	3	5
Region 5	Tyndall AFB, FL	10	-	2	1	-	-	-	-	-	-	-	-	1	7	21	
	Scott AFB, IL	15	-	-	-	-	1	-	-	-	1	-	1	-	9	27	
	Wright-Patterson AFB, OH	3	-	-	-	-	-	-	-	-	-	-	5	-	17	25	
Region 6	Altus AFB, OK	2	-	-	-	1	3	1	-	-	-	-	2	1	10	20	
	Barksdale AFB, LA	9	-	1	-	-	-	-	-	-	-	-	-	-	3	13	
	Cannon AFB, NM	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	
	Holloman AFB, NM	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
	Laughlin AFB, TX	2	-	-	-	-	1	-	-	2	-	-	-	2	3	10	
	Little Rock AFB, AR	1	-	-	-	-	-	-	-	-	-	-	-	-	15	16	
	Sheppard AFB, TX	43	-	-	-	-	1	3	-	1	1	1	-	4	22	76	
	Tinker AFB, OK	35	-	1	-	-	-	1	-	1	4	-	4	-	33	79	
USCG New Orleans, LA	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1		
Region 7	McConnell AFB, KS	2	-	-	-	-	1	-	-	-	-	-	-	-	2	5	
	Offutt AFB, NE	20	-	1	-	-	1	-	-	1	6	-	7	-	61	97	
Region 8	Buckley AFB, CO	2	-	-	-	-	-	-	-	-	-	-	1	-	5	8	
	Ellsworth AFB, SD	2	-	-	-	-	1	-	-	1	3	-	2	-	7	16	
	FE Warren AFB, WY	11	-	-	-	-	-	-	-	-	4	-	1	-	10	26	
	Hill AFB, UT	12	-	1	-	-	-	-	-	2	-	3	-	4	22	22	
	Minot AFB, ND	2	-	-	-	-	-	-	-	3	2	-	1	-	2	10	
	Peterson AFB, CO	24	-	-	-	-	-	-	-	1	2	1	3	1	16	48	
Region 9	USAF Academy, CO	14	-	-	-	-	-	-	-	1	-	-	1	-	8	24	
	Davis-Monthan AFB, AZ	1	-	-	-	-	-	-	-	-	1	-	-	1	17	20	
	Edwards AFB, CA	2	-	-	-	-	-	-	-	-	-	-	-	-	4	6	
	Luke AFB, AZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4
	Nellis AFB, NV	4	-	-	-	-	1	-	-	-	-	-	-	-	5	10	
Region 10	Travis AFB, CA	4	-	-	-	-	1	-	-	-	7	4	6	1	59	82	
	Fairchild AFB, WA	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	
	Mt Home AFB, ID	2	-	-	-	-	-	-	-	-	-	1	-	-	3	6	
	NH Bremerton, WA	11	-	-	-	-	1	-	-	1	5	3	9	3	42	75	
Total		501	2	21	3	1	26	17	7	18	58	25	111	35	685	1510	

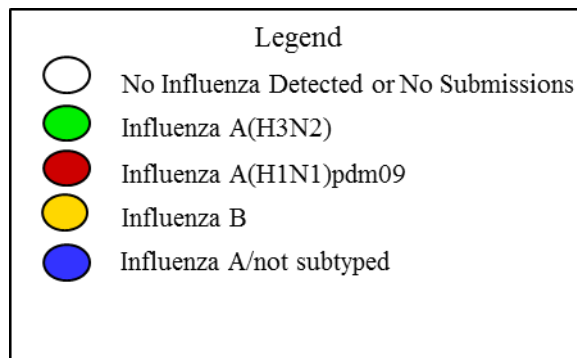
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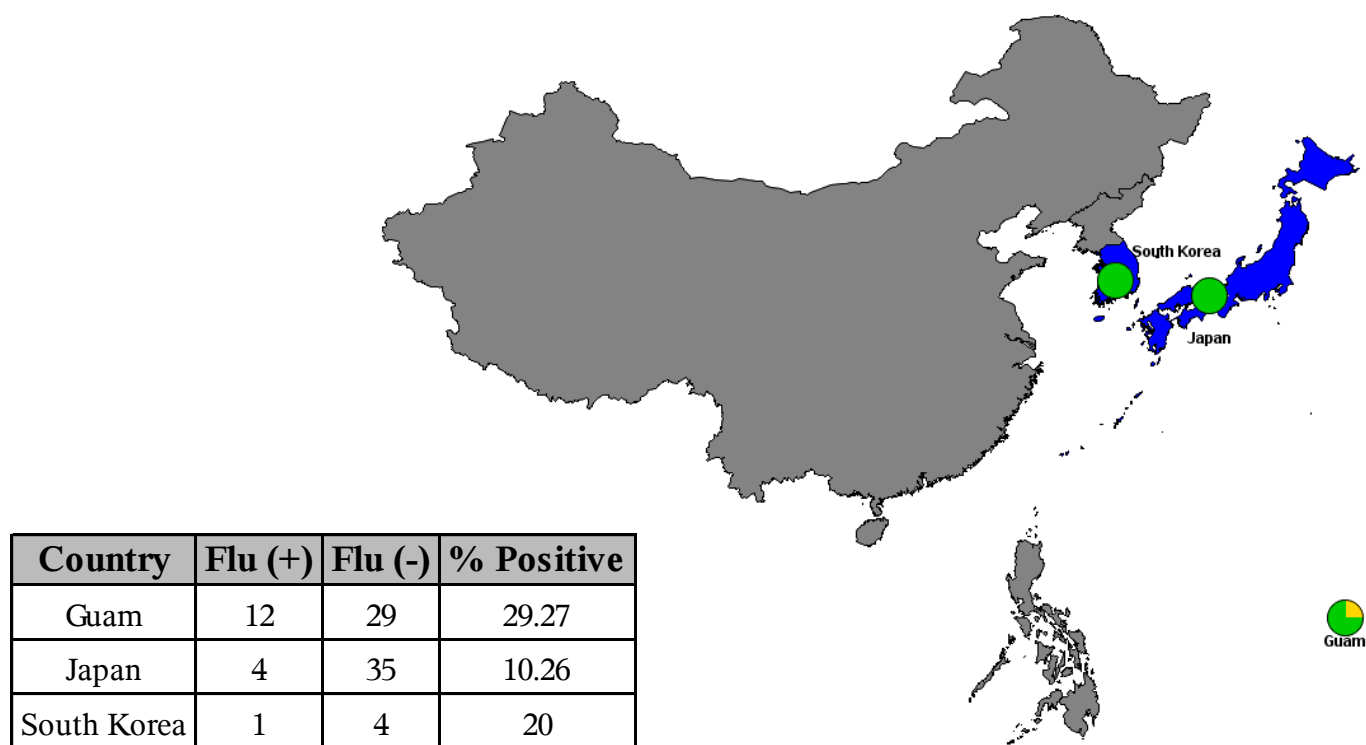
Map 1. Percentage of influenza positives by region for the 2014-2015 surveillance year through Week 52



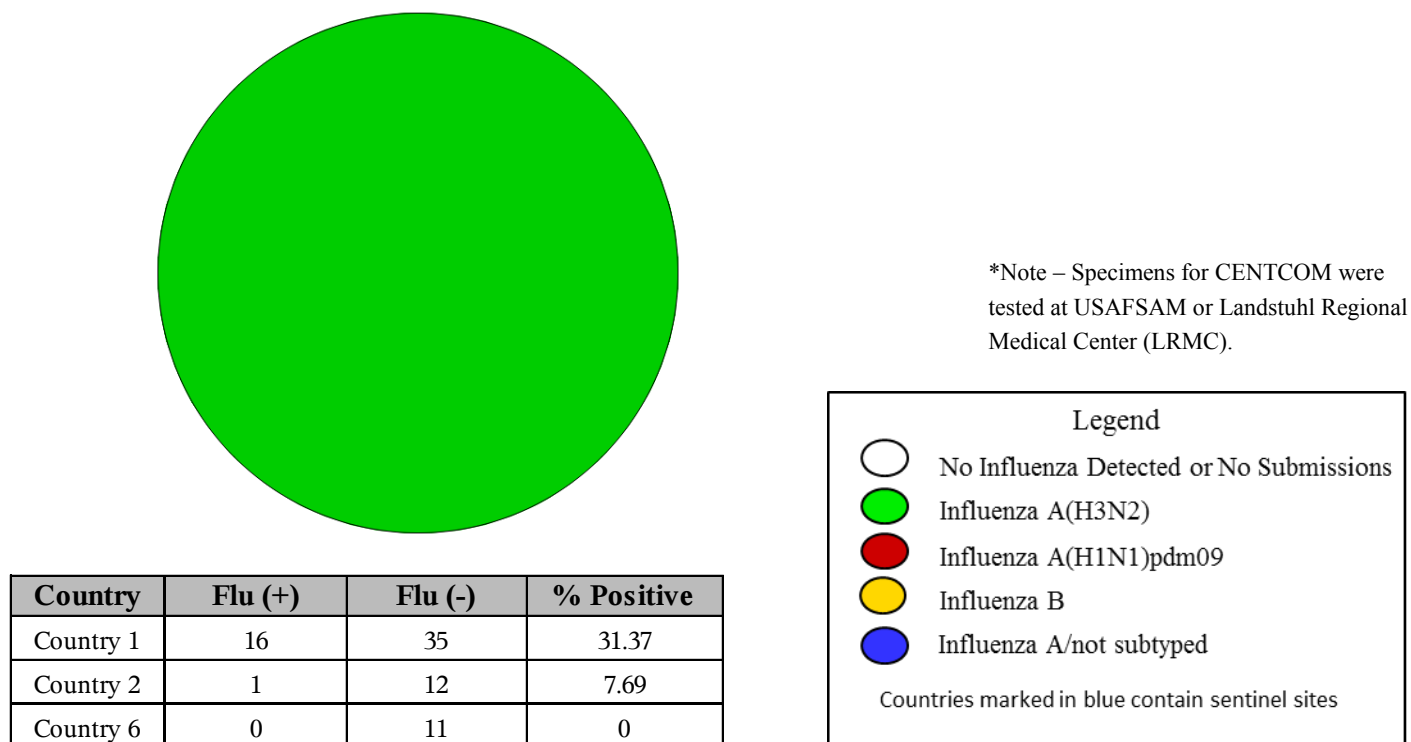
Region	Flu (+)	Flu (-)	% Positive
Region 1	0	21	0
Region 2	18	106	14.52
Region 3	12	30	28.57
Region 4	221	301	42.34
Region 5	18	51	26.09
Region 6	97	178	35.27
Region 7	23	99	18.85
Region 8	68	112	37.78
Region 9	11	121	8.33
Region 10	23	124	15.65



Map 2. Percentage of influenza positives by region for the 2014-2015 surveillance year through Week 52 (Pacific)



Map 3. Percentage of influenza positives by region for the 2014-2015 surveillance year through Week 52 (CENTCOM)



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

DoD Global Laboratory-Based Influenza Surveillance Program



USAF School of Aerospace Medicine

2014 - 2015

Respiratory Surveillance
2014-2015 Year
(beginning 28 September 2014)



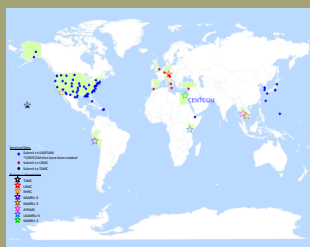
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Contributions to the CDC for National Influenza Surveillance

All sequence data are sent to the CDC and selected original specimens or isolates are sent for further characterization and possible use as influenza vaccine seed viruses. Specimens may also undergo antiviral testing.

[DoD Global Influenza Surveillance Program](https://gumbo2.area52.afnoapps.usaf.mil/epi-consult/influenza)

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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:

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.



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