

DoD Consolidated Influenza Surveillance Report

2022-2023 Season Summary



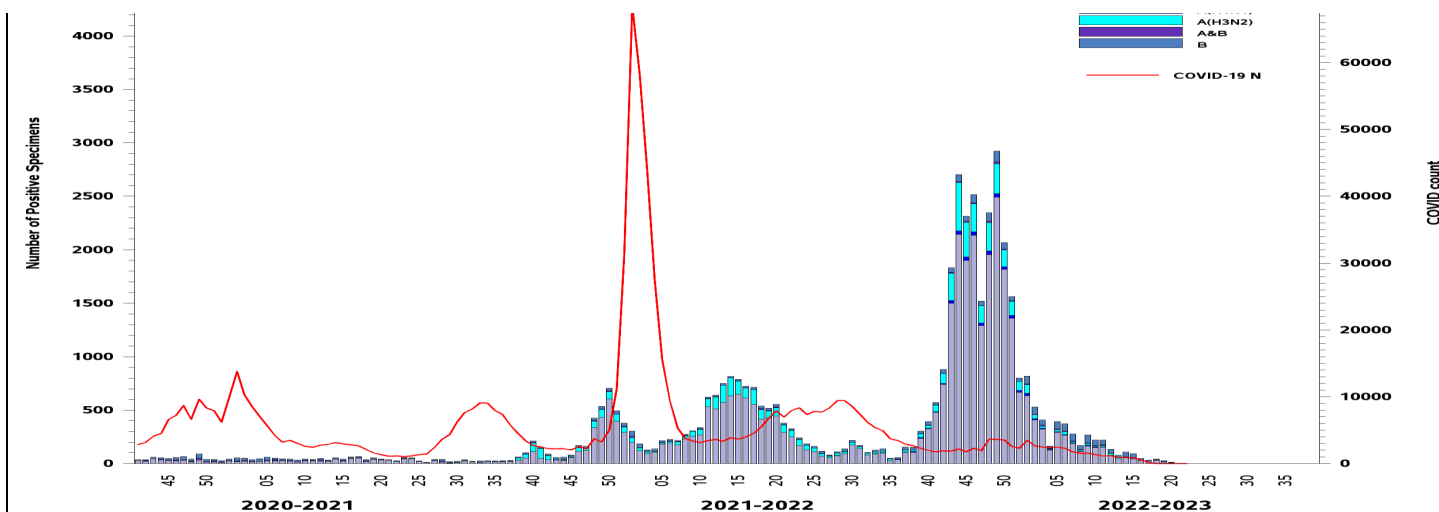
One Page Summary: Weekly Highlights

- Influenza activity peaked much earlier than typical influenza seasons, with a peak in laboratory-confirmed influenza cases just prior to the start of the new year and low case counts during 2023.
- Although influenza activity was much higher than the two prior seasons, counts still remained lower pre-COVID-19 seasons.
- COVID-19 cases continued to account for a majority of all influenza and COVID-19 cases combined for all populations except beneficiaries 0-17 year of age, for whom influenza has predominated.
- There were a total of 348 (32 Service Members / 316 other beneficiaries) laboratory-confirmed influenza hospitalizations reported for the 2022-2023 season.

Influenza Surveillance Indicators (2022-2023 season)

All Beneficiaries	Total Per Week		Trend	Activity Level
Laboratory Cases	13		▼	Low
Dispensed Antivirals	3		◀▶	Low
Severity				Activity Level
Inpatient Laboratory Cases	1		◀▶	Low
Inpatient Dispensed Antivirals	1		◀▶	Low
Active Component				Activity Level
Laboratory Cases	8		◀▶	Low
Dispensed Antivirals	2		◀▶	Low
ILI Outpatient Visits	1%		◀▶	Minimal

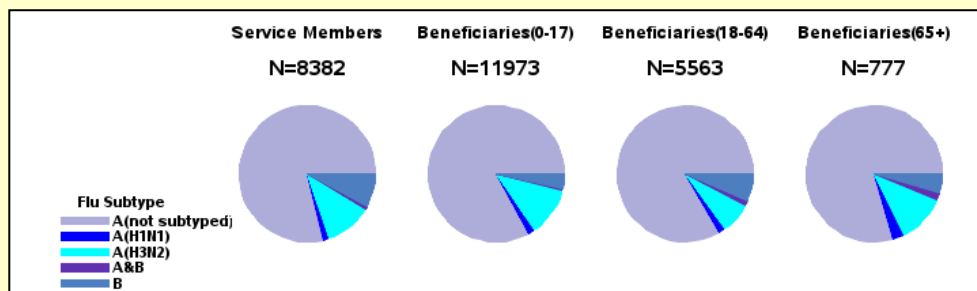
Laboratory-Confirmed Influenza and COVID-19 among Beneficiaries: Serotype Distribution



Confirmed Influenza and COVID-19 Cases (2022-2023 Season Summary)

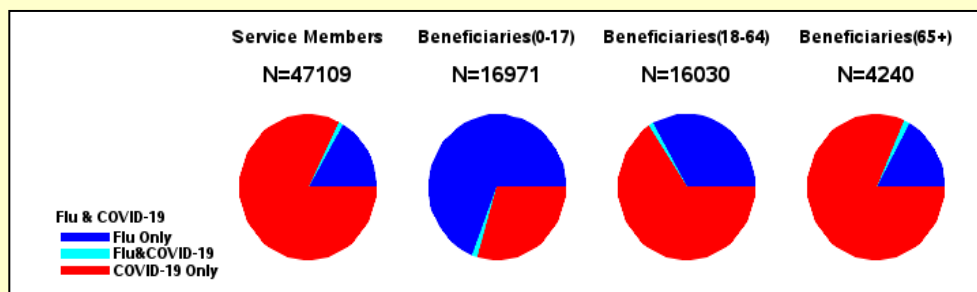
Number and Distribution of Influenza Positive Specimens since week 40, by Beneficiary Status and Serotype

- The number of laboratory-confirmed influenza positive specimens for the season was highest among beneficiaries (0-17 years), 11,973 cases, followed by service members (8,382 cases).
- Among subtyped specimens, influenza A (H3N2) predominated this season.

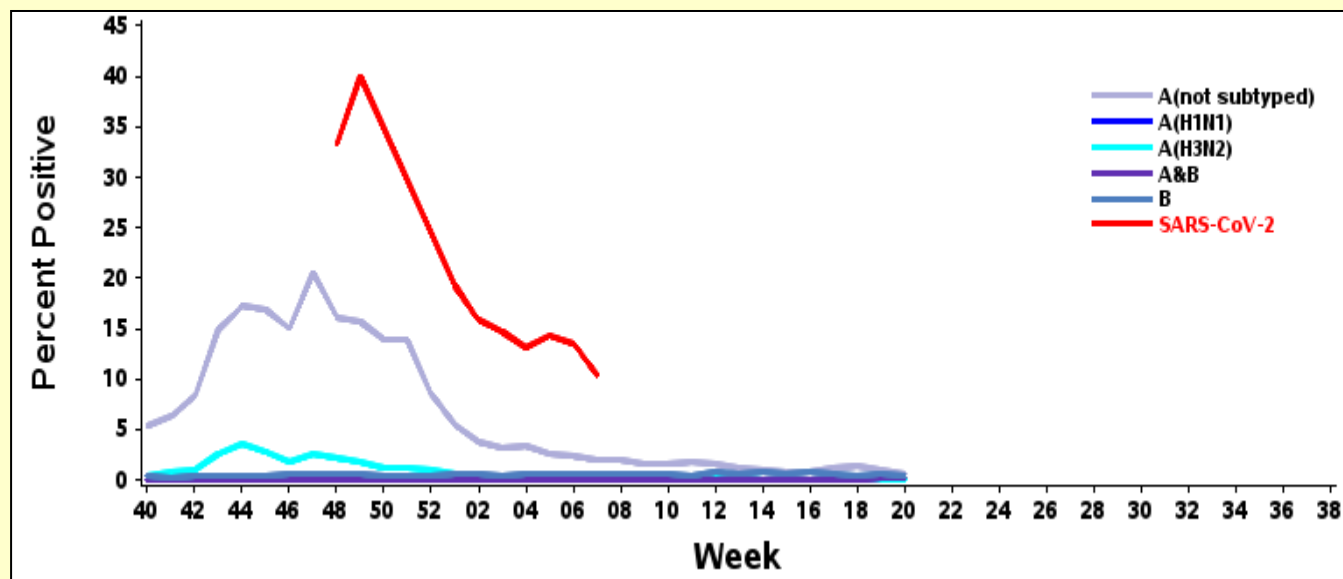


Number and Distribution of Influenza Positive Specimens and COVID-19 Cases since week 40, by Beneficiary Status

- COVID-19 cases predominated among all beneficiary categories, except among children, where influenza predominated for the season.



Percent of Specimens Positive for Influenza (by Serotype) or SARS-CoV-2

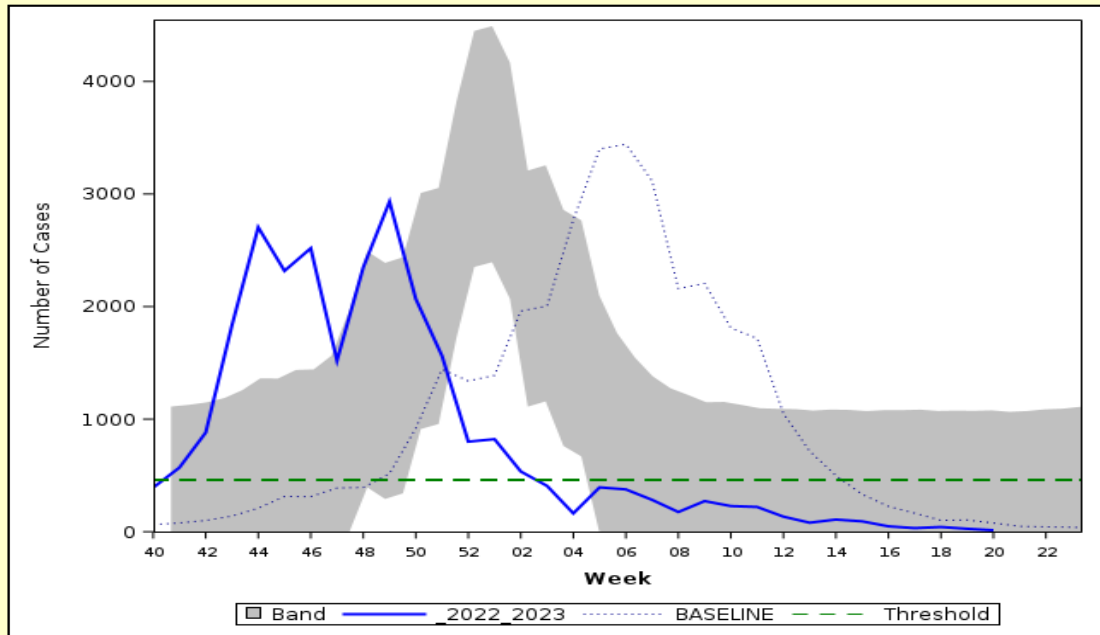


- The percent of specimens positive for SARS-CoV-2 was well above influenza for weeks with available data. Influenza percent positive peaked during week 47 and dropped off significantly in 2023.

Laboratory-Confirmed Influenza (2022-2023 Season Summary)

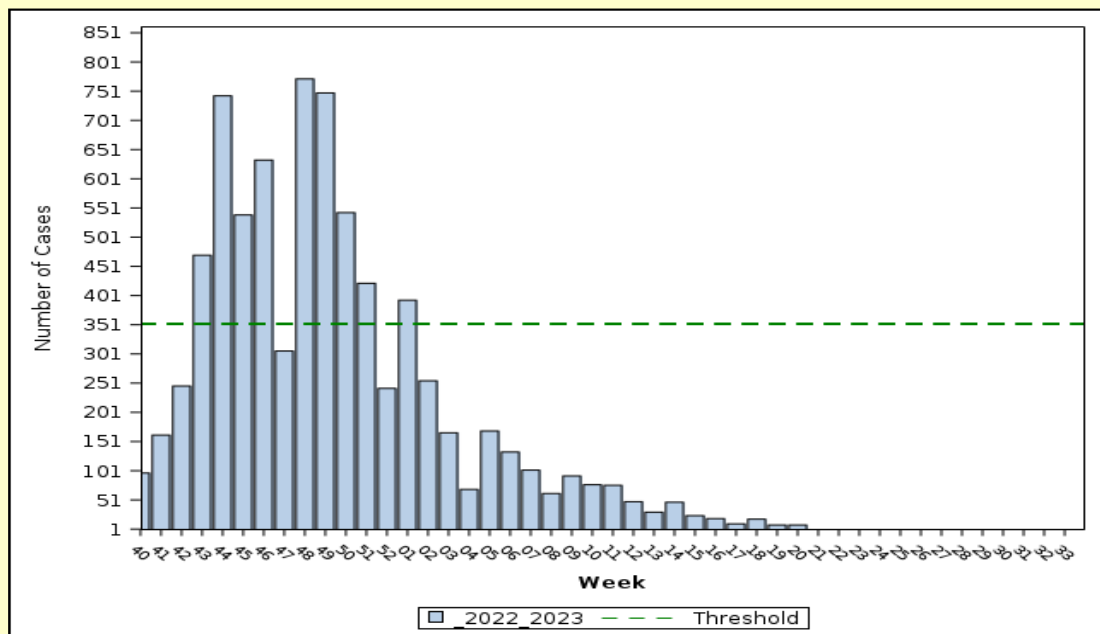
Laboratory-Positive Influenza Cases, All Beneficiaries

- The number of laboratory-confirmed influenza cases among all beneficiaries was above the baseline and threshold from the start of the season through week 51, when it dropped below the baseline. By week 03, the number was also below the threshold.
- Band indicates one standard deviation above and below seasonal baseline estimates. Threshold indicates two standard deviations above off-season average.



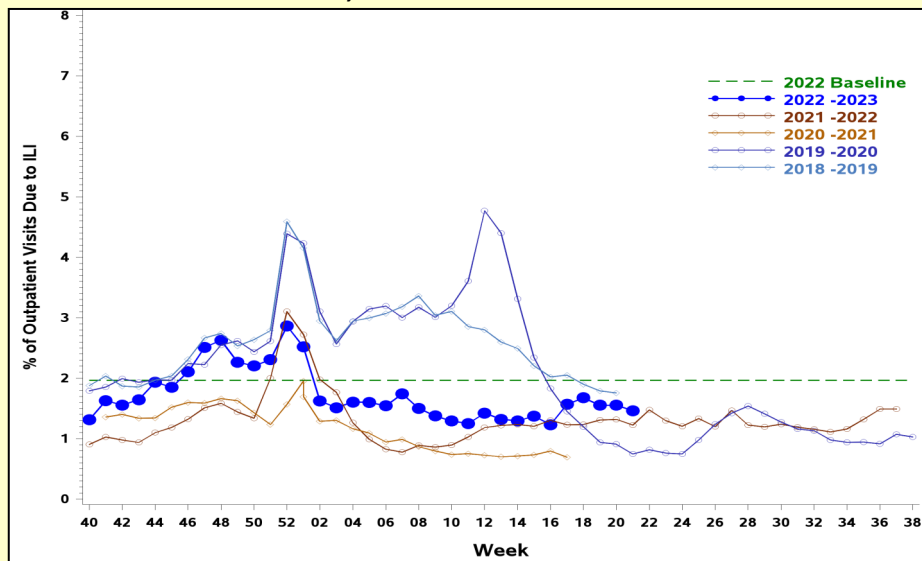
Laboratory-Positive Influenza Cases, Active Component Service

- The number of active component service member laboratory-confirmed influenza cases was above the threshold between weeks 43 to 01, with the exception of weeks 47 and 52.
- Threshold indicates two standard deviations above seasonal baseline estimates.



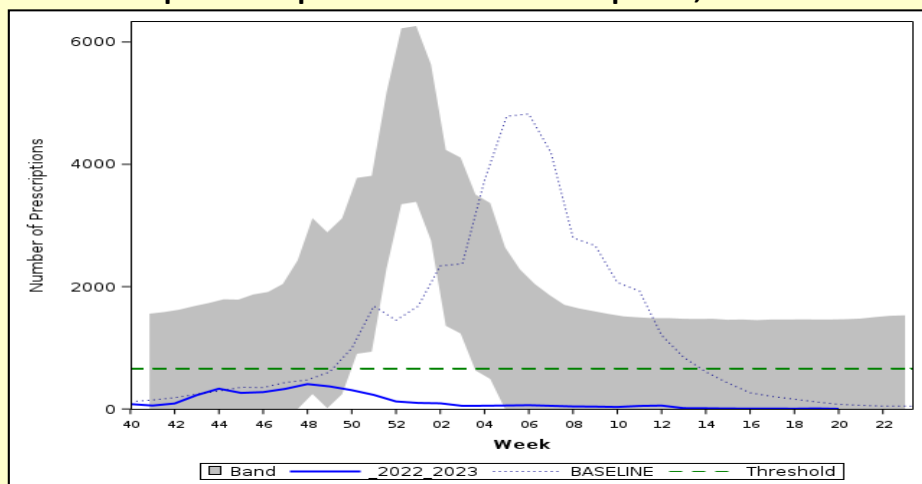
ILI and Dispensed Antiviral Prescriptions (2022-2023 Season Summary)

**Percent of Outpatient Visits Due to ILI:
Service Members, 2018-2019 to 2022-2023 Seasons**



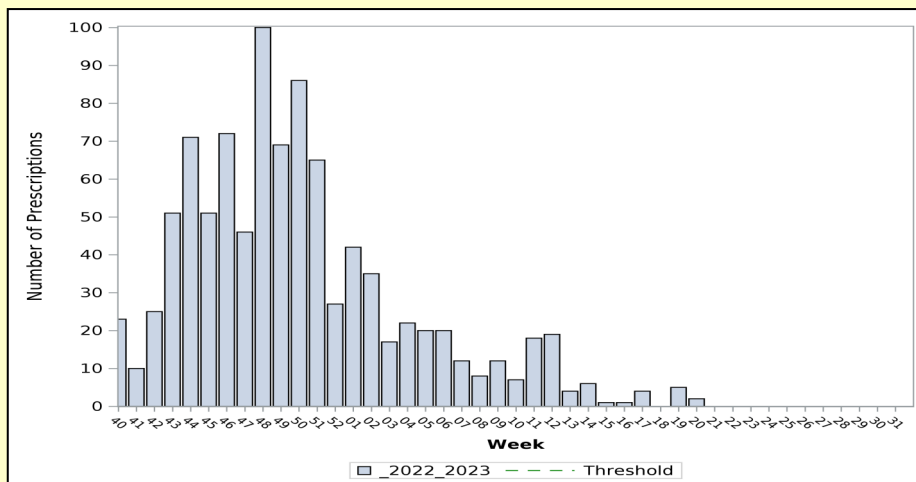
- The percentage of outpatient visits due to ILI was above the 2022 baseline between weeks 46 to 01.
- ILI activity was unique during the 2022-2023 season due to an early peak in activity during week 48 and then a significant drop by 2023.

Influenza-Specific Dispensed Antiviral Prescriptions, All Beneficiaries



- The number of influenza-specific dispensed antiviral prescriptions among all beneficiaries was low and below the baseline and threshold for the 2022-2023 season.
- Band indicates one standard deviation above and below seasonal baseline estimates. Threshold indicates two standard deviations above off-season average.

Influenza-Specific Dispensed Antiviral Prescriptions:

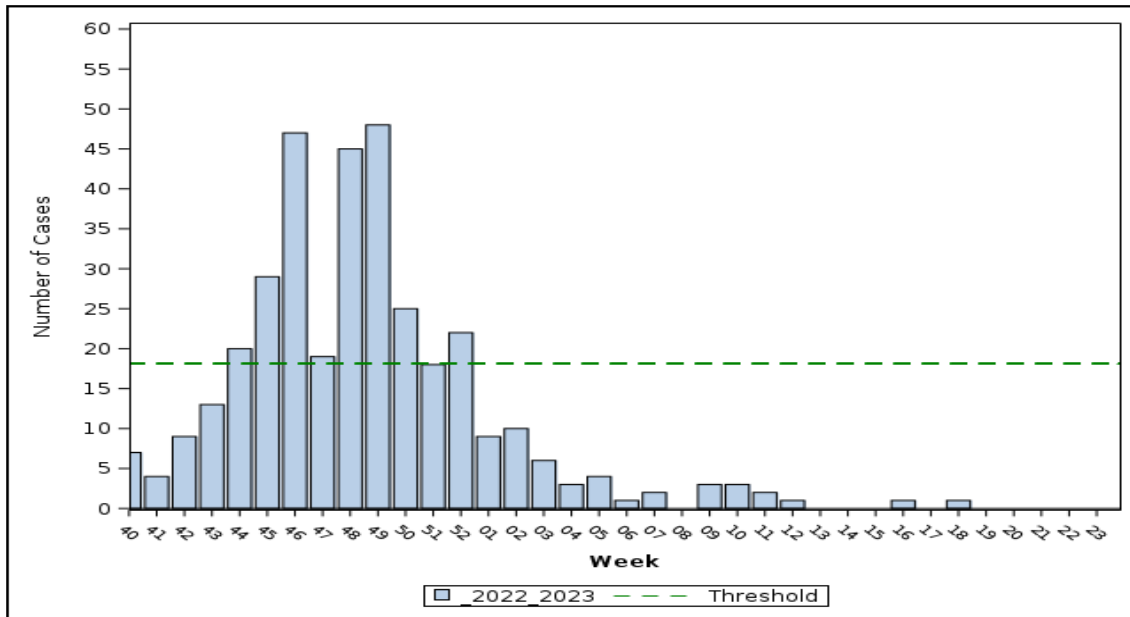


- The number of influenza-specific dispensed antiviral prescriptions among active component service members was highest in 2022 for the 2022-2023 season.
- Threshold indicates two standard deviation above the overall weighted average during the season. However, there is not enough data for the season to calculate the threshold for this metric.

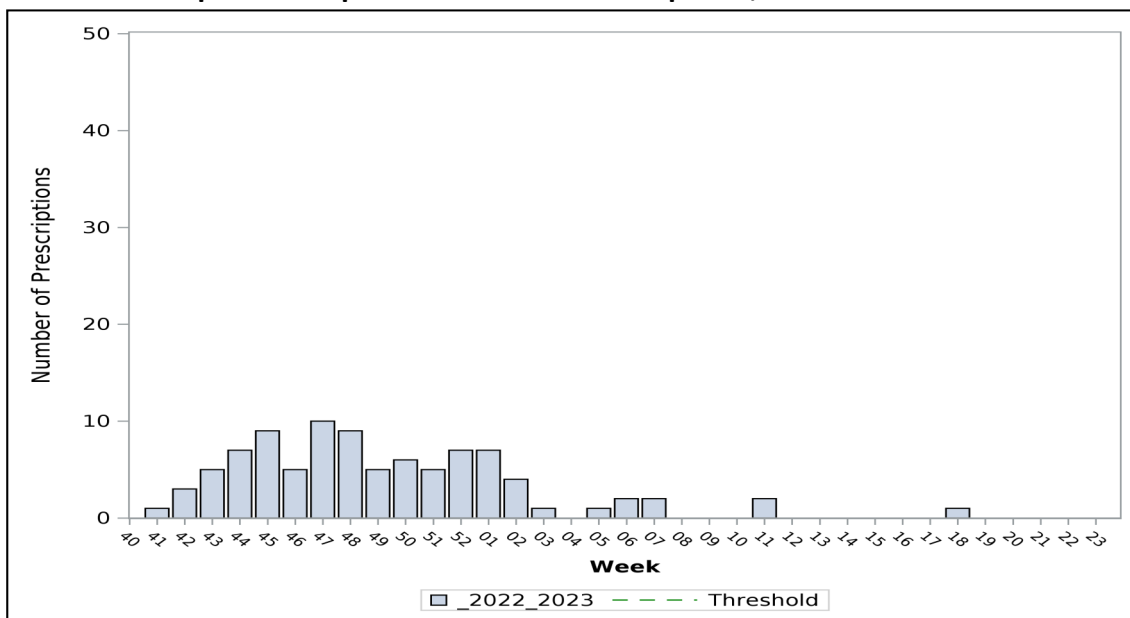
Severity: Hospitalized Influenza Metrics (2022 2023 Season Summary)

- There were a total of 348 (32 Service Members / 316 other beneficiaries) laboratory-confirmed influenza hospitalizations reported for the 2022-2023 season.
- Inpatient influenza-specific antiviral prescriptions were low during the season.
- Thresholds indicate one standard deviation above the overall weighted average during the season. However, there is not enough data for the season to calculate the threshold for the influenza-specific antiviral prescriptions metric.

Hospitalized Laboratory-Positive Influenza Cases, All Beneficiaries



Inpatient Dispensed Antivirals Prescriptions, All Beneficiaries



Confirmed Influenza and COVID-19 (2022 2023 Season Summary)

Season Totals: Laboratory-Confirmed Influenza and COVID-19 by Installation (All Beneficiaries)

USEUCOM

Country	Location	Service	Influenza					COVID 19
			A (not subtyped)	A (H1N1)	A (H3N2)	A & B	B	
Belgium	Shape	A	46	0	0	0	21	48
Germany	Barton Barracks	A	0	0	0	0	0	0
Germany	Landstuhl RMC	A	605	6	33	2	43	1338
Germany	Patch Barracks	A	0	0	0	0	0	0
Germany	Ramstein AB	F	9	5	35	0	7	100
Germany	Spangdahlem AB	F	4	0	4	0	0	121
Germany	USAG Bavaria	A	209	0	3	2	10	657
Germany	USAG Hohenfels/Amberg	A	18	0	0	2	2	12
Germany	USAG Kaiserslautern	A	5	0	0	0	0	9
Germany	USAG Katterbach	A	9	1	4	0	1	170
Germany	USAG Wiesbaden	A	4	2	24	0	5	261
Italy	Aviano AB	F	15	0	10	0	6	238
Italy	NAS Sigonella	N	18	5	29	0	5	79
Italy	NSA Naples	N	119	0	0	2	12	199
Italy	USAG Italy	A	138	2	4	0	5	251
Spain	NS Rota	N	35	0	0	0	8	87
Turkey	Incirlik AB	F	5	1	1	0	2	144
United Kingdom	RAF Alconbury	F	6	0	0	0	0	5
United Kingdom	RAF Croughton	F	2	0	0	0	0	5
United Kingdom	RAF Lakenheath	F	106	4	5	2	6	346

USINDOPACOM

Country	Location	Service	Influenza					COVID 19
			A (not subtyped)	A (H1N1)	A (H3N2)	A & B	B	
Guam	JB Andersen	J	172	1	51	0	1	530
Japan	CFA Okinawa	N	42	0	0	2	3	207
Japan	CFA Yokosuka	N	74	0	17	6	7	96
Japan	Camp Foster	N	3	0	0	0	0	36
Japan	Camp Fuji	N	0	0	0	0	0	21
Japan	Camp Zama	A	29	0	0	1	0	197
Japan	Kadena AB	F	11	0	5	1	3	48
Japan	MCAS Futenma	N	0	0	0	0	0	11
Japan	MCAS Iwakuni	N	56	0	0	4	1	124
Japan	Misawa AB	F	86	0	23	0	1	92
Japan	NAF Atsugi	N	67	0	0	1	0	71
Japan	NB Okinawa	N	70	0	0	2	1	246
Japan	USFA Sasebo	N	10	0	0	0	0	88
Japan	Yokota AB	F	62	1	1	1	2	154
Korea, Republic of	CFA Chinhae	N	0	0	0	0	0	0
Korea, Republic of	Camp Casey	A	3	0	0	0	0	40
Korea, Republic of	Camp Humphreys	A	6	0	0	0	0	22
Korea, Republic of	Camp Walker	A	58	0	0	3	2	188
Korea, Republic of	Kunsan AB	F	97	0	0	0	0	132
Korea, Republic of	Osan AB	F	207	0	0	0	0	417
Korea, Republic of	Yongsan Garrison	A	175	0	0	2	3	927
United States	Camp H M Smith	N	0	0	0	0	0	0
United States	Ft Shafter	A	186	5	62	0	3	1293
United States	JB Pearl Harbor-Hickam	J	22	1	2	2	8	319
United States	MCB Hawaii	N	32	0	0	0	4	41
United States	Schofield Barracks	A	127	0	2	0	1	86

USNORTHCOM Confirmed Influenza and COVID-19

(2022-2023 Season Summary)

Season Totals: Laboratory-Confirmed Influenza and COVID-19 (All Beneficiaries) by Installation Alaska through Georgia

Country	Location	Service	Influenza					COVID 19
			A (not subtyped)	A (H1N1)	A (H3N2)	A & B	B	
AK	Eielson AFB	F	27	0	0	0	0	60
AK	Ft Greely	A	13	0	0	0	0	1
AK	Ft Wainwright	A	206	0	0	1	4	243
AK	JB Elmendorf-Richardson	J	213	6	26	0	1	315
AL	Ft Rucker	A	28	0	0	0	15	95
AL	Maxwell AFB	F	93	0	0	0	1	242
AL	Redstone Arsenal	A	22	0	0	0	22	32
AR	Little Rock AFB	F	58	0	0	0	1	185
AZ	Davis-Monthan AFB	F	1	0	0	0	0	247
AZ	Ft Huachuca	A	44	0	0	0	0	63
AZ	Luke AFB	F	49	0	0	0	0	430
AZ	MCAS Yuma	N	41	0	0	0	0	26
CA	Beale AFB	F	18	0	0	0	5	272
CA	Camp Pendleton	N	640	0	1	0	8	1914
CA	Edwards AFB	F	5	0	0	0	0	199
CA	Ft Irwin	A	150	0	0	0	0	239
CA	Los Angeles AFB	F	1	0	0	0	0	8
CA	NAH Lemoore	N	6	4	49	0	2	148
CA	NB Coronado	N	3	2	14	0	2	0
CA	NB San Diego	N	44	45	671	0	19	2458
CA	NV Ventura County	N	15	0	0	0	1	2
CA	Travis AFB	F	113	3	21	0	3	481
CA	Twentynine Palms	N	107	0	1	0	4	350
CA	USAG Presidio of Monterey	A	4	2	15	0	0	280
CA	Vandenberg AFB	F	29	0	0	0	0	33
CO	Buckley AFB	F	16	0	0	0	0	86
CO	Ft Carson	A	629	0	1	10	72	1544
CO	Peterson AFB	F	61	0	0	0	1	69
CO	Schriever AFB	F	4	0	0	0	0	10
CO	USAF Academy	F	44	0	0	0	4	285
CT	NSB New London	N	49	0	0	5	8	143
DC	JB Anacostia-Bolling	F	13	0	12	0	1	64
DC	Pentagon	J	36	0	3	0	2	100
DC	Washington Navy Yard	N	1	0	0	0	0	15
DE	Dover AFB	F	85	4	14	0	2	309
FL	Eglin AFB	J	193	0	6	0	0	208
FL	Hurlburt Field	F	18	0	0	0	1	101
FL	Macdill AFB	F	31	0	0	0	3	100
FL	NAS Jacksonville	J	185	0	0	4	56	431
FL	NAS Key West	J	4	0	0	0	17	0
FL	NAS Pensacola	N	280	0	0	2	40	391
FL	NAS Whiting Field	N	24	0	0	0	1	4
FL	NS Mayport	J	16	0	0	0	8	15
FL	Patrick AFB	F	30	0	0	0	0	17
FL	Tyndall AFB	F	24	0	0	0	12	96
GA	Ft Benning	A	317	0	0	0	15	527
GA	Ft Gordon	A	385	0	0	2	1	1074
GA	Ft Stewart	A	199	0	0	0	3	347
GA	Hunter Army Airfield	A	39	0	1	0	1	7
GA	Moody AFB	F	78	0	0	0	0	198
GA	NAS Albany	J	78	0	0	0	3	0
GA	NSB Kings Bay	J	78	0	0	1	28	0
GA	Robins AFB	F	78	10	39	0	0	181

USNORTHCOM Confirmed Influenza and COVID-19

(2022-2023 Season Summary)

Laboratory-Confirmed Influenza and COVID-19 (All Beneficiaries) by Installation Idaho through New York

Country	Location	Service	Influenza					COVID 19
			A (not subtyped)	A (H1N1)	A (H3N2)	A & B	B	
ID	Mountain Home AFB	F	2	0	0	0	0	148
IL	NS Great Lakes	N	31	30	481	2	2	1164
IL	Rock Island Arsenal	A	0	0	0	0	0	7
IL	Scott AFB	F	2	25	70	0	1	106
KS	Ft Leavenworth	A	107	0	0	0	10	196
KS	Ft Riley	A	317	0	0	3	8	429
KS	McConnell AFB	F	66	0	0	0	0	151
KY	Ft Campbell	A	875	0	1	3	119	830
KY	Ft Knox	A	80	0	0	9	47	209
LA	Barksdale AFB	F	16	0	0	0	1	255
LA	Ft Polk	A	97	0	0	0	13	345
LA	NAS Belle Chase	N	8	0	0	0	3	0
MA	Hanscom AFB	F	2	0	8	0	2	39
MD	Aberdeen Proving Ground	A	22	0	0	2	4	111
MD	Ft Detrick	A	78	0	0	0	8	126
MD	Ft Meade	A	244	0	0	0	1	680
MD	JB Andrews	F	387	0	1	0	2	642
MD	NAS Patuxent River	N	60	0	0	1	0	83
MD	NBHC Bancroft Hall	N	136	0	0	0	2	78
MD	NHC Annapolis	N	50	1	0	0	2	79
MD	NSF Indian Head	N	14	1	2	3	0	45
MD	WRNMMC	J	467	18	95	0	6	1026
MO	Ft Leonard Wood	A	268	0	0	8	34	795
MO	Whiteman AFB	F	49	0	0	0	0	192
MS	Columbus AFB	F	8	0	0	0	0	18
MS	Keesler AFB	J	212	1	9	0	0	366
MS	NAS Meridian	N	18	0	0	1	5	4
MS	NBHC Gulfport	N	19	0	0	1	4	0
MT	Malmstrom AFB	F	26	0	0	0	0	207
NC	Camp Lejeune	N	252	0	3	0	11	1169
NC	Ft Bragg	J	1024	4	7	1	16	2264
NC	MCAS Cherry Point	N	107	0	0	0	46	197
NC	Pope Army Airfield	J	78	1	1	0	1	10
NC	Seymour Johnson AFB	J	62	0	0	0	20	231
ND	Grand Forks AFB	F	7	0	0	0	0	92
ND	Minot AFB	F	16	0	0	0	1	329
NE	Offutt AFB	F	23	0	0	0	0	71
NH	Portsmouth	N	10	0	0	0	1	7
NJ	JB McGuire-Dix-Lakehurst	F	117	1	3	1	1	157
NM	Cannon AFB	F	53	0	0	0	0	67
NM	Holloman AFB	F	54	0	0	0	0	94
NM	Kirtland AFB	F	22	0	0	0	0	129
NM	White Sands Missile Range	A	5	0	0	0	0	0
NV	Nellis AFB	F	373	7	37	0	14	944
NY	Ft Drum	A	107	2	32	0	3	790
NY	West Point	A	92	0	9	2	1	45

USNORTHCOM Confirmed Influenza and COVID-19

(2022-2023 Season Summary)

Laboratory-Confirmed Influenza and COVID-19 (All Beneficiaries) by Installation Ohio through Wyoming

Country	Location	Service	Influenza					COVID 19
			A (not subtyped)	A (H1N1)	A (H3N2)	A & B	B	
OH	Wright-Patterson AFB	F	446	24	36	0	2	882
OK	Altus AFB	F	50	0	0	0	0	119
OK	Ft Sill	A	337	0	0	1	28	690
OK	Tinker AFB	F	9	0	1	0	0	35
OK	Vance AFB	F	11	0	0	0	5	66
PA	Carlisle Barracks	A	31	0	0	0	1	4
PR	Ft Buchanan	A	19	0	0	0	1	91
RI	NHC New England	N	13	1	2	1	0	82
SC	Ft Jackson	A	136	0	0	4	24	245
SC	JB Charleston	J	69	0	0	0	0	206
SC	MCAS Beaufort	N	34	0	0	0	0	119
SC	Parris Island	N	59	0	0	0	19	36
SC	Shaw AFB	F	75	0	0	0	1	379
SD	Ellsworth AFB	F	47	0	0	0	5	186
TN	Ft Campbell	A	225	1	0	9	53	102
TN	NSA Mid-South	N	13	0	0	0	4	7
TX	Dyess AFB	F	47	0	0	0	14	161
TX	Ft Bliss	A	621	2	136	3	26	1582
TX	Ft Hood	A	439	16	66	17	51	1801
TX	Goodfellow AFB	F	43	0	0	0	3	131
TX	JB San Antonio	J	1718	29	51	4	27	3362
TX	Laughlin AFB	F	26	0	0	0	1	6
TX	NAS Corpus Christi	N	26	0	0	0	0	34
TX	NAS Kingsville	N	6	0	0	0	0	0
TX	Sheppard AFB	F	15	25	72	0	2	95
UT	Hill AFB	F	0	5	12	0	3	170
VA	Ft Belvoir	J	1480	7	44	25	182	970
VA	Ft Lee	A	307	0	0	5	10	227
VA	JB Langley-Eustis	J	624	5	37	1	5	849
VA	JB Little Creek-Ft Story	J	6	0	3	0	0	31
VA	JB Myer-Henderson Hall	A	7	3	8	0	1	57
VA	MCB Quantico	N	52	0	2	0	1	73
VA	NAS Oceana	N	25	14	28	1	0	19
VA	NB Dam Neck	N	2	3	2	0	0	6
VA	NS Norfolk	N	20	12	24	0	0	16
VA	NWS Dahlgren	N	4	0	0	2	0	21
VA	NWS Yorktown	N	20	1	3	0	0	10
VA	Portsmouth	N	235	34	195	12	9	592
VA	TPC Chesapeake	N	0	1	6	0	0	1
VA	TPC Suffolk	N	6	0	2	0	0	2
WY	FE Warren AFB	F	21	0	0	0	8	219

Surveillance Programs and Data Sources

Defense Health Agency / Armed Forces Health Surveillance Division (AFHSD):

The Armed Forces Health Surveillance Division (AFHSD) is the central epidemiologic resource for the U.S. Armed Forces, conducting medical surveillance to protect those who serve our nation in uniform and allies who are critical to our national security interests. The Epidemiology and Analysis Section of AFHSD, the Epi Data Center of the Defense Centers for Public Health—Portsmouth (DCPH-P), and the Defense Centers of Public Health—Dayton (DCPH-D) have compiled data for this report from the following sources below.

Influenza-like Illness Activity:

Medical encounter and demographic data from the AFHSD's Defense Medical Surveillance System (DMSS) are used to generate portions of this report. ICD-10 codes from outpatient encounters are used to identify influenza-like illness (ILI). ILI is defined using the following codes: B97.89, H66.9, H66.90, H66.91, H66.92, H66.93, J00, J01.9, J01.90, J06.9, J09, J09.X, J09.X1, J09.X2, J09.X3, J09.X9, J10, J10.0, J10.00, J10.01, J10.08, J10.1, J10.2, J10.8, J10.81, J10.82, J10.83, J10.89, J11, J11.0, J11.00, J11.08, J11.1, J11.2, J11.8, J11.81, J11.82, J11.83, J11.89, J12.89, J12.9, J18, J18.1, J18.8, J18.9, J20.9, J40, R05, R50.9.

The percentage of all outpatient visits that have an ILI code is calculated each week for all service members, regardless of component. These data are presented weekly for the current season and compared to the four prior seasons among service members. Influenza activity levels are calculated by comparing the mean reported percent of visits due to ILI for the previous two weeks to the mean reported percent of visits due to ILI during baseline weeks (defined as non-influenza weeks (weeks 22-39) over the past 3 years). Since the 2020-2021 and 2021-2022 influenza seasons were significantly reduced due to COVID-19 mitigation efforts, these seasons were excluded from the baseline calculations. The baseline weeks for the 2022-2023 report are from the years 2018, 2019, and 2020. There are four influenza activity levels, minimal, low, moderate, and high. The activity level corresponds to the number of standard deviations (SD) below, at or above the mean for the current 2 week period compared to the mean of the baseline weeks. Minimal activity corresponds to an influenza percentage that is less than 2 SD above the mean. Low activity corresponds to an influenza percentage that is equal to or greater than 2 SD above the mean, but less than 4 SD above the mean. Moderate activity corresponds to an influenza percentage that is equal to or greater than 4 SD above the mean, but less than 6 SD above the mean. High activity corresponds to an influenza percentage that is equal to or greater than 6 SD above the mean.

Influenza activity levels are presented in the Geographic Combatant Command (GCC) maps, either by Installation, state, or country.

Influenza Positive Specimens:

Influenza lab results (HL-7 formatted data) are compiled and transmitted from the DCPH-P to AFHSD. Results obtained via PCR, viral culture, and rapid influenza assays are reported. Although the inclusion of rapid tests may underestimate the weekly and cumulative percent positive estimates due to false negatives, visibility of the positive rapid results provides valuable information for this surveillance report. Influenza types/subtypes are categorized as influenza A/not subtyped, influenza A(H1N1), influenza A(H3N2), influenza A and B co-infection, and influenza B. Additionally, laboratory-confirmed positive results are used to identify influenza-related hospitalization cases across the DoD.

The percent positivity is calculated by dividing the number of influenza positive specimens by the total number of specimens (positive and negative only; inconclusive results are excluded). The distributions of percent positive specimens by subtype are presented on a weekly basis for the entire influenza season. The distribution of subtypes for the previous 2 weeks are presented as pie graphs for states and countries. For installations, data are presented in tables with counts and percent positive by subtype for the past 2 weeks and for the entire season. The "change from last report" column reports the absolute difference in the percent positive from the prior week's report to the current week's report.

Surveillance Programs and Data Sources

COVID-19 Cases:

COVID-19 case data are compiled from the COVID-19 positive lab results (HL-7 formatted data) and cases reported in the DRSI. The percent positivity calculation is restricted to only COVID-19 cases reported through the lab data so that an accurate denominator can be obtained. The percent positivity is calculated by dividing the number of COVID-19 positive specimens by the total number of specimens tested for COVID-19. For installations, COVID-19 case data are presented in tables with case counts for the past 2 weeks and for the entire influenza season (Week 40 to current). The “change from last report” column reports the absolute difference in the number of COVID-19 case counts from the prior week’s report to the current week’s report.

Pharmacy Transactions for Dispensed Influenza Antiviral Prescriptions:

HL7-formatted pharmacy transactions are used to assess the number of dispensed influenza antiviral (AV) prescriptions. Four influenza AV medications approved by the Food and Drug Administration (FDA) are recommended by the CDC for use in the United States (US) for the 2022-2023 influenza season: oral oseltamivir (Tamiflu® or generic), inhaled zanamivir (Relenza®), and intravenous peramivir (Rapivab®), and baloxavir marboxil (Xofluza®). These prescriptions are included in this surveillance. The overall count of dispensed AV prescriptions by week is presented graphically for the influenza season. A seasonal baseline is displayed with dispensed AV prescriptions. Surveillance thresholds are displayed with the count of inpatient dispensed AV prescriptions. Additionally, counts of inpatient dispensed influenza AV prescriptions are presented weekly for the influenza season.

Influenza Baselines, Thresholds, and Trends:

Weekly baselines used a three-year average to compare results with those from the same week during the previous three seasons. Since the 2020-2021 and 2021-2022 influenza seasons were significantly reduced due to COVID-19 mitigation efforts, these seasons were excluded from the baseline calculations. The baseline calculations used the 2017-2018, 2018-2019, and 2019-2020 season data. Bands for one and two standard deviations above seasonal baseline estimates are displayed to indicate when trends diverge with respect to timing or volume from those of recent seasons. The ILI, lab, and dispensed AV prescription data thresholds are calculated by adding two standard deviations to the off-season average.

Inpatient thresholds (lab and dispensed AV prescription data) are calculated by adding one standard deviation to the overall weighted average for in-season weeks. Weeks that represent at least 2% of the total season’s laboratory-positive influenza cases for at least two consecutive weeks was considered to be “in-season” or influenza weeks; all other weeks are considered to be “off-season” or non-influenza weeks.

Links to Service-Specific Influenza Reports:

Select the following links to see service-specific influenza surveillance weekly reports:

- Defense Centers for Public Health—Portsmouth (DCPH-P):
<https://www.med.navy.mil/Navy-Marine-Corps-Public-Health-Center/Population-Health/Epi-Data-Center/Diseases-Conditions-and-Infections/Influenza/>