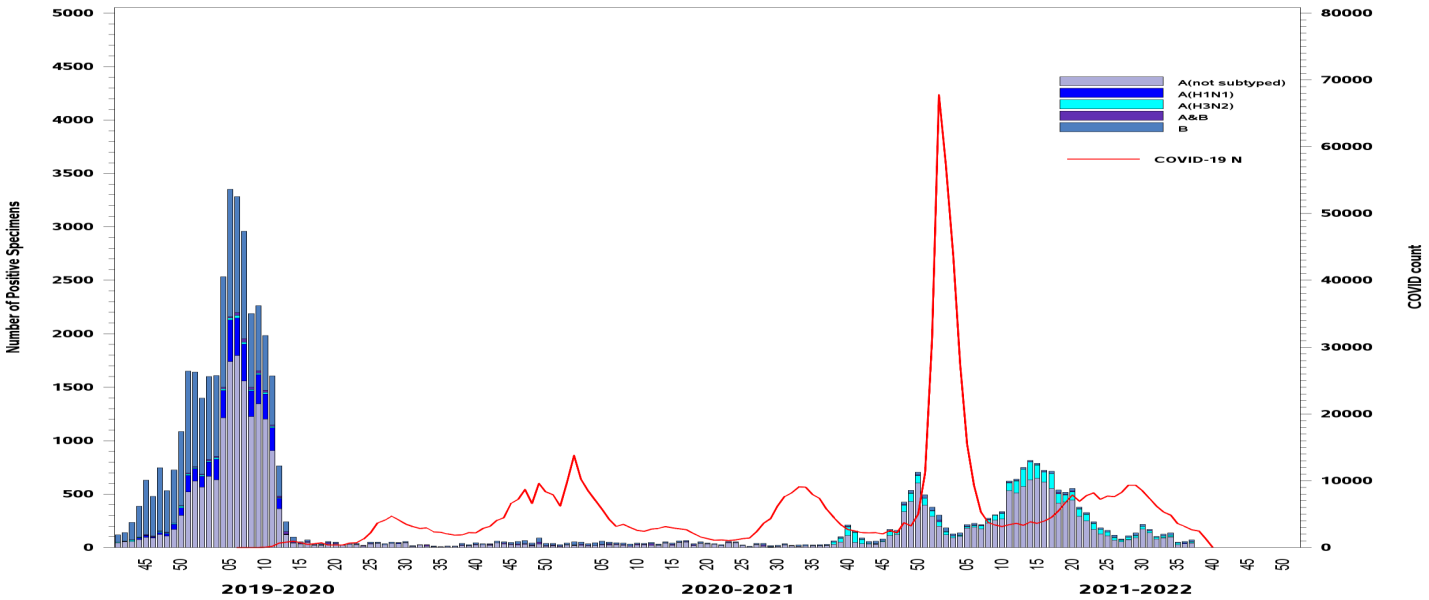
DoD Consolidated Influenza Surveillance Report
2021-2022 Season Summary

One Page Summary: Season Highlights

- Influenza activity remained much lower during the 2021-2022 influenza season compared to typical influenza seasons prior to the COVID-19 pandemic. However, this season was significantly higher than the 2020-2021 season when many COVID-19 mitigation measures were in place.
- The 2021-2022 influenza season was bi-modal with a peak at week 50 and another higher peak at week 14.
- COVID-19 cases continued to dominate the season, accounting for a significantly larger number of cases than influenza.
- There were a total of 107 (40 Service Members / 67 other beneficiaries) laboratory-confirmed influenza hospitalizations reported for the 2021-2022 season.

Influenza Surveillance Indicators (2021-2022 season)

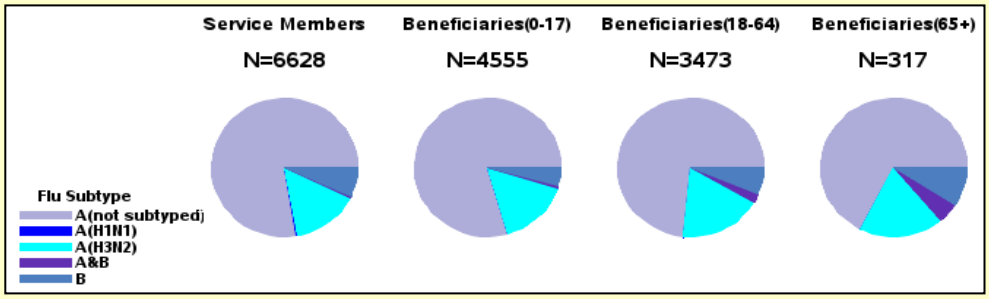
All Beneficiaries	Total Per Week	Trend	Activity Level
Laboratory Cases	71	▲	Low
Dispensed Antivirals	23	◄►	Low
Severity			**Activity Level**
Inpatient Laboratory Cases	1	◄►	Low
Inpatient Dispensed Antivirals	2	◄►	Low
Active Component			**Activity Level**
Laboratory Cases	26	◄►	Low
Dispensed Antivirals	3	◄►	Low
ILI Outpatient Visits	1%	◄►	Minimal



Confirmed Influenza and COVID-19 Cases (2021-2022 Season)

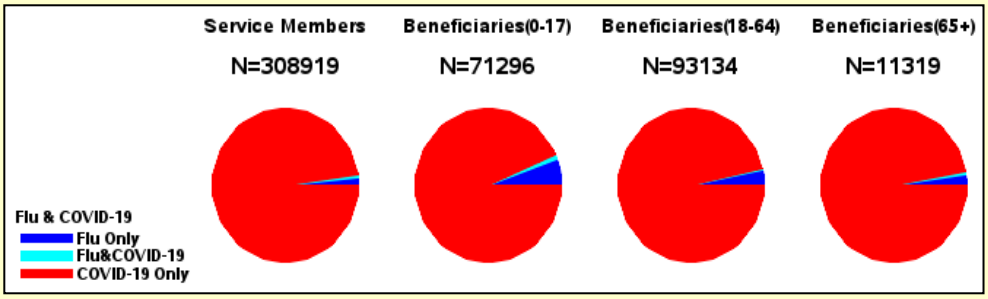
Number and Distribution of Influenza Positive Specimens since week 40, by Beneficiary Status and Serotype

- **The number of laboratory-confirmed influenza positive specimens for the season was lower than pre-COVID-19 pandemic seasons.**
- **Among influenza A subtyped specimens, influenza A (H3N2) predominated the season.**

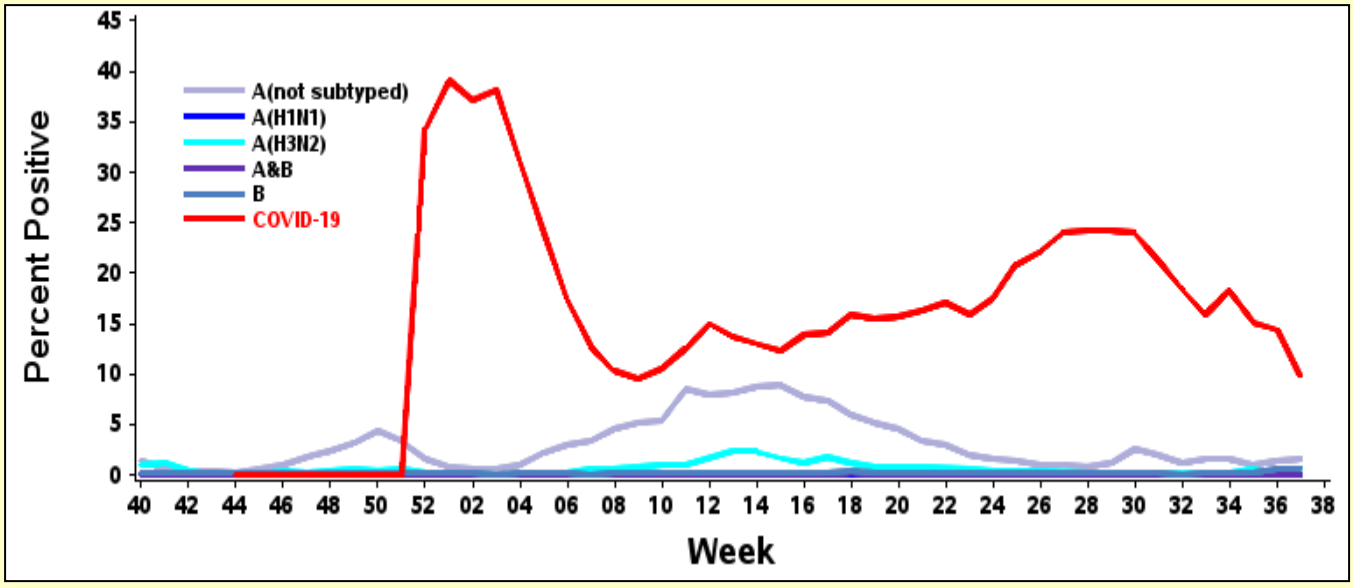


Number and Distribution of Influenza Positive Specimens and COVID-19 Cases since week 40, by Beneficiary Status

- **COVID-19 predominated over influenza cases among all beneficiary categories. Beneficiaries aged 0-17 had the highest proportion of positive influenza specimens compared to the other beneficiary categories for the 2021-2022 influenza season.**



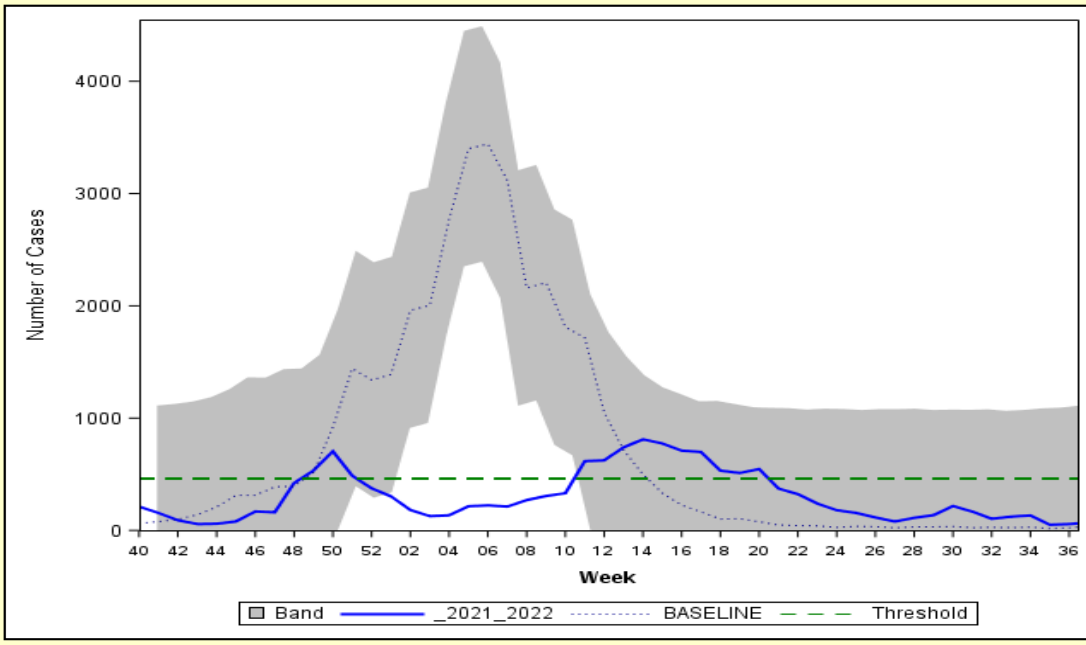
Percent of Specimens Positive for Influenza (by Serotype) or COVID-19



- **The percent of specimens positive for influenza A (not subtyped) was higher than other subtypes for the 2021-2022 season. The percent of specimens positive for SARS-CoV-2 remained significantly higher than influenza positive specimens throughout the season.**

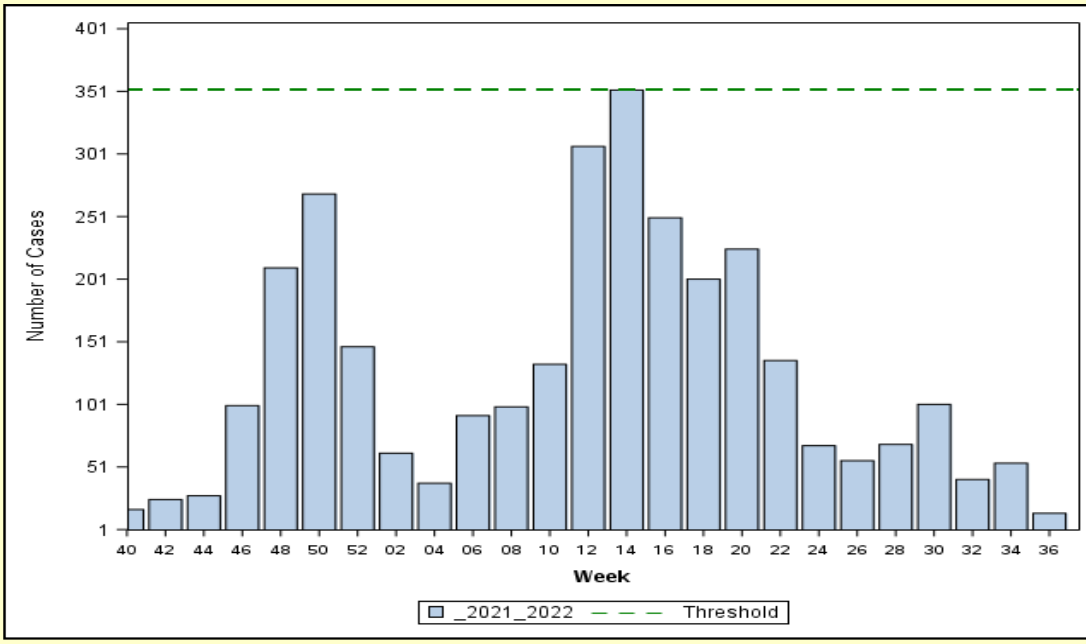
Laboratory-Confirmed Influenza (2021-2022 Season)

Laboratory-Positive Influenza Cases, All Beneficiaries



- **The number of laboratory-confirmed influenza cases among all beneficiaries was lower than a typical season, but did go above the threshold during weeks 49-51 and again from weeks 11-20. The number of cases remained higher than baseline from weeks 14 to the end of the season.**
- **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 Members

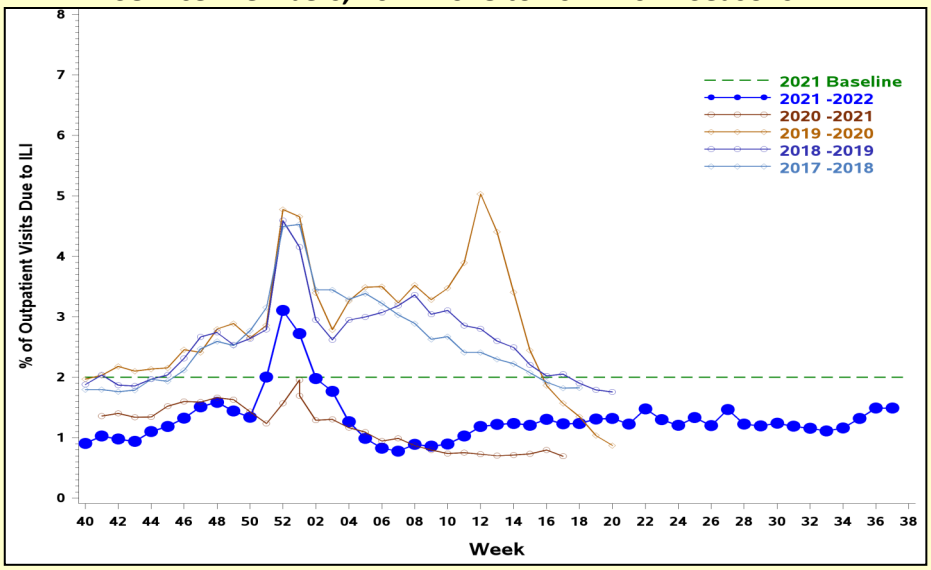


- **The number of active component Service Member laboratory-confirmed influenza cases remained lower than the threshold for the entire 2021-2022 season.**
- **Threshold indicates two standard deviations above seasonal baseline estimates.**

ILI and Dispensed Antiviral Prescriptions (2021-2022 Season)

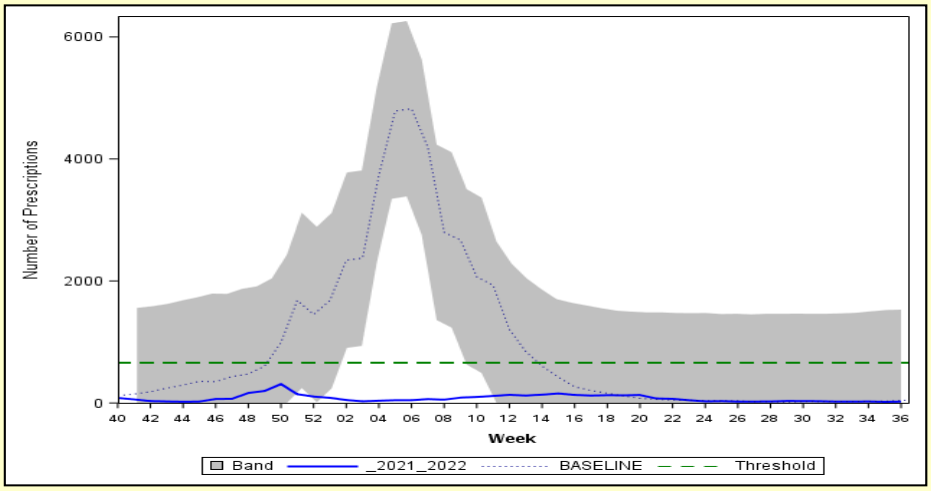
- The percentage of outpatient visits due to ILI was lower than all prior seasons except for the 2020-2021 season.
- COVID-19 mitigation efforts are likely contributing to the lower than normal number of ILIs.

Percent of Outpatient Visits Due to ILI: Service Members, 2017-2018 to 2021-2022 Seasons



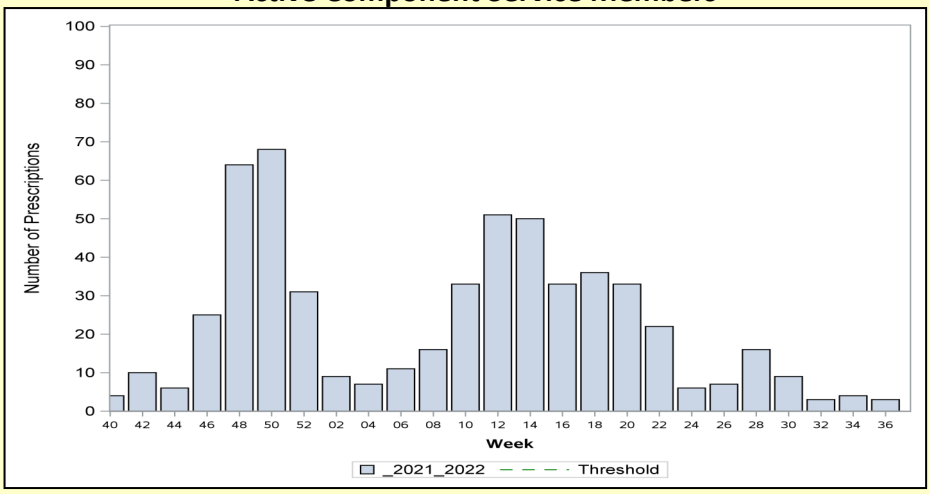
- Influenza-specific dispensed antiviral prescriptions among all beneficiaries remained low and below the threshold for the 2021-2022 season.
- Band indicates one standard deviation above and below seasonal baseline estimates. Threshold indicates two standard deviations above off-season average.

Influenza-Specific Dispensed Antiviral Prescriptions, All Beneficiaries



- The number of influenza-specific dispensed antiviral prescriptions among active component Service Members remained low throughout the 2021-2022 season.

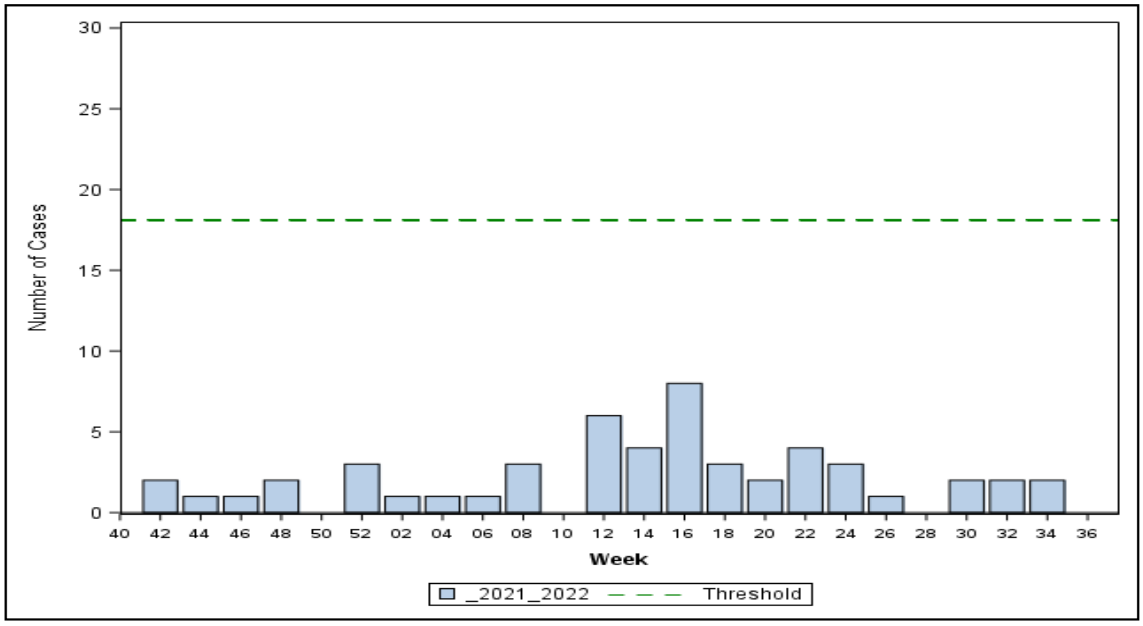
Influenza-Specific Dispensed Antiviral Prescriptions: Active Component Service Members



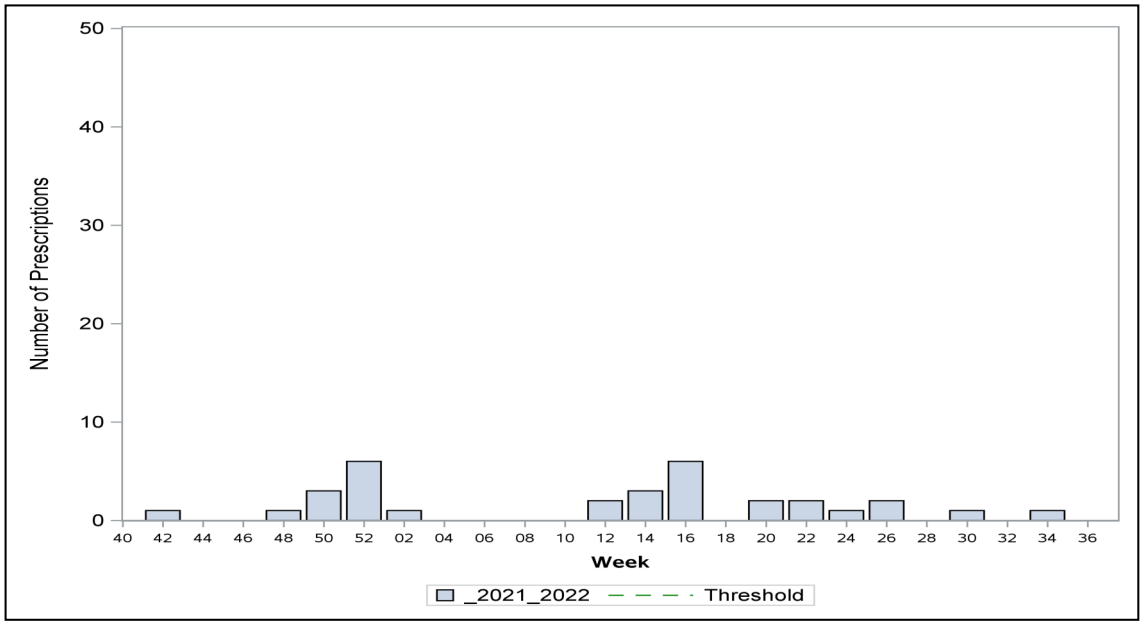
Severity: Hospitalized Influenza Metrics (2021-2022 Season)

- There were a total of 107 (40 Service Members / 67 other beneficiaries) laboratory-confirmed influenza hospitalizations reported for the 2021-2022 season.
- Hospitalizations occurred throughout the 2021-2022 season with peak numbers of hospitalizations occurring between weeks 12-16.
- 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



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 Navy and Marine Corps Public Health Center, and the Air Force Satellite Office in Dayton, Ohio (Wright-Patterson AFB) 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 influenza season was nearly non-existent due to COVID-19 mitigation efforts, this season was excluded from the baseline calculations The baseline weeks for the 2021-2022 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 Combatant Command (CCMD) maps, either by Installation, state, or country.

Influenza Positive Specimens:

Influenza lab results (HL-7 formatted data) are compiled and transmitted from the Navy and Marine Corps Public Health Center 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. For each CCMD state, 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 2019-2020 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 influenza season was nearly non-existent due to COVID-19 mitigation efforts, this season was 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:

- Navy and Marine Corps Public Health Center (NMCPHC):
  https://www.med.navy.mil/Navy-Marine-Corps-Public-Health-Center/Population-Health/Epi-Data-Center/Diseases-Conditions-and-Infections/Influenza/
- United States Air Force School of Aerospace Medicine (USAFSAM)/Defense Health Agency (DHA):
  To access the Air Force weekly influenza reports, an AFNet account is required. Anyone with a CAC can request access to AFNet at: https://epi.afds.af.mil/nonaf