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Alaska Influenza Surveillance Summary, 2021–22 Season

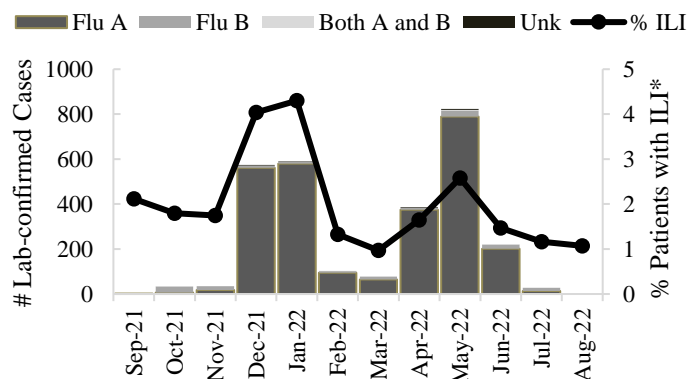
Background

The Alaska Section of Epidemiology (SOE) conducts routine influenza surveillance throughout the year, with heightened surveillance occurring October through May. Influenza surveillance provides information on where influenza activity is happening, tracks influenza-related illness (ILI) and mortality, and detects changes in the viral genome. Weekly surveillance reports are posted on the SOE influenza webpage.¹ The purpose of this *Bulletin* is to provide an epidemiologic summary of the 2021–22 influenza season.

Alaska 2021–22 Influenza Activity

During the 2021–22 season in Alaska, prevention and control measures for SARS-CoV-2 continued to impact influenza and other respiratory disease surveillance, resulting in a season with fewer cases compared to before the COVID-19 pandemic (Figure). Influenza A and B viruses were seen simultaneously throughout the season (Figure). Seasonal influenza activity is difficult to predict. Surveillance is necessary for tracking influenza activity, monitoring circulating strains, and facilitating prompt response to outbreaks in high-risk settings.

Figure. Positive Influenza Laboratory Tests (PCR and Rapid), Emergency Department Syndromic Surveillance, and Outpatient ILI Reports — Alaska, September 2021–August 2022



*Proportion of patients seen in an emergency department who had influenza-like illness (ILI).

Laboratory Surveillance

Alaska implements a sentinel surveillance system for respiratory viruses annually, which attempts to strategically characterize specimens that represent Alaska's vast geography and dispersed population. There were 1,060 specimens tested for influenza at the Alaska State Virology Laboratory (ASVL) during the 2021–22 respiratory season. A subset of those specimens (n=35) was sent to the Centers for Disease Control and Prevention (CDC) for genomic sequencing and antigenic typing. Another subset of respiratory samples (n=21) was sent to New York-Wadsworth for pyrosequencing and antiviral resistance testing.

Influenza A/H3 dominated the 2021–22 season. Further characterization determined these viruses were antigenically distinct from the vaccine component for the 2021–22 season. Influenza B viruses were well matched to the vaccine except for one B/Victoria strain (B/Washington /02/2019-like LOW), which demonstrated lower affinity to antibodies produced by the vaccine in laboratory experiments. No antiviral resistance was detected.

Alaska clinicians play a crucial role in helping to characterize influenza activity statewide by performing rapid flu tests on patients in clinics and multiplex testing on patients in hospitals.

Outpatient Surveillance

SOE participates in the United States Outpatient Influenza-like Illness Surveillance Network (ILINet). Data from participating outpatient providers in Alaska are pooled to create a statewide estimate for the weekly percentage of health care visits that are due to influenza-like illness (ILI). Patients presenting with a fever of $\geq 100^{\circ}\text{F}$ and a cough or sore throat are considered to have ILI. For more information on state and national ILINet data, see [FluView Interactive](#). While ILI activity is less specific than laboratory-confirmed influenza, the two surveillance systems usually match well.

Influenza-Associated Mortality

During the 2021–22 season, nine adult and no pediatric influenza-associated deaths were identified from clinician reports, hospitals, and Alaska death certificate reviews.

Vaccine coverage

Based on VacTrAK data,⁴ influenza immunization coverage during the 2021–22 season was 25% among Alaskans aged 18+ years. This is considerably lower than prior seasons but consistent with national estimates.⁵

Summary

Compared to 2020–21, the 2021–22 influenza season saw a substantial increase in influenza activity compared to the previous season, albeit still less than historic levels. ILI activity was highest during December–January. Preliminary vaccine effectiveness against medically-attended influenza A(H3N2) for 2021–22 was estimated to be 35%.⁶

Recommendations

1. Clinicians should urge all eligible patients aged ≥ 6 months to receive influenza vaccine annually by the end of October. Influenza vaccine is the most effective tool we have to prevent influenza-associated morbidity and mortality.
2. Clinicians can submit respiratory specimens from patients with ILI to ASVL for influenza testing; supplies can be obtained for free by calling 907-371-1000. Laboratory request forms are available at: <https://health.alaska.gov/dph/Labs/Documents/publication/s/Virologytestreq.pdf>
3. Laboratories must report all positive influenza test results (including rapid test results) to SOE per 7 AAC 27.007. Laboratories are also encouraged to report the total number of tests performed and the number of positive results directly to CDC to help meet Alaska's National Respiratory and Enteric Virus Surveillance System goals.³ Call ASVL at 907-371-1000 for more information.
4. Health care providers must report suspected and confirmed influenza-associated deaths and unusual clusters of respiratory illness to SOE (call 907-269-8000 during business hours, or 800-478-0084 after hours).

References

1. Alaska SOE Influenza Surveillance Data. Available at: <https://health.alaska.gov/dph/Epi/id/Pages/influenza/data.aspx>
2. CDC Criteria for Selecting Influenza Specimens for Referral. See: http://www.aphl.org/programs/infectious_disease/influenza/Document/s/ID_2013July_Laboratory-Testing-Implementation-Guidance.pdf
3. CDC. The National Respiratory and Enteric Virus Surveillance System. Available at: <https://www.cdc.gov/surveillance/nrevss/index.html>
4. Alaska Flu Vaccination Dashboard. Last updated July 13, 2022.
5. CDC. FluVaxView. Influenza Vaccination Coverage. Available at: <https://www.cdc.gov/flu/fluview/interactive-general-population.htm>
6. CDC. Interim US Flu Vaccine Effectiveness (VE) Data for 2021–2022. Available at: <https://www.cdc.gov/flu/vaccines-work/2021-2022.html>