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## Alaska Influenza Surveillance Summary, 2015–16 Season

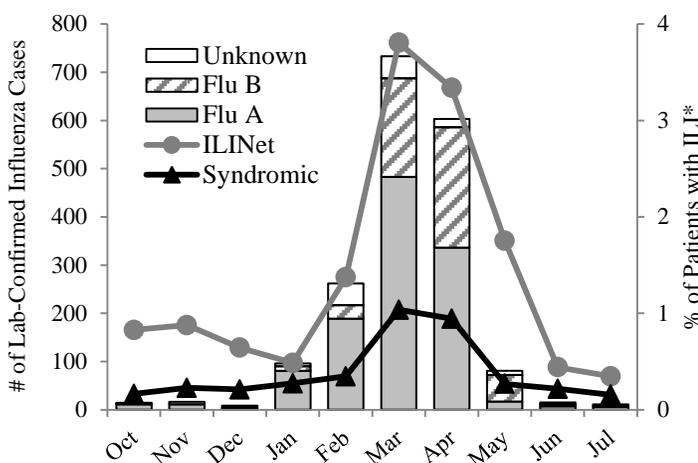
### Background

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 and associated mortality, identifies which viruses are circulating, and detects changes in those viruses. Weekly surveillance reports are posted on the SOE influenza webpage.<sup>1</sup> The purpose of this *Bulletin* is to characterize the epidemiology of the 2015–16 influenza season by providing a surveillance data summary.

### Alaska 2015–16 Influenza Activity

Sporadic influenza activity occurred in Alaska during the early winter months, and gradually increased in early 2016 with peak activity occurring in March and April, and declining thereafter. Influenza A(H1N1) viruses predominated earlier in the season; influenza A(H3N2) and influenza B viruses were detected more frequently later in the season (Figure).

**Figure. Influenza Laboratory (PCR and Rapid Tests), Emergency Department Syndromic Surveillance, and Outpatient ILI Reports — Alaska, Oct 2015–Jul 2016**



\*The proportion of patients—whether seen in an outpatient clinic (ILINet) or in an emergency department (Syndromic)—that had ILI.

### Laboratory Surveillance

A subset of ASVL's respiratory samples (n=38) were sent to the Centers for Disease Control and Prevention (CDC) for further characterization, per specific CDC criteria.<sup>2</sup> Nationally and in Alaska, the majority of influenza A and influenza B isolates were well matched to the 2015–16 influenza vaccine.<sup>3</sup> All 31 specimens selected for susceptibility testing were found to be susceptible to the antiviral medications oseltamivir, zanamivir, and peramivir. ASVL publishes a weekly report that contains PCR data (i.e., A vs. B and hemagglutinin type) as well as antigenic characterization data from CDC.<sup>4</sup>

### Influenza-Associated Mortality

During the 2015–16 season, seven adult influenza-associated deaths were reported by health care providers or identified through a search of Alaska Bureau of Vital Statistics death

certificates by ICD-10 codes. No pediatric influenza-associated mortalities were identified.

### Outpatient Surveillance

Outpatient influenza-like illness (ILI) surveillance through ILINet has been an important component of Alaska influenza surveillance since 1997.<sup>5</sup> During the 2015–16 season, eight health care providers statewide participated in weekly outpatient ILINet reporting. ILINet activity consistently mirrored trends in influenza laboratory reporting.

During the 2015–16 influenza season, SOE also began using syndromic surveillance data from 10 hospital emergency departments that sent ILI data to the Alaska health information exchange (HIE). ILI syndromic surveillance involves using clinical data systems to monitor disease indicators, such as fever and cough, in near real-time to monitor regional trends in influenza activity. The Alaska syndromic data consistently matched laboratory and ILINet trends.

### Recommendations

1. Health care providers should strongly urge all eligible patients aged  $\geq 6$  months to receive influenza vaccine every year as soon as it becomes available. Influenza vaccine is the most effective tool available to prevent influenza-associated morbidity and mortality.
2. Providers should submit respiratory specimens from patients with ILI to ASVL; respiratory testing supplies can be obtained free of charge by calling 907-371-1000. Laboratory request forms are available at: <http://www.dhss.alaska.gov/dph/Labs/Documents/publications/FbxSupplyReq.pdf>
3. Laboratories must report all positive influenza test results (including rapid test results) to SOE, as specified in Alaska Administrative Code (7 AAC 27.007).
4. Health care providers must report suspected and confirmed influenza-associated deaths and clusters of respiratory illness to SOE by calling 907-269-8000 during business hours, or 1-800-478-0084 after hours.
5. Health care providers interested in participating in outpatient influenza surveillance should contact the SOE Influenza Coordinator at 907-269-8000.
6. Hospitals interested in participating in syndromic surveillance via the HIE should contact the Alaska eHealth Network (available at: [www.ak-ehealth.org](http://www.ak-ehealth.org)).

### References

1. Alaska SOE Influenza Surveillance Report. Available at: <http://dhss.alaska.gov/dph/Epi/id/Pages/influenza/fluiinfo.aspx>
2. CDC Criteria for Selecting Influenza Specimens for Referral. See: [http://www.cdc.gov/ncidod/diseases/influenza/ID\\_2013July\\_Laboratory-Testing-Implementation-Guidance.pdf](http://www.cdc.gov/ncidod/diseases/influenza/ID_2013July_Laboratory-Testing-Implementation-Guidance.pdf)
3. CDC. Influenza activity — United States, 2015–16 season and composition of the 2016–17 influenza vaccine. *MMWR* 2016;65(22):567-75. Available at: <http://www.cdc.gov/mmwr/volumes/65/wr/mm6522a3.htm>
4. Alaska State Virology Laboratory Week Report. Available at: <http://dhss.alaska.gov/dph/Labs/Pages/asvl.aspx>
5. Alaska SOE *Bulletin*. "Influenza Surveillance Update and New Laboratory Guidelines." No. 7, March 12, 2010. Available at: [http://www.epi.alaska.gov/bulletins/docs/b2010\\_07.pdf](http://www.epi.alaska.gov/bulletins/docs/b2010_07.pdf)

**Table. Characterization of Specimens Submitted from ASVL to CDC — Alaska, October 2015 through August 2016**

| # of Samples Tested | Results   | Subtype                               | Covered in the Northern Hemisphere 2016–17 Vaccine? | Covered in the Northern Hemisphere 2015–16 Vaccine? |
|---------------------|-----------|---------------------------------------|---|---|
| 11 A (H1N1)         | 11 (100%) | A/CALIFORNIA/07/2009-LIKE (H1N1)pdm09 | Yes   | Yes   |
| 12 A (H3N2)         | 10 (83%)  | A/SWITZERLAND/9715293/2013-LIKE       | No  | Yes   |
|                     | 2 (17%)   | A/HONG KONG/4801/2014-LIKE            | Yes   | No  |
| 9 B                 | 9 (100%)  | B/PHUKET/3073/2013-LIKE               | Yes (quadrivalent)                                  | Yes   |