State of Alaska Epidemiology **Bulletin**

**Department of Health and Social Services**
William J. Streur, Commissioner
Ward B. Hurlburt, MD, MPH, CMO

3601 C Street, Suite 540
Anchorage, Alaska 99503 http://www.epi.Alaska.gov

**Division of Public Health**
Kerre Shelton, Director

Local (907) 269-8000
24 Hour Emergency (800) 478-0084

**Editors:**
Joe McLaughlin, MD, MPH
Louisa Castrodale, DVM, MPH

Bulletin No. 19 September 9, 2014

# Alaska Influenza Surveillance Summary, 2013–14 Season

## Background

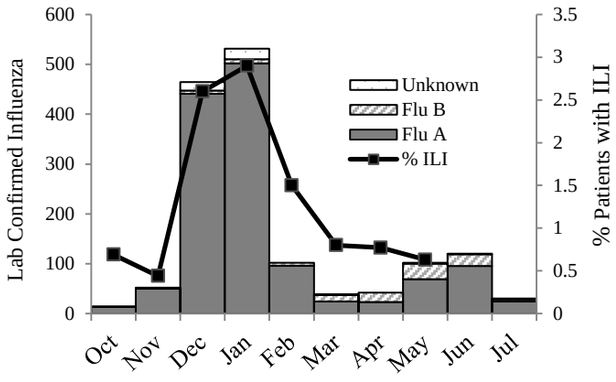
The Alaska Section of Epidemiology (SOE) conducts influenza surveillance primarily during the influenza season spanning the months of October through May. Influenza surveillance components have been detailed in previous *Bulletins*.[1] Weekly surveillance reports are posted on the SOE influenza webpage.[2] The purpose of this *Bulletin* is to provide a summary of influenza activity during the 2013–14 season, including a review of Alaska State Virology Laboratory (ASVL) influenza testing results.

## Alaska 2013–14 Influenza Reporting

Alaska influenza activity began increasing in November 2013, peaked in late December, and remained elevated through mid-February 2014. A second, smaller wave of influenza activity occurred again beginning in May 2014 and continued through June.[3] The H1N1 virus that emerged in 2009 to cause a pandemic has continued to circulate since the pandemic as a seasonal influenza virus, but 2013–14 was the first influenza season since the pandemic during which the 2009 H1N1 virus predominated overall, and subsequently contributed to substantial summertime influenza activity. Influenza B and influenza A (H3N2) viruses were also identified in Alaska, particularly during the spring and summer months (Figure).

During the 2013–14 season, 10 health care providers statewide participated in outpatient ILINet reporting from October through May. The trends in influenza-like illness (ILI) reporting largely matched the trends in laboratory reporting, especially when influenza was prevalent (Figure).

**Figure. Influenza Laboratory Reports (PCR and Rapid Tests) and Outpatient ILI Surveillance Reports — Alaska, October 2013 – July 2014**




## Influenza-Associated Mortality

Adult influenza-related mortality became a reportable condition in Alaska on December 29, 2013.[4] Five adult influenza-associated deaths were reported to SOE during the 2013–14 season. There were no influenza-associated pediatric deaths reported during this same time period.

## Laboratory Surveillance

On June 1, 2013, the ASVL began running a respiratory virus panel on all respiratory specimens received. The panel utilizes a multiplex polymerase chain reaction (PCR) test that is approved by the U.S. Food and Drug Administration to detect the following viral groups:

- adenovirus groups B/E (includes subtypes 3, 4, 7, 11, 14, 16, 21, 34, 35, 50, 55) and group C (includes subtypes 1, 2, 5, 6, 57);
- human metapneumovirus;
- human rhinovirus;
- influenza A H1 (seasonal), influenza A H1 (pandemic 2009 swine), influenza A H3, influenza B;
- parainfluenza 1–3; and
- respiratory syncytial virus A and B.[5]

PCR testing is faster, more sensitive, and more specific than previous testing methodologies, and any one specimen may be positive for multiple viruses in the case of co-infection.

A subset of respiratory samples (n=94) were sent to the Centers for Disease Control and Prevention (CDC) or a CDC contract laboratory for further characterization and were found to be a good match with the influenza A and B strains in the 2013–14 vaccine. Five of the 18 influenza B viruses were subtyped as the B/Brisbane/60/2008-like strain used in the 2013–14 Northern Hemisphere quadrivalent vaccine and the 2014 Southern Hemisphere influenza vaccine preparations.

Of the 61 specimens randomly selected for antiviral susceptibility testing during the 2013–14 season, all 61 were susceptible to the neuraminidase inhibitor antiviral drugs (i.e., oral oseltamivir and inhaled zanamivir). CDC still recommends using oseltamivir and inhaled zanamivir for influenza treatment and chemoprophylaxis.[6]

## Recommendations

1. Health care providers should strongly urge all eligible patients to receive influenza vaccine as soon as this year's influenza vaccine is available. Influenza vaccine is the most effective tool available to prevent influenza-associated morbidity and mortality. Detailed information about this year's influenza vaccine was published in two Epidemiology *Bulletins* on August 28, 2014.[7,8]
2. Providers should submit respiratory specimens from patients with influenza-like illness 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 the Section of Epidemiology SOE (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 1-800-470-0084 after hours.
5. Health care providers interested in participating in outpatient influenza surveillance should contact the SOE Influenza Coordinator at 907-269-8000.

## References

1. Alaska Epidemiology *Bulletin*. "Alaska Influenza Surveillance Update, 2011–12 Season." No. 21, September 26, 2012. Available at: http://www.epi.alaska.gov/bulletins/docs/b2012_21.pdf
2. Alaska Section of Epidemiology Influenza Surveillance Report. Available at: http://www.epi.alaska.gov/id/influenza/fluinfo.htm
3. State of Alaska Public Health Advisory. "Unusually High Summer Influenza Activity in Alaska." June 17, 2014. Available at: http://www.epi.alaska.gov/phan/AKPHAN_20140617_SummerFluActivity.pdf
4. State of Alaska Online Public Notices. Health Care Reporting Requirements. Effective 12/29/2013. Available at: http://aws.state.ak.us/OnlinePublicNotices/Notices/View.aspx?id=170430
5. Alaska State Virology Laboratory letter to customers, available at: http://www.dhss.alaska.gov/dph/Labs/Documents/pdfs/RVP.pdf
6. Antiviral agents for the treatment and chemoprophylaxis of influenza. Recommendations of the ACIP. *MMWR* 2011;60(RR01);1-24. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6001a1.htm
7. Alaska Epidemiology *Bulletin*. Influenza Vaccine Recommendations and Administration for the 2014-15 Season. Bulletin No. 16. Available at: http://www.epi.alaska.gov/bulletins/docs/b2014_16.pdf
8. Alaska Epidemiology *Bulletin*, Influenza Vaccines for the 2014-15 Season. Bulletin No. 17. Available at: http://www.epi.alaska.gov/bulletins/docs/b2014_17.pdf

(Contributed by: Donna Fearey, ANP, MSN, Section of Epidemiology; Bonnie Bond, MS, MT, Jayme Parker, MSPH, MB, Nisha Fowler MT, Section of Laboratories)