State of Alaska Epidemiology Bulletin

Department of Health and Social Services
Valerie J. Davidson, Commissioner

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

Division of Public Health
Jay C. Butler, MD, MPH, Chief Medical Officer and Director

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

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

Bulletin No. 16 July 31, 2015

Alaska Influenza Surveillance Summary, 2014–15 Season

Background

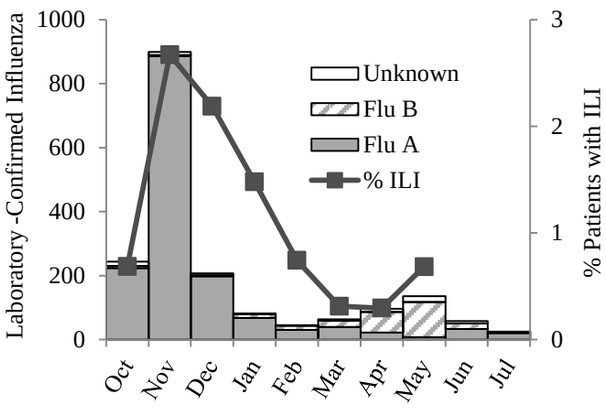
Influenza (flu) is a contagious respiratory infection caused by influenza viruses that infect the respiratory tract. It can cause mild to severe illness; serious outcomes can include hospitalization or death. The Alaska Section of Epidemiology (SOE) conducts heightened influenza surveillance from October through May, when most influenza activity is occurring; nationally, peak flu activity typically occurs in December or later. Weekly surveillance reports are posted on the SOE influenza webpage.[1] The purpose of this *Bulletin* is to summarize the 2014–15 influenza season, review influenza-associated mortality reporting, and describe Alaska State Virology Laboratory (ASVL) influenza testing results.

Alaska 2014–15 Influenza Activity

During the 2014–15 season, Alaska influenza activity began increasing in October, peaked in November, and declined precipitously in December and January (Figure). Peak activity occurred earlier than usual both in Alaska and nationally. Influenza A (H3N2) viruses predominated; however, influenza B viruses increased late in the season (Figure). Influenza A (H1N1) viruses were detected only rarely this season.

Eight health care providers statewide participated in outpatient influenza-like illness (ILI) reporting. The ILI trends largely matched laboratory reporting trends (Figure).

Figure. Influenza Laboratory (PCR and Rapid Tests) and Outpatient ILI Reports — Alaska, Oct 2014–Jul 2015



Influenza-Associated Mortality

Influenza-associated deaths are reportable to SOE (7 AAC 27.005).[2] No influenza-associated deaths were directly reported by health care providers during the 2014–15 season; however, Alaska Bureau of Vital Statistics death certificates were searched to identify any deaths in Alaska over this same time period. Five adult deaths and one pediatric death were identified by ICD-10 codes that indicate influenza as a contributing cause of death (J09 through J11.8).

Laboratory Surveillance

A subset (n=45) of respiratory samples were sent to the Centers for Disease Control and Prevention (CDC) or a CDC contract laboratory for further characterization. Nationally and in Alaska, the majority of influenza A (H3N2) were not well matched with the H3N2 components of the 2014–15 influenza vaccine (Table).[3]

All of the 23 specimens that were selected for antiviral resistance testing were susceptible to neuraminidase inhibitor antiviral drugs (i.e., oral oseltamivir, inhaled zanamivir, and intravenous peramivir). CDC continues to recommend that all hospitalized and high-risk patients (either hospitalized or outpatient) with suspected influenza should be treated as soon as possible with influenza antiviral medications without waiting for confirmatory influenza testing.[4]

Recommendations

1. Health care providers should strongly urge all eligible patients (i.e., most persons aged ≥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 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 SOE, as specified in Alaska Administrative Code (7 AAC 27.007).
4. Health care providers must report clusters of respiratory illness and suspected and confirmed influenza-associated deaths 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.

References

1. Alaska Section of Epidemiology Influenza Surveillance Report. Available at: http://www.epi.alaska.gov/id/influenza/fluinfo.htm
2. Alaska Division of Public Health, Section of Epidemiology. Conditions Reportable to Public Health. June 2014. Available at: http://www.epi.alaska.gov/pubs/conditions/ConditionsReportable.pdf
3. CDC. Influenza activity — United States, 2014–15 season and composition of the 2015–16 influenza vaccine. *MMWR* 2015; 64(21):583-90. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6421a5.htm?s_cid=mm6421a5_w
4. CDC. Antiviral agents for the treatment and chemoprophylaxis of influenza. Recommendations of the Advisory Committee on Immunization Practices. *MMWR* 2011;60(RR01);1-24. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6001a1.htm

Table. Characterization of Alaska Specimens Submitted from ASVL to CDC (or Contract Lab), Oct 2014 to Jun 2015

# Samples Tested	Results	Subtype	In 2015–16 flu vaccine?	Comments
18 AH3Strains	1 (6%)	A/Texas/50/2012-like (H3N2)	No	Used in Northern Hemisphere 2014–15 influenza vaccine
	17 (94%)	A/Switzerland/9715293/2013	Yes	Not in Northern Hemisphere 2014–15 influenza vaccine
27 B Strains	2 (7%)	B/Brisbane/60/2008-like (Victoria lineage)	Yes	Used in Northern Hemisphere 2014–15 quadrivalent vaccine, not trivalent vaccine
	25 (93%)	B/Massachusetts/02/2012-like, OR B/Phuket/3073/2013-like (Yamagata lineage)	Yes	Used in Northern Hemisphere 2014–15 trivalent & quadrivalent vaccine

(Contributed by: Donna Fearey, ANP, MSN, Section of Epidemiology and, Jayme Parker, MSPH, MB, [ASCP], and Nisha Fowler, MT, [ASCP],Section of Laboratories.)