State of Alaska Epidemiology **Bulletin**

Department of Health and Social Services
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Bulletin No. 17 September 12, 2019

Alaska Influenza Surveillance Summary, 2018–19 Season

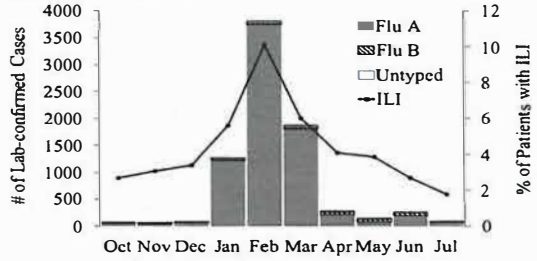
Background

The U.S. influenza surveillance system is a collaborative effort between the Centers for Disease Control and Prevention (CDC), state and local health departments, and clinicians to determine where and when influenza activity is occurring, track influenza-related morbidity and mortality, determine which influenza viruses are circulating, and detect changes in influenza viruses. The Section of Epidemiology (SOE) conducts routine influenza surveillance throughout the year, with heightened surveillance during October through May. Weekly surveillance reports are posted online.[1] This *Bulletin* summarizes the 2018–19 flu season.

Laboratory-Confirmed Influenza Reports

During 2018–19, widespread reports of influenza were received later than usual in the season with peak activity in February, demonstrating a more compressed season than in prior years (Figure). Influenza A viruses predominated, with minimal influenza B virus activity. SOE received the highest number of reports for any season to date; however, this may reflect increased testing for influenza, increased reporting of "rapid flu" results, a real difference in illness burden, or a combination of those factors.

Figure. Positive Influenza Laboratory Tests (PCR and Rapid), Emergency Department Syndromic Surveillance — Alaska, October 2018–May 2019



Laboratory Characterization

To ensure confidence in detecting and characterizing influenza activity, national targets for specimen testing and positive results must be met based on jurisdiction population size.[2] A subset of the Alaska State Virology Laboratory (ASVL) respiratory samples were sent to CDC for genome sequencing and antigenic typing, per specific CDC criteria.[3] Another subset of respiratory samples were sent to New York-Wadsworth for pyrosequencing and antiviral resistance testing. Nationally and in Alaska, the majority of influenza isolates were well matched to the 2018–19 influenza vaccine (Table),[4] with the exception of two genetic clades (A/H3 3C.3a and B/Victoria V1A-3del) that demonstrated lower affinity to antibodies produced by the vaccine in laboratory experiments. All specimens selected for antiviral resistance testing demonstrated susceptibility to neuraminidase inhibitors.

ASVL publishes a weekly report that contains PCR data (i.e., influenza A versus B and hemagglutinin type) as well as antigenic and genetic characterization data.[5]

Syndromic Surveillance

Data from participating emergency departments (n=17) are pooled to create a statewide estimate of the weekly percentage of healthcare visits due to ILI (classified as fever [≥100°F] and a cough and/or a sore throat in the absence of a known cause other than influenza). During 2018–19, the peak ILI percentage was higher than recent prior seasons. For more information on Alaska and national ILI data, see FluView Interactive.

Influenza-Associated Mortality

During the 2018–19 season, 16 adult and 2 pediatric influenza-associated deaths were identified from health care provider reports and Alaska death certificate reviews.

Recommendations

1. All eligible people aged ≥6 months should receive influenza vaccine annually by the end of October. Influenza vaccine is the most effective tool available to prevent influenza-associated morbidity and mortality.
2. Clinicians may submit respiratory specimens from patients with ILI to ASVL for influenza testing; call 907-371-1000 to obtain testing supplies. For test request forms, go to: 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 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;[6] 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 1-800-478-0084 after hours).

References

1. Alaska SOE Influenza Surveillance Report. Available at: http://dhss.alaska.gov/dph/Epi/id/Pages/influenza/fluinfo.aspx
2. APHL. Influenza Virologic Surveillance Right Size Roadmap. Available at: https://www.aphl.org/programs/infectious_disease/influenza/Influenza-Virologic-Surveillance-Right-Size-Roadmap/pages/default.aspx
3. CDC Criteria for Selecting Influenza Specimens for Referral. See: http://www.aphl.org/programs/infectious_disease/influenza/Documents/ID_2013July_Laboratory-Testing-Implementation-Guidance.pdf
4. CDC. Update: Influenza activity in the United States during the 2018–19 season and composition of the 2019–20 influenza vaccine. *MMWR* 2019;68(24):544–51. Available at: https://www.cdc.gov/mmwr/volumes/68/wr/mm6824a3.htm
5. ASVL Weekly Report. Available at: http://dhss.alaska.gov/dph/Labs/Pages/asvl.aspx
6. CDC. The National Respiratory and Enteric Virus Surveillance System. Available at: https://www.cdc.gov/surveillance/nrevss/index.html

Table. Characterization of Specimens Submitted from ASVL to CDC — Alaska, October 2018 through May 2019

# of Samples Tested	AK Results	National Comparison	Antigenic and Genetic Characterization	Northern Hemisphere 2018–19 Vaccine?	Northern Hemisphere 2019–20 Vaccine?
26 A (H3)	6 (23%)	7%	A/SINGAPORE/INFIMH-16-0019/2016-LIKE (H3N2), Clade 3C.2a	Yes	Yes
	5 (19%)	20%	A/SINGAPORE/INFIMH-16-0019/2016-LIKE (H3N2), Clade 3C.2a1	Yes	Yes
	15 (58%)	74%	A/SINGAPORE/INFIMH-16-0019/2016-LIKE (H3N2), Clade 3C.3a	Lower Affinity	Yes
22 A (H1N1)	22 (100%)	100%	A/MICHIGAN/45/2015-LIKE (H1N1)pdm09, Clade 6B.1A	Yes	Yes
2 B (Yamagata)	2 (100%)	100%	B/PHUKET/3073/2013-LIKE, Clade Y3	Yes (quadrivalent)	Yes (quadrivalent)
2 B (Victoria)	2 (100%)	100%	B/COLORADO/06/2017-LIKE, Clade V1A-3del	No	Yes

(Contributed by: Carrie Edmonson MPH, RN, Anna Frick, MPH, and Donna Fearey, ANP, MSN, Section of Epidemiology; and Jayme Parker, MSPH, MB, [ASCP], and Nisha Fowler, MT, [ASCP], Section of Laboratories.)

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Bulletin No. 3 September 23, 2020

Alaska Influenza Surveillance Summary, 2019–20 Season

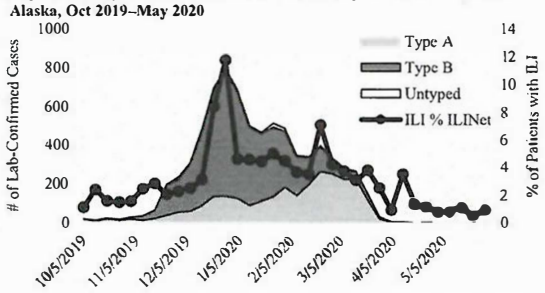
Background

The U.S. influenza surveillance system is a collaborative effort between the Centers for Disease Control and Prevention (CDC), state and local health departments, and clinicians to determine timing of influenza activity, strains of viruses circulating. and to track influenza-related morbidity and mortality. The Section of Epidemiology (SOE) conducts routine influenza surveillance throughout the year, with heightened surveillance from October through May. Weekly surveillance reports are posted online.[1] This *Bulletin* summarizes the 2019–20 flu season.

Alaska 2019–20 Influenza Activity

During the 2019–20 season in Alaska, widespread influenza activity started earlier in the season and continued to gradually increase, with peak activity occurring during December through mid-January (Figure). Influenza B viruses predominated with less influenza A activity (Figure). The flu season was truncated abruptly in April due to COVID-19 which impacted public activity and healthcare seeking behavior.

Figure. Positive Influenza Laboratory Tests (PCR and Rapid), Emergency Department Syndromic Surveillance, and Outpatient ILI Reports — Alaska, Oct 2019–May 2020



**Proportion of patients seen in by participating outpatient providers with ILI (syndromic surveillance)*

Laboratory Characterization

A subset of the Alaska State Virology Laboratory (ASVL) respiratory samples (n=49) were sent to CDC for genome sequencing and antigenic typing.[2] Another subset of respiratory samples (n=24) were sent to New York-Wadsworth for pyrosequencing and antiviral resistance testing. Nationally and in Alaska, the majority of influenza isolates were well matched to the 2019–20 influenza vaccine (Table),[3] with the exception of 1 B/Victoria strain (B/COLORADO/06-2017 LOW) that demonstrated lower affinity to antibodies produced by the vaccine in laboratory experiments. All specimens selected for antiviral resistance testing demonstrated susceptibility to neuraminidase inhibitors. ASVL publishes a weekly report that contains PCR data (i.e., A vs. B and hemagglutinin type) as well as antigenic and genetic characterization data.

Syndromic Surveillance

Data from participating outpatient providers (n=18) in Alaska are pooled to create a statewide estimate for the weekly percent of healthcare visits due to influenza-like illness (ILI). Patients presenting with a fever of 100°F or greater and a cough and/or sore throat are considered to have ILI. For more information on state and national ILINet data, see FluView Interactive.

Influenza-Associated Mortality

During the 2019–20 season, 8 adult (age range: 23-98 years, median 73.5 years) and 3 pediatric (age range: 1-6 years, median 2 years) influenza-associated deaths were identified from health care provider reports and death certificate reviews.

Recommendations

1. Health care providers should strongly urge all eligible patients aged ≥6 months to receive influenza vaccine every year annually by the end of October. Influenza vaccine is the most effective tool available to prevent influenza-associated morbidity and mortality.
2. Health care providers can submit respiratory specimens from patients with ILI to ASVL for influenza testing; call 907-371-1000 to obtain testing supplies. 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 per 7 AAC 27.007. Laboratories are also encouraged to report the total number of tests performed and the number of positives directly to CDC to help meet Alaska's National Respiratory and Enteric Virus Surveillance System goals; 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 1-800-478-0084 after hours).

References

1. Alaska SOE Influenza Surveillance Report. Available at: http://dhss.alaska.gov/dph/Epi/id/Pages/influenza/fluinfo.aspx
2. CDC Criteria for Selecting Influenza Specimens for Referral. See: http://www.aphl.org/programs/infectious_disease/influenza/Documents/ID_2013July_Laboratory-Testing-Implementation-Guidance.pdf
3. CDC. Interim estimates of 2019–20 seasonal influenza vaccine effectiveness — United States, February 2020. *MMWR* 2020;69(7):177-82. Available at: https://www.cdc.gov/mmwr/volumes/69/wr/mm6907a1.htm

Table. Characterization of Specimens Submitted from ASVL to CDC — Alaska, October 2019 through May 2020

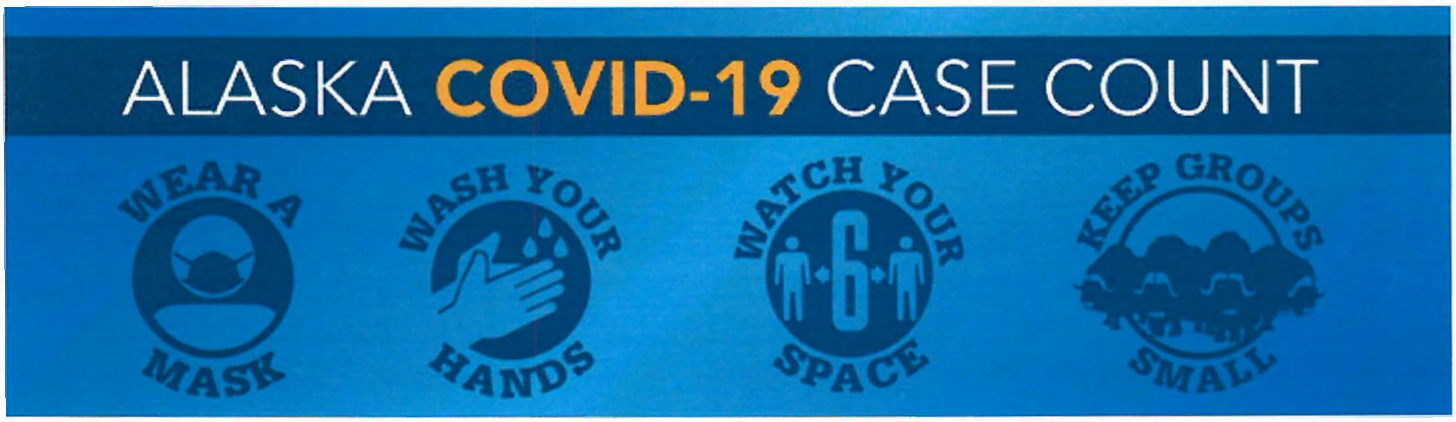
2019-2020 Northern Hemisphere Vaccine Strain (by virus)	Antigenic Characterization # Tested	Antigenic Characterization Strain	Genetic Characterization # Tested	Genetic Characterization Clades	Antiviral Resistance # Tested	Antiviral Resistance Resistant/ Susceptible
Influenza A/H3N2 viruses						
A/KANSAS/14/2017 (H3N2)-LIKE	10	A/SINGAPORE/INFIMH-16-0019/2016-LIKE	23	3c.2a1	7	Susceptible
	4	A/KANSAS/14/2017-LIKE (H3N2)				
Influenza A/H1N1 viruses						
A/BRISBANE/02/2018 (H1N1)pdm09-LIKE	2	A/MICHIGAN/45/2015-LIKE (H1N1)pdm09	10	6B.1A	3	Susceptible
	3	A/BRISBANE/02/2018-LIKE (H1N1)pdm09				
Influenza B (Victoria lineage) viruses						
B/COLORADO/06/2017-LIKE	1	B/COLORADO/06/2017-LIKE	14	V1A.3	5	Susceptible
	2	B/COLORADO/06/2017-LIKE LOW*				
Influenza B (Yamagata lineage) viruses						
B/PHUKET/3073/2013-LIKE	2	B/PHUKET/3073/2013-LIKE	2	Y3	1	Susceptible

(Contributed by: Carrie Edmonson MPH, RN, Anna Frick, MPH, and Donna Fearey, ANP, MSN, Section of Epidemiology; and Jayme Parker, MSPH, MB, [ASCP], and Nisha Fowler, MT, [ASCP], Section of Laboratories.)

Alaska Department of Health and Social Services

Alaska COVID-19 Case Count Summary: March 5, 2021

Alaska DHSS sent this bulletin at 03/05/2021 06:21 PM AKST



CASE COUNT SUMMARY, Friday, March 5, 2021

Reporting data for 12 a.m. - 11:59 p.m. March 4

DHSS today announced two deaths and 149 new people identified with COVID-19 in Alaska. 138 were residents in: Anchorage (39), Wasilla (22), Palmer (18), Fairbanks (9), Eagle River (7), Petersburg (5), Bethel Census Area (4), Chugiak (4), Juneau (4), North Pole (4), Valdez (4), Anchor Point (3), Delta Junction (3), and one each in Bethel, Cordova, Fairbanks North Star Borough, Kenai, Kenai Peninsula Borough - North, Ketchikan, Kodiak, Prince of Wales - Hyder, Sitka, Soldotna, Sterling, and Utqiaġvik.

Eleven new nonresident cases were identified yesterday in:

- Fairbanks: two with purpose under investigation
- Southeast Fairbanks Census Area: one in mining industry
- Unalaska: two in seafood industry
- Anchorage: two with purpose under investigation
- North Slope Borough: one in North Slope oil industry and one with purpose under investigation
- Juneau: one with purpose in mining
- Location under investigation: one with purpose under investigation

Three resident cases were added to the dashboard due to data verification procedures, bringing the total number of Alaska resident cases to 56,886 and the total number of nonresident cases to 2,446.

ALERT LEVELS – The current statewide alert level, based on the average daily case rate over 14 days per 100,000, is high at 16.39 cases per 100,000. Most regions of Alaska are in high alert status with widespread community transmission. Three regions are at intermediate alert status with moderate transmission and two regions are at low alert with minimal transmission.

High (>10 cases/100,000)

- Matanuska-Susitna Region: 35.68 cases per 100,000
- Other Southeast Region - Northern: 35 cases per 100,000
- YK-Delta Region: 22.57 cases per 100,000

- Other Interior Region: 20.29 cases per 100,000
- Fairbanks North Star Borough: 14.92 cases per 100,000
- Anchorage Municipality: 13.2 cases per 100,000

Intermediate (>4.8-10 cases/100,000)

- Other Southeast Region - Southern: 9.76 cases per 100,000
- Juneau City and Borough: 9.22 cases per 100,000
- Kenai Peninsula Borough: 6.42 cases per 100,000

Low (0-4.8 cases/100,000)

- Southwest Region: 4.8 cases per 100,000
- Northwest Region: 3.16 cases per 100,000

CASES: HOSPITALIZATIONS & DEATHS – There have been a total of 1,253 hospitalizations and 301 deaths, with three new hospitalizations and two new deaths reported yesterday.

There are currently 28 patients diagnosed with COVID-19 who are hospitalized and five additional patients who are considered persons under investigation (PUI) for a total of 33 current COVID-related hospitalizations. Two of these patients are on ventilators. The percentage of patients currently hospitalized with COVID-19 is 2.9%.

One death is recent: A female Anchorage resident in her 80s. The other is from death certificate reviews: A male Anchorage resident in his 90s who died out of state. Our thoughts are with the families and loved ones of the individuals who died.

TESTING – A total of 1,731,628 tests have been conducted, with 32,016 tests conducted in the previous seven days. The average percentage of daily positive tests for the previous seven days is 2.17%.

VACCINATIONS – Reported to date, there have been 163,906 people who have received at least one dose and 111,990 people fully vaccinated against COVID-19 for a total of 275,140 doses administered in Alaska. For more information, visit covidvax.alaska.gov.

TAKE ACTION – Vaccines are being distributed throughout Alaska but we all still need to maintain our COVID-19 protective measures to keep ourselves and others safe and healthy: coronavirus.dhss.alaska.gov.

Notes: *Reports are received electronically, by phone and by fax. Cases are verified, redundancies are eliminated and then cases are entered into the data system that feeds into Alaska's Coronavirus Response Hub. When there is a high number of reports being received, this may cause delays in getting reports entered and counted. Personnel continue to focus on the effort to process and count reports and minimize the delay from receipt to posting on the hub.*

There is a lag between cases being reported on the DHSS data dashboard and what local communities report. Each case is an individual person even if they are tested multiple times. Total tests are a not a count of unique individuals tested and includes both positive and negative results. The current number of hospitalized patients represents more real-time data compared to the cumulative total hospitalizations. Current hospitalizations are reported for all facilities, not just general acute care and critical access facilities, as is the default on the dashboard. Total number of hospital beds available fluctuate daily as the number of available hospital staff changes. All data reported in real-time, on a daily basis, should be considered preliminary and subject to change. To view more data visit data.coronavirus.alaska.gov; weekly and daily case summaries are archived at dhss.alaska.gov/dph/Epi/id/Pages/COVID-19/communications.aspx#updates.