

# Alaska State Virology Laboratory (ASVL) Weekly Report – Week #51

## December 15 - 21, 2019

*(This report was prepared by Jayme Parker, Public Health Microbiologist III at the Alaska State Virology Lab in Fairbanks, Alaska)*

The Section of Epidemiology is the primary contact for consultation for the following potential active infections: rabies, norovirus, measles, mumps, rubella, varicella zoster, and novel influenza. Please direct your calls to the Epi-Team at 907-269-8000; or their 24 hour # 1-800-478-0084.

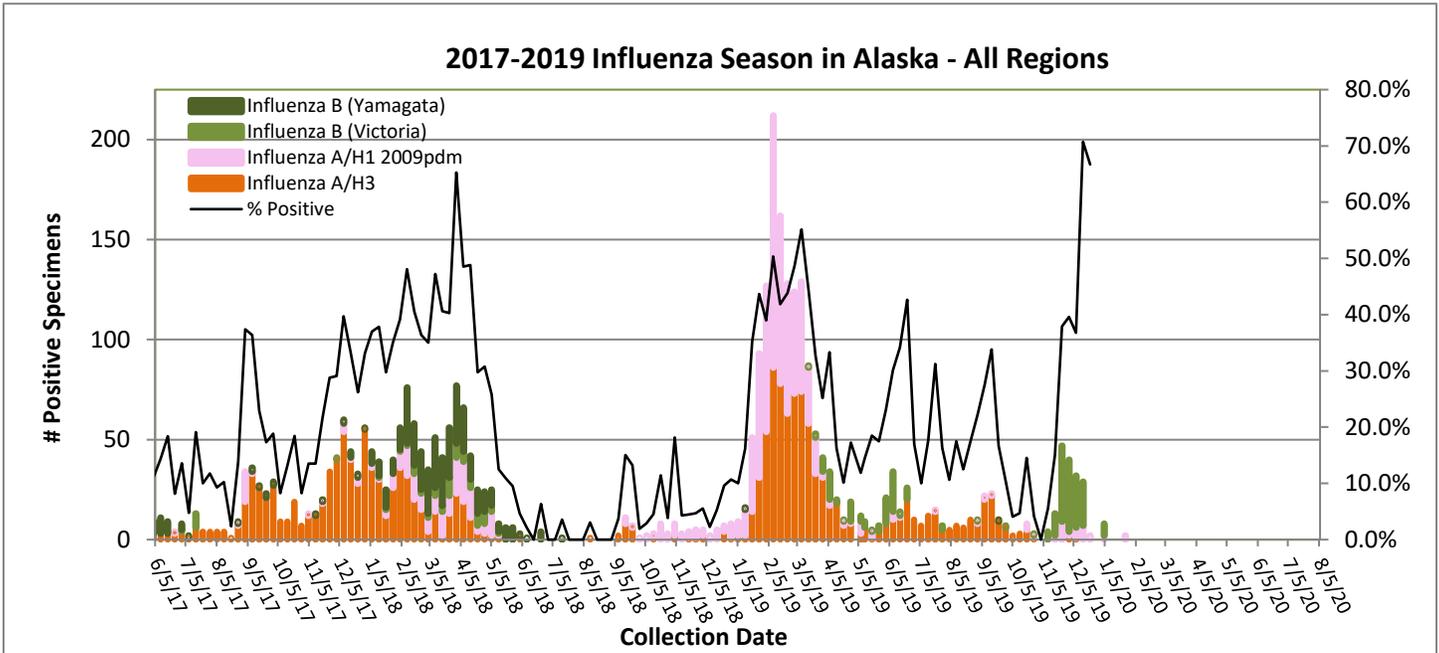
### 1. Influenza virus

PCR Testing for Week #2019-51 TP: true positive, FP: false positive, TN: true negative, FN: false negative. True = 2 tests concur, False = 2 tests do not concur		Corresponding Influenza Sentinel Providers Results								
Collection Date Range: 11/17/2019 – 12/16/2019		Rapid Influenza Test Results				PCR Test Results				No Data
ASVL PCR Results		TP	TN	FP	FN	TP	TN	FP	FN	
Influenza A/H1 2009 pdm Positive	10	2				7			1	
Influenza A/H3 Positive	3					3				
Influenza A (subtype pending)	3					2			1	
Influenza B Positive (Yamagata lineage)										
Influenza B Positive (Victoria lineage)	75	17			1	55				2
Influenza B (genotype pending)										
Influenza Negative	49						42	6		1
<b>Total # Specimens Tested</b>	<b>140</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>67</b>	<b>42</b>	<b>6</b>	<b>2</b>	<b>3</b>
<b>Summary: Alaska influenza virus characterizations by Centers for Disease Control and Prevention (Specimens collected between 6/1/2019 – present)</b>										
2019-2020 Northern Hemisphere Vaccine Strain (by virus)	Antigenic Characterization				Genetic Characterization		Antiviral resistance			
	# tested	Strain	# tested	Clades	# tested	Resistant/ Susceptible				
<b>Influenza A/H3N2 viruses</b>										
A/KANSAS/14/2017 (H3N2)-LIKE	10	A/SINGAPORE/INFIMH-16-0019/2016-LIKE	21	3c.2a1	4	Susceptible				
	3	A/KANSAS/14/2017-LIKE (H3N2)								
<b>Influenza A/H1N1 viruses</b>										
A/BRISBANE/02/2018 (H1N1)pdm09-LIKE	2	A/MICHIGAN/45/2015-LIKE (H1N1)pdm09	5	6B.1A	2	Susceptible				
	3	A/BRISBANE/02/2018-LIKE (H1N1)pdm09								
<b>Influenza B (Victoria lineage) viruses</b>										
B/COLORADO/06/2017-LIKE	1	B/COLORADO/06/2017-LIKE	6	V1A.3	3	Susceptible				
	2	B/COLORADO/06/2017-LIKE LOW*								
<b>Influenza B (Yamagata lineage) viruses</b>										
B/PHUKET/3073/2013-LIKE	2	B/PHUKET/3073/2013-LIKE	2	Y3	1	Susceptible				

\*LOW: Viruses that are not as well inhibited by the vaccine antibody are designated as "LOW" when performing antigenic characterizations. For more information, visit the weekly U.S. influenza surveillance report at <https://www.cdc.gov/flu/weekly/index.htm>.

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For recent specimens collected in week #51 (December 15 - 21, 2019): 2 of 3 respiratory specimens were positive for influenza (66.7% positive). Additional specimens from this collection date range are pending due to transit delays or further subtyping, thus percent positivity will adjust as specimen results become available.

## 2. Hepatitis C virus (HCV)

For recommendations on types of Hepatitis C testing, test interpretation and post-test patient counseling:

- CDC MMWR: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6104a1.htm>
- 5/27/15 AK Epidemiology Bulletin: [http://www.epi.alaska.gov/bulletins/docs/b2015\\_11.pdf](http://www.epi.alaska.gov/bulletins/docs/b2015_11.pdf)

HCV Antibody screening	Total Tested	Total Positive (%)
Week #2019-51	144	18 (12.5%)
Last 12 month period	6,186	1,023 (16.5%)
HCV RNA testing		
Week #2019-51	23	15 (65.2%)
Last 12 month period	1,028	701 (68.2%)

HCV Genotyping	Total Tested	Type 1a	Type 1b	Type 2a/c	Type 2b	Type 3	Type 4	Type 6	Unable to Genotype
Week #2019-51	15	12			2	1			
Last 12 month period*	701	450 (64.2%)	15 (2.1%)	3 (0.4%)	74 (10.6%)	144 (20.5%)	4 (0.6%)	0 (0.0%)	11 (1.6%)

\*HCV genotyping data includes 7 coinfections (2 specimens with subtypes 1a & 3, 3 specimens with subtypes 1a & 1b, 1 specimen with subtypes 1a and 2b, and 1 specimen with types 1 & 4)

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### 3. Human Immunodeficiency virus (HIV)

HIV antigen/antibody combination screening	Total Tested	Total Confirmed Positive
Week #2019-51	353	0 (0.00%)
Last 12 month period	7,985	14 (0.18%)

### 4. Norovirus Outbreaks

- No new outbreaks to report.

### 5. Rabies virus - Human Exposures

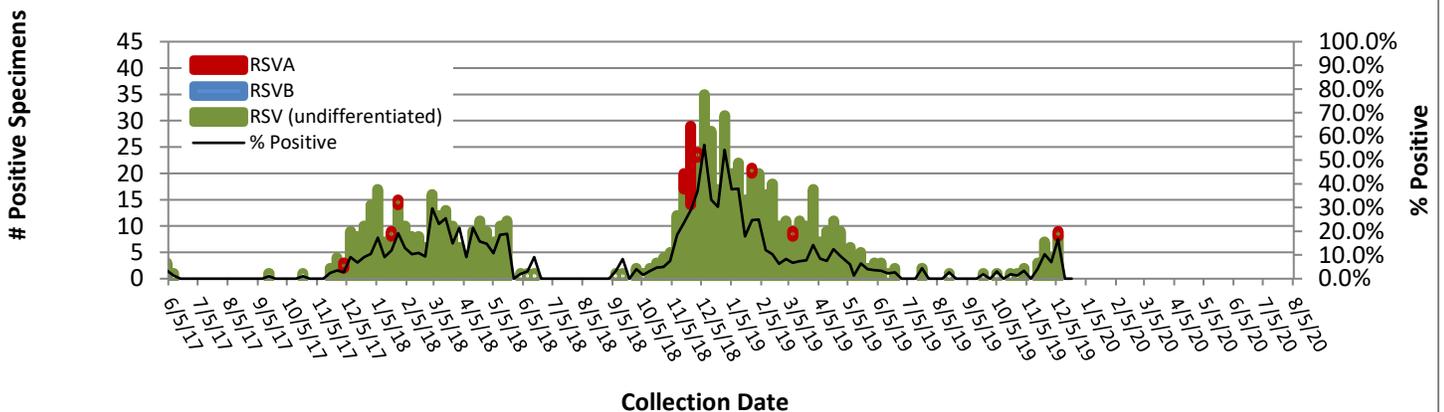
- A fox from the northern region has tested **positive** for rabies.

### 6. Respiratory Syncytial Virus (RSV)

\*Surveillance of RSV using a PCR assay that does not differentiate groups A from B began 2/27/2017. Seasons are calculated from October 1 – September 30.

PCR testing	Total Tested	Total Positives (% pos)	Total Positive RSV A (% of pos)	Total Positive RSV B (% of pos)	Total Positive (RSV undifferentiated)* (% of pos)
Week #2019-51	51	5 (9.8%)	0 (0.0%)	0 (0.0%)	5 (100.0%)
Season 2019-2020 (current)	603	28 (4.6%)	1 (3.6%)	0 (0.0%)	27 (96.4%)
Season 2018-2019	3,973	474 (11.9%)	21 (4.4%)	0 (0.0%)	453 (95.6%)
Season 2017-2018	2,952	256 (8.7%)	3 (1.2%)	0 (0.0%)	253 (98.8%)
Season 2016-2017	5,550	383 (6.9%)	108 (28.2%)	158 (41.3%)	117 (30.5%)

**2017-2019 Respiratory Syncytial Virus Season - All Regions**



For recent specimens collected in week #51 (December 15 - 21, 2019): 0 of 0 respiratory specimens were positive for RSV (0.0% positive). Additional specimens from this collection date range are pending due to transit delays, thus percent positivity will adjust as specimen results become available.

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**7. Respiratory Pathogen Panel Summary – by Region**

Numbers reflect the total positives detected within a particular time period. Surveillance for respiratory pathogens was reduced in 2017, hence lower numbers for pathogens other than influenza and RSV after that time. Current respiratory season is 10/1/2018 – 9/30/2019. NT = Not tested

	Influenza A/H3	Influenza A/H1pdm09	Influenza A (subtype pending)	Influenza B (Yamagata)	Influenza B (Victoria)	Influenza B (genotype pending)	RSV A	RSV B	RSV (undifferentiated)	Rhino/Enterovirus	Metapneumovirus	Parainfluenza 1	Parainfluenza 2	Parainfluenza 3	Parainfluenza 4	Adenovirus	Coronavirus 229E	Coronavirus NL63	Coronavirus HKU1	Coronavirus OC43	Human Bocavirus	<i>Chlamydophila pneumoniae</i>	<i>Mycoplasma pneumoniae</i>	Total Specimens Tested	
<b>All Regions</b>																									
<b>Week #2019-51</b>	3	10	3		75				5	2															<b>140</b>
<b>Season 2019-20 (current)</b>	14	31		0	138		1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>814</b>
<b>Season 2018-19</b>	865	698		2	92		21	0	453	15	0	0	1	1	3	0	2	0	0	2	2	0	2		<b>5,768</b>
<b>Season 2017-18</b>	647	179		322	60		2	0	245	23	5	1	0	1	1	1	2	3	0	0	3	1	0		<b>4,442</b>
<b>Season 2016-17</b>	946	22		262	15		109	158	125	197	77	9	32	136	31	140	79	3	0	175	1	1	0		<b>5,864</b>
<b>Anchorage/MatSu Region</b>																									
<b>Week #2019-51</b>	1		3		24				3	2															<b>50</b>
<b>Season 2019-20 (current)</b>	4	8		0	38		1	0	7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>333</b>

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	Influenza A/H3	Influenza A/H1pdm09	Influenza A (subtype pending)	Influenza B (Yamagata)	Influenza B (Victoria)	Influenza B (genotype pending)	RSV A	RSV B	RSV (undifferentiated)	Rhino/Enterovirus	Metapneumovirus	Parainfluenza 1	Parainfluenza 2	Parainfluenza 3	Parainfluenza 4	Adenovirus	Coronavirus 229E	Coronavirus NL63	Coronavirus HKU1	Coronavirus OC43	Human Bocavirus	<i>Chlamydia pneumoniae</i>	<i>Mycoplasma pneumoniae</i>	Total Specimens Tested	
<b>Season 2018-19</b>	310	249		1	11		1	0	82	12	0	0	1	1	1	2	0	0	0	2	2	0	2	<b>2,102</b>	
<b>Season 2017-18</b>	246	82		82	34		1	0	62	9	1	1	0	0	0	2	0	2	0	0	1	0	0	<b>1,702</b>	
<b>Season 2016-17</b>	317	1		49	2		53	24	35	70	52	0	11	37	14	21	32	1	0	64	1	1	0	<b>2,178</b>	
<b>Gulf Coast Region</b>																									
<b>Week #2019-51</b>	1				6				2															<b>22</b>	
<b>Season 2019-20 (current)</b>	1	1		0	10		0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>125</b>
<b>Season 2018-19</b>	66	109		0	6		0	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>740</b>
<b>Season 2017-18</b>	49	28		79	4		0	0	48	3	0	0	0	0	0	0	2	0	0	0	0	0	0	0	<b>810</b>
<b>Season 2016-17</b>	109	2		43	1		12	16	18	9	1	7	5	19	7	2	14	0	0	19	0	0	0	0	<b>853</b>
<b>Interior Region</b>																									
<b>Week #2019-51</b>		9			5																				<b>20</b>
<b>Season 2019-20 (current)</b>	3	18		0	21		0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>196</b>
<b>Season 2018-19</b>	286	123		0	33		19	0	144	2	0	0	0	0	2	1	2	0	0	0	0	0	0	0	<b>1,326</b>

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<b>Season 2017-18</b>	189	27		112	16		0	0	58	9	4	0	0	1	1	0	0	1	0	0	2	0	0	<b>933</b>
<b>Season 2016-17</b>	269	1		44	4		19	65	43	51	19	0	8	44	2	36	16	2	0	42	0	0	0	<b>1,298</b>
<b>Northern Region</b>																								
<b>Week #2019-51</b>					35																			<b>35</b>
<b>Season 2019-20 (current)</b>	0	1		0	55		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>73</b>
<b>Season 2018-19</b>	49	20		0	0		0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>165</b>
<b>Season 2017-18</b>	19	0		3	1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	<b>35</b>
<b>Season 2016-17</b>	4	17		4	0		4	1	4	0	0	0	0	0	0	2	0	0	0	1	0	0	0	<b>32</b>
<b>Southeast Region</b>																								
<b>Week #2019-51</b>	1				5																			<b>12</b>
<b>Season 2019-20 (current)</b>	6	2		0	14		0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>84</b>
<b>Season 2018-19</b>	130	134		1	0		0	0	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>950</b>

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<b>Season 2017-18</b>	120	11		15	1		0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>648</b>
<b>Season 2016-17</b>	195	1		114	8		18	49	12	37	2	2	5	17	7	69	11	0	0	33	0	0	0	<b>1,235</b>
<b>Southwest Region</b>																								
<b>Week #2019-51</b>		1																						<b>1</b>
<b>Season 2019-20 (current)</b>	0	1		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>3</b>
<b>Season 2018-19</b>	24	63		0	42		1	0	86	1	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>485</b>
<b>Season 2017-18</b>	24	31		31	4		1	0	39	1	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>314</b>
<b>Season 2016-17</b>	52	0		8	0		3	3	13	15	3	0	3	19	1	6	6	0	0	16	0	0	0	<b>268</b>