

Alaska State Virology Laboratory (ASVL) Weekly Report – Week #23

May 31 – June 6, 2020

(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, novel influenza, or [novel coronavirus](#). Please direct your calls to the Epi-Team at 907-269-8000; or their 24 hour # 1-800-478-0084.

1. SARS-CoV-2 (COVID-19)

Total tested*	Total Specimens Tested	Total Positive Specimens (% positive)
Week 2020-23	4,282	61 (1.4%)
To date	22,157	341 (1.5%)

*Total tested includes specimens processed at both the Anchorage Public Health Laboratory and the Alaska State Virology Laboratory.

Whole genome sequencing* Please visit https://www.gisaid.org/ to see more information regarding SARS-CoV-2 viruses obtained from Alaskans and globally.	Region	Clade	Virus Lineage	Total Identified
	Anchorage	G	B.1	2
	Anchorage	GH	B.1, B.1.38, B.1.p2	6
	Anchorage	GR	B.1.1	1
	Interior	G	B.1	8
	Interior	GH	B.1, B.1.38, B.1.p2	4
	Mat-Su	GH	B.1.38	3
	Southeast	GH	B.1	2
	Southeast	V	B.2	4

North America (+229)

■ G ■ GH ■ GR ■ L ■ O ■ S ■ V

*Not all specimens can be sequenced due to low viral titer or low specimen quality. ASVL is reporting successful sequence data as it relates to new sequences of North American isolates. Even with low prevalence, Alaska has experienced at least four clades of SARS-CoV-2 viruses representing 5 genetic lineages. Pie chart is from the www.gisaid.org website comparing sequences of SARS-CoV-2 found in specimens from North America. The (+229) are the number of new sequences that have not yet been incorporated into the pie chart this week.

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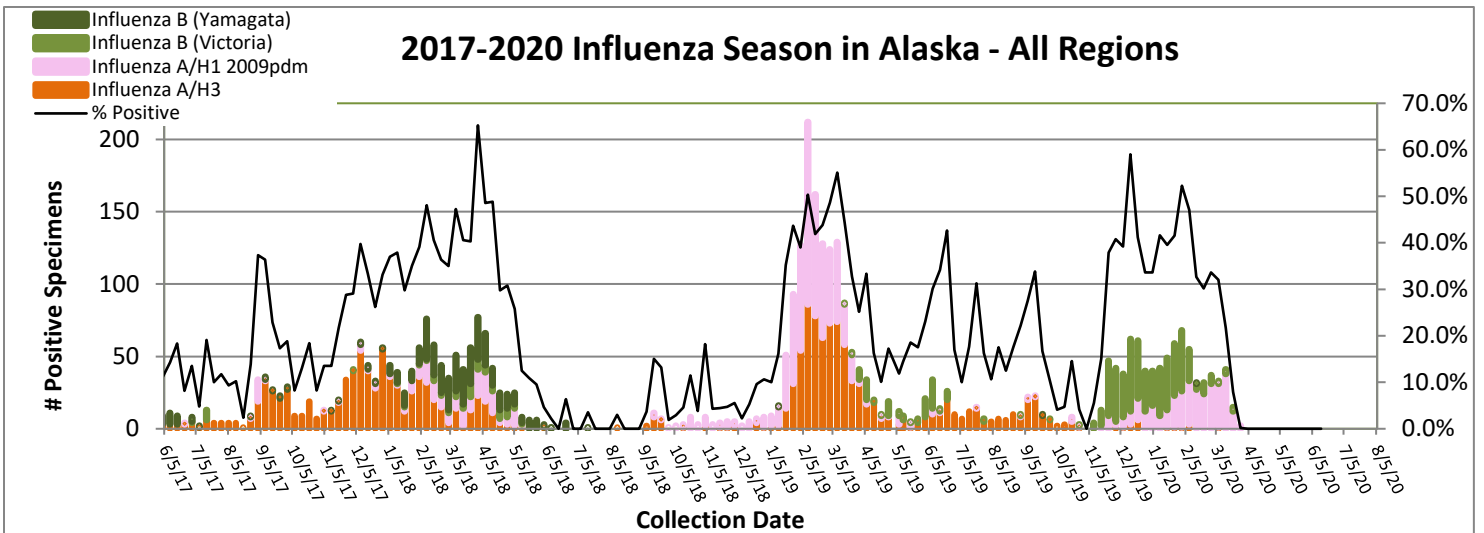
2. Influenza virus

PCR Testing for Week #2020-23 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							
		Rapid Influenza Test Results				PCR Test Results			
Collection Date Range: None tested		TP	TN	FP	FN	TP	TN	FP	FN
ASVL PCR Results									
Influenza A/H1 2009 pdm Positive									
Influenza A/H3 Positive									
Influenza A (subtype pending)									
Influenza B Positive (Yamagata lineage)									
Influenza B Positive (Victoria lineage)									
Influenza B (genotype pending)									
Influenza Negative									
Total # Specimens Tested	0								

Summary: Alaska influenza virus characterizations by Centers for Disease Control and Prevention (Specimens collected between 6/1/2020 – present)

2020-2021 Northern Hemisphere Vaccine Strain (by virus)	Antigenic Characterization*		Genetic Characterization*		Antiviral resistance*	
	# tested	Strain	# tested	Clades	# tested	Resistant/Susceptible
Influenza A/H3N2 viruses						
A/Hong Kong/2671/2019 (H3N2)-like virus or A/Hong Kong/45/2019 (H3N2)-like virus						
Influenza A/H1N1 viruses						
A/Guangdong-Maonan/SWL1536/2019 (H1N1) or A/Hawaii/70/2019 (H1N1)pdm09-like virus						
Influenza B (Victoria lineage) viruses						
B/Washington/02/2019						
Influenza B (Yamagata lineage) viruses						
B/Phuket/3073/2013						

*No viruses tested from recent collections (after 6/1/20). Results from antigenic and genetic testing and antiviral resistance screening will update as summer viruses are further characterized.



For recent specimens collected in week #23 (May 31 – June 6, 2020): 0 of 0 respiratory specimens were positive for influenza (0.0% 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.

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3. 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

HCV Antibody screening	Total Tested	Total Positive (%)
Week #2020-23	60	19 (31.7%)
Last 12 month period	5,708	1,052 (18.4%)
HCV RNA testing		
Week #2020-23	0	0 (0.0%)
Last 12 month period	967	718 (74.3%)

HCV Genotyping	Total Tested	Type 1a	Type 1b	Type 2a/c	Type 2b	Type 3	Type 4	Type 6	Unable to Genotype
Week #2020-23	0								
Last 12 month period*	703	431 (61.3%)	16 (2.3%)	3 (0.4%)	82 (11.7%)	152 (21.6%)	5 (0.7%)	1 (0.1%)	13 (1.8%)

*HCV genotyping data includes 9 coinfections (3 specimens with subtypes 1a & 3, 2 specimens with subtypes 1a & 1b, 3 specimen with subtypes 1a and 2b, and 1 specimen with types 1 & 4)

4. Human Immunodeficiency virus (HIV)

HIV antigen/antibody combination screening	Total Tested	Total Confirmed Positive
Week #2020-23	159	0 (0.00%)
Last 12 month period	8,079	9 (0.11%)

5. Norovirus Outbreaks

- No new outbreaks to report.

6. Rabies virus - Human Exposures

- A black bear from the northern region has tested **negative** for rabies.

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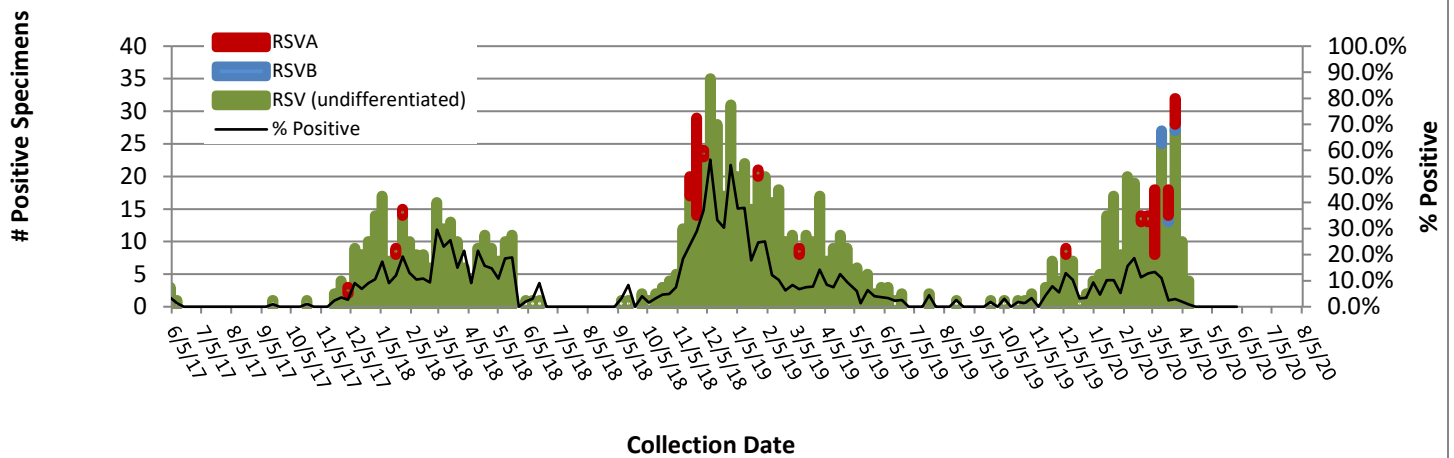
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7. Respiratory Syncytial Virus (RSV)

*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 #2020-23	0	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Season 2019-2020 (current)	5,111	262 (5.1%)	21 (8.0%)	4 (1.5%)	237 (90.5%)
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%)

2017-2020 Respiratory Syncytial Virus Season - All Regions



For recent specimens collected in week #23 (May 31 – June 6, 2020): 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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8. 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. Total tested is the new specimens tested for the week; *other data may appear as testing backlogs from previous submissions are completed*. Current respiratory season is 10/1/2019 – 9/30/2020. 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 SARS-CoV-2	Coronavirus 229E	Coronavirus NL63	Coronavirus HKU1	Coronavirus OC43	Human Bocavirus	<i>Chlamydophila pneumoniae</i>	<i>Mycoplasma pneumoniae</i>	Total Specimens Tested
All Regions																									
Week #2020-23							3	1		5	6						61		6					1	4,282
Season 2019-20 (current)	30	339		1	458		21	4	237	23	44	0	0	5	3	0	341	0	9	7	0	4	0	3	23,840
Season 2018-19	865	698		2	92		21	0	453	15	0	0	1	1	3	0	0	2	0	0	2	2	0	2	5,768
Season 2017-18	647	179		322	60		2	0	245	23	5	1	0	1	1	1	0	2	3	0	0	3	1	0	4,442
Season 2016-17	946	22		262	15		109	158	125	197	77	9	32	136	31	140	0	79	3	0	175	1	1	0	5,864
Anchorage/MatSu Region																									
Week #2020-23							1	1		1	3						42		5					1	2,255
Season 2019-20 (current)	17	181		1	167		9	2	87	12	31	0	0	0	1	0	185	0	5	5	0	2	0	1	12,919

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Season 2018-19	310	249		1	11		1	0	82	12	0	0	1	1	1	2	0	0	0	0	2	2	0	2	2,102	
Season 2017-18	246	82		82	34		1	0	62	9	1	1	0	0	0	2	0	0	2	0	0	1	0	0	1,702	
Season 2016-17	317	1		49	2		53	24	35	70	52	0	11	37	14	21	0	32	1	0	64	1	1	0	2,178	
Gulf Coast Region																										
Week #2020-23							1				1						19								952	
Season 2019-20 (current)	2	46		0	49		2	0	45	3	6	0	0	0	0	0	58	0	1	0	0	0	0	0	4,484	
Season 2018-19	66	109		0	6		0	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	740	
Season 2017-18	49	28		79	4		0	0	48	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0	810	
Season 2016-17	109	2		43	1		12	16	18	9	1	7	5	19	7	2	0	14	0	0	19	0	0	0	853	
Interior Region																										
Week #2020-23										3	2								1						381	
Season 2019-20 (current)	4	55		0	66		3	2	39	3	4	0	0	3	2	0	71	0	2	1	0	1	0	0	4,566	
Season 2018-19	286	123		0	33		19	0	144	2	0	0	0	0	2	1	0	2	0	0	0	0	0	0	1,326	

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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 SARS-CoV-2	Coronavirus 229E	Coronavirus NL63	Coronavirus HKU1	Coronavirus OC43	Human Bocavirus	<i>Chlamydia pneumoniae</i>	<i>Mycoplasma pneumoniae</i>	Total Specimens Tested
Season 2017-18	189	27		112	16		0	0	58	9	4	0	0	1	1	0	0	0	1	0	0	2	0	0	933
Season 2016-17	269	1		44	4		19	65	43	51	19	0	8	44	2	36	0	16	2	0	42	0	0	0	1,298
Northern Region																									
Week #2020-23																									77
Season 2019-20 (current)	0	4		0	63		0	0	3	0	2	0	0	0	0	0	2	0	0	0	0	0	0	1	896
Season 2018-19	49	20		0	0		0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	165
Season 2017-18	19	0		3	1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	35
Season 2016-17	4	17		4	0		4	1	4	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	32
Southeast Region																									
Week #2020-23							1			1															138
Season 2019-20 (current)	6	20		0	77		7	0	43	5	1	0	0	2	0	0	23	0	1	1	0	1	0	1	1,674
Season 2018-19	130	134		1	0		0	0	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	950

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Season 2017-18	120	11		15	1		0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	648	
Season 2016-17	195	1		114	8		18	49	12	37	2	2	5	17	7	69	0	11	0	0	33	0	0	0	1,235	
Southwest Region																										
Week #2020-23																									479	
Season 2019-20 (current)	1	33		0	36		0	0	20	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3,111	
Season 2018-19	24	63		0	42		1	0	86	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	485	
Season 2017-18	24	31		31	4		1	0	39	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	314	
Season 2016-17	52	0		8	0		3	3	13	15	3	0	3	19	1	6	0	6	0	0	16	0	0	0	268	