Alaska State Virology Laboratory (ASVL) Weekly Report – Week #37
September 8 - 14, 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. Measles virus

For specific information regarding measles in Alaska, please visit http://dhss.alaska.gov/dph/Epi/id/Pages/measles/default.aspx.

Specimens collected from patients with suspected measles infections are tested at the Alaska State Virology Lab. If measles RNA is detected, genotyping is attempted at the APHL/CDC Vaccine Preventable Disease Reference Center in California. Please see additional information regarding measles and measles genotypes at cdc.gov/measles.

Collection Date Range: 7/14/2019 – 9/11/2019

# Measles suspect cases tested	Measles RNA Detected (% pos)	Genotype
17	1 (5.9%)	D8

2. Influenza virus

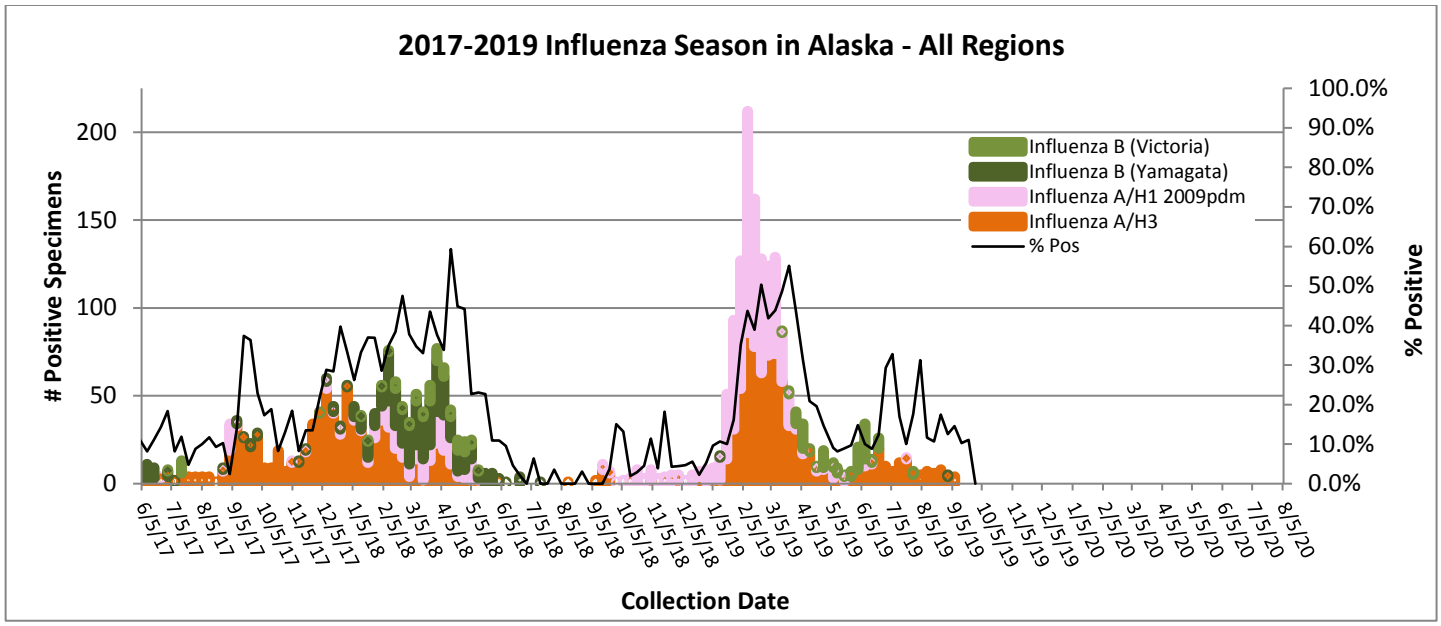
PCR Testing for Week #2019-37 TP: true positive, FP: false positive, TN: true negative, FN: false negative. True = 2 tests concur, False = 2 tests do not concur Collection Date Range: 7/16/2019 – 9/8/2019		Corresponding Influenza Sentinel Providers Results								
		Rapid Influenza Test Results				PCR Test Results				No Data
ASVL PCR Results		TP	TN	FP	FN	TP	TN	FP	FN	
Influenza A/H1 2009 pdm Positive										
Influenza A/H3 Positive	12					10				2
Influenza A (subtype pending)	8					8				
Influenza B Positive (Yamagata lineage)										
Influenza B Positive (Victoria lineage)										
Influenza B (genotype pending)	1	1								
Influenza Negative	55		4				50			1
Total # Specimens Tested	**76**	**1**	**4**	**0**	**0**	**18**	**50**	**0**	**0**	**3**

Summary: Influenza vaccine strain match (specimens collected between 6/1/2019 – present)

# AK Specimens Tested by CDC	Results	Most closely related subtype	Clade	Match 2019-20 flu vaccine?
5 Influenza A/H3 viruses	5 (100%)	A/SINGAPORE/INFIMH-16-0019/2016-LIKE (H3N2)	3C.2a1	*[not yet available]*
1 Influenza A/H1N1 viruses	1 (100%)	*[not yet available]*	6B.1A	*[not yet available]*
0 Influenza B virus (Yamagata)	0 (0%)			
2 Influenza B viruses (Victoria)	2 (100%)	B/COLORADO/06/2017-LIKE	V1A-3del	Yes

Summary: Influenza antiviral resistance surveillance (specimens collected between 6/1/2019 – present)

# AK Specimens Tested by CDC	Results	Description
0 Influenza A/H3 virus	0 (0%)	
0 Influenza A/H1N1 virus	0 (0%)	
0 Influenza B (Victoria)	0 (0%)	
0 Influenza B (Yamagata)	0 (0%)	



For recent specimens collected in week #37 (September 8 - 14, 2019): 0 of 1 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

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 #2019-37	194	10 (5.2%)
Last 12 month period	5,818	905 (15.6%)
HCV RNA testing		
Week #2019-37	40	24 (60.0%)
Last 12 month period	892	602 (67.5%)

HCV Genotyping	Total Tested	Type 1a	Type 1b	Type 2a/c	Type 2b	Type 3	Type 4	Type 6	Unable to Genotype
Week #2019-37	24	16			3	5			
Last 12 month period*	602	386 (64.1%)	20 (3.3%)	2 (0.3%)	65 (10.8%)	115 (19.1%)	3 (0.5%)	1 (0.2%)	10 (1.7%)

*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)

4. Human Immunodeficiency virus (HIV)

HIV antigen/antibody combination screening	Total Tested	Total Confirmed Positive
Week #2019-37	172	0 (0.0%)
Last 12 month period	8,028	16 (0.20%)

5. Norovirus Outbreaks

- No new outbreaks to report.

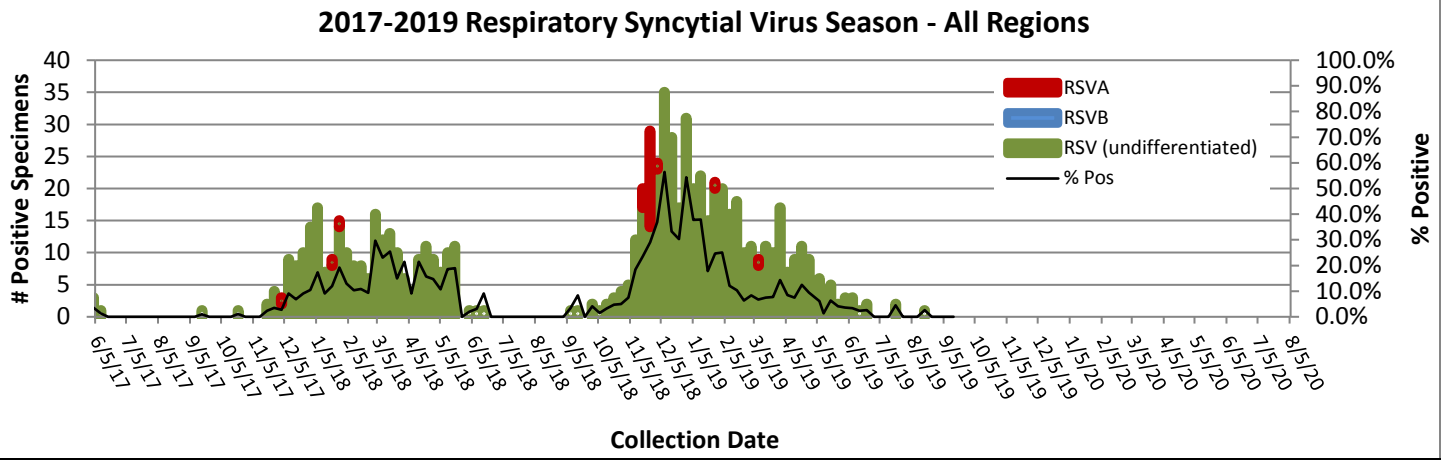
6. Rabies virus - Human Exposures

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

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 #2019-37	70	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Season 2018-2019 (current)	3,776	473 (12.5%)	21 (4.4%)	0 (0.0%)	452 (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%)
Season 2015-2016	4,987	388 (7.8%)	145 (37.4%)	243 (62.6%)	0 (0.0%)



For recent specimens collected in week #37 (September 8 - 14, 2019): 0 of 1 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. 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	*Chlamydophila pneumoniae*	*Mycoplasma pneumoniae*	**Total Specimens Tested**
All Regions																								
Week #2019-37	12		8			1																		**76**
Season 2018-19 (current)	806	694		2	90		21	0	452	15	0	0	1	1	3	0	2	0	0	2	2	0	2	**5,522**
Season 2017-18	647	179		322	60		2	0	245	23	5	1	0	1	1	1	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	79	3	0	175	1	1	0	**5,864**
Season 2015-16	94	622		226	0		146	254	0	706	183	97	2	70	43	272	25	86	82	115	NT	NT	NT	**5,036**
Anchorage/MatSu Region																								
Week #2019-37	2		4			1																		**44**
Season 2018-19 (current)	290	249		1	9		1	0	82	12	0	0	1	1	1	2	0	0	0	2	2	0	2	**1,975**

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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	*Chlamydophila pneumoniae*	*Mycoplasma pneumoniae*	**Total Specimens Tested**
Season 2017-18	246	82		82	34		1	0	62	9	1	1	0	0	0	2	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	32	1	0	64	1	1	0	**2,178**
Season 2015-16	33	203		87	0		25	107	0	253	37	30	0	29	16	102	12	30	22	40	NT	NT	NT	**1,903**
Gulf Coast Region																								
Week #2019-37																								**5**
Season 2018-19 (current)	62	107		0	6		0	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**707**
Season 2017-18	49	28		79	4		0	0	48	3	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	14	0	0	19	0	0	0	**853**
Season 2015-16	7	54		10	0		4	11	0	47	15	9	0	3	2	9	2	9	1	9	NT	NT	NT	**480**
Interior Region																								
Week #2019-37	3		3																					**11**
Season 2018-19 (current)	270	122		1	33		19	0	143	2	0	0	0	0	2	1	2	0	0	0	0	0	0	**1,281**
Season 2017-18	189	27		112	16		0	0	58	9	4	0	0	1	1	0	0	1	0	0	2	0	0	**933**

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Season 2016-17	269	1		44	4		19	65	43	51	19	0	8	44	2	36	16	2	0	42	0	0	0	**1,298**
Season 2015-16	14	164		72	0		101	62	0	210	75	34	1	19	8	96	6	28	37	31	NT	NT	NT	**1,396**
Northern Region																								
Week #2019-37																								**0**
Season 2018-19 (current)	49	20		0	0		0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**164**
Season 2017-18	19	0		3	1		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	1	0	0	0	**32**
Season 2015-16	1	35		1	0		0	11	0	2	3	1	0	0	1	3	1	0	0	1	NT	NT	NT	**59**
Southeast Region																								
Week #2019-37	7		1																					**13**
Season 2018-19 (current)	111	133		0	0		0	0	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**914**
Season 2017-18	120	11		15	1		0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**648**

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Season 2016-17	195	1		114	8		18	49	12	37	2	2	5	17	7	69	11	0	0	33	0	0	0	**1,235**
Season 2015-16	37	130		39	0		10	38	0	117	42	18	1	11	7	28	4	8	17	29	NT	NT	NT	**921**
Southwest Region																								
Week #2019-37																								**3**
Season 2018-19 (current)	24	63		0	42		1	0	86	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**481**
Season 2017-18	24	31		31	4		1	0	39	1	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	6	0	0	16	0	0	0	**268**
Season 2015-16	2	36		17	0		6	25	0	77	11	5	0	8	9	34	0	11	5	5	NT	NT	NT	**277**