

Alaska State Virology Laboratory (ASVL) Weekly Report – Week #1

December 31 – January 6, 2018

(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. **For information regarding mumps infections in Alaska, please visit:**

<http://dhss.alaska.gov/dph/Epi/id/Pages/Mumps.aspx>

1. Mumps virus

Specimens collected from patients with suspected mumps infections (or any vaccine preventable infection) are tested by the APHL/CDC Vaccine Preventable Disease Reference Center in California. If Mumps RNA is detected, genotyping is attempted at the California laboratory. Please see additional information regarding mumps and mumps genotypes at cdc.gov/mumps.

Collection Date Range: 6/28/2017 - 12/29/2017

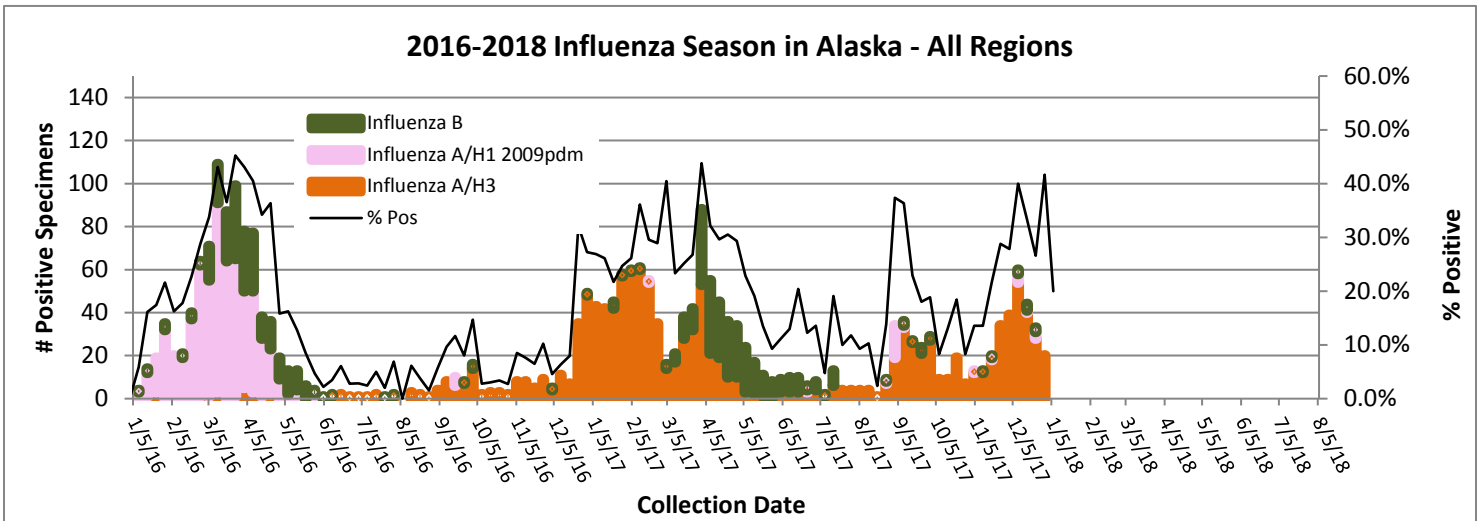
# AK Specimens Tested by APHL/CDC Reference Center	Mumps RNA Detected	Genotype G
320	127 (39.7%)	92

*These mumps numbers are not the official numbers for the outbreak and only represent specimens routed through the Alaska State Public Health Laboratories. They are presented for illustrative purposes only and should not be reported in any external reports or media.

2. Influenza virus

PCR Testing for Week #2018-1 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: 12/4/2017 – 1/1/2018		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	1	1								
Influenza A/H3 Positive	34	30			3					1
Influenza A (subtype pending)										
Influenza B Positive	1	1								
Influenza Negative	82		76							6
Total # Specimens Tested	118	32	76	0	3	0	0	0	0	7
Summary: Influenza vaccine strain match (specimens collected between 6/1/2017 – present)										
41 AK Specimens Tested by CDC	Results	Most closely related subtype				Match with 2017–2018 flu vaccine?				
27 Influenza A/H3 viruses	27 (100%)	A/HONG KONG/4801/2014-LIKE (H3N2)				Yes				
4 Influenza A/H1N1 viruses	4 (100%)	A/MICHIGAN/45/2015-LIKE (H1N1)pdm09				Yes				
4 Influenza B virus (Yamagata)	4 (100%)	B/PHUKET/3073/2013-LIKE				Yes; quadrivalent vaccines only				
6 Influenza B viruses (Victoria)	6 (100%)	B/BRISBANE/60/2008-LIKE				Yes				
Summary: Influenza antiviral resistance surveillance (specimens collected between 6/1/2017 – present)										
# AK Specimens Tested by CDC	Results	Description (Wild-type = susceptible to neuraminidase inhibitors)								
6 Influenza A/H3 viruses	6 (100%)	Wild-type neuraminidase gene sequence at amino acid positions 119, 292, and 294								

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For recent specimens collected in week #1 (December 31, 2017 – January 6, 2018): 1 of 5 respiratory specimens were positive for influenza (20% 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.

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 #2018-1	84	15 (17.9%)
Last 12 month period	5,984	771 (12.9%)
HCV RNA testing		
Week #2018-1	26	19 (73.1%)
Last 12 month period	881	600 (68.1%)

HCV Genotyping	Total Tested	Type 1a	Type 1b	Type 2a/c	Type 2b	Type 3	Type 4	Type 6	Unable to Genotype
Week #2018-1	19	12	2		2	3			
Last 12 month period*	600	346 (57.7%)	24 (4.0%)	3 (0.5%)	80 (13.3%)	125 (20.8%)	6 (1.0%)	0 (0.0%)	22 (3.7%)

*HCV genotyping data includes 6 coinfections (4 specimens with subtypes 1a & 3, 2 specimens with subtypes 1a & 2b)

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4. Human Immunodeficiency virus (HIV)

HIV Antibody screening (4 th Generation)	Total Tested	Total Confirmed Positive
Week #2018-1	123	0 (0.0%)
Last 12 month period	7,977	16 (0.20%)

5. Norovirus Outbreaks

- No outbreaks to report.

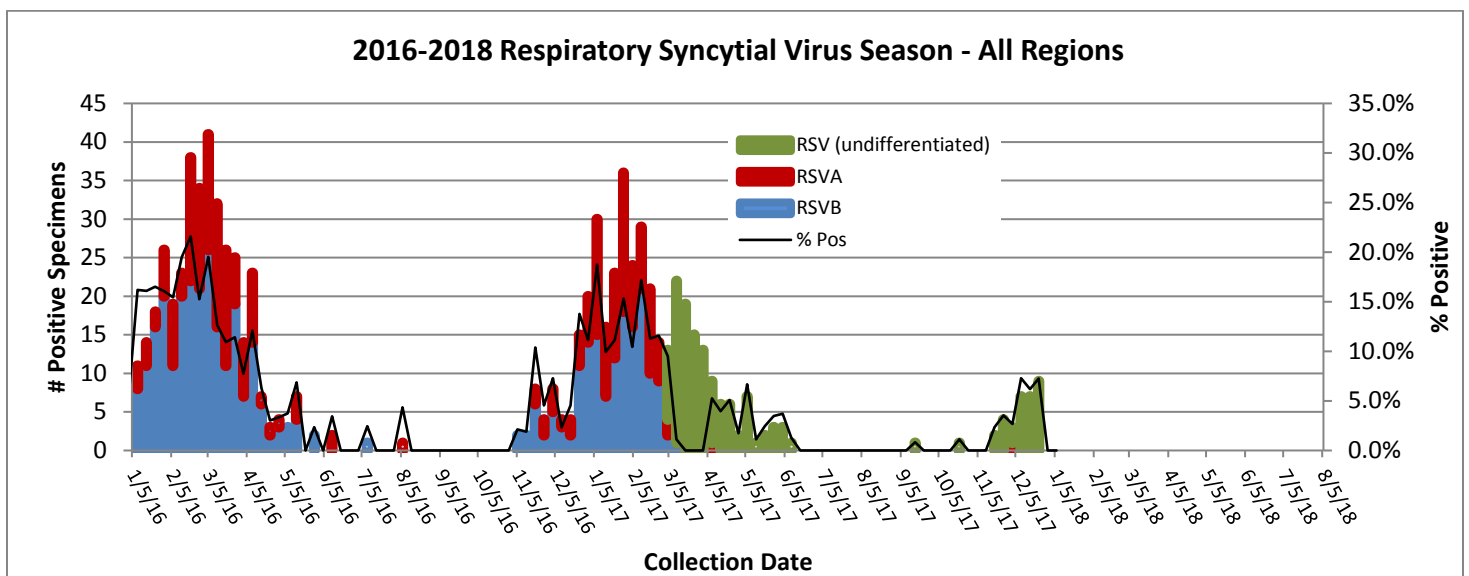
6. Rabies virus - Human Exposures

- No cases to report.

7. Respiratory Syncytial Virus (RSV)

*Surveillance of RSV using a PCR assay that does not differentiate groups A from B began 2/27/2017.

PCR testing	Total Tested	Total Positives (% pos)	Total Positive RSV A (% of pos)	Total Positive RSV B (% of pos)	Total Positive (RSV undifferentiated)*
Week #2018-1	85	8 (9.4%)	0 (0.0%)	0 (0.0%)	8 (100%)
Season 2017-2018 (current)	988	33 (3.3%)	1 (3.0%)	0 (0.0%)	32 (97.0%)
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 #1 (December 31, 2017 – January 6, 2018): 0 of 0 respiratory specimens was positive for RSV (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. Current respiratory season is 10/1/2017 – 9/30/2018. NT = Not tested

	Influenza A/H3	Influenza A/H1pdm09	Influenza A (subtype pending)	Influenza B	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
All Regions																						
Week #2018-1	34	1		1			8	1														118
Season 2017-18 (current)	302	10		9	1	0	32	8	2	1	0	0	0	1	0	3	0	0	2	1	0	1,367
Season 2016-17	934	19		278	108	158	117	197	77	9	32	136	31	140	79	3	0	175	0	1	0	5,780
Season 2015-16	94	622		226	146	254	0	706	183	97	2	70	43	272	25	86	82	115	NT	NT	NT	5,036
Anchorage/MatSu Region																						
Week #2018-1	15	1					3	1														43
Season 2017-18 (current)	102	9		5	1	0	11	2	1	1	0	0	0	1	0	2	0	0	1	0	0	438
Season 2016-17	307	0		46	52	24	30	70	52	0	11	37	14	21	32	1	0	64	0	1	0	2,132
Season 2015-16	33	203		87	25	107	0	253	37	30	0	29	16	102	12	30	22	40	NT	NT	NT	1,903
Gulf Coast Region																						
Week #2018-1	2			1			1															14

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	Influenza A/H3	Influenza A/H1pdm09	Influenza A (subtype pending)	Influenza B	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	
Season 2017-18 (current)	9	1		1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	184
Season 2016-17	108	0		44	12	16	17	9	1	7	5	19	7	2	14	0	0	19	0	0	0	0	833
Season 2015-16	7	54		10	4	11	0	47	15	9	0	3	2	9	2	9	1	9	NT	NT	NT	480	
Interior Region																							
Week #2018-1	12																						34
Season 2017-18 (current)	90	0		3	0	0	4	4	1	0	0	0	0	0	0	1	0	0	1	0	0	0	335
Season 2016-17	269	1		51	19	65	42	51	19	0	8	44	2	36	16	2	0	42	0	0	0	0	1,298
Season 2015-16	14	164		72	101	62	0	210	75	34	1	19	8	96	6	28	37	31	NT	NT	NT	1,396	
Northern Region																							
Week #2018-1																							0
Season 2017-18 (current)	19	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	30
Season 2016-17	4	17		4	4	1	4	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	32
Season 2015-16	1	35		1	0	11	0	2	3	1	0	0	1	3	1	0	0	1	NT	NT	NT	59	

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Southeast Region																						
Week #2018-1	3						4															16
Season 2017-18 (current)	72	0		0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	311
Season 2016-17	194	1		127	18	49	11	37	2	2	5	17	7	69	11	0	0	33	0	0	0	1,219
Season 2015-16	37	130		39	10	38	0	117	42	18	1	11	7	28	4	8	17	29	NT	NT	NT	921
Southwest Region																						
Week #2018-1	2																					11
Season 2017-18 (current)	10	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69
Season 2016-17	52	0		6	3	3	13	15	3	0	3	19	1	6	6	0	0	16	0	0	0	266
Season 2015-16	2	36		17	6	25	0	77	11	5	0	8	9	34	0	11	5	5	NT	NT	NT	277