WISCONSIN DEPARTMENT OF HEALTH SERVICES

Division of Public Health

Bureau of Communicable Diseases and Emergency Response

Respiratory virus surveillance report for the week ending January 22, 2011, week 11-03

AT-A-GLANCE

- Respiratory viruses identified this week :
  Influenza, RSV, rhinovirus/enterovirus and parainfluenza were the predominant viruses

- Influenza-like illness (ILI) activity for this week

Wisconsin	Low
Wisconsin (CDC level)	Minimal
Western Region	Low
Northern Region	Low
Northeastern Region	Low
Southeastern Region	Low
Southern Region	Low

- ILI activity in Region V of the U.S. (WI, MN, IL, MI, OH, IN) is <u>above</u> baseline levels

- ILI activity in the U.S. is <u>above</u> baseline levels

- The Predictive Value Positive (PVP) for rapid influenza tests is: Low but increasing
  (PVP is the probability of disease in a patient with a positive test result)

- The Predictive Value Negative (PVN) for rapid influenza tests is: High but decreasing
  (PVN is the probability of not having disease when the test result is negative)

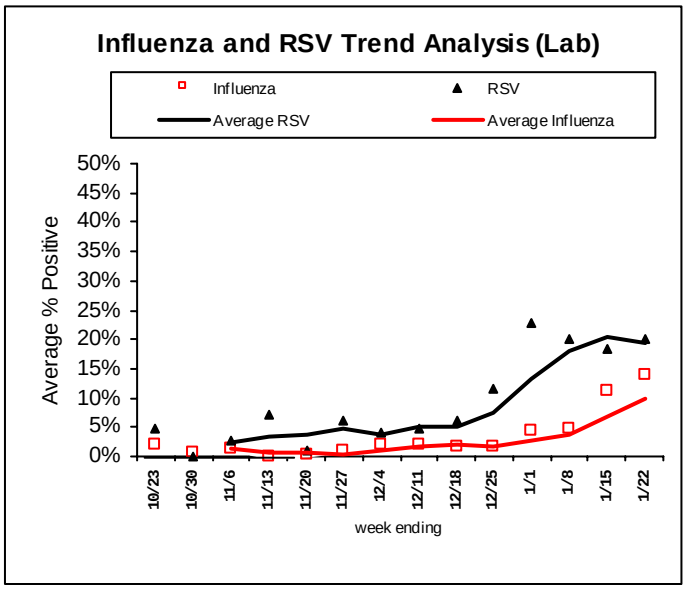
- Influenza-associated pediatric deaths (October 1, 2010-present)

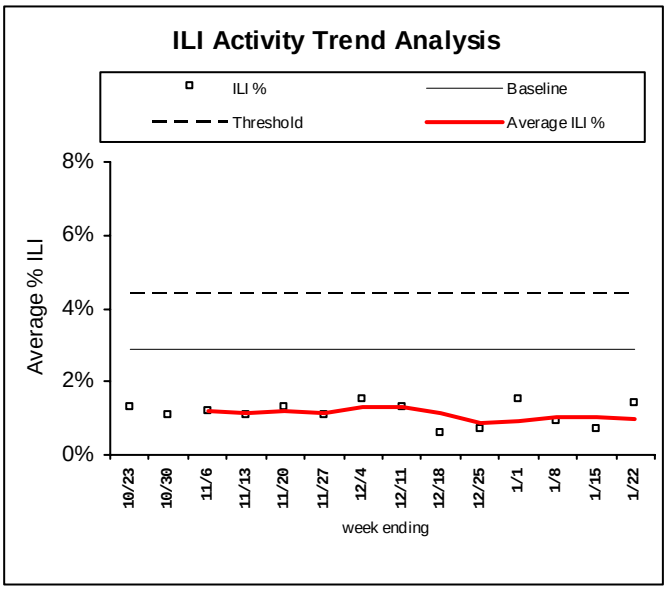
	Week 11-03	Total to Date
Wisconsin	0	0
United States	3	13

WISCONSIN and REGIONAL SUMMARIES
(Trend analysis based on 3-week moving averages)

Wisconsin (ILI activity is Low)

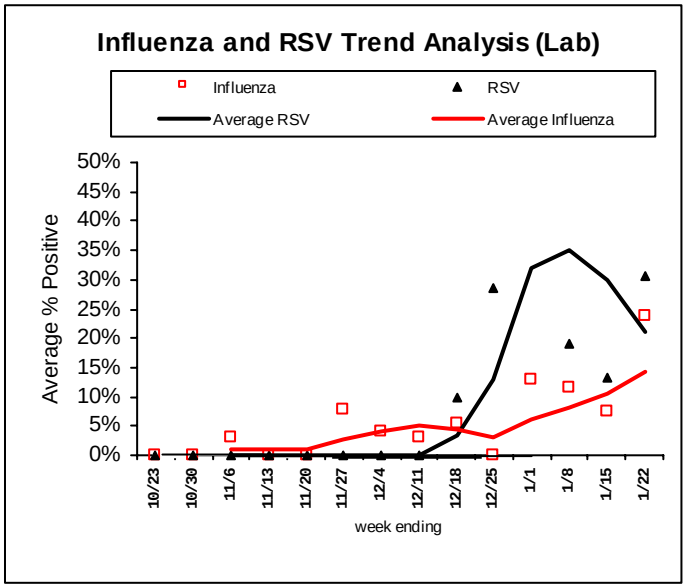
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
683	88	6	942	11.3%	291	58	19.9%	1.4%	2.9%	4.4%

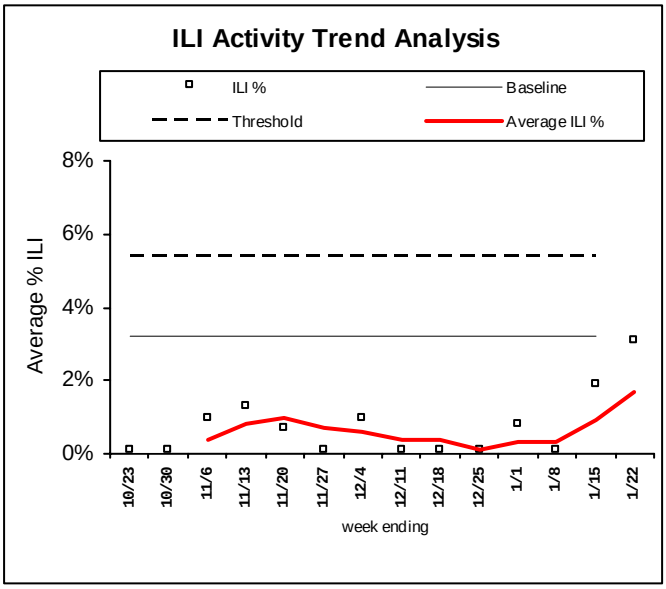




Northern Region (ILI activity is Low)

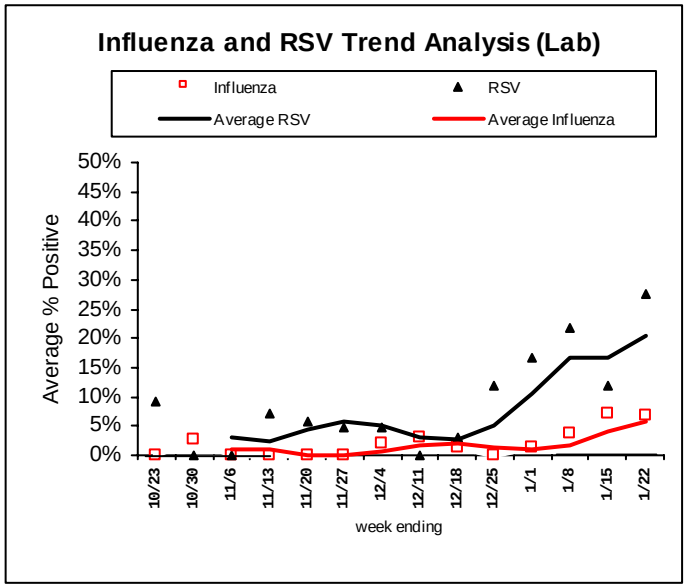
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
80	18	1	19	23.8%	36	11	30.6%	3.1%	3.2	5.4%

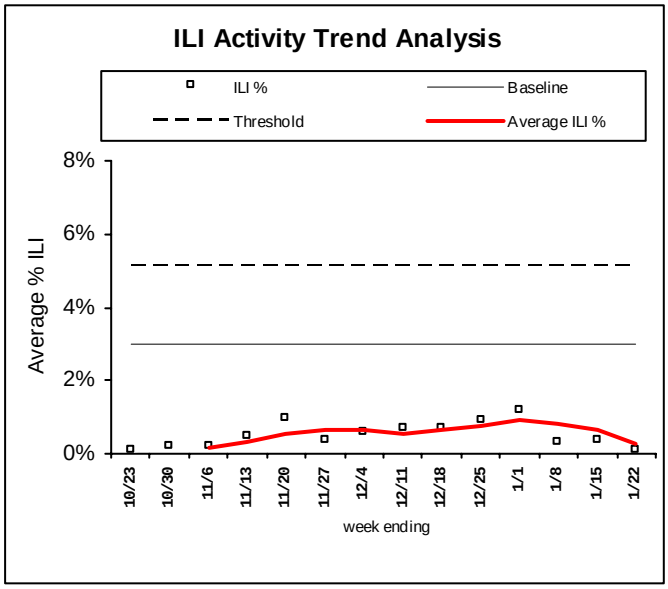




Western Region (ILI activity is Low)

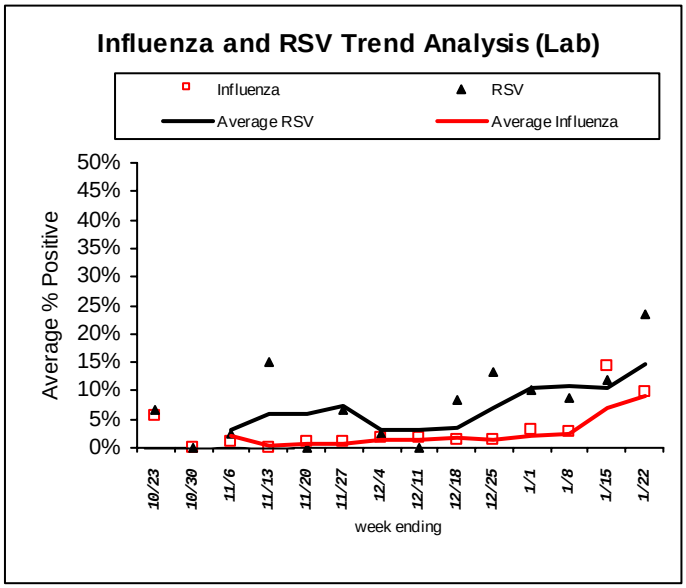
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
87	5	1	6	6.9%	58	16	27.6%	0.1%	3.0%	5.1%

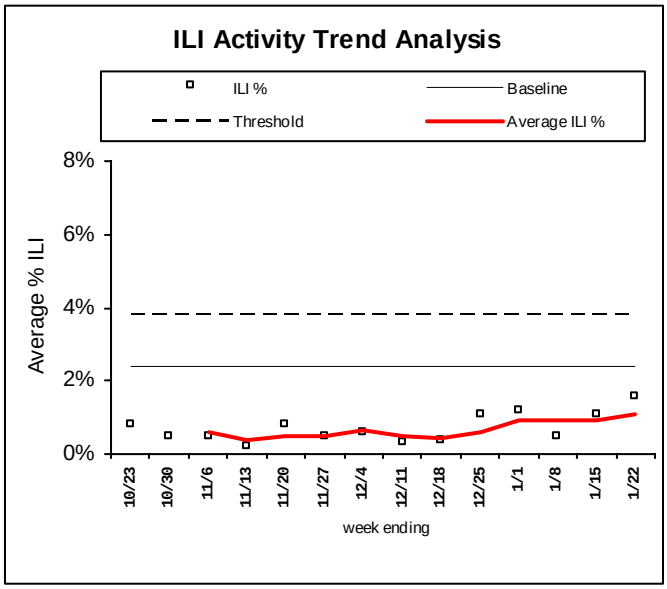




Northeastern Region (ILI activity is Low)

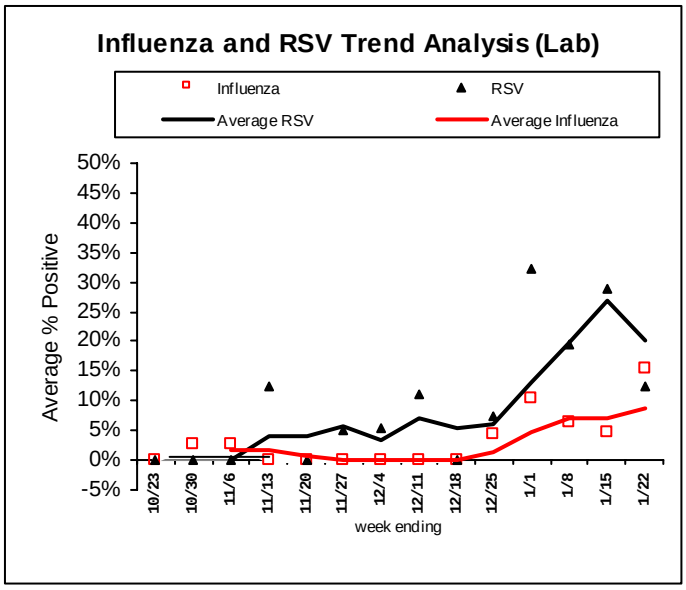
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
182	16	2	18	9.9%	47	11	23.4%	1.6%	2.4%	3.8%

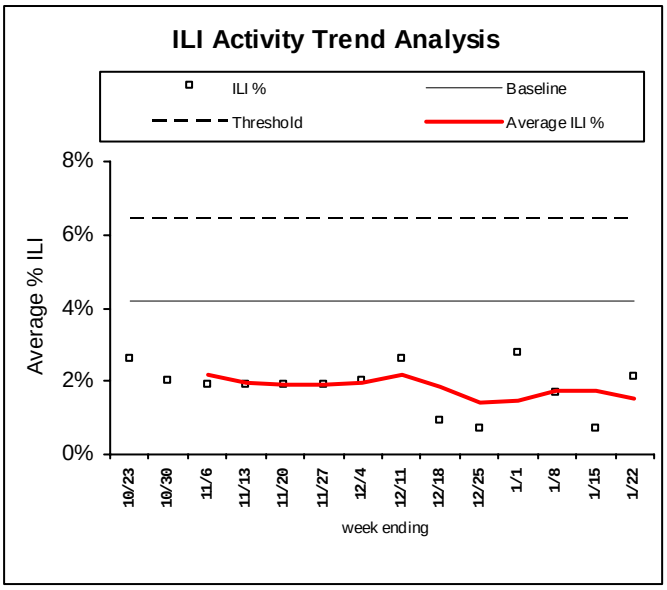




Southern Region (ILI activity is Low)

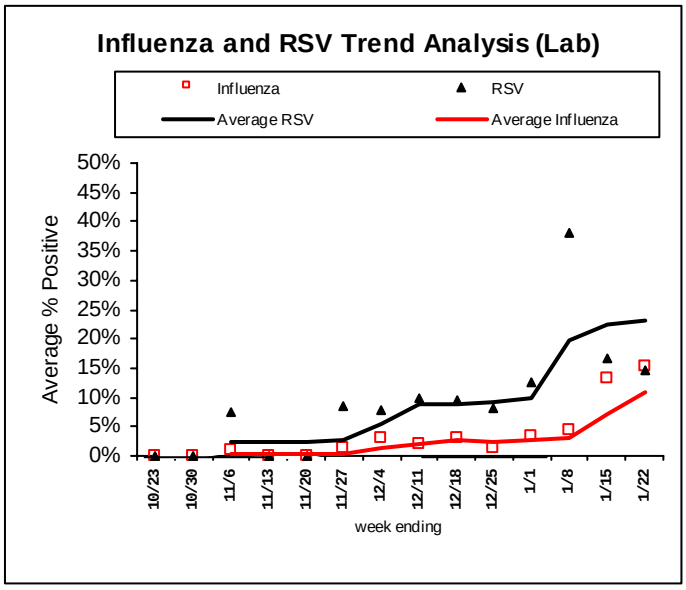
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
124	18	1	19	15.3%	81	10	12.3%	0.7%	4.2%	6.4%

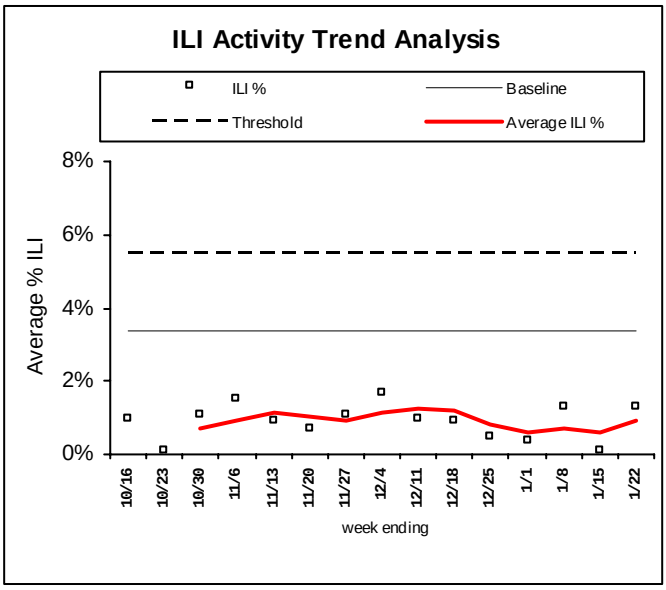




Southeastern Region (ILI activity is Low)

INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
210	31	1	32	15.2%	69	10	14.5%	1.3%	3.4%	5.5%





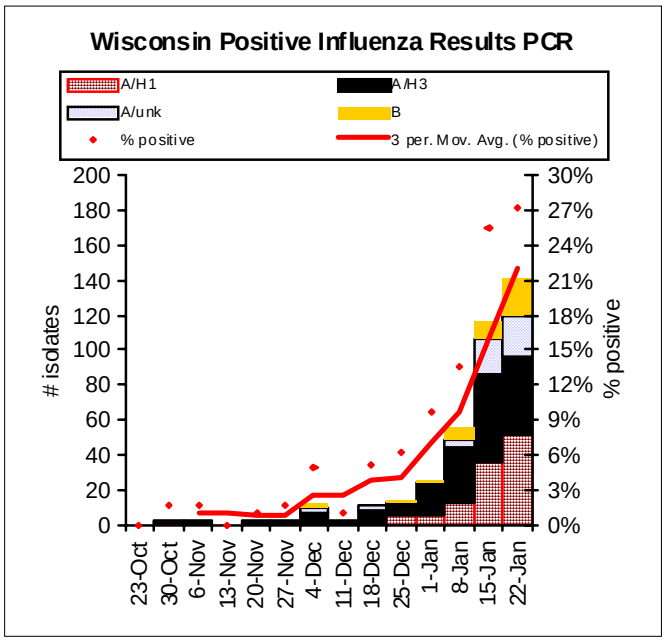
LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES (PCR)

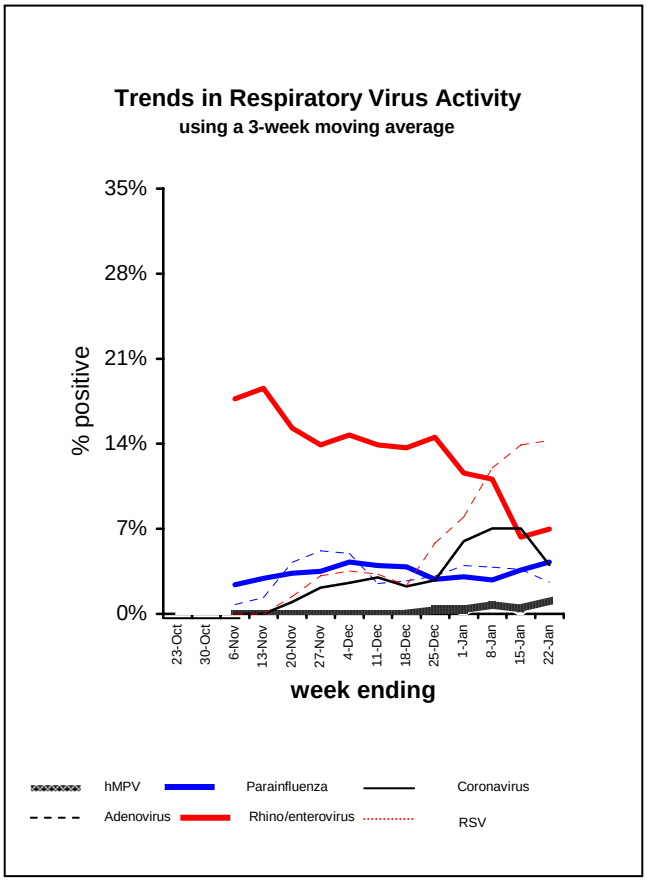
Respiratory Agent	Tested	Positive	% Positive	Flu A (H1)	Flu A (H3)	Flu A (Unk)	Flu B
Influenza	533	145	27.2%	51	45	23	22

Respiratory Agent	Tested	Positive	% Positive	P1	P2	P3	P4
Parainfluenza	225	11	4.9	0	0	11	0

Respiratory Agent	Tested	Positive	% Positive	CoV-229E	CoV-OC43	CoV-NL63	CoV-HKU1
Coronavirus	105	5	4.8	0	3	2	0

Respiratory Agent	Tested	Positive	% Positive
RSV	246	27	11.0%
Human Metapneumovirus	147	3	2.0%
Rhino-entero	138	8	5.8%
Adenovirus	138	1	0.7%



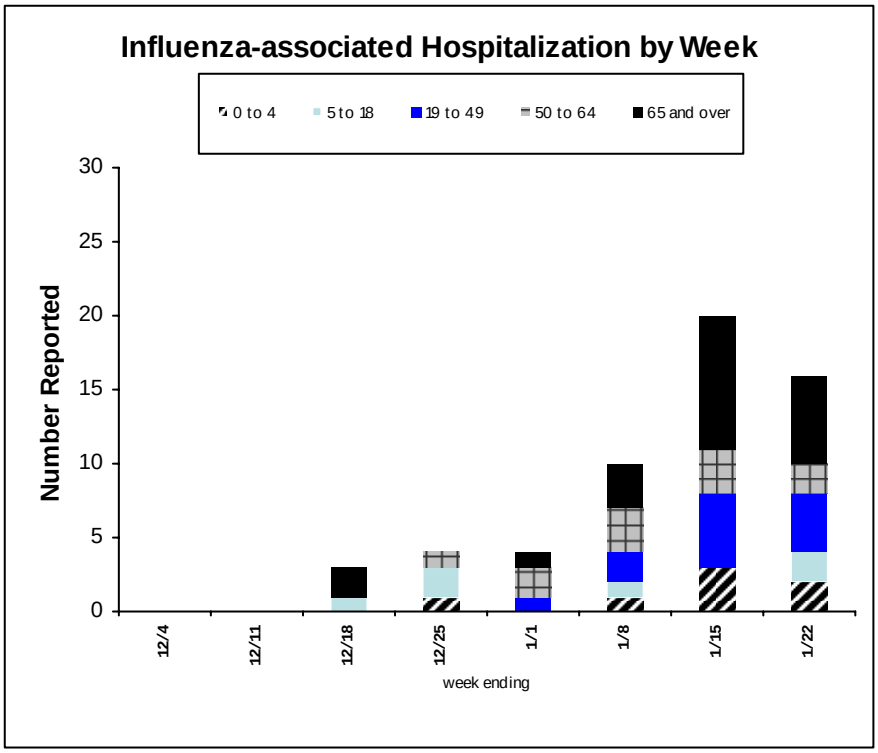


Cumulative number of positive influenza tests
By subtype, October 1, 2010 to present

	A/H1	A/H3	A/Unknown	B	Total
Total Number positive	**109**	**179**	**56**	**44**	**388**
% of Total number positive	**28%**	**46%**	**14%**	**11%**	**100%**

Influenza-associated Hospitalizations, December 1, 2010 to present

Age Group	Total Number Reported	Influenza Subtypes				Admitted to ICU	Required Mechanical Ventilation
		A/H1	A/H3	A/Unknown	B		
0 to 4	7	3	1	1	2	3	3
5 to18	6	3	2	1	0	2	1
19 to 49	12	4	3	4	1	2	1
50 to 64	11	2	4	4	1	2	1
65 and over	16	0	5	10	1	2	1
Total	52	12	15	20	5	11	7

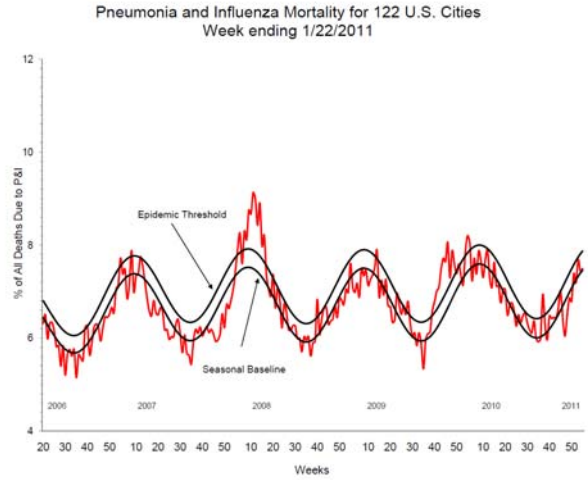


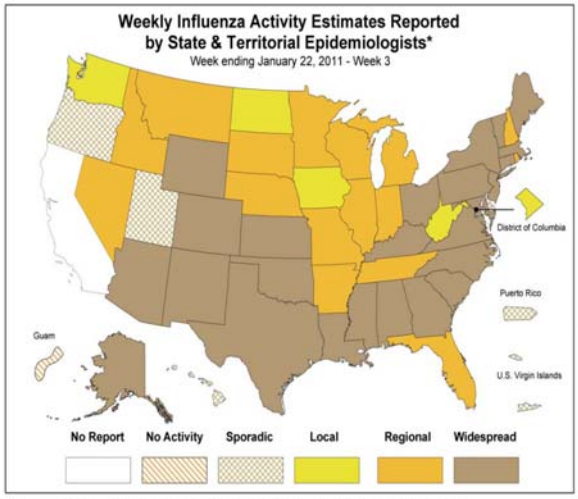
National and Regional Summary of Select Surveillance Components

	Data for current week			Data cumulative since October 3, 2010 (Week 40)				
HHS Surveillance Regions*	Out-patient ILI†	% positive for flu‡	Number of jurisdictions reporting regional or widespread activity§	A (H3)	2009 A (H1N1)	A (Subtyping not performed)	B	Pediatric Deaths
Nation	Elevated	30.1%	41 of 54	5,316	1,534	3,516	4,440	13
Region 1	Normal	38.2%	6 of 6	468	66	4	33	0
Region 2	Elevated	20.1%	2 of 4	253	22	283	31	2
Region 3	Elevated	28.6%	3 of 6	567	314	144	102	2
Region 4	Elevated	23.7%	8 of 8	582	338	1,376	2,614	3
Region 5	Elevated	54.8%	6 of 6	550	309	74	187	0
Region 6	Elevated	31.7%	5 of 5	744	69	750	757	2
Region 7	Elevated	27.8%	3 of 4	195	106	161	96	0
Region 8	Normal	24.2%	4 of 6	1,063	128	593	123	3
Region 9	Normal	27.4%	2 of 5	735	138	119	471	1
Region 10	Normal	21.4%	2 of 4	159	44	12	28	0

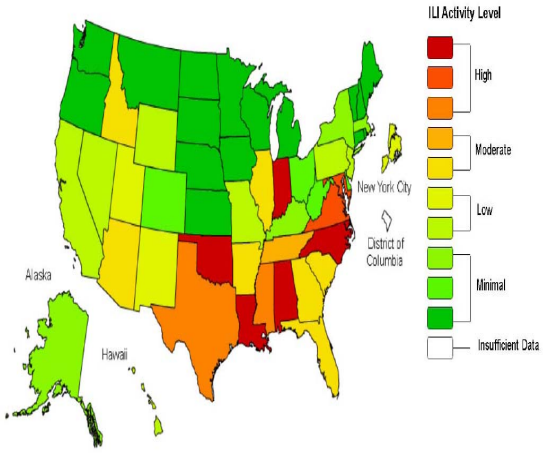
*HHS regions (Region 1 CT, ME, MA, NH, RI, VT; Region 2: NJ, NY, Puerto Rico, U.S. Virgin Islands; Region 3: DE, DC, MD, PA, VA, WV; Region 4: AL, FL, GA, KY, MS, NC, SC, TN; Region 5: IL, IN, MI, MN, OH, WI; Region 6: AR, LA, NM, OK, TX; Region 7: IA, KS, MO, NE; Region 8: CO, MT, ND, SD, UT, WY; Region 9: AZ, CA, Guam, HI, NV; and Region 10: AK, ID, OR, WA).

Pneumonia and Influenza (P&I) Mortality Surveillance: During week 3, 7.5% of all deaths reported through the 122-Cities Mortality Reporting System were due to P&I. This percentage was below the epidemic threshold of 7.9% for week 3.

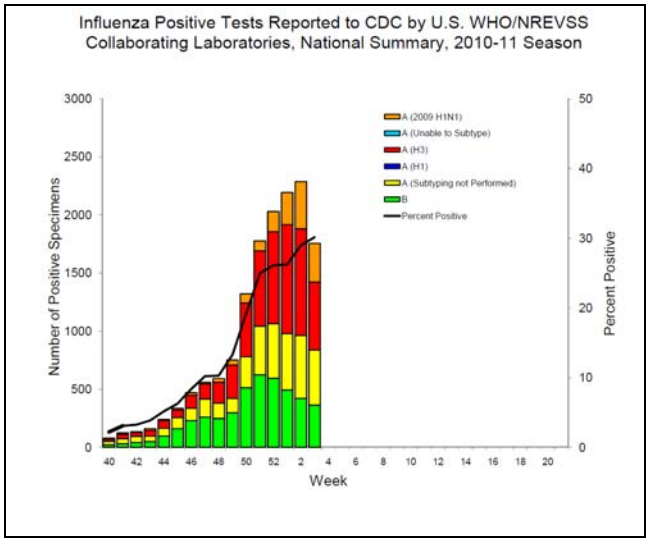




* This map indicates geographic spread & does not measure the severity of influenza activity



*This map uses the proportion of outpatient visits to health care providers for influenza-like illness to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state. Therefore, outbreaks occurring in a single city could cause the state to display high activity levels.



Antiviral Resistance:

Neuraminidase Inhibitor Resistance Testing Results on Samples Collected Since October 1, 2010.

	Virus Samples tested (n)	Resistant Viruses, Number (%) Oseltamivir	Virus Samples tested (n)	Resistant Viruses, Number (%) Zanamivir
Seasonal Influenza A (H1N1)	0	0 (0.0)	0	0 (0.0)
Influenza A (H3N2)	158	0 (0.0)	158	0 (0.0)
Influenza B	119	0 (0.0)	119	0 (0.0)
2009 Influenza A (H1N1)	87	0 (0.0)	33	0 (0.0)