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 29, 2011, week 11-04

AT-A-GLANCE

- Respiratory viruses identified this week :
  Influenza, RSV, rhinovirus/enterovirus and coronaviruses 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: Moderate (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)

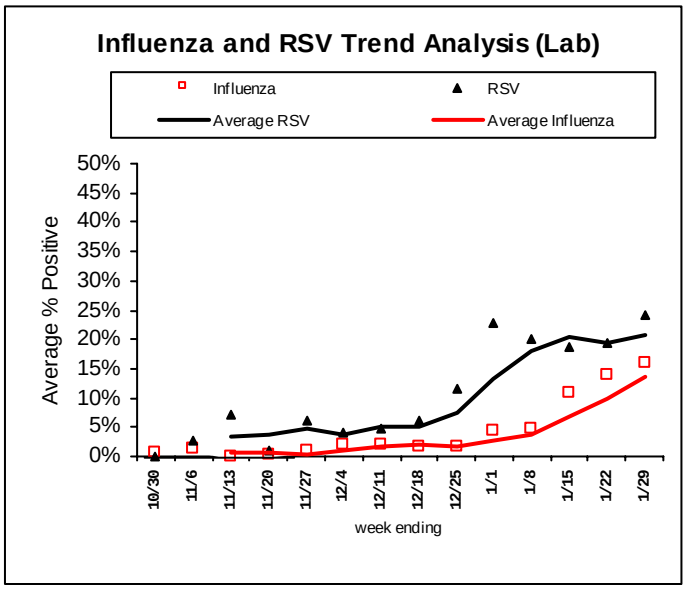
- Influenza-associated pediatric deaths (October 1, 2010-present)

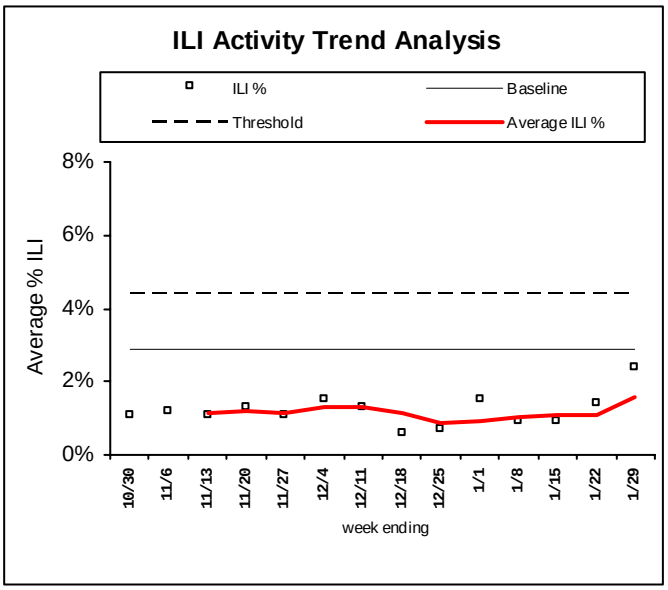
	Week 11-04	Total to Date
Wisconsin	0	0
United States	6	19

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

Wisconsin (ILI activity is Low)

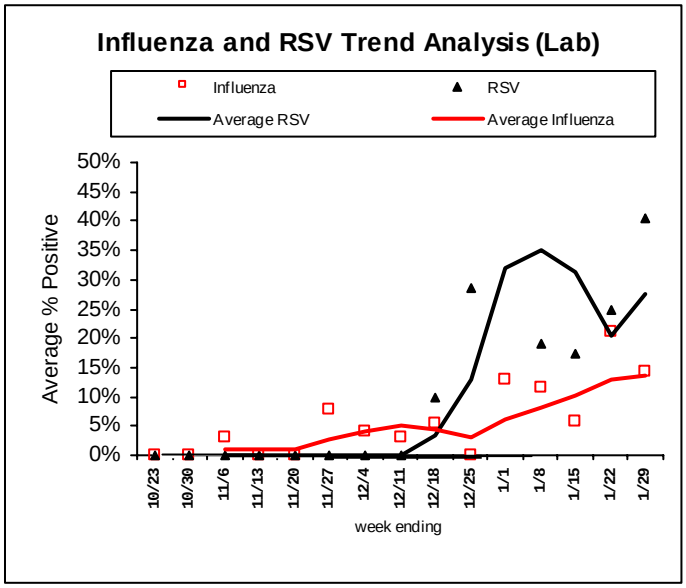
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
820	125	6	131	16.0%	337	81	24.0%	2.4%	2.9%	4.4%

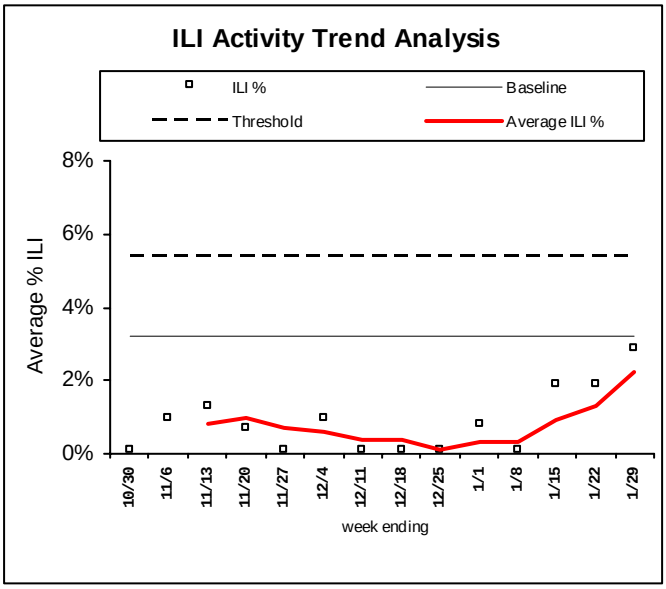




Northern Region (ILI activity is Low)

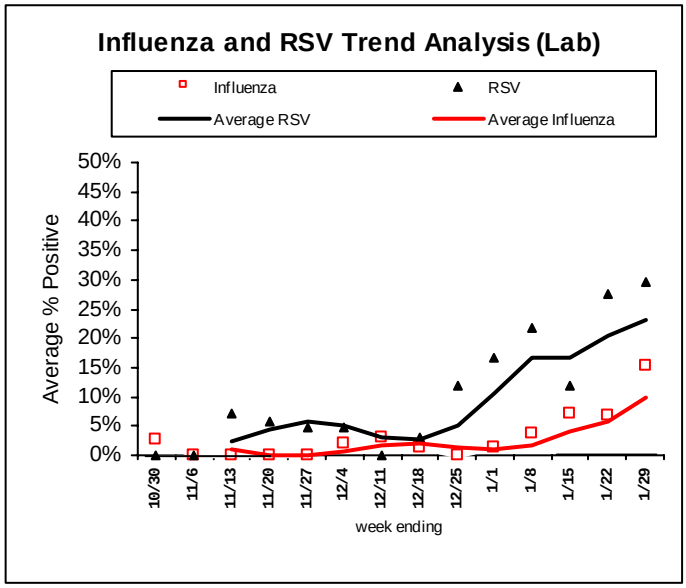
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
97	14	0	14	14.4%	69	28	40.6%	2.9%	3.2	5.4%

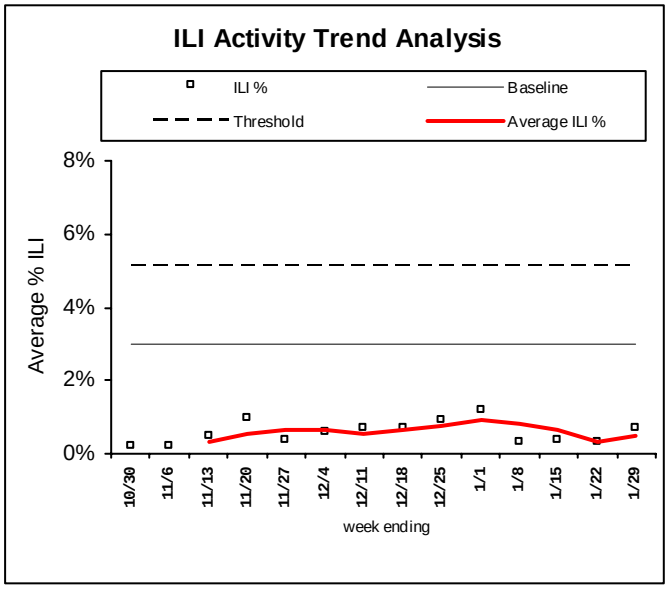




Western Region (ILI activity is Low)

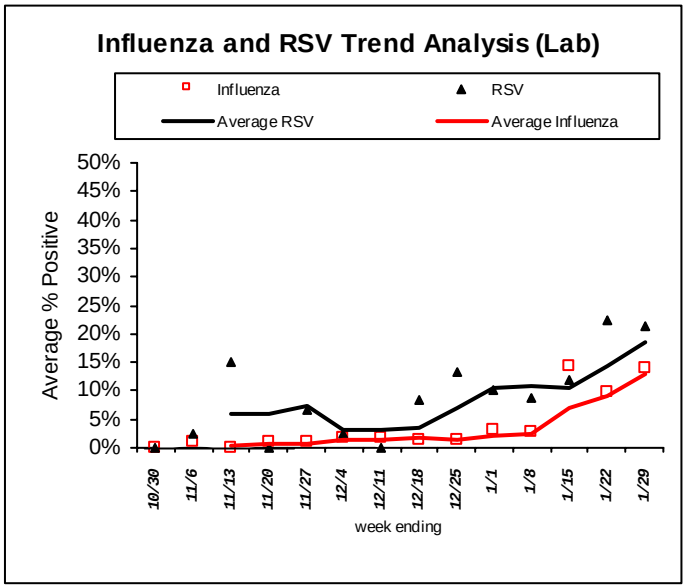
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
99	12	3	15	15.2%	54	16	29.6%	0.7%	3.0%	5.1%

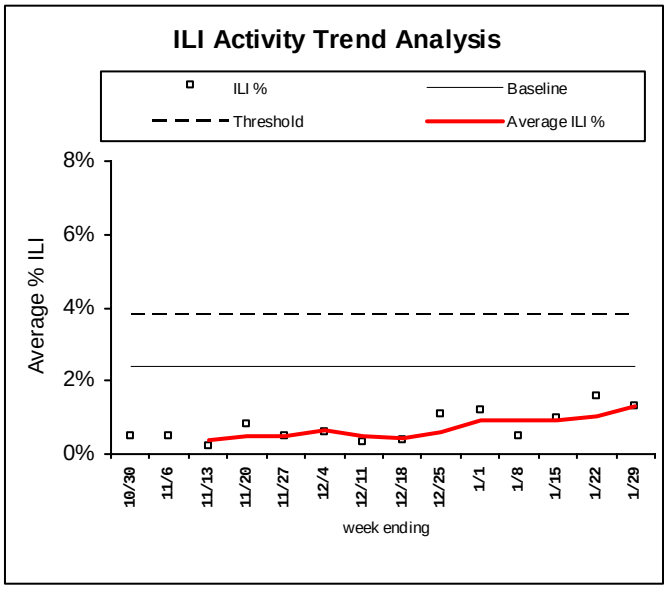




Northeastern Region (ILI activity is Low)

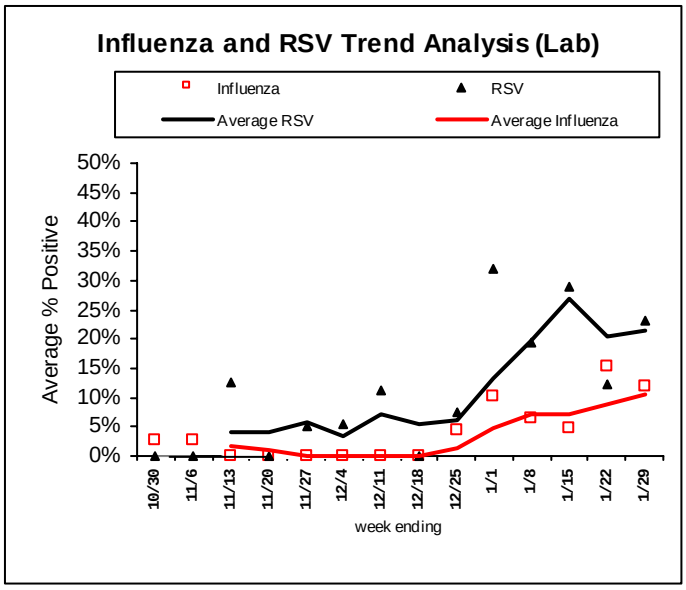
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
231	31	1	32	13.9%	70	15	21.4%	1.3%	2.4%	3.8%

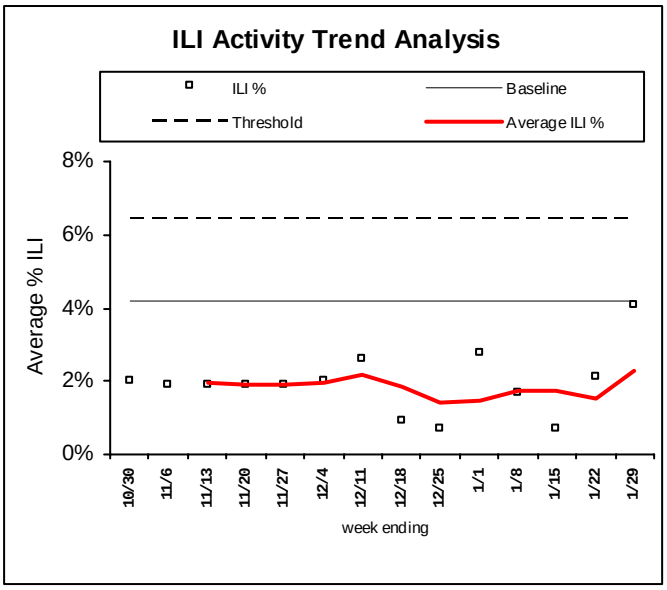




Southern Region (ILI activity is Low)

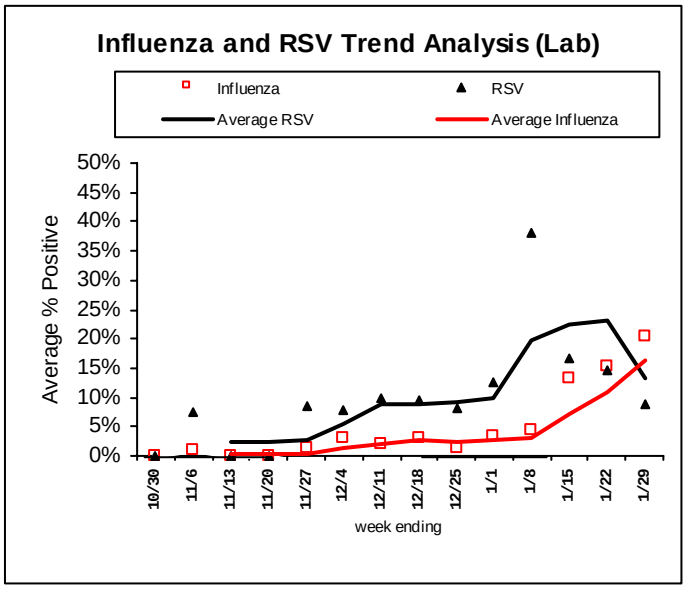
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
125	14	1	15	12.0%	69	28	40.6%	4.1%	4.2%	6.4%

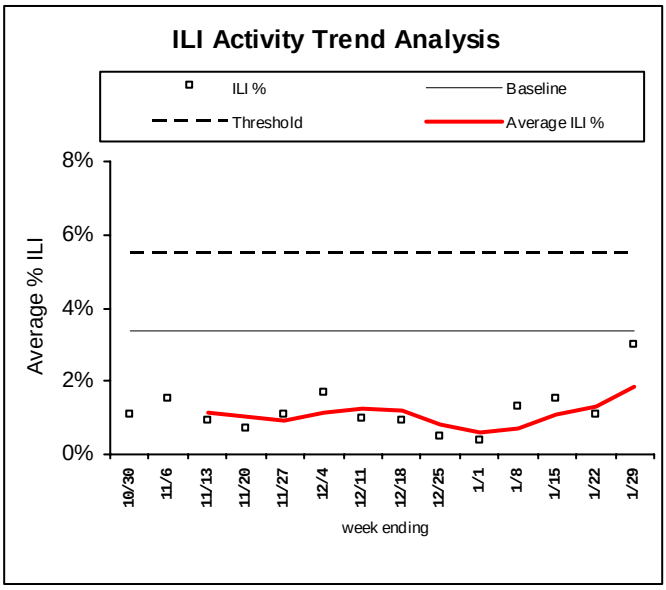




Southeastern Region (ILI activity is Low)

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							
268	54	1	55	20.5%	79	7	8.9%	3.0%	3.4%	5.5%





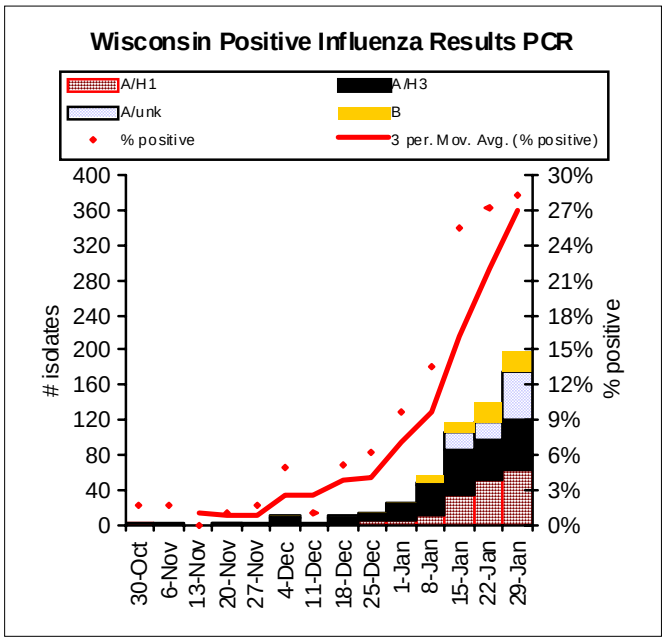
LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES (PCR)

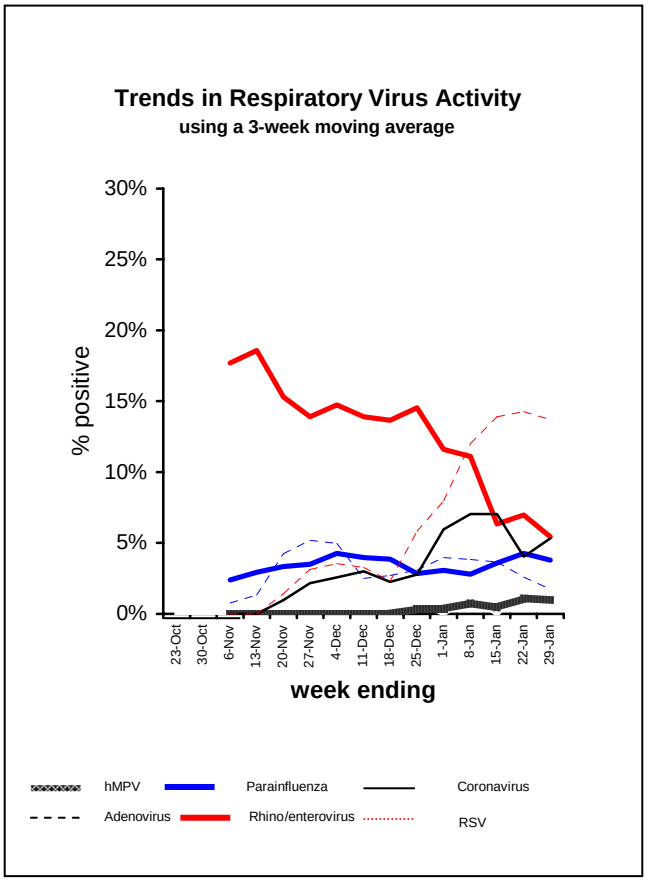
Respiratory Agent	Tested	Positive	% Positive	Flu A (H1)	Flu A (H3)	Flu A (Unk)	Flu B
Influenza	699	198	28.3%	64	57	54	23

Respiratory Agent	Tested	Positive	% Positive	P1	P2	P3	P4
Parainfluenza	289	6	2.1%	0	1	5	0

Respiratory Agent	Tested	Positive	% Positive	CoV-229E	CoV-OC43	CoV-NL63	CoV-HKU1
Coronavirus	188	16	8.5%	2	8	6	0

Respiratory Agent	Tested	Positive	% Positive
RSV	323	41	12.7%
Human Metapneumovirus	214	2	0.9%
Rhino-entero	211	12	5.7%
Adenovirus	211	1	0.5%



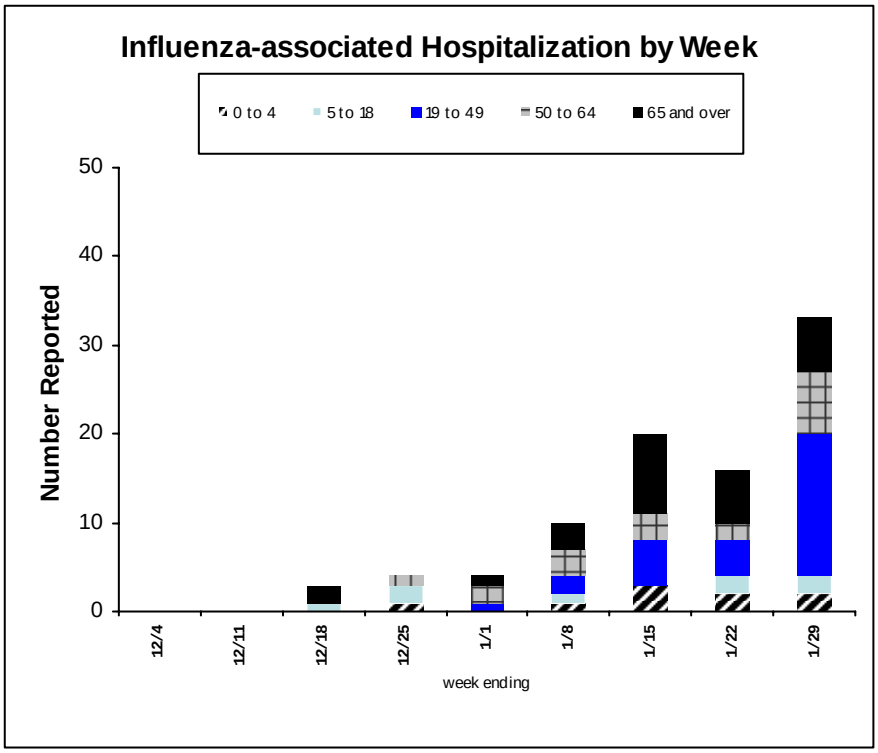


Cumulative number of positive influenza tests
By subtype, October 1, 2010 to present

	A/H1	A/H3	A/Unknown	B	Total
Total Number positive	**173**	**236**	**110**	**67**	**586**
% of Total number positive	**30%**	**40%**	**19%**	**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	9	3	1	2	3	3	3
5 to18	8	4	2	1	1	2	1
19 to 49	28	6	3	18	1	3	1
50 to 64	18	4	5	7	2	4	1
65 and over	27	1	6	17	3	4	2
Total	92	18	17	43	10	16	8

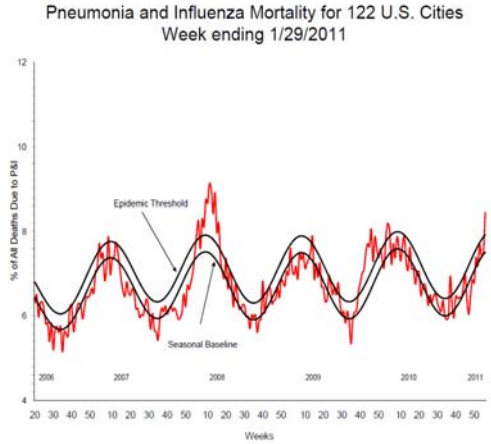


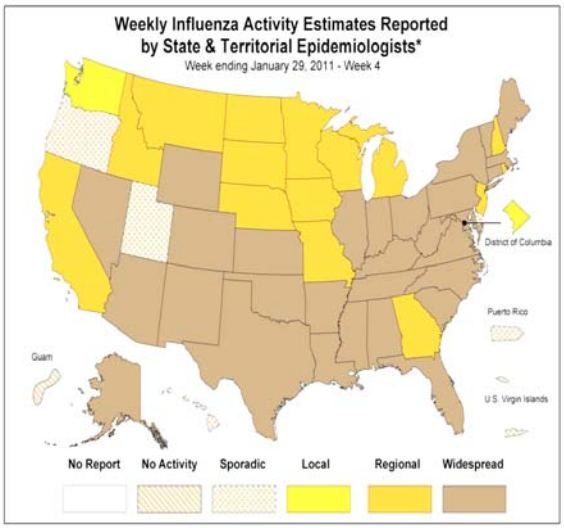
National and Regional Summary of Select Surveillance Components

	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	32.9%	45 of 54	6,784	2,325	4,217	5,128	19
Region 1	Elevated	41.3%	6 of 6	665	119	4	54	0
Region 2	Elevated	22.2%	2 of 4	313	48	379	45	4
Region 3	Elevated	39.8%	4 of 6	737	486	179	128	2
Region 4	Elevated	24.4%	8 of 8	672	438	1,557	2,776	4
Region 5	Elevated	57.9%	6 of 6	743	479	106	254	0
Region 6	Elevated	33.8%	5 of 5	1,024	106	890	927	4
Region 7	Elevated	33.2%	4 of 4	250	163	227	161	0
Region 8	Normal	24.7%	5 of 6	1,159	173	719	181	3
Region 9	Normal	37.3%	3 of 5	985	231	133	561	2
Region 10	Normal	20.8%	2 of 4	256	81	23	41	0

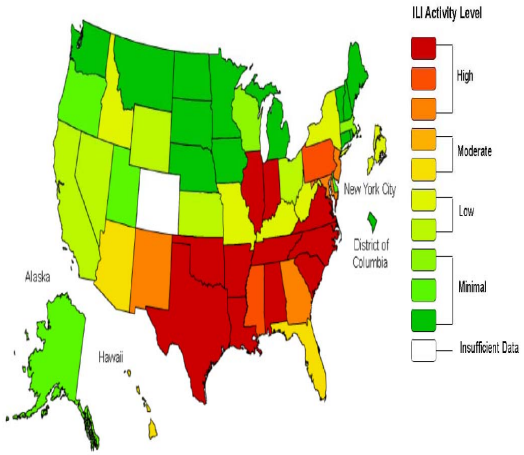
*HHS regions (Region 1 CT, ME, MA, NH, RI, VT; Region 2: NJ, NY, Puerto Rico, U.S. Virgin Islands; Region 3: DE, DC, MD, PA, VA, WV; Region 4: AL, FL, GA, KY, MS, NC, SC, TN; Region 5: IL, IN, MI, MN, OH, WI; Region 6: AR, LA, NM, OK, TX; Region 7: IA, KS, MO, NE; Region 8: CO, MT, ND, SD, UT, WY; Region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

Pneumonia and Influenza (P&I) Mortality Surveillance: During week 4, 8.5% of all deaths reported through the 122-Cities Mortality Reporting System were due to P&I. This percentage was above the epidemic threshold of 7.9% for week 4.

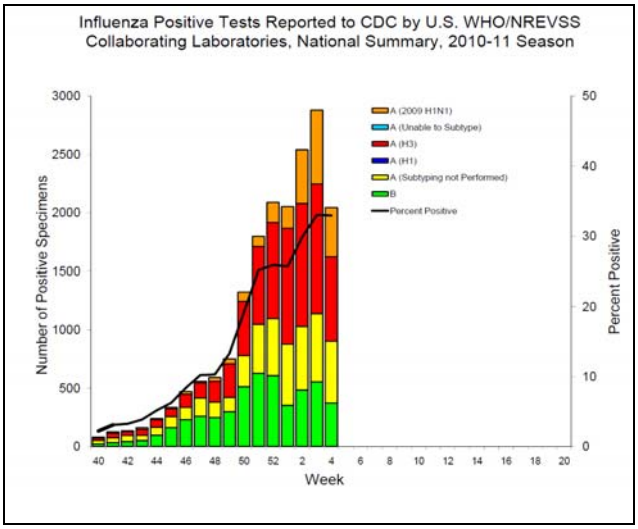




* This map indicates geographic spread & does not measure the severity of influenza activity



*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 (%)	Virus Samples tested (n)	Resistant Viruses, Number (%)
		Oseltamivir		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)