WISCONSIN DEPARTMENT OF HEALTH SERVICES

Division of Public Health

Bureau of Communicable Diseases and Emergency Response

Respiratory virus surveillance report for the week ending March 12, 2011, week 11-10

AT-A-GLANCE

- Respiratory viruses identified this week :
  Influenza A (H1 and H3), and RSV, viruses are predominant

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

Wisconsin	Moderate
Wisconsin (CDC level)	Low
Western Region	Low
Northern Region	Low
Northeastern Region	Moderate
Southeastern Region	Moderate
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: High (PVP is the probability of disease in a patient with a positive test result)

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

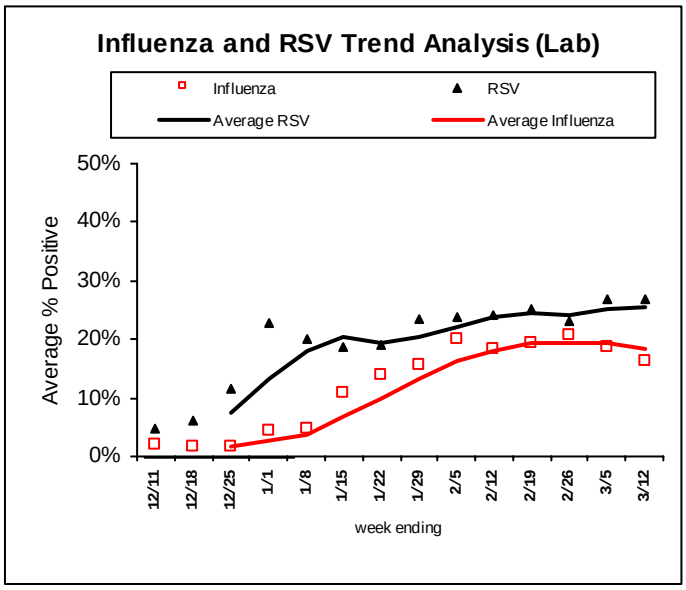
- Influenza-associated pediatric deaths (October 1, 2010-present)

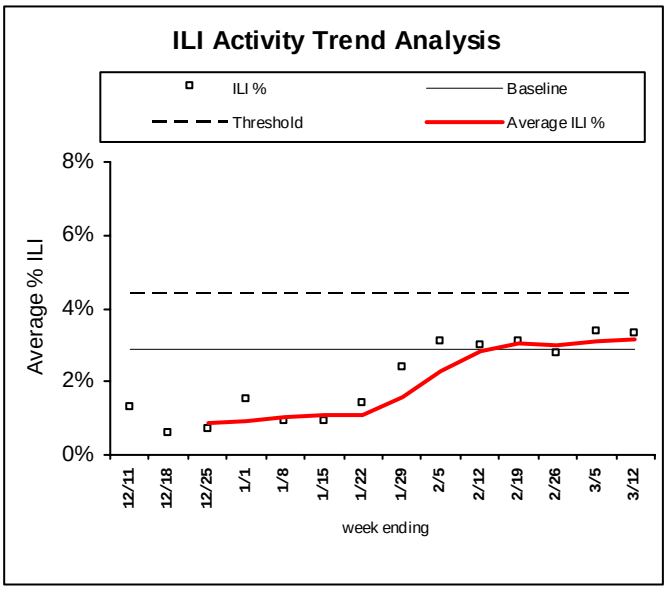
	Week 11-10	Total to Date
Wisconsin	0	1
United States	11	71

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

Wisconsin (ILI activity is Moderate)

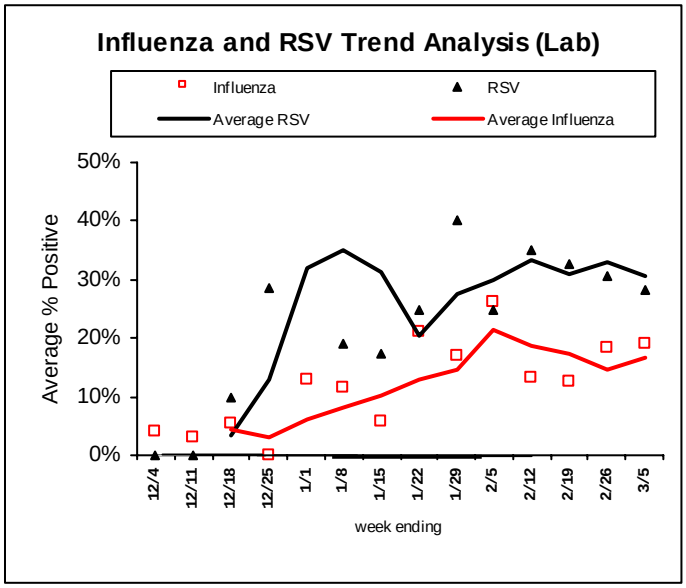
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
1943	267	50	317	16.3%	526	142	27.0%	3.3%	2.9%	4.4%

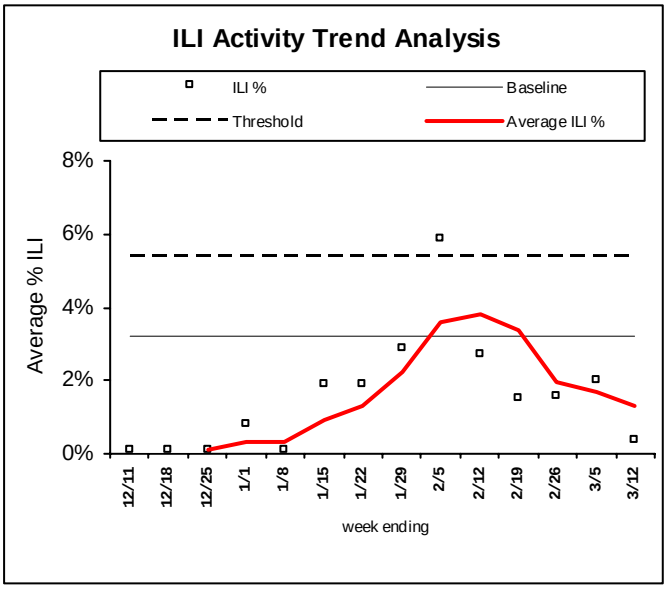




Northern Region (ILI activity is Low)

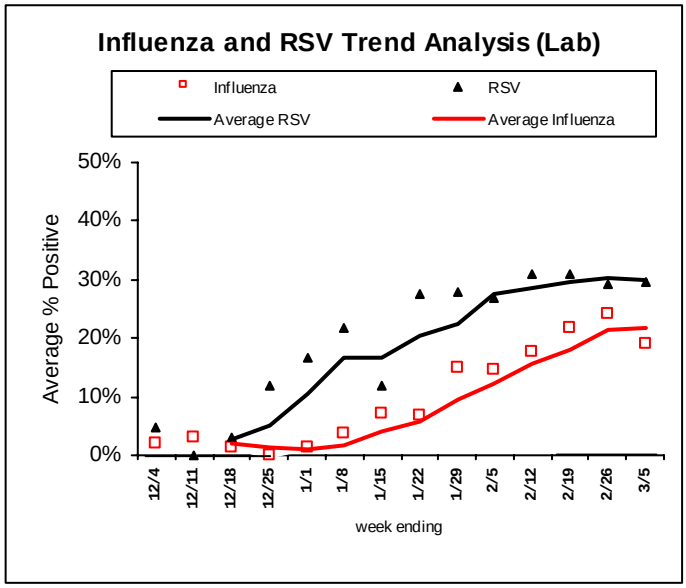
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
								0.4%	3.2%	5.4%

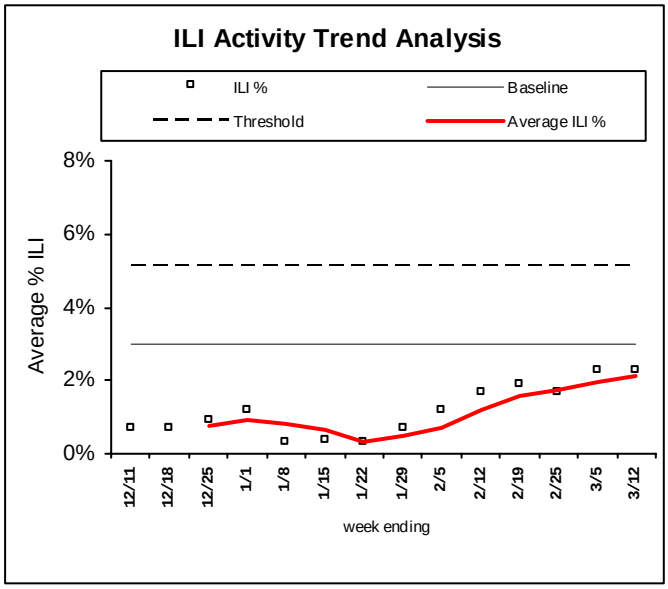




Western Region (ILI activity is Low)

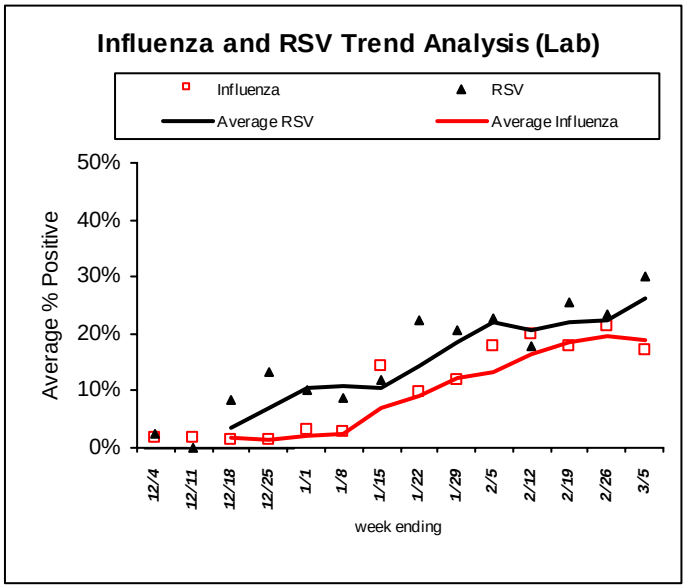
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
								2.3%	3.0%	5.1%

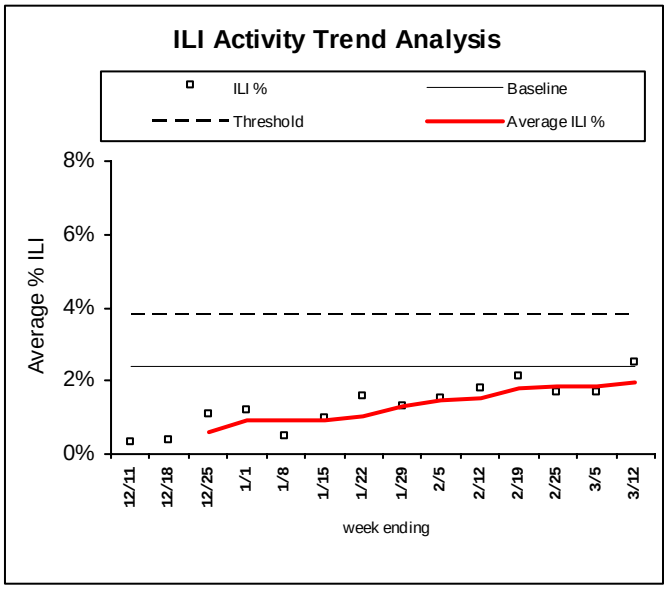




Northeastern Region (ILI activity is Moderate)

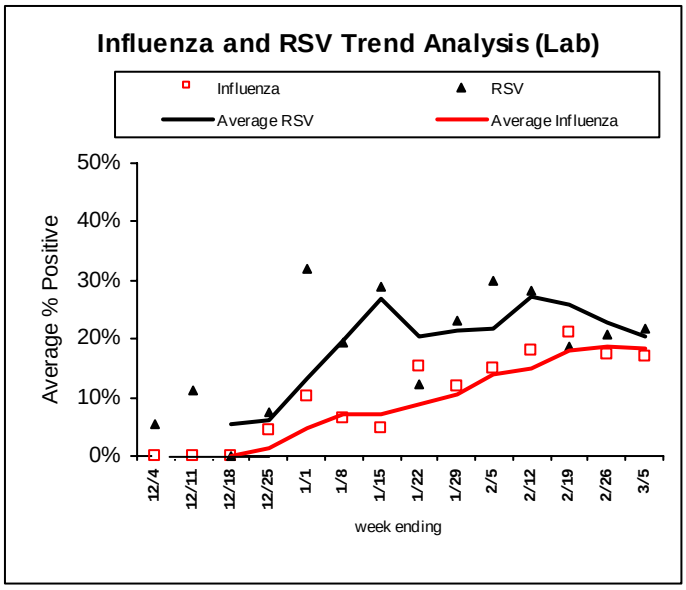
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
								2.5%	2.4%	3.8%

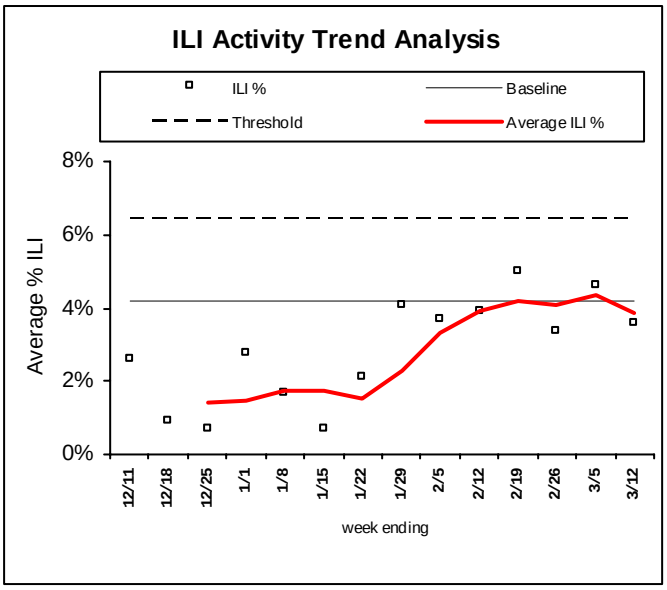




Southern Region (ILI activity is Low)

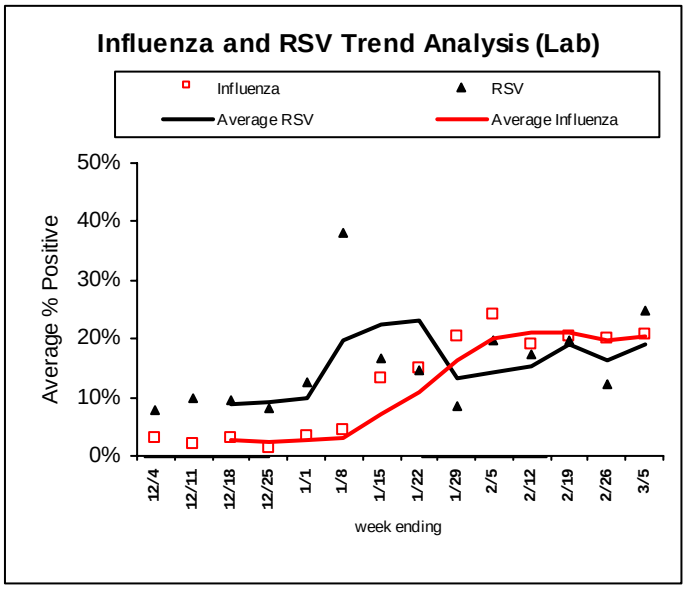
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
								3.6%	4.2%	6.4%

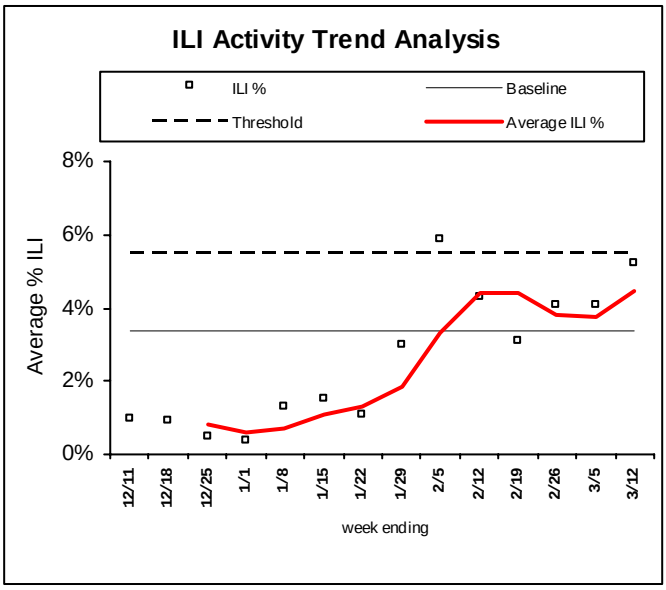




Southeastern Region (ILI activity is Moderate)

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							
								5.2%	3.4%	5.5%





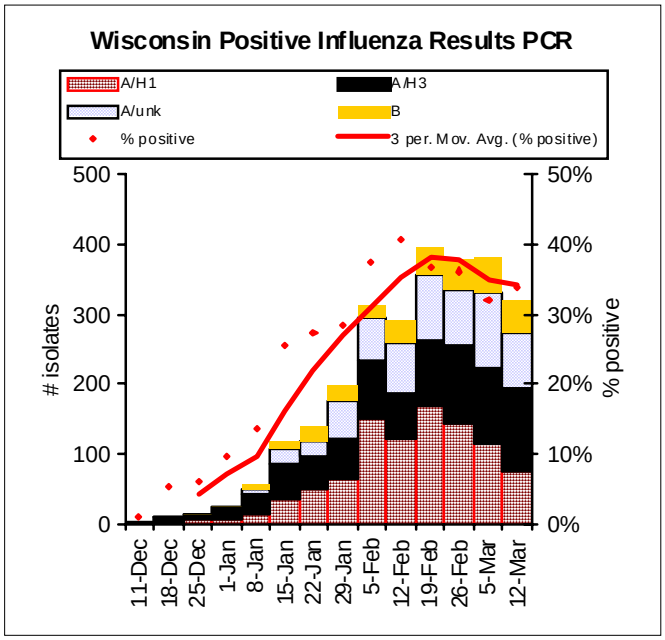
LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES (PCR)

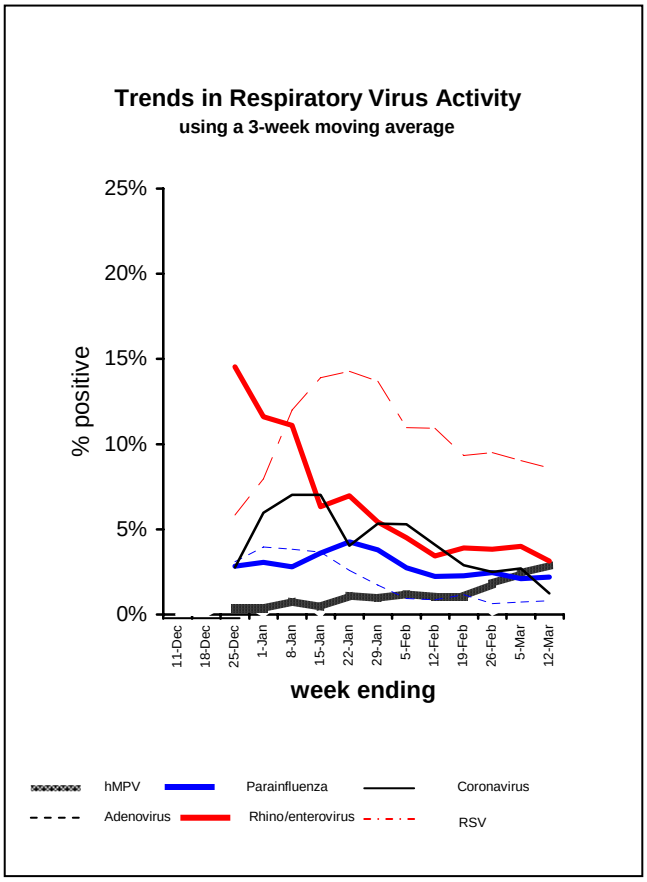
Respiratory Agent	Tested	Positive	% Positive	Flu A (H1)	Flu A (H3)	Flu A (Unk)	Flu B
Influenza	939	319	34.0%	74	119	80	46

Respiratory Agent	Tested	Positive	% Positive	P1	P2	P3	P4
Parainfluenza	284	7	2.5%	1	0	6	0

Respiratory Agent	Tested	Positive	% Positive	CoV-229E	CoV-OC43	CoV-NL63	CoV-HKU1
Coronavirus	207	1	0.5%	0	4	1	0

Respiratory Agent	Tested	Positive	% Positive
RSV	319	21	6.6%
Human Metapneumovirus	245	6	2.4%
Rhino-entero	245	11	4.5%
Adenovirus	245	4	1.6%



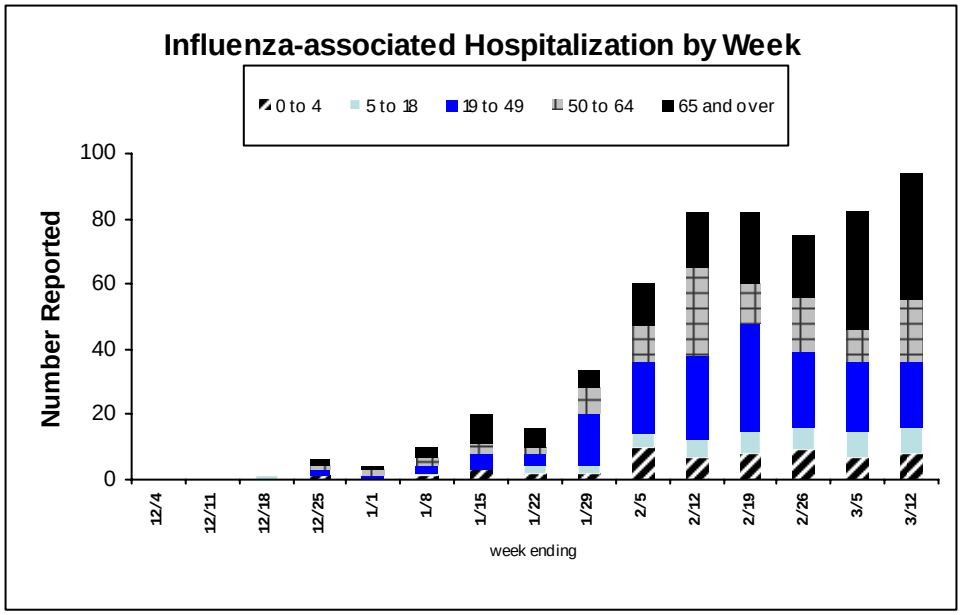


Cumulative number of positive influenza tests
By subtype, October 1, 2010 to present

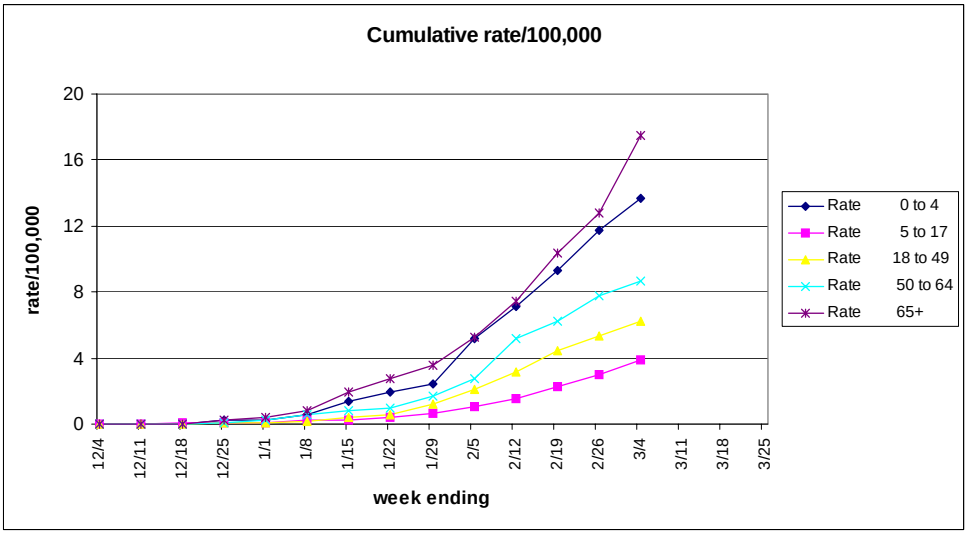
	2009 A/H1	A/H3	A/Unknown	B	Total
Total Number positive	**944**	**819**	**609**	**295**	**2667**
% of Total number positive	**35%**	**31%**	**23%**	**11%**	**100%**

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	57	17	9	24	7	14	11
5 to 18	47	18	6	16	7	10	5
19 to 49	171	43	8	113	7	33	11
50 to 64	113	31	12	67	3	33	3
65 and over	178	11	25	133	9	22	5
Total	566	120	60	353	33	112	35



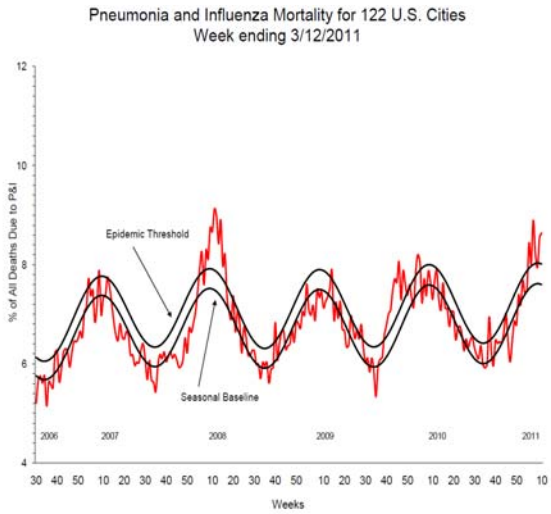
Influenza Hospitalizations, by week and age group

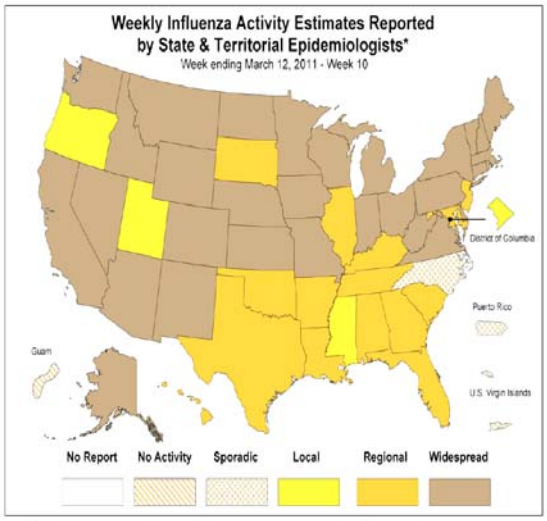


National and Regional Summary of Select Surveillance Components

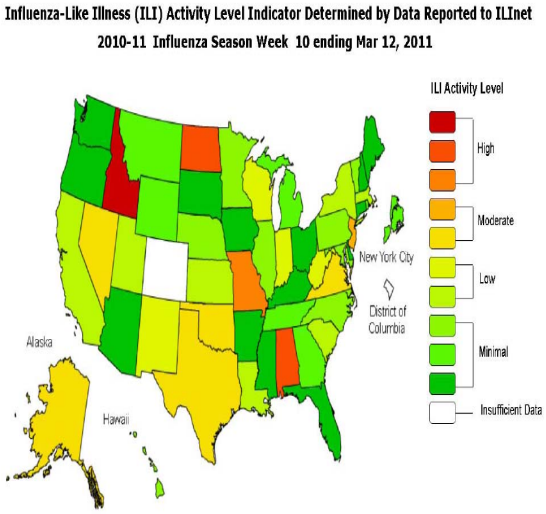
	Data for current week			Data cumulative since October 3, 2010 (Week 40)				
HHS Surveillance Regions*	Out-patient ILI†	% positive for flu‡	Number of jurisdictions reporting regional or widespread activity§	A (H3)	2009 A (H1N1)	A (Subtyping not performed)	B	Pediatric Deaths
Nation	Elevated	21.1%	46 of 54	14,312	8,798	10,048	11,410	71
Region 1	Elevated	47.4%	6 of 6	1,485	722	57	257	0
Region 2	Elevated	25.8%	2 of 4	568	266	958	260	7
Region 3	Normal	35.8%	5 of 6	2,583	2,350	761	653	10
Region 4	Elevated	19.0%	6 of 8	1,238	1,189	2,957	3,660	14
Region 5	Elevated	42.4%	6 of 6	1,533	1,222	339	922	13
Region 6	Normal	23.7%	5 of 5	2,106	497	2,191	2,461	15
Region 7	Elevated	28.0%	4 of 4	622	496	267	576	0
Region 8	Elevated	24.1%	5 of 6	1,636	589	1,777	1,493	4
Region 9	Elevated	26.3%	4 of 5	1,735	950	626	1,035	7
Region 10	Elevated	26.8%	3 of 4	808	517	115	93	1

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)

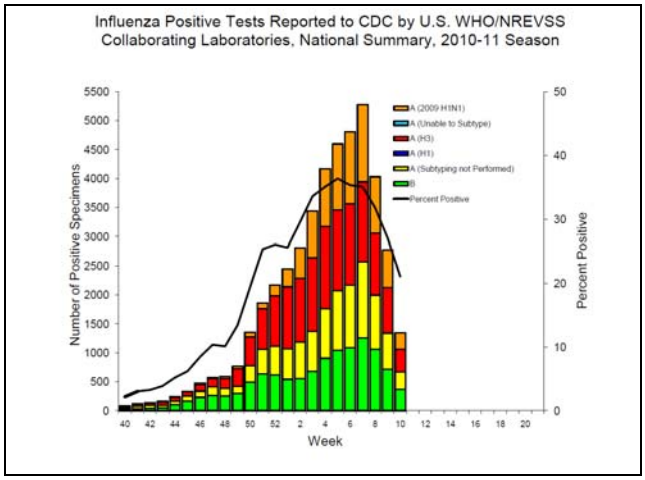




* This map indicates geographic spread & does not measure the severity of influenza activity



*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)	454	0 (0.0)	447	0 (0.0)
Influenza B	418	0 (0.0)	418	0 (0.0)
2009 Influenza A (H1N1)	533	3 (0.6)	165	0 (0.0)