WISCONSIN DEPARTMENT OF HEALTH SERVICES

Division of Public Health

Bureau of Communicable Diseases and Emergency Response

Respiratory virus surveillance report for the week ending April 30, 2011, week 11-17

AT-A-GLANCE

- Respiratory viruses identified this week :
  Influenza A (H3) and B, rhinovirus an human metapneumovirus are predominant

- 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 below baseline levels

- ILI activity in the U.S. is below baseline levels

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

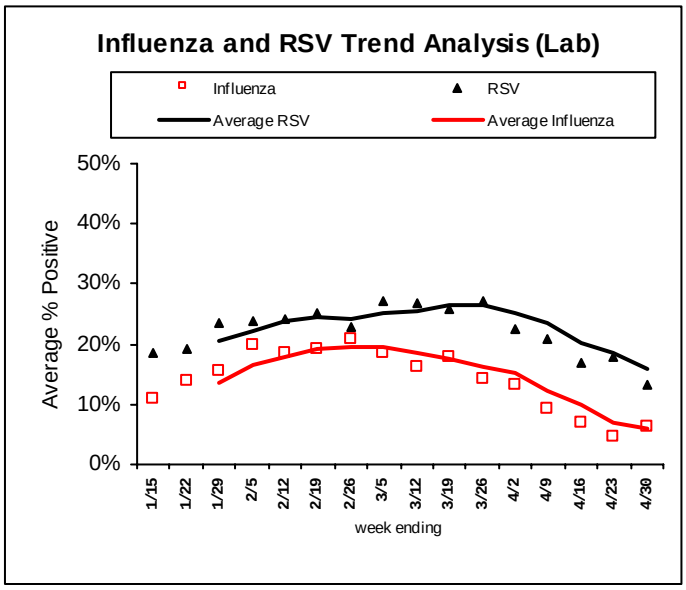
- Influenza-associated pediatric deaths (October 1, 2010-present)

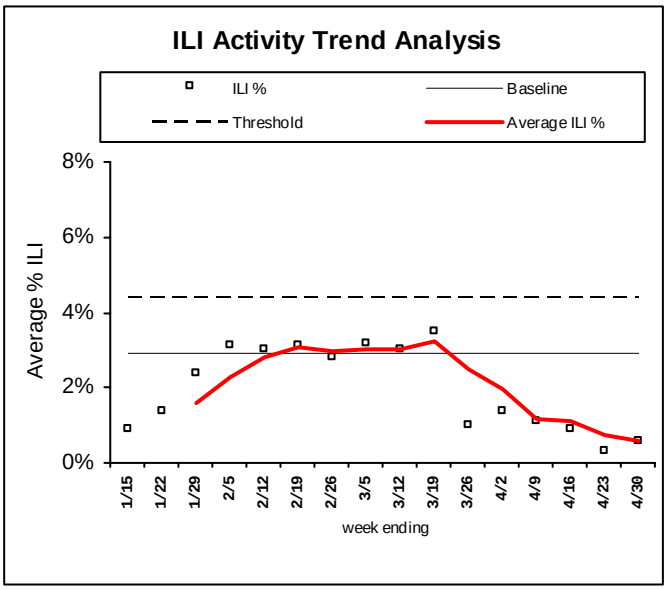
	Week 11-17	Total to Date
Wisconsin	1	3
United States	3	100

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

Wisconsin (ILI activity is Low)

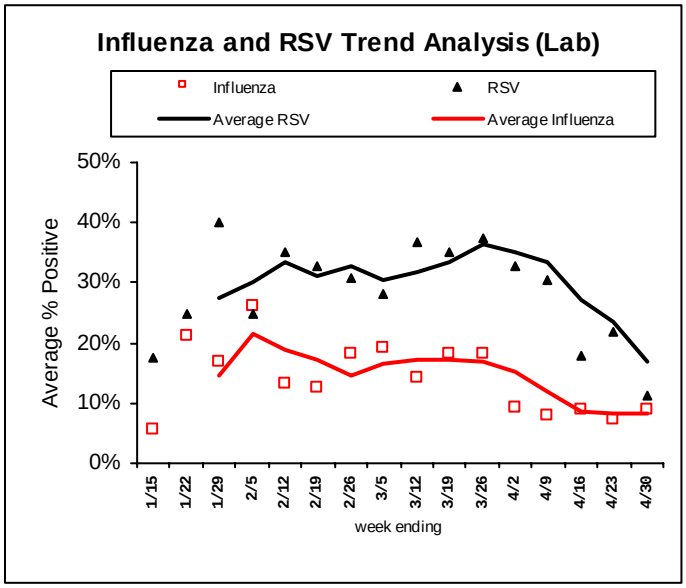
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
406	13	13	26	6.4%	191	25	13.1%	0.6%	2.9%	4.4%

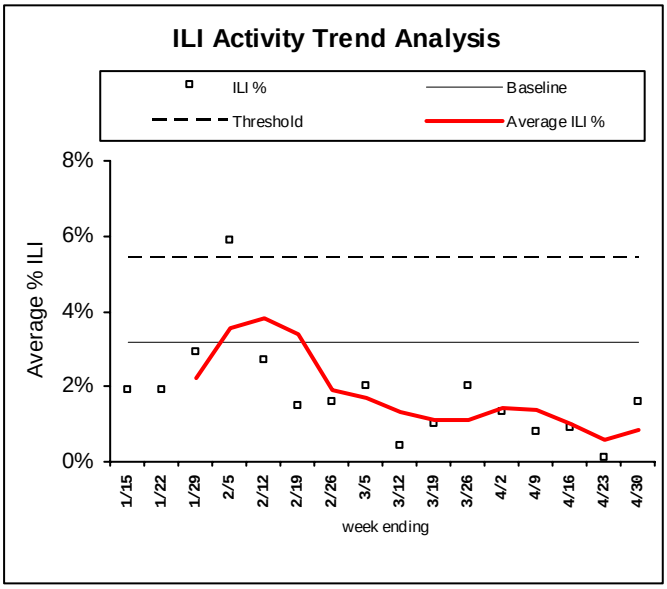




Northern Region (ILI activity is Low)

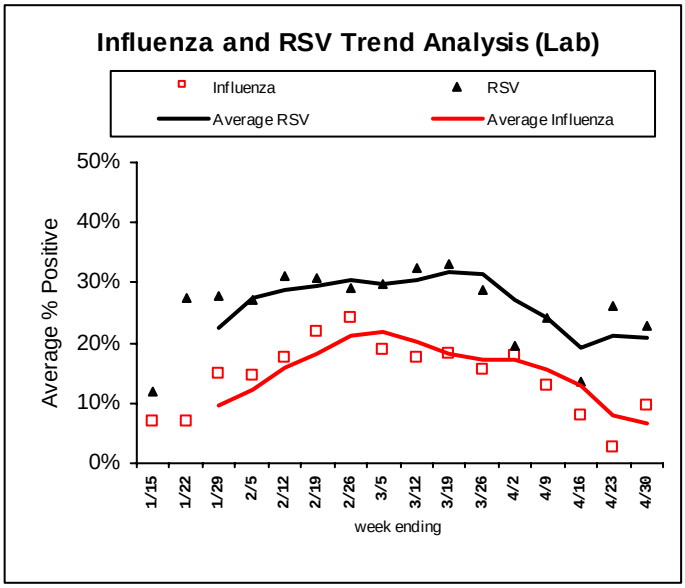
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
43	1	0	1	8.8%	27	3	11.1%	1.6%	3.2%	5.4%

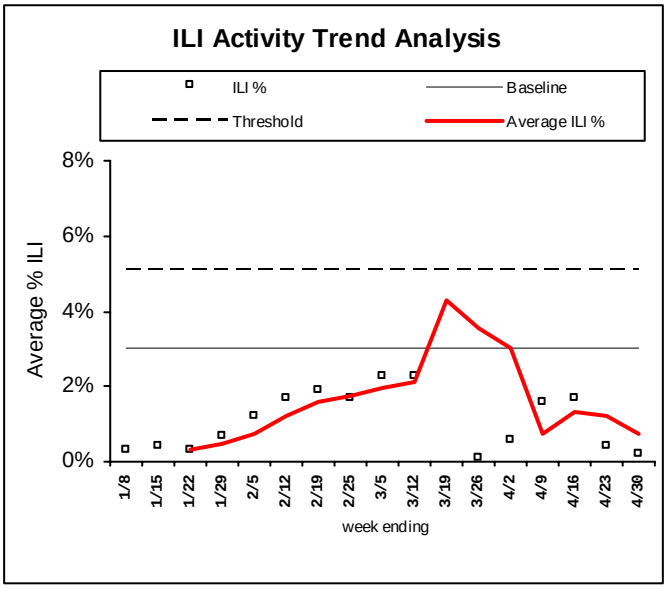




Western Region (ILI activity is Low)

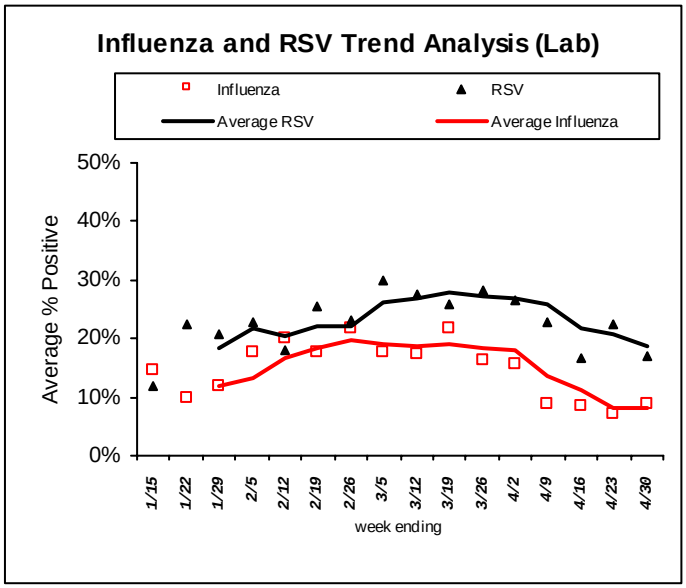
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
72	2	5	7	9.7%	35	8	22.9%	0.2%	3.0%	5.1%

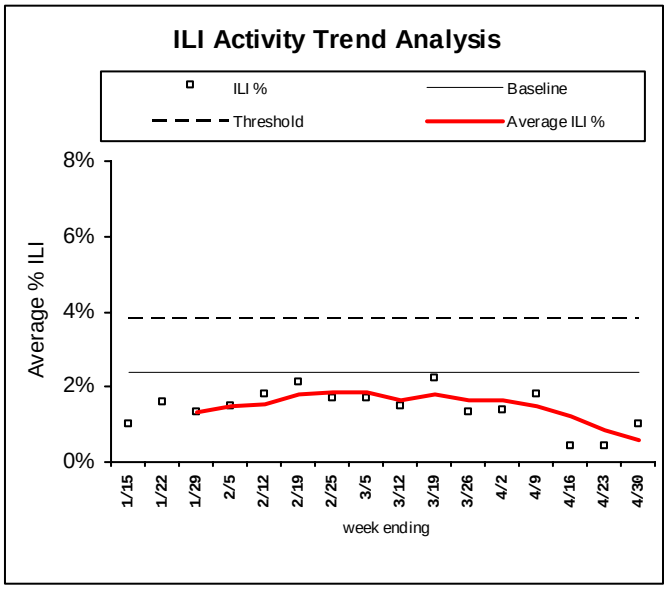




Northeastern Region (ILI activity is Low)

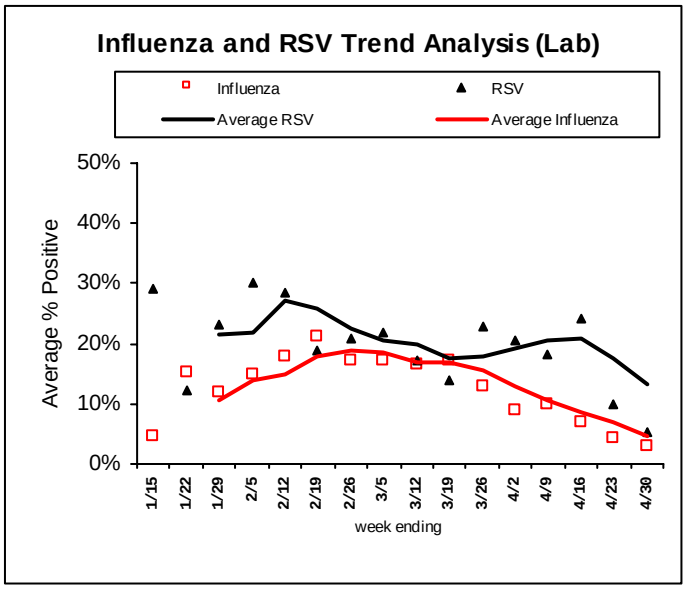
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
148	8	5	13	8.8%	59	10	16.9%	1.0%	2.4%	3.8%

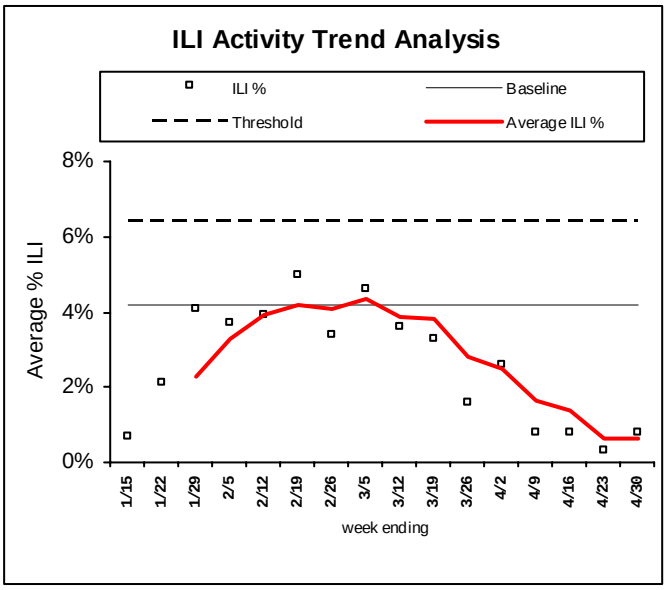




Southern Region (ILI activity is Low)

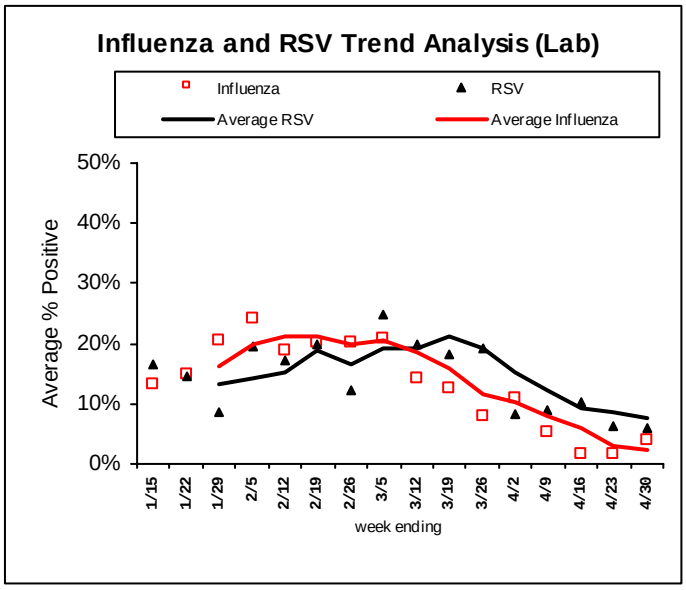
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
70	1	1	2	2.9%	37	2	5.4%	0.8%	4.2%	6.4%

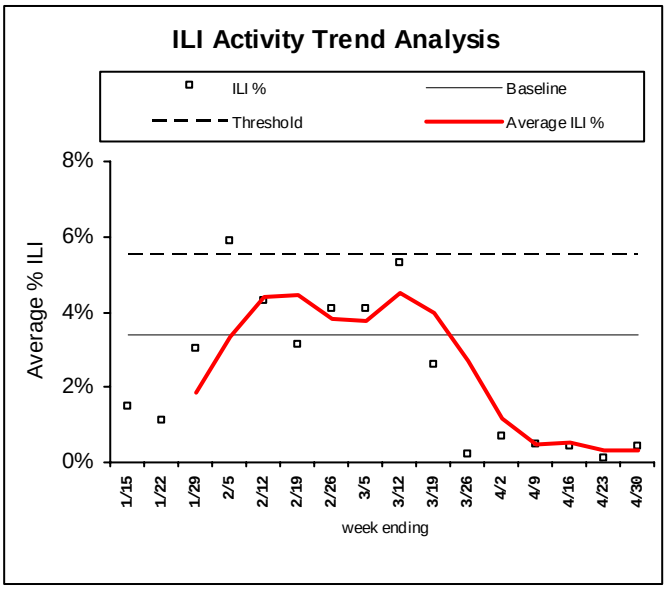




Southeastern Region (ILI activity is Low)

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							
73	1	2	3	4.1%	33	2	6.1%	0.4%	3.4%	5.5%





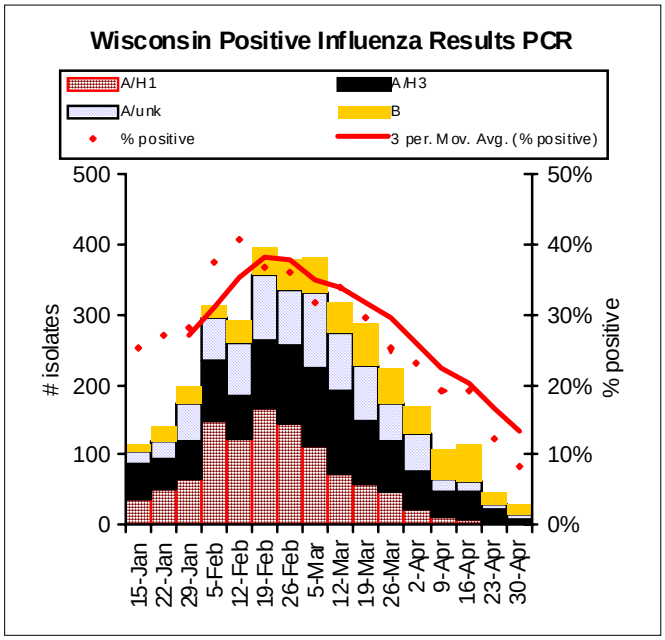
LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES (PCR)

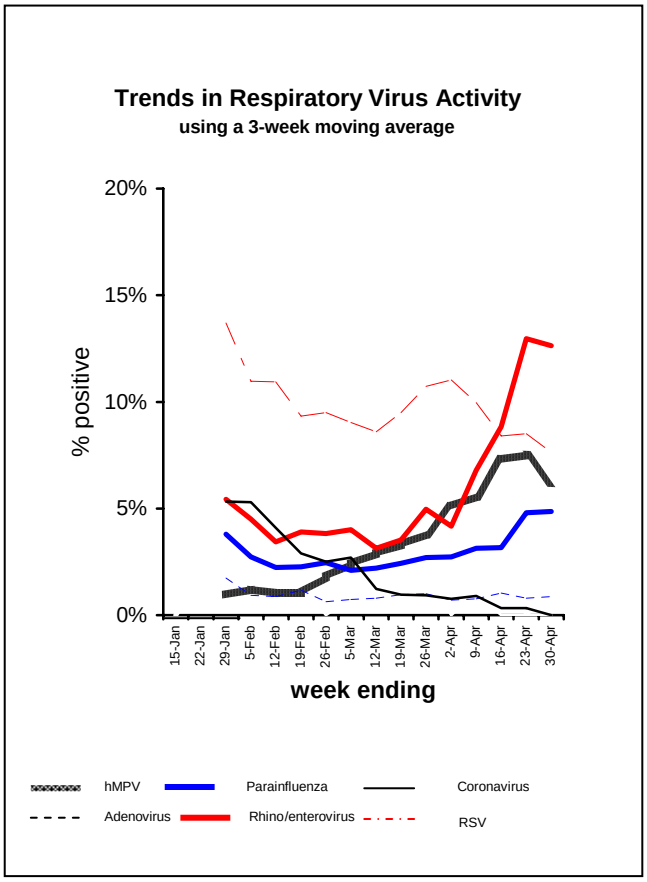
Respiratory Agent	Tested	Positive	% Positive	Flu A (H1)	Flu A (H3)	Flu A (Unk)	Flu B
Influenza	353	30	8.5%	1	6	7	16

Respiratory Agent	Tested	Positive	% Positive	P1	P2	P3	P4
Parainfluenza	179	7	3.9%	0	0	15	0

Respiratory Agent	Tested	Positive	% Positive	CoV-229E	CoV-OC43	CoV-NL63	CoV-HKU1
Coronavirus	80	0	0.0%	0	0	0	0

Respiratory Agent	Tested	Positive	% Positive
RSV	213	14	6.6%
Human Metapneumovirus	118	2	1.7%
Rhino-entero	111	11	9.9%
Adenovirus	111	1	0.9%



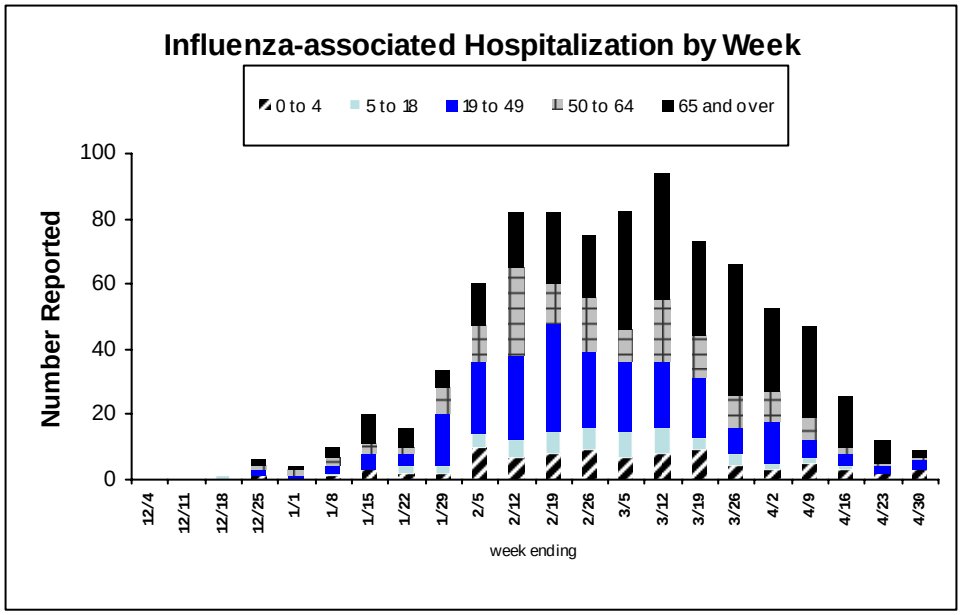


Cumulative number of positive influenza tests
By subtype, October 1, 2010 to present

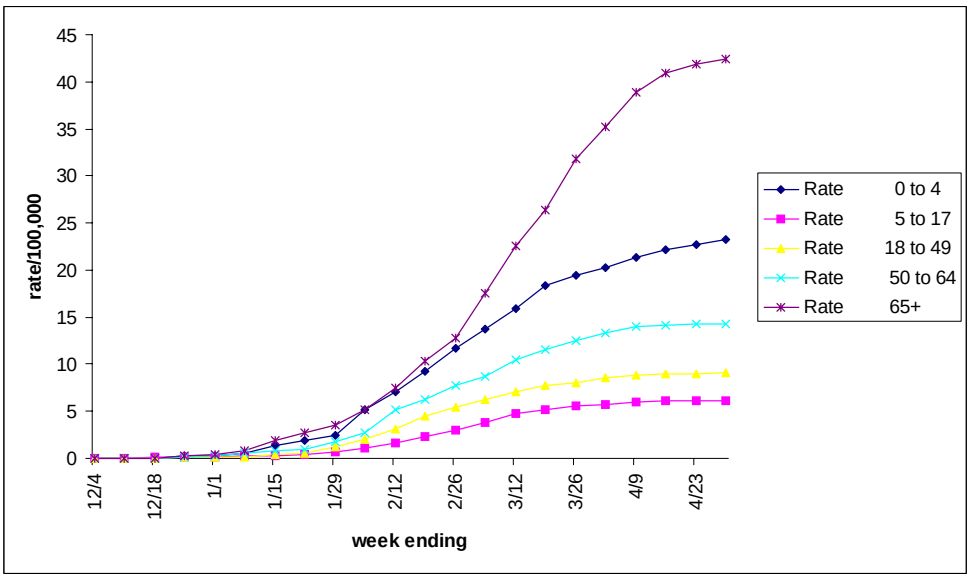
	2009 A/H1	A/H3	A/Unknown	B	Total
Total Number positive	**1095**	**1137**	**841**	**576**	**3649**
% of Total number positive	**30%**	**31%**	**23%**	**16%**	**100%**

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	85	19	12	38	16	19	12
5 to 17	61	20	7	22	12	15	7
18 to 49	225	44	12	148	21	39	23
50 to 64	156	36	16	95	9	43	21
65 and over	331	16	50	246	19	37	14
Total	858	135	97	549	77	153	77



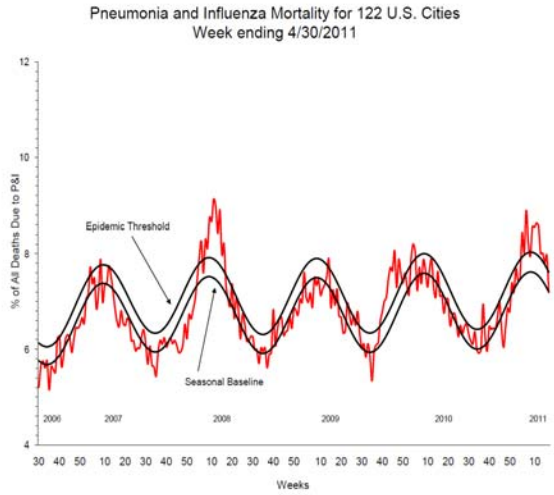
Influenza Hospitalizations, by week and age group
Cumulative rate /100,000

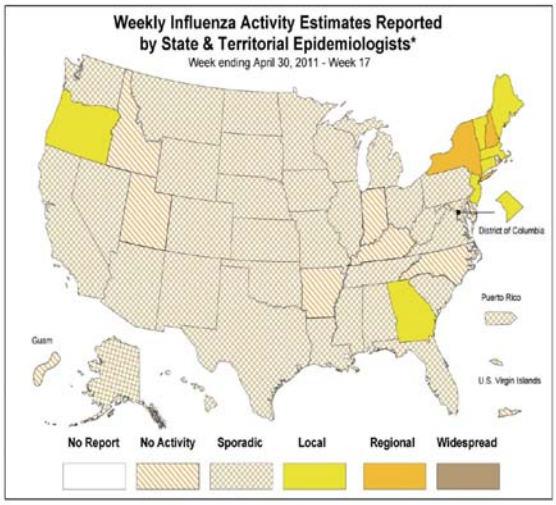


National and Regional Summary of Select Surveillance Components

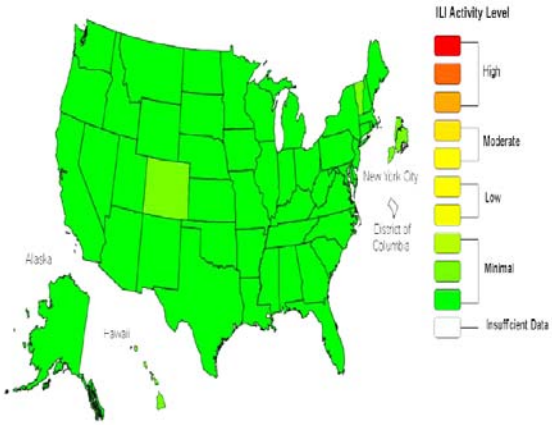
	Data for current week			Data cumulative since October 3, 2010 (Week 40)				
HHS Surveillance Regions*	Out-patient ILI†	% positive for flu‡	Number of jurisdictions reporting regional or widespread activity§	A (H3)	2009 A (H1N1)	A (Subtyping not performed)	B	Pediatric Deaths
Nation	Normal	3.8%	2 of 54	16,795	10,902	11,340	13,682	100
Region 1	Normal	13.5%	1 of 6	1,717	913	97	456	3
Region 2	Normal	8.5%	1 of 4	760	369	1,117	463	11
Region 3	Normal	5.3%	0 of 6	2,973	2,568	858	1,029	10
Region 4	Normal	3.3%	0 of 8	1,479	1,431	3,161	3,955	17
Region 5	Normal	20.2%	0 of 6	2,120	1,532	446	1,323	20
Region 6	Normal	1.5%	0 of 5	2,191	562	2,306	2,567	17
Region 7	Normal	2.5%	0 of 4	712	539	288	678	1
Region 8	Normal	3.5%	0 of 6	1,732	689	2,122	1,884	7
Region 9	Normal	2.8%	0 of 5	1,994	1,472	756	1,192	12
Region 10	Normal	7.3%	0 of 4	1,117	827	189	135	2

Pneumonia and Influenza (P&I) Mortality Surveillance: During week 17, 7.2% of all deaths reported through the 122-Cities Mortality Reporting System were due to P&I. This percentage was below the epidemic threshold of 7.6% for week 17.



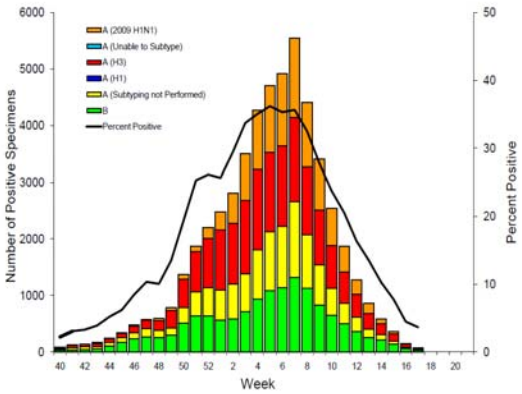


* This map indicates geographic spread & does not measure the severity of influenza activity



*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.

Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2010-11 Season



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)	684	2 (0.3)	662	0 (0.0)
Influenza B	641	0 (0.0)	641	0 (0.0)
2009 Influenza A (H1N1)	3,188*	32 (1.0)	441	0 (0.0)