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 2, 2011, week 11-13

AT-A-GLANCE

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

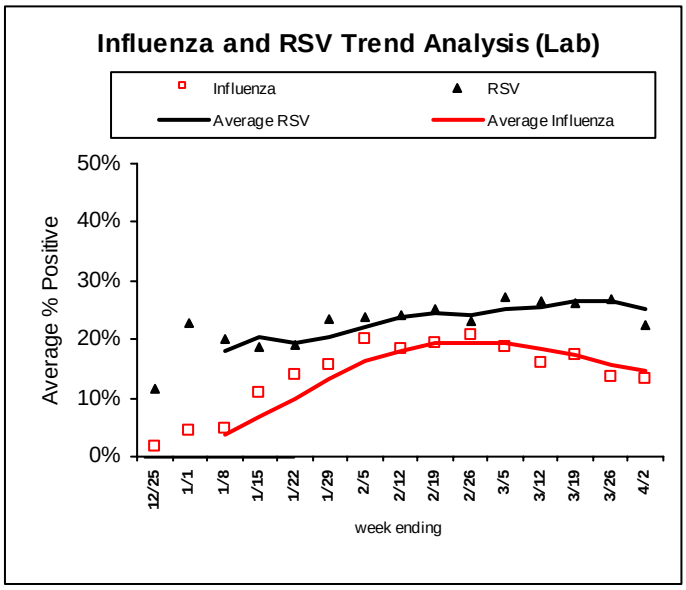
- Influenza-associated pediatric deaths (October 1, 2010-present)

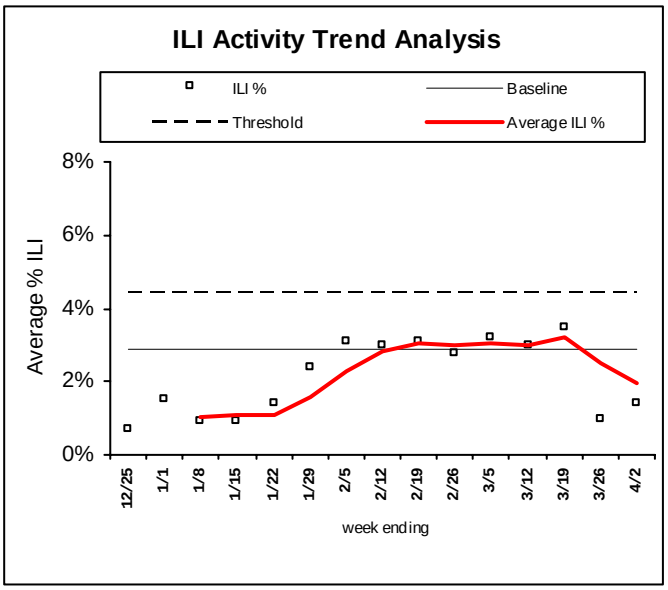
	Week 11-13	Total to Date
Wisconsin	0	2
United States	2	91

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

Wisconsin (ILI activity is Low)

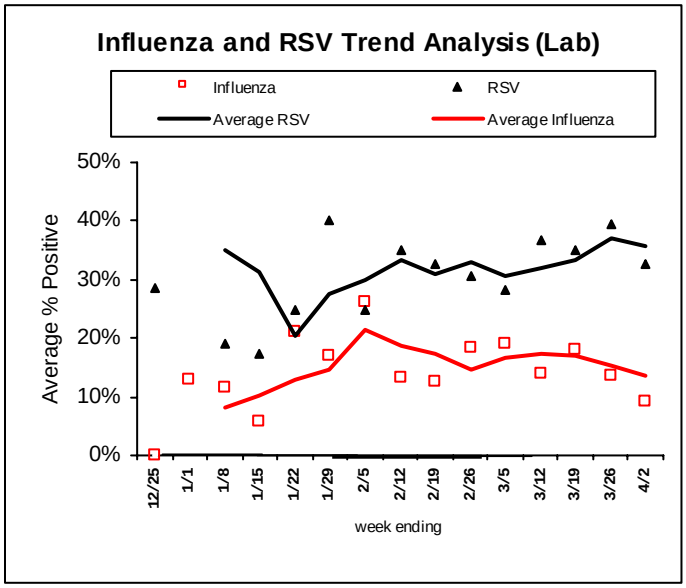
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
1004	106	28	134	13.3%	329	74	22.5%	1.4%	2.9%	4.4%

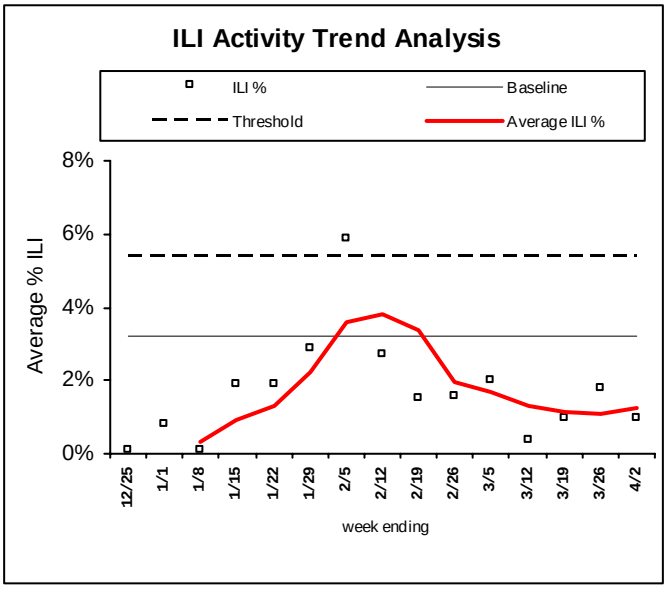




Northern Region (ILI activity is Low)

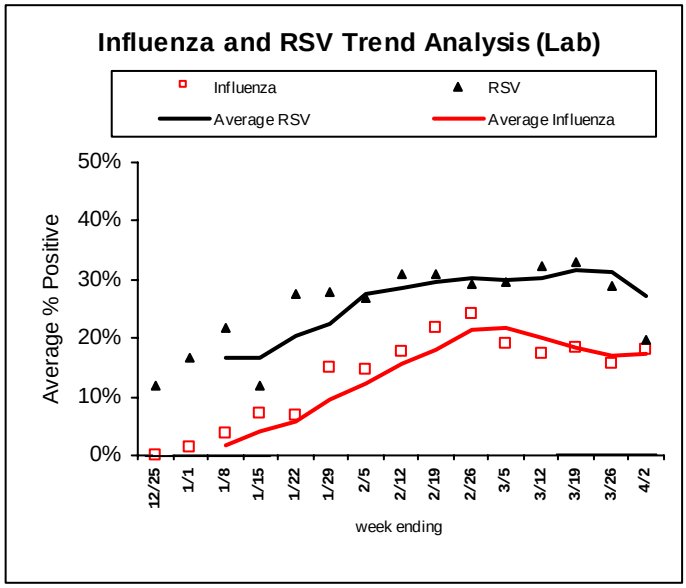
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
119	9	2	11	9.2%	52	17	32.7%	1.0%	3.2%	5.4%

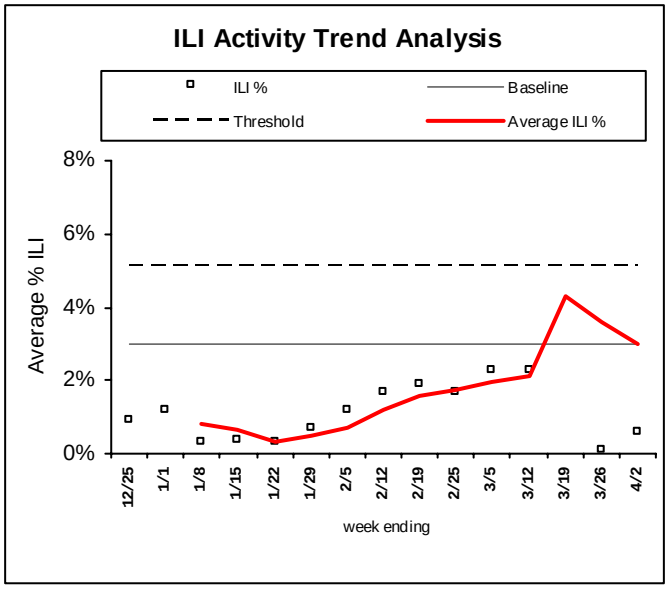




Western Region (ILI activity is Low)

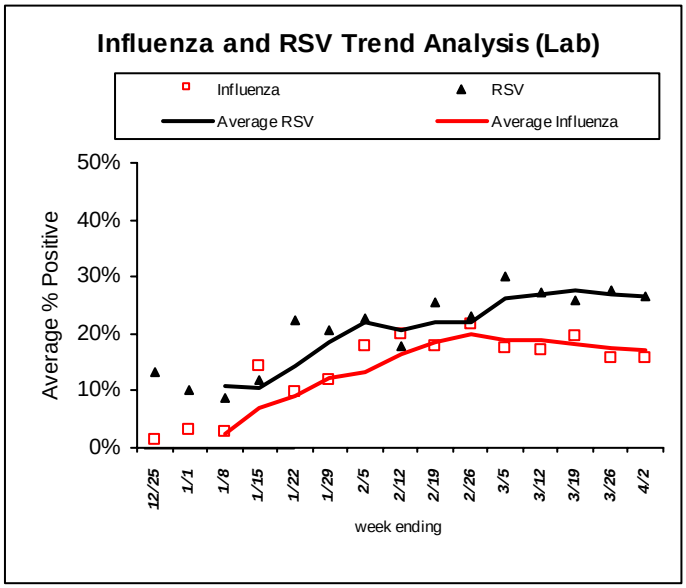
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
200	29	7	36	18.0%	56	11	19.6%	0.6%	3.0%	5.1%

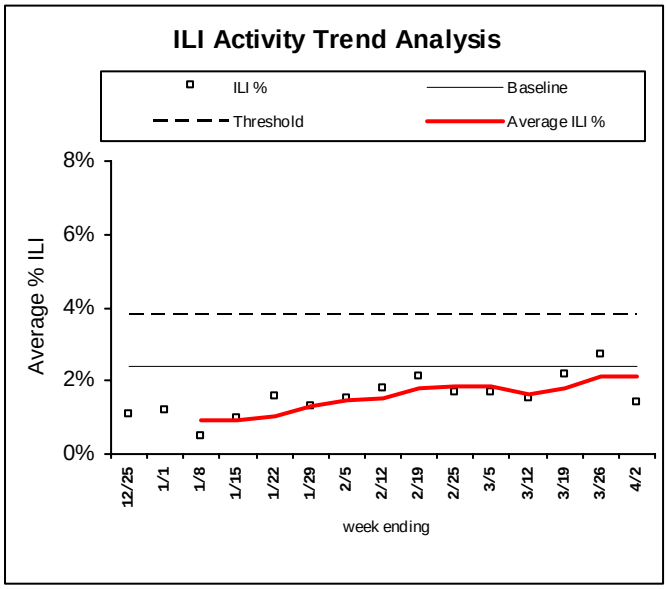




Northeastern Region (ILI activity is Low)

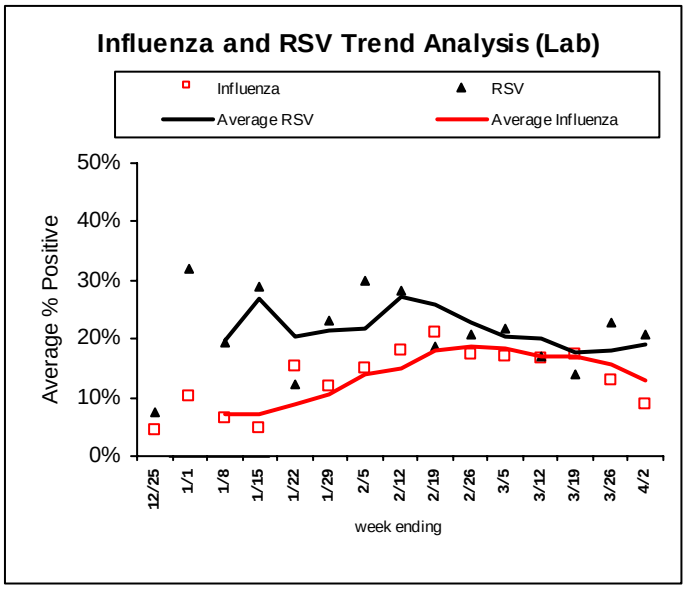
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
330	45	7	52	15.8%	105	28	26.7%	1.4%	2.4%	3.8%

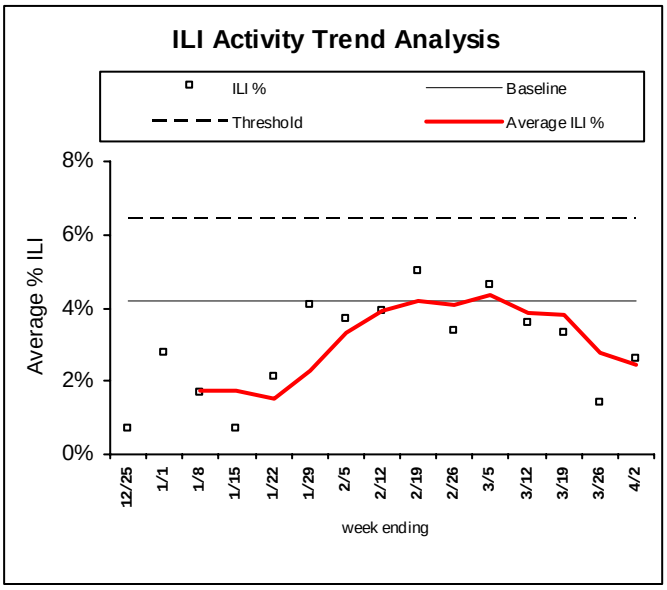




Southern Region (ILI activity is Low)

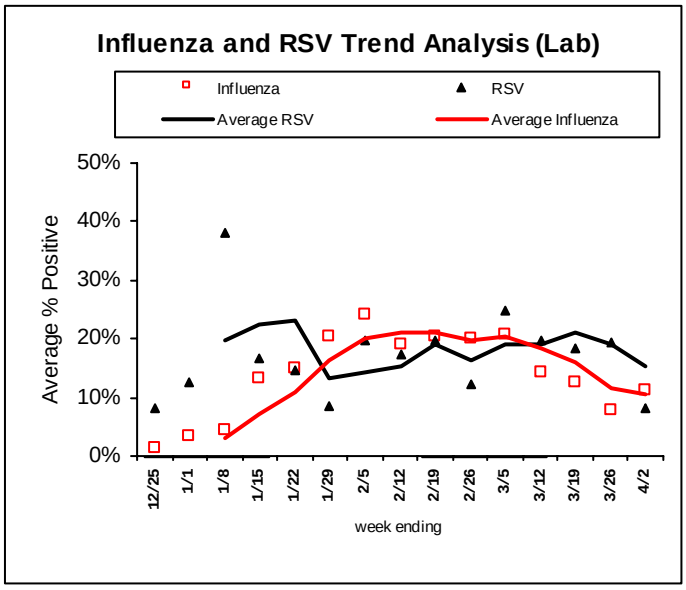
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
221	17	3	20	9.0%	68	14	20.6%	2.6%	4.2%	6.4%

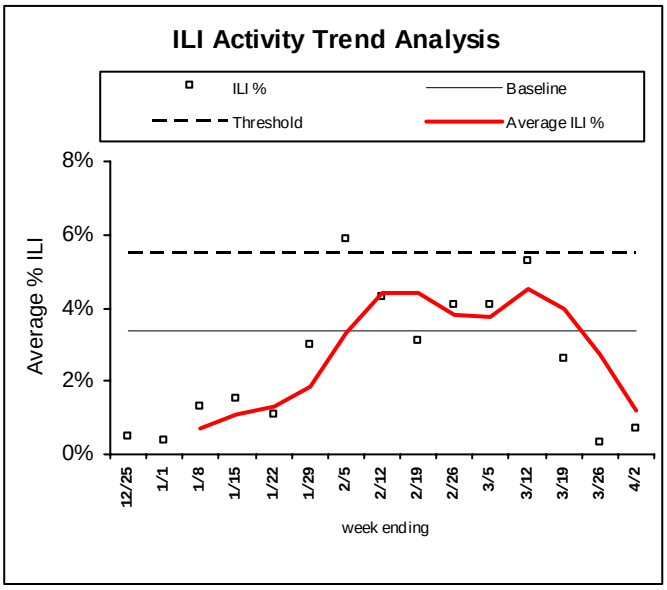




Southeastern Region (ILI activity is Low)

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							
134	6	9	15	11.2%	48	4	8.3%	0.7%	3.4%	5.5%





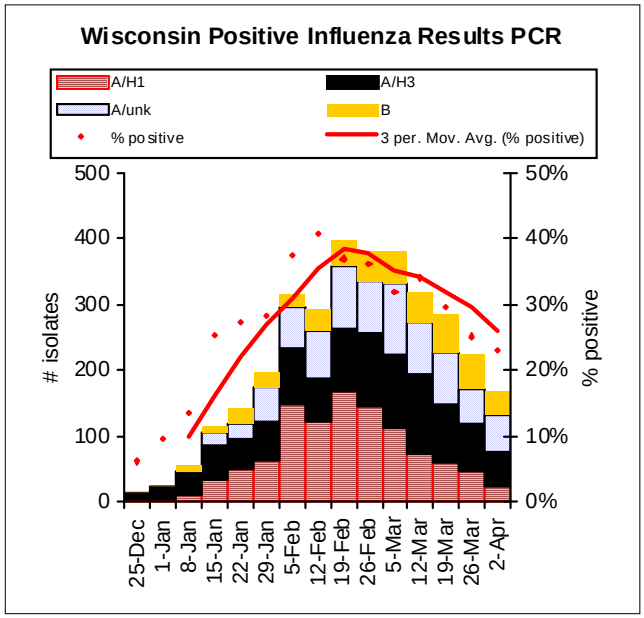
LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES (PCR)

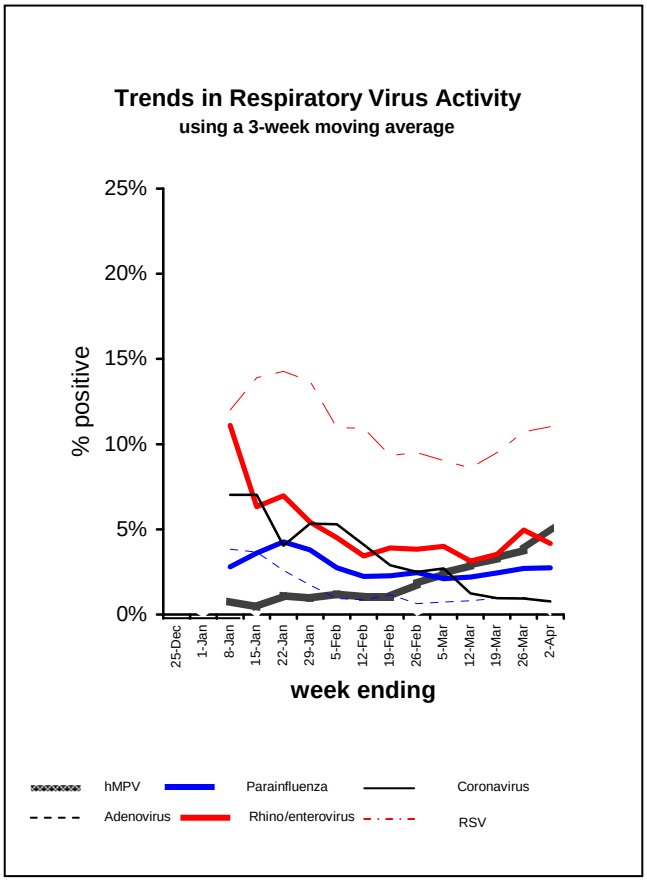
Respiratory Agent	Tested	Positive	% Positive	Flu A (H1)	Flu A (H3)	Flu A (Unk)	Flu B
Influenza	729	168	23.0%	23	54	55	36

Respiratory Agent	Tested	Positive	% Positive	P1	P2	P3	P4
Parainfluenza	235	6	2.6%	1	2	3	0

Respiratory Agent	Tested	Positive	% Positive	CoV-229E	CoV-OC43	CoV-NL63	CoV-HKU1
Coronavirus	103	0	0.0%	0	0	0	0

Respiratory Agent	Tested	Positive	% Positive
RSV	292	22	7.5%
Human Metapneumovirus	158	10	6.3%
Rhino-entero	140	3	2.1%
Adenovirus	140	1	0.7%



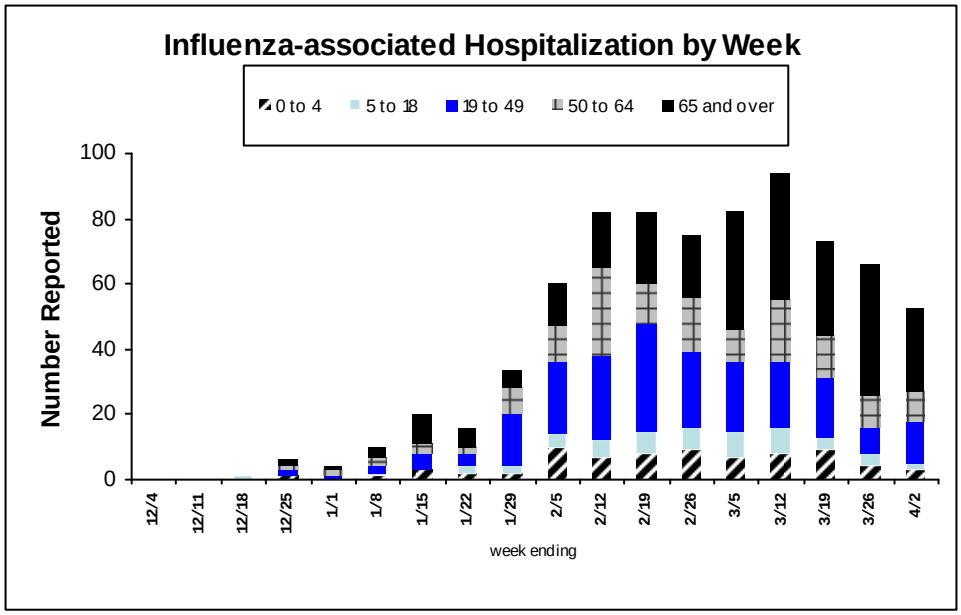


Cumulative number of positive influenza tests
By subtype, October 1, 2010 to present

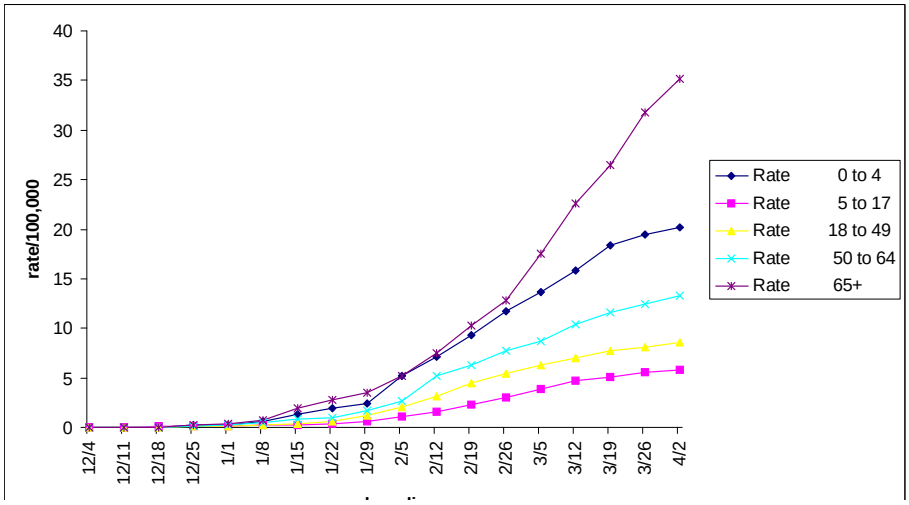
	2009 A/H1	A/H3	A/Unknown	B	Total
Total Number positive	**1075**	**1033**	**795**	**442**	**3345**
% of Total number positive	**32%**	**31%**	**24%**	**13%**	**100%**

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	73	19	11	34	10	16	11
5 to 17	57	19	7	21	10	15	7
18 to 49	211	44	10	141	15	39	22
50 to 64	145	36	16	90	6	41	20
65 and over	274	13	41	208	13	35	13
Total	760	129	84	493	54	146	73



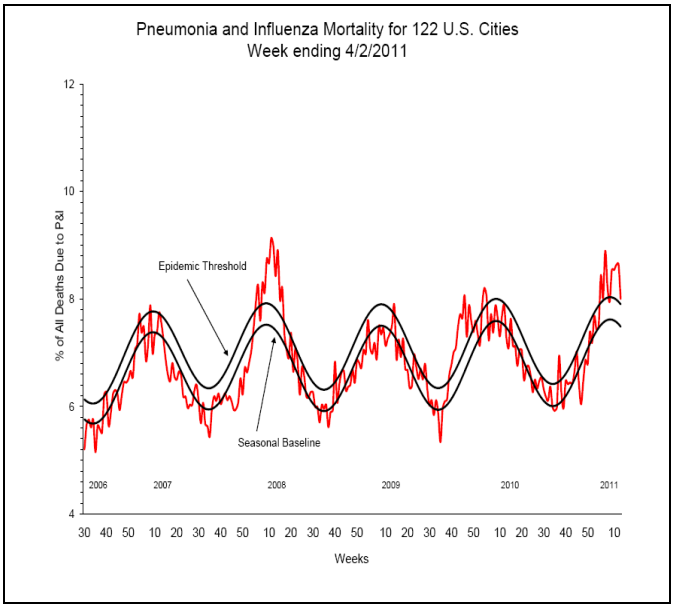
Influenza Hospitalizations, by week and age group

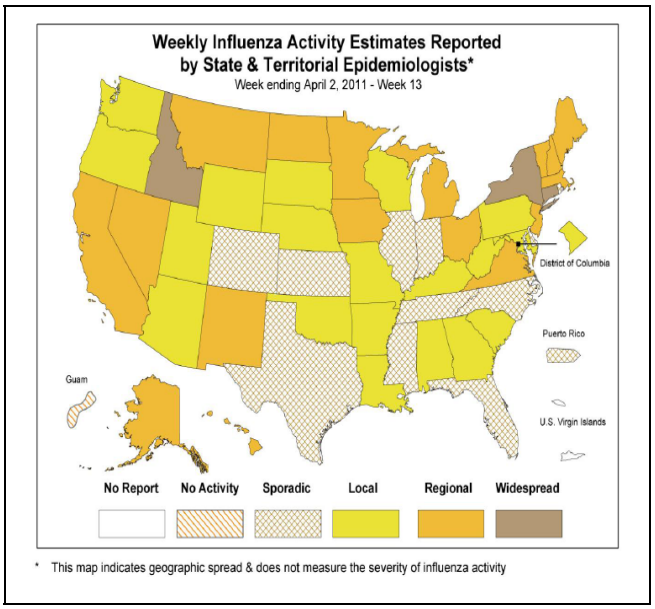


National and Regional Summary of Select Surveillance Components

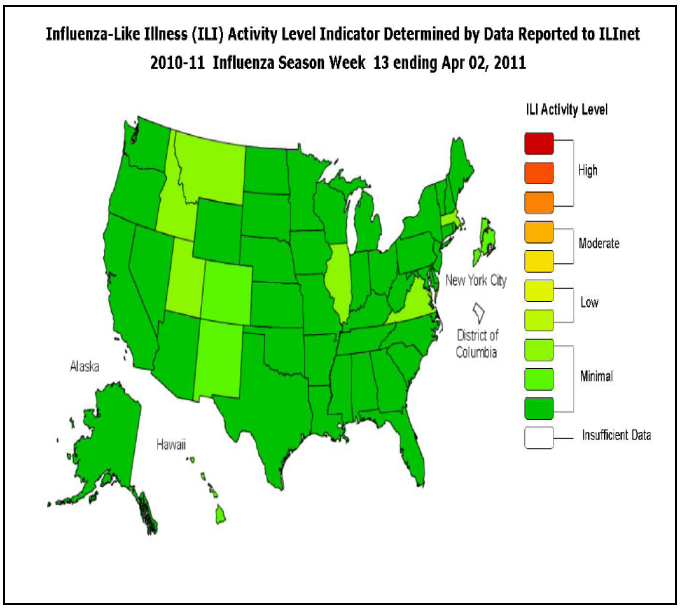
	Data for current week			Data cumulative since October 3, 2010 (Week 40)				
HHS Surveillance Regions*	Out-patient ILI†	% positive for flu‡	Number of jurisdictions reporting regional or widespread activity§	A (H3)	2009 A (H1N1)	A (Subtyping not performed)	B	Pediatric Deaths
Nation	Normal	11.0%	20 of 54	15,929	10,219	11,025	12,910	91
Region 1	Normal	27.1%	5 of 6	1,646	870	89	375	3
Region 2	Normal	18.2%	2 of 4	721	347	1,086	380	9
Region 3	Normal	18.9%	1 of 6	2,880	2,521	833	873	10
Region 4	Normal	8.3%	0 of 8	1,334	1,364	3,117	3,906	16
Region 5	Normal	32.9%	3 of 6	1,908	1,357	415	1,138	16
Region 6	Normal	7.2%	1 of 5	2,164	535	2,289	2,555	16
Region 7	Normal	15.1%	1 of 4	692	533	277	662	1
Region 8	Normal	14.6%	2 of 6	1,686	657	2,032	1,772	7
Region 9	Normal	11.9%	3 of 5	1,906	1,330	728	1,135	11
Region 10	Normal	25.0%	2 of 4	992	705	159	114	2

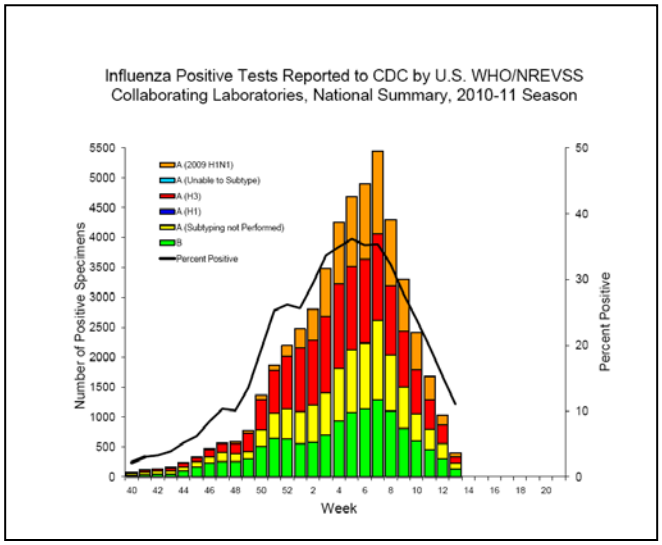
*HHS regions (Region 1 CT, ME, MA, NH, RI, VT; Region 2: NJ, NY, Puerto Rico, U.S. Virgin Islands; Region 3: DE, DC, MD, PA, VA, WV; Region 4: AL, FL, GA, KY, MS, NC, SC, TN; Region 5: IL, IN, MI, MN, OH, WI; Region 6: AR, LA, NM, OK, TX; Region 7: IA, KS, MO, NE; Region 8: CO, MT, ND, SD, UT, WY; Region 9: AZ, CA, Guam, HI, NV; and Region 10: AK, ID, OR, WA).
† Elevated means the % of visits for ILI is at or above the national or region-specific baseline.
‡ National data are for current week; regional data are for the most recent three weeks.
§ Includes all 50 states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands.





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





Antiviral Resistance:

High levels of resistance to the adamantanes (amantadine and rimantadine) persist among 2009 influenza A (H1N1) and A (H3N2) viruses (the adamantanes are not effective against influenza B viruses) circulating globally. As a result of the sustained high levels of resistance, data from adamantane resistance testing are not presented weekly in the table below.

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)	586	1 (0.2)	586	0 (0.0)
Influenza B	485	0 (0.0)	485	0 (0.0)
2009 Influenza A (H1N1)	2,298*	17 (0.7)	348	0 (0.0)

*Includes specimens tested at public health laboratories in six states (CA, ME, MD, MN, TX, and WA) who share testing results with CDC.