DEPARTMENT OF HEALTH SERVICES
DIVISION OF PUBLIC HEALTH

Weekly Surveillance Report
For the Week Ending December 5, 2009 (week 09-48)

AT A GLANCE

1. Predominant respiratory viruses in Wisconsin:
2009 A/H1N1, RSV and (sporadic cases) of Parainfluenza and Rhinovirus

2. Influenza-like illness activity in Wisconsin and five public health regions:

	Current Week 09-48	Previous Week 09-47
Wisconsin	Low	Low
Northeastern Region	Low	Low
Northern Region	Low	Low
Southeastern Region	Low	Low
Southern Region	Low	Low
Western Region	Low	Low

*Note: Beginning week 40, baseline and threshold levels have changed to reflect the 2009-2010 influenza season activity

3. Influenza-like illness percentage:

	Current week 09-48	Baseline
United States	2.7%	2.3%
Wisconsin	1.6%	3.1%
Region V (WI, MN, IL, MI, OH)	1.8%	1.7%

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

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

Although a positive Influenza A rapid test is likely to be a true positive, we are seeing many false negative rapid test results. Therefore Use of the influenza rapid test to diagnose 2009 H1N1 is discouraged

6. Antiviral resistance: (August 31 2009 –present)

ADAMANTANE RESISTANCE

		Influenza Subtype					
		Seasonal A/H1		2009 A/H1N1		A/H3	
Season/Lab		Tested	Resistant	Tested	Resistant	Tested	Resistant
09-10	WSLH						
09-10	CDC			451	99.8%	3	100%

OSELTAMIVIR RESISTANCE

		Influenza Subtype							
		Seasonal A/H1		2009 A/H1N1		A/H3		B	
Season/Lab		Tested	Resistant	Tested	Resistant	Tested	Resistant	Tested	Resistant
09-10	WSLH			140	0%				
09-10	CDC	2	0%	2043	0.8%	5	0%	1	0%

ZANAMIVIR RESISTANCE

		Influenza Subtype							
		Seasonal A/H1		2009 A/H1N1		A/H3		B	
Season/Lab		Tested	Resistant	Tested	Resistant	Tested	Resistant	Tested	Resistant
09-10	CDC			559	0%				

7. Influenza-associated pediatric deaths (August 31, 2009-present)

	Current Week 09-47	2009-10 Season Total	Due to 2009 H1N1
United States	16	204	165
Wisconsin	0	3	3

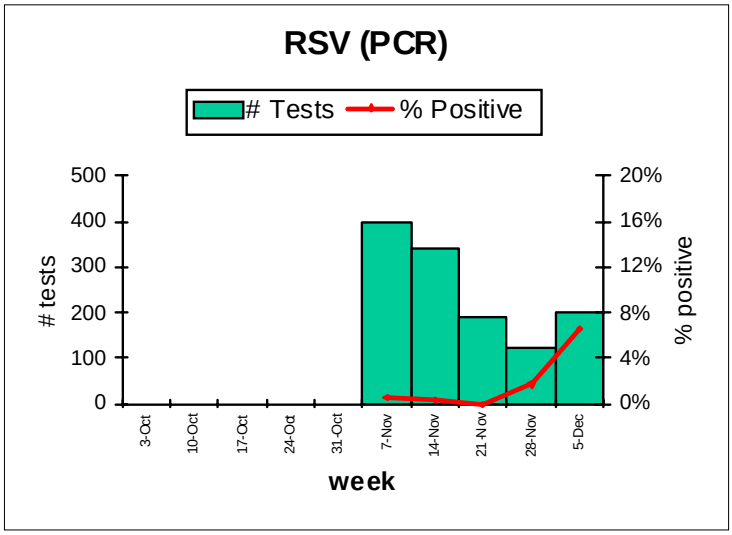
8. Pneumonia and influenza mortality (P&I), United States,

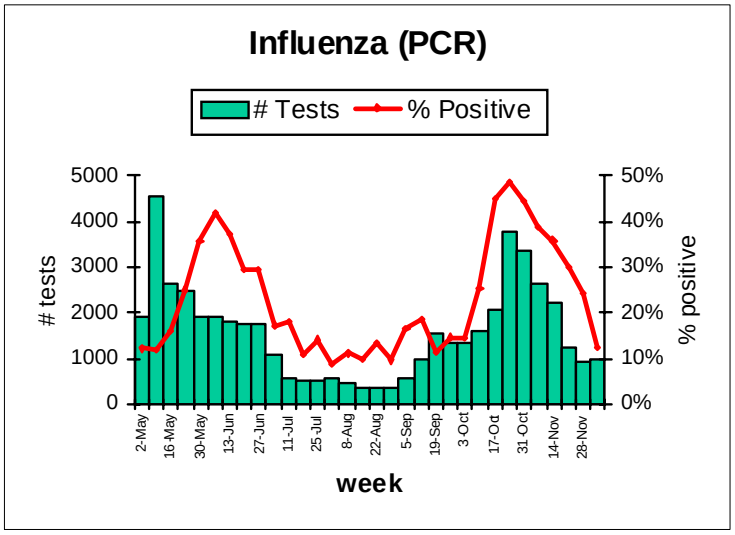
	Current Week 09-48	Previous Week 09-47
P&I %	7.8%	7.2%
National P&I threshold %	7.1%	7.1%

WISCONSIN LABORATORY SURVEILLANCE
For Influenza and other Respiratory Viruses (week 09-48)

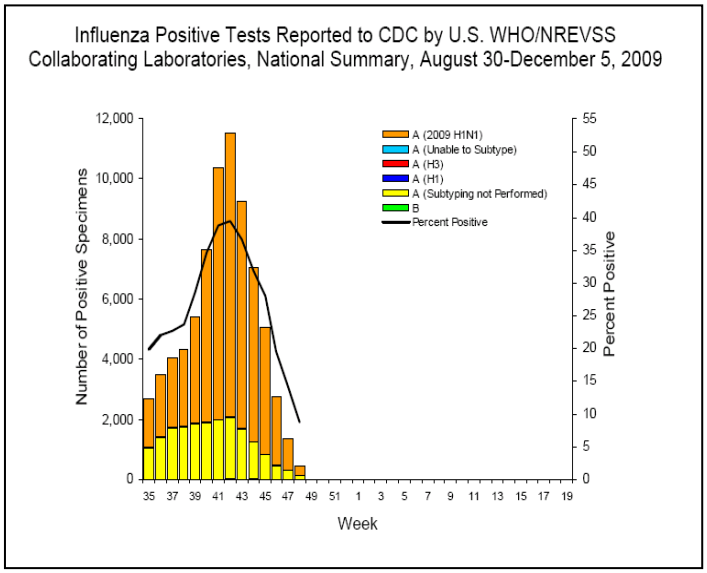
VIRUS CULTURE Based on 112 tests		RAPID TESTS			SELECT PCR TESTS	
Test Type	% Positive	Virus	# Tests	% Positive	Test Type	Positive/ total number
Total % Positive	6.3%					
Influenza (Tot.)	3.6%	Influenza (Tot)	639	6.7%	Influenza A & B	111/816
Influenza A	3.6%				Influenza A	12/164
Influenza B	0.0%	Influenza A		6.1%	# A/H1	0
					2009 A/H1	85
hMPV	0.0%	Influenza B		0.3%	# A/H3	0
					# A/not subtyped	38
		Influenza Unk.*		0.3%	# B	0
RSV	1.9%	RSV	97	7.2%	RSV	13/200
Adenovirus	0.9%	Adenovirus	32	0.0%	Adenovirus	2/41
Parainfluenza	0.0%				Parainfluenza	1/156
					Corona OC 43	4/29
Rhinovirus	0.0%	*Influenza unknown (Unk) are positive influenza test results that cannot be distinguished between Type A and B			Rhinovirus	2/29
					hMPV	0/29
Enterovirus	0.0%				Enterovirus	0/0

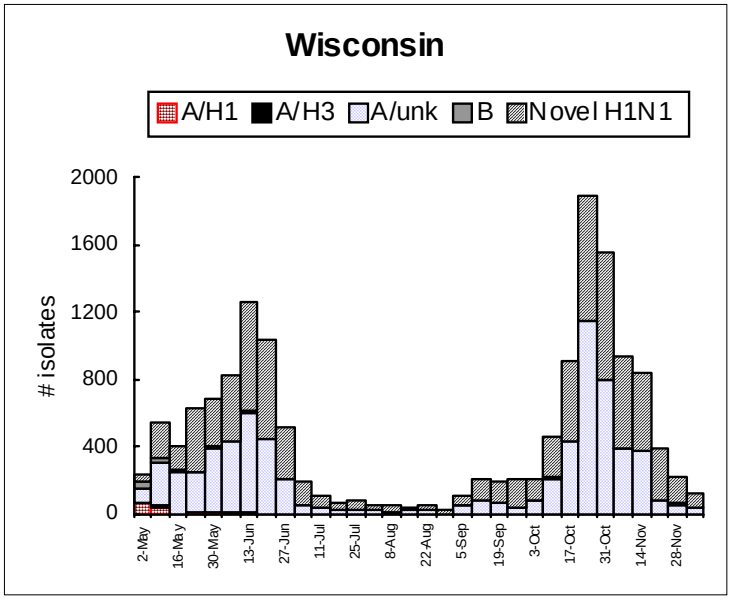
WISCONSIN TREND. RSV AND INFLUENZA PCR POSITIVE TESTS





WISCONSIN AND U.S. TREND INFLUENZA SUBTYPES (CULTURE/PCR) April 2009-Present





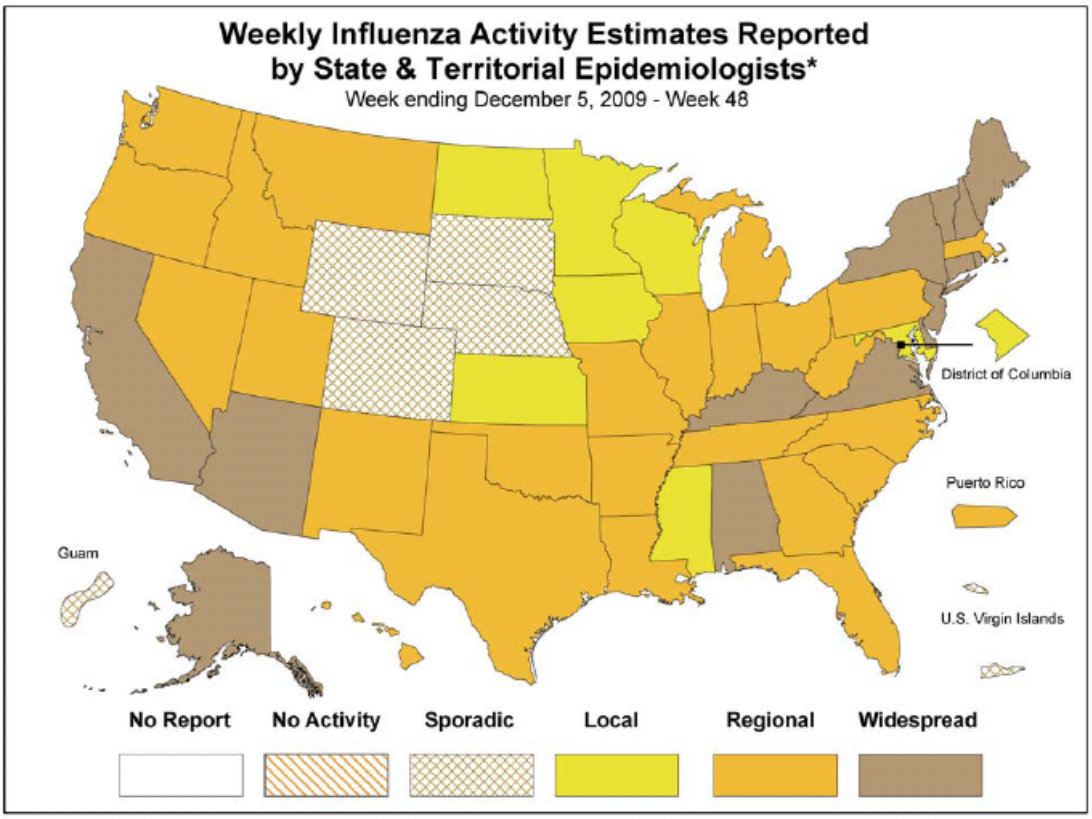
NATIONAL SUMMARY
(Wisconsin is in Region 5)

National and Regional Summary of Select Surveillance Components

	Data for current week			Data cumulative since August 30, 2009 (Week 35)*						
HHS Surveillance Regions**	Out-patient ILI†	% positive for flu‡	Number of jurisdictions reporting regional or widespread activity§	A (H1)	A (H3)	2009 A (H1N1)	A (unable to sub-type)¥	A (Subty-ping not perfor-med)	B	Pediatric Deaths
Nation	Elevated	8.9%	40 of 54	25	44	56,410	274	18,127	187	204
Region 1	Elevated	23.7%	6 of 6	5	2	2,731	13	440	10	4
Region 2	Elevated	15.6%	3 of 4	1	5	1,039	0	1,001	4	6
Region 3	Normal	17.8%	4 of 6	3	6	10,396	40	1,418	15	12
Region 4	Elevated	13.2%	7 of 8	0	4	6,135	88	3,934	49	39
Region 5	Elevated	22.6%	4 of 6	6	17	8,846	54	1,267	11	28
Region 6	Normal	5.5%	5 of 5	0	3	2,687	19	4,437	35	61
Region 7	Elevated	9.1%	1 of 4	3	1	3,239	3	750	3	5
Region 8	Normal	12.2%	2 of 6	5	2	9,480	0	3,648	51	13
Region 9	Elevated	21.2%	4 of 5	0	3	7,801	44	1,065	7	27
Region 10	Normal	30.4%	4 of 4	2	1	4,056	13	167	2	9

*Influenza season officially begins each year at week 40. This season data from week 35 will be included to show the trend of influenza activity before the official start of the 2009-10 influenza season.

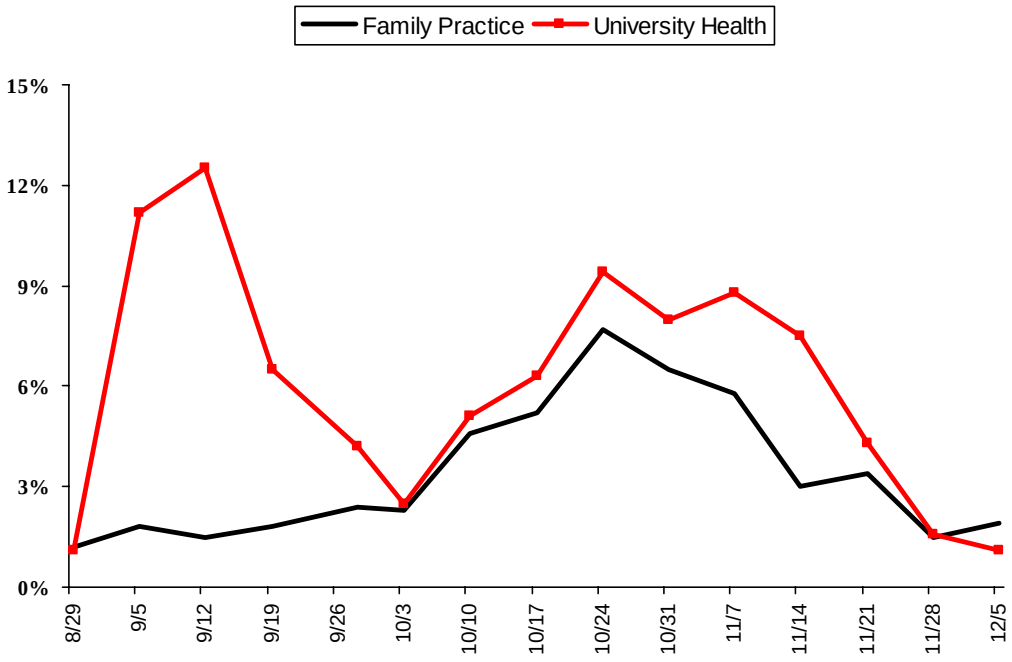
**HHS regions (Region 1 CT, ME, MA, NH, RI, VT; Region 2: NJ, NY, Puerto Rico, US Virgin Islands; Region 3: DE, DC, MD, PA, VA, WV; Region 4: AL, FL, GA, KY, MS, NC, SC, TN; Region 5: IL, IN, MI, MN, OH, WI; Region 6: AR, LA, NM, OK, TX; Region 7: IA, KS, MO, NE; Region 8: CO, MT, ND, SD, UT, WY; Region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



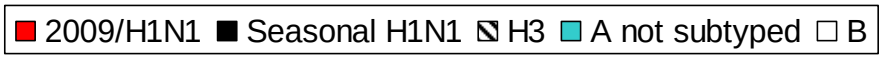
* This map indicates geographic spread & does not measure the severity of influenza activity

ILI Activity Statewide

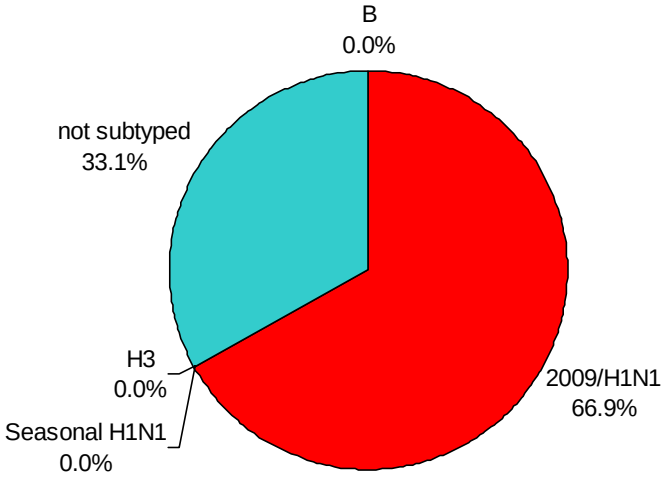
Family Practice Clinicians and University Student Health Clinicians
August 29, 2009 to present



Influenza Strains Wisconsin Week 48



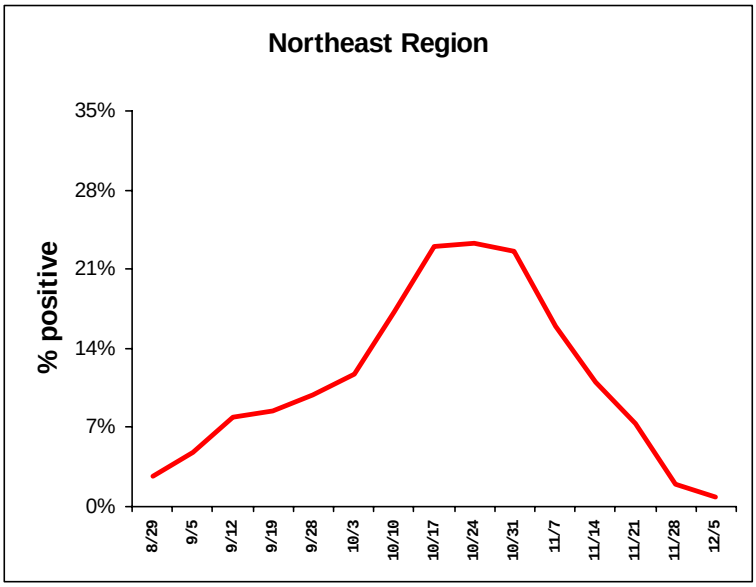
100% Influenza A
0.0% Influenza B
Of those Influenza A subtyped:
85/85 (100%) are 2009/ H1N1

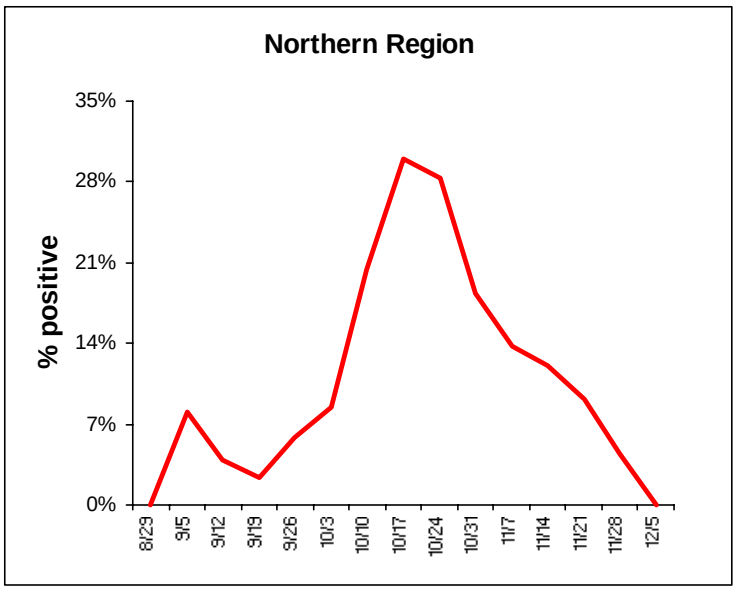


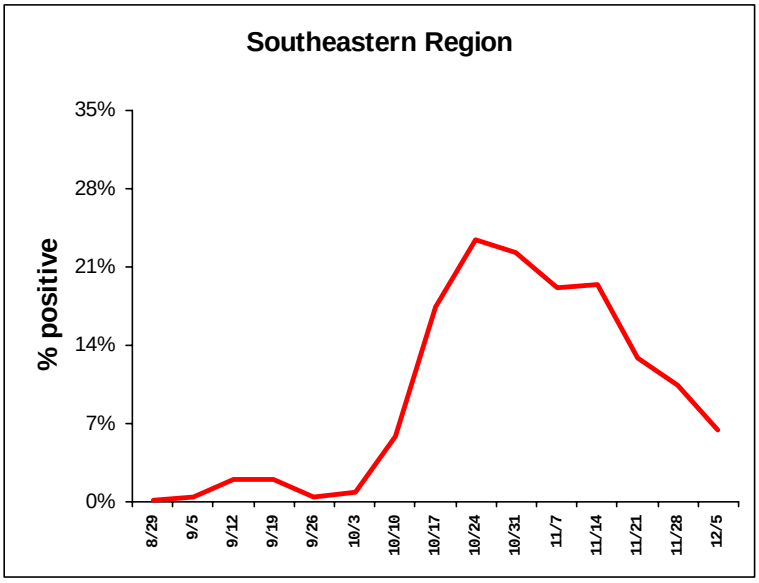
RAPID TEST SITE DATA (CHART) BY REGION

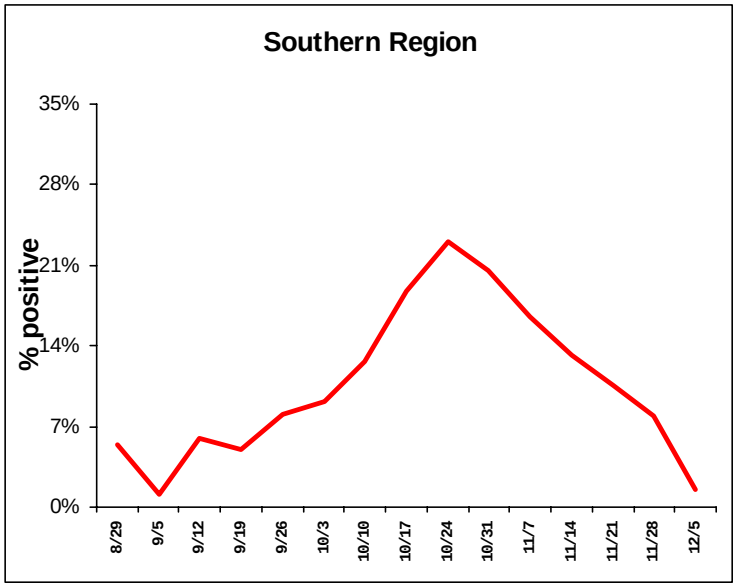
Percent Positive Rapid Tests for Influenza and RSV

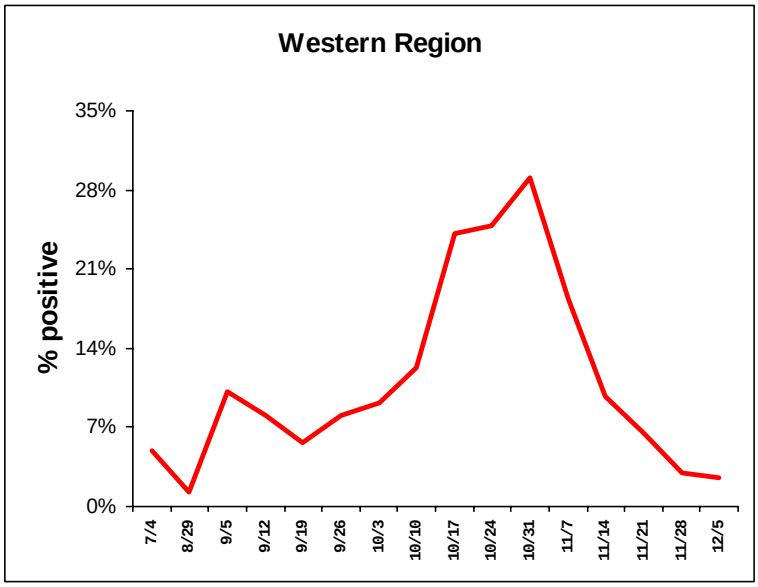
Influenza — RSV

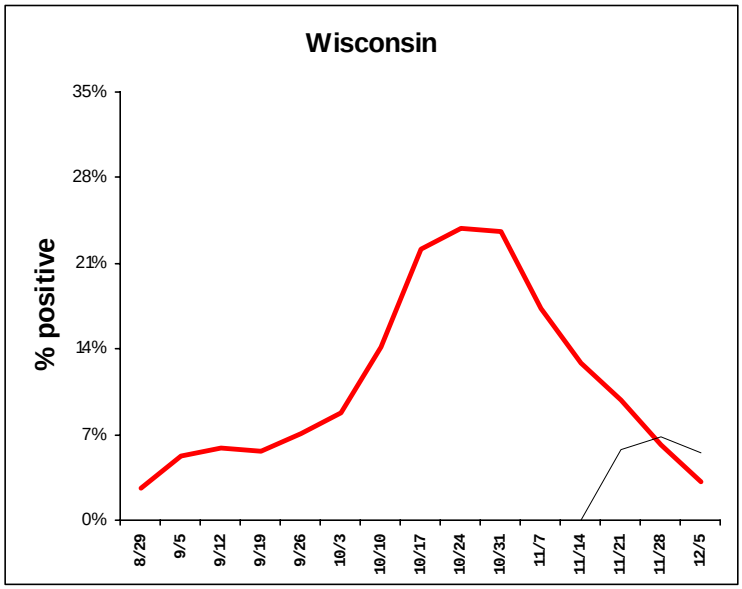




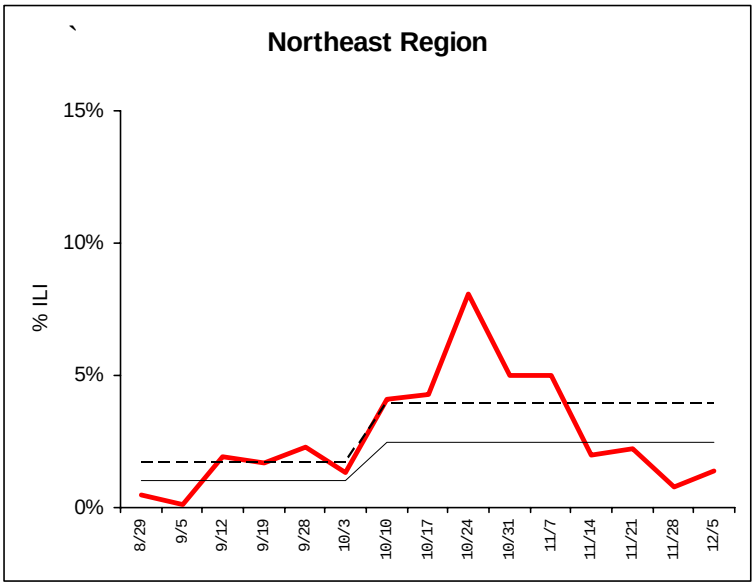
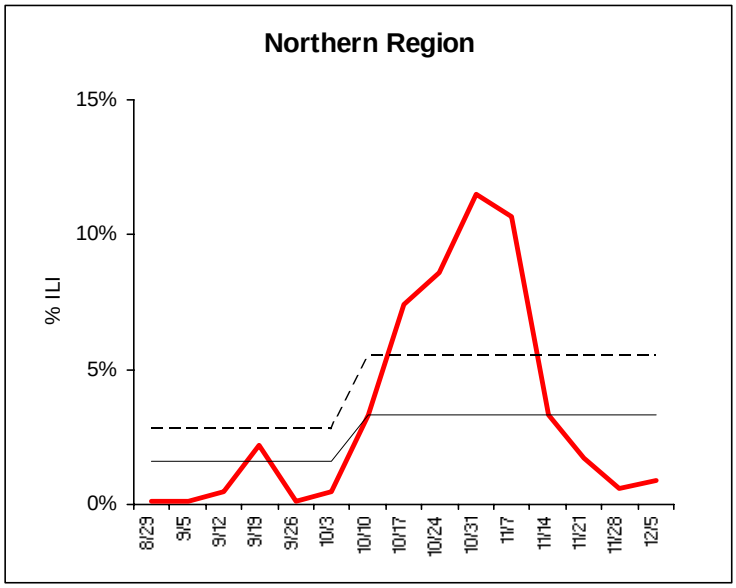
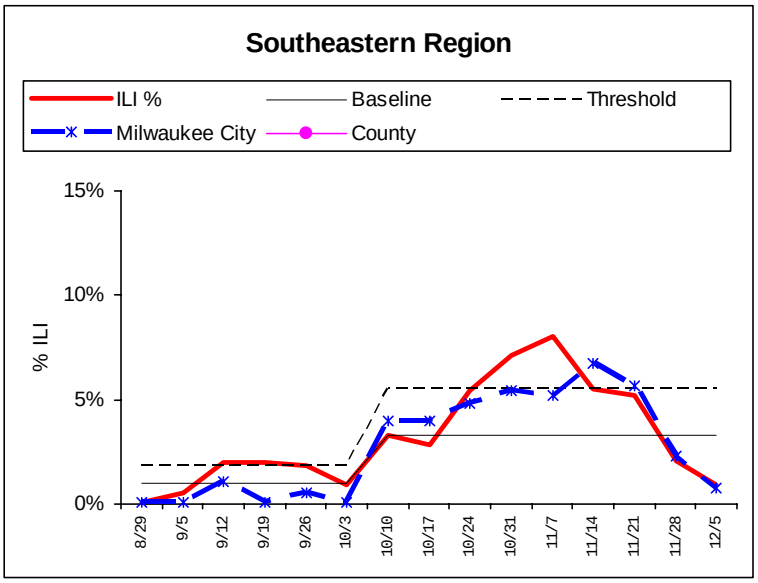
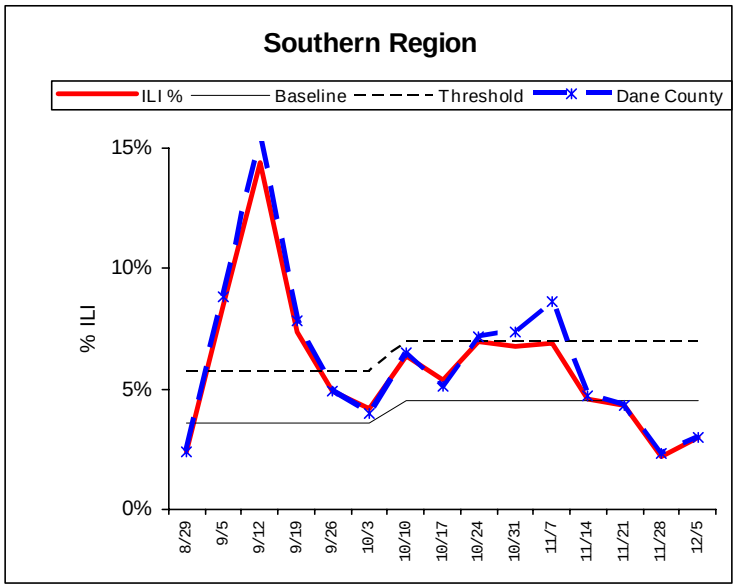
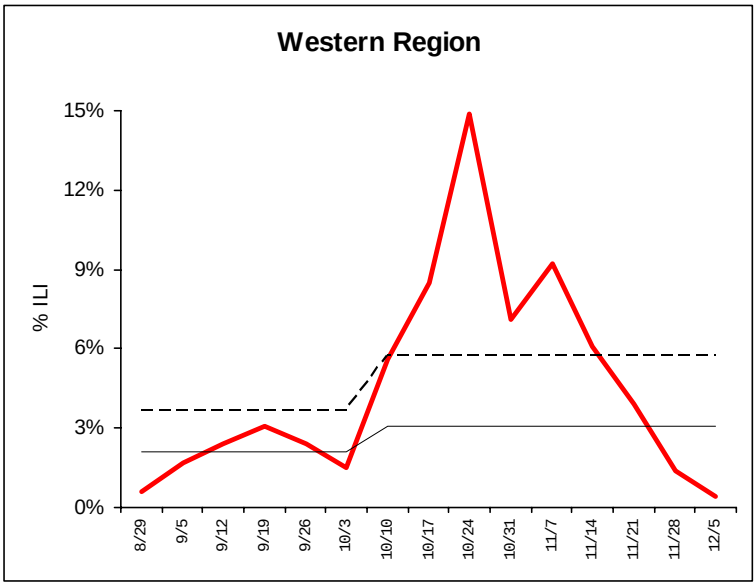
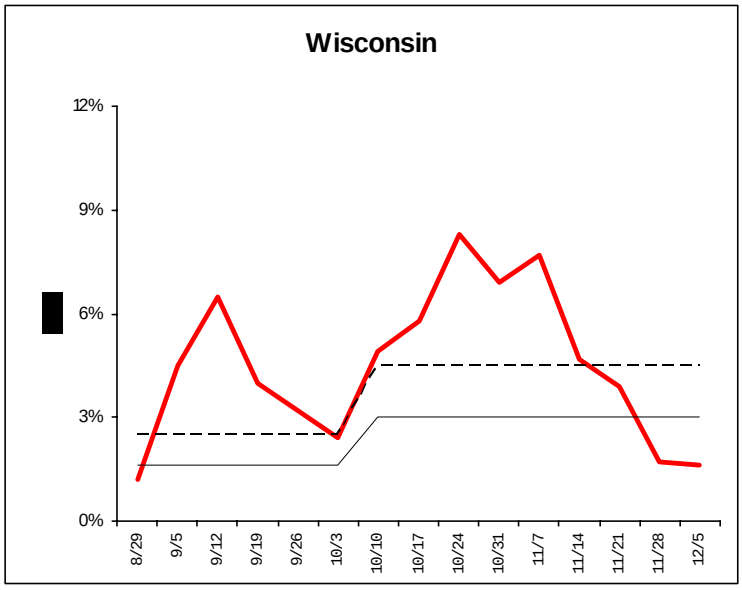








INFLUENZA-LIKE ILLNESS DATA (CHART) BY REGION

Source: US Outpatient Influenza-like Illness Surveillance Network (ILINet)

ILI % — Baseline % — Threshold %