WISCONSIN DEPARTMENT OF HEALTH SERVICES
Division of Public Health
Bureau of Communicable Diseases

Respiratory virus surveillance report for the week ending October 24, 2015 week 42-15

AT-A-GLANCE

- Respiratory viruses identified this week :
  rhinovirus and parainfluenza viruses are predominant this week. Sporadic cases of influenza A and adenovirus were also identified.

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

Wisconsin	Low
Wisconsin (CDC level)	Low
Northwestern 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 and RSV 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 and RSV tests is: High
  (PVN is the probability of not having disease when the test result is negative)

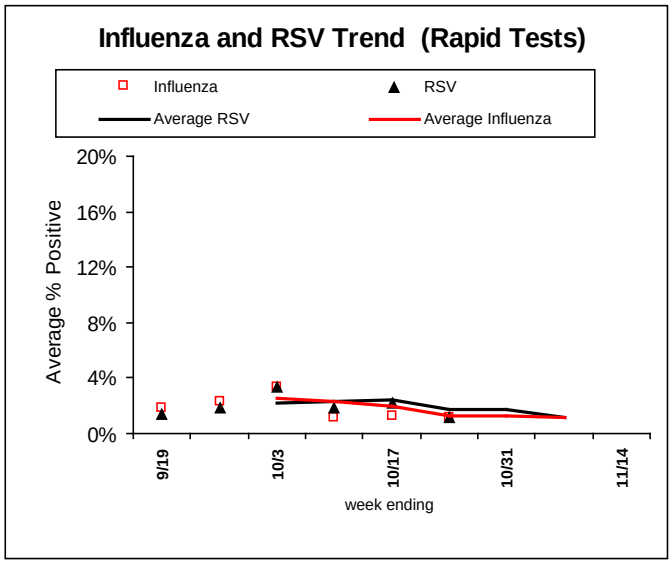
- Influenza-associated pediatric deaths reported (October 10, 2015-present)

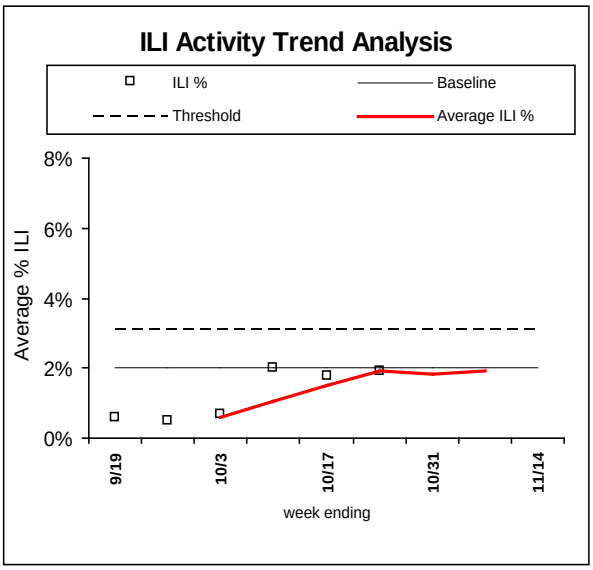
	Week 42-15	Total to Date
Wisconsin	0	0
Nationwide	0	0

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

Wisconsin (ILI activity is Low)

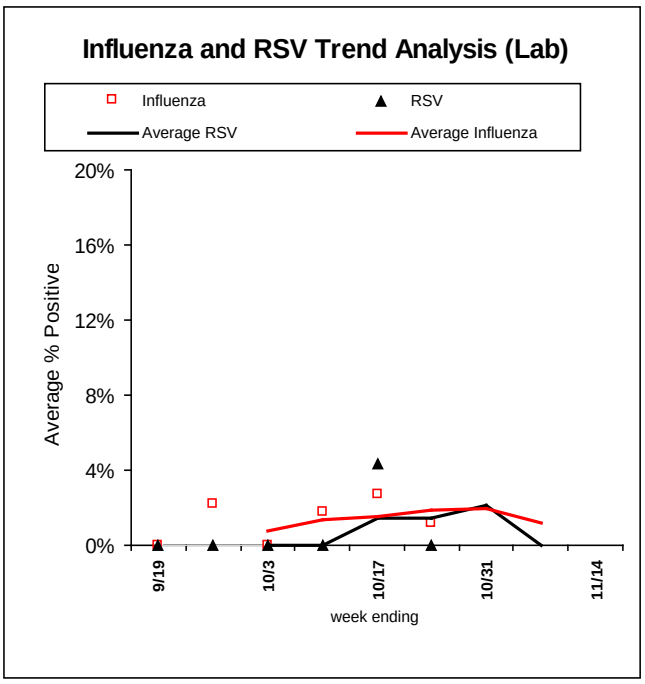
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
518	6	0	6	1.2%	86	1	1.2%	1.9%	2.0%	3.1%

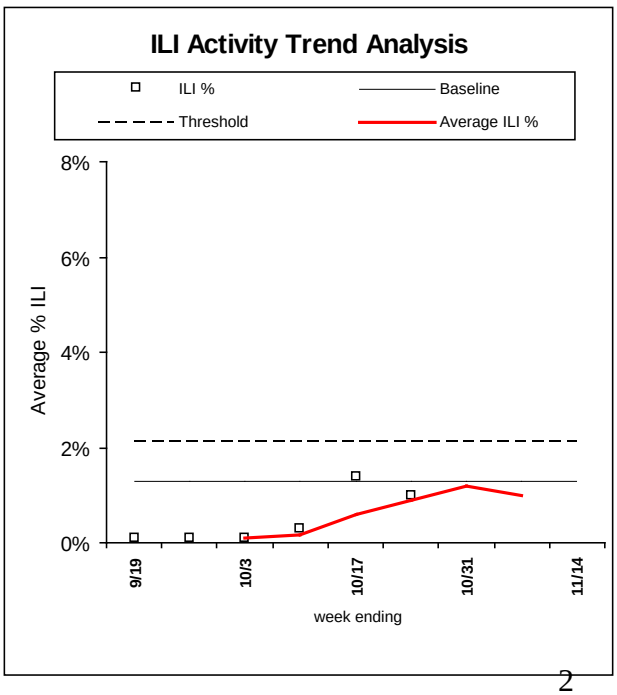




Northwestern Region (ILI activity is Low)

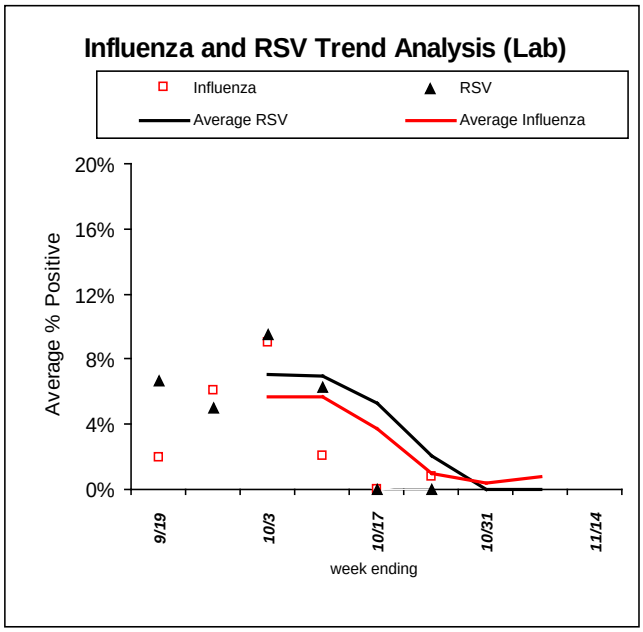
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
85	3	0	3	1.2%	13	0	0%	1.0%	1.3%	2.1%

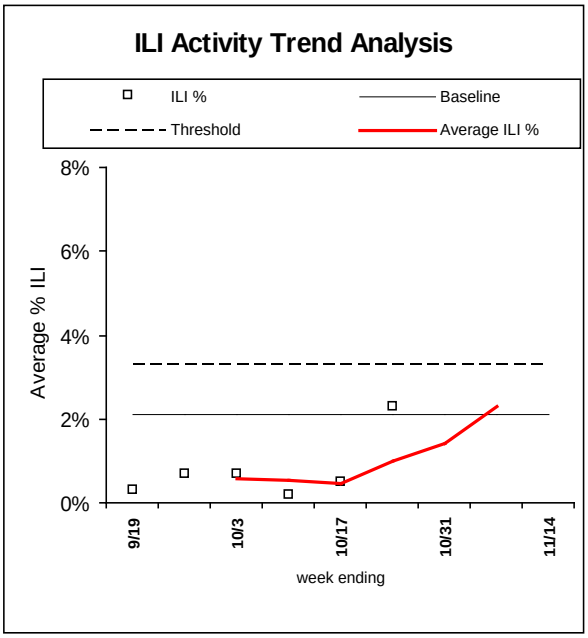




Northeastern Region (ILI activity is Low

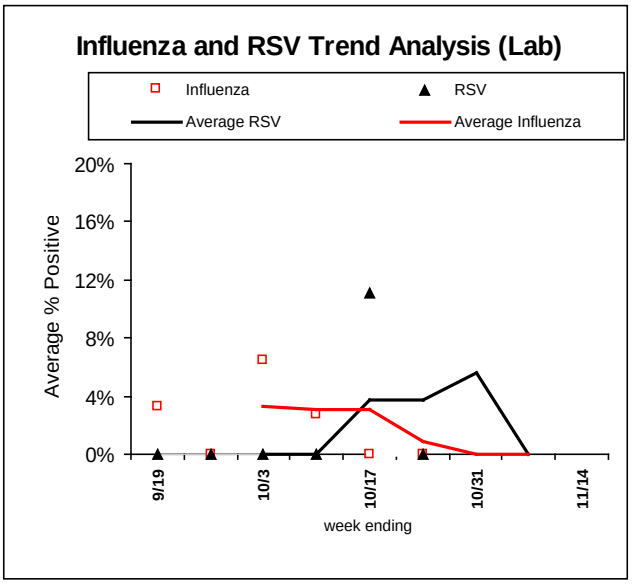
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
119	1	0	1	0.8%	15	0	0%	0.7%	1.0%	1.7%

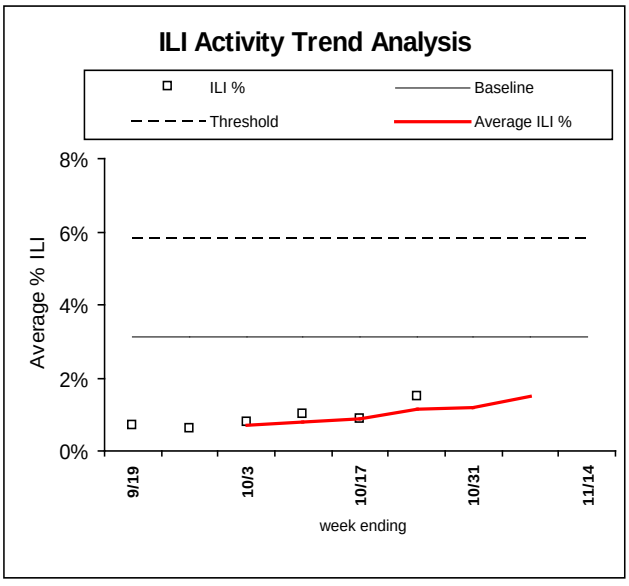




Southern Region (ILI activity is Low)

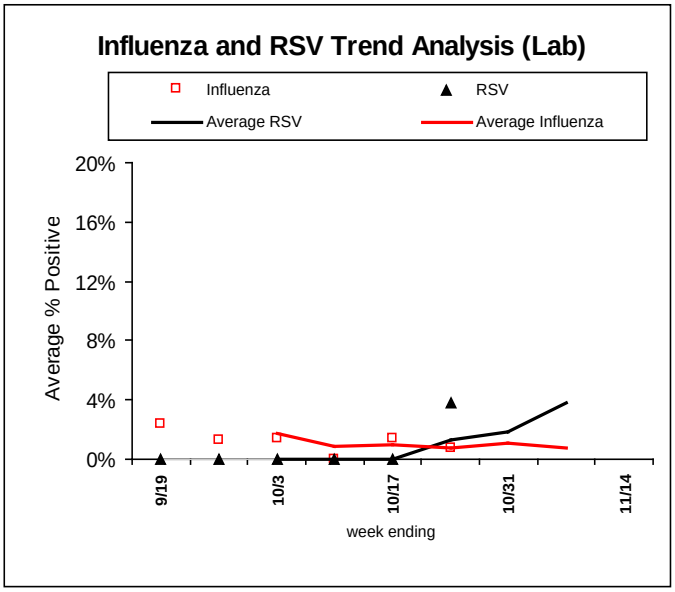
INFLUENZA RAPID ANTIGEN TESTS					RSV RAPID ANTIGEN TESTS			INFLUENZA-LIKE ILLNESS		
Tested	Positive			% Positive	Tested	Positive	% Positive	ILI %	Baseline	Threshold
	Flu A	Flu B	Total							
35	0	0	0	0%	3	0	0%	1.5%	2.5%	3.9%

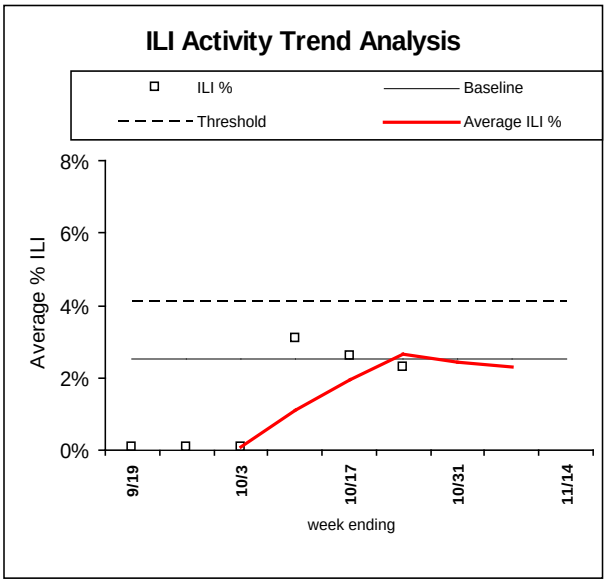




Southeastern Region (ILI activity is Low)

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							
250	2	0	2	0.8%	26	1	3.8%	2.3%	1.0%	1.8%





For the 2015-16 influenza season, data from the Western Region and the Northern Region will be combined and referred to as the Northwestern Region. This change was made in response to the small number of providers who participate in our weekly surveillance in the Northern Region.

Influenza Vaccine Composition 2015-2016

The trivalent vaccines for use in the 2015-2016 influenza season) contain the following:

- A/California/7/2009 (H1N1)pdm09-like virus;
- A/Switzerland/9715293/2013 (H3N2)-like virus;
- B/Phuket/3073/2013-like virus (Yamagata lineage).

It is recommended that quadrivalent vaccines containing two influenza B viruses contain the above three viruses and

- B/Brisbane/60/2008-like virus (Victoria Lineage)

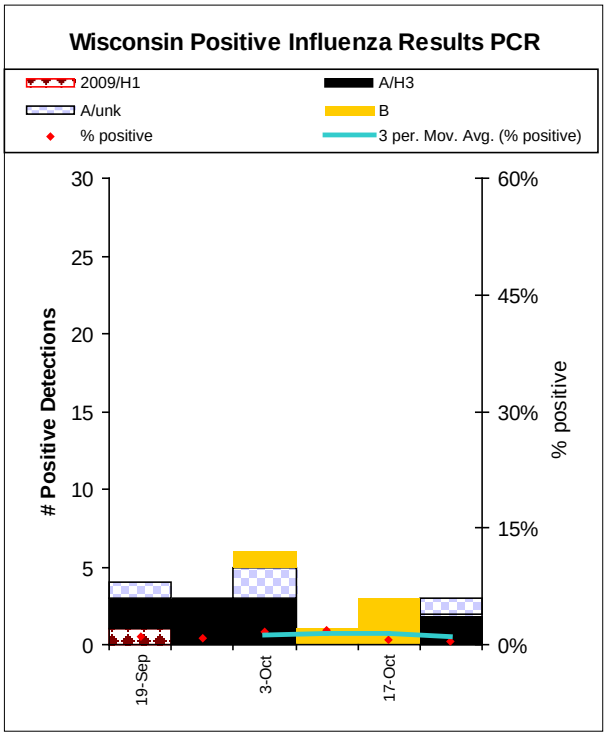
LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES (PCR)

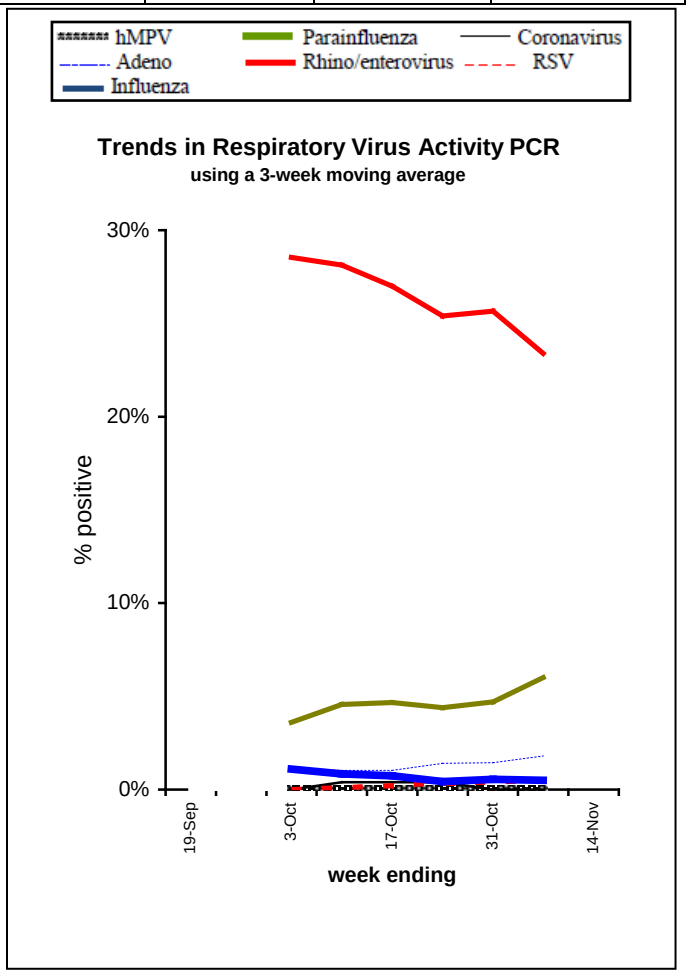
Respiratory Agent	Tested	Positive	% Positive	Flu A			Flu B		
				H3	pd2009 H1	Unk	Yamagata	Victoria	Unk
Influenza	629	3	0.5%	2	0	1	0	0	0

Respiratory Agent	Tested	Positive	% Positive	PI-1	PI-2	PI-3	PI-4
Parainfluenza	351	21	6.0%	13	0	1	7

Respiratory Agent	Tested	Positive	% Positive	CoV-229E	CoV-OC43	CoV-NL63	CoV-HKU1
Coronavirus	171	0	0%	0	0	0	0

Respiratory Agent	Tested	Positive	% Positive
RSV	389	2	0.5%
Human Metapneumovirus	336	0	0%
Rhino-entero	304	71	23.4%
Adenovirus	171	3	1.8%





Cumulative number of positive influenza tests
By subtype, September 1, 2015 to present

	Influenza A			Influenza B			Total
	pd2009 H1	H3	Unknown	Yamagata	Victoria	Unknown	
Total Number positive	1	16	9	2	1	2	31
% of Total number positive	3%	52%	29%	6%	3%	6%	100%

Influenza-associated Hospitalizations, September 1, 2015 to present

Age group	Total Number Reported (2015-16)	Influenza Subtypes				Not reported	Admitted to ICU	Required Mechanical Ventilation	Pregnant Females
		2009 H1N1	H3N2	A/Unknown	B				
< 1 year	0	0	0	0	0	0	0	0	
1 to 4	0	0	0	0	0	0	0	0	
5 to 17	1	0	0	1	0	0	0	0	
18 to 49	3	0	0	2	1	1	1	0	1
50 to 64	2	0	0	2	0	0	0	0	
65 and over	15	0	2	8	4	1	1	0	
Total	21	0	2	13	5	1	2	0	1

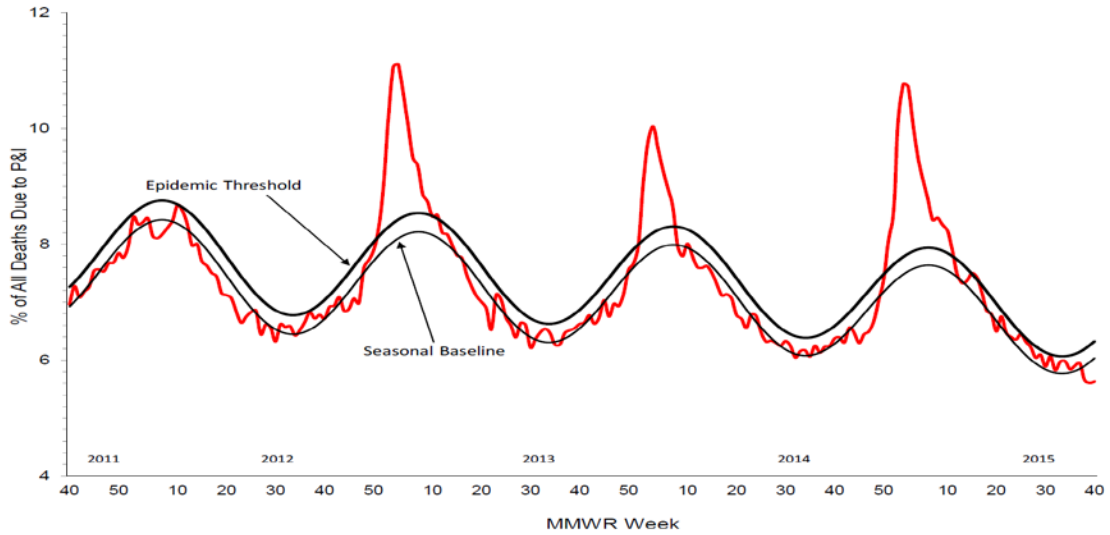
Influenza-associated Hospitalizations by Public Health Region, September 1, 2015 to present

Region	Week 42	Season Total
Southeastern	0	2
Southern	0	6
Northeastern	3	11
Western	0	1
Northern	0	1
Wisconsin	0	21

Incidence/100,000

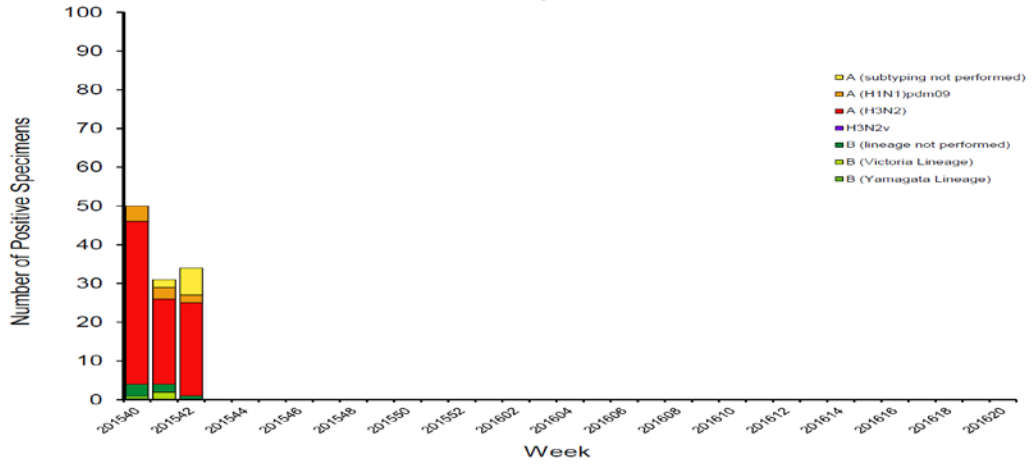
Age group	Wisconsin	National
<1		
1 to 4		
0 to 4		
5 to 17		
18 to 49		
50 to 64		
65+		
total		

Pneumonia and Influenza Mortality from
the National Center for Health Statistics Mortality Surveillance System
Data as of October 29, 2015 through week ending October 10, 2015



	Week 42	Data Cumulative since October 4, 2015 (week 40)
No. of specimens tested	638	2,098
No. of positive specimens	34	115
Positive specimens by type/subtype		
Influenza A	33 (97.1%)	106 (92.2%)
A(H1N1)pmd09	2 (6.1%)	9 (8.5%)
H3	24 (72.7%)	88 (83.0%)
Subtyping not performed	7 (21.2%)	9 (8.5%)
Influenza B	1 (2.9%)	9 (7.8%)
Yamagata lineage	0 (0%)	1 (11.1%)
Victoria lineage	0 (0%)	2 (22.2%)
Lineage not performed	1 (100%)	6 (66.7%)

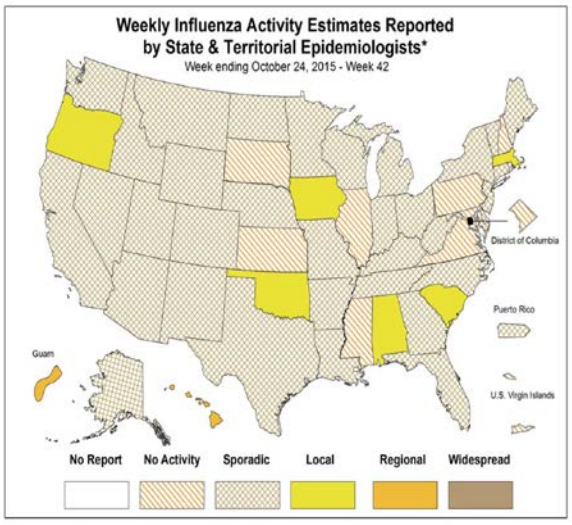
Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories,
National Summary, 2015-16 Season



Influenza characterization data will resume in November, 2015.

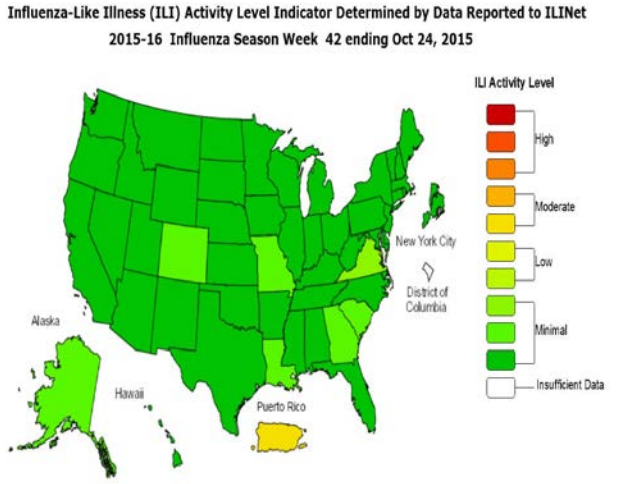
Influenza antiviral resistance data will resume in November, 2015.

State and Territorial reports will resume in October, 2015



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

Influenza-like illness indicator map will resume in October, 2015.

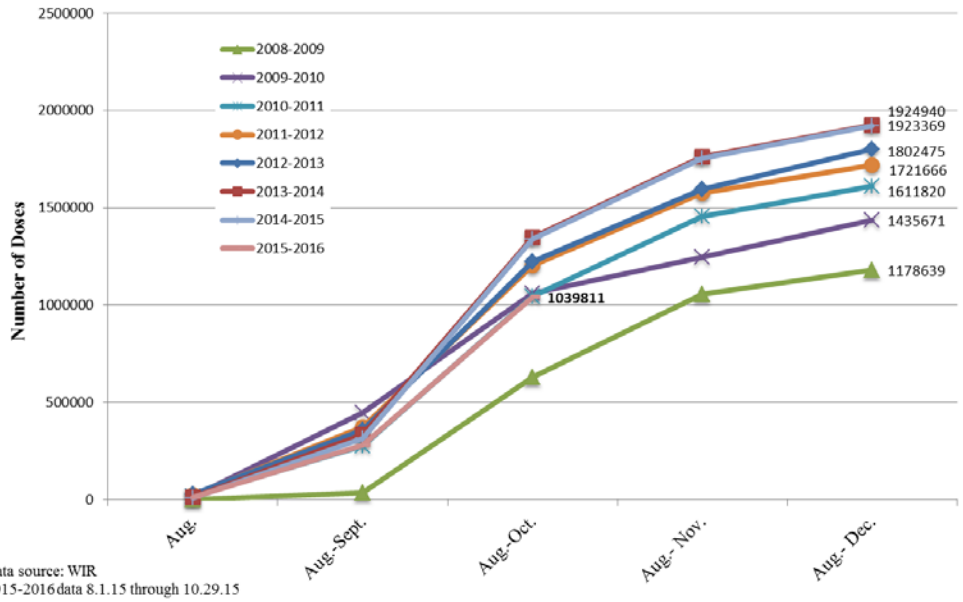


*This map uses the proportion of outpatient visits to health care providers for influenza-like illness to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state. Therefore, outbreaks occurring in a single city could cause the state to display high activity levels.

Seasonal Influenza Vaccination in Wisconsin
Based on Doses Reported to the Wisconsin Immunization Registry (WIR)
October 30, 2015

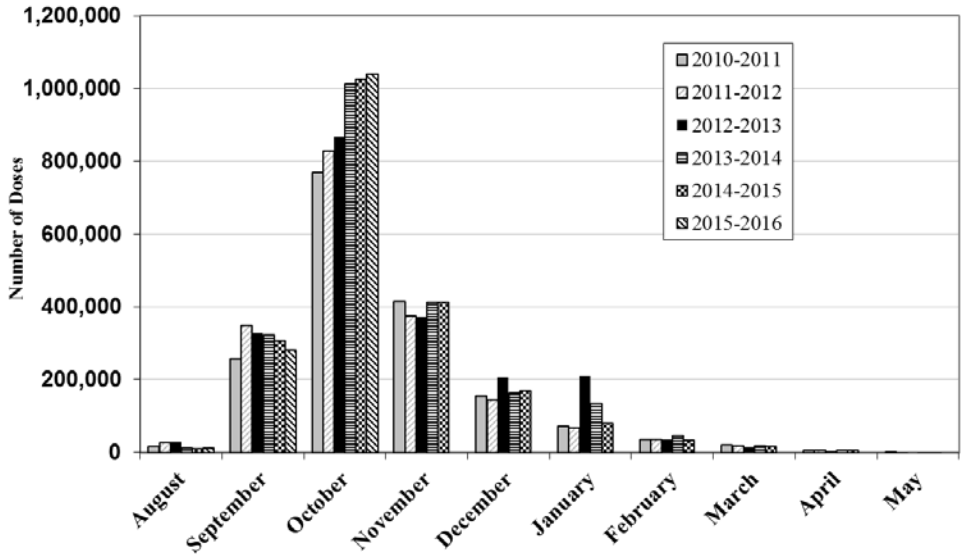
Data for 2015-2016 Season Reported for 8.1.15-10.29.15

Cumulative Doses of Seasonal Influenza Administered and Reported to the WIR, 2008-2016 Influenza Seasons



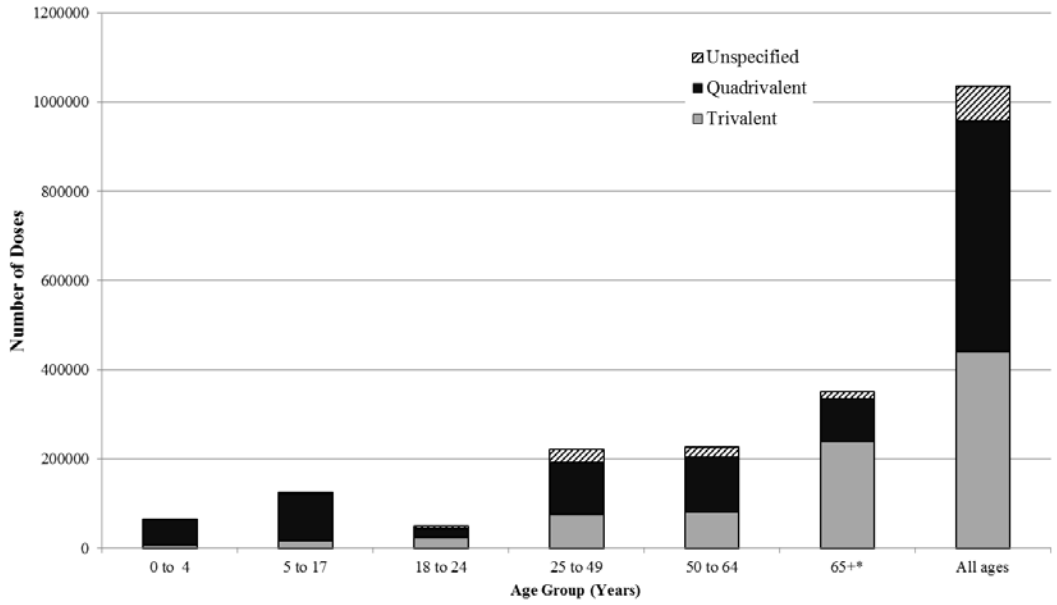
Data source: WIR
2015-2016 data 8.1.15 through 10.29.15

Number of Doses of Seasonal Influenza Vaccine Administered and Reported to the WIR, by Month for Influenza Seasons 2010-2016



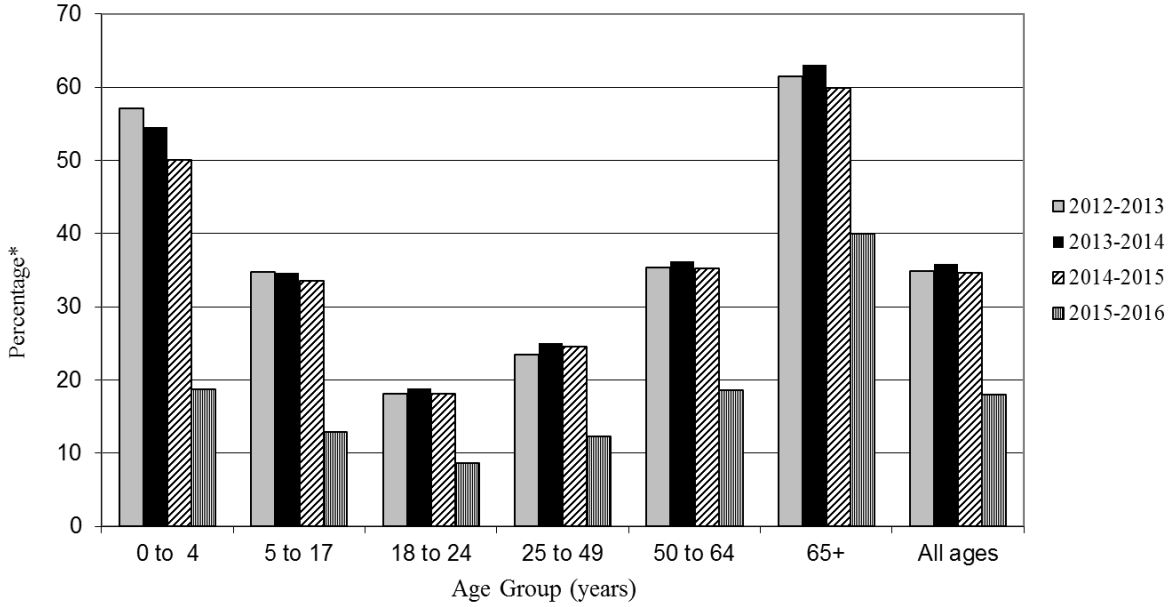
*Data source: WIR,
2015-2016 data through 10.29.2015

Doses of Seasonal Influenza Vaccine Administered and Reported to WIR by Age Group and Vaccine Type, 2015-2016 Influenza Season



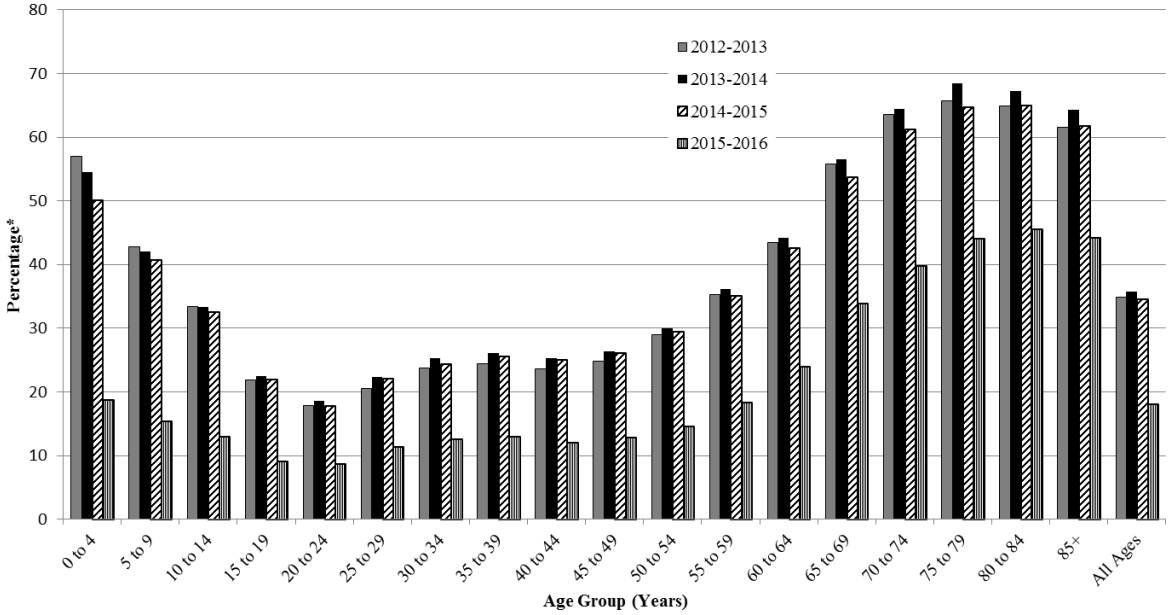
*Of trivalent influenza doses received by adult clients aged 65 years and older, 69.4% of the doses were high dose influenza vaccine.

Rates of Influenza Vaccination in Wisconsin by Age Group, 2011-2016 Influenza Seasons, Based on Doses Reported to the Wisconsin Immunization Registry (WIR)



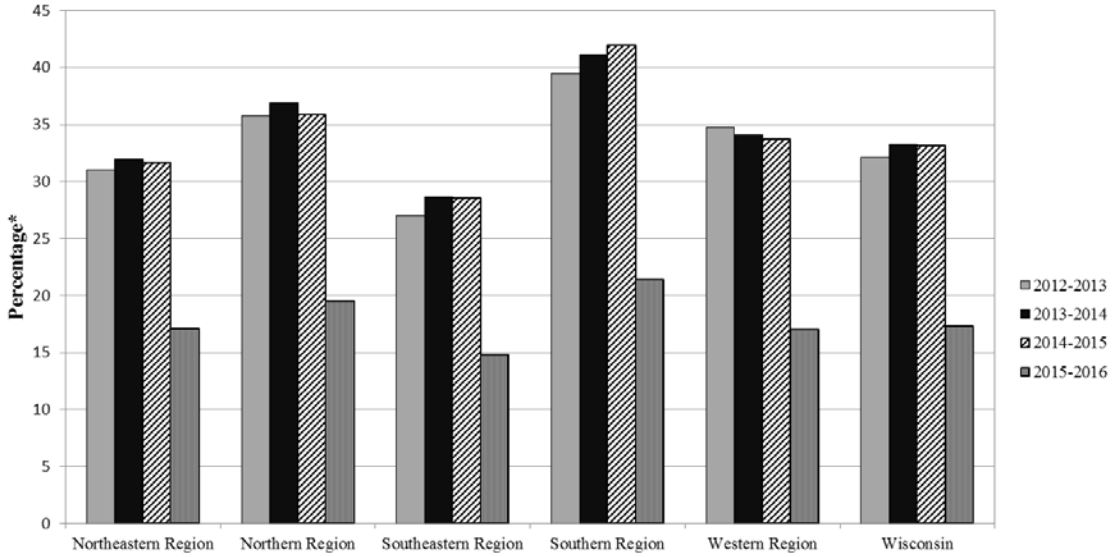
* Numerator: Number of persons recorded in the WIR as having received at least one dose of seasonal influenza vaccine by age group. For 2012-2013 season, doses adminstered between 8/1/12 to 7/31/13, assessed 12/2/13. For 2013-2014, doses administered between 8/1/13 to 7/31/14, assessed 8/15/14. For 2014-2015, doses administered between 8/1/14 to 6/11/15, assessed 6/12/2015. For 2015-2016, doses administered between 8/1/15 to 10/29/15, assessed 10/30/15. Denominator source: 2012, 2013 and 2014 Wisconsin Interactive Statistics on Health (WISH) population estimates, by age group.

Rates of Influenza Vaccination in Wisconsin by Age Group, 2011-2016 Influenza Seasons, Based on Doses Reported to the Wisconsin Immunization Registry (WIR)



* Numerator: Number of persons recorded in the WIR as having received at least one dose of seasonal influenza vaccine by age group. For 2012-2013 season, doses adminstered between 8/1/12 to 7/31/13, assessed 12/2/13. For 2013-2014, doses administered between 8/1/13 to 7/31/14, assessed 8/15/14. For 2014-2015, doses administered between 8/1/14 to 6/11/15, assessed 6/12/15. For 2015-2016 season, doses administered between 8/1/15 to 10/29/15, assessed 10/30/15. Denominator source: 2012, 2013 and 2014 Wisconsin Interactive Statistics on Health (WISH) population estimates, by age group.

Rates of Influenza Vaccination in Wisconsin by Region, 2011-2016 Influenza Seasons, Based on Doses Reported to the Wisconsin Immunization Registry (WIR)



* Numerator: Number of persons recorded in the WIR as having received at least one dose of seasonal influenza vaccine by region. For 2012-2013 season, doses adminstered between 8/1/12 to 7/31/13, assessed 11/27/13. For 2013-2014, doses administered between 8/1/13 to 7/31/14, assessed 8/15/14. For 2014-2015, doses administered between 8/1/14 to 6/11/15, assessed on 6/12/15. For 2015-2016, doses administered between 8/1/15 to 10/29/15, assessed on 10/30/15. Denominator source: 2012, 2013 and 2014 Wisconsin Interactive Statistics on Health (WISH) population estimates, by region.

- These graphs include only doses of seasonal influenza vaccine administered and reported to the Wisconsin Immunization Registry (WIR).
- Data for 2015-16 season is incomplete because of the expected lag between the vaccine administration date and the date reported to the WIR, which may be a short as one day or as long as several months, depending on the submitter. Therefore, the current season's data will be adjusted as additional data is received.

- While use of the WIR is not mandatory, the WIR receives data from a variety of sources, including health care providers, health maintenance organizations, local health departments and tribal health centers/clinics, schools and pharmacies.
- For additional information regarding the immunization data, please contact Ashley Petit, epidemiologist, with the Wisconsin Immunization Program at (608) 266-7797.