



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



Respiratory virus surveillance report for the week ending May 21, 2016 week 20-16

AT-A-GLANCE

- Respiratory viruses identified this week :
Rhino/enterovirus is the predominant virus this week.
- 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: Moderate (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)

	<u>Week 20-16</u>	<u>Total to Date</u>
Wisconsin	1	3
Nationwide	2	70

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).

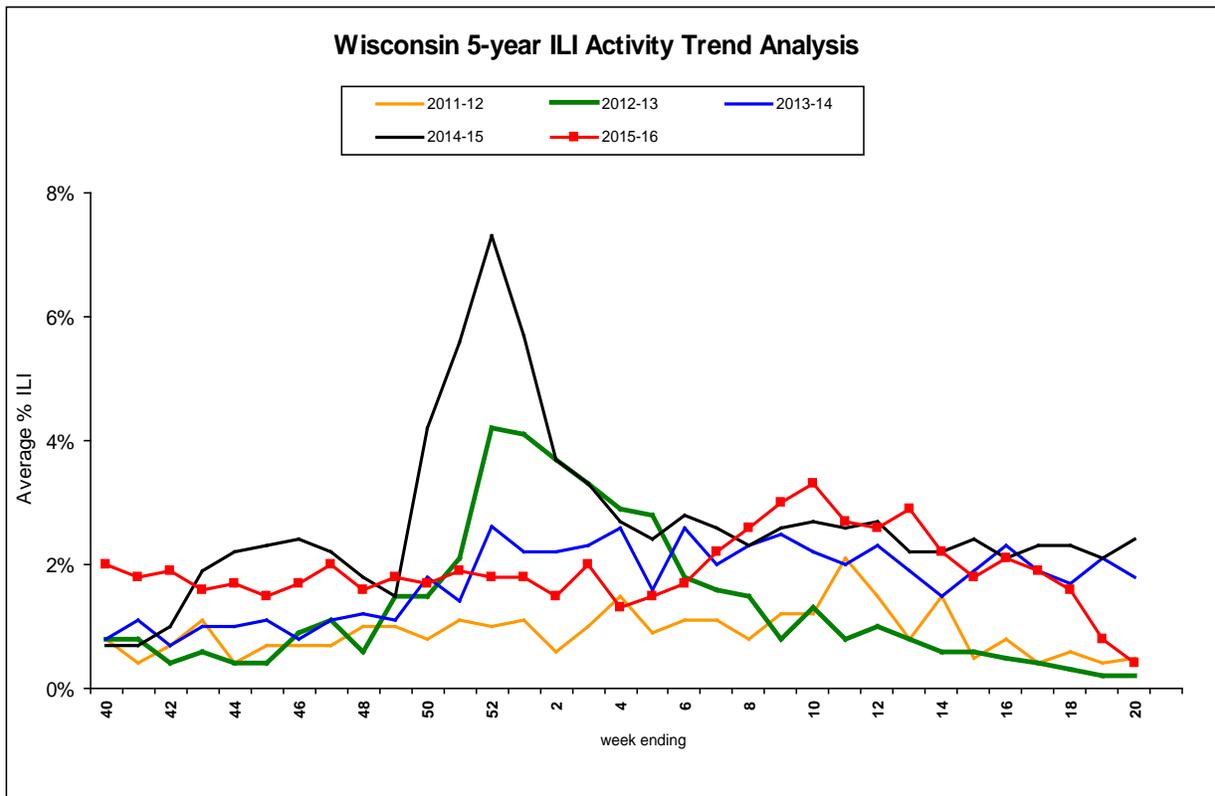
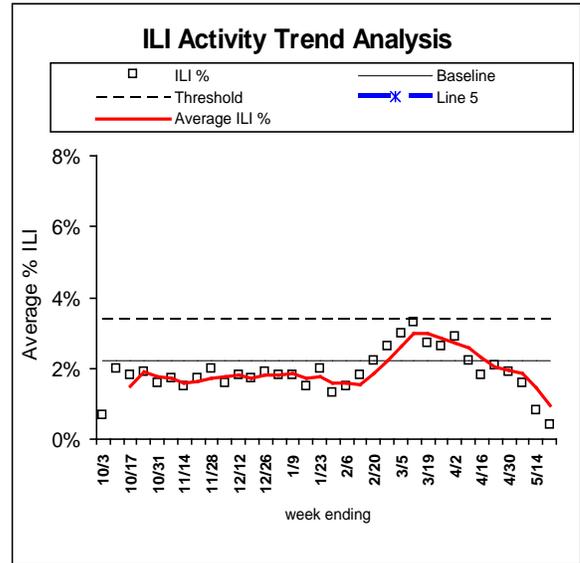
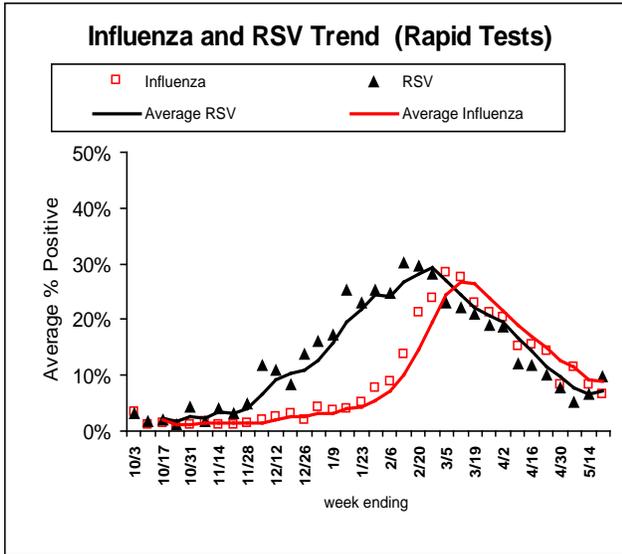
It is recommended that quadrivalent vaccines containing two influenza B viruses contain the above three viruses and;

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

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

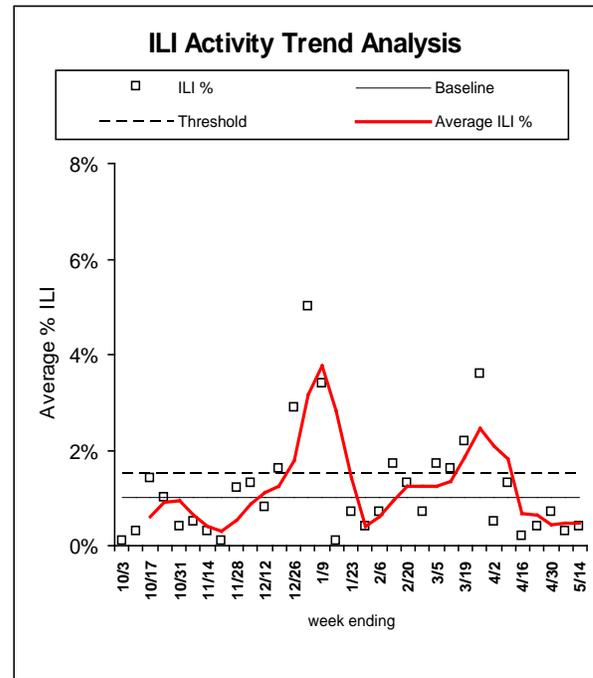
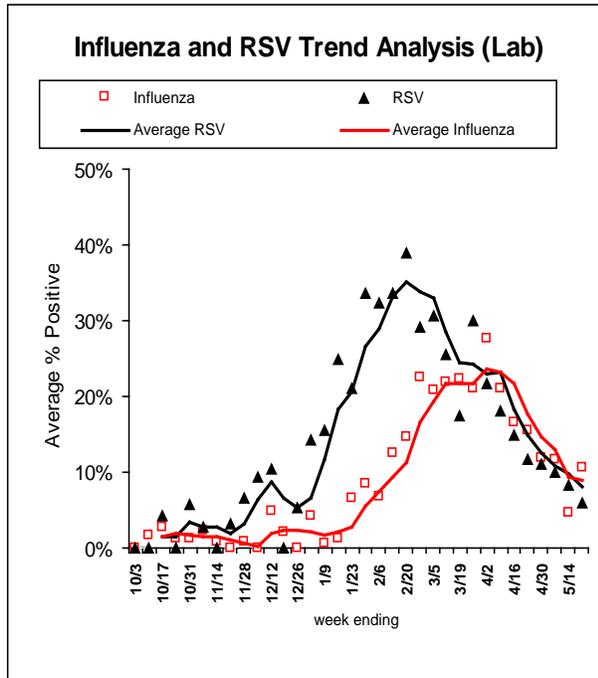
Wisconsin (ILI activity is Low)

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							
381	10	15	25	6.6%	93	9	9.7%	0.4%	2.2%	3.4%



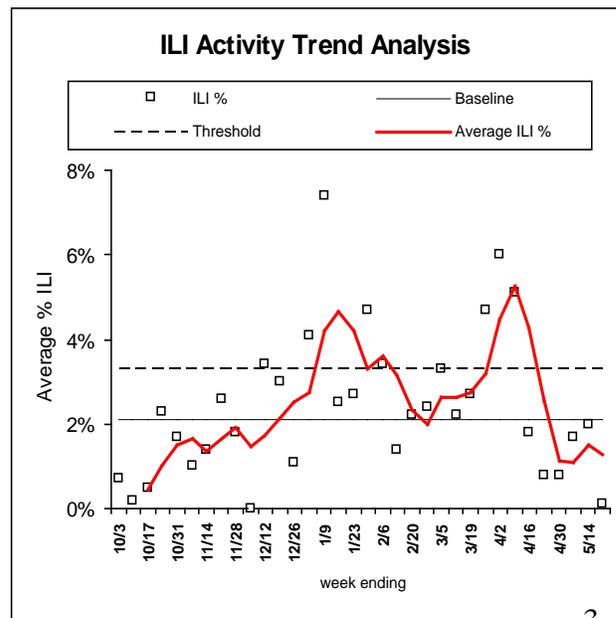
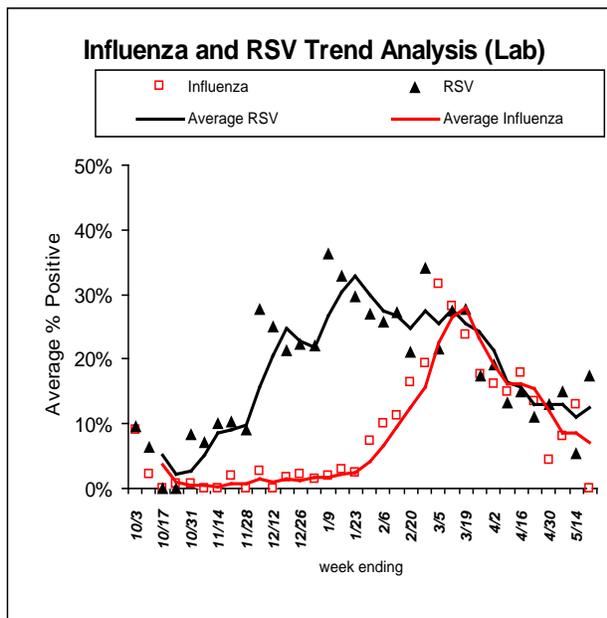
Northwestern Region (ILI activity is Low)

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							
113	8	4	12	10.6%	17	1	5.9%	0.4%	1.0%	1.5%



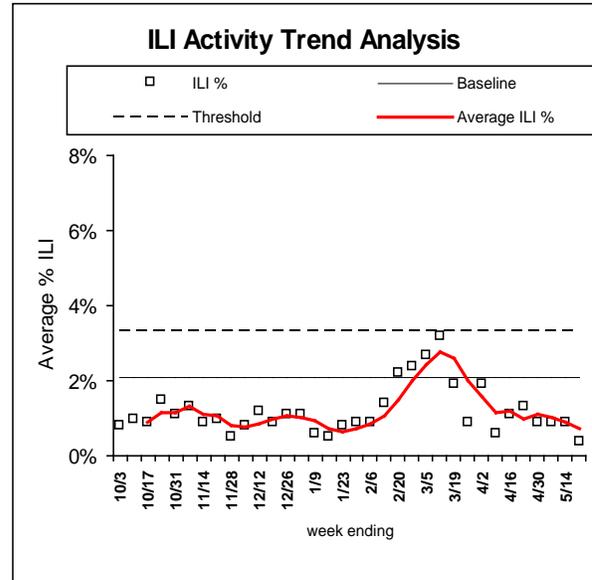
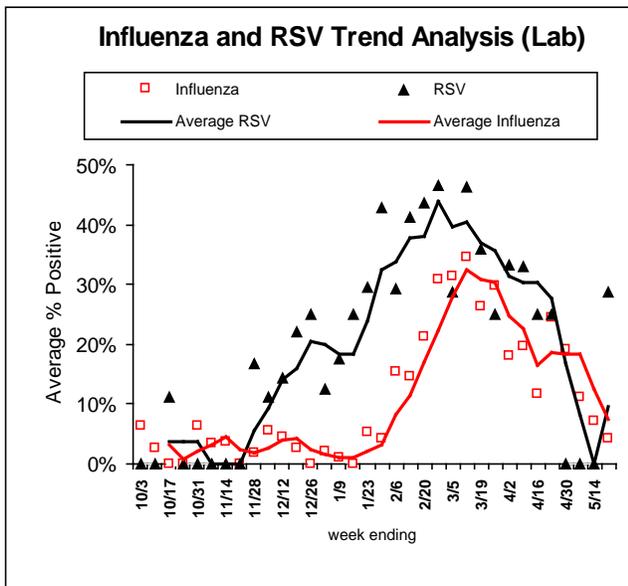
Northeastern Region (ILI activity is Low)

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							
80	0	0	0	0%	34	6	17.5%	0.1%	2.1%	3.3%



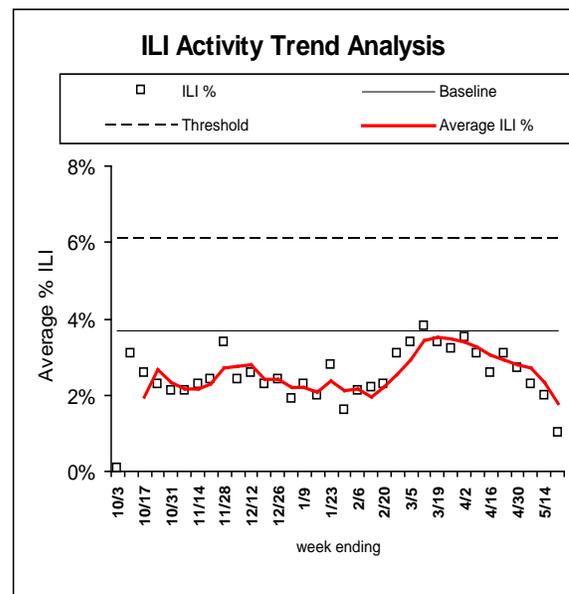
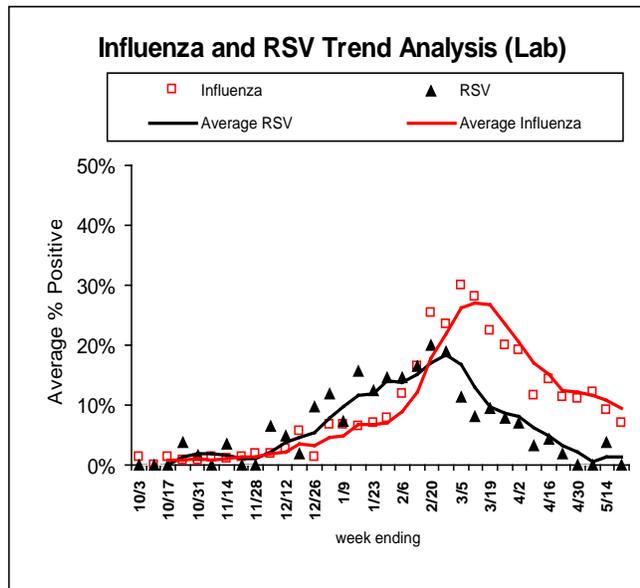
Southern Region (ILI activity is Low)

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							
24	0	1	1	4.2%	7	2	28.6%	0.4%	2.1%	3.5%



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							
173	2	10	12	6.9%	35	0	0%	1.0%	3.7%	6.1%



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.

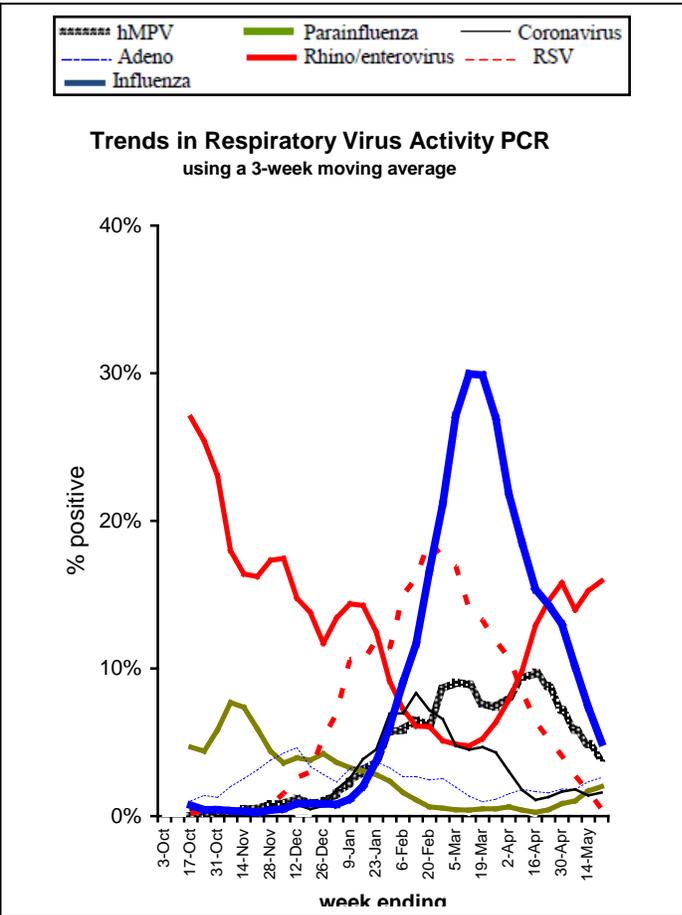
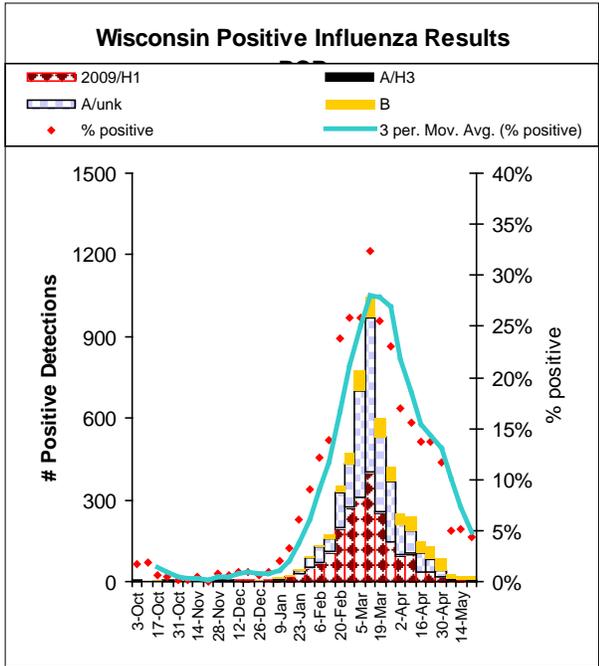
LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES (PCR)

Respiratory Virus	Tested	Positive	% Positive	Flu A			Flu B		
				H3	pd2009 H1	Unk	Yamagata	Victoria	Unk
Influenza	459	20	4.4%	1	0	3	2	0	14

Respiratory Virus	Tested	Positive	% Positive	PI-1	PI-2	PI-3	PI-4
Parainfluenza	287	7	2.4%	1	0	5	1

Respiratory Virus	Tested	Positive	% Positive	CoV-229E	CoV-OC43	CoV-NL63	CoV-HKU1
Coronavirus	146	4	2.7%	0	4	0	0

Respiratory Virus	Tested	Positive	% Positive
RSV	308	1	0.3%
Human Metapneumovirus	407	14	3.4%
Rhino-entero	270	46	17.0%
Adenovirus	175	6	3.4%



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

	Influenza A (87%)			Influenza B (13%)			Total
	pd2009 H1	H3	Unknown	Yamagata	Victoria	Unknown	
Total Number positive	2165	59	2259	73	64	516	5136
% of Total number positive	42%	1%	44%	1%	1%	10%	100%

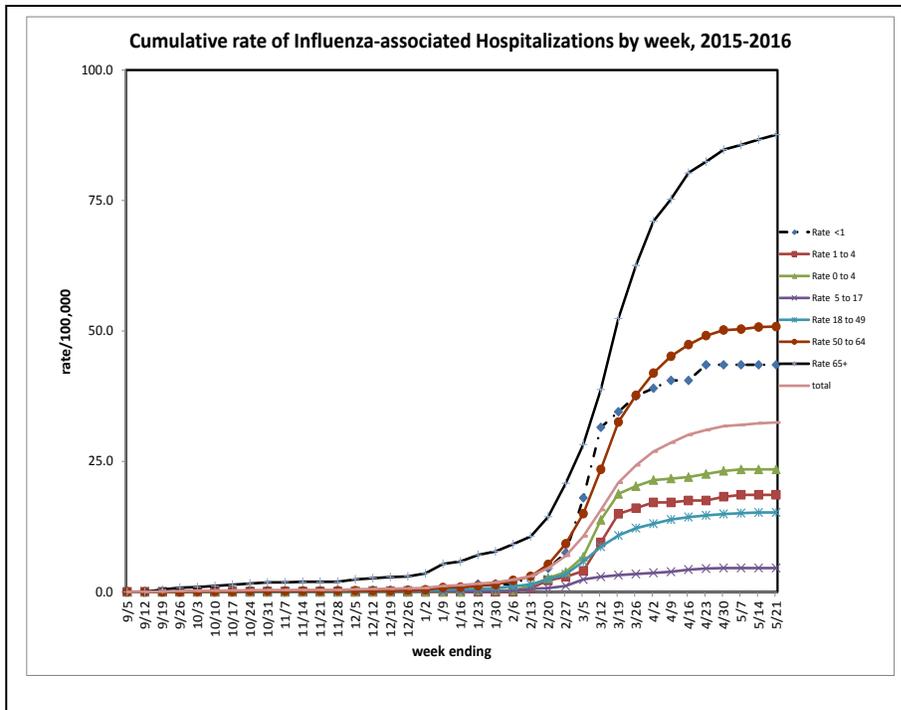
Influenza-associated Hospitalizations, September 1, 2015 to present

Age group	Total Number Reported (2015-16)	Influenza Subtypes				Not reported	Admitted to ICU	Required Mechanical Ventilation	Pregnant
		2009 H1N1	H3N2	A/Unknown	B				
< 1 year	28	5	0	21	1	1	3	1	
1 to 4	51	9	0	32	6	4	11	2	
5 to 17	46	12	0	25	8	1	5	3	
18 to 49	358	80	3	234	26	15	79	30	17
50 to 64	609	127	1	415	45	21	136	34	
65 and over	770	146	9	490	98	27	146	48	
Total	1862	379	13	1217	184	69	380	118	17

*number may not be accurate

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

Region	Season Total	Rate/100,000
Southeastern	803	39.5
Southern	443	36.8
Northeastern	257	20.7
Western	238	31.0
Northern	121	24.0
Wisconsin	1862	32.5



Incidence/100,000

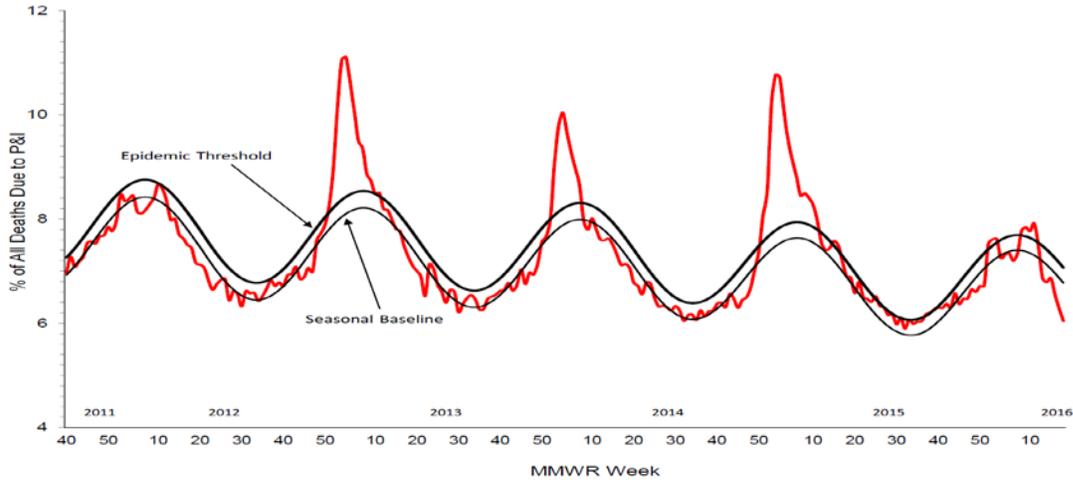
Age group	Wisconsin	National
<1	43.5	NA
1 to 4	18.6	NA
0 to 4	23.5	42.1
5 to 17	4.6	9.8
18 to 49	15.2	16.8
50 to 64	50.8	45.2
65+	87.6	84.2
total	32.5	31.3

NATIONAL INFLUENZA SURVEILLANCE

NCHS Mortality Surveillance Data:

Based on NCHS mortality surveillance data available on May 26, 2016, 6.0% of the deaths occurring during the week ending May 7, 2016 (week 18) were due to P&I. This percentage is below the epidemic threshold of 7.1% for week 18.

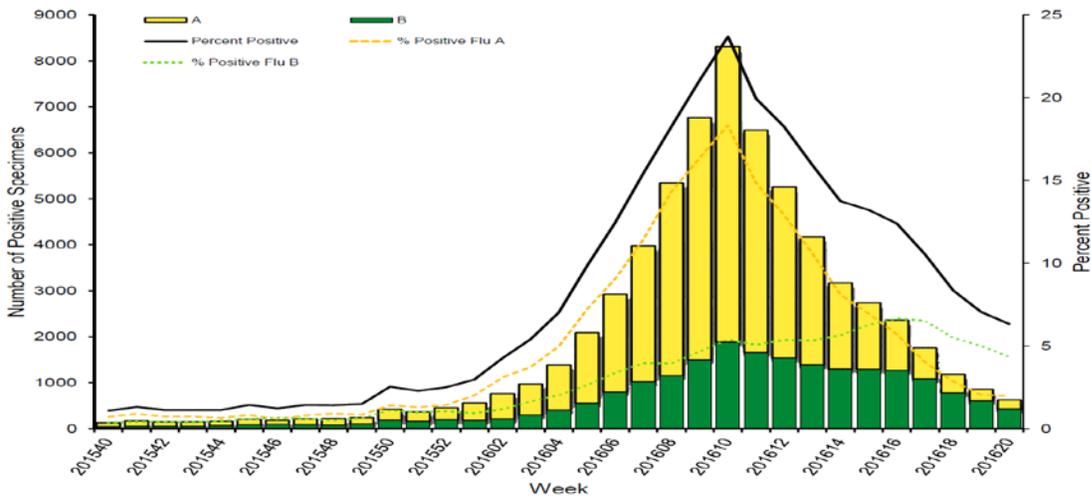
Pneumonia and Influenza Mortality from the National Center for Health Statistics Mortality Surveillance System Data through the week ending May 7, 2016, as of May 26, 2016



The results of tests performed by clinical laboratories are summarized below.

	Week 20	Data Cumulative since October 4, 2015 (week 40)
No. of specimens tested	9,917	636,872
No. of positive specimens (%)	628 (6.3%)	64,799 (10.2%)
Positive specimens by type		
Influenza A	198 (31.5%)	44,151 (68.1%)
Influenza B	430 (68.5%)	20,648 (31.9%)

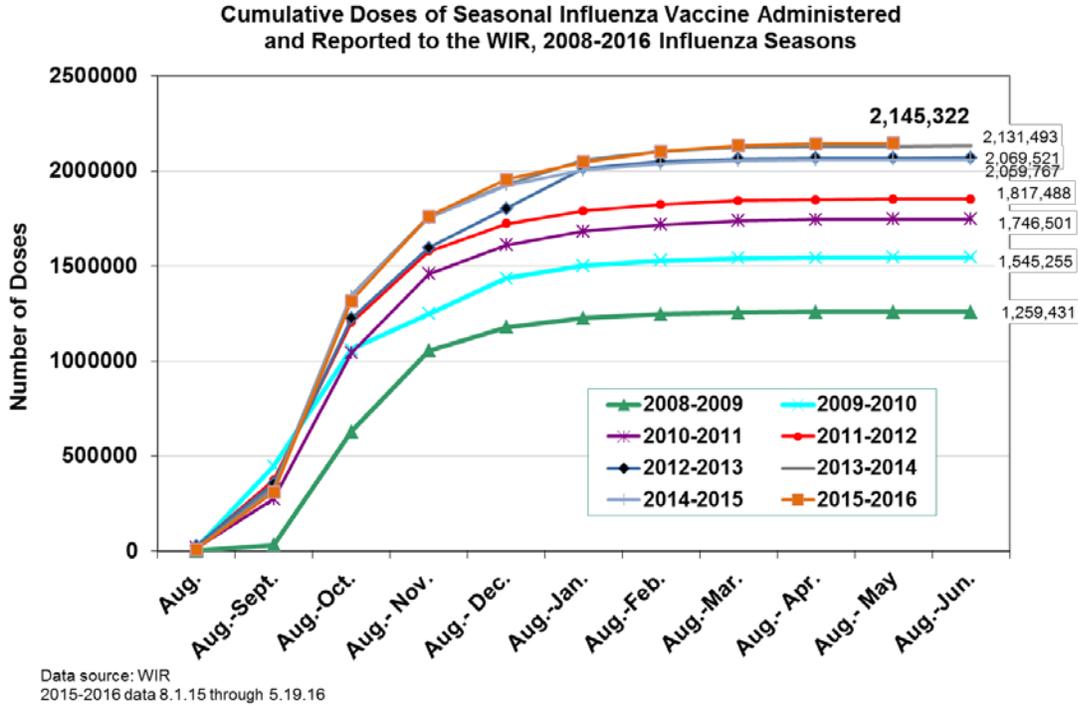
Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, 2015-2016 Season



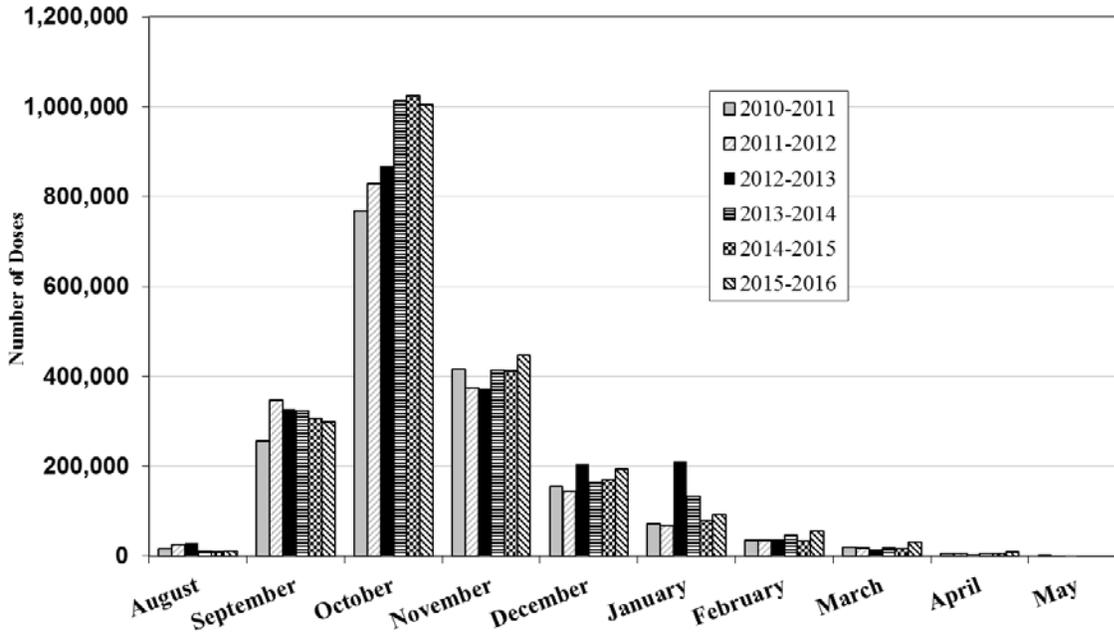


Seasonal Influenza Vaccination in Wisconsin Based on Doses Reported to the Wisconsin Immunization Registry (WIR) May 20, 2016

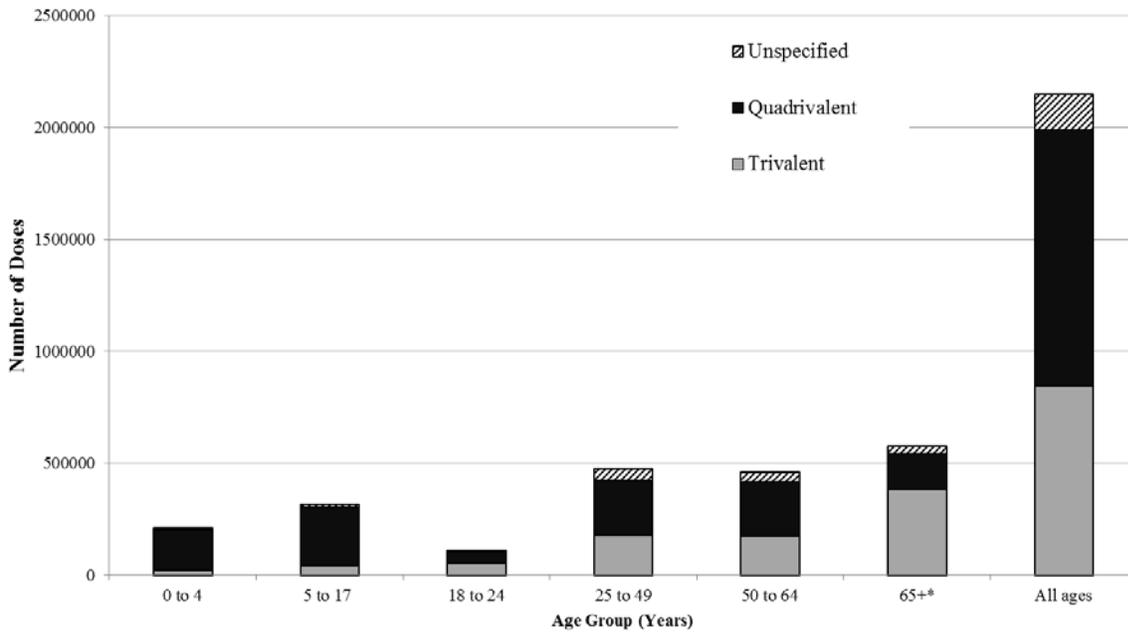
Data for 2015-2016 Season Reported for 8.1.15-5.19.2016



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

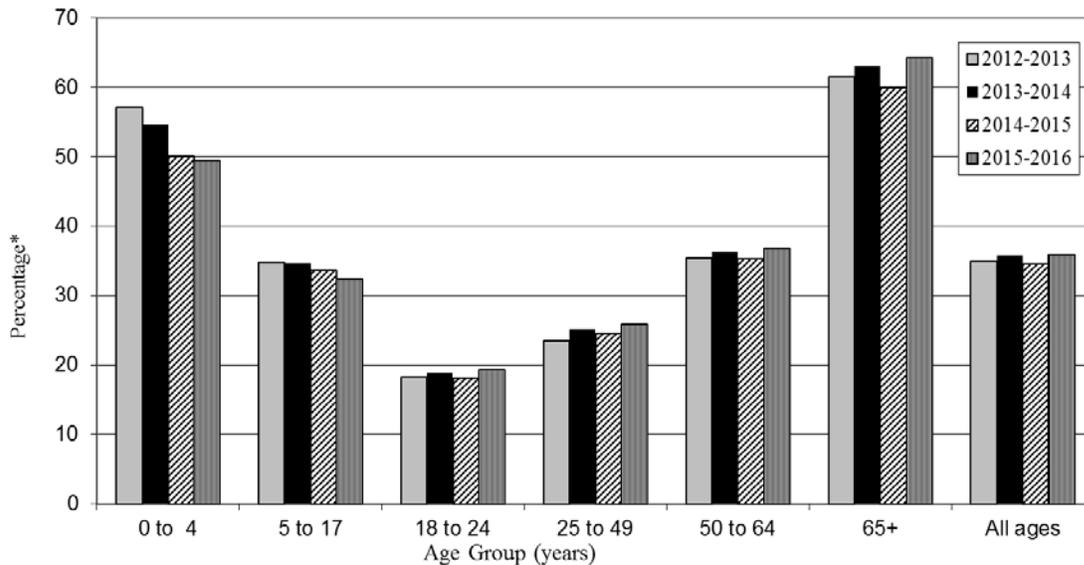


Doses of Seasonal Influenza Vaccine Administered and Reported to WIR by Age Group and Vaccine Type, 2015-2016 Influenza Season



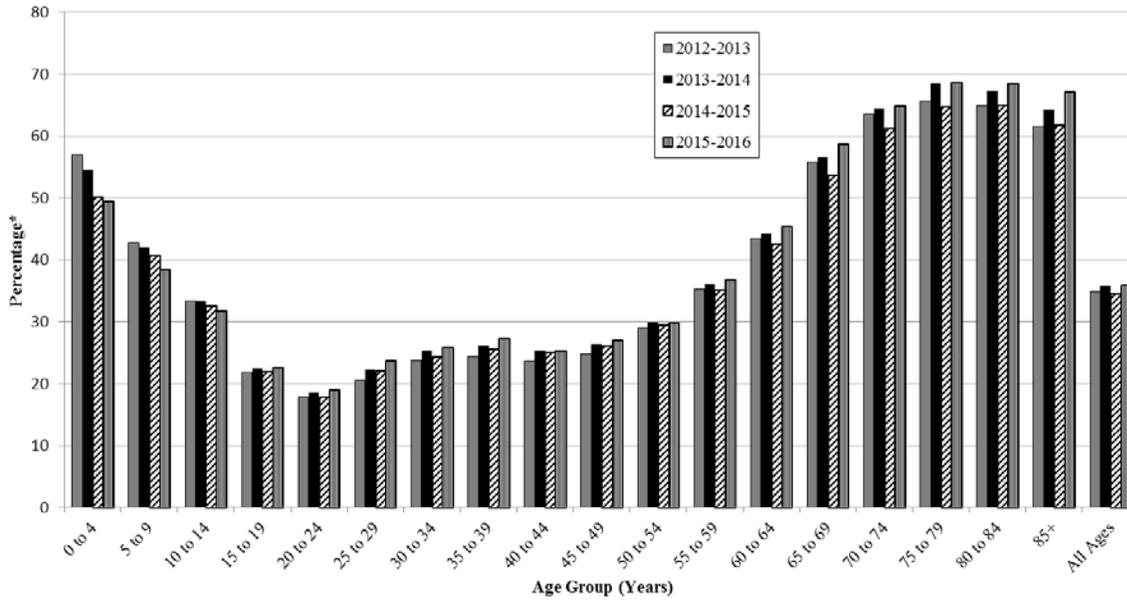
*Of trivalent influenza doses administered between 8/1/15 and 5/19/2016 and received by adult clients aged 65 years and older, 66.8% of the doses were high dose influenza vaccine.

Rates of Influenza Vaccination in Wisconsin by Age Group, 2012-2016 Influenza Seasons, Based on Doses Reported to the Wisconsin Immunization Registry (WIR)



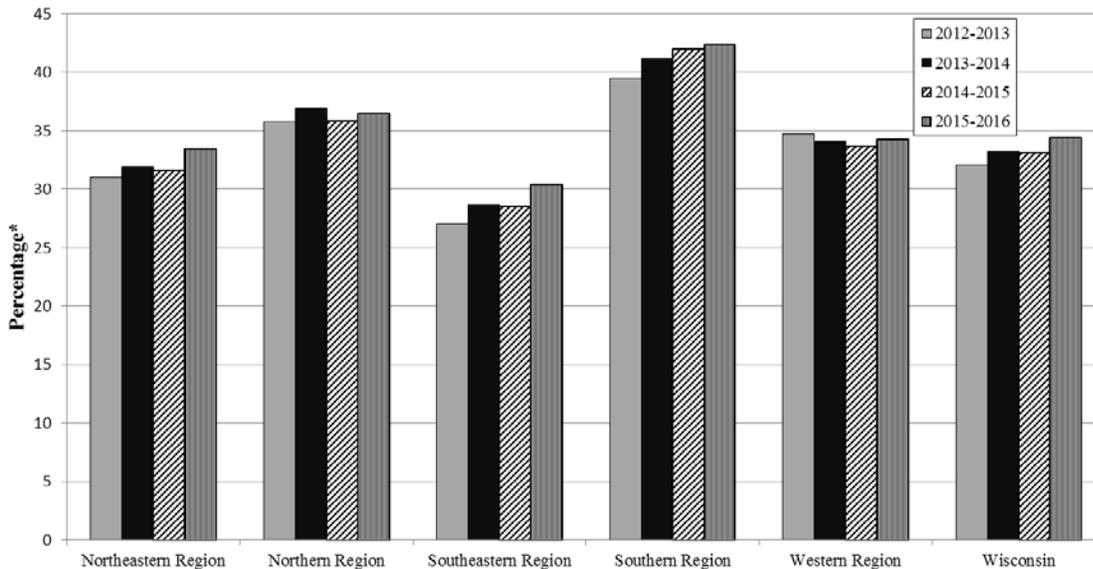
* Numerator: Number of persons recorded in the WIR as having received at least one dose of seasonal influenza vaccine by age group. For 2012-2013 season, doses administered between 8/1/12 to 7/31/13, assessed 12/2/13. For 2013-2014, doses administered between 8/1/13 to 7/31/14, assessed 8/15/14. For 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 5/19/2016, assessed 5/20/2016. 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, 2012-2016 Influenza Seasons, Based on Doses Reported to the Wisconsin Immunization Registry (WIR)



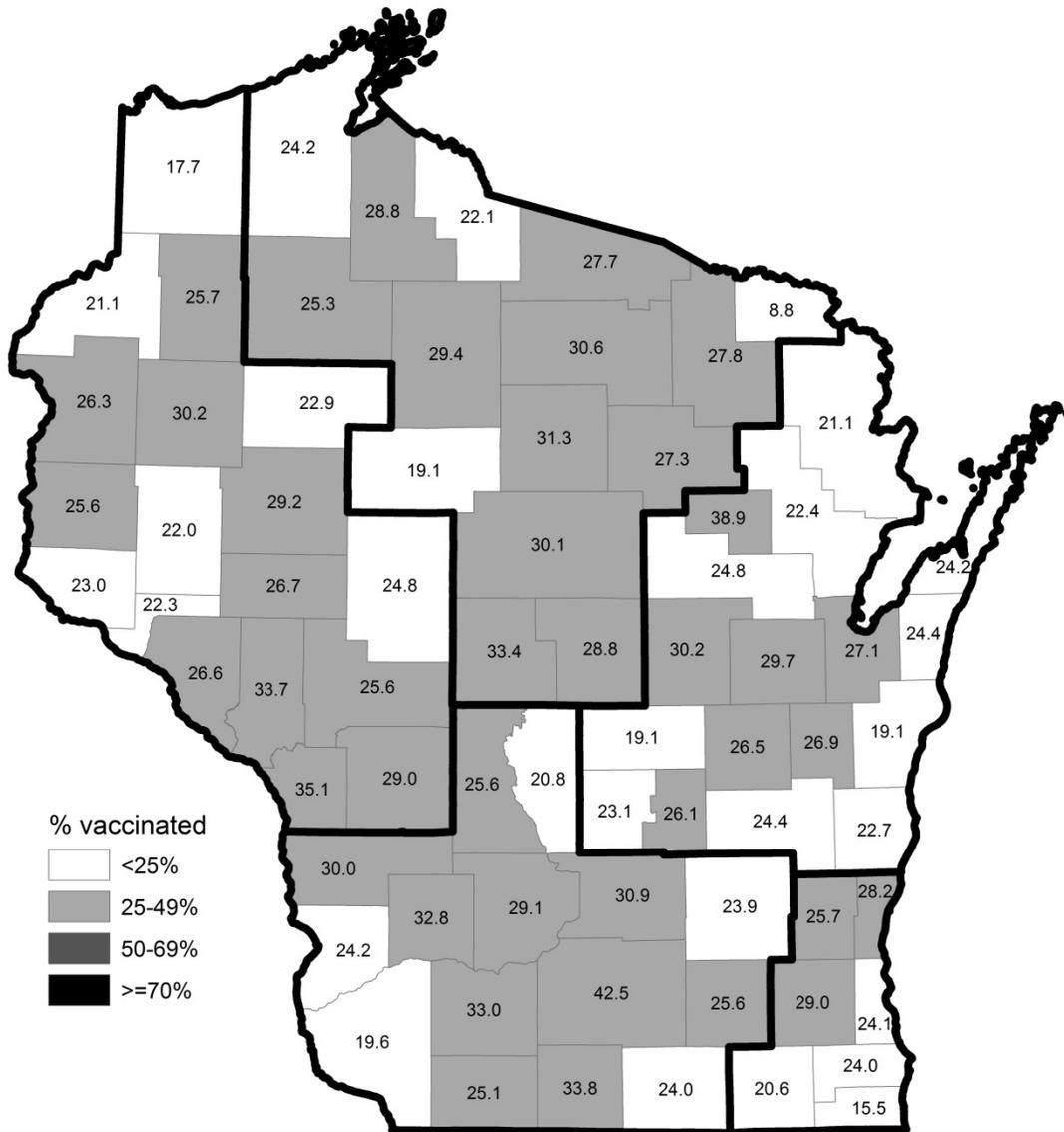
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Rates of Influenza Vaccination in Wisconsin by Region, 2012-2016 Influenza Seasons, Based on Doses Reported to the Wisconsin Immunization Registry (WIR)

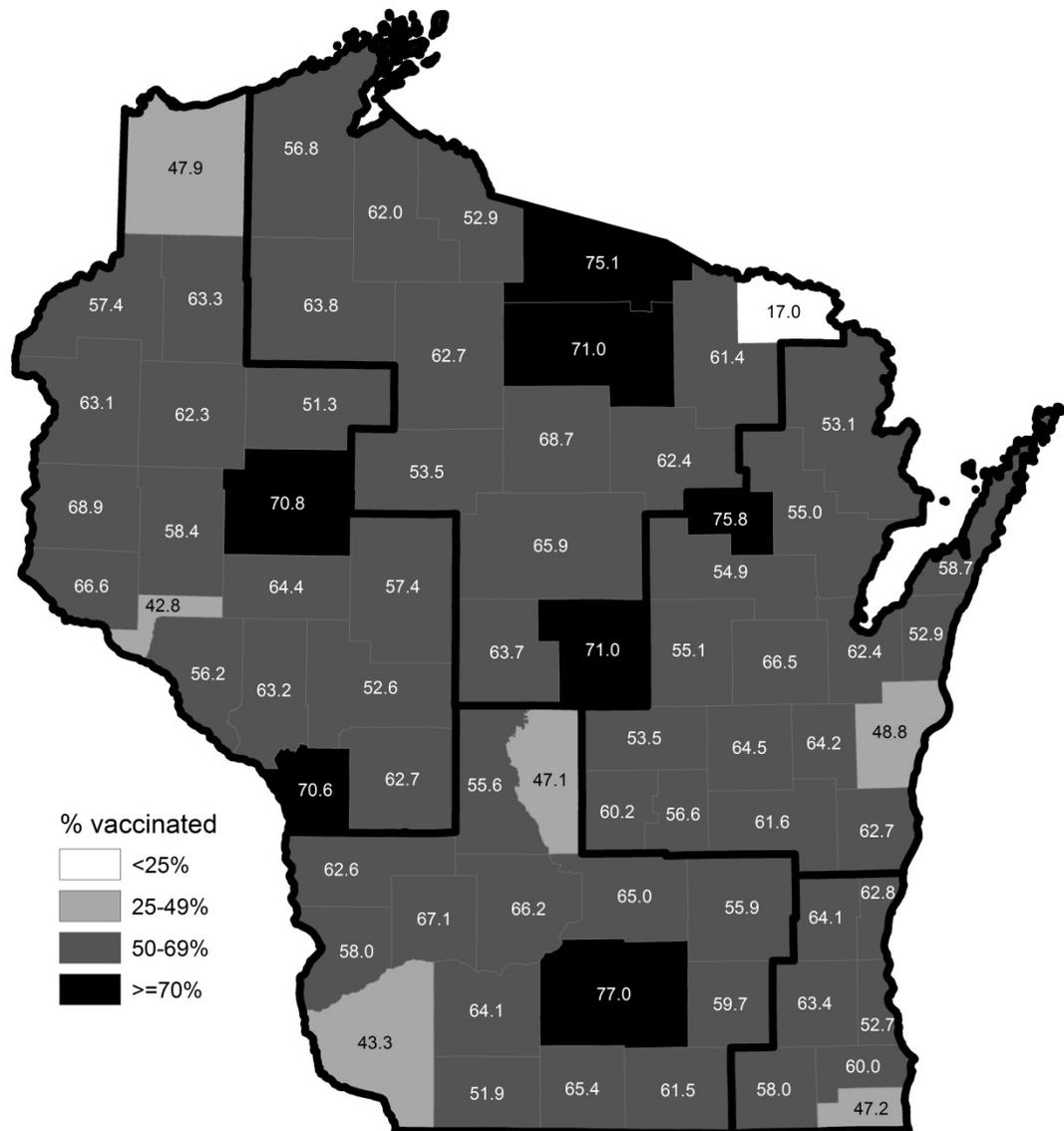


* Numerator: Number of persons recorded in the WIR as having received at least one dose of seasonal influenza vaccine by region. For 2012-2013 season, doses administered between 8/1/12 to 7/31/13, assessed 11/27/13. For 2013-2014, doses administered between 8/1/13 to 7/31/14, assessed 8/15/14. For 2014-2015, 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 5/19/2016, assessed on 5/20/2016. Denominator source: 2012, 2013 and 2014 Wisconsin Interactive Statistics on Health (WISH) population estimates, by region.

Age 19-64 Years



Age ≥65 Years



- These figures include only doses of seasonal influenza vaccine administered and reported to the Wisconsin Immunization Registry (WIR).
- Data for 2015-16 season are incomplete because of the expected lag time between the vaccine administration date and the date reported to the WIR, which may be as 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 are 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 the Wisconsin Immunization Program at (608) 267-9959.