



State of Wisconsin
Department of Health Services

2009 Influenza A (H1N1) Fall Surveillance Summary, Wisconsin

(preliminary data)

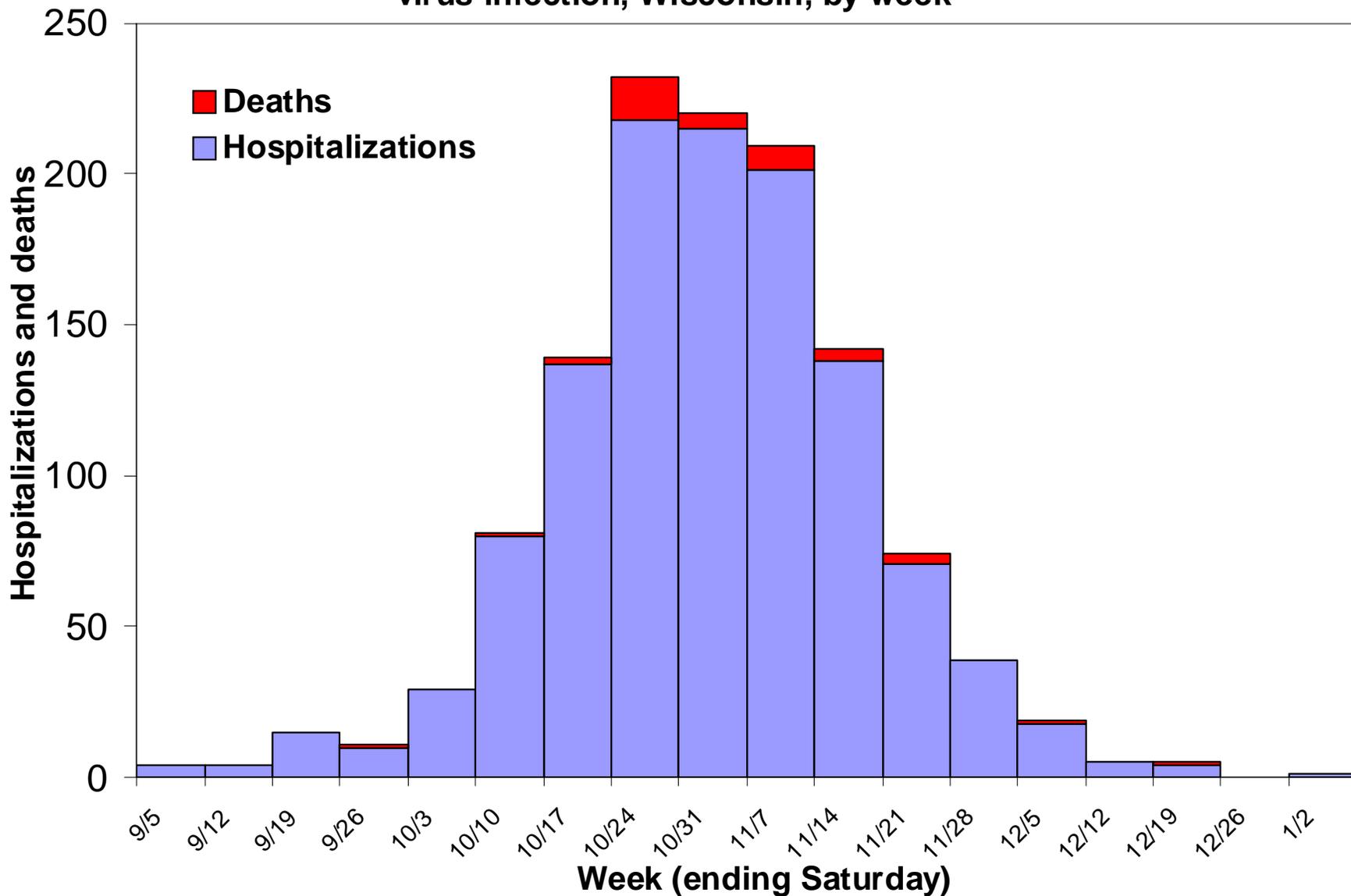
Wisconsin Division of Public Health
Bureau of Communicable Diseases

January 10, 2010

Summary

- In Wisconsin, during August 30, 2009 – January 2, 2010, the second wave of the pandemic
 - 2009 H1N1 cases and hospitalizations peaked in late October and early November and occurred throughout the state
 - Hospitalization rates were highest among infants and young children, and adults aged 50-69 years
 - Among infants and young children, boys had a higher rate of hospitalization than girls. Among adults, women had a higher rate of hospitalization than men.
 - H1N1 mortality rates were highest among adults aged 40 years and older, and higher among women than men.
 - Hospitalization rates were 2-3 times higher among racial\ethnic minorities compared to non-Hispanic whites.
 - Racial\ethnic disparities were evident across all age-groups and in all of Wisconsin's 8 most populous counties

Reported hospitalizations* and deaths due to 2009 H1N1 influenza virus infection, Wisconsin, by week**

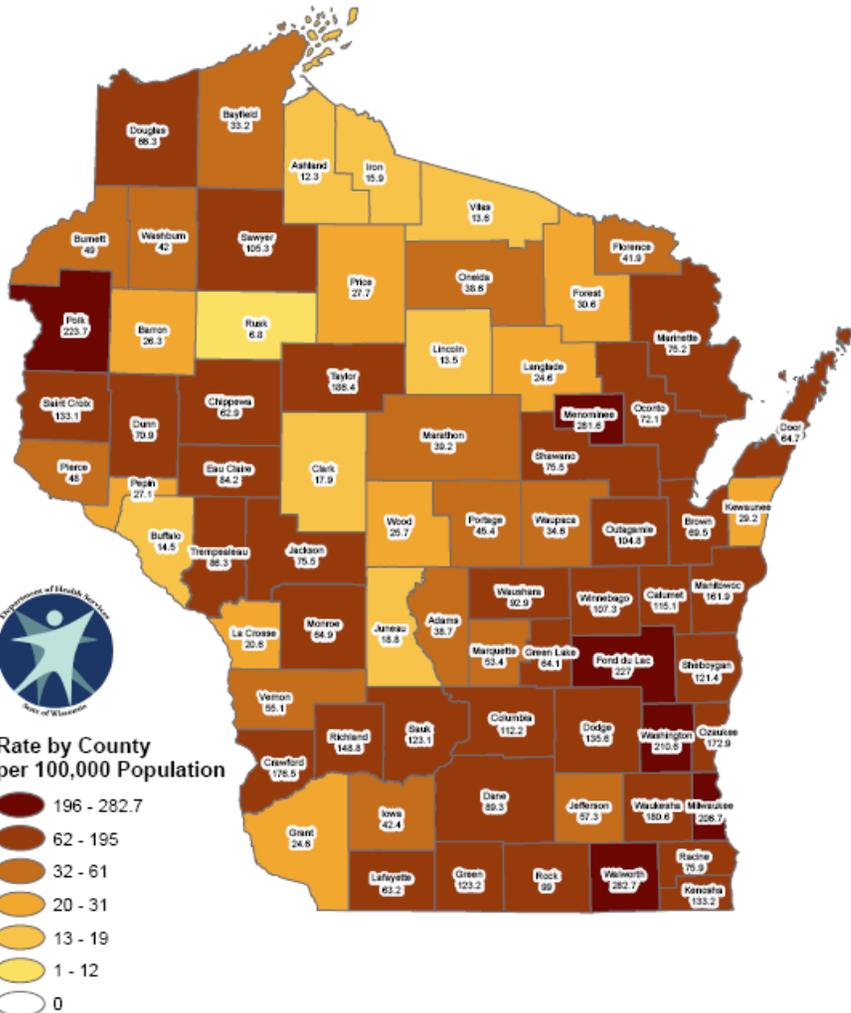


*Hospitalized more than 24 hours due to 2009 H1N1 infection

**Week of illness onset, specimen collection, or report date (as available)

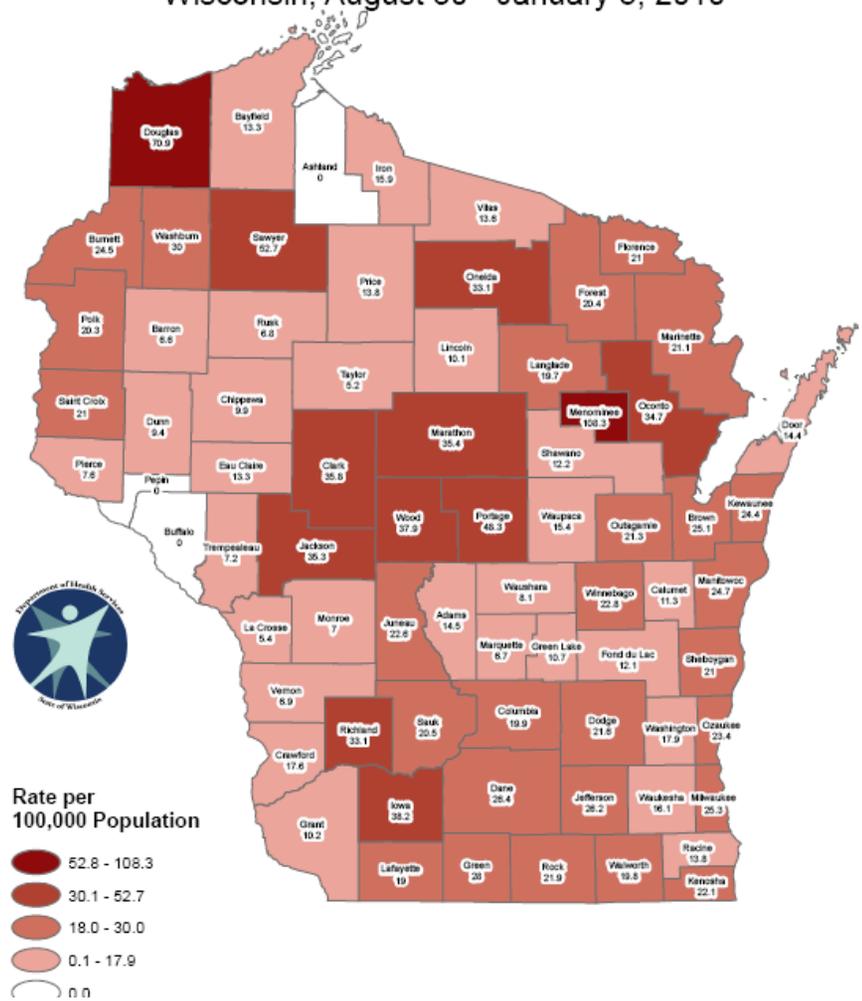
Total case rates

Cumulative Rates of Laboratory-confirmed and Probable 2009 Influenza A (H1N1) Virus Infections, Wisconsin, August 30, 2009 - January 5, 2010



Hospitalization rates

Rates of Hospitalization for Laboratory-confirmed, Probable (Unsubtypable), and Suspect (Influenza A PCR-positive) 2009 Influenza A (H1N1) Virus Infections, Wisconsin, August 30 - January 5, 2010



2009 H1N1 cases and hospitalizations by gender, Wisconsin, Aug 30 – Jan 2, 2009

	Total cases ¹		Hospitalizations ³		Deaths	
	Number	Rate ²	Number	Rate	Number	Rate
Total	6,834	121.4	1070	19.0	43	0.8
Males	3,200	114.4	502	17.9	14	0.5
Females	3,521	124.4	568	20.1	29	1.0

*113 non-hospitalized and 1 hospitalized case were missing gender information.

¹Total confirmed and probable cases; also includes influenza A PCR-positives, more than 99% of which were found to be H1N1 when subtyping was performed. Note that most people with H1N1 infection are not tested, so total cases represent a small fraction of H1N1 illnesses in the population.

²Rate per 100,000 population (US Census 2008 estimates)

³Hospitalized for more than 24 hours due to H1N1.

Hospitalizations

Wisconsin, Aug 30, 2009 – Jan 2, 2010

1,071 cases hospitalized for 2009 H1N1 infection

20% admitted to intensive care unit (ICU)

13% intubated

80% had an underlying condition

Asthma (31%)

Other Lung Conditions: COPD (13%), Other (12%)

Any heart condition (15%)

Diabetes (20%)

Kidney condition (8%)

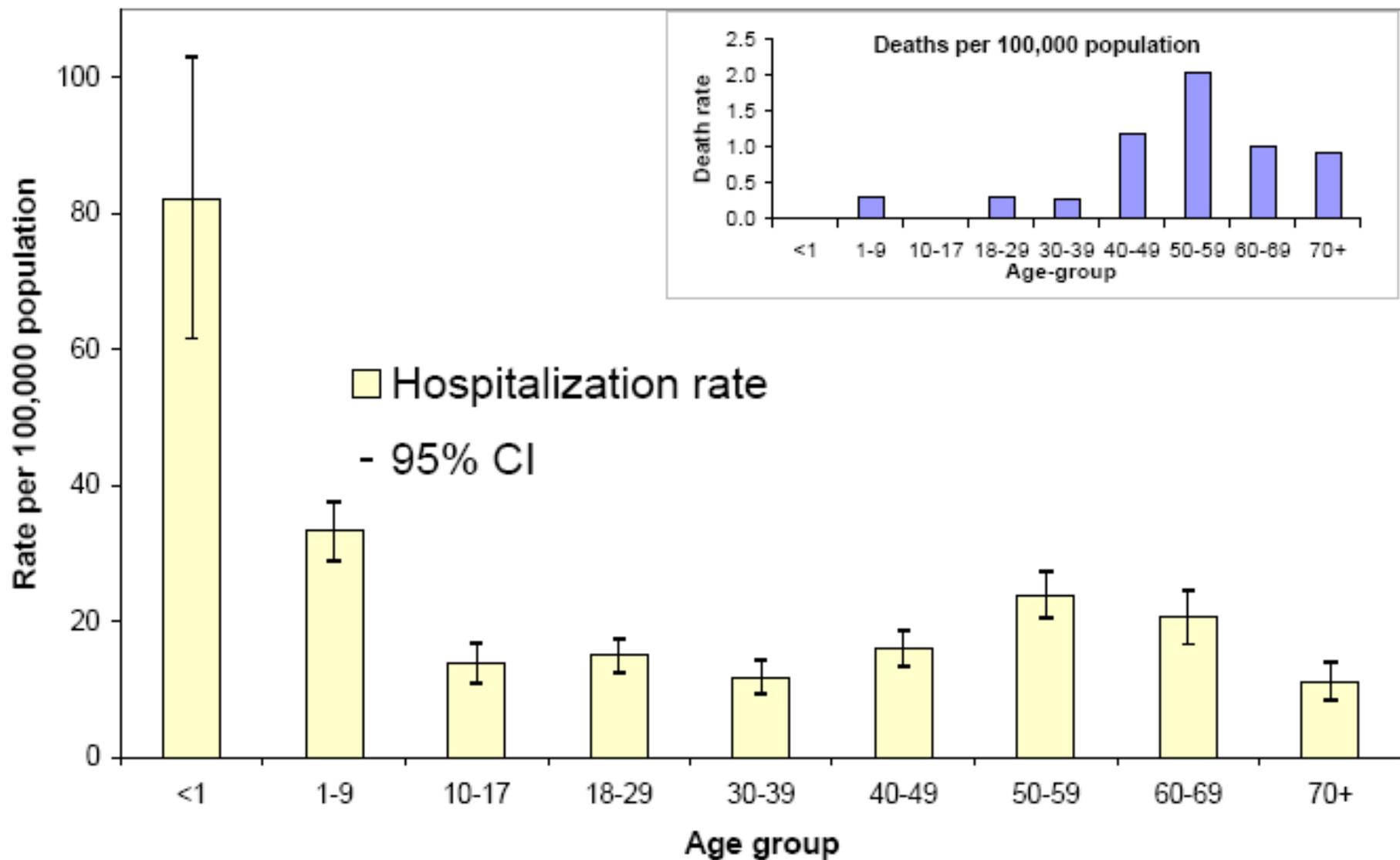
Sickle cell disease (1%)

Obesity (51%)

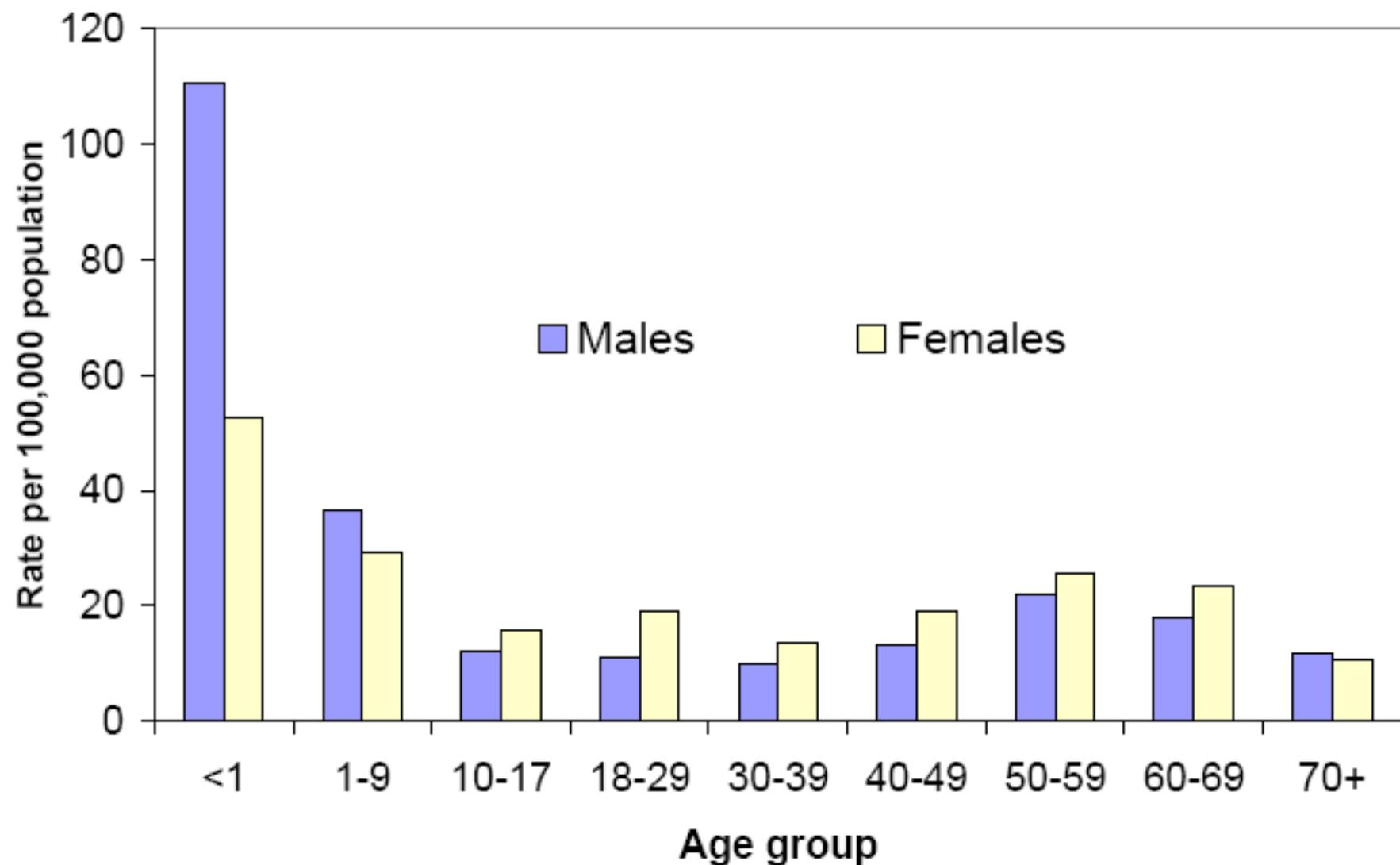
Obesity (BMI=30-39) = 34%

Morbid Obesity (BMI>40) = 17%

2009 H1N1 hospitalization (and death) rates, Wisconsin, by age group Aug 30, 2009 - Jan 2, 2010



2009 H1N1 hospitalization rates, by gender and age-group, Wisconsin, Aug 30, 2009 - Jan 2, 2010



2009 H1N1 hospitalizations by race-ethnicity

Wisconsin, Aug 30, 2009 – Jan 2, 2010

Race/ethnicity	Number	Rate ²	Rate Ratio ³	95% CI ⁴ of Rate Ratio
White, non-Hispanic	622	13.0	1.0	-
Black, non-Hispanic	133	40.2	3.1	2.6 - 3.7
Hispanic	96	33.6	2.6	2.1 - 3.2
Asian	31	27.5	2.1	1.5 - 3.0
Amer. Indian/Alask.	22	44.7	3.4	2.3 - 5.3
Other	8	12.7	1.0	-

159 (15%) of 1,071 hospitalized case reports were missing race/ethnicity information and are excluded from table

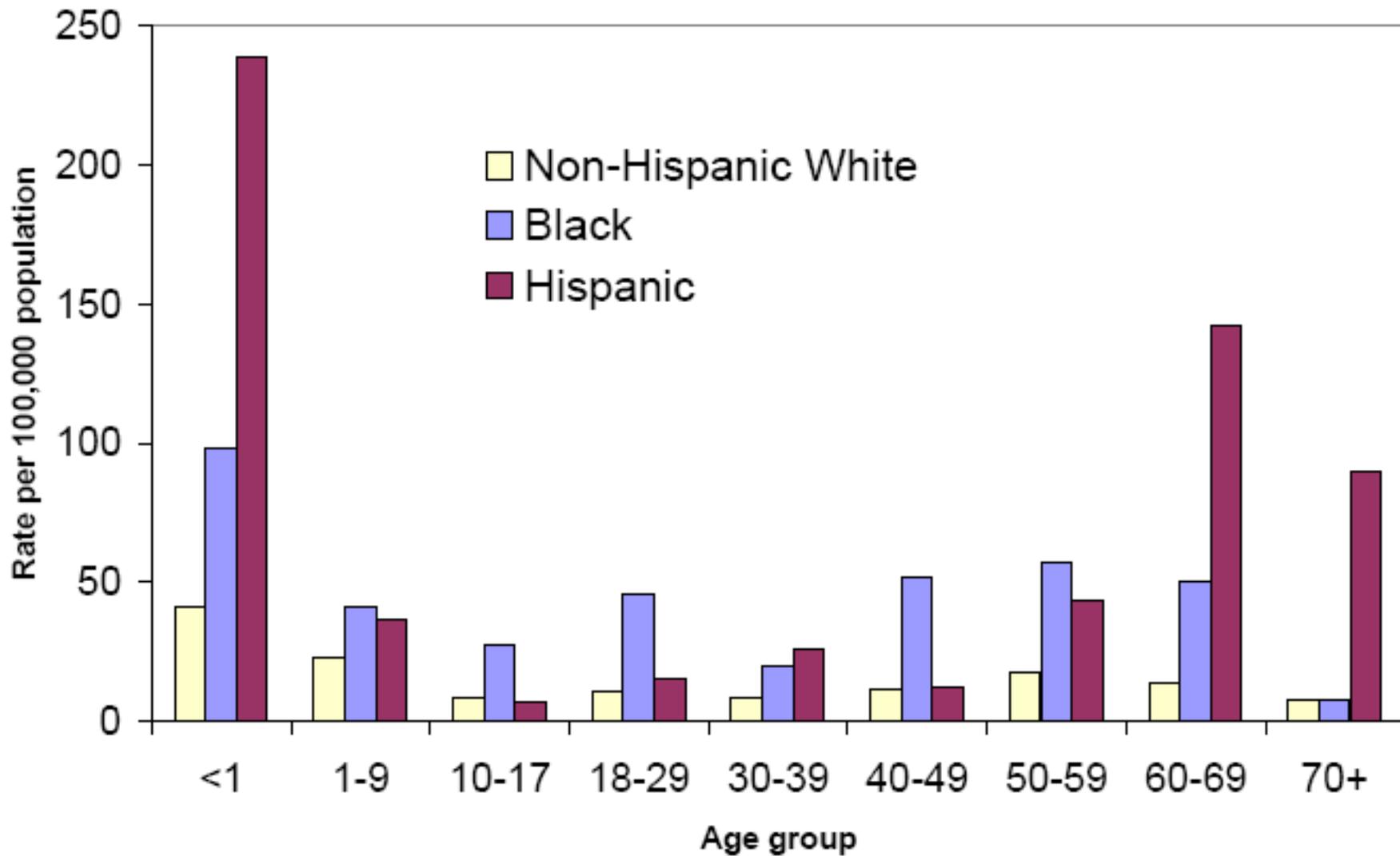
¹Hospitalized > 24 hours due to H1N1

²Rate per 100,000 population (US Census 2008 estimates)

³White, non-Hispanic is reference

⁴Poisson-based confidence intervals for rate ratio

2009 H1N1 hospitalization rates, by race/ethnicity and age-group, Wisconsin, Aug 30, 2009 - Jan 2, 2010



2009 H1N1 hospitalization rates, by race-ethnicity most populous Wisconsin counties August 30, 2009 – January 2, 2010

Race/ethnicity	Milwaukee County			Dane County			Waukesha County			Brown County		
	No ¹	Rate ²	RR ³	No	Rate	RR	No.	Rate	RR	No.	Rate	RR
White, non-Hisp	85	15.4	1.0	62	15.3	1.0	38	10.9	1.0	30	14.2	1.0
Black, non-Hisp	74	31.1	2.0*	29	140.6	9.2*	0	0.0	0.0	2	47.0	3.3
Hispanic	37	32.4	2.1*	8	32.9	2.1*	5	37.2	3.4*	11	73.1	5.1*
Asian	5	17.2	1.1	4	18.2	1.2	0	0.0	0.0	1	18.5	1.3
Amer. Indian/ Alaskan Native	1	15.3	1.0	1	56.8	3.7	0	0.0	0.0	2	36.6	2.6

*Statistically significant difference compared to non-Hispanic whites

¹Number of persons hospitalized more than 24 hours for confirmed or probable H1N1 infection (includes all PCR influenza A-positive cases, since more than 99% subtype as H1N1)

²Rate per 100,000 population (US Census 2008 estimates)

³Rate ratio, using non-Hispanic whites as reference category

2009 H1N1 hospitalization rates, by race-ethnicity most populous Wisconsin counties (cont.) August 30, 2009 – January 2, 2010

Race/ethnicity	Racine County			Outagamie County			Kenosha County			Rock County		
	No. ¹	Rate ²	RR ³	No.	Rate	RR	No	Rate	RR	No	Rate	RR
White, non-Hisp	11	7.1	1.0	21	13.1	1.0	18	13.4	1.0	24	17.3	1.0
Black, non-Hisp	10	49.1	6.9*	3	200.1	15.3*	4	42.9	3.2*	4	58.9	3.4*
Hispanic	3	14.8	2.1	0	0.0	0.0	8	49.9	3.7*	1	9.8	0.6
Asian	0	0.0	0.0	3	72.5	5.5*	0	0.0	0.0	0	0.0	0.0
Amer. Indian/ Alaskan Native	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	216.9	12.5*

*Statistically significant difference when compared to non-Hispanic whites

¹Number of persons hospitalized more than 24 hours for confirmed or probable H1N1 infection
(includes all PCR influenza A-positive cases, since more than 99% subtype as H1N1)

²Rate per 100,000 population (US Census 2008 estimates)

³Rate ratio, using non-Hispanic whites as reference category