

Kent County Influenza Surveillance Report, 2014-2015



During the 2014-2015 influenza season, there were 1,019 laboratory-confirmed cases of influenza reported to the Kent County Health Department (KCHD) from local health care providers. Of these reports, 1,019 reported the type of influenza virus (Type A, Type B, or Type A & B) the individual was infected with, 1,007 reported the age of the individual infected, 996 reported the gender of the individual infected, and 598 reported the race of the individual infected. The tables below summarize the information collected from laboratory-confirmed cases of influenza during the 2014-2015 influenza season. In addition, 7 deaths were reported to KCHD due to influenza infection during the 2014-2015 influenza season.

Kent County Influenza Activity Indicators

Reported Influenza Cases in Kent County by Type of Influenza: September 30, 2014-June 1, 2015

Influenza Type	Frequency	Percentage
A	883	86.7%
B	128	12.6%
A & B	8	0.8%
Total	1019	100%

Reported Influenza Cases in Kent County by Age Group: September 30, 2014-June 1, 2015

Age Group	Frequency	Percentage
0-5	183	18.0%
6-17	238	23.4%
18-45	232	22.8%
46-64	128	12.6%
65+	226	22.2%
Missing	12	1.2%
Total	1019	100%

Reported Influenza Cases in Kent County by Gender: September 30, 2014-June 1, 2015

Gender	Frequency	Percentage
Male	446	43.8%
Female	550	54%
Unknown	23	2.3%
Total	1019	100%

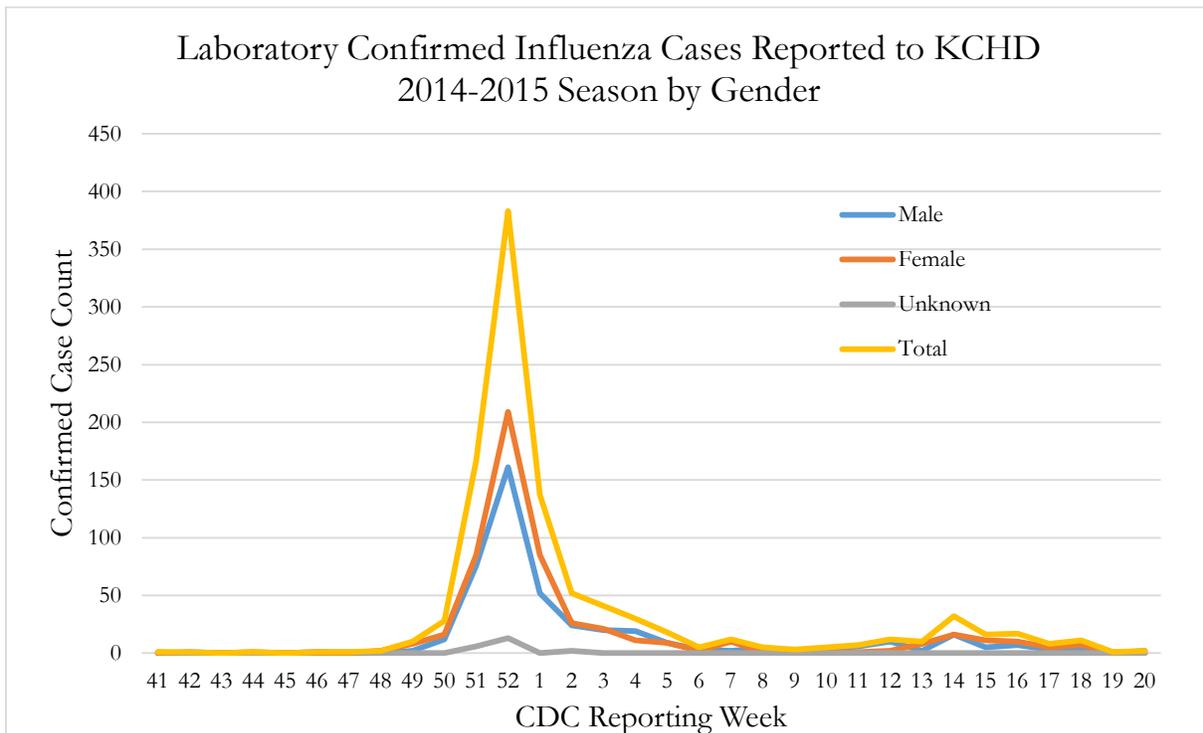
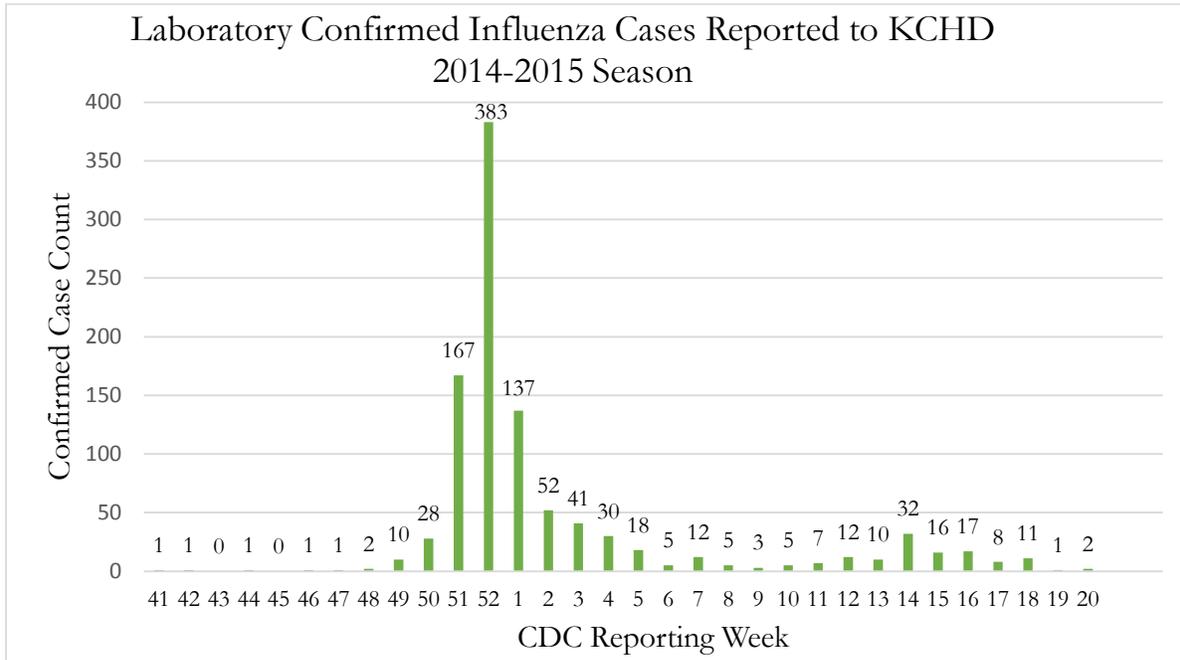
Reported Influenza Death in Kent County: September 30, 2014-June 1, 2015

Gender	Age Group	Influenza Type
Male	18-64	A
Female	65+	B

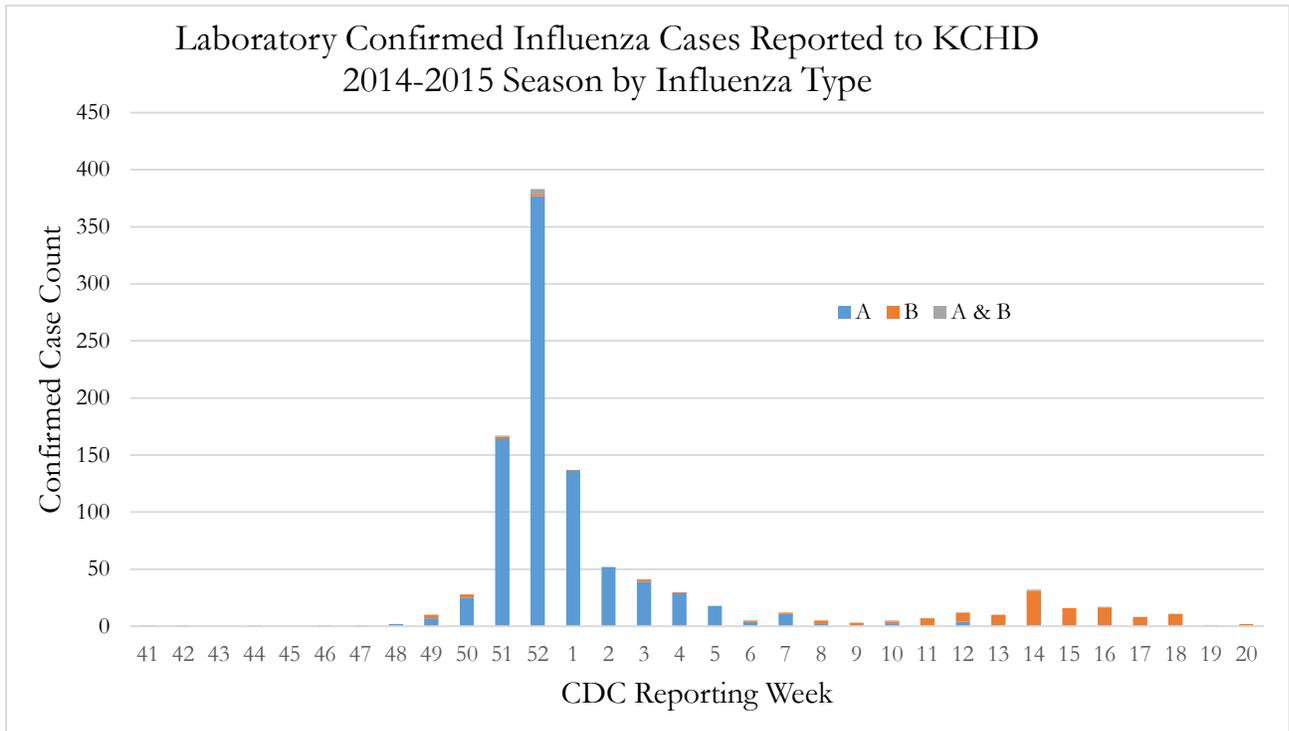
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The graphs below shows how many cases of influenza were reported each week during the 2014-2015 season. Week 41 refers to the week ending October 12, 2014 and Week 20 refers to the week ending May 17, 2015. The first case reported to KCHD was on October 10, 2014 and the final case of the season reported was on May 14, 2015. There was a large increase of cases during Week 52 (December 21-27, 2014), which was the peak of the season.



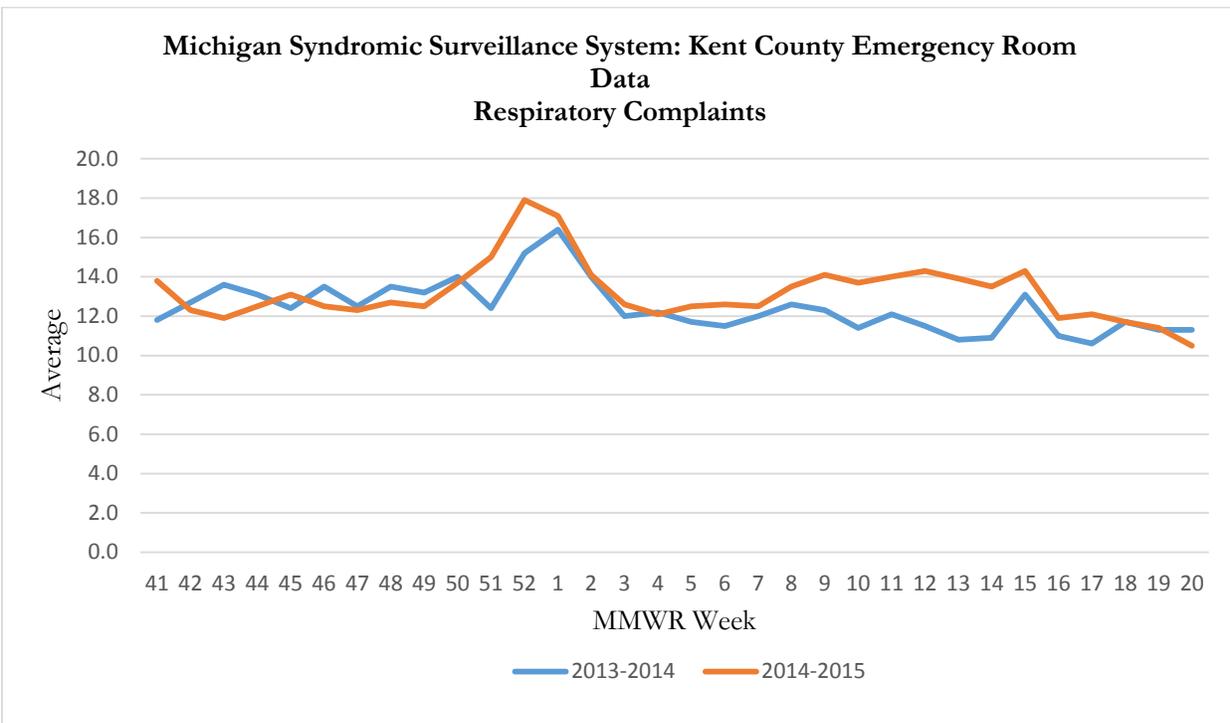
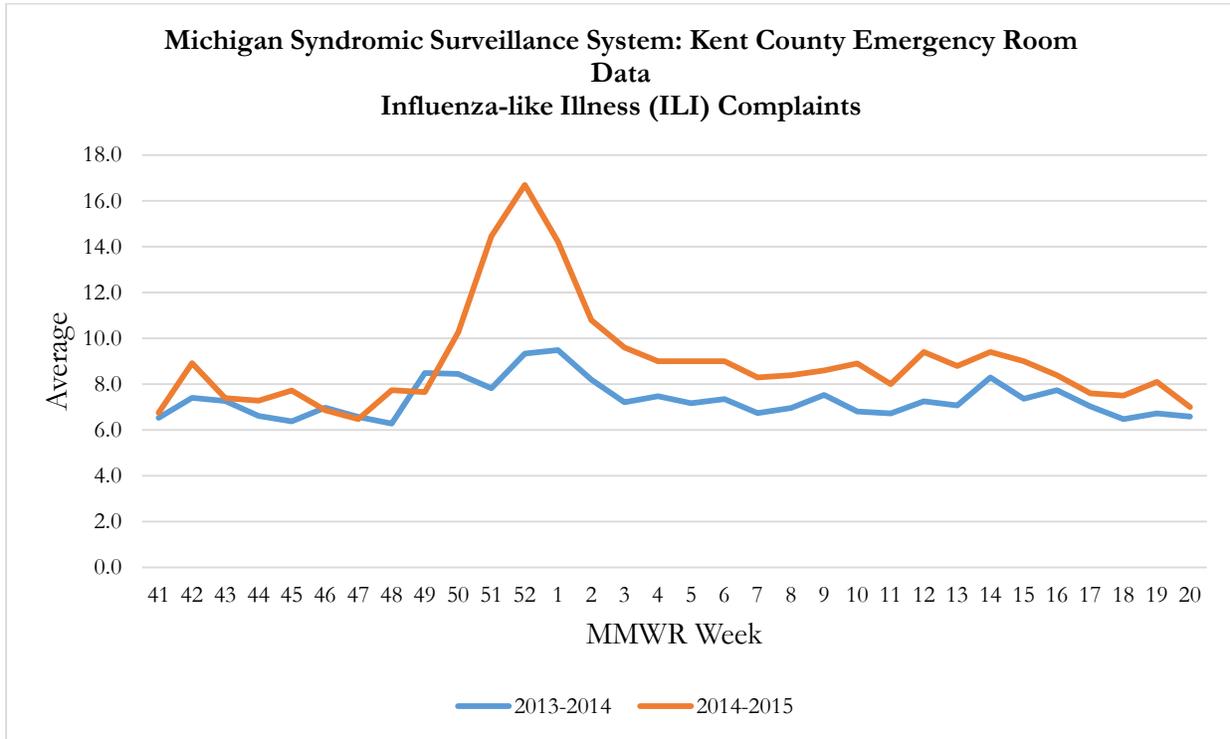
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The graphs below represent data from Kent County's Emergency Departments based on the weekly percentage of patients presenting with influenza-like illness or respiratory symptoms for the 2013-2014 and 2014-2015 seasons. These graphs indicate that the 2014-2015 influenza season was more severe than the 2013-2014 year. Although there are differences in the averages between the two seasons, the peak of both is around the same time period which indicates when influenza-like illness is most active in the community.

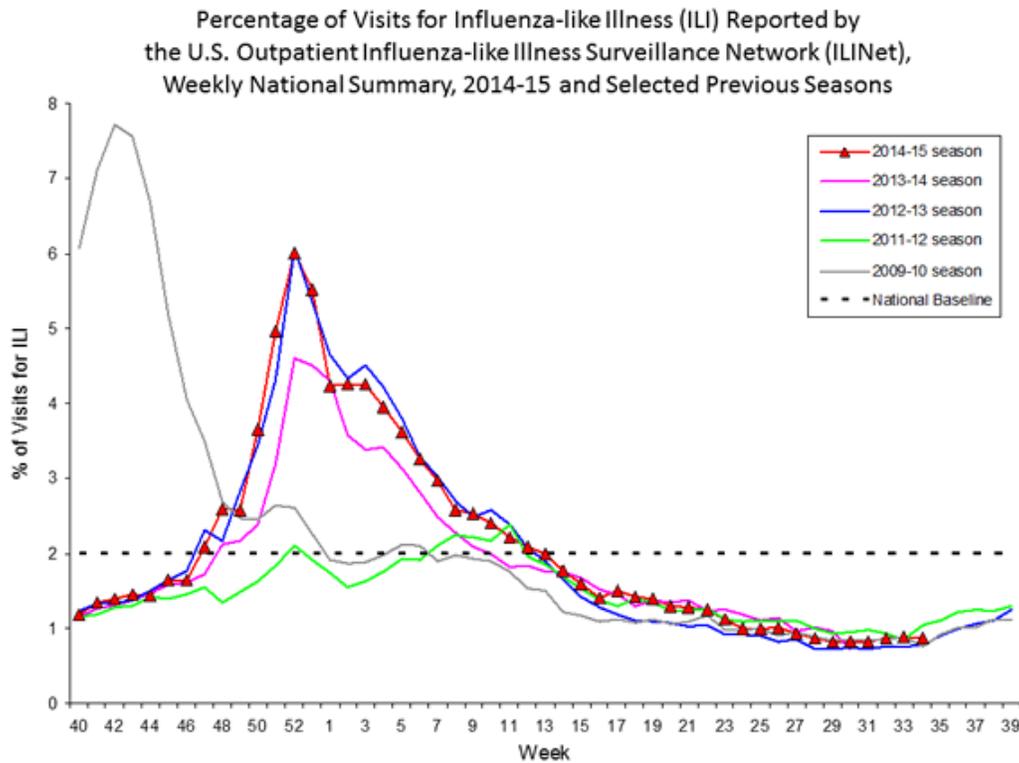


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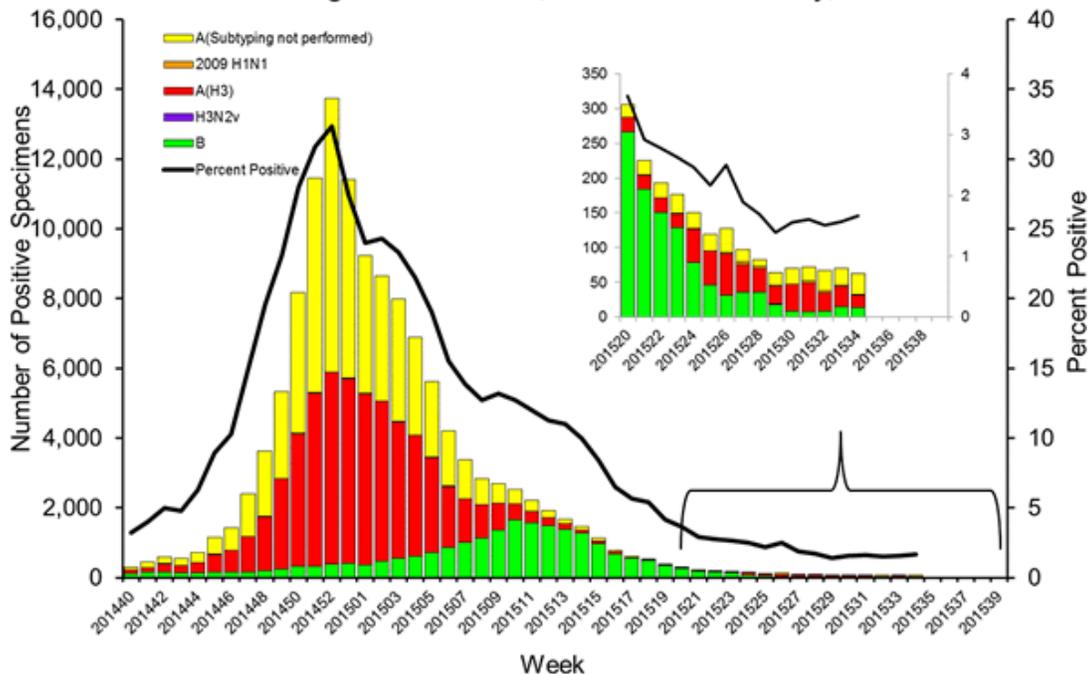


The Centers for Disease Control and Prevention (CDC) collect information pertaining to influenza at the national, regional, and statewide levels. These data are presented in the graphs below. The peak of the season was shown to be very similar at the national and regional levels as it was in Kent County, with the peak being at Week 52.

Influenza Seasonal Trends in the U.S. Center for Disease Control and Prevention Data

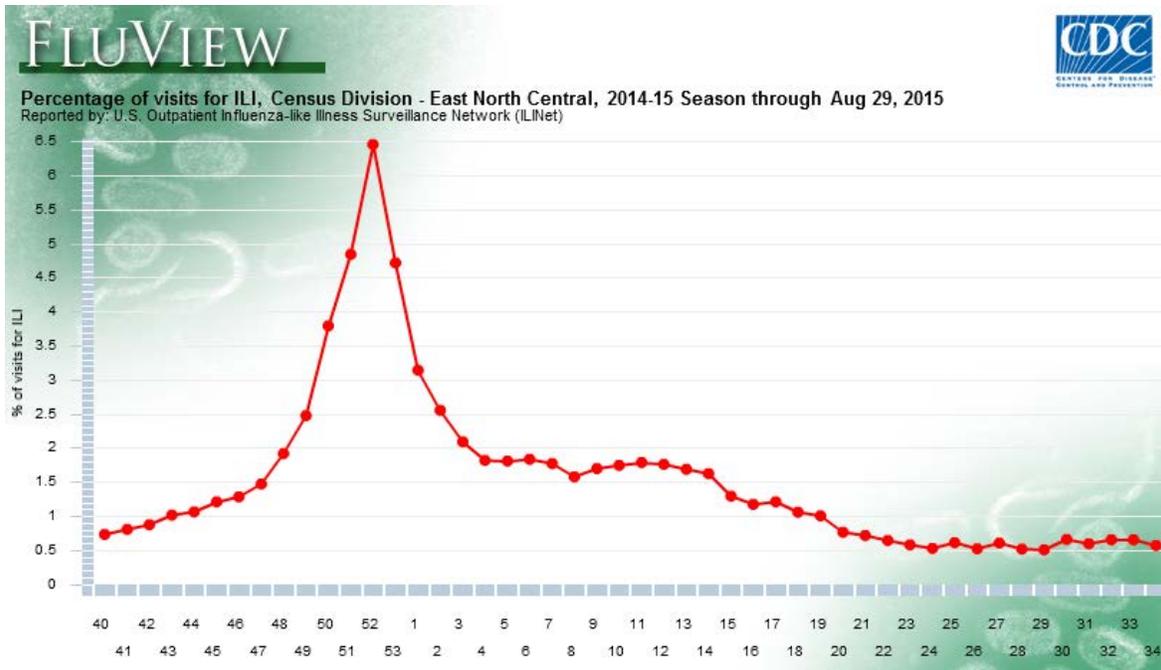


Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2014-15



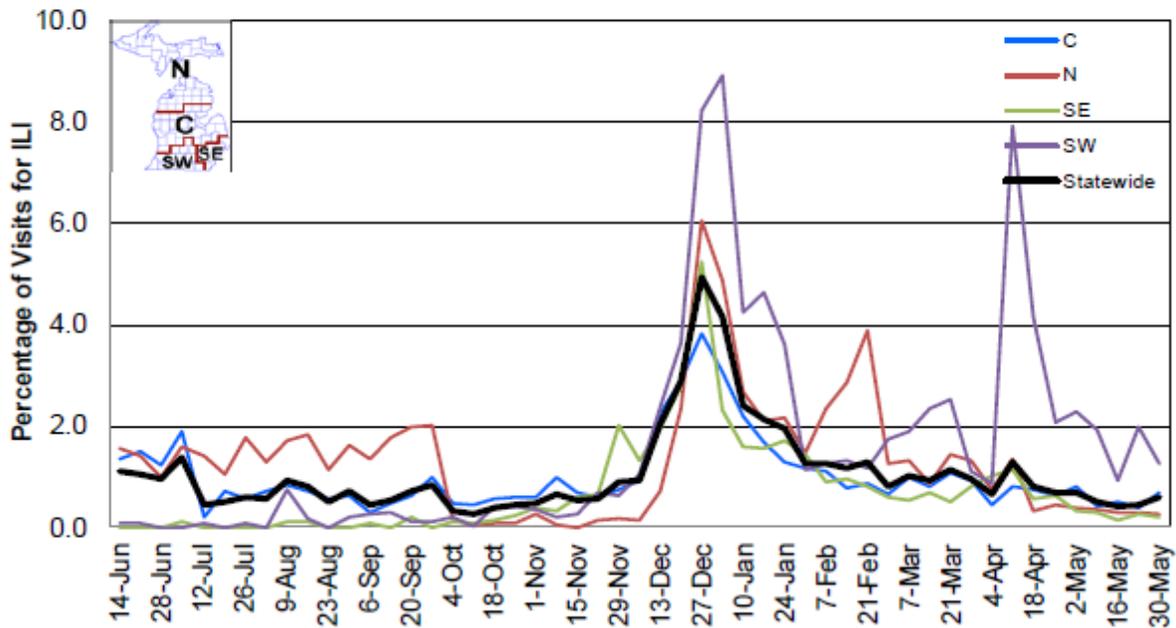


Influenza Seasonal Trends in East North Central US Center for Disease Control and Prevention Data



Influenza Seasonal Trends in Michigan

Percentage of Visits for Influenza-like Illness (ILI)
 Reported by Sentinel Providers, Statewide and Regions
 2014-15 Flu Season





Summary

Seasonal influenza is unpredictable and the timing and duration can vary year to year. Typically, seasonal influenza peaks between the months of December and February, with the seasons beginning as early as October and ending as late as May. Within Kent County during the 2014-2015 influenza season, there were a total of 1,019 laboratory-confirmed influenza cases. During this time, there were seven deaths that occurred between December 22, 2014 and January 22, 2015. The first case of influenza was reported on October 10, 2014 and the final case was reported on May 14, 2015, with the peak of the season during Week 52 (December 21-27, 2014).

The peak of the local influenza season was very similar to both national and state influenza data. It was seen that of the regions in Michigan, the Southwest region had the highest percentage of visits for influenza-like illness (ILI) at the peak of the season and the Central region (which includes Kent County) had the lowest percentage of visits for ILI. Within Kent County, the majority of influenza cases were Type A (86.7%), over half of the cases (54 %) reported were female, and the age groups that were most affected were relatively evenly distributed among all age groups.

Influenza A (H3N2) virus predominated during the majority of the season across the nation, but a second wave of influenza B occurred at the beginning of March, which commonly occurs. There was a higher number of cases this season compared with that of the 2013-2014 season because most of the influenza A viruses that were affecting the population had drifted from the H3N2 virus included in the influenza vaccine due to a mutation in the strain. According to the CDC, the 2014-2015 flu vaccine reduced the risk of flu-associated medical visits from Influenza A by 18% and from Influenza B by 45%, resulting in an average of 19%. With a virus that is constantly changing, it can be difficult to create a matched vaccine. Although the vaccine effectiveness for the 2014-2015 influenza season was lower than normal, receiving the vaccine is an important preventative strategy against becoming infected with either type of influenza.