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Wyandotte County 2018-2019 Influenza Season Activity Summary

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Public Health
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Executive Summary

Seasonal influenza can pose a large burden on communities during the fall through spring each year. In total, 1,449 influenza cases were reported to the Unified Government Public Health Department during the 2018-2019 influenza season. The majority of influenza cases were type A and those ages 14 and younger were the most impacted. Emergency room visits for influenza-like illness were lower than the past season and resulted in very few hospital admissions. Overall, the data demonstrates that Wyandotte County experienced a less severe influenza season.

Introduction

Influenza is a contagious respiratory illness caused by influenza viruses. This virus spreads when tiny droplets enter the air when an infected person coughs or sneezes. Symptoms can include a fever, muscle aches, fatigue, cough, runny nose and other respiratory symptoms. It can cause mild to severe illness and can sometimes lead to death, especially for high risk individuals such as the elderly, very young babies, and those with chronic health conditions.

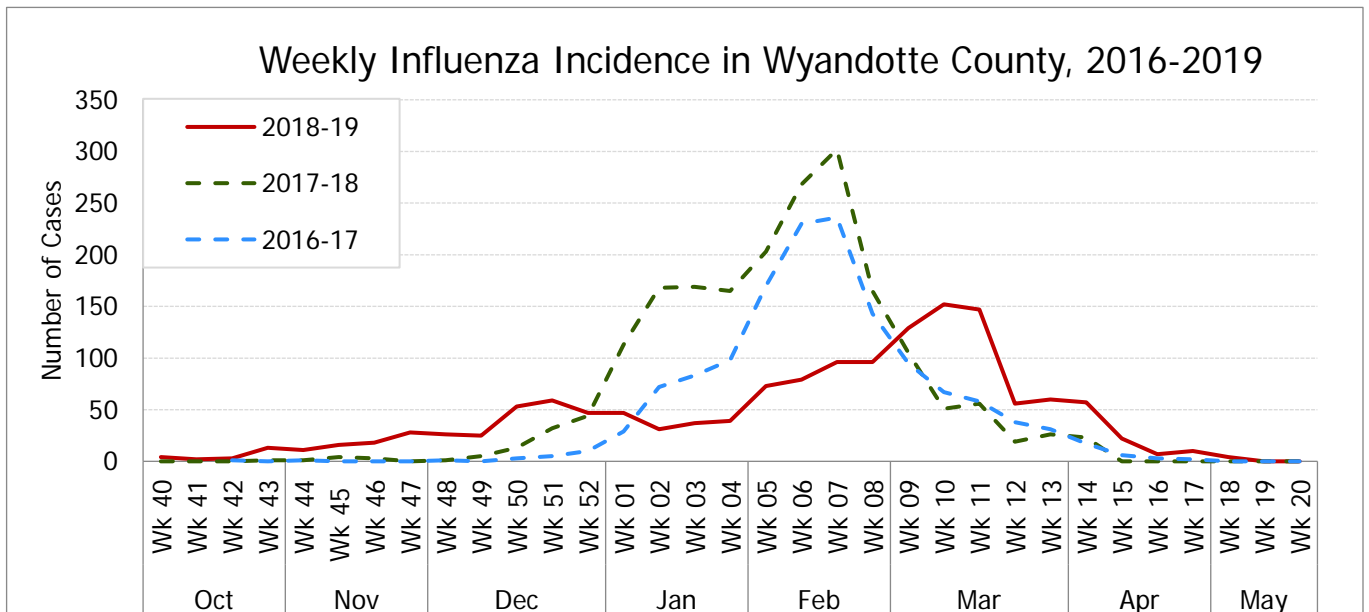
Influenza season typically starts in the fall and continues into the spring. Severity of influenza season varies year to year and can be a large burden on the population. The Centers for Disease Control and Prevention estimates that between 3-11% of the U.S. population will become infected with influenza every season. In addition, between 200,000-960,000 will be hospitalized for influenza and between 12,000-79,000 will die as a result of influenza complications.¹

Overall Influenza Activity

In total, there were 1,449 cases of influenza reported to the Unified Government Public Health Department during the 2018-2019 influenza season. In Kansas medical providers are not required by law to report influenza cases and do so only on a voluntary basis. Therefore, the number of reported cases does not reflect an exact number of influenza diagnoses made in Wyandotte County. Voluntary reporting of influenza cases does help the Health Department monitor influenza activity overall in the county, however.

The total of 1,449 cases reported this influenza season is less than reported in the 2017-2018 season (1,939) and comparable to the 2016-2017 season (1,399). As demonstrated in the graph below, influenza activity peaked in early March. This is a slightly later peak compared to past seasons when a peak in February was seen. By mid-May, influenza activity in Wyandotte County had ceased.

¹ Centers for Disease Control and Prevention, "Disease Burden of Influenza". Updated February 19, 2019.
<https://www.cdc.gov/flu/about/burden/index.html>

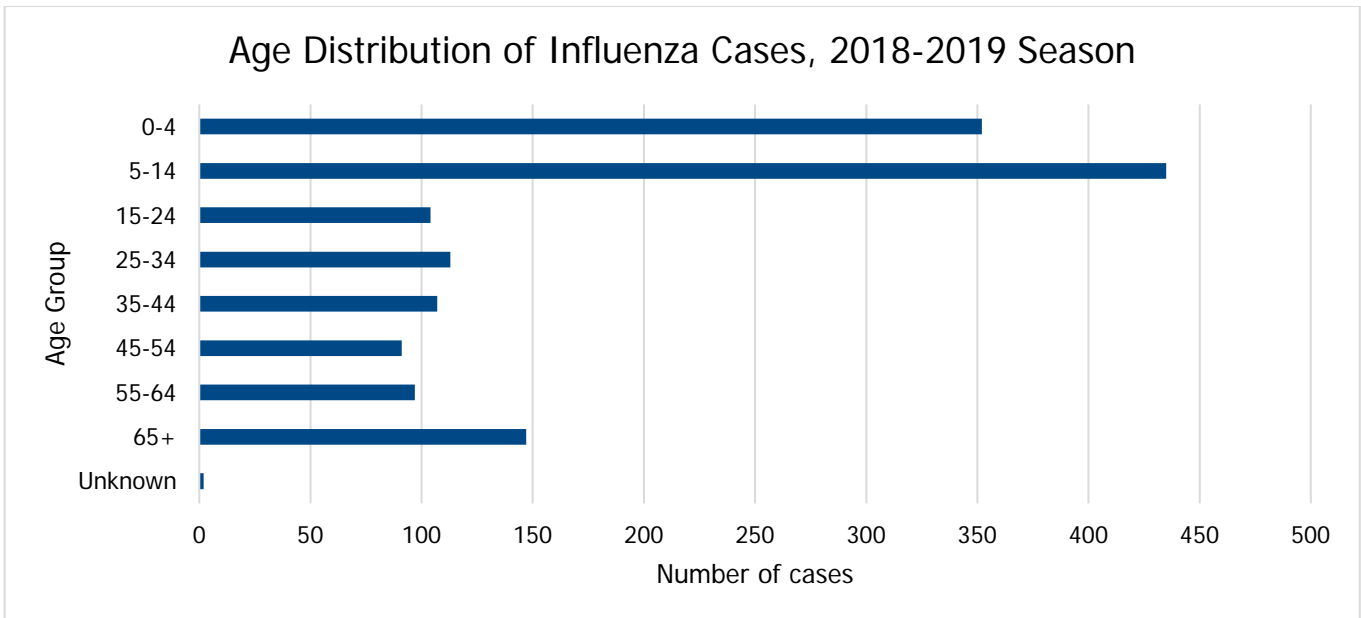


The majority of influenza cases were type A at 96% while 2% were type B and 2% were untyped. This distribution of type A versus B is somewhat unusual—typically type A makes up about two thirds of the cases and type B makes up the other third in Wyandotte County. During a typical influenza season, type A is seen in the beginning and peak of the influenza season, and type B is seen more often at the end of the season. The 2018-2019 influenza season had much fewer type B cases than typical seasons.

Age Distribution

The graph below demonstrates the age distribution among reported influenza cases. **Cases under the age of 14 accounted for over half of the reported influenza cases.** Children may be more likely to become infected with influenza because they spend a large amount of time in daycares or schools, and their immune systems may not be fully developed. In addition, children may be more likely to receive medical care when ill than an adult and thus be diagnosed with influenza. However, this large number of influenza cases in ages under 14 years may also be due to reporting bias. In Kansas, influenza is not a reportable condition, while in Missouri it is reportable by law. Children’s Mercy Hospital and associated clinics are located in Missouri, and they report influenza cases to Wyandotte County.

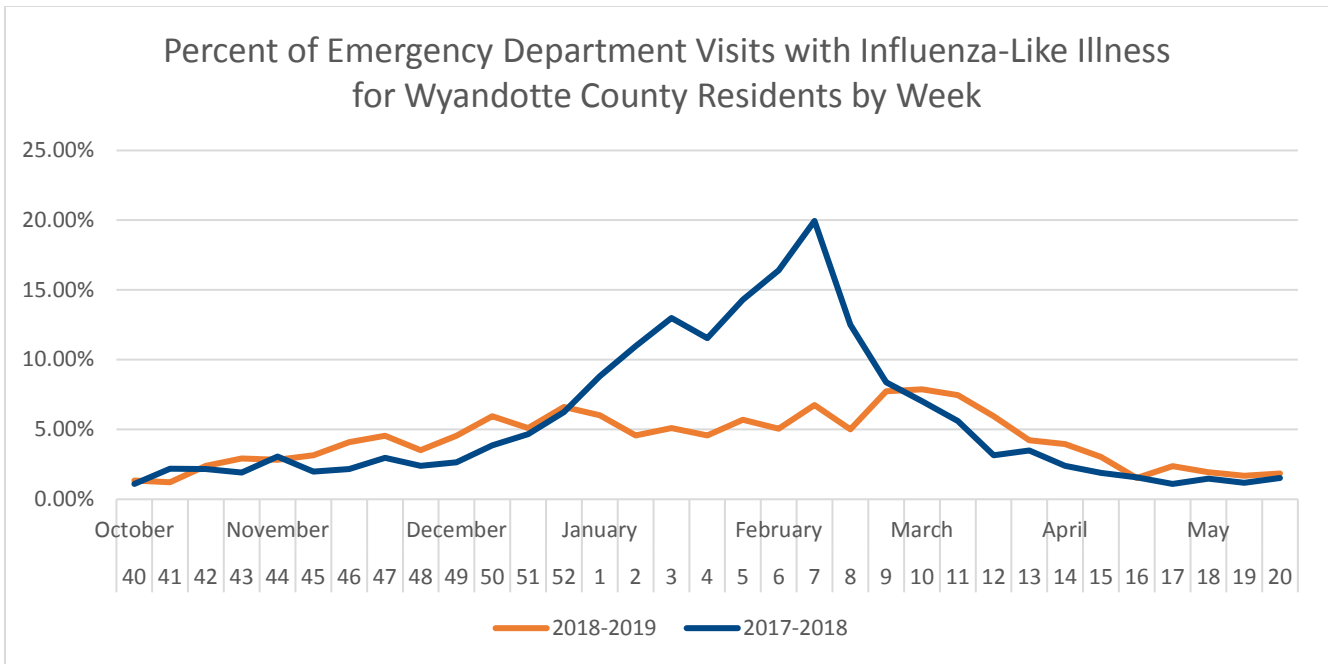
In addition to children, the age group most impacted by influenza this season was those ages 65 and older. According to the CDC, the 65 and older age group accounts for the largest number of influenza cases in a typical season and the largest number of hospitalizations and deaths.



Emergency Room Visits

As influenza activity within the United States increases during influenza season, people seek out emergency medical care for their symptoms. Monitoring the number of people seeking care for influenza can help to track influenza activity within the community. Emergency room visits at Wyandotte County hospitals can be monitored by chief complaint and discharge diagnosis using an online system called ESSENCE. The ESSENCE system can monitor visits to the emergency room for influenza-like illness: fever along with respiratory symptoms.

Emergency room visits for influenza-like illness are measured as a percentage of the total number of visits for that week. For example, if 20% of emergency room visits that week are for influenza-like illness, it indicates that influenza is more active than if only 5% of visits were complaining of influenza-like illness. As shown in the graph below, emergency room visits for influenza-like illness in 2018-2019 were only slightly elevated from December to March. The percent of emergency room visits for influenza-like illness remained below 8% of all visits during the season. This is compared to the 2017-2018 influenza season which demonstrated a much larger percent of emergency room visits due to influenza-like illness.

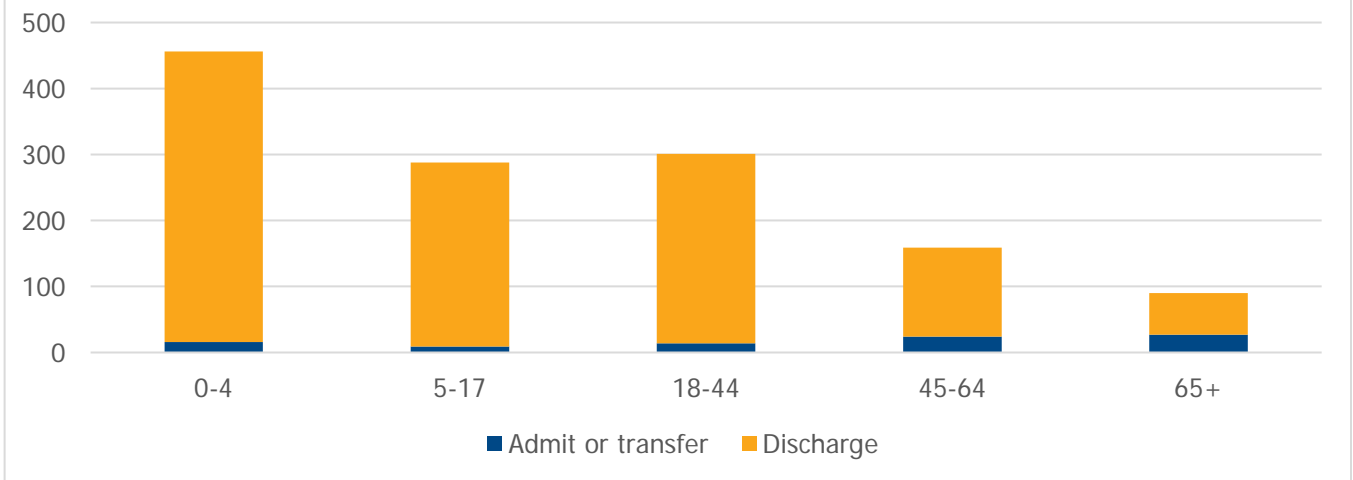


As demonstrated in the graph below, the majority of emergency room visits for influenza-like illness resulted in discharge home. **This likely indicates that most emergency room visits for influenza are not medically necessary and a visit to a primary care clinic would be more appropriate.** In fact, according to the Centers for Disease Control and Prevention, the emergency room should only be used for those ill with influenza who have emergency warning signs of influenza complications. These signs include breathing difficulty, chest pain, seizures, signs of dehydration, severe muscle pain, and in children a fever above 104 degrees. In addition, those with chronic medical conditions such as diabetes, heart, lung, kidney or liver disease, HIV, or cancer may need to seek emergency treatment if the influenza virus makes their condition worse.²

However, the data indicates that for the majority of influenza-like illness visits in Wyandotte County, discharge home was the best treatment. It is important that emergency rooms are reserved for only emergencies to preserve resources and reduce waiting times for true emergencies. For the majority, the most appropriate care for influenza is rest at home and symptom relief.

² Centers for Disease Control and Prevention, “Flu: What to do if You Get Sick”. February 28, 2018. <https://www.cdc.gov/flu/treatment/takingcare.htm>

Hospital Admit vs Discharge for Influenza-Like Illness Emergency Department Visits by Age Group, 2018-2019 Season



Vaccine Effectiveness

The single best way to protect yourself against influenza is to get the influenza vaccine every year. The influenza vaccine can help prevent infection and if you do become infected, make your illness shorter and less severe. The influenza vaccine is recommended for everyone six months of age and older except in rare circumstances.

Effectiveness of the influenza vaccine varies year to year depending on how well the strains in the vaccine “match” the strains we see in the community. Influenza vaccine effectiveness can have an impact on how severe influenza season is in the community. Each influenza season the Centers for Disease Control and Prevention does studies to determine the vaccine effectiveness for that season’s vaccine. **For the 2018-2019, the Centers for Disease Control and Prevention determined that the overall vaccine effectiveness was 47%.** This is slightly higher than the effectiveness for prior seasons as shown in the table below. In particular, the vaccine effectiveness was 9% higher than the 2017-2018 season, which was a more severe season.³

Influenza Season	Overall Vaccine Effectiveness
2018-2019	47%
2014-2018	38%
2016-2017	40%
2015-2016	48%
2014-2015	19%

³ Centers for Disease Control and Prevention, “Past Seasons Vaccine Effectiveness Estimates, April 5, 2019. <https://www.cdc.gov/flu/vaccines-work/past-seasons-estimates.html>