



# Influenza Activity

## 2017-2018 Season: Summary

### **Disease Control and Prevention Division**

#### **Point of Contact**

Dustin Boothe, MPH, REHS  
Disease Control and Prevention Manager  
Office: (775) 283-7220  
Fax: (775) 887-2138  
Email: [dboothe@carson.org](mailto:dboothe@carson.org)



CARSON CITY HEALTH AND HUMAN SERVICES

This report has been made available at [www.gethealthycarsoncity.org](http://www.gethealthycarsoncity.org)

# Influenza Activity

---

2017-2018 Season: Summary

## **Introduction**

The Disease Control and Prevention branch at Carson City Health and Human Services (CCHHS) collects, compiles and analyzes information on influenza activity year-round within the jurisdiction and has produced influenza reports for public partners this 2017-18 season. This report allows for a more in-depth exploration of influenza surveillance data that was collected within the region. The influenza surveillance system is an effort between CCHHS and its partners in the public health community.

What was the 2017-2018 flu season like?

The 2017-2018 influenza season was a high severity season with high levels of outpatient clinic and emergency department visits for influenza-like illness (ILI), high influenza-related hospitalization rates, and elevated and geographically widespread influenza activity for an extended period. In 2017, CDC began using new methodology to classify seasonal severity and applied the methodology to the 2003-2004 through 2016-2017 seasons, a chart can be found here (<https://www.cdc.gov/flu/professionals/classifies-flu-severity.htm>). The 2017-18 season was the first season to be classified as a high severity across all age groups. (Garten 2018)

## **Peak Week**

For the jurisdictions that Carson City's Health and Human Service's monitors, MMWR 02 (01/01/2018 - 01/13/2018) was considered peak week for influenza activity. Peak week is defined for the purpose of this report as the week that influenza rates were at their highest for the region. Comparatively, peak week for the 2017-18 year occurred later in the season when examining

the 2016-17 year (figure 1). The 2017-18 peak week experienced 50% more reported influenza cases compared to the 2016-17 peak week.

**Total Counts of the disease reported:**

Overall, the 2017-18 influenza season saw high activity with **2241** cases reported from October 1<sup>st</sup> – May 19<sup>th</sup>. Comparing this to the 2016-17 year, there was an overall increase in reported cases, about **165%** more cases. Comparison of yearly values is provided in figure 1 below. Carson City (956) had the most cases followed by Lyon (649) then Douglas (636).

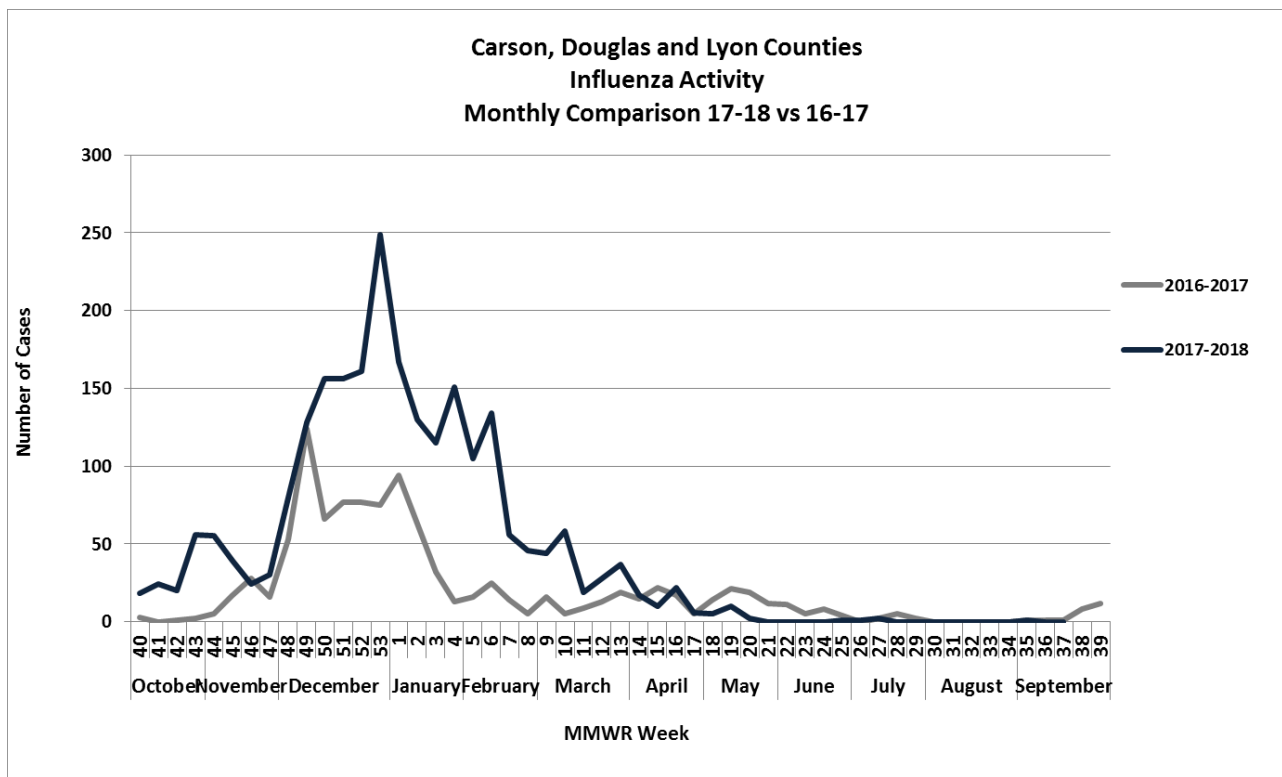


FIGURE 1 (2017-18 SEASONAL COMPARISON TO 2016-17 (DATA COLLECTED IN NBS AND CCHHS SURVEILLANCE SYSTEM))

**Breakdown - Influenza Type**

Overall 60% of reported cases of influenza were Influenza A (figure 2) (via rapid or PCR). This is expected since the predominate virus circulating during the 2017-18 season was H3N2. This is similar to the CDC virus surveillance reporting of 67% influenza A nationally.

Any dissemination, distribution, or copying of this communication is strictly prohibited.

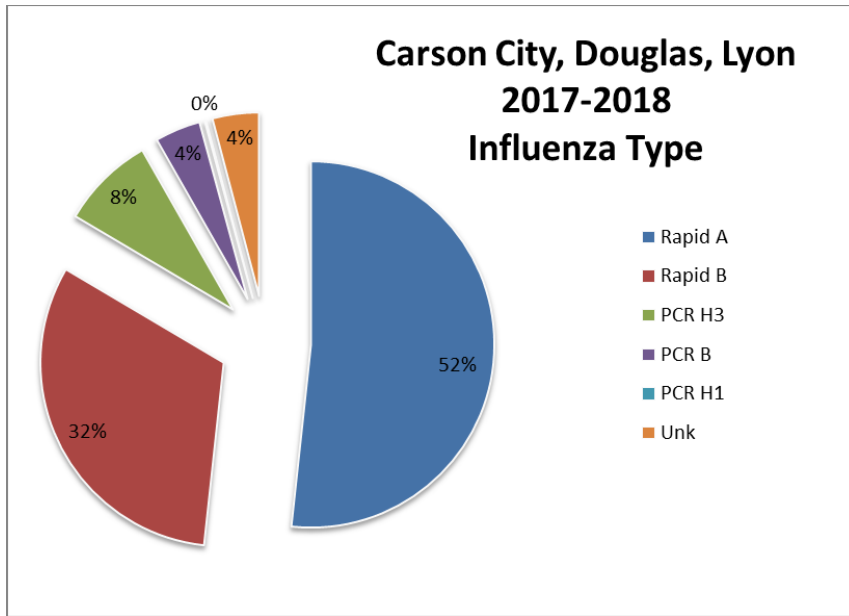


FIGURE 2(SEASONAL BREAKDOWN BY INFLUENZA TYPE (DATA COLLECTED FROM CCHHS SURVEILLANCE SYSTEM)

### **Hospitalizations:**

CCHHS monitors hospitalizations associated with laboratory-confirmed influenza through reports received from surrounding hospitals. Peak week for hospitalizations was MMWR 02 (01/01/2018 - 01/13/2018), the same week as peak reports.

Carson City (84) had the most reported hospitalizations followed by Douglas (48) then Lyon (28) see figure 3.

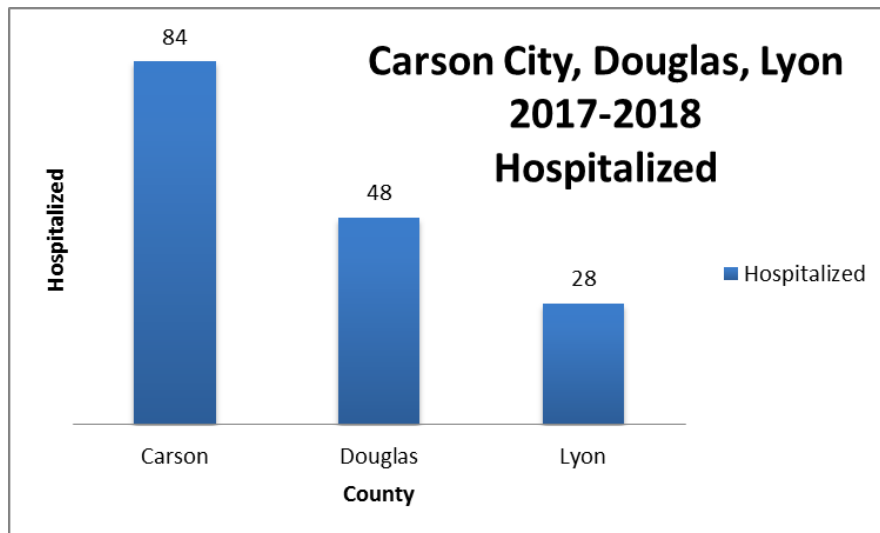


FIGURE 3

The Median Age for all reported hospitalizations was 67 years; the age range was <1 – 98 years. The average hospital stay was 4.7 days. Hospitalized Individuals with documented influenza vaccination: 29%\*

*\*Based off Web-IZ data indicating vaccination for the 2017-18 season; data only included for individuals found in Web-IZ*

**ILI trend and total:**

Influenza-like illness (ILI) visits are monitored via the Nevada ESSENCE system. Monitoring an easily recognized clinical syndrome such as ILI can provide early evidence of increased respiratory virus circulation and information on where respiratory virus activity is occurring in our region and can track the course of respiratory virus activity during the influenza season.

Total counts of ILI (17-18) \* (October 1 – May 19) : 6588

Total counts of IL (16-17)I\* (September 25-May 20) : 3138

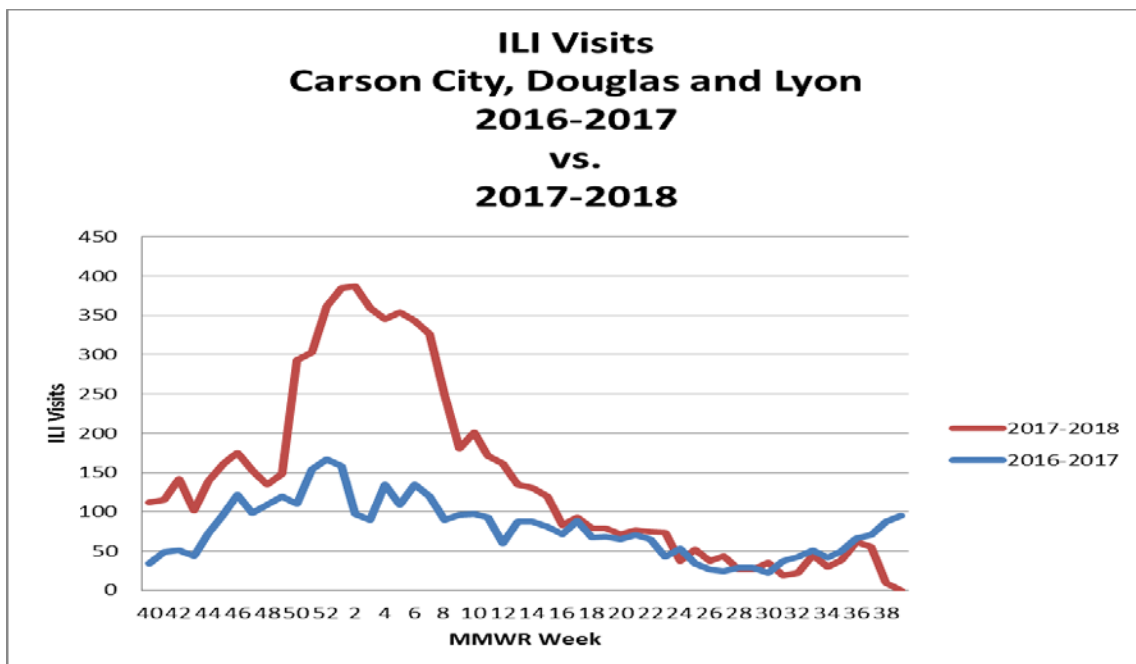


Figure 4 ILI trend \*This system does not indicate whether values are duplicate cases. It is possible that counts reflect individuals that have been into the facilities more than one visit.

During MMWR week 40 to 20 the 2017-18 season experienced a 52% increase in ILI visits.

Any dissemination, distribution, or copying of this communication is strictly prohibited.

## Age

Figure 5 shows the percentage of cases reported to CCHHS based on age groups. Age 5 to 24 made up the largest portion of reported cases, 32%.

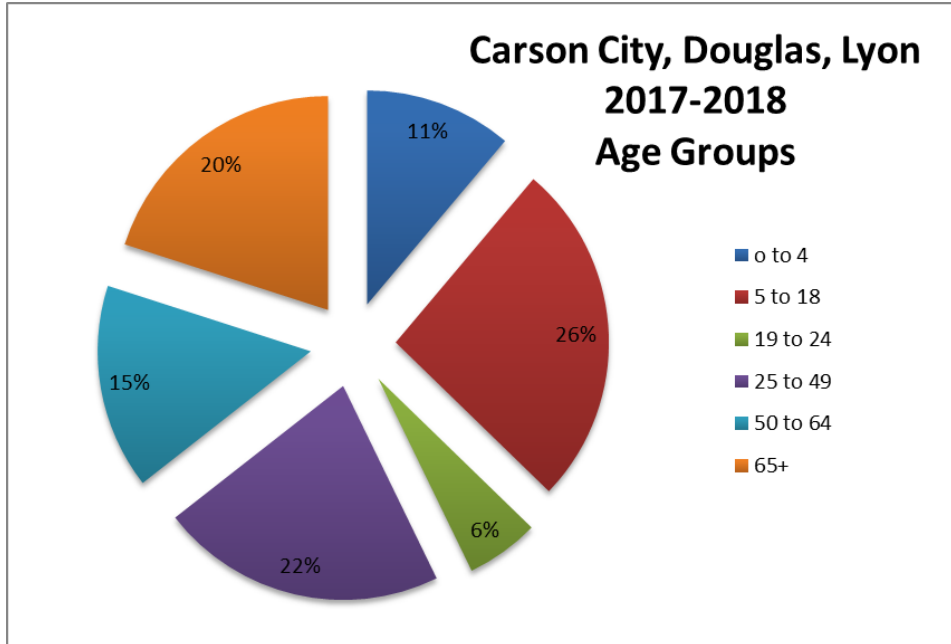


FIGURE 5

Figure 6 shows the breakdown by age groups for ILI visits. Age 5 to 24 made up the largest portion of ILI visits for the 2017-18 influenza season.

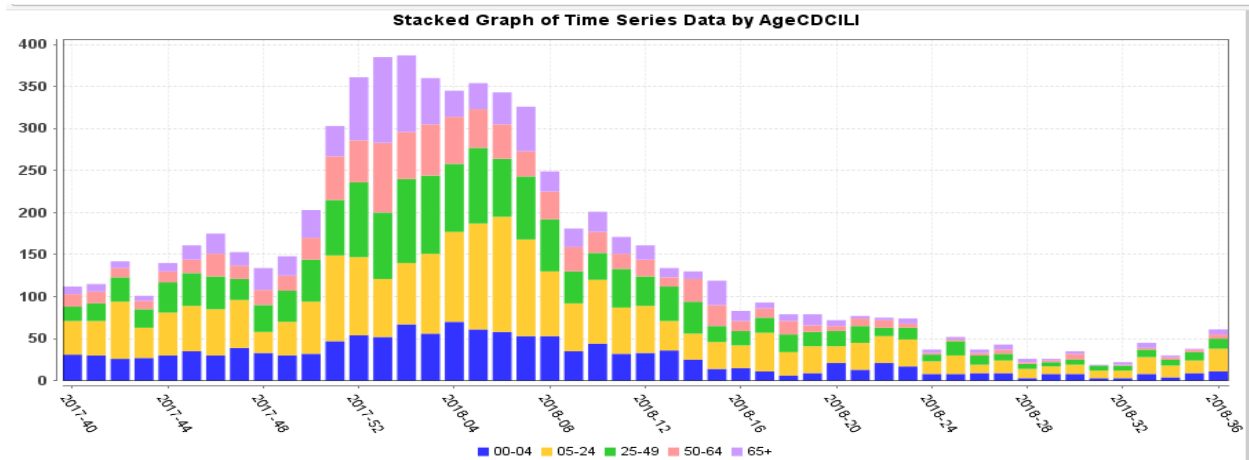
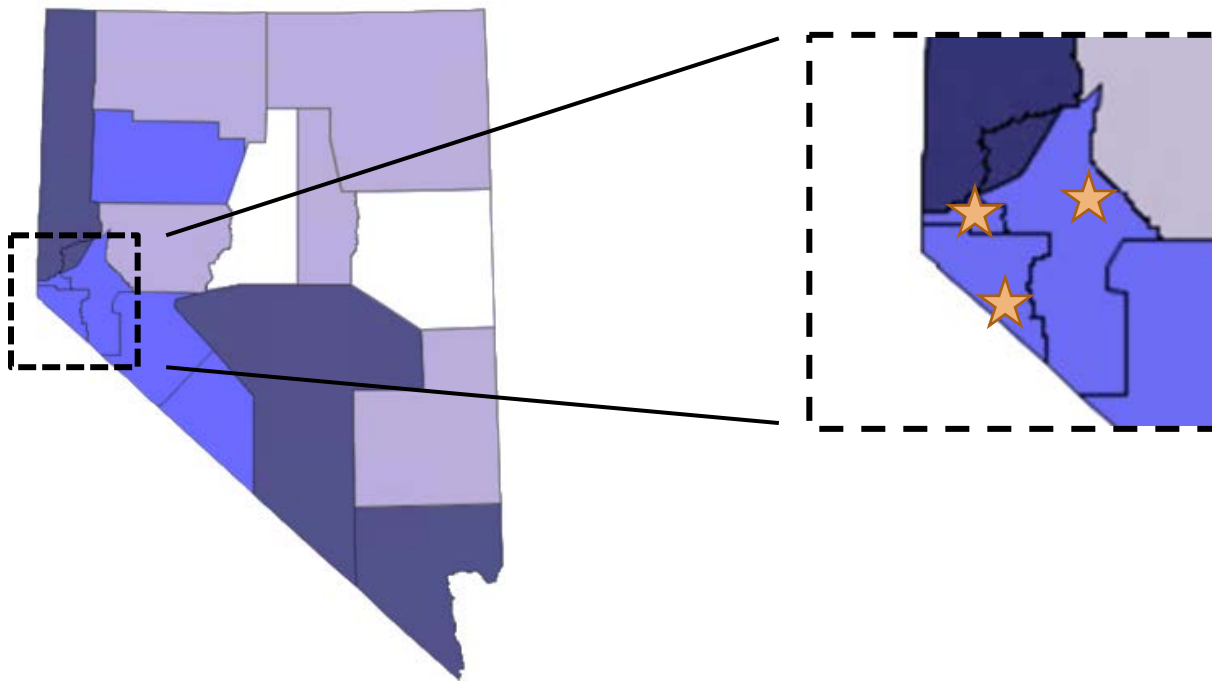


FIGURE 6

**Reporting Facilities:**

The jurisdiction receives Influenza reports from three (3) main hospitals (Carson Tahoe Regional Hospital, Carson Valley Medical Center, South Lyon Medical Center) local urgent cares, and private medical practices. These reports are either received through the health department confidential fax line or through the electronic lab reporting (ELR) system.

The region’s hospitals are marked on the map below. Carson Tahoe Regional Hospital (Carson City, NV) supports outlying regions as a tier 3 hospital. Carson Valley Medical Center is found in Gardnerville, NV and is closely aligned with Barton Memorial Hospital in South Lake Tahoe, CA. South Lyon Medical Center is found in Yerington, NV and provides services to the outlying rural areas of Lyon County.



*Map 1: Carson City Health and Human Services (CCHHS) reporting facilities*

## **Summary**

As described above, the 2017-18 influenza season had experienced more cases, ILI activity and hospitalizations as compared to the 2016-17 season. According to the CDC, previous H3N2 predominant seasons have also been associated with increased hospitalizations and deaths. The severity of this influenza season highlights the importance of public health measures to control and prevent influenza. Annual influenza vaccination remains the most effective way to prevent influenza illness. (Garten 2018)

## **Reference**

1. Garten, R. (2018, June 8). Update: Influenza Activity in the United States during the 2017–18 Season and Composition of the 2018–19 Influenza Vaccine. Retrieved September 14, 2018, from [https://www.cdc.gov/mmwr/volumes/67/wr/mm6722a4.htm?s\\_cid=mm6722a4\\_w](https://www.cdc.gov/mmwr/volumes/67/wr/mm6722a4.htm?s_cid=mm6722a4_w)
2. CDC. Influenza National and Regional Level Graphs and Data. Retrieved September 14, 2018, from <https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>