

Johnson County Health Department

Influenza Surveillance Summary Report: 2010-11

The Johnson County Health Department (JCHD) in collaboration with health care providers throughout Johnson County track and describe the incidence of influenza through self reported data. The purpose of this is to measure the magnitude of the influenza season and make comparisons with other seasons. This can help public health and health care providers plan appropriately.

This report is a summary of the 2010-11 influenza season and is an introduction to our new monthly influenza report. The purpose is to provide an overall picture of last year's influenza season. Because of the 2009-10 H1N1 pandemic and a subsequent increase in the proportion of influenza case reported, a decision was made to use the 2010-11 influenza season as a baseline, excluding previous years, because these factors could lead to biased inferences.

A monthly influenza report will begin this week and follow through for the duration of the 2011-12 influenza season. These reports will compare the 2010-11 and 2011-12 seasons. They will be posted on the JCHD website. The monthly influenza reports will include a short narrative describing the data and a one page dashboard report.

Influenza is not a reportable disease in Kansas and therefore providers are not lawfully required to report cases to the JCHD. Furthermore, many individuals with influenza never visit a healthcare provider. Because of this, the information reported is a drastic underrepresentation of the true incidence of disease, something epidemiologists call the 'iceberg concept'. Regardless, this information is still useful as long as this and other potential biases are kept in mind.

Thank you to area healthcare providers for going beyond the statutory requirements to help us track trends in influenza. If you are a provider that wants to report cases of influenza but has not done so in the past, you can find our influenza reporting form on the JCHD website at http://health.jocogov.org/docs/INFLUENZA_SEASON_SURVEILLANCE_SHEET.pdf. You can also contact the JCHD to discuss current or past influenza trends.

Kevin Kovach, MSc, CHES
Epidemiologist
kevin.kovach@jocogov.org
Phone: (913) 477-8368

Methods

Thirty-two hospitals and clinics reported influenza cases to the Johnson County Health Department (JCHD) during the 2010/11 influenza season. The information reported included the date, gender, birth date, zip code, date of specimen collection, rapid test result and confirmatory test result.

Report dates rather than specimen collection dates were used to measure incidence because they were mostly identical, in addition, specimen collection dates were missing in many cases. Report dates were recoded to correspond with the Morbidity and Mortality Monthly Report (MMWR) week which categories dates into calendar weeks; MMWR week one is the first week of the year that contains four or more days in the new year. This allows for weekly comparisons between years.

Rapid test results were used to categorize influenza type because confirmatory tests were not available for most cases. Age was calculated by subtracting the date of birth from the report date. Ages were then recoded into age groups (Table 1). A frequency polygon (Figure 1) and a cumulative frequency polygon (Figure 2) were produced to present a graphical representation of influenza incidence.

Results and Discussion

There were 265 cases of influenza reported to the JCHD from September 7, 2010 to July, 5, 2011. The average number of was 7.7 per week from the beginning of October through the end of May; the general influenza season. Most cases (94%) were reported between December 27, 2010 and April 5, 2011. Influenza reports increased in January, spiked in February and began to decrease in March (Figure 1).

Slightly more cases were female than male (Table1). The majority of cases (71%) were rapid tested to be type A influenza (Table 1). Most reported cases occurred in individuals less than age 25 years old (Table 1). Data was missing in one case for gender, five cases for influenza type and eight cases for date of birth.

Influenza reports began to accumulate in late December and rose steadily through the end of March (Figure 2).

Figure 1. Influenza cases reported in Johnson County (2010/11)

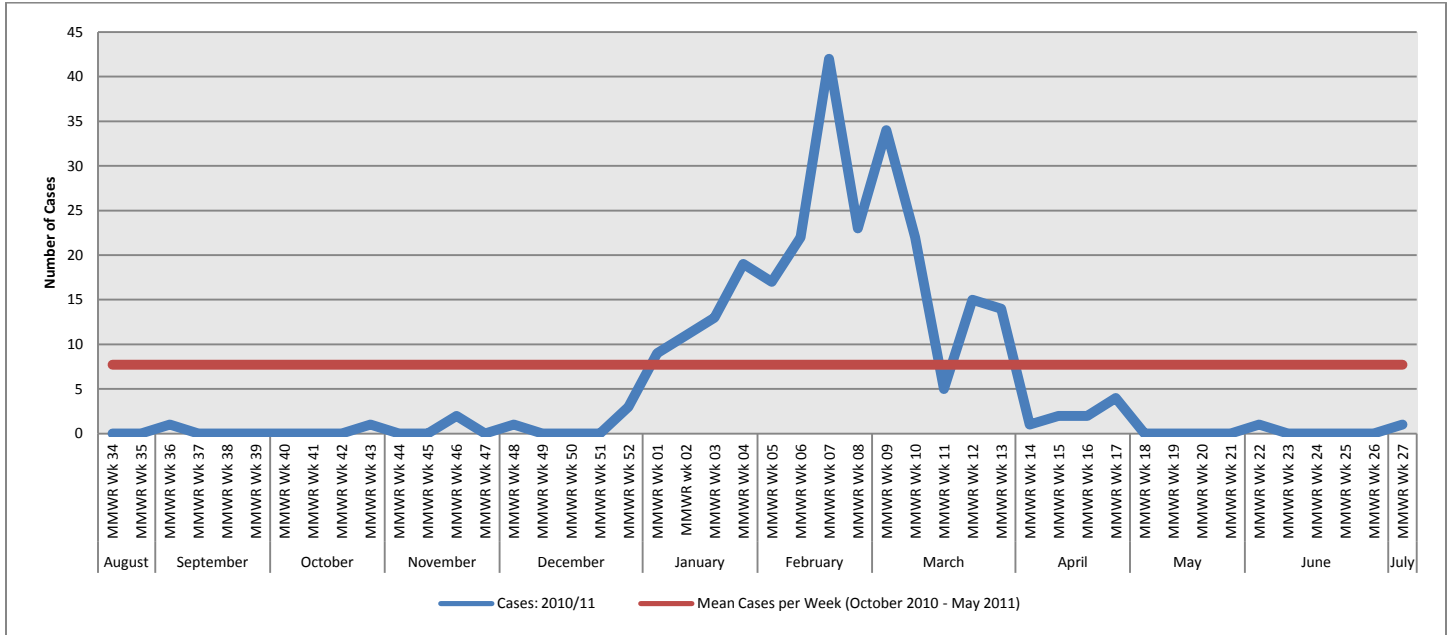


Table 1: Influenza case characteristics (2010/11)

Characteristics	2010/11 (n=265)	
	Number	Percent
Gender		
Male	124	47%
Female	140	53%
Age Group		
<5 Years	59	23%
5-24 Years	105	41%
25-49 Years	44	17%
50-64 Years	13	5%
65+ Years	36	14%
Test Results		
Influenza A	185	71%
Influenza B	72	28%
Influenza A/B	3	1%

Figure 2. Cumulative frequency of influenza cases in Johnson County (2010/11)

