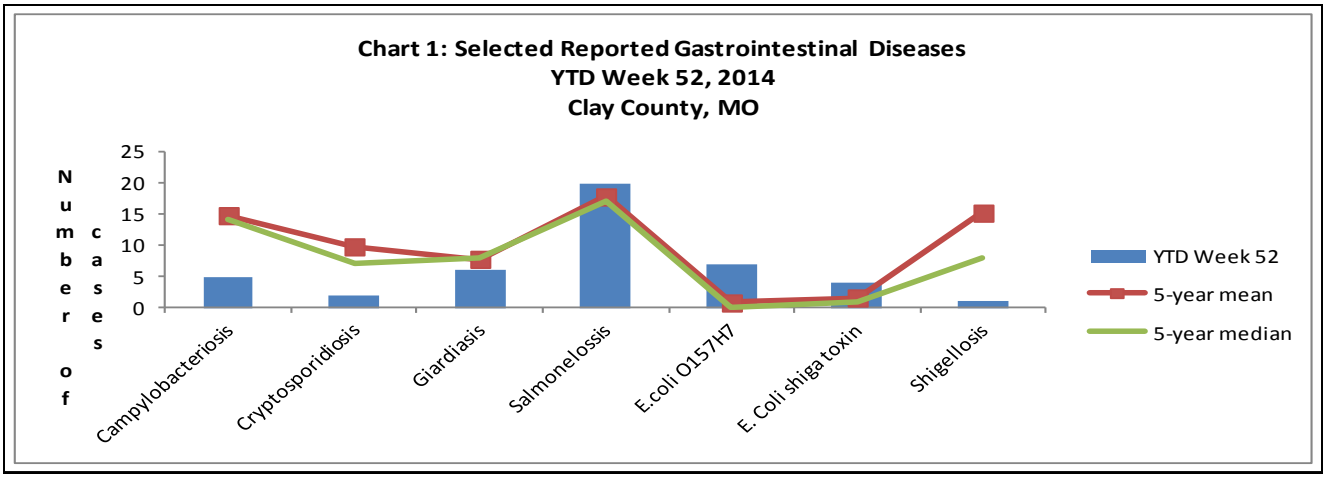
2014 Communicable Disease Report Summary for Clay County Public Health Center

In 2014, Clay County saw a re-emergence of measles; a vaccine preventable disease documented as capable of being eradicated with the availability and use of a measles vaccine. The source of infection of the first case of measles reported in 2014 was not clear. However, some factors increased the susceptibility of the first (index) case to the disease and the spread to some of the household contacts. These factors include that the infant was under the recommended age for the measles vaccine, history of travel to an endemic (with ongoing measles cases) country, unvaccinated adults in the household, etc. Although the goal of public health is to prevent, protect and promote the health of its citizens, the 2014 measles outbreak provided a unique opportunity for citizens to be reminded that vaccination against diseases, availability of antibiotics/antivirals, good healthcare system, etc. are the reasons that the numbers of infectious diseases are on the decline, and no longer the leading causes of death in the United States. The outbreak highlighted the importance of all partners in the local public health system to continue to work together in providing recommended immunizations to the public, to help control the re-emergence of infectious diseases and outbreaks of vaccine preventable diseases. In 2014, haemophilus influenza invasive, another vaccine preventable disease, was reported at above what was expected for the county. However, cases were sporadic in nature and thus not related to an outbreak. A total of 2,183 cases of diseases (excluding animal bites), 1,143 cases of sexually transmitted diseases, 931 cases of influenza, and 109 cases of other reportable disease conditions, were reported to the Health Center.

In 2014, Clay County supported international and U.S efforts to prevent and control the spread of Ebola, a viral hemorrhagic fever in the United States, following CDC and MO Department of Health and Senior Services recommendations, by directly monitoring travelers from the affected countries. The Ebola outbreak of 2014 was the worst ever seen since the disease was identified over 40 years ago in Africa, affecting the western hemisphere for the first time. Four travelers were monitored by the Health Center in accordance to CDC and MODHSS guidelines.
In 2014, we also had the Springfield, Missouri Hepatitis A exposure to a restaurant worker, who worked while sick in a popular restaurant in Springfield during a graduation weekend. In Clay County, efforts were made through prophylaxis of identified exposed individuals, providing Hepatitis A vaccine and/or immunoglobulin to help protect people from developing hepatitis A disease.

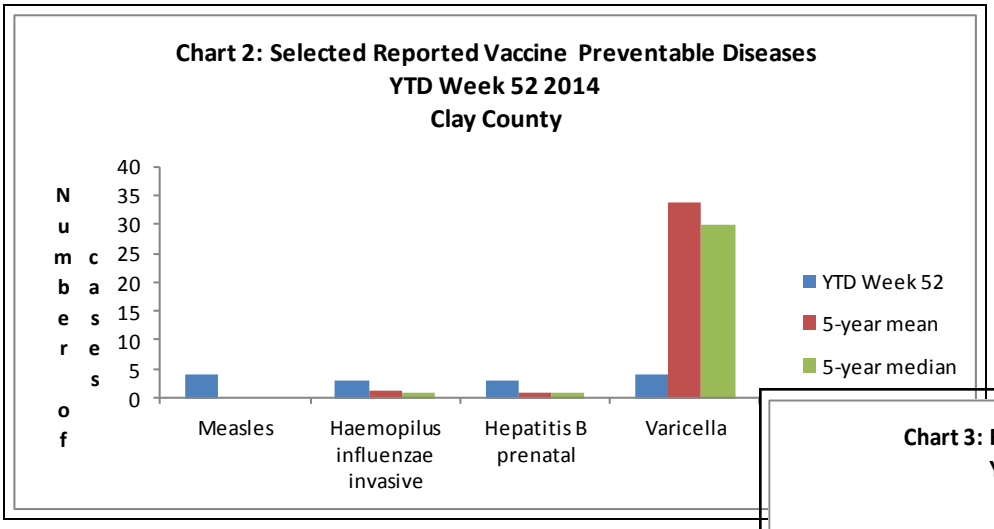
The chart below shows the year to date counts of selected reported diseases in the Clay County jurisdiction, the 5-year mean (the average count for the last five years), and the 5-year median (the middle number for each disease, and also the most likely number).



The data is collected and reported by the Epidemiology Program at Clay County Public Health Center.

Among the reportable diseases that affect the gastrointestinal (GI) system, causing symptoms such as stomach ache, nausea, vomiting and/or diarrhea, four of them namely; salmonellosis, E.coli O157H7, E. coli shiga toxin (non E. coli) and vibrosis were above the five year median numbers of cases expected in the county. The cases of each of these diseases were sporadic in nature and were not related to an outbreak. Most GI diseases can be prevented by proper hand washing, proper handling of raw and cooked foods, proper diagnosis, and prompt following up/treatment of cases. The Health Center continues to work with area providers to help facilitate prompt disease reporting and proper treatment of cases.

Cases of flu were higher than expected. This was not surprising, as the available vaccine was not a total match to the circulating viruses for the 2014-2015 flu season. In December 2014, the CDC reported that approximately two-thirds of the H3N2 viruses tested were antigenically or genetically different from A/Texas/50/2012; the U.S. H3N2 virus included in the vaccine. Most of the drifted H3N2 viruses are A/Switzerland/9715293/2013 viruses, which is the H3N2 virus selected for the 2015 Southern Hemisphere influenza vaccine. For the 2014-2015 flu season, the overall influenza vaccine effectiveness (VE) was estimated at 19% (95% CI: 7%– 29%). In practical terms, this means the flu vaccine reduced a person's risk of having to seek medical care at a doctor's office for flu illness by 19%. The VE estimate against influenza A H3N2 viruses was 18% (95% confidence interval (CI): 6%-29%), and against influenza B viruses was 45% (95% CI: 14% – 65%). The Health Center continues to encourage citizens to be vaccinated against flu, since vaccination remains the first step in flu prevention.

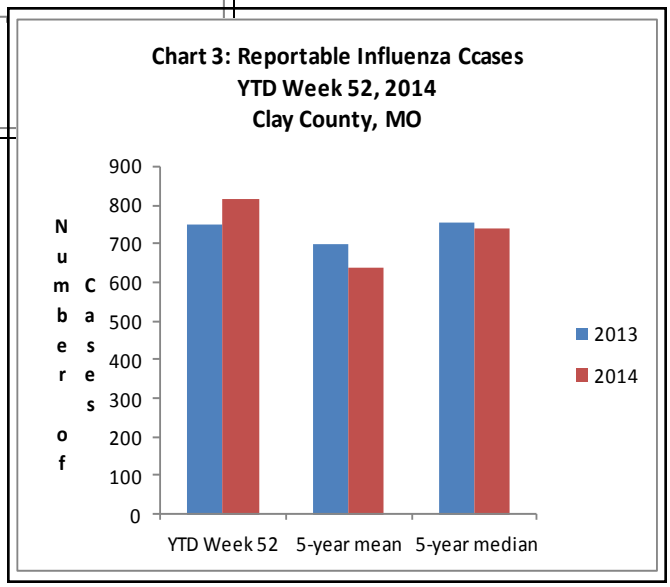


Flu vaccines are designed to protect against the main flu viruses that research suggests will be the most common during the upcoming season.

World Health Organization recommended that trivalent vaccines for use in the 2015-2016 influenza season (northern hemisphere winter) contain the following:

- an A/California/7/2009 (H1N1)pdm09-like virus;
- an A/Switzerland/9715293/2013 (H3N2)-like virus;
- a B/Phuket/3073/2013-like virus.

It is recommended that quadrivalent vaccines containing two influenza B viruses contain the above three viruses and a B/Brisbane/60/2008-like virus.



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