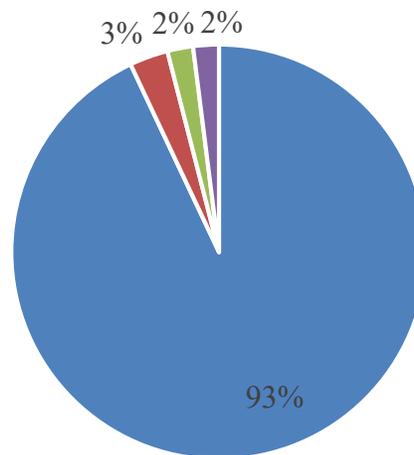




2018 Communicable Disease Summary Report

Per State Statute, the Clay County Public Health Center (CCPHC) Epidemiology (Epi) Program routinely monitors a spread of over 200 reportable diseases and conditions. In 2018, CCPHC received a total of 1,902 reportable condition cases (excluding animal bites and influenza). Among these reports were 1,778 (93%) of newly reported sexually transmitted infections (STIs), 57 (3%) gastrointestinal (GI) conditions, 37 (2%) vaccine preventable conditions and 30 (2%) of other miscellaneous conditions. Figure 1 demonstrates the distribution of cases reported in 2018.

Figure 1: 2018 CCPHC Reportable Condition Reports

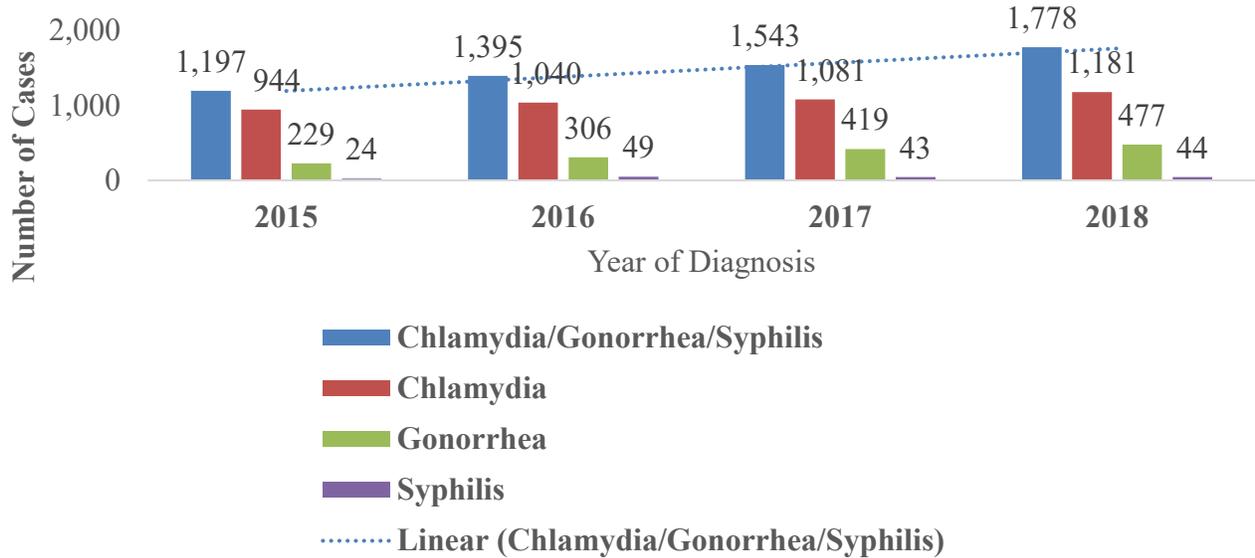


■ STIs ■ GI ■ Vaccine Preventable ■ Misc.

Sexually Transmitted Infections

As noted above, STIs contribute to the bulk of reportable conditions, aside from influenza, in Clay County. Chlamydia and gonorrhea are the two most reported STIs in Clay County followed by Syphilis, then HIV. Figure 2 shows the trend of infection from 2015 through 2018 and clearly demonstrates an upward trend which is also mirrored at the state and national level. These rising trends can be attributed to multiple factors ranging from a decrease in federal funding for STI prevention activities to an increase in local testing and treatment initiatives. A decrease in federal funding limits access to testing and treatment at the state/local levels which in turn increases the level of infection circulating in the community, hence increasing exposure risk regionally. An increase in testing and treatment initiatives in some local jurisdictions leads to a true increase disease detection for surveillance purposes which may be occurring to some extent in Clay County.

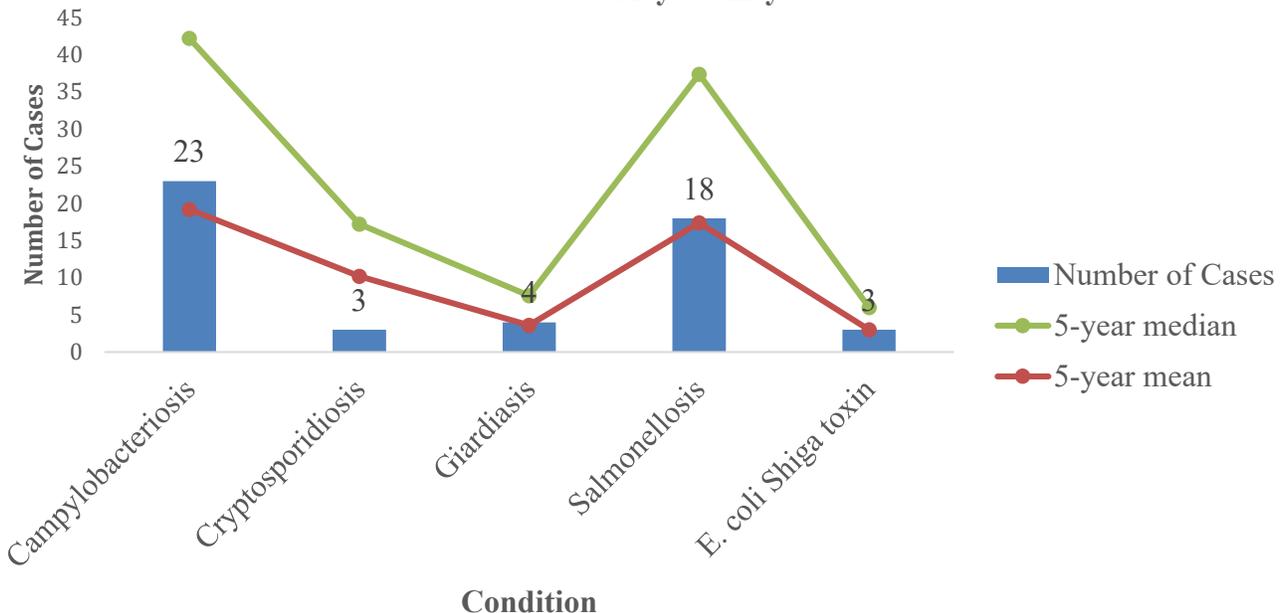
**Figure 2: Selected Reportable Sexually Transmitted Infections
2015-2018
Clay County**



Gastrointestinal (GI) Illness

The second group of infectious routinely reported within Clay County are GI conditions; diagnoses include campylobacteriosis, giardiasis, salmonellosis, shigellosis, and *E. coli*. Figure 3 demonstrates the year-to-date counts of selected reported conditions in Clay County’s 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 the most likely number).

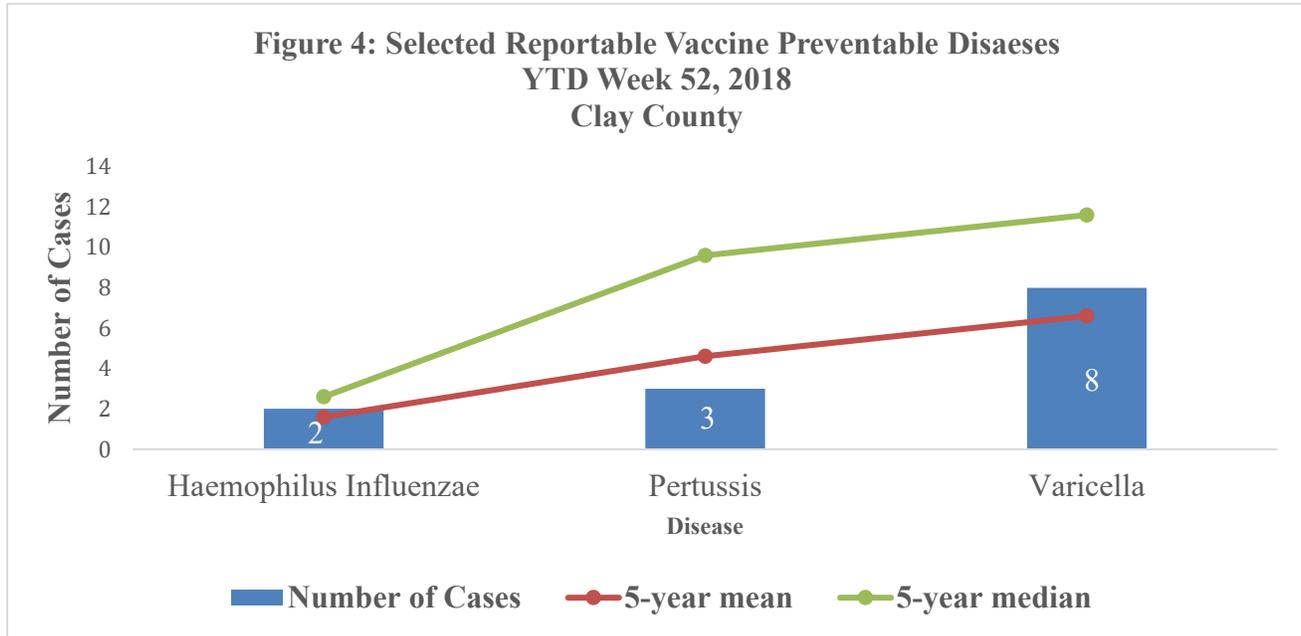
**Figure 3: Selected Reported Gastrointestinal Conditions
YTD Week 52, 2018
Clay County**



The mission of the Clay County Public Health Center is to deliver the essential public health services of prevention, promotion and protection to the communities of Clay County.

Vaccine Preventable Conditions

Although some reportable conditions are vaccine preventable, infections such as Varicella (Chicken Pox), Pertussis (Whooping Cough) and Hemophilus Influenzae continue to be reported every year. In 2018, a total of 37 vaccine preventable infections, excluding influenza, were reported. Figure 4 demonstrates case counts of vaccine reportable conditions reported in 2018.



Influenza

The 2018-2019 flu season provided a break, both in the total number of cases (1,100 for the week ending April 27, 2019), the severity of cases, and the associated hospitalizations/deaths, compared to the 2017-2018 season (2,979 cases) due to strain circulation and vaccine efficacy. According to the Centers for Disease Control and Prevention (CDC) 2018-2019 flu vaccine interim report, the flu vaccine effectiveness for general population is a 47% match against laboratory-confirmed influenza and is 61% effective for children aged 6 months to 17 years.¹ In 2016-2017 season, influenza A(H3N2) virus dominated and caused more hospitalizations and deaths especially among children and people age 65 and older. However, in 2017-2018 season, 74% of the flu cases were due to influenza A(H1N1)pdm09 virus-type; the vaccine effectiveness for this strain was estimated at 46%.¹

Outbreak Investigations

GI illnesses account for most of the outbreaks investigated by the Epidemiology Program on an annual basis. In 2018, the Epidemiology program investigated one sporadic GI illness outbreak of unknown etiology in a skilled nursing facility. For thorough investigation of the outbreak, stool samples were collected and sent to both the State Public Health Laboratory and a commercial laboratory for testing. All results for viruses, bacteria and oval parasites came back negative. This outbreak resulted in a total of 34 cases (25 residents and 9 staff members) reporting nausea, vomiting and/or diarrhea. No severe complications or deaths were reported among cases. The Health Center contained the outbreak with proper coordination and collaboration with hospital partners. In addition, no community cases were linked to this skilled nursing care facility outbreak.

To further discuss infection prevention efforts conducted by the Epi Program, a Measles outbreak occurred in Kansas City metro area in 2018 in which Clay County attributed to containment. The jurisdiction witnessed many exposures, but no case of disease was identified in any county resident.

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Program staff followed up with individuals identified to be exposed and provided education and immunization resources. The coordinated efforts between the Health Center, other public health partners and businesses can be credited for the protection of citizens in the county.

References

1. Centers for Disease Control and Prevention, MMWR: Interim Estimate of 2017 Seasonal Influenza Vaccine Effectiveness – United States, February 2018.
<https://www.cdc.gov/mmwr/volumes/68/wr/mm6806a2.htm>