

KENT COUNTY HEALTH DEPARTMENT

EPI FOCUS

2017 Communicable Disease Summary

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HEPATITIS A

During 2017, there were 633 cases of Hepatitis A diagnosed in Michigan as part of a state-wide outbreak, primarily located in Oakland, Monroe, and Wayne Counties in Southeast Michigan. 509 of these cases were hospitalized and there were 20 deaths.

KENT COUNTY

In 2017, Kent County had 1 Hepatitis A case linked to the outbreak. There are typically 1-2 cases of Hepatitis A per year in Kent County.

HIGH-RISK POPULATIONS

Hepatitis A can be transferred by eating contaminated food, during sex, or living with someone with Hep A. High-risk populations include: people who are homeless, incarcerated or formerly incarcerated, drug users, and men who have sex with men. These populations are encouraged to seek out the Hep A vaccine.

INTRODUCTION

Prevention and control of communicable disease is a necessary and critical aspect of assuring community health and is an affirmative duty of local public health departments. To this end, the Kent County Health Department (KCHD) monitors the occurrence of over 80 communicable diseases on a community-wide basis. Health care providers in Kent County are a critical component of our surveillance system. As such, it is important that KCHD provide feedback on disease trends in our community.

This edition of Epi Focus provides surveillance data on the following diseases: campylobacter, shigellosis, giardiasis, salmonellosis, HIV/AIDS, chlamydia, gonorrhea, pertussis, Lyme disease, tuberculosis and influenza. Please take a moment to review these data and contact us at 616-632-7228 should you have any questions or comments.

What are reportable diseases?

A reportable disease is any disease, condition, infection or suspect occurrence of disease that is required under Michigan State Law (Section 5111 of Act. No. 368 of the Public Acts of 1978, as amended, being 333.511 of the Michigan Compiled laws) to be reported by physicians, laboratories, schools, daycare centers, and camps to the local health department.

The list of reportable diseases, along with details on how to report to the local health department, can be found in the [Health Care Professionals Guide to Disease Reporting in Michigan](#).

MICHIGAN DISEASE SURVEILLANCE SYSTEM (MDSS)

The Michigan Disease Surveillance System (MDSS) is a web-based communicable disease reporting system that facilitates coordination among local, state and federal public health agencies during follow-up investigations of communicable disease events. Along with the Michigan Syndromic Surveillance System (MSSS), these tools provide real-time access for data entry and analysis to improve the timeliness of public health interventions.

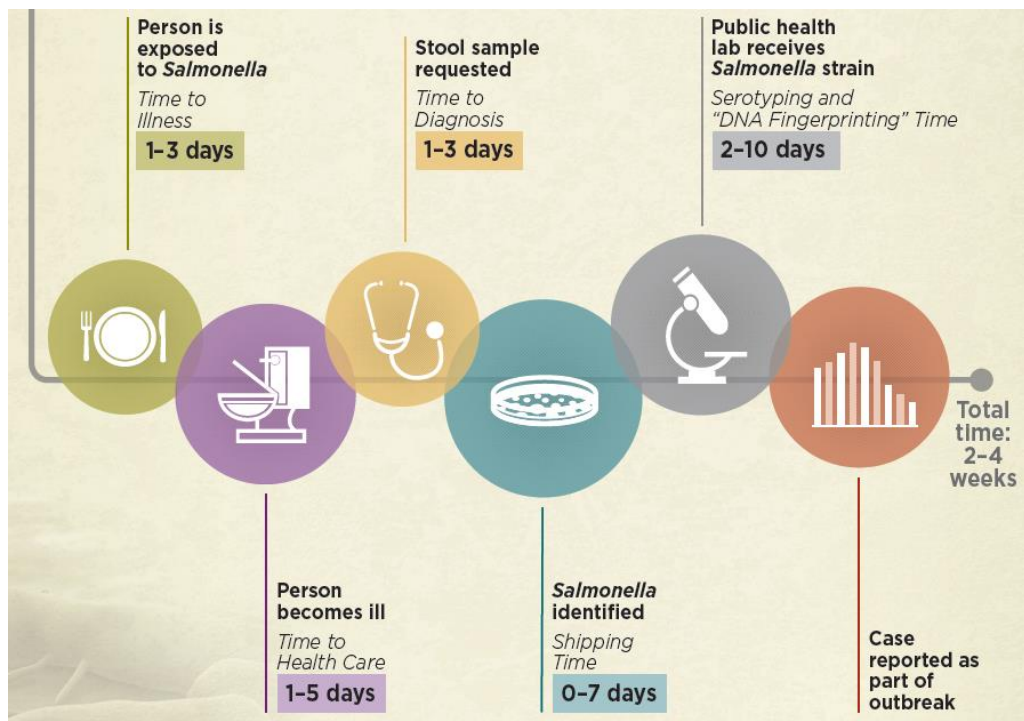
All data presented in this report were obtained from the MDSS and MSSS. If you would like to learn more about these systems or are interested in becoming a user, additional information can be found using the following links: [MDSS](#), [MSSS](#).

GASTROINTESTINAL ILLNESSES

A variety of infectious agents can cause gastrointestinal illnesses, and testing does not always identify the cause. Once a report of gastrointestinal illness is received by KCHD, Communicable Disease and Epidemiology (CD/Epi) Unit staff initiate an investigation into potential exposures that may have caused the patient's illness. Patients are asked for travel history, water exposures (swimming and drinking water), animal contacts, exposure to other ill individuals and food history. The goal of these investigations is to identify community risks that threaten the public's health. These threats can be localized, such as *Cryptosporidium* contaminated water at a park or widespread, such as food products contaminated with *Salmonella* at a processing facility. Whatever the source of infection once identified, KCHD works with other public health partners at the local, state and federal level to prevent further spread.

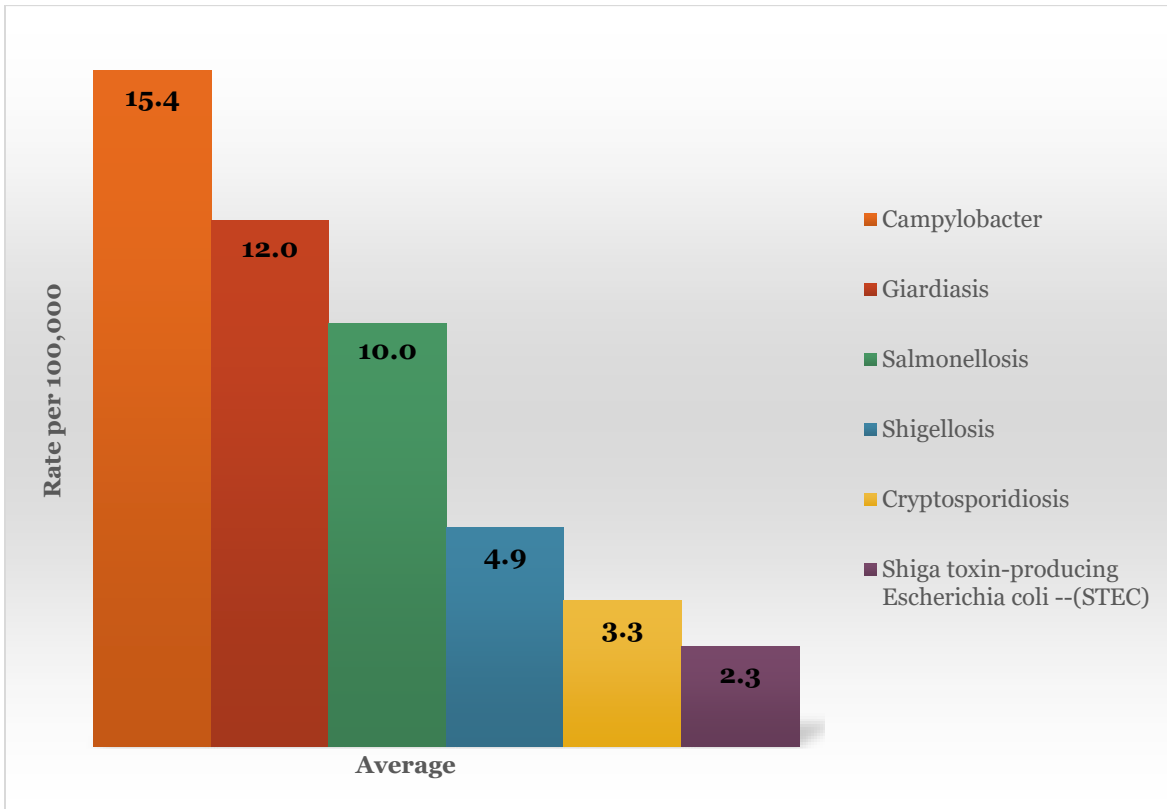
Due to the length of time between a patient's onset of symptoms and completion of an epidemiologic interview with KCHD CD/Epi staff, recall of exposures is often difficult. In the case of salmonellosis, patients are asked to provide a seven-day food history. Health care providers can assist in identifying potential sources of illness by obtaining a meal and travel history from patients who present with gastrointestinal symptoms. Obtaining this information early in the disease process limits recall bias and provides valuable information to the investigation initiated by KCHD.

In 2017, several local laboratories began implementing Culture-Independent Diagnostic Testing (CIDT) for gastrointestinal pathogens. Surveillance case definitions from the Centers for Disease Control and Prevention (CDC) require that a positive culture be reported to public health departments for a case of GI illness to be considered confirmed. For several gastrointestinal pathogens (*Campylobacter*, *Salmonella*, *Shigella*, *Cryptosporidiosis* and *Escherichia coli*), a positive CIDT constitutes a probable case based on the surveillance case definition. Previous versions of this report only included data on confirmed cases, but because of the shift to CIDT among local laboratories, data presented here for all gastrointestinal infections save for giardiasis include both confirmed and probable cases.



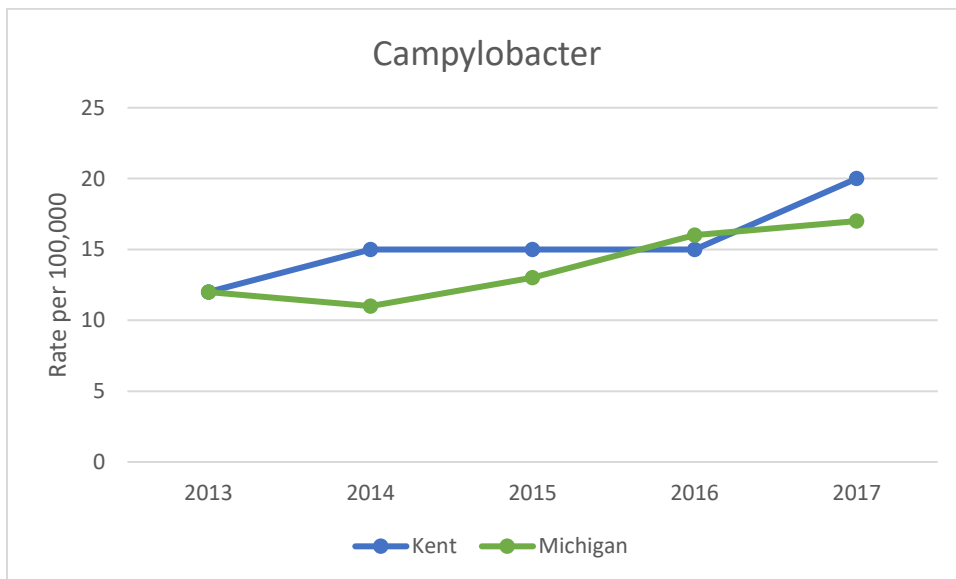
<http://www.cdc.gov/salmonella/resources/timeline-for-reporting-of-cases.pdf>

Gastrointestinal Illnesses of Greatest Frequency, Kent County, Five-Year Averages (2013-2017)



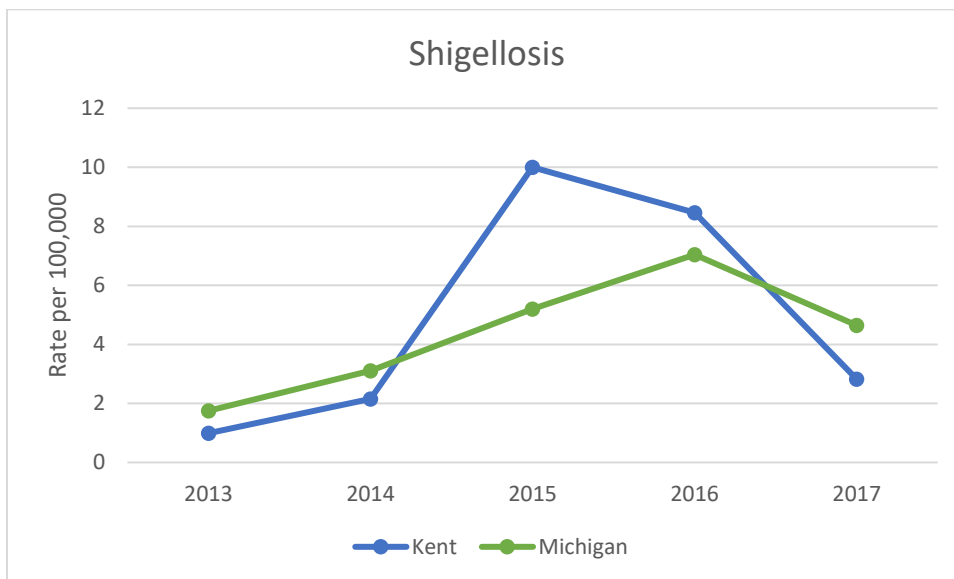
Campylobacter

Campylobacter is an infectious bacterium typically acquired from eating undercooked poultry or contaminated dairy or produce. It is one of the most common causes of diarrheal illness in the United States. In 2017, 121 cases of *Campylobacter* were reported to KCHD, well above the five-year average of 88 cases per year from 2012-2016. It is possible that the increase in the number of cases is due to the growth of culture-independent diagnostic testing (CIDT) and the move to including both confirmed and probable cases in the annual count. Nearly half (48%) of the cases were reported in individuals 40 years of age and older, with those 70 and older accounting for 13% of all cases. Twenty-eight (28) of the cases had out of state or international travel in the month before getting sick. The CDC recognizes that international travel is a cause of about 1 in 5 cases of *Campylobacter* infection.



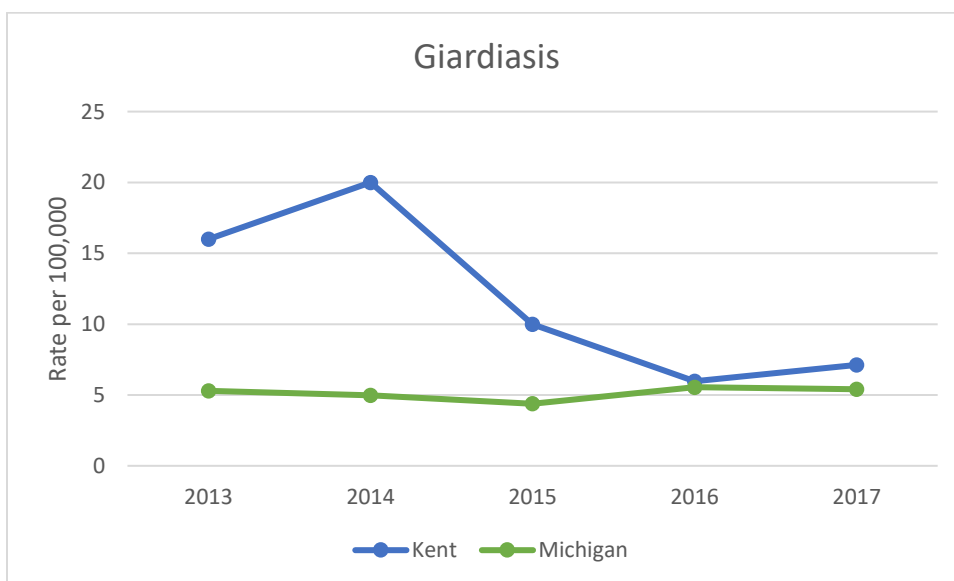
Shigellosis

Shigellosis is an infectious bacterial disease which causes diarrhea, and usually resolves itself in 5 to 7 days. It can be acquired by swimming in water contaminated with the bacteria, contact with a sick person, or eating food prepared by someone who is infected. In Kent County, the rate of shigellosis dropped below the average in Michigan after a spike in cases in 2015 and 2016. 2017 saw only 17 cases of shigellosis, compared to 61 in 2015 and 54 in 2016. This may mark a return to the average levels of 11 cases per year between 2012 and 2014. The CDC reports that young children are most likely to get shigellosis, but there were only 3 children under the age of 10 with shigellosis in Kent County in 2017.



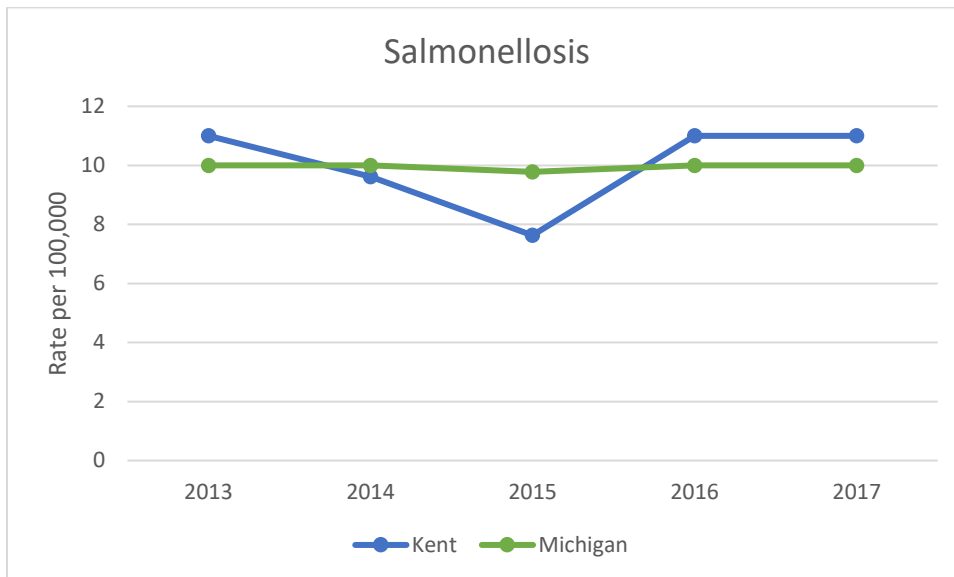
Giardiasis

Giardiasis is a diarrheal disease caused by the microscopic parasite *Giardia* found in contaminated water sources. It can be acquired by swimming in contaminated water, eating contaminated food, or picking it up from a surface contaminated with feces. There rate of giardiasis increased only slightly in 2017 and was similar to the state-wide rate. Only 43 cases of *Giardia* were reported in 2017, down from a high of 123 in 2014. Forty-six percent (46%) of cases were reported in those under the age of 20, with 35% under the age of 10, reflecting that many of those who get the parasite are children. Of the 43 cases, 14 were refugees and 3 were international adoptees (~40%) while another 5 had traveled out of the country.



Salmonellosis

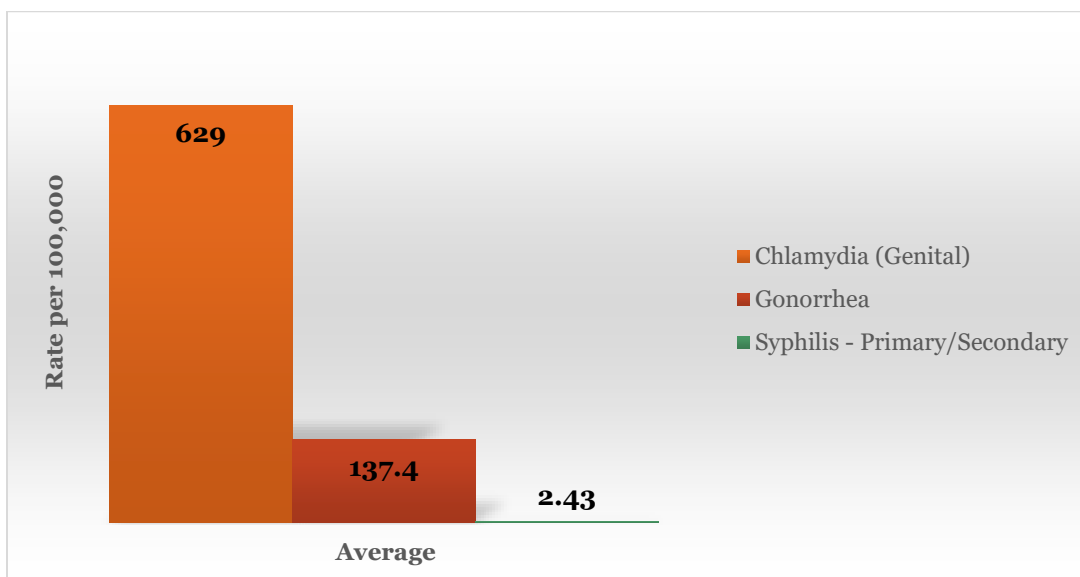
Salmonella is a bacterium causing diarrhea, cramps, and fever and usually resolves itself after one week. It is typically caused by eating contaminated food. Between 2012 and 2016, there was an average of 60 cases reported each year. The 2017 count was slightly above average with 66 cases. The CDC reports that young children are most likely to get salmonellosis, but in Kent County, the age range is skewed to older cases of salmonellosis. Only 6% of cases were under the age of 10 while 23% were 65 years of age and older.



SEXUALLY TRANSMITTED INFECTIONS

KCHD offers counseling, testing and treatment for chlamydia, gonorrhea, and syphilis. Counseling and testing for HIV are also available. In addition to testing, the department provides assistance in contacting partners of individuals that have been diagnosed with these infections. Health care providers should report all confirmed cases of chlamydia, gonorrhea and syphilis to the health department by fax at 616-632-7185. Faxed reports should include patient demographics, laboratory results and treatment information. Forms and instructions for reporting cases of HIV can be found [here](#).

Sexually Transmitted Infections of Greatest Frequency, Kent County, Five-Year Averages (2013-2017)

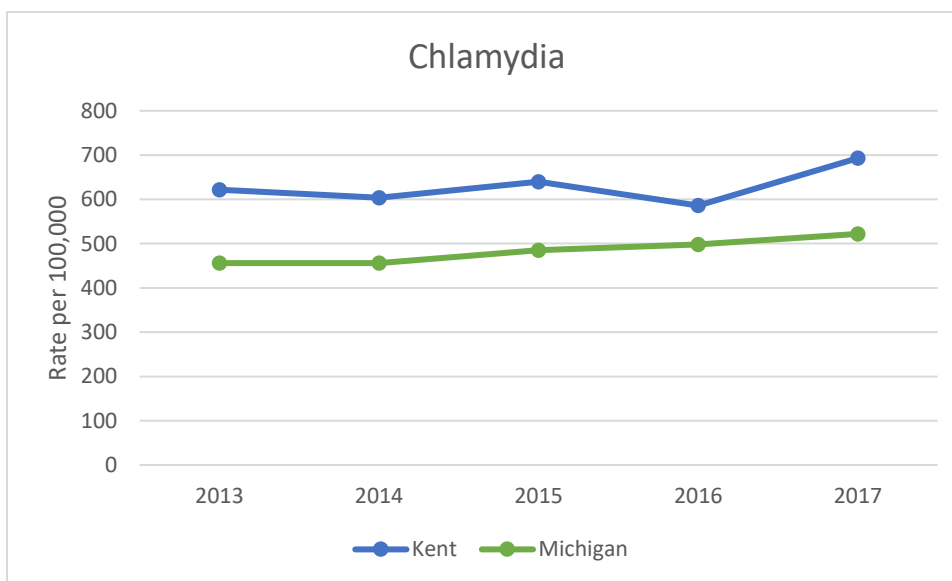


HIV/AIDS

In 2017, there were 37 new cases of HIV reported in Kent County residents and 10 new diagnoses of AIDS. This compares to 33 cases of HIV and 13 AIDS diagnoses reported during 2016. KCHD offers both conventional blood testing and rapid testing for HIV. Results from conventional tests are available within 10 days and patients must return to the health department to receive their test result. Rapid test results are available within 30 minutes at the same visit. Partner Services are offered to all individuals who test positive for HIV. Offering testing and counseling to contacts of positive cases is very important, so they may get appropriate medical care and help stop the spread of infection to others.

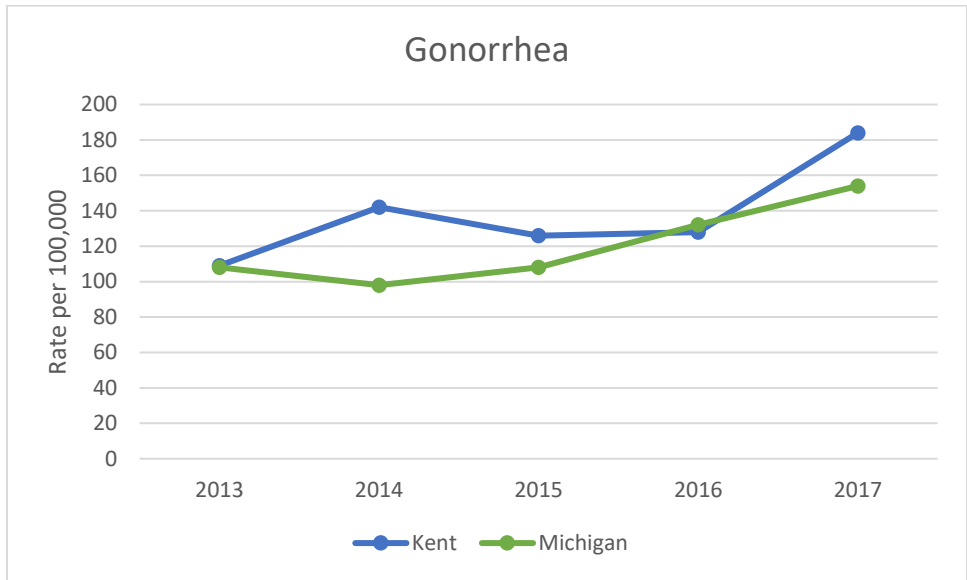
Chlamydia

There was a 20% increase in the number of cases of chlamydia in 2017, with 4,240 cases reported to KCHD. The increase of 699 cases brought the 2017 count well above the 5-year average of 3,648. Reported cases of chlamydia continue to be most common among college-aged females. Nearly two-thirds of all cases were female. Twenty four percent (24%) of all cases were 20-24-year-old females, while 56% of all cases were females between 15-29. Because many infections are asymptomatic in sexually active females, sexually active women age 25 years and younger and older women with risk factors (new sex partner or multiple sex partners) should have an annual screening for detection of an asymptomatic infection.



Gonorrhea

Both Kent County and Michigan experienced increases in the rate of gonorrhea from 2016 to 2017. Kent County saw a startling 44% increase in the number of cases of gonorrhea from 772 cases in 2016 to 1,109 cases in 2017. Like chlamydia, the number of cases in 2017 was significantly higher than the 5-year average of 736 cases. Twenty-seven (27%) of all cases were between 20 and 24 years of age and 67% of cases were between 15-29 years of age. Unlike chlamydia, gonorrhea was more common in males than females, with 56% of cases in 2017 reported in males. Further, gonorrhea is more prevalent in older populations than chlamydia, with 20% of cases occurring in the 30-39-year-old age group as compared to 11% of those diagnosed with chlamydia.



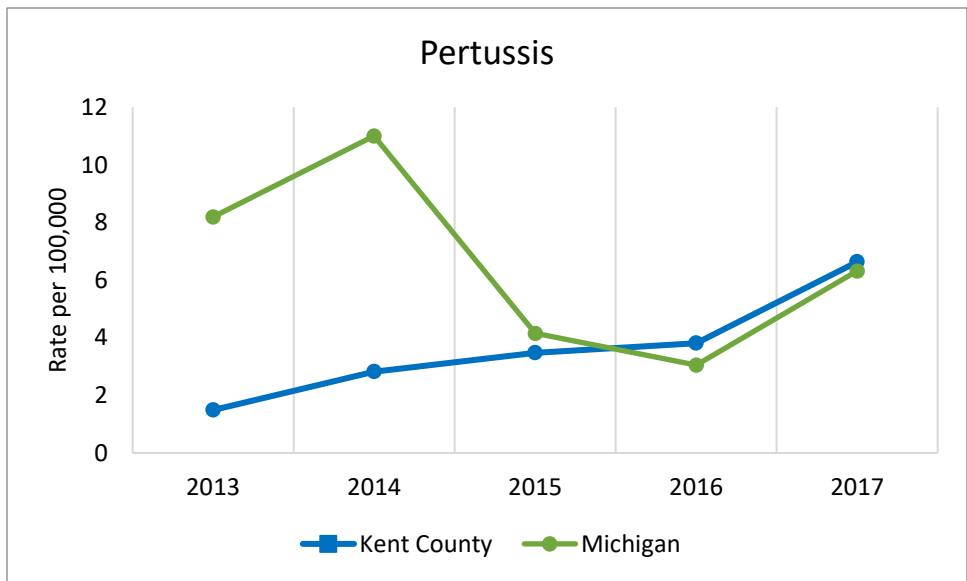
VACCINE PREVENTABLE DISEASES

Prevention of many vaccine preventable diseases occurs not only through immunization, but also through post-exposure prophylaxis of individuals identified as contacts of confirmed cases. When KCHD receives a confirmed report of pertussis, meningococcal disease, *Haemophilus influenzae* type B infection, mumps, measles or hepatitis A, an investigation will be initiated to determine contacts at risk of becoming infected. Once identified, KCHD arranges for the appropriate prophylaxis (antibiotics, IG, and/or vaccination).

Pertussis

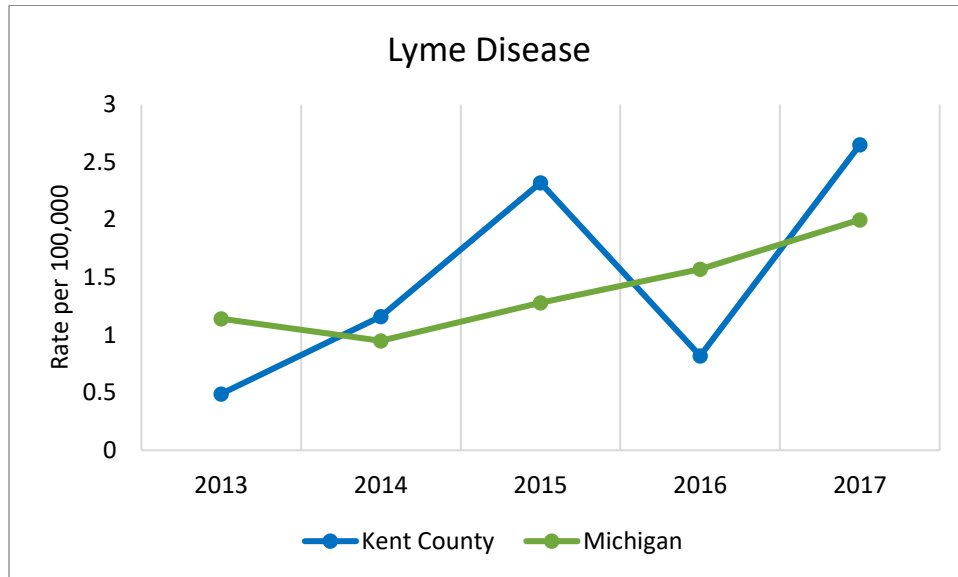
There was a 74% increase in the number of pertussis cases of pertussis in 2017 from 23 to 40, well above the 5-year average of 16. All but four of the cases reported in 2017 occurred in patients under the age of 18. Three cases occurred in children under the age of 1 and 18 occurred in children under the age of 5. Twenty-three cases reported at least two doses of vaccine, with most vaccinated cases receiving 4-6 doses. Fourteen (14) of the 40 cases were unvaccinated.

To adequately assess the impact of pertussis in Kent County, physicians are encouraged to consider pertussis in the differential diagnosis of patients with cough illness lasting 2 weeks or longer. Clinicians should collect nasopharyngeal swab or aspirate specimens from suspected cases of pertussis for culture or polymerase chain reaction (PCR) testing. Serologic methods are not appropriate for diagnosis of pertussis (except in rare instances).



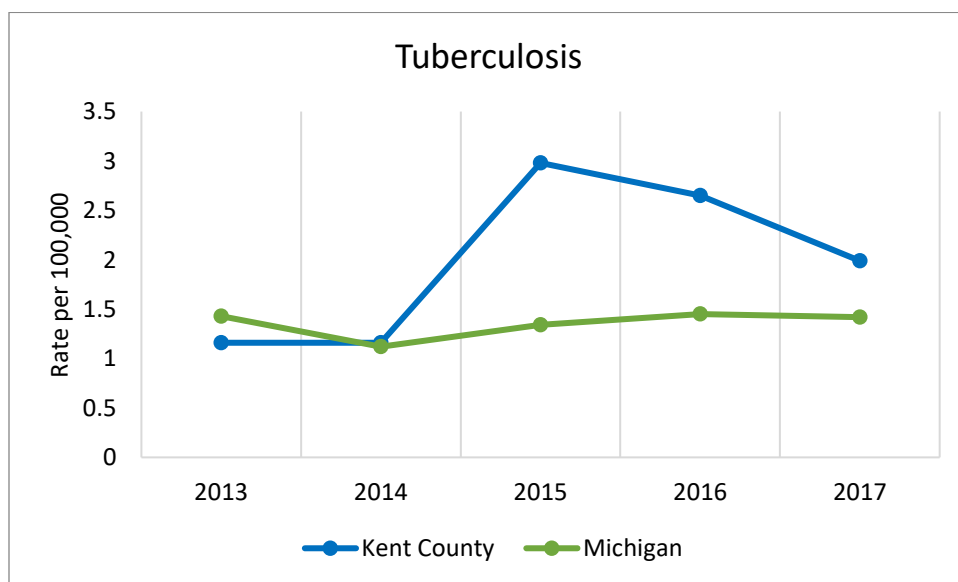
Lyme disease

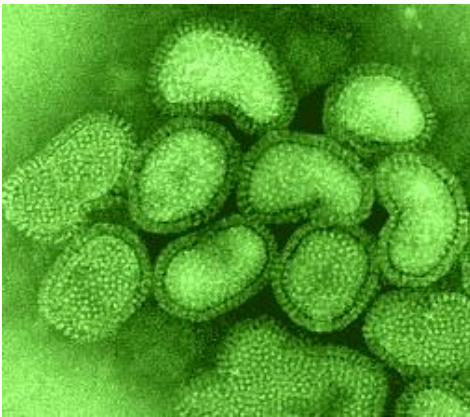
2017 saw the largest number of Lyme Disease cases recorded in the last 5 years with 16. Of the 16 cases, only one was suspected of originating in Kent County, with the other cases originating in other counties in Michigan such as Manistee or Oceana. Fourteen of the 16 cases recalled traveling in the 30 days prior to diagnosis. Kent County is considered endemic for Lyme disease and individuals venturing outdoors should take appropriate precautions to [prevent tick bites](#). Because transmission of the bacteria that causes Lyme disease requires the tick to be attached for more than 36 hours, it is critical that individuals inspect their skin after exposure to tick habitats and properly [remove ticks](#) if found.



Tuberculosis

The 12 cases of tuberculosis in 2017 were fewer than the 16 cases in 2016 and similar to the 5-year average of 13 cases/year from 2012 to 2016. Ten (10) out of the 12 cases were born outside the U.S. and only 2 of these cases were refugees. Individuals of Asian descent accounted for half of cases while 2 of the cases identified as Hispanic/Latino. For two years in a row, the percentage of cases of those originating in Asian countries was higher based on historical averages while the percentage of cases from Hispanic countries was lower based on averages.





<http://virologyhistory.wustl.edu/images/flu3c.gif>

INFLUENZA

Reports of positive influenza tests (e.g. rapid tests) from local health care providers are useful in providing an indication of local influenza-like illness (ILI) activity. During the previous three influenza seasons in Kent County, the peak level of flu activity occurred during the last week of December or first week of January. During the 2017-2018 season, activity peaked during the week ending January 31 with 600 cases of flu reported. Data from the Centers for Disease Control and Prevention (CDC) for the past 34 influenza seasons (1982-1983 to 2015-2016) indicate that flu activity most often peaked in February (14 seasons), followed by December (7 seasons), March (6 seasons) and January (5 seasons).

Contact Us

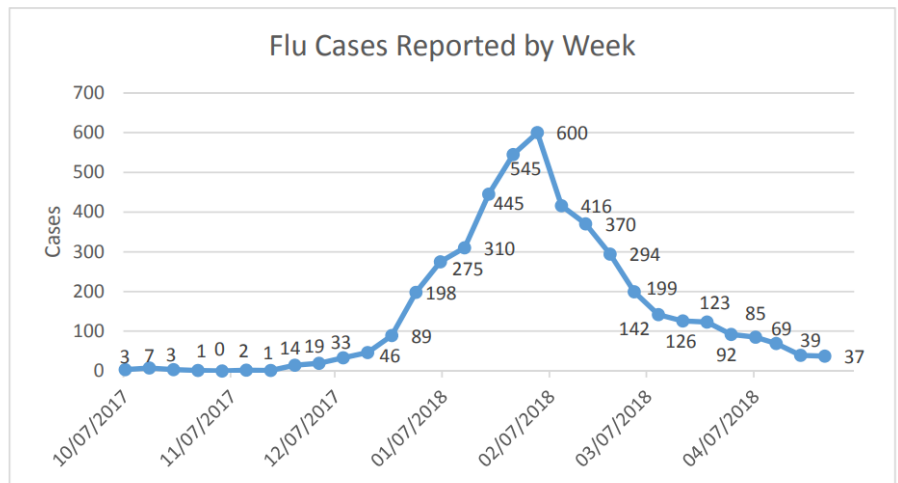
Kent County Health Department

700 Fuller Ave NE
Grand Rapids, MI 49503
Phone: 616-632-7228
Fax: 616-632-7085

www.accesskent.com/Health



According to the CDC, 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) and high influenza-related hospitalization rates. The 2017-18 season was the first season to be classified as a high severity across all age groups. Influenza A (H3N2) viruses predominated but influenza B viruses became more commonly reported than influenza A viruses in early March 2018 through May 2018. The overall vaccine effectiveness (VE) of the 2017-2018 flu vaccine against both influenza A and B viruses was estimated to be 40%.



STAY UP TO DATE ON LOCAL DATA

Additional reports on communicable diseases in Kent County can be found at the following web site:

<https://accesskent.com/Health/CommDisease/reports.htm>