

KENT COUNTY HEALTH DEPARTMENT

EPI FOCUS

2018 Communicable Disease Summary

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LEGIONELLOSIS

The number of cases of legionellosis increased substantially in Kent County from an average of 7 between 2014 and 2017 to 25 in 2018. A similar trend was seen statewide, where case increased to 590 from an average of 272.

HIGH-RISK POPULATIONS

Individuals who are current or former smokers and those with chronic lung disease, weakened immune systems or chronic conditions (cancer, diabetes) are at increased risk of becoming sick from *Legionella* bacteria.

CULTURE TESTING

Health care providers are encouraged to collect specimens for culture testing, if possible, as culture results are necessary to link illness with environmental exposures during public health investigations.

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 EpiFocus provides surveillance data on the following diseases: campylobacter, shigellosis, giardiasis, salmonellosis, HIV/AIDS, chlamydia, gonorrhea, pertussis, West Nile Virus, Lyme disease, legionellosis, 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.

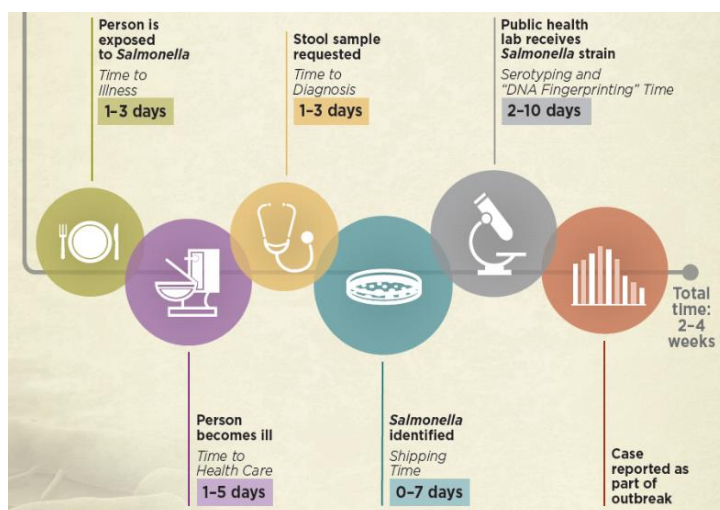
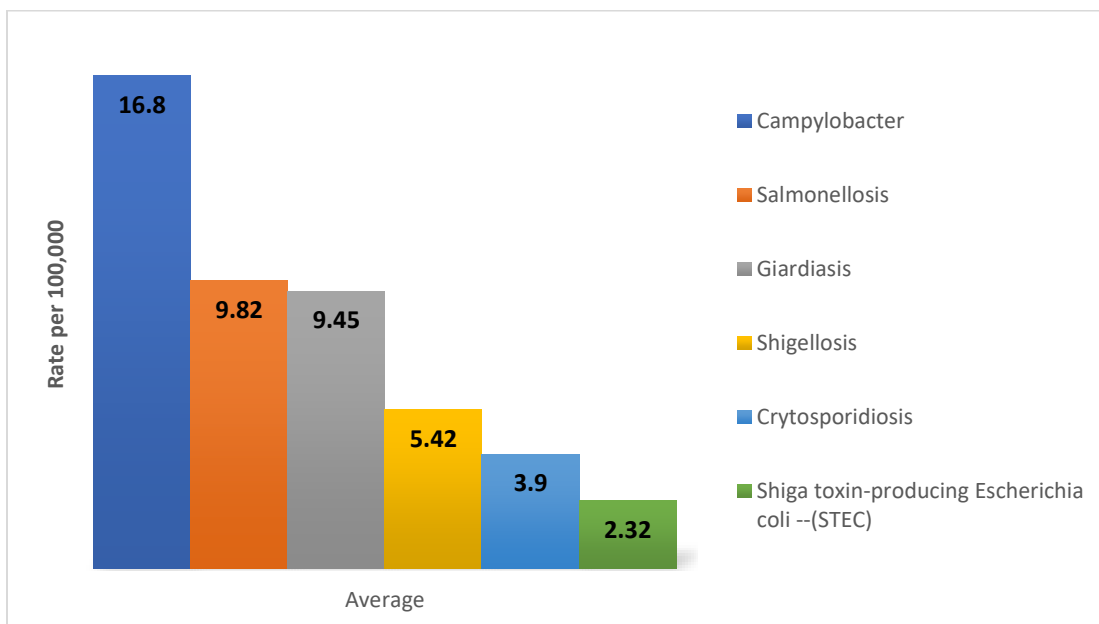
All data presented in this report were obtained from the MDSS and MSSS. If you would like to learn more about these systems or are interested in becoming a user, additional information can be found using the following links: [MDSS](#), [MSSS](#).

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.

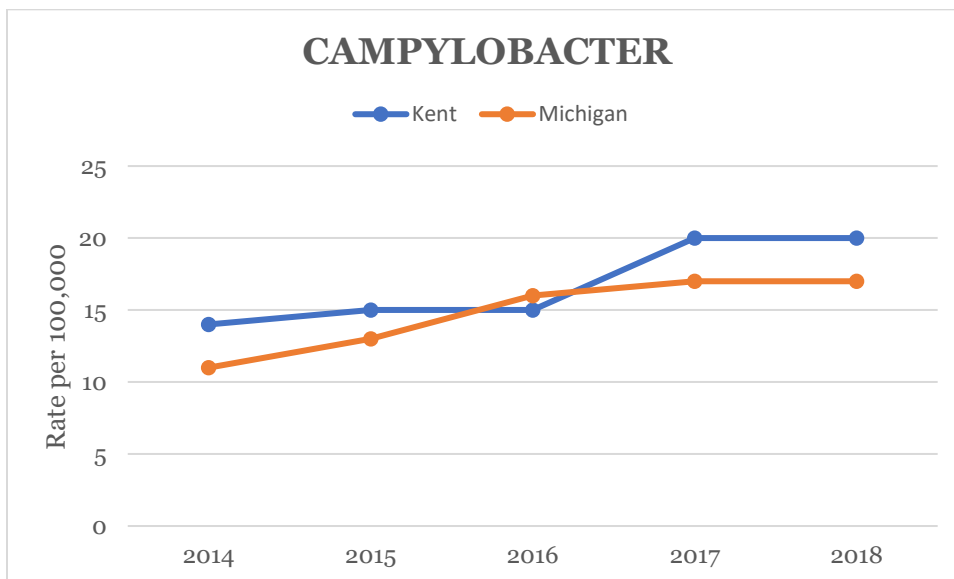
Gastrointestinal Illnesses of Greatest Frequency, Kent County, Five-Year Averages (2014-2018)



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

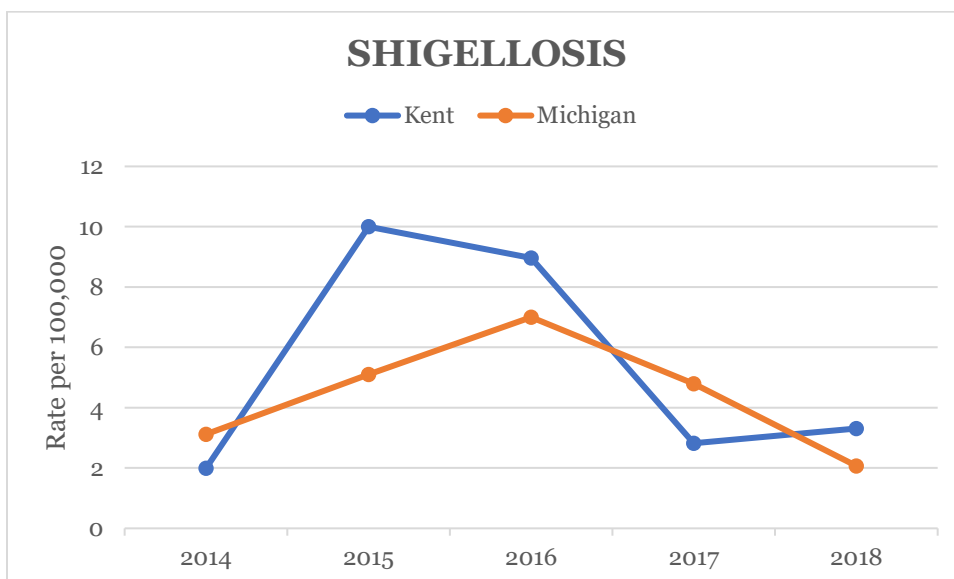
Campylobacter

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 2018, 125 cases of *Campylobacter* were reported to KCHD, well above the average of 100 cases per year from 2014-2017. While nearly half of all cases were reported in individuals 45 years of age and older, individuals 25 to 34 years of age accounted for 20% of all cases. Thirty-six (36) 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 *Campylobacter* cases.



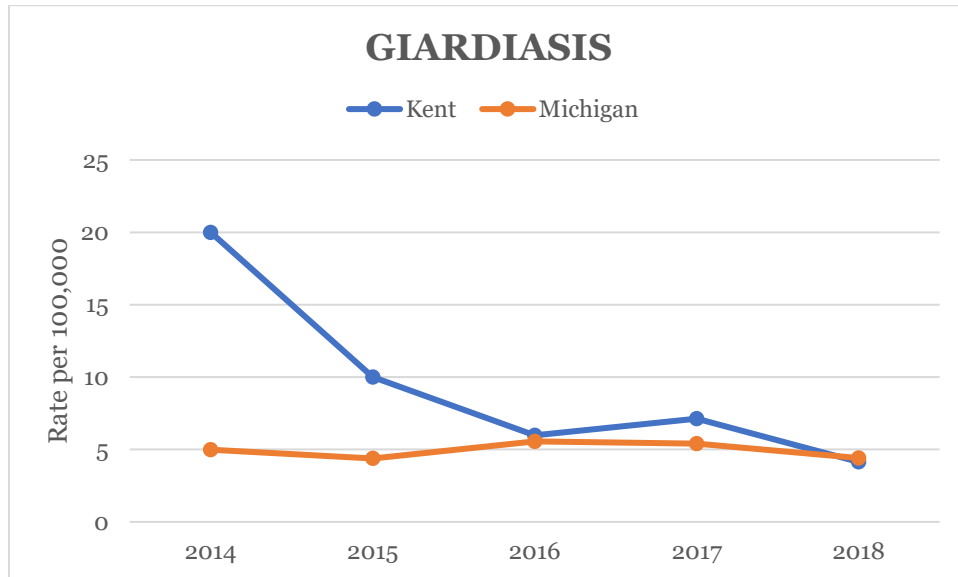
Shigellosis

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 has declined significantly since a spike in cases occurred in 2015. 2018 saw 20 cases, which is up 3 cases from the 17 reported in 2017, but still much lower compared to the 61 in 2015 and 54 in 2016. The CDC reports that young children are most likely to get shigellosis, but there were only 3 children under the age of 10 reported with shigellosis in Kent County in 2018.



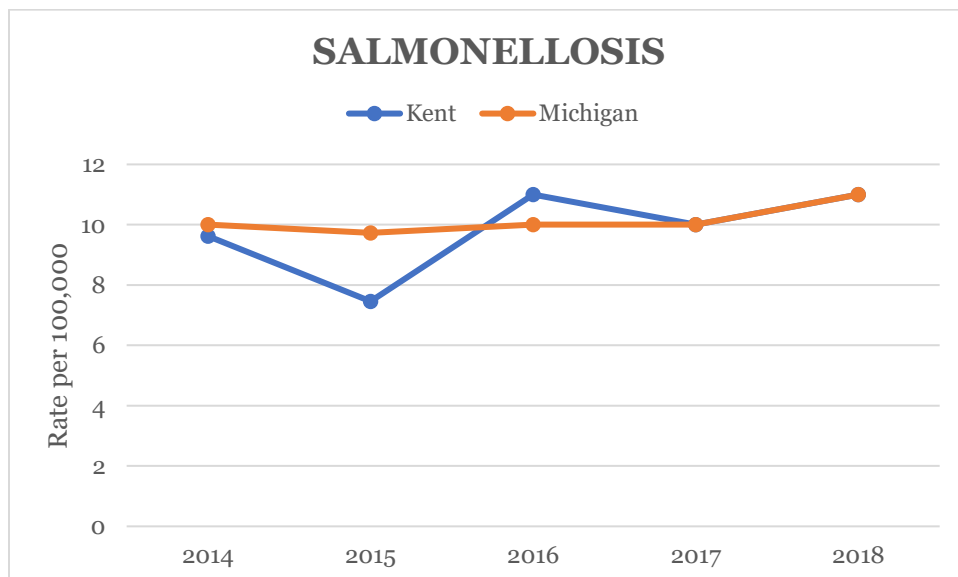
Giardiasis

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 was a small dip in the rate of *Giardiasis* in 2018, resulting in a rate that is very similar to the state-wide rate. Only 25 cases of *Giardia* were reported in 2018, down from the 43 reported in 2017 and a high of 123 in 2014. In 2017, we saw a higher number of *Giardiasis* cases in children with 40% of the cases occurring in those under the age of 10. This pattern was not detected in 2018. Rather, children under 10 years old only accounted for 20% of total cases, while those 40 years of age and older accounted for 52%.



Salmonellosis

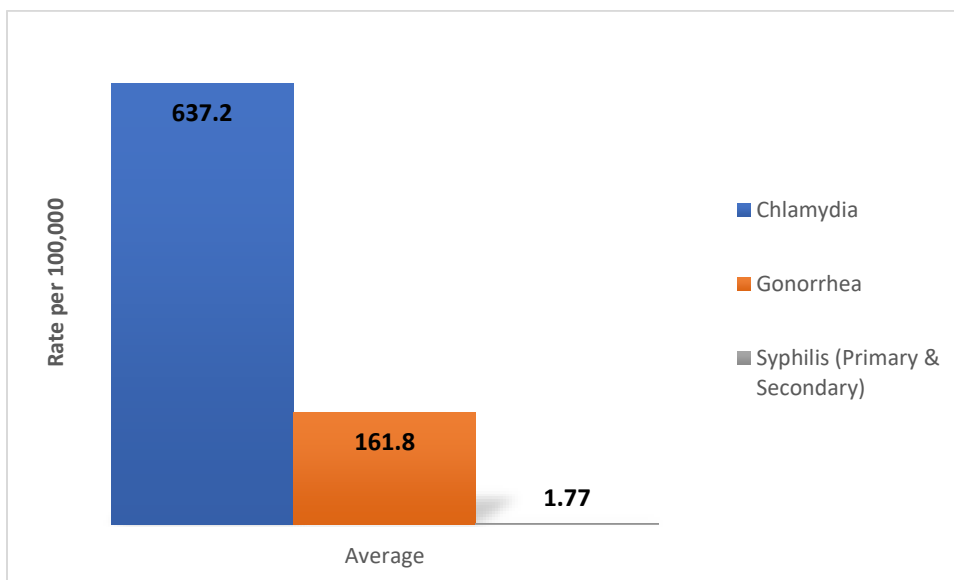
Salmonella is a bacterium causing diarrhea, cramps, and fever and usually resolves itself after one week. It is typically caused by eating contaminated food. Between 2014 and 2017, there was an average of 59 cases reported each year. The number of reported cases in 2018 was slightly above average at 68. The CDC reports that young children are most likely to get salmonellosis, but in Kent County, the age range of reported cases in 2018 was skewed to older individuals. Only 15% of cases were under the age of 10 while 22% were over the age of 60.



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 (2014-2018)

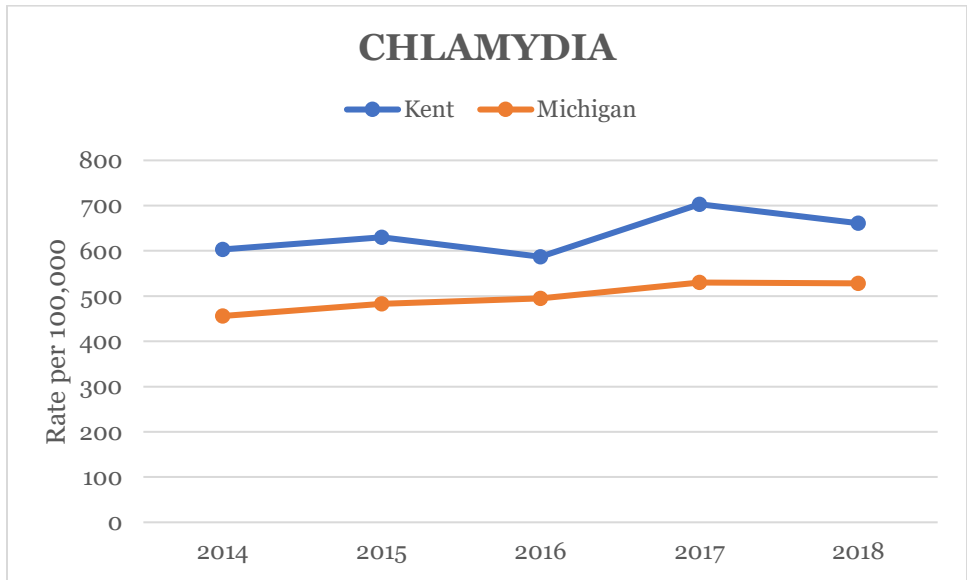


HIV/AIDS

In 2018, there were 30 new cases of HIV reported in Kent County residents and 8 new diagnoses of AIDS. This compares to 37 cases of HIV and 10 AIDS diagnoses reported during 2017. 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.

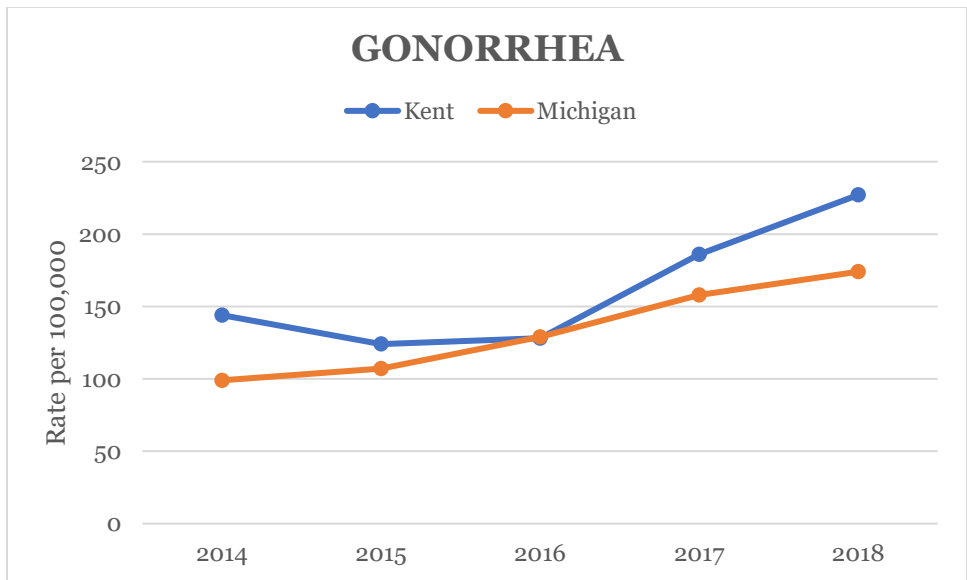
Chlamydia

There was a 6% decrease in the number of cases of chlamydia reported to KCHD in 2018. A total of 3,988 cases were reported in 2018 compared to 4,240 in 2017. Reported cases of chlamydia continue to be most common among females 15-29 years of age. Overall, 56.3% of cases were reported in females aged 15-29 while 27.9% of cases were reported in males in the same age group. Females 20-24 years of age accounted for the highest percentage of cases (23.6%), with females 15-19 years of age accounting for 20.9% of all cases. Because many infections are asymptomatic in sexually active females, sexually active women age 25 years and younger, or 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 an increase in the rate of gonorrhea from 2017 to 2018. Kent County saw a 21% increase in the number of cases of gonorrhea from 1120 cases in 2017 to 1359 cases in 2018. The number of cases in 2018 was remarkably higher than the yearly average of 878 cases. Like chlamydia, most cases were reported in individuals 15-29 years of age. The disparity between females and males in this age group wasn't quite as great, however, with 4 out of 10 cases reported in 15-29 year-old females and 3 out of 10 reported in 15-29 year-old males. Gonorrhea cases were slightly more common in those aged 30-39 (18% of cases compared to 11% for chlamydia).



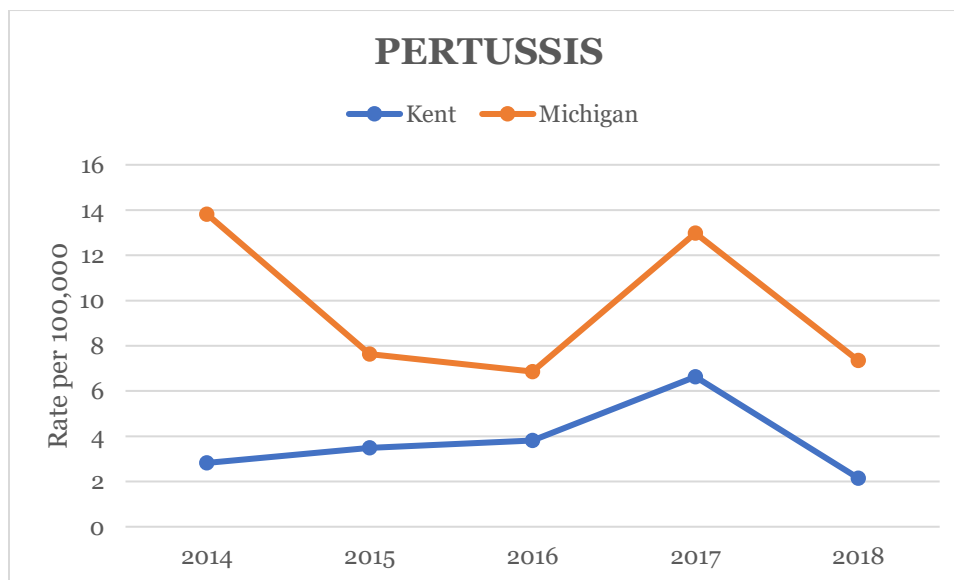
VACCINE PREVENTABLE DISEASES

Control 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

The number of cases of pertussis reported to KCHD decreased in 2018. A total of 13 cases were reported, compared to 40 in 2017 and an annual average of 25 reported between 2014 and 2017. Pertussis continues to be reported predominantly among younger individuals, with 38% of 2018 cases reported in children under 10 years of age. This percentage, however, is lower than previous years when 88% of reported cases in 2014 and 48% of cases in 2016 were under the age of 10. All cases reported in 2018 were vaccinated against pertussis except for one infant, who did not meet the age requirement for first vaccination.

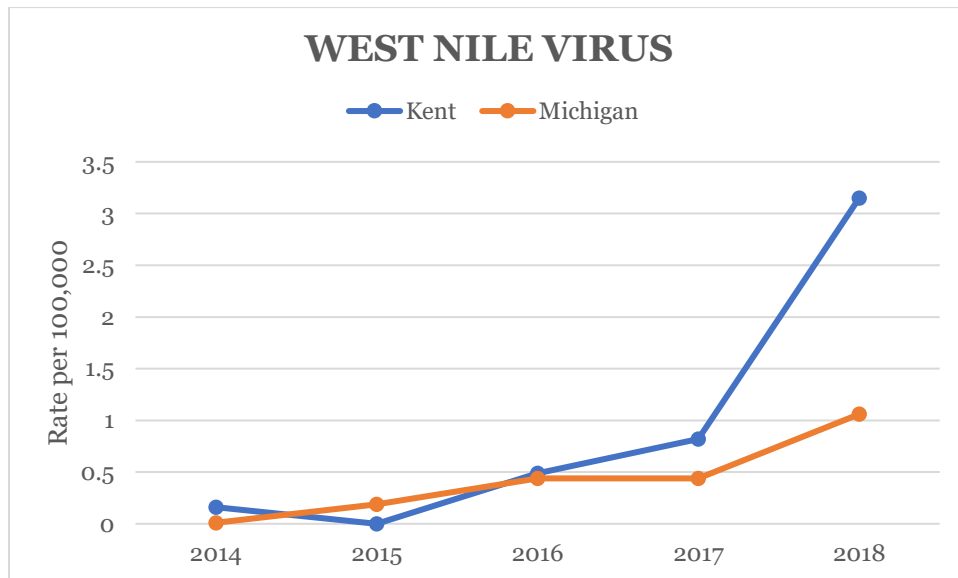
The rate of pertussis in the state of Michigan also declined from the peak that was observed in 2017. To adequately assess the impact of pertussis in Kent County, physicians are encouraged to consider pertussis in the differential diagnosis of patients with cough illness lasting 2 weeks or longer. Clinicians 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).



VECTORBORNE DISEASES

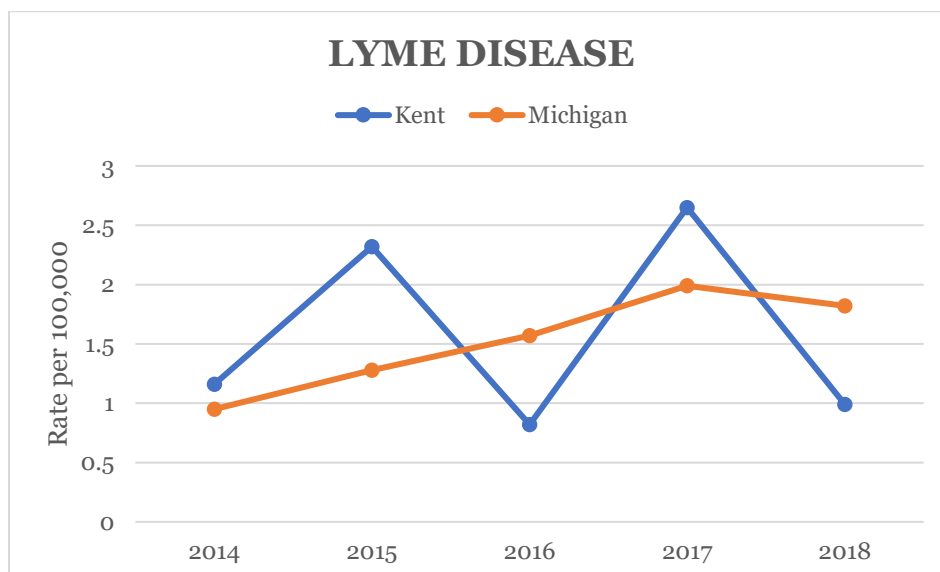
West Nile Virus

Following several years with low numbers of reported cases of West Nile Virus, 2018 saw 19 cases of West Nile Virus reported in Kent County. A total of 105 cases were reported statewide and Kent County was second only to Wayne County (30) among counties with the highest number of reported cases. The average age of case patients was 55 years, with 47% of cases above the age of 65. Over two-thirds (68%) of the Kent County patients with WNV required hospitalization and two of the patients died.



Lyme disease

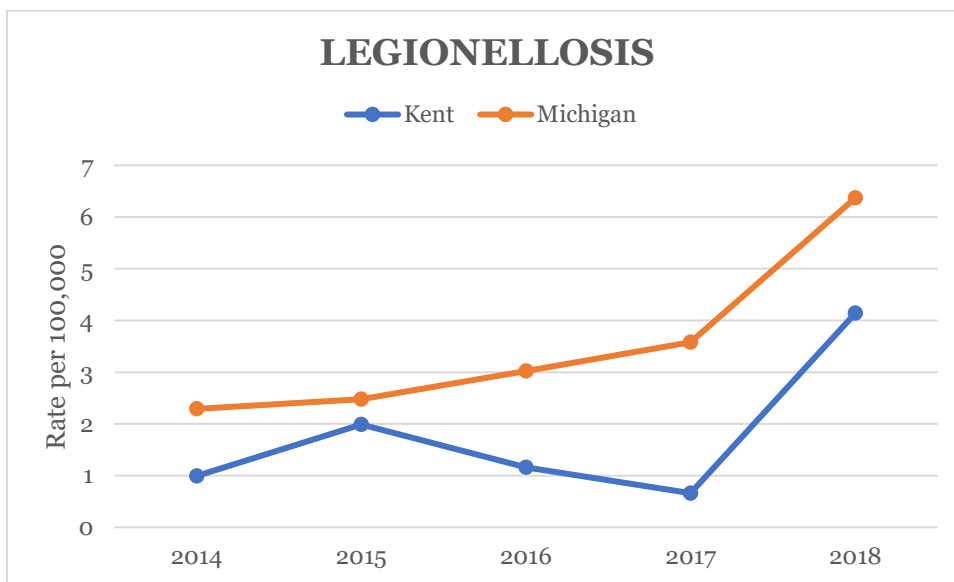
The number of cases of Lyme disease in Kent County residents decreased to 6 cases after reaching a peak of 16 in 2017. Kent County's rate was below Michigan's rate in 2018. Travel history prior to the onset of symptoms was known for 5 of the 6 cases. All 5 cases reported travel history within the past 30 days with only one case reporting travel outside of the state. Because Kent County is considered endemic for Lyme disease, individuals venturing outdoors should take appropriate precautions to prevent tick bites (www.cdc.gov/ticks/avoid/). 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 (www.cdc.gov/ticks/removing_a_tick).



RESPIRATORY INFECTIONS

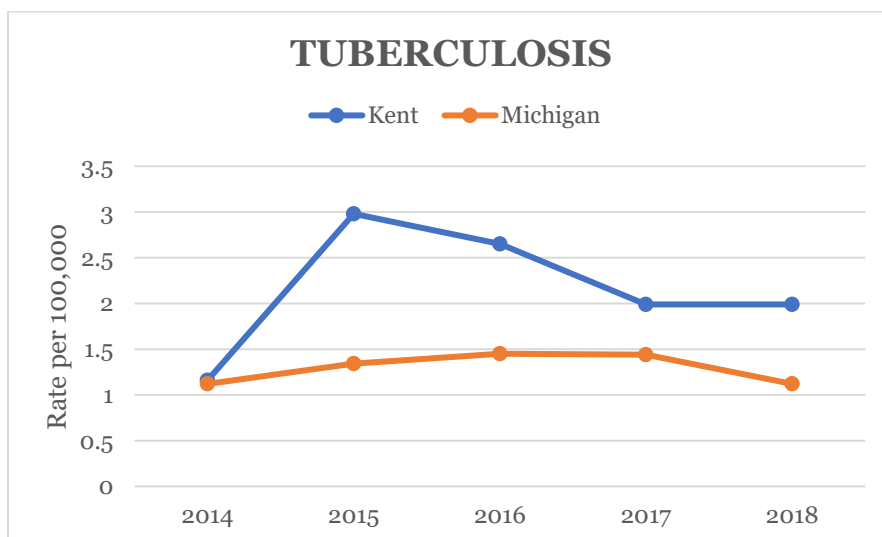
Legionellosis

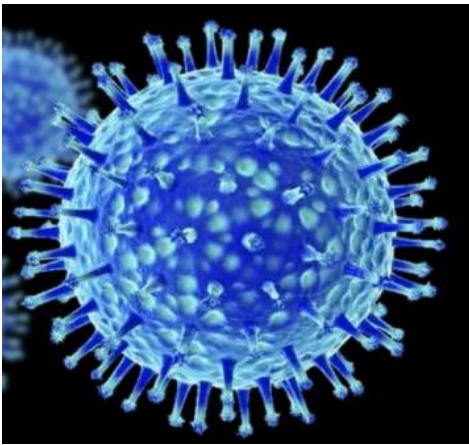
The State of Michigan has experienced increasing rates of legionellosis since 2014. While Kent County did not experience similar trends prior to 2018, the number of cases reported to KCHD increased dramatically in 2018. There was an average of 7 cases reported annually in Kent County between 2014 and 2017, but 2018 saw a total of 25 reported cases. The average age of reported cases was 60.4 and 44% of cases were above the age of 65. All cases required hospitalization. While urinary antigen tests are commonly used to diagnose Legionella infection, health care providers are encouraged to also collect specimens for culture testing, if possible, as culture results are necessary to link illness with environmental exposures during epidemiologic investigations. Culture specimens are ideally collected prior to the administration of antibiotics, but the start of antibiotics shouldn't preclude physicians from collecting these specimens for testing at the Michigan Department of Health and Human Services Bureau of Laboratories.



Tuberculosis

Like 2017, there were 12 cases of active tuberculosis reported in 2018. These numbers are on trend with the average of 13 cases/year from 2014-2017. Among the cases reported in 2018, all but 2 were born outside of the United States. Of those born outside of the U.S., 5 (50%) were from Central or South America, 2 were from Africa, 2 were from Asia and 1 was from Europe. Two of the cases reported in 2018 were identified as being resistant to multiple drugs based on results of susceptibility testing.





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INFLUENZA

Data from the MSSS are useful in providing an indication of local influenza-like illness (ILI) activity. The percentage of people visiting local emergency departments each week for ILI are compared to data from the previous four seasons to indicate how the current season's activity compares to what is "expected" during each week. During the previous three influenza seasons in Kent County, the occurrence of the peak level of ILI activity ranged from the first week of February to the first week of March. The 2018-2019 season was unique in that there were two time periods of elevated activity. The first occurred during the last week of December and the second occurred during the final week of March. This was due to the circulation of an H3N2 strain during the latter half of the season after the H1N1 (pdm09) strain was predominant during the first part of the season. Data from the Centers for Disease Control and Prevention (CDC) for the past 34 influenza seasons (1982-1983 to 2017-2018) indicate that flu activity most often peaked in February (15 seasons), followed by December (9 seasons), March and January (6 seasons each).

Contact Us

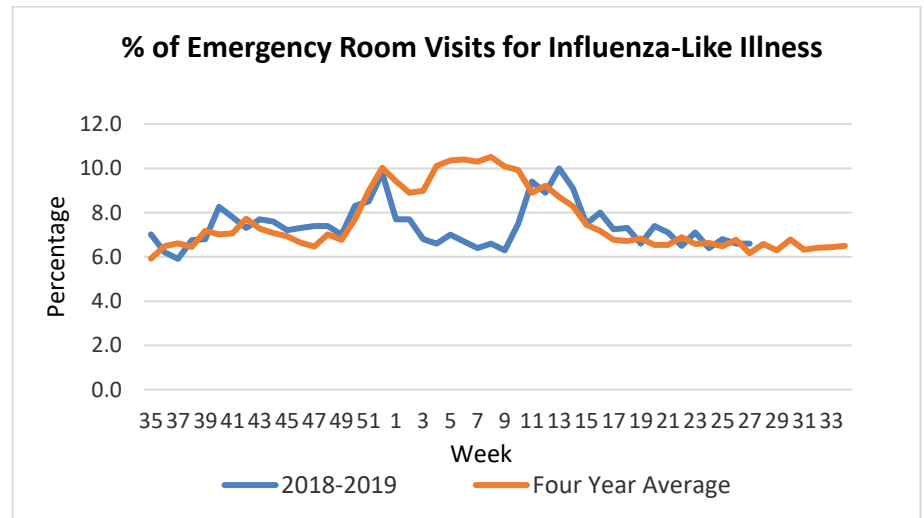
Phone: 616-632-7228

Fax: 616-632-7085

www.accesskent.com/Health



According to the CDC, the 2018-2019 influenza season was the longest in a decade, predominantly due to the circulation of multiple strains. Despite its length, CDC considered the season to be of moderate severity. Nationally, both hospitalizations and deaths decreased compared to the 2017-2018 season, which proved to be the deadliest season in four decades.



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>