

2007 Communicable Disease Report Executive Summary

Prevention and control of communicable disease is crucial to 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 across the county. As a health care provider, you are a critical component of this 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 a sampling of diseases that may be of particular interest. Please take a moment to review these data and contact us at (616) 632-7228 with questions or comments.

GASTROINTESTINAL ILLNESSES

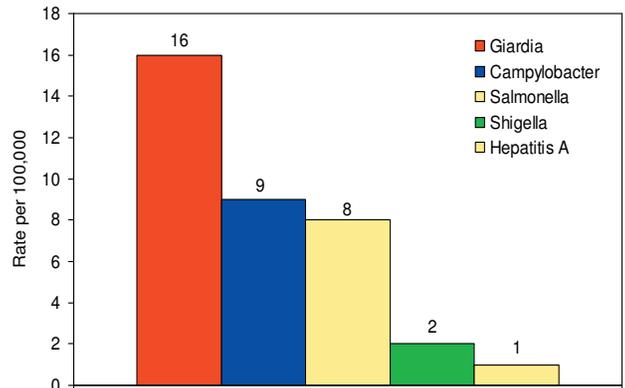
A variety of infectious agents can cause gastrointestinal illnesses, and testing does not always identify the cause. Health care providers can help identify clusters of patients with illness resulting from a common event or exposure to food items or vendors. It is important that clinicians consider foodborne illness in the differential diagnosis of gastrointestinal illness.

SALMONELLOSIS

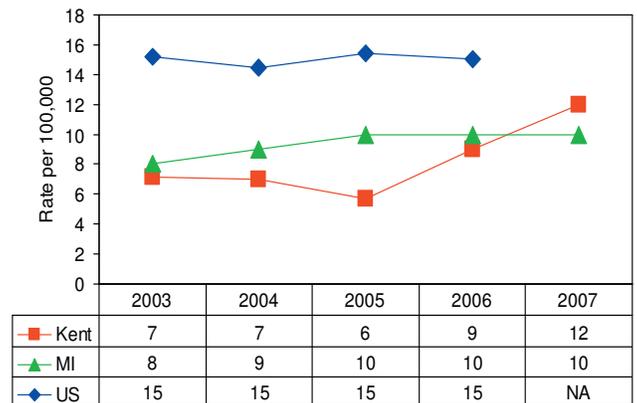
Over the last five years, Kent County and the State of Michigan experienced an increase in the rate of salmonellosis. In 2007, KCHD received 70 reports of salmonellosis. On average, the health department received 47 reports per year from 2003 to 2007. A comprehensive review of Kent County cases from the past five years does not indicate a common exposure among cases, nor a common serotype. It is likely that several different factors contributed to the increase. Increased rates may be due to an increase in reporting from health care providers or an increase in testing due to highly publicized national outbreaks.

A large proportion of *Salmonella* Typhimurium and *Salmonella* Newport isolates are resistant to one or more drugs. *Salmonella* Typhimurium DT has shown resistance to five or more drugs, a greater hospitalization rate than other types of *Salmonella*, and a 3% mortality rate. Even though these serotypes are more virulent, they often resolve without treatment.

Gastrointestinal Illnesses. Five year average incidence
Kent County, 2003-2007



Salmonellosis. Incidence - Kent County, 2003-2007



SEXUALLY TRANSMITTED INFECTIONS

KCHD offers counseling, testing and treatment for chlamydia, gonorrhea, and syphilis. Counseling and testing for HIV also are available. In addition to testing, the department provides assistance in contacting sexual partners of individuals diagnosed with these infections. Health care providers should report all confirmed cases of chlamydia, gonorrhea, syphilis, and HIV to the health department. Reporting forms are available by calling (616) 632-7171.

CHLAMYDIA

In 2007, KCHD received 3,362 reports of chlamydia. On average, the health department received 3,150 reports per year from 2003 to 2007. In 2007, the majority of cases (78%) in Kent County were between the ages of 15 and 25 years and more than 75% of all cases were female. Among the 15 to 19 year old age group, the chlamydia infection rate rose from 1,460 per 100,000 in 1997 to 2,828 per 100,000 in 2006. In contrast, the gonorrhea infection rate remained relatively stable during this period. The increase in chlamydia can be partially explained by the increase in screening programs, improved diagnostic tests that are more sensitive, and the advent of urine-based testing. Urine-based tests are far less invasive and their accuracy is comparable to older testing methods. Because 70% of sexually active women with chlamydia are asymptomatic, many infections go unreported. Annual screening is recommended for detection of an asymptomatic infection for sexually active women age 25 years and younger and for older women with risk factors (e.g., new sex partner or multiple sex partners).

GONORRHEA

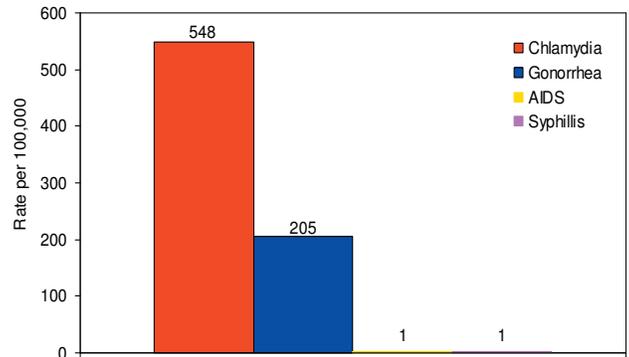
In 2007, the health department received 1,142 reports of gonorrhea. On average, the health department received 1,178 reports per year from 2003 to 2007. In Kent County, the greatest infection rate occurs among persons aged 16 to 26 years. Of cases reporting race, nearly 75% were African American.

Due to widespread prevalence of fluoroquinolone resistance, the CDC recommends cephalosporins to treat all persons with gonorrhea. Within this class, ceftriaxone, available only as an injection, is the recommended treatment for all types of gonorrhea infections. The only oral agent recommended for treatment of uncomplicated urogenital or rectal gonorrhea is a single dose of cefixime 400 mg. Beginning in April 2008, cefixime (Suprax®) 400 mg tablets are again available from Lupin Pharmaceuticals, Inc. Information on obtaining cefixime is available from Lupin (866-587-4617). Guidance on treatment and updates on the availability of recommended antimicrobials are available at www.cdc.gov/std/treatment.

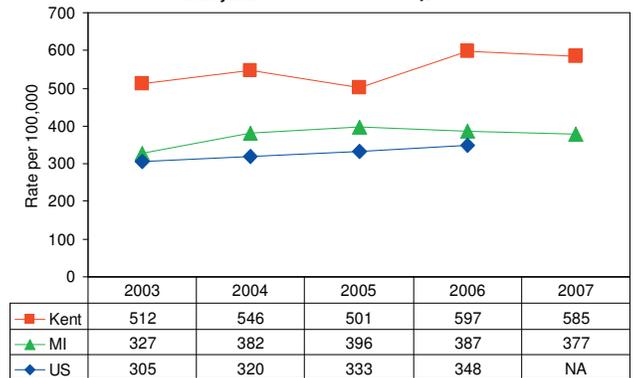
VACCINE PREVENTABLE DISEASES

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. Upon receiving a confirmed report of a vaccine preventable disease, KCHD initiates an investigation to determine contacts at increased risk for infection. Once identified, the health department

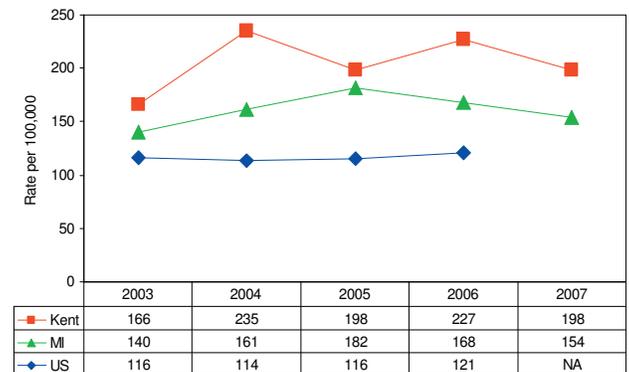
Sexually Transmitted Infections. Five year average incidence Kent County, 2003-2007



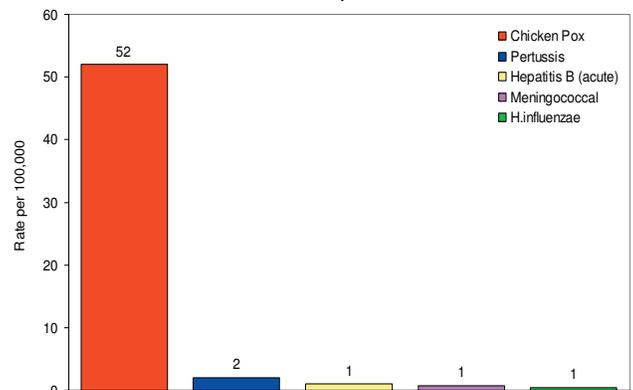
Chlamydia. Incidence - Kent County, 2003-2007



Gonorrhea. Incidence - Kent County, 2003-2007



Vaccine Preventable Diseases. Five year average incidence Kent County, 2003-2007



arranges for the appropriate prophylaxis (e.g., antibiotics, immune globulin, and/or vaccination).

PERTUSSIS

In 2007, the health department received 14 reports of pertussis. On average, the health department received 14 reports per year from 2003 to 2007. Of the Kent County cases reported from 2003 to 2007, 38% were less than 6 months old. These infants were too young to have received their required doses of vaccine. It is likely that pertussis is severely under diagnosed and its incidence is much greater than detected through passive surveillance. In order to detect cases and prevent cases through appropriate post-exposure prophylaxis, physicians should consider pertussis in the differential diagnosis of patients with respiratory illness. Suspected cases of pertussis should receive a culture via nasopharyngeal swab or aspirate. Serologic methods are not appropriate for diagnosis of pertussis, except in rare instances.

ACUTE HEPATITIS B

In 2007, the health department received two reports of acute hepatitis B (HBV). On average, the health department received six reports per year from 2003 to 2007. 1990 marked the beginning of a decrease in the infection. This decrease is commonly associated with the execution of a national plan to eliminate hepatitis B. According to the plan, health care providers screen all pregnant women for infection, and infants born to infected mothers receive post-exposure prophylaxis. KCHD tracks all known pregnant women with hepatitis B to ensure their babies receive immune globulin and begin the vaccination series immediately upon delivery. Hepatitis B vaccination is recommended for all infants and children under 19 years of age, and for individuals who are at high risk for hepatitis B (e.g., men who have sex with men, health-care workers, injection-drug users, persons infected with hepatitis C virus, and household and sexual contacts of persons with chronic HBV infection).

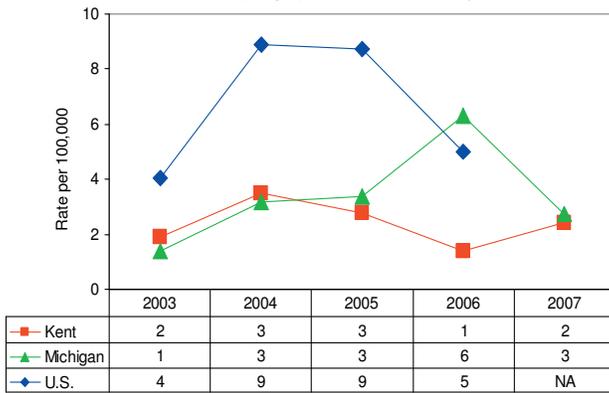
TUBERCULOSIS

In 2007, the health department received 22 reports of active cases of tuberculosis (TB). On average, the health department received 20 reports per year from 2003 to 2007. In 2007, KCHD provided TB assessments to 815 people with latent TB infections. Foreign-born persons made up 68% of cases in Kent County in 2007.

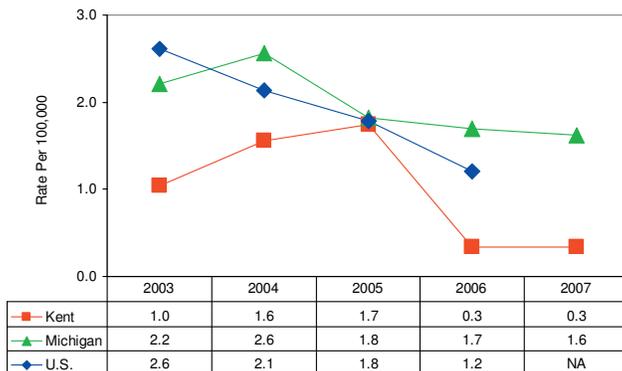
ASEPTIC MENINGITIS

In 2007, the health department received 39 reports of aseptic meningitis. On average, the health department received 53 reports per year from 2003 to 2007. National prevalence data is unavailable as aseptic meningitis is not nationally reportable. Because many viruses can cause meningitis, it is difficult to identify a particular etiology. Under the best conditions, identifying a specific virus occurs only about 50% of the time via serological and isolation techniques. In the United States, enteroviruses are identified most frequently followed by coxsackievirus, arboviruses, measles, herpes simplex and varicella viruses, lymphocytic choriomeningitis virus, adenovirus, and others. Due to the absence of laboratory identification of an infectious agent in cases of aseptic meningitis, it is imperative that physicians aid in the reporting of diagnosed cases of aseptic meningitis to the local health department.

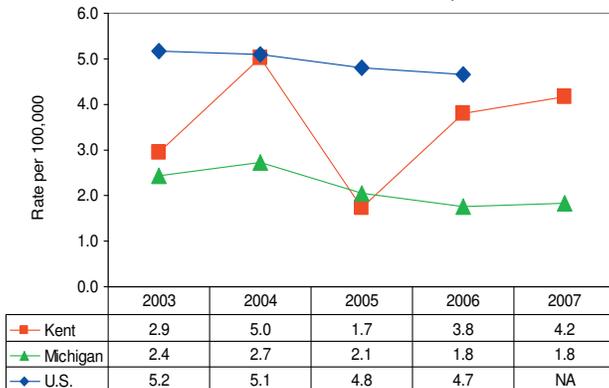
Pertussis (all ages). Incidence - Kent County, 2003-2007



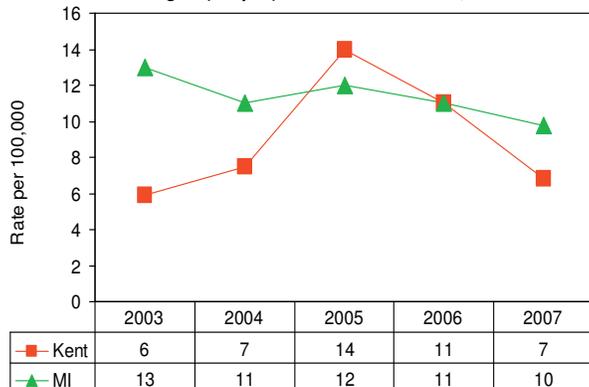
Hepatitis B (Acute). Incidence - Kent County 2003-2007



Tuberculosis. Incidence - Kent County, 2003-2007



Meningitis (Aseptic). Incidence - Kent County, 2003-2007





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Thank you.

