

## **Hepatitis A Increase in Southeast Michigan**

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### **Introduction**

Since late July 2016, 58 lab-confirmed cases of hepatitis A have been reported in four counties in Southeast Michigan. This is about 10 times the number of cases that the City of Detroit, Macomb, Oakland, and Wayne Counties combined typically see between July and December months. The distribution of cases has been slanted towards males, contributing to 65.5% of the total cases. The median age is 46.5 years, with an age range of 24–83 years. Many of the sick individuals have presented with severe illness. The overall hospitalization rate is over 87% and three deaths have been reported. According to national surveillance data from the Centers for Disease Control and Prevention (CDC), the hospitalization rate for hepatitis A is 11-22%. The Michigan Department of Health and Human Services (MDHHS), the Michigan Department of Agriculture and Rural Development (MDARD), and the CDC have been assisting the local health departments with their investigations.

Hepatitis A is a liver infection caused by the hepatitis A virus, which is usually spread by the fecal-oral route. Individuals can become infected from contact with an infected person or through consuming food or liquid contaminated with the virus. Although hepatitis A can be asymptomatic, the majority of adults will experience symptoms of nausea, anorexia, fever, abdominal pain and jaundice. Hepatitis A is a vaccine-preventable disease. In addition, post-exposure prophylaxis (PEP) strategies to prevent illness after exposure to the virus include administration of the hepatitis A vaccine or immune globulin (Ig). Public health routinely recommends appropriate PEP based on the type of exposure and risk factors, such as age. Hepatitis A is endemic in Michigan, with an average of 75 statewide cases being reported each year.

### **Investigation**

In October, 2016, the investigation intensified as one potential link was identified when three individuals with confirmed hepatitis A reported a history of eating prepared food from the same grocery store. The Detroit Health Department issued a press release and a statewide health alert was sent to provide information on hepatitis A and the recent increase. At that time, MDHHS asked laboratories to hold hepatitis A IgM positive serum specimens for two weeks in the event that additional laboratory characterization was necessary.

In November 2016, MDHHS distributed a supplemental questionnaire to local health departments in Southeast Michigan so that they could re-interview their cases for additional exposure history information. In reviewing the epidemiologic history of the cases, it was noted that many of the confirmed hepatitis A cases had reported consuming food and drink in a certain area of Detroit. In response, MDARD and local health departments jointly investigated the food supply chain in search of commonalities in food distribution, sources, or suppliers. With the increasing number of cases, the MDHHS Epidemiology staff and OutbreakNet Enhanced team assisted local health departments with case re-interviewing.

Although some reports of drug use in cases were noted throughout the increase, in December 2016, a much stronger substance abuse signal was detected. Fewer cases in December were reporting eating in

the Detroit area. Also in late in 2016, a high proportion of cases were identified as staying in homeless shelters. In December 2016 staff from the Detroit Health Department visited a homeless shelter to assess for illness compatible with hepatitis A among the residents and to work with the shelter to provide hepatitis A vaccine for the residents.

To further characterize this community increase of hepatitis A, additional testing has been conducted by the CDC. The laboratory results indicate that the majority of these Southeast Michigan hepatitis A cases have the same genotype.

### **Next Steps**

Testing at MDHHS State Laboratory and CDC for further characterization is ongoing. As an increasing proportion of cases are homeless or have reports of substance abuse, MDHHS Divisions of Communicable Disease and Immunizations are working with local health departments to develop additional plans for vaccine administration in this population. Education on hepatitis A will also be provided. The goal is to vaccinate at-risk individuals to mitigate transmission throughout this population and prevent illness. More information on hepatitis A can be found at <https://www.cdc.gov/hepatitis/hav/>