Hepatitis A

Epidemiology Data Brief
April 2019

Issue 1

SUMMARY

Hepatitis A is a liver disease that spreads when a person unknowingly ingests the virus from objects, food, or drinks contaminated with the stool of an infected person.

Hepatitis A outbreaks involving person to person transmission are occurring in several states, including Ohio.

The Cincinnati Health Department has vaccinated more than 600 individuals at high risk for hepatitis A with the help of many community partners.

Who should get vaccinated?

- People who use illegal drugs
- People experiencing homelessness
- People who are or were recently incarcerated
- People with hepatitis C or other liver conditions

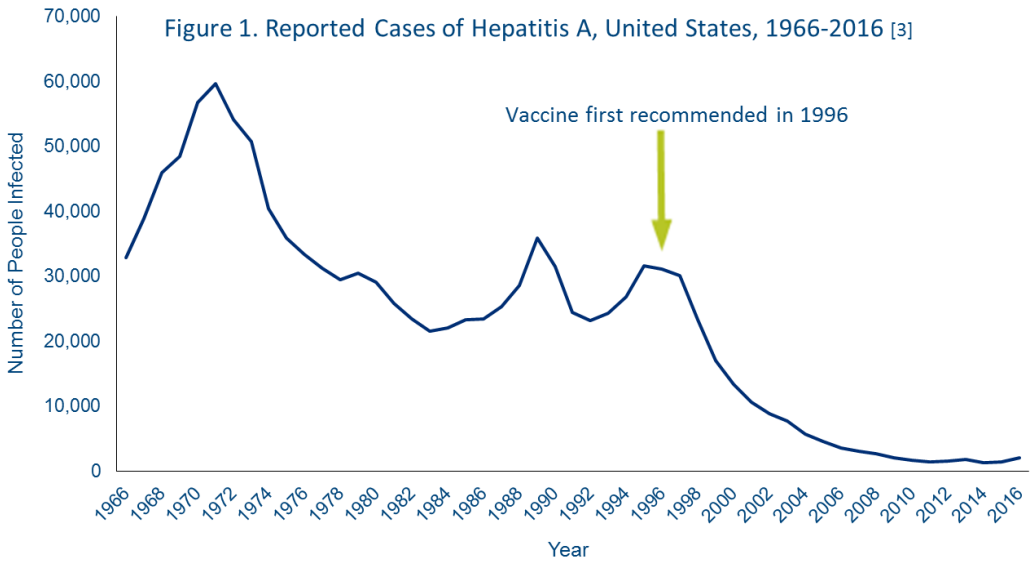
Hepatitis A is a highly contagious, vaccine-preventable liver disease caused by the hepatitis A virus. Hepatitis A is typically a short-term disease and does not develop into chronic hepatitis. Symptoms can range from a mild illness lasting a few weeks to a severe illness lasting several months. In rare cases, hepatitis A can cause liver failure and death. Symptoms typically appear 2 to 7 weeks after exposure and may include fever, nausea, vomiting, diarrhea, dark urine, clay-colored stools, and jaundice (yellowing of the eyes). Some people will not develop symptoms. [1]

Hepatitis A typically spreads when a person unknowingly ingests the virus from objects, food, or drinks contaminated by undetectable amounts of stool from an infected person. It can also spread through close personal contact with an infected person, such as sex or caring for someone who is ill. Hepatitis A can be transmitted up to 2 weeks before and 10 days after symptoms appear. After recovering, an infected person will develop immunity and cannot become sick from hepatitis A again.

The best way to prevent the spread of hepatitis A is through vaccination with the hepatitis A vaccine. The vaccine was first recommended in 1996 for children in communities with high rates of hepatitis A. [2] The recommendation was expanded in 2006 to include all children in the United States at age 12 to 23 months. Figure 1 shows the impact vaccination has had on the number of hepatitis A cases (people infected) in the United States. [3]

Thoroughly washing hands with soap and water—especially after using the bathroom and before preparing or eating food—also helps prevent the spread of hepatitis A.

Figure 1. Reported Cases of Hepatitis A, United States, 1966-2016 [3]



Hepatitis A in the United States

Before 2017, many hepatitis A outbreaks that occurred in the United States were linked to contaminated food. Since then, large community outbreaks have occurred in several states among people who use illegal drugs (injection and non-injection), people experiencing homelessness or unstable housing, and their close contacts. [4] These outbreaks have not been linked to a common food source. Instead, these outbreaks have involved person to person transmission related to crowded living conditions and poor access to hygiene facilities.

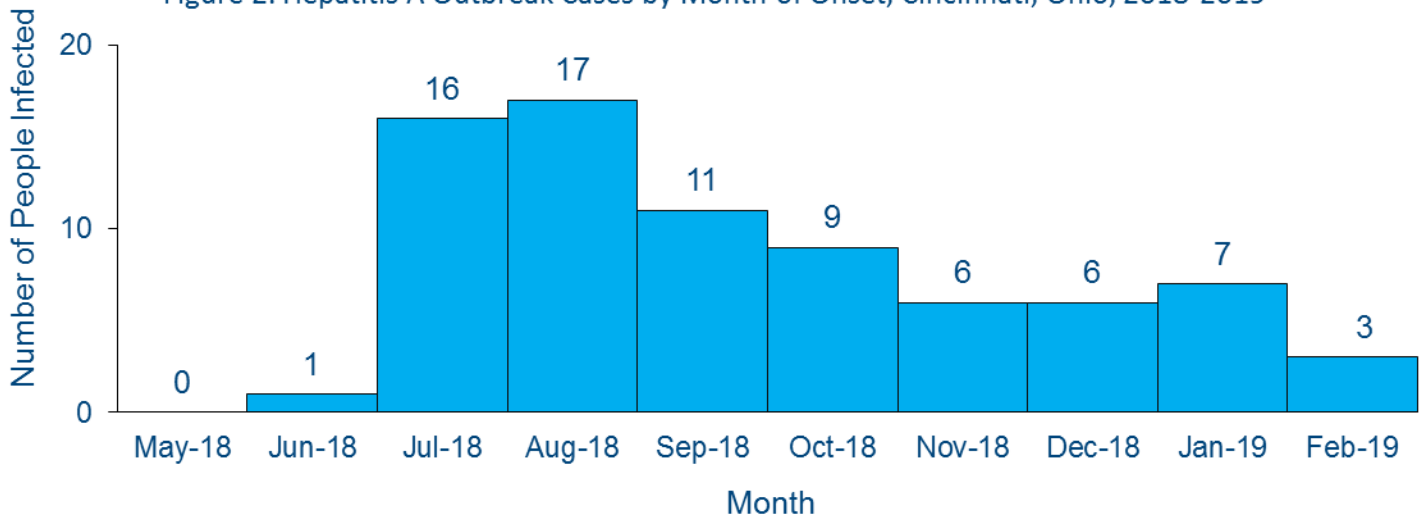
Hepatitis A in Ohio and the City of Cincinnati

The Ohio Department of Health declared a statewide outbreak of hepatitis A in June 2018 after observing an increase in cases since the beginning of 2018. More than 1,900 outbreak cases, 1,200 hospitalizations, and 7 deaths have been reported from 71 (81%) Ohio counties. [5] Similar outbreaks are occurring in the neighboring states of West Virginia, Kentucky, Michigan, and Indiana. [6, 7, 8, 9]

To be associated with this outbreak, a case of hepatitis A reported to the health department must first meet the clinical and laboratory requirements to be confirmed as a true case of hepatitis A. Once confirmed, the case must meet additional criteria to be associated with the outbreak. Not all reported cases are confirmed and not all confirmed cases are associated with the outbreak. For more information on these case definitions, visit the Ohio Department of Health Hepatitis A Outbreak page. [5]

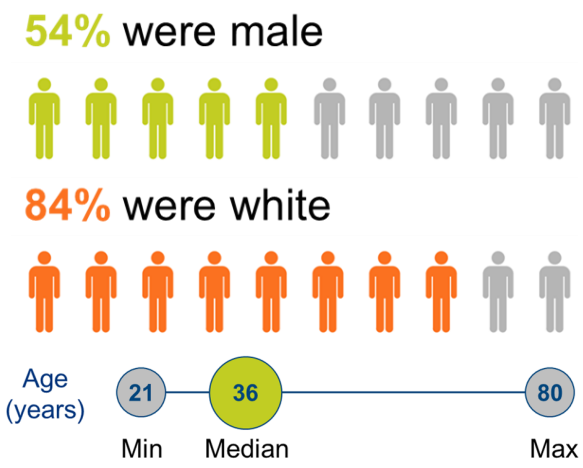
In Cincinnati, 208 cases of hepatitis A were reported to the health department from January 2018 through February 2019. Of these reported cases, 102 were confirmed as true cases and 76 of these confirmed cases were associated with the statewide outbreak. Figure 2 shows outbreak-associated cases in Cincinnati by month of onset (beginning) of the illness. Prior to 2018, the last confirmed case of hepatitis A in Cincinnati was reported in 2012.

Figure 2. Hepatitis A Outbreak Cases by Month of Onset, Cincinnati, Ohio, 2018-2019



Note that cases of hepatitis A may not be reported to the health department for several days or weeks after the beginning of the illness. It then takes several more days for an investigation or laboratory testing to confirm and link the case to the outbreak. These data are subject to change when new information becomes available (Figure 2).

Among the 76 outbreak-associated cases in Cincinnati, 54% were male and 84% were white. The age distribution ranged from 21 to 80 years and had a median of 36 years.

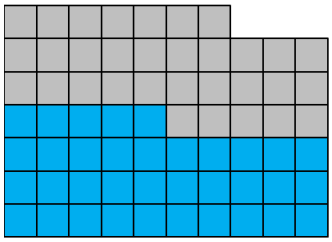


Hepatitis A often causes severe disease among older people and people with pre-existing chronic conditions like cirrhosis or liver disease. [10] Of the 76 outbreak-associated cases in Cincinnati, 71% were admitted to a hospital and 62% were co-infected with the hepatitis B or C viruses. Other hepatitis A outbreaks occurring in the United States have also been characterized by high hospitalization and hepatitis B or C co-infection rates. [6, 7, 8, 9] The Cincinnati Health Department (CHD) attempts to identify risk factors for every case of hepatitis A. In some situations CHD is unable to reach a case and therefore cannot identify risk factors. Among outbreak-associated cases with identified risk factors, 52% reported homelessness or unstable housing, 83% reported illegal drug use, and 31% reported a recent incarceration.

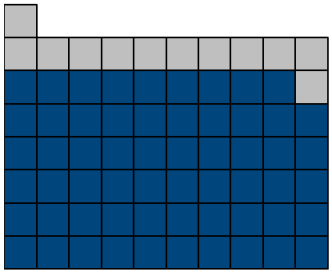
71% were hospitalized

62% were co-infected with hepatitis B or C

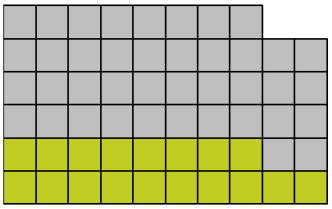
52% (35 of 67) report homelessness or unstable housing



83% (59 of 71) report illegal drug use



31% (18 of 58) report a recent incarceration



Cincinnati Health Department's Response

CHD activated its Emergency Response Plan in July 2018 after detecting an increase in reported hepatitis A cases in Cincinnati. CHD investigates all reported cases of hepatitis A to confirm the diagnosis, determine if the case can be associated with the outbreak, identify high risk contacts, and determine if post-exposure vaccination is appropriate. The hepatitis A vaccine can prevent disease in people who have been recently exposed to the virus if administered within 2 weeks of the reported exposure. [2] CHD has identified and attempted to notify more than 500 contacts.

If a reported case works in a sensitive occupation like food service or health care, CHD assesses the risk to the public and takes appropriate action based on that assessment. If sufficient risk exists, CHD notifies the public and may recommend vaccination. Hepatitis A transmission from food handlers to patrons has been rare during the ongoing outbreaks because standard sanitation practices are sufficient to prevent the spread of hepatitis A. [10] CHD also engages restaurants, health care providers, and community organizations that serve or work with high risk populations to raise awareness and distribute educational materials.

CHD began coordinating hepatitis A vaccination clinics for high risk populations in July 2018. Two clinic models are used: post-exposure clinics for high risk contacts of known cases and pre-exposure clinics for people with risk factors for hepatitis A. CHD vaccinated 293 people at 26 post-exposure clinics and 347 people at 27 pre-exposure clinics through February 2019. Most clinics were held at community locations like shelters, parks, soup kitchens, faith-based organizations, substance abuse treatment facilities, and correctional facilities.

Clinic Model	Number of Clinics	Vaccines Administered*
Post-Exposure	26	293
Pre-Exposure	27	347
Total	52	640

* In addition to the special vaccine clinics discussed, over 200 adult patients of the City of Cincinnati Primary Care health centers have also been vaccinated against hepatitis A since January 1, 2018.

Acknowledgments:
Maryse Amin, PhD, MS, Todd Dudley, MBA, John Dunham, MS, Alexander Evans, MBA, MPH, Sharon S. Hutchins, PhD, MPH, Camille Jones, MD, MPH, and Carl Lerch

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