



# Infectious Disease Epidemiology Report



## Hepatitis A in Maine, 2015

### Background

Hepatitis A is a liver disease caused by hepatitis A virus (HAV). HAV is spread from person-to-person by the fecal-oral route, by either person-to-person contact or consumption of contaminated food or water. Poor hand washing by infected persons increases the risk of transmission. The virus spreads more easily in areas where sanitary conditions and personal hygiene practices are poor. Most infections result from exposure during international travel or contact with a household member or sex partner who has hepatitis A. Casual contact, as in the office or school setting, does not typically spread the virus.

Signs and symptoms of hepatitis A include tiredness, loss of appetite, nausea, abdominal discomfort, dark urine, clay-colored stool, jaundice and elevated liver function tests. Hepatitis A is classified by a discrete onset of symptoms, elevated liver enzymes or jaundice, and positive serology. Symptoms appear within 15 to 50 days of infection with the virus, although children are less likely to have symptoms. There is no chronic form of hepatitis A and infection provides lifelong immunity. There is a vaccine for hepatitis A.

### Methods

Hepatitis A is reportable in Maine immediately upon recognition or strong suspicion of disease. Reported cases are investigated by Maine CDC to determine the exposure, identify close contacts, and make recommendations for post-exposure prophylaxis and prevention.

### Results

In 2015, eight cases of hepatitis A were reported in Maine, compared to eight cases in the previous year. The rate of hepatitis A in Maine was 0.6 cases per 100,000 persons in 2015, whereas the US rate was 0.5 cases per 100,000 persons (Figure 1).

The median age of cases was 63.5 years with a range from 17 to 88 years. The majority of cases (75%) were male (Figure 2).

Figure 1. Rate of Hepatitis A, Maine and U.S., 2011-2015

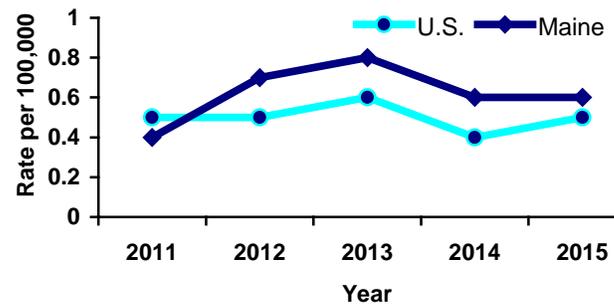
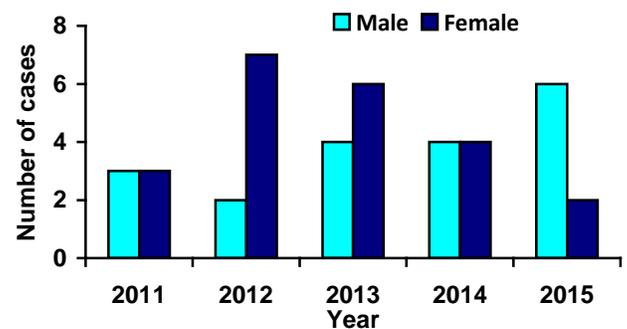


Figure 2. Count of Hepatitis A, Maine 2011-2015 (N=41)



All of the cases reported in 2015 were symptomatic and had elevated liver enzyme levels. All cases had positive serology for HAV (IgM anti-HAV positive). Three (37.5%) cases had jaundice, and three cases were hospitalized. Two cases had been previously vaccinated for hepatitis A virus, but it is unknown if they received two doses of vaccine.

Risk factor information was collected for all eight cases for the 15-50 days prior to symptom onset. Two cases reported international travel. No other common risk factors were identified. None of the cases reported being a food handler in the two weeks prior to symptom onset.

In 2015, hepatitis A cases were reported from three Maine counties. Three cases (37.5%) each were from Cumberland and Penobscot, and two cases were from York County.

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## Discussion

Hepatitis A is among the most common vaccine-preventable infections acquired during travel. In the United States the most frequently identified risk factor for hepatitis A is international travel. The highest risk is for those who live in or visit rural areas, trek in backcountry areas, or frequently eat or drink in settings of poor sanitation.

Hepatitis A is vaccine-preventable in persons aged one year and older. The vaccine is administered in a 2-dose schedule, six months apart. A combined hepatitis A and hepatitis B vaccine (Twinrix) is also available for adults age 18 and older. Hepatitis A vaccine is recommended routinely for children and for household members and other close personal contacts of adopted children newly arriving from countries where hepatitis A is endemic.

Prevention measures for hepatitis A include:

- Consider vaccination for all children and persons at increased risk for hepatitis A, including travelers, men who have sex with men (MSM), drug users, persons with occupational risk for infection, and persons with clotting factor disorders.
- Practice good hand washing, especially before handling or eating food, after toilet use and after changing diapers.
- Dispose of feces in a sanitary manner in daycare or residential settings.
- Avoid sexual practices that may allow fecal-oral transmission.
- When traveling, do not drink tap water or use ice, and avoid eating uncooked foods in developing countries where the water may not be safe and sanitation is poor.

Infection with HAV can be avoided after exposure to a confirmed case with timely administration of hepatitis A vaccine or immune globulin (IG). This is called post-exposure prophylaxis and is effective if given within two weeks of exposure.

- For healthy persons aged 12 months to 40 years, single-antigen hepatitis A vaccine at the age-appropriate dose is preferred.
- For persons aged >40 years, IG is preferred; vaccine can be used if IG cannot be obtained.

- IG should be used for children aged <12 months, immunocompromised persons, persons who have had diagnosed chronic liver disease, and persons for whom vaccine is contraindicated.

To be fully vaccinated, a second dose of Hepatitis A vaccine should be given at least 6 months after the first dose.

It is unclear why two of the cases in 2015 developed hepatitis A after reportedly being vaccinated for the disease. Possible explanations include that the vaccine was not administered within the appropriate time frame or that the cases' immune systems did not accept the vaccine.

Due to the likelihood of false positive results when diagnostic testing for HAV is performed on asymptomatic persons, CDC recommends that healthcare providers limit use of IgM anti-HAV testing to persons with evidence of clinical hepatitis or to those who have had recent exposure to a person with hepatitis A. Providers should also not use IgM anti-HAV as a screening tool for asymptomatic persons or as part of testing panels for the workup of non-acute liver function abnormalities.

Acute hepatitis A cases are required to be reported immediately to Maine CDC at 1-800-821-5821. Information about hepatitis A is available online at [www.maine.gov/idepi](http://www.maine.gov/idepi) and [www.cdc.gov](http://www.cdc.gov).