



Infectious Disease Epidemiology Report



Hepatitis C in Maine, 2015

Background

Hepatitis C is a liver infection caused by a virus. Hepatitis C virus (HCV) infection is the leading cause of liver transplant in the United States and is the most common chronic blood borne infection; approximately 3.2 million persons are chronically infected.

HCV can cause a chronic, lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure, and death. Transmission of HCV occurs through contact with blood of an infected person primarily through sharing of contaminated needles, syringes, or other injection drug equipment, and less commonly through sexual contact with an infected person, birth to an infected mother, and needle stick or other contaminated sharp instrument injuries.

Symptoms of acute hepatitis C include tiredness, loss of appetite, nausea, abdominal discomfort, dark urine, clay-colored stool, jaundice, and elevated liver enzyme levels. Acute hepatitis C is confirmed by blood tests. Symptoms are not always apparent but usually appear six weeks to six months after exposure. There is no vaccine for hepatitis C, but new treatments are available that can treat and sometimes cure infection.

Methods

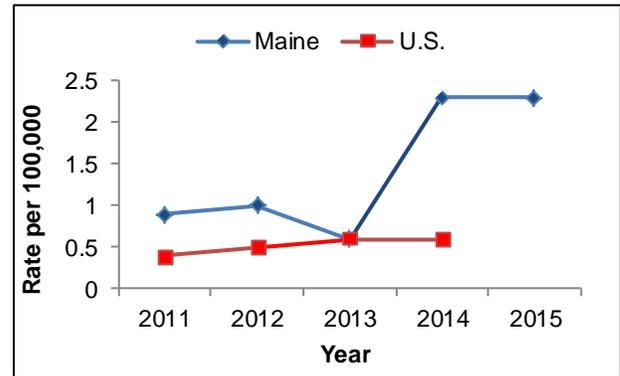
Acute hepatitis C in Maine is reportable immediately and chronic HCV is reportable within 48 hours upon recognition or strong suspicion of disease. Acute hepatitis C cases are investigated by Maine CDC epidemiologists to determine the exposure, identify close contacts, provide education, and make recommendations for prevention and follow up testing.

Results

Acute hepatitis C

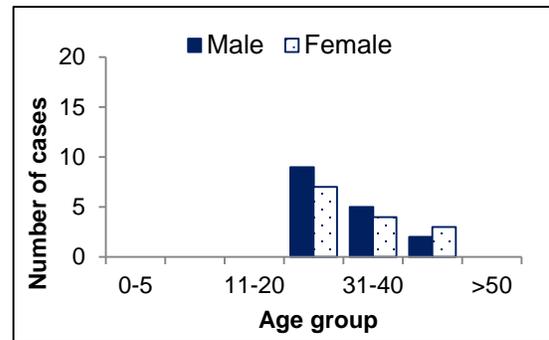
In 2015, there were 30 cases of acute hepatitis C, compared to 31 cases in 2014. The rate of acute hepatitis C in Maine was 2.3 cases per 100,000 persons in 2015, whereas the US rate was 0.6 cases per 100,000 persons in 2014 (most recent data available) (Figure 1).

Figure 1. Rate of acute hepatitis C, Maine and U.S., 2011-2015



The median age of acute cases was 30 years with a range from 21 to 50 years. About half (53%) of acute cases in 2015 were male (Figure 2).

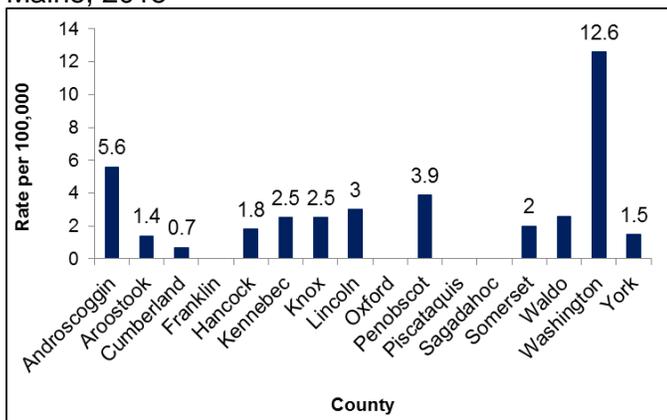
Figure 2. Acute hepatitis C cases by sex and age group, Maine, 2015



Acute cases were reported from 12 Maine counties (Figure 3). Twenty-six (87%) cases were symptomatic, had liver enzyme levels elevated over 400 IU/mL, and had positive serology (anti-HCV and/or HCV RNA). The remaining cases had seroconversion (negative anti-HCV followed by a positive anti-HCV within 12 months). Thirteen cases (43%) were jaundiced. The major risk factor for acute cases in Maine was injection drug use. Twenty cases (67%) responded that they injected drugs within six months prior to symptom onset.

Hepatitis C – Maine, 2015

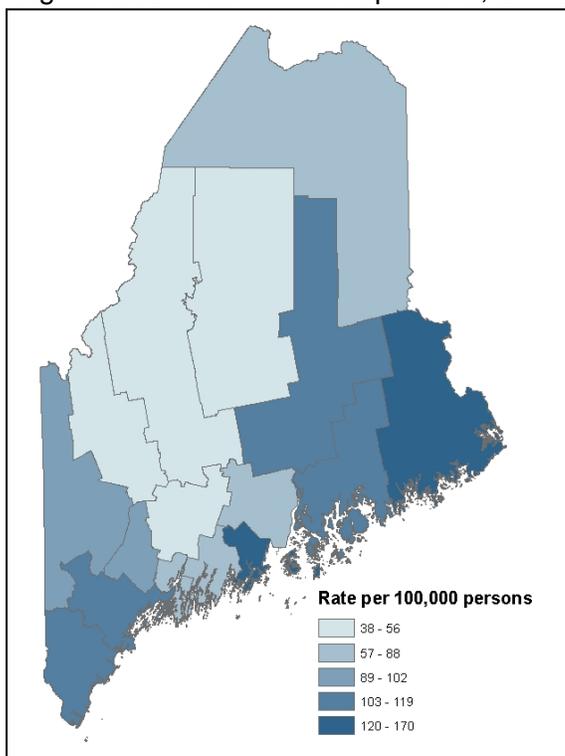
Figure 3. Rate of acute hepatitis C by county, Maine, 2015



Chronic hepatitis C

In 2015, there were 1,487 cases of newly reported chronic hepatitis C in Maine, compared to 1,425 cases in 2014. The rate of chronic hepatitis C in Maine was 111.8 cases per 100,000 persons in 2015, and the U.S. rate is unavailable. The median age of chronic cases was 35 years with a range from 1 to 83 years. The majority (57%) of chronic cases in 2015 were male. Chronic cases were reported from all 16 counties in Maine (Figure 4). Risk factor data is not collected for chronic cases.

Figure 4. Rate of chronic hepatitis C, Maine, 2015



The rate of acute hepatitis C remained steady from 2014-2015 after a sharp increase from 2013-2014. Maine CDC requests that laboratories report liver enzyme results, when available, in addition to positive hepatitis results. This has led to an increase in the number of cases investigated as epidemiologists investigate new reports of hepatitis C with symptoms and/or elevated liver enzyme levels.

Epidemiologists investigate acute cases of hepatitis C to learn the route of transmission in order to design public health interventions that halt further spread. As expected, the main risk factor for hepatitis C was injection drug use.

There is no vaccine for hepatitis C. Cases should receive the hepatitis A and B vaccine, if susceptible, and should take steps to protect their liver. The best way to prevent infection with HCV is by avoiding behaviors that can spread the disease, especially injection drug use, or by taking precautions to minimize transmission, such as using clean needles and works.

In 2015, the Infectious Disease Epidemiology Program conducted an enhanced surveillance project to understand the spike in the rate of hepatitis C cases from 2013-2014 and to learn more about how Maine's young adults are becoming infected with hepatitis C. In this project, epidemiologists contacted newly reported cases of chronic hepatitis C in persons aged 18-24 years to understand new routes of transmission to tailor public health interventions to reduce the risk of transmission. The project results are summarized in a separate surveillance report on Maine CDC's website.

Acute hepatitis C must be reported immediately to Maine CDC by calling 1-800-821-5821. Chronic hepatitis C must be reported by telephone, fax or mail within 48 hours of recognition or strong suspicion of disease.

More information about hepatitis C is available online at:

- www.maine.gov/idepi
- www.cdc.gov/hepatitis