Topic: Other Communicable Diseases

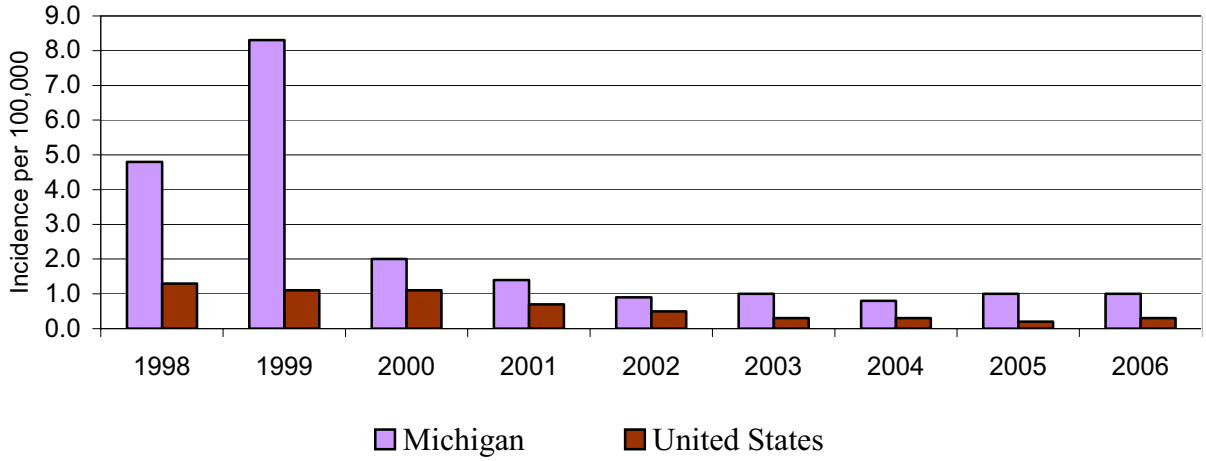
37. Hepatitis C

Hepatitis C is a disease of the liver caused by infection with the hepatitis C virus, in which the newly acquired (or acute) infection can progress to a chronic, long-term infection. Fifteen to 25% of those newly or acutely infected will resolve the infection on their own. However, the majority of infected people, 75 to 85%, will develop chronic infection. Disease progression in those chronically infected is variable but it can move from fibrosis, to cirrhosis, to end-stage liver disease and death. Ten to 20% of those chronically infected will develop cirrhosis within 20 to 30 years after infection. Hepatitis C is the leading indicator for liver transplantation.

The primary mode of transmission for the hepatitis C virus is through the sharing of needles, syringes, and other drug paraphernalia. It is estimated that 60 to 90% of injection drug users are infected with the virus. Other routes of transmission include sexual contact, from mother to unborn child during the birth process, and via occupational exposure to blood. In addition, the virus was transmitted through blood transfusions prior to 1992 and during receipt of blood products developed before 1987.

How are we doing?

Infection Rates Hepatitis C



Differentiating between acute and chronic hepatitis C is complicated and requires extensive case investigation. When chronic cases are incorrectly reported as acute cases, the acute infection rates become erroneously inflated. In addition, before 2000, when a chronic hepatitis C case definition was developed and chronic hepatitis C cases became reportable, chronic hepatitis C cases may have been more often inaccurately reported as acute cases. This can be seen in the above graph showing higher rates of acute cases in 1998 and 1999 followed by the substantial decrease in reported acute cases in 2000 when the new chronic hepatitis C case definition was introduced.

From 1998 to 2002, Michigan's rate of acute infection decreased steadily, and since that time, has remained relatively stable with a 2006 acute infection rate of 1.0 per 100,000. However, since individuals with acute infection often have no symptoms and remain undiagnosed until later in the disease course; acute infection rates underestimate the actual number of hepatitis C cases. To gauge the true hepatitis C disease burden we often rely on estimates derived from national data. It is estimated that 160,000 Michigan residents have ever been infected with hepatitis C and approximately 128,000 individuals are chronically infected. A significant concern is that 60 to 70% of those chronically infected do not know

they have the virus. As a result, Michigan is headed in the wrong direction with respect to meeting the need for increased hepatitis C screening, education and prevention.

How does Michigan compare with the U.S.?

The rate of acute infection for hepatitis C in Michigan has been significantly higher than in the United States. Michigan's current rate of 1.0 per 100,000 is more than three times higher than the U.S. median rate of 0.3 per 100,000. Michigan ranks as the third highest state in the United States for rate of acute hepatitis C. However, state hepatitis C data can be unreliable for a number of reasons.

How are different populations affected?

National data indicate that African-Americans are approximately two times more likely to have been exposed to the hepatitis C virus than Caucasians. The Centers for Disease Control and Prevention estimate that approximately 1.6% of the total U.S. population has ever been infected with hepatitis C. However, it is estimated that 3% of the African-American population in the U.S. has ever been infected with hepatitis C, accounting for 23% of all the individuals with hepatitis C in this country. While the reasons for the higher rate of infection in African-Americans are not completely understood, it is thought to be due to more occupational blood exposures, more blood transfusions before 1992, more intravenous drug use, and limited access to hepatitis C information and preventative medical care among the African-American population.

In addition, men of all races are more likely to have been infected with hepatitis C than women. Also, individuals between 40 and 49 years of age, regardless of race or sex, have the highest prevalence rate of hepatitis C among all age groups. The increased rate of infection in men and in individuals between 40 and 49 years of age is thought to be attributed to an increased likelihood of participating in high-risk behaviors such as intravenous drug use.

What is the Department of Community Health doing to improve this indicator?

The Department works to increase hepatitis C knowledge and skills among professionals with a role to play in addressing hepatitis C through a variety of educational offerings.

In December 2007, the second statewide conference on hepatitis C was held. This event included sessions on hepatitis C treatment and working effectively with patients, hepatitis C in populations that use injection drugs and other special populations, living with hepatitis C, and co-infection.

During 2008, three other comprehensive trainings on viral hepatitis were provided. The first targeted individuals providing training and education to substance use disorder treatment professionals and clients. The second was for individuals working in HIV/AIDS organizations. The third was offered to a diverse group of individuals interested in increasing hepatitis knowledge and training skills. During the year, numerous one-time presentations on a wide range of hepatitis C-related topics were also provided.

In addition, the Department works with a variety of groups to increase awareness of hepatitis and the need for the development of a continuum of hepatitis C-related services.

In 2008, the Hepatitis C Task Force, whose ten members were appointed by the Governor, met four times. Meetings focused on services that need to be provided to effectively address this disease, including services for correctional populations, people who use injection drugs and individuals at risk for or with HIV/HCV co-infection. The Department also worked with the Michigan Drug Users Health Alliance and the Michigan HIV/AIDS Council on hepatitis C issues.

More information about hepatitis C can be found at http://www.cdc.gov/hepatitis/index.htm.