The Michigan Department of Community Health (MDCH) Viral Hepatitis Surveillance and Prevention Unit is proud to bring you the first issue of our Viral Hepatitis Newsletter!

As many of you may already know, MDCH recently received a three-year $1.6 million grant from the Centers for Disease Control and Prevention (CDC) to support viral hepatitis disease surveillance and prevention. Michigan was one of seven sites around the country selected for this funding and it marks the first time MDCH has been awarded funding for viral hepatitis surveillance. The funding has allowed MDCH to create a Viral Hepatitis Surveillance and Prevention Unit within the HIV/STD/TB/VH Section in the MDCH Communicable Disease Division. The goal of the unit will be to improve and build upon the existing surveillance systems currently in place in Michigan for both acute and chronic hepatitis. More timely, accurate, and comprehensive surveillance data should have a marked impact on viral hepatitis prevention programs. The CDC award and the creation of the Viral Hepatitis Unit at MDCH should help lessen the burden of hepatitis surveillance, reporting, and follow-up done by providers and local health departments.

In the coming months and years we hope to continually share our progress with you through this quarterly newsletter which we plan on distributing to our hepatitis surveillance and prevention partners throughout the state. We will also highlight some interesting articles published in the literature, take a closer look at Michigan hepatitis surveillance data, and discuss the latest happenings in hepatitis prevention. If you have particular topics which you think we should discuss or wish to contribute an article to the newsletter, please feel free to let us know. Have a happy spring everyone!

--Joseph Coyle, CoyleJ@michigan.gov

May is Hepatitis Awareness Month

Viral hepatitis is a silent epidemic in the United States with more than 4 million Americans living with chronic hepatitis, and many not knowing it. As May is observed as Hepatitis Awareness Month www.cdc.gov/hepatitis/HepAwarenessMonth.htm, the Michigan Department of Community Health (MDCH) and the Centers for Disease Control and Prevention (CDC) are encouraging families to protect themselves from hepatitis disease. Every year, approximately 15,000 Americans die from liver cancer or chronic liver disease associated with viral hepatitis. Viral hepatitis is caused by a virus that infects the liver. Hepatitis A, B and C are the most common and there is vaccine to protect against Hepatitis A and B. Hepatitis C can be cured, and all forms of hepatitis are treatable.

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--Joseph Coyle, CoyleJ@michigan.gov
Hepatitis Awareness Month

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CDC’s Know More Hepatitis Initiative aims to decrease the burden of chronic Hepatitis C by increasing awareness and encouraging people to get tested. Some people with hepatitis may never show any symptoms of having the disease. Without a blood test to confirm they are infected, they could spread the disease unknowingly to others. Early detection and treatment can help reduce disease progression. Hepatitis is not something people should take lightly, and if anyone feels they are at risk, we strongly encourage them to visit their doctor.

The CDC’s online Hepatitis Risk Assessment tool can help determine if hepatitis testing and vaccination is recommended. This tool allows you to privately enter information and receive recommendations based on CDC’s guidelines. Talk to your doctor about ways to protect your family from hepatitis.

--Pat Fineis, FineisP@michigan.gov

There has been a growing Hepatitis C epidemic in young adults in the United States (Onofrey et al. 2011). It is believed that increases in HCV in this population are due, in large part, to increases in intravenous drug use (Church et al. 2011). Michigan Disease Surveillance System (MDSS) data and recent collaborative studies are beginning to indicate that this epidemic is at Michigan’s doorstep and requires serious public health attention.

Trends in HCV in Michigan Young Adults

There has been a growing Hepatitis C epidemic in young adults in the United States (Onofrey et al. 2011). It is believed that increases in HCV in this population are due, in large part, to increases in intravenous drug use (Church et al. 2011). Michigan Disease Surveillance System (MDSS) data and recent collaborative studies are beginning to indicate that this epidemic is at Michigan’s doorstep and requires serious public health attention.

Figure 1 shows that the number of HCV cases in the 15 to 29 year old population reported to MDSS has increased every year since 2007. This trend was identified statewide, not just in southeast Michigan. But how can we determine if the trend is related to intravenous drug use?

In an attempt to quantify the relationship between IVDU and an increase in HCV in the young adult population, MDCH attempted to conduct interviews of all HCV positive young adults reported to the MDSS between July 2011 and April 2012. Of the 632 cases reported during that time frame MDCH was able to complete interviews with 68. Cases were often difficult to contact or refused to be interviewed. Though the response rate was low, the responses gave some insight into what might explain these disturbing HCV trends. Interestingly, 95% of the interviewees were Caucasian and 74% were high school graduates, suggesting this is a relatively well-educated population. Questions about risk factors for HCV confirmed our premise. Ninety-four percent of respondents reported using intravenous drugs in their lifetime (See figure 2).

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After confirming that IVDU was the primary risk factor shared amongst the HCV positive young adults that were interviewed, MDCH partnered with the Michigan State Police (MSP) to look more closely at drug trends.

Trends in young adult MSP drug-related arrests (including selling, producing, distributing, or possessing drugs) were compared to the trends in young adult HCV diagnoses in MDSS between 2008 and 2011. MSP drug arrests were used as a marker for drug use in the young adult population. As shown in figure 3, MSP drug arrests and number of cases of HCV young adult cases correlated well, with year-over-year increases in both from 2008 through 2011.

The accumulation of this evidence indicates that the young adult HCV epidemic may very well be occurring here in Michigan and expresses the need for expanded and intensified public health surveillance and prevention efforts targeted towards the young adult population.

Fact Sheets and Reports of the MDCH Young Adult Study and MDCH-MSP Collaboration can be found here.

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Figure 3. MSP drug arrests and reported HCV cases among 20-29 year old in Michigan, 2008-2011
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--Charde Fisher, FisherC@michigan.gov and Geoff Brousseau, BrousseauG@michigan.gov

**Injection Safety Awareness Project**

In recent years there has been an increased focus on the transmission of blood-borne pathogens in healthcare settings. There have been 35 healthcare associated hepatitis outbreaks reported to CDC between 2008 and 2012. These outbreaks have resulted in over 100,000 patients being notified and over 300 outbreak-associated cases being identified. Interestingly, the majority of these outbreaks (94%) occurred in non-hospital settings. (Source: www.cdc.gov/hepatitis/statistics/healthcareoutbreaktable.htm)

As a result, the MDCH Viral Hepatitis Unit plans on exploring ways to raise awareness of injection safety and correct use of finger stick devices and blood glucose meters in Michigan healthcare facilities. MDCH plans on initially targeting this initiative towards Ambulatory Surgery Centers (ASCs). Our first step in this process, which should begin in Q2 2013, will be conducting needs assessment surveys focused on provider’s knowledge and behaviors in regard to injection safety.

--Charde Fisher
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In the Literature: Completeness of Reporting of Chronic Hepatitis B and C Virus Infections

MDCH and CDC recently collaborated on a project to ascertain the completeness of viral hepatitis surveillance data collected in Michigan between 1995 and 2008. The results of the study were recently published in the February 15, 2013 edition of MMWR (Completeness of Reporting of Chronic Hepatitis B and C Virus Infections – Michigan, 1995-2008).

Clinically confirmed cases of chronic hepatitis B and chronic hepatitis C were identified at an urban health-care system in southeastern Michigan among patients who were enrolled in a multicenter chronic hepatitis cohort study. These patients were matched to cases reported to the Michigan Disease Surveillance System (MDSS) by first name, last name and date of birth using probabilistic record-linkage software. Among clinically confirmed chronic hepatitis infections in the study, 82% of HBV infections and 65% of HCV infections were reported in MDSS. Of the cases reported to MDSS Risk factor data was completed for < 5% of HCV infection cases. Of the chronic HBV infections, 78% were appropriately classified as chronic in MDSS. Of the chronic HCV infections, 64% were appropriately classified as chronic in MDSS.

While this report highlights the limitations of viral hepatitis surveillance data, the results are not surprising because viral hepatitis surveillance is challenging for several reasons: 1) a large number of viral hepatitis cases are reported each year, 2) the case definitions for viral hepatitis are multifaceted, 3) correct case classification requires surveillance staff to follow-up with healthcare providers for additional information and 4) health departments often lack resources for adequate follow-up of cases. MDCH is exploring methods to improve viral hepatitis surveillance including enhancements to the electronic laboratory reporting system and access to additional data sources for risk factor information.

--Kim Kirkey, kirkeyk@michigan.gov