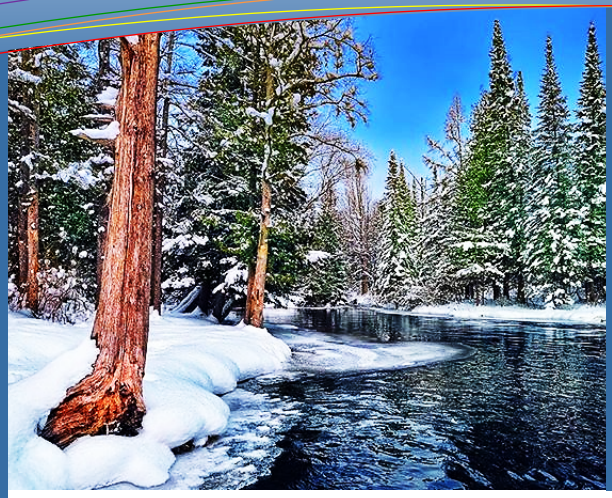
Hepatitis Headlines

Issue 14
December
2016

Viral Hepatitis Surveillance and Prevention Unit, Michigan Department of Health and Human Services
www.michigan.gov/hepatitis



In this issue

Hepatitis A and B Vaccinations among HCV-infected Young Adults

The hepatitis viruses all affect the liver. Therefore, it is recommended that persons infected with HCV be vaccinated against HAV and HBV to protect against further liver damage. We recently examined the proportion of young adults reported to the Michigan Disease Surveillance System (MDSS) with HCV that have HAV and HBV vaccinations reported through the Michigan Care Improvement Registry (MCIR).

Among persons aged 18-29 that were reported to MDSS with HCV between 2013 and 2015, 33% were vaccinated against HAV and 61% against HBV compared to 37.1% and 93.3% for the overall Michigan population.

Of those that received HAV and HBV vaccinations, most did so prior to HCV diagnosis (67% for HAV and 94% for HBV). Those vaccinated post-HCV diagnosis were usually vaccinated within one year.

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HCV Treatment for Incarcerated Populations

According to an article in the **October 2016 issue of Health Affairs**, the Michigan Department of Corrections reported that of 4,400 Michigan inmates with HCV, 20 inmates (0.45%) received HCV treatment in 2014. The authors administered a survey to the directors of the departments of corrections in all fifty states, inquiring about current HCV testing and care practices as of January 1, 2015. Representatives from forty-nine of the fifty state departments of corrections completed the survey.

Nationally, among the forty-one states that had data available, 949 inmates (0.89% of the 106,266 inmates with known hepatitis C) were receiving treatment for HCV. New York provided the highest percentage of inmates with HCV treatment (5.9%) while several states (Oklahoma, Pennsylvania, South Carolina) reported not treating any inmates.

The survey also asked how much money the state's prisons were paying as of September 30, 2015, for a twelve-week course of the hepatitis C drug sofosbuvir and for a twelve-week course of ledipasvir/sofosbuvir. Michigan was one of three states paying the highest price for sofosbuvir at the full list price of $84,000 for one course of treatment. In contrast, Connecticut paid the lowest price at $43,418. Corrections departments like Connecticut can obtain discounts through the 340B Drug Discount Program and/or by negotiating directly with pharmaceutical companies or by collaborating with other organizations to purchase greater quantities of medication at a reduced price.

Providing hepatitis C treatment for inmates presents a unique public health opportunity to reduce the nationwide epidemic since inmates will eventually be released back to their communities. However, the steep price of treatment prevents many state correctional departments from purchasing enough medication to treat many inmates infected with HCV. The authors conclude that "Efforts at the state and federal levels, such as increasing targeted funding and pursuing greater drug discounts, could make HCV treatment more readily available for those who require it in state correctional facilities." **-Kim Kirkey**

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MDHHS Michigan Department of Health & Human Services

HAV and HBV Vaccinations

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Certainly, there are limitations to the analysis as not all vaccinations for persons in this age range would necessarily be reported to MCIR. However, the results seem to indicate that persons with an HCV diagnosis are less likely than the general population to be vaccinated against HAV and HBV and there remains an important public health opportunity to vaccinate these patients.

The Viral Hepatitis Unit recently published a fact sheet with this data to our website. In addition to figures and tables supporting these stats, the fact sheet also provides clinical recommendations for HAV and HBV vaccination:

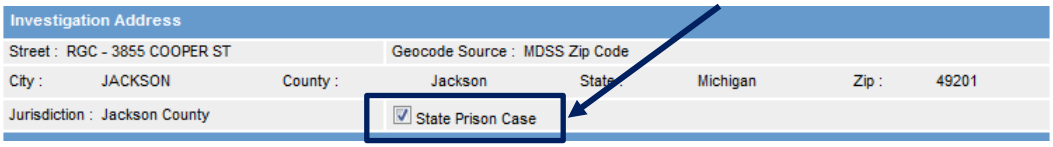
- **HAV**
- **HBV**
- **AASLD Guidelines**

Questions regarding any of the information can be emailed to the Viral Hepatitis Unit at MDHHSHepatitis@michigan.gov.

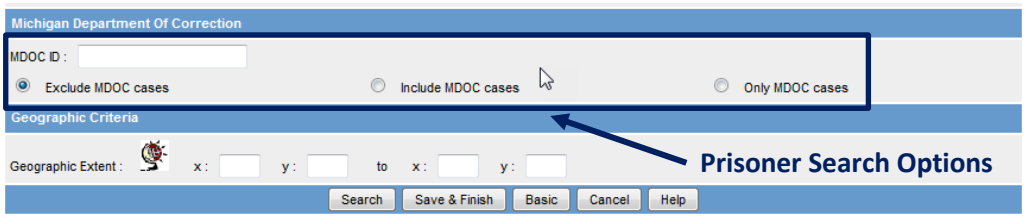
-Janelle Stokely

MDSS version 4.4

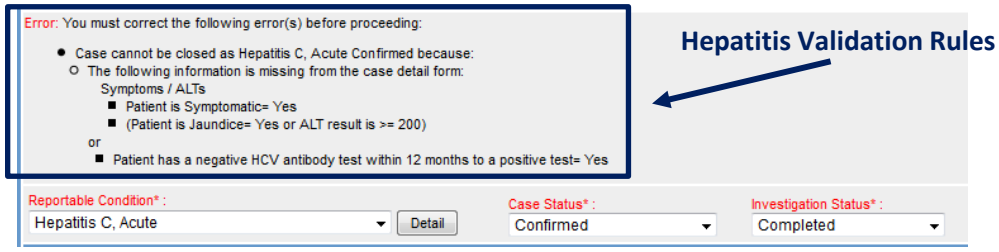
Because you've been so good this year, we are bringing you the gift of another awesome update to the MDSS! This update sees some changes that we wanted to make you aware of – a filter for Michigan Department of Corrections (MDOC) patients and viral hepatitis case classification validation rules.



First, the MDOC filter. In previous versions of the MDSS, MDOC patients were assigned to investigators in the jurisdictions that corresponded to the address of the correctional facility. MDSS work-arounds, such as putting the MDOC prisoner ID in the patient's first name or putting MDOC in the ordering physician's last name helped identify these patient's as persons housed in correctional facilities so that MDOC investigators could coordinate case investigation and closure. However, this still posed a problem for running state-wide or local health department communicable disease reports. In version 4.4 there will be a checkbox assigned to the case to indicate if the patient is an MDOC case. Altarum will also run a script to retroactively check this box for patients with 6 digits in their first name or MDOC indicated in the physician field. Checking the box will assign the case to MDOC, while unchecking the box will assign the case to the residence of the case. Included in the change is a new search filter to include only MDOC cases, exclude all MDOC cases, or include both MDOC and non-MDOC cases. This will make it easier for investigators to manage their queues and run reports.



We are closing in on a new method by which we transmit MDSS data to CDC. Previously, at the end of the week, all cases that have been recently updated are manually extracted, formatted, and sent to CDC via a secure file transfer. However, MDHHS has recently been working to transfer updated cases to CDC via HL7 message in relatively real time. This will be more timely and more thorough reporting as the entire case report form will be sent with each case. Related to that, we want to ensure that cases being transferred to CDC appropriately meet the CDC/CSTE case definition and are not erroneously reported.



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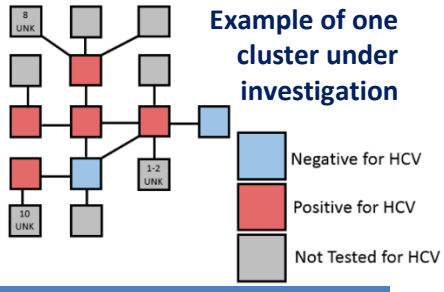
Sexual Transmission of HCV among the MSM Population

Sexual transmission of HCV is rare among monogamous heterosexual partners. However, the risk of sexual transmission is higher in the population of men who have sex with men (MSM). Most reports of sexually transmitted HCV clusters in the MSM community have come from Europe with only two clusters having been previously reported in the United States. Sexually transmitted HCV in the MSM population is often preceded by more transmissible infections like HIV and other STIs. High-risk" sexual behaviors that can result in the transmission of HCV are unprotected receptive anal intercourse (particularly with ejaculation), use of sex toys, insertive or receptive fisting, group sex, and anal douching. Ulcerative STIs like syphilis and Lymphogranuloma venereum (LGV) may also increase the risk of transmission. For individuals who are co-infected with HIV and HCV the rate of progression of morbidity and mortality is accelerated in the absence of HCV and/or HIV therapy.

The Viral Hepatitis unit, in partnership with several local health departments and disease intervention specialists have been investigating a cluster of sexually transmitted HCV in Southeastern Michigan. This investigation began in March 2016 when a list of six patients, who had recently seroconverted, was reported. All six patients were MSM, HIV positive, and had no history of injection drug use (IDU), unlicensed body art, or intranasal drug abuse. To date, 24 cases, 11 suspect cases, and over 40 sexual contacts have been identified (see figures/tables) that have been discovered through patient matching with our HIV database, case investigation and interviewing, and prospectively through expansion of HCV testing in targeted clinics. All of those who have been tested for HCV genotype have been 1A and we hope to conduct further molecular analysis to determine potential transmission patterns.

Epidemiologic Information (n=24)	
Cases	24
Number of Contacts	40+
Age Range	21 - 48 years
Gender	Male (24)
Race	African American (23)
HCV Genotype	1a (12)



Example of one cluster under investigation

Risk Factors (n=24)	
Injection Drug Use	No (23)
HIV+	Positive (24)
Sexual Preference	MSM (20), MSM/Bi (4)
Previous STD History	LGV (5), Syphilis (17), Gonorrhea (14), Chlamydia (14)

We also want to continue to highlight clinical recommendations for HCV testing in this population. The CDC recommends HCV testing for all individuals infected with HIV and persons with a history of multiple sex partners or sexually transmitted diseases. Additionally, annual testing for HCV is recommended for HIV-seropositive men who have unprotected sex with men. The CDC also suggest that providers consider testing for HCV RNA (in addition to HCV antibody) in persons who are immunocompromised, such as HIV infected individuals. The AASLD, recommends HCV screening for all MSM.

-Jenny Gubler

MDSS 4.4

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As such, viral hepatitis case definition validation rules will be implemented within MDSS 4.4. When a viral hepatitis case is closed, an algorithm will perform a logic check on the case report form to ensure that all of the necessary data elements are present to satisfy the condition and status. If, for example, an acute case is closed without jaundice or ALTs>200, the user will be given an error and an explanation regarding what data elements are missing in order to satisfy the condition and status (see figure on page 2). In another example, an error would be given if an investigator tries to close out a perinatal hepatitis B case in a patient greater than 24 months old. Essentially these changes will certify that cases being transmitted to CDC have the necessary documentation in order to satisfy the case definitions.

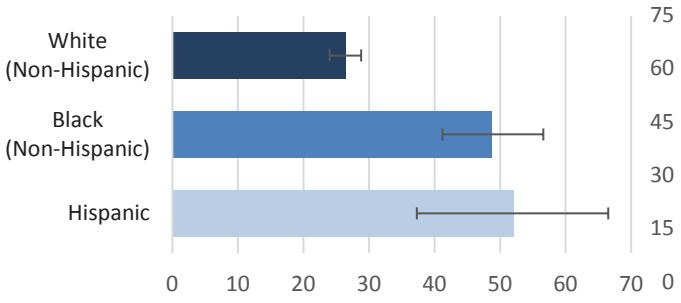
If there are any questions or comments about these changes or additional suggestions for improving MDSS, please feel free to let us know.

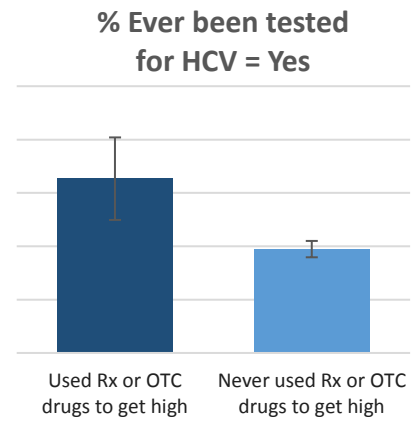
-Joe Coyle

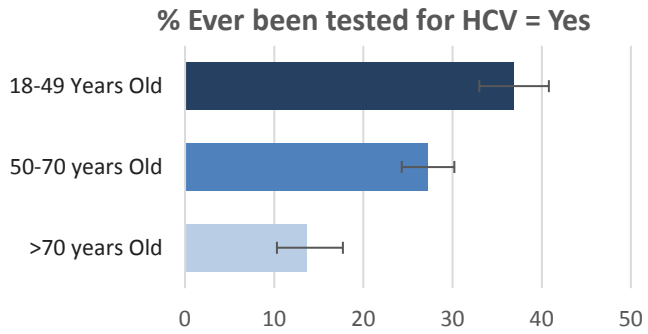
MIBRFSS 2015 HCV Screening

The Michigan Behavioral Risk Factor Surveillance System (MIBRFSS) is composed of annual, state-level telephone surveys of Michigan residents, aged 18 years and older. These annual, state-level surveys act as the only source of state-specific, population-based estimates of the prevalence of various behaviors, medical conditions, and preventive health care practices among Michigan adults. MiBRFSS results are used by public health agencies, academic institutions, non-profit organizations and others to develop and evaluate programs that promote the health of Michigan citizens. In 2015, we added a question to the survey – "Have you ever been tested for Hepatitis C Virus?" The results can be stratified be several factors such as age, race, sex, insurance status, income, geography, and other health behaviors like prescription drug abuse.

Overall, of 2,689 persons surveyed, 773 (30.2%) reported ever having been tested for HCV. The percentage tested for HCV were similar between males (30.2%) and females (30.1%). Below are some other interesting results:

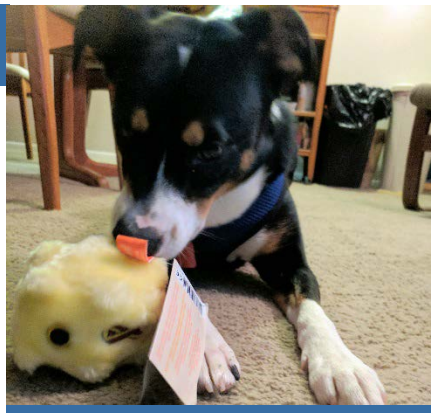






	Ever been tested for HCV = Yes
No Insurance	28.0% (20.8-36.5)
Healthy Michigan Plan	44.8% (27.7-63.3)
Medicaid Only	50.2% (40.3-60.1)
Medicare Only	23.9% (20.2-28.1)
Medicaid and Medicare	32.2% (26.5-38.6)
Private Insurance	29.1% (25.7-32.8)

Some of these results are surprising. For example, ethnic minorities and those with Medicaid health insurance were actually more likely to be tested for HCV. In addition, survey respondents that were less than 49 years old were more likely to be tested for HCV compared to "Baby-Boomers" who are the focus of CDC HCV screening campaigns. Persons who used prescription or over the counter drugs to get high and persons who had ever been tested for HIV (data not shown) were more likely to have received an HCV test. We hope to release a full report of these data in the coming months and continue to use this as a tool to monitor population trends in HCV testing. **-Chardé Fisher**



Janelle's pup Darwin, "eliminating" hepatitis!

Save the Date

1/20 – SEMEC

3/20 – MDHHS TB Conference

5/4 – MDHHS CD Conference

Helpful Links

www.michigan.gov/hepatitis

www.michigan.gov/injectionsafety

www.michigan.gov/hepatitisb

www.michigan.gov/cdinfo

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CDC Hepatitis

CSTE HCV Subcommittee

Know More Hepatitis Campaign

Know Hepatitis B Campaign

CDC Hepatitis Risk Assessment

Hepatitis A

Hepatitis B

Hepatitis C

USPSTF

AASLD

Institute of Medicine Report

One and Only Campaign

Injection Safety Resources

Hepatitis Occupational Exposure Guideline

Blood Glucose Monitoring

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