Liver Cancer: An Emerging Issue

Viral Hepatitis and Harm Reduction Strategies

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Michigan Department of Health and Human Services

Michigan Cancer Consortium
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Agenda

01 Viral Hepatitis and Liver Cancer

02 Hepatitis B and C in Michigan

03 Harm Reduction Strategies
### Snapshot of Viral Hepatitis

<table>
<thead>
<tr>
<th>Source of Virus</th>
<th>Route of Transmission</th>
<th>Chronic Infection</th>
<th>Prevention</th>
<th>Vaccine</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAV</td>
<td>Feces</td>
<td>No</td>
<td>• Pre/Post exposure immunization • Hand hygiene • Total Ig</td>
<td>Yes</td>
</tr>
<tr>
<td>HBV</td>
<td>Blood / some body fluids</td>
<td>Yes</td>
<td>• Pre/Post exposure immunization • HB Ig • Risk behavior modification</td>
<td>Yes</td>
</tr>
<tr>
<td>HCV</td>
<td>Blood / some body fluids</td>
<td>Yes</td>
<td>• Risk behavior modification</td>
<td>No</td>
</tr>
<tr>
<td>HDV</td>
<td>Blood / some body fluids</td>
<td>Yes</td>
<td>• Pre/Post exposure immunization with HBV vaccine • Risk behavior modification</td>
<td>No</td>
</tr>
<tr>
<td>HEV</td>
<td>Feces</td>
<td>No</td>
<td>• Access to clean drinking water • Hand hygiene</td>
<td>No</td>
</tr>
</tbody>
</table>

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Hepatitis B and C Transmission

- Spread when blood or other body fluid infected with the virus enters the body of someone who is not infected.
  - Birth (spread from an infected mother to her baby during birth)
  - Sex with an infected partner
  - Sharing needles, syringes, or drug preparation equipment
  - Sharing items such as toothbrushes, razors, or medical equipment
  - Direct contact with blood or open sores of an infected person
  - Exposure to blood from needlesticks or sharp instruments of an infected person
  - Getting a tattoo or body piercing in an unregulated setting

** NOT spread through casual contact (sharing eating utensils, breastfeeding, hugging, kissing, hand holding, coughing, sneezing, food or water)
Stages of Liver Damage

- Normal Liver
- Chronic Hepatitis
- Cirrhosis
- HCC
- ESLD
- Death

Time:
- 20-25 years
- 25-30 years

HCV Infection

Liver Cancer and Viral Hepatitis

Factors Contributing to Liver Cancer Incidence in the U.S.

- **Hepatitis C Related**: 50%
- **Other**: 35%
- **Hepatitis B Related**: 15%

Hepatitis B is preventable and treatable. Hepatitis C is curable.

*Other: Excessive alcohol use, obesity, diabetes, hemochromatosis, consumption of foods with aflatoxin


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Hepatitis B and C in Michigan
Chronic Hepatitis B in Michigan

Chronic Hepatitis B Cases per 100,000 Persons, Michigan, 2012-2018

<table>
<thead>
<tr>
<th>Year</th>
<th>Michigan Cases</th>
<th>Rate Per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>1416</td>
<td>14.33</td>
</tr>
<tr>
<td>2013</td>
<td>1130</td>
<td>11.43</td>
</tr>
<tr>
<td>2014</td>
<td>1142</td>
<td>11.55</td>
</tr>
<tr>
<td>2015</td>
<td>1076</td>
<td>10.89</td>
</tr>
<tr>
<td>2016</td>
<td>1283</td>
<td>12.93</td>
</tr>
<tr>
<td>2017</td>
<td>1237</td>
<td>12.46</td>
</tr>
<tr>
<td>2018</td>
<td>1089</td>
<td>10.93</td>
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Chronic Hepatitis B in Michigan

Males are more likely to be impacted by Hepatitis B than females
Chronic Hepatitis B in Michigan

Chronic Hepatitis B Cases per 100,000 by Race and Ethnicity, Michigan, 2012-2018

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Chronic Hepatitis C in Michigan

Chronic Hepatitis C Cases per 100,000 Persons in Michigan, 2012-2018

<table>
<thead>
<tr>
<th>Year</th>
<th>Michigan Cases</th>
<th>Rate Per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>8,005</td>
<td>80.99</td>
</tr>
<tr>
<td>2013</td>
<td>6,719</td>
<td>67.98</td>
</tr>
<tr>
<td>2014</td>
<td>8,233</td>
<td>83.30</td>
</tr>
<tr>
<td>2015</td>
<td>7,833</td>
<td>79.25</td>
</tr>
<tr>
<td>2016</td>
<td>11,883</td>
<td>119.76</td>
</tr>
<tr>
<td>2017</td>
<td>12,062</td>
<td>121.49</td>
</tr>
<tr>
<td>2018</td>
<td>10,545</td>
<td>105.85</td>
</tr>
</tbody>
</table>
Chronic Hepatitis C in Michigan

Males are more likely to be impacted by Hepatitis C than females

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Chronic Hepatitis C in Michigan

Chronic Hepatitis C Cases per 100,000 by Race and Ethnicity in Michigan, 2012-2018

Rate per 100,000 People

- African American Incidence
- American Indian / Alaskan Native Incidence
- Caucasian Incidence
- All Other Races Incidence

Case Definition Change, 2016

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Number of Chronic Hepatitis C Cases Reported to MDHHS by Year of Birth, 2018

"Baby Boomers"

18-39 yrs old
Number of Chronic Hepatitis C Cases Reported to MDHHS by Year, 18-39 Years of Age, 2000-2018

Case Definition Change, 2016
MDHHS Action Steps

**SURVEILLANCE**
- Routine surveillance of HBV and HCV in Michigan
- Molecular surveillance is conducted monthly to identify any transmission clusters of hepatitis C for timely detection of a cluster or outbreak

**VACCINATION**
- Immunization campaigns and vaccine education
- Monitoring of the Michigan Care Improvement Registry (MCIR)

**SCREENING**
- Integration of HCV testing at fairs and festivals, CBOs, LHDs, SUD treatment facilities, etc.
- Complimentary HBV and HCV testing through the MDHHS BOL
- Media campaigns, press releases, proclamations, etc.

**TREATMENT**
- Provide resources on patient and financial assistance programs
- Assistance with linkage to care and treatment

**POLICY, SYSTEMS CHANGE**
- Expansion of harm reduction capacity across Michigan to improve health care access to PWID
- Discussions with Medicaid to lift HCV treatment restrictions

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Harm Reduction Strategies

Syringe Service Programs
Harm Reduction

“Harm Reduction is a set of practical strategies that reduce negative consequences of drug use, incorporating a spectrum of strategies from safer use, to managed use, to abstinence. Harm reduction strategies meet drug users where they are at, addressing conditions of use along with the use itself.”

- Harm Reduction Coalition
Everyday Examples of Harm Reduction

- Sunscreen
- Seatbelt
- Vaccines
- Parachute
- Condoms
- Helmet & Goggles
- Mosquito Net
- Safety Vest

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Syringe Service Programs (SSPs)

SSPs, also known as syringe or needle exchange programs, are community-based programs that provide comprehensive harm reduction services.

- Access to free sterile syringes and clean works
- Safe disposal of needles & syringes
- Hepatitis A and B vaccinations
- Referral to substance use disorder treatment
- HIV and Hepatitis testing and linkage to care
Effectiveness of SSPs

A study of Connecticut police officers found needlestick injuries were **reduced by two-thirds** after SSP implementation.

Clients of an SSP are **5 times more likely** to enter a drug treatment program than non-clients.

Following SSP implementation in Portland, Oregon, research demonstrated a nearly **66% decrease** in the number of improperly discarded syringes.
Effectiveness of SSPs

Most importantly, SSPs have **not** shown to be associated with an increase in drug use after SSP implementation. Clients of an SSP are 5 times more likely to enter a drug treatment program than non-clients. Following SSP implementation in Portland, Oregon, research demonstrated a nearly 66% decrease in the number of improperly discarded syringes. Most importantly, SSPs have **not** shown to be associated with an increase in drug use.
Michigan SSP Coordination

Syringe Service Programs
CDC Study to Predict County-level Vulnerability for Rapid Dissemination of HIV/HCV Among Persons Who Inject Drugs

Vulnerability to Rapid Dissemination of HIV/HCV Infections Among Persons Who Inject Drugs: Ranked index using regression model coefficients

States with 1 or more vulnerable counties: 26
93% of these vulnerable counties don’t have any SSPs.

- 205 vulnerable counties have no SSP
- Not a vulnerable county, has an SSP
- 15 vulnerable counties have SSPs
Support from CDC and Governor’s Prescription Drug and Opioid Abuse Commission

• 2016 → Michigan applied for a Determination of Need (DON) from the CDC to allow for the redirection of federal funding to support syringe service programs.
  • CDC approved DON and redirection of federal funds for SSP support

• 2018 → Former Gov. Snyder signed an Executive Order establishing the Michigan Prescription Drug and Opioid Abuse Commission (PDOAC), which endorsed the expansion of syringe service programs in Michigan.
Funding and Progress

MDHHS investing $1.25 million in harm reduction and SSP in FY2019

Through Quarter 2 of FY2019 (October – March), Michigan SSPs:

- Reached over 4,500 clients
- Distributed nearly 300,000 syringes
- Collected 200,000+ used syringes
- Distributed 3,000+ naloxone kits and reported 307 overdose reversals
- Engaged 78 clients in substance use treatment
- Conducted 355 HIV tests (3 positive) and 168 HCV tests (31 positive)
SSP Expansion in Michigan

2016

2019
FAC T:

Syringe Service Programs save lives.

We support SSPs which offer EDUCATION to prevent overdose deaths, testing for HIV and Hepatitis C, and referrals to substance use treatment. SSPs work... and that's a fact.
To find a Syringe Service Program near you, visit Michigan.gov/SSP

Syringe Service Programs

prevent overdose deaths

Syringe Service Programs

save lives

Talk to a program.

MICHIGAN HEALTH

AND HUMAN SERVICES
SAVE THE DATE

2020 MICHIGAN HARM REDUCTION SUMMIT

APRIL 1-2, 2020

THE CONFERENCE CENTER AT SVSU
7400 Bay Road, Saginaw, MI 48604

Pre-Conference Workshop on April 1, 2020 • Full-Day Summit on April 2, 2020

TARGET AUDIENCE:
Public health, public safety, SUD professionals, nurses, physicians, social workers, community health workers, therapists, and educators are encouraged to attend.

Registration opens February 2020.
Questions? Contact MDHHS-Hepatitis@Michigan.gov

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Call to Action

• Hepatitis B and C testing, linkage to care and treatment

• Hepatitis B vaccination

• Support for syringe services programs

• Raising awareness of hepatitis B and C in your community

• Advocating, coalition building, or fostering cross-sector collaboration within your community or organization
Thank you!

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