Call for Action: Hepatitis C in West Virginia

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Objectives

• Describe the epidemiology of Hepatitis C in WV
• Review Hepatitis C investigation and reporting in WV
• Describe Hepatitis C prevention and control efforts in WV
Facts about Hepatitis C

• Hepatitis C virus (HCV) infection is the most common chronic blood-borne infection in the United States

• An estimated 3.2 million persons are chronically infected

• Infection is most prevalent among those born during 1945-1965

• No vaccine against HCV infection exists

Ref : CDC
Hepatitis C virus infection

- Acute Hepatitis C virus infection
- Past/Present infection (Chronic Hepatitis C virus infection)
Etiology

- **Etiologic Agent** - RNA virus - genus (Hepacivirus) in the Flaviviridae family
Reservoir and Transmission

- **Reservoir** - found only in humans
- **Mode of Transmission** - transmitted by the **parenteral** route

Injection drug use is the most common means of transmission

HCV can also be spread **infrequently** through:

- Sex with an HCV-infected person
- Sharing personal items contaminated with infectious blood, such as razors or toothbrushes
- Health care procedures that involve invasive procedures
- Unclean tattooing and body piercing
Incubation and Infectious Periods

- **Incubation Period** – 2 wks to 6 months; average 45 days
- **Infectious Period** – 2 wks after exposure for an indefinite period of time
# Hepatitis C Surveillance

## WV

### WV Legislative Rule 64-CSR-7 (Reportable Disease Rule)

<table>
<thead>
<tr>
<th>Reportable Condition</th>
<th>WHO Reports</th>
<th>WHO to Report</th>
<th>WHEN to Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis C, Acute</td>
<td>Health Care Providers</td>
<td>WVDHHR</td>
<td>Within 1 week</td>
</tr>
<tr>
<td>Hepatitis C, past/present</td>
<td>Laboratories</td>
<td>WVDHHR</td>
<td>Within 1 week</td>
</tr>
</tbody>
</table>
## Case Investigation

<table>
<thead>
<tr>
<th>Activity</th>
<th>Acute Hepatitis C Infection</th>
<th>Past or Present HCV Infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Investigation</td>
<td>Yes, local health</td>
<td>No</td>
</tr>
<tr>
<td>Case Definitions</td>
<td>CDC</td>
<td>CDC</td>
</tr>
<tr>
<td>Type of Data</td>
<td>Clinical, lab, epidemiologic information</td>
<td>Laboratory information</td>
</tr>
<tr>
<td>Surveillance Systems</td>
<td>WVEDSS</td>
<td>WVEDSS</td>
</tr>
<tr>
<td>Data collection</td>
<td>Paper reporting-entered by LHD into WVEDSS; Electronic reports in few months</td>
<td>Paper reporting; Electronic reports in few months</td>
</tr>
<tr>
<td>Data Access</td>
<td>WVEDSS reports</td>
<td>WVEDSS reports</td>
</tr>
</tbody>
</table>
Descriptive Epidemiology

• 15 to 55 cases of acute HCV in WV (2007-2012)

• In 2011, WV had the 2nd highest incidence of acute HCV in the Nation.
Incidence of acute Hepatitis C in WV (n=178) and in the US (2007-2012)
Acute Hepatitis C, by age group and onset year, West Virginia, 2007-2012 (n=178)
Acute Hepatitis C by gender, WV, 2007-2012 (n=178)

- Female: 51.70%
- Male: 48.30%
Acute Hepatitis C by race, WV, 2007-2012 (n=178)

- White: 85%
- Black/African American and Asian: 13%
- Unknown: 1%
Acute Hepatitis C reports, by reported risk exposure — WV, 2007-2012

- **Occupation (Med/dental + Public service workers)**: 3.4%
- **Dialysis**: 0%
- **Surgery (Oral + other)**: 9.6%
- **Needle stick**: 2.4%

Percentage

Risk Exposure

- Yes
- No
- Missing
Acute Hepatitis C reports, by reported risk behavior — WV, 2007-2012

- **Household contact**: 13.8%
- **Multiple sex partners**: 15.7%
- **Sexual contact**: 17.9%
- **Men who have sex with men**: 10.9%
- **Injection drug use**: 33.7%

**Risk behavior**
- Yes
- No
- Missing
Acute hepatitis C cases by county of residence, WV, Year of Onset 2007-2012 (n=178)

<table>
<thead>
<tr>
<th>County of Residence</th>
<th>Number of Cases</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logan</td>
<td>5</td>
<td>2.8%</td>
</tr>
<tr>
<td>Jefferson</td>
<td>6</td>
<td>3.4%</td>
</tr>
<tr>
<td>Kanawha</td>
<td>6</td>
<td>3.4%</td>
</tr>
<tr>
<td>Wyoming</td>
<td>9</td>
<td>5.1%</td>
</tr>
<tr>
<td>Raleigh</td>
<td>30</td>
<td>16.9%</td>
</tr>
<tr>
<td>Mercer</td>
<td>55</td>
<td>30.9%</td>
</tr>
<tr>
<td>Remaining Counties</td>
<td>67</td>
<td>37.6%</td>
</tr>
<tr>
<td>Total</td>
<td>178</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Hepatitis C (Acute) >> Previous Years >> 2008

Select Disease    Choose a Region    Infectious Disease Epidemiology Home Page    FAQ    Help

2008

Mercer
Raleigh

West Virginia Infectious Disease Surveillance 2007 - 2013
(Data Last Updated: October 24, 2013)

Office of Epidemiology and Prevention Services
DIVISION OF INFECTIOUS DISEASE EPIDEMIOLOGY
www.dide.wv.gov
Reported number of Past/Present Hepatitis C cases - WV, 2001–2010 (n=20,574)
Past/Present Hepatitis C cases, by gender - WV, 2001–2010

Year

2001 2002 2003 2004 2005 2006 2007 2008 2009 2010

Number of cases

0 200 400 600 800 1000 1200 1400 1600

Female Male

West Virginia Bureau for Public Health
Your Health Your Safety Our Purpose
Office of Epidemiology and Prevention Services
DIVISION OF INFECTIOUS DISEASE EPIDEMIOLOGY
www.dide.wv.gov
Past/Present Hepatitis C cases, by age group - WV, 2001–2010 (n=20,574)
Past/Present Hepatitis C cases, by race - WV, 2001–2010
Past/Present Hepatitis C cases by county of residence, WV, Report year 2001-2010

- Kanawha: 55.4%
- Mercer: 12.0%
- Cabell: 8.4%
- Cabell: 8.0%
- Raleigh: 6.6%
- Berkeley: 5.6%
- Harrison: 4.0%
- Other Counties: 8.0%
Disease Prevention and Control

1) Reduce the incidence - through community education and programs to prevent drug use, sharing of personal items such as razors, toothbrush, drug paraphernalia

2) Prevent nosocomial transmission - through effective infection control measures.

3) Prevent complications of hepatitis - education about hepatitis A and B vaccines, and consumption of alcohol

4) Prevent transmission –
   - through education of persons who have tested positive for hepatitis C.
   - through screening of blood and organ donors.
   - Universal precautions
Disease Prevention - WV

• Patient education
  – Local Health Nurses educate the patients about hepatitis C risk factors at the time of disease investigation

• Public education
  – WV DIDE epidemiologists and Regional epidemiologists regularly share data in meetings and conferences
Disease Prevention - WV

• Viral Hepatitis Prevention Coordinator (VHPC)
  – Free HCV testing in Opioid Treatment Programs
  – The VHPC also provides information to medical staff, educational systems and public on hepatitis prevention, counseling and referral
  – Authorized to permit indigent testing

• Viral Hepatitis Working Group (VHWG)
  – Free HBV and HCV testing at LHD-STD clinics

• Health Home program
  – Hepatitis C and Bipolar disease