Hepatitis C
Testing in Wisconsin Prisons

Corrections Public Health Webinar
January 21, 2016
Wisconsin HCV Testing Strategy

For the past decade, the Wisconsin Department of Corrections (DOC) has conducted targeted HCV screening using:

• Medical history
• Clinical exam
• Self-reported risk factors
• Inmate request
Wisconsin HCV Testing Strategy

• Results from targeted screening in place up to 2014
  o Incoming inmates tested: 30%
  o Antibody positive rate: 16%
  o Reflexive PCR testing on all antibody positives: 60% RNA positive

• Treatment
  o Based on sentence length and clinical indicators.
Hepatitis C Reports from Wisconsin Department of Corrections

Reported Hepatitis C Virus Infections, Department of Corrections

<table>
<thead>
<tr>
<th>Year of Test</th>
<th>HCV Cases</th>
<th>Percent of Statewide Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>158</td>
<td>7%</td>
</tr>
<tr>
<td>2010</td>
<td>158</td>
<td>6%</td>
</tr>
<tr>
<td>2011</td>
<td>202</td>
<td>8%</td>
</tr>
<tr>
<td>2012</td>
<td>209</td>
<td>8%</td>
</tr>
<tr>
<td>2013</td>
<td>256</td>
<td>10%</td>
</tr>
<tr>
<td>2014</td>
<td>313</td>
<td>10%</td>
</tr>
</tbody>
</table>
Age Distribution in 2009

N=158, median age 43 years

Age Distribution in 2014

N=313, median age 32 years
Hepatitis C Reports from Wisconsin Department of Corrections

Sex

Year 2009: 14% Female
Year 2014: 20% Female

Race and Ethnicity

Year 2014:
- White: 78%
- Black or African American: 10%
- Hispanic: 7%
- American Indian: 3%

2% with unknown race not shown
HCV in Wisconsin Prisons

• Trends of people incarcerated with HCV match trends in community.
• Dramatic rise in young adults, statewide, match HCV trends at intake to prison.
Collaboration and Partnerships

• Quarterly meetings among:
  o Wisconsin Department of Corrections
  o Wisconsin Division of Public Health
  o Wisconsin State Laboratory of Hygiene
  o University of Wisconsin-Madison School of Medicine and Public Health
    ▪ Research, evaluation
    ▪ Clinical providers, infectious disease specialists
Collaboration and Partnerships

- Determine prevalence of HCV at intake to DOC.
- Evaluate screening practices.
  - How many HCV infections are captured by the selective screening currently in place?
  - Is there added value of CDC-recommended birth-cohort screening?
Evaluation: Methods

• Added universal HCV testing to health intake procedures at DOC prison facilities.
  o Two facilities conduct all adult intake exams

• Analyzed data from routine intake exam for association with HCV infection.

• Calculated the proportion with a risk factor among all detections.
Evaluation: Results

• 1,250 Individuals were admitted to adult prison facilities and 1,239 (99%) were tested for HCV
• 155 (12%) were anti-HCV positive at intake
• 110 of 155 (71%) were HCV PCR positive
• Difference between male and female facility:
  o Male anti-HCV positive: 11%
  o Females anti-HCV positive: 21%
Evaluation: Results

Prevalence of HCV infection, by birth cohort.

- Male: 9%, 13%, 25%
- Female: 22%, 21%, 22%

Birth Cohort (Age):
- 1985 and later (under 30)
- 1966-1984 (30-48)
- 1945-1965 (49-69)
Evaluation: Results

Percent of all inmates reporting history of injection drug use at intake, by sex and birth cohort.

- **1985 and later (<30)**
  - Male: 14%
  - Female: 45%

- **1966 – 1984 (30-48)**
  - Male: 12%
  - Female: 31%

- **1945 – 1965 (49-69)**
  - Male: 8%
  - Female: 11%
Evaluation: Results

- **Percent of Inmates with Risk on Intake**
- **Percent of HCV Infections Identified**

- **Birth cohort 1945-1965**: 13%
- **Current screening (injection drug use, liver disease, elevated ALT, HBcAb+, HIV)**: 28%
- **Current screening plus birth cohort 1945-1965**: 37%
- **Universal testing**: 100%
Evaluation: Impact

• Adding birth-cohort screening at intake:
  o Expected to test 600 more people for HCV, annually.
  o Identify 36 anti-HCV infections, 6 chronic.

• Improved screening protocols to be more uniform across the DOC Health Services Unit.

• Made screening practices consistent with CDC HCV testing recommendations.
Challenges

• Limited access to HCV treatment while incarcerated and at re-entry.

• Co-morbid conditions:
  o Mental illness
  o Substance abuse

• Variability of routine HCV screening in jails.
Opportunities for HCV in Correctional Health

• Increase HCV testing of high-risk population
• Increase awareness of HCV infection
• Provide harm reduction and prevention
• Link to health insurance at re-entry
• Treatment within DOC available, even though limited
• Vaccinate for hepatitis A and hepatitis B
Take Home Messages

• Make connections, find collaborations within DOC.
• Use data to highlight opportunities.
Thank You!

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