An Emerging Epidemic: The Public Health Response to Hepatitis C Infection in Wisconsin

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Outline

• Overview of cluster investigations
• Public health response
• Scope of hepatitis C virus (HCV) in Wisconsin
• HCV rapid testing pilot
• “Baby Boomer Testing”
Cluster Investigations in Rural Wisconsin

- North Central six rural counties (2010).
  - Five acute HCV cases reported in a short period of time
  - All young adults who reported injection drug use
  - Resulted in a CDC Notes from the Field

- Manitowoc, both HIV and HCV cases (2011).
  - Local public health agencies did extensive interviews.
  - Documented networks of injectors.

- Electronic Laboratory Reporting (ELR) was key.
Public Health Response

Partners

• Wisconsin DPH
  o Identified clusters
  o Coordinated investigation
  o Worked with State Laboratory of Hygiene on confirmatory testing
  o Provided training and technical assistance to local public health

• AIDS Resource Center of Wisconsin (ARCW)
  o Provided harm reduction services
  o Outreach testing
  o Interviewed cases that could not be located by public health agencies

• CDC Division of Viral Hepatitis
  o Provided onsite assistance with intervention
  o Conducted quasi species analysis on blood specimens
  o Assisted with preparation of Notes From the Field

• Local Public Health Agencies
  o Interviewed cases for risk
  o Provided case follow-up
  o Provided Vaccination and linkage to care
Public Health Response

- Increased outreach testing to young people who inject drugs (PWIDs)
- Piloted the HCV rapid test in harm reduction and outreach settings statewide.
- Integrated HCV testing with the HIV testing program
- Provided training to local health department staff on disease intervention and case follow-up
Viral Hepatitis Program Collaborations

• Community-based organizations: testing and harm reduction services
• State Council on Alcohol and Other Drug Abuse: heroin subcommittee
• Policy Development: Good Samaritan legislation
• Research: UW School of Medicine and Public Health: social networks HCV testing project
Scope of Disease in Wisconsin: Where

- There are 35,000 known HCV infections in people living in Wisconsin.
  - An estimated 1.3% of the Wisconsin population (74,000 people) is living with HCV.
- The majority of people with HCV live in the southeastern (52%) and southern (16%) regions of the state.
- Number reported has increased slowly since 2006.
- On average, 2,500 infections have been detected each year.
Scope of Disease in Wisconsin: Who

- In 2013, most (57%) newly reported infections were in males and most of the known individuals living with HCV (65%) were male.
- New reports in females have increased since 2003.
Scope of Disease in Wisconsin: Who

• In 2013, the largest number (41%) of newly reported infections were in people aged 50 and older.

• *New reports in young adults have increased five-fold since 2003.*

• Median age of reported cases has decreased.
  - 2003: Median age 47 years
  - 2013: Median age 44 years

![Percent of HCV Infections by Age, Wisconsin, 2003-2013](chart)

- Percent of Reported Cases
- Year of Positive HCV Test
- Under 30 years
- 30-49 Years
- 50 Years and older
**Scope of Disease in Wisconsin: People with Injection Drug Use (PWID)**

**Reported Acute HCV Cases, Wisconsin, 2003-2013**

![Graph showing reported acute HCV cases, Wisconsin, 2003-2013](image)

**Rates of Heroin Overdoses and Deaths, Wisconsin, 2008-2012**

![Graph showing rates of heroin overdoses and deaths, Wisconsin, 2008-2012](image)

*Source: Wisconsin hospital inpatient database, Wisconsin emergency department visit database and Wisconsin resident death certificates, Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services. Rates were age-adjusted using the United States standard 2000 population.*
Rapid HCV Testing Program

- Project began in 2012.
- Four agencies serving clients statewide.
  - AIDS Network
  - AIDS Resource Center of Wisconsin
  - Public Health-Madison Dane County
  - 16th Street Community Health Center
- Provided testing and harm reduction services.
- Completed enhanced risk survey.
Scope of Disease in Wisconsin:

HCV Positive Persons with Injection Drug Use

Data from HCV rapid test participation conducted at outreach sites in Wisconsin in 2011-2013. Data is limited to PWID.

Reported Risk Behavior

- Injection drug use in past 6 months: 88%
- Shared injection drug equipment: 85%
- Incarcerated: 77%
- Shared equipment in past 6 months: 53%
- Tattoo: 44%

Race/Ethnicity

- Non-Hispanic White, 82%
- Hispanic, 7%
- American Indian, 7%
- Non-Hispanic Black, 5%
Surveillance System Match:

HCV/HIV Co-infections

• Approximately 900 HCV/HIV co-infections identified since 2000.
• 2.3% of HCV cases have HIV infection.
• 7.1% of HIV cases have HCV infection.
• Demographics of co-infected:
  o 77% male
  o 45% non-Hispanic black
  o 56% Milwaukee County residence
• Risk: 60% reported IDU at the time of HIV report.
Summary of Rapid Testing Project

• Injection drug users can be reached.
  o Collaboration between public health and harm reduction programs enhances case finding.
  o Good correctional/jail health relationships are essential.

• Education regarding HCV is needed for providers, local health department staff and injection drug users.

• The use of rapid HCV tests can be a powerful tool for HCV screening, prevention and treatment initiation in a population with high prevalence of HCV infection.
CDC: Baby Boomer Testing Initiative

BABY BOOMERS HAVE THE HIGHEST RATES OF HEPATITIS C.

Talk to your doctor about getting tested. Early detection can save lives.

www.cdc.gov/knowmorehepatitis
Why Focus on Baby Boomers?

• Persons in the 1945-1965 birth cohort are five times more likely to be anti-HCV positive than other adults.
• Anti-HCV prevalence in the birth cohort = 3.25% (approximately 1 in 33).
• As many as 75% of those infected are unaware of their HCV status.
• Represent 76.5% of all chronic HCV infections.
• 68% have medical insurance.
Why Focus on Baby Boomers?

• Infected population has modifiable disease cofactors.
• 58% consume $\geq 2$ alcoholic drinks/day.
• 80% lack hepatitis A/B vaccination.
• Represent 73% of all HCV-associated mortality.
  o Hepatitis C is the most common reason for liver transplantation in the U.S.
In addition to testing adults at risk for HCV infection, CDC recommends that:

• Adults born during 1945 through 1965 receive one-time testing for HCV without prior ascertainment of HCV risk factor.

• All persons with identified HCV infections receive a brief alcohol screening and intervention as appropriate, followed by referral to appropriate care and treatment services for HCV infection and related conditions as indicated.
HCV Testing for Baby Boomers: What’s the Message?

- High prevalence of HCV.
- Growing burden of HCV-associated morbidity and mortality.
- A large proportion remain untested and unaware of their HCV.
- HCV care and treatment can cure infection and prevent adverse health outcomes.
- Efficacy and safety of HCV treatment is improving.
- Baby Boomer testing does not replace risk-based testing for high risk populations (e.g., injection drug users).
Thank You

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