CDC’s Response to the Viral Hepatitis/Opioid Syndemic

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Caring Ambassadors Syndemic Roundtable
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Presentation Outline

▪ Overview of CDC

▪ Addressing the syndemic
  – Surveillance & research
  – Build state, local, and tribal capacity
  – Support providers, health systems, and payers
  – Build partnerships
  – Empower consumers

▪ Public health policy
CDC

- CDC is the nation’s health protection agency, working 24/7 to protect America from health and safety threats, both foreign and domestic.
- CDC increases the health security of our nation.
CDC’s Role

- Detect and respond to new and emerging health threats
- Tackle big health problems causing death and disability
- Put science and technology into action to prevent disease
- Promote healthy and safe behaviors, communities, and environment
- Develop leaders and train the public health workforce
- Take the health pulse of our nation
CDC’s Response

Interconnected Viral Hepatitis/Opioid Epidemics
Interconnected Epidemics

Drug overdose death rates

Reported new HCV infections

Source: CDC, NCHS Data Visualization Gallery, 2015; CDC, National Notifiable Disease Surveillance System, 2013-2014
CDC Strategy

- Conduct surveillance and research
- Empower consumers
- Build state, local, and tribal capacity
- Support providers, health systems, and payers
- Build partnerships

Source: Dr. Dowell (NCIPC), Update on CDC’s Effort to Address the Opioid Epidemic
Surveillance & Research

- Understand the viral hepatitis/opioid syndemic
- Collect timely, actionable data
- Focus prevention efforts
Rise in Opioid-Related Deaths

Source: National Vital Statistics System Mortality File
Lower U.S. Life Expectancy

12 Leading causes of death (ranked highest to lowest according to No. of deaths in year 2015)

- Diseases of the heart
- Malignant neoplasms
- Chronic lower respiratory diseases
- Unintentional injuries
- Cerebrovascular diseases
- Alzheimer disease
- Diabetes mellitus
- Influenza and pneumonia
- Nephritis, nephrotic syndrome, and nephrosis
- Suicide
- Septicemia
- Chronic liver disease and cirrhosis
- Drug, opioid, and alcohol poisoning deaths

Source: Dowell et al., 2017
Acute Hepatitis C Infections Continue to Soar

Source: CDC, National Notifiable Diseases Surveillance System
Hepatitis A Infections Recently on the Rise

Source: CDC, National Notifiable Diseases Surveillance System
Acute Hepatitis B Infections Slightly Decline

Source: CDC, National Notifiable Diseases Surveillance System
Prevention Research

- Study to reduce hepatitis infections by treatment and integrated prevention services (Hepatitis-TIPS) among non-urban persons who inject drugs (PWID)
- Collaboration with NIDA to fund new studies of opioid abuse in non-urban US and the risks for HBV, HCV, HIV, and STIs
- PCORI study of patient-centered modules or HCV care for PWID
Modeling

- Small-area estimates of HCV prevalence
- Estimating the impact of curative HCV treatment on transmission
- Cost effectiveness of syringe services programs (SSPs)
- Expected impact of prescription opioids on viral hepatitis prevalence
- Impact of selected interventions on projected rates of injection-drug use
Build State, Local, and Tribal Capacity
Build State, Local, & Tribal Capacity

- Implement evidence-based interventions
- Conduct community planning and capacity building
- Establish elimination programs
- Conduct Epi-Aid investigations
Improving Hepatitis B & C Care Cascades

▪ Funding 46 states and 4 jurisdictions
  – Jurisdiction-wide assessment of hepatitis B & C burden
  – Assessment of policies impacting testing, care, and treatment
  – Identify and describe high-burden areas
  – Identify partner sites/organizations for interventions to increase testing
  – Implementation of interventions in 3 priority partner sites
Viral Hepatitis Elimination as a Public Health Threat

- Hazard, KY
  - NIDA/NCI/CDC
  - Preparation phase
  - SSP start up (NIDA-funded)
  - Increase capacity to provide medication-assisted treatment (MAT)
  - Increase capacity to treat HCV
Community Planning and Capacity Building

- NACCHO-led work
  - Lenowisco Health District, SW Virginia: developed comprehensive outbreak response plan for viral hepatitis and/or HIV among PWID and establish state’s first brick and mortar and mobile SSPs
  - Kentucky River District: engage community partners around HCV elimination
  - Huntington, WV: Re-build community support and buy-in for SSPs
Perinatal Hepatitis B Prevention Programs

- Fund GA, MI, NYC, Philly, and WI to:
  - Improve identification of HBsAg-positive pregnant women (baseline: 47%)
  - Improve rates of PVST among infants born to HBsAg-positive pregnant women (baseline: 63%)
  - Collect demographic and clinical data regarding HBsAg-positive pregnant women and their infants

Source: CDC, Perinatal Prevention Program data; CDC/NCHS, NHANES
Outbreaks of hepatitis A in multiple states among people who use drugs and people who are homeless

- Since March 2017, CDC has been providing technical assistance for hepatitis A outbreaks in Kentucky, Michigan, Indiana, California, and Utah
  - Primarily among persons who use injection and non-injection drugs, homeless persons, and their close contacts
  - More than 2,300 cases and 51 deaths

- CDC has provided epidemiology and lab support, testing more than 1,600 specimens, and supporting vaccine policy development and supply
Determination of Need

Source: Van Handel et al., 2016
Support Providers, Health Systems, and Payers
Support Providers, Health Systems, & Payers

- Develop, implement, & evaluate clinical guidelines
- SSP implementation, training, and advocacy toolkit
  - Harm reduction coalition and webinar
  - Implementation plan, communications materials, and evaluation tools
- FOA 1702-Work with SSPs, FQHCs, correctional facilities, and other community-based organizations to identify, treat and engage PWID
- Testing algorithms
Clinical Guidelines
Clinical Tools

Interpretation of Results of Tests for Hepatitis C Virus (HCV) Infection and Further Actions

<table>
<thead>
<tr>
<th>TEST OUTCOME</th>
<th>INTERPRETATION</th>
<th>FURTHER ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCV antibody nonreactive</td>
<td>No HCV antibody detected</td>
<td>Sample can be reported as nonreactive for HCV antibody. No further action required.</td>
</tr>
<tr>
<td>HCV antibody reactive</td>
<td>Presumptive HCV infection</td>
<td>A presumptive result is consistent with current HCV infection, or past HCV infection has resolved, or linkage: false positivity for HCV antibody. Test for HCV RNA to identify active infection.</td>
</tr>
<tr>
<td>HCV antibody reactive, HCV RNA detected</td>
<td>Current HCV infection</td>
<td>Provide person tested with appropriate counseling and link person tested to care and treatment.</td>
</tr>
<tr>
<td>HCV antibody reactive, HCV RNA not detected</td>
<td>No current HCV infection</td>
<td>No further action required in most cases. If distinction between true positivity and linkage: false positivity for HCV antibody is delayed and if sample is repeatedly reactive in the initial test, test with another HCV antibody assay in certain situations: follow up with HCV RNA testing and appropriate counseling.</td>
</tr>
</tbody>
</table>

* If HCV RNA testing is not feasible and person tested is not human immunodeficiency virus (HIV) infected, deferred testing for HCV antibody to demonstrate seroconversion. If HIV infected, consider testing for HCV RNA.

† It is recommended before initiating antiviral therapy to retest for HCV RNA in a subsequent blood sample to confirm HCV RNA positivity.

‡ If person tested is suspected of having HCV exposure within the past 6 months, or has clinical evidence of HCV disease, or if there is concern regarding the handling or storage of the test specimen.

Recommended Testing Sequence for Identifying Current Hepatitis C Virus (HCV) Infection

- Nonreactive
  - No HCV antibody detected
    - Stop
  - HCV RNA
- Reactive
  - Detected
  - Current HCV infection
  - Link to care
  - Additional testing as appropriate
  - Not Detected
    - No current HCV infection
      - Stop

* For persons who might have been exposed to HCV within the past 6 months, testing for HCV RNA or follow-up testing for HCV antibodies is recommended. For persons who are human immunodeficiency virus (HIV) infected, testing for HCV RNA may be considered.

‡ In all settings, repeated HCV testing from negative to positive for HCV antibody, testing with another antibody assay can be considered. Repeat HCV RNA testing if the person tested is suspected to have had HCV exposure within the past 6 months or less clinical evidence of HCV disease, or if there is concern regarding the handling or storage of the test specimen.

Build Partnerships
Build partnerships

- Viral hepatitis partners
- Corrections
- Public safety
Traditional Viral Hepatitis Partners
Correctional Facilities – A Key Partnership

- **Test to detect infections**
  - PWID are concentrated in corrections due to legal penalties for IDU
  - HCV seroprevalence is estimated as high as 44% in some jurisdictions
  - Universal testing is needed

- **Treat**
  - Treatment as prevention in corrections and in community after release

- **Prevent transmission**
  - Syringe services, MAT, HCV cure

- **Contribute to overall HCV elimination**
  - Corrections accounts for ~1/3 of the HCV burden nationwide

Source: Edlin et al., 2015; Varan et al., 2014
Empower Consumers
Empower consumers

- Public education materials
- Public Service Announcements (PSAs)
- Patient education fact sheets
- Online risk assessment tools
Viral Hepatitis Online Risk Assessment Tool

- Online tool to assess risk for hepatitis A, B, and/or C
Intersection of Public Health and Policy
Harm reduction is vital to viral hepatitis prevention

Counties at risk for HIV & HCV outbreaks among PWID

SSP coverage – June 2014

Source: Van Handel et al., 2016; AmfAR, 2014
Harm reduction is vital to viral hepatitis prevention

HCV cases among persons aged 15-29 years and SSPs, July 2015-June 2016

Source: Canary et al., 2015
Harm reduction is vital to viral hepatitis prevention

Comprehensiveness of state laws pertinent to prevention of HCV infection among PWID; US, 2016

Source: Campbell et al., 2017
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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.