

Preventing Infectious Diseases Amid the Opioid Epidemic

The recent explosion of opioid use in the United States has created tremendous risk for hepatitis B (HBV), hepatitis C (HCV), and HIV outbreaks – increasing infection rates among new groups and undoing progress toward curbing transmissions. The nation’s infectious disease public health infrastructure is an underutilized resource in our collective response to the opioid epidemic. The systems and programs built over the last two decades to respond to HIV and HCV are well poised to conduct outreach, engagement, and early intervention services with individuals who use drugs. A comprehensive response to the opioid epidemic, which resulted in over 47,000 deaths in 2017, must include wide-ranging infectious disease prevention efforts, strategies to reduce fatal overdose, increased substance use treatment, and reductions in the infectious disease consequences of the opioid epidemic, particularly rising cases of HBV, HCV, and HIV.

The benefit of “preventing opioid overdoses, deaths, and substance use disorders in 2016 would have exceeded \$95 billion.”

A study conducted by Altarum found that the economic and societal costs of opioid use and related deaths has reached epic proportions and that the benefit of “preventing opioid overdoses, deaths, and substance use disorders in 2016 would have exceeded \$95 billion.” The study also found that the estimated annual costs of indirect medical expenses associated with the opioid epidemic is \$9.2 billion.

Indirect medical costs are the costs associated with the increased risk and treatment for diseases related to illicit drug use such as HBV, HCV, HIV, tuberculosis, and cases of neonatal abstinence syndrome.¹ Additionally, health complications of injection drug use pose a barrier to recovery from drug use disorders, increasing risk of overdose, additional transmission of infectious diseases, endocarditis, and possibly death.

HCV kills more Americans than all 60 nationally notifiable infectious diseases combined. Available data suggest that more than 70 percent of new HCV infections are among people who inject drugs. Currently, there is a lack of services and supports available for people who inject drugs to adequately care for their health and the health of their communities.

Individuals Living with Infectious Disease

- 850,000 – 2.2 MILLION LIVING WITH CHRONIC HEPATITIS B
- 2.4 MILLION LIVING WITH HEPATITIS C
- 1.1 MILLION LIVING WITH HIV

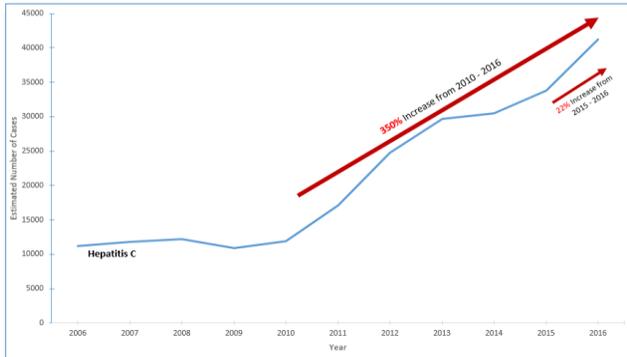
Estimates from latest CDC Data

HBV can be prevented via vaccination, but only 25% of adults in the U.S. are vaccinated. One in four individuals with chronic HBV will develop liver cancer, cirrhosis and/or liver failure, and the five-year survival rate of liver cancer is currently only 20%.

¹ Altarum, *The Potential Societal Benefit of Eliminating Opioid Overdoses, Deaths, And Substance Use Disorders Exceeds \$95 Billion Per Year*, https://altarum.org/sites/default/files/uploaded-publication-files/Research-Brief_Opioid-Epidemic-Economic-Burden.pdf

Rise of Infectious Diseases Tied to Opioid Use

Over the last several years, the opioid epidemic has led to concerning numbers of new HBV, HCV, and HIV infections tied to injection drugs:



- HBV infections are also increasing, linked to injection drug use. In 2016, approximately 20,900 new cases of HBV occurred. Maine saw a 729% increase in acute HBV cases from 2015-2017, with 55% of patients requiring hospitalization, and from 2009-2013, new cases of HBV increased 114% in Kentucky, West Virginia and Tennessee.² From 2014-2016, new cases of HBV increased by 56% in North Carolina, and Southeastern Massachusetts had a 78% increase in new HBV cases over the annual average in 2017.³
- Increases in mother-to-child transmission of HCV are being seen nationwide due to the increase of women using injection drugs. From 2011-2014, commercial laboratory data indicated that national rates of HCV detection among women of childbearing age increased 22%, and HCV testing for children aged 2 years old or younger increased 14%⁴
- Use of drugs is also associated with increased rates of tuberculosis and sexually transmitted diseases (outside of HBV, HCV and HIV).

- In a six-year span starting in 2006, four states (Kentucky, Tennessee, Virginia, West Virginia) saw an increase of 364% in new acute HCV infections among persons under 30 years of age⁵
- From 2015-2017 Maine had a 729% increase in acute HBV, and in a five-year span starting in 2009, new cases of HBV increased 114% in Kentucky, West Virginia and Tennessee.
- New HCV infections have increased nationally, with a 350% increase in new acute HCV infections between 2010 and 2016⁵
- Only 25% of adults are vaccinated against HBV, despite an increase in HBV fueled by the opioid crisis.

Outbreaks of HIV and HCV related to the shared use of syringes have occurred in Indiana, San Diego, and elsewhere in the past two years. The CDC has identified 220 counties across 26 states that are vulnerable to outbreaks of HCV and HIV. Over 93% of those 220 counties vulnerable to HIV outbreaks do not currently have comprehensive syringe service programs. Without these programs and the resources needed to provide sterile injection materials, transmission rates will continue to increase. Many studies over the years have shown that at the community level, the presence of comprehensive syringe service programs is effective at decreasing HIV prevalence.⁵

² Maine Center for Disease Control and Prevention. Acute Hepatitis B Maine Surveillance Report 2017.

<http://www.maine.gov/tools/whatsnew/attach.php?id=806225&an=1>

³ Hepatitis B, C on the Rise in N.C.; Health Officials Encourage Precautions, Testing. <https://www.ncdhhs.gov/news/press-releases/hepatitis-b-c-rise-nc-health-officials-encourageprecautions-testing>, May 2017.

⁴ Koneru A, Nelson N, Hariri S, et al, *Increased Hepatitis C Virus (HCV) Detection in Women of Childbearing Age and Potential Risk for Vertical Transmission - United States and Kentucky, 2011-2014*, MMWR Morb Mortal Wkly Rep. 2016 Jul 22;65(28):705-10.

⁵ Gibson DR, Flynn NM, Perales D, *Effectiveness of syringe exchange programs in reducing HIV risk behavior and HIV seroconversion among injecting drug users*, AIDS 2001;15:1329-1341.

Additional Resources Needed

Health Department & Community-Based Infectious Disease Prevention Services and Programs	
CDC Viral Hepatitis Programs	\$134 million (\$95 million increase)
Eliminating Opioid Related Infectious Diseases Program	\$40 million (\$40 million increase)

The community requests an increase of \$95 million for viral hepatitis programs and \$40 million for eliminating opioid related infectious diseases programs at CDC to implement comprehensive state and local health department and community-based opioid infectious disease prevention services. The CDC's existing viral hepatitis program, which is significantly underfunded, needs an infusion of dedicated resources to build and strengthen our nation's public health infrastructure to assist in the infectious disease response to the current opioid epidemic. Programs and services supported by this increase would allow existing and future viral hepatitis grantees to integrate services with existing prevention and care programs to ensure individuals using injection drugs are able to appropriately access prevention and substance use, mental health, and infectious disease treatment. This \$95 million would allow CDC's viral hepatitis programs, in concert with other programs, including those for HIV/AIDS and STD Prevention, to focus on the following activities:

- Enhance existing, and create new, program and clinical infrastructure at locations serving vulnerable populations to effectively increase testing for HBV, HCV, and HIV, and linkages to substance use prevention services, care and treatment for those who are newly diagnosed with HBV, HCV, and/or HIV and opioid use disorders, as well as increase HBV vaccination among those susceptible to infection. This infrastructure should include linkages to medication-assisted therapies and overdose prevention medications, such as naloxone.
- Increase education to high risk groups and affected communities, about the intersection of the opioid epidemic and infectious diseases, such as HBV, HCV, and HIV.
- Increase viral hepatitis surveillance infrastructure in state health departments to detect acute viral hepatitis infections and enhance ability to conduct cluster identification and investigations.
- Increase capacity of community coalitions, state health departments, and community based organizations to implement effective primary infectious disease prevention programs and services tailored to persons who use drugs and have opioid use disorders.
- Increase access to, and proper disposal of, sterile injection equipment, where legal and with community support.

The Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment (SUPPORT) for Patients and Communities Act of 2018 (115-H.R.6) includes \$40 million in authorized funding (Sec. 7141) to enhance the nation's response to preventing and treating infectious diseases commonly associated with injection drug use and authorizes CDC to expand surveillance for infectious diseases commonly associated with injection drug use, including viral hepatitis. This \$40 million would allow CDC to work collaboratively with state and local health departments to improve knowledge of the full scope of the burden of these infectious diseases. It would also allow the CDC to enhance efforts to prevent and detect infectious diseases, support services that prevent infectious disease transmission among individuals with substance use disorders, and strengthen linkages to addiction, mental health and disease treatment.

For further information please contact Frank Hood, The AIDS Institute (fhood@theaidsinstitute.org).