



## Infectious Diseases and Opioid Use Disorder (OUD) March 2018

Infectious Diseases (ID) and HIV clinicians are increasingly concerned about the role of the opioid crisis in increasing the incidence of infectious diseases. Physicians report that up to 25-percent to 50 percent of their inpatient hospital consultations are for infections in patients who inject drugs. Failing to prevent and treat the infections and the addiction leads to increased deaths and to severe public health consequences.

### Policy Recommendations

The Infectious Diseases Society of America, the HIV Medicine Association and the Pediatric Infectious Diseases Society have developed the following policy recommendations:

**Expand Surveillance to Improve Detection and Response to Injection-Related Infections:** Dedicate new resources to evaluate the magnitude of the impacts of hepatitis B and C, infective endocarditis and other OUD infections and complications and generate national and regional data to help inform the development of prevention and treatment programs. Proposals include providing resources to the Centers for Disease Control and Prevention's Emerging Infections Program to evaluate trends in infective endocarditis and/or to conduct a national study to identify trends in infective endocarditis cases including morbidity and mortality by state. Explore classifying infective endocarditis as a national reportable disease with resources to support enhanced surveillance.

**Expand Evidence-Based Prevention Strategies:** Increase federal funding for CDC, state and local health departments to monitor and respond to the infectious diseases components of the opioid addiction, expand access to syringe exchange and safe consumption sites, and fully implement national HIV, hepatitis B and hepatitis C screening guidelines.

**Build Medical Workforce Capacity:** Leverage telemedicine to improve access to infectious diseases prevention and treatment and increase funding to support education, training and the availability of case management and other supportive service for medical providers on the frontlines of the opioid epidemic, including infectious diseases physicians.

**Increase Access to Treatment and Improve Delivery Systems:** Increase funding for the Substance Abuse and Mental Health Services Administration (SAMHSA) to expand access to substance use and mental health treatment and allow greater flexibility of state funding to respond to local infectious disease outbreaks, eliminate hepatitis C treatment coverage restrictions, and fund demonstration projects to evaluate models of care for co-treating patients with addiction and related infections.

**Invest in Research to Improve Infectious Diseases and Injection Drug Use Prevention and Treatment:** Expand NIH funding for opioid infectious diseases research and fund pilot programs through the CDC and the Health Resources and Services Administration to improve effective treatment and care for patients with infections related to opioid use disorder.

### Prevalent Opioid Use Disorder Infections

Department of Health and Human Services Secretary Alex Azar told lawmakers during an oversight hearing that the president's fiscal year 2019 budget includes funding a program on infectious disease transmission. Such funding is critical to address worsening infectious diseases outbreaks. For example, the HIV and hepatitis C outbreak in Scott County, Indiana in 2015 shed a national spotlight on the intersection between infectious diseases and injection drug use and how rapidly infections can spread.[1] Following the Indiana outbreak, the Centers for Disease Control and Prevention identified 220 counties in 26 states across the country that are at risk for similar HIV outbreaks.

A list of prevalent OUD infections follows and exemplifies the need to address infectious disease transmission as part of a federal response to the opioid crisis.

**Infective Endocarditis:** Infective endocarditis is the inflammation of one or more heart valves due to infection, generally seen in older and less healthy populations. This infection has become more common among young and otherwise healthy individuals as injection drug use increases. A CDC evaluation of data from the North Carolina Hospital Discharge database found that the incidence of hospital discharge diagnoses for drug dependence combined with endocarditis increased more than twelvefold from 0.2 to 2.7 per 100,000 persons per year from 2010 to 2015. Hospitals costs for these patients increased eighteenfold, from \$1.1 million in 2010 to \$22.2 million in 2015. Re-infection following valve surgery frequently occurs in the setting of inadequately addressed substance use disorder. Patients with recurrent endocarditis have high rates of morbidity and mortality. Although national data on infective endocarditis is unavailable, regional and state data analyses indicate a significant increase in hospital admissions due to endocarditis linked to injection drug use.[2][3]

**Hepatitis C Virus:** Hepatitis C virus (HCV) is easily transmitted among injection drug users who share needles or syringes. The CDC has identified significant increases in acute HCV related to increased opioid use. Acute HCV cases increased by 133 percent from 2004 to 2014, and hospital admissions due to injection drug use increased by 93 percent during the same period. Increases in acute HCV cases were higher among white Americans (300 percent), women (250 percent) and among young adults aged 18 to 29 years old (400 percent).[4] Those infected with HCV often have no symptoms for years after infection, making it easy to spread, but leads to severe liver damage, liver cancer, and other co-morbidities (such as diabetes mellitus), if left untreated. HCV is now a curable disease for most people with access to an 8-12-week treatment regimen. However, uptake of the HCV treatment has been low, due in part to severe coverage restrictions based on who can prescribe and patient factors such as sobriety and severity of illness.[5] Barriers to treatment continue despite AASLD IDSA guidance recommending that nearly all people with HCV should be offered treatment to prevent disease progression and to prevent ongoing transmission including those with OUD.[6]

**HIV:** Like HCV, the risk of HIV transmission is high among injection drug users who share needles or syringes. After years of declining rates of HIV cases linked to injection drug use, recent CDC reports show the decline has stalled and areas of the country impacted by the opioid epidemic are reporting increases in new case linked to injection drug use.[7] The Massachusetts Department of Health issued a clinical advisory in November 2017 after identifying a 14 percent increase in new HIV cases linked to injection drug use in 2017.[8] Increases in HIV cases linked to injection drug use also have been reported in Ohio and in Northern Kentucky. [9], Linking individuals newly diagnosed with HIV to treatment is imperative for their health and to prevent the spread of HIV. With reliable access to treatment, people with HIV can stay healthy and their risk of transmitting the virus is near zero. Successful treatment requires strict adherence to a daily drug regimen that is best supported by a comprehensive and supportive care and delivery system like HRSA's Ryan White HIV/AIDS Program.

**Hepatitis B Virus:** Individuals who inject drugs are at risk for hepatitis B virus (HBV). An estimated 2.2 million persons in the United States are chronically infected with HBV and 15- to 25%- percent of persons with chronic HBV infection will die prematurely from cirrhosis or liver cancer. A CDC study of Kentucky, Tennessee, and West Virginia during 2009 to 2013 found that incidence of acute HBV infection increased 114percent in these three states that also are heavily impacted by the opioid epidemic. Specifically, the proportion of cases among whites and individuals aged 30–39 years increased during 2010–2013 and those reporting IDU as a risk factor had increased significantly. [11]

**Skin, joint, and bone infections:** Injection drug use significantly increases the risks of a host of skin, joint, and bone infections including osteomyelitis (bone infection), necrotizing fasciitis (flesh-eating skin infection), tenosynovitis (tendon infection), methicillin-resistant Staphylococcus aureus (MRSA), and numerous others. Many of these infections are rarely seen in non-immunocompromised patients and often require hospital stays and prolonged treatment, which can be further complicated by antimicrobial resistance. Successfully treating the infection is challenging if patients do not have access to substance use disorder treatment during their hospital stay.

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