Global Review: Syringe Exchanges and Opioid Substitution Treatment Reduce Hepatitis C Transmission

October 3, 2017

Researchers at the University of Bristol have released the first-ever global review on the impact of syringe exchange programs and opioid substitution treatment (OST) in reducing hepatitis C virus (HCV) infections. The study, which was recently published in the journal Addiction, confirms that the programs are effective in reducing HCV transmission and ultimately calls for an expansion of harm reduction initiatives worldwide, ScienceDaily reports.

The review begins by noting that over 70 million people are living with hepatitis C around the world and that there are 3 to 4 million new infections each year. In most developing nations, studies show that injection drug use is often the main risk factor for viral transmission. Study authors also noted that while needle exchanges and OST programs have been shown to reduce injecting risk behavior and HIV transmission, until now, no global studies had provided sufficient evidence that the initiatives could also protect against HCV infection.

For the study, U.K.-based researchers analyzed 28 research studies about hepatitis C, injection drug use and harm reduction conducted across Europe, Australia, North America and China. The review ultimately compiled data on 11,070 injection drug users who tested positive for hepatitis C during the course of their respective studies.

On average, researchers calculated that the rate of new hepatitis C infections per year was 19 for every 100 people across the study cohorts. Overall, 32 percent of those infected were female, 50 percent injected opioids, 51 percent injected drugs daily and 40 percent said they had been homeless at some point in their lives.

Study authors also found very consistent and strong evidence that current use of OST could reduce a subjects' risk of hepatitis C infection by up to 50 percent. When combined with high coverage needle syringe programs (NSPs), their HCV risk was reduced even further, by a total of 74 percent.

However, researchers noted that there was much more uncertainty around the effectiveness of using NSPs alone. Studies in Europe that ensured that people received 100 percent sterile syringes per injection showed that the programs could lead to a 50 percent reduction in HCV. However,

studies in North America, which often measured coverage in terms of NSP visits rather than rate of use of clean needles, showed little effect on reducing transmission.

The study concludes by stating that both OST and NSP initiatives should be expanded to prevent transmission of hepatitis C around the world. Researchers also recommended that policies that require injection cessation for OST eligibility and prevent the distribution of syringes while using OST should be removed to maximize HCV risk reduction.
