

## **HCV Exposure, Chronic Infection and Phylogenetic Linkages in a Community Sample of Young Opioid Users in New York City: Opportunity for HCV Elimination**

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### **Background:**

In the U.S., the opioid epidemic has led many young people to misuse pharmaceutical and illicit opioids. However, community surveys to monitor HCV prevalence among young people who use opioids (YPWUO) are rare. This study presents the results of such a serosurvey in New York City.

### **Methods:**

As part of Staying Safe (Ssafe), a trial to evaluate an HCV-prevention intervention, 443 YPWUO (ages 18-30) were screened from 2018-2021. Screening procedures included on-site HCV antibody testing and Dried Blood Spot (DBS) collection. DBS specimens were sent to a laboratory for RNA testing and phylogenetic analysis. Screenees who met additional eligibility criteria (current opioid use, verified by urine drug screening; injecting at least once in the past 6 months, verified by visible injection marks or self-report; and testing HCV and HIV antibody-negative) were enrolled.

### **Results:**

Of 443 participants screened, mean age was 25.4 (SD 3.1) and 28% were female. 75% reported injecting in the past 6 months and 59% presented visible injection marks; 61% screened positive for 2 or more drugs. Of the 27% (121/443) who tested HCV Ab+, 58% had RNA+ DBS specimens, indicating chronic infection. In multivariate analysis, visible track marks (AOR 3.3;  $p=.001$ ) and older age (aged 26-30 vs. 18-21) (AOR 1.3;  $p=.012$ ) were significant predictors of HCV Ab+ status. Track marks were also predictors of RNA+ status. Fifty-seven RNA+ specimens were deemed viable for phylogenetic analysis, of which 24% were genetically linked.

### **Conclusions:**

In a NYC community sample of YPWUO, 27% had been exposed to HCV, 15% were chronically infected, and a quarter of HCV infections were genetically linked. Visible track marks were a strong predictor of HCV exposure. Targeted community serosurveys could help identify chronically infected YPWUO for treatment, thereby reducing HCV incidence and future transmissions.

### **Disclosure of Interest Statement**

No conflicts of interest to report