



ELSEVIER

---



---

 JOURNAL OF  
 ADOLESCENT  
 HEALTH
 

---



---

www.jahonline.org

Adolescent Health Brief

## Prevalence of Hepatitis C Screening, Testing, and Care Experience Among Young Adults Who Use Prescription Opioids Nonmedically

Ayorinde I. Soipe, M.B.B.S, M.Sc. <sup>a</sup>, Lynn E. Taylor, M.D. <sup>b</sup>, Ajibola I. Abioye, M.B.B.S, M.P.H. <sup>c</sup>, Traci C. Green, Ph.D., M.Sc. <sup>a,d,e</sup>, Scott E. Hadland, M.D., M.P.H., M.S. <sup>f,g</sup>, and Brandon D.L. Marshall, Ph.D. <sup>a,\*</sup>

<sup>a</sup> Department of Epidemiology, Brown University School of Public Health, Providence, Rhode Island

<sup>b</sup> Division of Infectious Diseases, The Warren Alpert Medical School of Brown University, The Miriam Hospital, Providence, Rhode Island

<sup>c</sup> Lifespan Center for International Health Research, Rhode Island Hospital/Warren Alpert Medical School, Providence, Rhode Island

<sup>d</sup> Department of Emergency Medicine, Boston University School of Medicine, Boston, Massachusetts

<sup>e</sup> The Warren Alpert School of Medicine of Brown University, Rhode Island Hospital, Providence, Rhode Island

<sup>f</sup> Division of General Pediatrics, Department of Pediatrics, Boston University School of Medicine, Boston, Massachusetts

<sup>g</sup> Department of Pediatrics, Boston Medical Center, Boston, Massachusetts

Article history: Received February 24, 2017; Accepted July 20, 2017

Keywords: Hepatitis C virus; Nonmedical prescription opioid use; Screening; Testing; Linkage to care; Referral; Follow-up; Young adult

---

 A B S T R A C T

**Purpose:** Examine the prevalence of hepatitis C virus (HCV) screening, confirmatory testing, and care experiences among young adult nonmedical prescription opioid (NMPO) users.

**Methods:** We examined self-reported HCV screening history in a sample of 18- to 29-year-olds reporting past-month NMPO use, and we used modified Poisson regression to identify associated sociodemographic and drug use patterns.

**Results:** Among 196 participants, 154 (78.6%) reported prior HCV screening, among whom 18 (11.7%) reported positive results. Of these, 13 (72.2%) reported receiving a confirmatory test; 12 (66.7%) were referred for specialty HCV care. Screening was associated with injection drug use (adjusted prevalence ratio [APR] = 1.19; 95% confidence interval [CI] = 1.05–1.33) and history of hospitalization for psychiatric illness (APR = 1.23; 95% CI = 1.09–1.39). Younger participants (18–23 years) were less likely to have been screened (APR = .69; 95% CI = .57–.85).

**Conclusion:** Among young adult NMPO users, post-HCV screening support and referral to care were inadequate.

© 2017 Society for Adolescent Health and Medicine. All rights reserved.

---

 IMPLICATIONS AND CONTRIBUTION

Although three in four young adults who use prescription opioids nonmedically had been screened for hepatitis C, postscreening diagnostic testing, support, and referral to care were inadequate. Younger participants were less likely to have been screened compared with older participants.

**Disclosure Statement:** The decision to write this manuscript for publication, and the contents are the sole responsibilities of the authors.

**Conflicts of Interest:** The authors have no conflicts of interest to disclose.

**Disclaimer:** 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.

\* Address correspondence to: Brandon D.L. Marshall, Ph.D., Department of Epidemiology, Brown University School of Public Health, 121 South Main Street, Box G-S-121-2, Providence, RI 02912.

E-mail address: [brandon\\_marshall@brown.edu](mailto:brandon_marshall@brown.edu) (B.D.L. Marshall).

Young people who use drugs represent an increasing fraction of the overall hepatitis C virus (HCV)-infected population. This changing demographic has led to a re-emerging epidemic of incident HCV infection [1], particularly among individuals who are less than 30 years old [2].

With the changing epidemiology of HCV infection, the role of illicit drug use, and in particular nonmedical prescription opioid (NMPO) use, among young adults has become an issue of public health concern [3]. NMPO use has been shown to drive

transitions to injection drug use and syringe-sharing behavior, which, in turn, increases the risk of HCV transmission among young adult drug users.

Screening and confirmatory testing for HCV among this population should be encouraged because early detection and treatment of HCV among young persons reduces HCV transmission to other young individuals [4].

In this study, we examined the prevalence of self-reported HCV screening and testing, as well as HCV care experiences, among young adults who use prescription opioids nonmedically in Rhode Island.

## Methods

The Rhode Island Young Adults Prescription Drug Study (RAPiDS) recruited young adult NMPO users (aged 18–29 years) between January 2015 and February 2016. The design of this cross-sectional study has been described elsewhere [5]. In brief, participants were recruited via snowball sampling, bus advertisements, and research assistants who visited areas where young people who use drugs were known to congregate (e.g., bus depots, homeless shelters). Eligible participants were invited to a study office, at which point a trained interviewer administered the electronic survey. NMPO use was defined as opioid use without a prescription, or not as directed by a provider (e.g., higher dose, different route of administration) [6]. The study was approved by the Institutional Review Board of Brown University.

The primary outcome of interest was a history of self-reported HCV screening assessed by asking the following: “Have you ever been tested for hepatitis C?” (yes vs. no). We excluded four (2.0%) persons of the 200 RAPiDS participants who did not respond to the primary outcome of interest, leaving an eligible sample of  $n = 196$ . Among participants reporting screening for HCV with a positive test result, we further sought information on HCV treatment and cure and assessed the support services offered to them. Possible response options to these questions included the following: “I was offered a follow-up blood test”; “I was offered education about living with hepatitis C”; “I was offered education about how not to transmit HCV to someone else”; and “I was offered a referral to a doctor or clinic for my hepatitis care.” The age distribution of the respondents was dichotomized as <24 years versus  $\geq 24$  years based on a similar categorization employed in previous studies in young drug users. Barriers to screening and testing studied included health insurance status, experience of discrimination from the health-care community, comorbid psychiatric illness including depression, and access to drug addiction treatment services [7].

Bivariable associations were examined using Pearson's  $\chi^2$  test and Fisher's exact test for cell counts <5. Modified Poisson regression was used to determine the independent correlates of prior HCV screening. Variables with  $p \leq .20$  from initial bivariable analysis were included in the initial multivariable model, and the model was subsequently reduced using a backward selection procedure based on the quasi likelihood under the independence model criterion, a measure of the fit of nested modified Poisson regression models. To achieve a more parsimonious model, only variables that attained statistical significance at the .05 significance level were retained in the final model (model 2). Statistical analysis was done using SAS software version 9.4 (SAS Institute, Cary, NC), and all  $p$  values are two-sided.

## Results

Among the eligible analytic sample of  $n = 196$ , the mean age was 24.5 years (standard deviation = 3.2), and 154 (78.6%) participants reported ever being screened for HCV. Screening history differed by age group, with a higher proportion of respondents 24–29 years reporting being screened (89.5%) compared with those 18–23 years (59.7%), as shown in Table 1.

Of the 154 participants who reported screening for HCV, 18 (11.7%) reported a positive test result. Among these 18, support services offered after a positive HCV screening test included follow-up confirmatory blood test ( $n = 13$ , 72.2%), referral for specialty HCV care ( $n = 12$ , 66.7%), education about living with HCV ( $n = 9$ , 50%), and education about how not to transmit HCV to someone else ( $n = 10$ , 55.6%).

Two multivariable models were built to determine the independent correlates of prior HCV screening: model 1 was the model with the lowest independence model criterion, while model 2 was the most parsimonious model. In the final model (model 2), age group 18–23 years (adjusted prevalence ratio [APR] = .69; 95% confidence interval [CI] = .57–.85), history of injecting drugs (APR = 1.19; 95% CI = 1.05–1.33), and history of ever being hospitalized for psychiatric illness or depression (APR = 1.23; 95% CI = 1.09–1.39) were all significantly associated with HCV screening history (see Table 2).

## Discussion

This study examined the prevalence of self-reported HCV screening, testing, and care experiences among young adults who use prescription opioids nonmedically in Rhode Island. The prevalence of prior HCV screening was moderately high within this cohort (reported by three in four participants); however, among those who reported receiving a positive result, postscreening diagnostic testing and referral to care were not as frequent. Even though over 90% of participants who had ever injected drugs had been screened for HCV, approximately one in three participants with a positive HCV screening were not referred to care. Further, younger participants aged 18–23 years were less likely to have been screened compared with 24- to 29-year-olds.

These results reveal gaps in current follow-up strategies for HCV management in young adults who screen positive, and indicate suboptimal referral to treatment for young people who use opioids. Establishing case management programs focusing on HCV-positive young adults and involving trained case managers may improve referral and linkage to care while also ensuring adequate supervision of patient follow-up [8–10]. Further, strategies may be needed to encourage young individuals to receive HCV screening and testing early in the course of illicit drug use.

This study has some important limitations. First, the modest sample size in the study increases the likelihood of low statistical power to detect truly significant associations. Second, field-based recruitment occurred at multiple sites, including at needle exchange programs with HCV screening capability. This could be the reason for the high HCV screening response in the cohort; thus, selection bias is possible in the recruitment of participants. The results may not be generalizable to settings with more limited HCV screening and testing services for people who inject drugs.

In addition, we did not give participants additional information about HCV, and this may have affected the number who

Download English Version:

<https://daneshyari.com/en/article/7517265>

Download Persian Version:

<https://daneshyari.com/article/7517265>

[Daneshyari.com](https://daneshyari.com)