

Invited Commentary | Substance Use and Addiction Tobacco Use in High-Risk Populations

Wilson M. Compton, MD, MPE; Emily B. Einstein, PhD

As cigarette smoking in the Unites States has declined overall, it has also become more concentrated into high-risk populations, namely among those who are less educated, have fewer resources, and have comorbid psychiatric disorders (both substance-related and non-substance-related).¹ A stark reminder of this health disparity is the extraordinarily high rate of current cigarette smoking found in the sample of rural individuals who inject drugs included in the study by Akhtar and colleagues.² While opioid misuse is a critical problem that the country has been mobilized to address, populations that experience opioid use disorder (and other severe addictive disorders) also experience multiple other comorbidities. Addiction to tobacco is one of these important comorbidities, and Akhtar and colleagues² document current tobacco smoking among more than 90% of their sample of 986 rural individuals who inject drugs. Akhtar et al² also documented very high rates of recent experiences of homelessness (62.5%) and low overall rates of contact with health care (ie, 42.0% of the study population had received any primary care within the previous 6 months), providing clear evidence for the extreme nature of adversity that these individuals experience and the overall lack of engagement with health care systems.

A high rate of smoking in this group of individuals who inject drugs is an indication that the smoking epidemic continues unabated in certain populations in the United States. Smoking in this country is increasingly concentrated among impoverished and marginalized populations, including those with psychiatric comorbidities.¹ While not a topic of this study, individuals who inject drugs frequently endorse symptoms of psychiatric illness,³ and such comorbidity might contribute to the high rates of tobacco use seen in this sample.

In addition, current smoking was found to be significantly associated with access to Medicaid insurance compared with other insurance (74.2% vs 58.0%, P = .04) and recent experiences of homelessness compared with no recent experience of homelessness (64.0% vs 45.2%, P < .002).² Taken together, these findings suggest that smoking is associated with indicators of relatively greater social stress and poverty even in this high-risk group, which is already extreme in its behavior overall. But what is the direction of this association? Smoking cigarettes is expensive, and whether the financial strain from smoking precipitated some indicators of poverty or is a correlated marker associated with poverty cannot be determined from current data. Nevertheless, it is important not to underestimate the consequences of smoking. Especially in this vulnerable population, smoking confers additional medical risks, financial burden, and social stigma that may compound the challenges posed by injection drug use.⁴

In terms of study limitations, Akhtar et al² describe how the respondent-driven sampling strategy results in findings that are of uncertain generalizability.⁵ Still, studies targeting rural individuals who inject drugs are rare, and the large sample size is exceptional, demonstrating the success of the authors in achieving an important goal of recruiting difficult-to-recruit participants for their research. From a methodological standpoint, successfully recruiting an often hidden population of rural individuals who inject drugs is to be congratulated.

The implications for service delivery are important to consider. The immediate risks of overdose and the devasting social consequences of injection drug use attract public health and medical attention, but tobacco use is also likely a key contributor to the shortened life spans of individuals who inject drugs.⁴ The findings reported by Akhtar et al suggest that this rural group of individuals who inject drugs has not successfully been reached by tobacco cessation interventions. What are the most useful policies and interventions? The authors identify a low rate of primary care utilization and

Open Access. This is an open access article distributed under the terms of the CC-BY License.

JAMA Network Open. 2020;3(3):e200474. doi:10.1001/jamanetworkopen.2020.0474

Related article

Author affiliations and article information are listed at the end of this article.

JAMA Network Open | Substance Use and Addiction

remind us that individuals who inject drugs typically rely on urgent or emergency care for health care services (if any). In addition to considering how smoking behaviors might be targeted in the formal medical settings that these individuals who inject drugs are likely to encounter,⁶ an alternative is to consider whether syringe services programs could incorporate smoking cessation interventions. Just as there has been an emphasis on adding tobacco control to addiction treatment programs, including those that primarily treat opioid use disorder, syringe services programs might be venues capable of delivering this type of treatment engagement and health promotion to populations with limited health care contact.⁶

The study by Akhtar and colleagues² is a reminder that addressing injection drug use is not the only problem to be targeted in caring for individuals who inject drugs, just as the primary substance use disorder is not the only issue to be addressed in caring for individuals with addiction.⁷ A broader view of health needs should be considered. In fact, there may be somewhat paradoxical improvements in the underlying primary opioid use disorder, methamphetamine use disorder, or any other primary illicit drug addiction, when other health care needs, such as tobacco addiction, are addressed.⁷ Benefits of addressing tobacco use include the direct and clear benefits to health when tobacco use ceases, as well as setting the stage for additional improvements in quality of life from greater attention to general health issues overall.

ARTICLE INFORMATION

Published: March 10, 2020. doi:10.1001/jamanetworkopen.2020.0474

Open Access: This is an open access article distributed under the terms of the CC-BY License. © 2020 Compton WM et al. *JAMA Network Open.*

Corresponding Author: Wilson M. Compton, MD, MPE, National Institute on Drug Abuse, National Institutes of Health, 6001 Executive Blvd MSC 9581, Bethesda, MD 20892-9581 (wcompton@nida.nih.gov).

Author Affiliations: National Institute on Drug Abuse, National Institutes of Health, Bethesda, Maryland.

Conflict of Interest Disclosures: Dr Compton reported owning long-term holdings in General Electric, 3M, and Pfizer outside the submitted work. No other disclosures were reported.

Disclaimer: The opinions expressed in this article are those of the authors and do not necessarily represent the opinions of the National Institute on Drug Abuse, the National Institutes of Health, or the US Department of Health and Human Services.

REFERENCES

1. Hughes JR. An update on hardening: a qualitative review [published online March 14, 2019]. *Nicotine Tob Res.* doi:10.1093/ntr/ntz042

2. Akhtar WZ, Mundt MP, Koepke R, et al. Prevalence of tobacco use among rural-dwelling individuals who inject drugs. *JAMA Netw Open*. 2020;3(3):e200493. doi:10.1001/jamanetworkopen.2020.0493

3. Dinwiddie SH. Psychiatric comorbidity in people who inject drugs. *Psychiatr Ann*. 2017;47(1):27-32. doi:10.3928/00485713-20161206-02

4. Brown-Johnson CG, Cataldo JK, Orozco N, Lisha NE, Hickman NJ III, Prochaska JJ. Validity and reliability of the Internalized Stigma of Smoking Inventory: an exploration of shame, isolation, and discrimination in smokers with mental health diagnoses. *Am J Addict*. 2015;24(5):410-418. doi:10.1111/ajad.12215

5. McCreesh N, Frost SDW, Seeley J, et al. Evaluation of respondent-driven sampling. *Epidemiology*. 2012;23(1): 138-147. doi:10.1097/EDE.0b013e31823ac17c

6. Clarke JG, Stein MD, McGarry KA, Gogineni A. Interest in smoking cessation among injection drug users. *Am J Addict*. 2001;10(2):159-166. doi:10.1080/105504901750227804

7. Weisner CM, Chi FW, Lu Y, et al. Examination of the effects of an intervention aiming to link patients receiving addiction treatment with health care: the LINKAGE Clinical Trial. *JAMA Psychiatry*. 2016;73(8):804-814. doi:10. 1001/jamapsychiatry.2016.0970

JAMA Network Open. 2020;3(3):e200474. doi:10.1001/jamanetworkopen.2020.0474