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Overdose Fatality and Surveillance as a Method for Understanding Mortality Trends in Homeless Populations

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To the Editor:

In their recent article, Baggett and colleagues present an important update on excess mortality among US homeless persons¹. Following 28,033 individuals, the investigators showed that drug overdose is an epidemic among homeless adults. Our data from a community-recruited cohort of homeless and unstably housed San Francisco women, which began recruiting HIV-infected individuals² and recently included uninfected individuals (150 HIV+ and 150 HIV-), indicate remarkably similar results and suggest generalizability of these findings.

In the last four years, we observed a 3.0% annual mortality rate. This rate is approximately 10 times higher than rates among women from the same age group (45–54 years) in the general US population³. Death certificates indicate that 50% of deaths were due to acute intoxication in which cocaine was detected at autopsy, 20% involved AIDS-related complications, and 30% were due to liver disease, renal disease and suicide. Thus, while half of the cohort was HIV-infected, cocaine-related acute intoxication, rather than HIV-related complications, was the most common cause of death.

The mortality rate of 3.0% observed in the women's cohort is higher than the rate of 0.05% observed in a previous cohort of HIV-infected men and women recruited in the same manner⁴. The mortality rate and deaths due to acute intoxication appear to have increased, yet we have not observed increases in drug use frequency. This observation is consistent with a national trend of increased mortality due to illegal drug use⁵. There is a critical need to better understand the influences and mechanisms of drug toxicity in homeless persons.

While our findings are similar to those reported by Baggett and colleagues regarding an increase in fatal overdose, they report that opiate use was the most common cause of death. In contrast, cocaine was the most common drug detected in our women's cohort. Whether this difference can be attributed to gender-based drug preferences, geographic availability, recruitment from clinical settings in the Baggett study and from community-based sites in ours, or other unmeasured factors is currently unknown. In recent interviews, we found that

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A letter to the editor in regard to:

Baggett TP, Hwang SW, O'Connell JJ, Porneala BC, Stringfellow EJ, Orav EJ, Singer DE, Rigotti NA. Mortality Among Homeless Adults in Boston: Shifts in Causes of Death Over a 15-Year Period. *JAMA Intern Med.* 2013 Feb 11;173 (3):189–95.

cocaine-using homeless women often did not consider symptoms of toxicity, such as chest tightness, breathing irregularity and hallucination, to be “overdose,” and many reported that it is not possible to overdose on stimulants, only central nervous depressants such as heroin. Moreover, many stimulant users considered these potentially dangerous symptoms to be part of the “cocaine experience.” Over 65% of the women in our cohort use crack cocaine; it is more commonly used than heroin (17%) or methamphetamine (21%), so the common belief that it is impossible to overdose on cocaine may contribute significantly to the high rate of fatal overdose.

Taken collectively, data from recent studies clearly indicate that overdose is a widespread problem in need of a cohesive response, and that the social context of homelessness may increase risk. Overdose prevention programs that address polysubstance use are needed in community settings. Research that elucidates mechanisms and mediators of fatal overdose is needed to inform prevention programs and clinical practice.

Acknowledgments

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