

2017-06

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Michael G. Vaughn, Christopher P. Salas-Wright, Sehun Oh. 2017. "Trends in heroin access among adolescents in the United States, 2002–2014." *Preventive Medicine*, v. 99, pp. 67-68.

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Research Letter

Trends in Heroin Access among Adolescents in the United States, 2002-2014

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Declaration of Interest: This research was supported in part by the National Institute on Drug Abuse at the National Institutes of Health (R25 DA030310; PI: James C. Anthony). The authors declare that there are no conflicts of interest associated with this manuscript.

Word Count – Main Text: 572

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Despite well-founded concerns regarding the use of heroin and other opiates among adolescents, little is known regarding trends in adolescent views of access to heroin (Martin et al., 2016; Palamar et al., 2016). Thus, it is important to examine changes in the difficulty (or ease) of obtaining heroin. We characterize these trends and assess the population-level behavioral risk factors associated with heroin access among adolescents 12 to 17 in the United States (US).

Methods

The National Survey on Drug Use and Health (NSDUH) provides population estimates for substance use and health-related behaviors in the civilian, noninstitutionalized population ages 12 and older in the US (Substance Abuse and Mental Health Services Administration C for BHS and Q, 2014). Using survey data from 230,452 adolescent participants (ages 12-17) collected between 2002 and 2014, we examine secular trends in perceived access to heroin. Heroin access was based on the following question: "How difficult or easy would it be for you to get some heroin, if you wanted some?" Response options include: probably impossible, very difficult, fairly difficult, fairly easy, and very easy. For tests of trend, we followed the approach outlined by the Centers for Disease Control and Prevention (2014) in which survey year was included—along with age, gender, race/ethnicity, household income, father in household, school enrollment, and population density—as a continuous independent variable in logistic regression models predicting heroin access. All analyses were adjusted using survey data functions available in Stata 14.1 MP (Stata Corp LP, 2015).

Results

Overall (see Figure 1), the percentage of adolescents reporting it would be "probably impossible" to acquire heroin increased significantly (AOR = 1.040, 95% CI = 1.037-1.044) between 2002 (39.45%, 95% CI = 38.39-40.51) and 2014 (49.61%, 95% CI = 48.32-50.90). This increase was uniformly significant across age, gender, race/ethnicity, and population density differences, as well as among youth reporting use/no use of tobacco, alcohol, marijuana, and involvement/no involvement in the criminal justice system. We also identified significant decreases in the proportion of youth reporting that obtaining heroin would be "fairly difficult" (AOR = 0.975, 95% CI = 0.970-0.979 [2002: 18.87, 2014: 14.68]), "fairly easy" (AOR=0.956, 95% CI = 0.950-0.961 [2002: 10.55, 2014: 6.37]) or "very easy" (0.947, 95% CI = 0.939-0.956

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[2002: 5.27, 2014: 3.09]). No change was observed for youth reporting it would be "very difficult" to access heroin.

We conducted additional logistic regression analyses to examine the behavioral characteristics of these youth. Youth reporting that accessing heroin would be "probably impossible" are significantly more likely than their peers to report having a father in the household (AOR = 1.044, 95% CI = 1.015-1.073), and reside in small Metropolitan (AOR = 1.042, 95% CI = 1.017-1.067) or rural (AOR = 1.165, 95% CI = 1.122-1.210) areas. They are also less likely to report past 30-day tobacco (AOR = 0.856, 95% CI = 0.826-0.887), alcohol (AOR = 0.677, 95% CI = 0.653-0.702), and marijuana use (AOR = 0.798, 95% CI = 0.764-0.834), and criminal justice system involvement (AOR = 0.767, 95% CI = 0.742-0.830).

Discussion

We identified significant increases in the proportions of adolescents reporting that heroin would be "probably impossible" to obtain. Also observed were concurrent decreases in reports of the relative ease of obtaining heroin and reduced odds of behavioral risk among youth with limited access. Overall, trend data suggests a changing landscape with respect to heroin access among adolescents that converges with recent findings on other illicit drugs (Salas-Wright & Vaughn, 2016).

Conflict of interest statement

The authors declare that there are no conflicts of interest.

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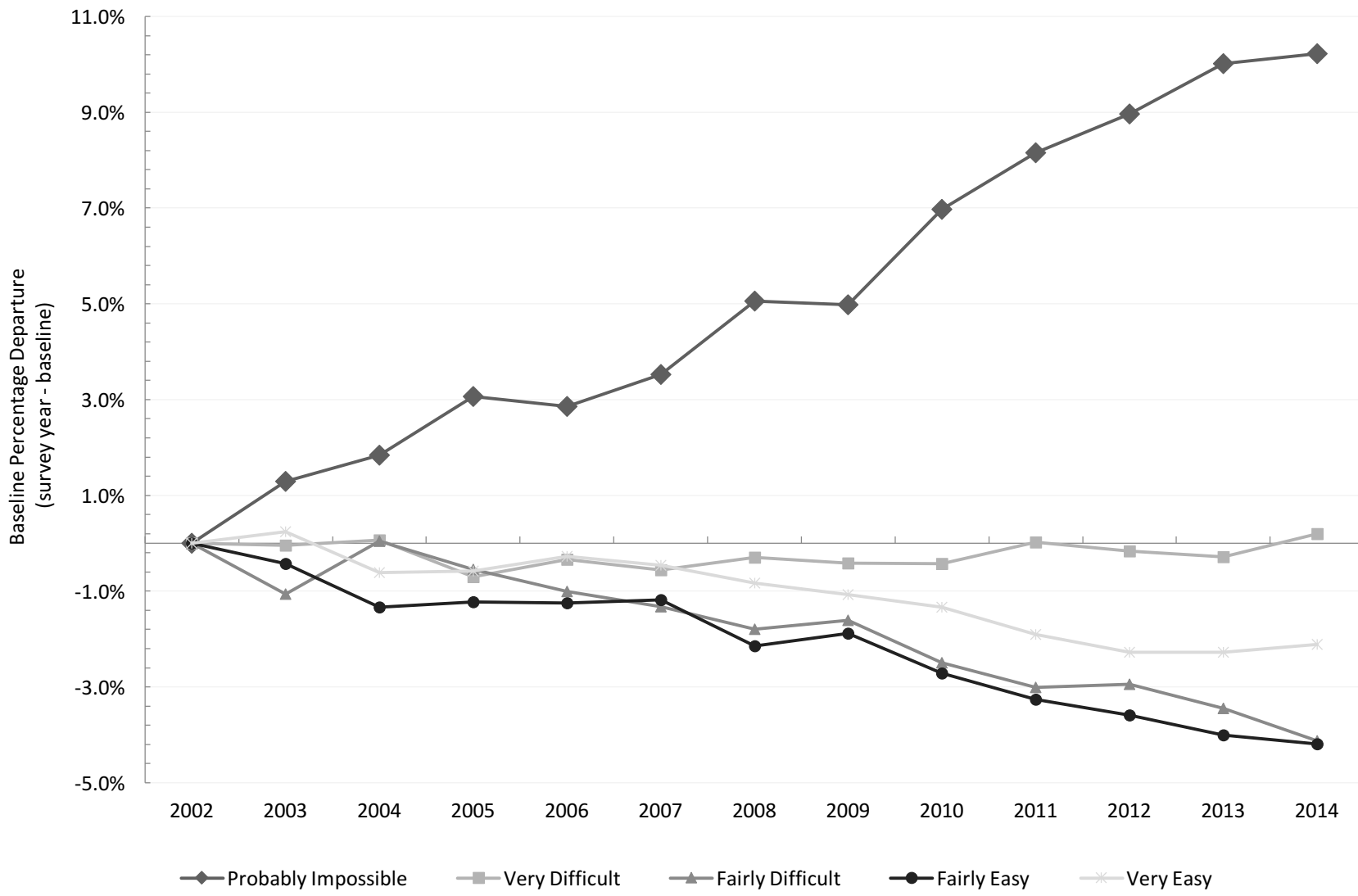


Figure 1. Percent Change in Perceived Heroin Accessibility among Adolescents (aged 12-17) in the United States between 2002-2014