



Emerging Drug Trends Report

July 2018 | Shedding new light on America's No. 1 public health problem

Does socioeconomic advantage lessen the risk of adolescent substance use? *New research yields surprising findings*

Overview

About one quarter of eighth graders and half of all high school seniors in the U.S. have used an illicit drug at some point in their lives (Miech et al., 2018). Because alcohol and other drug use during the teen years—a critical neurodevelopmental period—is highly predictive of a wide variety of later problems (Miech et al., 2018), much research has focused on the risk and protective factors for adolescent substance use, including the environments in which children grow up. This *Emerging Drug Trends Report* describes the results of recent studies that provide new information about how characteristics of those environments influence youth substance use. We examine socioeconomic status, school environments and parenting practices.

This new research includes findings that will surprise many and also reinforce the longstanding notion that substance use—and especially substance use disorder—is an “equal-opportunity destroyer” because it affects families of all socioeconomic backgrounds. For example, some forms of substance use during adolescence, like cigarette smoking, are consistently associated with socioeconomic disadvantage, whereas other forms such as excessive drinking appear to disproportionately affect upper-middle-class families (Luthar, Small, & Ciciolla, 2017). Meanwhile, for marijuana use, what might be more predictive of risk than an individual's socioeconomic status is the level of acceptance of marijuana at his or her school (Milliren, Richmond, Evans, Dunn, & Johnson, 2017). One common denominator across many studies is the importance of parents, and the research in this report sheds light on parental practices that might lessen or delay a child's risk of becoming involved with substance use, regardless of socioeconomic status.

Are there differences in adolescent substance use by parental education and/or family income?

Two national surveys give a glimpse of the relationships among levels of parental education, family income and adolescent and young adult substance use. Data from the Monitoring the Future (MTF) survey (2018) reveal that high school seniors whose parents had a college degree were more likely to have gotten drunk in the last month than seniors whose parents had not graduated high school (24 percent vs. 16 percent, respectively). The opposite association was observed for recent cigarette smoking: Adolescents whose parents were more educated were less likely to be smokers than adolescents whose parents had less education. Results from the National Survey on Drug Use and Health [NSDUH (2017)] were consistent with the findings of the MTF survey and showed that adolescents (age 12 to 17) from families with higher incomes were slightly more likely to be consumers of alcohol in the past month than adolescents in the

lowest family income group (10 percent compared to 7 percent), but less likely to smoke cigarettes. Neither survey found appreciable differences in adolescent marijuana use by parental education or family income.

New findings from research on “children of affluence”

For several years, Suniya Luthar, PhD, professor of psychology at Arizona State University (ASU), and her colleagues have been conducting studies to examine substance use behaviors among children growing up in upper-middle-class communities. Their work has demonstrated that these children are at elevated risk for excessive drinking and other forms of substance use compared to their less affluent counterparts. Other research groups have found similar results. The ASU group’s most recent study followed two existing groups of adolescents from an affluent northeastern suburb for 10 years—through high school, college and into young adulthood [until age 27 (Luthar et al., 2017)]. They were particularly interested in three questions:

- a) Did these adolescents “mature out” of their substance use behaviors?
- b) Were they more or less likely than the general population to meet criteria for a substance use disorder in adulthood?
- c) Did rules set by parents early on have an influence on young adult substance use?

Their findings were somewhat surprising. Although some decreases in excessive drinking were found over time, there was little evidence that study subjects matured out of other substance use behaviors. Second, the estimates of lifetime diagnoses of substance use disorder in these groups were two and three times higher than the national average. Nonmedical use of prescription stimulants was particularly high in the two groups, with use estimates ranging from 15 percent to 20 percent, almost twice as high as national norms. Finally, the researchers found that parents’ stringent attitude toward substance use at age 18 had a protective influence on substance use in adulthood. High school seniors who perceived that they would face consequences from their parents if they engaged in substance use and/or attended unsupervised parties in their senior year of high school were less likely to get drunk and use marijuana at age 22 compared to their peers with more-lenient parents. The authors were careful to point out that “repercussions” are most likely to be effective if they are mutually agreed upon and consistently enforced in the context of a warm and supportive parent-child relationship, and not overly severe or harsh.

“We found alarmingly high rates of substance use among young adults whom we’d initially studied as teenagers,” said Dr. Luthar. “There’s a web of factors that probably converge . . . and these are tied to the affluence and upward mobility of the communities, overall, that are served by the schools that we started in.”

Predicting young adult marijuana use: the importance of early school environments

Another study found wide school-level variability in the prevalence of student marijuana use. Milliren et al. (2017) analyzed data gathered from 18,329 seventh to twelfth graders from 128 schools from the nationally representative dataset—the National Longitudinal Study of Adolescent to Adult Health. Some schools had almost no students using marijuana in the past 30 days, whereas other schools had up to one-third of students reporting past-month use. School-level marijuana use was significantly predictive of marijuana use 14 years later when the study participants were in young adulthood. And while the socioeconomic status of the school and neighborhood were not predictive of use, young adults with more-educated parents had higher odds of having used marijuana in the past month compared to their peers with less-educated parents. Of additional note: family receipt of public assistance during a child’s adolescent years, while predictive of marijuana use in adolescence, was not predictive of use in young adulthood.

What does the research evidence mean for parents?

The studies described above highlight the complexity of the relationship between socioeconomic status and youth substance use, and show that no one group is immune from the risk of starting to use substances or developing a substance use disorder. Adolescents living in all types of communities might be at risk for substance use for different reasons. For example, more disadvantaged families might live in environments where there are higher levels of drug availability (Storr, Chen, & Anthony, 2004). Others have speculated that adolescents from more socioeconomically advantaged families might feel more invincible regarding the possibility of negative consequences related to substance use, or perhaps experience more achievement pressures and isolation from adults than their peers, which could be associated with more substance use (Hanson & Chen, 2007). It also might be more difficult for working parents to monitor and supervise their children's activities because they work during particularly high-risk times (e.g., between 3 p.m. and 5 p.m. when children are out of school but often unsupervised).

Speculating why she has observed a relationship between affluence and substance use in her research, Dr. Luthar says, “these are kids with plenty of disposable income with which they can get fake IDs (of the best quality), as well as alcohol and both prescription and recreational drugs. Sure, not all these kids have that kind of money, but a sizeable number do, and this then contributes to relatively easy access to substances for many—for example, at large parties convened by the many with ample means.” She also suggests that, “in the peer group, substance use is in fact not just commonplace but is actively encouraged. In our previous work, we have found that in affluent suburbia, kids who report high rates of substance use are among those who are most often rated as ‘popular’ by their classmates. And that is a pretty powerful draw—most teenagers want so much to be popular.”

While socioeconomic disadvantage has long been recognized as a risk factor for some adolescent health behaviors such as smoking, the studies described above hint at the notion that having more educated, upper-middle-class parents might actually confer risk for excessive drinking and other forms of substance use (Luthar et al., 2017; Milliren et al., 2017). Without knowing exactly why this might be true, it is important for all parents to be aware of how influential they are in their children's lives throughout all stages of development.

Of more affluent parents, Dr. Luthar says, “sometimes we as parents can be lulled into some complacency about these teens' substance use, for a couple of reasons. The first is that many of these youngsters manage to maintain such impressive academic and extracurricular records that it seems unthinkable, even ludicrous, to visualize them as regularly inebriated. And the second factor is that some parents—by no means all or even most—are a bit too lax about their kids' substance use.”

Parental knowledge, attitudes and behaviors can affect adolescent decisions regarding substance use. Numerous research studies confirm that certain parenting practices reduce the risk for adolescent and young adult substance use. First, strict limits set by parents regarding substance use can reduce the likelihood that their children engage in risky substance use and experience related consequences. Specifically, restricting access to alcohol and establishing firm rules and consequences for alcohol use in adolescence significantly reduces risky drinking and related problems (Sharmin et al., 2017). At the college level, one study showed that zero tolerance for underage drinking was the most protective parental message against alcohol use and consequences, even if the student was already drinking alcohol (Abar, Morgan, Small, & Maggs, 2012). Harm-reduction messages—an approach aimed at reducing the dangerous consequences of risky drinking—include advising children to “limit drinking” or “avoid drinking quickly.” The study found that students whose parents endorsed harm-reduction messages consumed 150 percent more alcohol than students who perceived no parental message regarding underage drinking. With regard to marijuana use, a recent study found that adolescents who believed their parents to be less permissive of marijuana use were less likely to use marijuana and other illicit drugs (Vermeulen-Smit, Verdurmen, Engels, & Vollebergh, 2015). Second, spending more time with children (i.e., high levels of parental involvement) and attending school events have been found to be associated with lower levels of adolescent substance use (Criss et al., 2015; Hayakawa, Giovanelli, Englund, & Reynolds, 2016).

Third, high quality parent-child communication about alcohol use and its consequences significantly predicted lower levels of drinking and fewer alcohol-related problems (Hausheer, Doumas, Esp, & Cuffee, 2016). Conversely, adolescents are more likely to engage in substance use if their parents are permissive of it, engage in substance use themselves and perceive less risk in such behavior (Cambron, Kosterman, Catalano, Guttmanova, & Hawkins, 2017).

Recent studies also show that adolescents are more likely to engage in substance use if their parents do not monitor their child's behaviors and peers as closely as others (Farley & Kim-Spoon, 2017; Rioux et al., 2016; Russell & Gordon, 2017). In a recent review of several well-designed studies that measured substance use during adolescence into young adulthood, parental monitoring was shown to be the strongest parental protective factor predicting reduced alcohol use and misuse [compared to parent-child relationship quality, parental support and parental involvement (Yap, Cheong, Zaravinos-Tsakos, Lubman, & Jorm, 2017)]. Researchers have used a variety of assessments to measure the extent to which children perceive their parents are aware of their activities and whereabouts; see **Table 1** for one method that has been used.

Resources on how parents can establish rules and consequences for their child's substance use within the context of a warm, nurturing relationship can be found among the literature here: www.hazeldenbettyford.org/recovery/families-friends/resources. Parents of all socioeconomic backgrounds could benefit from more research-based tools and resources to help them understand how they can be positive role models and engage in behaviors that might reduce their children's risk of early involvement in substance use.

Table 1. What is "Parental Monitoring"?

The following questions have been asked of adolescents in research studies to understand the extent to which parents kept tabs on their whereabouts and activities. The total "score" on these questions yields a measure of "parental monitoring."*

When you got home from school, how often was an adult there within an hour of you getting home?

When you went to a party, how often was a supervising adult present at the party?

When you wanted to go to a party, how often did your parents confirm that an adult would supervise the party?

How often would your parents know if you came home an hour (or more) late on weekends?

When you broke a rule set by your parents—for example, coming home past curfew—did your parents take away privileges?

How often before you went out, would you tell your parents when you would be back?

When your parents were not home, how often would you leave a note for them about where you were going?

When you went out and your plans unexpectedly changed, how often did you call your parents to let them know?

When you went out, how often did you let your parents know where you planned to go?

*This scale is typically accompanied with answer options ranging from "Never" to "All of the time," which are associated with numerical values 1 to 5, respectively. The more often the parental monitoring practice happened, the higher the score on the scale.

Source: Arria, A. M., Kuhn, V., Caldeira, K. M., O'Grady, K. E., Vincent, K. B., & Wish, E. D. (2008). High school drinking mediates the relationship between parental monitoring and college drinking: A longitudinal analysis. *Substance Abuse Treatment, Prevention, and Policy*, 3(6), 1-11. [adapted from: Capaldi, D. M., & Patterson, G. R. (1989). *Psychometric properties of fourteen latent constructs from the Oregon Youth Study*. New York, NY: Springer-Verlag Publishing.]

Insights and Perspectives

Joseph Lee, MD, Medical Director, Hazelden Betty Ford Foundation Youth Continuum

- “Access, education and income can influence what substances a young person uses or how much they consume. And many studies point to parental relationships as the most important protection against the development of early addiction.
- “That said, we cannot pin the source of addiction on issues of social justice and inequity, or assume that addressing the latter two will relieve the societal burden caused by addiction. While we have an ever-growing need for social justice in our time, thinking of addiction as a passive downstream byproduct of, or compensation for, accumulated social woes produces an inadvertent and cruel stigma of its own—against the power and reality of addiction independent of its context.
- “You were addicted mainly because you grew up with adversity. . . . You got addicted because you were spoiled. . . . Your mental health issues are the ‘cause’ of your addiction.’ All of these types of conclusions silence open dialogue about addiction as a cancer of the human condition—one that requires no other qualification. In the wake of this stigma are parents who blame themselves, critics who view the label of addiction as an excuse and civic leaders who sidestep an in-depth examination of addiction by linking it to more crusade-ready topics.
- “Addiction is an equal opportunity offender. Regardless of background or income, addiction reminds us that in the end, we all suffer alone. But in recovery, addiction highlights another truth—that the best forms of healing are borne together with others who love, empathize and struggle. Could it be that understanding and treating addiction as a fundamental part of all of us may be the key to understanding our self-inflicted social ills, and not the other way around?”

Marvin D. Seppala, MD, Chief Medical Officer, Hazelden Betty Ford Foundation

- “The primary risk factor for addiction is genetic. If addiction is in your family history, you are more susceptible. But that’s only the beginning of a story we don’t fully understand yet. While many assume socioeconomic factors is another significant factor in the risk for addiction, this report reinforces the reality that addiction does not discriminate and underscores the complexity of a topic that continues to warrant more research.”

William C. Moyers, Vice President of Public Affairs and Community Relations, Hazelden Betty Ford Foundation

- “More than ever, parents are vital to how young people view, experience and respond to the temptation of dangerous substances. It is our responsibility, our opportunity, as parents and grandparents to maintain open and honest dialogue with our children and grandchildren about both illicit and legal substance use. If not us, who?”
- “Because of lingering stigma and stereotypes, people are often surprised when kids from families of means or prominence, even ‘complete’ families without divorce or loss, develop problems with dangerous substances. My own family’s lifelong experiences prove that addiction doesn’t discriminate, that all families are vulnerable. In fact, as this report indicates, affluence may present some unique challenges.”

Kiersten Simon, Executive Director, FCD Prevention Works, part of the Hazelden Betty Ford Foundation

- “No parent would willingly expose the child they love to a devastating disease, yet some do exactly that when they let their growing children consume alcohol. When it comes to alcohol and other drugs, saying nothing to your kids might actually be less harmful than saying the wrong thing. The wrong thing to say—with words or actions—is that it’s OK for children or teenagers to use alcohol. This is categorically not true. We now know unequivocally that early alcohol use, including use that may have at one time been legal or acceptable for today’s

parents when they were teens, is exceptionally unhealthy for people not yet in their third decade of life. Among other impactful, potentially negative consequences, it makes young people more vulnerable to developing a substance use disorder. Additionally, we know—as this report highlights—that parental permissiveness is associated with higher rates of early and dangerous alcohol use by teens. As health experts, we must say, over and over, “Tell your children it is your expectation that they do not use alcohol before the age of 21.”

- “The public conversation around substance use and addiction prevention remains far too timid. We are afraid to tell our children not to drink, even though drinking now may very well kill them one day. Prevention and health experts can also be afraid to hold the line with parents about what the research says is both protective and risky for their children’s health. In this environment of fear and silence, the disease of addiction can spread.
- “Effective prevention reduces risky adolescent substance use and addiction. We use this upstream public health model now more than ever, and as a result, we’re seeing fewer adolescents choosing to use substances in this country. ‘Keeping healthy kids healthy’ is a successful strategy that is most successful when parents are appropriately and consistently involved. Parents must embrace the prevention of their children’s early and risky use of alcohol to protect kids from addiction. It’s as simple and as powerful as that.”

Stephen Delisi, MD, Assistant Dean, Hazelden Betty Ford Graduate School of Addiction Studies

- “Because it’s becoming more accessible, affordable and socially acceptable, marijuana is joining alcohol and nicotine as the substances kids are most likely to use early in their life. But it’s certainly not a safe substance for young people. Data from the 2016 National Survey on Drug Use and Health indicate that the prevalence of developing a substance use disorder among those adults who first tried marijuana at the age of 14 or younger was six times higher than those adults who first used marijuana at age 18 or older. Such facts make parents and prevention key to any strategy to better address addiction in America.”

Ken Winters, PhD, author of *Teen Intervene: Screening, Brief Intervention and Referral to Treatment for Substance Use* and co-author of *Youth and Drugs of Abuse: Prevention to Recovery and Preventing Binge Drinking on College Campuses: A Guide to Best Practices*

- “At the risk of being overly simplistic, research has shown that effective parenting of teenagers involves two keys: providing emotional support and actively monitoring their lives. As the noted studies suggest, parenting is important when it comes to shaping a teenager’s health. And when parents are a source of support and effective with their monitoring, they will optimize the health and well-being of their child.”

Andrew Adesman, MD, professor of pediatrics at the Hofstra Northwell School of Medicine, and author of *Baby Facts*; a recent nationwide survey of grandparents serving as parents; and Hazelden Publishing’s fall 2018 release *The Grandfamily Guidebook: Wisdom and Support for Grandparents Raising Grandchildren*

- “When it comes to identifying risk factors and protective influences for substance abuse, the research findings in this new *Emerging Drug Trends Report* continue to reinforce how complex this issue really is. There are an extraordinary number of factors to consider and account for. Although substance use issues are more common in some households and communities than others, the reality is that no community is immune. In fact, families or groups that may be at low risk for one form of substance use issue may actually be at greater risk for use or misuse of other substances.”

References

- Abar, C. C., Morgan, N. R., Small, M. L., & Maggs, J. L. (2012). Investigating associations between perceived parental alcohol-related messages and college student drinking. *Journal of Studies on Alcohol and Drugs*, 73(1), 71-79. doi:10.15288/jsad.2012.73.71
- Cambron, C., Kosterman, R., Catalano, R. F., Guttmanova, K., & Hawkins, J. D. (2017). Neighborhood, family, and peer factors associated with early adolescent smoking and alcohol use. *Journal of Youth and Adolescence*. doi:10.1007/s10964-017-0728-y
- Criss, M. M., Lee, T. K., Sheffield Morris, A., Cui, L., Bosler, C. D., Shreffler, K. M., & Silk, J. S. (2015). Link between monitoring behavior and adolescent adjustment: An analysis of direct and indirect effects. *Journal of Child and Family Studies*, 24, 668-678. doi:10.1007/s10826-013-9877-0
- Farley, J. P., & Kim-Spoon, J. (2017). Parenting and adolescent self-regulation mediate between family socioeconomic status and adolescent adjustment. *Journal of Early Adolescence*, 37(4), 502-524. doi:10.1177/0272431615611253
- Hanson, M. D., & Chen, E. (2007). Socioeconomic status and substance use behaviors in adolescents: The role of family resources versus family social status. *Journal of Health Psychology*, 12(1), 32-35. doi:10.1177/1359105306069073
- Hausheer, R., Doumas, D. M., Esp, S., & Cuffee, C. (2016). Parental predictors of adolescent alcohol use and alcohol-related consequences. *Journal of Addictions and Offender Counseling*, 37, 16-34. doi:10.1002/jaoc.12013
- Hayakawa, M., Giovanelli, A., Englund, M. M., & Reynolds, A. J. (2016). Not just academics: Paths of longitudinal effects from parent involvement to substance abuse in emerging adulthood. *Journal of Adolescent Health*, 58, 433-439. doi:10.1016/j.jadohealth.2015.11.007
- Luthar, S. S., Small, P. J., & Ciciolla, L. (2017). Adolescents from upper middle class communities: Substance misuse and addiction across early adulthood. *Development and Psychopathology*. doi:10.1017/S0954579417000645
- Miech, R. A., Johnston, L. D., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2018). *Monitoring the Future: National survey results on drug use, 1975-2017: Volume I: Secondary school students*. Retrieved from Ann Arbor, MI: Retrieved from Ann Arbor, MI: http://www.monitoringthefuture.org/pubs/monographs/mtf-vol1_2017.pdf
- Milliren, C. E., Richmond, T. K., Evans, C. R., Dunn, E. C., & Johnson, R. M. (2017). Contextual effects of neighborhoods and schools on adolescent and young adult marijuana use in the United States. *Substance Abuse: Research and Treatment*, 11, 1-10. doi:10.1177/1178221817711417
- Rioux, C., Castellanos-Ryan, N., Parent, S., Vitaro, F., Tremblay, R. E., & Séguin, J. R. (2016). Differential susceptibility to environmental influences: Interactions between child temperament and parenting in adolescent alcohol use. *Development and Psychopathology*, 28(1), 265-275. doi:10.1017/s0954579415000437
- Russell, B. S., & Gordon, M. (2017). Parenting and adolescent substance use: Moderation effects of community engagement. *International Journal of Mental Health and Addiction*, 15(5), 1023-1036. doi:10.1007/s11469-017-9728-0
- Sharmin, S., Kypri, K., Khanam, M., Wadolowski, M., Bruno, R., Attia, J., . . . Mattick, R. P. (2017). Effects of parental alcohol rules on risky drinking and related problems in adolescence: Systematic review and meta-analysis. *Drug and Alcohol Dependence*, 178, 243-256. doi:10.1016/j.drugalcdep.2017.05.011
- Storr, C. L., Chen, C., & Anthony, J. C. (2004). 'Unequal opportunity': Neighbourhood disadvantage and the chance to buy illegal drugs. *Journal of Epidemiology and Community Health*, 58(3), 231-237. doi:10.1136/jech.2003.007575
- Substance Abuse and Mental Health Services Administration. (2017). *Results from the 2016 National Survey on Drug Use and Health: Detailed tables*. Retrieved from Rockville, MD: <https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016.pdf>
- Vermeulen-Smit, E., Verdurmen, J. E. E., Engels, R. C. M. E., & Vollebergh, W. A. M. (2015). The role of general parenting and cannabis-specific parenting practices in adolescent cannabis and other illicit drug use. *Drug and Alcohol Dependence*, 147, 222-228. doi:10.1016/j.drugalcdep.2014.11.014
- Yap, M. B. H., Cheong, T. W. K., Zaravinos-Tsakos, F., Lubman, D. I., & Jorm, A. F. (2017). Modifiable parenting factors associated with adolescent alcohol misuse: A systematic review and meta-analysis of longitudinal studies. *Addiction*, 112(7), 1142-1162. doi:10.1111/add.13785

HBFinstitute.org
651-213-4568



Emerging Drug Trends Report | Hazelden Betty Ford Institute for Recovery Advocacy

Shedding new light, every month, on America's No. 1 public health problem

This report was produced in collaboration with the University of Maryland School of Public Health, with support from the Hazelden Betty Ford Foundation's Butler Center for Research.

Contact: Jeremiah Gardner, JJGardner@HazeldenBettyFord.org, 651-213-4132

Our mission is to provide a trusted national voice on all issues related to addiction prevention, treatment and recovery, and to facilitate conversation among those in recovery, those still suffering and society at large. We are committed to smashing stigma, shaping public policy and educating people everywhere about the problems of addiction and the promise of recovery.