

ISSUE BRIEF **02.08.17**

Will the Surgeon General's Report on Addiction Change How We Treat Drug Users?

Katharine A. Neill, Ph.D., Alfred C. Glassell, III, Postdoctoral Fellow in Drug Policy

INTRODUCTION

The new report from the Office of the Surgeon General, *Facing Addiction in America*, is meant to be a call to action against the public health crisis of addiction. The report is densely packed with troubling statistics that highlight the prevalence of alcohol and substance misuse in the United States. In 2015, 20.8 million people—nearly 8 percent of the US population—met the criteria for a substance use disorder (SUD) involving alcohol or illicit substances. As the report states, roughly 88,000 people die from alcohol-related deaths per year. In 2015, more than 52,000 deaths were attributed to drug overdose, which has claimed more lives in recent years largely due to a rise in opioid misuse. Substance misuse and SUDs cost the United States roughly \$400 billion annually in health care and criminal justice expenses and lost worker productivity. Despite the heavy toll of substance misuse on individuals, families, and society, only about 10 percent of people who need help with an SUD actually receive it. In the face of this crisis and based on a growing body of neurobiological evidence, the report argues that addiction is a chronic disease of the brain that should be treated more like diabetes and less like an act of criminal misconduct.¹

The first report published by the Surgeon General's Office was the 1964 *Smoking and Health: Report of the Advisory*

Committee of the Surgeon General of the Public Health Service, which examined the consequences of smoking and tobacco. That report is viewed as a watershed moment in the public health battle against smoking, and in the 50 years since its publication, numerous regulations on the production and sale of tobacco have been passed, which have contributed to considerable declines in smoking rates. The Surgeon General's Office has published other reports since 1964, nearly all focused on tobacco and smoking, with some exceptions. *Facing Addiction in America* is the first report issued by that office on drugs, alcohol, and addiction, and Surgeon General Vivek Murthy hopes it will spark action on addiction the way the 1964 report did on smoking.²

The degree to which this report will shape policies and perceptions toward addiction remains to be seen, but its potential impact is significant. The report carries the medical and scientific credibility of one of the highest health offices in the country and has already garnered a large swath of media and public attention. It brings an authoritative voice to the current national debate over how to confront addiction in the face of rising rates of opioid-related overdoses and confirms what many observers have claimed—that addiction requires compassion and treatment, not punishment. Because of its potential impact on policies directed toward drug use and addiction, it is important to



evaluate the claims made by the report. The following sections discuss the report and its implications in greater detail.

WHAT THE SURGEON GENERAL'S REPORT GETS RIGHT

The Surgeon General's report provides timely data on substance use trends, effective treatments, and developments in health care and insurance coverage for SUDs. It addresses critical limitations in SUD care that result from, among other things, inadequate or nonexistent insurance coverage for millions of Americans, especially minority and SUD populations. While the Affordable Care Act (ACA) and Mental Health Parity and Addiction Equity acts have made strides in reducing the uninsured population and requiring better coverage for substance use treatment, the report notes that limitations remain, including a lack of infrastructure needed to coordinate substance use with general health care; deficiencies in the SUD treatment workforce; and the absence of SUD treatment training from medical, psychiatry, psychology, and social work curricula.³

Another important component of the report is its support for evidence-based care, including medication-assisted treatment (MAT), which is currently underutilized. MAT refers to the use of medications such as methadone and buprenorphine (for opioid use disorders) and naltrexone (for opioid and alcohol use disorders) to control the physical dependence aspects of addiction and to help users transition out of substance use. Despite numerous studies finding that MAT is highly effective, it is not always covered by insurance companies or offered as part of treatment programs, and some substance use providers continue to oppose it on the grounds that it “substitutes one addiction for another.”⁴

In its “Vision for the Future” chapter, the Surgeon General's report emphasizes a public health approach to drug use. It

rightly states that addiction is not the result of “moral failings,” and should not be criminalized.⁵ This is a welcome change in message from the heydays of the war on drugs. Decades of experience show that punishment does not deter people from drug use and, insofar as it impedes implementation of more effective policy solutions, has damaging effects on public health. As the report argues, society stands to save money; decrease the transmission of communicable diseases; reduce incidences of homicide, suicide, motor vehicle accidents, and other injuries; and improve overall health and quality of life, if access to evidence-based treatment for SUDs is expanded.

The strong endorsement from the Surgeon General's Office for integrated substance use care, expanded use of MAT, and an overall public health-based approach to addiction should send a clear message to policymakers and the public that an overhaul of US drug policy is long overdue. The wealth of research presented in the report on successful treatment methods and health care innovations that can improve access to and the quality of SUD care provides a guide for nonprofits and decision-makers at all levels of government looking for ways to better serve people with substance use disorders.

SHORTCOMINGS OF THE SURGEON GENERAL'S REPORT

Neglects Heroin-Assisted Treatment

Despite the report's general message of reform, there are several instances in which it does not go far enough. For example, while the report stresses the efficacy of MAT, it neglects heroin-assisted treatment (HAT). The medications currently approved by the U.S. Food and Drug Administration (FDA) to treat opioid use disorders do not work for everyone, leading some to return to illicit use of heroin or other opioids. Recognizing this challenge, other countries—including Switzerland, Denmark, the Netherlands,

The strong endorsement from the Surgeon General's Office for integrated substance use care, expanded use of medication-assisted treatment, and an overall public health-based approach to addiction should send a clear message to policymakers and the public that an overhaul of US drug policy is long overdue.

Germany, and the United Kingdom—have made HAT a treatment option for opioid use disorders. Switzerland offers the most extensive evidence on the use of HAT. Since HAT first became available in the country in 1994, the spread of HIV and Hepatitis C have plummeted, overdoses from heroin have dropped to zero, and the number of addicts is decreasing by about 4 percent per year.⁶ Switzerland has also experienced substantial declines in problematic heroin use, which is at least partially attributed to HAT. HAT medicalized heroin use, changing the perception of heroin as a gateway to a rebellious counterculture to a “loser drug” associated with medical illness.⁷

A common form of treatment in the United States in the nineteenth and early twentieth centuries,⁸ HAT is not currently available in this country. Given the evidence supporting its effectiveness, it should be. Yet the Surgeon General’s report, which so strongly emphasizes the need for evidence-based treatment, makes no mention of HAT. Substantial political barriers make the implementation of HAT a challenge, but at the very least, proposals could be put forth recommending that HAT be tested on a pilot basis.

Maintains Support for Criminal Sanctions

The report is also too conservative in its call for criminal justice reform. It suggests that all levels of government “implement criminal justice reforms to transition to a less punitive and more health-focused approach.”⁹ Yet it maintains support for modest sanctions in juvenile and adult criminal justice settings as a tool to incentivize treatment compliance. Some studies indicate that coerced treatment can be just as effective as voluntary treatment. But the practical implications of a system that maintains the threat of sanctions to force someone into treatment can go beyond the intended effect. So long as a person is subject to incarceration or a criminal record for noncompliance, the consequences of the sanctions can result in worse outcomes for the individual than if no government

intervention or assistance had taken place.¹⁰ Those who use drugs and commit offenses that can harm others, whether through intentional acts of violence or negligent acts such as driving under the influence, do require penalty. But for those who are simply using or possessing drugs without harming others, arrest, incarceration, and/or a criminal record are undeserved punishments. Decriminalizing all drug possession for personal use is the only way to ensure that individuals do not suffer the collateral consequences associated with the criminal justice system due to drug use and addiction.

Oversimplifies Addiction

Punishment is an improper policy response to drug use and addiction for many reasons, but the report’s primary assertion regarding why addiction should not be criminalized—namely, that it is a brain disease—is a source of contention within the drug policy community. According to the report, whereas addiction was once perceived as a “moral failing,” it is now considered a...

*chronic illness characterized by clinically significant impairments in health, social function, and voluntary control over substance use. Although the mechanisms may be different, addiction has many features in common with disorders such as diabetes, asthma, and hypertension. All of these disorders are chronic, subject to relapse, and influenced by genetic, developmental, behavioral, social, and environmental factors.*¹¹

Is addiction a chronic disorder?

The idea that addiction is “chronic” is inconsistent with decades of epidemiological data indicating that most drug users stop using on their own, without medical or therapeutic intervention.¹² Multiple studies have found that drug use is greatest in young adulthood, and declines with age.¹³ Data from the National Survey on Drug Use and Health (NSDUH), which the Surgeon General’s report cites frequently, indicate

Decriminalizing all drug possession for personal use is the only way to ensure that individuals do not suffer the collateral consequences associated with the criminal justice system due to drug use and addiction.

The idea that addiction is “chronic” is inconsistent with decades of epidemiological data indicating that most drug users stop using on their own, without medical or therapeutic intervention.

that the prevalence of regular drug use (defined as drug use in the past 30 days) is highest among those between the ages of 18 and 25 (22.3 percent) and is much lower among those 26 and older (8.2 percent).¹⁴ The same pattern holds true for prevalence of an SUD. In 2015, 7 percent of 18 to 25 year olds had an illicit drug use disorder in the past year, but only 2 percent of those 26 and older did.¹⁵ For most people, even those with SUDs, drug use is not a chronic condition but one that diminishes with age.

One reason addiction is characterized as a chronic disorder is that at least half of those who enter treatment programs relapse, regardless of the drug in question or individual patient characteristics. The Surgeon General's report points to data finding that it can take eight or nine years from first seeking treatment for a person to achieve “sustained recovery.”¹⁶ But it is quite possible, even likely, that those who seek out treatment represent the most severe forms of SUD, are more likely to suffer from additional disorders, and are therefore the least likely to stop using.¹⁷ Because this population is atypical, findings about addiction and relapse taken from this group should not be used to make generalizations about the life course of drug addiction for other users.

Is a person who is addicted to drugs “out of control”?

The portrayal of drug addiction as involuntary also is the subject of heated debate and is inconsistent with some of the treatment approaches advocated for in the Surgeon General's report. The basis for cognitive-behavioral therapy (CBT) “is that substance use disorders develop, in part, as a result of maladaptive behavior patterns and dysfunctional thoughts.”¹⁸ Twelve-Step Facilitation (TSF), most well-known as Alcoholics Anonymous, focuses on individual therapy, group involvement, and “giving oneself to a higher power.”¹⁹ A third approach, contingency management, which provides drug users with a financial reward in exchange for abstaining from drug use, assumes that

behavioral change can be induced through positive incentives.

Each of these therapies has demonstrated effectiveness in helping people with SUDs, and the Surgeon General's report supports the use of all three. It seems contradictory, however, to argue that addiction is a brain disease beyond the user's control on the one hand and advocate for treatment that focuses on behavioral changes on the other. If change in a person's behavior can change his or her state of addiction, this implies that the addiction is to some extent a function of individual choice. As has been noted elsewhere, it may be difficult to convince the public that addiction is primarily a brain disease when the most common forms of treatment continue to be those that focus on behavioral modification.²⁰ The efficacy of behavioral therapies in treating SUDs substantially weakens the assertion that addiction is a disease of involuntary behavior. This contradiction requires a better explanation than what the report offers.

What role does the brain play in the addiction process?

The Surgeon General's report attempts to qualify statements about the neurobiological process of addiction, explaining that not all drug users become addicted, and that social, behavioral, and environmental risk factors come into play. But this complexity is often lost. For instance, the report partially explains drug addiction as a process whereby the brain's “survival systems are ‘hijacked’ by addictive substances.”²¹ This unscientific language suggests a fairly straightforward process of drug effects on the brain, but the last two decades of neurobiological research have found the effects that psychoactive substances have on the brain to be much more complicated than simply “hijacking” the brain's reward centers, also affecting multiple neurotransmitter pathways and higher-order brain functions.²²

Explaining the very complicated process of addiction—still not fully

understood by scientists—to a lay audience is challenging. But as the report recognizes, the scientific community needs to do a better job of communicating research to the public, and this report arguably does not do that. The neurobiological basis of addiction remains oversimplified and the role of external factors underemphasized. And even as the report recognizes the importance of and the need for research that addresses environmental risk factors, the call for future research focuses heavily on continuing study of the brain, missing an opportunity to call for greater integration of neurobiological research with epidemiological, psychological, and sociological research.

How do external factors affect the addiction process?

Research focusing on environmental, behavioral, and social components of addiction is critical because data indicate that these factors increase one's risk for an SUD. The Surgeon General's report does emphasize this point. Yet in an interview with National Public Radio following the publication of the report, Surgeon General Vivek Murthy stated: "We now know from solid data that substance abuse disorders don't discriminate. They affect the rich and the poor, all socioeconomic groups and ethnic groups. They affect people in urban areas and rural ones."²³ While true in a basic sense, to suggest that SUDs can affect anyone is somewhat misleading. Data from the NSDUH—the very data which the Surgeon General's report relies on—show that statistically, some groups are more likely to use than others, and that certain risk factors make people much more likely to use drugs and develop SUDs. Several groups—males, people aged 18 to 25, non-college graduates, sexual minority adults (defined as those who identify as lesbian, gay, or bisexual), and people living with mental illness—are at greater risk of developing an SUD than other groups.²⁴

As noted, the Surgeon General's report discusses the role of various risk factors in contributing to SUDs, but this message

is muddled by the Surgeon General's own words. Emphasizing that some groups are at greater risk for drug use and misuse should not imply that the absence of identified risk factors makes a person immune from developing an SUD. But in the spirit of communicating honest, accurate information to the public about drug addiction, it is important to be clear about the respective roles of individual and environmental factors in explaining drug addiction.

CONCLUSION

Facing Addiction in America is an important contribution to the public discourse on drug policy from one of the highest health offices in the United States. It stresses that addiction should be treated as a public health problem rather than a crime and, through an extensive review of data on effective treatment protocols, lends support to those who for years have been calling for drug policy reform. It provides information to the public about the nature and extent of drug use in the United States and environmental factors that provide protection against or increase one's risk of developing an SUD. It is a useful guide for practitioners in the areas of social services, health care, and law enforcement regarding what types of programs are likely to have the greatest success in addressing addiction. It highlights several obstacles to more effective care and suggests ways in which various stakeholders can implement evidence-based practices for prevention and treatment.

For all its admirable qualities, there are other areas in which the report falls short. It misses an opportunity to bring heroin-assisted treatment into the discussion of effective medication-assisted therapies for opioid use disorders. While it argues that addiction should not be criminalized, it stops short of supporting decriminalization of drug possession and maintains that legal sanctions can be an effective incentive for drug treatment,

In fact, some people are more likely to develop a substance use disorder than others, depending on their gender, age, education, sexual identity, mental health, family situations, and other factors.

Future efforts to address drug addiction should frame neurobiological explanations of addiction more squarely within the context of environmental risk factors, and should emphasize the need for social policies that address the underlying external causes of addiction.

not dealing with the reality of how these sanctions might be used in practice and the collateral consequences that an individual faces if sanctions are enforced.

While the report devotes substantial time to explaining how the likelihood of developing an SUD is affected by various environmental, social, and behavioral factors, the primary emphasis of the report is that addiction is a brain disease. At times, the explanation of how drug use can progress to addiction is oversimplified, and the report does not adequately address the inconsistency between the assertion that addiction is a chronic disease similar to diabetes or asthma, and yet one that also responds quite well to treatment focused on behavioral change. There is also confusion regarding the circumstances of addiction stemming from the Surgeon General's own statement that addiction does not discriminate, while citing a wealth of data that suggest it actually *does* discriminate. In fact, some people *are* more likely to develop an SUD than others, depending on their gender, age, education, sexual identity, mental health, family situations, and other factors.

A Way Forward

In the "Introduction" to the report, the Surgeon General states that addiction is not a "moral failing or character flaw"—it is a "chronic illness that we must approach with the same skill and compassion with which we approach heart disease, diabetes, and cancer."²⁵ Nearly all proponents of drug policy reform will agree that addiction is not a moral failing. Many also will agree that addiction has environmental, psychological, social, behavioral, and neurobiological components. But debate remains about how the process of addiction should be understood and explained. Those who are skeptical of the brain disease model of addiction argue that it oversimplifies a complex illness, ignores epidemiological data on addiction, and incorrectly describes it as a condition beyond the user's control. For their part,

the Office of the Surgeon General and other proponents of the brain disease model of addiction readily acknowledge that there is more to addiction than the interplay between chemical substances and brain matter. Yet the role of external factors is not always given the emphasis it deserves, and the bulk of government-funded research continues to focus almost exclusively on the neurobiological aspects of addiction, ignoring the need for greater integration of this research with research from other fields that may be able to address gaps in the brain disease model's explanation of why some people are more susceptible to addiction than others.

Given that social, behavioral, and environmental factors are already at work before a person initiates drug use, explanations of addiction should start by discussing how these characteristics can affect drug use behavior before the neurobiological components of addiction are explained. This may seem like a small change, and it would not solve all of the conflict surrounding explanations for addiction. But it would depict the addiction process more accurately and would emphasize the respective roles of individual and environmental factors more appropriately. This may have important policy implications, as one concern is that the neglect of external variables has led to the underutilization of policy solutions designed to address such factors.

Explaining addiction in terms of its root environmental, social, and behavioral causes first and its neurobiological basis second would not support a return to the moralizing view of addiction, as it still maintains that people use drugs not because they are "bad" but because drugs offer reprieve from any number of miserable circumstances. But it does offer a less fatalistic picture of drug addiction, one in which an individual, through a change in circumstance, may change the desire to use drugs—and by extension, how that drug use is interpreted by the brain's reward and pleasure systems. Future efforts to address drug addiction should

frame neurobiological explanations of addiction more squarely within the context of environmental risk factors, and should emphasize the need for social policies that address the underlying external causes of addiction. It is indeed time to change how we view drug addiction. Let's get it right this time—by acknowledging the many complexities of addiction and the need for a holistic policy response.

ENDNOTES

1. Rose A. Rudd, Puja Seth, Felicita David, and Lawrence Scholl, "Increases in Drug and Opioid-Involved Overdose Deaths—United States 2010–2015," *Morbidity and Mortality Weekly Report*, December 16, 2016, accessed February 7, 2017, <https://www.cdc.gov/mmwr/volumes/65/wr/mm655051e1.htm>.

2. Office of the Surgeon General, *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health*, Washington, D.C.: U.S. Department of Health and Human Services, November 2016, p. 12.

3. Office of the Surgeon General, *Facing Addiction in America*, pp. 274–282.

4. Office of the Surgeon General, *Facing Addiction in America*, p. 256.

5. Office of the Surgeon General, *Facing Addiction in America*, p. 323–329.

6. Citizens Opposing Prohibition, "Swiss Heroin-Assisted Treatment 1994–2016: Summary," accessed January 10, 2017, <http://www.citizensopposingprohibition.org/resources/swiss-heroin-assisted-treatment-1994-2009-summary/>.

7. Carlos Nordt and Rudolf Stohler, "Incidence of Heroin Use in Zurich, Switzerland: A Treatment Case Register Analysis," *The Lancet*, 367 (2006): 1830–1834, p.1834.

8. Prior to the passage of the 1914 Harrison Narcotic Drug Act, it was common practice for physicians to prescribe opium to addicts to maintain their addiction. The passage of the 1914 Act restricted and eventually eliminated this practice. See Katharine A. Neill, "Tough on Drugs: Law

and Order Dominance and the Neglect of Public Health in US Drug Policy," *World Medical and Health Policy*, 6(2014): 375–394.

9. Office of the Surgeon General, *Facing Addiction in America*, p. 336.

10. The collateral consequences of a criminal record and incarceration are well documented. They include, but are not limited to, loss of education, employment, and housing opportunities; disruption of family structure; increased distrust of the legal system; and, in the case of a felony conviction, loss of voting rights.

See Katharine A. Neill and William Martin, *Marijuana Reform: Fears and Facts*, Issue brief no. 02.04.15, Rice University's Baker Institute for Public Policy, Houston, TX, 2015, <http://www.bakerinstitute.org/files/8760/>; Bruce Western and Becky Pettit, *Collateral Costs: Incarceration's Effect on Economic Mobility* (Washington, D.C.: The Pew Charitable Trusts, 2010), http://www.pewtrusts.org/~media/legacy/uploadedfiles/pes_assets/2010/CollateralCosts1pdf.pdf; S. Lenton and P. Heale, "Arrest, court and social impacts of conviction for a minor cannabis offence under strict prohibition," *Contemporary Drug Problems* 27 (2000): 805–833.

11. Office of the Surgeon General, *Facing Addiction in America*, p. 65.

12. William Martin and Jerry Epstein, "Rx for U.S. Drug Policy: A New Paradigm," Baker Institute Policy Report Number 63, Rice University's Baker Institute for Public Policy, Houston, TX, 2015, <http://bakerinstitute.org/research/rx-us-drug-policy-new-paradigm>.

13. Wilson M. Compton, Yonette F. Thomas, Kevin P. Conway, and James D. Colliver, "Developments in the Epidemiology of Drug Use and Drug Use Disorders," *American Journal of Psychiatry*, 162(2005): 1494–1502.

14. Center for Behavioral Health Statistics and Quality, *2015 National Survey on Drug Use and Health: Detailed Tables*, 2016. Rockville, MD: Substance Abuse and Mental Health Services Administration, p. 233.

15. Center for Behavioral Health Statistics, *2015 National Survey*, p. 1503.
16. Office of the Surgeon General, *Facing Addiction in America*, p. 228.
17. Gene M. Heyman, *Addiction: A Disorder of Choice* (Cambridge, MA: Harvard University Press, 2009), p. 68.
18. Office of the Surgeon General, *Facing Addiction in America*, p. 184.
19. Office of the Surgeon General, *Facing Addiction in America*, p. 186.
20. See Maia Szalavitz, "US Addiction Statistics are Dire. Small Changes Won't Solve the Problem," *The Guardian*, November 18, 2016, accessed January 10, 2017, <https://www.theguardian.com/commentisfree/2016/nov/18/us-drug-alcohol-addiction-statistics-treatment-reform>.
21. Office of the Surgeon General, *Facing Addiction in America*, p. 69.
22. Wayne Hall, Adrian Carter, and Cynthia Forlini, "The Brain Disease Model of Addiction: Is it Supported by the Evidence and has it Delivered on its Promises?" *The Lancet Psychiatry* 2(2015): 105–110.
23. Vivek Murthy, interview with *Morning Edition*, "Surgeon General Murthy Wants America to Face Up to Addiction," *National Public Radio*, November 17, 2016, accessed January 10, 2017, <http://www.npr.org/sections/health-shots/2016/11/17/502402409/surgeon-general-murthy-wants-america-to-face-up-to-addiction>.
24. Center for Behavioral Health Statistics, *2015 National Survey*.
25. Office of the Surgeon General, *Facing Addiction in America*, p. 11.

AUTHOR

Katharine A. Neill, Ph.D., is the Alfred C. Glassell, III, Postdoctoral Fellow in Drug Policy. Her current research focuses on alternatives to incarcerations for drug offenders and expanding options for drug treatment and overdose prevention.

Rice University's Baker Institute for Public Policy

DRUG POLICY

See more issue briefs at:

www.bakerinstitute.org/issue-briefs

This publication was written by a researcher (or researchers) who participated in a Baker Institute project. Wherever feasible, this research is reviewed by outside experts before it is released. However, the views expressed herein are those of the individual author(s), and do not necessarily represent the views of Rice University's Baker Institute for Public Policy.

© 2017 Rice University's Baker Institute for Public Policy

This material may be quoted or reproduced without prior permission, provided appropriate credit is given to the author and Rice University's Baker Institute for Public Policy.

Cover image courtesy of **Facing Addiction**.

Cite as:

Neill, Katharine A. 2017. *Will the Surgeon General's Report on Addiction Change How We Treat Drug Users?* Issue brief no. 02.08.17. Rice University's Baker Institute for Public Policy, Houston, Texas.