Is There Really an Opioid Epidemic?

The California Center of Excellence for Trauma Informed Care looked into the well-publicized US opioid crisis (The White House, 2017), often reported with images and statistics related to overdoses, hospitalizations and child abuse. After looking at data collected over time and from multiple sources, it became clear that actual opioid misuse has been slowly decreasing in recent years and likely since the early 1990s, even while overdoses steeply increased. Although research on opioid use goes back to the 1970s, this white paper focuses only on the past decade.

Across the country, there is widespread alarm regarding an unfolding “opioid epidemic” (Bruder, 2018). Mainstream and alternative media alike are brimming with reports about how the opioid crisis is tearing American families apart (Macy, 2018b), disrupting the foster care system (Birnbaum & Lora, 2018), and destabilizing our economy (Florence et al., 2016).

The dramatic rise in the rates of opioid-related overdose deaths in the US between 2013 and 2016 has led people to believe that rates of misuse and abuse of opioids have similarly increased. While there is clear data showing an opioid overdose increase in recent years (see Figure 1), over the same time frame (from around 2014 to the present) there has actually been a small but noticeable decline in opioid misuse by almost every age, gender, and race in America (see Figures 2 and 4).

There is an opioid overdose epidemic.

The increase in overdose deaths related to opioids in recent years is striking. Big Pharma created addictive, lethal yet still legal opioids for medical treatment of pain and claimed that these innovative synthetic opioid pharmaceuticals were non-addictive and safe (Macy, 2018a). Convinced by misleading marketing campaigns about the safety and effectiveness of these drugs, doctors ramped up their prescribing of opioids (Lopez, 2017a). According to the Centers for Disease Control and Prevention (CDC), sales of opioid pain relievers in the US increased by 300 percent between 1999 and 2010 (CDC, 2013). Meanwhile, according to data analysis available from the National Institutes of Health (NIH) US National Library of Medicine, no significant change occurred in the amount of pain reported by Americans over the parallel time period of 2000 to 2010 (Daubresse et al., 2013). At the same time, emergency departments increased opioid utilization and decreased non-opioid analgesic use (Chang et al., 2014).

Furthermore, the pharmaceutical industry has produced rapid-onset delivery systems for numerous synthetic opioids and specifically fentanyl, which is 50 times more potent than street heroin and approximately 100 times more potent than morphine (Drug Enforcement Administration, 2017).
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**FIGURE 1**

It is clear from CDC data that the overall US opioid overdose death rate has dramatically risen. In particular, the rate of overdose deaths involving fentanyl actually doubled *each year* from 2013 to 2016 (from 0.6 in 2013, to 1.3 in 2014, 2.6 in 2015, and 5.9 in 2016).

Once the “opioid epidemic” started gaining widespread attention, the response from government agencies, regulators, doctors, and medical groups was to aggressively limit opioid prescriptions. By 2017, when the CDC reported the lowest opioid prescription rates in 10 years (CDC, 2018), many people who were dependent on opioids no longer had ready, inexpensive access to legal sources and turned to the street, often with heroin as their only or best choice. Putting people who are inexperienced into an illicit market that sells products which are untested and unknown in terms of potency and additives (such as fentanyl) increases overdose risk. In drug harm assessments, heroin already scores at the top of the scale for harm to users. The effect of a drug on breathing and heart function is a major determinant of harm, and drugs such as heroin that can be taken intravenously have a high risk of causing sudden death from respiratory depression (Nutt, 2007).

Overdose deaths involving both heroin and fentanyl have risen significantly in recent years. It has been difficult to capture long-term misuse and overdose death data on specific drugs in the opioid class (i.e., fentanyl, heroin, hydrocone, methadone, morphine, and oxycodone) because they have often not been listed separately in drug use surveys and mortality codes. However, the specificity of death certificate reporting on drug overdose deaths has improved since 2011. An analysis of 2011 to 2016 data from the CDC’s National Center for Health Statistics (NCHS) found that the rate of drug overdose deaths involving fentanyl did not statistically change from 2011 to...
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2013 and then increased on average by about 113 percent each year from 2013 through 2016 (see Figure 1). The rate of drug overdose deaths involving heroin increased on average by about 34 percent per year from 2011 to 2014 and then by about 20 percent per year from 2014 through 2016 (Hedegaard et al., 2018).

Overall, opioid-related overdose was the contributing cause for more than 42,000 deaths in 2016. The categories of overdoses responsible for those deaths include poisoning by opium, heroin, other opioids, methadone, other synthetic narcotics, and other unspecified narcotics (SAMHSA, 2018c). Deaths involving more than one opioid category are counted in both categories. Based on preliminary CDC data (as of August 2018), the overall 2017 US opioid overdose toll in terms of number of deaths is estimated at 49,068, with nearly 30,000 of those deaths related to fentanyl and fentanyl analogs. The parallel CDC preliminary estimate for 2017 overdose deaths involving heroin is 15,958 and the National Institute on Drug Abuse (NIDA) calculated that there has been a 7.6-fold increase from 2002 through 2017 in the total number of heroin overdose deaths in the US (NIDA, 2018). However, the steep rise in heroin overdose deaths does not automatically mean that heroin misuse is also increasing rapidly or even at all.

A subtle but misleading conceptual switch

While the overdose crisis is real, as Figure 1 makes abundantly clear, the alarm about an increase in the number of people misusing or being addicted to opioids does not appear grounded in facts. If, instead, it is not the rates of opioid misuse and abuse that have rapidly increased, but solely the rates of opioid overdose deaths, it becomes evident that the opioid crisis cannot be viewed as an addictive behavioral problem for individuals alone (Drum, 2017). Rather, it should be seen as a public health issue that has its roots in pharmaceutical companies’ marketing of unsafe drugs as safe medical treatments for pain, combined with the failure of the health care system to adequately address pain care and treatment for drug addiction, which is often linked to underlying socioeconomic and mental health problems.

It is essential to note that the subtle but misleading conceptual switch from “opioid overdose epidemic” to “opioid epidemic” shifts the responsibility from the public and its institutions to individual doctors (or dealers) and patients (or addicts). As a result, those seeking measures to combat the “opioid epidemic” will look to punitive approaches that have the strong likelihood of additionally harming individuals while not actually addressing the factors that pose a real danger to public health.

Strong cultural and historical messages have often portrayed drug misuse, addiction, and overdoses as the fault of the individual for substance abuse and often also for breaking the law. The idea that opioid misuse and addiction are destroying the country posits people as enemies who must be combatted. A focus on rational public health approaches that look at reducing lethal means, providing the public with access to high-quality information, and providing researched, effective interventions and treatments for people who are suffering physically and mentally can save lives. Is the goal of the policy to save lives or to punish people for struggling with opioid addiction?

There is no “opioid epidemic.”

From a public health perspective, when the number of people exposed to an addictive substance increases, a resulting increase in overall use is expected (more exposed, more addicted). The data does not support this expectation. To show the lack of increase requires a deep dive into data sets, in which meaning may be masked by changes in definitions and reporting questions, missing data, and inconsistency over time. But when looking at the clear evidence that results from such an effort, it becomes difficult to understand why unquestioned reiteration of and speculation on the “opioid epidemic” continues unabated.
A close examination of the data reveals clear evidence that, at the very least, there is no opioid misuse epidemic.

It is important to keep the overall picture in focus: even when there were increases in opioid use, the increase increments are such small percentages that while the trend line rise may look dramatic, the increases are still small in actual proportion.

Between 2002 and 2012, there was an increase in past year heroin use in the 18 to 25 age group: the rate goes from .04 percent of the age 18–25 population to .08 percent—less than 1 percent of that total age group. The data for this age group also shows a noticeable decline since 2014 (see Figure 2B).

For yet another look, the trend line for first use of heroin shows an overall reduction between 2002 and 2016 among adolescent persons aged 12 to 17 (see Figure 3). Notably, between 2013 and 2016, the count of 12–17 youths who used heroin for the first time in each of those years went down from 21,000 to 8,000, a decrease of more than 60 percent. This time period is when the “opioid epidemic” was supposedly growing exponentially—which, again, is the case for opioid overdoses, but not for opioid misuse.

One of the few longer-term (2002–2015) studies of prescription opioid use in the United States, published by the American Academy of Pediatrics in 2017 (McCabe, West, Verliz, McCabe, Stoddard, & Boyd, 2017), shows a relatively steady trend in lifetime nonmedical use of prescription opioids among US adolescents until a noticeable decline between 2013 and 2015 (see Figure 2A). By adding the data trends from the annual National Survey on Drug Use and Health (NSDUH) published by the Substance Abuse and Mental Health Administration (SAMHSA) that extend to 2017 and show no increase in past year heroin use among the 12–17 age group, it can be shown that the data does not support any increased lifetime or past year opioid prescription or heroin use among US adolescents (see Figure 2B).
Figure 3

Although it is clear that people aged 26 and older drove the overall increase in initial heroin use between 2013 and 2016, the overall upward trend line for first-time use is not nearly as steep as the overdose deaths trends in Figure 1.

Not one of the multiple studies consulted for this white paper shows a clear dramatic increase in the overall percentages of the population misusing either opioids in general or heroin in particular. For example, although it is clear that initial heroin use by people aged 26 and older drove the overall increase in first-time users (see Figure 3), particularly between 2013 and 2016, the overall upward trend in the number of people who used heroin for the first time in any given year is not nearly as steep as the opioid overdose deaths trend lines (compare Figure 3 to Figure 1). In the overall group of people aged 12 and older, the number of first-time heroin users was 169,000 in 2013, and after a dramatic spike and dip, the count ended up at 170,000 in 2016, an increase of only a little over half of one percent. In the category of first-time heroin users aged 26 and older, the count of 82,000 in 2013 ended up lower after its spike and dip, at 80,000 in 2016 (see Figure 3).

The downward trend for past year misuse of opioids among people older than 12 holds true for all ages and ethnicities. The 2015–2017 results of the SAMHSA National Survey on Drug Use and Health show that across all demographics—male or female; White, Black, or Latino; West, Midwest, South, or Northeast—misuse of opioids has not significantly increased and has in fact gone down in most cases (see Figure 4).

The widespread fear of a growing opioid epidemic that is damaging our youth and families and wreaking havoc on entire cities and states may be true in terms of overdoses, but it is certainly not true in terms of overall opioid misuse or heroin abuse. However, when opioid overdose rates are published, the reader is left to assume that abuse rates must be increasing at the same pace or even faster. Making the distinction between overdose deaths and opioid abuse is only the first step. It is also important to understand that the drug category labeled “opioids” is a group of chemically similar drugs that includes—along with heroin—prescription pain relievers, such as hydrocodone (e.g., Vicodin®), oxycodone (e.g., OxyContin®), fentanyl, tramadol, and morphine. The 2017 National Survey on Drug Use and Health calculation of the number of
past year US illicit drug users found that prescription pain reliever misuse is more widespread than misuse of other prescription drugs and more widespread than misuse of cocaine, hallucinogens, methamphetamine, inhalants, and heroin (see Figure 5).

Opioids are a serious issue and require a serious response.

At this point, it is clear that misuse of opioids, especially those in the category of legally prescribed pain relievers, is problematic, even though the number opioid misusers is not skyrocketing the way that the number of opioid overdose deaths is. Yet, in the midst of a so-called “opioid epidemic,” why is there so little attention being paid to the increase in prescriptions for opioid pain relievers, prescribed pain reliever misuse, and extremely increased lethal risks in the vehicles of delivery for opioids?

It can be argued that the public discourse has become fixated on the reckless, criminal individual and the profiteering, unethical doctor, rather than looking at the public policies and the corporate drug companies’ culpability in providing more access to, stronger potencies of, and more effective and lethal delivery mechanisms for prescription opioids, which lead to increased overdoses.

There is pressure to faithfully believe and not to question that the youth of today are being drastically affected by the opioid crisis. There are national ads of personal stories sponsored by the White House about how easy it is to get addicted (McCammon, 2018). Adolescents are not using more opioids, prescription or otherwise. Nonetheless, certain young people may be at higher risk for both opioid addiction and overdose. Economic and social problems increase those risks (Dube et al., 2003).

**Figure 4**

Overall, the percentages of people over the age of 12 who misuse opioids are declining. The trend has been unsteady only in the Midwest, with the misuse rate going from 4.5 percent in 2015 to 4.2 percent in 2016, and then moving up to 4.4 percent in 2017.

Data Source: SAMHSA, 2017 and 2018, Table 1.65B
Analysis: California Center of Excellence for Trauma Informed Care

Note: Another critical point is that the NSDUH questionnaire undergoes changes over the years in order to address the changing needs of policymakers and researchers and to allow for such things as the addition and removal of specific prescription drugs from year to year as they come onto or are removed from the market. These changes can sometimes cause breaks in trend lines. One such change was a 2015 partial redesign of NSDUH questions about drug misuse to shift the focus from lifetime misuse to past year misuse. That is why the reported data in the two graphs on past year opioid misuse (as distinct from just heroin misuse) shows only the trend from 2015 to 2017 and does not make a comparison to previous years.
There is no denying that opioid addiction is a serious problem, especially for those addicted; however, the media and policy responses to the problem fail to put the emphasis in the places where it is most crucially needed.

Rhetorical and emotional responses ignore the failure of public policies, government agencies, and legislatures to take effective action, especially in connection with the real needs of pain patients and the shortage of accessible and affordable addiction treatment. While Congress has funded a number of opioid response programs, many public health experts point out that these are scattershot efforts without a coherent plan (Lopez, 2018). Insufficient, inconsistent funding and the stigmatization of addiction as a moral failure impede the implementation of proven effective approaches, such as greater access to both non-opioid options for dealing with chronic pain and medication-assisted addiction treatment. The public and policymakers benefit from understanding addiction as a chronic, relapsing condition, and the opioid overdose death crisis requires a safety-focused response. For a better example, the State of Vermont health care system has integrated addiction treatment into the rest of health care, so that patients have affordable access to both intensive treatment and effective follow-up care (Lopez, 2017b).

It is time to stop being alarmist about the pseudo “opioid epidemic.” The fear induced by reporting by reputable media and highly quoted think tanks about the overwhelming amounts of opioid misuse and abuse across our country is simply not supported by the research data. It is time to start focusing on the root causes of the opioid overdose epidemic and on providing safe pain care and effective interventions for those who are suffering.

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**Figure 5**

Misuse of prescription pain relievers—a category that includes opioids such as hydrocodone, oxycodone, fentanyl, tramadol, and morphine—outpaced other types of illicit drug use in 2017.

| Numbers of Past Year Illicit Drug Users Among People Aged 12 or Older, 2017, Millions of People |
|---------------------------------|---------------------------------|-----------------|-----------------|-----------------|-----------------|
| Prescription Pain Reliever Misuse | Cocaine                          | 2.2              | 0.8             | 0.6             | 0.5             |
| Prescription Stimulant Misuse    | Heroin                           | 1.8              | 1.7             | 1.4             | 0.4             |
| Prescription Tranquilizer Misuse | Methamphetamine                 | 1.7              | 0.8             | 0.6             | 0.5             |
|                                 | Inhalants                        | 1.4              | 0.8             | 0.6             | 0.5             |
|                                 | Hallucinogens                    | 0.6              | 0.6             | 0.6             | 0.4             |
|                                 | Prescription Sedative Misuse     | 0.4              | 0.4             | 0.4             | 0.4             |

Source: SAMHSA, 2018a, Figure 11

Analysis: California Center of Excellence for Trauma Informed Care

In light of the frequent connection between trauma exposure and substance abuse, this white paper was produced by the California Center of Excellence for Trauma Informed Care as part of its mission to advance research-based policies and practices that respond to the needs of trauma-exposed clients by focusing on safety, skills, and designing practices that encourage trauma recovery. Summer intern Sara Kaufman, a student at Amherst College, conducted research for this paper. Gabriella Grant, director, edited and additionally researched the paper. Pam Winter, of WinterPM, developed the visual layout of the data and the visual communication.