

The Myth of an Opioid Prescription Crisis

According to the *New York Times*, drug overdoses are now the leading cause of death for Americans under age 50. Opioid overdoses, in particular, have been on the rise in recent years, killing over 30,000 people in 2015. In response, many have called for stricter regulations on prescription opioids. But are doctor-prescribed drugs truly the cause of the increase in overdoses? At a Capitol Hill Briefing in June, Arizona surgeon and Cato senior fellow JEFFREY A. SINGER argued that regulators, in their rush to interfere in the patient-doctor relationship, are actually causing more problems than they're solving.

THE SCIENCE OF OPIOIDS

Many people in the policy world really don't understand the science of opioids, so let's begin by clearing up a few myths. First, it's important to understand that the long-term use of opioids, unlike alcohol, really doesn't have deleterious effects on the body. That's why we place people on methadone maintenance, for example, sometimes for their whole lives. And so far there's no conclusive evidence that long-term use of opioids has any effect on cognitive faculties or on the brain itself.

Second, I want to clear up misconceptions about heroin. Heroin is a brand name. The chemical name is diacetylmorphine. Its generic name is diamorphine. It was invented by Bayer in the late 1800s and given the brand name of heroin, which is a derivation of a German word that has to do with "strength." It's still on the formulary and used by doctors and pain patients in a lot of developed nations, including the United Kingdom, Canada, and others. It was banned in this country in 1924 because the head of the Narcotics Bureau at the time was convinced that it corrupted moral character. And despite appeals by the physicians at the time to leave it legal because there weren't that many pain medications available, it was banned. So of course, as any economist will tell you, within a very short period of time heroin became the number one substance for opioid addicts—because what would you rather sell on the black market: something that's totally banned, or something there are other ways to get?

Heroin is about three times more potent than morphine; and methadone, which we give people on methadone maintenance—we'll get more into that later—is also two and a half to three times more potent than morphine. Dilaudid, which is legal and which we give to patients for whom morphine is not working, is three to four times more potent than heroin. And fentanyl, also legal, is 50 times more potent than morphine.

Another commonly held misconception is that if you take one hit of heroin, you're hooked. That's absolutely not true. If it is, then why isn't that the case with morphine or Dilaudid or any other legal opioids we give people? In fact, as early as the 1960s, studies done in the *New England Journal of Medicine* and *International Journal of Group Psychotherapy* identified heroin users who were true recreational users. They used it on occasion, on weekends. They had productive lives and were not addicted, just occasional users.

And although we often hear the words "addiction" and "physical dependence" used interchangeably, there is a difference. A recent article in the *New England Journal of Medicine* by Nora D. Volkow points out that, on the molecular level, physical dependence is when you actually develop withdrawal symptoms when the drug is taken away, so you need to be tapered off—as opposed to addiction, which is a behavioral disorder, in which you actually seek the drug. You will make major sacrifices in your lifestyle that have negative consequences for you because it's so important to

you to take the drug.

That's a lot different from physical dependence. I'm a surgeon, and most of our patients who come to the office dependent on opioids want to be off them, so we help them slowly taper off. An addict, on the other hand, *doesn't* want to be off them, which is why you have a high recidivism rate when you're treating drug addicts.

ARE OVERDOSES A PRESCRIPTION PROBLEM?

The National Survey on Drug Use in Health has found that the nonmedical use of prescription opioids such as oxycodone and hydrocodone actually peaked in 2012. Total opioid use was actually lower in 2014 than in 2012. Despite that, opioid overdose deaths have *increased*. There were 33,000 deaths in 2015.

An overwhelming majority of those deaths, however, are people who used mixtures of drugs. In 2013, New York City found that 94 percent of the people who died from heroin or other opioids had mixed drugs in their system. These were not necessarily chronic pain patients. And also, for the first time, this year more people died from heroin overdoses than from prescription opioid overdoses.

According to Chinazo Cunningham at Albert Einstein College of Medicine, who helped develop the 2016 Centers for Disease Control and Prevention (CDC) guidelines, the number of prescription opioid overdoses is actually stabilizing, but opioid overdose rates have not plateaued because heroin use is dramatically increasing. So that's important to understand—that the big cause of overdose problems now is heroin. We're also seeing heroin use become much more prevalent in people in upper socioeconomic groups, and among suburban and rural white individuals.

According to the National Survey on Drug Use and Health, only one-quarter of people who take opioids for nonmedical reasons get

them by obtaining a prescription. So the sequence that everybody thinks exists, in which a patient gets narcotics for pain, gets hooked, and then eventually dies from an overdose, is not your typical story. In fact, a 2014 *JAMA* (*Journal of the American Medical Association*) study of 136,000 patients treated for opioid overdoses in emergency rooms found that just 13 percent of them were chronic pain patients. And the CDC cites a study showing that the opioid-related overdose rate for people who are on chronic pain medicine under the guidance of a doctor is 0.2 percent.

New addictions in people who take opioids for pain, in general, are uncommon. The most rigorous comprehensive review, from the Cochrane Library, found that the addiction rate of people put on prescription opioids was about 1 percent. It's very rare that a doctor prescribes a painkiller for a patient in pain who then gets hooked and becomes a heroin addict.

THE TRUE CAUSE OF THE PROBLEM

Both the CDC and the Texas A&M College of Pharmacy report that what they *are* seeing, however, is that as pain patients who are physically dependent and are in pain are gradually cut off pain medicine by their doctors, who are getting pressured to stop prescribing, a lot of them go on to seek pain medicine through the illicit drug market. And of course when they go to the illicit drug market, they often buy counterfeit opioids, and they don't know what they're laced with. Oftentimes they're laced with fentanyl. And many of them are buying heroin, because heroin is, according to the CDC, about one-fifth the price of street-obtainable prescription opioids.

Also driving the opioid problem is the promotion of tamper-resistant opioids. The Food and Drug Administration (FDA) is encouraging pharmaceutical companies to develop drugs that are tamper-resistant—in other words, you can't use them for anything other than the medicinal use for which they were prescribed.

Mark Twain has been quoted as saying

that history may not repeat itself, but it rhymes. Many people may be aware that back during the days of alcohol prohibition, ethanol was still allowed to be produced for industrial use. But the government required that the manufacturers put in what was called denatured alcohol—they put ingredi-



JEFFREY SINGER

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ents in it to make it unpalatable, so that bootleggers couldn't steal vats of ethanol and sell it on the black market. But bootleggers are pretty resourceful people, and they soon found out how to distill those impurities out and still sell it. So in 1926, the government required industrial ethanol manufacturers to add methyl alcohol, or methanol, also called wood alcohol, which can make you blind when you drink it. (That's where the expression “drinking himself blind” comes from.) So they put methyl alcohol and benzene in the ethanol, and that, despite attempts, could not be distilled out. At least 10,000 deaths are documented since 1926 from people who were drinking bootlegged alcohol that contained methanol and benzene.

That was the alcohol prohibition years' version of tamper-resistant alcohol, and it resulted in unintended consequences. I'm sure nobody wanted to see people die. But the same thing is happening today with tamper-resistant drugs.

For example—in 2010, OxyContin was converted to a tamper-resistant package. And when people couldn't crush it any more to snort it, they figured out how to boil it, turn it into an injectable form, and then inject it. A study published in the *Canadian Medical Journal* in 2015 found that “In Ontario and the US, overall rates of opioid-related deaths have continued to rise since the long-acting formulation of oxycodone (OxyContin) was replaced with a tamper-resistant formulation. . . . Rather, there is increasing evidence that individuals shift to other opioids, including uncontrolled formulations such as heroin.” In *JAMA Psychiatry* in 2015, Cicero and Ellis found that nonmedical users of OxyContin switched to other opioids, or to heroin, after the tamper-resistant reformulation of OxyContin replaced regular OxyContin in 2010.

In June, the FDA asked the manufacturer of Opana ER to pull it off the market. Opana is the brand name for oxycodone, stronger than oxycodone. It used to be very popular, when it was obtained in the black market, to crush it and snort it. The manufacturers then made it so that it was not crushable, so people figured out how to boil it and inject it. And then an outbreak of HIV was reported in the Indianapolis area from people sharing dirty needles to inject Opana ER. I understand what tamper-resistant measures are trying to do, but instead they're actually creating a lot of these problems.

At the same time, all but one state (Missouri) have adopted PDMPs, or prescription drug monitoring programs. These programs give us doctors a report card—in the case of Arizona, it's every quarter—of where you stand with respect to all of your colleagues in your specialty as to how many prescriptions you wrote for oxycodone, hydrocodone, and

so forth. It is not broken down by how many patients you saw, just how many prescriptions you wrote. And it ranks you in ranges from normal to outlier, to extreme outlier.

That casts a chilling effect on doctors. Nobody wants to be seen as an outlier. It pressures doctors to cut back on prescribing, and then their legitimately suffering patients are driven to the illegal market where they get laced opioids, or they go to cheaper heroin and, of course, that is where the overdoses occur. A study just came out in May from the University of Pennsylvania that examined the effect of PDMPs from 1999 to 2014, and they found that PDMPs were not associated with reductions in drug overdose mortality rates, and may be related to *increased* mortality from illicit and other unspecified drugs.

So what can we do from a policy standpoint? I'm an advocate of what's known as harm reduction: if we can't stop people from using these drugs, at least let's do what we can to make sure they don't harm themselves.

An example of harm reduction is methadone maintenance, which has been around for decades. You basically replace an addiction to heroin with an addiction to methadone in the form of a pill, which prevents withdrawal but doesn't give you the euphoria. It's sort of like the opioid version of a nicotine patch.

Another policy being used in several countries is—and this may sound weird—heroin maintenance programs. Now remember, heroin is diamorphine, which is a pharmaceutical that is available and used in many developed countries. In 1994, Switzer-

land started a heroin maintenance program. There are criteria to join it to make sure you're not trying to game the system, but you declare yourself a heroin addict; you come into a clinic in the morning; you're given pharmaceutical-grade diamorphine with a clean needle and syringe; a nurse is there watching you; you inject yourself; and then

“We need to address drug prohibition, not the patient-doctor relationship.”

you leave. You sign in and sign out. They've found that many addicts, once they aren't spending their whole day looking for their connection, get a job, some get married and have a family, and as they resume a more conventional lifestyle a significant number of them actually detox themselves off. A smaller program like this in the United Kingdom has been going on for about 10 years. In Vancouver, British Columbia, one just began in December 2016. Since heroin is a banned substance in this country, we would need to pass legislation to allow a few heroin maintenance pilot programs.

Another form of harm reduction, from the clinician's standpoint: Instead of pressuring doctors through things like these prescription drug monitoring boards to

decrease the amount of prescriptions we give to our patients, why don't you just let us be doctors? That's our job. When I have a patient who has recovered from major trauma surgery, and I know he's physically dependent, and he's asking me for another refill of oxycodone, and I think this has been going on a little longer than it should be—what I do ethically, as part of my profession, is have a discussion with my patient and see if I can get the patient to go along with my tapering him off. Sometimes patients are in denial. If they're addicted, I can refer them to someone who has more expertise in treating addiction. But if I'm faced with the decision between giving this guy another prescription under the condition that he'll see me in two weeks so we can talk about this again, or cutting him off and risking that he'll go get some counterfeit Percocet and maybe die of an overdose because it contained fentanyl or carfentanil—I think you should leave that judgment call to me, the doctor. If we can keep people on methadone maintenance, why can't I decide, under close supervision, to keep a person on oxycodone maintenance? There's no difference, chemically. My advice would be to stop interfering in the patient-doctor relationship—you're actually making it worse.

In summary, our opioid overdose problem is not a product of the patient-doctor relationship. It's a product of drug prohibition, because it's the illegal market that has led to all these impurities and to people getting substances that kill them. We need to address drug prohibition, not the patient-doctor relationship. ■

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their extraordinary fascination with this dangerous knowledge. They needed the best ideas from around the world to allow the Chinese economy to boom, and sometimes that required dealing with thinkers whose expertise was invaluable but whose views were unpalatable. No outsider personifies this complex duality better than Milton Friedman.

The exploratory, open-minded spirit that

brought Friedman to China has weakened considerably there today. In August 2013, shortly after Xi Jinping came to power and began establishing his centralized, strongman style of rule, cadres from across China massed in Beijing to hear him speak. Facing the assembled officials at this National Propaganda and Ideology Work Conference, Xi painted an ominous landscape in dark brushstrokes. “Western anti-China forces” are seeking “to

overthrow the leadership of the Chinese Communist Party and China's Socialist system,” he reportedly told his subordinates. In the face of these threats, Xi said, the party must “dare to bare the sword.” ■

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