

Prescribers and Policymakers Must Both Get Better at Harm Reduction

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One of the core principles of ACSH is harm reduction – an essential component of any sane public health policy. Dr. Jeffrey Singer (pictured) writing for the Cato Institute, calls for harm reduction, both from opioid prescribers and policymakers. Dr. Singer graciously allowed us to reprint his latest essay, which is a must-read.



Dr. Jeffrey Singer

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I have been a practicing general surgeon for more than 30 years. A major part of my work involves the treatment of acute and chronic pain. Sometimes that pain is a direct result of the operations I perform. [Travis N. Rieder reminds us](#) [2], through his personal experience, that pain is personal, individualized, and often horrific and insufferable. He rightly points out that opioids can be very effective pain relievers, making life bearable again for many who are immobilized and demoralized by pain.

Clinicians have varying philosophies on the treatment of many conditions. Just as some doctors may overprescribe antibiotics or overtreat hypertension or diabetes, others may display opposite

dispositions. These differences also apply to pain management. The subjective nature of pain makes it very difficult to establish objective evidence-based standards to resolve clinicians' management differences. One-size-fits-all approaches are inappropriate and harmful to patients. Rieder's encounter with pain acutely illustrates this problem. Even more compelling to this doctor, Rieder brings attention to a major shortcoming of most medical training programs regarding the treatment of pain: physicians are trained to prescribe opioids and other medications to treat pain, but they are rarely taught how to properly manage the withdrawal from this type of drug that, like many others, can induce physical dependency and tolerance.

Physicians who prescribe beta-blockers, anti-depressants, anti-epileptics, and other drugs known to induce dependency are trained to supervise safe, gradual tapering to avoid withdrawal complications. They advise their patients against abrupt cessation of their medication without first seeking professional guidance. As Travis Rieder painfully learned, this is rarely what happens when it comes to prescribing opioids to manage pain. Most of us physicians know what to administer to a patient in pain, but few of us know how to safely and compassionately wean patients off the pain medication. If a patient seeks advice on how to safely taper off the drug, the best most physicians usually offer is an educated guess. This failing put Rieder, and no doubt puts countless other patients, through an avoidable but agonizing struggle to shake off dependency.

It is irresponsible to place a patient on a drug without being aware of how to safely get the patient off the drug. It falls to medical professionals and educators to rectify this deficiency. From a clinician's perspective, this precept of harm reduction is a crucial lesson of Rieder's essay.

Many people confuse addiction and dependence, and this unfortunately [suffuses](#) ^[3] much of the policy debate surrounding the prescribing of opioids. The American Society of Addiction Medicine [defines](#) ^[4] addiction as a "chronic disease of brain reward, motivation, memory and related circuitry...characterized by the inability to consistently abstain, impairment in behavioral control, [and] craving" that continues despite resulting destruction of relationships, economic conditions, and health. Addiction has a biopsychosocial basis with a genetic predisposition and involves neurotransmitters and interactions within reward centers of the brain. Some experts believe addiction is a [learning disorder](#) ^[5] in which behavioral patterns are automatized as mechanisms for coping with stress or trauma. A major feature of addiction is compulsiveness. This compulsiveness is why alcoholics or other drug addicts will return to their substance of abuse even after they have been "detoxed" and despite the fact that they know it will further damage their lives.

[Addiction is not the same as dependence](#) ^[6]. Physical dependence refers to the physiological adaptation to the drug such that abrupt cessation or tapering off too rapidly can precipitate a withdrawal syndrome, which in some cases can be life-threatening. Tolerance is an aspect of physiological adaptation, in which increasing dose of a medication become necessary to achieve the desired effect. When a patient who does not suffer from addiction is properly tapered off of the drug on which they have become physically dependent, they do not feel a craving or compulsion to return to the drug.

The lack of insight into the often subtle distinctions between dependency, tolerance, and addiction has led to what Rieder calls "ham-fisted" policies that impose one-size-fits all constraints on opioid prescribing to patients in both acute and chronic pain. I agree. In hasty reaction to the opioid-

related overdose crisis that mobilized national attention earlier this century, many states have memorialized in official policy the opioid prescribing guidelines published by the U.S. Centers for Disease Control and Prevention in 2016. These guidelines have come under much [criticism](#) [7] from scholars and clinicians for [lacking a strong basis in the evidence](#) [8]. Limits have been placed on the number as well as the “morphine milligram equivalent daily dosage” (MEDD) of opioids that may be prescribed. The MEDD metric has come under [severe criticism](#) [9] for its inaccuracy and inappropriateness.

The almost hysterical reaction of policymakers to the overdose crisis propelled a reversion to pre-modern approaches to the treatment of pain. Many patients in severe acute or chronic pain are now, once again, being undertreated for their pain, as they were prior to the late 1980s. Many chronic pain patients whose pain has been controlled with chronic opioid use are being rapidly and recklessly tapered off their medication, putting them through the combined agonies of resumption of pain and protracted withdrawal, often rendering them disabled prisoners of their condition. Some, in desperation, turn to the dangerous [black market](#) [10] for relief. Others resort to [suicide](#) [11].

Complaints by [academicians](#) [12], [clinicians](#) [13], and the [American Medical Association](#) [14] (Resolution 235) finally caused the CDC to issue a [clarification](#) [15] in April 2019, noting, “Some policies, practices attributed to the Guideline are inconsistent with its recommendations.” Among the misapplications of the guidelines it noted were those that result in “hard limits or ‘cutting off’ opioids,” stating the “Guideline does not support abrupt tapering or sudden discontinuation of opioids.” Yet the statutory and regulatory restrictions remain unchanged.

Much of this ham-fisted policy is driven by the mistaken belief that the overprescribing of opioids for pain is what caused the overdose crisis. Numerous studies in the 1970s, 1980s, and 1990s led to the correct conclusion that patients were being undertreated for pain based upon the fear of risk of overdose or addiction. As clinicians and patients were encouraged to overcome such fears and more liberally treat pain, the volume of prescription opioids increased dramatically, particularly from 1999-2012. During this same period opioid-related overdose deaths quadrupled. It is easy to understand the temptation to draw a connection.

However, research using data provided by the National Survey on Drug Use and Health and the U.S. Centers for Disease Control and Prevention clearly show [no correlation](#) [16] between prescription volume per capita and “past month non-medical use” as well as “pain reliever use disorder in the past year” in persons aged 12 and over. The lack of correlation was recently confirmed in [Germany](#) [17], which has the second-highest opioid prescription volume in the developed world. Moreover, data from the NSDUH show [less than 25 percent](#) [18] of non-medical users of prescription pain pills ever obtain them from a prescription.

Studies also show the overdose potential of opioids, when used as directed in the medical setting, range from [0.022 percent](#) [19] to [0.04 percent](#) [20]. [Multiple](#) [21] Cochrane systematic reviews point to extremely low addiction rates in chronic noncancer pain patients receiving long-term opioid therapy, and a recent report found a total “misuse” rate of [0.6 percent](#) [22] among more than 568,000 patients receiving opioids for acute post-surgical pain during an eight year period.

Beginning around 2010, government policies succeeded in dramatically reducing prescription

volume. These policies included Prescription Drug Monitoring Programs that nudged or even frightened clinicians into prescribing fewer opioids; the promotion of abuse-deterrent formulations of opioids; and mass arrests of corrupt clinicians operating “pill mills” supplying non-medical users with their drug of choice. Prescription volume peaked in 2012. Yet as total prescription volume dropped by 29 percent between 2010 and 2017 the opioid-related overdose death rate continued to rise, increasing 16 percent from 2016 to 2017. Also changing between 2010 and 2017 were the specific drugs that caused the opioid-related deaths. The proportion of opioid-related deaths attributable to heroin and fentanyl has dramatically risen while those due to prescription opioids have fallen off. For example, in 2017, CDC data reveal that fentanyl or heroin were involved in 75 percent of opioid-related overdose deaths, up from 28 percent in 2010. In 2017 just 30 percent of opioid-related overdose deaths involved prescription opioids, down from 52 percent in 2010, and 40 percent of deaths involving prescription opioids also involved heroin or fentanyl. These trends suggest non-medical users are migrating from diverted prescription opioids to heroin and illicitly produced fentanyl as legally produced opioids become more expensive and difficult to obtain in the underground market. The evidence indicates the current emphasis on reducing prescription opioid volume only serves to [worsen](#) ^[23] the situation by driving non-medical users to more dangerous and deadly opioids in the black market.

Research from the [University of Pittsburgh](#) ^[24] reveals the overdose rate from the non-medical use of licit and illicit substances has been on a steady, exponential increase at least since the late 1970s, and it is showing no evidence of deviating from that trend. The only thing that has changed over the years is the particular drug in popular use and responsible for those deaths at any given time. In the early part of this century the popular drugs for non-medical users were *diverted* prescription opioids. Next it became heroin. For the past several years it has been heroin and fentanyl. Another worrisome trend is that non-medical users are taking risks that previous generations were less willing to take. For example, [Cicero, et al](#) ^[25] found 33.3 percent of heroin addicts entering rehab in 2015 initiated non-medical drug use with heroin, as opposed to 8.7 percent 10 years earlier.

The evidence shows the overdose crisis had its beginnings well before prescription opioids began to gain prominence as a cause of death. Contrary to the narrative that drives prevailing policy, the evidence suggests that the overdose crisis from the non-medical use of licit and illicit drugs has sociocultural and psychosocial etiologies and is exacerbated by the dangers inherent in accessing and using drugs in an underground market fueled by drug prohibition.

As mentioned above, Germany has the second highest opioid prescription volume in the developed world. It's [pattern](#) ^[26] of opioid prescribing mirrors that of the United States, surging from the mid-1990s and then peaking in 2012, after which it receded. Yet Germany's opioid-related overdose rate has consistently been among the lowest in the developed world. One major reason is that Germany has widely adopted harm reduction strategies since the 1980s. These include needle exchange, safe consumption sites, and “[safe supply](#) ^[27]” programs as well as Medication Assisted Treatment, heroin assisted treatment, and other rehabilitation programs. Rieder wants policymakers to move to harm reduction strategies to address the overdose crisis in the United States, and I couldn't [agree](#) ^[28] more.

Rieder is correct when he writes “the war on drugs has been an abject failure.” It has also been the [principal](#) ^[29] force behind the overdose crisis. Furthermore, engaging the criminal justice system to deal with substance use disorder is an irrational way to treat a behavioral disorder that is defined as compulsive behavior despite negative and self-destructive consequences. Punishment won’t work to cure a disorder for which, by definition, punishment doesn’t work.

Doctors prescribing opioids in the medical setting, and policymakers addressing their use in medical and non-medical settings, must better appreciate the complexity and nuance surrounding use of these helpful and powerful drugs. Both settings have in common the need for larger doses of harm reduction.

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[1] <https://www.cato-unbound.org/2019/08/19/jeffrey-singer/prescribers-policymakers-must-both-get-better-harm-reduction>

[2] <https://www.cato-unbound.org/2019/08/16/travis-n-rieder/pain-opioids-addiction-searching-nuanced-solution>

[3] https://www.cjr.org/covering_the_health_care_fight/what-the-media-gets-wrong-about-opioids.php

[4] <https://www.asam.org/resources/definition-of-addiction>

[5] <https://slate.com/human-interest/2016/04/is-addiction-a-learning-disorder.html>

[6] <https://www.asam.org/docs/default-source/public-policy-statements/1opioid-definitions-consensus-2-011.pdf>

[7] <https://www.cato.org/blog/politicians-cannot-stop-punishing-patients-unintended-consequences-drug-prohibition>

[8] <https://www.tandfonline.com/doi/full/10.1080/08897077.2017.1345194>

[9] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4809343/>

[10] <https://www.thedailybeast.com/feds-pill-crackdown-drives-pain-patients-to-heroin>

[11] <https://medium.com/@ThomasKlineMD/opioidcrisis-pain-related-suicides-associated-with-forced-tapers-c68c79ecf84d>

[12] <https://www.statnews.com/2019/05/30/the-chronic-pain-quandary-amid-a-reckoning-over-opioids-a-doctor-crusades-for-caution-in-cutting-back/>

[13] <https://healthprofessionalsforpatientsinpain.org/the-letter-1>

[14] <https://www.ama-assn.org/system/files/2018-11/i18-refcomm-b-annotated.pdf>

[15] <https://www.cdc.gov/media/releases/2019/s0424-advises-misapplication-guideline-prescribing-opioids.html>

[16] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6369835/>

[17] <https://www.cato.org/blog/data-germany-provide-more-evidence-overdose-crisis-not-about-number-prescriptions>

[18] <https://blogs.scientificamerican.com/mind-guest-blog/opioid-addiction-is-a-huge-problem-but-pain-prescriptions-are-not-the-cause/>

[19] <https://www.ncbi.nlm.nih.gov/pubmed/26333030>

[20] <https://jamanetwork.com/journals/jama/fullarticle/896182>

[21] https://www.cochrane.org/CD006605/SYMPT_opioids-long-term-treatment-noncancer-pain

[22] <https://www.bmj.com/content/360/bmj.j5790.long>

[23] <https://www.cato.org/blog/stop-calling-it-opioid-crisis-its-heroin-fentanyl-crisis>

[24] <https://science.sciencemag.org/content/361/6408/eaau1184/tab-figures-data>

[25] <https://www.ncbi.nlm.nih.gov/pubmed/28582659>

[26]

https://journals.lww.com/painrpts/Fulltext/2017/06000/The_opioid_epidemic_and_national_guidelines_for.12.aspx

[27] <https://www.cbc.ca/radio/thecurrent/the-current-for-january-8-2019-1.4968611/b-c-safe-supply-pilot-aims-to-help-entrenched-addicts-avoid-overdoses-says-advocate-1.4968777>

[28] <https://www.cato.org/publications/policy-analysis/harm-reduction-shifting-war-drugs-war-drug-related-deaths>

[29] <https://www.cato.org/publications/commentary/drug-prohibition-blame-opioid-crisis>