

## **Addressing the Crisis of Prescription Opioid Misuse and Overuse in the U.S. ...a multifaceted and multidisciplinary approach is needed**

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The opioid epidemic in the U.S. has become a national emergency and deemed one of the most consequential preventable public health threats facing the nation.<sup>1</sup> Opioids are heavily prescribed and overused, all too often with deadly consequences. Opioid overdose deaths increased 156% from 2010 (21,088) to 2015 (33,091); in teenagers overdose death rates increased 19% from 2014 (649) to 2015 (772), more than double the rate increase since 1999. Aggravating the situation is the availability of highly potent opioids such as fentanyl that may be produced and obtained illegally and are potentially lethal through skin absorption, inhalation, incorrect dosing, or lacing with other drugs.<sup>2</sup>

Many people use opioids but some populations are more affected than others. The 2015 National Survey on Drug Use and Health (NSDUH) revealed that an estimated 38% of U.S. adults (92 million) used prescription opioids during the prior year, among which 13% (11.5 million) reported misuse and 2% (2 million) reported a prescription opioid use disorder (dependence and abuse).<sup>3</sup> Of those misusing opioids, 60% reported doing so without having a prescription and 41% obtained them from friends or relatives. Of particular concern, however, is that misuse and use disorders were most commonly reported in adults who were uninsured, unemployed, had low income, or had behavioral health problems.

Opioid Prescribing has actually gone down in recent years. The US Centers for Disease Control and Prevention (CDC) recently reported that between 2006 and 2015 opioid prescribing in the U.S. peaked in 2010 and then decreased through 2015.<sup>4</sup> Prescribing rates increased from 72 to 81 prescriptions per 100 persons then declined to 71 per 100 persons by 2015 (a 13% decline). Personal prescription use in 2015 was still 3 times higher than in 1999 and nearly 4 times higher than in Europe. In spite of observed reductions in opioid prescribing; however, opioid-involved overdose death rates continue to increase.

Several factors contribute to the overuse and dangerous misuse of opioids. The question is, who is accountable and what can be done to stem the tide of inappropriate opioid use? Certainly, physicians must assume substantive responsibility because they are doing the prescribing. Several major professional societies, including the American College of Physicians, the American Academy of Family Practice, and the American Medical Association have developed guidelines and introduced programs to help educate physicians about opioid prescribing and addiction. Yet many patients are still not being treated effectively or appropriately. A recent study found that 40% of those with a heroin overdose and 60% of those with a prescription opioid overdose filled a prescription within six months following their overdose and often for the same medication with which they previously overdosed. At the same time, medication assisted treatment following opioid overdose increased by only 3.6%.<sup>5</sup>

Pharmaceutical companies must assume responsibility as well because they develop and market substances that are known to be addictive and potentially deadly. Pharma marketing strategies also attempt to influence physician-prescribing behavior and boost sales of their product. Pharma spends over \$20 billion a year on marketing, most of which goes to doctors as gifts. A survey of doctors in 2003 and 2004 revealed that nearly 95% of American doctors receive free food, beverages, drug samples, sports tickets or other benefits from drug companies despite voluntary reporting guidelines set in 2002.<sup>6</sup> Most of these relationships (83%) involved receiving free food and 78% free drug samples. About one quarter received full or partial reimbursement for continuing education, while 18% were paid consultant

fees. Cardiologists were the most likely to receive direct payments from the pharmaceutical industry. In a 1½ year study of the Centers for Medicare and Medicaid Services data identifying pharmaceutical industry payments (2013-2015) to physicians related to the use of an opioid, 1 in 12 physicians (over 68,000) received payment (median=\$50; range=\$16-\$151).<sup>7</sup> The top 1% received 82% of all payments, mostly as speaking fees or honoraria. Anesthesiologists received the most payment.

The data is compelling that pharmaceutical pandering to physicians affects prescribing behavior, even when offering small gifts. This has led to legislative proposals in numerous states and federal government, as well as stepped up efforts at self-regulation by the pharmaceutical industry and medical professional groups to limit the influence of the pharmaceutical industry.<sup>8</sup> Quoted in the *Los Angeles Times*, Dr Jerome P. Kassirer, of Tufts School of Medicine, argued that even free samples are suspect because giving free samples to a patient means the doctor has to finish off the course of treatment with a prescription.<sup>9</sup> One author of the above-referenced *NEJM* article, Dr David Blumenthal, predicted the need for greater government regulation on opioid prescribing arguing that, "The problem isn't with the companies, it is with the profession."

The CDC contends that the epidemic of opioid misuse, overdose, and death is a multifaceted crisis that requires partnership across sectors to respond with effective health care and public safety strategies. Findings of the recent NSDUH survey underscore the urgent need for more effective approaches to pain treatment that include better training of physicians in how to prescribe, when to treat, better access to evidence based and effective non pharmacologic modalities of treatment, and development of better non addictive drugs to treat pain. Enhancing general availability and access to proven and safe pain treatment for all sectors of society may help decrease opioid misuse. Changing prescribing patterns that leave people with unused opioids available for misuse by others could also help. Better science, better training, improved health care access, improving public awareness, and policies aimed at alleviating social contributions to poor health are all important in addressing the opioid epidemic but there is an equally pressing need to reign in marketing forces that unduly influence the prescribing behavior of physicians.

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<sup>1</sup> Gostin L, Hodge J, Noe S. Reframing the Opioid Epidemic as a National Emergency. *JAMA*. August 23, 2017. doi:10.1001/jama.2017.13358

<sup>2</sup> Bonnie RJ, Kesselheim AS, Clark DJ. Both Urgency and Balance Needed in Addressing Opioid Epidemic: a report from the National Academies of Science, Engineering, and Medicine. *JAMA*. 2017;318(5):423-424

<sup>3</sup> Han B, Compton WM, Blanco C, Crane E, Lee J, Jones CM. Prescription Opioid use, Misuse, and Use Disorders in U.S. Adults: 2015 National Survey on Drug Use and Health. *Ann Intern Med* [Epub ahead of print]. doi:10.7326/M17-0865

<sup>4</sup> Schuchat A, Houry D, Guy G. New Data on Opioid Use and Prescribing in the United States. *JAMA*. 2017;318(5):425-426

<sup>5</sup> Frazier W, Cochran G, Lo-Ciganic W, et al. Medication-Assisted Treatment and Opioid Use Before and After Overdose in Pennsylvania Medicaid. *JAMA*. 2017;318(8):750-752

<sup>6</sup> Campbell R, Gruen R, Mountford J, et al. A National Survey of Physician-industry Relationships. *NEJM*; 2007;356(17):1742-1750

<sup>7</sup> Hadland S, Krieger M, Marshall B. Industry Payments for Opioid Products, 2013-2015. *AJPH*. 2017;107(9):1493-1495

<sup>8</sup> Grande D. Limiting the Influence of Pharmaceutical Industry Gifts on Physicians: Self-Regulation or Government Intervention? *J Gen Int Med*. 2010;25(1):79-83

<sup>9</sup> Los Angeles Times 4/26/07