

# A PRIMER ON OPIOIDS

## THE CRITICAL ROLE OF HEALTH EDUCATION IN PREVENTING ADDICTION AND SAVING LIVES

Opioid refers broadly to a class of chemicals that inhibit pain receptors in the brain, spinal cord, and digestive tract that function to reduce the effects of pain. This includes heroin (a highly addictive, illegal substance), fentanyl, hydrocodone (e.g., Vicodin®), oxycodone (e.g., OxyContin®, Percocet®), methadone and morphine.<sup>1-2</sup> Opioids provide a feeling of euphoria making them increasingly addictive. Repeated administration may lead to opioid tolerance due to decreased drug potency, in which a higher dose is needed to achieve the same effects.<sup>3</sup>

## Opioid use, misuse, and use disorders

Opioids have long been employed for their effect on pain. However, opioid prescribing practices to treat chronic pain increased within the past 40 years.<sup>5</sup> Such increased prescriptions, along with dramatic increases in illegal drug uses and manufacturing, have led to today's crisis:

- **Doctors are prescribing opioids more often**, for a longer duration and at higher doses than ever before, leaving patients feeling misled. Increased medications lead to misuse of opioids and combined drugs.<sup>1,6</sup>
- **Opioid use disorder (OUD)**, in which individuals become addicted to opioids, may result in related overdose death. Opioid misuse occurs due to pain, injury, trauma, despair, and age.<sup>2</sup> High tolerance makes it difficult to abstain from use, thus many continue to use opioids while experiencing withdrawal to avoid or alleviate the symptoms.<sup>7-8</sup>
- **Fentanyl use is on the rise.** In 2016, nearly half of opioid-related overdose deaths involved fentanyl.<sup>9</sup> Illicitly-manufactured fentanyl (IMF) is now found in combination with other drugs, like heroin.<sup>9</sup> This means it is imperative to increase education on drug potency and combined illicit drugs.<sup>10</sup>
- **Comorbidities are exacerbated by the opioid crisis**, including Hepatitis C, HIV, and neonatal opioid withdrawal syndrome.<sup>11</sup>
- **The opioid crisis has contributed astronomically in economic burden** and increase in crime, violence, and disruptions in family, workplace, and educational environments.<sup>11</sup>

Health education specialists teach people about behaviors that promote wellness.

Health education specialists provide education and training on substance abuse prevention and mental health in K-12 schools, communities and worksites. These efforts complement those of clinical health care providers, addiction counselors, community health workers, first responders, community advocates and many other professionals involved in addressing the opioid crisis.<sup>4</sup>



In 2016:<sup>12</sup>

116 Americans died each day from drug overdose



\$504 billion in economic costs



## The health education approach to prevention and treatment

**Health education specialists are vital in the education and prevention of opioid addiction and misuse.** Health education on national, state and local levels is needed to raise awareness of the problem, educate youth and communities about substance abuse, provide linkages to community resources for mental health, train the public on proper use of naloxone, reach persons with co-morbidities, and conduct research on ways to reduce stigma of drug addiction for seeking early treatment. **A coordinated approach involving informed efforts of evidence-based harm reduction strategies is needed to curb the opioid epidemic and prevent deaths** (e.g. health education, medical, mental, and social health services; health departments; nonprofit and community-based organizations; community members). **Medication-assisted treatment (MAT)**, an approach that combines medication (methadone, buprenorphine, or naltrexone) with counseling and behavioral therapies, is effective in preventing repeat overdose.<sup>7</sup> **Naloxone**, a medication that acts to block the effects of opioids, can reverse an overdose and can be life-saving.<sup>7</sup> **Prescription drug monitoring programs (PDMPs)** identify patients at risk of opioid addiction or overdose assuming enrolled prescribers regularly use PDMPs.<sup>13</sup>

### References

- 1 Centers for Disease Control and Prevention [CDC]. (2017a). Opioid overdose-opioid basics. Retrieved from <https://www.cdc.gov/drugoverdose/opioids/index.html>
- 2 Centers for Disease Control and Prevention [CDC]. (2017b). Commonly used terms. Retrieved from <https://www.cdc.gov/drugoverdose/opioids/terms.html>
- 3 Volkow, N., & McLellan, A. (2016). Opioid abuse in chronic pain — Misconceptions and mitigation strategies. *New England Journal of Medicine*, 374(13), 1253-1263. doi:10.1056/nejmra1507771
- 4 Society for Public Health Education [SOPHE]. (2017). Qualifications of health educators resolution. Retrieved from [https://www.sophe.org/wp-content/uploads/2018/01/SOPHE-Qualifications-of-Health-Educators\\_adopted9aug2017.pdf](https://www.sophe.org/wp-content/uploads/2018/01/SOPHE-Qualifications-of-Health-Educators_adopted9aug2017.pdf)
- 5 Rosenblum, A., Marsh, L. A., Joseph, H., & Portenoy, R. K. (2008). Opioids and the treatment of chronic pain: Controversies, current status, and future directions. *Experimental and Clinical Psychopharmacology*, 16(5), 405-416. <http://doi.org/10.1037/a0013628>
- 6 King, N., Fraser, V., Bokros, C., Richardson, R., Harper, S. (2014). "Determinants of Increased Opioid-Related Mortality in the United States and Canada, 1990-2013: A Systematic Review." *American Journal of Public Health* 104(8), 32-42. doi: 10.2105/AJPH.2014.301966
- 7 Substance Abuse and Mental Health Services Administration [SAMHSA]. (2018). Opioid Overdose Prevention Toolkit. Retrieved from <https://store.samhsa.gov/shin/content/SMA18-4742/SMA18-4742.pdf>
- 8 Chang, G., Chen, L., & Mao, J. (2007). Opioid Tolerance and Hyperalgesia. *Medical Clinics of North America*, 91(2), 199-211. <https://doi.org/10.1016/j.mcna.2006.10.003>
- 9 Jones, C., Einstein, E., & Compton, W. (2018). Changes in Synthetic Opioid Involvement in Drug Overdose Deaths in the United States, 2010-2016. *JAMA*, 319(17), 1819-1821. doi:10.1001/jama.2018.2844
- 10 Fairbairn, N., Coffin, P. O., & Walley, A. Y. (2017). Naloxone for heroin, prescription opioid, and illicitly made fentanyl overdoses: Challenges and innovations responding to a dynamic epidemic. *International Journal of Drug Policy*, 46, 172-179. doi:10.1016/j.drugpo.2017.06.005
- 11 National Institute on Drug Abuse [NIDA]. (2018). Opioids. Retrieved from <https://www.drugabuse.gov/drugs-abuse/opioids>
- 12 Council of Economic Advisers. (2017). The underestimated cost of the opioid crisis. Retrieved from <https://www.whitehouse.gov/sites/whitehouse.gov/files/images/The%20Underestimated%20Cost%20of%20the%20Opioid%20Crisis.pdf> Haffajee,
- 13 Haffajee, R., Jena, A., & Weiner, S. (2015). Mandatory use of prescription drug monitoring programs. *JAMA*, 313(9), 891-892. <http://doi.org/10.1001/jama.2014.18514>

