

► **DirecTalk** MUSINGS FROM THE 10TH FLOOR

David Dyjack, DrPH, CIH

Opioids are arguably the single largest acute threat to the health of nation in 2017. While not immediately obvious, environmental health professionals play an important supporting role in addressing this national crisis, as featured at our 2017 Annual Educational Conference & Exhibition (see my column from the October 2017 *Journal*). I've asked NEHA member Alan Dellapenna to provide a practical and useful background on opioids for this month's column. Thank you, Alan, for taking the time to craft the information below and for providing our readership with valuable information on this crisis.

ddyjack@neha.org
Twitter: @DTDyjack

An Environmental Health Perspective on the Opioid Epidemic

Alan Dellapenna, Jr., RS
Branch Head, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, North Carolina Department of Health and Human Services

The opioid epidemic has recently been described as the largest public health crisis to hit the U.S. since the AIDS epidemic (Sullivan, 2017). Response to the epidemic is perhaps the only health issue that has bipartisan support at the federal level and is receiving

A Prescription Gone Awry

The opioid epidemic has recently been described as the largest public health crisis to hit the U.S. since the AIDS epidemic.

top health issue attention and funding at the federal, state, and local levels.

Similar to the early phases of the AIDS epidemic, the role of environmental health professionals might not be readily apparent in the current opioid epidemic. AIDS was initially framed as the consequences of behavior choices. We eventually understood, however, that AIDS was caused by a virus—HIV. When framed as a communicable disease, we understood that infections from HIV were indiscriminate when exposure to infected blood and bodily fluids weren't controlled.

Like AIDS, framing the opioid issue from a causative agent perspective, rather than behavioral perspective, provides insight into broader public and environmental health roles in the epidemic. The causative agent in the opioid epidemic is a toxic chemical. An

opioid overdose is a poisoning—the physical response to an acute exposure to a toxic substance. Public health prevention efforts in the opioid epidemic focus on control measures to mitigate the human harm caused by the toxic substance. This approach is like the hazard analysis and critical control point (HACCP) practice we employ in food safety.

Opioid epidemics aren't new in our country (Moghe, 2016). The difference this time is the scope and drivers of the opioid misuse epidemic. We are experiencing the consequences of 20 years of medically prescribed opioids to control pain and dispensed for home use (Meldrum, 2016). This practice has resulted in iatrogenic addictions and an abundance of opioid medication available in homes, which have been diverted for recreational and illicit use. The readily available supply of opioids has eroded the historic hard wall of resistance to use opioids recreationally by adolescents and to self-medicate by adults. In my state, North Carolina, surveys report that nearly 20% of students have used opioids recreationally by the time of high school graduation.

Our country got into this situation by a change in the policy environment. In 1989, the medical profession added pain as the fifth diagnostic test and challenged the medical community to do more to treat pain. The pathway out of the epidemic starts with changing the policy environment of pain management with opioids.

The Centers for Disease Control and Prevention (CDC) is providing leadership in

continued on page 64

DirectTalk

continued from page 66

the public health response to the opioid epidemic and has provided funding to 29 states through the Prescription Drug Overdose: Prevention for States (PFS) grant program (CDC, 2017a). Strategies in the public health portfolio include reducing the supply of prescribed opioids with prescriber guidelines (CDC, 2017b), providing clinical tools through prescription drug monitoring programs (PDMPs) (CDC, 2017c), maintaining robust public health surveillance, and mobilizing community responses to the epidemic.

States are also pursuing strategies like drug take back programs (U.S. Department of Justice, n.d.), mitigating the damage from opioids through increased access to naloxone (Wheeler, Jones, Gilbert, & Davidson, 2015), and engaging with active drug users through syringe exchange programs (La Belle, 2017; Quinn, 2016). Public health is also playing a critical role by convening diverse groups to work on the epidemic through task forces and strategic planning.

Below is an outline of roles environmental health professionals can play in responding to the opioid epidemic.

- Learn about the epidemic and join the effort: Take a hazard-based approach to the opioid epidemic. While we don't have the expertise to deal with addiction, we're pretty good at controlling hazards. CDC has created a website that provides valuable resources regarding opioid basics, overdose prevention, information for patients and providers, state information, CDC publications, and a resource center (CDC, 2017d). Last year, the U.S. Surgeon General released a milestone report on addictions (U.S. Department of Health and Human Services, 2016). CDC's response fits within the larger National Drug Prevention Strategy that was released in 2016 (Executive Office of the President of the United States, 2016). Most states have developed strategic plans modeled on this strategy. Environmental health professionals should explore these resources, as well as data specific to their states.
- Public health disaster response: States are starting to declare a public health emergency to address the opioid epidemic (Network for Public Health Law, 2017). Environmental health staff involved in emergency response may want to prepare for such a declaration, review their state opioid response plans, meet with their state PFS grant program, learn what the priorities are in their state, and identify their role if an emergency is declared.
- Worker safety: The increased availability of highly toxic analogues of fentanyl has increased the hazards posed to law enforcement, laboratory staff, and residences through potential contamination. Environmental health staff may want to consider developing hazard control guidance and training for occupational exposure to analogues of fentanyl.
- Home hazards: We need to recognize that an opioid overdose is a poisoning and should consider the pills in the medicine cabinet as a toxic substance hazard present in homes. While the pills come with a prescription, the diversion of opioids to recreational use is the driver of the epidemic. Environmental health staff should consider adding safe storage, use, and disposal strategies to home-visit hazard assessments and training efforts.
- Drug take back programs: Most states have drug take back programs. Drug take backs are essentially hazardous waste collection and disposal programs. Environmental health can play a role to support and improve take back efforts.
- Naloxone: Naloxone hydrochloride is an antigen to an opioid overdose. Naloxone is the most effective first aid tool we have to rescue someone from an overdose. Naloxone access for overdoses is like an automated external defibrillator for heart attacks. If a family member has an opioid prescription or a loved one is using opioids, they need to have access to naloxone. We need to educate the public that there is a safe and effective first aid tool for opioid overdoses, as well as eliminate the barriers to naloxone access. Education on naloxone should be added to home-visit education programs.
- Syringe exchange programs: While the opioid epidemic is driven by prescription opioids, the epidemic is transitioning to cheaper illicit opioids. Used syringes are a visible and growing hazard in communities. Syringe exchange programs increase safe disposal of used syringes and provide opportunities to engage with active drug

users on prevention, treatment, and safety strategies.

Looking forward, I recommend that NEHA partner with other organizations working on the epidemic, such as the Association of State and Territorial Health Officials, the National Association of County and City Health Officials, the American Public Health Association, and the Safe States Alliance. NEHA should provide leadership to environmental health professionals on recognizing opioid hazards in homes, as well as provide informational materials to educate the profession on the opioid epidemic. 🐼

References

- Centers for Disease Control and Prevention. (2017a). *Opioid overdose: Prevention for states*. Retrieved from https://www.cdc.gov/drugoverdose/states/state_prevention.html
- Centers for Disease Control and Prevention. (2017b). *Opioid overdose: CDC guideline for prescribing opioids for chronic pain*. Retrieved from <https://www.cdc.gov/drugoverdose/prescribing/guideline.html>
- Centers for Disease Control and Prevention. (2017c). *Opioid overdose: What states need to know about PDMPs*. Retrieved from <https://www.cdc.gov/drugoverdose/pdmp/states.html>
- Centers for Disease Control and Prevention. (2017d). *Opioid overdose*. Retrieved from <https://www.cdc.gov/drugoverdose/>
- Executive Office of the President of the United States. (2016). *National drug control strategy*. Washington, DC: Author. Retrieved from https://obamawhitehouse.archives.gov/sites/default/files/ondcp/policy-and-research/2016_ndcs_final_report.pdf
- La Belle, R. (2017). *A guide to establishing syringe services programs in rural, at-risk areas*. Chicago, IL: Comer Family Foundation. Retrieved from <http://www.comerfamilyfoundation.org/img/A-Guide-to-Establishing-Syringe-Services-Programs-in-Rural-At-Risk-Areas.pdf>
- Meldrum, M.L. (2016). The ongoing opioid prescription epidemic: Historical context. *American Journal of Public Health, 106*(8), 1365–1366.
- Moghe, S. (2016, October 14). Opioid history: From 'wonder drug' to abuse epidemic. *CNN*. Retrieved from <http://www.cnn.com/2016/05/12/health/opioid-addiction-history/index.html>

Network for Public Health Law. (2017). *Declared states of emergency—Opioid crisis*. Edmina, NY: Author. Retrieved from https://www.networkforphl.org/_asset/0h6mx4/Fact-Sheet---Declarations-of-Emergencies---Opioid-Crisis.pdf

Quinn, M. (2016, December). Amid opioid crisis, needle exchanges are losing their stigma. *Governing*. Retrieved from <http://www.governing.com/topics/health-human-services/gov-needle-exchanges-opioid-funding.html>

Sullivan, A. (2017, March 16). The opioid epidemic is this generation's AIDS crisis. *New York Daily Intelligencer*. Retrieved from <http://nymag.com/daily/intelligencer/2017/03/the-opioid-epidemic-is-this-generations-aids-crisis.html>

U.S. Department of Health and Human Services, Office of the Surgeon General. (2016). *Facing addiction in America: The Surgeon General's report on alcohol, drugs, and health*. Washington, DC: Author. Retrieved from <https://addiction.surgeon-general.gov/>

U.S. Department of Justice, Drug Enforcement Administration. (n.d.). *National prescription drug take back day*. Retrieved from https://www.deadiversion.usdoj.gov/drug_disposal/takeback/

Wheeler, E., Jones, T.S., Gilbert, M.K., & Davidson, P.J. (2015). Opioid overdose prevention programs providing naloxone to laypersons—United States, 2014. *Morbidity and Mortality Weekly Report*, 64(23), 631–635.

Did You Know?

NEHA is pleased to announce the fourth year of the National Environmental Public Health Internship Program, funded by the Centers for Disease Control and Prevention's Environmental Health Services Branch. Health departments can apply to host one of 35+ internships during summer 2018. The deadline for health departments to apply is **January 3, 2018**. Students from universities with accredited undergraduate/graduate environmental health programs can apply for one of these internship opportunities. The application process for students is open and the deadline to apply is **February 12, 2018**. Learn more at www.neha.org/professional-development/students/internships.

2018

ACCEPTING NOMINATIONS NOW

Walter S. Mangold Award

The Walter S. Mangold Award recognizes an individual for extraordinary achievement in environmental health. Since 1956, this award acknowledges the brightest and best in the profession. NEHA is currently accepting nominations for this award by an affiliate in good standing or by any five NEHA members, regardless of their affiliation.

The Mangold is NEHA's most prestigious award and while it recognizes an individual, it also honors an entire profession for its skill, knowledge, and commitment to public health.

Nomination deadline is March 15, 2018.



To access the online application, visit www.neha.org/about-neha/awards/walter-s-mangold-award.