

► SPECIAL REPORT

Addressing the Opioid Crisis in Native American Communities: The Role of Environmental Health Specialists

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Abstract In Arizona, opioid-related deaths have increased by 74% since 2012. In addition, the reported number of opioid-related deaths, inpatient incidences, and emergency department incidences increased 310% from 2008–2016 among the American Indian/Alaska Native (AI/AN) service population within the Phoenix Area Indian Health Service (PAIHS). Using the *Strategy to Combat Opioid Abuse, Misuse, and Overdose: A Framework Based on the Five Point Strategy* as a template (U.S. Department of Health and Human Services, 2017), the Division of Environmental Health Services (DEHS) within PAIHS was able to identify several community-based actions to assist in addressing this crisis in the AI/AN communities it serves. These actions included improving opioid-related poisonings data, identifying methods to safeguard medication in the home environment, advocating for community-based prescription medication disposal programs, facilitating medical-assisted treatment training for tribal healthcare professionals, and identifying resources for naloxone to be used by tribal first responders. DEHS staff members worked collaboratively with federal, state, and tribal partners on the design, development, implementation, and evaluation of community-based activities to ensure they are effective and culturally appropriate.

Introduction

The opioid epidemic continues to be a public health burden in the U.S. An estimated 130 people die each day from an opioid-related drug overdose (U.S. Department of Health and Human Services [HHS], 2021). Over 2 million individuals in the U.S. have an opioid use disorder associated with prescription medication (Center for Behavioral Health Statistics and Quality, 2018). In Arizona, data collected suggest that opioid-related deaths have increased by 74% since 2012 (Arizona Department of Health Ser-

vices, 2016). The American Indian/Alaskan Native (AI/AN) population in Arizona is not immune to this problem. The reported opioid-related deaths, inpatient incidences, and emergency department incidences increased 310% from 2008–2016 (Arizona Department of Health Services, 2018). To address this widespread problem, the U.S. Department of Health and Human Services (HHS) developed the *Strategy to Combat Opioid Abuse, Misuse, and Overdose: A Framework Based on the Five Point Strategy* (HHS, 2017; Figure 1).

The Role of Environmental Health Specialists in Opioid Poisoning Prevention

The authors of this special report are part of the Division of Environmental Health Services (DEHS) within the Phoenix Area Indian Health Service (PAIHS), which is one of the 11 operating divisions within HHS. PAIHS is one of 12 areas that are responsible for providing direct medical and public health services to members of >565 federally recognized AI/AN tribes in the Phoenix area. DEHS provides direct environmental health services and consultation to AI/AN governments and other IHS programs with a service population of >140,000 individuals across four states (Indian Health Service, 2018). Along with general environmental health services, DEHS also works to address injury disparity, including poisonings, in their service population.

Although IHS and tribal clinical staff are proactively addressing the opioid issue in the healthcare setting, it is important to identify what can be done at the community level to ensure a comprehensive approach. Through collaborative efforts from state partners and DEHS colleagues, the authors were able to identify methods and strategies to reduce the incidences of opioid-related poisonings within tribal communities in the Phoenix area. Table 1 highlights the role of environmental health specialists in the prevention of opioid-related poisonings following the HHS Five Point Strategy.

Conducting Data Surveillance to Better Understand the Magnitude of the Problem

Due to the varying levels of capacity to provide emergency care at IHS and tribal health-

FIGURE 1

U.S. Department of Health and Human Services Five Point Strategy to Combat the Opioid Crisis



care facilities, many injuries, including poisonings, that require a higher level of medical care cannot be addressed at these facilities. This deficit can result in patients receiving care from non-IHS or nontribal facilities, making it difficult to produce accurate epidemiological reports. To address this issue, DEHS staff members have worked to develop limited use data sharing agreements with state health departments in an attempt to collect data on those outside cases.

Improving Data Quality Through Better Postmortem Surveillance

Currently in Arizona, postmortem blood sampling is conducted when a fatality occurs from an injury. This practice allows for a more complete accounting of opioid-related fatality cases. Due to the cost of the sampling, lack of resources, and concerns about the invasiveness of the procedure, however, a blood sample is not always collected in tribal communities. This identified gap led DEHS staff to facilitate a partnership between the Arizona state laboratory and these communities. This new partnership seeks to increase the frequency of

postmortem blood sampling at no cost to the tribes. Increased sampling could lead to better case identification that could also be used to refine intervention efforts.

Furthermore, a 2019 taskforce composed of federal, state, and local partners was established to identify proper coding for opioid-related events within Arizona. DEHS staff members, along with other IHS partners, were tasked with determining a standard for coding opioid-related events in Arizona using the International Classification of Diseases, 10th revision (ICD-10). This initiative included reviewing the opioid-related ICD-10 diagnosis codes, discussing how federal and state entities were coding opioid-related events, and then uniformly agreeing on how to consistently apply the code within Arizona.

Tribal communities in Arizona now have the option to improve data quality for opioid-related cases by providing postmortem blood samples to the state laboratory for analysis at no charge. One tribal community has started to initiate the process of training individuals to take samples and set up courier locations

for their submissions. Outreach to tribal partners on this initiative is ongoing.

Identifying Methods to Safeguard Medication in the Home Environment

Another strategy to address prescription opioid misuse and diversion is ensuring medications in the home environment are securely stored. According to a published report, one recommended strategy is to provide clear guidance on safe storage of prescription drugs (Alexander et al., 2015). DEHS staff conducted a series of focus groups among tribal elders to gather input on the feasibility and acceptability of the use of medication lock boxes as a community-based prevention option to encourage safe storage practices for opioid prescription medications in the home environment. A moderator's guide was developed to provide a uniform approach for the facilitation of the focus groups. Four different lock boxes were demonstrated to the participants along with hands-on opportunities for the focus group participants to handle each box. DEHS staff facilitated the sessions and shared the findings with key community partners.

From October 2017–May 2018, 10 focus groups were held with a total of 101 elders from 7 Arizona tribal communities. The results strongly indicate that participants were supportive of a distribution program for medication lock boxes. Based on these findings, an in-home medication lock box pilot project has been developed and implemented in 8 tribal communities: 10 participants in each of the 8 communities volunteered to receive a lock box from DEHS and 55 lock boxes have since been installed. An evaluation on the use and effectiveness of each box will be conducted at 30 and 60 days following the initial installation.

Identifying and Advocating for Consumer Drug Disposal Programs

As of October 9, 2014, the Drug Enforcement Administration (DEA) can authorize health-care facilities to collect controlled substances from patients (Disposal of Controlled Substances, 2014). The installation of medication disposal drop boxes in community-based clinics can allow for the safe disposal of opioids and other prescription medications in a secure environment. Reducing the amount of

unused or expired medication in the home environment can be instrumental in reducing prescription opioid diversion and incidental poisonings. DEHS staff members have been advocating for the use and availability of medication disposal boxes at hospitals, clinics, and law enforcement departments throughout tribal communities. Interviews are conducted with key staff at healthcare facilities to identify the current inventory of medication disposal boxes or to identify interest in having one at their location. DEHS will continue to partner with state and tribal programs in an attempt to facilitate the acquisition of medication disposal boxes for all Phoenix area tribal communities.

To date, 571 pounds of medication have been discarded in the three medication disposal boxes already installed in tribal healthcare facilities. DEHS staff members are also identifying evaluation methods to learn more about the knowledge, attitudes, and perceptions on the use of medication disposal boxes. Advocacy for the boxes throughout tribal communities is continuing.

To provide additional options for medication disposal, DEHS staff members help tribes obtain drug deactivation bags. These bags can be used by community-based health programs to dispose of unused or expired medications in the home setting. Drug deactivation bags contained carbon powder that neutralizes medications. Deactivation bags work by depositing medications into the bag, adding warm water, sealing, and shaking the bag to mix contents. After 30 s, contents are deactivated and safe for domestic trash (Verde Technologies, Inc., 2015). DEHS staff members have facilitated a process for tribes in Arizona to receive 1,700 deactivation bags. The bags have been distributed to community-based health programs in two tribal communities. To date, 2,611 pills, 777 ml of liquid medicine, and 8 medicated patches have been discarded through this process

Connecting Tribes to Naloxone and Medication-Assisted Treatment Training

One strategy to reduce the effects of a prescription opioid overdose is through providing naloxone to first responders, especially those in rural areas where response times can be slower. Naloxone is a medication that can rapidly reverse the effects of an opioid over-

TABLE 1
The Role of Environmental Health Specialists in the Prevention of Opioid-Related Poisonings

U.S. Department of Health and Human Services Strategy*	Injury Prevention Program Roles
Better data	<ul style="list-style-type: none"> • Conduct data surveillance to better understand the magnitude of the problem • Improve data quality through increased postmortem surveillance
Better addiction, prevention, treatment, and recovery services	<ul style="list-style-type: none"> • Identify methods to safeguard medications in the home environment • Identify and advocate for consumer prescription medication disposal programs • Identify resources for medication-assisted treatment training
Better targeting of overdose-reversing drugs	<ul style="list-style-type: none"> • Connecting first responders with naloxone

*From *Strategy to Combat Opioid Abuse, Misuse, and Overdose: A Framework Based on the Five Point Strategy*, U.S. Department of Health and Human Services, 2017.

dose, and can be lifesaving if administered in time and correctly (Centers for Disease Control and Prevention, 2015). Naloxone can be administered by injection or via a nasal spray with a minimal amount of training.

Initially, the police departments of the Bureau of Indian Affairs were receiving naloxone through the IHS Pharmacy program via an existing federal memorandum of agreement. Tribal first responders (e.g., tribal police, fire, and emergency medical services), however, were not able to access naloxone through this memorandum. Conversely, state health departments had access to naloxone but were not able to reach tribal first responders. To address this gap, DEHS facilitated a process to ensure the first responders could receive naloxone nasal spray packs and training from their participating state health agencies at no cost.

Through the partnerships created with the state health agencies, first responders from 11 tribes in Arizona and Nevada have received 670 doses of naloxone. Training on reporting and the proper administration was also provided at no charge. DEHS staff members are working with the first responders to help evaluate the naloxone distribution activities by assisting them with the development of tracking and reporting tools.

Similarly, medication-assisted treatment (MAT), a combination of medication and behavioral therapy, is another strategy to address opioid use disorder (Substance Abuse and Mental Health Services Administration, 2021). Several of the Phoenix area tribal healthcare facilities were not able to access MAT training through IHS, though, because they manage their own health services and are no longer an IHS healthcare facility. DEHS staff facilitated an arrangement with the state resources and university partners to provide MAT training to healthcare professionals at these facilities.

MAT training has been provided to 60 healthcare professionals in healthcare facilities operated by tribes in Nevada. Since the original training session, two additional Nevada-based facilities have scheduled training for their healthcare professionals.

Summary

The identified community-based DEHS actions resulted in the recommended next steps. For example, DEHS staff members currently are in the process of identifying a sustainable supply of naloxone for tribal first responders through collaborative efforts with IHS and tribal pharmacies via memorandums of agreement. Another step identi-

fied includes evaluating the use and success of naloxone in tribal communities. Further recommendations include 1) developing an opioid-specific epidemiology report for the PAIHS service population, 2) evaluating the medication lock box pilot project based on the focus group findings, and 3) advocating for safe and appropriate medication disposal practices in the community.

The DEHS role in combating the opioid crisis continues to evolve. Program capacity can vary among IHS areas. The critical step for PAIHS was to gain an understanding of the HHS Five Point Strategy to combat the

opioid crisis and compare it with what was in place to identify potential gap areas. This action led to a search for potential IHS programs or external partners that could fill those gaps. Partnering with other programs and organizations has been key to the preliminary successes, such as the use of medication lock boxes, safe disposal strategies, and connecting tribes with naloxone. 🐾

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Did You Know?

NEHA is proud to announce its support of the Environmental Health Workforce Act of 2021 (HR 2661), a bill introduced in Congress on April 19, 2021, by Representative Brenda Lawrence (D-Michigan). The Environmental Health Workforce Act will provide a framework for every state in the country, ensuring that there is a consistent set of guidelines and standards to provide quality education and training for environmental health professionals. Learn more at www.neha.org/node/61939.