

Working Together to Tackle the Opioid Epidemic

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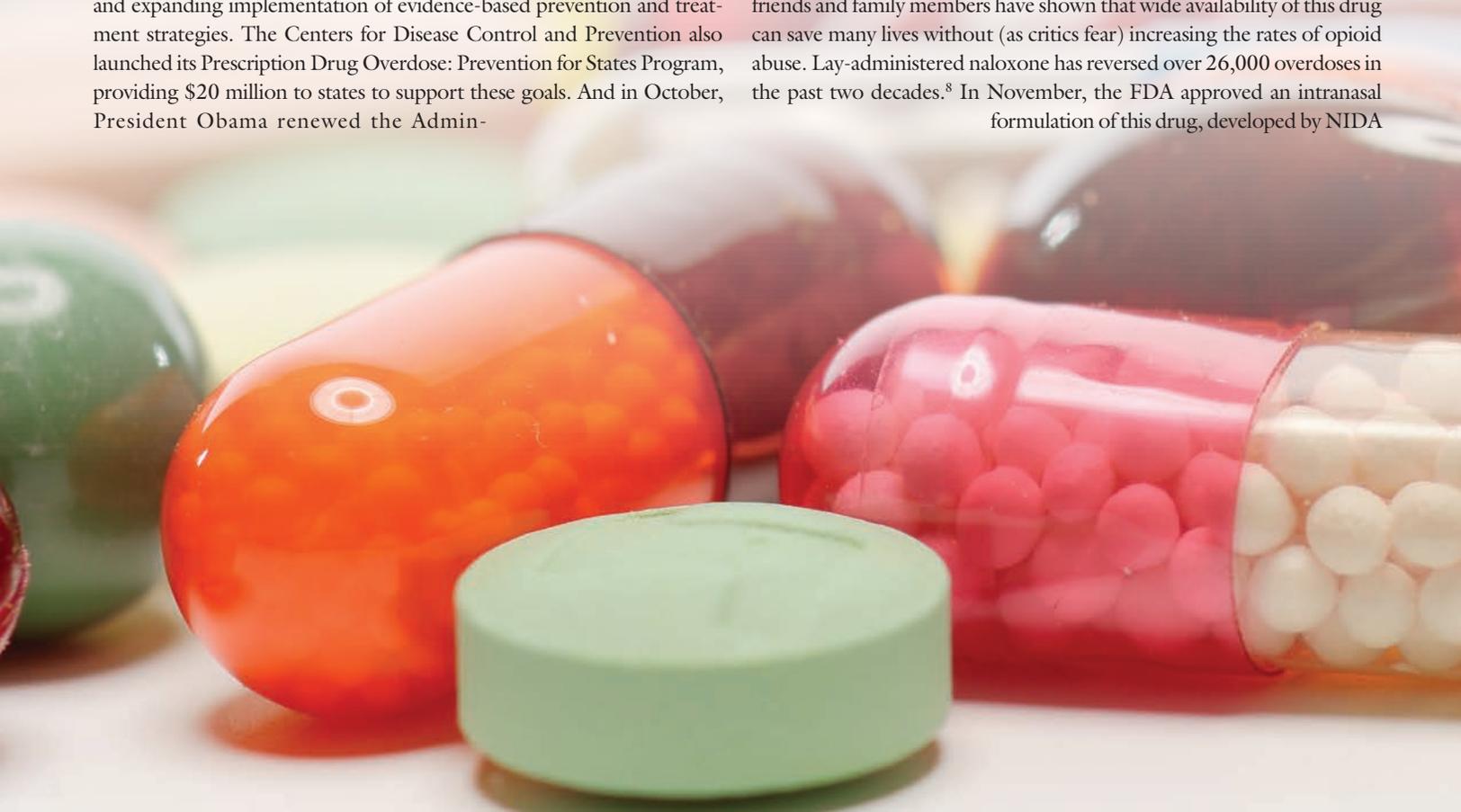
An estimated 1.9 million people in the United States suffered from substance use disorders related to prescription opioid pain medicines in 2014.¹ Treatment admissions linked to these medications nearly quadrupled between 2002 and 2012², although only a fraction of people with opioid use disorders receive treatment (18 percent in 2014).³ Overdose deaths linked to these medicines more than tripled (from 1.5 to 5.1 per 100,000 Americans) from 2000 to 2013.⁴ We are now also seeing a rise in heroin use and heroin addiction as people shift from prescription opioids to their cheaper and often easier-to-obtain street relative; 586,000 people had a heroin use disorder in 2014.⁵ Besides overdose, consequences of the opioid epidemic include a rapidly rising incidence of newborns born dependent on opioids because their mothers used these substances during pregnancy and increased spread of infectious diseases including HIV and hepatitis C (HCV), as was seen in 2015 in southern Indiana.

Federal and State agencies and private stakeholders are taking action. This past year, an initiative of the Secretary of Health and Human Services to address the complex problem of prescription opioid and heroin abuse began coordinating federal efforts to improve education of healthcare providers in managing pain and prescribing opioids appropriately; increasing availability and adoption of the effective overdose-reversing drug naloxone, which research has shown to be a life-saver in communities where it has been distributed to opioid users and potential bystanders; and expanding implementation of evidence-based prevention and treatment strategies. The Centers for Disease Control and Prevention also launched its Prescription Drug Overdose: Prevention for States Program, providing \$20 million to states to support these goals. And in October, President Obama renewed the Admin-

istration's commitment to combatting the prescription drug and heroin epidemic by announcing a large number of public and private sector partnerships to improve prescriber training and access to treatment.

The overprescription of opioid medications has been a major driver of the abuse epidemic. The link between opioid misuse and addiction and the rise of chronic pain in America over the past 20 years is complex. Opioids began to be increasingly prescribed for chronic pain in the late 1990s, but evidence supporting the effectiveness of long-term opioid therapy for most types of chronic noncancer pain is lacking, and there is even evidence that opioids may worsen pain (hyperalgesia) in some cases.⁶ Unfortunately, American medical school students only receive, on average, about 9 hours of training in pain management⁷; and virtually no training on screening their patients for substance abuse, which has contributed to the perfect storm of opioid overuse, misuse, and addiction over the past 20 years. As part of the President's initiative, over 40 provider groups have pledged to have more than 540,000 of their members complete training in opioid prescribing in the next two years and to double the number of providers using state prescription drug monitoring programs to help identify patients who may be abusing or diverting their prescriptions.

The partnering organizations are also pledging to double the number of providers who prescribe naloxone for overdose reversal. Naloxone is a very safe drug that blocks opioid receptors in the brain and can quickly reverse an overdose that might otherwise be fatal. Studies of pilot programs issuing naloxone and overdose education to opioid users and their friends and family members have shown that wide availability of this drug can save many lives without (as critics fear) increasing the rates of opioid abuse. Lay-administered naloxone has reversed over 26,000 overdoses in the past two decades.⁸ In November, the FDA approved an intranasal formulation of this drug, developed by NIDA



in partnership with Lightlake Pharmaceuticals and Adapt Pharma, which will make administration of naloxone by laypeople much easier. Saving a life from overdose is a critical opportunity to engage someone in addiction treatment to potentially restore them to full health.

The medication-assisted treatments (MAT) that now exist for opioid addiction are very effective, but they are grossly underutilized. Agonist or partial agonist medications — methadone or buprenorphine — reduce the negative affects of withdrawal and craving but without producing the euphoria that the original drug of abuse caused. Another effective treatment is the antagonist drug naltrexone, which blocks opioids' effects at receptor sites, and is now available in a long-lasting depot formulation. Ample research has shown these drugs reduce drug use, increase social functioning, and reduce associated behaviors like criminality, violence, and infectious disease transmission. Unfortunately, systemic problems of poor insurance coverage and a lack of certified providers have limited the reach of MAT, as has stigma against treating with opioid compounds. Fewer than half of treatment programs offer MAT, and only a third of patients in those programs receive it.⁹ Many people — even, unfortunately, many treatment providers — still think that maintenance treatment just substitutes one addiction for another, and thus fail to adopt these treatments, or they prescribe them for insufficient duration or at too low a dose to be effective.

Misconceptions about MAT result from failure to understand the nature of addiction as a brain disease and what is needed to heal the brain so that recovery can occur. Just as body tissues require prolonged periods to heal after injury, reward, impulsivity, and decision-making circuits in the brain that have been severely compromised by prolonged drug use can only return to normal functioning gradually. People with opioid addiction who do not follow detoxification with MAT are more likely to relapse^{10,11} — which is not only a setback on the goal to recovery, but also dangerous, raising the risk for fatal overdose. Among other measures, the groups partnering in Obama's initiative have pledged to double the number of physicians qualified to prescribe buprenorphine over the next three years, and the Department of Health and Human Services is working to expand access to MAT services.

It is a time to be optimistic about our prospects of tackling the opioid epidemic. Communities and federal and state agencies are pulling together in a concerted nationwide effort and raising awareness among the public. We have great resources at our disposal, and if we continue to work together in a coordinated way, there is great potential to reduce the number of Americans suffering with and dying from prescription opioid and heroin addictions.



Dr. Jack Stein joined NIDA in August 2012 as the Director of the Office of Science Policy and Communications (OSPC). He has over two decades of professional experience in leading national drug and HIV-related research, practice, and policy initiatives for NIDA, the Substance Abuse and Mental Health Services Administration (SAMHSA) and the Office of National Drug Control Policy (ONDCP) where, before coming back to NIDA, he served as the Chief of the Prevention Branch.

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