



Transforming Management of Opioid Use Disorder with Universal Treatment

Rahul Gupta, M.D., M.P.H., M.B.A., Rachel L. Levine, M.D., Javier A. Cepeda, Ph.D., M.P.H., and David R. Holtgrave, Ph.D.

According to provisional data from the Centers for Disease Control and Prevention, there were more than 107,000 drug-overdose deaths in the United States in 2021. More than 1 million

people have died of drug overdoses since 1999. Most of the deaths that occurred in 2021 involved opioids — in particular, synthetic opioids such as fentanyl, which is about 100 times more potent than morphine and is often illicitly manufactured. Barriers at multiple levels (including patient, clinician, and system levels) prevent many people with opioid use disorder (OUD) from obtaining treatment. Stigma, structural challenges, and a lack of addiction-treatment infrastructure impede people's access to and uptake of lifesaving, evidence-based medication for opioid use disorder (MOUD).

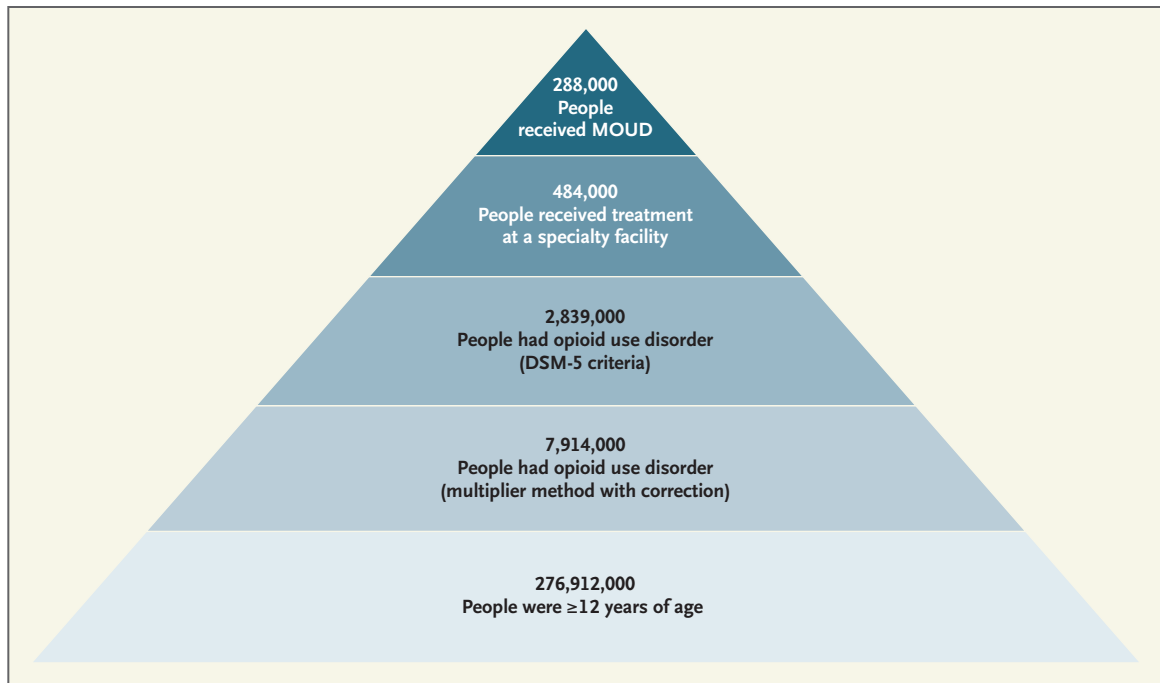
Medications used for OUD in-

clude methadone, buprenorphine, and naltrexone. Distinct challenges affect uptake of each of these drugs. For example, patients can obtain methadone only from designated opioid-treatment programs, which are governed by the Controlled Substances Act and jointly regulated by the Substance Abuse and Mental Health Services Administration (SAMHSA) and the Drug Enforcement Administration. Although buprenorphine can be administered in medical office settings, providers are required to complete a registration process and obtain an X waiver to prescribe it. These and other barriers have kept a substantial portion of the need for

MOUD from being met. Only a small fraction of people with OUD report having received MOUD in the past year (see figure), and data from providers confirm the existence of treatment gaps.

The president's 2022 National Drug Control Strategy (NDCS), which is spearheaded by the Office of National Drug Control Policy (where three of us work), focuses on two drivers of the overdose crisis — untreated addiction and drug trafficking — and calls for access to MOUD for any person with OUD by 2025. The Department of Health and Human Services has also released its Overdose Prevention Strategy to strengthen the administration's efforts to increase access to substance use disorder (SUD) services.

MOUD can significantly reduce the risk of overdose death; a recent study showed that people with OUD were 82% less likely to



People in the United States Who Reported Receiving Medication for Opioid Use Disorder (MOUD) or Treatment at a Specialty Facility in the Past Year, 2020.

Data are for people 12 years of age or older and are from the Public-Use Data Analysis System of the Substance Abuse and Mental Health Services Administration. People with opioid use disorder were identified by self-reported responses that met two or more criteria for prescription pain reliever use disorder or heroin use disorder according to the *Diagnostic and Statistical Manual of Mental Disorders*, 5th edition (DSM-5). We applied a multiplier method with correction using drug-overdose mortality data to adjust for possible underestimation of the number of people with opioid use disorder based on data from the National Survey on Drug Use and Health, which omits some populations, such as people who are homeless or incarcerated.¹ Self-reported treatment data may underestimate the number of people receiving MOUD.

die of an overdose when they were receiving MOUD than when they were not.² In addition to reducing overdose rates and use of illicit opioids as well as easing withdrawal symptoms and opioid cravings, MOUD can improve people's quality of life, reduce the risk of HIV and hepatitis C virus (HCV) transmission, and improve treatment outcomes for people living with HIV or HCV. As public health physicians, some of us have seen firsthand the effects of MOUD on patients' health and well-being. At the societal level, higher MOUD treatment rates could reduce costs associated with emergency department utilization

and justice-system involvement among people who use drugs.

Congress is currently deliberating removing barriers to MOUD, such as the X waiver. Eliminating the X waiver is necessary but insufficient to ensure universal access to MOUD. Several actions by clinicians, health care systems, and policymakers could substantially expand treatment access.

First, the federal government, along with medical education accreditation bodies such as the Liaison Committee on Medical Education and the Commission on Collegiate Nursing Education, could bolster addiction-treatment

and education infrastructure. Increasing access to MOUD will require stronger action at all levels of care delivery. Important steps would include enhancing content related to MOUD in medical education curricula for all health-related professions and further building workforce capacity in addiction medicine by means of continuing education. SAMHSA recently provided more than \$5.5 million to programs focused on recruiting and training emergency medical professionals in rural communities to build capacity to address untreated mental health and SUD-related needs. It's essential that development of

this infrastructure also increases MOUD availability for people with co-occurring conditions. Furthermore, accessibility challenges must be addressed; the NDCS notes the need for expanding child-care and transportation services to support treatment.

Second, it will be important to increase access to prescription MOUD in clinical and community-based programs. A growing body of evidence supports “low-threshold” buprenorphine treatment, an approach that embraces the harm-reduction philosophy of meeting patients where they are. Low-threshold treatment programs have shown promise in enrolling people with OUD who may avoid conventional health care settings, where they often face stigma, and whose only point of contact with the health care system might be the emergency department. The principles behind low-threshold buprenorphine programs, which are often integrated with syringe-services programs, include same-day treatment initiation, flexible scheduling (e.g., monthly visits) with no requirement for frequent psychosocial counseling (in order to accommodate patients’ family and work obligations), and service provision outside of conventional health care settings. Diversion of buprenorphine occurs infrequently under this model, and when it does occur, it’s often motivated by lack of access to formal treatment and a goal of self-managing cravings and withdrawal symptoms.³ Outpatient clinical settings and emergency departments could expand low-threshold buprenorphine-treatment programs, and treatment capacity could be built throughout all lev-

els of service delivery. Our agencies are working to expand funding for these services.

Third, by easing restrictions on telemedicine, policymakers could facilitate clinicians’ efforts to expand access to MOUD. Relying on principles similar to those guiding low-threshold treatment, new telemedicine programs have been successfully implemented, many during the Covid-19 pandemic, to link patients to buprenorphine providers. In a study conducted in rural Maryland, 94 patients were prescribed buprenorphine through telemedicine in a mobile treatment unit where they connected virtually with providers.⁴ Three-month treatment-retention rates were similar to rates for office-based treatment, and opioid use decreased by 33% from baseline. On the basis of emerging evidence supporting the critical role of telemedicine in increasing access to buprenorphine, the NDCS calls for permanently extending pandemic-era telehealth waivers and flexibility that have permitted the initiation and maintenance of buprenorphine treatment.

Fourth, increased access to treatment for people who are incarcerated is urgently needed and would require additional efforts by policymakers, prison and jail systems, and health care professionals. Many people who use drugs have frequent interactions with the justice system, and overdose risk in the weeks after release from incarceration is extraordinarily high. Yet few people who are incarcerated have access to MOUD. In addition to reducing mortality after release, offering MOUD during incarceration may reduce recidivism.⁵ The NDCS

established a goal of providing access to MOUD to all people under the control of the Federal Bureau of Prisons and increasing access in state prisons and local jails by 50% by 2025.

Fifth, policymakers, health care systems, payers, and clinicians could develop and support programs to address social determinants of health, including among people with SUD. Food insecurity, income inequality, discrimination, housing instability, and homelessness have long been recognized as social drivers of population health and can affect retention in MOUD treatment. As an example of such an initiative, the Department of Housing and Urban Development’s Recovery Housing Program provides assistance for transitional housing for people in recovery from SUD.

Finally, clinicians and researchers should use patient-first terminology (e.g., “person with substance use disorder” rather than “addict”) and take other steps to reduce stigma in the health care system against people with OUD. Stigma can manifest at the structural level (e.g., institutional policies that result in unequal treatment) or community level (e.g., negative perceptions among family, friends, or the general public) or may be internalized (e.g., in the form of shame and self-devaluation), and it can reduce the likelihood of initiation and continued use of MOUD. Addressing these policy issues, promoting use of nonstigmatizing language, and publicizing the benefits of MOUD could reduce OUD-related stigma, including internalized stigma.

MOUD is one of the most effective interventions available to address the overdose crisis. In-

creasing access to MOUD could help establish the foundation of an addiction-treatment infrastructure. Such a model could address multiple health outcomes by building treatment capacity, enhancing social support, focusing on structural interventions, and promoting equity. This type of approach begins with more clinicians providing MOUD to their patients. The health care system has an opportunity to build addiction-treatment infrastructure and to realize substantial improvements in care for patients with SUD and meaningfully reduce rates of overdose death. The success of the NDCS will ultimately depend

on our willingness as providers to act compassionately, swiftly, and at scale.

Disclosure forms provided by the authors are available at NEJM.org.

From the White House Office of National Drug Control Policy (R.G., J.A.C., D.R.H.) and the Office of the Assistant Secretary for Health, Office of the Secretary, Department of Health and Human Services (R.L.L.) — both in Washington, DC; and the Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore (J.A.C.).

This article was published on September 21, 2022, at NEJM.org.

1. Keyes KM, Rutherford C, Hamilton A, et al. What is the prevalence of and trend in opioid use disorder in the United States from 2010 to 2019? Using multiplier approaches to estimate prevalence for an unknown population size. *Drug Alcohol Depend Rep* 2022;3:100052.

2. Krawczyk N, Mojtabei R, Stuart EA, et al. Opioid agonist treatment and fatal overdose risk in a state-wide US population receiving opioid use disorder services. *Addiction* 2020; 115:1683-94.


3. National Institute on Drug Abuse. Medications to treat opioid use disorder research report: what is the treatment need versus the diversion risk for opioid use disorder treatment? December 2021 (<https://nida.nih.gov/publications/research-reports/medications-to-treat-opioid-addiction/what-treatment-need-versus-diversion-risk-opioid-use-disorder-treatment>).

4. Weintraub E, Seneviratne C, Anane J, et al. Mobile telemedicine for buprenorphine treatment in rural populations with opioid use disorder. *JAMA Netw Open* 2021;4(8): e2118487.

5. Evans EA, Wilson D, Friedmann PD. Recidivism and mortality after in-jail buprenorphine treatment for opioid use disorder. *Drug Alcohol Depend* 2022;231: 109254.

DOI: 10.1056/NEJMp2210121

Copyright © 2022 Massachusetts Medical Society.

 An audio interview with Dr. Gupta is available at NEJM.org

Repealing State Drug-Paraphernalia Laws — The Need for Federal Leadership

Corey S. Davis, J.D., M.S.P.H., and Derek H. Carr, J.D.

In conjunction with President Joe Biden's 2022 State of the Union address, his administration outlined a series of "decisive actions" it's taking to address the ongoing drug-overdose crisis, which killed more than 107,000 people in the United States in 2021.¹ These actions include making the distribution of fentanyl test strips (simple, inexpensive devices that identify whether fentanyl is present in a drug sample) and the expansion of syringe-services programs (SSPs, which provide new syringes and other supplies and services to people who use drugs) "a federal drug policy priority."¹ The administration's 2022 National Drug Control Strategy aims to, among other objectives, increase both

the number of U.S. counties that have at least one SSP and the percentage of these programs that offer drug-checking services and devices, such as fentanyl test strips. But unless the administration works to counter states' criminalization of important components of these initiatives, it may be nearly impossible for it to accomplish these objectives.

Although not sufficient to reverse the epidemic of overdoses and other drug-related harm, meeting these goals would yield substantial benefits. Extensive research demonstrates that increased access to sterile syringes reduces the risk of injection-related illnesses such as HIV, hepatitis C, and bacterial infections.² SSPs also link people who use drugs

to medical care, social services, and addiction treatment, and most provide the overdose-reversal medication naloxone. Similarly, drug-checking tools can reduce overdose risk by helping people who use drugs determine whether drugs they plan to consume are contaminated with fentanyl or other adulterants — information that often results in safer consumption practices, such as using smaller amounts and consuming drugs more slowly.³

Laws in many states make it difficult or impossible to scale up these and other evidence-based interventions. To make good on its pledge to adopt health-focused drug policies and "elevate harm reduction best practices,"¹ we believe the administration should