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America's Opioid Epidemic

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Dear Reader,

Now is a time of change in health and human services policy. Many of the changes could have profound implications for behavioral health. This paper is one in a series of papers proposing solution-oriented behavioral health policies.

The past decade has been a time of steady advances in behavioral health policy. For example, we have met many of the objectives related to expanding health insurance coverage for people with behavioral health conditions. Coverage is now expected to be on a par with that available to individuals with any other health conditions, although parity implementation has encountered roadblocks. Coverage of evidence-based treatments has expanded with insurance, but not all of these services are covered by traditional insurance, necessitating other sources of funding, such as from block grants.

Much has improved; much remains to be accomplished.

As funders, The Thomas Scattergood Behavioral Health Foundation and Peg's Foundation believe that now more than ever philanthropic support in the area of policy is critical to improving health outcomes for all. We ask that you share this paper and the others in the series with your programmatic partners, local, state, and federal decision makers, advocacy organizations, and voters.

We believe that these papers analyze important issues in behavioral health policy, can inform policy-making, and improve health outcomes. In the back of the paper, there are suggested ways of how one can use the paper to further share these solution-oriented ideas and advocate for change. We hope these papers help to extend progress and avoid losing ground at a time of change in policy.

Sincerely,

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America's Opioid Epidemic

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1 / Introduction

We are in the midst of an opioid epidemic and continue to lose ground in terms of the annual number of people who overdose and die and the ever-growing sale of these substances, legal and illegal. Opioid drugs are either natural derivatives of the poppy plant (such as opium and morphine) or drugs synthesized to occupy the same brain receptors (such as OxyContin, Vicodin, Percodan, and fentanyl) and thus to produce the same desired effects, as well as potentially fatal effects (1).

Every day in the United States an estimated 142 people die from drug overdoses, and such deaths are surely underreported; the number of fatalities exceeds the number from motor vehicle accidents and gunshot wounds combined (2). Deaths from opioid overdoses have continued to rise, attributable to the increased use of heroin and fentanyl additives, with estimates of an increase of 22% in 2016 (3,4).

The greatest problem (as well as utility) with opioid drugs (and other drugs) is that they are immediately effective in relieving human physical and psychic pain and delivering surcease from the existential miseries and ennui that life can produce. Addiction is a chronic, relapsing brain disease (5), fostered and amplified by psychological and social forces. However, the biological and behavioral drivers of addiction have not been the primary focus of efforts to reduce the use and illegal sale of drugs and associated deaths. Instead, since the early 1900s, U.S. policies and practices have pursued two principal—and failed—approaches.

Every day in the United States an estimated 142 people die from drug overdoses, and such deaths are surely underreported; the number of fatalities exceeds the number from motor vehicle accidents and gunshot wounds combined.

2 / Barriers to Solving the Epidemic

The two principal, enduring, and failed approaches to reducing psychoactive drug use and dependence in this country are supply-side and demand-side approaches.

Supply-side approaches involve ongoing, futile, and hugely expensive efforts to control the use of drugs. Tactics include crop control, border interdiction (although fentanyl can be bought on the "dark web" [6]), and police and correctional hardline and ideologically driven efforts. Examples include Prohibition and Nixon's war on drugs. Supply-side approaches seem to have attracted renewed attention in Washington today. Such approaches have disproportionate effects by class and race, with greater negative impacts on the poor and people of color.

On the demand-side are continuing messages to the American public about the evils of drugs and the consequences of drug use, including claims that drug use "will kill you" (7). This particular demand-side approach is also a useless and ideologically driven dead end. In fact, this strategy is known to backfire with youth, who often respond to risk with bravado and seek out what in fact can destroy their brains, bodies, and future lives.

Two gripping documentaries depict the opioid epidemic and its sad consequences for families: *Warning: This Drug May Kill You* (8), an HBO production, and *The Opioid Effect: Inside Pennsylvania's Heroin Epidemic,* a three-part Vice Media series (9).

3 / Solutions

Solutions that can work are based on the premise that people use drugs for good reasons: because of their immediate and desired effects. Opioids serve a purpose, however limited (especially in duration) their effects may be (10), and using a substance is often the best "solution" that the person knows. We have not yet directed sufficient energy to creating and deploying alternative methods of addressing the complex tangle of human suffering and psychological needs that drives the use and abuse of opioids.

Existing solutions can be grouped into three broad categories: prevention, treatment, and policy.

Prevention

Prevention programs can be considered universal, selective, or indicated. Universal programs aim to reach all youth or adults. Selective programs aim to reach those exposed to high levels of risk for a condition, such as individuals living in poverty, exposed to trauma, or with family histories of substance dependence who have not yet become symptomatic themselves. Indicated programs aim to serve those with signs of early behavioral health problems (11). The examples below focus on youth.

An effective universal program is LifeSkills Training (LST) (12). LST curricula vary for use in elementary school (grades 3–6), middle or junior high school (grades 6–8 or 7–9), and high school (grades 9 and 10). Students learn essential skills that they may not have developed, such as problem solving and decision making, which can help them resist peer and media pressure and manage anxiety and stress. Another universal approach is the Strengthening Families Program for parents and youth (ages 10–14) (13). This program teaches parents skills in managing their family, communicating positively, and improving relationships with their children, as well as supporting their children's school and extracurricular activities.

Programs that identify adverse childhood experiences in younger children, build parenting skills, and offer support to families have been shown to be effective but are not widely used (14,15).

The Center for Early Childhood Health and Development in New York City, led by Dr. Laurie Brotman, is working with the city's early childhood education services to bring the center's proven ParentCorps to pre-K programs. The center's work enables families to provide safe, nurturing, and predictable environments at home and in the classroom. Its 1,850 programs serve 70,000 children annually (16).

Another example is Big Brothers Big Sisters of America, a program that is more than 100 years old. It was founded on the belief that children "need a caring adult role model." The regular presence of a caring adult is a powerful antidote to engaging in risky and even dangerous behaviors and helps to keep the young person's focus on school and healthy relationships (17).

We also must scale up SBIRT (Screening, Brief Intervention, and Referral to Treatment), an early intervention to identify youths and adults with problem substance use (drugs and alcohol). Youth interventions vary by age (9–11, 11–14, and 14–18). SBIRT can be provided in universal settings (primary care and pediatrics), selective settings (schools and community programs), and indicated settings (emergency rooms and juvenile justice settings) (18). Teenagers at risk or displaying evidence of substance use, such as accidents, school problems, risky behaviors, and trouble with the law, are asked as few as two questions.

The first asks about friends' drinking, an early warning sign. The second question asks about the youth him- or herself, directly inquiring about the frequency of substance use. Counseling is provided in the primary care setting, and referral is attempted when that is not effective. In 2011, the American Academy of Pediatrics recommended substance use screening as a "routine" part of adolescent healthcare (19).

Many other prevention approaches exist, including sports, music, and mind-body activities; although they are popular, they have not been well studied.

Treatment

With any treatment, including treatment for opioid addiction, certain principles apply that greatly improve response. These include early detection (screening) and early intervention; comprehensive care, which involves providing treatments that bridge psychosocial, recovery-based, and biological care; continuous care, which means not stopping and having to restart treatment; and a true partnership with the patient (and family), often called "shared decision making" because we all are more apt to do what we decide to do rather than what we are told to do. Another principle, which is too often overlooked, is detection and treatment of any co-occurring mental or general medical condition. No one recovers from an opioid use disorder unless his or her other ailments are identified and treated.

Treatments for opioid use disorder fall into two main categories: medications and psychosocial approaches. Treatments work, but not for everyone (20).

Medication-assisted treatment (MAT)

Opioid agonists are drugs that bind to opioid receptors and produce similar effects, such as pain relief. Methadone is an opioid agonist, and buprenorphine is an opioid partial agonist. Both are used to treat opioid use disorder. Methadone was introduced by Doyle and Nyswander in the early 1960s as a maintenance treatment; it has established effectiveness, especially when combined with counseling and medical and social services (21–24). In 2002,

Principles that greatly improve response to treatment:

1/ **Early detection (screening) and early intervention**

2/ **Comprehensive care, which involves providing treatments that bridge psychosocial, recovery-based, and biological care**

3/ **Continuous care**

4/ **Shared decision making with patient and family**

Detection and treatment of any co-occurring mental or general medical condition

buprenorphine was legalized and made available in the United States. It is effective for people with mild-moderate opioid dependence, safer in overdose than methadone, and a 30-day supply can be dispensed from a physician's office (25). Far too few physicians have obtained the special training and Drug Enforcement Administration designation required to prescribe buprenorphine, which has created a barrier to wider use of this treatment, and even among those who have done so, it appears that few prescribe the drug (26,27). Both methadone and buprenorphine carry the unfortunate stigma of using a drug to treat a drug problem (28).

Opioid antagonists are also used to treat opioid use disorder. The most common are naloxone, naltrexone, and extended-release naltrexone (Vivitrol). Naloxone, which can be given intravenously, injected into a muscle, or sprayed into the nose, is foremost a lifesaver, because it can immediately reverse the often fatal respiratory effects of an opioid overdose (29). In its various forms, it is becoming ubiquitous among emergency responders, individuals who use opioids, and their families and friends. Naltrexone, a variant of naloxone in pill form, has been used to reduce cravings and the rewarding effects of alcohol and other drugs, including opioids. Vivitrol, which is a monthly intramuscular injection, was first developed for reducing rates of drinking among persons with alcohol dependence and may hold promise for treating opioid use disorder (30,31). Early results for Vivitrol among individuals with a history of opioid use disorder released from correctional settings are promising (32).

Other preparations have been used in the MAT of opioid use disorder. One is acamprosate, but there has been limited study of its effectiveness to date. It may modulate brain glutamate receptors, thereby diminishing withdrawal, a trigger for relapse. Another is NAC (N-acetylcysteine), which is available over the counter from vitamin markets and online, and scientific study is under way (33). NAC also has effects on glutamate (and dopamine) transmission in the brain and may quiet systemic inflammation; it has been used to treat cannabis dependence.

Psychedelic drugs (especially psilocybin) and cannabis are also being considered to treat opioid use disorder. A "trip" can change a person and can alter dependence on opioids or other substances, and we should not dismiss this approach until more is known (34,35). Cannabis may reduce use of opioids as an analgesic, and studies are under way to assess the effectiveness of cannabis in this regard.

Psychosocial interventions

Psychosocial interventions can be effective in treating opioid use disorder. Good outcomes can be achieved by participation in 12-step recovery programs, including Narcotics Anonymous (NA), and related support and educational groups for families with a loved one in recovery. A common misconception is that 12-step programs require a religious orientation or a specific faith. Instead, an individual's sense of a higher power, however ill defined, resonates with 12-step programs and provides an anchor on the road of recovery. There is considerable controversy regarding the percentage of NA participants who remain clean and sober because NA's requirement of anonymity limits research studies (36).

Motivational interviewing (or motivational enhancement) is a counseling approach that has been successful in helping people recover from addictive disorders (37). People take opioids for a reason and continue for the same or other reasons (such as to deter withdrawal symptoms). Thus the work of treatment begins with assessing a person's readiness to change and helping tilt that readiness to action. Motivational interviewing (or enhancement) is a skill that clinicians, including primary care physicians, can learn and employ briefly to help someone with drug dependence take steps to quit or reduce harm.

Another counseling approach is cognitive-behavioral therapy (CBT), which is based on the central premise that how we think affects how we feel and behave. For habit disorders, such as opioid addiction, recognizing triggers, developing alternative and positive thoughts, and avoiding high-risk situations can be lifesaving (38,39). CBT is time limited and can be conducted in groups as well as individually. Research has been limited because of the difficulties inherent in studying this intervention among opioid users.

Group therapy, especially relapse prevention groups, is another approach to addiction treatment. The power of a group is perhaps nowhere as plain as among individuals with addictive disorders, including opioid addiction. In relapse prevention groups, members learn to understand triggers and the behaviors to avoid them, and they experience group support (39).

Policy Options

In addition to prevention and treatment, implementation of sound policies at the national, state, and local levels is a critical part of addressing the opioid epidemic. Most states have implemented physician education and drug monitoring programs (PDMPs) and require physicians to submit data to track their prescribing of opioids. Data submission is often linked to online training, particularly on chronic pain management, as it is in New York. To date, evidence about the effectiveness of PDMPs appears mixed in terms of physician prescribing, patients' use of multiple doctors in order to obtain prescriptions, and reductions in hospital admissions for substance use disorders (40).

Approximately 3,000 drug courts are operating in all 50 states. Certain persons with drug use disorders, especially those who commit nonviolent crimes and veterans, may be sent to a drug court in lieu of traditional justice system processing. Drug courts direct participants into long-term treatment under close supervision. Treatment is for a minimum of one year, and participants are accountable to the drug court judge for meeting their obligations to the court, society, themselves, and their families. Participants undergo regular, random drug tests. They frequently return to court for monitoring and are supported for doing well or sanctioned if obligations are not met. Seventy-five percent of those who complete the adult drug court program do not reoffend (41).

Harm reduction is aimed at reducing the negative consequences of drug use (42). In regard to opioid use, harm reduction includes ready access to naloxone and clean needles, safe injection sites, and heroin by prescription (implemented in some other countries but not in the United States).

Prevention, treatment, and policy interventions can work, and the strength of the evidence for the effectiveness of each approach varies. However, combining and sustaining these complementary approaches gives a person with a substance use disorder a better chance of recovery.

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4 / Other Considerations

Two areas regarding opioid use disorder must be noted, although each may require a separate policy paper. One is the stigma associated with opioid use and opioid addiction, which deters people from seeking care and clinicians from providing it. The other is the need for research—on novel approaches to MAT, transcranial magnetic stimulation, beneficial alteration of brain circuitry with a focus on glutamate and GABA receptors, and development of vaccines to counter a person's response to an opioid (similar to a flu shot).

5 / Advancing Advocacy

Advocacy for solving the opioid epidemic should proceed along three lines. Unless all three legs of a stool are well built and grounded, the stool will collapse.

The Moral Case

Human values drive a social agenda, including healthcare. Access to effective and affordable healthcare, including treatments for substance use disorders, must be regarded as a human right. The moral case is rooted in the rhetorical question of what kind of a society we want to have and in the belief that the measure of a society is how it cares for its most vulnerable. Creating such a society does not consist in making empty political pronouncements. Rather, it involves individuals and the social collective acting to serve others day after day, in ways small and large. The moral case is fueled by statistics: how many people died today from opioid overdoses and how many will die tomorrow. But to solve the epidemic, we will need to do more than accumulate statistics.

The Clinical Case

The clinical case is drawn by experts, clinicians, and public health and social science professionals. The clinical case can sometimes be made with anecdotes and testimonials. The power of story is strong, but it has its limits. What makes the clinical case is reliable and valid evidence that an intervention works. Such evidence is found not only in randomized controlled trials (the gold standard of medical proof) but in real-life, real-time studies in which results are demonstrated for different groups of people (for example, by age, sex, race and ethnicity, geography, and culture), for different populations of drug users (focusing on the "drug of choice," even among those who use more than one substance), and at different points in the course of the disease, and then to use the scientific method to show the impact of delivering comprehensive, nonideologically driven services. Making the clinical case takes time, which means that the sooner more is done, the sooner we will have the evidence we need to better shape and drive policy and practice and to disseminate useful information along the way.

The Economic Case

The economic leg of the stool has never been more important. There is little or no substantial new money—certainly not enough given the magnitude of the opioid epidemic. Although there have been increases in investment from the Affordable Care Act, which established substance use treatment (and mental health treatment) as "essential benefits," and from the Mental Health Parity and Addiction Equity Act, the gap between the need for treatment and the number of people served is huge. In addition, existing coverage is in peril if states are permitted to choose what Medicaid services to cover and if Medicaid is lost to over 20 million Americans, including an estimated two million with substance use disorders (1). The economic case needs to show that spending more money on good and comprehensive substance use and abuse prevention and treatment will deliver better outcomes and offset the vast medical and surgical expenses accrued by people with addictions and the massive costs of incarceration, shelter, and welfare that untreated addictions generate.

6 / Conclusion

During Britain's darkest hour in World War II, and when the Americans had just entered the war, Winston Churchill famously said, "This is not the beginning of the end, but the end of the beginning." So it is for the opioid epidemic in America. One of our greatest battles is ahead, and we have just landed on the beach.

"This is not the beginning of the end, but the end of the beginning."

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