THE OPIOID CRISIS IN AMERICA
Domestic and International Dimensions

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Overview

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As the United States — and the world — reel from the COVID-19 pandemic, the epidemic of opioid use disorder continues to ravage the country. It too has cost the lives of hundreds of thousands of Americans, devastated families and local communities, and exposed critical weaknesses in U.S. drug policy as well as in the health and welfare systems available to our low-income population.[1] Like COVID-19, the opioid crisis also has multiple and complex international dimensions. Moreover, the two blights have become intertwined, with COVID-19 likely exacerbating the opioid epidemic.[2]

Since 2000, there have been 400,000 opioid-involved deaths in the U.S, contributing to an historic decline in U.S. life expectancy.[3] Overdose death data only capture part of the epidemic's damage. Millions of people are having their lives and the lives of their families severely damaged by substance dependence. Opioid use disorder (OUD) puts them at higher risk for various infectious diseases, depression, and suicide.[4] Without adequate treatment, and in some cases even despite receiving treatment, it undermines their capacity to engage in productive economic activity and maintain good family relations, while substance-dependence-related behaviors can subject them to criminal prosecution and imprisonment. In 2018, self-reports to a household survey generated an estimate of 2.35 million Americans suffering from OUD,[5] and for many reasons that is likely a substantial underestimate.[6] The opioid epidemic also generates vast national economic and social costs. The U.S. Council of Economic Advisors put the cost at roughly $700 billion, 3.4% of GDP, in 2018.[7]

To provide policy options and recommendations for addressing multiple dimensions of the opioid epidemic, the Brookings Institution has brought together some of the United States' leading experts on drug policy. For over a year, Brookings and external experts undertook a multidisciplinary collaboration to develop new insights and best practices for policy stakeholders at the local, state, and federal levels, as well as for members of the public who are on the front lines of the opioid crisis.

This Brookings opioid project, "The Opioid Crisis in America: Domestic and International Dimensions," has analyzed policy options for reducing demand, providing treatment, designing regulatory frameworks, and implementing domestic law enforcement and international supply control measures. It has explored local impacts on communities as well as state and federal level responses and international actions. It has paid special attention to vulnerable communities, such as politically and economically disenfranchised Americans, women and children, and military veterans.

Before the project's findings are introduced, a brief review of how the opioid epidemic has unfolded in the United States and around the world is in order.

The causes and phases of the opioid epidemic and the new COVID-19 pressures

The opioid epidemic is a story of the dangers of commercialized sales and unfettered promotion of highly addictive drugs, causing an intense substance dependence fueling and supplied by the illegal market. What started as the blight of a poorly regulated legal market mutated to fuel the illegal drug market.

Beginning in the late 1990s, prescribing of opioid pain relievers spread far beyond traditional indications. Opioids had long been used with considerable success to treat acute pain in

general and chronic cancer pain in particular. Chronic non-cancer pain began to be recognized as a serious and prevalent problem in America in the 1990s.[8] In this period, U.S. pharmaceutical companies argued that the appropriate response to this real problem was a dramatic expansion of opioid prescribing. Companies such as Purdue Pharma organized "pain lobbies" of doctors and patients to urge widespread and prolonged use of new potent opioids, such as OxyContin — not just for severe pain in terminal patients but also for ordinary injuries, bad backs, and wobbly knees. Beguiled doctors started prescribing opioids to wide segments of the U.S. population — from injured high school athletes to older people suffering from arthritis. The pharmaceutical companies cynically and duplicitously promoted the aggressive prescription of opioids, knowing they could lead to substance dependence.[9] Worse, the pharmaceutical companies not only suppressed revelations about how supposedly harmless opioids in fact stimulated substance dependence, but also managed to capture or neutralize almost every U.S. institution charged with protecting the public from such malfeasance — from the medical schools to the Drug Enforcement Administration (DEA).[10] Substance dependence rose fastest in the places most aggressively targeted by pharmaceutical companies' promotions, and those with the most "pill mills" and unscrupulous doctors and pharmacies.[11] These included vulnerable communities with declining income and lack of economic and educational opportunities, such as in West Virginia, a state that became associated with prescription opioid — and later other opioid — use disorder and misery.

By the early 2000s, OUD deaths were rising sharply, but it took a decade of unprecedented levels of death before there were concerted national efforts and firmer regulatory actions.[12] New guidance was issued to U.S. physicians to prescribe fewer opioids, with prescriptions peaking around 2010.[13] Prescription drug monitoring programs were strengthened. Facing many lawsuits for their malfeasance, most pharmaceutical companies ended up settling, but with financial penalties far smaller than four big U.S. tobacco companies faced in their historic 1998 settlement.[14]

Although tightening regulation and limiting prescriptions are essential, by the time better regulation arrived, opioid dependence had grown substantially, and many of those suffering from OUD turned to the illicit market to source opioids, while effective OUD treatment remained vastly underprovided.

This switch of supply from the legal to illegal market stimulated a dramatic growth in the use of heroin in the United States, when that drug's consumption had been stable since the early 1980s and far less common than cocaine or methamphetamine. The growth in U.S. demand for opioids in turn triggered a significant expansion of Mexico's opium poppy cultivation and heroin production.[15] The increase in heroin production exacerbated the violence of an already out-of-control Mexican criminal market, increasing the political capital of criminal groups able to sponsor the labor-intensive poppy cultivation.[16]

A further supply shock began in 2013 when a potent synthetic opioid, fentanyl — some 100 times stronger than morphine and 30 times stronger than heroin — entered the U.S. illegal drug market in force. There had long been modest diversion of medical fentanyl, which is used in surgery and pain management, but in 2013 illegally produced fentanyl showed up as an adulterant in heroin and later counterfeit pills and other drugs. This black market fentanyl is produced mostly in China, but it is so potent and compact that it can lucratively be shipped from China by regular postal or courier services, vastly simplifying smuggling compared to the traditional distribution networks for heroin or cocaine.

Because of fentanyl's extreme potency, doses varied unpredictably from bag to bag, and fentanyl-adulterated heroin had a devastating impact on those with OUD, sending U.S. overdose death rates skyrocketing. Unlike past drug epidemics, deaths rose almost entirely

because fentanyl is deadlier, not because it attracted a new cadre of users. Indeed, initially users did not know that instead of heroin, they were receiving fentanyl or a heroin-fentanyl mix. Eventually, fentanyl began to show up in overdose deaths involving methamphetamine and cocaine.

Fentanyl swept through drug markets in the eastern United States and western Canada, and is now slowly spreading in the western United States as well. As "Opioid Crisis in America" paper authors Bryce Pardo, Jonathan P. Caulkins, Beau Kilmer, Peter Reuter, and Bradley D. Stein show in their 2019 book with Jirka Taylor, *The Future of Fentanyl and Other Synthetic Drugs*, when fentanyl becomes entrenched, it is difficult to dislodge, even if overdose incidence and mortality may diminish over time.[17]

Yet even as fentanyl worsened the effects of the opioid epidemic in the United States, China, its principal supplier, did not classify it and other synthetic opioid analogues as addictive drugs, and their production enjoyed a highly permissive regulatory environment. The Obama administration began working with China to place opioid production and sales under tighter control, a bilateral diplomatic effort that the Trump administration continued. After several years of diplomatic effort, on April 1, 2019, China finally placed fentanyl and all fentanyl analogues on the list of scheduled substances.[18] But enforcing the regulation still presents a formidable challenge. Moreover, India and Myanmar have also become suppliers or transshipment centers of illicit fentanyl.

Moreover, major Mexican criminal groups got into the act. The first mover was the most violent and aggressive of Mexico's criminal groups, the Cartel Jalisco Nueva Generación (CJNG); its principal rival, the Sinaloa Cartel, and eventually smaller drug trafficking organizations (DTOs) followed.[19] These smaller criminal groups began mixing fentanyl into fake OxyContin pills sold in the western United States, thus eroding a *de facto* barrier in the U.S. illicit market between the eastern United States, dominated by fentanyl, and the western United States, where illicit fentanyl had been mostly confined to diverted medical products.

The rise of fentanyl also transformed the role of counternarcotics control in U.S. foreign policy. Until the rise of synthetic opioids, the United States mostly had to grapple with the supply of illicit narcotics from weaker, developing, or war-afflicted countries, such as Afghanistan or Myanmar, or from middle-income countries, such as Mexico and Colombia. Efforts to suppress drug production competed against the imperatives of counterinsurgency and counterterrorism,[20] sometimes in the context of the Cold War and global rivalry with the Soviet Union and the Communist bloc — from Turkey in the 1970s to Afghanistan, Pakistan, and Nicaragua in the 1980s. But the production of illicit fentanyl in China and India, two rising superpowers, thrusts counternarcotics into geopolitics in an unprecedented way.

Will COVID-19 unleash another phase of the U.S. opioid epidemic — potentially augmenting it in the United States and exacerbating its spread abroad as the international system teeters on the verge of a new Cold War between the United States and China? Around the world, COVID-19 has caused the worst economic devastation in decades, potentially increasing susceptibility to drug use and OUD and restricting the availability of treatment. COVID-19 further exacerbates the physical, emotional, social, and economic challenges for OUD sufferers and their families and communities. A source of massive economic hardship and physical and emotional pain in of itself, COVID-19 and the economic dislocation associated with necessary lockdowns may increase mental illness — augmenting OUD susceptibility and associated overdose risks. According to a recent study, COVID-19 could produce 75,000 deaths of despair, including from suicide and drug overdose, in the United States alone.[21]

COVID-19 has already exacerbated the hardships of those suffering from OUD. Overdose victims have been charged with violating stay-at-home COVID-19 orders (entailing possible

hefty fines and imprisonment).[22] Across the United States, access to naloxone (a critical medication for OUD), methadone, and behavioral treatment became constricted as a result of COVID-19 lockdowns.

The COVID-19 crisis, however, has also stimulated innovation: in New York City the long-standing prohibition on dispensing methadone outside of a hospital or clinic was temporarily amended to allow health workers to deliver up to four-week doses to OUD patients who tested positive for COVID-19 in isolation hotels and even at home.[23] Yet, in the United States, behavioral health centers serving nearly half a million people with highly effective medication treatment for OUD have so far been excluded from the $50 billion COVID-19 emergency funds allocated by the U.S. Congress for Medicare providers under the Cares Act.[24] However, the Cares Act does at least allocate $425 million for states to respond to mental illness and substance abuse.[25]

The COVID-19-induced disruption of supply chains appears to have temporarily constricted the import of fentanyl precursor agents from China and India by Mexican groups, but is also reinforcing the use of drones to smuggle drugs from Mexico to the United States.[26]

The COVID-19 pandemic has also exacerbated U.S.-China tensions and magnified the Trump administration's increasingly confrontational attitude toward China. While the Obama administration policy sought to keep China's military and political leadership from engaging in increased military adventurism in Asia by strengthening U.S. alliances and reorienting U.S. military and diplomatic effort toward the Pacific, it also sought to anchor China in existing multilateral organizations, and did not define China's economic growth per se as a threat. The Trump administration instead unleashed a trade war with China and relations dramatically deteriorated. In fall 2018, U.S. diplomats in Beijing identified only two subject areas as remaining domains of U.S.-China cooperation as wildlife trafficking and counternarcotics.[27] The Trump administration's blame of China for COVID-19 threw even these areas of cooperation into question (even though the wildlife trade — whether legal or illegal — was the source of COVID-19, and cooperation is needed to prevent another zoogenic pandemic.[28]) Meanwhile, as COVID-19 afflicts the United States, the U.S. health care system has been experiencing shortages of legal fentanyl supplied from China needed to sedate patients for ventilator intubation and other medical purposes.[29]

Yet as the opioid epidemic has torn through U.S. communities, policy responses have often lagged. Even when some of the regulatory bodies designed to protect the health and well-being of people in the United States managed to break free of regulatory capture by U.S. pharmaceutical companies, little systematic policy guidance and support often followed. When in 2017 fatal drug overdoses in the United States reached a staggering 72,000,[30] with opioid overdoses constituting at least 47,600[31] and perhaps as many as 60,000[32] of them, the Trump administration declared a public health emergency. But the set of measures it announced to combat the crisis is only a first step. Further policy innovation and improvements are needed.

The findings of the Brookings opioid project

To provide policymakers with a wide range of policy options and recommendations, the Brookings opioid project "The Opioid Crisis in America: Domestic and International Dimensions" presents 10 policy papers spanning three thematic areas: a) prevention, treatment, and domestic regulatory design; b) vulnerable groups; and c) domestic law

enforcement and the control of international supplies. *Nine of these papers have been published with this overview, another is forthcoming.*

Prevention, treatment, and regulatory design options in the United States

Prevention encompasses reduction in *demand* and *availability*, argue **Jonathan P. Caulkins,** H. Guyford Stever Professor of Operations Research and Public Policy at Heinz College at Carnegie Mellon University, and **Keith Humphreys,** the Esther Ting Memorial Professor at Stanford University, in **"Preventing opioid misuse and addiction: New thinking and the latest evidence."**

Prevention in the era of prescription opioids, heroin, and synthetic opioids faces great challenges, but the fact that traditional prevention *tactics* did not work particularly well in the 20th century does not mean that prevention as a *strategy* is doomed. For example, the fact that scare tactics backfired with marijuana does not mean that the public should not be warned about fentanyl's very considerable dangers. Likewise, the failures of prison-filling street sweeps of retail crack dealers does not mean law enforcement has no productive role to play in the response to opioids. Pharmaceutical company executives and doctors running pill mills are not indifferent about the prospect of imprisonment, and the small subset of doctors and industry leaders who are criminals should be prosecuted aggressively. Fortunately, most clinicians, patients, and pharmacies are well-meaning; but they may still need strong nudges and system redesign to encourage them to do the right thing. Simple measures can help, such as providing prescription opioids in blister packs, instead of pill bottles, or changing electronic medical record (EMR) systems to default to prescriptions of 10 opioid pills, not 30. Bigger interventions may be appropriate for the top 1% of prescribers who account for nearly half of opioids prescribing, such as having state prescription drug monitoring officials proactively evaluate the appropriateness of their prescribing and mailing them letters when one of their patients dies of an overdose. The large number of prevention opportunities analyzed could cumulatively save many lives.

Effective treatment for those with OUD is another life-saving measure that, like better prevention, can significantly reduce the broad costs of the opioid crisis. But many obstacles exist to providing effective treatment, as **Beau Kilmer,** the director of the RAND Drug Policy Research Center, explains in **"Reducing barriers and getting creative: 10 federal options to increase treatment access for opioid use disorder and reduce fatal overdoses."** Getting those who seek OUD treatment the necessary services and reducing the probability that overdoses will be fatal cannot be achieved simply by increasing funding. There are laws, policies, and other barriers that need to be overcome to implement the programs required for adequate treatment of OUD and the saving of lives.

In addition to highlighting a number of federal options for addressing barriers to treatment, Kilmer argues that federal decisionmakers should consider investing in clinical trials of medications that are not used for OUD treatment in the United States, but are used elsewhere (e.g., heroin-assisted treatment). The federal government should allow local U.S. jurisdictions to conduct pilot studies of supervised drug consumption sites, but there should also be a focus on efforts to monitor drug consumption that do not depend on a physical location. He also urges policymakers to improve U.S. drug data infrastructure by reinvesting in a redesigned Arrestee Drug Abuse Monitoring program and supporting the use of wastewater testing to detect the use of synthetic opioids and other substances. Treating the current opioid crisis like a typical drug epidemic and failing to think creatively beyond established response measures will likely condemn thousands of people to early deaths.

States have implemented multiple strategies to enhance the capacity and quality of OUD treatment services. In **"State approaches to tackling the opioid crisis through the health care system," Rosalie Liccardo Pacula,** Elizabeth Garrett Chair in Health Policy, Economics, and Law, and professor at University of Southern California, and **Bradley D. Stein,** director of the RAND Opioid Policy Center, highlight three intervention categories: 1) increasing insurance coverage and payment for OUD and other substance-use disorder treatment services; (2) increasing the capacity of treatment services; and (3) improving the quality of treatment.

Given the effectiveness of medication treatment for OUD, many states expanded Medicaid insurance coverage to include methadone, buprenorphine, and non-pharmacologic components of OUD treatment and expanded Medicaid enrollment eligibility. Still, fewer than half of Medicaid enrollees diagnosed with OUD receive OUD medication.

Insufficient treatment capacity remains a major challenge despite increased insurance. States have tried new approaches to expand treatment capacity, particularly for patients with complex co-morbid conditions. Residential treatment capacity has been expanded through federal grants and Medicaid exclusion waivers to provide OUD care in residential facilities specializing in mental health disorders. States have also increased the number of providers able to prescribe buprenorphine as well as reimbursement rates for these services, and expanded OUD medication for prisoners.

Improving treatment quality has focused on integrating behavioral and physical health services through the Affordable Care Act of 2010, supporting experimentation with innovative delivery models, and integrating OUD treatment with primary care. OUD patients with mental health and physical co-morbidities benefit from comprehensive treatment approaches. Providers are urged to expand chronic disease management and coordinated care networks.

Cumulatively, payment reforms and care delivery integration can fundamentally improve care for individuals with substance use disorders.

Vulnerable groups

In **"The role of despair in the opioid crisis: Lessons from the science of well-being," Carol Graham,** Leo Pasvolsky Senior Fellow at the Brookings Institution, examines the deep roots of despair and drug demand and the differential resilience across population cohorts. Using matching trends in premature mortality with well-being metrics at the level of individuals, races, and places, she finds that increased despair among white Americans with less than college education positively correlates with increased OUD and premature death and coincides with manufacturing decline in their communities. Her study also highlights differential resilience levels. Surprisingly, poor minorities, particularly African Americans, exhibit relatively high levels of optimism and low levels of stress, in contrast to high levels of despair and reported stress — and much higher death rates — among low-income whites. Yet current policy discussions do not focus on how to prevent a crisis of despair in the next generation. Graham's pilot tests, undertaken in two low-income neighborhoods in St. Louis, Missouri — one with a primarily African American population, the other with a primarily white population — suggest the African American cohort has much more hope and higher education aspirations than the white one. Understanding the factors associated with higher levels of hope, such as the role of community support, can be translated into policies to restore hope where it has been lost. That in turn may decrease the susceptibility of vulnerable subgroups to OUD.

Women and children are another group of high vulnerability. The nationwide increase in opioid use has resulted in greater opioid use during pregnancy and higher rates of a pediatric withdrawal called neonatal abstinence syndrome (NAS). Yet as **N. Jia Ahmad,** research associate at the Johns Hopkins Bloomberg School of Public Health, **Joshua M. Sharfstein,** vice

dean for public health practice and community engagement at the Johns Hopkins Bloomberg School of Public Health, and **Paul H. Wise,** Richard E. Behrman Professor of Child Health and Society at Stanford University, show in **"All in the family: A comprehensive approach to maternal and child health in the opioid crisis"**, policy responses are too narrowly focused on NAS, not always grounded in evidence, and too often have a deleterious long-term effect on mothers and children. Policies must navigate the fraught landscape of women's reproductive well-being and childbearing, long complicated by ideological divisions, legal controversy, and public mechanisms designed to protect children from maltreatment and provide safe alternatives to the family. These varied and differing OUD approaches have created a patchwork of policies and programmatic infrastructure lacking cohesiveness.

Instead, a comprehensive approach is needed that values the mother's health, prioritizes evidence-based treatment, and addresses the underlying OUD determinants. Ahmad, Sharfstein, and Wise offer six key principles for a comprehensive framework: expanding attention beyond NAS; adopting evidence-based policies; supporting comprehensive women's health services across the reproductive life span, not just during pregnancy; developing unique support structures for women with complex needs; empowering women with OUD to care for their families, instead of adopting punitive policies; and facilitating supportive services to preserve family unity.

Veterans represent a uniquely vulnerable community in the opioid crisis, given their higher likelihood to experience chronic pain. In **"Assessing and improving the government's response to the veterans' opioid crisis"**, **John Hudak,** senior fellow at the Brookings Institution, examines how Congress and the U.S. Department of Veterans Affairs (VA) has sought to help veterans and practitioners deal with the opioid crisis, how successful their efforts have been, and what further policy changes are necessary.

Hudak finds that Congress and the VA have been aggressive in dealing with a variety of policy areas including updating clinical practice guidelines for opioid therapies (CPG), standardizing a variety of practices among VA doctors and health care providers, establishing non-physician resources including peer support programs and patient advocate offices, expanding funding for veteran treatment courts, and improving interagency coordination and communication. The updated CPG also includes new algorithms for evaluating patients for possible opioid therapy and for patients currently prescribed opioids in ways that increase safety and work to reduce the use of opioids, among a series of safety and health-related improvements.

Despite these policy reforms, Congress and the VA have significant work to do to improve veterans' health and protect against adverse events such as OUD, accidental overdoses, and suicides. Expanded funding for a variety of programs that are unfunded or underfunded, improved management to ensure standardization and accountability across VA facilities, overcoming flaws in accessing state-based prescription drug monitoring programs, expanding urine drug testing, and providing more easily accessible resources guaranteed to veterans under the law are essential to assisting America's veterans during the opioid crisis.

Domestic law enforcement and external supply control

The arrival of fentanyl and other potent synthetic opioids in some parts of the United States amplifies the opioid crisis and challenges law enforcement. Innovation will be needed, as **Bryce Pardo,** associate policy researcher at the RAND Corporation, and **Peter Reuter,** professor in the School of Public Policy and the Department of Criminology at the University of Maryland, show in **"Enforcement strategies for fentanyl and other synthetic opioids."** Unlike previous drug epidemics where a new drug was sought after by users, suppliers conceal a more potent and cheaper alternative in baggies of heroin or fake tablets.

Traditional law enforcement goals of reducing availability and raising prices are, at present, even more difficult to achieve than before. Fentanyl can be synthesized easily and quickly and smuggled over the border and tens of grams are shipped by post, making it preferable to plant-based heroin. Instead of attempting in vain to achieve traditional goals, domestic drug-law enforcement should focus on reducing toxicity and increasing transparency in retail markets.

One promising strategy would employ focused deterrence. In the many markets where fentanyl and other synthetic opioids are not yet readily available, test strips or other detection tools should be distributed so that both dealers and buyers can test for the presence of fentanyl. In markets where fentanyl is already commonly mixed into heroin or pressed into fake tablets, dealers should be incentivized, through swift investigation of overdose deaths, to act with greater responsibility, informing users of the risks of buying more potent opioids. In markets swamped with fentanyl, law enforcement should establish and publicize such focused deterrence rules, letting suppliers know that dealing in super-potent analogs like carfentanil, or concealing synthetic opioids in tablets or stimulants, will not be tolerated. Efforts to deter online sourcing and target clandestine tablet manufacturing and dealing are also imperative.

Since 2013, China has been the principal source of illicit fentanyl and fentanyl precursor agents for the United States. As a result of U.S. pressure, in April 2019 China prohibited the production, sales, and export of all fentanyl class drugs unless the government issues authorizations. How effectively will China enforce the regulation? In **"Fentanyl and geopolitics: Controlling opioid supply from China"**, **Vanda Felbab-Brown,** senior fellow at the Brookings Institution, draws on lessons from other regulatory domains to identify the conditions under which China enforces its own regulations, including collaboration with Australia to suppress methamphetamine trafficking, tobacco regulation, and wildlife trade and trafficking regulation after the Severe Acute Respiratory Syndrome (SARS) epidemic and COVID-19 pandemic.

Though proud of its tough counternarcotics stance, China is unlikely to closely collaborate with the United States. The significant deterioration of U.S.-Chinese relations may undermine China's willingness to diligently enforce the fentanyl regulation. Only when China starts to experience its own opioid epidemic — for example, because international pharmaceutical companies set off abuse of prescription opioids — will China likely crack down on the illicit fentanyl trade robustly. In the meantime, Felbab-Brown recommends a four-pronged approach: 1) with respect to the government of China: delinking counternarcotics policy from the U.S.-China global rivalry; 2) with respect to Chinese pharmaceutical companies: mandating that all companies selling legal fentanyl in the United States institute verifiable internal monitoring of their production facilities and contribute opioid samples to a U.S. or international database; 3) with respect to prominent Chinese pharmaceutical and chemical industry officials: the development of packages of leverage; and d), with respect to drug traffickers: the development of legal indictment portfolios.

Nonetheless, if the production and trafficking of fentanyl in China is reduced, illicit production and supply will likely intensify in India and Myanmar. DTOs smuggling fentanyl to the United States already collaborate with Indian pharmaceutical companies. In "**Factories and rebels: Controlling opioid supply from India and Myanmar"** (*forthcoming*), **Vanda Felbab-Brown** argues that the enforcement challenge with both countries is no smaller than with China. India's large pharmaceutical industry is even more poorly regulated than China's. It is also politically powerful, and aggressively promotes the sale of opioids in India and abroad, for example in Africa, where its sales of tramadol contribute to an intensifying drug epidemic. But, Felbab-Brown notes, U.S. counternarcotics leverage with India will be severely constrained by the U.S. desire to cultivate India as a geopolitical counterweight against China. Still, she argues against subjugating all U.S. interests to competition with China. As with China, she recommends mandating that all Indian firms seeking to sell products in the United States

comply with verifiable control systems and that U.S. law enforcement agencies develop packages of leverage with key industry individuals, in addition to prosecuting Indian drug traffickers.

U.S. capacity to generate anti-fentanyl law enforcement actions in Myanmar is also severely constrained — both by the ongoing and intensifying civil war in the country and by geopolitical considerations. A myriad of militant groups and pro-government militias have been implicated in the production or taxation of illicit drugs. For decades, the Myanmar military has allowed the ethno-secessionist groups to trade in anything, including drugs, as an inducement to get the groups to agree to and maintain ceasefires with the government. It has similarly allowed pro-government militias to self-finance through the production of methamphetamine and heroin. The military has mostly undertaken counternarcotics actions when militants or militias crossed its domestic redlines, such as by trading with militant groups against which the military is engaged in active hostilities. New broad U.S. sanctions are unlikely to change this calculus while undermining other U.S. objectives.

The United States could seek to work through China, which has its own problems with Myanmar's drug production. However, while China previously instigated poppy suppression in Myanmar, it has not exhibited similar determination to suppress synthetic drugs there — even as Chinese consumption of Myanmar methamphetamine increased. China's countervailing interests include maintaining friendly relations with ethnic insurgent groups implicated in the drug trade and strong business and geostrategic relations with the government of Myanmar. The economic growth of Chinese provinces bordering Myanmar has been closely linked to illicit economies in Myanmar. While fentanyl production in Myanmar is thus likely to increase, Myanmar traffickers lack trafficking routes to the United States and will need to partner up with Mexican DTOs. Countering the Mexican DTOs and intermediaries may be the most feasible U.S. counternarcotics option, beyond indictments of Myanmar drug traffickers and government and military officials.

Already, Mexican DTOs are key players in the distribution of fentanyl in the United States. **Vanda Felbab-Brown's "Fending off fentanyl and hunting down heroin: Controlling opioid supply from Mexico"** assesses options for suppressing the flow of heroin and fentanyl from Mexico. The dominant response, forced eradication of opium poppy, has not yielded sustained results, while compromising poor public safety and rule of law in Mexico. Forced eradication alienates marginalized populations from the state and thrusts them into the hands of Mexican DTOs.

Alternative livelihood efforts have the best chance to improve public safety and rule of law in Mexico, even if, like eradication, they displace poppy cultivation to other areas. However, their implementation and effectiveness are lengthy, resource-intensive, and severely hampered by insecurity.

Licensing opium poppy for medical purposes faces multiple obstacles, including the inability to prevent opium diversion to illegal supply and the lack of existing demand for Mexico's medical opioids. In seeking to establish such demand, Mexico should avoid setting off its own version of medical opioid dependence crisis.

The diffusion of fentanyl smuggling from the CJNG to the Sinaloa Cartel and increasingly smaller Mexican criminal groups hampers the ability to design interdiction targeting Mexican DTOs as deterrence against fentanyl trafficking. Such interdiction design is further complicated by the poor record of focused deterrence efforts in Mexico, the collapsed capacity of Mexican law enforcement, changes in the behavior of the Sinaloa Cartel, and the decision of the Andrés Manual López Obrador administration to not resolutely target Mexican DTOs. Nonetheless,

anti-fentanyl interdiction to prevent a widespread establishment of production facilities in Mexico should be a joint policy priority.

Felbab-Brown also recommends developing anti-drone technologies, increasing anti-corruption and interdiction efforts in Mexican ports, and reorienting interdiction toward targeting the middle-layer of Mexican DTOs.

There is no easy solution to the U.S. opioid epidemic. However, as the Brookings opioid project "The Opioid Crisis in America: Domestic and International Dimensions" shows, significant policy knowledge has been accumulated, generating valuable lessons and policy implications. The recommendations put forward in these policy papers provide a comprehensive package of policy options and recommendations dealing with deep prevention, regulatory designs, treatment, domestic law enforcement, external supply control measures, and special tools for vulnerable groups. Cumulatively, they can save many lives and lessen the drastic and multifaceted pernicious effects of the opioid epidemic.

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