



**THE OPIOID CRISIS IN AMERICA**  
Domestic and International Dimensions

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# Fentanyl and geopolitics

Controlling opioid supply from China

Vanda Felbab-Brown

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## Executive summary

Since 2013, China has been the principal source of the fentanyl flooding the U.S. illicit drug market — or of the precursor agents from which fentanyl is produced, often in Mexico — fueling the deadliest drug epidemic in U.S. history. Both the Obama and Trump administrations devoted significant diplomatic capital to persuading China to crack down on the supply of fentanyl from China to the United States, with China finally announcing in April 2019 that the production, sales, and export of all fentanyl-class drugs are prohibited, except by authorized firms which the Chinese government has granted special licenses.

The issue at stake now is whether and how effectively China will enforce this new regulation both with regard to finished fentanyl and the large quantities of fentanyl precursors transshipped to Mexico. The enforcement challenge is formidable since China's pharmaceutical and chemical industries involve tens of thousands of firms and hundreds of thousands of facilities, and China lacks adequate inspection and monitoring capacity. This policy paper draws on lessons from several sets of regulatory domains in China to identify the conditions under which China enforces its regulations. The explored regulatory domains include illicit methamphetamine production in China and its anti-trafficking collaboration with Australia; wildlife trade and the enforcement of anti-wildlife trafficking regulations since the early 1990s, including in the wake of the Severe Acute Respiratory Syndrome (SARS) and COVID-19 epidemics; and the evolution of the tobacco industry.

The following pattern emerges: The government of China at first tends to deny the existence of a problem. Under international or strong domestic pressure, it eventually moves to tighten regulation. But its enforcement tends to be limited and subverted by powerful vested interests of industry representatives, officials of line ministries charged with regulating or promoting the industry, and government officials. Geostrategic interests also trump other considerations, such as enforcement of regulatory compliance.

Despite the fact that China prides itself on having a strong counternarcotics stance and reputation, China is highly unlikely to mount counternarcotics cooperation with the United States approaching the level of its collaboration with Australia on methamphetamines unless it starts experiencing its own synthetic opioid epidemic. Moreover, the significant deterioration of U.S.-Chinese relations may further undermine China's willingness to diligently enforce the new fentanyl regulation.

Still, the United States should seek to strongly incentivize Beijing to diligently enforce its new regulations on fentanyl, adopting a four-pronged approach to opioid supply from China:

- With respect to the government of China, the United States should seek to delink counternarcotics policy and its enforcement from the U.S.-China global rivalry and encourage broad international cooperation with the United Nations, the European Union, and other countries concerned about synthetic drugs and their precursors produced in China;
- With respect to Chinese pharmaceutical companies, the United States can mandate that all companies seeking to sell legal fentanyl in the United States institute transparent and verifiable monitoring (such as through close-circuit TV systems) of their production facilities, follow best practices developed in the pharmaceutical sector, and contribute samples of fentanyl and other opioids they produce to U.S. and possibly also international drug databases;

- With respect to prominent Chinese pharmaceutical and chemical industry officials, the United States can develop packages of leverage; and
- With respect drug traffickers, the United States should continue gathering legal indictment portfolios.

## Introduction

Since 2013, the People's Republic of China (PRC) has been the principal direct or indirect supplier of the deadly synthetic opioid fentanyl to the United States. Of important legal medical use in surgery or for treatment of cancer patients with extreme pain and no longer responsive to morphine, fentanyl is produced mostly in China both for the legal drug trade and illegal trafficking. In 2013, its illegal supply from China initiated the third phase of the U.S. opioid epidemic – and the deadliest. Some 100 times stronger than morphine and at least 30 times stronger than heroin, the fentanyl trafficked from China dramatically exacerbated overdose incidence in the United States. Its potency and increasing availability also had devastating impact on those with opioid use disorder (OUD) in the United States, sending deaths from overdose skyrocketing, as the consumers were not used to such potent drugs. Worse yet, dealers would not only fail to inform their clients that instead of heroin, they were selling them much cheaper fentanyl or a heroin-fentanyl mix; and they would mix fentanyl into other drugs such as methamphetamine and cocaine.

Because of its potency, which allows light weight packages to supply many users, fentanyl and other even more powerful analogues (chemicals with the same core molecular structure) can be lucratively shipped from China by regular postal or courier services, vastly simplifying smuggling. (Drugs with a lesser potency-to-weight ratio such as heroin or cocaine cannot be easily shipped by mail). Fentanyl and the precursor chemicals from which fentanyl is produced are also smuggled from China to the U.S. hidden in legal cargo, or to Mexico and Canada, from which fentanyl is trafficked to the United States.

Both the Barack Obama and Donald Trump administrations expended significant diplomatic capital to get China to tighten its regulations vis-à-vis fentanyl-class drugs. Eventually, China agreed to ban the production, sales, and exports of all fentanyl-class drugs unless special government licenses are issued. This regulation came into force in May 2019. Subsequently, the trafficking of fentanyl by mail from China to the United States appears to have declined and at least some fentanyl smugglers cannot operate with the same ease as before. But smuggling of fentanyl hidden in legal cargo persists, as does trafficking of fentanyl via Mexico and Canada.

The question now is how likely it is that China will diligently enforce the new regulation and crack down against individuals and companies that illegally traffic fentanyl to the United States and elsewhere in the world. That is a question of both capacity and will. The enforcement challenge is significant, as it involves the monitoring of hundreds of thousands of legal facilities and requires extensive law enforcement resources. It also requires significant will on the part of the Chinese government, which may be in short supply as the United States and China stand on the cusp of a new Cold War with relations between the two countries at their lowest point in decades.

To assess the prospects of China's enforcement of the new regulation, this policy paper draws lessons from three case studies of China's regulation and its enforcement: illegal methamphetamine supply from China to Australia; wildlife trade and trafficking; and tobacco use.

The analysis of these regulatory domains shows a pattern. During a period of weak regulation, powerful vested interests emerge in China that seek to prevent tighter regulation while advancing the primary interests of the Chinese Communist Party (CCP) – namely, to generate jobs and revenues at the provincial level. During that period, the Chinese government tends to deny that China is the source of any negative externality or has a role in an illegal trade or insufficiently regulates a particular policy domain. When China does, in fact, change its internal

regulatory approach under strong domestic or international pressure, it then tends to be willing to selectively and at least partially enforce its new regulations. For example, China eventually decided to collaborate with Australia to an unprecedented degree against meth trafficking under Task Force Blaze. Similarly, despite the economic costs of prohibiting ivory carving and sales, China eventually adopted an ivory ban and has been willing to enforce it against Chinese businesses, although it has not been equally diligent in preventing Chinese tourists from illegally buying ivory in Japan and importing it to China. The Chinese government has been content to have the visible source of the problem transferred abroad, even as China's vested interests or customers help perpetuate it.

Overall, vested interests have systematically sought to undermine tighter regulations and their enforcement – such as on cigarette marketing or wildlife trade regulation. To the extent that particular economic sectors succeed in delivering extensive tax revenues and jobs, they advance the primarily performance measures by which Chinese government officials are evaluated and the primary tools by which the Chinese government seeks to maintain internal stability and preserve the power of the CCP. Vested interests of industry representatives and government officials then often hamper regulation and its enforcement, even when China is in violation of its international treaty obligations and there are intensely negative public health consequences for Chinese citizens. Large internal economic or social costs resulting from poor regulation of a particular market can be a motivator for China to maintain diligent enforcement of tighter regulation. But enforcement tends to be most stringent when it serves the power interests of Chinese government officials.<sup>1</sup>

Moreover, geostrategic considerations tend to trump other domestic and international considerations pertaining to regulation in a wide variety of regulatory domains.

All this does not bode well for tight enforcement of China's new fentanyl regulations – at least not until a synthetic opioid epidemic arrives in China as a result of aggressive and unscrupulous marketing of prescription opioids there by the same pharmaceutical companies responsible for the U.S. opioid epidemic and already operating in China, as well as their Chinese business partners (or from Chinese drug traffickers selling fentanyl to Chinese heroin users).

Illicit fentanyl production and trafficking in China currently do not generate such internal costs. However, the United States still has policy options and this paper lays them out along with policy recommendations.

The paper proceeds as follows: It first provides a detailed overview of the illicit fentanyl supply from China. It then describes the evolution of policy regulation toward synthetic opioids in China and U.S., and China's current policy approaches toward the issue. The paper then analyzes China's policies – and their enforcement – toward illegal methamphetamine production in and smuggling from China and China's cooperation with Australia; wildlife trade and trafficking; and tobacco products and industry. Next, the paper places those regulatory patterns into the context of U.S.-China geopolitical relations. It then discusses the activities of international pharmaceutical firms in China to promote much wider use of prescription opioids. Finally, the paper provides detailed policy recommendations for the United States for how to incentivize more effective enforcement of China's new synthetic opioid regulations.

## Overview of illicit fentanyl supply from China

Since the rise of fentanyl in the U.S. illegal drug market, China has been the principal supplier of the drug and its precursor agents to the United States — either directly or indirectly through Mexico, and to a lesser extent, Canada. Causing unprecedented levels of deadly overdoses, fentanyl has swept the U.S. illicit drug market: In fiscal year (FY) 2015, U.S. Customs and Border Protection (CBP) seized 70 pounds of fentanyl; in FY2018, it seized more than 2,000 pounds.<sup>2</sup> For a comparative perspective, on a typical day, CBP seizes some 6,000 pounds of narcotics a day, a data point showing how potent fentanyl is and what a small fraction of overall smuggled narcotics volume it constitutes even though it is disproportionately responsible for overdose in the United States.<sup>3</sup> China is also the principal supplier of fentanyl to the U.S. medical sector, with the legally-sold drug crucial in medical procedures such as surgery anesthesia and as an important analgesic for extreme pain, such as in cancer, or for patients no longer responding to other painkillers such as morphine. (In 2015, U.S. doctors wrote 6.5 million fentanyl prescriptions.)<sup>4</sup>

More than 5,000 firms make up China's politically-powerful and government-supported and protected pharmaceutical industry, the world's largest in terms of exports of basic chemical ingredients and precursors and second largest in terms of annual revenue of more than \$100 billion (one third of the value of the U.S. pharmaceutical industry).<sup>5</sup> The pharmaceutical industry produces more than 2,000 products in annual output of more than 2 million tons. The world's leading chemical exporter by value, China also has between 160,000 and 400,000 chemical manufacturers and distributors, many of which operate without legal approval, others of which hide behind shell companies, and most of which are capable of producing fentanyl and hiding it amongst its massive chemical output production.<sup>6</sup> Like the pharmaceutical industry, the chemical industry is also politically powerful, constituting some 3% of China's national economy and generating some \$100 billion in profits yearly, according to a private-sector analysis.<sup>7</sup>

Fentanyl meant for the U.S. illicit market is produced both by legal firms that produce and sell illicit fentanyl on the side and small-scale illegal operations with informal ties to the formal pharmaceutical and chemical sectors.<sup>8</sup>

Illicit fentanyl from China has been trafficked to the United States in multiple ways. Because of its potency-to-weight ratio, the drug could be efficiently transported via mail and courier services and mailed directly to dealers in the United States, a change in trafficking methods not easily available for cocaine or heroin. Before a major change of China's regulations in 2019 that imposed controls on the entire class of fentanyl substances, detailed below, websites advertising fentanyl and other synthetic drugs were plentiful and easily accessible and linked to fentanyl manufacturing across China, from the eastern province of Hebei to the western province of Xinjiang. For example, in 2017, in the eastern city of Hangzhou, almost 100 Chinese companies were selling fentanyl on Weiku.com, a website based there.<sup>9</sup> Wuhan, a city now notorious for the outbreak of the devastating COVID-19 pandemic, was another hub of illicit fentanyl and other illegal drug sales, not just to the United States but also to Russia, Kuwait, Sweden, Brazil, and some 20 other countries.<sup>10</sup>

These direct sales have not only contributed to the deaths of opioid users, but also exposed postal and courier workers and border inspectors in the United States to potentially deadly dosages.<sup>11</sup> Some 20.6 billion parcels from China arrived in the United States in 2015 by sea and air cargo and through postal services; and nearly 500 million by post alone in 2017.<sup>12</sup> To evade law enforcement authorities, shippers use multiple package transfers, false identities, and the mislabeling of shipped fentanyl or dies and pill presses that can put out 3,000-5,000

illicit or counterfeit pills per hour.<sup>13</sup> China's chemical exports make up one third of all global shipments, generating a massive inspection challenge.<sup>14</sup> In 2016 and 2017, China thus accounted for 97% of fentanyl seized by mail.<sup>15</sup>

Fentanyl, sometimes in the form of counterfeit prescription drugs, and its precursor agents are also trafficked from China to the U.S. hidden in legal cargo — sometimes passed through scores of middlemen and freight forwarders — or to Mexico or Canada in similar ways and then trafficked into the United States. Not surprisingly, in order to reduce weight, the illicit fentanyl mailed from China directly to the U.S. tends to have far greater purity and potency than fentanyl trafficked from Mexico. Illegal fentanyl traders in China, often mom-and-pop illicit entrepreneurs without criminal organizations behind them and without the need and capacity for violence, seek to minimize shipping costs due to weight, whereas powerful Mexican criminal groups trafficking fentanyl to the United States seek to maximize the volume of street sales.

## Existing Chinese and U.S. policies toward supply from China and their outcomes

Since fentanyl started devastating American drug users, the U.S. government adopted a set of internal policies to combat drug trafficking from China and abroad and worked bilaterally with China to suppress illicit production and trafficking. The policies at home have included the establishment of the Drug Enforcement Administration's (DEA) special Heroin/Fentanyl Task Force and Fentanyl Signature Profiling Program, which has created a database of fentanyl substances, collects samples from U.S. seizures, and can be used to trace a fentanyl product to a region of China. Currently, however, the database lacks enough samples to trace to a specific city or factory in China. The policies at home have included the adoption of the 2017 Stop the Importation and Trafficking of Synthetic Analogues Act, later incorporated into the 2018 Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment (or SUPPORT) for Patients and Communities Act, a law that mandated and enabled the provision of advanced electronic data of international mail shipments to help intercept illicit fentanyl.

The Obama administration systematically engaged China on regulation and enforcement of illicit drug sales into the United States. After several years of effort, it persuaded the government of China to start scheduling fentanyl analogues; and in June 2015, China seized 50 kilograms (kg) of fentanyl in the southern port city of Guangzhou and another 70 kg heading to Mexico.<sup>16</sup> Crucially, the U.S. persuaded China to change domestic regulations to allow damage done in another country to be a criterion for regulating a drug domestically — a key foundation for the possibility of China's collaboration with U.S. counternarcotics measures targeting fentanyl that went into effect in 2019.

The Trump administration continued that bilateral engagement, often through a torrent of criticism, and threatened U.S. legislative action amidst an overall much-worsened U.S.-China relationship. Both administrations have been requesting that drugs considered illegal in the United States — or legal with only special licenses, a process known in drug policy as “scheduling” — be made equally illegal or scheduled in China and that China crack down on illegal production and sales.

This engagement has produced progressively tighter and more comprehensive regulation in China. In 2014, for example, the government of China extended regulations to all chemical producers to prevent firms from relying on industrial or research licenses to circumvent regulations on pharmaceutical production.<sup>17</sup> From 2015 through 2018, the government of

China proceeded to ban 175 chemicals related to synthetic drugs, 26 of which were fentanyl analogues and several of which were fentanyl precursor agents.<sup>18</sup> The Chinese government also stepped up efforts to shut down illicit online vendors, which in 2017, for example, according to Beijing's own reports, resulted in the closure of 1,700 websites, the arrest of 21,000 people, and the seizure of 10.8 tons of controlled substances and 52 tons of precursors.<sup>19</sup> That same year, China's law enforcement agencies investigated 140,000 drug cases, destroyed 317 clandestine labs producing a variety of illicit drugs, and made 169,000 arrests.<sup>20</sup> In 2018, Chinese law enforcement agencies investigated 109,600 drug-related cases, including 70,000 trafficking investigations, made 137,400 drug-related arrests, destroyed 268 clandestine laboratories, and seized 11,000 metric tons of precursor agents.<sup>21</sup> At U.S. urging, the Chinese government has also increased inspections of postal shipments by installing new screening equipment at postal facilities. China Post, China's postal service, also signed an agreement with the U.S. Postal Service to provide advanced electronic data on parcels mailed to the United States as Washington sought and the SUPPORT Act mandated. Nonetheless, the piecemeal approach to banning and scheduling frustrated U.S. law enforcement officials, since illicit producers could easily evade the ban by slightly altering the chemical formula.

The big regulatory breakthrough came in the spring 2019, when at U.S. urging, the Chinese government scheduled the entire class of fentanyl-like drugs, banning their production and sales within China and abroad unless special licenses are issued by Chinese authorities. Requiring an innovative change to China's laws, as this was the first time an entire class of drugs was scheduled, the new legislation enabled far more effective law enforcement. Nonetheless, the new regulation did not cover all of the precursor agents used to produce fentanyl.<sup>22</sup>

The question then became whether China would, in fact, enforce the ban. The government of China has committed itself to enforcing these new regulations. In April 2019, with the legislation going into effect on May 1, Liu Yuejin, deputy director of China's National Narcotics Control Commission (NNCC), outlined a series of enforcement steps. These include:

- investigating suspected illicit fentanyl manufacturing bases;
- deleting fentanyl and illicit-substances content from internet pages;
- “cut[ing] off online communications and transaction channels for criminals”;
- pressing parcel delivery services to require that senders register their real names and increasing inspection of international parcels;
- setting up special teams to conduct criminal investigations focused on manufacturing and trafficking of fentanyl substances;
- strengthening information-sharing and case cooperation with “relevant countries,” including the United States, with the goal of dismantling transnational drug smuggling organizations; and
- stepping up development of technology for identifying controlled substances.<sup>23</sup>

These steps, if implemented, provide a strong basis for U.S.-China collaboration against illicit production and trafficking of synthetic opioids. But although the regulations have been toughened in China, and at least *prima facie* the government of China has expressed a commitment to enforce the new regulation, the monitoring and enforcement system remains weak *vis-à-vis* the challenge it faces. The rapid expansion of commercial establishments producing chemicals, the scale of production needing to be inspected, relatively underresourced monitoring and inspection capacities, and fragmented regulators all compound the enforcement difficulties.

A plethora of Chinese government agencies with overlapping responsibilities is responsible for regulating and controlling the production of legal fentanyl sales and stopping illegal production and trafficking to the United States. These include the NNCC, the Anti-Smuggling Bureau within the General Administration of Customs, the National Medical Products Administration (NMPA) which in March 2018 replaced the China Food and Drug Administration (CFDA) as the principal regulatory body of manufacturers of pharmaceutical and medical products, and various line ministries, including Chemical Industry, Agriculture, and Commerce.<sup>24</sup> Coordination is frequently lacking, with infighting and buck-passing frequent. Inspections of pharmaceutical facilities have traditionally been concentrated in big coastal cities, while illicit production is also present in poorer rural areas.<sup>25</sup> For years, the CFDA had only 2,000 inspectors and the number of inspections carried out yearly has hovered in the upper hundreds, despite the presence of hundreds of thousands of facilities manufacturing chemicals.<sup>26</sup> Enforcement action also remained limited: For example, in 2017, out of 15 firms officially examined, only three did not pass inspection due to improper handling of mailing and transportation certificates or failure to control samples.<sup>27</sup> So far, the NMPA has not exhibited significantly stronger monitoring capacities.

Moreover, enforcement is frequently left up to local officials whose political careers and political survival are far less dependent on enforcing regulations than on advancing the economic interests of the Chinese government — namely, revenue and job generation — which the government deems essential for preservation of CCP rule and stability in China. National government officials often have few details about subprovincial level business activities and their ties to illicit economies. Regulatory capture of provincial and local officials by vested interests can be high.<sup>28</sup>

Only when provincial and local Chinese officials run afoul of the top-level government officials and China's leadership finds its expedient or necessary to crack down on illicit economies and misbehaving officials, can enforcement be brought down on misbehaving local officials that have tolerated illegal economies or economic activity in violation of regulations in China or abroad. For example, in 2006, the Politburo cracked down on Chinese dimensions of cross-border illegal economies with Myanmar and local officials implicated in them to eliminate any local independence from national-level government and party authorities.<sup>29</sup>

Importantly, shortly after becoming China's top leader in 2012, Xi Jinping unleashed a crackdown on all kinds of illegal economies and local government officials associated with these illegal economies. Targeting illegal rackets ranging from illegal and counterfeit drug production to wildlife trafficking to evading required licensing of fashion models and office secretarial staff, Xi characterized the anti-crime drive as a refurbishment of the public image of the CCP.<sup>30</sup> Instead of being associated with corruption and opulence, the party would be seen as honest, hard-working, and serving the Chinese public.<sup>31</sup> Crucially, Xi used the crackdown on illicit economies and corruption as a potent tool to neutralize his potential opponents and rival poles of power among subnational and national level officials and to restructure power structures around loyalty to him. In 2015, Xi demanded stiffer drug regulation and tougher penalties.<sup>32</sup> Such policies meshed well with an increasingly internationalist counternarcotics policy China was cultivating in Southeast Asia and a desire to project an image as one of the world's toughest global drug cops.<sup>33</sup> Meanwhile, all kinds of political rivals or those deemed insufficiently loyal, including very high party or government officials, ended up swept into the dragnets.<sup>34</sup> This use of anti-crime measures as a tool of political power consolidation, of course, does not mean that every element of the anti-crime and anti-corruption drive was solely motivated by power considerations. Other goals, such as economic and social, were also at play. And anti-crime drives were, of course, mounted before

Xi's ascendancy to the top of power in China: A 2012 drive to suppress the production of counterfeit drug production, for example, led to the arrest of 2,000 people.<sup>35</sup>

In short, national level enforcement in China tends to be selective and deployed particularly as a tool to strengthen central power rather than a consistent mechanism to uphold the rule of law and enforce regulations.

Nonetheless, in the first year since the new scheduling of all fentanyl-class drugs was issued, China did step up enforcement. The ban alone has had chilling effects on China's illicit fentanyl producers and suppliers. Many of the previously freewheeling fentanyl producers went offline and shut down their visible websites and easily accessible offices.<sup>36</sup> Others claim to be complying with China's new rules banning the sales of fentanyl-class opioids abroad without a license.<sup>37</sup> Direct postal and courier shipments of fentanyl to the United States also declined in 2019, a sign of compliance with at least the most visible element of new regulation.<sup>38</sup> The government of China also claims to have put 91 manufacturers and 234 distributors under "strict supervision," warning them against unlicensed exports of fentanyl-class drugs, and to have conducted inspections and arrests in 13 cities and regions.<sup>39</sup>

If China does, in fact, maintain diligent enforcement of its new regulations, fentanyl smugglers will, of course, seek to adapt. The easiest adaptation is to make their production and smuggling operations more clandestine. Going into hiding may include better cover within legal factories or more small-scale clandestine production facilities in a highly decentralized criminal market. Today's method of fentanyl synthesis allows technicians with minimal skills but with access to necessary precursor agents, such as from legal factories, to produce large quantities of the drug.<sup>40</sup>

Another possibility is that China's traders in illicit substances will increasingly migrate toward synthetic opioids with molecular structures different from fentanyl. Such drugs can be as lethal as fentanyl and are already in existence — the American musician Prince fatally overdosed on a mix of one such drug, U-47700, and fentanyl.<sup>41</sup> In July 2017, China banned U-47700 — but others, as yet unregulated, are emerging.

Under either adaptations or in their absence, how likely is it that China will diligently enforce its existing counternarcotics policies toward fentanyl and other synthetic opioids?

## Lessons from China's international counternarcotics cooperation and other regulatory enforcement

To answer that question, lessons can be drawn from China's recent history of enforcement in counternarcotics and two other regulatory domains — wildlife trade and trafficking, and cigarettes.

### Methamphetamine production in China and Task Force Blaze

Perhaps the most extensive international counternarcotics collaboration in which China has engaged is its cooperation with Australia to suppress the trafficking of methamphetamines from southern China. This collaboration eventually gave rise to the joint Task Force Blaze, the only international law enforcement task force in which China has participated other than the Nuclear Suppliers Group. The case of China-Australia collaboration to suppress meth trafficking from China to Australia is particularly instructive since there are close parallels to fentanyl production and trafficking.

In the early 2000s, southern coastal China emerged as a key production area of illicit methamphetamine, also known as crystal ice, for Australia. As in the case of fentanyl, the conditions for extensive illicit production of meth were auspicious: the presence of many highly skilled chemists; easy access to high-quality precursor agents (ephedrine and pseudoephedrine) produced legally in China because their use in legal medicines; and high global transportation and trade connectivity allowing for illegal drugs to be easily hidden among vast shipments of legal cargo. And while most methamphetamine from China headed to Australia hidden in legal cargo, it was also smuggled to Australia by mail, as in the case of fentanyl.<sup>42</sup>

Yet the Chinese government exhibited little interest in suppressing meth production in China since the illegal economy was generating jobs in a poor area and fed substance abuse outside of China's borders. For over two decades, the methamphetamine market in China had been bifurcated. High-quality meth illegally produced in China was shipped to Australia where over a quarter of a million people were thought to be using it,<sup>43</sup> while China's own rising demand for methamphetamines was supplied from production in Myanmar, often linked to armed ethnic groups with ties to China or to militias linked to Myanmar's military.<sup>44</sup>

For several years, the Australian government in vain attempted to persuade China to step up cooperation as Chinese officials denied that China was a source of illegal meth production and the origin of smuggling,<sup>45</sup> even as China came to be the source of half of all the crystal meth seized in Southeast Asia according to regional representatives of the United Nations Office on Drugs and Crime (UNODC).<sup>46</sup> Yet the Australian Federal Police (AFP) had established and maintained a presence in China since 1999, much ahead of their law enforcement counterparts elsewhere in the West.

Slowly, however, cooperation started emerging. After 2010, a series of interdiction busts along Australia's coast generated important evidence on illicit production and smuggling networks in China. Eventually, China came to provide not only intelligence for interdiction operations along Australia's coast and in Australia, but also suppressed methamphetamine production in southern China. In December 2013, it launched anti-meth operations of unprecedented scale, deploying more than 3,000 police and paramilitary officers to the coastal village of Boshe in Guangdong province. Under the supervision of local crime bosses, large numbers of families in the village of 10,000 people were producing industrial quantities of meth in makeshift factories or in their houses, with children often sent to work in the meth business. Local government and village-level CCP officials were bribed into protecting the illicit production. The raids seized three tons of methamphetamine — with a street value in Australia of \$2.7 billion — and 150 tons of precursor chemicals and arrested almost 200 people, including the village party head who oversaw the illegal racket.<sup>47</sup> The raids left a devastated local economy, with luxury villas partially built with drug money abandoned, businesses shuttered, young men having left in search of jobs elsewhere in China, and the village populated principally by women, children, and the elderly sometimes earning as little as \$4 a day.<sup>48</sup> Several months later, Chinese law enforcement officials similarly raided another significant meth production hub, the city of Lufeng in Guangdong, which at the time was producing perhaps as much as a third of China's meth production, and arrested the province's top meth trafficker.<sup>49</sup> As in Boshe, the majority of cooks were poor people and the unemployed. Criminal groups in China and Hong Kong organized the international smuggling.

A crucial impetus for the Chinese government to expand interdiction raids was that some of the Chinese meth smugglers and producers began supplying the rising meth demand in China, such as in prosperous cities like Shanghai.<sup>50</sup> According to the NNCC, the use of methamphetamine (and ketamine) in China started surging after 2010, by 2019 surpassing the use of heroin and other opioids as China's primary domestic drug threat.<sup>51</sup> Of China's

registered drug users (according to the NNCC, 2.6 million people, but unofficially assessed as over 14 million people), 60% are users of methamphetamine or other synthetic drugs.<sup>52</sup> 77% of newly registered drug users are using meth or other synthetics.<sup>53</sup>

More interdiction operations around Australia and New Zealand followed the raids over the following two years: In February 2014, Australian law enforcement officials seized 180 kg of methamphetamine hidden in a shipment of kayaks from China. In February 2016, they captured some \$700 million worth of meth hidden in silicon bra inserts.<sup>54</sup> Chinese law enforcement officials also expanded operations to suppress the production of other illicit substances heading abroad, such as ketamine to Taiwan and Southeast Asia. Seizures and arrests continued to step up in China, often targeting foreigners, including Australians.

Importantly, in November 2015, Australian and Chinese authorities established Task Force Blaze.<sup>55</sup> Staffed with officials from the AFP and China's NNCC and the Anti-Smuggling Bureau, the task force was created to combat the manufacture and transshipment of methamphetamine and other illegal drugs along the China-Australia corridor. The mandate strengthened intelligence sharing and enabled the expansion of joint operations. Crucially, it allowed for a much larger contingent of Australian counternarcotics officials focused on meth smuggling to be posted in various part of China.<sup>56</sup> Rapidly, many more seizures followed, including 1.2 ton seizure of meth on a Chinese trawler off Western Australia in December 2017.

Facilitating the establishment of Task Force Blaze has been in China's self-interest and has reflected its own desire for strong cooperation with Australian law enforcement. After Xi launched a crackdown on "corruption and opulence" shortly after taking office in 2012, many Chinese officials indicted for economic crimes, corruption, and fraud fled to Australia, taking their assets with them. China hoped that as a result of cooperating with China on suppressing meth, it would be able to get Australia to sign an extradition treaty and get its hands on the fugitives and their money.<sup>57</sup> But the unprecedented cooperation did not translate into the signing of the extradition treaty, as the Australian government, like other Western governments, has continued to be concerned about China's extensive human rights abuse pattern, fearing that the extradited would be subject to torture, inhumane treatment, and possibly the death penalty.

Although China did not get what it hoped from the cooperation, it did not withdraw from Task Force Blaze, which turned out to be a major success. Between November 2015 and February 2019, Task Force Blaze led to the seizure of 9.8 tons of meth in China and another 10.8 in Australia. The buildup of Australia's cooperation with China, featuring the strongest and longest police-to-police relationship with China of any Western liberal democracy, succeeded in significantly suppressing the production in China of meth heading to Australia.<sup>58</sup> It also dramatically reduced the trafficking of meth from China to Australia.<sup>59</sup> But in the absence of reduced demand in Australia, new sources of meth supply for Australia emerged — namely Myanmar.

By 2019, the successes of Task Force Blaze and China's suppression of meth production in China moved the production of Australia-destined crystal meth from China to Myanmar where it has been produced for the Chinese market for over two decades.<sup>60</sup> At that point, Chinese cooperation weakened even though some of the major drug traffickers there have been Chinese nationals, including Tse Chi Lop, one of the world's top traffickers who also happens to come from Guangdong province. Tse Chi Lop's Sam Gor syndicate is believed to be the dominant East Asian organized crime syndicate, smuggling drugs through East and Southeast Asia, Australia, and South Pacific, controlling 40-70% of the regional wholesale meth market, and earning revenues between \$8 billion to \$18 billion annually.<sup>61</sup> Lower-rank meth cooks and

organizers in Myanmar's borderlands with China, such as Shan State, are also Chinese nationals.

But even the dramatic rise in methamphetamine use disorder in China<sup>62</sup> and the role of Chinese traffickers at the top of the global drug echelon have not motivated the Chinese government to attempt to suppress methamphetamine production in Myanmar with anything approaching the determination it ultimately mounted toward meth production in China. As this author's paper "Factories and rebels: Controlling opioid supply from India and Myanmar," also for this series, shows, China's geostrategic, economic, and border stability interests have trumped its public health considerations.<sup>63</sup>

In sum, what allowed the development of China's intense law enforcement cooperation with Australia against meth production in and trafficking from China was a confluence of factors: a range of Chinese self-interests, including Xi's anti-crime drives as a tool of power centralization; China's desire to cultivate a reputation for being a tough global drug cop; the fact that Chinese factories began to sell their meth not just to Australia but also to Chinese users; and Beijing's desire to extract indicted Chinese fugitives from Australia. China's geostrategic interests were also aligned: China was trying to cultivate Australia, a close ally of the United States, as a key economic partner and motivate Australia not to adopt a tight front with Washington against China. When meth production moved into Myanmar, some of China's self-interests in cooperation dissipated, China preserved face and could no longer be blamed for drug trafficking in the region, and its geostrategic interests came into competition with its counternarcotics objectives.

## **Wildlife trade and trafficking**

Regulation of wildlife trade in China and its enforcement, and China's actions against the illegal wildlife trade, are highly revealing of the complex balancing act China strives to adopt with respect to international pressure and obligations and its domestic economic interests. China's struggle with these issues have achieved global visibility as a result of the COVID-19 pandemic having likely spread through wildlife trade in a food market in Wuhan (also a hub of fentanyl and methamphetamine smuggling). But the complex back-and-forth on wildlife trade regulations and their enforcement have played out in and with China many times before.

China has the world's largest demand for a wide variety of wildlife products (with the United States often assumed to be the world's second largest market). Chinese demand for wildlife products is underpinned by long-held beliefs in the desirability of consuming wildlife to increase health, longevity, and sexual potency and acquiring wildlife products to display status, and enabled by the rise of purchasing power in China over the past 30 years. It is fostered and gravely augmented by a large and powerful legal wildlife trade industry and effective wildlife traffickers. China thus acts like a great vacuum cleaner, sucking natural environments around the world empty of wildlife. Not only in China and Asia, but also in Africa and elsewhere, elephants, rhinoceroses, and many other species are illegally and legally hunted at devastating and often unsustainable rates.<sup>64</sup> Tens of millions of wild animals are shipped each year to China and East and Southeast Asia for food and use in traditional Chinese medicine (TCM).<sup>65</sup> Many species — such as tigers, Asian and African species of rhinoceros, various species of pangolin, Tibetan and saiga antelopes, freshwater and marine turtles, sharks, and just about every conceivable taxon — are processed into TCM or their products and are acquired as luxury goods. Many of these species and entire taxa of animals are now on the verge of extinction as a result of commercial exploitation and the increase in consumer demand.<sup>66</sup> Although wildlife consumption has deep and long historic roots in Asia, the level of cross-border trade between China and neighboring countries, and increasingly also distant regions, has reached a level unmatched in history and is decimating the planet's wildlife populations.<sup>67</sup> East and Southeast

Asian diaspora communities often spread the taste for wildlife to new areas, expanding local habits of exploiting wildlife, whether as pets or for food or other uses. Traditional markets and demand for wildlife exist everywhere, but globalization and the increasing purchasing power of large segments of the world's population have expanded and intensified traditional demand, often beyond sustainable levels, and generated immense waves of poaching.

For years, China had a large legal market in ivory, which after 2000 fueled a large and increasing illegal market and with it a massive and devastating rise in elephant poaching in Africa. Owning ivory has long been considered an important symbol of status in China. The 1989 Conference of the Parties to the Convention on the International Trade in Endangered Species (CITES) banned the global ivory trade after the hunting of African elephants decimated their numbers from 1.3 million in 1979 to 600,000 in 1989.<sup>68</sup>

Despite the global ban, in 2008, China was given a license to buy 62 tons of ivory (with Japan also allowed to buy 39 tons) from southern African countries that accumulated ivory stocks from dead elephants.<sup>69</sup> As long as Chinese stores could produce a license (often fake), they were permitted to sell the ivory officially acquired in 2008, as well as mammoth ivory and ivory from before the 1989 ban. But China was not able to prevent the laundering of poached ivory in its legal market. Demand for ivory skyrocketed and poaching greatly intensified. A kilogram of ivory fetched between \$3,000 and \$6,000 in China's illegal markets,<sup>70</sup> doubling in price in a span of few years.<sup>71</sup> After years of recovery, African elephants thus experienced a drastic net population decline of some 111,000 between 2006 and 2015, leaving a likely population size of between 415,000 and 540,000.<sup>72</sup>

Years of international lobbying by environmental non-government organizations (NGOs) and ultimately also the U.S. government followed to get China to crack down on the illegal market and shut down its legal market. China at first resisted — denying that its demand for ivory fueled poaching in Africa, that laundering of ivory through poached elephants took place in China, and that it had a large and increasing illegal market for ivory. It also claimed that its ivory carvers who process ivory into ornamental pieces or jewelry provided crucial employment to many, preserved traditions, and were a vital part of China's economy.<sup>73</sup>

Nonetheless, as a result of international lobbying efforts, China in June 2015 stated that it would shut down and ban its legal market for ivory but did not specify when. At the October 2016 Conference of Parties to CITES, referred to as CoP17, China joined several other countries calling for a ban on all ivory markets around the world (they have persisted in Japan and Thailand, for example).<sup>74</sup> Ultimately, it took China two years from the 2015 initial declaration — through the end of 2017 — to complete the implementation of its ivory ban.<sup>75</sup> Several factors converged to enable the ban. The anti-ivory drive fit into Xi Jinping's anti-crime and anti-corruption drives. Xi himself had a strong interest in the environment and he was keen to project an image of China as a responsible global leader.<sup>76</sup>

Did China enforce the ban? To some extent, yes. Seizures of ivory followed both in mainland China and Hong Kong.<sup>77</sup> Visible ivory carver shops and sellers disappeared in China, though the illegal ivory trade moved into clandestine spaces and online. Chinese authorities made some efforts to shut down websites illegally selling ivory, but criminal groups, such as the "Shuidong Syndicate" smuggling ivory from Africa to China, persisted.<sup>78</sup>

Moreover, Chinese authorities exhibited little interest in enforcing its regulations beyond China's borders even when they directly involved Chinese traders and consumers. After China's ban on ivory sellers, Japan, which has maintained a legal market in ivory, became an intensified hub of ivory trafficking for Chinese traders. Chinese tourists and traders would fly to Japan to buy carved ivory and fly it to China with little enforcement from either Japanese or Chinese authorities, though transporting the ivory across the border was clearly illegal in both

countries.<sup>79</sup> Poaching for ivory also expanded to target Asian elephants in Southeast Asia and the Indian subcontinent, with little interest on the part of Chinese government officials and enforcement authorities.

Furthermore, in China wildlife traders invented a new product — beads made out of elephant blood — and set off a craze for it that further exacerbated elephant poaching in Asia. Although this product fueled poaching, Chinese authorities made little effort to suppress it, arguing that its sales were not illegal even though the products came from poached animals. In late 2018, stores selling the beads could be found fairly easily even in Beijing.<sup>80</sup>

Such partial enforcement, contested by powerful economic interests, has many precedents in China's wildlife trade regulation. In 1993, China similarly announced a ban on the commercial breeding of tigers at its tiger farms and the selling of tiger products — without ever properly implementing it since. Demand for tiger products, such as aphrodisiacs made out of tiger penis and wine made out of tiger bones, are enormously desired in China and fetch high profits. They also devastatingly contribute to the decimation of tiger populations around the world, with only 4,000 remaining in the wild from tens of thousands a century ago. China originally justified its tiger farms as a mechanism to take pressure off wild tigers by satisfying demand through products from captive-bred tigers. However, the breeding farms proved to be a massive laundering scheme for poached tigers, exacerbated demand for tiger products, and did not show evidence of reducing poaching — likely the opposite. Conditions at the tiger farms were also often inhumane. Hence, under international pressure China issued the 1993 ban.

But it never properly enforced it. Instead, Chinese authorities were quietly issuing licenses to the farms to sell tiger products,<sup>81</sup> even though such trade facilitates the laundering of poached tiger products. Demand for legal and illegal tiger remains substantial, and smuggling of poached tiger products into China continues. Nor has the wild tiger population in China (which is in the single digits) recovered since the farms were established. And at CoP17, where it called for a ban on all legal ivory markets around the world, China objected to a resolution calling on all countries to close down their tiger farms, which are also present in Thailand, Vietnam, and Laos and from which poached as well as farmed tiger products are also often smuggled. In saying domestic markets in tiger products were not the business of CITES since CITES only covers international trade, China contradicted its position on domestic ivory markets.

Moreover, in October 2018, China shocked the international environmental community with a surprising move to legalize TCM from rhino horn and tiger bone.<sup>82</sup> They have no proven medicinal properties, but even so they are at the source of devastating poaching of critical endangered rhinoceros and tigers. As a result of an immediate and intense international outcry, China suspended the decision to legalize, pending further review,<sup>83</sup> and has not moved to legalize those products since. But once again, the move revealed the enormous political power of the thriving wildlife trade industry in China.

That power has also been at the core of China's (mis)management of its responses to global zoonotic pandemics stemming from wildlife trade. In 2003, China experienced the emergence of the Severe Acute Respiratory Syndrome (SARS) epidemic. Just like with COVID-19, the zoonotic disease involved a viral spillover from wild animals, likely involving a transmission chain of bats and civets. As the infected animals were handled by hunters and traders and their meat consumed, the disease jumped to humans. Across East and Southeast Asia, open air markets with often illegally caught wild animals kept in appalling conditions, selling wild animal meat without proper hygienic measures, pose high risks of severe zoonotic pandemics. But such pandemics can emerge elsewhere too, as a result of improper husbandry of domestic

animals or wild animal husbandry that fails to separate wild animals from domestic livestock or other veterinary failures.

Within weeks of SARS emergence, China shut down its wildlife markets. For about two years, it effectively maintained the ban. But then the enforcement of the ban, never made into law, lessened as the wildlife trade industry lobbied against it and pointed out the economic and job contributions to the country. Wildlife farming in China grew to some 20,000 facilities<sup>84</sup> and is worth \$57 billion annually. While wildlife farming has been crucial for alleviating poverty in China, improperly maintained farms are possible prime areas of zoonotic disease emergence.

In response to COVID-19, China has declared a ban on consumption of wild meat in an updated legally-enforceable law on “Comprehensively Prohibiting the Illegal Trade of Wild Animals, Eliminating the Bad Habits of Wild Animal Consumption, and Protecting the Health and Safety of the People,”<sup>85</sup> and also appears to be shutting down some wildlife markets and wildlife farms.<sup>86</sup> But once again, its regulatory thrust is offset by powerful vested interests.<sup>87</sup>

Not only did the post-COVID-19 regulations not touch the traditional Chinese medicine industry, the government of China only embraced it tighter. Although TCM’s animal products, once produced into powders and potions, do not pose high risks of viral spillover, the hunting and mostly poaching entailed does to some extent. And it significantly contributes to species depletion and global biodiversity destruction. Yet the TCM industry in China is politically powerful. With its value expected to reach \$420 billion by the end of 2020,<sup>88</sup> the TCM industry provides large economic revenues to the Chinese government and employment to many people. It has resisted regulation, as evidenced by the 2018 effort to legalize rhino and tiger products. During and after the SARS epidemic, it pushed TCM as a cure.<sup>89</sup> Since then, it orchestrated the imprisonment of Chinese doctors<sup>90</sup> who warned against the many health risks associated with TCM. In June 2020, government health authorities in Beijing put forth a new draft law that would criminalize criticism of TCM.<sup>91</sup>

For years, the government of China has strongly embraced the TCM industry and worked to advance its interests abroad. Despite his environmental credentials, Xi has been a fervent supporter of the TCM industry and has sought to enable its economic growth in China and abroad, even though the vast majority of its products have no proven medicinal or beneficial properties.<sup>92</sup> In 2016, China passed a law to promote TCM. Effective as of July 2017, the law requires local governments to set up TCM institutions in all medical centers and to increase funding for TCM development and education. It established a central government TCM administration within the National Health Commission. In 2019, China succeeded in cajoling the World Health Organization (WHO) into including a chapter on TCM in its International Classification of Diseases, a highly influential document that categorizes and assigns codes to medical conditions, and is used internationally to decide how doctors diagnose conditions and whether insurance companies will pay to treat them.<sup>93</sup> The Chinese government is already promoting — without any proof — the use of TCM to cure COVID-19<sup>94</sup> and is encouraging the export of such unproven COVID-19 TCM cures to highly vulnerable countries with critically inadequate health systems such as Afghanistan and Pakistan.<sup>95</sup> Yet unless more cases of harmful health side effects, not just disastrous environmental effects, are linked to TCM, there is little prospect for the current Chinese government to break with the industry.<sup>96</sup>

And if China’s regulation of its regular pharmaceutical industry is a guide, the level of health harm and product shoddiness within China would have to be significant and generate strong public outcry before Beijing would adopt meaningful regulation and enforcement, including strong penalties. A 2018 case of China’s prosecution of a large Chinese pharmaceutical firm, Changchun Changsheng Biotechnology, that repeatedly delivered shoddy vaccinations to over one million Chinese children is an example of toughened regulatory enforcement and

penalties.<sup>97</sup> But it took significant public pressure for penalties to be toughened despite multiple violations.

The case of wildlife trade shows that China tends to resist robust regulations and robust enforcement, as its authorities are predominantly interested in maximizing economic revenue generation and job creation. Nonetheless, when as a result of domestic health concerns or under international pressure, China does move toward some regulation, China does mount some enforcement. However, that enforcement can be highly partial and circumscribed. It also tends to be systematically countered and undermined by powerful vested interests.

## **Cigarette regulation in China**

Examining the enforcement of regulation of cigarettes in China is instructive as well. Although the issue is a more domestic one and does not involve the same level of external pressure as fentanyl or methamphetamine, it still involves China's compliance with a global international tobacco regime and a WHO treaty signed by Beijing. As in the case of the new regulations on the chemical industry, it requires the compliance of a politically powerful sector with new domestic regulations triggered by China's accession to the international treaty and the deployment of enforcement measures if compliance is not forthcoming. The case reveals the tendency of vested interests to ignore regulations and these interests' capacity to subvert them. It shows how much China struggles to effectively implement even regulatory measures clearly in the interest of its population's health.

China is one of the world's largest producers and consumers of tobacco products. According to the WHO, there are more than 300 million smokers in China (nearly 52% of Chinese men and about 3% of Chinese women) — almost one third of the world's total. About 1 million Chinese people die of smoking-related diseases annually.<sup>98</sup> In addition, 700 million nonsmokers in China, including 180 million children, are exposed to second-hand smoking, causing some 100,000 premature deaths annually.<sup>99</sup> In 2003, China signed the WHO Framework Convention on Tobacco Control (WHO FCTC), which came into legal force in China in 2006. But while having disastrous public health effects, smoking is important to China's leadership financially: A state-run tobacco monopoly, China National Tobacco Corporation, manufactures one third of the world's cigarettes and accounts for a significant share of state revenue. Although academic studies have argued the opposite, Chinese leaders continue to believe that suppressing cigarette sales would also have large negative employment effects.<sup>100</sup>

After China ratified the WHO FCTC and as smoking prevalence had been increasing, China gradually moved to adopt anti-smoking measures. To some extent motivated by a desire to project a modern enlightened health-conscious image of China abroad, the central government launched its first national anti-smoking mass media campaign in 2008, in preparation for the Beijing 2008 Olympic Games. In addition to the Chinese Central Television dissemination of anti-smoking messages,<sup>101</sup> other efforts targeted the capital and other cities hosting events. But mindful of the economic revenues of and tax receipts from the tobacco industry, the central government structured the messaging around humorous images and positive notes, mostly omitting descriptions of the negative effects of smoking.<sup>102</sup> Only in the "Smoke-free Beijing" element of the campaign were graphic images used. The government may have been seeking to temporarily change user behavior without undermining the economic interests of the tobacco industry. But the government's own analysis found that smoking levels did not change in public venues. Moreover, tobacco-control efforts and anti-smoking activities in rural China were far less developed — consisting mostly of smoking-cessation posters in village public spaces — and undermined by very low cigarette prices and a variety of other factors.<sup>103</sup>

In 2009, the Chinese government launched the “Giving Cigarettes is Giving Harm” campaign to counter the prevalent habit of cigarette gifting in both personal settings, such as weddings and funerals, and business interactions. For years, the tobacco industry actively promoted the use of tobacco as social currency and even added traditional values and cultural customs to smoking and cigarette gifting.<sup>104</sup> The social pressure of cigarette sharing and gifting became a major barrier to smoking cessation.<sup>105</sup> This time, however, the government was more willing to use graphic visual descriptions of the harmful effects of smoking. The campaign has had some effects — those exposed to the messaging were found to be less likely to give cigarettes as gifts.<sup>106</sup>

However, the power of vested interests kicked in. Tobacco companies rapidly mobilized to push the text-only warnings. Four years after the launch of “Giving Cigarettes is Giving Harm” campaign, in 2013, most of the warnings on cigarette packages thus involved only small-font text, often only in English which most Chinese citizens do not speak, and only with non-specific warnings about the negative health effects of smoking.<sup>107</sup> This retreat back to inadequate policies took place despite evidence that citizens were most influenced by visual illustrations of the negative health effects caused by smoking.<sup>108</sup>

Nonetheless, that same year, in the back-and-forth pushback of regulators versus vested interests, China’s health authorities implemented a nationwide ban on public smoking. The CCP instructed government officials not to smoke in public to set a good example.<sup>109</sup> But only 13 cities, mostly provincial capitals, moved to adopt the legislation that enforced the ban.<sup>110</sup> In some places the warning texts were changed to Mandarin, but pictorials remained rare.<sup>111</sup> This ineffective design persisted despite many studies confirming that perceived risk to one’s health was strongly correlated with willingness to forgo or reduce cigarette consumption<sup>112</sup> and indeed overall with individuals’ adoption of other recommended behavior.<sup>113</sup>

More than a decade after China ratified the WHO FCTC, warnings on tobacco-product packaging in China did not meet the WHO FCTC Article 11 standards. In 2015, much of the warnings, consisting mostly of the phrase “smoking is harmful to your health” were not even legible, let alone pictorially displayed, nor did they contain smoking cessation advice.<sup>114</sup> Instead, detailed information about tar, nicotine, and carbon monoxide on cigarette packages misled one third of surveyed smokers to believe that low-tar cigarettes and certain type of cigarette products were less harmful and thus alright to consume.<sup>115</sup>

In 2015, Beijing banned smoking in enclosed public spaces, such as offices, restaurants, and nightclubs, and areas outside of hospitals, schools, and tourist sites. Smokers who violated the new rules risked a fine equivalent to \$32, and businesses could be fined up to \$1,600.<sup>116</sup> Yet enforcement remained a huge problem despite the fact that the municipal government employed several thousand “health police officers.” Compliance was not helped by the fact this was the third time the government in Beijing banned smoking (it did so also in 1996 and 2008 and each time compliance had failed).<sup>117</sup> Beijing’s extremely lucrative nightclubs, for example, decided to ignore the ban, betting that serious enforcement would not take place and fearing they would lose customers.<sup>118</sup> Like many profitable ventures in Beijing and throughout the country the nightclubs have close ties with municipal officials and bet on corrupt political protection. Still, tobacco sales in Beijing fell by 8% in 2016; the China National Tobacco Corporation immediately started to “fight the policy at all costs,” according to a Chinese health official.<sup>119</sup>

Similarly, in the city of Hangzhou, home of the internet giant Alibaba, government officials in early 2018 made a renewed effort to better implement a ban on smoking in public places. But the tobacco industry, led by China National Tobacco Corporation, subverted the effort.<sup>120</sup>

Raising taxes on tobacco has also been a struggle even though Article 6 of the WHO FCTC requires signatories to raise tobacco taxes to discourage consumption. Each time China's health authorities sought to raise tobacco taxes, the tobacco industry found a way to undermine the effort as well as China's adherence to any of the associated international rules. With a receptive ear for Big Tobacco, Chinese political leaders and central government officials, ignoring the preferences of the National Health Commission, argued that raising tobacco taxes places an unfair burden on low income smokers. The schemes of adjusting taxes on cigarettes involved complex reclassification of cigarette price levels, which resulted in net decreases in cigarette tax rates at certain price levels.<sup>121</sup> Thus, with inflation and rising income taken into account, the prices of cigarettes were, in fact, reduced by half from 2001 to 2015.<sup>122</sup>

Nonetheless, in 2015, wholesale taxes on cigarettes were raised — from 5 to 11%, along with the adoption of other anti-smoking measures, such as the aforementioned bans on smoking in enclosed public spaces.<sup>123</sup> Then, for the first time since 2000, cigarette sales decreased over a period of two years — by 2.3% in 2015 and 5.6% in 2016.<sup>124</sup> But once again, tobacco industry mobilization that included spreading “false science” about the safety of low-tar cigarettes, a promotion of a culture of smoking, and criticism of anti-tobacco activists, reversed the gains and blunted the effects of the price increase. Other marketing tactics seeking to expand demand emerged, such as thin cigarettes for women and arcade games handing out cigarettes as prizes, a scheme clearly counter to the effort to reduce cigarette gifting. In 2017, cigarette sales rose again, wiping out the previous decline. Experts on China's tobacco industry assessed that new bigger tax hikes were necessary to create a more substantial reduction in tobacco consumption; but such price increases were politically unpopular and the tobacco industry systematically sought to prevent their adoption. In 2018, the price of an average-priced brand of cigarettes was only \$2 a pack and of cheap brands as little as 50 cents a pack.<sup>125</sup>

Moreover, facing little enforcement, the illegal online sales of cigarettes via food delivery platforms have proliferated.

But surprisingly, in November 2019, perhaps because the Chinese parliament had designated the National Health Commission as the regulatory lead agency, the commission urged manufacturers and sellers to shut down websites marketing or selling e-cigarette. The state tobacco monopoly joined in the declaration that cited adverse health effects on minors as the reason. The move was seen as a precursor to a ban on e-cigarettes. In 2018, Beijing banned the sales of e-cigarettes to minors. China has more than 7.4 million e-cigarette users and is the largest producer of e-cigarette products.<sup>126</sup> Some of China's e-cigarette producers — including RELX, the maker of the most popular brand of e-cigarettes in China with 60% of market share — put out statements promising to “terminate all sales and advertising on the internet.”<sup>127</sup> Within hours of that announcement, three online platforms also removed e-cigarettes from their websites. Others, however, questioned whether the declaration was legally binding, pointing out that there was, in fact, no law in China forbidding the online sale of e-cigarettes yet.<sup>128</sup>

In short, over the past 30 years, tobacco businesses in China have systematically and with determination worked to subvert and reverse tougher regulations. As Yang Gonghuan, the former head of tobacco control at the Chinese Center for Disease Control and Prevention put it, “When it comes to the tobacco industry's obstruction and interference in implementing specific tobacco control articles, China has a serious problem.”<sup>129</sup> With strong influence over a Chinese government preoccupied with economic revenues and job generation, they have often succeeded in their efforts to weaken, sabotage, and circumvent tougher regulation and its enforcement, even as this left China in violation of its international treaty obligations and needlessly jeopardized the lives of Chinese citizens.

## Overall pattern of regulation and enforcement

The three cases of regulation and enforcement of methamphetamines, wildlife trade, and smoking regulation cumulatively present the following pattern of China's approach to regulation and enforcement. First, for several years, the government of China tends to deny that it is experiencing a regulatory problem or is in any way implicated in transnational illicit economies and harmful externalities. The denial is particularly strong when the poorly-regulated legal or illicit economies generate significant revenues and jobs and are associated with strong economic interests — the dominant interests of the central government and CCP being seen as essential for preserving internal stability and party rule. All profitable ventures in China, including illicit economies, tend to develop extensive relations with local government and CCP officials.

After several years of denial, under external pressure or facing intense domestic outcry, the Chinese government can become willing to adopt more robust regulation and enforcement. This is particularly the case when such tighter regulation suits the interest of the central government and its top officials, such as by serving as a mechanism to disempower local government officials or consolidate central power.<sup>130</sup>

Once new tighter regulation is adopted, enforcement tends to follow. But it often focuses on the bare minimum necessary, as a result of limited political will and sometimes limited capacity. It tends to be highly selective and cast to the narrowest definition of the problem, such as merely a specific illegal product rather than the underlying phenomenon and deeper drivers of the problem.

Moreover, enforcement often drops off and weakens when the visibility and urgency of the problem are reduced or an intense experience of the problem wanes. Enforcement is also hampered by powerful vested interests that often succeed in holding off, reversing, circumventing, and sabotaging regulation.

Enforcement is similarly reduced when the visible problem is pushed abroad, even as China's trafficking networks or demand continue to play a significant role in the illicit economy.

Furthermore, geostrategic considerations tend to trump other domestic and international considerations pertaining to regulation in a wide variety of regulatory domains.

## The geopolitical context: On the verge of a new Cold War?

To assess how likely it is that China will diligently enforce its 2019 fentanyl regulations, it is necessary to place the above lessons and patterns of regulatory enforcement within the context of U.S.-China geostrategic relations. They are currently at their lowest point in decades, and the two countries may well be on the verge of a new Cold War, a dynamic that may not fundamentally change even if President Trump is not reelected in November 2020. That does not bode well for determined enforcement of the licensing of fentanyl-class opioids and other synthetic drugs in China.

Even before the current intensification of their rivalry, U.S.-China law enforcement and counternarcotics cooperation were limited. The U.S. DEA established a formal relationship with its Chinese counterpart, the National Control Bureau, in 2002. In recent years, several bilateral working groups, such as the U.S.-PRC Bilateral Drug Intelligence Working Group and the Counter Narcotics Working Group, have also been created. Their meetings produced some

results, such as importantly enhancing the U.S. government understanding of the type of data China required to regulate substances abused in the United States, which the U.S. was subsequently able to provide.<sup>131</sup> In recent years, representatives of China's National Narcotics Laboratory have also met with DEA experts to exchange information on emerging substances, trafficking trends, and drug sampling standards.<sup>132</sup>

But more extensive cooperation has remained constrained. The DEA's presence in China is limited to a small contingent at the U.S. Embassy in Beijing, though there were hopes to open a DEA office in Guangzhou, Guangdong province's capital and largest city.<sup>133</sup> The delay of its opening is troubling as the presence of DEA experts in Beijing, as well as the number of trained Chinese drug diversion experts is vastly inadequate for the scale of the diversion problem.<sup>134</sup> When in October 2017, the United States for the first time indicted two Chinese nationals, Zhang Jian and Xiaobing Yan, for manufacturing and trafficking fentanyl, Chinese authorities, sensitive to such outsiders' actions and preferring to be the ones to make indictments and arrests of their nationals, condemned the move as undermining cooperation and hampering joint investigations.<sup>135</sup> Although their company no longer appears to exist, the two indicted traffickers remain at large. In 2018, the U.S. Justice Department designated Zhang Jian and four of his relatives as "Significant Foreign Narcotics Traffickers" under the Kingpin Act. Throughout 2019, the United States and China cooperated in three investigations, a tiny number compared to the level of joint U.S.-Colombian or U.S.-Mexican counternarcotics investigations. Moreover, U.S. Department of Justice officials note that Chinese officials often require substantial amounts of information on suspected illicit fentanyl production before they act on tipoffs, a process that leads to slow investigations and exacerbates cooperation difficulties.<sup>136</sup> Still, as a result of one of such joint investigation in 2017, Chinese authorities convicted nine individuals of smuggling fentanyl to the U.S. in December 2019, issuing a suspended death sentence to the ringleader and life and other imprisonment sentences to the others.<sup>137</sup> In other cases, those arrested in China as a result of U.S. cooperation were later released without indictments levied against them.<sup>138</sup>

Furthermore, Chinese authorities have consistently denied responsibility, arguing that cases of opioid trafficking from China to the United States are "extremely limited."<sup>139</sup> Super-sensitive to any criticism abroad and at home and particularly proud of its tough-on-drugs image, China has consistently sought to blame the U.S. for the fentanyl overdose problems, arguing that it was U.S. demand for fentanyl and drugs in general that was the root of the problem, rather than China's unfettered fentanyl production or insufficient enforcement.<sup>140</sup> Liu Yuejin, the vice-commissioner of the NNCC, for example, stated in April 2019, even as China scheduled all fentanyl-class drugs, that "the United States is the main cause of the problem of the abuse of fentanyl in the United States," referring to weak enforcement and a culture of addiction.

Furthermore, significantly worsened geopolitical relations between the United States and China provide an inauspicious environment for close counternarcotics collaboration between them even though China will likely maintain some level of enforcement, particularly of the most visible patterns of violation. While the Obama administration sought to keep China's military and political leadership from engaging in increased military adventurism in Asia, such as pressing its territorial claims in the South and East China Seas, by strengthening its Asian alliances and reorienting U.S. military and diplomatic effort toward the Pacific, it also sought to anchor China in existing multilateral organizations. Nor did the Obama administration define China's economic growth per se as a threat. In contrast, the Trump administration rapidly unleashed a trade war with China. Thus, in fall 2018, U.S. diplomats in Beijing identified only two subject areas as domains of cooperation between China and the United States — wildlife trafficking and counternarcotics.<sup>141</sup> The Trump administration's blame of China for COVID-19 pushed the two countries further toward a new Cold War and may throw these domains of

cooperation into question. Meanwhile, as COVID-19 afflicts the United States, the U.S. health care system has been experiencing shortages of legal fentanyl supplied from China and needed to sedate patients for ventilator intubation and other medical purposes.<sup>142</sup>

China is thus most unlikely to mount cooperation with the United States on synthetic opioids as extensive as its collaboration with Australia to suppress methamphetamine production and trafficking from China. The level of collaboration is likely to fall as direct trafficking of synthetic opioids from China to the U.S. continues to decrease and trafficking is increasingly routed through intermediary countries. China already exhibits limited interest in cracking down on the flows of precursor agents from China to Mexico. In response to previous efforts by the Mexican government to lobby China to stop fentanyl and precursor trafficking, Chinese government officials tended to reply: “It’s a problem for Mexico to deal with. It’s a problem with your customs. There’s nothing we can do.”<sup>143</sup> Similarly, since the early days of the Obama administration, neither the United States nor Mexico have been able to persuade China to crack down on the vast amount of methamphetamine precursor agents transshipped from China to Mexico and fueling a devastating high-potency methamphetamine addiction in both the U.S. and Mexico.<sup>144</sup> Once again, the pattern appears to be one of China enforcing counternarcotics controls only to the extent necessary to achieve plausible deniability and push the visible element of the problem abroad.

## A synthetic opioid epidemic coming to China?

Perhaps only growth in fentanyl use and synthetic opioid disorder in China itself will produce a resolute determination by the Chinese government to suppress illicit fentanyl production in and trafficking from the country. Such a development is not impossible, even though the Chinese society is very leery of opioids and painkillers. Memories of the 19th century Opium Wars, and a strongly-held belief that Britain force-fed opium to Chinese consumers and unleashed a devastating addiction in the country, generates strong cultural disapproval of drugs and little societal empathy toward those who suffer from substance use disorder. China exhibits no strong movement toward reform of drug policy, including cannabis legalization, of the kind that has arisen in Latin America. Instead of pharmaceutical opioids,<sup>145</sup> some people in China have embraced beliefs in traditional Chinese medicine for all kinds of curative and aphrodisiacal uses.<sup>146</sup>

But borrowing a script from Big Tobacco companies, the very same U.S. pharmaceutical companies that unleashed the opioid epidemic in the United States, such as Mundipharma, the international branch of Purdue Pharma, and several other international pharmaceutical companies have turned their sights on China and other markets abroad. Although their deceptive practices and systematic efforts at regulatory capture produced devastation in the United States for which they are facing lawsuits, companies like Mundipharma are engaging in the same unscrupulous practices from Europe to Latin America to China to develop new markets for prescription opioids.<sup>147</sup> In China, the companies are running training seminars, urging doctors to overcome “opioiphobia” and prescribe OxyContin, with thousands of Chinese doctors having participated in them.<sup>148</sup> Mundipharma has also sponsored clinical trials of OxyContin and Targin at hospitals across the country. Between 2011 and 2016, Mundipharma hired more than 1,000 employees, most of them sales representatives, for its operations in China and established presence in 300 Chinese cities. The government of China has pledged that all of the country’s 1.4 billion citizens will have health insurance in the next decade, which Mundipharma hopes will cover painkillers. Currently, Chinese patients can only purchase

OxyContin from a hospital or other medical institution and receive no more than a 15-day supply.<sup>149</sup>

To overcome the deeply-ingrained Chinese fear of opioids, international pharmaceutical companies also are sponsoring public awareness campaigns urging people to seek medical treatment for chronic pain. In one animated video on Mundipharma's website in China, an elderly cancer patient who expressed fear of becoming addicted was told by his nurse that he would not become addicted if he took the pills according to the doctor's instructions.<sup>150</sup>

Representatives of Mundipharma, the international branch of Purdue Pharma, told an Asian business journal in January 2019 that China was set to become its second-largest OxyContin market and expected Chinese sales to surpass U.S. sales by 2025.<sup>151</sup> Already in 2016, Mundipharma assessed that half of the company's sales in the developing world came from China and that Mundipharma claimed a 60% share of China's cancer pain market.<sup>152</sup>

The lack of awareness and understanding in China of the U.S. opioid epidemic and its three phases — from prescription opioids through heroin to synthetic opioids — and the systematic portrayal by the Chinese government and media of the opioid epidemic as caused by U.S. decadence and individualism, leave the Chinese people poorly equipped to deal with the risks of aggressive and unscrupulous pharmaceutical companies pushing addictive prescription opioids. Indeed, the overprescribing of opioids by doctors induced by the marketing of pharmaceutical companies and poor control measures on unused pills — both hallmarks of the first stage of the opioid epidemic in the United States in the 1990s and early 2000s — are already setting off addiction to prescription opioids in China.<sup>153</sup> Just as in the U.S., those who develop opioid use disorder initially through prescription then seek to procure further opioid through illicit channels, often online. Just as in the U.S., unused pills are increasingly sold by patients or their relatives on the black market — which critically fueled America's devastating expansion of opioid use disorder.<sup>154</sup> Concerned about the increasing abuse of prescription opioids,<sup>155</sup> the Chinese government pulled combination opioids from most pharmacies in 2019, but such a limited one-time action is unlikely to stem a rise in opioid use disorder. Nor has yet China adopted measures for a safe collection of unused pills.

Perhaps a future possible onset of a prescription/synthetic opioid epidemic in China may stimulate Beijing to adopt more potent policies against illicit production and trafficking of fentanyl in the country, which demands for international cooperation alone, amidst worsening geostrategic rivalry, could not accomplish. But even that development is far from certain, given China's meek regulation of its deadly tobacco industry for decades, in which Beijing has systematically put the economic goals of vested interests ahead of public health.

## Conclusions and recommendations

Over the past several years, U.S. diplomacy has succeeded in persuading China to place fentanyl-classed drugs on China's list of controlled substances so as to limit the way uncontrolled production and illicit exports to the United States have fueled the most devastating drug epidemic in U.S. history. Since China began to legally control all such fentanyl-type drugs in 2019, direct shipments of illegal fentanyl to the U.S. by mail have dramatically declined. China has also undertaken enforcement measures. Apparently, illicit fentanyl suppliers can no longer operate with the ease they could before the new regulations came into force.

Yet the enforcement challenge in China remains immense, due to the large numbers of existing and potential illicit producers and suppliers, with hundreds of thousands of legal chemical or pharmaceutical facilities easily serving as sources of diversion. New clandestine facilities may also emerge. The level of existing inspection and monitoring capacity that China has is vastly inadequate for the scope of the enforcement needed.

Moreover, enforcement in China is not merely a matter of capacity but also will. As this paper's review of China's enforcement of its own regulations with respect to wildlife trade and cigarettes shows, tighter regulation and enforcement efforts often wane over time and are hampered by pushback and counterpressure from vested interests. As the review of China's eventual collaboration with Australia in suppressing illicit methamphetamine production also shows, China does have the capacity for cracking down on illicit drug production and trafficking at home — if such enforcement efforts are congruent with its geostrategic interests. But it easily loses interest in collaboration and enforcement when the visible side of the problem is driven outside of China's borders, even while Chinese citizens remain key traffickers or China continues to play an important role in the illicit trade as a source of demand or precursors.

Given the highly confrontational state of U.S.-Chinese relations, China is highly unlikely to mount anti-synthetic opioid collaboration with the United States as extensive as its cooperation with Australia under Task Force Blaze. Perhaps only when a synthetic opioid epidemic starts devastating China, as a result of the unscrupulous behavior of international and Chinese pharmaceutical companies already under way in China, decisions by Chinese drug dealers to promote synthetic opioid use in China, or choices of Chinese drug users, will Beijing come to enforce its new regulations strictly and diligently.

Nonetheless, there are still crucial opportunities for U.S. policy intervention. The United States can encourage enforcement in China not only by working through the Chinese government but also by direct action against Chinese chemical and pharmaceutical companies and their managers.

*With the Chinese government*, the United States should seek to delink counternarcotics policy and its enforcement from the U.S.-China global rivalry and overall state of mutual relations. Working with others including the European Union, the United Nations Office on Drugs and Crime, and the International Narcotics Control Board, Washington should emphasize China's interests in a reputation as a global counternarcotics policy leader. The U.S. can also highlight that a failure to diligently enforce its new fentanyl regulation could tarnish China's effort to promote a "Health Silk Road" as part of its Belt and Road Initiative.<sup>156</sup>

In seeking to strengthen anti-opioid enforcement in China — for example, via an expanded presence of U.S. law enforcement personnel at the U.S. Embassy in Beijing and ideally also at field offices elsewhere — the U.S. should emphasize China's *self-interest* in preventing the emergence of a devastating synthetic opioid epidemic in the country as the prescription of opioids in China grows.

The United States should continue requesting that China take down websites that sell synthetic opioids illegally in the U.S., particularly given China's new fentanyl laws. And it should press Beijing for stronger regulatory and enforcement actions against the export of pill presses from China.

The United States can help encourage and facilitate the deployment of handheld portable devices capable of ascertaining chemical signatures and drug types (similar to U.S. TruNarc handheld narcotics analyzers) in Chinese ports and facilities and among law enforcement officials and factory inspectors. It should also encourage development of adequate numbers of forensic laboratories to rapidly examine and test the seized chemicals.

*With Chinese pharmaceutical companies*, the United States can undertake regulatory changes on its own, without waiting for Chinese government action. Although U.S. pharmaceutical companies leery of jeopardizing their drug supply may object, Washington can mandate that all Chinese pharmaceutical and chemical companies seeking to sell legal fentanyl in the United States, and possibly even all Chinese chemical or pharmaceutical companies, institute transparent and verifiable monitoring (such as through close-circuit TV systems) of their production facilities. More broadly, the U.S. can mandate that all Chinese firms selling fentanyl to the U.S. market follow best practices developed in the sector, such as by the BASF Corporation, a German chemical giant and the second largest supplier of chemicals in North America, which has been widely praised by U.S. government officials for its strict controls on preventing diversion.<sup>157</sup> Over time, Chinese pharmaceutical companies should be pushed to adopt the full array of global control standards, including the development of better training, certification, and inspection. Firms that violate such standards should be put on probation and, if no significant improvement and compliance takes place, should be cut out of the U.S. market. The U.S. can also encourage the Chinese government to shut down the worst offenders.

The United States can also mandate that all Chinese pharmaceutical companies producing legal fentanyl and seeking to preserve access to the U.S. market contribute samples of fentanyl and other opioids they produce to U.S. databases, such as the DEA's Special Testing and Research Laboratory and the U.S. Fentanyl Signature Profiling Program, and potentially also to an international database. Such samples would greatly enhance the forensic capacities of the United States to attribute illicit fentanyl not just to broad regions of China but to highly specific locales and potentially even specific facilities. Through an in-depth analysis including isotopic characterization, quantitation, impurity profiling, and occluded solvent analysis, the drug profiling provides highly valuable investigation leads. The technical capacity is there, but it is limited by the limited sample library against which U.S. law enforcement can match seized drugs.

Already, the DEA engages in a yearly exchange of information on newest drug trends, drug chemical signatures, and forensic techniques with Chinese law enforcement chemists. Although the government of China may object to sharing of samples of seized or tested drugs, the DEA should seek to expand the collaboration into an exchange of samples.

In addition to facilitating forensic work and subsequent investigations, even merely a mandate to contribute a sample may deter some facilities from diverting some of their legally manufactured fentanyl into the illicit trade. Any illicit fentanyl linked to such facilities can trigger a cascading set of restrictions and penalties and ultimately bar violating companies from the U.S. market as well as lead to legal prosecution.

Of course, there is a risk that such mandated U.S. regulation may stimulate China to retaliate against U.S. businesses seeking access to China's market — whether by finding reasons for criminal investigations against U.S. companies or by organizing social media-led boycotts. China has resorted to both. It launched criminal investigations into FedEx after a handgun was discovered in a FedEx package and has threatened to add the company to its blacklist of “unreliable entities” after alleging that FedEx misdelivered packages from Huawei to the United States instead of the correct destinations.<sup>158</sup> China has also threatened to cut out access to China's markets by U.S. companies that have expressed support for Hong Kong protestors and independence, and has launched boycott campaigns against them, such as against the National Basketball Association, for individuals' comments. Indeed, such Chinese government and popular retaliatory boycotts already exist in response to of a whole range of issues on which China seeks to stifle criticism, such as Hong Kong, Taiwan, Korea, Japan, and COVID-19, as China has turned increasingly politicized and punitive.<sup>159</sup> However, complying

with U.S. standards may be less politically sensitive for China than China's internal political control issues and thus the level of retaliation may be significantly smaller than in those other cases. Mandating that Chinese companies comply with U.S. counternarcotics policies hence may not significantly augment the marginal costs to U.S. businesses of operating in China.

*With respect to prominent Chinese pharmaceutical and chemical industry officials*, the United States can develop packages of leverage, such as denying them visas if their companies fail to adopt global standards of preventing diversion.

As in the case of actions against Chinese companies, the Chinese government might attempt to retaliate against U.S. individuals and look for ways to charge them with criminal conduct or espionage and arrest them. After the U.S. indictment of a top Huawei official for violating U.S. laws and her detention in Canada in preparation for extradition to the United States, China detained (and in the view of many, in fact, unjustly kidnapped) a former Canadian diplomat, Michael Korvig, as well as scores of U.S. citizens.<sup>160</sup>

And *with respect to Chinese traffickers*, the United States should of course continue to develop legal indictment portfolios even if China will not extradite them. Because of the poor state of human rights in China, the United States should continue to refuse to sign an extradition treaty with China, despite the counternarcotics interdiction consequences. But the U.S. can and should deploy other punitive measures, such as limiting traffickers' access to the international financial system, preventing their international travel, or attempting to have third countries arrest them and extradite them to the United States.

Even if China does mount effective law enforcement against the illicit trade in fentanyl-class opioids, the supply to the United States is unlikely to dry up. New synthetic opioids that are structurally different from fentanyl-class opioids are already emerging and they are not regulated in China. The United States will need to engage with Beijing on Chinese regulation of these new drugs. After November's U.S. presidential election, opportunities may emerge to reduce tensions between the United States and China and renew cooperation on bilateral fentanyl control. Although this cooperation is unlikely to permanently reduce the trafficking of synthetic opioids into the United States, it does offer the possibility of some short-term reduction of the flow of these deadly drugs.

Of course, even then, the illicit supply of fentanyl-class drugs is likely to shift to other parts of the world. India and Myanmar are both hot candidates, and already sources of illicit supply and transshipment of synthetic opioids, as this author details in "Factories and rebels: Controlling opioid supply from India and Myanmar," and production has already emerged in Mexico, as she discusses in "Fending off fentanyl and hunting down heroin: Controlling opioid supply from Mexico," both papers for this series.<sup>161</sup> Many other countries with extensive or emerging pharmaceutical and chemical production facilities, poor controls, and existing illegal drug networks – from Indonesia to South Africa to Nigeria and others – could become sources over time. A spread of illicit production of synthetic opioids to many production areas and transshipment networks will only make control measures more challenging.

But even with those challenges, the U.S. government has an obligation to accrue whatever supply-side control achievements it can accomplish from well-conceived and administered international and domestic measures to curtail the supply of highly dangerous drugs to U.S. users.

## References

- <sup>1</sup> Author interviews with U.S. Embassy officials, Beijing, October 2013 and October 2018.
- <sup>2</sup> Brett Guthrie, “Opening Statement — Oversight of Federal Efforts to Combat the Spread of Illicit Fentanyl,” (speech, Washington, DC, July 16, 2019), 3, [https://republicans-energycommerce.house.gov/wp-content/uploads/2019/07/pdf\\_finalBG-Opening-Statement-7-16-2019-Fentanyl-as-approved5.pdf](https://republicans-energycommerce.house.gov/wp-content/uploads/2019/07/pdf_finalBG-Opening-Statement-7-16-2019-Fentanyl-as-approved5.pdf).
- <sup>3</sup> Thomas F. Overacker, “Oversight of Federal Efforts to Combat the Spread of Illicit Fentanyl,” (Congressional testimony, Washington, DC, July 16, 2019), <https://docs.house.gov/meetings/IF/IF02/20190716/109817/HHRG-116-IF02-Wstate-OverackerT-20190716.pdf>.
- <sup>4</sup> “Fentanyl,” U.S. Drug Enforcement Administration (DEA), Office of Diversion Control, September 2019, [https://www.deadiversion.usdoj.gov/drug\\_chem\\_info/fentanyl.pdf](https://www.deadiversion.usdoj.gov/drug_chem_info/fentanyl.pdf).
- <sup>5</sup> Sean O’Connor, “Fentanyl: China’s deadly export to the United States,” (Washington, DC: U.S.-China Economics and Security Review Commission, February 1, 2017), 7, [https://www.uscc.gov/sites/default/files/Research/USCC%20Staff%20Report\\_Fentanyl-China%E2%80%99s%20Deadly%20Export%20to%20the%20United%20States020117.pdf](https://www.uscc.gov/sites/default/files/Research/USCC%20Staff%20Report_Fentanyl-China%E2%80%99s%20Deadly%20Export%20to%20the%20United%20States020117.pdf); “China policies to promote local production of pharmaceutical products and protect public health,” (Geneva: World Health Organization, 2017), <https://www.who.int/phi/publications/2081China020517.pdf?ua=1>.
- <sup>6</sup> “2015 International Narcotics Control Strategy Report — Volume I: Drug and Chemical Control,” (Washington, DC: U.S. Department of State, March 2015), <https://2009-2017.state.gov/j/inl/rls/nrcrpt/2015/index.htm>.
- <sup>7</sup> “Market Monitor: Focus on chemical performance and outlook,” (Amsterdam: Atradius, July 2017), [https://group.atradius.com/documents/mm\\_chemicals\\_july\\_2017.pdf](https://group.atradius.com/documents/mm_chemicals_july_2017.pdf).
- <sup>8</sup> Esmé Deprez, Li Hui, and Ken Wills, “Deadly Chinese fentanyl is creating a new era of drug kingpins,” Bloomberg, May 22, 2018, <https://www.bloomberg.com/news/features/2018-05-22/deadly-chinese-fentanyl-is-creating-a-new-era-of-drug-kingpins>.
- <sup>9</sup> Sui-Lee Wee and Javier C. Hernández, “Despite Trump’s pleas, China’s online opioid bazaar is booming,” *The New York Times*, November 8, 2017, <https://www.nytimes.com/2017/11/08/world/asia/china-opioid-trump.html>.
- <sup>10</sup> Esmé Deprez, Li Hui, and Ken Wills, “Deadly Chinese fentanyl is creating a new era of drug kingpins.”
- <sup>11</sup> See, for example, Paul E. Knierim, “Prepared Statement — Tackling Fentanyl: The China Connection,” (Congressional testimony, Washington, DC, September 6, 2018), <https://docs.house.gov/meetings/FA/FA16/20180906/108650/HHRG-115-FA16-Transcript-20180906.pdf>; and Sari Horwitz and Scott Higham, “The flow of fentanyl: In the mail, over the border,” *The Washington Post*, <https://www.washingtonpost.com/investigations/2019/08/23/fentanyl-flowed-through-us-postal-service-vehicles-crossing-southern-border/>.
- <sup>12</sup> “Combatting the opioid crisis: Exploring vulnerabilities in international mail,” (Washington, DC: U.S. Senate, Committee on Homeland Security and Governmental Affairs, Permanent

Subcommittee on Investigations, January 23, 2018), 19, <https://www.hsgac.senate.gov/imo/media/doc/Combating%20the%20Opioid%20Crisis%20-%20Exploiting%20Vulnerabilities%20in%20International%20Mail1.pdf>.

<sup>13</sup> Rachel L. Rothberg and Kate Stith, “Fentanyl: A Whole New World?” *Journal of Law, Medicine, and Ethics* 46, no. 2 (July 17, 2018): 314-24, <https://doi.org/10.1177%2F1073110518782937>; Sean O’Connor, “Fentanyl: China’s deadly export to the United States,” 6.

<sup>14</sup> Max Daly, “Synthetic drugs will change the global drug trade forever,” *Vice*, August 19, 2019, [https://www.vice.com/en\\_us/article/gyzx57/synthetic-drugs-could-change-the-global-drug-trade-forever-v26n3](https://www.vice.com/en_us/article/gyzx57/synthetic-drugs-could-change-the-global-drug-trade-forever-v26n3).

<sup>15</sup> “2018 National Drug Threat Assessment,” (Washington, DC: U.S. Department of Justice and Drug Enforcement Administration, October 2018), 35, <https://www.dea.gov/sites/default/files/2018-11/DIR-032-18%202018%20NDTA%20%5bfinal%5d%20low%20resolution11-20.pdf>.

<sup>16</sup> Alex Palmer, “The China Connection,” *The New York Times Magazine*, October 16, 2019, <https://www.nytimes.com/2019/10/16/magazine/china-fentanyl-drug-ring.html>.

<sup>17</sup> Sui-Lee Wee and Javier C. Hernández, “Despite Trump’s pleas, China’s online opioid bazaar is booming.”

<sup>18</sup> Kirsten D. Madison, “Prepared Statement — Tackling Fentanyl: The China Connection,” (Congressional testimony, Washington, DC, September 6, 2018), <https://docs.house.gov/meetings/FA/FA16/20180906/108650/HHRG-115-FA16-Transcript-20180906.pdf>; Kathleen McLaughlin, “Underground labs in China are devising potent new opiates faster than authorities can respond,” *Science*, March 29, 2017, <https://www.sciencemag.org/news/2017/03/underground-labs-china-are-devising-potent-new-opiates-faster-authorities-can-respond>.

<sup>19</sup> “Annual Report on Drug Control in China,” (Beijing: National Narcotics Control Commission, People’s Republic of China, March 2017).

<sup>20</sup> “2019 International Narcotics Control Strategy Report — Volume I: Drug and Chemical Control,” (Washington, DC: U.S. Department of State, March 28, 2019), 134, <https://www.state.gov/2019-international-narcotics-control-strategy-report/>.

<sup>21</sup> “2020 International Narcotics Control Strategy Report — Volume I: Drug and Chemical Control,” (Washington, DC: U.S. Department of State, March 2, 2020), 118, <https://www.state.gov/2020-international-narcotics-control-strategy-report/>.

<sup>22</sup> Steven Lee Myers and Abby Goodnough, “China bans all types of fentanyl, cutting supply of deadly drug to U.S. and fulfilling pledge to Trump,” *The New York Times*, April 1, 2019, <https://www.nytimes.com/2019/04/01/world/asia/china-bans-fentanyl-trump.html>.

<sup>23</sup> Li Yuejin cited in Lisa N. Sacco, Kristin Finklea, Susan V. Lawrence, Liana W. Rosen, and Clare Ribando Seelke, “The Opioid Epidemic: Supply Control and Criminal Justice Policy – Frequently Asked Questions,” (Washington, DC: Congressional Research Service, June 28, 2019), 27-28, <https://crsreports.congress.gov/product/pdf/R/R45790>.

<sup>24</sup> Sean O’Connor, “Fentanyl: China’s deadly export to the United States,” 8. See also Haona Li, He Sun, and Frances J. Richmond, “The Historical Evolution of China’s Drug Regulatory System,” (Los Angeles: International Center for Regulatory Science, University of Southern

California, 2014).

[https://regulatory.usc.edu/files/2014/08/Evolution\\_China\\_Reg\\_system\\_2014.pdf](https://regulatory.usc.edu/files/2014/08/Evolution_China_Reg_system_2014.pdf).

<sup>25</sup> Sean O'Connor, "Fentanyl."

<sup>26</sup> Bryce Pardo, "Evolution of the U.S. Overdose Crisis: Understanding China's Role in the Production and Supply of Synthetic Opioids," (Congressional testimony, Washington, DC, September 6, 2018),

<https://docs.house.gov/meetings/FA/FA16/20180906/108650/HHRG-115-FA16-Transcript-20180906.pdf>;

<sup>27</sup> Ibid.

<sup>28</sup> For background, see, for example, Vanda Felbab-Brown, "Myanmar Maneuvers: How to Break Political-Criminal Alliances in Contexts of Transition," (Tokyo: United Nations University, April 2017), <https://i.unu.edu/media/cpr.unu.edu/attachment/2445/Myanmar-Maneuvers-How-to-Break-Political-Criminal-Alliances-in-Contexts-of-Transition.pdf>; Vanda Felbab-Brown, "Peace or plunder? Illegal economies in Myanmar's ethnic conflict," The Brookings Institution, December 7, 2015, <http://www.brookings.edu/blogs/order-from-chaos/posts/2015/12/07-illegal-economies-in-myamnar-ethnic-conflict-felbabbrown>;

Vanda Felbab-Brown, "Not as Easy as Falling off a Log: The Illegal Timber Trade in the Asia-Pacific Region and Possible Mitigation Strategies," (Washington, DC: The Brookings Institution, March 2011), [https://www.brookings.edu/wp-content/uploads/2016/06/03\\_illegal\\_logging\\_felbabbrown.pdf](https://www.brookings.edu/wp-content/uploads/2016/06/03_illegal_logging_felbabbrown.pdf);

"Lessons from China's global forest footprint: How China can rise to a global governance challenge," (London: Global Witness, April 1, 2019,

<https://www.globalwitness.org/en/campaigns/forests/lessons-from-chinas-global-forest-footprint/>; and "A Choice for China: Ending the destruction of Burma's northern frontier forests," (London: Global Witness, October 2005),

<https://data.opendevelopmentmekong.net/dataset/e5389663-9322-48bf-a5d9-c2aa5cf03116/resource/58baa548-06ea-47b2-b94a-4da9ec23c87c/download/a-choice-for-china-ending-the-destruction-of-burmas-northern-frontier-forests.pdf>.

<sup>29</sup> Vanda Felbab-Brown, "Myanmar Maneuvers"; Ting Gong, "Corruption and local governance: the double identity of Chinese local governments in market reform," *The Pacific Review* 19, no. 1 (November 20, 2006): 85-102, <https://doi.org/10.1080/09512740500417723>.

<sup>30</sup> "More than 60 Foreign Models Nabbed in China Visa Sting: Reports," NBC News, May 14, 2014, <https://www.nbcnews.com/news/asia/more-60-foreign-models-nabbed-china-visa-sting-reports-n105116>; and Alex Palmer, "China Connection."

<sup>31</sup> James Leung, "Xi's Corruption Crackdown: How Bribery and Graft Threaten the Chinese Dream," *Foreign Affairs* 94, no. 3 (May/June 2015), <https://www.foreignaffairs.com/articles/china/2015-04-20/xis-corruption-crackdown>; Vanda Felbab-Brown, *The Extinction Market: Wildlife Trafficking and How to Counter It* (New York: Oxford University Press, 2017): 11-13 and 271-73.

<sup>32</sup> "China policies to promote local production of pharmaceutical products and protect public health," World Health Organization.

<sup>33</sup> Vanda Felbab-Brown and Harold Trinkunas, "UNGASS 2016 in Comparative Perspective: Improving the Prospects for Success," (Washington, DC: The Brookings Institution, April 29,

2015), <https://www.brookings.edu/wp-content/uploads/2016/06/FelbabBrown-TrinkunasUNGASS-2016-final-2.pdf>.

<sup>34</sup> See, for example, “‘One million’ Chinese officials punished for corruption,” BBC News, October 24, 2016, <https://www.bbc.com/news/world-asia-china-37748241>; Greg Botelho, Kevin Wang and Steven Jiang, “Former top Chinese official arrested in corruption probe,” CNN, December 5, 2014, <https://www.cnn.com/2014/12/05/world/asia/chinese-official-arrested/index.html>; Colin Dwyer, “Former Interpol President Sentenced To Prison In China For Corruption,” NPR, January 21, 2020, <https://www.npr.org/2020/01/21/798121397/former-interpol-president-sentenced-to-prison-in-china-for-corruption>.

<sup>35</sup> Melanie Lee and Benh Hirschler, “Special Report: China’s ‘Wild East’ Drug Store,” Reuters, August 28, 2012, <https://www.reuters.com/article/us-china-pharmaceuticals/special-report-chinas-wild-east-drug-store-idUSBRE87R00D20120828>.

<sup>36</sup> Steven Lee Myers, “China cracks down on fentanyl,” *The New York Times*, December 1, 2019, <https://www.nytimes.com/2019/12/01/world/asia/china-fentanyl-crackdown.html>.

<sup>37</sup> Ibid.

<sup>38</sup> Ibid.

<sup>39</sup> Ibid.

<sup>40</sup> For background, see, Bryce Pardo, Jirka Taylor, Jonathan P. Caulkins, Beau Kilmer, Peter Reuter, and Bradley D. Stein, “The Future of Fentanyl and Other Synthetic Drugs,” (Santa Monica, CA: RAND Corporation, 2019), [https://www.rand.org/pubs/research\\_reports/RR3117.html](https://www.rand.org/pubs/research_reports/RR3117.html).

<sup>41</sup> Bryce Pardo and Beau Kilmer, “China’s ban on fentanyl drugs won’t likely stem America’s opioid crisis,” *Los Angeles Times*, May 22, 2019, <https://www.latimes.com/opinion/op-ed/la-oe-pardo-kilmer-opioid-crisis-fentanyl-china-20190522-story.html>.

<sup>42</sup> Dan Box, “AFP to work with Chinese cops to halt ice flow,” *The Australian*, November 2, 2015.

<sup>43</sup> “Australia is flailing in the face of a meth epidemic,” *The Economist*, April 12, 2017, <https://www.economist.com/asia/2017/04/12/australia-is-flailing-in-the-face-of-a-meth-epidemic>.

<sup>44</sup> For details, see Vanda Felbab-Brown, “Factories and rebels: Controlling opioid supply from India and Myanmar,” (Washington, DC: The Brookings Institution, forthcoming).

<sup>45</sup> Author interviews with Australian government and law enforcement officials, Washington, DC and by telephone, June 2016 and September 2018.

<sup>46</sup> Philip Wen, “China cracks down on growing ‘ice’ drug menace,” *Sydney Morning Herald*, December 12, 2014, <https://www.smh.com.au/world/china-cracks-down-on-growing-ice-drug-menace-20141212-125pv1.html>.

<sup>47</sup> Philip Wen, “Tip of the Iceberg,” *The Age*, December 14, 2014.

<sup>48</sup> Ibid.

<sup>49</sup> Julie Makinen, “Drug seizures soaring in China; Most of the suspects are ‘farmers and unemployed people, an official says,” *Los Angeles Times*, February 19, 2016, <https://www.latimes.com/world/asia/la-fg-drugs-china-meth-ice-20160218-story.html>.

<sup>50</sup> Ibid.

<sup>51</sup> “2019 International Narcotics Control Strategy Report – Volume I: Drug and Chemical Control,” U.S. Department of State, 134.

<sup>52</sup> Ibid.

<sup>53</sup> Ibid.

<sup>54</sup> Raquel Carvalho, “Concerns over influx of crystal meth into Australia,” *South China Morning Post*, June 26, 2016, <https://www.scmp.com/news/hong-kong/law-crime/article/1981463/concerns-over-influx-crystal-meth-australia>.

<sup>55</sup> The AFP established similar task forces in other Southeast Asian countries, including Strike Force Dragon in Cambodia and Task Force Storm in Thailand.

<sup>56</sup> Author interviews with Australian government and law enforcement officials, Washington, DC and by telephone, June 2016 and September 2018.

<sup>57</sup> Simon Norton, “Despite challenges, Australia and China should maintain law enforcement cooperation,” Australian Strategic Policy Institute, June 17, 2019, <https://www.aspistrategist.org.au/despite-challenges-australia-and-china-should-maintain-law-enforcement-cooperation/>.

<sup>58</sup> David Murray, “Drug war likened to ‘whack a mole,’” *The Australian*, February 19, 2019.

<sup>59</sup> Phil Hickey, “22 tonnes: The deadly drugs stopped from reaching our shores,” *WAtoday*, April 25, 2019, <https://www.watoday.com.au/national/western-australia/22-tonnes-the-deadly-drugs-stopped-from-reaching-our-shores-20190424-p51gxo.html>.

<sup>60</sup> “Synthetic Drugs in East and South-East Asia: Trends and Patterns of Amphetamine-type Stimulants and New Psychoactive Substances,” (Bangkok: Global SMART Programme (East Asia), United Nations Office on Drugs and Crime, March 2019), [https://www.unodc.org/documents/southeastasiaandpacific//Publications/2019/2019\\_The\\_Challenge\\_of\\_Synthetic\\_Drugs\\_in\\_East\\_and\\_SEA.pdf](https://www.unodc.org/documents/southeastasiaandpacific//Publications/2019/2019_The_Challenge_of_Synthetic_Drugs_in_East_and_SEA.pdf).

<sup>61</sup> UNODC estimated cited in Tom Allard, “The hunt for Asia’s El Chapo,” *Reuters*, October 14, 2019, <https://www.reuters.com/investigates/special-report/meth-syndicate/>.

<sup>62</sup> “2019 International Narcotics Control Strategy Report – Volume I: Drug and Chemical Control,” U.S. Department of State, 134; “2020 International Narcotics Control Strategy Report – Volume I: Drug and Chemical Control,” U.S. Department of State, 118.

<sup>63</sup> Vanda Felbab-Brown, “Factories and rebels.”

<sup>64</sup> Fiona M. Underwood, Robert W. Burn, and Tom Milliken, “Dissecting the Illegal Ivory Trade: An Analysis of Ivory Seizure Data,” *PLoS One* 8, no. 10 (October 18, 2013), <https://doi.org/10.1371/journal.pone.0076539>.

<sup>65</sup> Vanda Felbab-Brown, *The Extinction Market*, 51-63.

<sup>66</sup> Duan Biggs, Franck Courchamp, Rowan Martin, and Hugh P. Possingham, “Legal Trade of Africa’s Rhino Horn,” *Science* 339, no. 6123 (March 1, 2013): 1038–39, <http://max2.ese.u->

psud.fr/epc/conservation/PDFs/Rhinos.pdf; Daniel W.S. Challender, “Asian Pangolin: Increasing Affluence Driving Hunting Pressure,” *TRAFFIC Bulletin* 23, no. 3 (October 2011): 92–93, [https://www.pangolinsg.org/wp-content/uploads/sites/4/2018/06/Challender\\_2011\\_Asian-pangolins\\_Increasing-affluence-driving-hunting-pressure.pdf](https://www.pangolinsg.org/wp-content/uploads/sites/4/2018/06/Challender_2011_Asian-pangolins_Increasing-affluence-driving-hunting-pressure.pdf).

<sup>67</sup> Yang Qing, Chen Jin, Bai Zhi-Lin, Deng Xiao-Bao, and Liu Zhi-Qiu, “Trade of wild animals and plants in China-Laos border areas: status and suggestion for effective management,” *Biodiversity Science* 8, no. 3 (2000): 284–296, <http://www.biodiversity-science.net/EN/10.17520/biods.2000040>; Hanneke Nooren and Gordon Claridge, *Wildlife Trade in Laos: The End of the Game* (Amsterdam: International Union for Conservation of Nature National Committee of The Netherlands, 2001); and J.W. Duckworth, G. Batters, J.L. Belant, E.L. Bennett, J. Brunner, J. Burton, D.W.S. Challender, V. Cowling, N. Duplaix, J.D. Harris, S. Hedges, B. Long, S.P. Mahood, P.J.K. McGowan, W.J. McShea, W.L.R. Oliver, S. Perkin, B.M. Rawson, C.R. Shepherd, S.N. Stuart, B.K. Talukdar, P.P. van Dijk, J-C. Vié, J.L. Walston, T. Whitten, and R. Wirth, “Why South-east Asia should be the world’s priority for averting imminent species extinctions, and a call to join a developing cross-institutional programme to tackle this urgent issue,” *Sapiens* 5, no. 2 (2012): 1–19, <https://journals.openedition.org/sapiens/1327>.

<sup>68</sup> Rosaleen Duffy, *Nature Crime: How We’re Getting Conservation Wrong* (New Haven: Yale University Press, 2010).

<sup>69</sup> Rachael Bale, “US–China Deal to Ban Ivory Trade Is Good News for Elephants,” *National Geographic*, September 25, 2015, <https://www.nationalgeographic.com/news/2015/09/150925-ivory-elephants-us-china-obama-xi-poaching/>.

<sup>70</sup> Christopher Torchia, “South African group reports slight drop in rhino poaching,” Associated Press, January 2, 2016, <https://apnews.com/fadef7f9221c48908636ac0dc731e87f/south-african-group-reports-slight-drop-rhino-poaching>; Ron Nixon, “Obama Administration Plans to Aggressively Target Wildlife Trafficking,” *The New York Times*, February 11, 2015, <https://www.nytimes.com/2015/02/12/us/politics/obama-administration-to-target-illegal-wildlife-trafficking.html>.

<sup>71</sup> George Wittemyer, David Daballen, and Iain Douglas-Hamilton, “Rising ivory prices threaten elephants,” *Nature* 476 (2011): 282–3, <https://www.nature.com/articles/476282c>; Ronald Orenstein, *Ivory, Horn, and Blood: Behind the Elephant and Rhinoceros Poaching Crisis* (New York: Firefly Books, 2013).

<sup>72</sup> “Poaching behind worst African elephant losses in 25 years – IUCN report,” International Union for the Conservation of Nature, September 23, 2016, <https://www.iucn.org/news/species/201609/poaching-behind-worst-african-elephant-losses-25-years-%E2%80%93-iucn-report>.

<sup>73</sup> Author interviews with representatives of environmental NGOs, Beijing, June 2013 and October 2018.

<sup>74</sup> Matt McGrath, “Call to close ivory markets agreed at Cites conference,” BBC News, October 2, 2016, <https://www.bbc.com/news/science-environment-37535717>.

<sup>75</sup> Vanda Felbab-Brown and Shoshana Tischler, “After the Ivory Ban, Diligent Enforcement Is Needed,” Great Elephant Census, March 2, 2018,

<http://www.greatelephantcensus.com/blog/2018/3/2/after-the-ivory-bans-diligent-enforcement-is-needed>.

<sup>76</sup> Author interviews with U.S. Embassy officials and representatives of environmental NGOs, Beijing, October 2018.

<sup>77</sup> Christy Leung and Raquel Carvalho, “Three arrested after Hong Kong customs seizes 7.2 tonnes of ivory from ‘frozen fish’ container in record HK\$72 million bust,” *South China Morning Post*, July 6, 2017, <https://www.scmp.com/news/hong-kong/law-crime/article/2101523/record-ivory-haul-worth-hk72-million-seized-hong-kong>.

<sup>78</sup> Kevin Bielicki, “China’s ivory ban: A work in progress,” *The Diplomat*, March 15, 2019, <https://thediplomat.com/2019/03/chinas-ivory-ban-a-work-in-progress/>.

<sup>79</sup> Author interviews with NGO representatives in Tokyo and Kyoto, November 2017, and Beijing, October 2018. See Rachel Nuwer, “How Japan undermines efforts to stop the illegal ivory trade,” *National Geographic*, September 24, 2018, <https://www.nationalgeographic.com/animals/2018/09/japan-illegal-ivory-trade-african-elephants/>.

<sup>80</sup> Author’s fieldwork in Beijing in October and November 2018 and interviews with environmental NGO representatives in Beijing and Shanghai, October and November 2018. See also Nsikan Akpan, “Skin poaching of Asian elephants, a crisis unfolding in Myanmar, could crush the species,” *PBS NewsHour*, August 12, 2018, <https://www.pbs.org/newshour/science/skin-poaching-asian-elephants-myanmar-blood-beads>.

<sup>81</sup> Nick Davies and Oliver Holmes, “China accused of defying its own ban on breeding tigers to profit from body parts,” *The Guardian*, September 27, 2016, <https://www.theguardian.com/environment/2016/sep/27/china-accused-of-defying-its-own-ban-on-breeding-tigers-to-profit-from-body-parts>.

<sup>82</sup> Dina Fine Maron, “China legalizes rhino horn and tiger bone for medical purposes,” *National Geographic*, October 29, 2018, <https://www.nationalgeographic.com/animals/2018/10/wildlife-watch-news-china-rhino-tiger-legal/>.

<sup>83</sup> Jonathan Watts, “Campaigners welcome China’s U-turn on rhino and tiger products,” *The Guardian*, November 12, 2018, <https://www.theguardian.com/world/2018/nov/12/campaigners-welcome-china-u-turn-over-rhino-and-tiger-products>.

<sup>84</sup> Simon Evans, “Coronavirus has finally made us recognise the illegal wildlife trade is a public health issue,” *The Conversation*, March 17, 2020, <https://theconversation.com/coronavirus-has-finally-made-us-recognise-the-illegal-wildlife-trade-is-a-public-health-issue-133673>.

<sup>85</sup> James Gorman, “China’s Ban on Wildlife Trade a Big Step, but Has Loopholes, Conservationists Say,” *The New York Times*, February 27, 2020, <https://www.nytimes.com/2020/02/27/science/coronavirus-pangolin-wildlife-ban-china.html>.

<sup>86</sup> Colin Poole, “China Is Closing Its Wildlife Markets. Let’s Make It Permanent.” PBS Nature, April 17, 2020, <https://www.pbs.org/wnet/nature/blog/china-is-closing-its-wildlife-markets-lets-make-it-permanent/>.

<sup>87</sup> For details on how to design effective regulation and enhance conservation to reduce the risk of zoonotic pandemics, see Vanda Felbab-Brown, “To prevent zoonotic pandemics, regulate wildlife trade and food production,” in “Reopening the World: How to Save Lives and Livelihoods,” eds. John R. Allen and Darrell M. West (Washington, DC: The Brookings Institution, June 2020), 63-68, <https://www.brookings.edu/blog/order-from-chaos/2020/06/16/reopening-the-world-to-prevent-zoonotic-pandemics-regulate-wildlife-trade-and-food-production/>.

<sup>88</sup> Helen Davidson, “Beijing draws up plans to outlaw criticism of traditional Chinese medicine,” *The Guardian*, June 3, 2020, <https://www.theguardian.com/world/2020/jun/03/beijing-draws-up-plans-to-outlaw-criticism-of-traditional-chinese-medicine>.

<sup>89</sup> Sui-Lee Wee, “In Coronavirus, China Weighs Benefits of Buffalo Horn and Other Remedies,” *The New York Times*, February 5, 2020, <https://www.nytimes.com/2020/02/05/world/asia/coronavirus-traditional-chinese-medicine.html>.

<sup>90</sup> Author interviews with environmental NGO representatives, Beijing and Shanghai, October and November 2018; Chris Buckley and Karoline Kan, “For Faulting a Chinese Tonic, He Got 3 Months in Jail. Then Cheers.” *The New York Times*, April 19, 2018, <https://www.nytimes.com/2018/04/19/world/asia/chinese-doctor-arrested-medicine-tonic.html>.

<sup>91</sup> Helen Davidson, “Beijing draws up plans to outlaw criticism of traditional Chinese medicine.”

<sup>92</sup> Alex Berezow, “Is China the world leader in biomedical fraud?” *Foreign Policy*, February 28, 2018, <https://foreignpolicy.com/2018/02/28/is-china-the-world-leader-in-biomedical-fraud/>.

<sup>93</sup> Editorial, “The World Health Organization’s decision about traditional Chinese medicine could backfire,” *Nature*, June 5, 2019, <https://www.nature.com/articles/d41586-019-01726-1>.

<sup>94</sup> Rachel Fobar, “China promotes bear bile as coronavirus treatment, alarming wildlife advocates,” *National Geographic*, March 25, 2020 <https://www.nationalgeographic.com/animals/2020/03/chinese-government-promotes-bear-bile-as-coronavirus-covid19-treatment/>.

<sup>95</sup> “Chinese firm donates TCM to Afghanistan, Pakistan, and Iran,” Xinhua, March 19, 2020, [http://www.xinhuanet.com/english/2020-03/19/c\\_138892743.htm](http://www.xinhuanet.com/english/2020-03/19/c_138892743.htm).

<sup>96</sup> For a recent case of harmful health effects, see Hoi Ying Lo, “TCM Therapy Suspended After 92 Kids Complain of Blisters, Burns,” *Sixth Tone*, July 17, 2019, <https://www.sixthtone.com/news/1004310/tcm-therapy-suspended-after-92-kids-complain-of-blisters%2C-burns>.

<sup>97</sup> Ben Westcott, “Chinese government fines fault vaccine company more than \$1 billion,” CNN, October 16, 2018, <https://www.cnn.com/2018/10/16/asia/china-faulty-vaccine-fine-intl/index.html>.

<sup>98</sup> Hai-Yen Sung, L. Wang, S. Jin, T-W. Hu, and Y. Jiang, “Economic burden of smoking in China,” *Tobacco Control* 15 (2000): i5-i11, [https://tobaccocontrol.bmj.com/content/15/suppl\\_1/i5](https://tobaccocontrol.bmj.com/content/15/suppl_1/i5).

<sup>99</sup> “Tobacco in China,” World Health Organization, <https://www.who.int/china/health-topics/tobacco>; Mark Parascandola and Lin Xiao, “Tobacco and the lung cancer epidemic in China,” *Translational Lung Cancer Research* 8 (May 2019): S21–S30, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6546632/>.

<sup>100</sup> Teh-Wei Hu, “WHO Framework Convention on Tobacco Control in China: Barriers, Challenges, and Recommendations,” *Global Health Promotion* 20, no. 4 (2013): 13-22, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4041682/>.

<sup>101</sup> Lin Li, Ron Borland, Hua-Hie Yong, Geoffrey T. Fong, Yuan Jiang, Qiang Li, David Hammond, and Anne C.K. Quah, “Reported exposures to anti-smoking messages and their impact on Chinese smokers’ subsequent quit attempts,” *International Journal of Behavioral Medicine* 21 (2014): 667-76, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4546845/>.

<sup>102</sup> Li-Ling Huang, James F. Thrasher, Yuan Jiang, Qiang Li, Geoffrey T. Fong, Yvette Chang, Katrina M. Walsemann, and Daniela B. Friedman, “Impact of the ‘Giving Cigarettes is Giving Harm’ campaign on knowledge and attitudes of Chinese smokers,” *Tobacco Control* 24 (May 9, 2014), iv28-34, [https://tobaccocontrol.bmj.com/content/24/Suppl\\_4/iv28](https://tobaccocontrol.bmj.com/content/24/Suppl_4/iv28).

<sup>103</sup> Jian Wang, Chenghui Li, Chongqi Jia, Yanxun Liu, Junjie Liu, Xiaona Yan, and Yufeng Fan, “Smoking, smoking cessation and tobacco control in rural China: a qualitative study in Shandong Province,” *BMC Public Health* 14 (September 4, 2014): 1-11, <https://bmcpublihealth.biomedcentral.com/articles/10.1186/1471-2458-14-916>.

<sup>104</sup> See, for example, Matthew Kohrman, Gan Quan, Liu Wennan, and Robert Proctor, eds., *Poisonous Pandas: Chinese Cigarette Manufacturing in Critical Historical Perspectives* (Stanford, CA: Stanford University Press, 2018).

<sup>105</sup> Jian Wang, Chenghui Li, Chongqi Jia, Yanxun Liu, Junjie Liu, Xiaona Yan, and Yufeng Fan, “Smoking, smoking cessation and tobacco control in rural China.”

<sup>106</sup> Li-Ling Huang, James F. Thrasher, Yuan Jiang, Qiang Li, Geoffrey T. Fong, Yvette Chang, Katrina M. Walsemann, and Daniela B. Friedman, “Impact of the ‘Giving Cigarettes is Giving Harm’ campaign on knowledge and attitudes of Chinese smokers.”

<sup>107</sup> Teh-Wei Hu, “WHO Framework Convention on Tobacco Control in China.”

<sup>108</sup> Jian Wang, Chenghui Li, Chongqi Jia, Yanxun Liu, Junjie Liu, Xiaona Yan, and Yufeng Fan, “Smoking, smoking cessation and tobacco control in rural China.”

<sup>109</sup> Dan Xiao, Chun-Xue Bai, Zheng-Ming Chen, and Chen Wang, “Implementation of the World Health Organization Framework Convention on Tobacco Control in China: An arduous and long-term task,” *Cancer* 121 (September 2015): 3061-68, <https://pubmed.ncbi.nlm.nih.gov/26331812/>.

<sup>110</sup> Biao Luo, Liang Wang, Liang Liang, and Tieshan Li, “The Effects of Educational Campaigns and Smoking Bans in Public Places on Smokers’ Intention to Quit Smoking:

Findings from 17 Cities in China,” *BioMed Research International* (May 4, 2015): 1-9, <https://pubmed.ncbi.nlm.nih.gov/26064959/>.

<sup>111</sup> Ibid.

<sup>112</sup> Sarah E. Hampson, Judy A. Andrews, Maureen Barckley, Edward Lichtenstein, and Michael E. Lee, “Personality traits, perceived risk, and risk-reduction behavior: A further study of smoking and radon,” *Health Psychology* 25, no. 4 (July 2006): 530-36, <https://pubmed.ncbi.nlm.nih.gov/16846328/>; Jilan Yang, David Hammond, Peter Driezen, Geoffrey T. Fong, and Yuan Jiang, “Health knowledge and perception of risks among Chinese smokers and non-smokers: Findings from the Wave 1 ITC China Survey,” *Tobacco Control* 19 (October 2010): i18-23, <https://pubmed.ncbi.nlm.nih.gov/20935195/>.

<sup>113</sup> Colleen A. Redding, Joseph S. Rossi, Susan R. Rossi, Wayne F. Velicer, and James O. Prochaska, “Health behavior models,” *International Electronic Journal of Health Education* 3 (2000): 180-193, <http://docplayer.net/10778505-The-international-electronic-journal-of-health-education-2000-3-special-issue-180-193-http-www-iejhe-siu-edu.html>. Negative health issues resulting from smoking experienced directly or indirectly have been the principal motivator of smoking cessation in China. Jian Wang, Chenghui Li, Chongqi Jia, Yanxun Liu, Junjie Liu, Xiaona Yan, and Yufeng Fan, “Smoking, smoking cessation and tobacco control in rural China,” 6.

<sup>114</sup> Dan Xiao, Chun-Xue Bai, Zheng-Ming Chen, and Chen Wang, “Implementation of the World Health Organization Framework Convention on Tobacco Control in China.”

<sup>115</sup> “2010 Global Adult Tobacco Survey – China 2010 Country Report,” cited in Dan Xiao, Chun-Xue Bai, Zheng-Ming Chen, and Chen Wang, “Implementation of the World Health Organization Framework Convention on Tobacco Control in China.”

<sup>116</sup> Dan Levin, “Beijing bans public smoking, but enforcement poses a challenge,” *The New York Times*, June 2015, <https://www.nytimes.com/2015/06/02/world/asia/beijing-smoking-ban-air.html>.

<sup>117</sup> Ibid.

<sup>118</sup> Ibid.

<sup>119</sup> Christian Shepherd, “In China, industry push-back stubs out anti-smoking gains,” Reuters, May 18, 2018, <https://www.reuters.com/article/us-china-tobacco/in-china-industry-push-back-stubs-out-anti-smoking-gains-idUSKCN1IWOG5>.

<sup>120</sup> Ibid.

<sup>121</sup> Teh-Wei Hu, “WHO Framework Convention on Tobacco Control in China.”

<sup>122</sup> Christian Shepherd, “In China, industry push-back stubs out anti-smoking gains.”

<sup>123</sup> Ibid.

<sup>124</sup> Ibid.

<sup>125</sup> Ibid.

<sup>126</sup> Elsie Chen and Alexandra Stevenson, “China effectively bans online sales of e-cigarettes,” *The New York Times*, November 1, 2019, <https://www.nytimes.com/2019/11/01/business/china-vaping-electronic-cigarettes.html>.

<sup>127</sup> Ibid.

<sup>128</sup> Ibid.

<sup>129</sup> Dan Levin, “Beijing bans public smoking, but enforcement poses a challenge.”

<sup>130</sup> Author interviews with U.S. Embassy officials, Beijing, October 2013 and October 2018.

<sup>131</sup> Author correspondence with former U.S. top-level counternarcotics official.

<sup>132</sup> Paul E. Knierim, “Prepared Statement — Tackling Fentanyl: The China Connection,” 5.

<sup>133</sup> Alex Palmer, “The China Connection.”

<sup>134</sup> Author correspondence with former U.S. top-level counternarcotics official.

<sup>135</sup> Alex Palmer, “The China Connection.”

<sup>136</sup> “Illicit Opioids: While Greater Attention Given to Combating Synthetic Opioids, Agencies Need to Better Assess Their Efforts,” (Washington, DC: U.S. Government Accountability Office, March 2018), 20-24, <https://www.gao.gov/assets/700/690972.pdf>.

<sup>137</sup> Steven Lee Myers, “China cracks down on fentanyl.”

<sup>138</sup> Alex Palmer, “The China Connection.”

<sup>139</sup> Steven Lee Myers and Abby Goodnough, “China bans all types of fentanyl, cutting supply of deadly drug to U.S. and fulfilling pledge to Trump.”

<sup>140</sup> See, for example, Steven Jiang, “China lectures the United States on opioid crisis,” CNN, June 26, 2018, <https://www.cnn.com/2018/06/25/asia/china-us-opioid-crisis-intl/index.html>.

<sup>141</sup> Author interviews with U.S. diplomats, Beijing, October 2018.

<sup>142</sup> Knvul Sheikh, “Essential Drug Suppliers for U.S. Patients Are Running Low,” *The New York Times*, April 2, 2020, <https://www.nytimes.com/2020/04/02/health/coronavirus-drug-shortages.html>.

<sup>143</sup> Former Mexican Ambassador to China Jorge Guajardo, cited in Sui-Lee Wee and Javier C. Hernández, “Despite Trump’s pleas, China’s online opioid bazaar is booming.”

<sup>144</sup> Author correspondence with former U.S. top-level counternarcotics official.

<sup>145</sup> Vanda Felbab-Brown and Harold Trinkunas, “UNGASS 2016 in Comparative Perspective.”

<sup>146</sup> Vanda Felbab-Brown, *The Extinction Market*.

<sup>147</sup> Claire Galofaro and Frances D’Emilio, “Purdue foreign arm caught up in opioid problem in Europe,” Associated Press, May 29, 2019, <https://apnews.com/d384c975e039474e8b93e11b9ace18e0>.

<sup>148</sup> Harriet Ryan, Lisa Girion, and Scott Glover, “OxyContin goes global — ‘We’re only just getting started,’” *Los Angeles Times*, December 18, 2016, <https://www.latimes.com/projects/la-me-oxycontin-part3/>.

<sup>149</sup> Ibid.

<sup>150</sup> Ibid.

- <sup>151</sup> Zach Coleman, “China rises as market for key opioid producer,” *Nikkei Asian Review*, January 15, 2019, <https://asia.nikkei.com/Business/Business-trends/China-rises-as-key-market-for-leading-opioid-producer>.
- <sup>152</sup> Harriet Ryan, Lisa Girion, and Scott Glover, “OxyContin goes global.”
- <sup>153</sup> Erika Kinetz, “Want OxyContin in China? Pain pill addicts get drugs online,” Associated Press, December 31, 2019, <https://apnews.com/5950f97aa4028e55297a4da9719b96f1>.
- <sup>154</sup> Jonathan P. Caulkins and Keith Humphreys, “Preventing opioid misuse and addiction: New thinking and the latest evidence,” (Washington, DC: The Brookings Institution), June 22, 2020, <https://www.brookings.edu/research/preventing-opioid-misuse-and-addiction-new-thinking-and-the-latest-evidence/>.
- <sup>155</sup> Erika Kinetz, “Want OxyContin in China?”
- <sup>156</sup> For background on the Health Silk Road concept, see Kirk Lancaster, Michael Rubin, and Mira Rapp-Hooper, “Mapping China’s Health Silk Road,” Council on Foreign Relations, April 10, 2020, <https://www.cfr.org/blog/mapping-chinas-health-silk-road>.
- <sup>157</sup> Author correspondence with former U.S. top-level counternarcotics official.
- <sup>158</sup> Yang Ge, “FedEx Caught in Crossfire of U.S.-China Trade War — Again,” Caixin Global, August 19, 2019, <https://www.caixinglobal.com/2019-08-19/fedex-caught-in-crossfire-of-us-china-trade-war-again-101452506.html>.
- <sup>159</sup> Amy Qin and Julie Creswell, “China is a minefield, and foreign firms keep hitting new tripwires,” *The New York Times*, October 8, 2019, <https://www.nytimes.com/2019/10/08/world/asia/china-nba-tweet.html>.
- <sup>160</sup> Javier C. Hernández and Catherine Porter, “China Indicts 2 Canadians on Spying Charges, Escalating Dispute,” *The New York Times*, June 19, 2020, <https://www.nytimes.com/2020/06/19/world/asia/china-canada-kovrig-spavor.html>; Javier C. Hernández, “The Foreign Billionaires, Activists and Missionaries Detained in China,” *The New York Times*, December 12, 2020, <https://www.nytimes.com/2018/12/12/world/asia/china-foreigners-detained.html>; Edward Wong and Michael Forsythe, “China’s Tactic to Catch a Fugitive Official: Hold His Two American Children,” *The New York Times*, November 25, 2018, <https://www.nytimes.com/2018/11/25/us/politics/china-exit-ban.html>.
- <sup>161</sup> Vanda Felbab-Brown, “Factories and rebels”; Vanda Felbab-Brown, “Fending off fentanyl and hunting down heroin: Controlling opioid supply from Mexico,” (Washington, DC: The Brookings Institution, July 2020), <https://www.brookings.edu/research/fending-off-fentanyl-and-hunting-down-heroin-suppressing-opioid-supply-from-mexico/>.